



---

## Public Works and Transportation Committee

Anderson Room, City Hall  
6911 No. 3 Road

Wednesday, February 22, 2017  
4:00 p.m.

Pg. #      ITEM

### MINUTES

**PWT-4**

*Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on January 18, 2017.*



### NEXT COMMITTEE MEETING DATE

March 22, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

### PLANNING AND DEVELOPMENT DIVISION

1. **TRANSLINK SOUTHWEST AREA TRANSPORT PLAN – INITIATION OF PHASE 2**  
(File Ref. No. 01-0154-04) (REDMS No. 5299472 v. 2)

**PWT-9**

**See Page PWT-9 for full report**

*Designated Speaker: Victor Wei*

### STAFF RECOMMENDATION

*That the staff report titled “TransLink Southwest Area Transport Plan – Initiation of Phase 2” dated January 25, 2017 from the Director, Transportation, be received for information.*



2. **TRANSLINK TRANSIT FARE REVIEW – INITIATION OF PHASE 2**  
(File Ref. No. 01-0154-04) (REDMS No. 5298084 v. 2)

PWT-15

See Page PWT-15 for full report

*Designated Speaker: Victor Wei*

STAFF RECOMMENDATION

*That Richmond's comments as provided at the elected officials forum held on January 24, 2017 as outlined in the staff report titled "TransLink Transit Fare Review – Initiation of Phase 2," dated February 6, 2017, from the Director, Transportation, be endorsed.*



3. **2017 SUBMISSION TO THE NEW BUILDING CANADA FUND – RIVER PARKWAY (GILBERT ROAD-CAMBIE ROAD)**  
(File Ref. No. 01-0140-01) (REDMS No. 5302490)

PWT-36

See Page PWT-36 for full report

*Designated Speakers: Victor Wei and Denise Tambellini*

STAFF RECOMMENDATION

- (1) *That the submission to Provincial and Federal Government funding programs including the New Building Canada Fund to request up to 66 percent of the \$11,300,000 design and construction cost for River Parkway (Gilbert Road-Cambie Road) be endorsed;*
- (2) *That the Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to enter into funding agreements with the Government of Canada and/or the Province of BC for the above mentioned projects should they be approved for funding; and*
- (3) *That, should the above mentioned projects be approved for funding by the Government of Canada or Province of British Columbia, the 2017 Capital Plan and the 5-Year Financial Plan (2017-2021) be amended accordingly.*



ENGINEERING AND PUBLIC WORKS DIVISION

4. **DRAINAGE BOX CULVERT REHABILITATION NO. 2 ROAD FROM STEVESTON HIGHWAY TO LONDON ROAD**  
(File Ref. No. 10-6340-20-P.16201) (REDMS No. 5305149 v. 4)

PWT-43

See Page PWT-43 for full report

*Designated Speaker: Milton Chan*

STAFF RECOMMENDATION

*That funding of \$3,700,000 from the Drainage Improvement Reserve be included as an amendment to the 5 Year Financial Plan (2017-2021) to complete rehabilitation of the drainage box culvert on No. 2 Road from Steveston Highway to London Road.*

☐

5. **AWARD OF CONTRACT 5807Q - SUPPLY AND DELIVERY OF TWO TANDEM AXLE CAB AND CHASSIS WITH DUMP BOX AND FRONT PLOUGHS**  
(File Ref. No. 02-0735-01) (REDMS No. 5280032 v. 3)

PWT-47

See Page PWT-47 for full report

*Designated Speaker: Suzanne Bycraft*

STAFF RECOMMENDATION

*That Contract 5807Q, for the Supply and Delivery of Two Tandem Axle Cab and Chassis with Dump Box and Front Ploughs, be awarded to Peterbilt Pacific Inc. at a total cost of \$538,680, plus applicable taxes and levies, within existing capital budgets.*

☐

6. **MANAGER'S REPORT**

ADJOURNMENT

☐



## Public Works and Transportation Committee

Date: Wednesday, January 18, 2017

Place: Anderson Room  
Richmond City Hall

Present: Councillor Chak Au, Chair  
Councillor Harold Steves, Vice-Chair  
Councillor Derek Dang  
Councillor Carol Day  
Councillor Alexa Loo

Call to Order: The Chair called the meeting to order at 4:00 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Public Works and Transportation Committee held on November 23, 2016, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

February 22, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

**Public Works & Transportation Committee**  
**Wednesday, January 18, 2017**

---

**PLANNING AND DEVELOPMENT DIVISION**

**1. TRAFFIC SAFETY ADVISORY COMMITTEE – PROPOSED 2017 INITIATIVES**

(File Ref. No. 01-0100-30-TSAD1-01) (REDMS No. 5222032)

Victor Wei, Director, Transportation, in reply to questions on the Leading Pedestrian Interval (LPI) pilot project, provided the following information: (i) the pilot project will gather information from the City Centre area, (ii) when accommodating seniors, longer durations for walk timers and centre island refuge intersections are being considered, and (iii) if proven to be effective, infrared technologies being tested by neighbouring municipalities can be implemented. Mr. Wei confirmed that the Project Swoop statistics will be made available.

It was moved and seconded

- (1) *That the proposed 2017 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled “Traffic Safety Advisory Committee - Proposed 2017 Initiatives” dated November 22, 2016 from the Director, Transportation, be endorsed; and*
- (2) *That a copy of the above staff report be forwarded to the Richmond Council-School Board Liaison Committee for information.*

**CARRIED**

**2. RICHMOND ACTIVE TRANSPORTATION COMMITTEE – PROPOSED 2017 INITIATIVES**

(File Ref. No. 01-0100-20-RCYC1) (REDMS No. 5227687 v. 2)

In response to queries, Victor Wei, Director, Transportation, noted that the Cycling and Trails Map is being redesigned into a portable, pocket-sized form and that the electronic document will also be made available on the City’s website.

It was moved and seconded

- (1) *That the proposed 2017 initiatives of the Richmond Active Transportation Committee, as outlined in the staff report titled “Richmond Active Transportation Committee - Proposed 2017 Initiatives” dated December 15, 2016 from the Director, Transportation, be endorsed; and*
- (2) *That a copy of the above report be forwarded to the Richmond Council-School Board Liaison Committee for information.*

**CARRIED**

**Public Works & Transportation Committee**  
**Wednesday, January 18, 2017**

---

**ENGINEERING AND PUBLIC WORKS DIVISION**

**3. DIKE MASTER PLAN - PHASE 2**

(File Ref. No. 10-6060-01) (REDMS No. 5178299 v. 3)

Lloyd Bie, Manager, Engineering Planning, responded to questions regarding potential situations which could be encountered by Richmond's dikes. Mr. Bie noted scientific predictions on crest heights are being monitored and that plans can be amended accordingly in response to these predictions. Comments were made by the Committee regarding the use of agricultural soil on the barrier islands.

It was moved and seconded

*That the public and key external stakeholders be consulted to provide feedback on the medium and long term dike improvements required for part of Richmond's West Dike (between Williams Road and Terra Nova Rural Park) and part of the North Dike (between Terra Nova Rural Park to No. 6 Road) as identified in the staff report titled "Dike Master Plan – Phase 2" from the Director of Engineering, dated December 6, 2016.*

**CARRIED**

**4. DCC RESERVE FUND EXPENDITURE (4000 MAY DRIVE) BYLAW NO. 9643**

(File Ref. No. 03-1000-08-030) (REDMS No. 5203346 v. 5)

The Committee concurred that the wording of the report did not clearly state the source and rationale of the funding for the project. Lloyd Bie, Manager, Engineering Planning, stated that further clarification would be added to the report prior to approval by Council.

It was moved and seconded

*That DCC Reserve Fund Expenditure (4000 May Drive) Bylaw No. 9643 be introduced and given first, second and third readings.*

**CARRIED**

**5. WATER SHORTAGE RESPONSE PLAN – PROPOSED CHANGES**

(File Ref. No. 10-6060-01) (REDMS No. 5268702 v. 3)

Discussion ensued on the watering hours for residents and the possibility of changing the permitted hours. Robert Gonzalez, Deputy CAO and General Manager, Engineering and Public Works, explained that keeping the watering hours standardized with Metro Vancouver would simplify enforcement. Mr. Gonzalez also noted that convenience to residents was taken into account by Metro Vancouver when determining the permitted watering hours.

**Public Works & Transportation Committee**  
**Wednesday, January 18, 2017**

---

It was moved and seconded

*That the comments on Metro Vancouver's proposed changes to the Water Shortage Response Plan, as summarized in the staff report titled "Water Shortage Response Plan – Proposed Changes," dated January 3, 2017, from the Director, Engineering be submitted to Metro Vancouver.*

**CARRIED**

6. **T.5651 - 2016 PAVING PROGRAM (LAFARGE CANADA INC.)  
CONTRACT EXTENSION AND CHANGE ORDER FOR 2017  
PAVING PROGRAM**

(File Ref. No. 10-6340-20-P.16207) (REDMS No. 5267595)

It was moved and seconded

*That Contract T.5651 – 2016 Paving Program with Lafarge Canada Inc. be extended to include the 2017 Paving Program, and that a Change Order be issued to increase the value of this Contract by \$2,700,000.*

**CARRIED**

7. **MANAGER'S REPORT**

*(i) Snow and Ice Responses and Ongoing Preparations*

Ben Dias, Manager, Roads and Construction Services, briefed the Committee on the recent weather, noting that: (i) a total of 27 centimetres of snow fell in Richmond during the months of December to January, nearly double what was expected, (ii) a total of 2600 tonnes of salt was used during this period, and (iii) 500-800 tonnes of salt is what is usually budgeted. Staff advised that Works Yard currently has 500 tonnes of salt on hand.

Mr. Dias noted that the unfavorable conditions of snow, followed by freezing temperatures, resulted in a longer than normal duration of the snow. In response to questions, Mr. Dias noted that the financial impact of the weather conditions will not cause an overall increase in the total roads and construction budget and that, although some residents did come to the Works Yard, the City of Richmond did not formally distribute salt.

*(ii) High Tide Storm Predictions*

Tom Stewart, Director, Public Works Operations, informed the Committee that at 10:09 a.m. there was prediction that high tides in the Britannia area could result in toppling; however, there was no reports of such occurrences.

*(iii) Annual Capital Projects Open House*

John Irving, Director, Engineering, noted that the proposed date for the Annual Capital Projects Open House will be April 20, 2017.

**Public Works & Transportation Committee**  
**Wednesday, January 18, 2017**

---

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (4:39 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, January 18, 2017.

---

Councillor Chak Au  
Chair

---

Shaun Divecha  
Legislative Services Coordinator





# City of Richmond

## Report to Committee

---

**To:** Public Works and Transportation Committee      **Date:** January 25, 2017  
**From:** Victor Wei, P. Eng.  
Director, Transportation      **File:** 01-0154-04/2016-Vol  
01  
**Re:** TransLink Southwest Area Transport Plan – Initiation of Phase 2

---

### Staff Recommendation

That the staff report titled “TransLink Southwest Area Transport Plan – Initiation of Phase 2” dated January 25, 2017 from the Director, Transportation, be received for information.

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

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Policy Planning	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> DW	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

TransLink's original Richmond Area Transit Plan, completed in 2000, is currently being updated through the Southwest Area Transport Plan, which will be TransLink's first sub-area plan that is multi-modal (i.e., reviews the entire transportation network rather than just transit). Staff have provided regular updates on the progress of the Plan since its initiation in February 2015 with the last report in September 2016 providing a summary of the Phase 1 consultation results for the Plan. This report provides a synthesis of the issues and opportunities identified in Phase 1 via consultation as well as background technical studies.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

*3.3. Effective transportation and mobility networks.*

This report supports Council's 2014-2018 Term Goal #5 Partnerships and Collaboration:

*Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.*

### Analysis

#### Southwest Area Transport Plan

The Southwest Area Transport Plan includes Richmond, South Delta (Ladner and Tsawwassen) and Tsawwassen First Nation and encompasses the entire multi-modal transportation network (i.e., beyond transit to include walking, cycling, driving, goods movement, and transportation demand management (TDM)). The Plan will identify priority strategies and actions related to the themes of invest, manage and partner. Figure 1 identifies the current timeline for the development of the Plan.

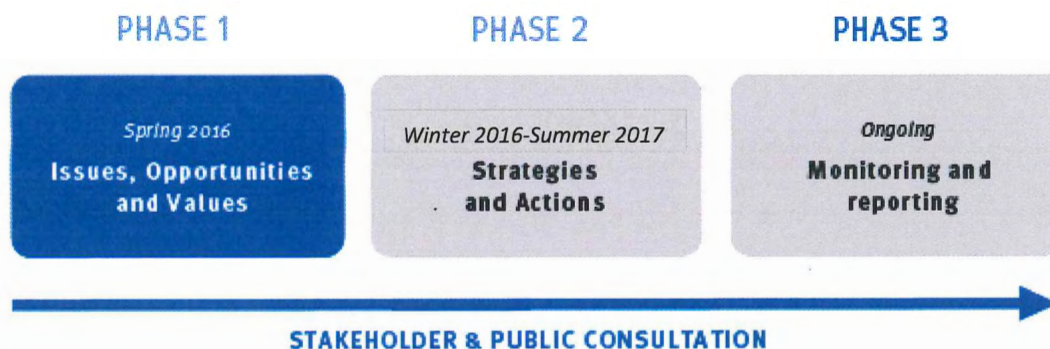


Figure 1: Timeline for Development of Southwest Area Transport Plan

#### Completed Phase 1: Issues and Opportunities

The Phase 1 consultation to solicit feedback regarding the current challenges and opportunities for travelling to, within or from the Southwest Area encompassed the following activities:

- Public Engagement: on-line survey and in-person sessions held April 11-May 6, 2016;
- Transport Stakeholder Forum: held June 23, 2016 with participation from the Ministry of Transportation and Infrastructure, Port of Vancouver, BC Ferries, and YVR;
- Technical Advisory Committee: staff provided input at several meetings including a workshop focussed on transit issues;
- Public Advisory Committee: members, including Richmond residents from a diverse background, provided input at two meetings held in June and November 2016; and
- Elected Officials Forum and Senior Advisory Committee: elected officials and senior staff provided input at meetings held on April 27, 2016 and January 13, 2017 respectively.

This collective feedback was pooled with the findings of several technical studies<sup>1</sup> to ascertain the key issues and opportunities for the sub-area. Issues and opportunities generally present throughout the sub-area include:

- Land Use: Consistent with the Regional Growth Strategy, future growth is concentrated in urban centres and aligns with transit investments.
- Driving: Explore the need for more park and ride options.
- Goods Movement: Vehicle trips growing in industrial and employment areas, and gaps in the Major Road Network.
- Cycling: Gaps in the cycling networks and concerns regarding cycling safety.
- Walking: Gaps in the sidewalk coverage and street connections.

Key findings for Richmond, which are highlighted in Attachment 1, are:

- Potential Challenges: Crowding on the Canada Line, reliability of bus service due to congestion (e.g., 410 service on Highway 91), limited east-west transit routes, limited transit, walking and cycling options on Sea Island, and the capacity and location of a Steveston Exchange.
- Potential Opportunities: The planned Richmond-Brighouse bus mall and the George Massey Tunnel replacement that will include transit lanes, new exchanges at the Steveston Highway-Highway 99 Interchange, and cycling facilities on the new bridge.
- Areas with Existing Unmet Travel Demand: Industrial areas (e.g., Riverside and Fraserport) and growing residential areas (e.g., south end of No. 2 Road, north Bridgeport and east Cambie areas).
- Areas with Future Potential Travel Demand: Along the new River Parkway corridor following the planned construction of the new road between Gilbert Road and Cambie Road.

### Current Phase 2: Strategies and Actions

Phase 2 encompasses the development of proposals for changes and improvements related to transit, cycling, walking and the Major Road Network to address the issues and opportunities identified in Phase 1. TransLink staff have initiated work on potential transit improvements and, for Richmond, are investigating options that would respond to the identified issues to:

- better align the Frequent Transit Network with the City's planned hierarchy of transit service as identified in the Official Community Plan,

<sup>1</sup> These studies include: Transit Network Analysis, Land Use Analysis, Market Analysis, Customer Perceptions Analysis, and Analysis of Cycling, Walking, Driving and Goods Movement.

- provide new and/or re-aligned transit routes to serve unmet travel demand and provide more direct service, and
- improve transit service to industrial areas.

Staff and elected officials continue to provide input into this process through participation on the Technical and Senior Advisory Committees. A second Elected Officials Forum will also be held (date to be determined). A full range of proposals for all modes will be presented for feedback during the second round of public consultation, which is currently scheduled to be held in May/June 2017.

### Future Phase 3: Monitoring and Reporting

The results of the second round of public consultation and stakeholder feedback will be used to finalize and prioritize the strategies and actions as well as confirm conceptual transit, cycling and walking networks that support the strategies and actions.

### **Financial Impact**

None.

### **Conclusion**

The development of the Southwest Area Transport Plan is proceeding and is currently anticipated to be completed in Summer-Fall 2017. Staff will continue to provide regular updates to Council on the progress of the Plan with the next update, anticipated in Spring 2017, identifying the draft strategies and actions to be presented during the upcoming second public consultation period.



Joan Caravan  
Transportation Planner  
(604-276-4035)



Donna Chan, P.Eng., PTOE  
Manager, Transportation Planning  
(604-276-4126)

JC:jc

Att. 1: Draft Issues and Opportunities for Richmond (West and East)

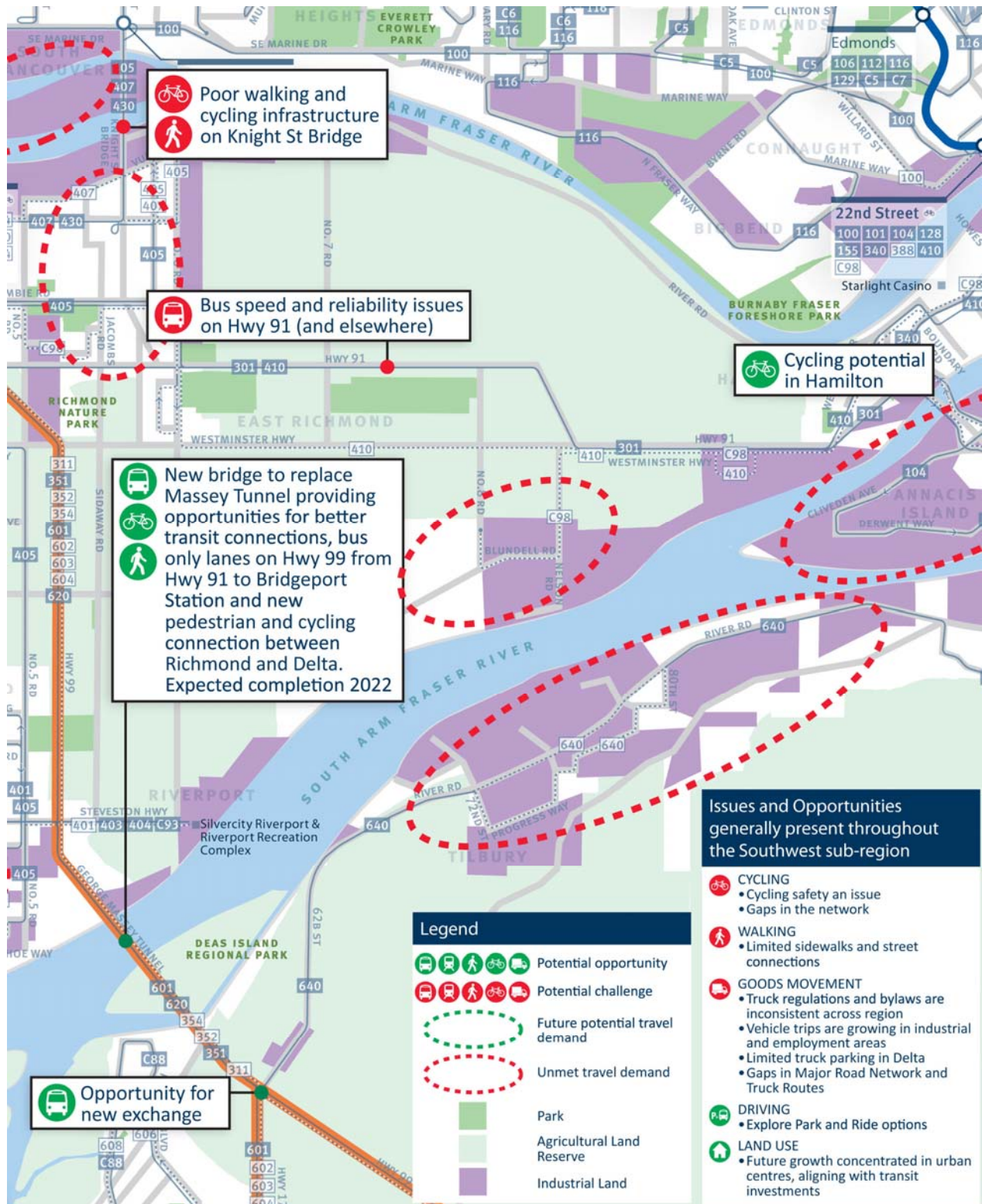
# Draft Issues and Opportunities: West Richmond





# Attachment 1 Cont'd

## Draft Issues and Opportunities: East Richmond





# City of Richmond

## Report to Committee


---

**To:** Public Works and Transportation Committee      **Date:** February 6, 2017  
**From:** Victor Wei, P. Eng.  
Director, Transportation      **File:** 01-0154-04/2017-Vol  
01  
**Re:** **TransLink Transit Fare Review – Initiation of Phase 2**

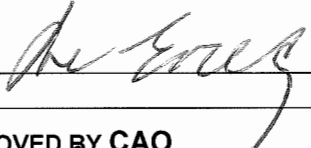
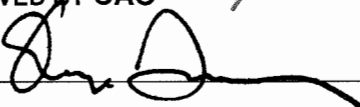
---

### Staff Recommendation

That Richmond's comments as provided at the elected officials forum held on January 24, 2017 as outlined in the staff report titled "TransLink Transit Fare Review – Initiation of Phase 2," dated February 6, 2017, from the Director, Transportation, be endorsed.

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

Att. 4

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Community Social Development	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> DW	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

In June 2016, staff presented a report for information regarding TransLink's initiation in May 2016 of a review of its transit fare policy. The process will span an 18 to 24 month period and include four phases of public consultation. This report provides an update on the recent conclusion of Phase 1 and the activities to be undertaken in Phase 2.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

*3.3. Effective transportation and mobility networks.*

This report supports Council's 2014-2018 Term Goal #5 Partnerships and Collaboration:

*Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.*

### Analysis

#### Transit Fare Review Purpose and Timeline

The existing three-zone fare structure was originally adopted in 1984 and has remained unchanged in the ensuing 30+ years. The introduction of Compass provides an opportunity to improve the way TransLink's transportation system is priced. In addition to a review of best practices of other transit agencies around the world, data from the Compass system such as trip patterns and overall travel behaviour will help inform the development and evaluation of fare system options.

Through the review, TransLink will consider possible changes to the transit fare system including what role distance travelled, time of travel, type of transit service, fare product, customer group, and journey time should have on the fare that passengers pay. As shown in Figure 1, Phase 1 is now complete and the process has moved into Phase 2.

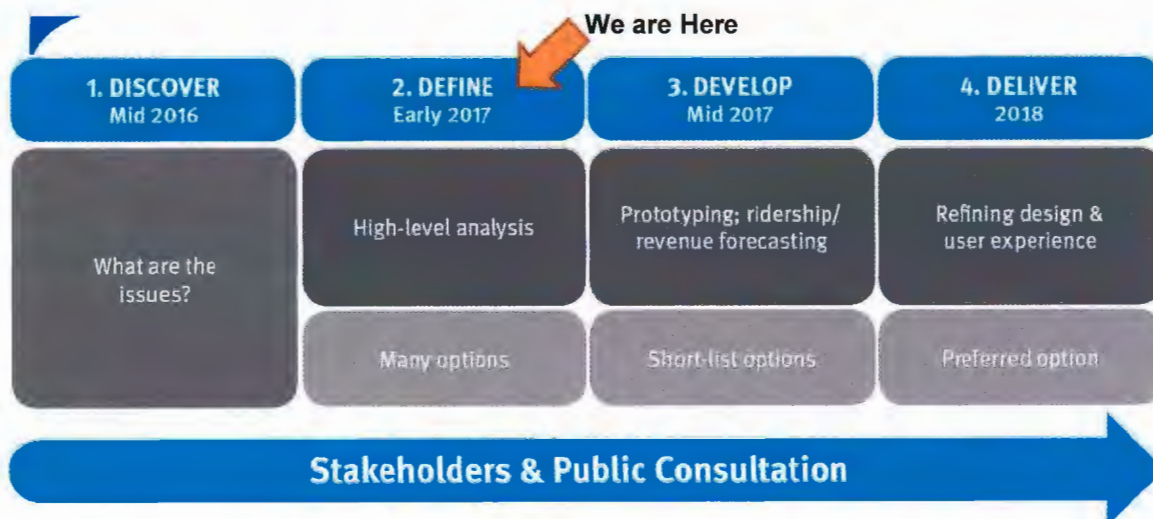


Figure 1: Timeline for Transit Fare Review



### Phase 1: Discover

A key activity of Phase 1 (mid to end 2016) was broad engagement with stakeholders and the general public to identify what transit riders perceive as issues with the current fare system and what should be the priorities for a future fare system.<sup>1</sup> Feedback was obtained via a series of stakeholder workshops (attended by 85 people from a variety of sectors), an on-line public consultation questionnaire completed by over 28,000 people across the region and direct individual and group discussions with transit users.

The findings show that residents strongly support a review of the fare system. Less than one-third of survey respondents agreed that the current fare system works well with about 6-in-10 disagreeing. In all sub-regions, the majority of residents disagree that the current fare system works well. As summarized in Attachment 1, the key messages heard in Phase 1 with respect to the current fare system relate to how fares are priced by:

- Distance Travelled: Residents consider short trips across zone boundaries to be expensive and the arbitrary zone boundaries as unfair with the remedy being that fares should be based more on distance travelled.
- Time of Travel: There is support for fares that are lower during less busy times of the day than at busier times of the day. TransLink's current fare system has an off-peak evening discount that is in effect on weekends and weekday evenings after 6:30 pm. Approximately 60 per cent of all weekday transit trips (over 500,000 trips) take place during morning and afternoon peak periods.
- Quality of Service: About one-half of residents support charging lower fares for slower and less direct service (e.g., buses) than for faster and more direct service (e.g., rapid transit).

Respondents were also asked to select their top four priorities for the review from a list of 11. Attachment 1 also identifies the four most commonly selected priorities with the top priority being "Make fares lower for shorter trips."

### Phase 2: Define

Phase 2 will use the feedback received during Phase 1 to help define and evaluate options for varying fares by the three core components of fare structure: distance travelled, time of travel and service type. Attachment 2 outlines each concept and three potential options proposed by TransLink for consideration. For each concept, the options range from flat fares at one end to a greater refinement of fares at the other end; each option has its own advantages and disadvantages.

For the engagement period of Phase 2, elected officials, stakeholders and the public will be asked for their preferences on these options. The Phase 2 engagement period began on January 24, 2017 with an elected officials forum attended by Councillor McPhail and staff (see Attachment 3 for a list of attendees). The forum was held in advance of the start of the public consultation (beginning January 30, 2017) and was an opportunity to learn about the feedback gathered in

---

<sup>1</sup> A Phase 1 Summary Report is available on the TransLink website at [http://www.translink.ca/-/media/Documents/plans\\_and\\_projects/transit\\_fare\\_review/Transit%20Fare%20Review%20Phase%201%20Summary%20Report\\_20161205.pdf](http://www.translink.ca/-/media/Documents/plans_and_projects/transit_fare_review/Transit%20Fare%20Review%20Phase%201%20Summary%20Report_20161205.pdf).

Phase 1 and provide feedback on the options being considered in Phase 2. At the forum, City representatives offered the following feedback on the three options for each concept:

- Distance Travelled: Preference for either Option 2 (refined zones) or Option 3 (measured distance) as Option 1 (system-wide flat fare system) is not equitable.
- Time of Travel: Preference for Option 2 (off-peak discount) or at least maintaining the existing fare discounts in order to manage travel demand by encouraging transit riders who have more flexibility to change when or where they decide to travel, thus freeing up valuable space for those who have no option but to travel at that time or on that route. Such as system should emphasize incentives to travel in off-peak periods so that riders who must travel in peak times are not perceived as being penalized.
- Quality of Service: Preference for Option 1 (similar to the current system) whereby a premium fare is levied only for West Coast Express given its high speed heavy rail limited stop service (with added personal convenience features such as generous seating and tables) that is also more costly to operate than other transit services. All other public transit services (rapid transit, buses, SeaBus) would have the same fare to provide a seamless, easy-to-understand system for users.

As noted above, the remaining engagement activities will commence on January 30, 2017 with a stakeholder forum to be held January 30, 2017 and the launch of an on-line survey (at [translink.ca/farereview](http://translink.ca/farereview)) for the general public that is open from January 30 to February 17, 2017. An accompanying Phase 2 Discussion Guide (Attachment 4) and informational videos will also be posted on the TransLink website on the same day. Phase 2 will also include the development of options for different types of products and passes, user discounts and rules around connections (or transfers) between services.

#### Future Phases 3 and 4

The results of Phase 2 will be used to narrow down to a short-list of options for Phase 3 (mid 2017) and a recommended approach in Phase 4 (2018). A more refined time-and-distance based transit fare system will form part of the comprehensive regional mobility pricing strategy for both roads and transit as proposed in the Mayors' Council Vision for implementation within the first five to 10 years of the Vision.

#### **Financial Impact**

None.

## Conclusion

TransLink has completed Phase 1 and initiated Phase 2 of a four-phase review of its transit fare structure, products and programs. The process will run until 2018 and staff will continue to provide regular updates to Council on the progress of the review with the next update, anticipated in Summer 2017, reporting on the results of the Phase 2 public consultation period.



Joan Caravan  
Transportation Planner  
(604-276-4035)

JC:jc

- Att. 1: Phase 1: Key Feedback Received
- Att. 2: Phase 2: Fare Options by Distance Travelled, Time Travelled and Service Type
- Att. 3: Phase 2: Attendees at Elected Officials Forum
- Att. 4: Phase 2 Discussion Guide

## Phase 1: Key Feedback Received

## What we heard in Phase 1

The primary source of dissatisfaction with the current fare system relates to perceptions of inequality around how we price by distance today.

Support for fares that are lower during less busy times of day—especially from youth and seniors.

Some support for charging lower fares for slower and less direct service than for faster and more direct service.

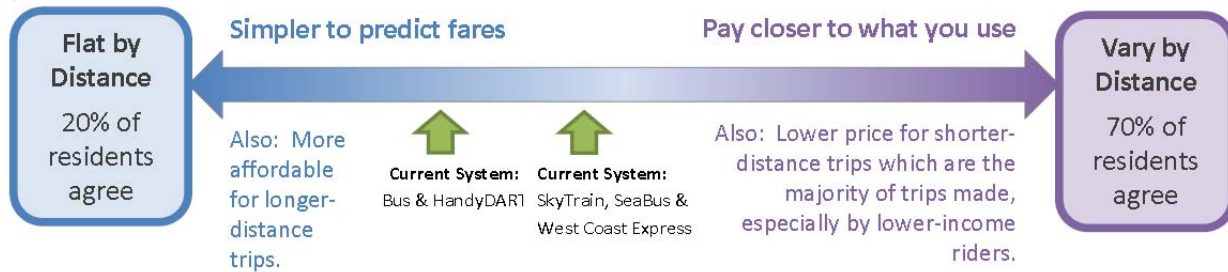
	TRANSLINK LISTENS MARKET RESEARCH PANEL SURVEY		PUBLIC QUESTIONNAIRE	
	Agree/ Strongly Agree	Disagree/ Strongly Disagree	Agree/ Strongly Agree	Disagree/ Strongly Disagree
<b>DISTANCE</b> Fares should be lower for shorter distance trips and longer for longer distance trips	70%	17%	67%	19%
<b>TIME OF TRAVEL</b> Fares should be lower at less busy times of day than at busier times of day	62%	24%	48%	33%
<b>SERVICE TYPE: QUALITY OF SERVICE</b> Fares should be lower for slower and less direct services than for faster and more direct services	50%	31%	38%	38%

## Priorities for a Future Fare System

PRIORITY	TRANSLINK LISTENS MARKET RESEARCH PANEL SURVEY	PUBLIC QUESTIONNAIRE
#1	Make fares lower for shorter distance trips	Make fares lower for people who use transit frequently
#2	Make fares lower for people with less ability to pay	Make fares lower for shorter distance trips
#3	Make it easier to understand and predict how much you'll pay	Provide more fare product options for different periods of time (e.g., 3-day, weekly)
#4	Make fares lower at less busy times	More fare products options to make transit more affordable for families to travel together

## Phase 2: Fare Options by Distance Travelled

## How should the distance you travel affect the fare you pay?



In today's current system, customers pay more for each zone boundary they cross.

**One Zone:** All bus and HandyDART (*temporary*)

**Three Zones:** SkyTrain and SeaBus

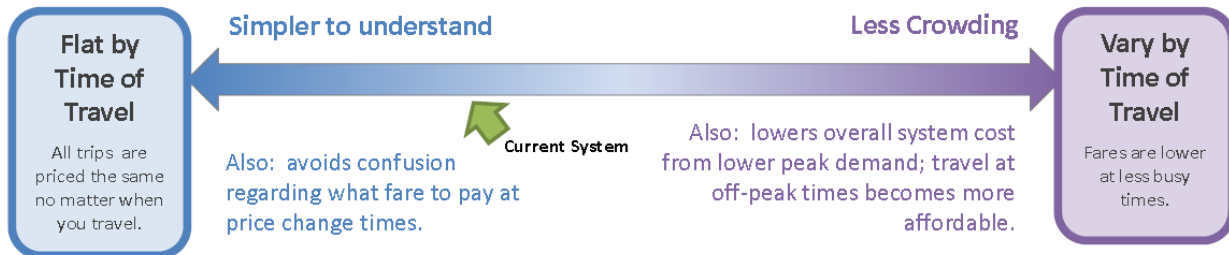
**Five Zones:** West Coast Express

## Distance Options

1. Flat by Distance	2. Refined Zones	3. Measured Distance
<p>Eliminate boundary issues altogether by pricing all trip distances the same.</p>	<p>Refine zone system to address boundary issues through:</p> <ul style="list-style-type: none"> <li>a) overlapping zones to "soften" the sharp zone boundary edge;</li> <li>b) more zones so jump in price is gradual;</li> <li>c) 2-zone base fare where first zone boundary crossing is free.</li> </ul>	<p>Vary fares based on the measured distance between journey origin and destination using either:</p> <ul style="list-style-type: none"> <li>a) Kilometers</li> <li>b) # of stops/stations</li> </ul>
<p><b>Better for:</b> infrequent users who want system be as simple as possible; and longer transit trips, which would be cheaper.</p>	<p><b>Better for:</b> short to medium-length trips (which would be cheaper) especially across zone boundaries.</p>	<p><b>Better for:</b> short to medium-length trips and for achieving the "user pay" principle.</p>
<p><b>Worse for:</b> shorter transit trips which would cost more and since most people make short trips, the majority of riders would pay more to use transit</p>	<p><b>Worse for:</b> interpreting more complicated maps to figure out which fare to buy.</p>	<p><b>Worse for:</b> the longest trips which could cost more.</p>


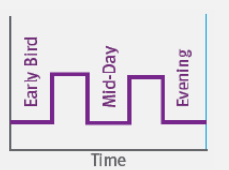
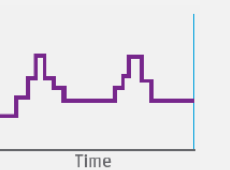
## Phase 2: Fare Options by Time Travelled

## How should the time of day you travel affect the fare you pay?



Today, customers travelling in Off-Peak times—after 6:30 p.m. on weekdays and all day weekends and holidays—only pay a one-zone fare on SkyTrain and SeaBus. Trips on bus and HandyDART are one-zone at all times.

## Time of Travel Options

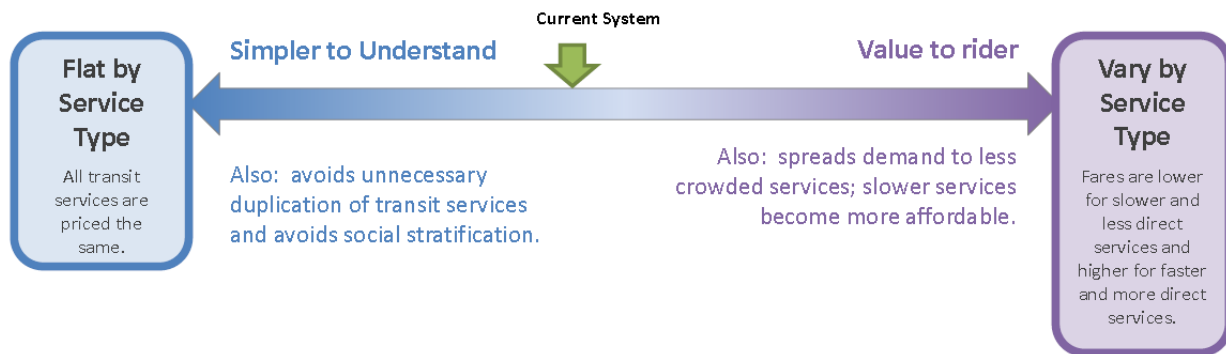
L1. No Time Variation	L2. Off-Peak Discount	L3. Hourly Variation
		
Eliminate the existing off-peak discount and make trips the same price throughout the day and week.	Some or all of the three main off-peak periods - early bird, mid-day, evening - receive a percentage discount off the regular fare.	Price each hour of the day differently to directly target the most overcrowded hours of the day, with higher prices during the most crowded times and lower prices during the least crowded times.
<b>Better for:</b> infrequent users who want it to be as simple as possible; and peak-period riders who want to keep their costs down.	<b>Better for:</b> peak-period riders who want less overcrowding and fewer pass-ups; and off-peak riders looking to keep their costs down	<b>Better for:</b> peak-period trips which benefit from less overcrowding and fewer pass-ups; and off-peak riders looking to keep their costs down
<b>Worse for:</b> peak-period trips which would maintain overcrowding and pass-ups; and off-peak riders looking to keep their costs down.	<b>Worse for:</b> infrequent users who want it to be as simple as possible	<b>Worse for:</b> infrequent users who want it to be as simple as possible

TRANS LINK



## Phase 2: Fare Options by Service Type

## How should the quality of service type you use affect the fare you pay?



Today, there is one set of prices for **bus**, **SkyTrain**, and **SeaBus**. The **West Coast Express** is a higher priced premium service. **HandyDART** is priced the same as bus for adults but does not accept concession fares.

## Service Type Options

S1. Fares differ for premium service	S2. Fares differ for some service types	S3. Fares differ for all service types
Fares are equal for all services with a premium fare only for West Coast Express, recognizing that it is a high-speed, limited stop service.	Higher fares for more fast and direct services.	Higher fares for more fast and direct services, including between local bus service and express bus service.
<b>Better for:</b> cost-conscious riders who have equal access to almost all services at no extra cost.	<b>Better for:</b> riders who are willing to pay a bit more for a faster, more direct ride.	<b>Better for:</b> riders who are willing to pay a bit more for a faster, more direct ride.
<b>Worse for:</b> riders who are willing to pay a bit more for other faster, more direct services that are less crowded.	<b>Worse for:</b> cost-conscious riders who now have to pay more to access faster and more direct services.	<b>Worse for:</b> cost-conscious riders who now have to pay more to access faster and more direct services.

## Phase 2: Attendees at Elected Official Forum (held January 24, 2017)

**Jan 24 Elected Officials Forum Attendees**  
**TransLink Transit Fare Review**

<b>Name</b>	<b>Position</b>	<b>Organization</b>
Mayor Côté	Mayor	City of New West
Laura Sunnus	Constituency Assistant for Judy Darcy, MLA	
Patrick Johnstone	Councillor	City of New Westminster
Alison Morse	Councillor	Bowen Island Municipality
Hugh Fraser	Deputy Director of Engineering	The Corporation of Delta
Harry Bains	MLA	Surrey-Newton
Jaimie McEvoy	Councillor	City of New Westminster
Naomi Yamamoto	MLA	Province
Cindy Tse	Project Engineer	Transp. Div., City of Surrey
Linda McPhail	Councillor	City of Richmond
Robin Hicks	Councillor	District of North Van
Mayor Lois E. Jackson	Mayor	Corporation of Delta
Eric Gustavson	Constituency Assistant for Hon. Harjit S. Sajjan, MP for Vancouver South	
Victor Wei	Director of Transportation	City of Richmond



## Phase 2 Discussion Guide

# Transit Fare Review

## Phase 2 Discussion Guide

January 2017



[translink.ca](http://translink.ca)



## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

## Table of Contents

How should we determine transit fares in Metro Vancouver? .....	1
<i>Varying fares by distance travelled</i> .....	2
<i>Varying fares by time of travel</i> .....	4
<i>Varying fares by service type</i> .....	7
Appendix: Varying fares by product type, user type and journey time .....	9

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

## Transit Fare Review

### Phase 2 Discussion Guide

## How should we determine transit fares in Metro Vancouver?

### HAVE YOUR SAY!

In Phase 1 of the Transit Fare Review, we heard from nearly 30,000 people who shared their concerns, issues and ideas. Overall, we heard strong support for taking a fresh look at the way we determine transit fares in Metro Vancouver.

With the introduction of Compass in 2015, we now have an unprecedented opportunity to address longstanding concerns, provide a better customer experience and grow ridership.

You can find details of what we learned in the [Phase 1 Summary Report](#).

### ABOUT THE TRANSIT FARE REVIEW

Now in Phase 2 of the Transit Fare Review, we've defined the main options for each of the three key structural components. Have your say on the possible ways to vary fares by: 1) Distance travelled; 2) Time of travel; and 3) Service type.

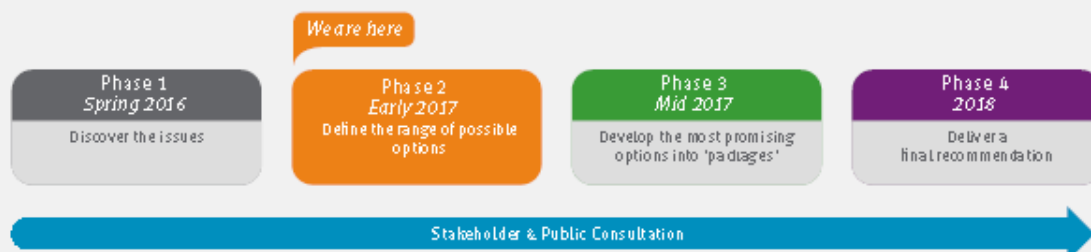
Learn more by reading the discussion guide or watching our online videos. Then let us know what you think by taking the survey and participating in our online discussion forum, which will be open between January 30 and February 17, 2017. You can find all of this at [translink.ca/farereview](http://translink.ca/farereview).

We'll use your feedback to develop a combined shortlist in Phase 3.

### Will the Transit Fare Review result in increased transit fares?

As a result of the Transit Fare Review, fares for some trips may go up and fares for other trips may go down. However, the approach when comparing fare options is to maintain the same overall amount of fare revenue.

Figure 1: Transit Fare Review Timeline



PAGE 1

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

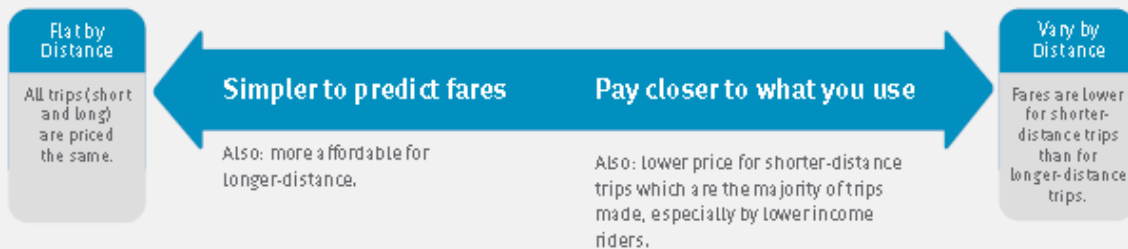
PHASE 2 DISCUSSION GUIDE

## 1. Varying Fares by Distance Travelled

This component refers to how fares vary based on the origin and destination of a transit journey.

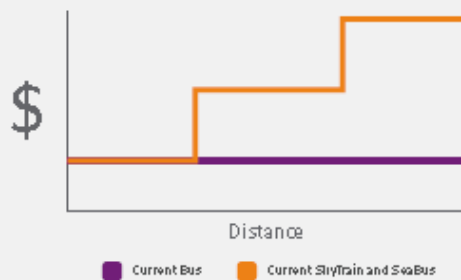
## RATIONALE

The spectrum below explains why you might choose or not choose to vary fares by distance.



## CURRENT SYSTEM

Today, customers pay more for each zone boundary they cross. All bus and HandyDART travel temporarily operates under one-zone; SkyTrain and SeaBus under three zones; and West Coast Express operates under its own five-zone structure.



## ISSUES RAISED IN PHASE 1

Based on research and consultation in Phase 1, the following key issues emerged regarding our current approach to pricing by distance travelled:

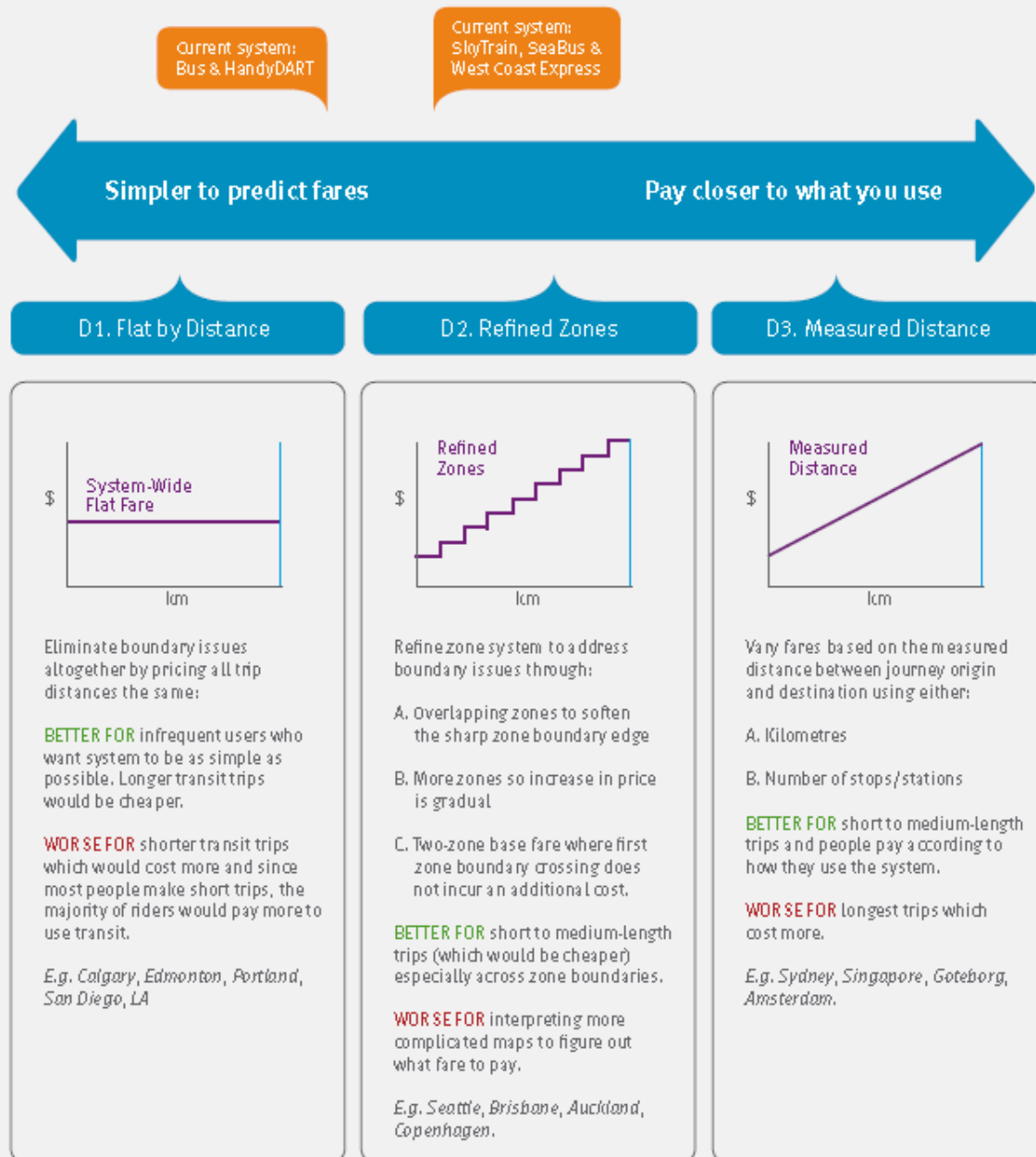
- Large zones don't accurately reflect distance travelled.
- People making short trips across a zone boundary must pay a two-zone fare.
- Trips of similar lengths may be more expensive by SkyTrain and SeaBus than by bus.

PAGE 2

## Phase 2 Discussion Guide

## OPTIONS FOR VARYING PRICE BY DISTANCE TRAVELLED

The table below defines the range of options for varying fares by distance travelled.



PAGE 3

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

### 2. Varying Fares by Time of Travel

This component refers to how fares vary based on the time of day, which is a way to reflect the level of demand on the transit system. Most transit systems experience an influx of riders during a few hours on weekday mornings and weekday afternoons, known as the "AM Peak" and "PM Peak." Outside of these peak periods, the transit system has less demand, less crowding and more available capacity to accommodate new trips without having to add expensive new vehicles.

#### RATIONALE

The spectrum below explains why you might choose or not choose to vary fares by the time of day that you travel.

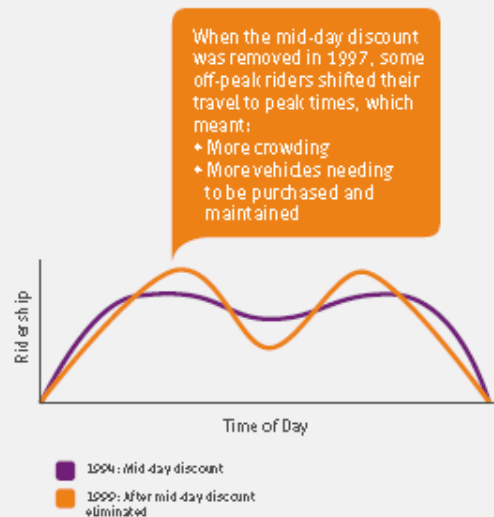


#### CURRENT SYSTEM

Today, customers travelling outside of peak times, after 6:30 p.m. on weekdays and all day weekends and holidays, pay a one-zone fare.

Prior to 1997, there was a mid-day discount on public transit fares. After it was removed in 1997, there was no longer a price incentive for travellers with flexible schedules to travel during the mid-day instead of during the peak. As a result, demand for transit increased during the most expensive times to serve and decreased during the less expensive time to serve (See Figure 2). This example shows how a simple fare policy change can have a major impact on system costs, crowding and passenger comfort.

Figure 2: Ridership by hour on a weekday, 1994 and 1999 before and after removal of mid-day discount in 1997



PAGE 4

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

### ISSUES RAISED IN PHASE 1

Based on research and consultation in Phase 1, the following key issues emerged:

- a. Two-thirds of journeys are made using "unlimited" pass products that have no incentive to shift to less busy times.
- b. There is no price incentive for those travelling just one-zone, which make up 80% of all trips on transit, to delay their travel to the evening off-peak period because only riders travelling two or three zones benefit from the off-peak discount.
- c. There is no price incentive to shift morning trips to before or after the morning peak period. Even though the morning peak period is sharper (fewer hours) and more pronounced (higher spike), we currently only offer a discount in the evenings.
- d. Our current system applies the off-peak discount system-wide rather than to specific locations or directions where overcrowding is most severe. Overcrowding does not occur evenly across our system at the same times.

PAGE 5

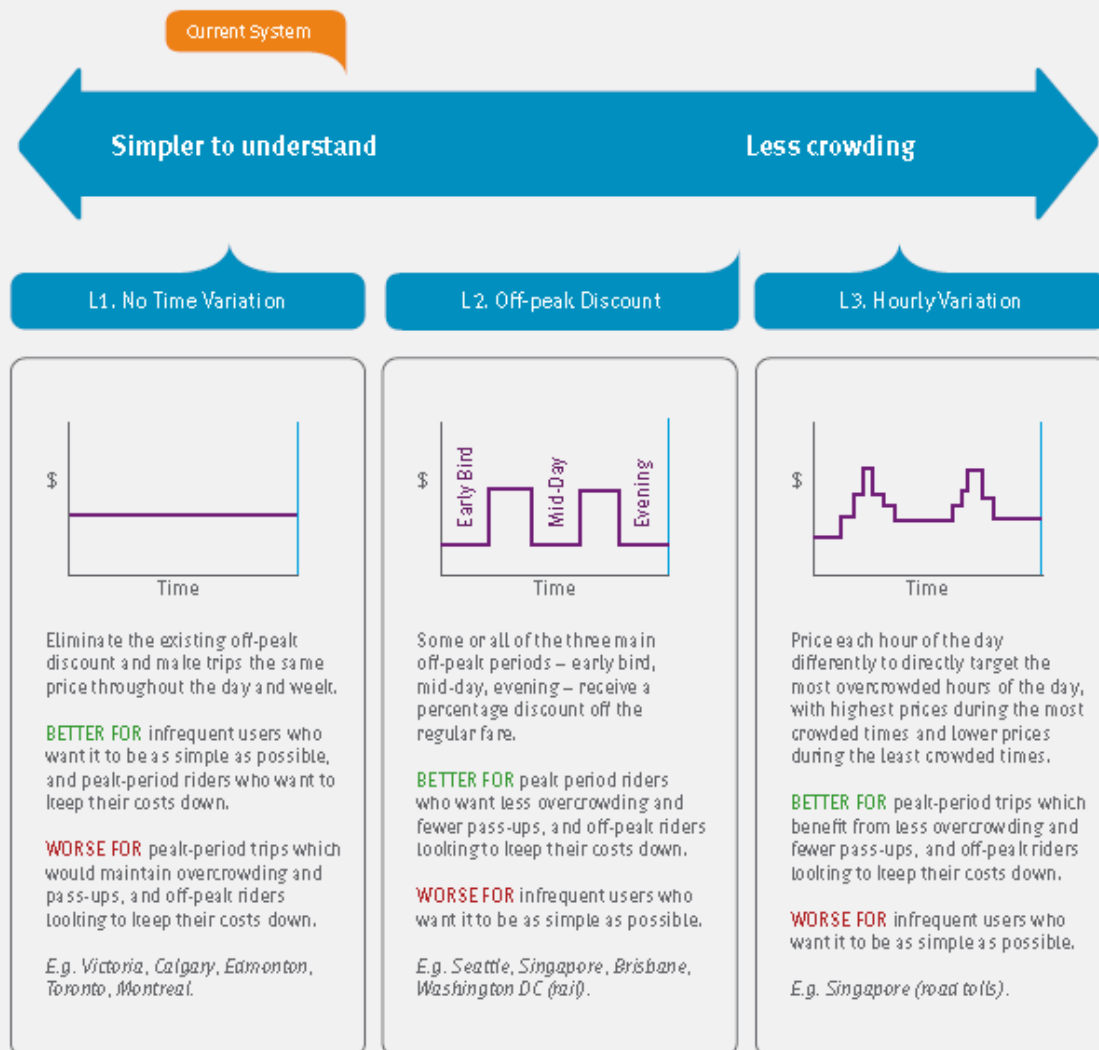
## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

## OPTIONS FOR VARYING PRICE BY TIME OF TRAVEL

The table below defines the range of options for varying fares by weekday time of travel.



PAGE 6



## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

### 3. Varying Fares by Service Type

Urban regions often deploy a number of transit service types (E.g. rapid transit, commuter rail, bus, ferry, paratransit, etc.) in order to serve different kinds of trips.

#### RATIONALE

The spectrum below explains why you might choose or not choose to vary fares by service type.



#### CURRENT SYSTEM

Today, there is one set of prices for bus, SkyTrain, and SeaBus. The West Coast Express is a higher priced premium service. HandyDART, which provides door-to-door service for customers who are unable to use other service types without assistance, is priced the same as bus for adults but does not accept concession fares.

- b. The temporary removal of zones on buses has resulted in perceptions of unfairness, for example between bus and SkyTrain/SeaBus for journeys that cross a fare zone boundary. This is perceived as a problem mainly by transit riders who use rapid transit for all or part of their regular journeys.

#### ISSUES RAISED IN PHASE 1

- a. While West Coast Express has a premium fare, other services such as SkyTrain are charged at the same rate as a bus (if travel is within the same fare zone) despite SkyTrain being faster and more frequent.

PAGE 7

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

## OPTIONS FOR VARYING FARES BY SERVICE TYPE

There are three main options presented for varying fares by service type for the conventional transit system.



PAGE 8

## Phase 2 Discussion Guide

TRANSIT FARE REVIEW

PHASE 2 DISCUSSION GUIDE

## APPENDIX: Varying Fares by Product Type, User Type and Journey Time

### UPCOMING COMPONENTS FOR FEEDBACK

Once we narrow down the major structure-forming decisions in terms of distance, time of day, and service type – we will consider three additional fare policy components in the next phase: 4) product types, 5) discounts for different riders, and 6) rules about connections between services.

This Appendix briefly discusses the range of options for these last three components.

### VARYING FARES BY PRODUCT TYPE

There are five distinct approaches to fare products used in transit systems around the world:

- \* **Pay-as-you-go products** – Where trips are paid for individually.
- \* **Period Passes** – Prepaid, multiple use passes available in different time increments (e.g. daily, monthly).
- \* **Fare capping** – Fares are 'capped' providing free unlimited travel after a set amount of usage or dollar value is surpassed.
- \* **Percentage Discount Pass** – A prepaid flat fee allowing for a percentage discount off the regular fare price.
- \* **Off-Peak Pass** – Allows for unlimited travel in off-peak periods, with regular fares required for peak periods.

### VARYING FARES BY USER TYPE

Transit ridership is diverse, and each user has different needs and abilities to pay for transit.

It is common for transit agencies to offer discounted fares based on user categories considering factors such as:

1. Different types of users have different abilities to pay
2. Discounting fares for younger people helps foster a transit culture
3. Making transit fares more competitive with driving for some groups of people

### VARYING FARES ACCORDING TO JOURNEY TIMES AND CONNECTION RULES

Metro Vancouver's transit system was designed as an integrated, connected network that transports riders from origin to destination in the most efficient way possible. This means that riders must often make a connection (or transfer) between transit vehicles to complete a journey.

Connections allow people to move between and within areas of the region on one fare, and to complete their journeys by using the quickest and most convenient combination of transit service types.

Since 1981, TransLink's fares have had a 90-minute transfer window, which allows the rider to transfer onto other transit services for up to 90 minutes from the time a fare is first used. Depending on which options are chosen in Phase 2, other options for connection rules may need to be explored in a future phase.

PAGE 9



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** Victor Wei, P. Eng.  
Director, Transportation  
**Date:** January 31, 2017  
**File:** 01-0140-01/2017-Vol  
01  
**Re:** **2017 Submission to the New Building Canada Fund - River Parkway (Gilbert Road-Cambie Road)**

### Staff Recommendation

1. That the submission to Provincial and Federal Government funding programs including the New Building Canada Fund to request up to 66 percent of the \$11,300,000 design and construction cost for River Parkway (Gilbert Road-Cambie Road) be endorsed;
2. That the Chief Administrative Officer and the General Manager of Engineering and Public Works be authorized to enter into funding agreements with the Government of Canada and/or the Province of BC for the above mentioned projects should they be approved for funding; and
3. That, should the above mentioned projects be approved for funding by the Government of Canada or Province of British Columbia, the 2017 Capital Plan and the 5-Year Financial Plan (2017-2021) be amended accordingly.

Victor Wei, P. Eng.  
Director, Transportation  
(604-276-4140)

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Finance Department Engineering Parks	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

The interim realigned River Road at Gilbert Road was opened to the public in August 2014 to enable dike and park improvements along the River Road right-of-way between Hollybridge Way and Gilbert Road in support of the City Centre Area Plan vision for the area of improving public open space and access to the river by establishing and extending the Middle Arm Waterfront Park. In April 2015, Council endorsed an implementation strategy to expedite the extension of River Parkway north of Gilbert Road to Cambie Road as a long-term traffic improvement solution and an ultimate replacement of the existing River Road, which is consistent with the City Centre Area Plan.

The Council-approved 2017 Capital Budget identifies design work for the roadway extension to be undertaken this year followed by commencement of construction in 2018-2019 pending Council approval of the 2018 and 2019 Capital Budgets. This report requests permission to submit funding requests for the River Parkway (Gilbert Road-Cambie Road) project, with an estimated cost of \$11,300,000, to Provincial and Federal Governments funding programs to offset up to 66 percent of project costs.

This report supports Council's 2014-2018 Term Goal #5: Partnerships and Collaboration:

*Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.*

This report supports Council's 2014-2018 Term Goal #6: Quality Infrastructure Networks:

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

*6.1. Safe and sustainable infrastructure.*

This report supports Council's 2014-2018 Term Goal #7: Strong Financial Stewardship:

*Maintain the City's strong financial position through effective budget processes, the efficient and effective use of financial resources, and the prudent leveraging of economic and financial opportunities to increase current and long-term financial sustainability.*

*7.4. Strategic financial opportunities are optimized.*

### Analysis

The extension of River Parkway is part of a larger plan that encompasses River Parkway and the Middle Arm Waterfront Park to be constructed in multiple phases. The plan will remediate a 45.84 acres Brownfield site on the city's historic Fraser River waterfront into the Oval Village District Energy Utility (OVDEU) and Waterfront Park, housing a new LEED Gold cultural facility in the area, with a new multi-modal roadway within the former Canadian Pacific Rail

(CP Rail) corridor. The plan will enhance access to the park as well as adjacent development. This plan is a multi-phase/year capital investment into the City of Richmond and the Asia-Pacific Gateway.

The initial Brownfield remediation planning is underway with the support of the Federation of Canadian Municipalities Green Municipal Fund (FCM GMF).

The River Parkway project will bring a new road with two vehicle lanes and pedestrian/cycling lanes along the former CP Rail corridor and connect to the park. This roadway extension will facilitate the development of the Middle Arm Waterfront Park as well as improve access and reduce congestion.

The following chart outlines the potential funding from senior governments.

<b>Project</b>	<b>Total Estimated Cost</b>	<b>Category</b>	<b>Potential Provincial Contribution</b>	<b>Potential Federal Contribution</b>
<b>River Parkway (Gilbert Road-Cambie Road)</b>	\$11,300,000	Major Roadway	Up to 33% of eligible costs (\$3,766,667)	Up to 50% of eligible costs (\$5,650,000)
<b>Total Request</b>	Up to \$7,533,333			

### Delivering Outcomes

The project is scheduled to begin in the Fall of 2017 and be completed by the end of 2019.

The River Parkway and Middle Arm Waterfront Park plan delivers on the outcomes of the City of Richmond's Official Community Plan; City Centre Area Plan (endorsed by Council September 14, 2009); Middle Arm Open Space Master Plan Concept (presented to Council January 8, 2007); Parks, Recreation and Cultural Services Master Plan 2005-2015; Richmond Trails Strategy; Waterfront Strategy; 2007 Museum and Heritage Strategy; DCC Bylaw; City Centre Public Arts Plan (adopted by Council October 11, 2011); Community Energy and Emissions Plan; Sustainability Framework; Ecological Concept; Five-Year (2017-2021) Financial Plan; and Economic Strategy.

This project also helps other levels of government deliver on:

<b>Government of Canada</b>	<ul style="list-style-type: none"> <li>• Canada's Economic Action Plan</li> <li>• Canadian Jobs Plan</li> <li>• Asia Pacific Corridor</li> </ul>
<b>Government of BC</b>	<ul style="list-style-type: none"> <li>• Ability to deliver a Strong Economy and Secure Tomorrow</li> <li>• BC Jobs Plan</li> <li>• Greenhouse Gas Emissions Strategy</li> <li>• BC On the Move</li> <li>• Asia Pacific Initiative Pacific Gateway</li> </ul>

### Funding Programs

There are several senior government programs which align with the outcomes of the River Parkway project. Staff propose to submit this project to the New Building Canada Program, which operates through a 33 percent federal and 33 percent provincial funding model. The maximum level of assistance from all federal institutions must not exceed 50 percent of total eligible project costs. If there is limited funding available from the Province of British Columbia, the City of Richmond will only receive up to 50 percent funding from the Government of Canada. Projects are taken into the program on an ongoing basis. Other programs include the Asia Pacific Gateway and Corridor initiative. Staff will continue to develop opportunities for funding for this project.

Should the funding requests be successful, the City would be required to enter into funding agreements with the Province of BC and/or the Government of Canada. The agreements are standard form agreements provided by senior levels of government and include an indemnity and release in favour of the Provincial and Federal Government.

As with any submission for funding to external sources, funding is not guaranteed to be granted to assist with this project.

### **Financial Impact**

The City of Richmond will be requesting up to \$7,533,333 for funding for River Parkway (Gilbert Road-Cambie Road). The fund may grant up to 66 percent of total eligible costs of \$11,300,000. City of Richmond funding for the River Parkway project will be phased over three years with design costs (\$800,000) included as part of the approved 2017 Capital Budget and construction costs (\$10,500,000) to be considered during the 2018 and 2019 Capital Budget processes. The project is currently included in the City's Development Cost Charges program and if the grant is received, the program will be amended accordingly.

### **Conclusion**

Staff are seeking Council's endorsement on a submission to the New Building Canada Fund, or similar programs as the opportunities arise, for the design and construction of River Parkway from Gilbert Road to Cambie Road. The project will be submitted to the Province of BC and Transport Canada concurrently. Richmond will be requesting up to 66 percent funding of a total project budget of \$11,300,000.



Donna Chan, P. Eng., PTOE  
Manager, Transportation Planning  
(604-276-4075)



Denise A. Tambellini  
Manager, Intergovernment Relations  
and Protocol Unit  
(604-276-4349)

- Att. 1: New Building Canada Program Summary  
2: River Parkway Roadway Map



### **New Building Canada Fund Information:**

Over the duration of the 10-year 2014 New Building Canada Fund, each province and territory will receive a base amount of \$250 million plus a per capita allocation based on the Statistics Canada Final 2011 Census. Provinces and territories are required to prioritize projects for all outstanding NBCF-PTIC funding allocations by April 1, 2018. Eligible projects will be for the construction, renewal, rehabilitation or material enhancement of infrastructure for public use or benefit and must fall under one of the following categories:

- Highways and roads
- Public transit infrastructure
- Disaster mitigation infrastructure
- Connectivity and broadband
- Innovation
- Wastewater
- Green energy
- Drinking water
- Solid waste management
- Brownfield redevelopment
- Local and regional airports
- Short-line rail infrastructure
- Short-sea shipping
- Northern infrastructure (applies to Yukon, Nunavut and Northwest Territories only)
- Passenger ferries services infrastructure
- Culture
- Recreation
- Tourism
- Civic assets and municipal buildings

### **Eligible recipients under the PTIC–NRP are:**

- a. A province or territory, or a municipal or regional government established by or under provincial or territorial statute;
- b. A band council within the meaning of section 2 of the *Indian Act*; or a government or authority established pursuant to a Self-Government Agreement or a Comprehensive Land Claim Agreement between Her Majesty the Queen in right of Canada and an Aboriginal people of Canada, that has been approved, given effect and declared valid by federal legislation;
- c. A public sector body that is established by or under provincial or territorial statute or by regulation or is wholly owned by a province, territory, municipal or regional government;
- d. A public or not-for-profit institution that is directly or indirectly authorized, under the terms of provincial, territorial or federal statute, or Royal Charter, to deliver post-secondary courses or programs that lead to recognized and transferable post-secondary credentials, or a public or not-for-profit Aboriginal-controlled post-secondary institution; and

## **Attachment 1: New Building Canada Fund**

- e. A private sector body, including for-profit organizations and not-for-profit organizations. In the case of for-profit organizations, they will need to be in partnership with one or more of the entities referred to above.

Federal entities, including federal Crown Corporations, are not eligible recipients.

### **Federal Cost-Sharing and Stacking**

Generally speaking, projects will be federally cost-shared on a one-third basis. The maximum federal contribution for public transit projects and, for highways and major roads and disaster mitigation projects where the asset is provincially-owned is up to 50 per cent. The maximum contribution is up to 25 per cent for projects with for-profit private sector proponents.

For projects located in the Northwest Territories, Yukon and Nunavut, the federal government will fund up to 75 per cent of total eligible costs. For projects with a for-profit private sector proponent, however, the cap would be up to 25 per cent.

### **How to apply?**

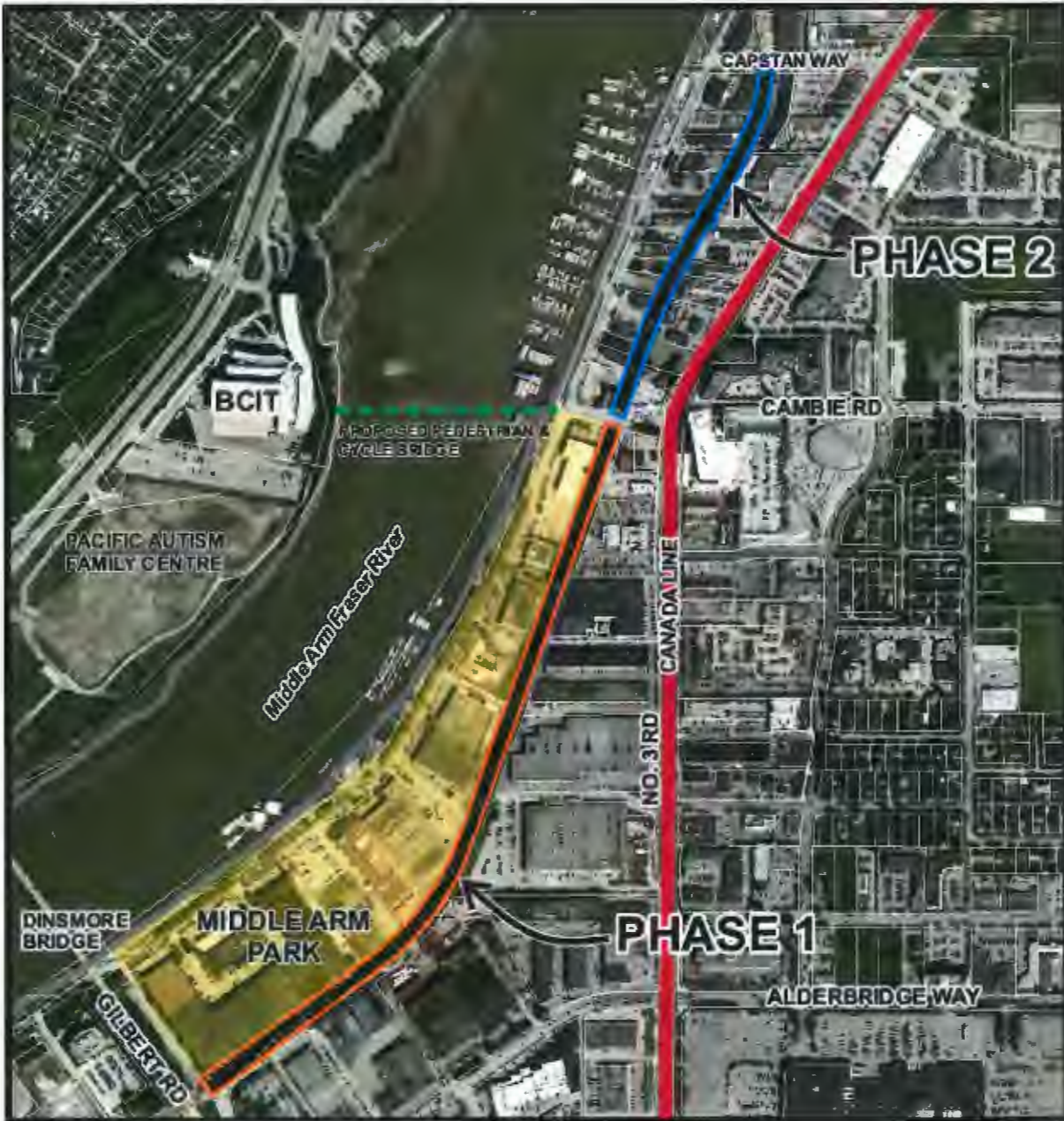
If you are an eligible recipient and would like to have your project considered for funding under the PTIC–NRP, you are encouraged to contact your provincial or territorial ministry responsible for infrastructure to determine the process for submitting business cases and deadlines.

A Business Case Guide is available to assist in the development of business cases. Business cases under the PTIC–NRP will only be accepted for projects that have been identified by provincial and territorial partners, and that are deemed eligible under the program terms and conditions.

River Parkway Roadway Map



City of  
Richmond



River Parkway Roadway  
Phase 1 & 2

Original Date: 01/26/17

Revision Date: 02/01/17

Note: Dimensions are in METRES



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** February 1, 2017

**From:** John Irving, P.Eng. MPA  
Director, Engineering

**File:** 10-6340-20-  
P.16201/Vol 01

**Re:** **Drainage Box Culvert Rehabilitation**  
**No. 2 Road from Steveston Highway to London Road**

### Staff Recommendation

That funding of \$3,700,000 from the Drainage Improvement Reserve be included as an amendment to the 5 Year Financial Plan (2017-2021) to complete rehabilitation of the drainage box culvert on No. 2 Road from Steveston Highway to London Road.

John Irving, P.Eng. MPA  
Director, Engineering  
(604-276-4140)

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Finance Department	<input checked="" type="checkbox"/>	
Engineering Planning	<input checked="" type="checkbox"/>	
Sewerage & Drainage	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> DW	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

The No. 2 Road Widening Project was approved by Council as part of the 2016 Capital Budget. This project consists of improvements from Steveston Highway to London Road, including a new shared cycling/pedestrian pathway, upgrades to the intersections at Steveston Highway and Moncton Road, and widening portions of No. 2 Road between Moncton Road and London Road to provide additional parking. The City has secured cost share funding from the federal government (Transport Canada) under the Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund. The current agreement end date is March 2018, staff are coordinating with Transport Canada to extend the end date to March 2019. The total project budget is currently \$7.3M including \$3.5M of grant funding.

There is an existing box culvert in the No. 2 Road corridor that is directly underneath the new pathway and road works. As part of the detailed design process for the road widening project, a detailed condition assessment has been performed on the box culvert. This assessment has revealed issues with a large number of the joints in the existing box culvert that are best addressed before the surface works are completed. There is also one section of box culvert that has settled and replacement of this section will yield the best long term results.

### Analysis

There are approximately 629 kilometres of drainage mains owned and maintained by the City, including approximately 56 kilometres of box culverts. Box culverts are the large rectangular concrete conveyance systems that deliver drainage water to the 49 perimeter drainage pump stations. The height and width of each box section is approximately 1.5m by 2.5m. It is the joints between each section of box culvert that are susceptible to seepage.

#### No. 2 Road from Steveston Highway to London Road

The box culvert on No. 2 Road south of Steveston Highway is located in the eastern portion of the road corridor, mostly in the boulevard area east of the existing two lane roadway (Attachment 1). Assessment of approximately 1.7 kilometres of box culvert between Steveston Highway and London Road has revealed joint separation and/or infiltration in 257 locations, as well as significant settlement in one section of the culvert. In order to ensure the long term stability of the proposed new pathway and roadworks, rehabilitation work on this box culvert is required. This consists of replacing the settled section, repairing the compromised joints, and filling potential voids outside of the box culvert. The estimated cost to complete these works is \$3,700,000.



### Aging Infrastructure Strategy

To date, box culvert settlement, cracking and infiltration has been addressed on an on-demand basis, however, as much of the box culvert system is approaching 50 years of service, maintenance demands are increasing. Most recently, major repairs at No. 2 Road by Walton Road and on No. 1 Road north of Westminster Highway (Terra Nova) have been successfully undertaken. However, these examples are indicative of the maintenance requirements. As noted in previous Aging Infrastructure reports, preventative maintenance programs are far more financially prudent as compared to repairing failures. Failures are also far more disruptive.

As part of the 2017 Utility Budget, an annual program for \$240,000 was authorized for a Box Culvert Preventative Maintenance Program. This program will provide condition assessment and perform preventative maintenance activities resulting in more efficient repairs, less service and public disruptions and extending the life of the box culverts. The intention of this preventative maintenance program is to conduct a review and perform repairs to the 56km of box culverts over a ten year period. The condition assessment will be reported to Council via the City's Aging Infrastructure report in mid-2017 and further capital projects will be brought forward as required through the annual Capital Budget process for Council consideration.

### **Financial Impact**

The total estimated capital cost for the repairs to the box culvert on No. 2 Road from Steveston Highway to London Road is \$3,700,000 and is proposed to be funded from the Drainage Improvement Reserve. These funds would be added to Capital Project CR00020 – No. 2 Road Widening. There is approximately \$28M available in the Drainage Improvement Reserve.

The 5 Year Financial Plan (2017-2021) will also be amended to reflect this allocation of funds should Council endorse the recommendation.

### **Conclusion**

The box culvert along No. 2 Road between Steveston Highway and London Road is experiencing cracking and infiltration at the joints, and one section has settled. Rehabilitation of the box culvert is required to prevent settlement and damage to the future pathway and roadworks.



Milton Chan, P.Eng  
Manager, Engineering Design and Construction  
(604-276-4377)

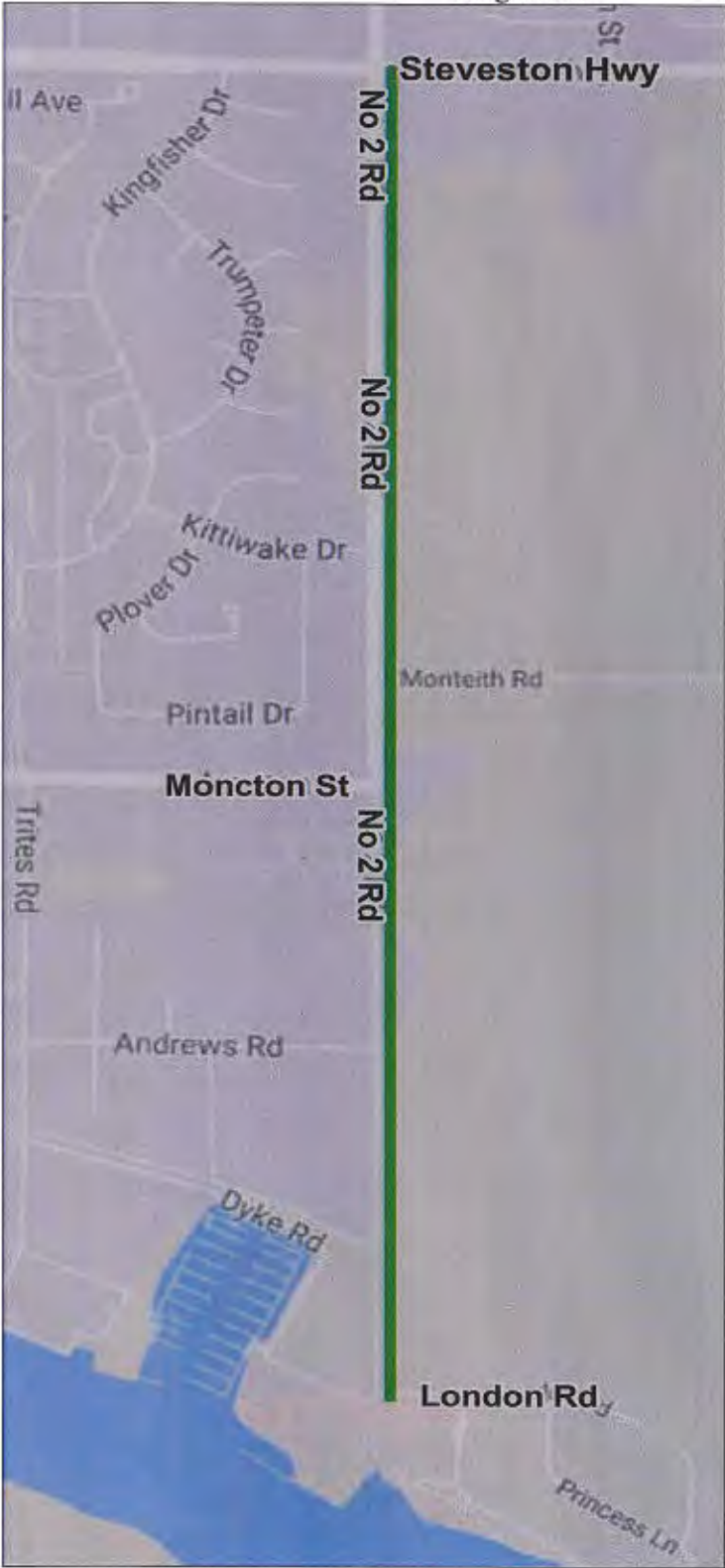


Eric Sparolin, P.Eng  
Senior Project Engineer  
(604-247-4915)

MC:mc

Att.1: No. 2 Road Box Culvert Alignment

No. 2 Road Box Culvert Alignment







# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee      **Date:** February 7, 2017  
**From:** Tom Stewart, ASCT.  
Director, Public Works Operations      **File:** 02-0735-01/2017-Vol 01  
**Re:** **Award of Contract 5807Q - Supply and Delivery of Two Tandem Axle Cab and Chassis with Dump Box and Front Ploughs**

### Staff Recommendation

That Contract 5807Q, for the Supply and Delivery of Two Tandem Axle Cab and Chassis with Dump Box and Front Ploughs, be awarded to Peterbilt Pacific Inc. at a total cost of \$538,680, plus applicable taxes and levies, within existing capital budgets.

Tom Stewart, ASCT.  
Director, Public Works Operations  
(604-233-3301)

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>  Finance Department	<b>CONCURRENCE</b>  <input checked="checked" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b>  
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b>  DW	<b>APPROVED BY CAO</b>  

## Staff Report

### Origin

This report seeks Council approval to award Contract 5807Q to Peterbilt Pacific Ltd. for the acquisition of two tandem axle dump trucks. The award of this contract exceeds the maximum authorized under Officer and General Manager Bylaw No. 8215 (\$500,000) and therefore requires Council approval.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

*6.1. Safe and sustainable infrastructure.*

### Analysis

#### Background

As part of the City's normal vehicle replacement program, there are two dump truck units due for replacement due to age, condition and mileage. Unit 1165 is a 2002 tandem axle unit with 230,000 km and 14,310 hours of use. Unit 1278 is a 2005 tandem axle with 158,000 km and 12,571 hours (reference Attachment 2). Both units are of older engine technology, thereby being less fuel efficient. In addition, repair costs have reached the level where replacement is prudent. Replacement of these trucks with newer engine technology will result in lower fuel consumption, thereby contributing to the goals and objectives of the City's Green Fleet Action Plan, which establishes a 2% annual reduction in overall fuel-related emissions.

#### Tendering Process

Request for quotation 5807Q (Supply and Delivery of 2 (Two) Tandem Axle Cab and Chassis C/W Dump Box and Front Ploughs) was issued to the marketplace on September 15, 2016 and closed October 3, 2016.

Four vendors provided bid submissions from manufacturers, including International, Freightliner and Peterbilt as follows. Tendered amounts shown are reflective of an equitable comparison of all required components and options based on staff's review, and are exclusive of taxes and levies. The amount shown is for the purchase of two units.

1. Harbour International Trucks	\$487,500.00
2. First Truck Center Vancouver (Freightliner)	\$501,656.00
3. Cubex Limited (Freightliner)	\$513,235.00
4. Peterbilt Pacific Ltd.	\$538,680.00

### Award Recommendation

The submission by Peterbilt Pacific Ltd., while the highest of those received, is recommended for award based on best value. This recommendation is based on Fleet's experience with excellent performance of existing Peterbilts in the City's fleet and the high quality of the Peterbilt make overall. The Peterbilt make also has a higher resale value at the end of its lifecycle. That, coupled with lower maintenance costs and downtime impacts, as well as a high standard of customer service support, offers best overall value based on the 10-year expected life-cycle cost:

**Table 1: Estimated 10-Year Lifecycle Cost Comparison**

<b>Manufacturer/ Make</b>	<b>International</b>	<b>Freightliner</b>	<b>Freightliner</b>	<b>Peterbilt</b>
<b>Vendor</b>	Harbour International Trucks	First Truck	Cubex	Peterbilt Pacific Ltd.
<b>One Unit</b>	\$792,870	\$783,203	\$788,992	\$505,002
<b>Two Units</b>	\$1,585,740	\$1,566,406	\$1,577,984	\$1,010,004

A more detailed explanation of the vehicle lifecycle cost calculation is shown in Attachment 1.

The existing Peterbilts have proven reliable, and Fleet has experienced no mechanical failures or downtime with these units. This contributes to operational efficiency in supporting the various functional sections within Public Works and Parks. The Peterbilts are also a quality design, suited to support operational maintenance, salting/snow response efforts and construction projects.

### **Financial Impact**

The total cost of the award of Contract 5807Q to Peterbilt Pacific Ltd. for two tandem axle dump trucks is \$538,680.00 plus applicable levies and taxes. Funding for these replacements is available in the Fleet Vehicle Equipment Reserve capital project CV0004.

### **Conclusion**

This report seeks approval for the award of contract 5807Q for two tandem axle dump truck units to Peterbilt Pacific Ltd. based on best value. These fleet units are replacements and two equivalent units will be retired from the fleet, for no overall net increase in fleet size.

February 7, 2017

- 4 -

The quality make of Peterbilt units contributes to reduced downtime, thereby contributing to greater overall efficiency within Public Works and Parks operations.

A handwritten signature in black ink, appearing to read 'S. Bycraft', with a long horizontal flourish extending to the right.

Suzanne Bycraft  
Manager, Fleet and Environmental Programs  
(604-233-3338)

- Att. 1: Vehicle Life Cycle Cost Calculator  
2: Photos of Vehicles Being Replaced (Units 1165 and 1278)

**Vehicle Lifecycle Cost Calculator for 1 unit**

<b>Vehicle Comparison</b>					
Present Value Lifecycle Cost For 10 years (1 unit)	International	Freightliner	Freightliner	Peterbilt	
	\$ 792,870.14	\$ 783,203.14	\$ 788,992.64	\$ 505,002.45	
<b>RANK (Lowest 10 year Lifecycle Cost)</b>	3	2	4	1	
<b>Vendor</b>	Harbour International	First Truck	CUBEX	Peterbilt	
Base Truck Price (1 unit)	\$ 176,911	\$ 183,989	\$ 190,688	\$ 202,501	
Trade in (1 unit)	(\$33,000)	(\$33,000)	(\$30,000)	(\$33,000)	
Options(1 unit)	\$ 99,759	\$ 99,759	\$ 95,850	\$ 99,759	
Tire Levies(1 unit)	\$ 80	\$ 80	\$ 80	\$ 80	
Total Truck Cost(1 unit)	\$ 243,750	\$ 250,828	\$ 256,618	\$ 269,340	
<b>Unit Life (years)</b>	10	10	10	10	
Trade in value (today's \$)	\$ 27,061	\$ 31,750	\$ 31,750	\$ 71,250	
Annual Direct Costs (today's \$) (1 unit)					
Fuel (1 unit)	\$ 9,060	\$ 11,230	\$ 11,230	\$ 10,316	
O&M (1 unit)	\$ 46,185	\$ 42,809	\$ 42,809	\$ 18,002	
Insurance (1 unit)	\$ 2,373	\$ 2,373	\$ 2,373	\$ 2,373	
Other	\$ -	\$ -	\$ -	\$ -	
Total yearly estimated costs based on 2080 hours (1 unit)	\$ 57,618	\$ 56,413	\$ 56,413	\$ 30,691	
Total estimated costs for 10 years based on 2080 hours per year. (1 unit)	\$ 576,180.96	\$ 564,125.14	\$ 564,125.14	\$ 306,912.45	

(1) Note Fuel costs were calculated based on the number of hours used. Peterbilt units are used to tow trailers and equipment, which adds to fuel consumed. The Freightliners and Internationals did not get used to tow trailers and equipment.

2) Note also the evaluation data used was for the first three years of cumulative data.

Note: This Life Cycle Cost Calculator does not factor in Net Life Cycle costing that takes into account a nominal discount rate or an inflation rate for its calculation over the 10 year cycle. Rather it takes the purchase price of the unit prior to taxes and adds in the annual direct cost at today's \$ value and multiplies it at 10 years. Then adds the Purchase price and the annual direct costs for 10 years with no inflation factor then subtracts the Trade in value in (today's \$) with no inflation factor.

**Attachment 2**

**Photos of Vehicles Being Replaced (Units 1165 and 1278)**



Unit 1165 is a 2002 International Dump Truck



Unit 1278 is a 2005 International Dump Truck