

TO: Board of Directors

FROM: Kevin Desmond, Chief Executive Officer

DATE: September 21, 2017

SUBJECT: Public Delegations at the June 23, 2017 Board of Directors Meeting

EXECUTIVE SUMMARY

The Board received 5 public delegations at its June 23, 2017 open Board meeting, and each delegation has received a written response.

PURPOSE

The purpose of this memo is to brief the Board on TransLink's responses to topics raised by public delegations at the TransLink Board meeting on June 23, 2017.

BACKGROUND

On June 23, 2017, the TransLink Board of Directors received five public delegations on the following topics:

- Concerns regarding the recent HandyDART service disruption caused by scheduling software issues
- Concerns regarding the Public Sector Comparator, prepared as part of the Custom Transit Service Delivery Review
- Request to delay the HandyDART Request for Proposals (RFP) process until the Provincial government is in place, post-election
- Job continuity for HandyDART drivers employed by the current HandyDART contractor
- Concerns regarding planned implementation of the Surrey Light Rail Transit (LRT) project, and suggestion that senior government funding be used instead to support SkyTrain expansion
- Concerns regarding the transit fare increase taking effect on Canada's 150th birthday, and a suggestion that transit be free on July 1
- Concerns regarding HandyDART service, including customer service hours of operation and request for another meeting between the HandyDART Riders' Alliance and TransLink's CEO

DISCUSSION

Management has responded to each of the delegations on issues raised, and has shared copies of these responses with Board members:

- **HandyDART Service Disruption** – An apology was provided by the Vice-President, Transportation Planning and Policy on behalf of TransLink. The CEO also apologized for the disruption during his CEO report at the June 23 open Board meeting.
- **Public Sector Comparator** – Delegations were advised that the Public Sector Comparator summary report prepared by Pricewaterhouse Coopers is publicly available on the TransLink website.

- **HandyDART RFP Process** – Delegations were advised that TransLink expects to complete the procurement process by the end of the year.
- **Employment of HandyDART Drivers** – Delegations were advised that hiring preference will be given to employees of the current HandyDART contractor, in the event a new contractor is successful under the RFP.
- **Surrey LRT Project** – The specific scope and technology of the 27 km Surrey LRT Project was identified in the 10-Year Vision prepared and endorsed by the Mayors' Council on Regional Transportation in 2014.
- **HandyDART Service** – TransLink plans to bring HandyDART customer service in-house at the end of the current contract. A follow up meeting will be arranged between the HandyDART Riders' Alliance and TransLink's CEO.

PRESIDENT & GENERAL MANAGER REPORT

September 28, 2017 TRANSLINK BOARD MEETING

TransLink Strategic Priority: Customer First

“We will run a reliable, effective and efficient rail system that supports a great passenger experience.”

- On June 19, BCRTC welcomed its new Director, Customer Experience & Performance Reporting. The Director brings a wealth of experience in market research, brand strategy, marketing, public consultation and has a proven track record in balancing customer needs with complex and diverse business objectives, delivering innovative and effective results.

“We will work with our employees to meet our customer first objectives.”

- In Q2 Rail’s Health, Safety, Training & Environment division began the process to update and transform the safety management system to a comprehensive integrated management system framework. This includes addressing foundational safety elements through reviews and updates of the Safety Policies and Procedures manual, and Certificate of Recognition programmes for High Risk activities.
- The Safety department has also established a Senior Safety Forum to work on a floor-level survey of Safety Culture. Consultations via focus groups will begin in Q3.

“Improve performance reporting to allow us to understand the business better, apply our resources effectively, and make evidence-based decisions.”

- A key focus of the Rail Company’s business plan is to establish a culture of key performance reporting to allow us to understand the business better, apply our resources effectively, and make evidence-based decisions. In Q2, BCRTC’s Performance Reporting department delivered a consolidated rail key performance indicator monthly report for Executives and Senior Management, and a quarterly one for the BCRTC Board of Directors. Going forward, the new Director, Customer Experience & Performance Reporting will guide the company’s performance reporting to expand to divisional and departmental dashboards and how to cascade the information to all staff.

TransLink Strategic Priority: State of Good Repair

“We deliver a safe, secure and reliable rail system by maintain our assets effectively.”

- During the second quarter of 2017, BCRTC continued its annual Expo Line Running Rail Replacement Project, as part of the SkyTrain Rail Asset State of Good Repair Program.
- The first part of the project involved the replacement of 7,000 rail pad and clips at four key areas of our system. Work on this part of the project began in Q1 and ended mid-April. The goal for the maintenance department is to replace a further 20,000 rail pads by the end of 2017.
- The running rail replacement phase of the project to install 5.0 linear kilometres of rail began late-May and is anticipated to finish by the end of Q3. By the end of Q2, nearly 1 km of the planned 4.8 kms of running rail has been replaced.
- Also in Q2, the Railway Infrastructure team performed the following work:
 - 16 km of grinding work on the Expo Line. Grinding work this quarter focused on the areas around Commercial-Broadway, Main Street-Science World, Joyce, 22nd Street, Edmonds, New Westminster and Columbia stations, and the Dunsmuir tunnel. Rail grinding is standard maintenance work that we perform on a regular basis on both the Expo and Millennium lines, to improve ride quality, reduce noise levels for our customers and neighbours, and extend the life of the rail.

- The department plans on grinding a further 82 kilometres of track beginning in Q3.
- Ultrasonic inspection to detect flaws and defects in the running rail was completed on the mainline in Q2.

“We will focus resources on the continuous improvement of our people, business tools and structure to ensure a safe and reliable rail system.”

- Work to improve and document maintenance Standard Operating Procedures (SOP) continues. Over 70% of critical SOPs have been completed.

“Improve Resiliency and Response to Service Disruptions”

- Maintenance & Engineering, Operations, and Safety divisions continue to debrief on all major service delays to recognize successes and identify gaps to enhance our response and resiliency. All major events to date have been fully reviewed.

TransLink Strategic Priority: Deliver Mayors’ Plan

““We will successfully roll-out the rail elements of the Mayors’ Vision as described in the investment plan.”

- Work to support planning and design of identified, future line extensions and stations upgrades are progressing. During Q2, the rail company allocated tasks related to the South of Fraser Rapid Transit project to the VP, Operations. All tasks related to Millennium Line Broadway Extension allocated to the VP, Maintenance.

Key Performance Indicators

Key Performance Indicators	SkyTrain (excluding Canada Line)				West Coast Express (WCE)			
	YTD Jun 2016 Actual	YTD Jun 2017 Target	YTD Jun 2017 Actual	Variance to Target Fav / (Unfav)	YTD Jun 2016 Actual	YTD Jun 2017 Target	YTD Jun 2017 Actual	Variance to Target Fav / (Unfav)
On-time performance ¹	95.4%	95.0%	95.1%	0.1%	97.8%	97.8%	97.7%	(0.1%)
Overall mystery shopper score ²	94.6%	95.0%	95.6%	0.6%	98.2%	97.0%	99.3%	2.3%
Lost time frequency ³	3.8	3.0	5.4	(2.4)	–	–	–	–
Major passenger injuries per 1m boarded passengers ⁴	1.1	1.1	1.4	(0.3)	0.8	0.3	1.7	(1.4)
Operating cost ^w per vehicle km	\$2.94	\$3.15	\$2.90	Δ \$0.25	\$11.91	\$13.83	\$14.09	ΔΔ (\$0.26)
Operating cost ^w per passenger km	\$0.14	\$0.16	\$0.14	Δ \$0.02	\$0.22	\$0.22	\$0.24	ΔΔ (\$0.02)

1 On-time performance (OTP) is the measure of train trips delivered within 3 minutes and 5 minutes of scheduled departure for SkyTrain and WCE, respectively. The SkyTrain OTP YTD result of 95.1% was primarily affected by 14 delay events exceeding 30 minutes in Q2, but still remains above target.

Although WCE OTP is 0.1% under the YTD target (and prior year), WCE did improve its OTP during Q2, where the results came in at 97.7%, a 0.8% improvement over Q1.

2 SkyTrain’s favourable mystery shopper results were predominantly attributed to notable improvements in the stations’ upkeep and maintenance staff, whilst advertising panels showed a decrease over the same period.

WCE continues to have very strong mystery shopper results, with the lowest result so far this year being reported in June at 98.5%. The most notable improvements throughout the quarter were for Conductors and Trains, whereas the Customer Service result was down compared to prior year.

- 3 There have been no noticeable trends in employee lost time accidents; the majority has been related to slips, trips and falls, as well as exertion and strain claims. Safety investigations continue to be conducted for each reported injury and recommendations to prevent recurrences are implemented where practicable. Occupational health initiatives have been implemented to manage this result.

WCE has had no accepted employee LTAs since 2000.

- 4 Slips and falls continue to have the most serious impact on SkyTrain passenger safety, whether they be on stairs/escalators, or due to the emergency braking of trains. BCRTC is working with TransLink to develop a social media campaign to educate the public about safety on the transit network; the messaging being developed includes seasonal safety alerts.

WCE had one passenger injury in January, and another in April (a passenger missed the last step when disembarking), compared to one in the comparable period of the prior year.

- Δ Expo and Millennium results for the first half of 2017^ψ were 8.0% lower than budget from lower staff costs primarily due to vacancies offset by increased overtime, timing differences in various maintenance activities that are expected to reverse by year-end, contractual transit services due to performance adjustments and the impact of Canada Line's service expansion with existing fleet. These underruns were offset by snow and ice removal costs and additional fuel and power consumption.

- ΔΔ WCE operating results^ψ in the first half were 2.0% below budget due to earlier than expected discontinuation of TrainBus service and contractual transit services due to performance adjustments; offset by timing differences in various maintenance activities, snow and ice removal costs and additional hydro consumption during the winter months. The variances per vehicle km and passenger km show as unfavourable due to lower service kilometres (primarily due to the discontinuation of TrainBus service) and boarded passenger results.

^ψ Operating results include allocated costs and exclude depreciation and any retail revenue or third party recoveries.

Uninsured Claims - As of June 30, 2017, BCRTC is not aware of any *significant* uninsured legal claims.



PRESIDENT & GENERAL MANAGER REPORT September 28, 2017 TRANSLINK BOARD MEETING

TransLink Strategic Priority: Customer First

Safety

- A Passenger Injury Reduction Strategy Group has been formed to review top causes of passenger injuries and to begin establishing targets and objectives for reducing injuries.

On Time Performance

- CMBC Operations launched a new on time performance pilot project focusing specifically on the Fraser Highway corridor. Transit Communications, Transit Supervisors, Operations Supervisors and Service Design worked in unison to monitor Operator driving patterns and run times. As a result of this pilot, the routes in this corridor reduced early operation by more than 40% and reflected an overall 1% improvement in on time performance. This on time performance pilot will be expanded to other corridors in Q4.
- Through this new on time performance pilot, CMBC Operations is also discovering that there are errors in GPS mapping points within the INIT AVL system. These technical errors are a result of the routing provided to the Operator via the scheduling system not matching the location of the physical bus stop.

Service Design

- Installation of bus stop T-IDs containing route information continues across the Lower Mainland through Q3. Approximately 180 stops were updated as part of September service changes as we continue with a target of replacing every bus stop plate (containing no bus information) with T-IDs by the end of 2018, to provide additional information to passengers.
- In Q4, CMBC will begin a three-door boarding pilot project for B-Line routes 095 and 096 which, unlike the 099 B-line, do not currently support three-door boarding. Trials will determine how much time is saved and if it is worthwhile given the potential fare revenue loss.
- The UBC diesel loop has been redesigned to improve customer accessibility on busier routes. The high demand 099 route now boards and unloads in the loop instead of on the street.

Transit Communications (TComm)

- A process is currently being developed to ensure timely response to commendations and complaints. The goal is to involve TComm and Transit Supervisors early in the process allowing for faster response time for complaints and commendations.
- In order to keep customers updated, a tracker has been set up in SharePoint to identify expired temporary bus stop closure signs. Under this initiative, the temporary bus stop closure signs are being removed as quickly as possible after a route has resumed regular service.

Transit Security / Bike Patrol

- The bike patrol operates from early May through mid-October and is currently in its third successful year. Its aim is to provide high-visibility service to passengers and operators and to respond to incidents on predetermined routes and in areas of downtown Vancouver. The patrol promotes safety on our system and allows officers to engage more directly with customers during the summer months, while at the same time reacting more quickly to calls for assistance. In 2017, the bike patrol was expanded to Surrey to include King George Boulevard and Surrey Central Station.

- Transit Security and Transit Police continue to work together on certain initiatives. Transit Police's bike patrol joined a scheduled shift with Transit Security bike patrol in the downtown core. Transit Police have also assisted in training on a number of topics including administration of Naloxone and mental health, as well as assisted in fare checking at numerous SkyTrain stations and bus loops.

Metrotown Station Improvements

- As of September 4, routes 049 and 116 will begin using newly-designated bays on the south side of Central Boulevard outside Metrotown Station for pick-up, drop-off and layover to improve passenger flow and safety. The 106 and 130 routes began using these new drop-off bays in August to unload passengers so they can access the newly-renovated west station house.

Luggage Rack Pilot

- As a result of passenger input on the 620 Bridgeport Station/ Tsawwassen Ferry Terminal route, CMBC piloted a floor-mounted luggage rack on an articulated 60' bus. Due to the positive feedback on the pilot, 4 additional racks have been ordered and are expected to be installed in Q4 2017.

Service Improvements

- West Vancouver Transit will begin running three North Vancouver Community Shuttle routes (the 214 Blueridge, 227 Lynn Valley Centre and C15 Indian River) from the Phibbs Exchange, totaling approximately 19,000 annual service hours. West Vancouver Transit will operate these Shuttle routes from their depot on the North Shore, which will substantially reduce non-revenue (deadheading) time to 12 minutes each way per bus compared to approximately 45 minutes currently from the nearest CMBC depot.

BYD Battery Electric Bus Pilot

- A pilot was conducted from June 26 to August 15, 2017 with a battery electric bus operating on various routes out of Vancouver Transit Centre (VTC). A fully-functioning charging station was installed for overnight charging at VTC during the trial.

Alexander Dennis Double-Decker Bus Pilot

- Two double-decker buses are scheduled to arrive in Q4 2017 for a three-month revenue service pilot. The preliminary plan is to operate the vehicles out of Richmond Transit Centre.
- A preliminary demonstration on May 15 and a more comprehensive demonstration on August 15 have allowed CMBC to understand requirements for building modifications, training, bus equipment and routing.

Compass Lost and Donated Cards

- Completed the second pick up at 5 downtown Vancouver kiosk locations and delivered 96 cards to the Compass Care Centre where the remaining value on cards will be donated to the United Way.

July 1 Fare Change

- All Compass Vending Machine hoppers were converted and loaded with nickels by mid-June in advance of the fare change. Coin replenishment processes were revised to manage coin change volumes with the usage of 25 to 30 thousand nickels daily since July 1.

TransLink Strategic Priority: State of Good Repair

Safety

- CMBC has completed Safety Management System (SMS) implementation in the Maintenance Division, where it will continue to evolve via continual improvement processes embedded in the system. The first

version of the SMS manual, incorporating the work done to date in the Maintenance Division along with company-wide SMS components, is also complete and available to staff. SMS implementation for the Operations Division is in the beginning stages and will roll out over the next year.

- CMBC has initiated a capital project to modernize its occupational health and safety systems through the adoption of software. The intent is to implement a system that will include incident and investigation logging, risk and control tracking, claims management, medical file management and the ability to produce KPIs for all related areas. The project's feasibility study will determine user needs and connection points with other technology systems.

Environment

- In Q2 2017, CMBC's spill frequency was 7.2 spills/Mkm, under the target of 8.0 spills/Mkm, bringing CMBC's 2017 results back on to the annual target of 8.0.
- Power Smart retrofits at Richmond Transit Centre are underway with completion expected by year-end. Annual energy savings of 592,705 kWh of electricity and 3,620 GJ of natural gas – equal to 186 tonnes of greenhouse gas savings– are expected.

Contracted Services

- On Bowen Island, the decision was made to adopt CMBC's Transit Related Road Infrastructure Program which funded the installation of three new bus stops and a Transit Information Panel (TIP) at the Snug Cove terminus. TIP replaces the old info-tubes located at key bus stops on the island.

Access Transit

- A stairwell and gate were installed at the River Drive HandyDART site in Richmond to enable safe emergency evacuation of the site to a muster point.

Bus Radio Replacement Project Update

- A vendor has been selected and will be providing a leased radio communication service. Progress of this project will be dependent on integration with the ongoing vehicle communications router project. Twenty buses have been equipped with new routers and are now in field testing.

SeaBus Terminal and Administration Building Envelope Rehabilitation Project

- The North Shore west berth was completed in June and work on the east berth is expected to complete in December 2017. The project remains on budget with a completion date of Q2 2019.

Surrey Transit Centre Building and CNG Upgrades

- CNG fueling station and maintenance garage upgrades are still scheduled for completion in Q4 2017. The administration building is expected to be completed in March 2018 with delays due to the discovery of mold in the building envelope.

Financial Results

- The 2017 July YTD CMBC Operating Costs are \$1.2M favourable to plan and Access Transit and Contracted Transit Services are \$94K unfavourable for a combined total of \$1.1M favourable.

TransLink Strategic Priority: Deliver Mayors' Plan

Access Transit

- Through an increase in service hours and improvements to service delivery for HandyDART customers, trip denials are 29% lower than last year.
- 13 HandyDART buses are scheduled to be delivered in December 2017 for 2018 service expansion. The buses will now have three-point harness seatbelts for customers versus lap belts.

- 4,007 more HandyDART trips were provided in July 2017 vs July 2016. Year to date at the end of July, 649,612 HandyDART trips were provided vs. 653,996 in 2016; the reduction is due to 35,073 fewer trips in Q1 due to winter weather. We provided 6,101 trips over target in Q2. We expect to see an increase above target for trips in Q3 and Q4.
- HandyDART Taxi trips are reduced from 2016 YTD, however above the set target. The taxi trips over target are primarily due to high demand in peak periods on HandyDART vehicles.

Service Expansion

- All expansion milestones for 2017 (Jan/Apr/Jun/Sep) per the Mayors' Investment Plan have been achieved. CMBC continues preparations for expanded service in 2018/2019.
- Soon-to-be retired buses will continue to be utilized for service expansion until new vehicles arrive in late 2018/early 2019. New Flyer and Nova Bus have been issued notices to proceed with 40' bus orders for delivery in 2018/2019.
- A contract for the new SeaBus vessel was awarded to Damen Shipyards Group with targeted delivery in Q4 2018.

Fleet Replacement Orders

- Capital funding requests for 2018 and 2019 orders have been submitted for Capital Management Committee review and approval.
- Federal government tax funding was secured on July 28 from Metro Vancouver to convert new bus orders from diesel to hybrid buses.

Operations

- Vancouver's east-west corridors have seen significant increases in ridership since the Canada Line opened in 2009. These routes are consistently overcrowded and service increases to date have only offered temporary reprieves. The Mayors' Plan identified 41st Ave as one of 11 new B-Lines, which would introduce frequent, limited-stop, high-capacity transit along the route. This would present a compelling new option for east-west travel in Vancouver. The 043 Joyce Stn/UBC currently provides peak-only limited-stop service along 41st Ave, in addition to the all-day, frequent, local 041 route on the same corridor. The 2017-2019 Investment Plan includes several expansions of service for the 043 on the way to implementing a full B-Line in 2019.

Service Design

- As part of the Mayors' Plan, 24,000 hours of additional bus service were implemented on June 26. Ridership on and around the Evergreen Extension has been monitored since its opening to ensure service is meeting passenger demands, resulting in increased frequency on 9 Tri-Cities bus routes. Late night and early morning service has been improved on Night Bus routes to provide near-24 hour service in those areas. Service on the 257 Horseshoe Bay Express has also been increased to 15-minute headways (from 20 minutes) to reduce crowding.
- 105,000 hours of additional bus service will be added in September 2017 per the Mayors' Plan. New routes are coming to Silver Valley in Maple Ridge, South Surrey and Clayton Heights in Langley. The additional hours will reduce crowding and wait times, extend service hours and provide better connections.

Key Performance Indicators ¹	Annual Target	Jul YTD Target	Jul YTD Actual	Jul YTD Last Year
Preventable Collisions per 1M kms ²	9.0	9.0	11.1	10.7
Employee Assaults per 1M service hours	20.5	20.5	19.9	22.5
Employee Lost Time Accident frequency (incidents per 200,000 hours worked)	7.0	7.0	8.9	8.6
Spills per 1M Km	8.0	8.0	8.0	7.5
CMBC Operating Cost per Km (excl. fuel)	\$5.41	5.44	5.48	5.37
On Time Performance				
Bus Regularity – frequent service	80%	80%	76.1	76.5
Bus Punctuality – infrequent service	85%	85%	78.7	78.8
Scheduled Service Delivered	99.5%	99.5	99.4	99.4
Customer complaints per 1,000 service hours	5.4	5.4	5.2	5.5
Customer commendations per 1,000 service hours	0.78	0.79	0.67	0.67
Access Transit Operating Cost per trip ²	\$40.50	40.11	42.10	38.90
Access Transit Trips Provided (thousands)				
HandyDART	1,186	694	650	654
Supplemental Taxi Service	102	60	74	74
Total Trips	1,288	754	724	728
Access Transit Denials	1,500	875	821	1,172

¹ Performance measures are for CMBC business operations (Conventional Bus, Community Shuttle and SeaBus) and exclude contracted conventional transit and contracted community shuttle.

² Prior period numbers are subject to change due to adjudication time required. Current and prior year YTD data is at June 30.

³ Operating cost per km target for Operating cost per trip for Access Transit has changed as a result of approved budget contingency requests for contractual wage increase totaling \$1million.



METRO VANCOUVER TRANSIT POLICE REPORT FOR SEPTEMBER 2017 TRANSLINK BOARD MEETING

Strategic Goals: Ensuring safety and security

- **Customer and Transit Staff Safety during Celebration of Lights**

Transit Police special event planning was put into effect for the three Celebration of Light events in July and August. This planning was done in coordination with the Jurisdictional Police in the region. The Transit Police operational deployment was influenced to some extent by terrorism events overseas and the importance for secure urban transit. We focused on reassurance policing, visible presence, and increased visibility of the Transit Police Explosive Scent Detection Dog Teams.



This was a good opportunity to work closely with Port Moody Police and Coquitlam RCMP in relation to movement of people along the new Evergreen Extension to major events in Vancouver, and implementing of upstream interdiction strategies. As stated by Vancouver Chief Constable Adam Palmer when speaking of large scale public events from the “Policing Moving Cities” conference co-hosted by Transit Police (May 2017):

“The extreme value that Transit Police add (is) by providing that upstream presence, liquor interdiction and meet and greet, setting the tone for people getting on the transit system is so valuable by the time they get to Vancouver the tone has already been set.”

Transit Police officers were deployed along the SkyTrain system and there was a large contingency to work in coordination with the Vancouver Police officers in the downtown area. For the purpose of regional major event management and emergency planning, the Transit Police had officers assigned to the Vancouver Police Departmental Operations Centre (DOC) and ECOMM’s Emergency Operations Centre (EOC). Further, there were Transit Police assigned to SkyTrain and Canada Line operations management centres. On the last night of the event, there was a special West Coast Express train in operation; for safety and security objectives, Transit

Police officers were deployed to the train as well as having the Transit Police Explosive Scent Detection Dog Teams conduct sweeps at both ends.

Attendance was lower than previous years, with the heaviest on the final Saturday, as expected. Overall, there was a low level of disorder and safety concerns for transit during the three evenings. Transit Police made a total of eight arrests, conducted 117 liquor pour-outs under the authority of the *BC Liquor Control and Licensing Act* and issued 84 provincial violation tickets. Transit Police also provided crowd control support to station attendants on and around the stations, and helped ensure safety for transit staff.

- **Urban Transit Security and Support to System Resiliency**

TransLink recognizes in its 2017 priorities that building trust and confidence in TransLink requires consistent high quality service, with an emphasis on safety. A safe and secure transit system improves quality of life, adds to regional economic viability and is beneficial to the environment. The Transit Police utilizes a number of strategies to address potential threats to transit customers and the transit infrastructure, and works closely with the TransLink enterprise to deliver a safe transit system. Some illustrations of recent developments are:

- Explosive Scent Detection Dog Team – The Transit Police has four Explosive Scent Detection Dog Teams; this helps ensure a quick response and allows for preventative patrols in often crowded transit hubs or stations and supports TransLink system resilience. To strengthen the Transit Police dog program, all of our dog teams are receiving enhanced training to detect homemade explosives. Two teams completed national training in Q1 2017 and the other two teams are scheduled for Q4 2017.



As part of the Transit Police Strategic Plan, there has been increased security sweeps by the four Dog Teams of stations and transit property to promote safety and a level of confidence in using the transit system. In Q1 2017, there was a 40% increase in security sweeps when compared to Q4 2016. There has also been additional outreach with the TransLink enterprise to explain this specialist resource and the incident response protocol. In the event that the dog alerts to the item, the Transit Police then contacts the RCMP or Vancouver Police Explosives Disposal Unit, who will attend to confirm and dispose of the item.

- HOT Principle Training – Each day packages are left on TransLink vehicles, and at stations and bus loops; and the question is asked, “Is this an unattended package or a suspicious package?” The Transit Police has been providing presentations to TransLink enterprise staff on the “HOT” principle (Hidden, Obvious and Typical) and “See Something, Say Something” campaign of the Transit Police. Enhanced understanding amongst transit staff, particularly station attendants and transit security staff is beneficial in promoting prompt notification to Transit Police of potentially threatening situations to persons or infrastructure, or circumstances that negatively impact perception of safety by customers and TransLink’s brand reputation. Suspicious package incidents and the declaration by staff of a ‘suspicious’ rather than an ‘unattended’ package may trigger delays to efficient transit service delivery and quick coordination with Transit Police can assist with mitigating impact, including lost TransLink revenue and economic consequences to persons and the region. From January to July 2017, over 36 such presentations were delivered to groups of station attendants, transit security, operating centre supervisors and managers from SkyTrain, Canada Line, SeaBus, West Coast Express and CMBC. Further, BCRTC is now using a slightly modified version of the presentation for ongoing use in training their new hires.



- Training – To build upon the containment training (for critical incidents in a train or bus, or in a station) done in 2016 in preparation for the Evergreen Extension, Transit Police has commenced planning for a table top exercise in late 2017 and a full operational exercise in spring 2018 on critical incident response. Representatives from the TransLink enterprise and Jurisdictional Police partners will be invited to participate in the exercise. This type of training will allow for testing of interoperability emergency protocols, enhancing of

partnership networking and improving operational preparedness.

Over the past year, the Transit Police has been training selected officers to become Counter Terrorism Information Officers (CTIOs). In 2017, Transit Police invited some Transit Security Officers (TSEC) at Coast Mountain Bus Company to join Transit Police in taking the CTIO course. This training is a precursor to Transit Police and TSEC involvement in anti-terrorism and transit security strategies.

- Crisis Negotiators – In Q2 2017, 16 officers were trained as “Negotiators” to ensure highly trained officers are available to negotiate with emotionally distraught, mentally ill or drug-impaired persons, and others, who engage in behaviours that may threaten their own and others’ personal safety as well as interrupt service. These behaviours may include suicidal ideations/attempted suicide, intrusions into the SkyTrain guideways, etc.

- ION Scanner – Like other police agencies in the region, due to the increase use of Fentanyl and safety risk to police staff in the event of accidental exposure, the Transit Police is acquiring an ION scanner, funded by the province. Similar to scanners located in an airport, a sample swab is taken and the ION scanner is almost instantly able to analyze for traces of narcotics (e.g., fentanyl and other opioid type drugs) or explosives. The unit can be adjusted to test for one or both and are lightweight and portable. Transit Police protocol for the operation and administration of the ION scanner is under development.



The aforementioned activities directly support TransLink’s Strategic Plan-Priority 3 to “Improve Customer Experience and Public Support”, and more specifically, Initiative 4 of Objective One (Improve TransLink’s Reputation) by “developing and implementing Transit Police’s enhanced Public Safety and Community Outreach initiatives”.

TransLink Strategic Priority: Customer First

- **Transit Police Strategic Plan Status Report for 2016**

The Transit Police has completed its first year of the 2016-2020 Strategic Plan – “Policing the Moving City”. This Plan is aligned with TransLink’s Strategic Priorities and advances the Transit Police commitment to “**demonstrate excellence in public transit policing.**”

Some highlights for 2016 are:

- Neighbourhood Police Officers now in place for the six hubs and NPO ongoing liaison with local stakeholders and completion of their environmental scans;
- Coordinated training and joint planning with Port Moody Police and Coquitlam RCMP for seamless policing of the new Evergreen Extension;



- All frontline police officers received a two day specialized training course on handling a critical incident on the transit system (e.g., on a platform, in a train, on a bus);
- Investigative excellence initiative with completion of phase one of the Reports to Crown Counsel analysis project;
- In support of the Chief Officer's commitment that Transit Police embraces above all else the sanctity of life, the number of Transit Police officers trained and equipped with Tasers was increased to achieve a goal of one out of every two officers carrying a Taser, to provide another less-lethal option for officers;
- Transit Police delivered numerous crisis de-escalation training sessions to Transit Supervisors from Coast Mountain Bus Company and all front-line SeaBus staff;
- In recognition of the current Fentanyl/Opioid crisis, all frontline officers were trained to administer Naloxone and, as of August 2017, Transit Police officers had successfully used it on at least 11 occasions to resuscitate overdose victims;
- Officer secondments (funded via provincial police budget) made to regional INSET (Integrated National Security Enforcement Team) and Real Time Intelligence Centre to enhance intelligence sharing and support urban transit security and anti-terrorism strategies; and
- Transit Police officers were engaged in over 145 community/partner outreach events and there were over 52 joint initiatives/operational plans with Jurisdictional Police.

The full 2016 Strategic Plan Year-End Update is available on the Transit Police website:

<https://transitpolice.ca/wp-content/uploads/2015/12/2016-Strategic-Plan-Update.pdf>

To view the 2016-2020 Transit Police Strategic Plan go to:

<https://transitpolice.ca/wp-content/uploads/2016/09/2016-to-2020-Strategic-Plan-Finalweb.pdf>

TransLink Strategic Priority: State of Good Repair

- **Planning for the Future**

Evergreen Extension Policing – In 2016, with the concurrence of the Transit Police Board, TransLink Security Management Limited and TransLink, funding for additional officers was approved for the 2017 budget year to address initial police service delivery to the new Evergreen Extension. These officers were considered a first step, with any additional requests for staffing increases to occur based on operational experience, police incidents and workload analysis in 2017.

The success of Evergreen and the higher than predicted ridership (over double), together with the impact of the geographic scope of the Evergreen Extension for police operational response, made it necessary for the Transit Police to supplement Evergreen service delivery using a number of tactics during 2017.

10 Year Planning – Transit Police senior staff have had several meetings with TransLink planners to provide information and analytics regarding police service delivery to an expanding transit system over the next 10 years. The collaboration and early integration of Transit Police into this planning is extremely beneficial from the perspectives of: human resources projections; capital considerations for emergency resources, fleet and facilities; and budget/investment projections. The Transit Police Executive have found the consultation by TransLink planners very productive and believe it will positively contribute to the safety and security of the transit system.

TO: Board of Directors

FROM: Sany Zein, Vice President, Infrastructure Management & Engineering

DATE: August 25, 2017

SUBJECT: Public Transit Infrastructure Fund (PTIF) Program Implementation Report

EXECUTIVE SUMMARY

This report provides an update on delivery of a \$740M program of projects funded by the Public Transit Infrastructure Fund Phase 1.

Since the previous report, the number of initiated projects grew from 15 to 55 with a current value of \$604M.

Management is actively addressing risks associated with the aggressive project delivery and cashflow requirements in the federal contribution agreement. Management identified a mitigation approach with provincial staff that substitutes projects at greatest schedule risk with alternative projects. Discussions with Infrastructure Canada on the proposal are underway.

PURPOSE

The purpose of this report is to provide an update on the delivery of projects funded by the federal Public Transit Infrastructure Fund (PTIF).

BACKGROUND

Through a combination of federal, provincial, and regional funding commitments to PTIF Phase 1, capital projects worth \$740M (eligible costs) were included in the 2017 10-Year Investment Plan adopted in November 2016. The program was announced in June 2016 and TransLink signed a contribution agreement with the Province on December 16, 2016.

DISCUSSION

PTIF Phase 1 is comprised of projects that contribute to the state of good repair, fleet expansion, and work to enable future larger rail system expansion. PTIF Phase 1 is being managed under 15 "Metro Vancouver (MV) Programs", with a variety of capital projects under each MV Program. In total, more than 60 projects will be delivered totalling \$740 million in eligible costs. Table 1 summarizes the 15 programs. Proposed changes agreed to with the Province and currently under discussion with the federal government to mitigate schedule risk are also shown in Table 1.

Table 1: Program Summary

PTIF	Program Name	Program Amount (millions)	Proposed Changes* (millions)
MV-001	South of the Fraser Rapid Transit Planning & Design	\$20	
MV-002	South of Fraser Rapid Transit Early Works	\$38.3	
MV-003	Millennium Line Extension (Broadway) Planning & Design	\$23	
MV-004	Millennium Line Extension (Broadway) Early Works	\$76	-\$50
MV-005 & 006	Rapid Transit Fleet Expansion – Expo and Millennium Lines	\$112	
MV-007	Rapid Transit Fleet Expansion – Canada Line	\$88	
MV-008	Transit Fleet Expansion – West Coast Express	\$21	
MV-009	Transit Fleet Expansion – SeaBus	\$34	
MV-010	Rapid Transit Stations	\$86	-\$27
MV-011	Bus Facilities and Exchanges	\$41	
MV-012	Multi-modal Station Amenities	\$4	
MV-013	Rapid Transit System Rehabilitation and Maintenance	\$92.4	
MV-014	Bus/SeaBus Systems Rehabilitation and Maintenance	\$53.3	-\$2
MV-015	Information Technology	\$51	-\$33.5
<i>MV-016*</i>	<i>Rapid Transit Fleet Expansion – SkyTrain Network</i>		<i>+\$98</i>
<i>MV-017*</i>	<i>SkyTrain Storage Facility</i>		<i>+14.5</i>
TOTAL		\$740	\$0

*Changes agreed with provincial staff are under discussion with Infrastructure Canada

Implementation is underway on 55 projects in all 15 MV programs with a total initiated value of \$604 M. Also identified are two potential additional MV programs under discussion with senior government. The proposed MV-016 was initiated by TransLink through the Investment Plan approved on July 27 2017.

The most significant program-level risk is the aggressive delivery schedule and cashflow requirements in the federal contribution agreement. The agreement requires 75% of eligible costs to be expended by March 31, 2018 and all projects to be complete by March 31, 2019. Provincial staff are requesting Infrastructure Canada adjust end dates for most MV programs to March 31, 2019.

Working with provincial staff, Management identified an opportunity to maximize use of senior government funding to support the capital program approved in the 2017 investment plan (as amended in July 2017). This involves substituting projects at greatest risk of incurring eligible cost beyond the agreement deadlines with accelerated acquisition of additional SkyTrain vehicles and associated storage facility upgrades. Discussion on the proposal with Infrastructure Canada is underway.

Schedule risks are materializing on some projects and Management, through the province, is working with Infrastructure Canada to request end dates prior to March 31, 2019 be extended. An update on the request will be provided in subsequent reports.

Governance

TransLink's Capital Management Committee and Executive Capital Oversight Group provide management and oversight to the program consistent with capital program management policies. A working group of TransLink and provincial staff meet regularly to coordinate the program, monitor progress and ensure requirements of the contribution agreement are met. A PTIF Steering Board, comprised of TransLink's CEO and CFO, two Provincial Deputy Ministers and the CEO of Partnerships BC, provides strategic program oversight. Further to the change in government, the Steering Board meetings are planned to recommence in September.

Customer Impacts

Project initiated to date have negligible impacts on customers. TransLink project management staff work closely with colleagues in operating companies to develop project-specific construction and communications plans to keep customer apprised of work and to minimize adverse impacts of construction projects on customer service.

Financial Impacts

Implementation of the program is consistent with the approved 2017 Investment Plan and associated annual capital program.

Communications Implications

Communications activities are being coordinated with representatives of the federal and provincial governments under a communications protocol in the contribution agreement. Opportunities for recognition of the shared contributions towards the Mayors' 10-Year Vision are routinely identified. Project-specific signage will be installed as guidelines are finalized.

TO: Board of Directors

FROM: Sany Zein, Vice President, Infrastructure Management and Engineering

DATE: August 31, 2017

SUBJECT: Pattullo Bridge Replacement Project Update

EXECUTIVE SUMMARY

The purpose of this report is to provide an update on the Pattullo Bridge Replacement Project – the Procurement Readiness Stage. Key upcoming milestones include a final Business Case on August 31 2017 and an Investment Plan in October 2017 to fund the project and initiate procurement. Work continues in advancing the project in a number of areas including:

- Preparing for the final draft Business Case submission by August 31 2017
- Securing Provincial funding in September 2017
- Finalizing the Pattullo-enabling Investment Plan in October 2017
- Preparation of the Request for Qualifications (target release: November 2017) and Request for Proposal (target release: April 2018) documents
- The environmental assessment process involving regulatory agencies
- Geotechnical drilling investigations

PURPOSE

The following is an update on the Pattullo Bridge Replacement Project – Procurement Readiness Stage.

BACKGROUND

The 2014 Mayors' Council Vision designated the Pattullo Bridge Replacement as one of three key major project priorities. The existing Pattullo Bridge is subject to a number of well-documented challenges. The rehabilitation of the bridge deck to extend the deck life by about seven years commenced in late April 2016 and was substantially completed on August 29 2016. Information from the rehabilitation design process revealed that the existing structure does not meet wind load design standards for a bridge built today, and that upgrading the bridge to withstand a 1:475 year seismic event (the guideline used for similar major bridges) is technically extremely challenging and may be financially prohibitive.

The Pattullo Bridge represents TransLink's most urgent major infrastructure risk. Management does not consider the existing bridge as viable from a risk and financial management perspective beyond the 2023-2024 timeframe. The alternative to a new bridge would be to plan for the closure of this crossing.

In September 2015, the TransLink Board of Directors instructed Management to prepare budgets for 2016 and onwards to include \$20 million to undertake, in an expedited manner, all project development activities to be ready to issue procurement documents for the Pattullo Bridge Replacement Project, consistent with the replacement bridge described in the 2014 Mayors' Council Vision; and to continue negotiating with the Federal and Provincial governments to secure up to two-thirds senior government funding for the Pattullo Bridge replacement project. With the project about to launch the procurement

stage, a further \$3.9 million is in the process of being approved by the Board to ensure work continuity until the Pattullo-enabling investment plan is approved.

DISCUSSION

The Project is actively working on completing a final draft Business Case by August 31, 2017. The draft Business Case was completed on schedule on August 15 2017. This follows the completion in Q2 2017 of a due diligence review requested by the Ministry of Transportation and Infrastructure which reviewed network improvements on the north and south sides of the river to support the new four laned tolled Pattullo Bridge. The Project team has also concluded the analysis to review the financing and traffic implications of an un-tolled bridge.

Federal Funding

Management is submitting an Expression of Interest (EOI) for a grant from the newly announced National Trade Corridor Fund. Confirmation of Federal funds is expected toward the end of 2017, and any Federal contribution would offset Provincial contributions expected to be confirmed in September 2017.

Provincial Funding and Toll-Equivalent Contributions

The new Provincial Government has committed to fund 40% of the replacement bridge, subject to a robust Business Case submission. Management is actively working with Provincial officials to confirm Provincial funding by September 29 2017.

The 2014 Mayors' Council Vision designated user tolls as the primary source of the regional share of funding. In August 2017, the Provincial Government announced the elimination of point-tolls on Metro Vancouver bridges effective September 1 2017. The government also acknowledged the on-going work of the Independent Commission on Mobility Pricing and stated a desire to work with TransLink and the Mayors' Council on a fairer way to fund transportation. In the meanwhile, Management is working with Provincial officials to ensure that the Province's funding support for the new Pattullo Bridge includes contributions equivalent to the forecast toll revenue.

Technical Work

Work is proceeding on finalising the reference concept including the navigation zones and options for pier locations. The 2nd phase of a geotechnical drilling investigation program to gather data on subsurface conditions is in progress. Deep in-water borehole drilling and testing to study soil conditions under the Fraser River in support of bridge foundation design was completed this summer. Land investigations will commence in the fall and will comprise of more complex on-land borehole drilling, soil testing, a railway infrastructure monitoring program, and pile load tests on both sides of the crossing in New Westminister and Surrey. A communications plan will support the field work.

Road Connections

As a result of the Due Diligence work conducted with the Province, in Q2 2017 Management reviewed the proposed connections of the new Bridge to the road networks in New Westminister and Surrey. Further to a robust evaluation, Management selected the Full Connections scheme as the preferred option to be included in the Business Case. In New Westminister, the Full Connections include direct links to McBride Boulevard, Royal Avenue and East Columbia Street, as endorsed by New Westminister Council in December 2016. In Surrey, the Full Connections include direct links to King George Boulevard and Highway 17, plus the extension of Scott Road to the north and a new interchange at Scott Road and

King George Boulevard, as endorsed by Surrey Council in December 2016. Any new connections to Highway 17 will require Provincial review and approval.

Traffic Implications of No Tolls

The elimination of point tolls from Metro Vancouver bridges necessitated a re-analysis of traffic patterns without tolls on the new Pattullo Bridge. Without tolls as a demand management tool, traffic volumes would be higher on the new Pattullo Bridge, and at other key locations in Metro Vancouver. The new four-lane Bridge will represent a capacity increase of approximately 10 percent compared to the existing bridge, but with continued population and employment growth in the region, queues and peak-period congestion can be expected to continue on the new Bridge approaches. Similarly, queues and congestion will continue at many other key locations in the regional road network. The future introduction of mobility pricing and continued expansion of the transit network represent the best opportunity for road congestion relief in the region.

Environmental Assessment

Work continues on advancing the harmonised Environmental Assessment (EA) process involving the BC Environmental Assessment Office (EAO) and the Port of Vancouver (PoV). The Project has received a Section 11 Order from BCEAO. Following public input received on the valued components this summer, the Project continues to advance development of the information requirements outlining the basis for the application for the EA certificate.

The project team continues engagement with First Nations.

Delivery Model

In Q2 2017 Management worked with Partnerships BC on evaluating various project delivery models, using the latest available project technical information. Further to a robust evaluation, Management selected a Design-Build-Finance (DBF) delivery model for the new Pattullo Bridge. The DBF model includes a warranty period to ensure long-term construction quality, and also affords the greatest amount of flexibility to enable any future expansion of the new Bridge to six lanes (should the Mayors' Council decide on such an expansion).

Business Case

The final draft project Business Case will be completed on August 31 2017. The Business Case will include the technical project description as well as financial and procurement information. Provincial funding will be finalized in accordance with the Business Case.

RISK ASSESSMENT

Management is maintaining a comprehensive risk matrix for this stage of the project. All project risks relevant to the project development phase are being actively managed. Technical risks include coordination of various disciplines involved in scope definition and environmental assessment. Process risks include schedule delays in obtaining municipal, utility, and third party agreements.

TransLink's key project risk is securing funding certainty for the project, taking into account the elimination of tolls. Technical risks include fulfilling the environmental assessment requirements and securing agreements with utilities and third parties (including the railways) to enable work to proceed on time.

COMMUNICATIONS IMPLICATIONS

Consultation was completed in summer 2017 in which public comments were received on the draft Application Information Requirements and key areas of study in the Environmental Assessment process. Consultation in early 2018 is expected following the environmental application submission to the BCEAO.

UPCOMING MILESTONES

The project is proceeding according to the following schedule:

- Final draft Business Case: August 31 2017
- Provincial Funding Confirmation: September 29 2017
- Pattullo-Enabling Investment Plan submission and approval: October / November 2017
- Release of Request for Qualifications: November 2017
- Federal grant contribution confirmation: End of 2017 / Early 2018
- Release of Request for Proposals: April 2018
- Selection of Contractor: Early 2019
- Start of Construction: Early 2019
- New Bridge Opens: Late 2022 / Early 2023
- Old Bridge Deconstruction: 2023/2024.

TO: Board of Directors

FROM: Sany Zein, Vice President, Infrastructure Management & Engineering

DATE: August 30, 2017

SUBJECT: Pattullo Bridge Condition Monitoring Report

EXECUTIVE SUMMARY

This report provides an information update on condition monitoring activities on the Pattullo Bridge.

Recent and on-going activities since the previous update to the Board relate to the following:

- *Condition Inspection* by the Ministry of Transportation and Infrastructure and COWI North America;
- *Railing Inspection and Repairs* by Mainroad Contracting Ltd. and COWI North America;
- *Wind and Seismic Warning Systems Assessment* by Parsons Corporation;
- *Deck Condition Monitoring and Repairs* by Mainroad Contracting Ltd. and WSP;
- *Emergency Management*
- *2017 Freshet Monitoring Survey* by Northwest Hydraulic Consultants.

TransLink will continue to closely monitor and inspect the condition of the Bridge and take action where appropriate.

PURPOSE

This recurring status report provides an update on condition monitoring activities on the Pattullo Bridge since the previous report was issued in May 2017.

BACKGROUND

The Pattullo Bridge is 79 years old. Most of the structural components have passed the predicted design life and are reaching the end of their useful life. The deterioration of the bridge condition is a dynamic event, with conditions generally degrading over time. Weather, temperature fluctuation, rainfall, wind, river action, live traffic loads and aging of the steel and concrete components all contribute to the degradation of the bridge condition.

To ensure that the necessary inspection and monitoring activities are being identified and implemented, TransLink regularly consults with experienced bridge engineers working in the private and public sector in Metro Vancouver.

With responsibility for the safety and operations of the bridge, TransLink monitors the condition of the bridge structure closely through regular inspections of the bridge components. TransLink then performs maintenance and repairs in response to the findings of the inspection reports.

DISCUSSION

Recent and on-going inspection activities since the May 2017 update to the Board are listed in Table 1.

Table 1: May 2017 to August 2017 Pattullo Bridge Ongoing Inspections and Monitoring

REFERENCE	ACTIVITY	CONSULTANTS / PARTNERS	STATUS
1	Condition Inspection	Ministry of Transportation and Infrastructure, COWI North America	MoTI Inspection Report: Nov 16, 2016 COWI report: In Progress
2	Railing Inspection and Repairs	Mainroad Contracting Ltd., COWI North America	Repairs completed May 2017
3	Wind and Seismic Warning Systems Assessment	Parsons Corporation	In Progress
4	Deck Condition Monitoring	Mainroad Contracting Ltd., WSP	In Progress
5	Emergency Management	TransLink	In Progress
6	2017 Freshet Monitoring Survey	Northwest Hydraulic Consultants	In Progress

A summary of each of these activities is provided as follows:

1. Condition Inspection

Each year, the BC Ministry of Transportation and Infrastructure (Ministry) performs a condition inspection of the Pattullo Bridge with the aid of a 'snooper truck'. The 2017 inspection is scheduled for November 2017. The 2016 bridge condition inspection was submitted to TransLink in Q4 2016 and identified minor structural deficiencies throughout the Bridge, consistent with the age of the bridge, as well as the need to repair and replace bridge railings.

To ensure any urgent conditions are addressed, TransLink commissioned COWI to develop a recommended short-term repair program informed by the findings of the latest inspection report. In Q3 2017, COWI prioritized all repair items identified by the Ministry, and produced a draft issues map and an accompanying tracking spreadsheet for the repairs.

Based on the Ministry's inspection, the railings along the Bridge were identified as needing urgent repair. TransLink proceeded and has completed the railing repairs (item 2 below). No other urgent repairs were identified, but TransLink will continue to work with COWI to manage the progression of deterioration on the Bridge.

2. Railing Inspection

During the weekend closure of the Bridge from July 14 to July 17 (see item 4 below), all required railing repairs were completed. As the railings will continue to deteriorate over the remaining service life of the Bridge, TransLink will continue to monitor and repair/replace the railing posts as needed. A tracking spreadsheet is used to track the condition of every individual railing post on the structure.

3. Wind and Seismic Warning Systems

The Pattullo Bridge was not designed to meet current wind and seismic loading standards for a new structure built today, and as a result, may be vulnerable in a seismic or hurricane-level wind event.

To improve the safety of the Bridge, a feasibility study is underway to determine if advance warning and monitoring systems can be implemented. A wind warning system would monitor and measure wind speeds at the bridge; and a seismic warning system would sense an earthquake in progress and provide warnings and alerts prior to damaging ground waves reaching the bridge. Both systems may provide opportunities to reduce risks to bridge users through warnings and closures.

In Q3 2017, the consultant advised that an advance seismic warning and wind monitoring system is feasible. Given that the Bridge is scheduled to be replaced by 2023, TransLink Management is currently evaluating the benefits of implementing the system.

4. Deck Condition Monitoring and Repairs

The reinforced concrete deck of the Pattullo Bridge is in an active and advanced state of deterioration, primarily due to corrosion of the reinforcing steel. In addition to the top surface deterioration, extensive corrosion-related damage is also occurring to the bottom surface (soffit) of the deck.

While repairs to the north portion of the deck were completed between Pier 0 and Pier 9 in the summer of 2016, the risk of pothole formation still exists for the remainder of the Bridge, referred to as the South Approach (Pier 9 to Pier 29).

To ensure the entire deck is functional and safe for operations, bridge deck experts from WSP conduct bi-weekly walk-through inspections of the deck as well as from the ground and catwalk levels. Signs of pothole formation are monitored and flagged for future interventions either during overnight lane closures or during full bridge closures. Where repairs have been feasible under traffic, Mainroad has acted expeditiously to perform the needed repairs. Repairs that require full closure of the Bridge were completed from July 14 to July 17 along the un-rehabilitated portion of the deck (Pier 9 to Pier 29).

In addition to performing concrete deck repairs to the South Approach bridge spans, TransLink also sealed cracks and performed a delamination survey on the rehabilitated portion of the deck (between Pier 0 and Pier 9). To take advantage of a full weekend closure, TransLink also inspected and repaired/replaced, the following:

- Luminaire posts;
- Missing/damaged centerline delineators;
- Faded road markings; and,
- Remaining railings on the east side of the Bridge.

5. Emergency Management

In July 2017, a tabletop exercise was conducted to assess preparedness for responding to an emergency closure of the Pattullo Bridge. Representatives from TransLink Engineering, TransLink Communications, Transit Police, Mainroad (bridge operations and maintenance contractor), and COWI (bridge structural engineers) were present to discuss and to simulate a scenario requiring an emergency closure of the Bridge.

As a result of the exercise, the emergency response plan is being updated to document protocols and identify key contacts and lines of communication, and to identify all resources and stakeholders involved in the response to an emergency.

6. 2017 Freshet Monitoring Survey

Twice a year, Northwest Hydraulic Consultants Ltd (NHC) survey the scour impacts of low/high river discharges and large tidal variations, which generate reverse flow and large localized river velocity at the Pattullo Bridge. The 2017 freshet survey was completed on June 21, 2017. Preliminary findings of the survey were shared by NHC and indicate that protection at both Pier 4 and Pier 5 are displacing. While the protection remains effective, temporary upgrades may be required before the existing Pattullo Bridge is replaced. A report summarizing the findings will be completed in Q4 2017.

NHC continues to suggest that bi-annual surveys be replaced or supplemented with a real-time scour monitoring system. This was previously investigated by COWI and was not recommend given the short remaining service life of the existing bridge and the fact that scour around the piers has been relatively stable for a number of years. However, as scour can be induced by construction activities of the Pattullo Replacement Bridge, Management is currently reviewing the need to implement a real-time scour monitoring system, as well as securing stockpiles of geotextile bags with sand to allow expeditious implementation of additional scour protection as needed.

Customer Impact and Communications

A full closure of the Bridge occurred on the weekend of July 14 to July 17 to perform deck repairs (*see item 4 above*). While emergency vehicles were permitted to cross the Bridge at all times, all other vehicle traffic, including the N19 transit route, were diverted to an alternative crossing. Cyclists and pedestrians were permitted to use the sidewalk on the west side of the Bridge. A robust communications plan successfully supported the closure.

Financial Impacts

All monitoring, inspection, and repair work is being performed under existing approved operating and capital funds.

TO: Board of Directors

FROM: Sany Zein, Vice President - Infrastructure Management and Engineering

DATE: August 30, 2017

SUBJECT: Millennium Line Broadway Extension Project Update

EXECUTIVE SUMMARY

TransLink is leading design development and procurement readiness activities for the Millennium Line Broadway Extension (MLBE) Project, in partnership with the City of Vancouver and the Province. The MLBE Project will be an approximately six-kilometre extension to the Millennium Line from VCC-Clark Station to Arbutus Street via a primarily underground alignment beneath Broadway. The current phase of work, focused on activities to prepare for the future procurement process, is funded jointly by the federal government, provincial government, and the region.

Current activities include: preparation of a final Business Case for the Project; advancement of a technical program including reference design development and geotechnical fieldwork; preparation of draft procurement documentation; and engagement with stakeholders, the public, and aboriginal groups.

The Project Team is currently focused on technical activities in support of finalizing the Project Business Case by September 29 2017. Subject to full project funding, the procurement process would be initiated in 2018; operations on the Extension could commence in 2025.

PURPOSE

This report provides an update on procurement readiness activities for the Millennium Line Broadway Extension Project.

BACKGROUND

The Millennium Line Broadway Extension (MLBE) Project was prioritized in the 10-Year Transportation Vision developed by the TransLink Mayors' Council on Regional Transportation in 2014. The MLBE Project will be an approximately six-kilometre extension to the Millennium Line from its current terminus station at VCC-Clark Station to a new western terminus station at Arbutus Street in Vancouver. The Project will transition from the elevated station at VCC-Clark to an underground alignment, tunnelled beneath Broadway. In total, the Project will include six new underground stations.

In November 2016, the TransLink Board of Directors and the Mayors' Council approved TransLink's 2017-2026 Investment Plan: Phase One of the 10-Year Vision (Phase One Plan). The Phase One Plan includes funding to advance pre-construction activities for the MLBE Project; this funding is provided jointly by the federal government, provincial government, and the region through Phase One of the Public Transit Infrastructure Fund. Full funding for the Project will be confirmed through a future update to TransLink's Investment Plan.

Planning and design activities for the MLBE Project are led by TransLink, in partnership with the City of Vancouver and the Province. Current activities include: preparation of a final project Business Case; advancement of a technical program including reference design development and geotechnical fieldwork; preparation of draft procurement documentation; and engagement with the public, stakeholders, and aboriginal groups. The present phase of Project development work is guided by the MLBE Project Board, which is comprised of senior management from TransLink, the Province, the City of Vancouver, and Partnerships British Columbia.

DISCUSSION

Project development work is currently focussed on procurement readiness and completion of the final Project Business Case. Subject to project funding, the procurement process would be initiated in 2018; operations on the Extension could commence in 2025.

Update on Current Project Activities

The Project Team is currently undertaking an extensive work program across a set of integrated areas of activity, as described below.

Engagement – The second phase of public and stakeholder engagement took place between May and July 2017 and included: multiple stakeholder meetings; four stakeholder workshops attended by 71 individuals; three public open houses with 876 attendees; and an online questionnaire. The goals of the engagement process were to provide stakeholders along the route and the public with an update on the project, report back on what was heard through previous consultation activities, and gather feedback on design features and construction management strategies. Feedback from these events generally indicated strong support for the Project. The Project is widely viewed as an opportunity to improve the transit experience along the Broadway Corridor and accommodate growth in Metro Vancouver.

The third and final round of stakeholder and public engagement for the Project's procurement readiness phase will take place in early 2018. This round will include sharing progress regarding design parameters and construction requirements, as well as reporting from technical studies.

Business Case and Due Diligence – The MLBE Project Team is currently preparing the final Project Business Case, which will underpin funding approvals from senior governments. The Business Case will define the capital cost estimate for the Project’s reference case design and present the findings of a procurement options assessment. The Business Case will reflect guidance received from the Due Diligence process, through which an independent panel of experts reviewed initial design and construction concepts for the Project. The Project Team plans to finalize the Project Business Case by September 29 2017.

Technical Program – The Project Team is undertaking an extensive technical program focused on engineering design development, technical specifications, geotechnical fieldwork, and environmental studies. The technical program will develop capital cost estimates at the level of confidence required for the final Business Case and will provide the technical inputs for the preparation of procurement documents. Input from the engagement program will also be reflected within the design development process.

Procurement Preparation – As part of the current phase of work, the Project Team will develop draft procurement documentation, which will support a formal procurement process following the confirmation of full project funding. Partnerships BC is leading this area of work. Further to a rigorous review of options, Management selected a Design Build Finance (DBF) delivery model for the project, similar to the Evergreen Extension of the Millennium Line. Upon completion of MLBE, TransLink through BCRTC will continue to operate and maintain the entirety of the Millennium Line.

Environmental – The MLBE Project does not trigger a formal environmental assessment under the provisions of applicable provincial or federal requirements. In the absence of such a formal assessment process, TransLink will undertake environmental studies to analyze potential environmental impacts of the Project, to seek input from the public, stakeholders, and aboriginal groups, and to develop any required mitigations.

Customer Impact

None at this time.

Communications Implications

The next phase of public and stakeholder engagement will be expected to generate significant interest in the Project. A communications strategy to support the public engagement process will be developed. The strategy will reflect the input and review of the Project’s Strategic Communications Steering Committee, which consists of senior staff from the Project Team and communications staff from TransLink, the Province, and the City of Vancouver.

TO: Board of Directors

FROM: Sany Zein, Vice President, Infrastructure Management and Engineering

DATE: August 31, 2017

SUBJECT: South of Fraser Rapid Transit Project Update

EXECUTIVE SUMMARY

TransLink is currently completing planning, design and procurement readiness for the Surrey-Newton-Guildford (SNG) Light Rail Transit (LRT) Project, in partnership with the City of Surrey and the Province. The procurement readiness activities are funded under the Public Transit Infrastructure Fund (PTIF) program. The 10.4 km 11-stop LRT project will connect Newton Town Centre, Surrey Centre and Guildford Town Centre along King George Boulevard and 104 Avenue with at-grade rail service.

The current phase of work includes design refinement informed by a due diligence process, preparation of a final project Business Case including a final Capital cost estimate, preparation of procurement documents, preparation of environmental studies, and preparation of project agreements.

Construction of Early Works funded by PTIF is scheduled to start in 2018. Subject to full project funding, the procurement process will start in 2018 with construction set to begin by 2019.

PURPOSE

This report provides an update on project development activities for the South of Fraser Rapid Transit project.

BACKGROUND

The South of Fraser Rapid Transit project is a land use shaping initiative to organize the rapid economic growth in Surrey and Langley along transit corridors, and to help achieve regional goals of sustainable growth, reduced congestion, reduced emissions and reduced auto-dependency. Phase One of the 10-Year Vision directs TransLink to advance planning, design, consultation, environmental review and development of draft procurement documents for the project in preparation for a future procurement phase. Phase One also allocates funds towards Early Works construction projects for the Surrey-Newton-Guildford (SNG) LRT (the first stage of the South of Fraser Rapid Transit project). Most of the Early Works are funded from senior government through the Public Transit Infrastructure Fund.

The current procurement readiness work for the SNG LRT is guided by a Project Board comprised of senior staff from TransLink, the Province, the City of Surrey and Partnerships BC. Current project activities include preparing project agreements, environmental field studies, preparing procurement documents, geotechnical investigations and technical work to refine scope and cost estimates and prepare the final project Business Case.

DISCUSSION

BUSINESS CASE UPDATE / DUE DILIGENCE PANEL REVIEW

Significant work to prepare an updated Business Case was completed over the summer months. Taking comments from the independent due diligence panel that was engaged late in 2016 to review the draft business case, the following updates to the design of the LRT corridor and other key input considerations were made:

- The Project Team and the City of Surrey jointly reviewed the impacts on road users and emergency service response along the 104 Ave portion of the proposed LRT Corridor. The result is a modified road cross-section that enables better incident management. Further, the corridor was reviewed end to end to find additional opportunities to increase capacity of the traffic lanes without compromising adjacent land.
- A second and closer review of the alignment along the King George Boulevard portion of the alignment enabled the team to identify property cost savings as well as better alignment and stop location solutions. Working closely with the City's urban planning and engineering staff, the team was able to reach consensus on an overall complete street cross-section that is more fluid and flexible to changes in right-of-way widths without compromising on the urban integration of the overall corridor.

Further work to refine the analysis is underway with a target to complete the revised Business Case by September 29 2017.

PUBLIC ENGAGEMENT

Engagement is ongoing and is divided in the following three stages:

Stage 1: Re-engage, January 2017 (Completed);

Stage 2: Consult, June 2017 (Completed);

Environmental Terms of Reference: Comment period, November 2017;

Stage 3: Inform, scheduled for January 2018.

Stage 2 consultation included two Stakeholder Workshops and three Public Open Houses held between June 13 and June 29, 2017. The purpose of this stage of engagement was to provide a more comprehensive view of the current project design, obtain feedback on key aspects of the project including the Initial Environmental Evaluation Summary, and prepare the complete scope of the environmental review.

High level results show strong support for LRT's convenient, street-level, accessible, level boarding features and strong interest in using LRT once it's complete.

ENVIRONMENTAL REVIEW UPDATE

The SNG LRT Project does not trigger a formal environmental assessment under the provisions of applicable provincial or federal requirements. In the absence of such a formal assessment process, TransLink is undertaking an Environmental and Socio-economic Review (ESR) program to advance key environmental studies. The Review will identify suggested mitigation measures for consideration during the implementation phase.

OTHER PROJECT UPDATES

The Project Team is completing a fully encompassing technical program focused on further developing the details around the current LRT alignment design. This includes further traffic modelling, urban realm and stop design, trackway and power engineering design, technical specifications, geotechnical fieldwork, and operations and maintenance plan development.

The technical program will reconfirm capital cost estimates to a level of confidence needed for the final Business Case and will provide technical inputs for the preparation of procurement documents. Input from the engagement program will also be reflected within the design development process.

Management is working to confirm a suitable delivery model ahead of the final Business Case.

The Project Team continues to draft procurement documentation (Request for Qualifications and Request for Proposals) that will support the formal procurement process following the confirmation of full project funding.

As part of the partnership approach being adopted for this project, three agreements are under preparation to enable both TransLink and the City of Surrey to jointly execute key elements of the project. The Memorandum of Understanding, Master Agreement and Supportive Policy Agreement will define the roles and responsibilities of each party at every stage of the project.

CUSTOMER IMPACTS

The Project Team is developing detailed community relations and business liaison programs as part of construction mitigation planning.

COMMUNICATIONS IMPLICATIONS

A joint TransLink-Surrey Communications Plan has been established to provide a supportive framework for ongoing project communications. The plan reconfirms the common vision and clarifies roles, responsibilities, and protocols between project partners. It reflects the input and review of the Project's Communications Steering Committee, which consists of senior staff from the Project Team and communications staff from TransLink, the Province, and the City of Surrey.

TO: Board of Directors

FROM: Geoff Cross, Vice President Transportation Planning & Policy

DATE: August 23, 2017

SUBJECT: Extension of Langley Community Shuttle Service Contract

PROPOSED RESOLUTION

That the TransLink Board of Directors authorize Management to negotiate and execute a one-year agreement with First Transit to operate community shuttle services in Langley from January 1, 2018 to December 31, 2018.

EXECUTIVE SUMMARY

Management is seeking a one-year service contract extension with First Transit to operate the Langley community shuttle bus service.

This extension to December 31, 2018 is required to advance the planned reallocation of community shuttle contracts to improve customer service and financial efficiency.

This extension will ensure service continuity for customers through 2018. It will provide sufficient time for the issuance of a new Request for Proposal (RFP), evaluation and award, and any service transition required for January 1, 2019.

PURPOSE

Management is seeking board approval for a one-year, and final, service contract extension with First Transit to operate the community bus shuttle service in Langley in 2018. This extension will also include an amendment to operate routes C70 and 372.

BACKGROUND

On December 21st, 2012, TransLink entered into three (3) service operating contracts with First Transit to operate Community Shuttle bus services in Langley (5 routes), New Westminister (3 routes) and Tsawwassen First Nations (1 route). This was done to be consistent with the Board direction in 2007 that 15% of community shuttle services operate under contract.

The term of these agreements ran from January 1, 2013 to December 31, 2015 with options to extend each contract up to a further two additional years. At the end of 2015 and at the end of 2016, TransLink exercised these options and the contracts to operate community shuttle bus service in the Tsawwassen First Nations, New Westminister, and in Langley were extended to the end of 2017.

As described in the May 8, 2017 Board Report regarding Planned Reallocation of Community Shuttle Contracts, upcoming community shuttle contracts will be reallocated to reduce operating costs and improve customer service while maintaining the current proportion delivered by private contractors. Coast Mountain Bus Company (CMBC) will take over operations of the routes currently operated under

the Tsawwassen First Nations and New Westminster contracts, with contracted services maintained in Langley and potentially expanded to Ridge Meadows.

DISCUSSION

TransLink staff are preparing for an RFP to be issued for operation of community shuttle services in Langley and Ridge Meadows. RFP structure will enable awarding to one, or multiple vendors depending on market response.

To allow for sufficient time for RFP issuance, evaluation and award, including service transition should the successful proponent not be the incumbent operator, Management proposes requesting to extend First Transit's contract for community bus shuttle service operations in Langley by one year, to December 31, 2018.

The anticipated issue of this new RFP will be in Q1 of 2018. The transition of services, if required, for the Langley community shuttle service and the commencement of the Ridge Meadows community shuttle services will occur by January 1, 2019.

Customer Impact

This contract extension is required to ensure service continuity for existing Langley Community Shuttle services and customers through 2018, including sufficient time for a seamless transition in the event a different service operator in 2019 following the RFP process.

If this recommendation is approved, TransLink will be working closely with the service provider to ensure that the final budget amount is consistent with current 2018 operating budget projections for CMBC shuttle service operations.