



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** December 2, 2020
From: Lloyd Bie, P. Eng.
Director, Transportation **File:** 01-0154-04/2020-Vol 01
Re: TransLink 2021 Cost-Share Funding Applications

Staff Recommendation

1. That the submission of road, pedestrian, bicycle, and transit facility improvement projects as part of the TransLink 2021 cost-share programs as described in the staff report titled "TransLink 2021 Cost-Share Funding Applications" dated December 2, 2020 from the Director, Transportation be endorsed and that the information be considered in the 2021 Capital Budget process; and
2. That the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the successful funding agreements.

Lloyd Bie, P. Eng.
Director, Transportation
604-276-4131
Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: MO	APPROVED BY CAO

Staff Report

Origin

Each year, municipalities are invited to submit road, bicycle and transit-related improvement projects for funding consideration from TransLink's cost-share funding programs. This staff report presents the proposed applications from the City to TransLink's 2021 cost-share programs.

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.4 *Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.*

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

Leadership in effective and sustainable growth that supports Richmond's physical and social needs.

6.3 *Build on transportation and active mobility networks.*

Analysis

TransLink Cost-Share Programs

TransLink provides cost-share funding to municipalities via the following programs:

- Major Road Network and Bike (MRNB) Upgrade Program: allocated funding for capital improvements to roads that comprise the Major Road Network (MRN) and the construction of bicycle facilities both on and off the MRN.
- Bicycle Infrastructure Capital Cost-Sharing (BICCS) Program: allocated and competitive funding for the construction of bicycle facilities.
- Walking Infrastructure to Transit (WITT) Program: allocated and competitive funding for pedestrian facility upgrades within walking distance of frequent transit stops, stations and exchanges to promote the seamless integration of walking and cycling with transit.
- Transit-Related Road Infrastructure Program (TRRIP): competitive funding for roadway infrastructure facilities required for the delivery of transit services in the region.
- Bus Speed and Reliability (BSR) Program: competitive funding for feasibility studies and capital projects that support improved bus speed and reliability.
- MRN Structures Program: competitive funding for studies and capital projects for the upgrade, rehabilitation and/or replacement of bridges, culverts and retaining walls.

Projects to Receive Funding from 2020 TransLink Cost-Share Programs

Thirteen pedestrian, cycling and road improvement projects in Richmond will collectively receive up to \$4.6 million from TransLink as part of its 2020 cost-share programs, which will support projects with a total estimated cost of \$10.35 million (Attachment 1).

Projects Proposed for Submission to 2021 TransLink Cost-Share Programs

The following projects are proposed for submission to the 2021 TransLink cost-share programs, which collectively will fully utilize TransLink's allocated funding for Richmond. TransLink has indicated that the amount of capital cost-share funding available to Richmond for 2021 as noted below.

Major Road Network and Bike (MRNB) Upgrade Program

For 2021, TransLink's allocation for Richmond is \$1,852,000 (increase from \$1,781,000 in 2020). The City proposes to submit the following projects for consideration (Attachment 2):

- Westminster Hwy-No. 2 Road Intersection Upgrade: The City's network screening study of collision-prone intersections presented to Council in June 2019 ranked this intersection as #3 of the top 20. Based on the recommendations for medium- and long-term improvements, the scope includes modification of the intersection geometry, modification of the channelized island at the northwest corner, increased size of the pedestrian refuge areas, improving cycling connectivity, access management, and traffic signal operation enhancements. This application is Year 1 of a 2-year accrual (i.e., the City will apply to TransLink in 2022 for the same project in order to achieve a minimum of 50% external funding over the two-year period).
- Cambie Road-No. 4 Road Intersection Upgrade: Provision of left-turn lanes on all four legs, new boulevard and/or lighting strip, upgraded traffic signals, increased size of the pedestrian refuge areas, widened crosswalks, and overhead street name signs. This application is Year 1 of a 2-year accrual (i.e., the City will apply to TransLink in 2022 for the same project in order to achieve a minimum of 50% external funding over the two-year period).
- Steveston Highway Multi-Use Pathway – Phase 2: Westward extension of a two-way off-street paved 3.0 m wide pathway for pedestrians and cyclists on the south side of Steveston Highway between Mortfield Gate and No. 2 Road where currently there are discontinuous pedestrian facilities and no cycling facilities. This application is Year 2 of a 2-year accrual (i.e., the City also successfully applied to TransLink in 2020 for the same project in order to achieve a minimum of 50% external funding over the two-year period). A future phase will extend the pathway westward to Railway Avenue to link to the Railway Greenway.
- No. 2 Road Multi-Use Pathway: Council approved design funding for a cycling facility on No. 2 Road between Steveston Highway and Williams Road as part of the 2020 Capital Plan. This application is for construction of a two-way off-street paved 3.0 m wide pathway for pedestrians and cyclists on the east side of No. 2 Road. The alignment and form of cycling facility is a logical extension of the existing multi-use pathway on the east side south of Steveston Highway, incorporates an existing 170 m length multi-use pathway on the east side at Wallace Road, and is the recommended option with minimal property impacts to

adjacent residences. This application is Year 1 of a 2-year accrual (i.e., the City will apply to TransLink in 2022 for the same project in order to achieve a minimum of 50% external funding over the two-year period).

- *Lansdowne Road Multi-Use Pathway*: Westward extension of a two-way off-street paved 3.0 m wide pathway for pedestrians and cyclists on the north side of Lansdowne Road between Gilbert Road and Pearson Way. Upon completion, this project will provide a westward extension of the existing pedestrian-cycling facility along Lansdowne Road from Minoru Blvd to Gilbert Road and a direct link from the Canada Line Lansdowne Station to the Richmond Olympic Oval once proposed/future development-related road improvements are implemented along the remaining sections of Lansdowne Road and Hollybridge Way.
- *Shell Road Multi-Use Pathway*: Reconstruction of the existing pathway on the east side between Alderbridge Way and the Highway 99 overpass due to extensive asphalt failing (e.g., root damage). The reconstructed pathway will include pedestrian lighting.

Bicycle Infrastructure Capital Cost-Sharing (BICCS) Program

For 2021, TransLink's allocation for Richmond is \$894,000 (increase from \$868,000 in 2020) and the City can apply for up to \$600,000 per project from the competitive-based component. The City proposes to submit the following project for consideration for the allocated component (Attachment 2):

- *Steveston Highway Multi-Use Pathway – Phase 2*: As described above for the MRNB Program.

The City also proposes to submit the following projects for consideration for the competitive component (Attachment 2). Should the applications not be successful, both projects can still proceed as sufficient funding is available via the approved 2020 Capital Budget (Steveston Highway) and, pending Council approval, the proposed 2021 Capital Budget (Browngate Road).

- *Steveston Highway Multi-Use Pathway – Phase 2*: As described above for the MRNB Program.
- *Browngate Road Cycle Tracks*: Provision of on-street two-way bike paths protected from the adjacent vehicle lane by a concrete median on the south side between No. 3 Road and Hazelbridge Way. As there is no southbound bike lane on the west side of No. 3 Road in this area, the project includes delineation of an off-street southbound bike path on the east side of No. 3 Road between the Aberdeen Canada Line Station and Browngate Road. When completed, the project will link the Odlin Road Neighbourhood Bike Route from the east to No. 3 Road and Aberdeen Station.

Walking Infrastructure to Transit (WITT) Program

For 2021, TransLink's allocation for Richmond is \$322,000 (increase from \$305,000 in 2020). The City proposes to submit the following project for consideration for the allocated component (Attachment 2):

- Westminster Hwy-No. 2 Road Intersection Upgrade: As described above for the MRNB Program.

Transit-Related Road Infrastructure Program (TRRIP)

For 2021, TRRIP has a total of \$1.0 million available for the entire program (same as 2020); the City's submission is for \$100,000, which is the maximum amount permitted. Projects proposed to be submitted by the City are:

- Bus Stop Upgrades: Continued retrofits to various existing bus stops to provide for universal accessibility (i.e., installation of a landing pad and/or connecting sidewalk for wheelchair users) and construction of connecting pathways to provide access to/from the bus stop. The exact bus stop locations for these upgrades will be determined through feedback from transit users and consultation with Richmond Centre for Disability.

As of October 2020, Richmond has 719 active bus stops, of which 595 (82.8%) are accessible. Based on the experience of past years, staff anticipate that approximately 10 locations will be upgraded with the proposed project in 2021. The project scope will be reduced should the application not be successful.

Bus Speed and Reliability (BSR) Program

For 2021, the BSR Program has \$4.15 million available (comparable to 2020) with all funding available on a competitive basis. The City proposes to submit the following projects for consideration (Attachment 2):

- Bridgeport Road-Knight Street - Project Development Study: TransLink has identified that transit service on Bridgeport Road destined for northbound Knight Street experiences relatively high person-hours of delay due to congestion of general purpose traffic. This project will review transit access to the northbound Knight Street on-ramps, ascertain the issues and develop conceptual and preliminary designs, and/or operational plans to address the identified issues.
- Great Canadian Way (Bridgeport Station-Bridgeport Road) Southbound Bus-Only Lane – Project Development Study: As part of the 2019 and 2020 BSR Programs, the City examined and developed conceptual designs for a potential long-term improvement of a new southbound bus-only lane on Great Canadian Way between the Bridgeport Canada Line Station and Bridgeport Road to facilitate buses accessing Highway 99 southbound. This project will confirm the preferred option (curbside versus centre lane) and progress the work to a functional design.
- “Hot Spot” Analysis - Project Development Study: TransLink has identified selected hot spot intersections that experience relatively high person-hours of delay. This project will review and identify bus speed and reliability issues at these hot spots, and develop conceptual designs and/or operational plans to address the issues at the following sites:
 - Alderbridge Way-Garden City Road: westbound to southbound left-turn
 - Blundell Road-No. 3 Road: eastbound to northbound left-turn

- *No. 3 Road (Cook Road-Bridgeport Road) - Project Development Study*: TransLink's 2019 Bus Speed and Reliability Report ranks No. 3 Road as #17 among the top 20 corridors in the region (and the only one in Richmond) contributing to excessive person-hours of delay. As part of the 2020 BSR Program, the City secured TransLink funding of \$100,000 to study the southern section of No. 3 Road (Cook Road-Steveston Highway). At that time, the analysis and review of the northern portion of the corridor was anticipated to occur as part of TransLink's planned R7 RapidBus service between Richmond and the Expo Line. As the timing of the RapidBus project is now uncertain due to the impacts of COVID-19, TransLink staff have indicated that undertaking this study now will advance future planning work for the RapidBus project as well as demonstrate the City's readiness.

Requested Funding and Estimated Project Costs

The total requested funding for the above 2021 submissions to TransLink's cost-sharing programs is \$4,418,000, which will support projects with a total estimated cost of \$13,540,000 (Table 1). For all projects, the City will receive from 50% to 100% of the estimated project cost. The total combined amounts of TransLink funding for 2021 and City funding do not equal the total estimated project costs due to several projects accruing TransLink funding over a two-year period.

Table 1: Projects to be Submitted to 2021 TransLink Cost-Share Programs

Project	TransLink Funding Source		Total TransLink Funding for 2021 ⁽¹⁾	Estimated City Funding & Source ⁽²⁾	Estimated Project Cost
	Program	Amount			
Westminster Hwy-No. 2 Road Intersection Upgrade (Year 1 Accrual)	MRNB Allocated	\$28,000	\$350,000 (Year 2 Accrual in 2022)	\$700,000 (2021 Capital Program)	\$1,300,000
	WITT Allocated	\$322,000			
Cambie Road-No. 4 Road Intersection Upgrade (Year 1 Accrual)	MRNB Allocated	\$425,000	\$425,000 (Year 2 Accrual in 2022)	\$1,175,000 (2021 Capital Program)	\$1,700,000
Steveston Hwy (No. 2 Road-Mortfield Gate): multi-use path (Year 2 Accrual)	MRNB Allocated	\$131,000	\$1,625,000 (Year 1 Accrual in 2020 = \$1,975,000)	\$2,400,000 ⁽³⁾ (2020 Capital Program)	\$6,000,000
	BICCS Allocated	\$894,000			
	BICCS Competitive	\$600,000			
No. 2 Road (Steveston Hwy-Williams Road): multi-use path (Year 1 Accrual)	MRNB Allocated	\$772,500	\$772,500 (Year 2 Accrual in 2022)	\$1,200,000 (2021 Capital Program)	\$2,400,000
Lansdowne Road (Gilbert Road-Pearson Way): multi-use path	MRNB Allocated	\$150,000	\$150,000	\$150,000 (2021 Capital Program)	\$300,000
Shell Road (Alderbridge Way-Hwy 99 Overpass): reconstruct multi-use path	MRNB Allocated	\$345,500	\$345,500	\$244,500 (2021 Active Transportation Improvement Program)	\$590,000
Browngate Road (Hazelbridge Way-No. 3 Road): cycle tracks	BICCS Competitive	\$300,000	\$300,000	\$100,000 (2021 Active Transportation Improvement Program)	\$400,000

Project	TransLink Funding Source		Total TransLink Funding for 2021 ⁽¹⁾	Estimated City Funding & Source ⁽²⁾	Estimated Project Cost
	Program	Amount			
Accessibility upgrades to various existing bus stops	TRRIP	\$100,000	\$100,000	\$100,000 (2021 Transit-Related Road Infrastructure Program)	\$500,000
Bridgeport Road-Knight Street Northbound On-ramp Access	Bus Speed & Reliability	\$125,000	\$125,000	\$0	\$125,000
Hot Spot Analysis	Bus Speed & Reliability	\$50,000	\$50,000	\$0	\$50,000
No. 3 Road (Cook Road-Bridgeport Road) Study	Bus Speed & Reliability	\$125,000	\$125,000	\$0	\$125,000
Great Canadian Way (Bridgeport Stn-Bridgeport Road) – Southbound Bus Only Lane	Bus Speed & Reliability	\$50,000	\$50,000	\$0	\$50,000
Total⁽⁴⁾			\$4,418,000	\$6,069,500	\$13,540,000

- (1) The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.
- (2) The City's portion of the cost for the Steveston Hwy (No. 2 Road-Mortfield Gate) multi-use path was approved as part of the 2020 Capital Budget. The City's portions of the costs of the remaining projects will be considered during the 2021 Capital Budget process.
- (3) City funding of \$2.4M is based on successful receipt of the BICCS Competitive funding; otherwise, City funding will be \$3.0M as per the approved 2020 Capital Budget.
- (4) The total combined amounts of TransLink funding for 2021 and City funding do not equal the total estimated project costs due to several projects accruing TransLink funding over a two-year period.

Should the submissions be successful, the City would enter into funding agreements with TransLink. The agreements are standard form agreements provided by TransLink and include an indemnity and release in favour of TransLink. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the agreements and the information will be considered in the 2021 Capital Budget process.

Financial Impact

The City's portion of the cost for the Steveston Hwy (No. 2 Road-Mortfield Gate) multi-use path was approved as part of the 2020 Capital Budget. The City's portions of the costs of the remaining proposed project applications will be considered during the 2021 Capital Budget process and the associated operating budget impacts will be incorporated as part of the upcoming annual budget process. The 2021 BSR Program project costs include direct staff time, which will offset City funding.

Conclusion

A number of road, pedestrian and bicycle route improvement projects are proposed for submission to TransLink's various cost-sharing programs for 2021 that will support Council's Strategic Plan for 2018-2022 with respect to "Strategic and Well-Planned Growth" as well as the goals of a number of City plans and strategies including the Official Community Plan, the Community Energy Emissions Plan and the Community Wellness Strategy.

In addition to maximizing external funding in implementing local transportation improvements, significant benefits for those using sustainable travel modes in terms of new infrastructure that provides safety and accessibility enhancements will also be achieved should these projects be approved by TransLink and Council.



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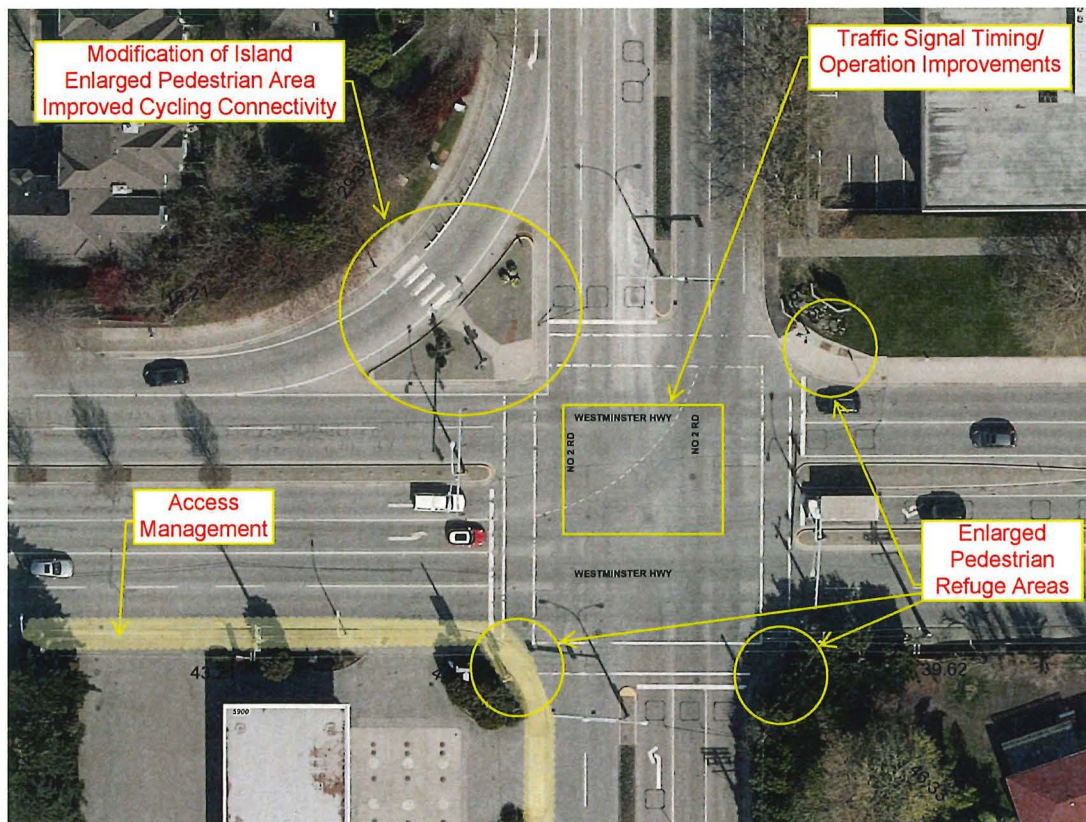
- Att. 1: Projects to Receive Funding from 2020 TransLink Cost-Share Programs
Att. 2: Locations of Proposed 2021 Cost-Share Projects

Projects to Receive Funding from 2020 TransLink Cost-Share Programs

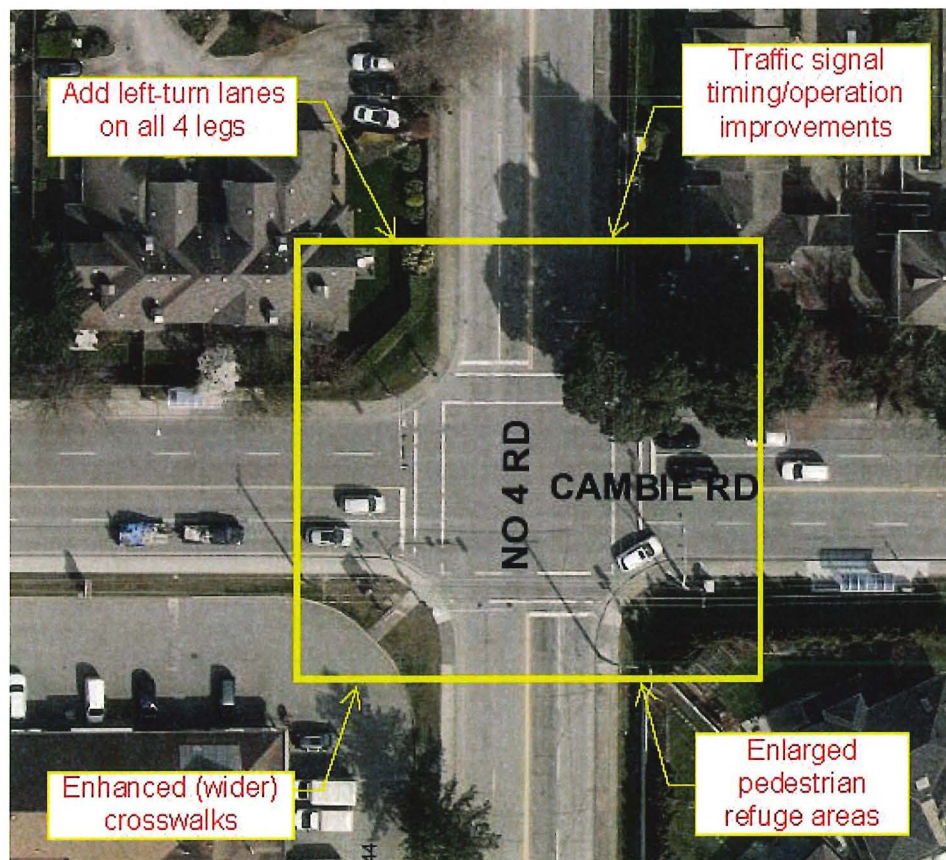
Project	TransLink Funding Source		Total TransLink Funding ⁽¹⁾	Estimated City Funding	Estimated Project Cost
	Program	Amount			
Collision Prone Intersections on MRN – Short-Term Improvements	MRNB Allocated	\$104,000	\$104,000	\$104,000	\$208,000
Cambie Road-No. 5 Road Intersection Upgrades	MRNB Allocated	\$1,170,000	\$1,380,000	\$1,380,000	\$2,760,000
	WITT Allocated	\$210,000			
Steveston Hwy (No. 2 Road-Mortfield Gate): Phase 2 of multi-use path (Year 1 Accrual)	MRNB Allocated	\$507,000	\$1,975,000 (Proposed Year 2 accrual in 2021 = \$1,625,000)	\$2,400,000	\$6,000,000
	BICCS Allocated	\$868,000			
	BICCS Competitive	\$600,000			
Westminster Hwy (Muir Dr-90 m east): walkway	WITT Allocated	\$95,000	\$95,000	\$95,000	\$190,000
Accessibility upgrades to various existing bus stops	TRRIP	\$99,000	\$99,000	\$99,000	\$198,000
No. 3 Road (Cook Road-Steveston Highway)	Bus Speed & Reliability	\$100,000	\$100,000	\$0	\$100,000
Corridor and Hot Spot Analysis	Bus Speed & Reliability	\$100,000	\$100,000	\$0	\$100,000
Steveston Highway (Highway 99-Palmberg Road)	Bus Speed & Reliability	\$26,200	\$26,200	\$0	\$26,200
Bridgeport Station Access	Bus Speed & Reliability	\$25,900	\$25,900	\$0	\$25,900
Bridgeport Station Egress	Bus Speed & Reliability	\$33,750	\$33,750	\$3,750	\$37,500
Garden City Road-Westminster Highway: Signal Changes	Bus Speed & Reliability	\$87,800	\$87,800	\$0	\$87,800
Garden City Road-Westminster Highway: Eastbound Left-Turn Lane Extension	Bus Speed & Reliability	\$198,500	\$198,500	\$0	\$198,500
Steveston Highway (No. 5 Road-Hwy 99)	Bus Speed & Reliability	\$378,000	\$378,000	\$42,000	\$420,000
Total⁽²⁾			\$4,603,150	\$4,123,750	\$10,351,900

- (1) The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.
- (2) The total combined amounts of TransLink funding for 2020 and City funding do not equal the total estimated project costs due to the Steveston Hwy Phase 2 multi-use path project accruing TransLink funding over a two-year (2020-2021) period.

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects



Westminster Hwy-No. 2 Road: Intersection Upgrade: Year 1 of 2-Year Accrual



Cambie Road-No. 4 Road: Intersection Upgrade: Year 1 of 2-Year Accrual

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects

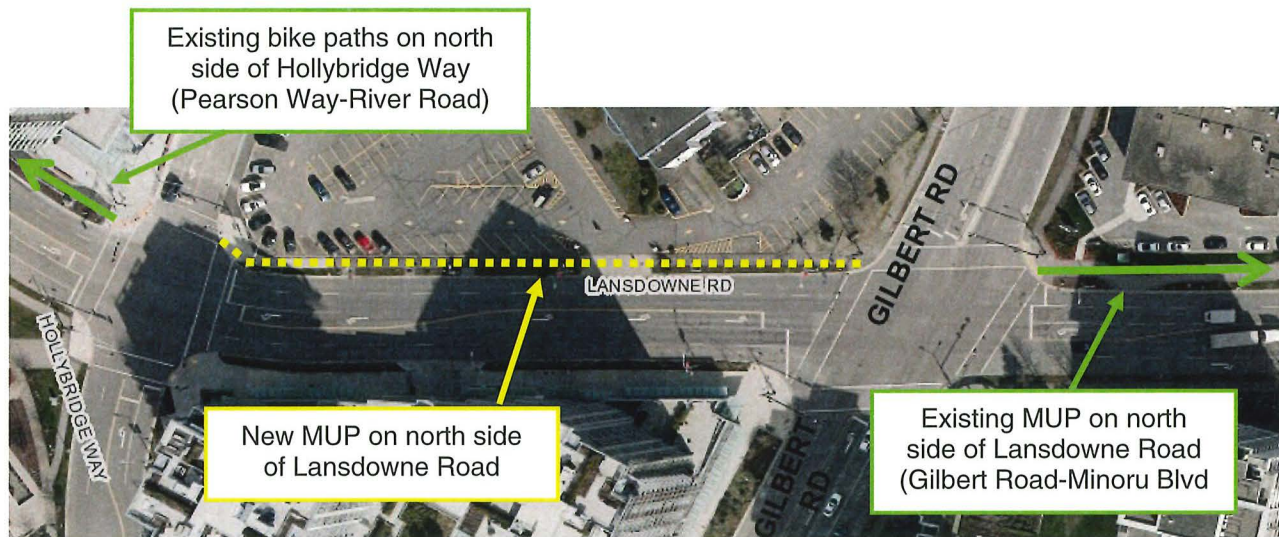


Steveston Highway (No. 2 Road-Mortfield Gate): Phase 2 - Multi-Use Pathway (MUP)
Year 2 of 2-Year Accrual

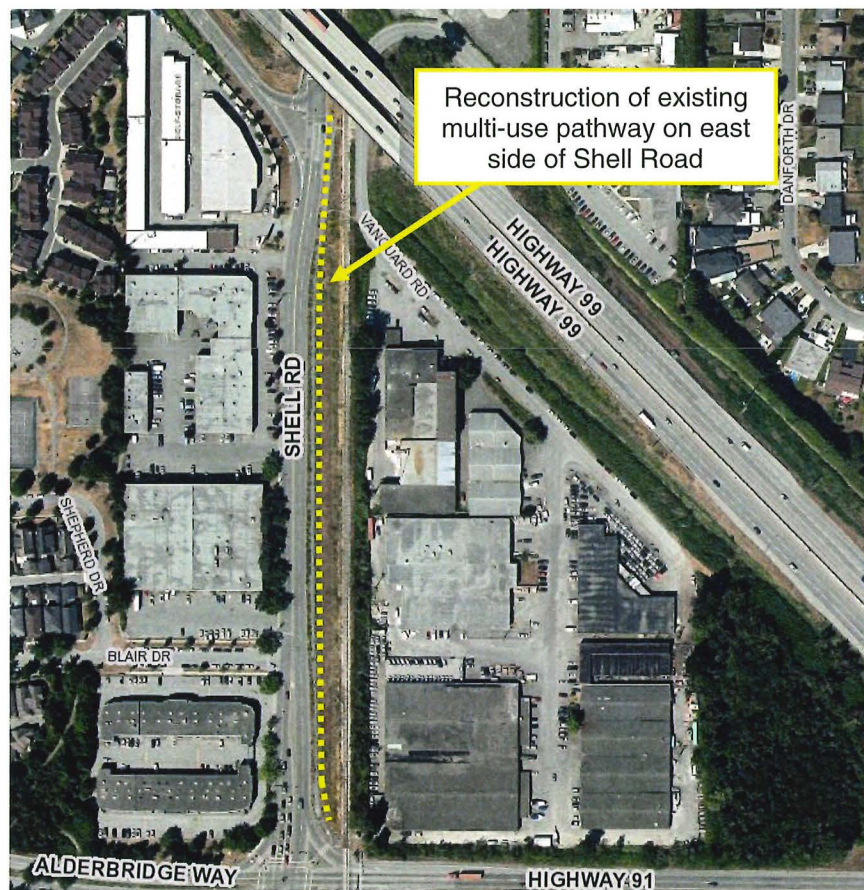


No. 2 Road (Steveston Hwy-Williams Road): Multi-Use Pathway (MUP)
Year 1 of 2-Year Accrual

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects

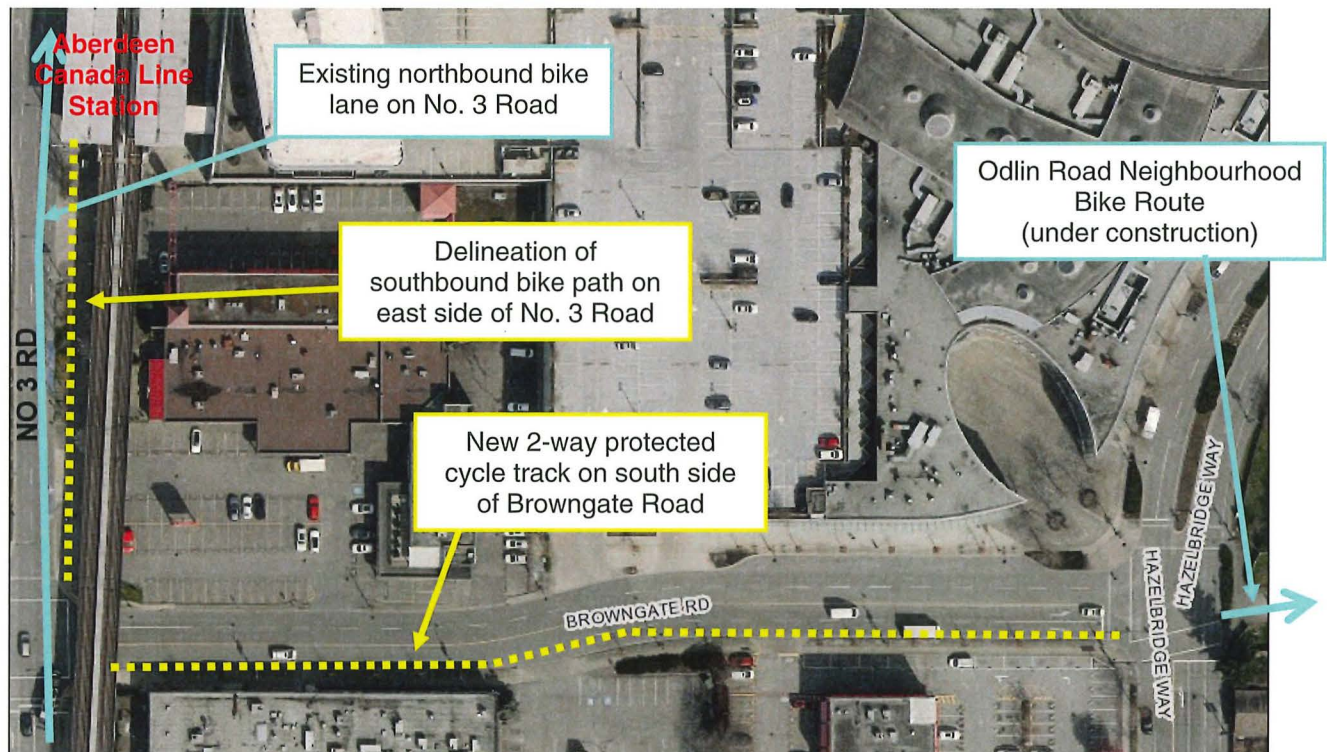


Lansdowne Road (Gilbert Road-Pearson Way): Multi-Use Pathway (MUP)

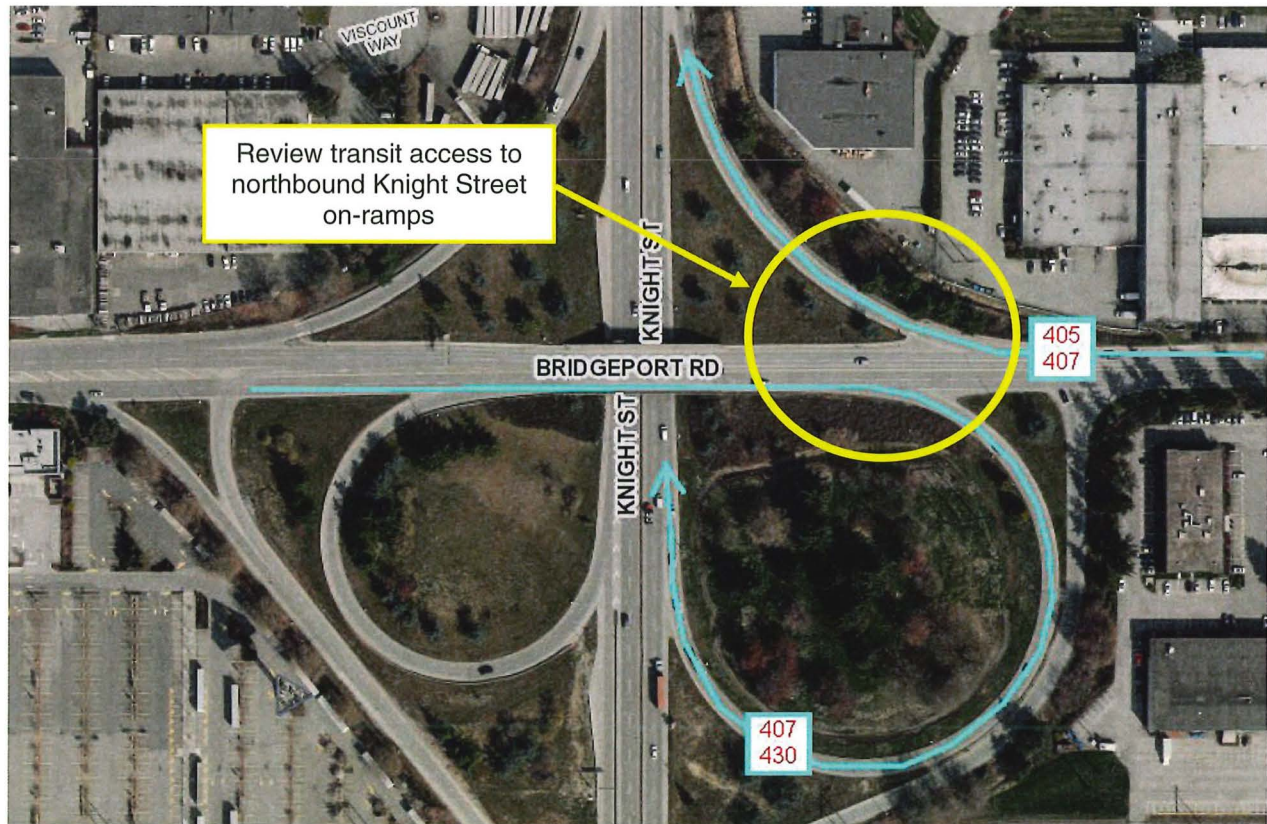


Shell Road Multi-Use Pathway: Alderbridge Way-Highway 99 Overpass

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects

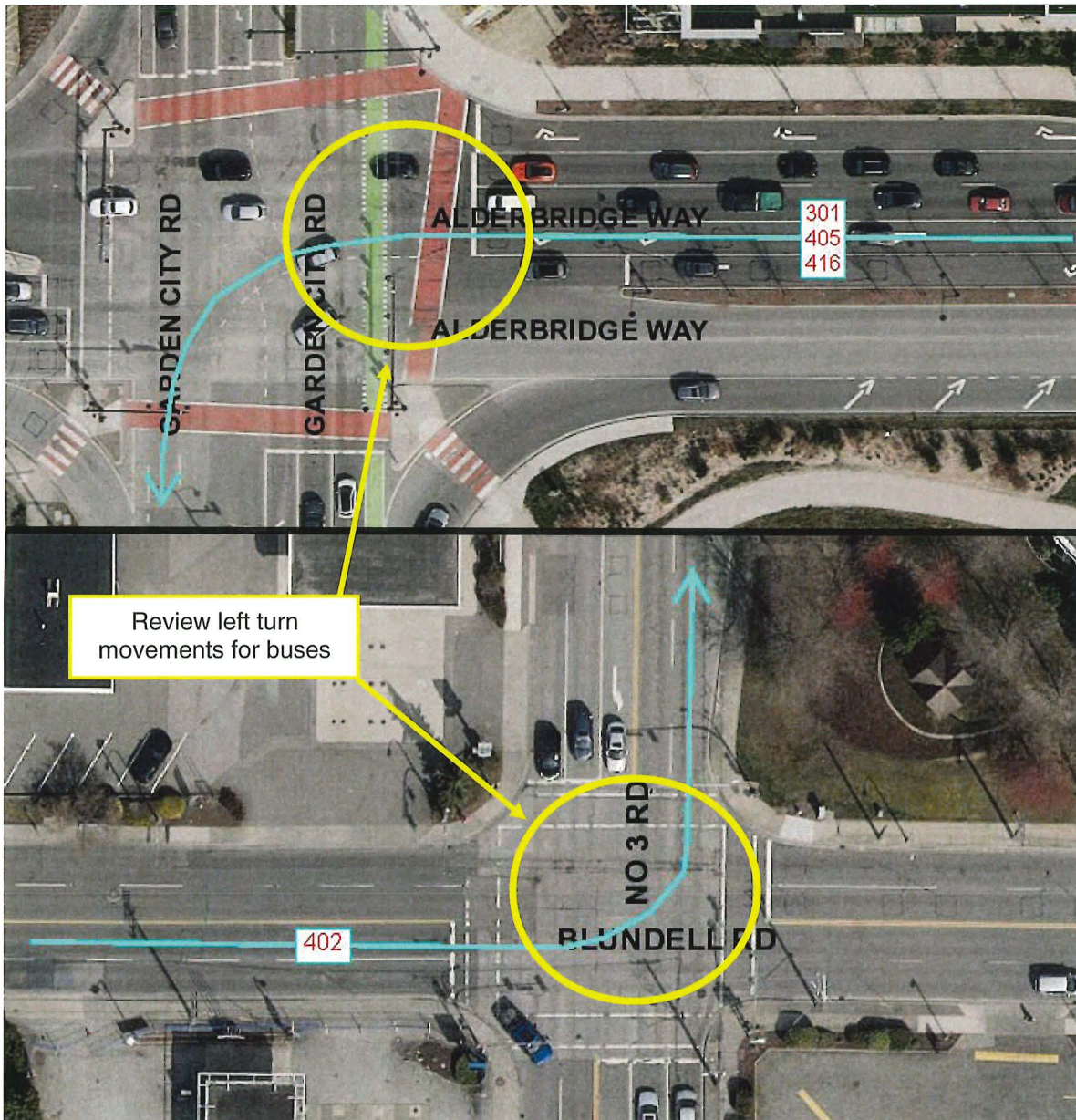


Browngate Road (Hazelbridge Way-No. 3 Road): Two-Way Protected Cycle Track on South Side



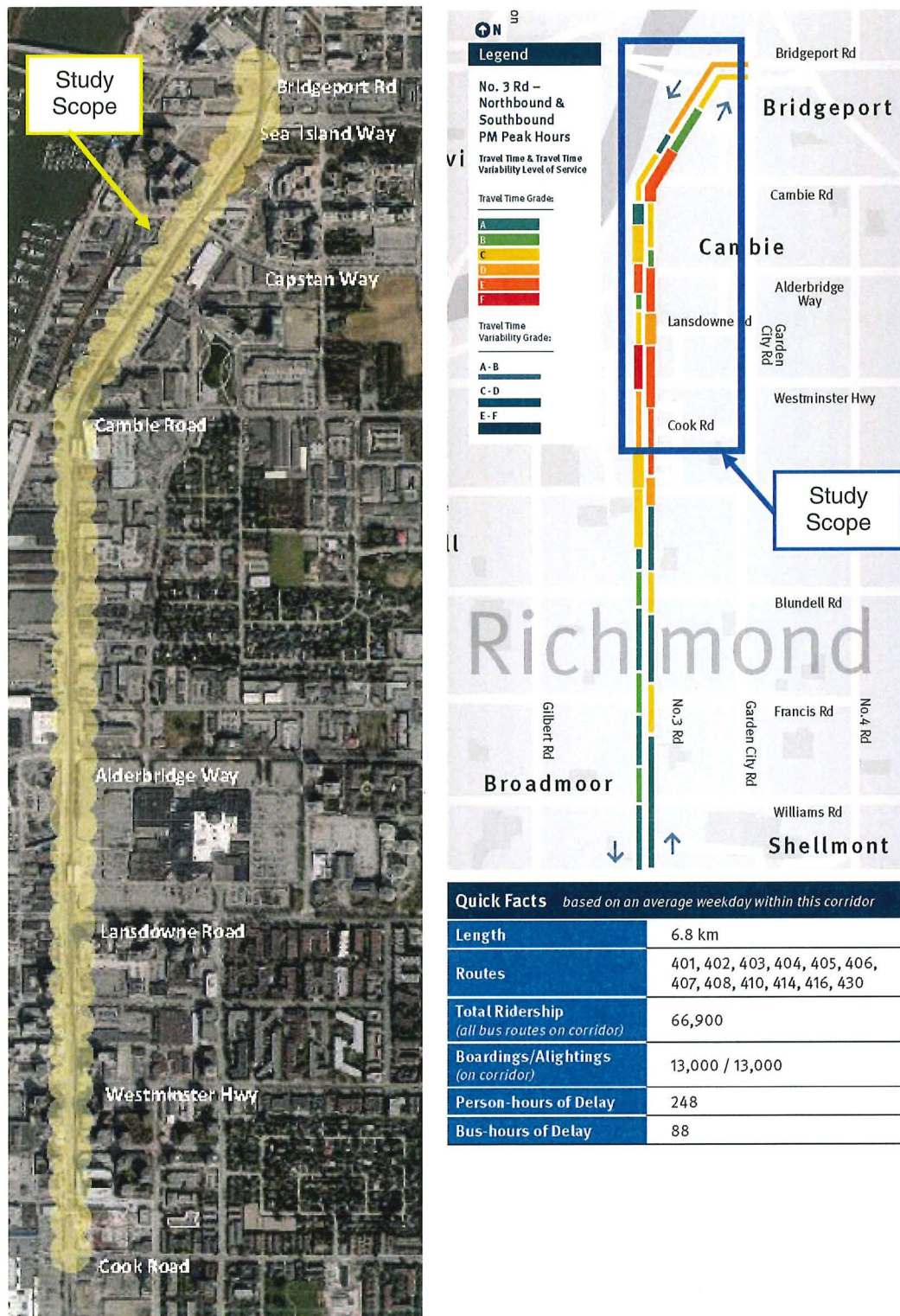
Bridgeport Road-Knight Street: Project Development Study for Northbound Bus Access

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects



"Hot Spot" Analysis: Project Development Study for Bus Route Left-Turns

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects



No. 3 Road (Cook Road-Bridgeport Road): Project Development Study

Proposed 2021 MRNB, BICCS, WITT, and BSR Program Projects



Great Canadian Way (Bridgeport Canada Line Station-Bridgeport Road)
Southbound Bus-Only Lane: Project Development Study