

TO: Board of Directors

FROM: Kevin Desmond, Chief Executive Officer

DATE: December 7, 2017

SUBJECT: Public Delegations at the September 28, 2017 Board of Directors Meeting

EXECUTIVE SUMMARY

The Board received two public delegations at its September 28, 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 response to topics raised by public delegations at the TransLink Board meeting on September 28, 2017.

BACKGROUND

On September 28, 2017, the TransLink Board of Directors received two public delegations on the following topics:

- Suggestion that sidewalks and ramps should be improved for visually impaired customers, and Access Transit users should be regularly consulted on system design; and
- Concern that the South of Fraser Light Rail Transit project will have negative environmental and community impacts.

DISCUSSION

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

- **Access Transit** – Management confirmed that the accessibility of conventional transit services, including the adjacent walkways, continues to be priority of TransLink as we upgrade a number of SkyTrain stations and bus exchanges.
- **Surrey Rapid Transit Project** – Management advised that, since the 105 Avenue Connector project is being undertaken by the City of Surrey, questions regarding environmental and community impacts should be directed to the City. In addition, information regarding the status of the Surrey-Newton-Guildford Rapid Transit project was provided.

BCRTC recognized 15 employees who reached service milestones in 2017. This included six employees who reached 25 years of service and nine who celebrated 30 years of service to the company.

TransLink Strategic Priority: Customer First

BCRTC's corresponding business plan initiatives related to this strategic priority.

Improve Customer Experience and Public Support: "We will run a reliable, effective and efficient rail system that supports a great passenger experience."

- Our frontline staff provided excellent customer service for the Canada 150 celebrations. In anticipation of large crowds, BCRTC ran more frequent and longer service than a regular Saturday. Compass data from Canada Day saw 332,625 boardings; a 41% increase from Canada Day 2016. BCRTC's Operations department is utilizing Compass data to enhance its staff and service planning for major events, and alternate service to accommodate maintenance and capital works.
- The brand new west stationhouse entrance at Metrotown Station was opened to the public. The new entrance includes four new escalators and two elevators. These new elevating devices significantly improves passenger flow and access for customers.
- Commercial-Broadway station reached a major milestone in the station upgrade project with construction of the new overhead walkway across Broadway. The walkway is a key feature of the upgraded station's new look.

Improve Customer Experience and Public Support: "We will work with our employees to meet our customer first objectives."

- Three staff from Rail were accepted into the inaugural TransLink Green Belt Lean Academy. This supports an initiative in the business plan to have cross discipline problem solving teams in BCRTC and across the enterprise in order to lead continuous improvement initiatives to support the business.
- An audit of BCRTC's Customer Service department, including its policies, procedures and practices was conducted in Q3. The goal of the project is to assess the department to find opportunities to enhance our customer experience, in order to better service our passengers. Findings and outcomes to be delivered in 2018.

Improve Customer Experience and Public Support: "Improve Resiliency and Response to Service Disruptions"

- To minimize recovery times and improve our response to significant delays, BCRTC staff are debriefing on all service delays greater than 30 minutes in length. These debriefs have identified opportunities for improvement which have been implemented whenever possible.
- In addition to debriefs, BCRTC will begin monitoring service delays of >11 and <15 minutes; >16 and <30 minutes, and >30 minutes. The purpose of these new monitoring indicators is to define location and cause of these delays while ensuring lessons learned are applied, and our infrastructure trends can be pre-empted and dealt with.
 - On November 3, we had a service delay on the Expo Line impacting morning rush hour service. Investigation into the root cause is underway but initial findings suggest a collector assembly broke off one of our trains and landed in the guideway, damaging a cable which impacted communications to our Control Room computers which stopped nearby train operations. Many of our customers were greatly inconvenienced on that day and were left

disappointed despite our best efforts. We thought it was important to acknowledge the concerns and frustrations of our customers with a personal letter from BCRTC's President & GM Vivienne King.

- Q3 saw a noticeable spike in track noise complaints, 108 in July and 57 in August. A large portion of these complaints originated along the Evergreen Extension. This complaint spike coincides with proactive rail grinding on the Evergreen Extension performed by BCRTC in July and August. Additional grinding and polishing work in September has improved the decibel levels in the "hot spots" and corresponds with the complaints returning to "normal levels" in September (29 complaints). TransLink and BCRTC are working on a comprehensive Noise project, covering all facets of noise along our lines, including station, train and track noise.

TransLink Strategic Priority: State of Good Repair

BCRTC's corresponding business plan initiatives related to this strategic priority.

Ensure a State of Good Repair: "We deliver a safe, secure and reliable rail system by maintaining our assets effectively."

- BCRTC completed its annual Expo Line Running Rail Replacement Project, as part of the SkyTrain Rail Asset State of Good Repair Program. Of the 5,000 metres scheduled to be replaced as part of this project, 3,800 metres of rail were replaced in Q3. This phase of the project included the replacement of a curved section at Main Street – Science World station.

This challenging work was successfully completed on September 23 and 24, ahead of the allotted 16-hour timeframe. During this work, BCRTC provided additional staff and launched shuttle trains in the work area to provide more customer service and move people through the affected work area to alleviate platform crowding.

- The Railway Infrastructure team performed the following track maintenance work to ensure the system is safe and reliable:
 - Component Replacement
 - Three switch machines replaced. One each at Lougheed, Moody Centre and Main Street Stations.
 - Point and stock rail replacement at the OMC1 yard and VCC-Clark Station.
 - Controlled Isolation Section replacement at a Sapperton Station electrical switch.
 - Turnout (Rail Switch) Replacement
 - Two turnout replacements. One each at King George and Joyce Stations.
 - Platform Intrusion Emergency System (PIES) Repairs
 - PIES were repaired at Joyce, 22nd Street, Main Street and New Westminster Stations.
 - Rail Grinding
 - Over 60 kilometers of rail grinding was performed in Q3. Grinding work over the summer focused on both the Expo and Millennium lines, as well the Evergreen Extension. Rail grinding work on the Evergreen Extension was performed in order to match the rail profile with the rest of the system. A uniform rail profile that matches train wheels is a necessary part of operating an efficient railway.

Ensure a State of Good Repair: "We will focus resources on the continuous improvement of our people, business tools and structure to ensure a safe and reliable rail system."

- The Health, Safety, Training & Environment (HSTE) department re-established the Emergency Services Committee with jurisdictional First Responders. One of the first acts of the committee was to conduct train lifting exercises with Surrey, Vancouver, Burnaby and New Westminster fire departments. Port Moody and Coquitlam Fire were trained on this critical procedure prior to the

opening of Evergreen.

- The Maintenance division has substantially completed its documentation of Standard Operating Procedures for the Expo and Millennium lines. Q4 for will see the team begin work on documenting Evergreen SOPs.

Ensure a State of Good Repair: “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 Q3, the Customer Service & Performance Reporting (CEPR) team did a soft-launch of Rail’s first Visual Management Centre (VMC). A VMC provides a simple and yet effective solution to communicate key performance indicators and act as a key engagement opportunities for staff to see how their day-to-day efforts contribute to the performance and success of the organization.
- With a fully formed CEPR team, work to enhance the process for Key Performance Reporting for rail customer service is maturing with much of the report automatized and operationalized. Robust customer service KPI data will allow the rail company to identify trend or gaps in customer service and address them more effectively.

TransLink Strategic Priority: Deliver Mayors’ Plan

BCRTC’s corresponding business plan initiatives related to this strategic priority.

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

- BCRTC continues to support rail related projects contained in the Mayors’ Council 10-year transit and transportation vision. Bombardier has begun manufacturing the Mark III vehicles outlined in the Mayors’ vision and are on target to meet the contractual delivery date.
- BCRTC is also supporting the preliminary work for the Millennium Line Broadway Extension and the South of Fraser rapid transit project.

Key Performance Indicators

Key Performance Indicators	SkyTrain (excluding Canada Line)				West Coast Express (WCE)			
	YTD Sep 2016 Actual	YTD Sep 2017 Target	YTD Sep 2017 Actual	Variance to Target Fav / (Unfav)	YTD Sep 2016 Actual	YTD Sep 2017 Target	YTD Sep 2017 Actual	Variance to Target Fav / (Unfav)
On-time performance ¹	95.4%	95.0%	95.2%	0.2%	97.0%	97.8%	97.7%	(0.1%)
Overall mystery shopper score ²	94.8%	95.0%	95.3%	0.3%	98.2%	97.0%	99.5%	2.5%
Lost time frequency ³	3.22	2.95	4.62	(1.67)	–	–	–	–
Major passenger injuries per 1m boarded passengers ⁴	1.1	1.1	1.2	(0.1)	0.5	0.3	1.7	(1.4)
Operating cost ⁵ per vehicle km	\$2.96	\$3.09	\$2.96	Δ \$0.13	\$12.06	\$13.93	\$13.89	ΔΔ \$0.04
Operating cost ⁵ per passenger km	\$0.14	\$0.16	\$0.15	Δ \$0.01	\$0.22	\$0.23	\$0.24	ΔΔ (\$0.01)

- 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. OTP for SkyTrain has been improving, as it now stands at 0.2% above target. This has been helped by only six delay events exceeding 30 minutes in Q3 2017

WCE OTP has remained stable at 97.7% so far in 2017, the same result as the end of Q2 2017, although still slightly under target.
- 2 The overall mystery shopper score for Expo/Millennium lines still remains above target, but did drop slightly in Q3 (down from 95.6% at the end of Q2). This is mostly due to missing advertisements in the advertising panels.

WCE's mystery shopper score has been improving, as it now stands at 99.5%, up 0.2% from the end of Q2. The overall score for Q3 2017 was a near perfect 99.9%, a record for WCE.
- 3 There were six accepted claims in Q3, bringing the YTD rate down to 4.62. Although still over target by 1.67, the rate has been dropping every quarter. The high rate is due to Q1, when there were 14 accepted claims.

WCE has had no employee LTAs since 2000.
- 4 The injury rate is now at 1.2, down from 1.4 at the end of Q2. The injury rate for each month of Q3 finished below the target of 1.1, the first time that has happened in the past three years. Slips and falls, whether they be on stairs/escalators, or due to the emergency brake, continue to be the majority of reported SkyTrain passenger injuries.

The WCE rate has remained stable at 1.7. They have had one passenger injury per quarter so far this year, as compared to only one in total throughout the first three quarters of 2016.
- Δ Expo and Millennium results for the first three quarters of 2017^ψ were 4.6% 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 three quarters were 2.7% 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 September 30, 2017, BCRTC is not aware of any *significant* uninsured legal claims.



PRESIDENT & GENERAL MANAGER REPORT December 6, 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. In conjunction with SkyTrain, the group is planning a public awareness campaign to improve passenger safety.

Access Transit

- Pacific Cabs (White Rock) and Alouette Taxi have agreed to enter into a pilot project with HandyDART wherein taxi drivers will wear HandyDART safety vests when performing HandyDART taxi trips. This will help our customers recognize the taxi driver and improve the customer experience.
- Access Transit Service Delivery (ATSD) management held a semi-annual meeting with representatives from health authority Day Programs and Renal Dialysis. ATSD management also met with employees and customers of Semiahmoo House Society to discuss emerging plans and current issues.
- ATSD provided a travel training presentation for Douglas College students with cognitive or physical disabilities on how to use transit safely and effectively as they join the workforce. Access Transit invited Transit Police to join in presenting. CMBC covered how to take the different forms of transit (conventional, SeaBus, etc.), Compass Card purchase and usage, and displayed the use of TransLink's Trip Planner.

Transit Supervisors and Transit Communications

- Operations Support implemented a new deployment model for the Transit Supervisors, effective October 2, 2017. This new model has identified designated "home bases" for Transit Supervisors in areas with high bus and customer movements. This strategy focuses on improving overall operator performance, on time performance, limiting radio traffic received by TComm, and increasing availability and visibility to our customers.
- Transit Communications Supervisors are piloting a new area-based radio coverage deployment model. The intended results are to improve the response and wait times Operators experience when calling into TComm.
- Operations Support has introduced public announcements (PA) and Passenger Information Display announcements (PID) for major service disruptions. This information keeps customers informed and decreases customer complaints.

Security

- Transit Security has combined the positions of General Security Patrol and General Inspection Officer to form the new position of Transit Security Officer. This amalgamation allows for the entire Security workforce to all perform the same day-to-day duties, bring consistency to enforcing fare evasion and greatly improve effectiveness and visibility on the bus system.

Community Shuttle

- Following the move of three routes from CMBC to West Vancouver Transit, an additional three will be moved from First Transit to CMBC. The switch will result in cost savings through schedule efficiencies, and improved customer service with the addition of AVL data to the routes.

All-door boarding pilot

- The 95 & 96 B-Lines will be the focus of the all-door boarding pilot in an effort to reduce pass-ups and overcrowding at bus loops and exchanges. All-door boarding will decrease passenger boarding times and dwell times at bus stops contributing to improvements to overall speed of service. The pilot is expected to begin in late 2017 and span approximately one year.

Alexander Dennis Double Decker Bus Pilot

- Two (2) double decker buses arrived on the week of October 30, 2017 for a three-month revenue service pilot (tentatively planned to begin during the week of November 20, 2017). The plan is to operate the vehicles out of RTC with additional on routes based out of STC and PTC.

Winter weather preparedness

- A Snowy Weather Action Plan (SWAP) has been jointly developed by Maintenance, Operations and TComm to improve transit service to SFU Burnaby during significant winter weather. The SWAP includes an extended trial of fabric traction devices on the 40' buses that will be used to shuttle customers to and from SFU.
- In preparation for the upcoming winter season, Operations has been holding internal stakeholder meetings to ensure updated winter plans and initiatives are communicated to key departments throughout the enterprise. In addition, Operations Support has met with BCRTC and Canada Line staff to review Bus Bridge routings in the event of a shutdown due to inclement weather. Bus Bridge signage has been updated throughout the CMBC service area to make these routes easily identifiable to customers.
- CMBC established a Snow Events Committee in March 2017. The committee is improving communication between CMBC and the various municipalities throughout the Lower Mainland, and to developing priority routes that will keep passengers moving in the event of a major snow event.

Luggage Rack Pilot

- Installation of all five (5) luggage racks is complete.

Compass Lost and Donated Cards

- Completed the third quarterly pick up at five downtown Vancouver kiosk locations and delivered 152 cards to the Compass Care Centre where the remaining value on cards will be donated to the United Way.

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. SMS implementation for the Operations Division is well under way and expected to be complete in the spring of 2018.
- 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.
- As part of a revitalized Emergency Management program, CMBC participated with TransLink, BCRTC, and Transit Police Executive were trained on the principles of emergency management.

Environment

- YTD (Q3) 2017, CMBC's spill frequency is 8.0 spills/Mkm. Priority spills (those requiring outside assistance) is 1.0 priority spills/Mkm, and reportable spills (reported to Ministry of Environment) is 0.2 reportable spills/Mkm.
- Maintenance Engineering continues to develop and implement additional options to continue to reduce spills such as a coolant hose replacement program for specific leak-prone buses and "transit grade" silicone hoses.
- 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 2,370 GJ of natural gas – equal to 125 tonnes of greenhouse gas savings– are expected. The lighting portion of the retrofit is now complete and showing a 30% reduction in electrical consumption from Q3 2016.
- PowerSmart retrofits at Vancouver Transit Centre are in the detailed design stage, with expected completion of lighting retrofits by March 30 2018 and mechanical/control measures by July 1 2018. The facility energy consumption is expected to be reduced by 45% in natural gas and 28% in electricity. BC Hydro and FortisBC are partially funding both RTC and VTC projects.

Access Transit

- Access Transit Service Delivery (ATSD) has commenced an inventory of all existing HandyDART pick-up/drop off locations at SkyTrain and Canada Line stations for display on TransLink's website. Wayfinding for HandyDART customers is also being assessed with recommendations for improvements at these locations.

Surrey Transit Centre (STC) Building and CNG Upgrades

- The CNG fueling station and Maintenance Garage upgrades are scheduled for completion in January, 2018. Fortis BC and Canadian Utilities have excavated through the yard and completed the CNG gas line installation to the new CNG compound at the fuel island.

Radio Replacement Improvement Project

- The Radio Replacement Improvement Project (RRIP) received phase 1 capital approval in June.
- Field testing of twenty (20) buses equipped with the new routers is going well.

SeaBus Terminal and Administration Building Envelope Rehabilitation Project

- Work is in progress on the North Terminal, East berth. The project is scheduled for completion in December 2017.
- Construction on the South Terminal will begin in January 2018. The overall project remains on budget with a completion date of Q2 2019.

Financial Results

- The 2017 October YTD CMBC Operating Costs are \$5.9M or 1.25% favourable to plan and Access Transit and Contracted Transit Services are \$1.0M unfavourable for a combined total of \$4.9M or 0.9% favourable.

TransLink Strategic Priority: Deliver Mayors' Plan

Mayors' Plan Phase One

- CMBC continues its preparations for expanded service in 2018/2019. Retired buses will continue to be utilized for service expansion until the new vehicles arrive in mid-2018/early 2019.
- New Flyer (NFI) and Nova Bus 40' bus contracts have been executed with delivery to occur beginning in mid-2018 and ending in mid-2019. A Notice to Proceed has also been sent to NFI for the production and

delivery of 52 new Hybrid 60' articulated buses.

- The winter sheet change commences on December 18th, which includes scheduling improvements and regular seasonal service reductions. Overall, 30,000 annual service hours will be added for improvements across Metro Vancouver between December 18th and January 1st in addition to running time improvements to keep our service on time and reliable. The investment in improvements will help reduce overcrowding and wait times, as well as increase span of service.
- Damen Shipyards Group has relocated the construction of the new SeaBus vessel from Romania to the Netherlands. Vessel delivery target of Q4 2018 and in-service target of Q1 2019 remains.

Mayors' Plan Phase Two

- Preparation is underway for several major projects under Phase Two, including the Millennium-Broadway Extension, Surrey Light Rail, and a new operating depot for CMBC vehicles named Silvertree.

Millennium Line Broadway Extension Project

- The Millennium Line Broadway Extension (MLBE) Project will extend the Millennium Line from VCC-Clark Station to Arbutus. The project will result in major disruption to bus operations, including removing trolley overhead wires and reduced lanes on the central Broadway corridor. Construction of five new stations will further increase disruptions along Broadway at the major intersections of Main, Cambie, Oak, Granville and Arbutus.

T-ID replacement

- The system-wide T-ID sign replacement project will be fully underway at the start of the New Year and is targeted to be completed by December 2018. Areas in South Surrey and the Tri-Cities will be the first to have all of their bus stop ID plates replaced with T-IDs, which show route-specific information – route number, name and unique service type if applicable – on a larger, standardized, easy-to-read sign.

Farebox Replacement

- The farebox replacement project has been reduced in scope. Replacement of fareboxes on Community Shuttles will move to a simpler, mechanical farebox thus releasing Cubic fareboxes for use on conventional 40' & 60' expansion buses. An RFI will be released to gather industry information on basic mechanical fareboxes by early December 2017.

Key Performance Indicators ¹	Annual Target	Oct YTD Target	Oct YTD Actual	Oct YTD Last Year
Preventable Collisions per 1M kms ²	9.0	9.0	11.1	11.2
Employee Assaults per 1M service hours	20.5	20.5	19.5	21.3
Employee Lost Time Accident frequency (incidents per 200,000 hours worked)	7.0	7.0	8.7	8.7
Spills per 1M Km	8.0	8.0	7.9	7.3
CMBC Operating Cost per Km (excl. fuel)	\$5.41	\$5.39	\$5.46	\$5.32
On Time Performance				
Bus Regularity – frequent service	80%	80%	76.4%	76.2%
Bus Punctuality – infrequent service	85%	85%	78.2%	78.1%

Key Performance Indicators¹	Annual Target	Oct YTD Target	Oct YTD Actual	Oct YTD Last Year
Scheduled Service Delivered	99.5%	99.5%	99.4%	99.5%
Customer complaints per 1,000 service hours	5.4	5.4	5.5	6.0
Customer commendations per 1,000 service hours	0.78	0.78	0.69	0.69
Access Transit Trips Provided (thousands)				
HandyDART	1,186	989	941	930
Supplemental Taxi Service	102	85	105	111
Total Trips	1,288	1,074	1,046	1,041
Access Transit Denials	1,500	1,250	1,206	1,765
Access Transit Operating Cost per trip	\$40.50	\$40.19	\$41.98	\$39.20

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 timing of final adjudications. Current and prior year YTD data is at September 30.



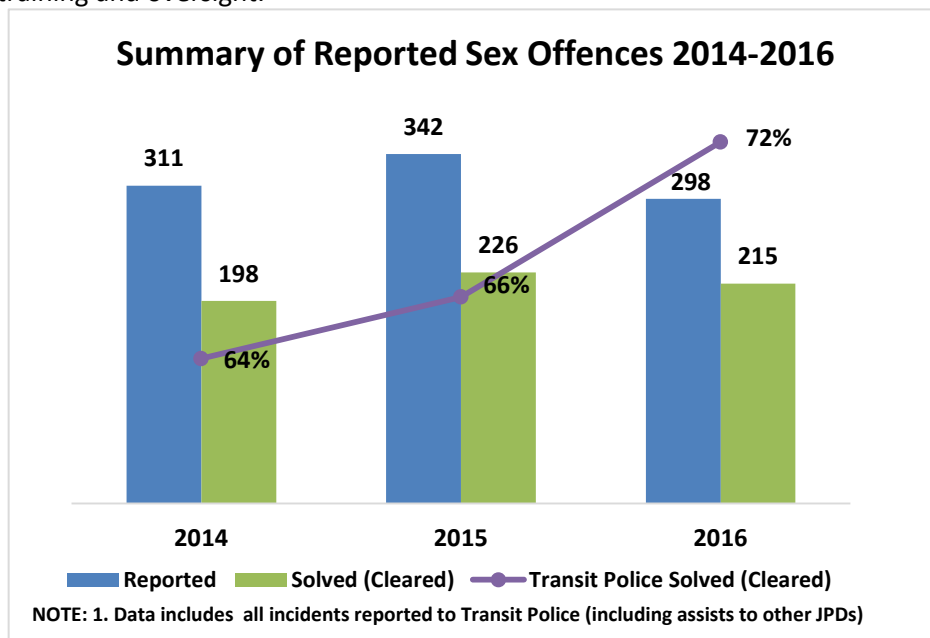
METRO VANCOUVER TRANSIT POLICE REPORT FOR DECEMBER 2017 TRANSLINK BOARD MEETING

Strategic Goals: Ensuring safety and security

- **Preventing and Investigating Sexual Offending on Transit**

A major operational priority of Transit Police is prevention and thorough investigation of sexual offences on the transit system. In the coming months, we plan to update the educational materials used by Transit Police to inform transit riders on how to report sex offences and the related importance to transit rider safety.

For Q1-Q3 2017, there were 223 reported sex offences; a 9% reduction from the same period in 2016. The trending charts below show the impact of the sex offence reporting campaign of Transit Police since it was launched in 2012, as well as the high Transit Police solve rate for sex crimes when compared to provincial rates. The solve¹ rate is significant in that it is improving because Transit Police is focusing on sex offences as an important issue, and reflects improved policies, training and oversight.



The Transit Police Offender Management Program (monitoring of released sex offender conditions) combined with our efforts to promote excellence in investigations, have contributed to increased solve rates, holding offenders accountable, improving the confidence of victims to report, and ultimately improved public safety.

¹ Police can clear an incident by charge or means other than laying a charge (e.g., an accused was identified and there was sufficient evidence to lay a charge in connection with the incident, but the accused is processed by other means for one of many reasons).

Incident Highlight – Sex Offender Identified and Arrested

On September 26, 2017, a female transit user boarded a 99B Line bus at Broadway and Fraser Streets in Vancouver. She was standing at the rear area of the bus, when a male groped her by grabbing her buttocks. She yelled at him and he let go. The victim was able to take a photo of the suspect. The suspect got off at Broadway and Main Street, as did the victim. The victim continued onto to a local café, and was followed by the suspect into the cafe. She turned and told him to leave and quit following her. The suspect left the café and the victim then reported the incident and sent the picture to Transit Police. A BOLF (Be on Look Out For) poster was completed and disseminated to attempt to identify the suspect and CCTV from the bus was ordered.

Later that day, Transit Police officers were conducting a fare enforcement initiative at Granville Station when a male approached them and advised that he did not have a ticket to get out of the fare gate. The Transit Police officers immediately recognized him as the suspect from the reported sex offence; he was wearing identical clothing to that shown in the picture taken by the victim. While checking the suspect's name on CPIC, it was learned that he was in breach of a Nanaimo Probation Order. Transit Police arrested the suspect for that offence and the sex assault that took place on the 99B line.

• Anti-Terror and Emergency Readiness

Anti-terror policing is a central element of the Transit Police daily policing practice. A range of obvious and discreet methods are employed by the Transit Police to detect, deny and deter any activity which poses a risk to the transit system:

- Our regular beat officer presence is supplemented by the daily deployment of our canine explosive detection teams (which included regular security sweeps of physical infrastructure by the canine teams).
- Transit Police are trained to respond to critical incidents on the transit system.
- We are fully engaged with local and regional policing partners, and partners responsible for matters of national security.
- We belong to an international community of transit policing practitioners and share strategies and best practices (*e.g., such as recently occurred at our 2017 "Policing Moving Cities" conference hosted in Vancouver by the Transit Police and Canadian Association of Chiefs of Police*).
- We seek to reduce the potential for any terror incident through active prevention measures, which is why we encourage "See Something, Say Something" messaging in collaboration with our transit system partners in Metro Vancouver.
- We encourage transit riders to use the Transit Police text code (87 77 77) or "See Say" App to advise us discreetly, in real time, of anything unusual on the system.
- We engage in "Operation Rail Safe" practice with our international partners and TransLink enterprise partners.
- In response to any terror incidents that arise related to



other transit systems, we employ a high-visibility policing presence to reassure our transit user community and deter those with criminal intent.

- We lead a continuum of safety and security practice in daily partnership with our TransLink enterprise partners.

Transit system staff are an integral part of prevention practice through their observation and reporting of suspicious circumstances. Transit Security, SkyTrain/Canada Line/SeaBus/West Coast Express Attendants, Bus Operators, Transit Supervisors along with Communications, Operations and Maintenance staff all contribute to system security. We have implemented a training program for transit staff on the HOT principle (Hidden, Obvious, and Typical) and reporting.

Of approximately 2500 attacks on transportation infrastructure worldwide since 1970, 300 devices were detected before they went off, by police, security, other staff or passengers.² Clearly vigilance and timely reporting can be effective in preventing incidents that pose a risk to public transit systems.

Incident Highlight – Suspicious Package Cleared Quickly

On October 10th, 2017, at 12:37 pm, a business within Waterfront Station contacted Transit Police with a report of a suspicious package being delivered to them (providing also a description of the alleged suspect and words spoken by the suspect). There was rapid response by Transit Police officers to the scene to investigate, and the Transit Police Explosive Detection Canine Team was requested. The Vancouver Police were notified and would monitor the file. The BC Rapid Transit Company (BCRTC) Control Center was alerted for situational awareness, and CCTV was requested and monitored concurrently. By 1:15 pm, the business premises and package had been searched and cleared by the Transit Police Canine Team, without impact to transit service.

All evidence was seized and statements taken by the Transit Police investigators, and further investigation proceeded. Transit Police identified the suspect, who suffers from mental health issues; in the past, he was apprehended by police under s. 28 of the *Mental Health Act*. A well-being check of the suspect was included within the investigation. For the purpose of threat analysis and intelligence sharing, Transit Police liaised with the Integrated National Security Enforcement Team (INSET), Real Time Intelligence Center, Vancouver Police and the Transit Police General Investigative Unit. This incident demonstrates the importance of coordination and collaboration between Transit Police, Jurisdictional Police, law enforcement units and the transit partners to address potential security risks, as well as the value of the capacity for a rapid response.

TransLink Strategic Priority: Customer First

- **Customer Engagement and Safer Journeys**

The Transit Police continues to enhance transit safety and community engagement through its hub policing model and the focused outreach of its Neighbourhood Police Officers (NPOs) and specialized client services officers. During January to August 2017, there was a significant increase in Transit Police engagement in community outreach events (over 155 events) to educate and inform customers, vulnerable persons, and prospective customers on the many safety features available to them when using the transit system. This includes how to report

² <http://www.independent.co.uk/news/uk/crime/parsons-green-latest-possible-to-protect-public-transport-from-terror-a7949966.html>

disorder, suspicious circumstances and possible crimes, and use of the Transit Police text reporting tool (87 77 77) to discretely communicate on incidents on transit where they are, or they witness, someone being harassed or a crime.

These safety outreach events are often done in partnership with other TransLink operating companies, community groups, local government and/or jurisdictional police.



One example is the September 21, 2017 public awareness campaign conducted at Scott Road Station that was initiated by the Transit Police NPO. The partners involved were Surrey Crime Prevention Society volunteers, Coast Mountain Bus Company/Transit Security Bike Team, and two bus operators.

During the eight hours of high visibility, the following took place:

- Over 1,000 transit riders were directly engaged in person by everyone involved;
- Over 2,000 of Transit Police SMS text (87-77-77) cards were distributed on cars and to riders; and
- 580 cars were checked by volunteers for the Lock Out Auto Crime audit (done by Surrey Crime Prevention Society).

Transit customers and the public were very positive when interacting with the campaign team.



(Mayor Ted Schaffer joins in the Pedestrian Safety initiative)

In October, similar outreach events also occurred across the transit system in conjunction with ICBC's pedestrian safety campaign. Two such events occurred in Langley where Transit Police, ICBC, RCMP Langley crime prevention, Fraser Health and City of Langley joined together. These collaborative campaigns promote safety and security, and support the transit 'safe journey' concept, as well as greatly enhancing ongoing working relationships and the potential for future joint initiatives.

- **New Broadway/Commercial Transit Police Kiosk**

In September 2017, a former shop at the Broadway/Commercial SkyTrain Station was converted into a Transit Police sub-office for officers working in the hub. The kiosk will also be periodically opened for pop-up events and information exchange with riders. The messaging on the innovative building wrap helps inform transit riders, promotes the "See Something, Say Something" strategy, and encourages transit riders to report disorder, suspicious circumstances and possible crimes.



TransLink Strategic Priority: State of Good Repair

- **Performance Measure Culture**

The Transit Police is an intelligence led and data driven police agency, and gathers comprehensive statistics in relation to crime and organizational performance. There is a robust performance analysis and measurement system in place through such mechanisms as:

- Command Accountability Review (CAR);
- Tactical Team Management (TMT) process for weekly crime targeting; and
- Offender Management Program (OMP).

In CAR, for example, senior staff meet monthly to present and review analysis on such areas as: crime and disorder, arrests, warrants, police operational activity, violence in the workplace, fare enforcement, risk management, human resources, finances, fleet, workplace injuries, *Police Act* conduct complaints, information technology and communications.

Incident Highlight – Protecting Transit Passengers and Community

On September 29th, 2017, Surrey RCMP distributed a bulletin (through the joint Real Time Intelligence Centre) requesting assistance to locate and arrest three male suspects wanted for Kidnapping, Assault with a Weapon and Pointing a Firearm. Mid-morning on October 3rd, two Transit Police officers identified one of the suspects at Columbia SkyTrain Station. The officers arrested the suspect without incident and transported him to the Surrey RCMP detention facility. The Surrey RCMP Serious Crime Unit then took custody of the suspect for their investigation. Sharing intelligence is important to solving crime and maintaining safe urban transit and the broader community.

The Transit Police shares statistical/performance information with the public, TransLink and stakeholders through a variety of tools, including the Transit Police annual report to the community, five year trend report, Strategic Plan status reports, and submissions to the TransLink enterprise financial and annual business plan reports. A snapshot of key statistics for Q1 to Q3 2017 is provided below:

Transit Crime and Safety	2017 Q1-Q3	2016 Q1-Q3	% Change
Total Reported Police Files <i>(primary offence only – all offences)</i>	22,661	21,668	5%
<i>Transit Police Files</i>	<i>16,827</i>	<i>15,995</i>	<i>5%</i>
<i>Assist Files</i>	<i>5,901</i>	<i>5,673</i>	<i>4%</i>
Crimes Against Persons/100,000 Boarded Passengers	0.460	0.556	-17%
Crimes Against Property/100,000 Boarded Passengers	0.611	0.597	2%
Other Criminal Code Violations/100,000 Boarded Passengers	0.623	0.592	2%
Violation Tickets	8,545	4,931	73%
Arrests - Warrants Executed (All)	609	545	12%
Arrests – New Criminal Code Offences³	367	375	-2%
Total S. 28 Mental Health Act Apprehension Files	131	132	-1%
Sexual Offences (incl. assist to JPDs)	223	245	-9%
SCBCTA Fare Bylaw Infractions	14,700	18,526	-21%
SMS Text (87 77 77) Conversations	2,098	2,293	-9%
Transit Conduct and Safety Regulation Files <i>(excludes 24hr refusals)</i>	6836	2208	210%
<i>24 Hour Refusals</i>	<i>477</i>	<i>299</i>	<i>60%</i>

Of positive note for the Q1-Q3 2017 period when compared to the same period in 2016:

- The number of Crimes Against Person per 100,000 Boarded Passengers decreased by 17%;
- There was a 12% increase in the number of Transit Police arrests for outstanding criminal warrants (includes RCMP, Municipal and Transit Police issued warrants);
- There continues to be a focus on arrests for *Criminal Code* offences, in particular crimes against persons (e.g., assaults, sexual offences and robberies) and crimes against property (e.g., theft and mischief);
- The majority of the significant increase in both Violation Tickets and *Transit Conduct and Safety Regulation* files are associated to the Transit Police active observation and enforcement of the new provincial offences regarding the misuse of fare gates on the TransLink system⁴. There has also been increased attention to transit safety rule compliance issues (e.g., misuse of emergency exit, fail to obey a sign/rules, obstruct police officer). It is these increased interactions that also often lead to Transit Police making arrests for outstanding criminal warrants or breaches of court-imposed conditions).

³ Captures arrests in UCR Codes 1000, 2000, 3000 and 4000 only.

⁴ The amended *Transit Conduct and Safety Regulation* came into effect March 2017. Neither the Transit Police Officer nor the offender needs to be inside the **fare paid zone** to issue a ticket to a person who commits an offence under s. 8(4) of the *Regulation*. Because the person has committed an “offence”, the Officer has lawful authority to briefly detain the person outside of the fare paid zone. There is not a specific offence for the failure to “**tap in/tap out**”; however, persons who do not “tap in/tap out” will contravene section 8(4)(d) – “going through a fare gate that was not opened by that person”. Accordingly, Transit Police can issue a ticket on that basis.

TO: TransLink Board

FROM: Geoff Cross, VP, Transportation Planning and Policy

DATE: December 1, 2017

SUBJECT: Transportation Impact of Eliminating Bridge Tolls

EXECUTIVE SUMMARY

Analysis on the transportation impact of eliminating tolls on the Port Mann and Golden Ears Bridge has been conducted and a presentation on the findings will be provided at the next Board meeting. This memo serves as an overview of the work, lays out the context and provides a summary of the results in advance of the presentation.

PURPOSE

It has been three months since tolls were eliminated on the Port Mann and Golden Ears Bridges. During that time, staff has been conducting analysis to understand the associated transportation impacts using data from September and October of 2017 as well as historical data.

BACKGROUND

On September 1, 2017 the BC Provincial Government removed the tolls from the Port Mann and Golden Ears Bridges. Understanding changes in travel behaviour as a result of road pricing is extremely important in the current context of Metro Vancouver since the region recently embarked on a process to study and potentially implement a mobility pricing policy across the region. One of the major objectives of the mobility pricing commission is to reduce congestion through the use of pricing and that can only be achieved through travel behaviour changes.

Actual case studies of road pricing and tolling are rare. Prior to the current toll removal the two instances of dramatic pricing changes within Metro Vancouver (i.e. introducing of tolls on the above two bridges) were accompanied by major infrastructure changes and as such presented significant challenges in isolating the impacts of tolling. Therefore, taking advantage of the current opportunity is extremely important and germane to understanding the potential demand management potential of pricing.

DISCUSSION

The analysis focused on the following three types of impacts: traffic on Fraser crossings, travel times between town centres and transit ridership. Together these provide a fairly complete picture of travel behaviour changes in the study area. The main findings of the analysis are:

- Traffic on bridges across the Fraser –increased by 30,000 trips on weekdays and 32,000 on weekends (7% and 9% respectively) compared to the same period in 2016. Most of the increase in crossings is due to destination changes and new trips.
 - Traffic across the Port Mann and Golden Ears bridges increased by close to 30%, while the other bridges experienced various degrees of traffic decrease (Pattullo -11%, Alex Fraser -5% and Massey -2%).
 - The number of truck trips increased by 30% on the Golden Ears Bridge and 15% on the Port Mann and decreased by 19% on the Pattullo.
- Analysis of travel times between town centres depicts mixed results – for example, it is faster to travel from Surrey and Coquitlam to New Westminster at peak evening traffic, while travel times of trips from Vancouver to New Westminster and Surrey have increased.
- Removal of tolls from the two bridges had only a slight dampening effect on transit ridership across the river. Ridership growth rate across the river was 11.2% in September and October compared to 11.8% earlier in the year. .

It's worth mentioning that prior to the toll removal the Regional Transportation Model was applied to forecast the impact of changes. The model forecasts were close to the actual outcomes on all three types of impact.

TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning and Policy

DATE: November 12, 2017

SUBJECT: Custom Transit Service Delivery Review: Update on Implementation of Recommendations

EXECUTIVE SUMMARY

On March 30, 2017 the Board of Directors endorsed a series of recommendations to improve HandyDART service developed as part of the Custom Transit Service Delivery Review (CTSDR). This report updates the Board on the implementation of the policy recommendations.

Staff have made good progress on implementing the near-term recommendations while building plans for recommendations with a phased, multi-year rollout. Accountability for each recommendation has been allocated to either TransLink Access Transit Planning or CMBC Access Transit Service Delivery.

Most significant progress includes the transition of HandyDART Customer Feedback to CMBC Access Transit Customer Care as of October 2017, reporting out on wait times, extension of the day-before reservation window, adjustments to improve the advance warning call and modifications to improve dispatching and parameters in the scheduling software.

PURPOSE

The purpose of this report is to update the TransLink Board on the status of implementing the recommendations of the CTSDR.

BACKGROUND

In June 2016, the TransLink Board committed to undertake a review of the policies and delivery model for HandyDART, which is TransLink's custom transit service. On March 30, 2017, the Board endorsed recommendations on both HandyDART policies and the service delivery model, with a focus on improving customer experience and increasing availability of service. On May 25, 2017, Management provided an update on the status of implementing the CTSDR recommendations. Good progress continues on advancing these recommendations.

DISCUSSION

The recommendations approved by the Board in March 2017 were structured in two components. The first was a series of policy recommendations and actions to improve the customer experience of taking HandyDART. The second component pertained to the service delivery model.

One element of the service delivery model recommendations was for the TransLink Enterprise to assume responsibility for the customer feedback function. As described in the CTSDR Report, customer

feedback serves as an essential way for TransLink to receive information on the status of service and how it can be improved. It offers an important accountability and oversight of the service. The transition of HandyDART Customer Feedback function was scheduled for the start of the next contract, however, staff have been able to action this sooner. HandyDART complaints and commendations were brought in-house to Access Transit Customer Care at CMBC on October 1, 2017.

The contract with MVT Canadian Bus, Inc was extended to June 30, 2018 and a procurement process has been underway since April 2017 to determine the provision of both the call centre functions and the trip delivery beginning July 1, 2018. Recommendations based on this process will be provided in a subsequent report.

Consistent with the format of the recommendations approved by the Board in March 2017, the following tables provide updates on the policy recommendations to improve the HandyDART customer experience.

Objective - improve customer experience by improving reservation convenience

Action	Progress
Extend the HandyDART booking reservation window to 4 p.m. by mid 2017.	Commencing May 1, 2017 the deadline for booking next day HandyDART trips was extended from 12 noon until 4 p.m. On average, approximately 3600 requests per month have been accommodated between noon and 4 p.m. for next day trips. The majority of these trips were accommodated with denials of these requests at approximately 20 per month. Trip denials year to date are at a low rate of 0.12 percentage of trips delivered.
Continue to pursue online booking options and determine the financial implications.	Staff are exploring web booking tools with Trapeze, TransLink's technology solution provider in this area. A request for options for online booking was included in the RFP issued in July 2017. It is anticipated that online booking options will be in place by Q4 2018.

Objective - improve customer experience by reducing wait times

Action	Progress
Develop strategies to improve the performance of the 10-minute advance warning of vehicle arrival, for completion by the end of 2017.	<p>A review of the 'advance warning of vehicle arrival' telephone call identified some underlying issues that have been resolved. For example, on October 1st adjustments were made in the system settings to ensure a more accurate estimate of vehicle arrival time at a customer pick-up. Sample data from September 11 and November 1 show an improvement of 25%, with 68% of vehicles arriving within 5 minutes of the reminder call versus 43%.</p> <p>Other actions underway include working to ensure correct phone numbers to minimize incomplete calls, continuing to identify underlying causes of late or incomplete calls and taking steps to rectify these issues.</p>
Add wait times to the	In May, HandyDART wait times and on-time performance were added

<p>TransLink Accountability Dashboard by end of 2017.</p>	<p>to TransLink’s online Accountability Centre and are updated monthly. For the month of September, 52% of customers waited less than 15 minutes while another 36 % waited between 16 and 30 minutes for pick up. 12% of trips were picked up late, past the 30 minute window. https://www.translink.ca/Plans-and-Projects/Accountability-Centre.aspx</p>
<p>Complete a feasibility assessment to reduce wait times by end of 2017.</p>	<p>Work is underway to determine the impact on productivity of making adjustments to settings to have HandyDART arrive more often in the first half of the pick-up window. A question was added to the annual “HandyDART Customer Service Performance” survey performed by Ipsos, asking customers their preference regarding when HandyDART arrival within the pick-up window. The results will inform this assessment work.</p>

Objective - improve customer experience by reducing travel times

<p>Action</p>	<p>Progress</p>
<p>Complete a feasibility assessment by end of 2017 on implementing a policy where trips take no longer than 1.5x the duration of the same trip on the conventional system.</p>	<p>A report and analysis is underway, nearing completion, that compares the duration of rides on HandyDART and conventional system. Also, the potential to use software (Trapeze IPA) that compares travel times between the two services is being reviewed.</p>
<p>Continue to improve dispatching.</p>	<p>Several improvements have been made to the real-time management of trip delivery. These include:</p> <ul style="list-style-type: none"> - adding extra time for drop offs and/or pickups of large groups to minimize running later; - actively working with customers to book trips in between 15 minute increment times, e.g. booking trips at 12 noon; 12:05; 12:10 instead of only on the quarter hour; - using new Dispatch tools, such as pop-up windows showing already booked trips on vehicles in 10-minute increments to assist Dispatchers in placing more trips onto vehicles where space is available;
<p>Engage a specialist to review all parameter settings in the scheduling software by end of 2017.</p>	<p>A former developer of the software provider was hired on by the HandyDART Service Provider’s parent company and reviewed all scheduling settings in use at HandyDART. This review recommended a improvements, such as:</p> <ul style="list-style-type: none"> - negotiating trip pick-up times with customers within the allowable window of time; - changing travel speed times in known problem areas (e.g., bridges during rush hours); - removing estimated times from driver display terminals, - displaying to drivers the pickup time as the beginning of the 30 minute window versus the middle; and

	<ul style="list-style-type: none"> - refresher training for drivers on when to press arrive, trip start, etc. on their onboard computers. <p>The majority of the recommendations have been implemented and the remainder are in progress.</p>
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Objective: improve customer experience by continuing to use and enhancing HandyDART taxi service

Action	Progress
Develop an implementation plan by the end of 2017 for a taxi driver training program.	A recommendation for a partnership with external stakeholders is in progress to provide standardized taxi training focussed on supporting the diverse needs of HandyDART customers. Staff are working to have a plan in place by July 2018 to roll out this important training.
At the conclusion of the current contract cycle, taxi service agreements be transferred to TransLink (from MVT) to allow for direct oversight by TransLink and build in performance levers. Other mechanisms to achieve customer service standards from taxis and new opportunities for customer feedback on taxis will also be investigated.	<p>Service level agreements/contracts with non-dedicated trip delivery providers (e.g. taxis) are planned for the start of the new contract term (July 1, 2018).</p> <p>In September 2017, an online web form was rolled out to accept feedback on HandyDART Taxi trips from customers. The feedback form arrives directly in-house to CMBC for follow up and response as part of the HandyDART feedback process. Customer concerns are investigated with the taxis company and appropriate action taken, as required.</p> <p>The form is available on the TransLink website at this link: https://www.translink.ca/Rider-Guide/Accessible-Transit/HandyDART/HandyDART-Taxi-Feedback-Form.aspx</p>
Explore technical solutions to integrate HandyDART and taxi scheduling software for tracking customer pick-up/drop-off information by early 2018.	Staff are actively pursuing this matter. They are looking at piloting various software, however, this requires integration of different software systems and this presents challenges that need to be considered and worked through.
Implement policy by the end of 2017 making high visibility signage mandatory for all taxis performing HandyDART trips	<p>All taxi companies performing HandyDART trips already have a sign with the HandyDART logo to display in their window, which they are required to display. However, it has been difficult to ensure consistent use of these signs. Even if the signs are displayed, many customers picked up at a doorway do not have visual contact with the vehicle to see the signage. In 2018, as TransLink pursues a direct contractual relationship with taxi providers, performance levers and incentives will be built in to ensure policies are followed.</p> <p>To help customers identify taxi drivers performing HandyDART trips, a trial program has been created and will be conducted with two taxi partners (Maple Ridge and White Rock). The trial will involve outfitting the taxi drivers in these two areas with safety vests</p>

	displaying the HandyDART logo on the front and back. These safety vests will be worn by the taxi driver while picking up HandyDART customers. The trial is on target to start in December 2017.
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Objective - Ensure HandyDART trips are available for customers when they need to use the HandyDART system

Action	Progress
Deliver sufficient HandyDART trips to meet customer demand	Through the Mayors' 10 Year Vision, HandyDART service is being expanded by adding 15 percent more hours between November 2016 and 2019. An additional 85,000 trips were made available in 2017. In 2018, another 47,500 trips will be made available. In 2019, a total increase of 170,000 more trips will be in place.
Develop an implementation strategy for the Family of Services approach and include a phased, multi-year rollout.	While preliminary fact finding is ongoing, developing a Family of Services approach has not yet begun.
Develop an implementation plan for a Travel Training Program in 2017 and implement the program in 2018.	<p>Preliminary work is underway to leverage the learnings of other transit agencies that deliver travel training as an integral part of their paratransit offering. Resourcing for implementing a travel training program for persons with disabilities is part of the 2018 budget.</p> <p>TransLink provides information on request. Douglas College approached CMBC looking for resources to train students with cognitive or physical disabilities on how to use transit safely and effectively as they join the workforce. CMBC attended and provided a presentation covering how to take the different forms of transit (conventional, SeaBus, etc.), Compass Card purchase and usage, and displayed the use of TransLink's Trip Planner. Transit Police also attended and provided information about how to use transit safely. A large number of faculty staff observed the presentation and provided excellent feedback and requested additional presentations for other campuses. For future presentations a bus will be provided to demonstrate boarding/loading/unloading and the use of lifts and wheelchair restraints.</p>
Continue to make improvements to the accessibility of the conventional system through established guidelines and policies, and with the support of the Access Transit Users' Advisory Committee.	Staff continue to consult the Access Transit Users' Advisory Committee on implementing accessibility improvements across the system. For example, the UAC is currently involved in reviewing accessibility features for South of Fraser Rapid Transit. A work plan item for 2018 is to develop a comprehensive accessibility framework for the conventional system. This framework will define TransLink's policy on accessibility and describe the standards and approach to be followed to achieve a more universally accessible service. A current example of improving accessibility is the fare gate access project that is deploying long range RFID technology to support persons with limited or no hand or arm function to open the Compass gates

	without tapping a card.
Immediately establish a working group with customers, stakeholders and staff to develop an implementation strategy for an eligibility process that provides substantive information on registrants' abilities by end of 2017 that includes a phased, multi-year rollout.	<p>TransLink is engaging the Users' Advisory Committee on how the process to review the registration/eligibility should be undertaken, including how to best engage with customers and other stakeholders. This review will look at the full registration process, broader than just eligibility. For example, the current registration process does not have a clearly laid out mechanism for appeals.</p> <p>Next steps include additional stakeholder engagement in early 2018 to finalize the process to move forward on this recommendation and develop a multi-year rollout by March 30, 2018.</p>

Objective - ensure that HandyDART is appropriately funded

Action	Progress
Continue to advance analysis on how best to forecast demand for HandyDART service.	Forecasting demand for custom transit is more complex than forecasting demand on the conventional system and is strongly influenced by both the accessibility of the conventional system and policies and availability of the custom service. Staff are working with peer agencies to understand and potentially adopt their existing forecasting tools. An understanding of demand for custom transit in Metro Vancouver is important with those aged 70 and older expected to increase by 55 % over the next ten years. The most recent addition of service hours to HandyDART is meeting demand.
Work with senior government and agencies and develop opportunities for funding solutions for HandyDART and other accessibility improvements.	<p>Management has briefed members of the new provincial government on the predominant role of HandyDART to access provincially funded medical services and our interest in senior government funding to support that function.</p> <p>To inform these discussions, TransLink staff have met with Vancouver Coastal Health leaders to share information and identify ways to work together. Fraser Health is represented on the Access Transit Users' Advisory Group. Substantive discussions have begun with senior staff at the Ministry of Municipal Affairs & Housing.</p>

Stakeholder Engagement

TransLink continues to engage with members of the CTSDR Stakeholder Advisory and other stakeholders. This is done through written correspondence, one-on-one conversations, and through the Users' Advisory Committee. People that participated on the Advisory Committee or attended one of the five workshops held in conjunction with the CTSDR have been invited to an in-person session on December 1, 2017 where staff will provide an update to stakeholders on the status of the CTSDR policy recommendations.

Next Steps

Staff continue to implement the recommendations and refine plans for the near-term as well as preparing for the longer term roll out over multiple years.

TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning and Policy

DATE: December 4, 2017

SUBJECT: Universal Fare Gate Access Program Soft Launch

PROPOSED RESOLUTION:

That the TransLink Board of Directors:

- A. Approve the eligibility criteria and application process for the Universal Fare Gate Access Program as set out in this Report; and
- B. Authorize TransLink to provide the RFID Card delivered through the Universal Fare Gate Access Program as valid fare media at no charge to residents of the transportation service region who are persons who travel independently and due to a disability, confirmed by a medical practitioner, are physically not able to tap fare media, without assistance, at a Compass Fare Gate, to use conventional SkyTrain and SeaBus, until December 31, 2018.

EXECUTIVE SUMMARY

In June 2016, the TransLink Board directed staff to implement long-range Radio Frequency Identification (RFID) enabled access at the Compass fare gates. This RFID solution, delivered as an RFID Card through the Universal Fare Gate Access Program, provides a means to open the Compass fare gates without tapping a Compass Card for customers who are not able to do so. Meetings between Program applicants and health professionals (i.e. Occupational Therapists) will be scheduled by Access Transit Customer Care to discuss the best way to place the card on their person to allow for consistent and reliable access through fare gates. Those who are not eligible for the RFID Card would be enrolled in TransLink's assistive devices program to ensure that customers are able to access the gated transit system.

Full system readiness is forecast to be available in late 2018. In January 2018, approximately 40 per cent of stations will be installed with RFID readers and a number of back office processes still need to be finalized. Therefore, a soft-launch of this Program and the RFID technology is proposed. To facilitate the soft-launch, Management is recommending that customers enrolled in the Universal Fare Gate Access Program be issued the RFID card at no charge, and that the card serve as valid fare media on the gated system (SkyTrain and SeaBus) under the *South Coast British Columbia Transportation Authority Transit 2013 Tariff*, until the RFID system is fully implemented in late 2018.

PURPOSE

This report is to provide background on the Universal Fare Gate Access Program, the soft launch and seek approval for a fare exemption and approval of the eligibility criteria and application process.

BACKGROUND

The launch of Compass, including fare gates, has provided new levels of convenience, reduced fare evasion and helped to increase ridership across the region. In 2016, TransLink began an infrastructure project with the objective of adding hands-free access to the gated transit system for those customers with a disability who wish to travel independently but are physically not able to tap fare media at Compass fare gates. The short term solution approved by the TransLink Board and implemented in July 2016 was an expanded Station Assistance Program and an Assistive Devices Program. The long term solution endorsed by the Board at its June 23, 2016 meeting was the implementation of long range Radio-Frequency Identification (RFID) technology to allow hands-free access at fare gates. This RFID Card sends a signal to long range RFID readers to open the Compass gates. This technology has been successfully installed and tested at Production-Way, Edmonds and Burrard SkyTrain stations and has been positively assessed by stakeholders who have worked with staff throughout the project. It is delivered to our customers through the Universal Fare Gate Access Program. This hands-free technology is at the forefront of the industry. World-wide, no other transit authority offers this type of access to a gated transit system.

DISCUSSION

Universal Fare Gate Access Program

1. Eligibility Criteria

TransLink staff developed the Universal Fare Gate Access Program to deliver the RFID Card to customers who, due to a disability, are physically not able to tap fare media to open Compass fare gates and for whom currently available assistive devices do not enable tapping. Over the past year, stakeholders representing potential users have been engaged in guiding the development of this Program. Through this process, we have learned that there are many underlying conditions that might prevent a person from physically tapping at Compass gates, including physical trauma such as amputation, neurological conditions such as MS, Parkinson's disease, spinal cord injury, stroke, etc., as well as developmental disabilities such as Cerebral Palsy. Accordingly, and through stakeholder guidance and input, Management recommends the following eligibility criteria for the Program:

Resident of the Transportation Service Region who is a person who travels independently and due to a disability, confirmed by a medical practitioner, is physically not able to tap fare media, without assistance, at a Compass Fare Gate, to use conventional SkyTrain and SeaBus.

2. Application Process

Management recommends that the following application process for the Universal Fare Gate Access Program be approved:

- Customer completes an application form which is then reviewed by Access Transit Customer Care. For those who are already enrolled in the HandyDART and HandyCard programs, verification by a medical practitioner is not required;
- A meeting is set up at a SkyTrain station between the applicant and a third party health professional, i.e. Occupational Therapist, contracted by TransLink. The intent of this meeting is to confirm consistency with the eligibility criteria, review the specific needs of the applicant as well as ensure that the customer is able to experience consistent and reliable access through fare gates using either the RFID Card or a Compass Card with an assistive device;
- After the meeting, and upon a recommendation by the Health Professional to Supervisor, Access Transit Customer Care, enrolled customers will receive an RFID card customized with their name, given information on how the system works, and issued its terms and conditions of use. Those who are not enrolled in the Program will be referred to TransLink's assistive devices program and have an appeals process available.

3. Soft Launch and Fare Policy

Full roll-out of the hands-free system is anticipated in late 2018 and includes deployment of the RFID technology at all stations and the associated systems to collect and process data and payment. As the systems are not yet fully in place, it is recommended the RFID Card be provided to eligible participants at no charge on a temporary basis until December 31, 2018. Therefore, management recommends a soft-launch of the Universal Fare Gate Access Program until such time as full system readiness is achieved. Customers who receive the RFID Card through this program will receive it as part of a soft-launch and will be made aware that they will be subject to applicable fares when the soft-launch period ends.

The primary purpose of the soft-launch is to ensure that commitments for hands-free access to Compass fare gates are met while simultaneously ensuring a positive customer experience for those users who are enrolled in the Universal Fare Gate Access Program. Approximately 40 per cent of SkyTrain stations will have RFID readers installed by January 2018. Since the fare policy of the Program is to mirror existing fare products and functions as much as possible, fares must be calculated based on 'tap-in' and 'tap-out', similar to (but separate from) Compass. As not all gates will be deployed by the time the Program is launched, customers who 'tap-in' using the RFID Card at one station may require the Station Assistance Program to exit at another. In this instance, we would be not able to determine how far an individual has travelled and properly assess the fare to be charged. This assessment can only occur after full deployment of the RFID Card readers across the gated transit system, which is anticipated to occur in late 2018.

Secondly, a soft launch also provides an opportunity to gain a better understanding of the size of the customer group. We are working on identifying the individuals who may wish to enroll in the Universal Fare Gate Access Program and receive the RFID Card for hands-free fare gate access but it is currently unknown how many participants there will be. This has implications for the design, operation and deployment of the program's back-end systems and business processes. For example, a larger user group may warrant the design of a more automated fare management system, while a smaller user group may require something more modest. A soft launch will allow for the proper sizing of the systems necessary to operate the Universal Fare Gate Access Program.

Upon full installation of the RFID technology across the gated transit system, Management anticipates returning to the board with options for the long-term Program, including seeking an amendment to the Tariff to include the RFID Card in the Tariff as fare media subject to the applicable fares under the Tariff.

TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning and Policy

DATE: December 7, 2017

SUBJECT: Custom Transit Service Delivery

RECOMMENDATION

That the Board of Directors authorizes:

- A. Management to negotiate a contract with First Canada ULC to operate custom transit services (HandyDART), including call centre functions and trip delivery functions, beginning July 1, 2018, for an initial term of three to four years, and with the option for TransLink to extend the term for two additional one to two year periods; and
- B. The Chief Executive Officer or his designate to execute a contract with First Canada ULC to operate HandyDART services, on terms satisfactory to the CEO.

EXECUTIVE SUMMARY

On March 30, 2017 the Board of Directors endorsed a series of recommendations to improve HandyDART service. The recommendations, developed as part of the Custom Transit Service Delivery Review, included a directive to engage in a Request for Proposals (RFP) for Custom Transit Services.

The existing HandyDART service provider received a contract extension through June 30, 2018. Since the March Board meeting, staff has engaged in a rigorous procurement process to gain an understanding of the current market, assess prospective vendors, and provide recommendations for the preferred HandyDART service delivery model and respective provider.

Management is seeking approval to negotiate and execute a contract with First Canada ULC for the provision of custom transit services (HandyDART), including the call centre functions (i.e. booking, scheduling and dispatch) and the trip delivery functions (i.e. operations and maintenance of vehicles). The term of the contract would be for an initial term of three to four years, with the option to extend for two additional periods of one to two years each.

BACKGROUND

HandyDART is a critical component of the public transit system in Metro Vancouver. Approximately 5000 trips are provided each weekday to customers with disabilities when they are unable to use the conventional system without assistance. Over the course of a year, this represents 1.2 million trips. The majority (approximately two-thirds) of these trips connect people to health services such as renal and cancer treatments, medical appointments and day programs.

As with other elements of the transit system (e.g. West Coast Express, Canada Line, some community shuttle services, conventional buses serving West Vancouver), HandyDART is a contracted service and is

not operated by a subsidiary company of TransLink. HandyDART services have always been operated under contract in Metro Vancouver. Prior to 2009, the service was provided by seven different organizations and was fragmented into eight geographic areas. In 2009, the service delivery was consolidated into one area and operated under a turn-key contract.

In 2016, actions were taken to bring greater oversight, accountability and improvements to the HandyDART service, representing a shift from a more arms-length approach to HandyDART that TransLink and Coast Mountain Bus Company Ltd. (CMBC) had previously taken. TransLink is responsible for every customer, on every part of our transit system, regardless of who operates the service. In June 2016, internal structural changes were made within the TransLink Enterprise to ensure enhanced oversight and accountability were in place, including the creation of the Director, Access Transit Service Delivery position, reporting directly to the GM and President, CMBC. This is consistent with the approach taken for management of conventional bus services that are operated under contract. A comprehensive review of the policies that impact customer experience and of the service delivery model was also launched in July 2016. Known as the Custom Transit Service Delivery Review (CTDSR), there were two areas of focus:

1. Review of HandyDART policies that influence customer experience and availability of trips.
2. Review of the service delivery model (e.g. whether elements of the service are contracted out or provided by the TransLink enterprise), including a Public Sector Comparator financial analysis.

Engagement with stakeholders and customers was integral to this review. A Stakeholder Advisory Committee was convened with membership drawn from existing HandyDART customers who represent users from different geographic regions in Metro Vancouver, a representative of HandyDART frontline staff, as well as representatives from health and advocacy agencies with responsibilities or influence toward a broad segment of HandyDART ridership. This committee met eight times over the course of the review. Additional engagement included two larger workshops, in person meetings, and survey conducted online and by paper.

On March 30, 2017, Management presented the findings of the review and the recommendations of the Stakeholder Advisory Committee. The Board endorsed the recommendations, directing TransLink to undertake actions in nineteen areas to improve the customer experience of taking HandyDART by:

- Improving reservation convenience
- Reducing wait times
- Reducing travel times
- Continuing to use and enhance taxi service
- Taking steps toward ensuring trips are available for customers when they need to use HandyDART
- Taking steps toward ensuring HandyDART is appropriately funded

An update on the progress made on the board directives to achieve these objectives is provided in a separate report that will be presented at the December 14 public Board meeting.

On March 30, 2017, the Board also passed four resolutions regarding the service delivery model that have guided this procurement process. These resolutions are attached as Appendix A.

Effective October 1, 2017, responsibility for receiving complaints and commendations on the HandyDART service no longer resides with the service provider. This function is now provided by Access Transit Customer Care at CMBC. Customer feedback serves as an essential way for TransLink to receive information on the status of service and how it can be improved. It offers an important accountability and oversight of the service. There is no change to the phone number that customers call – the menu option to provide feedback now routes the customer directly to CMBC.

DISCUSSION

Procurement Process

On July 4, 2017, TransLink issued a public Request for Proposals (RFP) for the provision of HandyDART services starting July 1, 2018. The deadline for submission was September 15. The structure and the content of the RFP was informed by the findings of the CTSDR, the recommendations of the Stakeholder Advisory Committee, and two workshops held in May with customers and stakeholders on the performance standards, measures and thresholds that a future provider would be expected to achieve.

This RFP laid out a “menu” format and separate proposals were requested for (1) call centre functions, (2) trip delivery services and (3) both call centre and trip delivery (turnkey). The RFP also included an option for proponents to bid on providing a portion of the trip delivery services. Service levels and performance standards (described as Key Performance Indicators) required to achieve a high level of customer experience and operational efficiency were set out. Proponents were asked to build a program and provide detailed responses to questions structured into technical areas to demonstrate how they would achieve the requirements. These areas included:

- Qualifications and Experience (e.g. company and project experience, key personnel)
- Project Set up and Methodology (e.g. transition plan, facilities)
- Technology and Info Management (e.g. software management, data security)
- Core Mandates:
 - Customer Service (e.g. customer safety, trip quality, travel reliability, vehicle reliability)
 - Personnel Management (e.g. recruitment, training, and retention)
 - Administration (e.g. feedback, reporting, continuous improvement)

Proponents were also required to submit commercial components of detailed pricing information and corporate financial information.

The evaluation team was composed of representatives from TransLink System Planning, Strategic Sourcing, CMBC Operations, and CMBC Access Transit Service Delivery. An evaluation framework and weightings based on the technical and commercial components was determined in advance of the competition close date. Commercial information was not provided to the evaluation team until after the initial technical evaluation was completed. Subject matter experts in corresponding business areas within the enterprise were consulted and asked to provide feedback on portions of proposals. A Steering Committee at the VP level was also established to receive a recommendation from the evaluation team.

TransLink received bids from a total of 10 companies, some of whom completed submissions for multiple proposal areas. The proposals were reviewed to assess:

- Completeness of the submission: Did the proposal respond to the scope of work?

- Explicit service requirements: Was the proposal consistent with our specific instructions about the aspects of the business structure? For example, to comply with privacy requirements, all of TransLink's personal information data associated with this contract must remain in Canada.
- Project set up and methodology: Did the proponent demonstrate an ability to plan and set up service, per the program they proposed by the July 1, 2018 requirement?
- Ability to perform services: Did the proponents show a documented ability to perform the services as outlined in their proposals, supported by submission of processes, policies and procedures?

This initial review and scoring yielded a shortlist of three companies. Staff initiated a clarification process with the shortlisted companies by receiving presentations from the companies, and followed up by issuing comprehensive clarification questions based on the individual proposals. Staff issued and received a second round of clarification questions and responses to inform the pricing information, final scoring and the selection of vendors for the service delivery model.

Service Delivery Model Selection

Direction from the Board was to conduct a detailed procurement process to assess market response and assist in determining (a) whether the call centre function should be provided by the TransLink enterprise or a contractor; and (b) whether the operation of dedicated vehicles should be provided by one contractor or multiple contractors.

Call Centre

The decision on the provision of the call centre function includes both financial and qualitative aspects, such as the quality and reliability of the service product to the customer and the level of risk associated with implementation. These risks include:

- Subject matter expertise for set up and operations;
- Changing personnel requirements;
- Timelines and expertise associated with innovation and service improvements;
- Transition planning for services at the beginning and end of the service term; and
- Timelines associated with achieving transition, and corresponding impacts to service.

Among these potential risks, the core qualitative concerns for TransLink to take over the call centre function are level of expertise in the core mandates of running the call centre components, particularly trip booking, scheduling and dispatching and the technology systems that support this. The shortlisted companies all have extensive expertise in running custom transit call centre operations and are able to draw on resources from across North America to support local operations. The level of subject matter expertise required to directly manage and supervise custom transit operations would need to be acquired as it is not an existing resource in the organization. Acquiring and developing this expertise would be at least a multi-year endeavour. A compounding concern is the nimbleness that would be required of the organization to meet the required commencement date for services on July 1, 2018 and ensure a smooth transition and improve the customer experience.

The CTSDR included a value for money assessment (known as a Public Sector Comparator analysis) of seven custom transit service delivery models, including the existing model and a completely in-house model. This initial assessment indicated that an in-house model would be more expensive than outsourcing some or all of the service functions. The recommendation and analysis was based on the

existing knowledge of TransLink operations, market information provided through consultants, and an initial assessment of the marketplace.

The Board directed staff to verify the findings of the Public Sector Comparator, through the procurement process, with proposal pricing information to inform the decision on who is best to deliver the call centre functions. PricewaterhouseCoopers (PwC), the firm that conducted the original Public Sector Comparator (PSC), was retained to update this analysis for the call centre component with information from the vendor proposals.

The attached summary report provided by PwC (Appendix B) summarizes the methodology and the findings. The findings of the verification show, compared to current market information, an in-house model will be more expensive than outsourcing to a contractor over an initial 3 year contract period.

Management recommends that TransLink not bring the call centre functions in-house at this time. This recommendation is based on both the value for money, which could be reinvested into customer service, to make more trips available and/or to improve the quality of the customer experience. Moving to an in-house call centre operation in 2018 would likely result in a degradation of service quality compared to current levels and fall short of the desired service improvements a new contract would deliver.

Trip Delivery

Since no proponent submitted a proposal to operate only a portion of the trip delivery services, the option of assigning the operation of dedicated vehicles to multiple providers was eliminated.

Recommendation

First Canada ULC (which includes the Canadian operations of First Transit and First Student, two of the operating divisions of the UK-based parent company First Group PLC) achieved the highest overall score in all three components of the RFP (call centre, trip delivery and turnkey).

The outcome of the technical evaluation demonstrates that First Canada is the best company to ensure a successful start-up and smooth transition and achieve the performance standards and improve service for our customers. First Canada have demonstrated that they have extensive experience in delivering custom transit services, including call centre functions (e.g. booking, scheduling, dispatching) and trip delivery (e.g. vehicle operations and maintenance). First Canada operates 10,000 vehicles across Canada, including custom and conventional bus, school buses, and long-distance coaches. They currently operate HandyDART services in Victoria, BC.

The Board of Directors directed Management to require proponents to offer employment to employees of the incumbent operator on a preferential basis. First Canada's proposal states that all union staff will be hired should they pass the Vulnerable Sector screening and First Canada's Drug and Alcohol screening. This is consistent with the Board direction.

The Custom Transit Service Delivery Review identified that it may be advantageous to have the call centre functions and the trip delivery services delivered by separate organizations. While there are policy benefits to this approach (such as better supporting a family of services model), it is of paramount importance that TransLink ensure the highest possible standard of performance. First Canada was the best in both call centre and trip delivery. A turnkey scenario, with one company operating both

elements, is a worthwhile alternative when additional value can be achieved for customers, such as reinvesting savings into additional service hours, vehicles, or improved customer experience.

Management recommends that the CEO be authorized to execute a contract with First Canada ULC to operate HandyDart services, including call centre functions and trip delivery functions, as set out in this report

Appendix A:

The recommendations on the service delivery model directed management to:

1. Retain responsibility for the HandyDART Registration function and assuming responsibility for the Customer Feedback function within the TransLink enterprise;
2. Validate the findings of the HandyDART Public Sector Comparator (which indicate it is more costly for the TransLink enterprise to provide most service delivery functions) by conducting a detailed procurement process to assess market response and assist in determining (a) whether the call centre function should be provided by the TransLink enterprise or a contractor; and (b) whether the operation of dedicated vehicles should be provided by one contractor or multiple contractors;
3. Due to the specialized and personalized nature of HandyDART service, include, in future Request for Proposals for HandyDART service operations, the requirement for proponents to offer employment opportunities to HandyDART personnel employed by the incumbent contractor, on a preferred basis; and
4. Extending the existing contract with MVT Canadian Bus, Inc. for six months (to June 30, 2018).

Appendix B: TransLink Custom Transit Service Delivery Review: Public Sector Comparator-Call Centre Validation Summary Report

TransLink Custom Transit Service Delivery Review

**Public Sector Comparator –
Call Centre Validation
Summary Report**

*Prepared for TransLink
December 2017*





Notice to Readers

This document is issued by PricewaterhouseCoopers LLP (“PwC”)¹ to the South Coast British Columbia Transportation Authority (or TransLink), on behalf of and for the exclusive use of South Coast British Columbia Transportation, with respect to the Public Sector Comparator Call Centre Validation Analysis (“Analysis”). PwC has performed certain advisory services to assist South Coast British Columbia Transportation Authority in accordance with the agreed Contract dated 30 October 2017 and subject to the terms and conditions contained therein.

Our work did not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with the standards established by the Chartered Professional Accountants of Canada (CPA Canada). Accordingly, we do not express an opinion or any other form of assurance on the financial or other information, or operating and internal controls of the Project.

Our work was based primarily on information supplied by the Custom Transit Service Delivery Review Project Team (“Project Team”), including external advisors. It was carried out on the basis that such information is accurate and complete. Information was not subject to checking or verification procedures, except to the extent expressly stated to form part of this scope of our work.

It is our understanding South Coast British Columbia Transportation Authority intends to proceed with the procurement of HandyDART Custom Transit Services. Release of information contained within this report may cause damage to South Coast British Columbia Transportation Authority in any subsequent procurement process.

Actual results may vary from those presented and the variations may be material. The outputs of our analysis are provided only for planning purposes. No assurances are provided that the results indicated in the various analyses discussed in this document will be borne in practice. These forecasts may change based on additional analysis and data.

The reader agrees that PwC, its partners, employees, and agents neither owe nor accept any duty or responsibility to it, whether in contract or in tort (including without limitation, negligence and breach of statutory duty except to the Client under the relevant terms of the engagement), and shall not be liable in respect of any loss, damage or expense of whatsoever nature caused by any use the reader may choose to make of this report, or which is otherwise consequent upon the gaining of access to the report by the reader.

¹PwC refers to the Canadian member firm, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.



1. Background and Purpose

First launched in 1981, HandyDART is a door-to-door, shared ride service for passengers with physical or cognitive disabilities who are unable to use the conventional public transit. HandyDART service policies and standards have evolved over time without a comprehensive policy review or framework. The lack of federal legislation in Canada that defines the standard of Custom Transit services for people with disabilities has made it difficult to benchmark the performance of the service against public policy objectives. The TransLink Board of Directors (“Board”) raised concerns during meetings in 2015 and 2016, pointing the need for a comprehensive review of HandyDART policies and the current service delivery model.

TransLink initiated a Custom Transit Service Delivery Review in 2016. The scope of the review included defining HandyDART service objectives, research on peer agencies and industry best practices, and evaluation of service delivery options. PwC was retained as an independent consultant to support the Custom Transit Service Delivery Review with specific responsibility for evaluating the financial performance of a range of alternative service delivery models. As part of this work, PwC developed a public sector comparator (“PSC”) that considered the costs associated with the use of a fully in-house model to provide custom transit services throughout the Lower Mainland. The findings of the PSC analysis were incorporated into the final report which was presented to the TransLink Board of Directors (“Board”) during the March 30, 2017 board of directors meeting.

Following the presentation of the findings of the Custom Transit Service Delivery Review, including the PSC model analysis undertaken by PwC, the Board directed TransLink to proceed in going to market to invite bids using a request for proposals (“RFP”) procurement from prospective service delivery providers. In addition, TransLink was asked to revisit the PSC analysis during the RFP stage and specifically asked to validate the findings of the PSC analysis as it stands for the provision of call centre services for custom transit. This work would evaluate whether there was Value for Money (“VFM”) in providing call services in-house when compared to the cost of providing call centre services received as part of the custom transit RFP procurement.

TransLink initiated the procurement process for HandyDART call centre and passenger trip delivery services through the issuance of an RFP in July 2017 and bids were received in September 2017. PwC was asked by TransLink to complete the Call Centre PSC Validation Analysis (“Validation Analysis”). The results of the Validation Analysis presented in this report will be incorporated into the overall evaluation strategy and will be considered as part of TransLink’s communication to the Board.

For reference, the original PSC results completed in March 2017 as part of the Custom Transit Review indicated that some form of contracted delivery model would provide VFM ranging from 0.7% to 3.2% when compared to a fully in-house model. The only exception to this was a service delivery model where multiple contractors are used for service delivery, fleet maintenance, and facility ownership. The initial PSC did not include a scenario that quantified the VFM available from a contracted call centre model on a standalone basis. Therefore, the results of the Validation Analysis are not a like-for-like comparison to the initial PSC results. Due to this, the results of the Validation Analysis included in this report should not be directly compared to the initial PSC results, but instead be viewed as a separate analysis to validate the initial PSC findings.

2. Methodology and Approach

In order to validate the conclusions of the original PSC analysis, a revised PSC model was prepared. The original analysis had used a set of service delivery level assumptions that were consistent with the existing operation of the HandyDART service. These assumptions included using total annual service hours, total trips per hour, call waiting times at the call centre, and a total trip level. The same service delivery assumptions were then applied when developing the in-house and contracted-out alternative service delivery models. As part of the RFP process TransLink had asked bidders to provide an improved service level across a range of areas including aspects such as improved trip productivity, an increase in total annual trips, and reduced waiting times at the call centre. As a result, a revised in-house model needed to be developed to reflect the increased service delivery requirements.

In addition, the original PSC model included costs associated with all aspects of HandyDART operations, such as call centre, trip delivery, and post-trip services. For the purpose of the Validation Analysis, only costs related to call centre operations (which includes trip booking, scheduling, and dispatch) were included given the Board's specific interest in assessing whether the call centre function should be contracted or delivered in-house. Therefore, going forward, all references to cost base refer only to the sum of call centre mobilization and operating costs.

The figure below illustrates the components of costs that make up the cost base for each delivery option including "one off" mobilization costs and "ongoing" labour and overhead costs.



A total of four submissions from qualified bidders were received at conclusion of the RFP. The TransLink in-house model was also included in the analysis meaning that a total of five different service delivery options were included for quantitative assessment in the Validation Analysis. A reference cost base was calculated for each of the delivery options in order to determine the VFM available under the different contracted options.

Following the development of a reference cost base for the alternative service delivery options, a detailed risk analysis was undertaken. During this process the risks associated with operating a call centre under an in-house model was assessed. Significant risks, which are defined as those that have a high likelihood of occurrence and high financial impact upon occurrence, were identified and a cost impact was developed for each. The output of this work was included in scenario analysis in which specific sensitivities were run on the reference cost base. The results of the sensitivities were documented and included in the financial analysis. A detailed description of the two phases identified are included below.

Quantitative Analysis

Contracted Options Cost Quantification

Pricing information submitted by bidders through the RFP process were used to determine the cost base for the contracted options. Each submission contained a detailed cost breakdown for each year of operation. Cost figures submitted were classified into three main cost categories: 1) Wages and Benefits, 2) Overhead Costs, and 3) Mobilization costs.

Bidders were instructed to design their own call centre solution based on the outcomes specified by TransLink. As a result, pricing varied across bidders based on their suggested solution.

In-House Option Cost Quantification

TransLink followed a bottom-up approach to quantify the cost required to mobilize and operate an in-house call centre. The following procedures were applied to develop the applicable operating costs:

1. *Wages and Benefits*

To quantify the labour cost associated with operating a call centre, TransLink developed a staff schedule, which detailed the number of staff, and the experience level required to perform the various call centre functions (i.e., dispatch, scheduling, and operations management). The development of the staff schedule and staffing requirements were informed by the service plans developed by other bidders through the RFP process. However, the development of the in-house model staffing requirements was primarily based on an assessment of the resources required to meet the expected service delivery levels. The number of staff for each experience level was multiplied by their respective salary to determine total cost by function.

2. *Overhead Costs*

TransLink reviewed a consolidated listing of the overhead cost categories included by bidders in their pricing submission. Categories identified to be applicable were subsequently quantified and included in calculating total overhead cost. In addition, TransLink also checked the overhead cost categories for completeness by including other costs which were not included by bidders. The assumptions for overhead costs were informed by existing costs across comparable TransLink divisions. As a final stage, the TransLink costs were benchmarked against bidder costs to check for reasonableness.

3. *Mobilization Costs*

Mobilization costs consisted of both labour and non-labour cost components required to transition the call centre function. In developing the mobilization costs, a shadow transition plan was developed. This made assumptions regarding requirements for staff hiring, staff training, and other investments that would be required to deliver a fully operational call centre by the 1 July 2018. To quantify the labour component, reference was made to bidder submissions to determine the types of resources and hours required to mobilize the call centre function. To quantify the non-labour component, a review was performed to assess the different overhead costs that would be incurred during the mobilization period.



Analyses were performed on the different cost components to understand the rationale behind the cost base between delivery models.

Wages and Benefits Cost

The headcount proposed by each of the bidders was broadly in-line with the proposed staffing levels of the in-house model. In addition, the weighted average compensation was marginally higher under the in-house model. The differential in weighted average wages is one of the factors that contributed to the higher labour costs of the in-house model. When analyzing the source of the higher compensation observed in the in-house model the breakdown of wages and benefits was reviewed separately. This work highlighted that on a weighted average basis TransLink staff would be paid a combination of wages and benefits that was higher than the bidders' submissions. Within this, it was observed that wages in the in-house model were lower than the average of all bidder submissions however benefits in the in-house model were substantially higher than bidder submissions.

The weighted average compensation costs only reveal one part of the cause for the higher labour costs. Further analysis was undertaken on each proposed solution to understand how the staffing levels proposed was used over time. This work showed that the in-house model included significantly higher total annual employee hours compared to other bidders. Although the total staffing levels were broadly comparable amongst bidders and the in-house model, the annual employee hours showed greater variation with the in-house model having approximately between 24,000 and 39,000 additional employee hours when compared to the bidders. A number of factors were identified as contributing to this difference.

A number of bidders included employees that worked significantly lower annual hours than those of an FTE. By comparison, almost all of FTEs listed in the in-house model were assigned a full allocation of 1,950 work hours per year. The assumptions regarding the hours required for TransLink staff under the in-house model were developed in order to meet the pre-determined service levels that were outlined in the RFP documentation and were not based on mirroring a particular bidder solution. The TransLink delivery model required higher staff time to meet the specified service delivery requirements, and additional casual employee hours to cover additional time off available to employees through the Reduced Work Week Leave ("RWWL") arrangement. Under the RWWL arrangement, eligible employees are allowed an additional 17 days off per year.

Further to the assumptions of a higher level of annual hours under the in-house model, there was an additional factor that supported a higher overall labour cost for the in-house model. TransLink employees qualify for Sunday premiums when regularly scheduled to work Sundays, and Shift premiums if their shift falls outside of normal daytime working hours.

In summary the primary drivers of cost differences related to wages and benefits that were identified included a higher number of employee hours included in the in-house delivery model, a higher weighted average labour cost primarily due to more generous benefits, and the inclusion of the Sunday and Shift Premiums. Based on the analysis into the wage and benefits costs included in the in-house model and the information that was used to develop the underlying assumptions, the costs appeared to be reasonable.

Overhead Costs

The in-house model's overhead costs were on the lower end of the range when compared to other bidders with a range of just over \$1m per year between the least and most expensive options. This was a result of cost savings TransLink assumed through shared resources with TransLink enterprise as a whole.

Based on the analysis into the overhead costs included in the in-house model, the costs appeared to be reasonable. There are a number of bidders that have a higher level of overhead costs which is consistent with expectations as it is common to see an element of profit included within this cost category.

Mobilization Costs



The in-house model's mobilization costs were on the upper end of the range of bidder submissions. This reflected the significant efforts required to mobilize the call centre function in a six month period. The mobilization cost assumptions included the time spent for newly hired staff to train and prepare for the commencement of full operations for 1 July 2018. In addition, other costs included investment in new IT technology and systems, and the lease costs of the proposed call centre facility. Finally, as the in-house model would see TransLink and CMBC staff performing this specialized function for the first time and, as TransLink does not currently have sufficient expertise in-house to manage and implement call centre operations, there was an allowance for some consulting costs including HR, legal and call centre specialists.

General Model Assumptions

The cost figures for each delivery option were forecasted over a three year operating period. To support development of the financial model used to perform the financial analysis, additional assumptions were made regarding timing and discount rates. The following table summarizes the timing assumptions that apply to all service delivery models.

Item	Date
Discount Date	1 December 2017
Mobilization Start Date	1 January 2018
Operation Start Date	1 July 2018
Period Cash Flow Analysis	Monthly over 3 years

The financial model is a monthly cash flow model that covers the operational contract term which is estimated to be three years for the purposes of this financial analysis. Cash flows are assumed to occur at the end of the financial period in which they are incurred.

Risk Analysis

A qualitative risk analysis was performed once a reference cost base was established for each of the delivery options. Each call centre delivery option will manage risks associated with the delivery of Custom Transit services differently, but the purposes of the risk analysis on this project was focused on the risks that would impact the delivery of the in-house model. Only significant risks were quantified and included in the financial analysis as these were identified as risks that would have a material impact on the financial comparison of models.

Overview of the Risk Quantification Process

The risk quantification approach followed a four-stage process. Firstly, the risks that would be relevant to operating a HandyDART call centre were identified through an interactive discussion as part of a risk workshop. Secondly, the likelihood of a risk materializing was confirmed through discussion with risk workshop attendees. The third stage involved identifying the scale and impact of the risk were it to occur. Finally, at the fourth stage, a decision was made on the appropriate sensitivity that should be run for each risk to assess its impact.

Sensitivity Analysis

Following the completion of the revised PSC analysis, sensitivities were run to test how the results would adjust for changes in certain assumptions in the in-house model. The sensitivity analysis considered how changes to mobilization, wages and benefits, and overhead cost of the in-house delivery option would impact the VFM results. The selection of sensitivities was partly informed by the risk analysis that was undertaken as part of this project. In addition to this, sensitivities were run to assess the potential for cost savings under a TransLink model. The cost saving sensitivities were developed to test whether there would be a material change in the VFM analysis if lower assumptions regarding mobilization costs, operating costs, or total employee hours, were used in the development of the in-house model. As a result, a set of symmetrical sensitivities were run to test this. The results are summarized below by cost category.



Mobilization Cost

A sensitivity was calculated to consider the potential impact of a plus or minus 25% change in TransLink mobilization cost. The results show that a 25% deviation in TransLink mobilization cost would not impact PSC results in terms of the relative ranking of delivery options.

Call Centre Wages and Benefits Cost

A sensitivity was calculated to consider the potential impacts of a 10% increase in TransLink labour costs, and a reduction of TransLink employee hours to the average total of bidder employee hours. The reduction sensitivity was run to test whether lower employee hours would change the outcome of the VFM analysis. The results showed that the modelled change in call centre labour costs would not impact PSC results regarding the relative ranking of delivery options.

Overhead Cost

A sensitivity was calculated to consider the potential impacts of a plus or minus 10% change to TransLink mobilization cost. The results show that a 10% deviation in TransLink overhead cost would not impact PSC results in terms of the relative ranking of delivery options.

TransLink Cost Base

TransLink cost base included mobilization, call centre wages, and benefits, and overhead costs. A sensitivity analysis was performed to determine the impact of a plus or minus 10% change to the TransLink cost base on the VFM results. The results show that a 10% deviation in TransLink's overall cost base would not impact the relative rankings of the PSC results. All contracted models would still provide VFM in the event of a 10% decrease in TransLink cost base.

VFM Results

The table below presents the VFM of HandyDART services under the different service delivery models.

VFM Results (3 Year Operating Period)		
	TransLink	Highest Priced Bidder
VFM (%)		11.9%

The results of the VFM analysis show that all contracted delivery options provide VFM when compared to the TransLink in-house option. The table above shows the VFM of the in-house model compared to the highest priced bidder – the bidder submission that was closest to the in-house model in terms of cost. The results show that the VFM is at least 11.9% and should TransLink select a bidder that is priced below the highest priced bid, the VFM will be greater than 11.9%.



3. Conclusion

Summary Findings

The VFM results of the Validation Analysis suggest that some form of contracted delivery model for the call centre function would provide VFM when compared to the in-house model. As a stand-alone in-house call centre option was not included in the initial PSC analysis the validation exercise has been focused on assessing whether, with the most recently available assumptions the in-house model would be likely to provide better or worse VFM when compared to specific contracted out options.

As part of this analysis, the proposed costings of the in-house model have been assessed and found to be reasonable estimates based on benchmarking against available assumptions. In addition, risk analysis has been run on the in-house model and a set of sensitivities has been identified and run to assess whether a change in assumptions would impact the conclusions of the VFM analysis. The results of the sensitivity analysis supports the Validation Analysis conclusions that one of the selected bidder responses is likely to provide VFM when compared to an in-house delivery model. These VFM results should be interpreted in conjunction with the qualitative risk assessment when evaluating each delivery option.

TO: Board of Directors

FROM: Geoff Cross, VP, Transportation Planning and Policy
Chris Dacre, VP, Financial Services

DATE: December 8, 2017

SUBJECT: Proposed Structure and Rates for a Development Cost Charge for Transit Infrastructure

PROPOSED RESOLUTIONS:

That the TransLink Board of Directors:

- 1) Approve the proposed structure and rates for the Development Cost Charge for transit infrastructure as set out in the attached document dated November 30, 2017, titled "A DCC for Regional Transportation Infrastructure in Metro Vancouver: Proposed Structure and Draft Rates" to serve as the basis for TransLink preparing and adopting a DCC bylaw in late 2018.
- 2) Direct staff to forward the proposed DCC structure and rates to the Ministry of Municipal Affairs and Housing for review and comment; and,
- 3) After new legislation is introduced for the DCC, direct staff to prepare a bylaw based on the framework for review and approval by the Inspector of Municipalities (or equivalent) and subsequent adoption by the Board by end of 2018.

Executive Summary

Based on the technical analysis, it is possible to raise approximately \$20M/year of DCC revenues starting in 2020, as part of the funding strategy for the Phase One Investment Plan. The proposed DCC rates are not expected to have any negative impact on housing affordability. Following stakeholder consultation, the framework proposes that the rates be uniform across the region, that the DCC be used for transit expansion capital, and that reporting in the Investment Plan clearly define this transit expansion capital and projects to ensure greater accountability and transparency.

A formal request has been made to the Province to introduce legislation enabling this new DCC in the spring 2018 legislative session. The Province is currently considering this request. In anticipation of a favourable response and the need to adopt the 2018-2027 Investment Plan by the first quarter of 2018, TransLink has continued to advance the design of the new DCC and rates to a proposal stage. Management is seeking approval from the TransLink Board of the proposed structure and rates to serve as the basis for TransLink preparing a bylaw by the end of 2018, subject to the Province introducing and passing the necessary legislation. The Mayors' Council approved the equivalent version of Resolution 1 on proposed structure and rates on December 7th, 2017.

PURPOSE

The purpose of this report is to present a proposed structure and rates for a new Development Cost Charge (DCC) for regional transportation infrastructure. The report also summarizes the consultation conducted and the process for bringing the DCC into effect.

BACKGROUND

In 2014, the 10-Year Vision proposed some form of land value capture or development fee as a supporting revenue tool to help deliver the Vision. Following further analysis and stakeholder discussions, the Mayors' Council and TransLink Board approved the Phase One Investment Plan in November 2016 with a new DCC for regional transportation infrastructure as one of the funding sources. In the Plan, the DCC was assumed to come into effect in early 2020 and generate approximately \$15 to \$20 million in annual revenue on average. The DCC revenues would initially be applied to capital projects in the Phase 1 Investment Plan and would continue in perpetuity to fund a portion of capital associated with growth for future investment plans. Additional background is found in Attachment B.

Currently, transit is not an eligible infrastructure category for DCCs and TransLink is not currently authorized to collect a DCC. Legislation would need to be amended to enable this new funding mechanism for transit. A formal request has been made to the Province to introduce legislation enabling this new DCC in the spring 2018 legislative session. The Province is currently considering this request. In anticipation of a favourable response and the need to adopt the 2018-2027 Investment Plan by the first quarter of 2018, TransLink has continued to advance the design of the new DCC and rates to a proposal stage, which is now presented to the Board for approval. The Mayors' Council approved the equivalent version of Resolution 1 on draft structure and rates on December 7, 2017.

A portion of the expansion contemplated in the 2017-2026 Investment Plan for introduction in 2019 would need to be deferred if the new DCC is not enabled and confirmed by 2018 for implementation in 2020, unless this shortfall is offset by greater than anticipated revenues from other sources. If the DCC does not proceed, TransLink would have these options to pursue: defer investment, reallocate existing funding or fund through another new revenue source. A DCC can only be used for capital infrastructure but not having the DCC means other revenue streams would have to be reallocated to maintain the service levels as described in the Plan.

DISCUSSION

Objectives for the Design of the DCC

The following were the key objectives for the design and setting of the rates for the DCC:

- Make it easy to understand, simple to administer
- Make it fair
- Have no negative impact on the pace or distribution of development, or on housing affordability
- Raise about \$20 million/year, based on preliminary tests and 10 Year Investment Plan strategy
- Monitor/adjust over time

Consultation Process

Consultation on the concept of a new DCC for funding regional transportation infrastructure occurred in 2016. A Discussion Paper was prepared to support the consultation process (Attachment C). Key activities included:

- Reviewed with all the key development industry associations
- Reviewed with TransLink and Metro Vancouver regional advisory committees
- Discussed with Province
- Consulted with the public as part of the 2017-2026 Investment Plan process in October 2016.

The premise that growth should pay for growth was widely accepted by stakeholders and a DCC was seen as an appropriate funding tool and subsequently included in the 2017-2026 Investment Plan.

Consultation in 2017 has focused on the structure and rates for the DCC:

- In May, a Regional Transportation DCC Local Government Working Group¹ was formed to advise on the structure and rates for the DCC. The Working Group reviewed, discussed and arrived at a preferred approach on most key policy questions which was then reviewed and discussed at workshops with broader stakeholders.
- Two workshops were held in October to review the draft structure and preliminary rates: one with government agencies² and another with developers³.

The key areas of discussion and feedback related to: potential impact on housing affordability, use of funds, rate structure, transparency and the draft rates as discussed below. A second round of staff level review with partners and stakeholders was held on a revised version of the Framework in November.

Potential Impact on Housing Affordability

A key principle identified by the TransLink Board and Mayors' Council in establishing this new regional DCC is to ensure that it does not affect projected development rates and patterns or have any negative impact on housing affordability by increasing housing prices. As housing prices are set by overall supply and demand in the marketplace, developers cannot unilaterally increase prices on individual projects. Rather, the usual response to an increase in developer cost is to reduce what developers are willing to pay for land. As long as a new cost is small enough, it won't have enough impact to result in reduced availability of development sites and therefore would not affect the sale price of new housing units.

In order to ensure that the new DCC does not slow the pace of redevelopment and hence hurt housing affordability, Coriolis Consulting conducted a survey of all existing and proposed local and regional DCCs in Metro Vancouver and then conducted an analysis of development sites in different markets across the region to understand what rates are affordable. The analysis conducted to date has confirmed that it is possible to raise about \$20M annually from the new DCC under various rate structure scenarios without impacting housing affordability. This analysis is based upon current market prices; any likely housing market price increases above the rate of construction price increases between now and the time the DCC is implemented in 2020 would increase the "financial room" which has already been determined to be sufficient for the proposed DCC. Additional explanation is provided in Attachment D.

Under current legislation, DCCs can be reduced or waived for certain types of affordable rental housing. It is proposed that the DCC be consistent with the waivers for the Greater Vancouver Sewerage & Drainage District (GVS&DD) regional sewer levy which would simplify administration and also support Metro Vancouver's Affordable Housing Strategy. Metro's current definitions indicate that DCCs are not payable on a secondary suite or laneway house as part of a single-detached dwelling. There are also certain types of affordable rental housing (both for-profit and not-for-profit) where waivers apply. Metro Vancouver will be reviewing its definitions and waivers in 2018 and TransLink will be participating in the process to ensure a consistent approach.

¹ The Working Group consisted of representatives from Metro Vancouver, TransLink and 10 municipalities from around the region and comprised planning, engineering and finance staff.

² Agency workshop included staff from almost all municipalities in the region (representing over 95% of future development activity), Metro Vancouver, and Ministry of Municipal Affairs and Housing.

³ Developer workshop included 30 developers and representatives from the Urban Development Institute, Urban Land Institute, NAIOP and Greater Vancouver Home Builders' Association.

Use of Funds

The development community expressed concern around possible double-charging for walking, cycling, and road infrastructure which they typically already provide adjacent to their sites or in existing municipal DCCs. Accordingly, it is proposed that the DCC only be applied to new expansion-related transit capital investments identified in TransLink's 10-Year Investment Plans. This will not impact the level of TransLink funding for cost-shared walking and cycling programs.

Uniform vs. Tiered Rates

Uniform rates were preferred by most of the Local Government Working Group, Planning and Funding Committee members and attendees at the partner agency workshop. Uniform rates were also preferred by all of the attendees at the developer workshop. However, there were several municipalities - mayors and staff - as well as the Greater Vancouver Home Builders' Association - who favoured a tiered structure (where the rates are higher in one part of the region and lower in another), arguing that transit benefits are not evenly distributed around the region.

It is proposed that the legislation be crafted to allow TransLink to set different rates in different parts of the region, whether or not it would use this provision. However, to fund the agreed upon portion of the Phase 1 Investment Plan, it is proposed that the DCC be initially established with a uniform rate. This recommendation is based on the following rationale:

- The Phase 1 Plan transit expansion investments are broadly distributed around the region (and contrary to some perception, are not used to fund the two proposed new rapid transit lines)
- Transit infrastructure generates benefits to new development that are not based solely on the municipality that the investment is located in. For example, capacity upgrades to the Canada Line will benefit transit users from beyond the Cities of Vancouver and Richmond.
- All new development benefits not only directly from transit investment, but indirectly from reduced roadway congestion;
- A uniform rate approach is administratively simple and fastest to implement in time to fund Phase 1 Investment Plan;
- Drawing justifiable boundaries for tiered rates will require extensive technical analysis that is likely to be contentious and challenged on the basis of fairness and market distortion concerns. It would also likely mean that funds collected in specific areas would be required to be spent in those areas, despite the benefits not being aligned with the location of the investments;
- Flexibility for tiered rates is preserved should any future Investment Plans want to consider this approach for future capital expansion (and would require consultation with stakeholders).

Accountability and Transparency

The development community expressed concern over checks and balances for the comprehensive review (which is proposed to be at least every 3 years) and rate adjustments. If the DCC is not directly cost-related, what prevents large increases in future rates? Unlike some DCCs, the TransLink DCC would only fund a small percentage of the maximum of 99% of future capital (the maximum allowed in legislation) as existing residents also benefit from new transit capital investment. The framework now indicates that the DCC is a supporting funding source that would contribute to the regional share of transit capital investments in the 10-Year Investment Plans.

The DCC is proposed to have an annual inflation adjustment, which would be based on a publicly available index for construction prices or the local/regional consumer price index. This will avoid steep rate increases to catch up with inflation.

Legislation for other DCCs does not specify a maximum rate increase. It is proposed that legislation include a prescribed process for rate adjustments as well as a requirement to consider impacts on the pace of new development and housing affordability, building upon current DCC legislation that indicates that the charges must consider impact on future land use patterns and may consider whether the charges will deter development or discourage the construction of reasonably priced housing or the provision of reasonably priced land.

Both the development community and municipalities expressed a desire to have greater clarity on the projects that would be funded by the DCC. It is proposed that the transit expansion projects that the DCC would fund be specified and that the use of funds be publicly reported on regularly.

Proposed Framework & Rates

Based on this partner and stakeholder feedback, a revised framework is included as Attachment A with the proposed DCC rates shown in Table 1. The DCC would be levied across the transportation service region except for any lands outside the jurisdiction of the new legislation. UBC and the University Endowment Lands, which are part of Electoral Area A, contribute to the GVS&DD DCC. As they are part of TransLink's transportation service region, a similar approach is expected for these jurisdictions.

Table 1: Proposed DCC Rates for Transit Infrastructure in Metro Vancouver*, 2020

Use	DCC Rate
Single family	\$2,100 per dwelling unit
Townhouse/duplex	\$1,900 per dwelling unit
Apartment	\$1,200 per dwelling unit
Retail/service	\$1.00 per sq.ft.
Office, Institutional,	\$0.50 per sq.ft.
Industrial	\$0.50 per sq.ft.

*TransLink may amend this draft rate structure during 2018, based on updated analysis, but will finalize the rates before the end of 2018 and before the introduction of the bylaw.

Key feedback that partners and stakeholders provided on the draft DCC rates included:

- New industrial developments may not be able to bear the cost of a 50 cent per sq.ft. rate
- Consider combining retail/service and office together in a commercial category with a single rate since some developments are mixed use and it is difficult in advance to know how much floor space would fall into each category

These and other feedback will be reviewed in greater detail in 2018 to make any adjustments to finalize the proposed rates. If there is a material change/increase to the rates as part of this final review, TransLink will consult with its partners and stakeholders in 2018 before a bylaw is introduced. Also, as part of any future reviews of the DCC and rates (beyond inflation) which are proposed at least every 3 years in conjunction with future investment plans, consultation with partners and stakeholders would also be conducted.

IMPACTS

Impact on Growth

The DCC was not overtly designed as a land use policy tool. However, one consideration was to not adversely impact the distribution of development within the region. The proposed structure and rates

are not anticipated to impact growth distribution since 1) the rates were set to be market-supportable and would not impact the pace of development and 2) the rates are uniform across the region.

Impact on Housing Affordability

The analysis conducted to date has confirmed that it is possible under a variety of scenarios to raise \$20M annually from the new DCC without impacting housing affordability. As noted, it is proposed that there would be waivers for certain types of affordable rental housing projects, consistent with housing definitions and waivers that are used for the GVS&DD DCC.

Financial Impact

Approximately \$20 million per year on average is estimated to be generated from the DCC beginning in 2020. The DCC is estimated to fund approximately 10% to 15% of the total transit capital expansion costs in the Phase 1 Plan. Revenues will fluctuate from year to year with levels of development activity. An updated revenue forecast for the DCC will be included in the 2018-2027 Investment Plan. Reduced revenues from the proposed waivers will be made up through other TransLink funding sources and were not made up through increases in rates for DCCs for other uses. The revenue estimate excludes revenue associated with the proposed waivers.

EFFECTIVE DATE AND STEPS NEEDED TO BRING THE DCC INTO EFFECT

It is proposed that the effective date be mid-January, 2020, to avoid a potential rush of development application at year-end when municipal development counters have lower staffing levels.

The following steps are needed in order to bring the DCC into effect by early 2020:

- The Province needs to pass enabling legislation in the Spring 2018 legislative session
- A bylaw needs to be prepared based on the proposed structure and rates and forwarded to the Inspector of Municipalities (or equivalent) for review and approval by late 2018
- The TransLink Board needs to adopt the bylaw by the end of 2018, which would allow for one year's notice of the rates

COMMUNICATIONS IMPLICATIONS

An updated DCC backgrounder and FAQs was prepared and released in October 2017 to support consultation with stakeholders (Attachment B). A key focus of communications will be on explaining why the DCC is not anticipated to impact housing affordability which is discussed in Attachment D. Advance notice of rates will be given so that developers can adjust to the new rates. Staff will continue to liaise with the industry through their development industry associations. Communications materials will be prepared to assist municipalities with incorporating the new DCC into their collection processes (expected timeline in 2019).

ATTACHMENTS

- A) DCC for Regional Transportation Infrastructure in Metro Vancouver: Proposed Structure and Draft Rates (November 30, 2017)
 - B) Regional Transportation DCC Update and FAQs (October 2017)
 - C) A Possible Regional Development Cost Charge for Regional Transportation/Transit Infrastructure: Discussion Paper (April 2016)
 - D) Backgrounder: Local Government Development Charges and Housing Prices: Will TransLink's New DCC for Transit Infrastructure Affect Housing Affordability? (November 2017)
-

**A DCC for Regional Transportation Infrastructure in Metro Vancouver:
Proposed Structure and Draft Rates | 30 November 2017**

Introduction

As part of the funding strategy for future investments in regional transportation infrastructure, TransLink is proposing the creation of a new regional Development Cost Charge (DCC). This new DCC would be levied on new development in the region, similar to how municipalities use DCCs to pay for local infrastructure and how the Greater Vancouver Sewerage and Drainage District (GVS&DD) uses a DCC to pay for regional sewer infrastructure. A new regional transportation DCC requires amendments to Provincial legislation to allow funds to be collected for transit investment and to give TransLink the ability to raise funds in this way. This document summarizes the proposed structure of the new DCC, the main elements that should be included in the legislation, and the proposed initial DCC rates for different types of development.

Status

This is currently a proposal for discussion. If approved by the Mayors' Council and the TransLink Board, and subject to the Province passing the necessary legislation, this framework will serve as the basis for preparing a TransLink Board bylaw.

Legislation

TransLink is proposing that the new DCC be enabled through amendments to the *South Coast British Columbia Transportation Authority Act* (British Columbia). Implementation of the DCC may also require amendments to other Acts. To the extent possible, the amendments should be patterned on applicable portions of the GVS&DD DCC legislation.

Agency Responsible for the DCC

TransLink would be responsible for establishing DCC rates, receiving the revenue, and allocating the funds to new capital projects. Local governments within the transportation service region will collect the DCCs as part of their development approval processes and remit the funds semi-annually to TransLink similar to the GVS&DD DCC process. Municipalities may elect to not collect the DCC and instead remit an equivalent amount to TransLink similar to the GVS&DD DCC structure.

Use of Funds

The DCC revenue is proposed to be applied to new transit capital investments identified in TransLink's 10-Year Investment Plans, including new rapid transit lines, capacity increases to existing rapid transit lines, new or expanded transit exchanges and depots and new transit and support vehicles (expansion only). Funds will not be applied to debt incurred before the date specified in legislation or to transit operating expenses. Funds would not be used for pedestrian, cycling, major road network or regional bridge infrastructure or for transit-related infrastructure not funded by TransLink. The funds will initially be used for transit expansion capital projects identified in the 2017-2026 Investment Plan. A list of transit expansion capital projects to be funded by the DCC will be specified.

DCC's Contribution to Regional Share of Expansion Capital

The DCC is intended to be a supporting funding source by which new growth contributes to the regional share of transit capital expansion investments in 10-Year Investment Plans. The proposed DCC rates are intended to generate approximately \$20 million annually, starting in 2020, growing with an annual inflation index (see below). Other funding sources would also contribute to paying for new growth-related capital recognizing that the existing population also benefits from new transit capital investments.

Area of Collection

The DCC will be collected throughout the entire transportation service region (Metro Vancouver), except for any lands outside the jurisdiction of the new legislation.

Types of Development for which the DCC Will Be Collected

The DCC will apply to new residential, commercial, industrial and institutional development. It is proposed that there would be exemptions for agricultural uses and waivers for certain types of affordable rental housing projects (with clear definitions for waivers), as well as statutory exemptions such as for places of worship. The DCC will also apply to fewer than four new self-contained residential units, consistent with the GVS&DD DCC. Wherever possible, housing definitions and waivers will be aligned with the GVS&DD DCC.

Basis of the Charge

For residential uses, the legislation should give TransLink the option of charging per unit or by floor area. In the initial bylaw, TransLink will charge on a per housing unit basis, to be consistent with many local governments and the GVS&DD, with separate rates for single detached, townhouse/duplex, and apartment units. For all other uses, the DCC will be charged based on gross floor area.

Rate Structure

The legislation should give TransLink the option of charging uniform rates across the entire region for each type of development or varying the rates by subarea similar to legislation for other DCCs. However, in the initial bylaw, TransLink intends to adopt uniform charges across the whole region for each type of residential unit and for each type of non-residential space.

Effective Date

The target for commencing DCC collection is January 2020.

Inflation Adjustment

The legislation should allow DCC rates to be adjusted annually for inflation based on commonly used indices for inflation, such as the Vancouver Consumer Price Index or a construction price index, with prior notice of the amount of the annual adjustments.

Periodic Review and Rate Changes

TransLink intends to review the DCC rates at least every 3 years as part of its requirement to prepare a 10-Year Investment Plan at least every 3 years.

Transparency and Accountability

The legislation should contain:

- A requirement to articulate targets for the total amount of DCC revenue to be collected as part of the funding strategy for each 10-Year Investment Plan.
- A clearly defined process for the consideration of any changes to DCC rates (other than annual inflationary adjustment), including the factors to be considered and including stakeholder consultation.
- A requirement to consider potential impacts on the pace and viability of new development and impacts on housing affordability, building upon current DCC legislation that indicates that the charges must consider impact on future land use patterns and may consider whether the charges will deter development or discourage the construction of reasonably priced housing or the provision of reasonably priced land.
- A clearly defined process for any consideration of varying rates by subarea.
- A requirement to monitor and publicly report out on the use of all DCC revenues on a regular basis.

Draft Initial DCC Rates for 2020¹:

Use	DCC Rate
Single family	\$2,100 per dwelling unit
Townhouse/duplex	\$1,900 per dwelling unit
Apartment	\$1,200 per dwelling unit
Retail/service	\$1.00 per sq.ft.
Office, Institutional	\$0.50 per sq.ft.
Industrial	\$0.50 per sq.ft.

¹ TransLink may amend this draft rate structure during 2018, based on updated analysis, but will finalize the rates before the end of 2018 and before the introduction of the bylaw so there is at least one full year's notice prior to commencement of collections in 2020. If there are any material changes/increases proposed as part of the final adjustments of rates, TransLink will consult with its partners and stakeholders in advance of a bylaw being introduced in 2018.

ATTACHMENT B

Development Cost Charge for Regional Transportation Infrastructure

The Mayors' Council and TransLink are currently seeking approval from the provincial government to implement a Regional Transportation Development Cost Charge (DCC), which is anticipated to come into effect in 2020.

The DCC will help fund the capital portion of our investment plan and ensure the Mayors' 10-Year Vision stays on track. With more than a million people coming to the region in the next 30 years, delivering the 10-Year Vision is critical for keeping the region moving and livable.

A new DCC would allow a fee to be collected from new developments to help pay for new transportation infrastructure required to support growth. DCCs are widely used in BC to help cover growth-related infrastructure costs (such as roads, sewer and water). Transit infrastructure, however, is not currently an eligible cost and would require new legislation.

In anticipation of the Province approving the DCC, we are working with our partners and stakeholders to determine the structure, rates and best way to implement the DCC.

One of our goals is to ensure the DCC is set at a rate that won't curb new developments or increase housing prices. In addition, we're looking at reducing or waiving the DCC to support affordable-rental housing, similar to the programs offered by local governments. We're committed to ensuring that a new DCC will not impact the price or supply of affordable-housing development.

We expect to have a draft framework on the structure and implementation of the DCC completed in early 2018. The draft framework will then go to the Mayors' Council and TransLink Board for input and further review. Our goal is to have a bylaw drafted and adopted by the TransLink Board, including final rates, by the end of 2018. We anticipate that we'd begin collecting the new DCC in 2020.

FAQs

1. **Why does TransLink need another revenue source?**

- We must come up with new regional funding sources to complete the Mayors' 10-Year Vision, which is critical for keeping the region moving and livable.
- There is increased demand on Metro Vancouver's transportation network, while some existing funding sources are static or declining.
- Rather than only rely on existing revenue sources such as taxes and fares, we want to find new revenue-generating opportunities to meet the region's growing demands.

2. **What is a Development Cost Charge?**

- A DCC is a fee that would be applied to new developments in Metro Vancouver, starting in 2020, to help pay for new transportation infrastructure.
- DCCs are widely used in BC to help cover growth-related infrastructure costs (such as roads, sewer and water). Transit infrastructure, however, is not currently an eligible cost and would require new legislation.

3. **What are the advantages of a Development Cost Charge?**

- It's transparent, easy to understand and easy to administer.
- A DCC obtains revenue from new urban development, which is consistent with the idea that growth should help pay for growth-related infrastructure costs.
- Provided that DCC rates are set carefully, the cost of a DCC tends to be borne by land owners who are selling property for development property, rather than home-owners or renters.
- It generates a reasonable and relatively reliable stream of revenue.

4. **What infrastructure will be funded by the DCC?**

- The new DCC will help fund capital projects in the 2017 and future Investment Plans.
- The DCC can only be used for capital purposes, not operating expenses.

5. **How much do you expect to charge for the DCC?**

- Proposed DCC rates are still being determined and will be informed by stakeholder consultation.

6. Will the rate of the DCC be higher for developments closer to transit hubs?

- Specific options for structuring the DCC will be discussed during the consultation process with stakeholders. We will have a better sense of how the DCC will be structured once we have a draft framework in early 2018.

7. How much revenue do you expect to be collected by the DCC?

- The structure and rates are still being determined, however, the new DCC is expected to generate between \$15 and \$20 million per year.

8. How can you be sure developers won't download the cost of the DCC to home buyers?

- Housing prices are set by overall supply and demand in the marketplace, so developers can't unilaterally increase prices on individual projects.
- The usual response to an increase in developer cost is to reduce what developers are willing to pay for land. As long as a new cost is small enough, it won't have enough impact to result in reduced availability of development sites. Therefore, it will not affect the sale price of new housing units.

9. What public consultation has TransLink done on the proposed DCC?

- We carried out public consultation on the proposed funding sources, including the DCC, for our 2017-2026 Investment Plan in October, 2016. Now that the investment plan has been adopted, stakeholder consultation will focus on the design decisions of the DCC and preliminary rates.

10. What is the overall process and anticipated timeline?

- In October, we're conducting initial stakeholder consultation to seek input on how to structure the DCC and preliminary rates. We will take the input we receive and create a draft framework, including preliminary rates, by early 2018. The draft framework will then go to the Mayors' Council and TransLink Board for input and further review. Our goal is to have a bylaw drafted and adopted by the TransLink Board, including final rates, by the end of 2018.
- We will inform the development community of the approved DCC throughout 2019.
- We anticipate that we'd begin collecting the new DCC in 2020.

A Possible Regional Development Cost
Charge for Regional Transportation/Transit
Infrastructure in Metro Vancouver:
Discussion Paper

Prepared for the Mayors' Council on Regional Transportation
and TransLink



12 April 2016

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Summary

This discussion paper explores the possibility of using a new regional Development Cost Charge (DCC) to help pay for Metro Vancouver transportation/transit investments, as part of a comprehensive funding strategy.

DCCs enable local governments in BC to collect revenue from new urban development for community infrastructure including water, sewer, roads, drainage, and parks. Existing legislation does not allow the use of DCCs for regional transportation/transit projects, but there are precedents for regional infrastructure development charges, such as the existing GVS&DD regional sewer levy and Ontario legislation that allows development charges for transit.

There are widely accepted principles for applying DCCs in BC: infrastructure should be paid for by those who benefit; charges should be fair and equitable; DCC systems should be transparent and easy to administer; and DCCs should not have negative impacts on affordability.

The main advantages of a DCC for regional transportation/transit include:

- DCCs are transparent, easy to understand, and easy to administer.
- A DCC obtains revenue from new urban development, which is consistent with the idea that growth should help pay for the cost of growth.
- Provided DCC rates are set carefully, the cost of a DCC tends to be borne by developers or land owners of development property, rather than transit users or taxpayers at large.
- Administration costs would be small, as there is already a system in place to collect municipal DCCs.

There are disadvantages of DCCs as a funding mechanism including:

- They can only be applied to capital costs, not to operating costs.
- They are a one-time payment, not a recurring revenue stream such as taxes, and revenues will fluctuate depending on the pace of new development.
- They are not linked in any way to transportation patterns, so they do not influence transportation choices.

These disadvantages can be offset by other components of a comprehensive funding strategy.

There are some key policy questions that would have to be addressed to design a regional DCC:

- What infrastructure should be funded this way: the full spectrum of regional transportation projects or a focus on transit?
- Where should the charge be levied: region-wide or in areas that benefit the most from new investment?
- What land uses should pay: all new development or only higher density uses?
- Should DCC rates be uniform across the region or vary based on capital investment or benefit?
- What forms of development should be exempt?
- Who should collect the DCC: municipalities or TransLink?

Preliminary analysis indicates that even a small new regional DCC could generate enough revenue to make it worth considering this idea. For example, a DCC of \$1 per square foot applied to all new urban development in Metro Vancouver could raise over \$500 million over 30 years. This is clearly not enough revenue to fully fund the regional share of capital cost, but it could be a significant component in a comprehensive funding strategy.

There could be some negative impacts if a new DCC is not designed carefully:

- If a new DCC is too large it will have a negative effect on development economics, potentially leading to reduced pace of new construction and upward pressure on housing prices. It is possible, though, to set the rate at a level that does not affect the pace of development or housing prices.
- A new DCC could negatively affect development patterns if it is too high in some areas and deflects market interest away from the places where densification is desirable.
- A new DCC for regional infrastructure will take revenue that could otherwise have been available for other local government infrastructure.

If there is interest in implementing this idea, it is important that regional stakeholders (municipalities, development industry, Mayors' Council, TransLink) reach broad agreement on how a DCC for regional transportation/transit infrastructure should be structured.

If there is broad support, then the Mayors' Council can request the Province to take the necessary steps to enable a regional DCC for transportation/transit. Considerable technical work would then be needed to design the DCC system, set rates, and create a strategy for phasing in the new charge.

Introduction

In June 2014, the Mayors' Council adopted a 10-Year Regional Transportation Investment Vision for Metro Vancouver (Mayors' Vision). The TransLink Board subsequently endorsed the Mayors' Vision as a key element in the Regional Transportation Strategy (RTS).

The Mayors' Council and TransLink are developing a funding strategy for regional transportation investments. One component of the funding strategy will be to seek senior government funding. Through the 2016/17 federal budget, the Government of Canada confirmed its intention to fund up to 50% of eligible capital costs for new transit investments (which is an increase from the historically available funding of 33% for some projects). This will reduce the burden on regional funding sources, but does not eliminate the need for additional regional revenues to cover the remaining capital cost and to fund operating and maintenance costs for new investments.

In 2010, the Province of BC and the Mayors' Council signed the Livable Cities Agreement in which the parties agreed to work together to create a sustainable funding strategy for transportation investment in Greater Vancouver. In 2011, a Joint Technical Committee was formed (made up senior representatives of TransLink, BC Ministry of Transportation

There is a precedent in Metro Vancouver for this method of funding regional infrastructure: there is a region-wide levy on new development to pay for regional sewer works. There are also precedents in other parts of Canada and the United States.

and Infrastructure, City of Surrey, City of Vancouver) to explore possible funding sources. This Committee identified a charge on new urban development as a possible funding mechanism for regional transportation/transit infrastructure. The 2014 Mayors' Vision included this as a revenue source worth considering. The Mayors' Council is now considering the idea in more detail, in consultation with stakeholders.

There is a precedent in the region for this method of funding regional infrastructure. Metro Vancouver (through the Greater Vancouver Sewerage and Drainage District) levies a Development Cost Charge (DCC) on new development to pay for region-wide sewer works. There are also precedents in other parts of Canada and the United States for using similar mechanisms to fund regional works. For example, in Ontario Metrolinx uses a similar mechanism to pay for regional transit infrastructure in the Greater Toronto area.

This discussion paper explores the idea of using a new regional development levy to help pay for regional transportation/transit investments in Metro Vancouver. The objectives of this paper are to explain how such a charge might work, describe the main policy choices that would have to be made in designing a development charge, examine potential impacts and ways to mitigate them, and spark dialogue among stakeholders including municipalities, the development industry, and the public.

This paper does not aim to present a complete funding plan for regional transportation infrastructure. It focuses only on one possible funding source and how it might be applied in this region.

The commentary does not necessarily reflect the views of the Mayors' Council or TransLink.

What is a Development Cost Charge?

BC legislation allows local governments to impose a charge on new urban development, at the time of subdivision approval or building permit, to assist in paying the capital costs of new infrastructure. The underlying premise of the legislation is that growth creates a

Growth creates a need for capital investment in community-wide infrastructure. It is reasonable to require new development to contribute to these costs.

need for capital investment in community-wide infrastructure, such as the road network or water supply system, and it is reasonable to require new development to contribute to these costs. These charges are called Development Cost Charges (except in the City of Vancouver, where they are called Development Cost Levies) and they have been used widely in BC since 1977. There is similar legislation in other provinces, such as Ontario where these are called Development Charges and Alberta where they are called Off-Site Levies.

Section 559 of BC's Local Government Act allows local governments to charge DCCs for basic community infrastructure (sewer, water, drainage, roads) and for the acquisition and development of park land. Section 523D of the Vancouver Charter gives the City of Vancouver a similar power.

In Metro Vancouver, most municipalities collect DCCs from most types of new urban development. These existing DCCs fund municipal roads, sewer, water, and drainage works and park land acquisition and development. Currently, there is not a DCC for regional transportation/transit infrastructure.

To illustrate the magnitude of the existing levies in the region, DCCs for an apartment unit of say 1,000 square feet in almost all Metro Vancouver municipalities are in the range of \$5,000 to \$16,000 for the municipal DCC plus \$600 to \$1,100 for regional sanitary sewer infrastructure, depending on location within the region.

DCCs are applied to all new urban development whether or not any rezoning is involved, unlike Community Amenity Contributions which are only obtained when sites are rezoned or where bonus density is available in exchange for amenities. DCCs are established in bylaws and are not negotiable. The BC legislation allows DCC rates to vary by type of development, by density, and by location within a municipality provided there are sound reasons for the variation. Legislation also allows exemption from DCCs for some types of affordable housing.

While DCC rates vary across the region, in large part because there are different needs for new infrastructure to accommodate new urban development, the process of setting DCC rates is consistent because it is prescribed by the provincial legislation. The main steps in determining DCC rates are as follows:

- The local government identifies the capital projects that are needed to extend or expand community infrastructure.
- Capital costs are estimated for the infrastructure projects.
- The local government must decide what proportion of future capital works should be paid by existing taxpayers in general and which should be paid by new development, based on the purpose and nature of the capital costs.
- The legislation states that DCCs can be charged to “assist” local government in paying the capital costs of growth, so the local government must decide on the “assist factor” it will apply to the growth related costs.

- The local government then estimates how much new development will be served by the capital works. Dividing the cost by the amount of new development produces the rate to be charged to new development on a per unit or per square foot basis. There is public consultation about this rate and there is usually analysis to confirm that the rate can be absorbed by new development without significant negative market impacts. The rates must be adopted in a bylaw and approved by the Inspector of Municipalities.
- Funds collected from DCCs must be deposited in special accounts and used only for the purposes for which they were collected. The use of DCCs is very carefully regulated and monitored.

The legislation in BC would have to be amended to allow DCCs for capital expenditures on regional transportation/transit.

Principles and Good Practices

The legislation includes direction for the design of DCC programs. The Province also publishes a Development Cost Charge Best Practices Guide which provides detailed guidance on the content and implementation of DCC bylaws. The Guide sets out some principles and recommended practices that should be incorporated into any DCC program. Extensive experience with DCC systems in BC has also resulted in a list of generally acknowledged attributes that a DCC program should have. Some of the main “rules” for designing sound DCC systems are:

- **Benefiter pays:** The Guide advocates the principle that “infrastructure costs should be paid by those who will use and benefit from” the infrastructure. In a discussion about transit infrastructure it is noteworthy that those who use the system (i.e. riders) are only a subset of those who benefit (which includes riders as well as drivers who benefit from reduced road congestion and shorter travel times).

Infrastructure costs should be paid by those who will use and benefit from the infrastructure. In a discussion about transit infrastructure, it is noteworthy that those who use the system (i.e. riders) are only a subset of those who benefit (which includes riders as well as drivers who benefit from reduced road congestion and shorter travel times).

- **Fairness and equity:** The Guide recognizes that all parties do not benefit equally from any given investment in infrastructure, so DCCs should aim to distribute costs fairly between existing users and new development, and between different kinds of development.
- **Accountability:** DCC systems should be transparent and understandable and there must be clear accountability for how the rates are determined and how the money is used.
- **Certainty:** DCC systems should provide certainty to the development industry, meaning stable rates and an orderly progression of infrastructure construction, and certainty for local government, meaning sufficient funds to support timely construction of necessary infrastructure.
- **Consultation:** there should be ample opportunity for full discussion about DCCs among all stakeholders and advance notice of any changes to rates.

- Consideration of possible impacts on the pace of development or affordability: the legislation requires local governments to consider whether a DCC is “excessive in relation to the capital cost of prevailing standards of service”, will “deter development”, or will “discourage the construction of reasonably priced housing”.

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- Monitoring: DCC programs should be monitored to ensure that they are not causing negative market impacts and that the system is facilitating the orderly construction of infrastructure at the pace needed to accommodate growth.
- Administrative ease and efficiency: DCC systems should be simple and inexpensive to manage. On the collection side, it should be easy to determine the rate to be paid for each type of project in each relevant location. Because DCC funds must be segregated based on the purpose for which they were collected and for the geographic boundary in which they were collected, there is a general preference for not creating too many small pots of money that are not large enough to fund projects on a timely basis. For this reason, municipalities tend to charge the same rates across the municipality.

Policy Questions

The creation of a new DCC for regional transportation/transit infrastructure raises several policy questions that would have to be addressed in the design of the system:

- What regional infrastructure should be funded by a new DCC?
- Where should a new regional transportation/transit DCC be levied?
- What land uses or forms of development should pay the new DCC?
- Should DCC rates be the same across the region or vary?
- Should residential DCCs vary by type of housing unit?
- How should rates be determined?
- Should any development be exempt?
- Who should collect the DCC?

What Regional Infrastructure Should Be Funded by a New DCC?

A DCC is a cost-recovery mechanism, so it is necessary to identify the specific regional infrastructure that is to be funded by the new DCC. Options include using a new regional DCC for:

- All regional transportation/transit infrastructure, including transit, major roads, regional bridge crossings, bicycle networks, and pedestrian routes.
- Only regional transportation/transit investments that can be considered “green”. This could, for example, include transit, walking, and biking investments similar to how the City of Vancouver defines these modes as “green transportation” in its Greenest City 2020 Action Plan and Transportation 2040 Plan.
- Only transit investments. This could include the entire transit system, or only the Frequent Transit Network (i.e. high frequency bus routes as well as rapid transit), or only new rapid transit and upgrades to existing rapid transit lines (e.g. station expansions). The eligible capital costs could include fixed infrastructure or vehicles to expand the transit fleet.
- Only new rapid transit line construction.

This decision would affect the capital costs that could be included in the determination of the DCC rate.

DCC legislation also requires consideration of what portion of a capital expenditure should be paid for by existing users and what portion should be paid by growth. This will be a complex allocation for transportation and transit, in which some expenditures will mainly serve the existing population while other expenditures will mainly serve new development.

Where Should a New Regional Transportation/Transit DCC be Levied?

A new DCC would require the definition of the geographical area in which the DCC would be charged. There are several options for how this boundary could be defined:

- The entire region. This could mean literally all of Metro Vancouver or perhaps the large area served by the Frequent Transit Network and Major Roads Network. The argument in favour of a large DCC collection boundary is that new transportation/transit infrastructure benefits everyone in some way. For

example, a DCC being used to fund regional transit investments would benefit transit users directly, but people and businesses in areas with limited transit service would also benefit from reduced road congestion, shorter travel times, cleaner air, and the gradual extension of the regional transit network. Other advantages are that if the DCC is applied broadly there is more flexibility on where to spend the funds and a broad reach means that the DCC rate could be lower than it would be if it only applied to some new development.

- The parts of the region that will receive most of the new capital spending. For example, in the context of a DCC being used to fund regional transit investments, the costs of rapid transit expansion and upgrading are high relative to the costs of other transit improvements, so a new DCC could be applied only to the areas directly served by the rapid transit network. As another example, if the DCC funds regional road networks, it could be applied only in the part of the region served by a new major road or crossing.
- The areas that benefit most directly from the transportation/transit upgrades. A DCC area could be defined, for example, very narrowly as say the areas around existing or future rapid transit stations plus the corridors receiving major bus upgrades on the premise that these locations are receiving the most direct improvement in accessibility.
- A combination. It would be possible to structure a DCC with a base rate across a large geographic area and a higher rate in defined directly benefitting areas. This approach probably maximizes the potential revenue while helping keep rates lower than if the charge is only applied to small benefitting areas, but it is not as simple to administer as a flat rate.

The question of where the new levy should be charged is closely tied to the regional transportation/transit infrastructure that is included in the determination of the DCC rates, as the nature of the investments helps define the benefitting areas.

It is also worth noting that the regional shares of past major investments in regional transportation/transit infrastructure have been funded using broad-based, regionally-applied mechanisms such as property tax or fuel tax. A region-wide DCC would be consistent with past approaches, whereas a DCC applied in only part of the region would be a departure from past funding strategies.

What Land Uses or Forms of Development Should Pay the New DCC?

The principle of “benefiters pay” would suggest that all urban development (except the exemptions allowed under legislation) should contribute to regional transportation/transit improvements. Housing, retail, office, industrial, and institutional uses all benefit to some degree from improved regional accessibility.

However, different forms of development benefit in different ways from various regional transportation/transit investments, so the decision about what land uses or forms of development should pay the new DCC is closely related to the infrastructure that is included in the determination of the DCC rates.

For example, if the new DCC is intended to fund transit expansion and upgrades, higher density uses will tend to benefit most, as these uses tend to be located near transit and tend to generate the most riders. Some may argue that low density residential uses should not pay a DCC that is mainly funding regional transit investments if they are in areas not well served by transit. However, transit service is being expanded and will eventually reach all neighbourhoods (albeit at different service levels). More significantly, low density areas that remain auto-oriented will benefit from reductions in road congestion and shorter travel times due to increased transit mode share. These same arguments, pro and con, could be applied to low density commercial and industrial uses. Shopping centres and big box retail concentrations are often not transit-oriented, but they would benefit from the expansion of transit service, reduced road congestion and shorter travel times, and in some cases from future densification and redevelopment supported by expanded transit.

Different forms of urban development will have different abilities to absorb the cost of a new DCC. While DCCs are a cost-based levy, rather than a charge based on ability to pay, it is essential to ensure that the amount of the charge can be absorbed without impairing the viability of residential, commercial, and industrial projects.

Should DCC Rates be the Same Across the Region or Vary?

There could of course be different rates for different kinds of development (e.g. low density residential, high density residential, commercial, industrial). This is allowed under legislation and is common in Metro Vancouver municipalities.

The challenging question is whether the rate for a specific type of development (an apartment unit, say) should be uniform across the region or should vary depending on some factor.

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One such factor could be location relative to the transportation/transit investments. For example, should a new apartment unit on the North Shore, where no new rapid transit is proposed, pay the same transportation/transit DCC as a new apartment unit in the Broadway Corridor where a new subway line is proposed? Should a new apartment unit on future rapid transit lines in municipalities South of the Fraser pay the same DCC as a new apartment unit on existing rapid transit lines? Should a new unit in a rapid transit station area pay the same DCC as a new unit not near a station, even if it is in the same municipality?

There are two broad policy options:

- All similar development (e.g. all apartments or all retail space) in the DCC collection area pays the same DCC rate.
- DCC rates for particular types of development vary across the region depending on the degree of direct benefit or the allocation of capital cost. DCCs are essentially a cost recovery mechanism based on the principle of beneficiaries pay, so DCC rates in specific areas could be set based on the capital costs to be incurred or benefits enjoyed in those areas. However, legislation requires that DCCs collected in a specific area must be spent in that area, an argument against a large patchwork of DCC districts that would limit flexibility in capital spending.

One consideration in this debate is the ease of setting and defending DCC rates. It would be very easy to come up with a uniform regional DCC rate for each form of development, although it might be hard to defend this in terms of benefits. It would be extremely difficult to come up with a DCC rate scheme that varied widely across the whole region based on some complex analysis of capital costs and direct and indirect benefits. Such a scheme could have a sound technical rationale, but it might be hard to achieve broad acceptance because there are so many perspectives on benefits and fairness; it may also lead to the challenge of too many small reserve accounts without enough money to build projects on a timely basis. Between these bookends, it would not be too difficult to come up with a DCC rate scheme that distinguished areas that will enjoy broad regional benefits versus areas that will enjoy direct significantly increased accessibility from transit investment, such as areas around rapid transit stations.

The question of uniform or varying rates will generate debate about relative fairness, ease of implementation, level of simplicity, the relationship between benefits and costs, and the pros and cons of having to administer

one capital budget for the whole region versus different capital budgets for different areas. If the infrastructure to be funded benefits the entire region, then there is a simplicity and fairness to uniform DCC rates across the region. On the other hand, if there is a material difference in benefits then this lends support to the idea that DCC rates should vary.

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Should Residential DCCs Vary by Type of Housing Unit?

For most DCCs in Metro Vancouver, the rate varies by type or size of unit, based on the premise that larger units tend to be occupied by larger households so there is a greater load on infrastructure. For transit, though, there is possibly a different relationship between dwelling type, household size, and transit load. Larger units (e.g. single detached dwellings) tend to be in lower density areas with lower transit use.

There are several different approaches that could be used to set DCC rates for residential uses:

- All residential units pay the same flat rate.
- The rate varies by type of unit (e.g. separate rates for single detached, townhouse, or apartment units).
- The rate is charged per square foot of space rather than per unit.

Charging per unit is probably an easier system to administer, but whether the rate should be the same for all units or differ by unit type warrants careful consideration. The question is whether the DCC should be based on household size, propensity to use the infrastructure being funded by the DCC, or benefit from investment (both directly and indirectly), as each of these factors would lead to a different rate structure.

How Should Rates Be Determined?

DCCs are a cost recovery mechanism, so ultimately the rate must be linked to the cost of the eligible capital items. However, based on preliminary analysis it is highly likely that the total regional share of eligible capital costs allocated over the likely amount of new development during the next 30 or 40 years would produce a DCC rate that is too high to be absorbed by the market. This would also not be in keeping with the principle of distributing costs fairly between existing users and new development. So, to determine an appropriate DCC, the following steps are needed:

- Determine the capital cost for the regional transportation/transit investments to be funded by the DCC.
- Consider the share of the capital cost that should be attributed to new development. This might not be an easy exercise, considering that almost all transportation/transit infrastructure will benefit new development as well as existing residents and businesses. However, a regional DCC will have an upper limit on revenue, based on the ability of new development to absorb a cost, so the share attributed to new development may be prescribed by this limit.
- Decide on the assist factor that should be applied to growth-related costs.
- Decide on the time frame over which the cost should be recovered.
- Estimate the total amount of urban development likely to occur in this time frame.
- Calculate the resulting rate per square foot or per unit of new development.

- Evaluate whether this calculated rate can be digested by the market with no impact on the pace and/or location of development or no impact on affordability and (if necessary) make adjustments to produce a final DCC rate structure.

Should Any Development Be Exempt?

Existing legislation states that no DCC is payable in cases where the development does not impose new capital cost burdens, so any new residential units or employment space that replace demolished units or space should not be charged.

Legislation requires exemptions for places of worship and allows (but does not require) exemptions or reductions for multifamily projects with 3 or less units, not-for-profit rental housing, for-profit affordable rental housing, or developments that have low environmental impact. A new DCC system would require a decision about whether to waive or reduce the charge for these kinds of projects.

Who Should Collect the DCC?

TransLink is responsible for capital investment in regional transportation/transit projects, so ultimately the proceeds from a new DCC should flow to TransLink. There are two main ways this could be implemented:

- Municipalities could collect the new DCC at the same time they collect their municipal DCCs. The municipalities would forward the money to TransLink. This is how the current regional sewer DCC works (with the funds forwarded by municipalities to the GVS&DD).
- The new DCC could be paid directly to TransLink.

The first approach uses existing administrative systems and is efficient for all parties. Creating a new DCC collection system in which funds are paid directly to Translink would add new costs that would reduce the DCC proceeds.

Could There Be Enough Revenue to Make a New Regional DCC Worthwhile?

The revenue from a new regional DCC obviously depends on where the charge is levied (i.e. the whole region or only sub-areas) and the rate structure. Financial forecasts can be produced for a variety of scenarios, showing how much revenue might be derived from a new DCC. For the purpose of this discussion paper, which does not include detailed forecasts based on a specific proposed DCC framework, it is interesting to simply demonstrate whether the idea of a new regional DCC could generate enough revenue to be worth careful consideration.

The potential magnitude of DCC revenues can be roughly estimated for illustrative purposes using some simple assumptions:

- Assume the DCC is levied on all residential, office, and retail development in the region but not industrial development as preliminary testing suggests it is unlikely to be able to bear the additional cost.
- Over the next three decades, the annual pace of new residential development (excluding replacements of demolished units) averages out to about 16,000 units per year based on regional population projections. At an average of 1,000 square feet per unit, this works out to 16 million square feet of new residential space each year.

- The estimated annual pace of commercial construction averages out to about 2 million square feet per year, based on recent trends.
- For illustrative purposes, assume an arbitrarily small DCC rate¹ of \$0.50 (fifty cents) per square foot.
- These figures yield DCC revenues of \$9 million per year on average, or more than \$270 million over 30 years. At \$1 per square foot, the yield would be \$18 million per year on average or more than \$500 million over 30 years.

This should not be interpreted to mean that fifty cents or a dollar per square foot is the “right” number. The figure is used simply to show that a relatively low regional DCC charge applied across the region can generate a significant amount of revenue over several decades.

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Clearly a regional DCC will not raise all of the necessary regional share of future capital spending, but it has the capability of generating a significant amount of revenue as part of a comprehensive regional funding strategy.

Possible Impacts

Adding a new cost to urban development always impacts the market in some way. If the new cost is very small, relative to the price or construction cost of new development, then the impact may be hard to define and difficult if not impossible to trace. But if the charge is significant, then it will affect the real estate market in ways that are somewhat predictable.

This section explores the nature of potential impacts of a new regional transportation/transit DCC on:

- Housing affordability.
- Development patterns.
- Local government revenues.

Housing Affordability

It is common to hear that “a DCC just gets added directly to the price of new units”, the inference being that local governments concerned about housing affordability should not charge levies for infrastructure. But that is a flawed characterization of how the market reacts. Developers do not set housing prices by just adding up the costs, tacking on a profit, and expecting the buyer to pay whatever this works out to, regardless of whether this figure is above market value. If they could do that, why would they worry about controlling any costs?

¹ What does “small” mean in a Metro Vancouver real estate context? Suppose a new concrete apartment unit sells for \$500 per square foot and the all-in cost (not including profit or land) is \$350 per square foot. If inflation on construction costs is say 1.5% per year, then costs will rise for this unit by say \$5 per square foot over a year. If the market is rising by say 3% per year, the sales price will go up by \$15 per square foot in a year. In this market context, a new cost that is in the range of (say) fifty cents per year is a small number that could have little or no observable impact on the market. Whether it affects developer profit, land acquisition cost, comes out of the project contingency budget (or even if it affects unit prices as some stakeholders claim), there is not much impact. Obviously a single change in cost at the margin must be looked at in the context of other costs. Adding up a lot of individual small cost increases can result in a large cost, with the possibility of significant impacts, so it is important to keep in mind that existing municipal and GVS&DD DCC rates will likely rise.

Housing prices are set by the interaction of local supply and demand. Market housing prices in turn drive land value. Think of the financial performance of a proposed new project this way: start by estimating the revenue from selling finished units at market value, deduct all the costs (except land) to build and sell the project, and then deduct the target for profit. What is left over is the

amount the developer can pay for land. When faced with any sort of cost increase, developers cannot arbitrarily bump up sales price and expect their units to sell as if nothing had happened. Nor do they happily settle for a lower profit margin. What happens is that they try to reduce the amount they pay for development sites. This view of market reaction is consistent with the view of the Province of BC's local government guide for amenity contributions, which states "Developers know that they cannot simply raise their asking prices when faced with additional costs; that the selling price is set by the market...a developer faced with increased costs...will try and find savings in the cost of land, offering less than they would have otherwise."²

This downward pressure on land value is at the heart of the levy impact question.

At any given time, a property in an urban area is either more valuable as a redevelopment site (say high density residential) or more valuable in its current use (say single family houses or older low density retail). Redevelopment only happens if developers can pay enough for sites to outbid the value supported by the existing use and to entice existing land owners to sell. If rising development costs reduce the amount developers can pay for land, then some owners will become unwilling to sell their property for redevelopment. If this happens on a large scale, reduced availability of sites means a slower pace of new construction. Constraining new supply in the face of strong demand means housing prices will rise...not just on new units, but on all stock.

Developers who already own land at the time of a new or increased DCC have a different problem. They can't reduce land cost, because they already bought it. They may get stuck with a lower profit or they may slow their project schedule if they think market price is rising, unless the levy is small enough that it is smarter to develop than to wait.

So, if development levies are too high the pace of new development could fall, with potentially severe impacts on affordability. This is a much bigger problem than just increasing the price of new units. However, not using DCCs (or some other way to collect revenue from new development projects) means everyone pays more property tax (or some other tax or fee) than they otherwise would. This affects affordability in a different way.

The key to avoiding impacts on housing affordability from a new regional transportation/transit DCC (or any DCC for that matter) is to make sure the charge is low enough that it does not reduce the flow of land into the market for new residential development.

This threshold – the size of a new DCC that would be large enough to reduce the ability

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The key to avoiding impacts on housing affordability from a new regional transportation/transit DCC (or any DCC for that matter) is to make sure the charge is low enough that it does not reduce the flow of land into the market for new residential development.

² Ministry of Community, Sport, and Cultural Development, "Community Amenity Contributions: Balancing Community Planning, Public Benefits, and Housing Affordability." March 2014, page 15.

of developers to acquire redevelopment lands – varies across the region. Housing prices (and therefore land values for development sites) in Vancouver, for example, are already so high that a new cost of several thousand dollars per unit would likely have little impact on the pace of development. On the other hand, because housing prices (and therefore residential development site values) are so much lower in Surrey a new cost of say \$1,500 per unit could lead to a reduced pace of new residential development in some areas, with resulting increases in house prices.

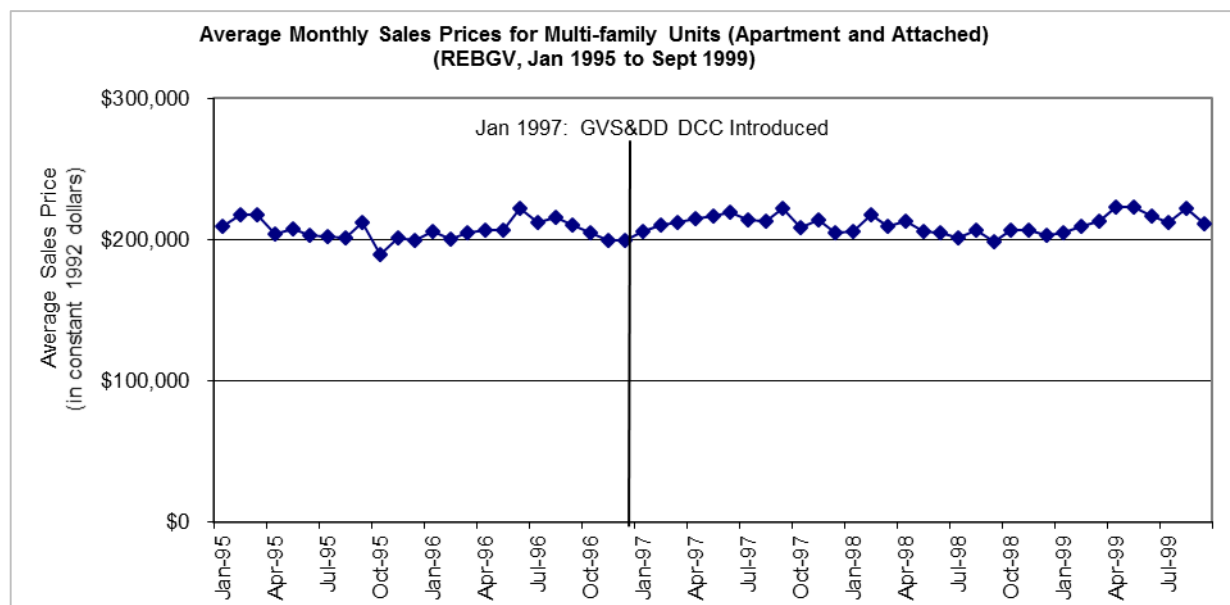
Complicating the impact assessment further is the likelihood that new transportation/transit infrastructure will open up new areas for densification and redevelopment, particularly around rapid transit stations. There could be more land designated for high density development in these areas, enabling a more rapid pace of development which helps ease market price growth and could offset impacts of the DCC. There is also the possibility that new developments near transit nodes can reduce the amount of parking, which reduces the cost of construction. And there is some potential for increased accessibility in some areas to cause purchasers to be willing to pay more for units, which helps offset the impact of the new DCC on developers buying land. Such price increases would be due to increased demand associated with the transportation/transit upgrade not the DCC per se. Is this an impact on affordability? Yes, in the sense that someone is paying more for the unit, but no if those purchasers can now significantly reduce their transportation costs by using rapid transit.

This is a high level treatment of a complex subject, with the intent of indicating that analyzing the impact of DCCs is significantly more nuanced than “it gets added to house price”, which is not a good characterization of market response.

In considering the idea of a new regional transportation/transit DCC, a careful land economics analysis could help set DCC rates that avoid negative impacts on the pace of development or housing prices.

The introduction of the regional sewer DCC offers an interesting case study. The GVS&DD introduced the regional DCC for sewer infrastructure in 1997. The charge was in the range of about \$600 to \$1,100 for apartment units and a little more for townhouses (and has not changed since then but is under review).

The chart below shows monthly average sales prices for multifamily units for a couple of years before and after the new sewer DCC was introduced. The chart shows seasonal fluctuations (with prices in spring and summer tending to be a little higher than in winter), but also shows that average price in January 1998 and January 1999 was almost identical to the price in January 1995 and January 1996.



Source: Real Estate Board of Greater Vancouver data. Note that sales prices are in constant 1992 dollars.

Many factors affect housing prices and it would be easy to read too much into this one example, particularly considering that the provincial economy had periods of weakness and volatility during the late 1990s and early 2000s. However, this example is interesting in that it does not support the view that a new DCC necessarily results in price increases.

Another perspective on this issue is provided by comparing housing price increases and construction cost inflation over the last decade. Cost index information suggests that the cost of new apartment construction increased by a total of about 25% during 2005 to 2015 (a compounded rate of about 2.2% per year). Over the same time frame, average sales prices for apartments in Metro Vancouver went up by at least 50% in many submarkets and as much as 100% in some of the strongest areas. Clearly, price (i.e. market value) growth is being driven by something other than cost increases. And this price growth was happening during a decade when total apartment construction was considerably higher than in the previous decade: a total of about 68,000 apartment units were built in the region during 1996 to 2005, while 107,000 units were built during 2006 to 2015, so the pace of development increased even though costs increased.

Housing prices in this region are rising for many reasons including population growth, low interest rates, international investment, intergenerational wealth transfer, and economic growth. Concern about affordability requires a cautious approach to any new costs, but it is possible to set a new DCC for regional transportation/transit at a level that does not have material negative impacts on the housing market.

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Impacts on Development Patterns

Regional transportation/transit investment affects development patterns when local governments plan accordingly. The rapid pace of multifamily development in places such as the Cambie Corridor in Vancouver, Brentwood in Burnaby, and central Richmond shows what can happen when transit investment, supportive municipal policy, and market interest align.

Future regional road, crossing, rapid transit, or Frequent Transit Network (FTN) investments can be expected to influence development patterns, provided that the municipalities adopt land use and density policies that take advantage of the infrastructure.

If a new DCC is imposed across the region, then it is not likely to alter development patterns as there is no way to avoid the charge. In fact, a region-wide DCC probably encourages densification because transit-served areas offer potential to offset the new cost with parking cost savings or increased buyer interest.

If the new DCC is only levied in defined benefitting areas, or if the rate is much higher in benefitting areas than in the rest of the region, there is a risk that development patterns are distorted. There are two ways to avoid this risk: make the charge uniform across the region or ensure that any difference in the rate is small enough to not materially alter the economics of new development. For illustrative purposes, a DCC of \$1 per square foot across the region versus \$2 per square foot in defined high density benefitting areas such as rapid transit station areas is probably not a big enough difference to distort development patterns. On the other hand, a rate of \$1 per square foot across the region and a charge of \$10 per square foot in station areas is probably big enough in some submarkets such as New Westminister, Surrey, or Coquitlam to deflect some development interest away from stations to peripheral locations.

Impacts on Municipal Finance

Financial analysis of new urban development projects easily demonstrates that there is a limit to how much local governments can charge for application fees and DCCs without impairing the pace or viability of new development.

Because there is a limit on the total municipal fee load, a new regional charge can reduce the amount that could otherwise have been collected for some other civic purpose, such as higher municipal DCCs or (in the case of rezonings) Community Amenity Contributions. If transit reduces the need for municipal road expenditures, then a new DCC could be seen as swapping a regional charge for a local road charge, with no net difference in total development cost or municipal net revenue. But if there is no reduction in the municipal roads program, even after transit investment, then the new regional DCC will take funds that could have been applied to municipal projects.

Advantages and Disadvantages of a DCC as a Means of Funding Regional Transportation/Transit Infrastructure

DCCs are a one-time charge levied on new urban development at the time of construction (either at subdivision approval or at issuance of building permit), which makes them very different from other ongoing funding sources such as property tax, fuel tax, fares, or road pricing.

The main advantages of DCCs include:

- A DCC framework is transparent, easy to understand, and easy to administer. The process of setting DCC rates and then accounting for how the money is spent are tightly defined by legislation.
- A DCC is a means of obtaining revenue from new urban development that benefits from new infrastructure, meaning it is consistent with the principle that growth should help pay for the cost of growth.
- Provided DCC rates are set carefully, the cost tends to be borne by land owners of development property, which is a different group of benefitting parties than transportation users or property taxpayers.
- Administration costs for a new DCC are small, as there is already a system in place to collect municipal DCCs and the existing regional sewer DCC.
- There is no risk of leakage of potential revenue, as all development that occurs in the region would contribute.

There are potential disadvantages pertaining to the risk of impacts:

- If DCCs are set too high, there is a risk of housing market impacts.
- A new regional DCC will take funds that could otherwise have been available to local governments for other kinds of infrastructure.

These potential impacts can be addressed by careful design of the DCC system and a careful approach to rate-setting.

There are also potential disadvantages due to the nature of DCCs as a funding tool:

- They can only be applied to capital costs, not to operating costs.
- They are a one-time payment, not a recurring revenue stream such as taxes, and there will be fluctuations in annual revenue, depending on the pace of new development which is linked to population growth, employment, interest rates, and other factors.

- They are not linked in any way to transportation patterns, so they do not influence transportation behaviour or choices (as distinct from road pricing, for example, which can generate revenue and influence mode share).

These disadvantages can be offset by other components of a comprehensive funding strategy designed to produce funding for ongoing operating costs, produce stable ongoing funding, and influence travel patterns.

Implementation

The first step in implementing a new DCC is to see if regional stakeholders support the idea. The Mayors' Council, the individual municipalities, TransLink, and the development community will all need to be satisfied that any concerns are acknowledged and addressed. If there is not broad support among regional stakeholders, it will probably be difficult to obtain the support of the Province (which must make the legislative changes) or the general public. To secure broad agreement, it will be necessary to address the policy questions raised in this discussion paper, agree on a DCC framework that is acceptable, and conduct financial analysis to support a proposed rate structure that is defensible in market terms.

If there is broad support from regional stakeholders, the Mayors' Council would have to decide if it supports including a regional DCC as part of the comprehensive funding strategy. If so, the Council would submit a proposal to the Province, which would have to draft legislation if it agrees with the idea. The principal necessary amendments are to add transit infrastructure as an eligible DCC item and to give TransLink the authority to collect and spend DCC funds, by changing the Local Government Act (Section 559(2)) and the Vancouver Charter (Section 523D) or the provincial legislation that governs TransLink's powers.

After the legislation is approved, a substantial amount of technical work is needed, including:

- Designing systems for collecting, monitoring, and allocating the funds to capital projects.
- Confirming the DCC rate structure with the stakeholders.
- Deciding on an approach to periodic review and adjustment of DCC rates based on inflation or changes to the capital budget.
- Working with the development industry regarding the phasing in of the charge.

It must be remembered that a new regional transportation/transit DCC is not something that can be examined in isolation. Other changes to development costs (such as increases in existing municipal or regional DCC rates) need to be taken into consideration, as these will affect the regional transportation/transit DCC rate that is feasible.

The immediate next steps are for the Mayors' Council and TransLink to decide if they want to propose including a DCC as a component of a regional transportation and transit funding strategy and to enter into consultation with the Metro Vancouver municipalities and development industry.

The immediate next steps are for the Mayors' Council and TransLink to decide if they want to propose including a DCC as a component of a regional transportation and transit funding strategy and to enter into consultation with the Metro Vancouver municipalities and development industry.

Local Government Development Charges and Housing Prices: Will TransLink's New DCC for Transit Infrastructure Affect Housing Affordability?

November 2017

Coriolis Consulting Corp.

A New DCC for Regional Transit

TransLink is proposing a regional Development Cost Charge (DCC) to help pay for new capital investment in transit. This new DCC is being considered at a time when other agencies are also increasing infrastructure charges: the Greater Vancouver Sewerage and Drainage District (GVS&DD) is increasing its levy on new development to pay for regional sewer infrastructure and many municipalities throughout Metro are raising their DCCs to pay for local road, water, sewer, drainage, and park networks. As well, many municipalities expect Community Amenity Contributions (CACs) from new development to pay for daycare, affordable housing, recreation facilities, and other public benefits.

Imposing these costs on new urban development stems from the idea that new residential and employment spaces need and benefit from expanded services and amenities, so should help pay for them. Urban development benefits from improved transit service in various ways, including making more locations available for high density development, reducing the need for parking (which is very expensive to build), and attracting buyers who want increased accessibility. Even low density development areas benefit from reductions in road congestion resulting from better transit. Therefore, it is reasonable to expect development to contribute to the costs of providing transit. At the same time, though, there are worries that increasing the cost of new construction, especially for housing, will push up prices. In a region where housing affordability is a major concern, any new upward pressure on price is unwelcome.

Will a New DCC Affect Housing Prices?

This concern about local government infrastructure charges is usually expressed in this way: "new costs are just passed on to buyers and renters of new units, making housing less affordable". This sounds logical and it is certainly repeated frequently. But is it true? If an agency like TransLink starts collecting a DCC to help pay for regional transit, does this new charge necessarily lead to increased housing prices?

Certainly, local and regional levies add to the construction cost of new residential and employment space. For uses that are created by governments and non-profits, such as housing for low income households, public schools, university buildings, and hospitals, increases in development charges add directly to the cost that must be borne by users and taxpayers. However, most forms of urban development - condominiums, market rental units, office space, retail stores, industrial work places - are created for profit and offered at a market price that is not the same as the cost of construction. To consider whether a new DCC affects affordability, it is necessary to look at the factors that drive prices in the housing market and then see which of the participants in the market bears the new cost.

To start, it is worth looking at some demonstrations of why market price and construction cost are not as tightly linked as is often suggested:

-
- In Metro Vancouver over the last few years, condominium prices have been rising at over 10% per year. While construction costs and some local government charges have been rising, increases in market price have far outpaced increases in the cost of building new units.
 - If new housing prices were determined just by adding up the costs and then adding a profit, why aren't prices across the region more uniform for similar types and sizes of units? New units in Vancouver sell for two or more times the price of same-sized units in Surrey; while some construction costs are higher in Vancouver, they are not double (or more) the costs in Surrey. Something other than construction cost is driving the price differences across the region. Areas experiencing the greatest market demand have the highest prices and these prices are far in excess of construction cost.
 - Suppose two adjacent, virtually identical new condo projects on adjacent sites come to market at the same time. One seeks a price that is 10% higher than the one next door, which offers units at the prevailing area price. The explanation offered by the sales rep is that the higher priced project cost more to build because of an expensive soil remediation requirement. Would condo buyers pay the extra 10% because of this higher cost? Or would they go next door and buy the unit that is selling at the prevailing market price? When people buy a unit (or a new stove, for that matter) they generally don't know what it cost to construct. What they know is the market price and they know what they are willing and able to pay. They won't (or can't) pay more just because the seller claims to have absorbed a higher cost.
 - Suppose a developer completes a new condo project. The total of all costs (construction, marketing, land, municipal charges) plus a typical allowance for profit all come to \$700 a square foot. But new units in the neighbourhood are selling for \$800 a square foot. Does the new developer offer the new project at \$700 a foot or at the prevailing market price?

These points ought to create some skepticism about the premise that any new costs, such as DCCs, are simply directly passed on to new home buyers or renters in the form of higher prices.

So, if the charge is not simply added to price, what happens when a new government charge is imposed for infrastructure or amenities?

The answer is different for levies such as DCCs, that are imposed on all projects, and for CACs, that in BC are only applicable to projects involving rezoning.

Community Amenity Contributions and Housing Prices

Community Amenity Contributions (CACs) are collected by many BC municipalities when property is rezoned to change the allowable uses and/or allowable density for new development. This type of rezoning has two key consequences:

- By increasing the capacity for new housing or employment growth, rezonings lead to increased loads on a wide range of community amenities and infrastructure, such as daycare, recreation facilities, or emergency services.
- By changing the allowable use and by increasing the allowable density, rezonings almost always result in higher land value because of the increased development opportunity.

Without a mechanism such as CACs, the impacts of growth are absorbed by the community and the municipality, while all the benefits of increased land value are enjoyed by the property owner. A CAC is a

means for converting some of the increased land value into public benefits that help the community deal with the impacts of growth. A well-designed CAC system results in the land value gains from rezoning being allocated among land owners (so they have an incentive to sell their land into the development market), developers (so they have an incentive to develop the additional density), and the community (in the form of amenities that help address the impacts of change). Because CACs are always associated with an increase in density, CACs do not have a negative impact on housing price. Local governments obtain CACs in exchange for allowing new density (i.e. new capacity for development), meaning CACs help encourage expansion of housing supply. Generally, the cost of CACs associated with obtaining new density is less than the market value of this density, so the all-in cost of new units can be lower than the cost of new units that are built on already-zoned land. New units sell for market value, though, and sales data indicates that units in projects that paid a CAC are priced the same as comparable units in projects that did not pay a CAC (because they did not involve rezoning).

Development Cost Charges and Housing Prices

DCCs are very different from CACs. These infrastructure costs are levied on all projects, not just those involving rezoning, so they are a cost that is not offset by an increase in development density.

To explain the impact of DCCs in the urban market, it is important to understand a unique feature of land as a form of capital. Labour, money, and materials can all move around based on where they will obtain the optimum value or return. Land can't move, so its value is based on what it can be used for in its local market context.

In an urbanized region such as Metro Vancouver, almost all properties that have redevelopment potential based on zoning or community plan policies have at least two candidates for what an appraiser would call the highest and best use, or the use that supports the highest land value in an open, competitive marketplace:

- One candidate is the amount that a user (e.g. a home owner, a business owner) or an investor would pay for the property to keep it in its present use. This use might be a single detached home, an older low density rental apartment building, an older retail space, or a strip mall. This existing use supports a value based on what users or investors are willing to pay, to keep and use the property as is (to live in, to run a business in, or to collect the rent from).
- The second candidate is the amount a developer is willing and able to pay to acquire the property, demolish the existing use, and profitably build something new, typically at a higher density. The amount a developer can pay depends on the market value of the completed new use and the cost of creating this new use.

When the value supported by the existing use exceeds the value a developer can pay, the property generally remains as is. This is the case for many properties that appear as though they “ought” to be development sites, because some older low density commercial properties or older single detached homes in places zoned for higher density are simply more valuable in their current use than a developer can afford to pay for them. On the other hand, when the land value supported by redevelopment of a site exceeds the value of the existing use, then redevelopment usually occurs. As an aside, this is why it is possible and important to calculate the minimum allowable new density that is necessary to encourage redevelopment in areas selected for densification: a developer needs sufficient new density to support enough land value to compete a site away from those who want to own the property for its current use.

What determines how much a developer can afford to pay for a site? For residential development, it works like this:

- How much will the new units sell or rent for in the open market? This market price determines the total amount of money that will be available to pay for construction costs, profit, and land.
- What is the cost to construct the new project? Developers pay all the hard costs (e.g. concrete, lumber, labour, appliances) and soft costs (e.g. municipal fees, insurance, marketing, professionals) of creating a development and bringing it to market.
- What is the profit margin achievable in the local market? Development takes time, ties up capital, and involves risk, so developers of new condos or rental units need to achieve a level of profit that makes the business worthwhile. Developer profit margins are set by the competitive marketplace: there is a basement rate of profit set by the fact that developers are not willing to do projects below some minimum threshold of profitability (and lenders are not likely to lend money for projects that are too “thin”) and a ceiling rate set by competition from other developers (a developer who tries to extract too much profit will have to try to achieve higher unit prices than other similar projects, try to obtain labour or materials at less than market price, or try to buy development sites for less than market value, none of which are sustainable business strategies).
- Starting with the market value (the revenue from developing the project), deducting the construction cost and deducting the target profit leaves the amount that can be paid for land. This “residual” land value is the maximum a developer can pay for a site and still have a viable, profitable project. This amount must be higher than the value of the site supported by the existing use, or the developer will not be able to buy it for redevelopment.

Based on the above explanation, understanding what drives the market price of new housing is at the heart of understanding the impact of a new cost in the urban marketplace. Classic microeconomics tell us that price is set by the interaction of supply and demand. The demand for residential units in Metro is a function of population growth, employment growth, household incomes, mortgage rates (which have been at historic lows for a long time), intergenerational wealth transfer, investors (local and non-local), second home owners...all of which generate demand for owned and rented housing in this very attractive region. This total demand for units is higher than the demand generated by population growth alone.

The supply of residential units in the region consists of existing inventory (which is fixed) and new inventory, which requires new development. The pace of new development is affected by the availability of land, infrastructure (particularly transportation), municipal approvals processes, and the capacity of the regional industry to build new product. Land availability in this region is one constraint on new housing supply. Mountains, ocean, and the US border limit the total supply of land, the Agricultural Land Reserve and open spaces account for a large area, and low density single detached neighbourhoods account for another large swath, leaving a relatively small total area available for high density urban use. Another constraint is the rate at which new projects are approved.

Strong demand and constrained land supply have combined to push housing prices upward at a pace that far exceeds the rate of inflation in construction costs or increases in local government fees. The difference between growth in market price and increased construction cost becomes growth in land values. New construction costs in a rising market, therefore, tend to take some of the money that would otherwise have become added to land values.

Prices will not keep rising at recent rates forever, but in the absence of significant government intervention or a major economic downturn they are not likely to collapse either.

So, what does all this mean for DCCs?

Adding a new DCC, such as the one proposed by TransLink, will not directly increase the market price of housing. Prices in a region with strong demand and constrained supply are not determined just by adding up the costs.

What a new DCC does do is reduce the amount developers would otherwise be able to pay for land. Developers cannot arbitrarily increase the market price of new units just because a cost went up¹. They are price-takers for construction costs (i.e. they cannot try to drop their price for concrete to counter an increased DCC). And they have a target for profit that needs to be met to justify the risk of taking on a project. So, the new DCC has only one place to go: it pushes down development site values (which does not necessarily result in an absolute decline; it could show up as a slower rate of growth in land values than would otherwise have occurred).

Back to the idea that every parcel of land has at least two candidates for setting its market value: for a parcel of land to be a development site, developers must be able to pay more for land than the value set by existing uses. If a new (or increased) DCC lowers developers' bid price for land, but this price is still sufficiently higher than the value set by the existing use, there is no impact on the housing market. Land owners still have an incentive to sell into the market, developers can outbid users or investors who want the existing use, and new units still flow to the market at the pace they would have. But if the DCC (or any new cost) drives developers' bid price below the value set by existing use, developers will not be able to obtain development sites. Sites that should have been development sites remain in their existing use. If this reduction in the availability of development sites is large and widespread, it has serious consequences for the housing market because it results in a reduced flow of new units in a market with a continuing surge in demand. The result is market-wide increases in all housing prices, which is of far greater concern regarding housing affordability than the simplistic fear that the DCC gets added to the price of new units.

There are three housing market risks if DCCs (or any new cost imposed by government) are too high:

- For market strata housing, if DCCs put too much downward pressure on what developers can pay for land, the flow of land to the redevelopment market will slow (because more properties will be kept in their current use), the pace of new unit creation will slow, and strata prices will rise faster than they otherwise would have.
- New market rental housing in Metro Vancouver already has financial difficulty competing for development sites because rental supports a lower land value than strata development. To make rental more financially viable, the land cost must be lowered by expanding development capacity (through density bonusing, for example, or by allowing higher density only if rental is included) and costs imposed by government must be managed very carefully, particularly in submarkets where new rental is just barely viable. Fortunately, the cost of a new DCC for transit can be offset by cost savings such as reduced parking requirements.

¹ The Province of BC published a guide for local government in 2014 that stated, "Developers know they cannot simply raise their asking prices when faced with additional costs; that the selling price is set by the market." Community Amenity Contributions: Balancing Community Planning, Public Benefits, and Housing Affordability, Ministry of Community, Sport, and Cultural Development, March 2014, page 15.

-
- For non-market rental projects, which are usually built or incented by non-profits and governments who are trying to deliver new units at the lowest possible cost, any new costs just add to the challenge. This is why TransLink, like others in Metro, will exempt some kinds of affordable rental housing from the new DCC.

Avoiding these negative impacts requires caution in setting the amount of any new cost imposed by local or regional agencies and also requires giving ample notice of new or increased costs so the land market has time to adjust.

Getting it Right

DCCs are a two-edged sword. Set appropriately, they are a way to have new development contribute to infrastructure by capturing some value that otherwise would have gone to increases in land value. Set too high, they can lead to a reduction in the availability of development lands and impair the viability of new rental projects, with consequences for affordability.

TransLink, like the GVS&DD and all local governments in Metro, must use caution in setting DCC rates. The combined total cost of these charges must be at a level that does not impair the economics of new development or impede the flow of development sites and new units to the market.

TransLink's proposed new DCC is being designed to achieve a careful balance². Over time, the DCC will generate significant revenue for transit infrastructure that will come from urban development, a new source that is different from property tax, fuel tax, or transit fares. The DCC will be a mechanism whereby some of the benefits for new development that flow from better transit will be channeled into investment in new transit. The proposed DCC rates have been communicated with more than two years notice and have been set at a modest level³ that, after accounting for other recent and proposed increases in development charges in the region, will not have any significant negative impact on the Metro Vancouver housing market, provided appropriate exemptions are made for affordable rental housing.

² For an overview of the proposed DCC, see "A DCC for Regional Transportation Infrastructure in Metro Vancouver: Proposed Structure and Draft Rates", TransLink, November 2017.

³ The proposed rates are \$2,100 per single detached unit, \$1,900 per townhouse unit, \$1,200 per apartment unit, \$1 per square foot for retail, and \$0.50 per square foot for office, industrial and institutional. These rates are subject to further review prior to final adoption.

TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning & Policy
Steve Vanagas, Vice President, Communications & Public Affairs

DATE: November 15, 2017

SUBJECT: Phase Two Investment Plan Municipal Engagement and Public Consultation Strategy

PROPOSED RESOLUTION:

That the TransLink Board of Directors approve the *Phase Two Investment Plan Municipal Engagement and Public Consultation Strategy* (attached).

EXECUTIVE SUMMARY

Translink is in the process of developing the Phase Two Investment Plan (Phase Two). Per the SCBCTA Act, Translink must consult with public, the Mayor's Council, GVRD, and municipalities on the contents of an investment plan. This report provides an overview of the proposed consultation plan for Phase Two, including a description of the public engagement options considered, and summary of recent and planned engagement with Mayors, municipalities, and GVRD. For broader public consultation, the widest-reaching element of consultation, Management recommends a combination of regional open houses and an online survey promoted social media and digital advertisements. This report also summarizes the customer, financial, and communications impact of the proposed consultation plan.

PURPOSE

To describe the proposed *Phase Two Investment Plan Municipal Engagement and Public Consultation Strategy* for review and endorsement by the Board.

BACKGROUND

By practice, TransLink consults with the public and key stakeholders on all major initiatives that have potential to impact people, and using their feedback as advice to adjust those initiatives.

Under the *South Coast British Columbia Transportation Authority Act*, TransLink must prepare a 10-Year Investment Plan. The Plan serves as TransLink's strategic and financial plan, and must be approved by the Board and the Mayors' Council. Management is currently developing the Phase Two Investment Plan, guided by the Board and Mayors' Council Joint Committee on Transportation Planning and Funding, and informed by the Mayors' Vision.

When the Authority plans to consult, the Act says it must adopt a consultation plan that will provide opportunities for consultation and consider any comments provided during the consultation process before taking the action. Additionally, and specific to Investment Plans, Section 15 (3.1) the SCBCTA Act states:

Before an investment plan is provided to the Mayors' Council on Regional Transportation under section 202.1, the authority must consult, on matters that the authority proposes to include in that plan, with

- (a) the public in the transportation service region,
- (b) the Mayors' Council on Regional Transportation,
- (c) the Greater Vancouver Regional District, and
- (d) any municipality and other organization that the authority considers will be affected.

DISCUSSION

The Phase Two Investment Plan Municipal Engagement and Public Consultation Strategy is attached for Board consideration.

TransLink proposes to engage the groups identified above in the following manner:

- (a) the public in the transportation service region:

The public consultation component is the widest-reaching element of the consultation plan, and anticipates taking a largely digital approach to both awareness and measurement, utilizing website information on the *tenyearvision.translink.ca* site, and an online survey promoted via social media.

The decision to take a largely digital approach was informed by the experience and lessons learned from the 2017 public consultation for the Phase One Investment Plan. Phase One consultation involved a mix of online surveys and advertisements augmented with 9 open houses across the region. In total, more than 5,000 questionnaires were completed resulting in about 8,300 written comments. By contrast, the in-person open houses attracted 353 people, and the median number of people in attendance at each open house was 34.

Two Options were considered:

Option A: Enhanced Survey

Staff efforts would focus on developing a robust online survey with visual graphics, survey translation into multiple languages, and directing people to the online survey through social media, informational cards available to municipal staff to distribute, and street teams distributing informational cards. Printed surveys would be available to engage those with limited access to the internet.

Option B: Survey and Open Houses

TransLink would put a PDF file of the Phase Two Discussion Guide online, accompanied by a text-only survey in English. People would be directed to the online survey through social media and the TransLink webpage.

Paper copies of the Discussion Guide would be available at up to 7 open houses held in each of the sub-regions (South of Fraser, Vancouver/UBC/UEL, Burnaby/New Westminster, Northeast Sector, Southwest sector, Maple Ridge/Pitt Meadows, and the North Shore). These open house would be lightly staffed – one person each from Planning and Communications.

Management has concluded that Option B: Survey and Open Houses, is appropriate and warranted.

(b) the Mayors' Council on Regional Transportation:

The development of the Phase Two Investment Plan is guided by the monthly meetings of the Board and Mayors' Council Joint Committee on Transportation Planning and Funding, which consists of the following members: Mayor Jonathan Coté, Mayor Jack Froese, Mayor Linda Hepner, Mayor Gregor Robertson, Mayor Richard Walton, Board Chair Lorraine Cunningham, Board member Sarah Clark, Board member Murray Dinwoodie, Board member Anne Giardini, and Board member Marcella Szel.

A report from the Joint Committee on Transportation Planning and Funding is included in the public and in-camera portions of every meeting of the Mayors' Council.

Feedback from these two monthly meetings is used to direct the activities of the investment planning process, as well as to provide final say on investments included in the plan.

(c) the Greater Vancouver Regional District:

In addition, staff from Metro Vancouver is part of the monthly "Municipal Staff Working Group" that meets to discuss material prior to presentation to the Joint Committee on Transportation Planning and Funding.

We will formally consult with Metro Vancouver through their committee and board process; it is anticipated that the information will go to Metro Vancouver staff and feedback will be sought at a January or February meeting of the Regional Planning Committee.

(d) any municipality and other organization that the authority considers will be affected:

As was done for the Phase One investment plan, small table workshops to develop the final scope of improvements for the Phase Two Investment Plan were held with local government staff and Metro Vancouver staff, in September. All members of the Regional Transportation Advisory Committee (RTAC) and the Regional Planning Advisory Committee (RPAC) were invited to attend. These sessions were held at TransLink's Sapperton head office on Friday, September 15th and Wednesday, September 20th, and included 26 participants from local government.

Similar workshops to develop the investment plan scope were also held with regional mayors, municipal CAO's, and TransLink Board members. These workshops were held at TransLink's Sapperton head office on Thursday, October 5th, Tuesday, October 10th, and Wednesday, October 18th, and 31 participants attended.

Finally, new to Phase Two Investment Plan, small table workshops were held with Members of the Legislative Assembly at two separate workshops held in Victoria on October 2nd (Liberal Caucus) and October 24th (NDP Caucus).

Customer Impact

The consultation plan strives to be widely inclusive. As designed, staff recommend adopting this municipal engagement and public consultation strategy to provide an avenue for public feedback, to

educate about the investment planning process, and to help ensure that investments are included that have maximum benefit to the region.

Financial Impact

Expenditures related to implementation of the consultation will be accommodated within TransLink's 2017 operational budget.

Communications Implications

The consultation will be supported by a broad communications strategy. That education and awareness effort is complimentary to the consultation, but is not a formal part of the consultation plan.

Timing and design of the consultation process has been informed by investment plan approval deadlines. Other significant TransLink projects will also be in consultation in close proximity to this effort, including:

- MLBE Phase 3 Engagement (January 22- February 13 2018)
- SNG LRT Phase 3 Engagement (February 1-28 2018)
- B-Line Reviews (Phase 1 Spring 2018/Phase 2 TBD)

We also expect consultations related to the independent Mobility Pricing Commission to occur in early 2018.

Consideration will be given to the order and timing of other projects to ensure one complements the next as best as possible while respecting the collective timing constraints and business objectives.

ATTACHMENTS

Phase Two Investment Plan Municipal Engagement and Public Consultation Strategy

Phase Two Investment Plan

Municipal Engagement and Public Consultation

Strategy

Prepared by:

Casey Osborn – Planner, Strategy and Plan Development
Drew Ferrari – Senior Advisor, Government and Community Engagement
Sabrina Lau Texier – Manager, Strategy and Plan Development
Andrew McCurran – Director, Strategic Planning & Policy

For:

Shirley Samujh-Dayal – Manager, Government and Community Engagement
Geoff Cross – VP, Transportation Planning & Policy
Steve Vanagas – VP, Customer Communications & Public Affairs

Other business units:

Draft #05
14/11/2017

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1. BACKGROUND

1.1 PHASE TWO INVESTMENT PLAN BACKGROUND

TransLink is in the process of developing an investment plan to fund Phase Two of the 10-Year Vision – referred to in this document as the “Phase Two Investment Plan.” If approved by the TransLink Board and the Mayors’ Council, this investment plan would serve as TransLink’s strategic and financial plan from 2018-2027. The Phase Two Investment Plan will enable TransLink to take the next steps in expanding and improving Metro Vancouver’s transportation network to meet the demands of our growing population. Anticipated highlights of the Phase Two Plan include:

- Surrey-Newton-Guildford light rail
- Millennium Line Broadway Extension subway
- More rail cars and station upgrades on the existing SkyTrain system
- Additional expansion of bus service across the region
- Additional expansion of HandyDART service
- Continued improvements to major roads, cycling, walking paths, and transit access points

On March 22, 2017, the Federal Government committed approximately \$2.2 billion for Phase Two of the 10-year Vision. TransLink and the Mayors’ Council are in active discussions with the Provincial government regarding the remaining funding and timeline for the Phase Two Investment Plan.

TransLink will present the Phase Two plan to the public, for input, in early 2018. As with Phase One consultation, participants will have a chance to see details of the transit and road improvements being planned for their community and to comment on proposed investments and regional funding sources.

2. RESPONSIBILITIES

2.1 PUBLIC AFFAIRS WORKING GROUP

Engagement and communication will be coordinated by a cross-departmental project Public Affairs Working Group (PAWG), comprised of individuals from TransLink’s Strategy and Plan Development, Government and Community Relations, Marketing, Digital Marketing and Communications departments. Throughout the project, the PAWG will support the development of engagement material, and ensure that the engagement framework is implemented and managed according to schedule and achieve the goal and objectives.

The following representatives within TransLink will work together to ensure the stakeholder and public engagement process is delivered in an efficient and professional manner.

Name	Title
Sabrina Lau Texier(Project Manager)	Manager, Strategy & Plan Development, Strategic Planning & Policy
Sarah Tseng	Senior Planner, Strategy and Plan Development
Casey Osborn	Planner, Strategy and Plan Development
Angela Salehi	Manager – Communications
Danielle Finney	Sr Communications Advisor, Corporate Communications
Patricia Lucy	Senior Marketing Advisor

Jennifer Despina	Corporate Marketing Specialist, Enterprise Marketing
Jodie Delore	Digital Marketing Coordinator
Drew Ferrari	Senior Advisor – Government and Stakeholder Engagement
Mike Buda	Executive Director – Mayors’ Council

3. ENGAGEMENT OVERVIEW

This engagement plan focuses on the marketing and delivery of the public consultation stage of Phase Two of the 10-Year Vision.

This plan anticipates taking a largely digital approach to awareness and measurement, augmented with a limited number of open houses for public information. Hard copies of the survey will be made available with each outreach effort to ensure those with limited access to electronic media have an opportunity to provide input.

Other significant TransLink projects will also roll out in close proximity to this effort, including:

- MLBE Phase 3 Engagement (January 22- February 13 2018)
- SNG LRT Phase 3 Engagement (February 1-28 2018)
- B-Line Reviews (Phase 1 Spring 2018/Phase 2 TBD)

We also expect consultations related to the independent Mobility Pricing Commission to occur in early 2018.

Consideration will be given to the order and timing of other projects to ensure one complements the next as best as possible while respecting the collective timing constraints and business objectives.

3.1 CONSULTATION REQUIREMENTS AND OBJECTIVES

Section 15 of the SCBCTA Act requires TransLink to “consult before taking any proposed action”. The Act further states that the authority must “consider any comments provided during the consultation process before taking action”.

TransLink designs and implements its public engagement (consultations) in accordance with the standards and best practices set by the International Association for Public Participation (IAP2).

IAP2 identifies five levels of engagement: **Inform, Consult, Involve, Collaborate, and Empower**. The level of public impact varies from project to project and the level of engagement required is assessed depending on the required outputs and outcomes leading to the necessary business results.

developed by the international association for public participation

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decision.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution .	To place final decision-making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

1-IAP2 Spectrum of Engagement

Based on the previous consultations and technical work which led to the current 2017 Investment Plan, staff recommends that public engagement blend two levels of IAP2 engagement: **Inform** and **Consult**.

Specific consultation objectives for engagement on the Phase Two Investment Plan include:

- Share information and seek focused feedback from key stakeholders and the public.
- Inform people about how the Phase Two of the Investment Plan will improve the level of transportation across the region.
- Consult key stakeholders and the public about the options to fund the possible projects and services.
- Identify whether additional information is required to ensure people have a clear understanding of the impacts and benefits of the investment plan.
- Gather a balanced level of feedback from people across the region.
- Provide insight on public support and feedback to inform the plan approval.

3.2 CONSULTATION AUDIENCES

Primary Audience at Inform Level:

- The public throughout TransLink's transportation service region.

Primary Audience at Consult Level:

- the Mayors' Council on regional transportation;
- the Greater Vancouver Regional District (Metro Vancouver);
- Regional elected officials (Federal, Provincial and Local Government); and,
- Stakeholder organizations that have expressed a high degree of interest in regional transportation investment (e.g. Better Transit and Transportation Coalition members).

3.3 CONSULTATION TIMELINE

The tentative dates for the Phase Two Investment Plan Consultation are as follows:

Stakeholder Engagement Workshops: September and October 2017

Public Consultation: January 2018 (TBC pending provincial funding announcement)

Metro Vancouver Consultation: Regional Planning Committee (TBD)

Consultation Summary: February 2018

4. ENGAGEMENT TECHNIQUES

4.1 WEBPAGE

The webpage <https://tenyearvision.translink.ca> will serve as the primary means to engage the public about details of Phase Two Investment Plan. Plan information will be posted on the website together with an online survey. The website would serve to:

- Drive participation to the online survey
- Be a landing place for anyone who is interested in the Phase Two Investment Plan.
- Provide background information on the Phase Two Investment Plan:

4.2 SURVEY STRATEGY

Feedback pertaining to the Investment Plan will be gathered through an online and paper survey. Due to the limited amount of time available between the close of engagement and report summary deadline,

the survey will be predominantly made up of close-ended questions with provision for an open-ended comment area. This will facilitate efficient and timely analysis of the feedback and allow for the completion of the survey analysis within the required timeline.

Potential participants may be directed to the survey through:

- the TransLink website
- the <https://tenyearvision.translink.ca>
- TransLink social media posts

4.3 PROPOSED SURVEY FORMAT AND QUESTIONS

The text below is still a work-in-progress, and will be finalized once scope, funding, and timelines are finalized.

Survey Introduction:

TransLink is seeking your feedback regarding the 2018 Investment Plan. It is important for us to hear from you. Please take 3-5 minutes to respond to the following **XX** questions, to share your level of support for the Mayor’s Council and TransLink’s 10-Year Vision for Metro Vancouver.

Transportation Improvements:

The 2018 Investment Plan will deliver the following transportation improvements across the region:

- Surrey-Newton-Guildford light rail construction
- Millennium Line Broadway Extension subway construction
- More rail cars and station upgrades on the existing SkyTrain system
- Additional expansion of bus service across the region
- Additional expansion of HandyDART service
- Continued improvements to major roads, cycling, walking paths, and transit access points

Question 1: How important do you feel the planned transportation improvements are to the Metro Vancouver region?

Very Important	Somewhat Important	Not Very Important	Not at all Important
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To deliver the transportation improvements will require funding from all three levels of government, as well as users of the transit system and road network. The federal government has pledged 2.2 billion dollars for our local transit system. The provincial government has pledged to provide 40% of the capital costs. The region is responsible for funding the remainder of the Phase Two Plan.

Regional Funding

To pay for all of the transportation improvements will require the following funding options:

- TransLink’s existing funding sources, including new fare from future rate increases
- An allocation of the incremental increase in provincial carbon tax **(TBC)**

Question 2: What is your level of support for implementing the regional funding options to deliver the transportation improvements across the region?

Strongly Support	Support	Neutral	Oppose	Strongly Oppose
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Please answer the following question pertaining to the engagement process and survey.

- Information about the 2018 Investment Plan was clear and understandable.

Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree
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- Do you have any further feedback regarding the 2018 Investment Plan?

Insert text box with specific number of characters

- Please provide the first three characters of your postal code (3 characters allowed in text box)

- How old are you?

15-20 yrs old	20-29 yrs old	30-39 yrs old	40-49 yrs old	50-65 yrs old	65+ yrs old
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- How did you hear about the 2018 Investment Plan?

Online	Buzzer Blog	Print Buzzer	Media
Etc.	TransLink Website		

Thank you for completing the 2018 Investment Plan survey. All feedback will be summarized in a report which will be posted on the TransLink website.

To sign up for future updates, please go to [.....](#)

4.4 PUBLIC OPEN HOUSES

TransLink would complement this largely online effort with a maximum of 7 open houses held in each of the sub-regions (South of Fraser, Vancouver/UBC/UEL, Burnaby/New Westminster, Northeast sector, Southwest sector, Maple Ridge/Pitt Meadows, and the North Shore). These open house would be lightly staffed – one person each from Planning and Communications.

At each open house, participants will have a chance to see details of the transit and road improvements being and to comment on proposed investments and regional funding sources.

Attendees will be given an opportunity to complete the online survey using iPads.

4.5 ENTERPRISE STAFF ENGAGEMENT

Concurrent to the public being consulted about the plan, TransLink will work with communications advisors at CMBC, BCRTC, WestCoast Express and Blue Bus to ensure information about the engagement process is shared with Enterprise staff and they are encouraged to complete the online survey.

4.6 ELECTED OFFICIAL/PUBLIC OUTREACH

During the fall of 2017 TransLink hosted six workshops with municipal staff, Mayors, CAOs and Members of the Legislative Assembly. The purpose of these workshops was to give decision makers the opportunity to provide feedback on the proposed scope of the Phase Two Investment Plan. The workshops are described in greater detail in the sections below.

Additionally, as a proactive step during public consultation to engage residents who are not able to complete the survey online, TransLink Government Relations staff will make project information available to local elected officials to enable them to reach out to their own grassroots networks if they wish, and share printed copies of the engagement survey with constituents who may not have other access.

4.6.1 METRO VANCOUVER ENGAGEMENT

TransLink will work with Metro Vancouver staff to share project information with the Metro Vancouver Board, as well as appropriate committees, such as RTAC and RPAC.

4.6.2 MUNICIPAL ENGAGEMENT WORKSHOPS

With a goal of building confidence and consensus around the next Investment Plan, a series of workshops were conducted in fall 2017. The purpose of these workshops was to provide information to Mayors, CAOs and municipal staff on the Investment Plan to date and gather input on specific topics and scope. TransLink staff hosted the following workshops in September and October:

Audience	Level of technical detail	Location	Workshop length	Workshop dates	Number of participants
Local government staff	High	Sapperton	3 hours	September 15, 2017	11
				September 20, 2017	15
Mayors' Council, CAOs, TransLink Board	Medium	Sapperton	3 hours	October 5, 2017	14
				October 10, 2017	11
				October 18, 2017	6

4.6.3 PROVINCIAL ELECTED OFFICIALS WORKSHOPS

In addition, two Investment Plan workshops were conducted for Provincial elected officials to provide information on the Plan to date and gather input on specific topics. To facilitate attendance, these were both held in Victoria as an early morning and an evening event so that members of the legislative assembly could attend after their day in session. An event for Liberal caucus members was held on Monday October 2nd (21 participants), and a workshop for members of the NDP caucus was held on Tuesday October 24th (18 participants).

5. COMMUNICATIONS

5.1.1 COMMUNICATIONS OBJECTIVES:

- Inform customers and stakeholders about the existence, objectives, activities and timing of the Investment Plan consultation.
- Raise awareness about the opportunities to participate in engagement activities.
- Demonstrate that TransLink is delivering on its commitment to listen to stakeholders.
- Build trust and confidence in TransLink and demonstrate that we are transparent and accountable with decision-making.
- Monitor public feedback and media coverage in order to manage issues early and effectively.

5.1.2 COMMUNICATIONS APPROACH:

Overall, a proactive, targeted high-profile approach that draws on media relations, employee communications, public engagement, and government relations is recommended.

- Target communications activities to stakeholders, key traditional and social media outlets, and Translink channels—urge people from across the region to get involved and spread the word about the project and its engagement process.
- Communicate in language that is simple, clear and meaningful.
- Ensure positive tone throughout all materials demonstrating customer value and that Translink is listening on a critical issue.
- Support public facing-employees with materials to effectively communicate with customers.
- Identify, address and correct misinformation quickly.

5.1.3 COMMUNICATIONS PROPOSED TACTICS:

Tactics may include:

- Prepare materials including: communications plan, issues note, backgrounder; news release
- Inform media through a mixture of targeted and broad outreach
- Enhance website content
- Promote engagement opportunities on social media (Buzzer, Facebook, Twitter, Instagram)

6. GOVERNMENT RELATIONS

TransLink's Strategic Planning group will work in close collaboration with the Government Relations group to jointly engage elected officials.

All levels of Government will be informed of the 2018 Investment Plan consultation details via electronic media. All questions concerning the consultation from elected officials will be coordinated through Government Relations.

Dialogue among senior staff and politicians regarding the 10-Year investment Plan itself have been ongoing, and are not intended to be reflected here.

6.1 GOVERNMENT RELATIONS MEASURES

Category	Stakeholder	Issues/Challenge/Opportunity
Local Government	<ul style="list-style-type: none"> • Mayor and Council • CAOs 	<ul style="list-style-type: none"> • Need detailed information to garner support of Plan • Roll out of many plans in close succession; potential to muddy messaging • Need to be kept up to date on project progress to ensure “no surprises” • Leverage for more grass-roots participation
Provincial MLAs	<ul style="list-style-type: none"> • Minister Responsible for TransLink • Minister of Transportation and Infrastructure • Deputy Ministers • Government MLAs • Non-Government MLAs 	<ul style="list-style-type: none"> • Need to be kept up to date on project progress to ensure “no surprises” • Need detailed information to garner support of Plan • Leverage for more grass-roots participation
Federal MPs	<ul style="list-style-type: none"> • Government MPs • Non-government MPs 	<ul style="list-style-type: none"> • Need to be kept up to date on project progress to ensure “no surprises” • Roll out of many plans in close succession; potential to muddy messaging • Need detailed information to garner support of Plan • Leverage for more grass-roots participation
TransLink (Governance)	<ul style="list-style-type: none"> • Mayors’ Council • Board of Directors 	<ul style="list-style-type: none"> • Need detailed information to garner support of Plan • Roll out of many plans in close succession; potential to muddy messaging. Need to be kept up to date on project progress to ensure “no surprises”

7. PROPOSED BUDGET

The proposed budget would consist of campaign that drives the public towards consultation with the creative materials aimed at educating about the major improvements in the Phase Two Investment Plan. There would be video and radio buys, and a strong element of brand and reputation building targeting the tax payers

Website	in-house
Newspaper	\$15,000
Digital Ads	\$30,000
Transit Ads	\$10,000
Video	\$15,000
Production	\$50,000
Radio	\$65,000
Creative Development	\$65,000
Open Houses	\$35,000
<i>Total</i>	<i>\$285,000</i>

8. PROPOSED TIMELINE

8.1 KEY DATES AND ACTIVITIES

	Start	End
Engage municipal and Metro Vancouver partners	Sep-01-17	Sep-30-17
Municipal Engagement Workshops - COMPLETE	Aug-15-17	Sep-15-17
Decision-Maker Workshops - COMPLETE	Oct-04-17	Oct-24-17
Workshops Consultation Summary	Nov-03-17	Nov-10-17
Prepare Public Consultation Strategy for Board Approval	Nov-15-17	Dec-06-17
Conduct public and stakeholder consultation [TBC]	Jan-01-18	Jan-31-18
Conduct Metro Vancouver consultation	Jan-01-18	Jan-31-18
Develop draft investment plan document	Aug-29-17	Sep-05-17
Public Consultation Summary	Jan-31-18	Feb-08-18
Develop investment plan document	Feb-08-18	Feb-15-18
Submit investment plan to Board and Mayors' Council for approval	March 2018	March 2018
Prepare and implement communications plan for post-approval phase	April 2018	April 2018

TO: Board of Directors

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

DATE: November 17, 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. The value of initiated projects is \$528M with the balance to be initiated in late 2017 and early 2018.

In October 2017, the provincial and federal governments formally approved amendments to the program to provide relief from interim project completion dates and to substitute projects for those at risk of not meeting cashflow or schedule requirements in the agreement.

The Program has a completion date of March 31, 2019, and an interim cashflow target of 60% spending by March 31 2018. Both target dates are challenging. Management continues to actively address the timeline and cashflow risks through proactive project management and procurement practices while discussing target date amendments with Provincial and Federal counterparts.

PURPOSE

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 17 "Metro Vancouver (MV) Programs", with a variety of capital projects under each MV Program. Table 1 summarizes the 17 programs.

Programs MV-016 and 017 were added through an amendment to the contribution agreement approved by the provincial and federal governments on September 27, 2017. MV-016 and MV-017 were initiated by TransLink through the Investment Plan approved on July 27, 2017. This involved substituting projects at greatest risk of incurring eligible cost beyond the agreement deadlines with accelerated acquisition of additional SkyTrain vehicles and associated storage facility expansion. Implementation is underway on projects with a total initiated value of \$529M. The entirety of the Program is scheduled to be initiated by Q1 2018.

Table 1: Program Summary

PTIF	Program Name	Original Program Amount (millions)	Approved 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
MV-016	Rapid Transit Fleet Expansion – SkyTrain Network		+\$98
MV-017	SkyTrain Storage Facility		+14.5
TOTAL		\$740	--

On October 3, 2017, Infrastructure Canada granted a request to adjust end dates for most MV programs to March 31, 2019. The most significant program-level risk remains the aggressive delivery schedule and cashflow requirements in the federal contribution agreement. The agreement requires 60% of eligible costs to be expended by March 31, 2018 (amended down from 75%) and all projects to be complete by March 31, 2019. These risks are being managed through pro-active procurement and project management practices to tighten and monitor timelines and accelerate delivery. Discussions with Provincial and Federal program counterparts are active to seek amendments to the relevant target dates.

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. The most recent meeting of the steering board was held on November 14, 2017.

The Steering Board assigns a risk category for every project to denote schedule and cashflow risks relative to the Project Agreement with the Federal Government. The risk category is then used to monitor project progress and pro-actively seek opportunities for acceleration. Management also remains in communication with the Federal Government regarding the program schedule, and monitors initiatives towards program timeline extensions.

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 programs.

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 recognition signage will be installed prior to start of construction.

TO: Board of Directors

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

DATE: November 8, 2017

SUBJECT: Millennium Line Broadway Extension Project Update

EXECUTIVE SUMMARY

TransLink is leading planning and design development of 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 SkyTrain from VCC-Clark Station to Arbutus Street via a primarily underground alignment beneath the Broadway corridor. 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: 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. Should full Project funding be confirmed by this coming winter, the procurement process would be initiated in 2018; operations on the Extension could commence as early as 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 SkyTrain 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 the Broadway corridor. 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 capital 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: 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. Should full Project funding be confirmed by this coming winter, a procurement process would be initiated in 2018; operations on the Extension could commence as early as 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.

Environmental – The MLBE Project does not trigger a formal assessment under the provisions of the applicable provincial or federal requirements. In the absence of a formal environmental assessment, TransLink will undertake environmental studies, i.e. the Environmental and Socio-Economic Review (ESR) process, to identify and analyze potential environmental impacts of the Project, to seek input from the public, stakeholders, and aboriginal groups, and to develop any required mitigations. Findings from the environmental and socio-economic studies will be incorporated into a draft ESR Report for public feedback in 2018. The results of the environmental review will assist in refining project design requirements and support development of construction and operating performance requirements.

From Oct. 19 to Nov. 6, TransLink sought comments from the public on the Environmental Review Process Summary including the draft terms of reference, to help finalize the scope of environmental studies. TransLink is also seeking input from aboriginal groups on the planned ESR process.

Engagement – The summary report on the second round of public engagement completed in June 2017 has been prepared and is now available online for public access/review. The summary report documents engagement events, participation from the public and stakeholders and feedback received. The third round of stakeholder and public engagement for the Project's procurement readiness phase will take place in 2018.

Technical Program – The Project Team is undertaking an extensive technical program focused on engineering design development, technical specifications, geotechnical fieldwork, systems integration, traffic / transit management during construction, and operations and maintenance requirements. Development of required Third party Agreements between is underway to support the technical program.

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

The Final Draft Business Case for the project was submitted to the Province at the end of September 2017. Technical reviews are now underway to enable confirmation of Provincial project funding.

As part of the partnership approach being adopted for the Project, TransLink and the City of Vancouver are developing agreements to define roles and responsibilities for the delivery of the Project. This will include the Project's Municipal Master Agreement and a Supportive Policies Agreement.

Customer Impact

None at this time.

Communications Implications

The next phase of public and stakeholder engagement is scheduled for the first half of 2018. 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 from the communications staffs of TransLink, the Province, and the City of Vancouver.

TO: Board of Directors

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

DATE: November 8, 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 10.5 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 procurement documentation, preparation of environmental studies, preparation of project agreements, and engagement with stakeholders, aboriginal groups, and the public.

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, and technical work.

DISCUSSION

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 and the City have developed an Environmental and Socio-economic Review process that identifies and analyzes potential Project-related effects and appropriately responds to them in finalizing Project design, construction and operating requirements. Findings from the environmental and socio-economic studies will be incorporated into a draft Environmental and Socio-economic Review Report for public feedback in 2018. The results of the environmental review will assist in refining project designs and support development of construction and operating performance requirements in delivering the Project.

From Oct. 19 to Nov. 6, TransLink sought comments on the Environmental Review Process Summary including the draft terms of reference, to help finalize the scope of environmental studies in support of the review. The next round of public consultation is scheduled for the first half of 2018.

LEGAL/REGULATORY

The Project Team is engaging with Technical Services BC (formerly BC Safety Authority) and Ministry of Transportation to establish a Certification Regime for LRT operations. The Project Team will be advancing an application for a Railway Certificate.

OTHER PROJECT UPDATES

The Final Draft Business Case was submitted to the Province at the end of September 2017. A technical review process is underway to enable the confirmation of Provincial project funding.

The Project Team continues to advance development of 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, TransLink and the City of Surrey are advancing agreements to jointly execute key elements of the project. This will include the Project's Municipal Master Agreement and a Supportive Policies Agreement.

CUSTOMER IMPACTS

A new, dedicated project website (www.surreylightrail.ca) has been launched to direct all customers to one, primary source of information.

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: Sany Zein, Vice President, Infrastructure Management & Engineering

DATE: November 8, 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;
- Launch of the *Wind and Seismic Warning System Implementation* project
- *Deck Condition Monitoring and Repairs* by Mainroad Contracting Ltd. and WSP;
- *Emergency Management Plan* by Mott MacDonald Canada Limited; and,
- *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 September 2017.

BACKGROUND

The Pattullo Bridge is 80 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 March 2017 update to the Board are listed in Table 1.

Table 1: September 2017 to November 2017 Pattullo Bridge Ongoing Inspections and Monitoring

REFERENCE	ACTIVITY	CONSULTANTS / PARTNERS	STATUS
1	Condition Inspection	Ministry of Transportation and Infrastructure, COWI North America	Inspection Scheduled for Nov 13-16, 2017.
2	Wind and Seismic Warning System Implementation	To be confirmed for Detailed Design	In Progress
3	Deck Condition Monitoring	Mainroad Contracting Ltd., WSP	Inspection Scheduled for Nov 13-16, 2017.
4	Emergency Management Plan	Mott MacDonald	In Progress
5	2017 Freshet Monitoring Survey	Northwest Hydraulic Consultants	Completed

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 currently scheduled for November 13 to November 16, 2017. To accommodate the snooper truck, directional closures of the Bridge from 10:00 pm to 5:00 am on the nights of the inspection will be required. Similar to previous full closures of the Bridge, a comprehensive communications plan has been developed to ensure the public and relevant stakeholders are advised of the upcoming full closure of the Bridge.

In October 2017, COWI completed prioritizing repairs required for the Pattullo Bridge to ensure it remains safe until the completion of the Pattullo Replacement Bridge. In addition to remedying minor structural deficiencies throughout the Bridge, including clogged drain and deteriorated deck joints, COWI recommended that further investigation of the girders in the South Approach be conducted. To take advantage of the snooper truck and the directional closures, structural experts from COWI will work with representatives from the Ministry to inspect the girders during the upcoming inspections.

2. 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 reduce the risk of injuries and fatalities, TransLink will implement a Seismic Warning and Wind Warning System, consisting of sensors and automatic traffic control devices, on the Pattullo Bridge. The detailed design of the bridge will occur in 2018 and the System is expected to be operational in 2019.

3. 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. 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. Since repairs were conducted in July, no new areas of repair have been identified.

In addition to the top surface of the deck, extensive corrosion-related damage is also occurring to the bottom surface (soffit). As the snoop truck enables accessibility to the soffit, WSP will also assist with the inspections currently scheduled between November 13 and November 16 (see item 1), to conduct a soffit inspection of the Bridge.

4. Emergency Management Plan

In July 2017, a tabletop exercise was conducted to assess preparedness for responding to an emergency closure of the Pattullo Bridge. Mott MacDonald (Mott) was retained to assist with the exercise and provide any recommendations resulting from the desktop closure. 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, Mott recommended that the emergency response plan be 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. A draft of the revised emergency response plan will be completed by December 2017.

5. 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 high localized river velocity at the Pattullo Bridge. The 2017 freshet survey was completed on June 21, 2017, and a draft report summarizing the findings was submitted to TransLink in September 2017. The findings of the survey are summarized as follows:

- NHC suspects that there may be a sunken object altering the flows downstream of Pier 5 and contributing to the displacement of pier protection at the pier. Upon learning of this, TransLink commissioned NHC to conduct a follow-up survey to investigate the object. As the object was not located, NHC currently recommends that the area be monitored during the bi-annual surveys.
- NHC confirmed that pier protection at Pier 4 and Pier 5 are still considered effective and that no upgrades are required at this time.

- NHC recommends that TransLink establish emergency mitigation measures involving securing stockpiles of emergency pier protection materials to allow for expeditious repairs if needed. As part of TransLink's work to update the Emergency Management Plan (see item 4), TransLink is identifying resources, including scour protection measures, required to safeguard the Bridge.

Since 2014, NHC has continued to suggest that bi-annual surveys be replaced or supplemented with a real-time scour monitoring system. In September 2017, NHC conducted field tests of the real-time monitoring equipment and concluded that the site conditions do not allow for reliable readings. As such, a real-time system is no longer recommended. During construction of the Pattullo Replacement Bridge, which may have the potential to induce scour, more frequent scour monitoring surveys may be required.

Customer Impact and Communications

Directional closures of the Bridge between 10:00 pm and 5:00 am are scheduled to occur between November 13 and November 16 to facilitate its inspection. Emergency vehicles will be permitted throughout, and Coast Mountain Bus Company will re-route the N19 NightBus in the affected direction. Cyclists and pedestrians will be permitted to use the sidewalk at all times.

A robust communications plan has been developed to support the work. Public communication will be achieved through:

- Media releases to stakeholders;
- Media releases to television, radio, newspaper, and road reporting;
- TransLink website, blog postings and twitter feeds;
- Notice on City of Surrey and City of New Westminster websites;
- Advance changeable message signs for vehicles; and,
- Posting signs on bus stops.

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: November 17, 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. Work continues in advancing the project in a number of areas including:

- Technical review of the Final Draft Business Case with the Province to secure project funding
- Preparation of the Request for Qualifications documents (target release: November 27 2017)
- Preparation of the Request for Proposal documents (target release: Spring 2018)
- 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 extremely technically challenging and may be financially prohibitive.

The Pattullo Bridge represents TransLink's most urgent major infrastructure risk. Management does not consider the existing bridge 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.

DISCUSSION

Final Draft Business Case and Provincial Funding

The Final Draft Business Case was submitted to the Province at the end of August 2017. The analysis and recommendations presented in the Business Case are consistent with the Mayors' Vision, updated to reflect no tolls on the new Bridge (consistent with the removal of tolls on Metro Vancouver bridges in September 2017). Given the changes to travel behavior resulting from the elimination of point tolling, the business case supports a staged implementation of the road connections on the south side of the new bridge to allow for further analytical work to be undertaken. A Design-Build-Finance delivery model is proposed in the business case.

A technical review of the business case is underway to enable Provincial confirmation of project funding. The business case requests Provincial grant funding of 40% of the cost of the project (consistent with Provincial commitments), and annual payments equivalent to toll revenue to cover the full project costs. Given that the entire financial burden of the project would effectively reside with the Province, the ownership of the new bridge (project and asset) is now being discussed with Provincial counterparts.

Federal Funding

Further to TransLink's submission of an expression of interest, the project was screened-in to the federal National Trade Corridor Fund. TransLink is now submitting a formal request for federal funding in November 2017. Confirmation of Federal funds is expected toward the end of 2017.

Technical Work

The marine drilling investigation program is complete. Land investigations have commenced and comprise on-land borehole drilling and soil testing on both sides of the crossing in New Westminster and Surrey. The on-land based drilling is expected to complete by early December. Planning is underway for a test pile including requisite permits and consultation. Discussions are underway with rail and utility agencies.

Environmental Assessment

Work continues on advancing the harmonised Environmental Assessment (EA) process involving the BC Environmental Assessment Office (EAO) and the Vancouver Fraser Port Authority (VFPA). The first public comment period on the Value Components took place in June and July. The environmental studies are underway. The Project continues to advance development of the information requirements outlining the basis for the application for the EA certificate. The project is working towards submitting the EA Application in early 2018 with a second public comment period on the results of environmental studies to follow. The project team continues engagement with First Nations.

Procurement

A market sounding workshop was initiated in September to provide an update on the project. The Project team continues to advance the Request for Qualification (RFQ) and Request for Proposal (RFP) documentation. Subject to securing funding, the RFQ is targeted for release on November 27 2017, and the RFP is targeted for release in Spring 2018.

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.

COMMUNICATIONS IMPLICATIONS

Preparations for announcements of funding confirmation are being coordinated with the Province. The second EA public comment period is expected in early 2018 following the environmental application submission to the BCEAO.

CONCLUSION

The Project is proceeding according to the following schedule:

- Provincial Funding Confirmation: November 2017
- Release of Request for Qualifications: November 27 2017
- Pattullo-Enabling Investment Plan submission and approval: December 2017 /January 2018
- Federal grant contribution confirmation: December 2017 / January 2018
- Release of Request for Proposals: Spring 2018
- Selection of Contractor: Spring 2019
- Start of Construction: Summer 2019
- New Bridge Opens: Early 2023
- Old Bridge Deconstruction: 2023/2024.

TO: Board of Directors

FROM: Cathy McLay, Chief Financial Officer and Executive Vice President, Finance and Corporate Services
Christine Dacre, Vice President Financial Services

DATE: November 15, 2017

SUBJECT: 2018 Business Plan, Operating and Capital Budget

PROPOSED RESOLUTION

That the TransLink Board of Directors approves the 2018 Business Plan, Operating and Capital Budget attached to the November 15, 2017 report titled 2018 Business Plan, Operating and Capital Budget

EXECUTIVE SUMMARY

The 2018 Business Plan, Operating and Capital Budget is focused on achieving the milestones set out in the 2018 year of the "Update to Phase One of the 10-Year Vision". It has been developed with the following three main priorities for the enterprise, (1) Improve Customer Experience & Public Support; (2) Ensure State of Good Repair; and (3) Mobilize Mayors' Vision. The 2018 Budget reflects increased costs of \$48.8 million compared to the 2017 budget; increases relate to annualized increases of 2017 service expansion, additional service expansion in 2018, contractual and labour increases, additional maintenance and investments for corporate priorities. The 2018 budget results in a \$253.1 million surplus on a Public Sector Accounting Board (PSAB) basis.

PURPOSE

The purpose of this report is to request the Board of Directors approve the 2018 Business Plan, Operating and Capital Budget.

BACKGROUND

Previous to 2017 and since the last large service expansion in 2009, the organization's focus has been on achieving efficiencies and maximising revenue from previous years of expansion. Now that we are in an expansion time again, we need to be prudent and remain focused on spending our dollars wisely.

We have an excellent track record of managing well within our budget and look for opportunities throughout the year to be more efficient in order to put as many dollars towards service and meeting customer demands.

Additional investments are required to implement the Mayors' Vision and achieve the outcomes of our goals and priorities. The 2018 Budget and Business Plan was prepared based upon the 2018 year of the Updated 2017-2026 Investment Plan. The assumptions used to develop the plan were presented to the Board in September 2017. These assumptions have subsequently been reviewed and remain relevant.

DISCUSSION

The three main priorities for 2018 are:

Improve Customer Experience & Public Support

With a customer first approach, we will build public trust and confidence in TransLink by focusing on growing ridership, engaging stakeholders and delivering the Mayors' Vision.

Ensure State of Good Repair

TransLink will proactively manage and maintain all assets in a state of good repair to ensure safety and reliability, optimize lifecycle costs, and enhance the customer experience.

Mobilize Mayors' Vision

We will successfully deliver the capital projects, service expansion and policy initiatives necessary to mobilize the Mayors' Vision.

In 2017, SeaBus service levels were expanded up to the Frequent Transit Network ("FTN") levels and bus service was expanded by 194 thousand additional service hours. The annualized operating costs related to these to improvements are reflected in the 2018 budget.

Key highlights of increased costs relating to the 2018 operating budget are:

- Expansion of bus and access transit service;
- Contractual labour, inflation and fuel increases;
- Increase in Software Licensing, Network and IT Infrastructure costs;
- Increase of 53 corporate staff;
 - 17 positions to reduce reliance on consultants – nil financial impact;
 - 18 positions to support capital projects – salaries are capitalized;
 - 18 positions to support growth and expansion.
- Increase of 9 Transit Police staff;
- Increase of 18 BCRTC staff to support State of Good Repair & Business Transformation;
- Increase of 90 CMBC staff to support service expansion and Access Transit service delivery; and
- Increased one-time costs to support continued work on the full Mayors' Vision.

The following table shows the increases for the 2018 budgeted expenditures for continuing operations excluding amortization, interest and MRN contributions:

	\$millions
2017 Budget	1,180.5
2018 Budget	1,229.2
Increase	48.8
<i>Breakdown of Increase:</i>	
Contractual salary & benefits related increases	7.5
Contractual increases (includes fuel and insurance)	8.5
Software licensing and technology	6.7
Maintenance (re: maintaining existing services)	9.4
Service Expansion	8.8
Investments in Priorities	7.9
Total Increase	48.8

The One-Time expenditures total \$33.8 million for 2018 which consist of the following:

	2018 Budget \$millions
Regional Transportation Strategy – Plan Development	4.4
B-Line	2.0
Mobility Pricing Independent Commission	2.7
Enterprise Asset Management	3.5
Compass Open Payment	0.6
Trip Diary	0.5
BTS Operating Projects & other non-capital project costs	1.3
Feasibility Studies	5.5
Accessibility Policy Framework	0.2
Fare Policy Review	0.4
Bus Facility Improvement Program Development	0.2
Contingency	12.5
Total Corporate One-Time	33.8

Increases in revenues for 2018 include:

- fare increase in July 2018;
- increase in standard property taxes;
- increased ridership; and
- growth in revenues from an increase in Vehicle Kilometres travelled.

The Capital Program for 2018 is shown below based upon corporate priorities:

	\$millions
Improve Customer Experience	45.8
Ensure State of Good Repair	164.9
Support Mayor's Vision	201.7
Major Road Network / Bicycle Infrastructure	74.2
2018 New Capital Program	486.6

Risks associated with achieving budgeted results include:

- not receiving the Federal Gas Tax Funds in a timely manner which could impact the timing of spending on projects that has an impact on the revenue recorded under Transfers from Government;
- commodity pricing such as fuel and fluctuating foreign exchange rates;
- timing of PTIF funding;
- elasticity resulting from planned fare increase; and
- our capacity to deliver on service expansion and capital projects.



2018 Business Plan

OPERATING AND CAPITAL BUDGET SUMMARY

translink.ca



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Caution Regarding Forward-Looking Statements

From time to time, TransLink makes written and/or oral forward looking statements, including in this document and in other communications, in addition, representatives of TransLink may make forward-looking statements orally to analysts, investors, the media and others.

Forward-looking statements, by their nature, require TransLink to make assumptions and are subject to inherent risk and uncertainties. In light of uncertainty related to financial, economic and regulatory environments, such risks and uncertainties, many of which are beyond TransLink's control and the effects of which can be difficult to predict, may cause actual results to differ materially from the expectations expressed in the forward-looking statements.

1. Business Plan Summary

BUILDING TRANSPORTATION EXCELLENCE – WITH OUR CUSTOMERS IN MIND

The South Coast British Columbia Transportation Authority (“TransLink”) is Metro Vancouver’s regional transportation authority. TransLink delivers a wide range of services and programs to plan and provide for the transportation needs of Metro Vancouver residents and businesses. This includes bus, SeaBus, HandyDART, three rapid transit lines (SkyTrain), a commuter rail service and a policing unit. TransLink also shares responsibility for the Major Road Network and walking and cycling infrastructure with its local government partners. TransLink is the first North American transportation authority to be responsible for planning, financing and managing all public transit in addition to major regional roads, bridges and cycling infrastructure.

TransLink’s service region includes all of the areas within the Greater Vancouver Regional District (“Metro Vancouver”), spanning 23 municipalities/electoral districts/First Nations areas in Metro Vancouver. Metro Vancouver is known for its livability, including a highly functional, integrated transportation network. However, the region faces challenges, including overcrowding on our transit system, congestion on our roads and another one million new residents expected to move to Metro Vancouver by the year 2040. Our priority is to deliver the positive change that our customers are demanding.

To address the challenges of growth and congestion in a way that is affordable and fair, in June 2014, the Mayors’ Council on Regional Transportation developed the 10-Year Vision for Metro Vancouver Transit and Transportation (10-Year Vision). Founded on years of planning, the Vision identifies the new transportation services the region will need over the coming decade. The 10-Year Vision will be rolled out in phases, each timed to the delivery of new projects and services.

- The Phase One Plan, developed in 2016 and updated in July 2017 with the start of implementation in 2017, increases conventional bus, HandyDART, SeaBus, SkyTrain and West Coast Express services, as well as funds new walking, cycling and road infrastructure.
- The next Phase is currently being developed which will fund the construction of new rapid transit and upgrades to the existing SkyTrain network, enabling TransLink to continue adding more transit service across the region.

The **2018 Business Plan, Operating and Capital Budget** is focused on achieving the milestones set out in the 2018 year of the “Update to Phase One of the 10-Year Vision” ([2017-2026 Investment Plan](#)). Adjustments were made to reflect inflation, contractual increases and timing of service delivery. Additional investments are also required to continue the implementation of the 10-Year Vision. Building transportation excellence entails keeping Phase One on track as well as continuing to progress on major initiatives, such as the Replacement of the Pattullo Bridge, South of Fraser Light Rapid Transit (LRT) and Millennium Line Broadway Extension projects.

With guiding principles of improving the quality of existing systems, improving quality of services and expanding the transit system, the **2018 Business Plan, Operating and Capital Budget** is supported by three priorities aimed to improve customer experience and public support, ensure a state of good repair and mobilize the Mayors’ 10-Year Vision.

Priority One: Improve Customer Experience and Public Support

With a customer first approach, we will build public trust and confidence in TransLink by focusing on growing ridership, engaging stakeholders and delivering the Mayors' 10-Year Vision.

- Improve customer information tools including digital platforms;
- Deliver a safe and secure transit system;
- Improve overall customer satisfaction score to 8.0 by 2019;
- Enhance the public accountability performance dashboard;
- Maintain close relationships with municipal, senior government and private sector partners;
- Support Board and Mayors' Council collaboration;
- Implement custom transit program recommendations;
- Complete the final phase of the Transit Fare Policy Review; and
- Pursue innovative service initiatives.

Priority Two: Ensure State of Good Repair

TransLink will proactively manage and maintain all assets in a state of good repair to ensure safety and reliability, optimize lifecycle costs and enhance the customer experience.

- Implement an Asset Management System at BCRTC;
- Implement and develop CMBC and BCRTC Safety Management System;
- Install Transit Operator protection barriers;
- Replace the Transit Management and Communications bus radio system;
- Improve service reliability;
- Implement a more proactive and planned approach to maintenance at BCRTC;
- Implement a comprehensive asset management program; and
- Manage projects effectively to meet scope, schedule and budget targets.

Priority Three: Mobilize Mayors' Vision

We will successfully deliver the capital projects, service expansion and policy initiatives necessary to mobilize the Mayors' 10-Year Vision.

- Implement service improvements for Bus and HandyDART;
- Receive initial delivery of new SkyTrain cars;
- Continue work preparing for major projects (Broadway Extension, South of Fraser LRT, increase SkyTrain capacity, Pattullo Bridge Replacement);
- Pursue ridership growth initiatives (corridor upgrades, B-Line corridors, travel demand management);
- Initiate a new long-range Regional Transportation Strategy plan with a 30-year development horizon; and
- Develop a Mobility Pricing Plan following recommendations of the Independent Commission.

To deliver the priorities set in the **2018 Business Plan, Operating and Capital Budget**, funding will be obtained through Public Transit Infrastructure Fund (PTIF) funding and regular annual transit fares increases. The risks associated with these funding sources include: timing of PTIF funding, reaction from transit users resulting from the planned fare increase, as well as the capacity to deliver on service expansion and capital projects.

2. 2018 Financial and Operating Summary

CONSOLIDATED REVENUES AND EXPENSES					
Twelve months ending December 31	2016	2017	2018	Change	
(\$ thousands)	ACTUAL	BUDGET ¹	BUDGET	Incr/(Decr)	%
Revenue					
Taxation	825,670	833,028	855,072	22,044	2.6%
Transit	541,589	558,910	606,805	47,895	8.6%
Government transfers	240,533	281,904	424,078	142,174	50.4%
Golden Ears Bridge tolling	52,116	55,744	-	(55,744)	-
Investment Income	40,567	37,712	48,189	10,477	27.8%
Amortization of deferred concessionaire credit	23,337	23,337	23,337	-	-
Miscellaneous	6,351	5,464	6,036	572	10.5%
Sub Total Continuing Operations	1,730,163	1,796,099	1,963,517	167,418	9.3%
Gain/(Loss) on Disposal	422,183	149,677	(447)	(150,124)	(100.3%)
Total Revenue	2,152,346	1,945,776	1,963,070	17,294	0.9%
Expenditures					
Bus Division	656,542	693,091	731,703	38,612	5.6%
Rail Division	265,940	300,010	308,576	8,566	2.9%
Transit Police	33,759	36,921	38,461	1,540	4.2%
Corporate Operations ²	87,770	97,636	99,410	1,774	1.8%
Roads & Bridges	52,453	103,244	104,256	1,012	1.0%
Amortization of Capital Assets	181,663	209,286	214,436	5,150	2.5%
Interest	172,705	176,301	179,267	2,966	1.7%
Sub Total Continuing Operations	1,450,832	1,616,489	1,676,109	59,620	3.7%
Corporate - one-time ²	33,117	21,010	33,822	12,812	61.0%
Total Expenditures	1,483,949	1,637,499	1,709,931	72,432	4.4%
Surplus for the year	668,397	308,277	253,139	(55,138)	(17.9%)

¹ Restated to reflect budget transfers.

² Restated 2016 and 2017 for comparative purposes.

2018 Budget Highlights

The 2018 budget results in a \$253.1 million surplus on a Public Sector Accounting Board (PSAB) basis. While the 2018 budget surplus is \$55.1 million less than the 2017 budgeted amount, 2018 does not include a significant amount for gains on disposals of capital assets (\$149.7 million in 2017).

Revenues from Continuing Operations are budgeted to increase by \$167.4 million (9.3 per cent) compared to the 2017 budget. Government transfers are increasing by \$142.2 million (50.4 per cent) to fund service expansion and to compensate for projected foregone toll revenues on the Golden Ears Bridge. Transit revenues are increasing by \$47.9 million (8.6 per cent) to reflect increased service and ridership along with a fare increase planned for July.

Expenditures for Continuing Operations are budgeted to increase \$59.6 million (3.7 per cent) compared to the 2017 budget. The increase is primarily due to higher operating costs resulting from service expansion, contractual labour increases, inflation, and state of good repair improvements.

Corporate one-time costs are budgeted at \$33.8 million and relate to continued investment in our key priorities.

3. Key Performance Indicators and Drivers

Financial Indicators

FINANCIAL INDICATORS					
As at December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Unrestricted cash and investments ¹	333,353	266,564	364,855	98,291	36.9%
Capital assets	4,867,996	5,273,583	5,602,766	329,183	6.2%
Net direct debt ²	(2,149,823)	(2,319,640)	(2,479,340)	159,700	6.9%
Indirect P3 debt ³	(1,598,080)	(1,571,097)	(1,542,762)	(28,335)	(1.8%)
Total net direct debt and indirect P3 debt	(3,747,903)	(3,890,737)	(4,022,102)	131,365	3.4%
Gross interest cost as a % of operating revenue ⁴	12.0%	12.0%	12.1%	0.1%	0.5%

¹ Accumulated funding resources as calculated under the SCBCTA Act is the amount of resources available to fund future operations

² Includes bonds, debentures, capital leases, short-term debt net of sinking funds and debt reserve deposits

³ Includes Deferred concessionaire credit for Canada Line and Contractor liability for Golden Ears Bridge (GEB)

⁴ Operating revenue includes transit, taxation, operating transfers from Provincial government including GEB tolling replacement revenue and miscellaneous income.

TransLink's unrestricted cash and investment balances reflecting accumulated funding resources available for supporting operations, are budgeted to increase by \$98.3 million (36.9 per cent) compared to the 2017 budget. The increase is mainly due to higher than budgeted opening cash and investment balances in 2017 from the actual results in 2016.

Planned capital spending during 2018 will result in a net increase of \$329.2 million (6.2 per cent) in capital assets. Significant projects include conventional bus replacements, rail fleet expansion, station upgrades, rail infrastructure projects and procurement readiness work for the Millennium Line Broadway Extension and the South of Fraser LRT rapid transit projects.

Net direct debt increases by \$159.7 million (6.9 per cent) in comparison to the 2017 budget due to increased borrowing to finance capital spending which includes fleet expansion, procurement readiness and station upgrades.

Indirect P3 debt relating to the Canada Line and Golden Ears contractor liability decreased by \$28.3 million (1.8 per cent) due to amortization and principal payments.

The gross interest cost as a percentage of operating revenues remains consistent with the 2017 budget and is well below the policy level of 20 per cent.

Operating Indicators

OPERATING INDICATORS					
Twelve months ending December 31	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Scheduled Transit Service					
Overall Performance Rating (out of 10)	7.6	7.8	7.9	0.1	1.3%
Service Hours ¹	6,360,818	6,723,506	6,874,038	150,532	2.2%
Cost Recovery Ratio ²	55.2%	52.3%	54.4%	2.1%	4.0%
Operating Cost per Capacity Km ³	\$0.085	\$0.083	\$0.086	\$0.003	3.6%
Complaints per million Boarded Passengers ⁴	98.7	92.2	87.5	(4.7)	(5.1%)
Access Transit Service					
Number of Trips	1,227,329	1,287,500	1,335,000	47,500	3.7%
Operating Cost per Trip	\$40.95	\$39.81	\$41.69	\$1.88	4.7%
Number of Trips Denied	3,558	1,500	1,500	-	-
Operator Complaints as a percentage of trips	0.05%	0.05%	0.05%	-	-
Service Complaints as a percentage of trips	0.07%	0.07%	0.07%	-	-
Ridership (thousands)					
Boarded Passengers	386,193	392,753	416,641	23,888	6.1%
Journeys	234,205	240,469	251,592	11,123	4.6%
Average Fare per Journey	\$2.24	\$2.32	\$2.41	\$0.09	3.9%

¹ Restated 2016 Actual to reflect West Coast Express non-revenue and TrainBus service hours that were previously excluded.

² Includes operating costs of Bus, Rail, Transit Police and Corporate On-going (2016 and 2017 restated to exclude Corporate One-Time & Feasibility Studies). Excludes depreciation and interest expense.

³ Includes operating costs of Bus, Rail, and Transit Police. Excludes depreciation and interest expense.

⁴ 2017 Budget restated to include Corporate complaints and complaints related to Compass Vending Machines.

Scheduled Transit Service

The targeted overall performance rating for 2018 is 7.9 with a goal to reach 8.0 by 2019.

Conventional system service hours are projected to increase over 150 thousand hours across the region. This includes the annualized impact of 2017 service improvements and 2018 service expansion improvements to reduce congestion and increase service reliability.

The cost recovery ratio is budgeted to increase by 2.1 (4.0 per cent) due to increased ridership from service expansion and the planned fare increase for July 2018 outpacing the cost of increased service.

The operating cost per capacity kilometre is budgeted to increase 3.6 per cent over the 2017 Budget due to contractual labour increases and additional operator wages related to service expansion, higher fuel prices and increased maintenance costs to ensure a state of good repair.

Complaints per million boarded passengers are budgeted to decrease by 4.7 (5.1 per cent) mainly due to service expansion in the region and continuous improvements in customer service.

Access Transit Service

Access Transit trips are planned to increase by over 47 thousand trips (3.7 per cent) to provide increased service for passengers unable to use conventional public transit without assistance.

The operating cost per trip is expected to increase by \$1.88 (4.7 per cent) as a result of contractual labour increases, increased fuel costs and additional TransLink administration costs to implement the Custom Transit Service review recommendations, which will enhance overall customer experience by improving reservation convenience, as well as reducing travel and wait times.

Ridership

Journeys represent a complete transit trip regardless of the number of transfers. For 2018, journeys is budgeted to be 2.6 per cent above the forecasted 2017 year end, which is 4.6 per cent more than the 2017 budget.

Boardings represent each time a passenger enters a fare paid zone including transfer. Boardings are budgeted to be 2.6 per cent above the forecasted 2017 year end, which is 6.1 per cent more than the 2017 budget.

The average fare per journey is expected to increase 3.9 per cent from \$2.32 to \$2.41, due to the planned fare increase on certain products in July 2018, and projected product mix.

Key Drivers

Ridership

Ridership journeys are used in estimating the fare revenue. They are assumed to grow by 2.6 per cent over the forecasted 2017 year end, based on increased ridership from service expansion and economic growth.

Households

Household projections are based on estimates from BC Stats. BC Stats provides annual household estimates for the Metro Vancouver region. The number of households in the Metro Vancouver region is expected to grow by 1.9 per cent in 2018 when compared to 2017. Household growth impacts both fare revenues and taxation revenues.

Interest rates

Interest rates for the budget are based on forecasts from major Canadian chartered banks, the Ministry of Finance, BC Budget Fiscal Plan 2017-18 to 2019-20 and TransLink credit spread and issue costs. Short-term borrowing rates are expected to be 0.4 percentage points higher and long term borrowing rates are expected to be 0.3 percentage points higher than 2017.

Inflation

Consumer Price Index (CPI) growth assumption for the 2018 budget is 2.0 per cent based on the BC Ministry of Finance.

Taxable fuel consumption

Fuel consumption volumes are used to estimate fuel tax revenue. Fuel volume projections are developed using a Provincial forecast modified for specific characteristics in the Region. Fuel volumes are forecasted to grow by 1.0 per cent over the 2017 budget.

Hydro cost

Electricity rates increased by 3.5 per cent in April 2017 per BC Hydro and will increase by 3.0 per cent in April 2018 for an annualized rate of 3.13 per cent in 2018. Hydro costs impact propulsion power for SkyTrain and Trolley Buses along with facility utility costs. Rate increases take effect in April of every year.

Gasoline and Diesel prices

Fuel prices affect operating costs for buses as well as West Coast Express Trains. Fuel prices are estimated using US Energy Information Administration forecasts adjusted for Canadian prices, taxes and price differentials. Diesel and natural gas volumes and rates are hedged through to the fall of 2018. Gasoline purchases are not hedged.

Revenue Vehicle insurance

Bus fleet insurance rates are expected to increase by 12.1 per cent on April 1, 2018 based on claims experience to date and the expected basic rate increase from ICBC.

Assumptions

The following table highlights the financial impact of changes in key assumptions used to develop the 2018 budget:

ASSUMPTIONS		RATE / VOLUME	SENSITIVITIES	
			Change	Impact (\$ millions)
Revenue				
Regional Fuel Consumption	millions of litres	2,285	1 per cent +/-	3.9
Ridership	millions of journeys	251.6	1 per cent +/-	6.1
Expense				
Diesel cost	dollars per litre	1.27	\$0.10 +/-	3.5
Operational Diesel Use	millions of litres	34.91	1 per cent +/-	0.4
Interest rate	Short term	1.9%	0.5 per cent +/-	1.3
	Long term	3.8%	0.5 per cent +/-	1.5
Inflation	General	2.00%	0.5 per cent +/-	0.3
	Materials	2.00%	0.5 per cent +/-	0.4
	Electricity	3.13%	0.5 per cent +/-	0.1
Collective Agreements ¹	TPPA		1 per cent +	0.2

¹ Unifor, MoveUP (COPE), and CUPE agreements expire either at the end of 2018 or later.

4. Consolidated Revenues

CONSOLIDATED REVENUES					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Taxation					
Fuel	395,731	384,564	388,409	3,845	1.0%
Property & Replacement	342,456	357,333	373,882	16,549	4.6%
Parking Rights	67,033	70,387	71,523	1,136	1.6%
Hydro Levy	20,450	20,744	21,258	514	2.5%
Transit	541,589	558,910	606,805	47,895	8.6%
Government transfers					
Senior Government Funding	240,533	281,904	366,212	84,308	29.9%
Golden Ears Bridge Tolling Replacement Revenue	-	-	57,866	57,866	3.8%
Golden Ears Bridge tolling	52,116	55,744	-	(55,744)	
Investment Income	40,567	37,712	48,189	10,477	27.8%
Amortization of deferred concessionaire credit	23,337	23,337	23,337	-	0.0%
Miscellaneous	6,351	5,464	6,036	572	10.5%
Revenue Before Gain/(Loss) on Disposals	1,730,163	1,796,099	1,963,517	167,418	9.3%
Gain/(Loss) on Disposal	422,183	149,677	(447)	(150,124)	(100.3%)
Total Revenue	2,152,346	1,945,776	1,963,070	17,294	0.9%

TransLink receives its revenue mainly through taxation, user fees and government transfers. Total consolidated revenues for 2018 are budgeted to be \$2.0 billion, an increase of \$17.3 million over the 2017 budget. This increase is mainly due to increased revenues from taxation, transit fares, investment income and government transfers, which are largely restricted for investment in capital infrastructure. This increase is partly offset by the sale of surplus property budgeted in 2017. As the Province of British Columbia eliminated bridge tolling throughout the province, the Province will compensate TransLink for projected foregone toll revenues. Tolling replacement revenue is now reported under government transfers.

2018 Budget vs 2017 Budget

Taxation

Taxation Revenue is comprised of fuel tax, property and replacement tax, parking rights tax and hydro levy. It accounts for 53.5 per cent of total revenues before gain on disposal and senior government funding.

Fuel tax revenues for 2018 are estimated to increase \$3.8 million (1.0 per cent) due to an anticipated increase in Vehicle Kilometres Travelled (VKT), offset by more fuel efficient vehicles and fuel leakage outside of the region.

Property tax revenues are expected to increase \$16.5 million (4.6 per cent). Revenues include an annual 3.0 per cent increase in property tax revenue from existing properties as well as property tax revenue from development and construction growth estimated at 1.9 per cent. The replacement tax portion remains at \$18.0 million.

Parking Rights taxation revenue for 2018 is budgeted to increase \$1.1 million (1.6 per cent) over the 2017 budget, reflecting increased VKT within the Metro Vancouver region driving parking volume increases.

Transit

Transit Revenue makes up 38.0 per cent of total revenues before gain on disposal and senior government funding. Transit revenue includes fare revenue, program revenue and other transit revenue. Fare revenue consists of cash fares, discounted Stored Value purchases, as well as Day and Monthly Pass products. Program revenue includes Government of BC Bus Pass and U-Pass BC revenue. Other transit revenue includes advertising, rental, parking lot fees and fare infraction.

Total transit revenue is expected to increase by \$47.9 million (8.6 per cent) from the 2017 budget. The forecast for 2017 is to come in 5.7 per cent higher than budget, which means the 2018 budget is 2.7 per cent higher than the 2017 forecast. Fare revenues are expected to increase due to an increase in ridership from service expansion, economic growth and a planned increase in fares in July 2018. The fare increase is 5 to 10 cents for single use products, 25 cents for day passes and \$1.00 to \$2.00 for monthly passes.

Government Transfers

Transfers from government include funds received from Greater Vancouver Regional Fund (GVRF), Canada Line funding, Building Canada Fund, Public Transit Infrastructure Fund (PTIF) and other miscellaneous programs. Revenue from Senior Government Funding is expected to increase \$84.3 million (29.9 per cent) compared to the 2017 budget mainly due to increased expenditures eligible for GVRF and the new PTIF. Also included in 2018 Government Transfers is the contribution from the Province of BC for foregone toll revenues.

Golden Ears Bridge Tolls

On September 1, 2017, the Province of British Columbia eliminated bridge tolling throughout the province, including the Golden Ears Bridge. TransLink reached an agreement with the Province that will compensate TransLink for projected foregone toll revenues and decommissioning costs. These contributions are now reported under government transfers.

Investment Income

Investment income is expected to increase by \$10.5 million (27.8 per cent) in comparison to the 2017 budget. The increase is mostly due to income earned on cash received and the outstanding loan receivable related to the sale of the Oakridge Transit Centre in 2016.

Risks and Challenges

Risks related to transit fare revenue include achieving ridership targets and customer behaviour for purchase of various fare products. With the proposed fare increase in July, there is a risk of reduced ridership.

Fuel tax volumes are unpredictable, as suppliers have up to 48 months to recover tax paid on exempt volumes or fuel resold outside the transit region. Market change in the price of crude oil, the USD/CAD exchange rate and the cost of transportation can also impact the amount of fuel tax collected and remitted to TransLink.

The property tax revenue includes revenue from new development and construction growth; the rate for 2018 is estimated at 1.9 per cent. If the 2018 actual rate is lower, a lesser amount of incremental property tax revenue will be received.

5. Consolidated Expenses by Segment

CONSOLIDATED EXPENSES BY SEGMENT					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET ¹	2018 BUDGET	Change	
				Incr/(Decr)	%
Bus Division	656,542	693,091	731,703	38,612	5.6%
Rail Division	265,940	300,010	308,576	8,566	2.9%
Transit Police	33,759	36,921	38,461	1,540	4.2%
Corporate Operations ²	87,770	97,636	99,410	1,774	1.8%
Roads & Bridges	52,453	103,244	104,256	1,012	1.0%
Amortization of Capital Assets	181,663	209,286	214,436	5,150	2.5%
Interest	172,705	176,301	179,267	2,966	1.7%
Sub Total Continuing Operations	1,450,832	1,616,489	1,676,109	59,620	3.7%
Corporate - one-time ²	33,117	21,010	33,822	12,812	61.0%
Total Expenses by Segment	1,483,949	1,637,499	1,709,931	72,432	4.4%

¹ Restated to reflect budget transfers.

² Restated 2016 and 2017 for comparative purposes.

TransLink is responsible for delivering transit services, operating five bridges and providing operating and capital funding for the Major Road Network (MRN) and cycling in Metro Vancouver. With the anticipated increase in service across all modes, operating costs will increase accordingly.

Total expenses are expected to increase \$72.4 million over the 2017 Budget. Bus service expansion, state of good repair activities, contractual labour and inflation account for \$59.6 million of the increase. Corporate one-time expenditures are budgeted to increase by \$12.8 million to update the Regional Transportation Strategy, support the Mobility Pricing Independent Commission and related studies, plan the B-Line expansion, support the Enterprise Asset Management program and undertake other initiatives.

Bus Operations

Coast Mountain Bus Company (CMBC) oversees the operations of Conventional and Community Shuttle bus service, SeaBus and Access Transit. CMBC currently operates a fleet of 1,490 Conventional and Community Shuttle vehicles. Bus operations will span 105 million service kilometers, 5.3 million service hours and provide 1.3 million Access Transit trips in 2018.

Initiatives

Priority One: Improve Customer Experience and Public Support

In 2018, CMBC will undertake the following initiatives in support of the customer experience:

- Implement the recommendations from the Custom Transit Service Delivery Model Review;
- Manage the transition to a new HandyDART service agreement;
- Maintain and improve communications methods and technologies that provide timely and accurate information to customers:
 - Continue Transit Management and Communications (TMAC) system and supporting technology upgrades, and

- Implement Live Chat, a real-time online chat session between customers and Customer Information agents, as another customer communication channel.
- Evaluate the outcomes of the “double decker” bus trial and develop recommendations;
- Complete the accelerated program to improve bus stop signage and implement T-signs and Transit Information Panels with enhanced schedule information system-wide;
- Support the enterprise Customer First committee recommendations for bus operations to upgrade operator uniforms, implement uniform dress code guidelines and improve public image; and
- Continue with the implementation and expansion of content for the employee Learning Management System.

Priority Two: Ensure State of Good Repair

In 2018, CMBC will undertake the following initiatives to ensure safe and secure operations and keep the transit infrastructure in a state of good repair:

- Continue to develop the Safety Management System with implementation for all business units by the second quarter of 2018;
- Introduce transit operator protection barriers in new buses and retrofit existing buses;
- Continue ongoing Power Smart initiatives to reduce cost, extend facility life and provide better staff working conditions, including energy and natural gas savings through retrofit projects;
- Participate in CUTRIC’s Pan-Canadian Electric Bus Demonstration and Integration Trial where TransLink will be the first transit agency in this trial with the deployment of four quick charge battery electric buses and two overhead chargers;
- Replace Transit Management and Communications bus radio system and supporting technology;
- Implement Compressed Natural Gas (CNG) fueling at Surrey Transit Centre and expand the CNG fleet at Hamilton Transit Centre with the delivery of new CNG buses to replace diesel buses; and
- Implement the 8,000 km internal Preventative Maintenance program in accordance with Commercial Vehicle Safety Enforcement requirements.

Priority Three: Mobilize Mayors’ Vision

The 2018 budget includes the following strategic activities to support the 10-Year Vision:

- Implement the planned service expansion and scheduling changes for 2018 including Access Transit’s 47,500 additional funded trips;
- Recruit and train transit operators and support staff including mechanics, service people, other associated trades, supervisors and SeaBus staff to support the expanded service levels;
- Defer retirement and refurbish older buses to increase bus capacity for expanded service, which will result in costs to repair, maintain and operate these vehicles until they can be retired later in 2018 and 2019;
- Receive and commission 284 new replacement and expansion conventional buses including the 4 battery electric buses for the CUTRIC trial;
- Take delivery and run sea trials on the third new SeaBus in late 2018; and
- Participate in the management and delivery of the Public Transit Infrastructure Fund (PTIF) investment program for bus facilities, equipment and related projects.

Risks and Challenges

CMBC has a large number of Transit Operators eligible for retirement. The 2018 service expansion requires hiring and training operators in addition to normal attrition. Attracting, hiring and training operators on a timely basis will require a wider variety of staff resources.

The 2018 service expansion will continue to require using retired, or scheduled-to-be-retired, buses until new buses arrive. These older buses have a higher risk of failure and will require higher maintenance costs that could exceed the estimated one-time budgeted cost.

CMBC will be receiving 284 new expansion and replacement buses in 2018. This represents replacing 40 per cent of the existing diesel conventional fleet. Commissioning a significant portion of the existing fleet, refurbishing older buses, along with starting the CUTRIC battery electric bus pilot could adversely impact maintenance resources or result in delays and extra costs.

The Energy Storage System batteries in hybrid buses are a high cost component and battery life may be impacted by driving conditions, distances and recharging cycles. The expected life of these batteries ranges from seven to nine years. In 2009, 180 40-foot and 60-foot hybrid buses were purchased. These batteries began reaching the end of their useful lives in 2017. Accordingly, the 2018 budget includes funds for the battery replacement with the remainder expected to be budgeted in 2019.

CMBC has a diesel fuel management strategy to attempt to mitigate market price changes and achieve budget stability by locking in up to 75 per cent of expected monthly fuel volumes for future months. Natural gas price supply agreements for certain volumes are also in place. The remaining portion of the diesel and natural gas bus fuel requirement will be purchased at prevailing market prices.

Abnormal inclement winter weather conditions could result in snow clearing, salting and other vehicle maintenance costs significantly beyond the budgeted expenditure that is based on long-range average annual events and costs. Winter conditions also results in increased motor vehicle accident damage and employee injuries such as slips and falls.

Service Assumptions

With the approval of the Mayors' 10-Year Vision, service levels are expected to increase as follows:

BUS OPERATIONS					
Twelve months ending December 31	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
SERVICE HOURS					
CMBC Operations	4,747,801	4,901,828	5,050,622	148,794	3.0%
Conventional Bus	4,250,447	4,378,050	4,507,657	129,607	3.0%
Community Shuttle	486,289	512,199	530,690	18,491	3.6%
SeaBus	11,065	11,579	12,275	696	6.0%
Contracted Transit Services	235,863	244,238	256,875	12,637	5.2%
West Vancouver	132,283	138,792	142,384	3,592	2.6%
Contract Community Shuttle	103,580	105,446	114,491	9,045	8.6%
Conventional Transit Service Hours	4,983,664	5,146,066	5,307,497	161,431	3.1%
SERVICE KILOMETRES					
CMBC Operations	92,160,578	96,178,226	99,134,029	2,955,803	3.1%
Conventional Bus	82,118,729	85,420,886	87,923,442	2,502,556	2.9%
Community Shuttle	9,892,491	10,600,814	11,044,635	443,821	4.2%
SeaBus	149,358	156,526	165,952	9,426	6.0%
Contracted Transit Services	5,011,610	5,280,000	5,535,253	255,253	4.8%
West Vancouver	2,689,113	2,877,200	2,947,350	70,150	2.4%
Contract Community Shuttle	2,322,497	2,402,800	2,587,903	185,103	7.7%
Conventional Transit Service Kilometres	97,172,188	101,458,226	104,669,282	3,211,056	3.2%
ACCESS TRANSIT					
Twelve months ending December 31	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Service Hours	560,453	595,000	620,000	25,000	4.2%
Service Kilometres	8,862,845	9,520,600	9,920,000	399,400	4.2%
Access Transit Trips					
Trips - HandyDART	1,094,969	1,185,500	1,233,000	47,500	4.0%
Trips - Taxi Supplement	132,360	102,000	102,000	-	-
Total Access Transit Trips	1,227,329	1,287,500	1,335,000	47,500	3.7%

The 2018 budget is the second year in Phase One of the 2017-2019 transit service expansion from the 10-Year Vision and Investment plan. Year over year conventional transit services are up over 3 per cent and HandyDART is funded for an additional 47,500 trips (4 per cent) increase. The major impacts to service include:

- Full year impacts of the service improvements, changes and expansion implemented in the Spring, Summer, Fall and Winter of 2017; and
- 2018 service expansion improvements across the region with added trips per hour primarily in the AM or PM peak periods on busy routes and on weekends plus running time adjustments to address service reliability.

2018 Budget vs 2017 Budget

BUS OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET*	2018 BUDGET	Change	
				Incr/(Decr)	%
Administration	16,233	14,948	18,812	3,864	25.8%
Contracted Services	69,094	74,063	77,872	3,809	5.1%
Fuel and Power	43,671	50,195	53,563	3,368	6.7%
Insurance	14,573	15,570	18,841	3,271	21.0%
Maintenance, Materials and Utilities	63,922	69,357	75,520	6,163	8.9%
Professional and Legal	2,276	2,580	2,841	261	10.1%
Rentals, Leases and Property Tax	13,113	13,176	13,844	668	5.1%
Salaries, Wages and Benefits	433,660	453,202	470,410	17,208	3.8%
Total Expenses by Category	656,542	693,091	731,703	38,612	5.6%

* Restated to reflect budget transfers

The 2018 Bus Division budget overall is \$38.6 million higher than 2017 budget. This consists of CMBC costs to operate Conventional Service, Community Shuttle and SeaBus \$25.7 million, Access Transit \$3.6 million, other contracted bus services \$1.6 million and allocated costs \$7.7 million largely relating to IT Software Licensing and IT network infrastructure costs.

The CMBC 2018 operating budget increase is primarily due to contractual labour and economic increases, additional staffing and vehicle operating costs related to the 2018 service expansion plus the full year impact of the 2017 service changes. The increase from the 2017 to 2018 budget is attributed to the following:

- Salaries, wages and benefits is expected to increase by \$17.2 million, which mainly includes \$7.3 million for additional operator and other staff wages and salaries related to service expansion, \$7.1 million of contractual increases and other step and merit pay progression increases and the net impact to employer-paid benefits including the announced 2018 Medical Services Plan rate reduction;
- Maintenance, materials and utilities are \$6.2 million higher, mainly due to the 2009 hybrid bus fleet's required Energy Storage System battery replacements, one-time road worthy repair and operating costs to retain older buses for expansion until the new buses arrive, bus life cycle major engine and component repairs, increased service expansion kilometres and utility usage and rate increases;
- Administration is \$3.9 million higher, mainly due to the increase of IT Software Licensing and IT network infrastructure costs;

- Fuel costs is expected to increase by \$3.4 million due to expected higher fuel prices and the additional service kilometers; and
- Insurance is \$3.3 million higher mainly as a result of expected increased insurance rates plus the additional service kilometers and more buses with service expansion.

Access Transit is higher by \$3.6 million due to increases in contractual operator labour, fixed costs, fuel and vehicle operating costs as a result of increased service and the additional administration and support costs for the Custom Transit Service Review recommendations. Contracted Transit for West Vancouver and Community Shuttle is up \$1.6 million overall due to contractor labour agreements plus expansion service hours and the reallocation of three North Shore shuttle routes to West Vancouver. With the additional service, additional maintenance staff and road supervisors were hired.

Rail Operations

British Columbia Rapid Transit Company Ltd. (BCRTC), on behalf of TransLink, maintains and operates two of the three SkyTrain lines in Metro Vancouver, the Expo and Millennium Lines, and the West Coast Express commuter rail service. In addition, BCRTC also manages the agreement with InTransit BC for the operation and maintenance of the Canada Line.

The Expo and Millennium Lines primarily operate out of BCRTC's Operations and Maintenance Centre in Burnaby. There are nearly 950 dedicated employees who work in the areas of administration, engineering, maintenance, field and train operations to deliver this service.

The Expo and Millennium Lines and the Evergreen Extension of the Millennium line connect downtown Vancouver with the cities of Burnaby, New Westminster, Surrey, Port Moody and Coquitlam. The Canada Line connects downtown Vancouver to the Vancouver International Airport (YVR) and the City of Richmond.

The West Coast Express commuter rail service delivers trains that connect the cities of Mission, Maple Ridge, Pitt Meadows, Port Coquitlam, Coquitlam and Port Moody with Vancouver.

The Rail division of TransLink currently provides 500,000 trips per day on 160 km of track with a 95 per cent on-time performance rate. Ongoing investment in the rail network over the coming years will enable us to continue to meet the needs and expectations of customers and ensure the railway is operating safely and reliably.

Initiatives

The Rail division is committed to its employees, the ongoing improvement of customer service and supporting TransLink's critical role of planning and managing the region's transportation network. Over the next few years, BCRTC will complete the ongoing investments in existing rail services and support the rail-related projects contained in the Mayors Council's 10-Year Vision for Metro Vancouver Transit and Transportation.

The Rail division's 2017-2019 business plan has aligned its focus areas and objectives with those of TransLink to support an integrated approach to meet the ever expanding needs of people in the Metro Vancouver region.

Priority One: Improve Customer Experience and Public Support

In 2018, BCRTC will continue to focus on the following areas in support of the customer experience.

- Develop and implement a benchmarking program (Nova alignment, Mystery Shopping); and
- Conduct a Customer Service Assessment.

Priority Two: Ensure State of Good Repair

In 2018, BCRTC will continue to focus on the following areas to continually improve the current record of safe and secure operations and invest in the future of rail services:

- Implement a more proactive and planned approach to maintenance;
- Develop a process and methodology for collecting data on asset failure relating to delay and unplanned maintenance;
- Implement an Asset Management System;
- Continue departmental performance reporting;
- Update and transform the Safety Management System;
- Create a five point safety plan;
- Update existing IT platforms to support core business processes;
- Redevelop approach to training (Learning Management System);
- Develop simple knowledge transfer options for rail; and
- Optimize space for long term use.

Priority Three: Mobilize Mayors' Vision

BCRTC will provide the rail elements required to deliver the regional transportation priorities:

- Procure and successfully commission Mark III vehicles; and
- Continue to support Investment Plan developments.

Risks and Challenges

With a rapid transit system that is over 30 years old in several sections, the rail division faces numerous risks and challenges from a maintenance and operational standpoint. The Rail division has identified the following risks and challenges:

- Aging infrastructure;
- Time consuming asset renewal;
- Outdated systems and processes;
- Deploying new assets;
- Growing and expanding needs of the customer base;
- Training and developing of workforce; and
- Potential retirement of a significant portion of the workforce.

BCRTC will continue to monitor these risks through various steering committees, asset management tools and regular reporting to senior management.

Service Assumptions

With the approval of the Mayors' 10-Year Vision, service levels are expected to increase as follows:

RAIL OPERATIONS					
Twelve months ending December 31	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
SERVICE HOURS					
Expo & Millennium Lines	1,129,066	1,335,911	1,327,448	(8,463)	(0.6%)
Canada Line	196,487	203,668	202,470	(1,198)	(0.6%)
WCE ¹	42,421	37,862	36,622	(1,240)	(3.3%)
Rail Division Service Hours	1,367,974	1,577,441	1,566,540	(10,901)	(0.7%)
SERVICE KILOMETRES					
Expo & Millennium Lines	45,501,358	53,837,212	53,496,154	(341,058)	(0.6%)
Canada Line	6,326,882	6,558,090	6,519,505	(38,585)	(0.6%)
WCE	1,582,638	1,411,511	1,380,019	(31,492)	(2.2%)
Rail Division Service Kilometres	53,410,878	61,806,813	61,395,678	(411,135)	(0.7%)

¹ 2016 Actual restated to reflect non-revenue and TrainBus service hours that were previously excluded.

In 2017, there was unprecedented growth in the Rail division primarily due to the Evergreen Extension of the Millennium Line that opened in December 2016. In preparation, off-peak capacity on the Expo Line was increased in October 2016. Also, peak and weekend service level increases using existing fleet were implemented in January 2017 for both the Expo and Millennium Lines, along with peak improvements on the Canada Line.

Revenue service levels in 2018 are consistent with those provided in 2017. By the end of 2018, the first two of the 28 additional Mark III expansion cars are expected to be used in peak service. Service hours are budgeted to be lower in 2018, as a result of greater operational efficiencies in train deployment due to the proximity of the new Operations and Maintenance Centre (OMC) in the Northeast sector of the system.

2018 Budget vs 2017 Budget

RAIL OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Administration	5,484	5,953	7,757	1,804	30.3%
Contracted Services	118,210	122,072	123,515	1,443	1.2%
Fuel and Power	13,093	16,465	16,245	(220)	(1.3%)
Insurance	4,178	5,065	4,430	(635)	(12.5%)
Maintenance, Materials and Utilities	36,386	41,334	44,584	3,250	7.9%
Professional and Legal	3,478	2,898	3,398	500	17.3%
Rentals, Leases and Property Tax	1,826	2,020	2,070	50	2.5%
Salaries, Wages and Benefits	83,285	104,203	106,577	2,374	2.3%
Total Expenses by Category	265,940	300,010	308,576	8,566	2.9%

The Rail division's 2018 operating budget of \$308.6 million is \$8.6 million (2.9 per cent) higher than the 2017 budget of \$300.0 million due to the following:

- Rising costs associated with labour, contractual and economic increases;
- Ongoing system maintenance to ensure a state of good repair and adherence to regulatory requirements; and
- Resources required to support key initiatives related to maintenance plans and standards, business transformation, data management processes and management of safety, training and health to ensure a sustainable future.

The increases above have been offset with savings due to provincial budget impacts related to 50 per cent reductions in MSP premiums and PST on hydro costs.

Police Operations

Mandated by the Minister of Public Safety and Solicitor General as a Designated Policing Unit, the Metro Vancouver Transit Police (“Transit Police”) preserves and protects the public peace throughout the transit system. Working with local police services, each officer aims to prevent crime and offences against the law, aid in the administration of justice and enforce the laws of British Columbia. The Province established Transit Police in 2005 as the first dedicated transit police service in Canada.

Initiatives

In 2018, the Transit Police will continue to implement its Strategic Plan and the commitment to demonstrate excellence in public transit policing and focus on the following three Strategic Goals:

- Build a safe and secure transit system;
- Deliver confidence in the use of public transit; and
- Provide regional services that enhance local policing and community safety.

In support of TransLink’s priority to improve customer experience and public support, the Transit Police proposes to hire six police officers to assist in managing the increase in crime prevention and police workload created by the Evergreen Extension of the Millennium Line. This will be in addition to the eight police officers hired in 2017 for the Evergreen Extension. A phased approach was proposed in 2017 for increasing sworn authorized strength, which took into account organizational capacity to recruit, train and hire qualified candidates. This ongoing phased addition of resources will help to ensure that policing service on the Expo and Millennium Lines isn’t negatively impacted in order to provide policing on the Evergreen Extension.

Also supporting the TransLink priority of improving customer experience in 2018 will be the hiring of: two police officers for the General Investigative Unit (GIU); and a crime analyst (civilian) to support proactive policing and intelligence-led policing objectives. The GIU will be expanded into two teams to cover seven days per week, thereby enabling quicker response times and enhanced investigative follow up and oversight of serious criminal offenses. These enhanced resources will contribute to the Transit Police focus on reducing crime and disorder on transit, building public confidence and improving threat awareness and anti-terror capacity to protect the transit system infrastructure.

Transit Police will continue to monitor its achievements against its Strategic Plan by observing 14 key performance indicators grouped by the following five themes:

- Reducing Crime;
- Strengthening Partnerships;
- Improving Safety;
- Increasing Productivity; and
- Maintaining a Healthy and Diverse Organization.

Risks and Challenges

Maintaining sworn officer staffing levels in response to attrition and injury continues to be a challenge. In the policing environment, a casual pool of sworn officers does not exist to fill vacant and injured positions. Hiring replacement officers is a lengthy process with the availability of suitable candidates varying greatly month to month. Unforeseen delays in hiring could lead to additional operational overtime costs. As the transit system evolves, ridership increases and demands for transit policing services evolve from stakeholders; Transit Police must be proactive in developing and acquiring the necessary human resources and associated operational support.

2018 Budget vs 2017 Budget

POLICE OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Administration	2,178	2,503	3,577	1,074	42.9%
Insurance	40	45	50	5	11.1%
Maintenance, Materials and Utilities	1,167	1,401	1,350	(51)	(3.6%)
Professional and Legal	354	496	410	(86)	(17.3%)
Rentals, Leases and Property Tax	1,847	2,059	1,960	(99)	(4.8%)
Salaries, Wages and Benefits	28,173	30,417	31,114	697	2.3%
Total Expenses by Category	33,759	36,921	38,461	1,540	4.2%

Police division costs have increased by \$1.5 million (4.2 per cent) mainly related to an increase of IT Software Licensing and IT network Infrastructure costs in administration and salaries, wages and benefits increases for additional police officers at the Evergreen Extension. These increases were partially offset by an adjustment for Employee Future Benefit costs due to MSP premium reductions.

Corporate Operations

Corporate operations will continue to support the operating subsidiaries in 2018, with a focus on achieving enterprise priorities, including mobilizing Phase One of the 10-Year Vision and ensuring procurement readiness for Rapid Transit projects. The strategic objectives of each corporate division are summarized below.

Transportation Planning and Policy

Transportation Planning and Policy (Planning) will support the final funding and scope decisions for the Pattullo Bridge Replacement and major system expansion under the next Phase of the 10-Year Vision. The system expansion includes the Millennium Line Broadway Extension, South of Fraser Light Rapid Transit, a six per cent increase in bus service and new B-Line corridors. As committed to in Phase One, four B-Line corridors will be implemented by 2019.

Planning will support the Mobility Pricing Independent Commission to complete impact analyses and help launch the mobility pricing field study. Mobility pricing refers to the fees and charges for everyday transportation services such as transit fares, bridge tolls and road usage charges.

Planning will facilitate a broad public dialogue on the next big moves for the upcoming 30 years and develop long-term regional network plans for bikeways, roadways and frequent transit. New mobility solutions will advance to improve customer experience, such as piloting Vanpool and on-demand micro-transit (ride-hailing services), developing the framework for bike-share expansion and supporting BC legislation for ride-hailing.

Infrastructure Management and Engineering

Infrastructure Management and Engineering (IME) will continue to support the 10-Year Vision and initiatives which include the following key actions:

- Complete the environmental reviews and procurement for the Pattullo Bridge Replacement Project;
- Complete the design process, environmental reviews and procurement for both rapid transit expansion projects: the South of Fraser LRT and the Millennium Line Broadway Extension;
- Deliver capital projects within the approved annual capital program, including design and implementation projects related to:
 - The SeaBus Terminal;
 - Existing and future bus depots;
 - Customer communication and information infrastructure;
 - Rail systems and facilities to support ridership and expansion; and
 - State of good repair projects to maintain the cost-effective reliability and functionality of TransLink's assets and operations.
- Manage municipal contribution programs for regional road and bike facility projects within the approved capital program;
- Continue to improve and advance TransLink's asset management capabilities; and
- Continue to manage maintenance and operations on bridges owned by TransLink.

Human Resources

Recruiting employees in order to achieve hiring targets continues to be a priority which is in line with the 10-Year Vision to grow and improve the transit system. Transit and shuttle operator recruitment will increase in order to meet the requirements for service expansion. Human Resources will provide BCRTC with best practices resources in change management, organization design, job classification and evaluation. This will support modernizing the procedures in maintenance, operations and training of the Rail division staff. Furthermore, a workforce strategy will be developed to meet service expansion recruitment targets for Planning and IME and to decrease the overall reliance on consultants for capital projects.

Human resources will continue to implement their Enterprise Leadership and Succession Plan Strategy. This will help ensure valuable knowledge and best practices in operations, customer service and other areas are transferred seamlessly to new managers and staff.

Business Technology Services

Business Technology Services (BTS) will continue to support TransLink's enterprise priorities in 2018 by maintaining a state of good repair for technology infrastructure and services, scaling and extending systems and services to support the 10-Year Vision service expansion, and providing services to improve the customer experience.

BTS will continue to work with IME to support the implementation of the Enterprise Asset Management program in 2018. In addition to the annual infrastructure and software renewal programs, the focus will be on delivering projects to update on-board bus systems, CMBC's scheduling and operations management systems and addressing BCRTC's legacy systems replacement requirements.

In support of the expansion of services and delivery of major infrastructure projects, infrastructure and systems will be scaled to accommodate additional technology installations which will provide project delivery teams with the tools required to effectively deliver major projects.

BTS will be delivering an integrated and improved customer messaging platform to allow various customer service teams to communicate to customers in a timely and consistent manner. Additionally, other customer-facing, technology-enabled systems and improvements, such as live chat on websites and employee information technologies, will be implemented.

Strategic Sourcing and Real Estate

The Strategic Sourcing and Contracts Management team will continue to plan for and acquire goods, services and/or construction work on assets by third parties through a fair, open and transparent manner. The team will also ensure the supplier relationship is professionally managed with value for dollar achieved through structured contract management practices. Priorities for 2018 include supporting the capital projects and operations, pursuing value for money initiatives and leading the Canada Line Expansion Project negotiations.

The Real Estate Operations team continues to support real estate related activities required for TransLink's core transportation mandate – acquisitions, leasing, expropriations, expropriation claim management, property management and facilities management. Priorities for 2018 include required estimates for the major capital projects which include over \$500 million in property estimates for approximately 400 impacted properties.

The Real Estate Programs & Partnerships team continues to pursue initiatives aimed to increase ridership, improve customer experience, improve safety and security and optimize commercial value that are real estate enabled. Priorities for 2018 include management of adjacent development (170+ projects), retail expansion, telecom program expansion, strategic property acquisition, finalizing innovative transportation funding agreements, optimizing the value of surplus assets and developing business cases for new opportunities.

The Commercial Programs & Partnerships team continues to pursue initiatives aimed to improve customer experience, improve safety and security and generate financial returns. Priorities for 2018 include introduction of new advertising programs, growth of the branded merchandise program, preparation for a long-term advertising partner solicitation and the development of business cases for new opportunities.

The Provincial Environmental Remediation Program manages and administers the remediation of lands that were transferred to TransLink by the Province of BC at the time of TransLink's creation. Priorities for 2018 include undertaking (and in some cases, finalizing) remediation works on various sites and refining and updating the working protocol between TransLink and the Province.

Legal

Legal will support ongoing operations and the procurement and implementation of capital projects through the provision of legal advice, drafting of contractual terms and placement of insurance to protect the interests of TransLink. Legal will also assist with development of future investment plans and potential legislative amendments to enable new or expanded funding sources.

The Legal Department supports various initiatives that enhance the customer experience, such as implementation of the Access Transit Service Delivery Review recommendations to improve the accessibility and experience of transit services for people with disabilities, seniors, new immigrants and young people. This work is guided by the feedback and needs of customers.

Customer Communications and Public Affairs

The Customer Communications and Public Affairs group (Communications) supports the entire enterprise through internal communications to employees across all levels, the Board and externally to customers, the general public, taxpayers, stakeholders and funding partners.

In 2018, Communications will expand customer communications on the quarterly service changes linked to the 10-Year Vision, continue to provide better wayfinding signage across the integrated system and assist operating companies on the customer signage improvements. The Transportation Demand Management (TDM) customer outreach group will examine areas to increase ridership, such as specific stations on the Evergreen Extension, and partner with Planning to reduce bus overcrowding on specific corridors.

Compass improvements and pilot programs for Vanpool, electric and double-decker buses will continue to be marketed and supported. The Enterprise Marketing team will continue to progress with the Enterprise Digital Strategy Program, the development of the next phase of the 10-Year Vision and align other corporate projects to improve customer experience and support.

Communications will provide internal support to improve the employee engagement experience at TransLink by helping employees understand the business goals, direction and priorities of the enterprise.

Communications will work with partner agencies to enhance programs that inform the community on the integrated system through community and business outreach, sponsorship and partnerships. A sustainable Transit Ambassador program will also be developed to assist visitors, non-transit users and regular transit users in understanding the system and how it works, which will help develop brand and reputation in the community.

Finance and Compass Operations

Financial Services will work on several initiatives to help grow and support the business. These include preparation for implementation of the new Development Charge bylaws and collections, supporting the transit fare review, completing the mass fare adjustment project and decommission the Golden Ears Bridge toll collection system.

New Compass features and services, such as open payment and Compass Pass for organizations, will be introduced and expanded to attract new ridership and process revenue collection in an efficient manner. Compass Customer Service will continue to provide excellent levels of customer service while identifying emerging customer issues and implementing improvements to address customer concerns. There will be functional improvements to the Compass Card website and vending machines to improve the overall customer experience in response to customer feedback.

2018 Budget vs 2017 Budget

CORPORATE OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL ¹	2017 BUDGET ^{1,2}	2018 BUDGET	Change	
				Incr/(Decr)	%
Administration	14,680	17,276	18,112	836	4.8%
Contracted Services	11,819	13,028	13,380	352	2.7%
Insurance	1,344	151	173	22	14.6%
Maintenance, Materials and Utilities	2,316	2,685	2,216	(469)	(17.5%)
Professional and Legal	8,701	11,368	11,511	143	1.3%
Rentals, Leases and Property Tax	7,848	10,569	9,794	(775)	(7.3%)
Salaries, Wages and Benefits	41,062	42,559	44,224	1,665	3.9%
Total Expenses by Category	87,770	97,636	99,410	1,774	1.8%

¹ Restated 2016 and 2017 for comparative purposes.

² Restated to reflect budget transfers.

Corporate ongoing costs are expected to increase by \$1.8 million (1.8 per cent) compared to the 2017 budget. The increase in operating costs is primarily due to the increase in salaries, wages and benefits as a result of growth in staffing levels and expanded investments to support TransLink's extensive capital program, which are critical to delivering the projects and services to the region.

Corporate ongoing costs are expected to achieve enterprise priorities and support expansion including:

- Support over the completion of environmental reviews, procurement documents, final funding and scope decisions for the Pattullo Bridge Replacement Project to ensure a state of good repair;
- Completion of the design process, environmental reviews and procurement documents for the two Rapid Transit expansion projects: South of Fraser Light Rapid Transit and Millennium Line Broadway Extension to mobilize the Mayors' 10-Year Vision;
- Maintenance of IT Software and additions to the IT network Infrastructure to ensure a state of good repair; and
- Investment in the Compass system to enhance functionality and improve customer experience.

Rental, leases and property tax expenditures have decreased in Corporate Operations mainly due to the reduction of property taxes as a result of a property sale in late 2016, which are partly offset by an increase in the property tax and rental costs on existing property.

Roads and Bridges

ROADS & BRIDGES OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2016	2017	2018	Change	
	ACTUAL	BUDGET	BUDGET	Incr/(Decr)	%
Administration	63	156	149	(7)	(4.5%)
Capital infrastructure contributions ¹	3,910	50,402	53,212	2,810	5.6%
Contracted Services	12,667	13,347	11,710	(1,637)	(12.3%)
Fuel and Power	-	-	-	-	0.0%
Insurance	1,045	1,224	1,224	-	0.0%
Maintenance, Materials and Utilities	25,962	28,649	33,671	5,022	17.5%
Professional and Legal	7,503	7,678	2,378	(5,300)	(69.0%)
Rentals, Leases and Property Tax	61	67	67	-	0.0%
Salaries, Wages and Benefits	1,242	1,721	1,845	124	7.2%
Total Expenses by Category	52,453	103,244	104,256	1,012	1.0%

¹2016 includes a recovery of a prior year expense.

The 2018 Roads and Bridges budget is expected to increase \$1.0 million (1.0 per cent) over the 2017 budget. The increase is primarily due to the Major Road Network (MRN) program (higher contribution in funding and extension of lane kilometers) and an increase in additional resources which will support the 2018 corporate priorities. The increase is partly offset by removing Golden Ears Bridge tolling and the feasibility study related to Seismic Rehab on the Pattullo Bridge in 2017.

The Roads and Bridges 2018 budget will support the Major Road Network & Bike Program, Regional Goods Movement Strategy and will deliver Greater Vancouver Urban Freight priorities yield to the following outcomes:

- Provide the tools to monitor and manage the road network's performance;
- Administer the municipal funding programs for roads, cycling, walking and structures infrastructure projects with the additional funding approved in the 10-Year Vision;
- Improve regional coordination between public and private sector partners on issues of intra-regional goods movement;
- Develop a Regional Road Network Strategy to better define and manage performance of the region's road network and inform the 2018 MRN Expansion;
- Improve regional road network operations including improvement of freight wayfinding and trip planning tools, loading zone operations and incident response;
- Revise the current regional definition of a truck for the purpose of limiting travel to designated truck routes and coordinate its implementation by all municipalities in the region (i.e., those that designate truck routes);
- Reach municipal agreement on harmonizing vehicle weights and dimensions limits with provincial and national standards; and
- Reach agreement on implementing a regional permit system for oversize-overweight vehicles.

Amortization

The 2018 budget for amortization expense increased \$5.2 million (2.5 per cent) in comparison to the 2017 budget. Major attributes for the additional amortization expense in 2018 include buses to be acquired in 2018 and the completion of the Compass Advancement projects in 2018.

Interest

Interest expense is expected to increase by \$3.0 million (1.7 per cent) in comparison to the 2017 budget mostly due to higher outstanding gross debt.

Corporate – One-time

Corporate one-time costs in the 2018 budget are \$33.8 million, mainly consisting of the Regional Transportation Strategy program update (\$4.4 million), B-Line expansion (\$2.0 million), Enterprise Asset Management program (\$3.5 million), Mobility Pricing (\$2.7 million), Compass Open Payment (\$0.6 million), Trip Diary Planning (\$0.5 million), a contingency provision per TransLink's policy (\$12.5 million), feasibility studies (\$5.6 million) and other one-time projects (\$2.0 million).

6. Investment in Capital Assets

Summary of Capital, by Program (\$ thousands)	2018 Capital Cash Flow			Total Project Budget		
	Gross Cost	Less: Funding *	Net Cost	Gross Cost	Less: Funding *	Net Cost
2018 New Capital Program						
Equipment	19,399	(976)	18,423	51,302	(8,964)	42,338
Facilities	8,122	0	8,122	23,210	0	23,210
Infrastructure	59,583	(20,673)	38,910	108,950	(28,202)	80,748
Technology	7,686	0	7,686	20,050	0	20,050
Vehicles - Revenue	14,984	(12,437)	2,547	159,550	(141,900)	17,650
Vehicles - Non Revenue	3,102	0	3,102	5,565	0	5,565
Major Construction	43,341	0	43,341	43,816	0	43,816
Subtotal	156,217	(34,086)	122,131	412,443	(179,066)	233,377
Active/Approved in Principle (AIP) Capital						
Equipment	38,830	(23,471)	15,359	84,017	(48,771)	35,246
Facilities	38,908	(20,399)	18,509	61,556	(38,087)	23,469
Infrastructure	213,216	(139,701)	73,515	484,806	(317,537)	167,269
Technology	13,737	(2,781)	10,956	43,209	(0)	43,209
Vehicles - Revenue	449,226	(400,539)	48,688	680,694	(585,633)	95,061
Vehicles - Non Revenue	3,113	0	3,113	5,516	0	5,516
Major Construction	15,331	(7,837)	7,494	491,176	(38,830)	452,346
Subtotal	772,361	(594,728)	177,633	1,850,975	(1,028,858)	822,117
Total Capital						
Equipment	58,229	(24,447)	33,781	135,319	(57,735)	77,584
Facilities	47,030	(20,399)	26,631	84,766	(38,087)	46,679
Infrastructure	272,799	(160,374)	112,425	593,756	(345,739)	248,017
Technology	21,423	(2,781)	18,642	63,259	(0)	63,259
Vehicles - Revenue	464,210	(412,975)	51,235	840,244	(727,533)	112,711
Vehicles - Non Revenue	6,215	0	6,215	11,081	0	11,081
Major Construction	58,672	(7,837)	50,835	534,992	(38,830)	496,162
Capital Program Total	928,577	(628,813)	299,764	2,263,418	(1,207,924)	1,055,494
Capital Infrastructure Contributions						
2018 New Program	22,718	0	22,718	74,168	0	74,168
Active and Approved in Principle	29,869	0	29,869	227,103	0	227,103
Total Capital Infrastructure Contributions	52,587	0	52,587	301,271	0	301,271
ALL PROJECTS	981,164	(628,813)	352,351	2,564,689	(1,207,924)	1,356,765

* The funding sources include Federal Gas Tax, Build Canada Fund, Public Transit Infrastructure Program, City of Vancouver

Overview

TransLink's capital program is aligned with our current priorities of improving customer experience and public support, mobilize the Mayors' 10-Year Vision and ensure a state of good repair. The current capital program ensures assets provide the most efficient and effective infrastructure required to serve customers and stakeholders, and continues to support the delivery of the 10-Year Vision. Capital projects have been planned and prioritized through an integrated review process across the enterprise that measures impact on strategy, customer experience, stakeholder value, business effectiveness and other factors.

The table above highlights capital projects grouped into asset categories and includes capital infrastructure contributions as per TransLink's current mandate of addressing regional Major Road Network (MRN) needs. The budget for the 2018 new capital program is \$486.6 million.

The projected 2018 cash flow for all projects is \$981.2 million, with \$156.2 million for the 2018 New Capital Program, \$772.4 million for existing capital programs and \$52.6 million for Capital Infrastructure Contributions. The net cash impact in 2018 after senior government funding is \$352.4 million.

2018 New Capital Program

The 2018 New Capital Program is intended to continue the delivery of the first phase of the 10-Year Vision as well as deliver key milestones for three major projects. The program is also intended to improve customer experience and keep the overall system in a state of good repair.

Capital Projects supported by the Public Transit Infrastructure Fund total \$66.6 million and include rail capacity expansion and further improvements to rail and bus infrastructure. Bus fleet expansion and replacement projects total \$134.6 million and are funded by the Greater Vancouver Regional Fund (Gas Tax). The program also includes \$43.8 million for final design and procurement readiness work for the Pattullo Bridge Replacement, Millennium Line Broadway Extension, and South of Fraser Light Rapid Transit projects. Anticipated senior government contributions total \$179.1 million and the net capital spending for the 2018 capital program is currently forecasted at \$233.4 million.

The following table provides summary information on projects with a project budget greater than \$2 million for each category.

Table 1: 2018 New Capital Program (\$ thousands)

2018 New Capital Program Project Details		2018 Capital Cash Flow			Total Project Budget		
Classification and Project Name	Description	Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
EQUIPMENT							
Implement Programmable-Message Signs at Stations	Install programmable message signs at station entrances to provide real-time service-related information.	1,176	(976)	200	10,800	(8,964)	1,836
CCTV Camera System Upgrade on Expo and Millennium Lines	Replace cameras, equipment and coax cable.	6,222	-	6,222	10,500	-	10,500
Skytrain Customer and Operations Telecommunications (SCOT) Upgrade	Upgrades to the SCOT system to accommodate SkyTrain expansion.	2,918	-	2,918	8,725	-	8,725
Station Platform Display Replacement	Replace the SkyTrain Platform Light Emitting Diode System (PLEDS) which is difficult to read and no longer supported by the vendor.	668	-	668	8,300	-	8,300
Expo Line Traction Power Equipment Replacement	Replace & recondition traction power equipment to current technology for 15 substations.	2,265	-	2,265	5,617	-	5,617
Rail Borne Equipment Replacement	Replace five BCRTC rail borne equipment vehicles nearing end-of-life used heavily for inspections, maintenance and capital project support.	2,991	-	2,991	3,000	-	3,000
Operator Protection Barrier Retrofit	Installation of barrier retrofit to protect bus operators from assaults.	1,159	-	1,159	2,360	-	2,360
FareBox Expansion and Replacement	Installation of new FareBox on expansion and replacement bus fleets.	2,000	-	2,000	2,000	-	2,000
FACILITIES							
Operations & Maintenance Centre (OMC) 1 & 2 space optimization and modernization	Renovation to optimize and modernize BCRTC's workplace and facilities.	781	-	781	8,000	-	8,000
Brentwood SkyTrain Station and Bus Facilities Upgrade Phased Design and Implementation	Upgrade to improve the weather protection, amenities and elevator at Brentwood SkyTrain station's rail and bus facilities.	3,003	-	3,003	7,370	-	7,370
Richmond Transit Centre (RTC) Facility Upgrades to Accommodate Double Decker Buses	Retrofits required at RTC for double decker buses purchased.	940	-	940	4,000	-	4,000
Other	Six (6) other projects in this asset category.	3,398	-	3,398	3,840	-	3,840

Table 1: 2018 New Capital Program (\$ thousands) Continued

2018 New Capital Program Project Details		2018 Capital Cash Flow			Total Project Budget		
Classification and Project Name	Description	Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
INFRASTRUCTURE							
Public Address Quality Improvement	Update existing PA speakers and install emergency speakers at stations and in some SkyTrain vehicles.	6,332	(5,256)	1,076	13,000	(10,790)	2,210
Seabus Maintenance Dock Expansion	Expand maintenance dock from 2 to 3 berths to accommodate a new SeaBus vessel purchase.	539	-	539	10,000	-	10,000
Transit Plan for Millennium Line Broadway Extension Construction	To order 37 diesel buses to replace some of the the trolley fleet and to build bypass trolley overhead infrastructure for others during construction.	1,011	-	1,011	8,950	-	8,950
TransLink Owned Bicycle Infrastructure	Maintain and improve current level of service, safety and reliability.	5,446	-	5,446	8,000	-	8,000
Expo Line Running Rail Replacement 2019	Replace sections of running rail in Phase I of Expo Line (Burnaby/New West) that are in poor condition.	2,126	-	2,126	7,172	-	7,172
Patullo Bridge Wind Monitoring & Seismic Warning Systems Detailed Design	To improve safety on Pattullo Bridge, an Advance Warning and Monitoring System can be implemented to provide advance notice of seismic and wind events and prevent all modes of traffic.	4,747	-	4,747	5,000	-	5,000
Burnaby Transit Centre South (BTCS) Tire Shop Extension with 3-post Hoist - Implementation	Extend existing 40ft bus tire shop to allow for maintenance of 109 60ft buses.	4,727	(3,923)	804	5,000	(4,150)	850
Canada Line Bus Loops-Richmond Brighthouse	Construction of bus mall at the Richmond Brighthouse station.	3,988	(1,994)	1,994	4,000	(2,000)	2,000
TransLink Enterprise Asset Management	Provide a strategic-level investment decision-support tool for enterprise assets.	1,092	-	1,092	3,240	-	3,240
Marpole Transit Centre Silvertree Site - Pre-Design Services	Provides for a detailed environmental study, functional programming requirements and other pre-design work.	2,178	-	2,178	3,002	-	3,002
Yard Track Reconditioning	Replace track & turnouts in OMC 1 yard, implement permanent solution to OMC 1&2 track connection and reinstate 2 storage lanes.	447	-	447	3,000	-	3,000
2018 Transit Centre Infrastructure to Support Expansion	Moving from hybrid to diesel buses requires changes to existing infrastructure.	81	-	81	2,500	-	2,500
2018 Trolley OverHead (TOH) State of Good Repair Projects	State of Good Repair multi-year program to replace 100 TOH poles per year based on a priority basis.	1,910	(600)	1,310	2,500	(600)	1,900
Dunsmuir Tunnel Ventilation Control System Replacement	Replace Dunsmuir Ventilation Control System which control a number of ventilation fans and dampeners.	1,321	(1,096)	225	2,300	(1,909)	391
Tunnel Ventilation System Rehabilitation - Dunsmuir	Design of Tunnel Ventilation System repairs and upgrades, plus implementation of urgent repairs.	1,155	-	1,155	2,000	-	2,000
Westham Island Bridge Rehabilitation - Implementation	Construction and Implementation of the Westham Island Bridge Rehabilitation.	1,301	-	1,301	2,000	-	2,000
Burnaby Transit Centre North (BTCN) Garage Rehabilitation Construction Implementation	Garage Construction for the Burnaby North Transit Center.	7,339	(6,091)	1,248	7,866	(6,529)	1,337
Other	Seven (7) other projects in this asset category, and \$10 million in capital contingency.	13,843	(1,712)	12,131	19,420	(2,224)	17,196

Table 1: 2018 New Capital Program (\$ thousands) Continued

2018 New Capital Program Project Details		2018 Capital Cash Flow			Total Project Budget		
		Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
Classification and Project Name	Description						
TECHNOLOGY							
IT Infrastructure Refresh 2018	Continued investment in technology infrastructure to renew capital leases, replace owned assets, accommodate new headcount & provide for growth.	2,225	-	2,225	6,000	-	6,000
Financial System Replacement Detailed Design	Replace SmartStream and the other financial systems throughout the TransLink enterprise.	250	-	250	4,000	-	4,000
Bus Scheduling and Trip Planner System Update	Update to the Trapeze Software as it has reached end of vendor support.	1,059	-	1,059	3,500	-	3,500
TransLink Software Application Renewal Program 2018	Ensure software technology assets are maintained in a state of good repair and updated to fully-supported versions.	1,609	-	1,609	3,000	-	3,000
Bus Daily Operations Management System (DOMS) Replacement	DOMS primarily manages \$240M a year in operator wages and is the system that enables the management of day-to-day activities.	1,699	-	1,699	2,500	-	2,500
Other	Two (2) other projects in this asset category.	844	-	844	1,050	-	1,050
VEHICLES - REVENUE							
2019 Conventional Bus Expansion	Purchase 54 conventional buses required to implement the 2019 service expansion as per the Mayors' Vision.	-	-	-	82,000	(73,800)	8,200
2019 Conventional Bus Replacement	Replacement of 27 end-of-life 40' highfloor conventional buses with 27 double-decker low-floor buses.	-	-	-	33,300	(30,000)	3,300
Canada Line Capacity Expansion - OMC/System Upgrades	OMC/System upgrades as required to meet updated ridership forecasts and capacity on the Canada Line.	14,984	(12,437)	2,547	25,000	(20,750)	4,250
2019 Community Shuttle Replacement	Replacement of 49 end-of-life Community Shuttle vehicles with 49 new low-floor Community Shuttles.	-	-	-	12,000	(10,800)	1,200
2019 HandyDART Vehicle Replacement	Replacement of 40 end-of-life HandyDART vehicles with 40 new HandyDART vehicles.	-	-	-	5,750	(5,200)	550
2019 HandyDART Vehicles Expansion	Purchase 10 HandyDART vehicles required to implement the 2019 service expansion as per the Mayors' Vision.	-	-	-	1,500	(1,350)	150
VEHICLES - NON REVENUE							
CMBC TOH Truck Replacement	Replacement of TOH Truck.	150	-	150	2,400	-	2,400
Other	Six (6) other projects in this asset category.	2,952	-	2,952	3,165	-	3,165
MAJOR CONSTRUCTION							
Millennium Line Broadway Extension (MLBE) Final Procurement Preparation	Final procurement preparation for the design and construction of Millennium Line Broadway Extension.	16,627	-	16,627	16,627	-	16,627
Patullo Bridge Replacement Project Final Procurement Preparation	Final procurement preparation for the design and construction of new Pattullo Bridge.	13,897	-	13,897	13,940	-	13,940
South of Fraser Light Rapid Transit Procurement Readiness	Final procurement preparation for the design and construction of South of Fraser Rapid Transit.	12,817	-	12,817	13,249	-	13,249
Grand Total		156,217	(34,086)	122,131	412,443	(179,066)	233,377

Active and Approval in Principle (AIP) Projects Underway

Capital projects already approved and underway have a total budget of \$1.85 billion. Anticipated senior government contributions total \$1.03 billion, leaving the net cost forecasted at \$822.1 million. Spending forecast in 2018 is \$772.4 million with senior government funding of \$594.7 million for net spending of \$177.6 million. The majority of the spending is for bus vehicle purchases and SkyTrain fleet expansion forecasted at \$449.2 million for 2018. The table below highlights specific projects with project budget greater than \$1 million for each category.

Table 2: Active and Approved in Principle (AIP) Projects Underway (\$ thousands)

Active and Approved in Principle (AIP) Capital Program Details		2018 Capital Cash Flow			Total Project Budget		
Classification and Project Name	Description	Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
EQUIPMENT							
SkyTrain Physical Security System Project	Security Enhancements.	5,955	(4,943)	1,012	7,900	(6,557)	1,343
Transit Management and Communications (TMAC) Radio Replacement	Upgrade TMAC Mobile Automated Vehicle Location (AVL) radio system.	14,400	(11,952)	2,448	35,600	(29,548)	6,052
Automatic Train Control (ATC) Existing Equipment Replacement - Phase 2	Replace ATC equipment to improve system reliability and maintain state of good repair.	468	(315)	153	5,100	(4,500)	600
ATC Existing Equipment Replacement on Expo Line	Replace ATC equipment to improve system reliability and maintain state of good repair.	5,020	(3,966)	1,055	12,400	(3,966)	8,434
ATC System Recovery and Operation Improvements	Improve ATC system to reduce the occurrence of SkyTrain disruptions and the time needed to recover the disruptions.	2,210	-	2,210	5,100	-	5,100
Power System Upgrades for SkyTrain at Operations & Maintenance Centre (OMC)	Improve power supply and distribution reliability at OMC.	480	-	480	4,400	-	4,400
Millennium Line Fire Life Safety System	Installation of Fire Safety system in Millennium Line.	7,530	-	7,530	7,672	-	7,672
Other	Four (4) other projects in this asset category.	2,766	(2,296)	470	5,845	(4,200)	1,645
FACILITIES							
Expo Line Millennium Rail Upgrades - Vehicles Storage Facilities	Vehicle Storage Facilities for Millennium Rail Upgrades.	27,500	(11,122)	16,378	27,500	(11,122)	16,378
Expo Line Station Escalators - Stage 4	Replace the existing escalators to reduce high maintenance cost and meet safety requirements.	6,797	(5,642)	1,155	27,431	(22,768)	4,663
PowerSmart Upgrades - 2017	Implement all energy conservation measures to reduce energy consumption and costs and greenhouse gas emissions.	1,803	(1,496)	306	2,350	(1,060)	1,290
Burnaby Transit Centre South (BTCS) Garage Roof Replacement	Replace the garage building roof that is over 20 years old and has had numerous leak problems in the last 3 years.	1,622	(1,347)	276	1,925	(1,598)	327
Other	Three (3) other projects in this asset category.	1,186	(793)	393	2,350	(1,540)	810
INFRASTRUCTURE							
Skytrain OMC Upgrades	Install new ATC wayside hardware and modify existing ATC related software and hardware.	25,000	(20,750)	4,250	50,000	(41,500)	8,500
Bear Creek Replacement	Bridge upgrade as part of early works for the South of Fraser Transit improvements.	15,034	(12,475)	2,559	20,753	(17,225)	3,528
Edmonds OMC Capacity Upgrades	Improvements to the SkyTrain OMC at Edmonds.	8,100	(3,735)	4,365	9,000	(7,470)	1,530
Expo Line Upgrade Strategy - Burrard station: Design & Implementation	Design and upgrade Burrard Station for capacity and passenger flow.	22,700	(18,841)	3,859	60,700	(50,381)	10,319
Guildford Exchange	Guildford Exchange upgrades as part of early works for the South of Fraser transit improvements.	9,707	(8,057)	1,650	14,000	(11,620)	2,380
Joyce Station Upgrades - Phase II	Upgrade Joyce-Collingwood Station to improve accessibility.	6,140	(5,096)	1,044	13,089	(11,519)	1,571
Lonsdale Quay bus loop and SeaBus terminal upgrade	Design and implementation of improvements to passenger environment in bus loop and North SeaBus Terminus.	7,300	(6,059)	1,241	8,000	(6,640)	1,360
Metrotown Bus Loop Refurbishment	Refurbish Metrotown Bus Loop.	3,964	(3,290)	674	5,000	(4,150)	850
Newton Exchange	Upgrade Newton Exchange.	1,097	(911)	186	12,017	(9,974)	2,043
Phibbs Exchange Upgrade	Upgrade Phibbs bus exchange for safety and customer and vehicle capacity.	21,840	(18,127)	3,713	23,190	(20,407)	2,783
Road Widening	Roadway upgrades as part of early works for the South of Fraser transit improvements.	5,000	(4,150)	850	9,000	(7,470)	1,530
Roofing Replacements (#1&2)	Roof replacements of facilities along the Expo Line rail network.	5,000	(4,150)	850	5,980	(4,963)	1,017
Running Rail Replacement	Replace running rail that have reached the end of service life.	7,128	(5,916)	1,212	7,128	(5,916)	1,212
Two Bus Exchange Upgrades	Improve bus exchanges as part of region-wide transit facility upgrades.	4,703	(3,903)	799	10,000	(8,300)	1,700
Wayfinding System Integration - Missing Signage	Install missing wayfinding signage on Expo and Millennium Lines.	213	-	213	3,240	-	3,240
Metrotown Station and Exchange Upgrade Design	Upgrade Metrotown SkyTrain station and construct new bus exchange.	12,237	-	12,237	68,774	(34,800)	33,974
Commercial Broadway SkyTrain Station Phase 2 Upgrade Design	Design and construction of Phase 2 Commercial Broadway SkyTrain station development to increase capacity.	8,978	-	8,978	73,095	(28,217)	44,878

Table 2: Active and Approved in Principle (AIP) Projects Underway (\$ thousands) Continued

Active and Approved in Principle (AIP) Capital Program Details		2018 Capital Cash Flow			Total Project Budget		
Classification and Project Name	Description	Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
SeaBus Terminals and Admin Building Envelope Upgrades-Design Stage	Upgrade SeaBus Terminals and Admin Building Envelope.	2,612	-	2,612	12,443	-	12,443
Surrey Central Station Upgrades Design	Upgrade SkyTrain station facilities to increase capacity.	16,011	(2,963)	13,048	19,950	(10,075)	9,875
Trolley OverHead (TOH) Metrotown Group Rectifier Replacement	Design and construct rectifier station replacements at Central Park, Willingdon East and Willingdon West rectifier stations.	2,760	(2,407)	353	5,765	(4,725)	1,040
Replace Platform Light Emitting Diode Systems (PLEDS)	Procurement and replacement of all Platform Light Emitting Diode Systems (PLEDS) and Station Entrance Emergency Information Panels (SEIIPs) at Expo and Millennium stations.	1,422	-	1,422	9,559	-	9,559
IT Infrastructure Program 2017	The ongoing provisioning of technology infrastructure requires regular investment to ensure the continued availability of systems, services and communications in a cost effective manner. Includes lease renewals and replacement of owned assets.	2,190	-	2,190	5,235	-	5,235
BC Hydro Upgrades	Upgrade of BC Hydro Facility.	10,622	(8,816)	1,806	17,000	(14,110)	2,890
CCTV Camera System Upgrade on Expo and Millennium Lines	Upgrade of CCTV Camera System.	6,788	(5,634)	1,154	10,500	(8,715)	1,785
System Continuity Redundancies, Second BC Hydro Feed	Repair and maintenance done on BC Hydro Feed.	2,532	(2,102)	430	3,100	(2,573)	527
Other	Eleven (11) other projects in this asset category.	4,139	(2,320)	1,819	8,288	(6,786)	1,501
TECHNOLOGY							
BCRTC Enterprise Asset Management Implementation	Implement an Enterprise Asset Management (EAM) system to enable the effective control of SkyTrain system and maintenance processes.	3,350	(2,781)	570	11,760	(0)	11,760
Compass System Advancements	Ensure the performance, functionality and capacity of the Compass systems will meet those business and customer requirements that are identified to materially impact operational efficiency or customer satisfaction.	4,742	-	4,742	11,066	-	11,066
IT Infrastructure Program 2017	Ongoing computer systems and infrastructure lease renewals and replacement .	2,190	-	2,190	5,235	-	5,235
SkyTrain Public Announcement System	Replacement of Integrated Alarm Notification System at all Expo Line passenger stations, Expo Line propulsion power stations and the SkyTrain OMC.	1,066	-	1,066	6,375	-	6,375
TransLink Enterprise Asset Management	Developing consistent asset management capability across the enterprise.	1,800	-	1,800	3,843	-	3,843
Other	Eight (8) other projects in this asset category.	589	-	589	4,930	-	4,930
VEHICLES - REVENUE							
2018 Community Shuttle Vehicle Replacement (30)	Replacement of twenty (20) Community Shuttle buses.	3,534	(3,534)	-	4,000	(3,830)	170
2018 Conventional Bus Replacement (92-40 foot diesel)	Replacement of ninety two (92) - 40 foot buses that have reached the end of their useful service lives.	21,598	(20,800)	798	70,000	(61,925)	8,075
2018 HandyDart vehicle Replacement (46)	Replacement of forty (40) HandyDART vehicles that have reached the end of their useful service lives.	5,730	(5,605)	125	6,000	(5,605)	395
Bus-Vehicles Conventional 40	Procure new Conventional 40 foot buses.	77,240	(71,584)	5,656	94,500	(85,584)	8,916
Bus-Vehicles Conventional 60	Procure new Conventional 60 foot buses.	11,440	(11,440)	-	17,000	(15,300)	1,700
Canada Line Fleet Expansion	Procure train cars for expanding service on the Canada Line rail network.	66,866	(55,499)	11,367	88,000	(73,040)	14,960
Community Shuttle Vehicles	Procure new Community Shuttles.	3,000	(2,310)	690	3,000	(2,700)	300
Expo Fleet Expansion (20 cars)	Procure 20 new MKIII train cars for expanding service on the Expo Line rail network.	66,577	(55,259)	11,318	80,000	(66,400)	13,600
Fleet Expansion (SeaBus boat)	Procure a new SeaBus.	23,661	(19,639)	4,022	34,000	(28,220)	5,780

Table 2: Active and Approved in Principle (AIP) Projects Underway (\$ thousands) Continued

Active and Approved in Principle (AIP) Capital Program Details		2018 Capital Cash Flow			Total Project Budget		
Classification and Project Name	Description	Gross Cost	Less Funding	TransLink Net Cost	Gross Cost	Less Funding	TransLink Net Cost
WCE Fleet Expansion	Procure train cars for expanding service on the West Coast Express (WCE) rail network.	10,500	(8,715)	1,785	21,000	(17,430)	3,570
100-400 Series MKI Refurbishment Project	Refurbish the original 114 MKI SkyTrain cars to extend service lives by another 15 years.	4,440	(3,180)	1,260	37,294	(24,360)	12,934
2016 Conventional Bus Replacement	This project is to replace 111 conventional 40ft and 60ft buses that reached end of useful service lives with 25-40ft CNG, 60-40ft diesel and 26-60ft diesel buses.	34,813	(32,300)	2,513	94,730	(82,624)	12,106
2016 Community Shuttle Replacements	This project is to replace 20 Community Shuttles that reached the end of their useful service lives with 20 new Community Shuttles through exercising an option on the existing shuttle contract.	87	(67)	20	4,200	(2,560)	1,640
2017 Conventional Bus Replacement (54-40 foot gas and 52-60 foot hybrid)	Replace 52 articulated buses and 54 standard buses reaching end of useful service life in fall 2017.	112,197	(103,872)	8,325	115,750	(105,985)	9,765
2017 HandyDART Vehicle Replacement (35)	Replace 35 HandyDART buses expected to reach end of useful lives by 2017.	4,749	(4,544)	205	5,600	(5,010)	590
2018 Handy DART Vehicles Expansion	Purchase of new HandyDART vehicles.	2,795	(2,193)	602	5,620	(5,060)	560
VEHICLES - NON REVENUE							
Expo Line Millennium Rail Upgrades - Vehicles	Vehicle for Millennium Rail Upgrades.	2,988	-	2,988	2,988	-	2,988
Other	Four (4) other projects in this asset category.	125	-	125	2,528	-	2,528
MAJOR CONSTRUCTION							
Evergreen Extension Integration to Meet Current Standards	Project scope is to address safety/reliability issues, systems deficiencies and current standards for bicycle infrastructure.	-	-	-	12,624	(3,140)	9,484
Evergreen Line - TransLink Contribution	TransLink monetary and in-kind contributions to the design and construction of the Evergreen Line by the Province.	34	-	34	402,841	-	402,841
MLBE Procurement Readiness	Procurement preparation for the Millennium Line Broadway Extension project.	6,345	(5,266)	1,079	23,000	(19,090)	3,910
South of Fraser Rapid Transit Project Procurement Readiness	Procurement preparation for the South of Fraser Rapid Transit Project.	3,097	(2,571)	526	20,000	(16,600)	3,400
Pattullo Bridge Rehabilitation Phase 2 Design	Design for structural seismic upgrade work on the Pattullo Bridge.	5,855	-	5,855	32,711	-	32,711
Grand Total		772,361	(594,728)	177,633	1,850,975	(1,028,858)	822,117

Capital Infrastructure Contributions

TransLink provides capital infrastructure contributions each year to the Metro Vancouver municipalities to fund rehabilitation and minor capital work on the Major Road Network (MRN) and bike pathways. TransLink is increasing spending in 2018 for MRN upgrades and structure rehabilitation along with additional spending for expanding the regional bike network. For the 2018 program, TransLink is budgeting capital contribution funding of \$74.2 million to municipalities for road and bike infrastructure. Projects already approved and underway have a budget of \$227.1 million, which with the 2018 capital infrastructure contributions, total \$301.3 million. None of these projects are eligible for senior government funding. The table below provides information on projects with over \$1 million in cash flow in 2018.

Table 3: Capital Infrastructure Contribution Projects Planned for 2018 (\$ thousands)

2018 New Capital Infrastructure Contribution Details		2018 Capital Cash	Total Project Budget
Classification and Project Name	Description	TransLink Net Cost	TransLink Net Cost
INFRASTRUCTURE			
2018 Major Road Network Pavement Rehabilitation Funding Program	2018 contribution program to member municipalities for pavement rehabilitation.	22,718	22,718
2018 MRNB Upgrade Funding Program	2018 additional contribution to member municipalities for upgrades to the road network.	-	20,000
2018 Bicycle Infrastructure Capital Cost Share (BICCS) Funding Program	2018 funding for the expansion of the cycling network in the region.	-	13,450
2018 MRN Structures Rehabilitation & Seismic Upgrade Funding Program	2018 additional contribution to member municipalities for seismic road network rehabilitation.	-	13,000
2018 Walking Infrastructure to Transit (WITT) Funding Program	2018 funding for the expansion of the walking infrastructure network in the region.	-	5,000
Grand Total		22,718	74,168

Table 4: Capital Infrastructure Contribution Projects Currently Underway (\$ thousands)

Active and Approved in Principle (AIP) Capital Infrastructure Contribution Details		2018 Capital Cash	Total Project Budget
Classification and Project Name	Description	TransLink Net Cost	TransLink Net Cost
INFRASTRUCTURE			
2012 MRN Minor Capital Program	2012 contribution program to member municipalities for improving the capacity, safety and connectivity of the Major Road Network.	1,427	15,293
2015 Major Road Network and Bike Capital Program	2015 contribution program to member municipalities for pavement rehabilitation and road and bike infrastructure upgrades.	1,327	24,214
2016 Major Road Network and Bike Capital Program	2016 contribution program to member municipalities for pavement rehabilitation and road and bike infrastructure upgrades.	6,448	23,784
2017 Bicycle Infrastructure Capital Cost Share (BICCS) Funding Program	2017 funding for the expansion of the cycling network in the region.	11,118	20,555
2017 Walking Infrastructure to Transit (WITT) Funding Program	2018 funding for the expansion of the walking infrastructure network in the region.	1,178	2,500
UBC Diesel Bus Terminal - TransLink Capital Contribution	Contribution to UBC new diesel bus terminal.	3,000	9,954
Roberts Bank Rail Corridor Program	Contribution program to member municipalities for road infrastructure upgrades at Roberts Bank Rail Corridor.	1,900	43,400
Other	Six (6) other projects in this category.	3,471	87,403
Grand Total		29,869	227,103

7. Changes in Financial Position

Consolidated Statement of Financial Position			
As at December 31 (\$ thousands)	2017 BUDGET	2018 BUDGET	Change Incr/(Decr)
Cash and cash equivalents	266,564	303,874	37,310
Accounts Receivable	108,659	166,218	57,559
Loan receivable	-	250,734	250,734
Restricted cash and investments	669,530	606,198	(63,332)
Investments	-	60,981	60,981
Debt reserve deposits	32,838	33,577	739
Financial Assets	1,077,591	1,421,582	343,991
Accounts payable and accrued liabilities	269,486	271,568	2,082
Debt	2,555,502	2,767,097	211,595
Deferred government transfers	1,067,868	1,034,535	(33,333)
Golden Ears Bridge contractor liability	1,045,439	1,040,378	(5,061)
Deferred concessionaire credits	525,658	502,384	(23,274)
Employee future benefits	134,222	138,231	4,009
Deferred lease inducements	12,259	12,172	(87)
Liabilities	5,610,434	5,766,365	155,931
Net Debt	(4,532,843)	(4,344,783)	188,060
Tangible Capital Assets	5,273,583	5,602,766	329,183
Supplies Inventory	59,879	66,183	6,304
Prepaid Expenses	12,433	18,655	6,222
Non-Financial Assets	5,345,895	5,687,604	341,709
Accumulated Surplus	813,052	1,342,821	529,769

Financial Assets

The restricted cash and investments primarily represent unspent government transfers and internally restricted amounts related to self-administered sinking funds, land reserve funds and funds segregated for Transportation Property and Casualty Co. Inc., TransLink's wholly owned captive insurance company. The purpose of the land reserve funds is to allow proceeds from the disposition of real property to be invested back into real property.

Liabilities

Deferred government transfer represents receipt of capital funding offset by the amortization and revenue recognition for government funding.

The Golden Ears Bridge contractor liability decreased slightly as principal payments commenced during 2015 and will continue in future years.

Deferred concessionaire credits represent the funding provided by the Canada Line Concessionaire. This balance is amortized to income on a straight-line basis over the operating term of the concessionaire agreement, which will expire in July 2040.

The increase in employee future benefits, which represent post-retirement and post-employment benefits, is due to the annual estimated current service cost and related interest. The post-retirement portion of this liability will draw down upon retirement of the employees.

Non-Financial Assets

Planned capital spending during 2018 will result in a net increase of \$329.2 million (6.2 per cent) in capital assets. Significant projects include conventional bus replacements, rail fleet expansion, station upgrades, rail infrastructure projects and procurement readiness work for the Millennium Line Broadway Extension and the South of Fraser LRT rapid transit projects.

8. Liquidity and Capital Resources

Cash Flows and Liquidity

Unrestricted cash and investments are expected to increase by \$98.3 million compared to the 2017 budget. The increase is largely due to higher than budgeted opening cash balance in 2017 from the actual 2016 results.

The following table shows TransLink's unrestricted cash and investments.

UNRESTRICTED CASH AND INVESTMENTS			
As at December 31 (\$ thousands)	2017 BUDGET	2018 BUDGET	Change Incr/(Decr)
Cash and cash equivalents	266,564	303,874	37,310
Investments	-	60,981	60,981
Total Unrestricted cash and investments	266,564	364,855	98,291

Restricted Funds

The unspent government transfers are used to fund qualifying capital expenditures.

RESTRICTED CASH AND INVESTMENTS			
As at December 31 (\$ thousands)	2017 BUDGET	2018 BUDGET	Change Incr/(Decr)
Unspent government transfers	264,592	122,806	(141,786)
TPCC's investments	22,630	21,871	(759)
Restricted proceeds of real estate sales	179,284	207,341	28,057
Self administered sinking funds	203,024	254,180	51,156
Total Restricted cash and investments	669,530	606,198	(63,332)

Net Debt

TransLink currently has three main sources of financing its assets: net direct debt, indirect P3 debt and senior government contributions. The latter is represented on the balance sheet as deferred government transfers.

Net direct debt is expected to increase by \$159.7 million due to the issuance of debt, partially offset by sinking fund contributions. The issuance of new debt in 2018 is used to help finance budgeted capital spending net of senior government contributions.

Although the net direct debt and indirect P3 debt will have increased by \$131.4 million versus the 2017 budget and remains high, the amount is reflective of the high capital intensive nature of the organization and rapid growth to meet the transportation needs of region. The projected net debt ratio of 261 per cent is within the debt to revenue policy limit of 300 per cent for the 2018 budget.

FINANCING			
As at December 31 (\$ thousands)	2017 BUDGET	2018 BUDGET	Change Incr/(Decr)
Debt	2,555,502	2,767,097	211,595
Less: Self-administered sinking funds	(203,024)	(254,180)	(51,156)
Less: Debt reserve deposits	(32,838)	(33,577)	(739)
Net Direct Debt	2,319,640	2,479,340	159,700
Golden Ears Bridge contractor liability	1,045,439	1,040,378	(5,061)
Deferred concessionaire credits	525,658	502,384	(23,274)
Indirect P3 Debt	1,571,097	1,542,762	(28,335)
Subtotal Net Direct Debt and Indirect P3 Debt	3,890,737	4,022,102	131,365
Deferred Government Transfers	1,067,868	1,034,535	(33,333)
Accounts payable and accrued liabilities	269,486	271,568	2,082
Employee future benefits	134,222	138,231	4,009
Deferred lease inducements	12,259	12,172	(87)
Less: Accounts receivable	(108,659)	(166,218)	(57,559)
Less: Loan receivable	-	(250,734)	(250,734)
Other Financing	307,308	5,019	(302,289)
Total Financing	5,265,913	5,061,656	(204,257)
Less: Other restricted cash and investments	(466,506)	(352,018)	114,488
Less: Unrestricted cash and investments	(266,564)	(364,855)	(98,291)
PSAB Net Debt	4,532,843	4,344,783	(188,060)

Appendix I – Consolidated Financial Statements

The following statements are presented in accordance with Canadian Generally Accepted Accounting Principles for local governments, as recommended by the Public Sector Accounting Board of the Chartered Professional Accountants of Canada.

Consolidated Statement of Financial Position

Consolidated Statement of Financial Position			
as at December 31	2016	2017	2018
(\$ thousands)	ACTUAL	BUDGET	BUDGET
Cash	252,436	266,564	303,874
Accounts Receivable	133,736	108,659	166,218
Loan receivable	325,313	-	250,734
Restricted cash and investments	504,295	669,530	606,198
Investments	80,917	-	60,981
Debt reserve deposits	35,049	32,838	33,577
Financial Assets	1,331,746	1,077,591	1,421,582
Accounts payable and accrued liabilities	234,522	269,486	271,568
Debt	2,347,266	2,555,502	2,767,097
Deferred government transfer	941,046	1,067,868	1,034,535
Golden Ears Bridge contractor liability	1,049,021	1,045,439	1,040,378
Deferred concensionnaire credits	549,059	525,658	502,384
Employee future benefits	120,147	134,222	138,231
Deferred Revenue and Deposits	35,519	-	-
Deferred lease inducements - net	12,578	12,259	12,172
Liabilities	5,289,158	5,610,434	5,766,365
Net Debt	(3,957,412)	(4,532,843)	(4,344,783)
Tangible Capital Assets	4,867,996	5,273,583	5,602,766
Supplies Inventory	61,831	59,879	66,183
Prepaid Expenses	11,657	12,433	18,655
Non-Financial Assets	4,941,484	5,345,895	5,687,604
Accumulated Surplus	984,072	813,052	1,342,821

Consolidated Statement of Operations

Consolidated Statement of Operations			
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET
Revenue			
Taxation	825,670	833,028	855,072
Transit	541,589	558,910	606,805
Golden Ears Bridge tolling	52,116	55,744	-
Government Transfers	240,533	281,904	424,078
Amortization of Deferred Concessionaire Credit	23,337	23,337	23,337
Investment Income	40,567	37,712	48,189
Miscellaneous	6,351	5,464	6,036
Gain (Loss) on Disposal	422,183	149,677	(447)
	<u>2,152,346</u>	<u>1,945,776</u>	<u>1,963,070</u>
Expenses			
Bus Division	656,542	693,091	731,703
Corporate	120,887	118,646	133,232
Rail Division	265,940	300,010	308,576
Roads & Bridges	52,453	103,244	104,256
Transit Police	33,759	36,921	38,461
Sub-total Expenses, before Amortization and Interest	<u>1,129,581</u>	<u>1,251,912</u>	<u>1,316,228</u>
Amortization of Capital Assets	181,663	209,286	214,436
Interest	172,705	176,301	179,267
	<u>1,483,949</u>	<u>1,637,499</u>	<u>1,709,931</u>
Surplus for the year	668,397	308,277	253,139
Accumulated surplus, beginning of year	315,675	504,775	1,089,682
<u>Accumulated surplus, end of year</u>	<u>984,072</u>	<u>813,052</u>	<u>1,342,821</u>

Consolidated Statement of Changes in Net Debt

Consolidated Statement of Changes in Net Debt			
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET
Surplus for the year	668,397	308,277	253,139
Acquisition of tangible capital assets	(453,777)	(578,144)	(789,646)
Amortization of capital assets	181,663	209,286	214,436
Gain on disposal of tangible capital assets	(422,183)	(149,677)	447
Net proceeds from disposal of capital assets	432,924	151,283	-
	(261,373)	(367,252)	(574,763)
Increase in supplies inventory	(5,389)	(1,744)	-
Decrease in prepaid expense	62	(363)	6,806
	(5,327)	(2,107)	6,806
Decrease in net debt	401,697	(61,082)	(314,818)
Net debt, beginning of year	(4,359,109)	(4,471,761)	(4,029,965)
Net debt, end of year	(3,957,412)	(4,532,843)	(4,344,783)

Consolidated Statement of Cash Flows

Consolidated Statement of Cash Flows			
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET
Surplus (Deficit) for the period	668,397	308,277	253,139
Non-cash charges to operations	(483,515)	(159,773)	(155,440)
Changes in non-cash operating working capital	(338,298)	11,735	89,011
Net changes in cash from operating transactions	(153,416)	160,239	186,710
Purchase of capital assets	(421,886)	(578,144)	(789,646)
Net proceeds from disposal of capital assets	432,924	151,283	-
Net changes in cash from capital transactions	11,038	(426,861)	(789,646)
Decrease (Increase) in restricted cash and investments	(3,286)	(125,815)	128,846
Decrease (Increase) in investments	(19,974)	-	-
Decrease (Increase) in debt reserve deposits	1,358	2,128	-
Net changes in cash from investment transactions	(21,902)	(123,687)	128,846
Debt Proceeds	270,000	300,000	350,000
Issue costs in financing	24,021	-	-
Repayments of debt	(93,256)	(83,230)	(71,473)
Repayments of Golden Ears Bridge Contractor Liability	(1,892)	(70,097)	(5,180)
Lease inducements received	-	(240)	-
Government transfers received for capital additions	6,925	278,840	214,805
Net changes in cash from financing transactions	205,798	425,273	488,152
Increase (decrease) in cash	41,518	34,964	14,062
Cash, beginning of year	210,918	231,600	289,812
Cash, end of year	252,436	266,564	303,874

Appendix II – Allocated Costs between Divisions

TransLink’s methodology for allocating costs to benefitting business units is equitable and consistent with leading practices. TransLink allocates costs to business units (Bus division, Access Transit, SkyTrain, West Coast Express and Transit Police) which directly benefit or consume the services or costs.

Business units may be allocated 100 per cent of a cost if it is the only unit benefitting or consuming that cost, or costs can be shared across multiple business units which benefit or consume the cost based on an allocation factor (e.g. head count, square foot). The charges that are allocated to the business units include: human resources, administration, rentals, leases and information technology.

The increase in overall allocated costs compared to the 2017 budget is primarily due to an increase in IT Software Licensing and IT network Infrastructure costs and inflationary increases in insurance, property tax and rent.

Allocated Cost Breakdown					
Twelve months ending December 31 (\$ thousands)	2016 ACTUAL	2017 BUDGET	2018 BUDGET	Change	
				Incr/(Decr)	%
Shared Services					
Bus Division	25,756	26,652	33,825	7,173	26.9%
Access Transit*	683	683	-	(683)	(100.0%)
SkyTrain - Expo & Millenium Line	1,051	2,532	3,166	634	25.0%
West Coast Express	61	83	142	59	71.1%
Transit Police	1,557	1,807	3,216	1,409	78.0%
Roads & Bridges	8,602	9,428	4,214	(5,214)	(55.3%)
Corporate	(37,710)	(41,185)	(44,563)	(3,378)	(8.2%)
Total Shared Services allocated	-	-	-	-	-
Costs Administered by TransLink and allocated to subsidiaries					
Bus Division	18,441	17,810	19,040	1,230	6.9%
SkyTrain - Expo & Millenium Line	4,840	5,154	5,018	(136)	(2.6%)
SkyTrain - Canada Line	2,451	2,455	1,998	(457)	(18.6%)
West Coast Express	578	631	533	(98)	(15.5%)
Transit Police	1,753	1,993	1,877	(116)	(5.8%)
Total Costs Administered by TransLink allocated	28,063	28,043	28,466	423	1.5%
Costs allocated to Subsidiaries from TransLink					
Bus Division	44,197	44,462	52,865	8,403	18.9%
Access Transit*	683	683	-	(683)	(100.0%)
SkyTrain - Expo & Millenium Line	5,891	7,686	8,184	498	6.5%
SkyTrain - Canada Line	2,451	2,455	1,998	(457)	(18.6%)
West Coast Express	639	714	675	(39)	(5.5%)
Transit Police	3,310	3,800	5,093	1,293	34.0%
Total costs allocated to Subsidiaries from TransLink	57,171	59,800	68,815	9,015	15.1%

* Access Transit costs are reflected within the Bus Division