



ADMINISTRATIVE REPORT

Report Date: March 14, 2014
Contact: Jerry Dobrovolny
Contact No.: 604.873.7331
RTS No.: 10278
VanRIMS No.: 08-2000-25
Meeting Date: April 15, 2014

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: Port Metro Vancouver Dynamic Message Signs License Agreement

RECOMMENDATION

THAT Council authorize the General Manager of Engineering Services in consultation with the Director of Legal Services to enter into a license agreement (the "License") with the Vancouver Fraser Port Authority, doing business as Port Metro Vancouver ("PMV") subject to the following terms and conditions, and additional terms and conditions noted in Appendix A:

Term: Five (5) years
Areas: Portions of City Street
Use: Install, complete, operate, use, repair and maintain Dynamic Message Signs.
Option to Renew: Two (2), each for a term of five (5) years, on the same terms and conditions
Other Terms and Conditions: Terms and conditions of the License are to be drawn to the satisfaction of the Director of Legal Services and the General Manager of Engineering Services, it being noted that no legal rights or obligations shall arise or be created until execution of the License by both parties.

REPORT SUMMARY

This report seeks Council authority for the City to enter into a license agreement with PMV, permitting PMV to install, complete, operate, use and maintain Dynamic Message Signs ("DMS") within City Streets to direct Port of Vancouver ("Port") bound truck traffic, thereby improving the efficiency of PMV operations and reducing congestion and associated greenhouse gas emissions.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

The Vancouver Charter provides the authority for creating interests over streets and lanes within the City.

On July 29, 2009 (RTS8242), Council approved in principle the Powell Street Grade Separation Project to improve goods movement by rail and to improve transit safety along Powell Street as part of the Asia Pacific Gateway Corridor initiative.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services recommends approval of the foregoing.

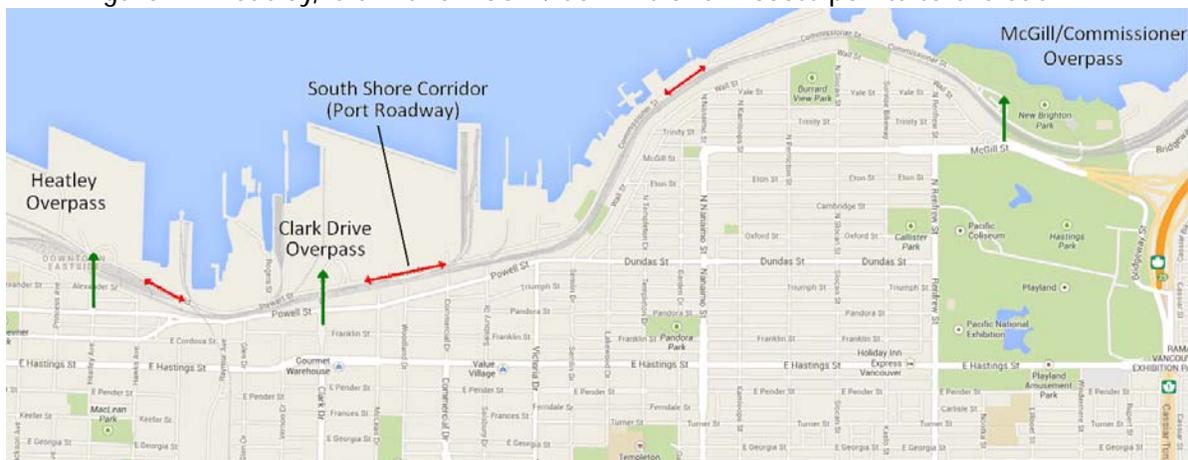
REPORT

Background/Context

The City is collaborating with PMV, Translink, and Transport Canada under the Asia Pacific Gateway and Corridor ("Gateway") initiative to improve goods movement by rail and to improve transportation safety. The proposed Dynamic Message Signs are part of the Gateway initiative and PMV plans to manage congestion and improve efficiency of Port operations. They will also become part of the Regional Transportation Management Network (RTMN). The RTMN is a technology-based system jointly supported by Transport Canada, Translink and the Ministry of Transportation and Infrastructure ("MoTI") with the goal of improving the movement of people and goods in B.C.'s lower mainland through real-time monitoring of road conditions and communication with road users (providing information on general road conditions, incidents and events).

There are three major access points to PMV lands on the south shore of Burrard inlet - the Heatley overpass, the Clark Drive overpass and the McGill/Commissioner overpass as shown in Figure 1. These all provide access to Centennial/Stewart Street, the primary East-West road used to service PMV operations, also known as the South Shore Corridor ("SSC").

Figure 1 - Heatley, Clark and McGill/Commissioner Access points to the SSC



Since the closure of the Clark Drive overpass in 2010, all container truck traffic currently access the port via McGill Street and the Commissioner overpass, with the Heatley overpass utilized for cruise ship traffic, port pass holders, and trucks associated with PMV tenant operations which supply services to business/industries operating in the City of Vancouver and adjacent areas (e.g. Lafarge concrete plant).

Congestion management along the SSC is essential to efficient Port operations and there are many factors which influence the amount of truck traffic that traverses the SSC and surrounding City streets; these include Port construction activities, train movements and ship arrivals/departures at terminals. Historically there have been occasions where congestion along the SSC has backed on to City streets, negatively impacting Port operations and the general public; these situations are usually associated with the obstruction of Stewart Street due to rail movements at one of the numerous at-grade rail crossings.

PMV is currently completing the SSC Project, which is designed to enhance Port operations and provide for future rail capacity improvements to support growing international trade. The SSC Project is one of two high priority trade projects identified by PMV, the City, and Transport Canada. The major component of this project is the construction of an elevated road between Clark Drive and Victoria Drive above Stewart Street, to provide an alternate E/W route for Port through-traffic which bypasses the at-grade rail crossings. An important component of this project is the implementation of a congestion management system to improve the response to traffic conditions at the three major access points to the SSC, including the installation of Dynamic Message Signs on City streets.

In principle, the congestion management system will monitor the level of congestion near any access point through automatic detection of backups, allowing PMV to respond to heavy congestion and delays by closing the appropriate overpass and notifying incoming trucks via the Dynamic Message Signs to travel to the appropriate alternate access point.

This represents a significant improvement on the current situation, whereby in many cases truck drivers are not aware of congestion or delays until it is too late to reroute to an alternate access point or may decide to wait out the congestion anticipating a quick resolution, potentially blocking City streets for extended periods.

PMV is currently proposing to install Dynamic Message Signs at three (3) locations in the City of Vancouver: McGill Street east of Commissioner, Clark Drive at Frances Street and Clark Drive at Franklin Street (a replacement of an existing PMV sign) substantially as shown in Appendix B, which locations may be varied at the discretion of the General Manager of Engineering Services. The Dynamic Message Signs will wholly be within City Street and PMV will pay all costs associated with installation, maintenance, repair and eventual removal.

In order to minimize unnecessary end of journey rerouting along City streets and to enable diverting port bound truck traffic to the appropriate access point(s) much earlier in their journey, PMV has proposed to install an additional DMS along the Knight Street Bridge and has entered into an agreement with the MoTI on July 25th 2013, to utilize the MoTI Advanced Traffic Management System along Highway 1.

The proposed Dynamic Message Signs would become part of the Regional Transportation Management Network and PMV has advised that the City would have access to DMS through the Regional Transportation Management Centre ("RTMC") in support of COV traffic management requirements.

PMV have provided Staff with a draft operation plan outlining the intended use of Dynamic Message Signs to direct traffic to the three access points as shown in Appendix D. Staff have reviewed this plan and conclude that it will allow PMV to fulfil their commitment to re-open Clark Drive to container truck traffic, which is expected to reduce truck volumes on Hastings St, Nanaimo St and Renfrew St,- routes which experienced significant increases in truck traffic upon the closure of the Clark Drive overpass in 2010.

The signs will utilize dimmable LEDs so that the display brightness will match the ambient lighting conditions and will minimize impact to surrounding residents and business. Additionally the LED view angle can be adjusted to further restrict peripheral visibility.

The License will not be granted to PMV until appropriate arrangements are made to the satisfaction of the General Manager of Engineering Services to address any conflicts with existing infrastructure such as any City or third party utilities. Subject to Council approval, construction of Dynamic Message Signs on City Street is intended to commence in spring 2014.

Strategic Analysis

The installation of the DMS is intended to improve the safe movement of goods and people within the PMV campus and reduce traffic backups onto adjacent City streets. With the concurrent reopening of the Clark Drive overpass to incoming trucks, truck volumes along Hastings Street, Nanaimo Street and Renfrew Street are expected to decrease to historic volumes observed before the closure of the Clark Drive overpass in 2010.

Currently fifty percent of container trucks accessing the South Shore are participating in PMV's 'Smart Fleet' initiative and are outfitted with GPS units, which provide real time information on truck locations and speeds. This information will be shared with the City to supplement the City's own annual data collection programme on truck volumes and goods movement. Staff will work collaboratively with PMV to actively monitor the effectiveness of PMV's congestion management system with the objective of making mutually agreeable changes to the operating plan which minimizes the impact of truck traffic on City streets while continuing to support PMV's operational needs.

Improving PMV traffic movement should also reduce greenhouse gas emissions, which is in line with the City of Vancouver's Greenest City Action Plan.

The License will provide adequate tenure for the Dynamic Message Signs, indemnification for the City, and certainty for PMV to advance this project.

Implications/Related Issues/Risk (if applicable)

Financial

If City Council approves the installation of the DMS as outlined in this report, PMV will be responsible for design, manufacturing, installation, maintenance, repair and eventual removal and restoration of the License areas at their cost. The City will license the land to PMV for a nominal fee and will incur no project or life cycle costs related to the DMS.

Public Input

PMV has completed public notification and consultation for the Dynamic Message Sign locations currently proposed, as noted in Appendix "C". A notice was mailed to approximately 105 surrounding property owners within a two (2) block radius of the proposed sign locations on October 2, 2013.

Concerns expressed were generally related to the potential for impact on parking, blocking sight lines to commercial businesses, and visual appearance. City staff support the proposal and believe it addresses the neighbourhood concerns as these signs will not affect street parking, obstruct business sign sight lines, and that the sign's use of dimmable LED technology will minimize impact to nearby property owners.

CONCLUSION

The Dynamic Message Signs will improve vehicle movement to the PMV campus and reduce vehicle "stacking" which sometimes results in traffic backups onto City streets. The advanced messaging will result in more efficient PMV transportation trips and reduce greenhouse gas emissions.

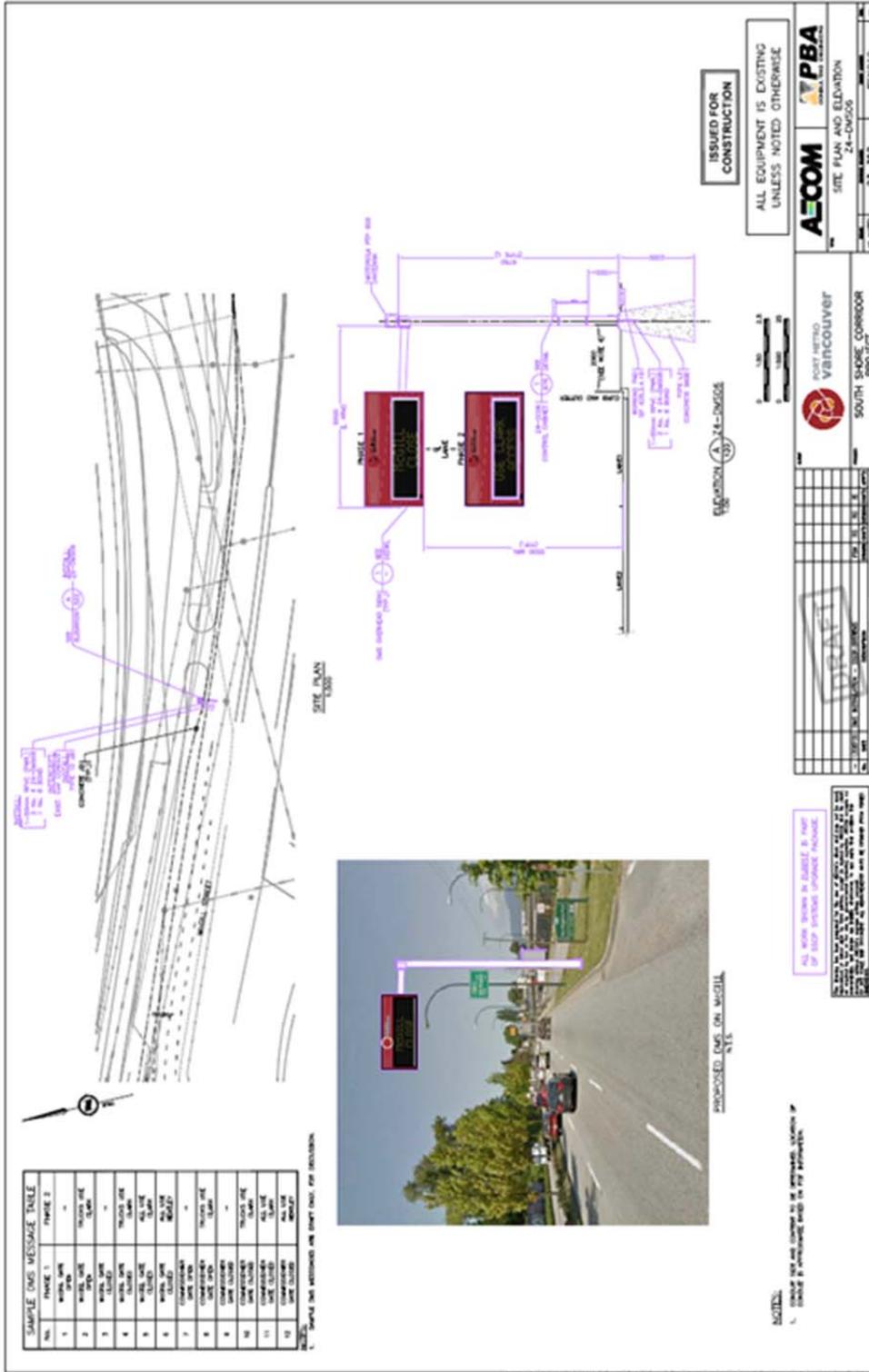
* * * * *

DMS License Terms and Conditions

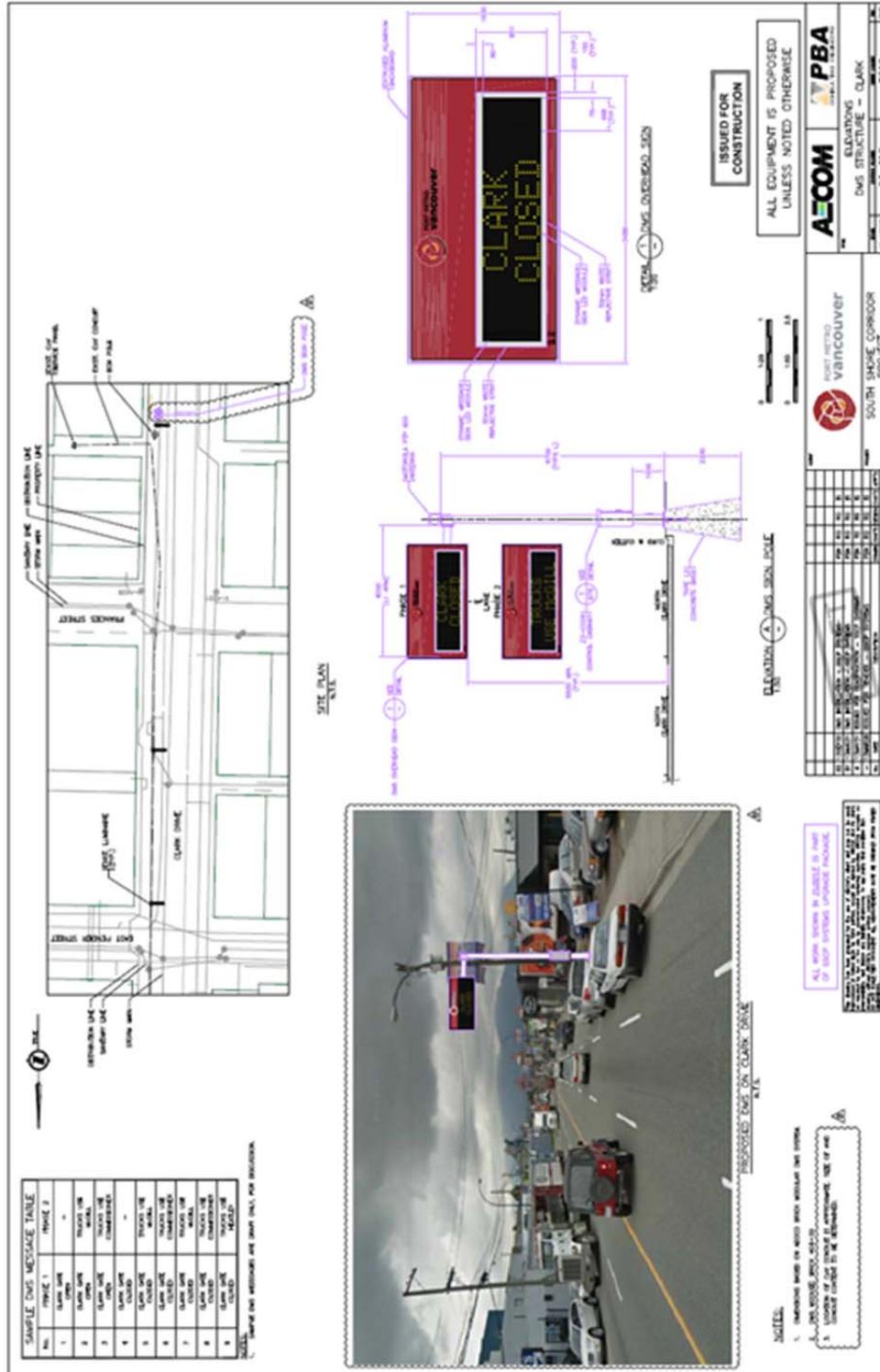
1. The License is to be subject to a six-month cancellation clause exercisable by the City with cancellation only to occur upon a resolution of Council.
2. The License Areas are to be used only for the purposes of installing, completing, operating, using, repairing and maintaining the Dynamic Message Signs (the "PMV Works") as proposed herein within the License Areas.
3. PMV to complete public notification and consultation for current and future proposed DMS locations, to the satisfaction of the City.
4. PMV to provide written confirmation and acceptance from the authority having jurisdiction for the installation of the Knight Street Bridge Dynamic Message Sign prior to installing the PMV Works on City Street.
5. The PMV Works are to be completed in accordance with the design and working plans and specifications approved by the General Manager of Engineering Services (the "GMES").
6. PMV to provide an as-built survey plan for each DMS location, prepared and certified by a B.C. Land Surveyor, such as-built survey plan to be satisfactory to the GMES. On completion, such survey plan will be attached to the DMS License.
7. PMV to maintain the License Areas in a manner satisfactory to the GMES.
8. The PMV Works will not display advertising for the sale of good or services of any nature.
9. The City and all emergency service vehicles to have the right of entry, without notice, to the License Areas at any time.
10. PMV will display City generated messages on PMV DMS signs within the License Areas, in the event of public emergencies.
11. Upon expiry or termination of the DMS License, PMV is to be responsible for the restoration of the License Areas, at no cost to the City, to the satisfaction of the GMES.
12. PMV to assume full responsibility for liabilities, loss, damages from their occupancy or use of the DMS License Area and to carry comprehensive general liability insurance to the satisfaction of the Director of Risk Management.
13. PMV must provide written confirmation from all impacted outside utility companies (including, but not limited to BC Hydro, Telus, Shaw, Bell Canada, and MTS Allstream) that arrangements have been made to accommodate their services and that they have no objection to the installation of the PMV Works to the satisfaction of the GMES.

14. PMV must provide a detailed plan to address all conflicts with City utilities to the satisfaction of the GMES.
15. PMV to be responsible for all costs associated with the PMV Works including any costs associated with street and utility modifications
16. The DMS License is to contain such other terms and conditions satisfactory to the GMES and the Director of Legal Services.

Proposed DMS - McGill Street east of Commissioner Overpass



Proposed DMS - Clark Drive at Frances Street



Consultation letter and distribution area for proposed DMS - Clark Drive at Frances street



October 2, 2013

Dear Property Owner,

Re: Installation of Dynamic Message Signs

This letter is to inform you of the installation of new permanent dynamic message signs in close proximity to your building.

As part of the South Shore Corridor Project, Port Metro Vancouver is installing dynamic message signs to help guide Port bound traffic to minimize congestion on City streets. These signs will enable the Port and City to work together and provide advance warning to Port bound traffic on the status of Port access points, and direct traffic to the most appropriate location.

These signs will be installed on a pole in the mid-600 block of Clark Drive. These signs will be facing north bound traffic, and will typically be used only during the working day. Please see reverse for an image of these signs.

Installation of these signs is expected to occur January/February 2014, and the signs will be in use shortly after.

For more information about the South Shore Corridor Project and construction schedule, please visit www.portmetrovancover.com/sscproject.

If you have any further questions or concerns, please phone me at 604-665-9382 or email at cindy.mccarthy@portmetrovancover.com

Yours truly,
PORT METRO VANCOUVER

A handwritten signature in black ink that reads "C. McCarthy".

Cindy McCarthy
Communications Advisor, Project Development

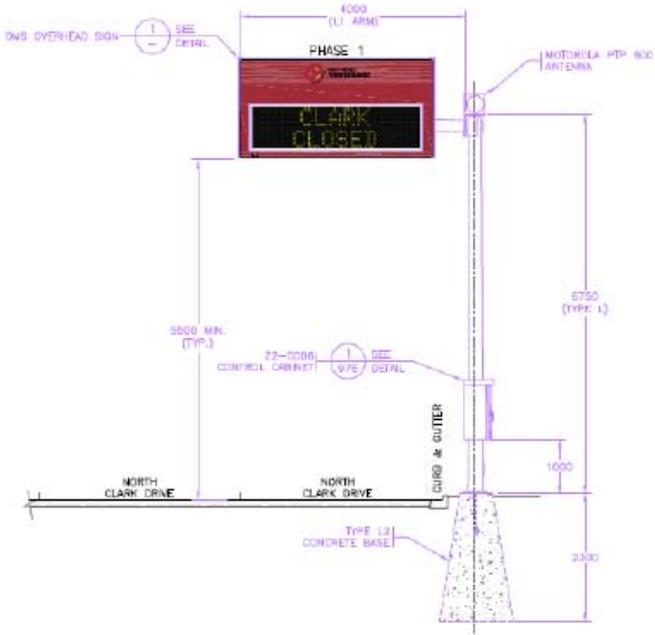
100 The Pointe, 999 Canada Place, Vancouver, B.C. Canada V6C 3T4

100 The Pointe, 999 Canada Place, Vancouver, C.-B. Canada V6C 3T4

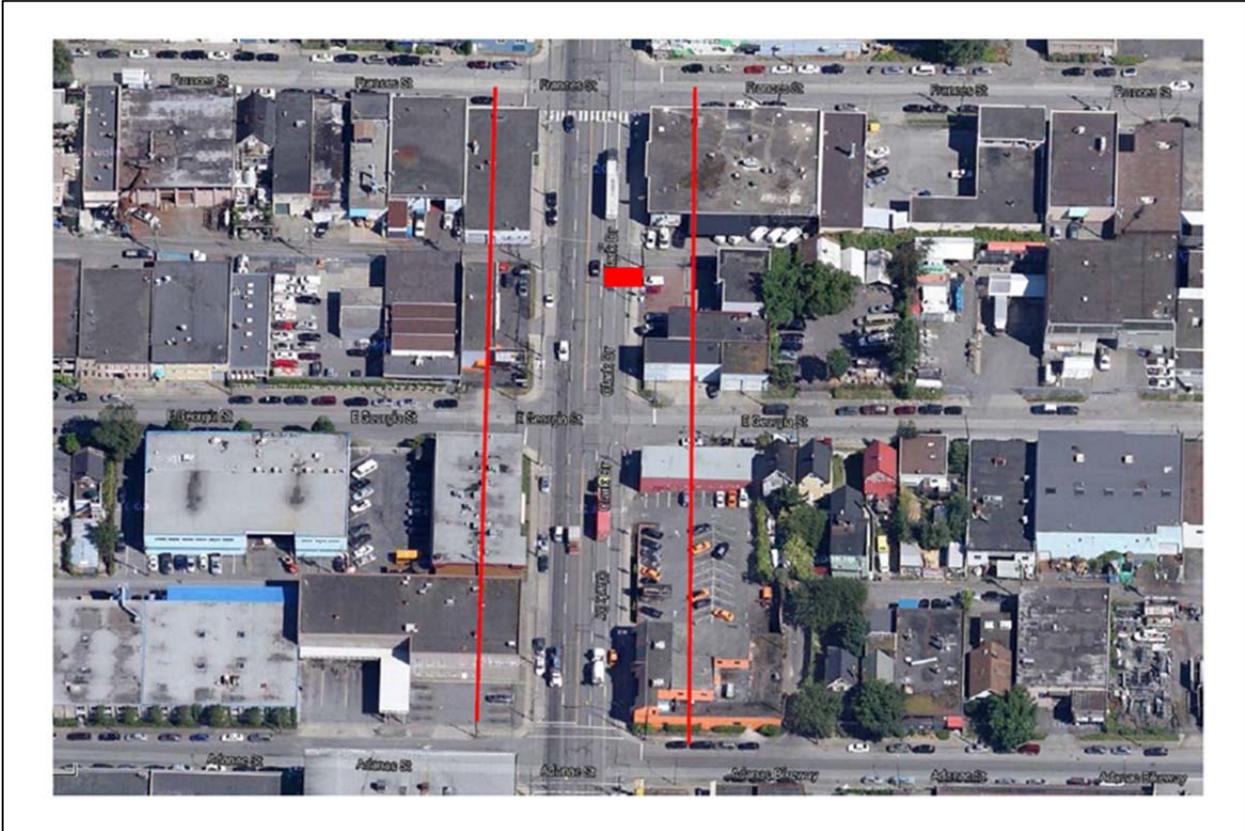
portmetrovancover.com

Canada

Port Metro Vancouver – Dynamic Message Signs
Page 2
October 2, 2013



Notification Distribution



Consultation letter and distribution area for proposed DMS - McGill Street east of
Commissioner Overpass



October 2, 2013

Dear Property Owner,

Re: Installation of Dynamic Message Signs

This letter is to inform you of the installation of new permanent dynamic message signs in close proximity to your building.

As part of the South Shore Corridor Project, Port Metro Vancouver is installing dynamic message signs to help guide Port bound traffic to minimize congestion on City streets. These signs will enable the Port and City to work together and provide advance warning to Port bound traffic on the status of Port access points, and direct traffic to the most appropriate location.

These signs will be installed on a pole on a median strip next to westbound traffic due along McGill Street, opposite the Hastings Racecourse and near the New Brighton Park parking area. These signs will be facing westbound traffic, and will typically be used only during the working day. Please see reverse for an image of these signs.

Installation of these signs is expected to occur in January/February 2014, and the signs will be in use shortly after.

For more information about the South Shore Corridor Project and construction schedule, please visit www.portmetrovancover.com/sscproject.

If you have any further questions or concerns, please phone me at 604-665-9382 or email at cindy.mccarthy@portmetrovancover.com

Yours truly,
PORT METRO VANCOUVER

A handwritten signature in black ink that reads 'C. McCarthy'.

Cindy McCarthy
Communications Advisor, Project Development

100 The Pointe, 999 Canada Place, Vancouver, B.C. Canada V6C 3T4

100 The Pointe, 999 Canada Place, Vancouver, C.-B. Canada V6C 3T4

portmetrovancover.com

Canada

Notification Distribution



Consultation letter and distribution area for proposed DMS - Clark Drive at Franklin Street



January 10, 2014

Dear Property Owner,

Installation of Dynamic Message Sign

This letter is to inform you of the installation of new permanent dynamic message signs in close proximity to your building.

As part of the South Shore Corridor Project, Port Metro Vancouver is installing dynamic message signs to help guide Port bound traffic to minimize congestion on City of Vancouver streets. These signs will enable the Port and City to work together and provide advance warning to Port bound traffic on the status of Port access points, and direct traffic to the most appropriate location.

These signs will be installed on an extension to the existing gantry system at the base of the Clark Drive Overpass (near the intersection of Clark Drive and Franklin Avenue). These signs will be facing northbound traffic, and will typically only be used during the working day. Please see the reverse of this letter for an image of these signs, the new signage to be installed is the sign on the right. Installation of these signs is expected to occur in May/June 2014, and the signs will be in use shortly after.

For more information about the South Shore Corridor Project and construction schedule, please visit www.portmetrovancover.com/sscproject.

If you have any questions or concerns, please phone me at 605-665-9577 or email at Tanya.Howes@portmetrovancover.com.

Yours Truly,
PORT METRO VANCOUVER

A handwritten signature in blue ink, appearing to read "Tanya Howes".

Tanya Howes,
Communications Advisor, Project Development

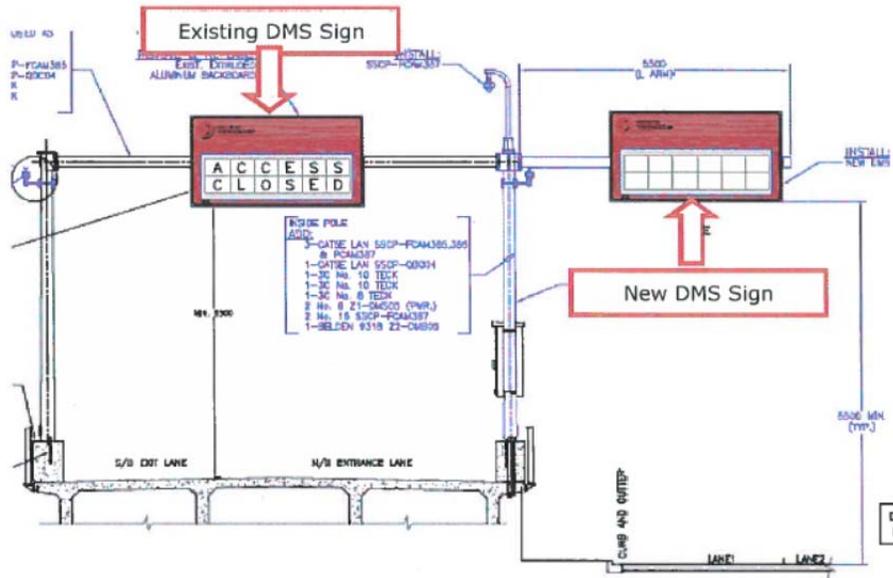
100 The Pointe, 999 Canada Place, Vancouver, B.C. Canada V6C 3T4

100 The Pointe, 999 Canada Place, Vancouver, C.-B. Canada V6C 3T4

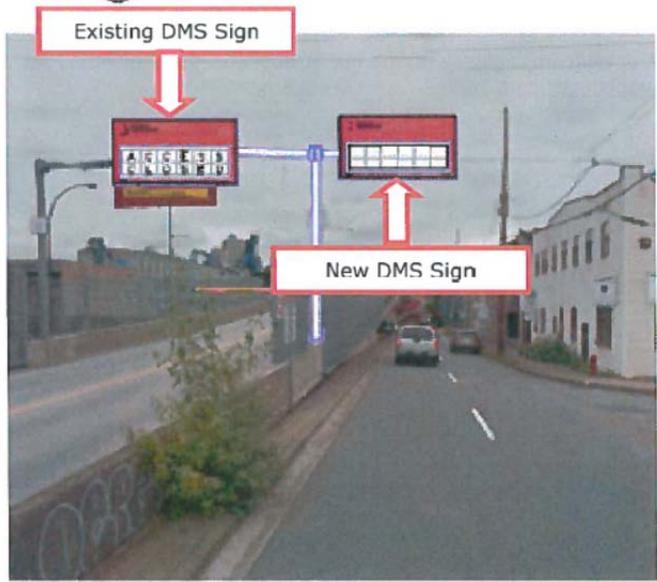
portmetrovancover.com

Canada

Port Metro Vancouver – Dynamic Message Signs
Page 2
January 10, 2014



ELEVATION A CLARK DRIVE OVERPASS OVERHEAD DMS - Z2-DMS05
1:50



Notification Distribution Area



Draft Clark Drive Access Control and DMS Operation Plan

TABLE 1: SOUTH SHORE CONTAINER TRUCK TRAFFIC OPERATING PLAN (DRAFT) – MARCH 14, 2014

#	OPERATING SCENARIO	SCENARIO TRIGGERS	DYNAMIC MESSAGE SIGN (DMS) NAME, LOCATION & DISPLAY MESSAGES (see Note)						
			PMV SOUTH SHORE			CITY OF VANCOUVER			RICHMOND
			SS3	SS2	SS1	SS4/COV1	COV2	COV3	RMD1
1	Normal Operating Conditions	N/A	Clark/Stewart DMS DMS west of Elevated Structure for eastbound traffic	DMS west of Elevated Structure for eastbound traffic	DMS east of Elevated Structure for westbound traffic	CoV - Clark/Francis DMS for northbound traffic	CoV - Clark/Francis DMS for northbound traffic	CoV - DMS near McGill Access for westbound traffic	DMS on south side of Knight Bridge for northbound traffic
2	Centerm Gate Queuing Condition	Trigger:	(Phase 1) CENTERM TRUCKS		(Phase 1) CENTERM TRUCKS				
		Recover:	(Phase 2) see Note 2 USE BALLANTYNE STAGING						
		Frequency:	As required by PMV Operations Centre (assume daily)						
3	Vanterm Gate Queuing Condition	Trigger:	(Phase 1) VANTERM TRUCKS LEFT TURN					(Phase 1) VANTERM TRUCKS	
		Recover:	(Phase 2) USE STAGING AREAS					(Phase 2) USE STAGING AREA	
		Frequency:	As required by PMV Operations Centre (assume daily)						
4	Short Duration Congestion or Rail Blockage (west of Clark Drive on Port Roadway) Duration: 30-60 min	Triggers:	- PMV: WB Queuing Extending East of Clark Drive on Port Road - COV: Queues are extending beyond E. Pender St. intersection (COV) on Clark Drive				(Phase 1) ALL TRUCKS USE COMMISSIONER	(Phase 1) COMMISSIONER GATE OPEN	(Phase 1) PORT TRUCKS
		Recover:	All Queuing Events Return to Normal					(Phase 2) TRUCKS USE STAGING AREA	(Phase 2) USE MARINE DR
		Frequency:	Approx. three times per week						

TABLE 1: SOUTH SHORE CONTAINER TRUCK TRAFFIC OPERATING PLAN (DRAFT) – MARCH 14, 2014

#	OPERATING SCENARIO	SCENARIO TRIGGERS	DYNAMIC MESSAGE SIGN (DMS) NAME, LOCATION & DISPLAY MESSAGING (see Note)						
			PMV SOUTH SHORE	CITY OF VANCOUVER			RICHMOND		
5	Extended Blockage (Exception) Condition (Clark Drive West)	<u>TIME:</u>	SS3 Clark/Stewart DMS	SS2 DMS west of Elevated Structure for eastbound traffic	SS1 DMS east of Elevated Structure (for westbound traffic)	SS4/COV1 COV1 - Clark/Francis DMS (for northbound traffic)	COV2 COV1 - Clark/Franklin DMS (for northbound traffic)	COV3 COV1 - DMS near McGill Access (for westbound traffic)	RMD1 DMS on south side of Knight Bridge (for northbound traffic)
		<u>RECOVER:</u>				(Phase 1) ACCESS CLOSED	(Phase 1) VANTERM TRUCKS		(Phase 1) VANTERM TRUCKS
		<u>FREQUENCY:</u>				*Clark Access Gate Arm Down COV1 (Phase 1) CENTRA TRUCKS	(Phase 2) USE COMMISSIONER		(Phase 2) USE MARINE DR
6	Knight Street Incident	<u>TIME:</u>							
		<u>RECOVER:</u>							
		<u>FREQUENCY:</u>							

Note 1: (All) - DMS Messages Applied for Change Conditions Only.
Note 2: Non-Cruise Days Only



**Figure 2: South Shore Container Truck Traffic Operating Plan – DMS Locations
(Clark/Knight St. Detour)**

