



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** April 18, 2023
From: Lloyd Bie, P. Eng. **File:** 10-6460-01/2023-Vol
 Director, Transportation 01
Re: **ICBC-City of Richmond Road Improvement Program and Intersection Safety
 Camera Program – 2023 Update**

Staff Recommendations

1. That the proposed road safety improvement projects, as described in Attachment 2 of the staff report titled "ICBC-City of Richmond Road Improvement Program and Intersection Safety Camera Program – 2023 Update," dated April 18, 2023 from the Director, Transportation be endorsed for submission to the ICBC 2023 Road Improvement Program for consideration of cost-share funding; and
2. That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the cost-share agreements on behalf of the City, and that the Consolidated 5 Year Financial Plan (2023-2027) be amended accordingly.

Lloyd Bie, P. Eng.
 Director, Transportation
 (604-276-4131)

Att. 2

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

Staff Report

Origin

At the March 28, 2022 Council meeting, Council endorsed a number of proposed joint ICBC-City of Richmond road safety improvement projects for 2022. This report summarizes the projects implemented in 2022 with funding from ICBC and presents a list of projects proposed to be implemented with funding contributions from ICBC as part of the 2023 ICBC-City of Richmond Road Improvement Program partnership. This report also provides an update to the Intersection Safety Camera Program.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

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

Intersection Safety Camera Program

The Province's Intersection Safety Camera Program operates 140 automated enforcement red light cameras throughout BC, with 35 of these cameras also enforcing speeding violations. Nine red light cameras and one speed enforcement camera are located in Richmond. Figure 1 shows the number of red light violations issued through these cameras since 2019.

The camera located at the intersection of Cambie Road and Garden City Road was upgraded to include automated speed enforcement capabilities on September 30th, 2019. This camera registered 530 speed violations in 2019 (2120 if pro-rated to a full year), 2048 speed violations in 2020, 527 speed violations in 2021 and 671 speed violations in 2022. This data supports the effectiveness of automated enforcement cameras in reducing speed violations. Staff will continue to work with ICBC and the Province to encourage the implementation of more Intersection Safety Cameras within Richmond.

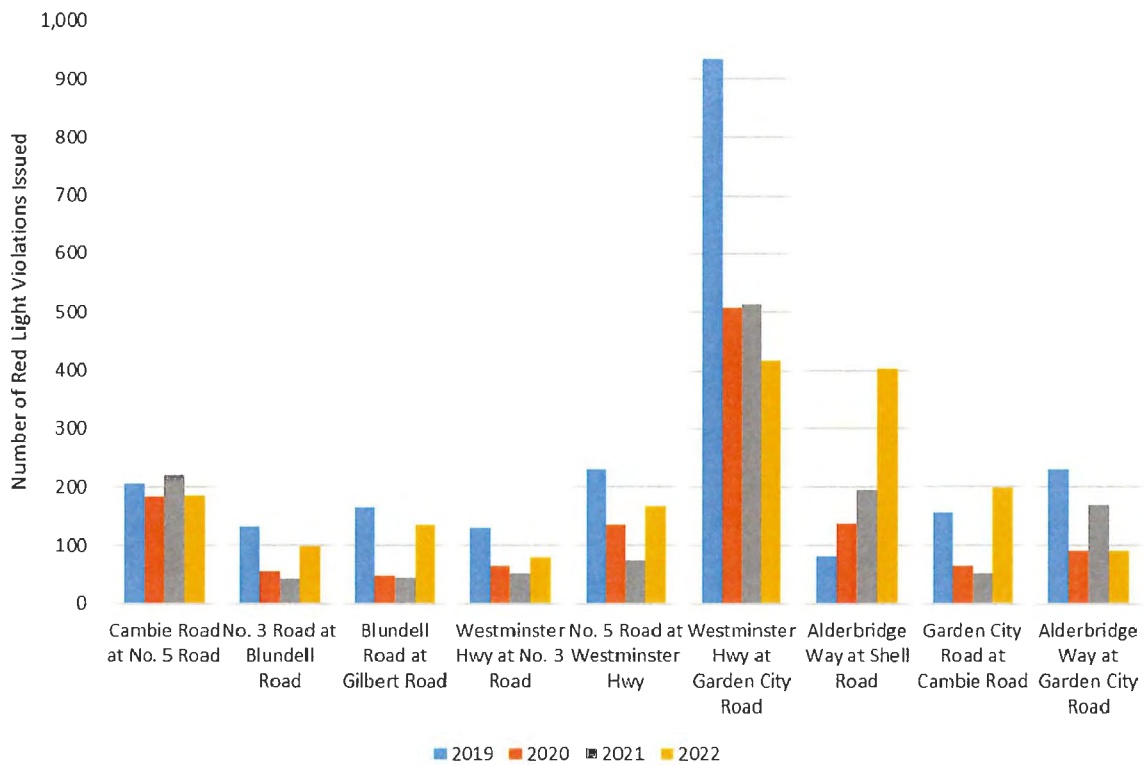


Figure 1: Red Light Violations Issued through the Intersection Safety Camera Program

ICBC Road Improvement Program

ICBC initiated the Road Improvement Program in 1990 to help fund the implementation of road safety engineering measures to reduce the frequency and/or severity of crashes at high-risk locations, reduce claims costs and reduce the potential for crashes.

The City has been in partnership with ICBC in the Road Improvement Program since 1994. This partnership is an important component of the City’s traffic safety program as it enables the City not only to undertake more traffic safety enhancements than it could alone, but also to expedite some of these road safety improvement projects. Each year, a list of potential eligible capital projects is developed for inclusion in the Program based on community requests and input from the Traffic Safety Advisory Committee and other stakeholders.

Completed ICBC-City of Richmond Road Improvement Projects

In 2022, the City implemented thirteen groups of road improvement projects (Attachment 1) and will receive a total of \$277,000 through ICBC’s 2022 Road Improvement Program (example completed project in Figure 2).



Figure 2: Installation of Traffic Circle at Barnard Dr. /Lam Dr. /Robson Dr. Intersection

Over the past 5 years, ICBC has contributed over \$1.2M towards road improvement projects within Richmond, which helped facilitate improvements to the top 20 collision-prone intersections within the City, the installation of 35 video detection cameras, 6 new traffic signals, 43 LED overhead street name signs, 13 special crosswalks, 35 speed humps and uninterrupted power supply at 38 intersections.

Proposed 2023 ICBC-City of Richmond Road Improvement Projects

Attachment 2 lists ten bundles of projects proposed for submission to the 2023 Road Improvement Program for funding contributions from ICBC, all of which are included in previously approved Capital Budgets. The projects align with the objectives of the City and ICBC to improve the safety of all road users by implementing new infrastructure improvements to reduce crashes and injuries. ICBC's potential funding contribution to these projects will be determined by historical traffic crash rates at these locations and the estimated reduction in ICBC claim costs resulting from the proposed traffic safety improvements, project eligibility in relation to the funding guidelines and the total funding available, which varies from year to year. The outcome of ICBC's review of the projects will be reported back as part of the 2024 update of the ICBC-City of Richmond Road Improvement Program.

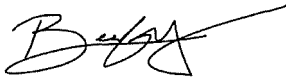
Should a project be approved for funding by ICBC, the City will be required to enter into a funding agreement with ICBC. The agreement is provided by ICBC and generally includes an indemnity in favour of ICBC. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized on behalf of the City to execute the funding agreements for the approved projects.

Financial Impact

The total estimated cost of all the projects identified in Attachment 2 is \$2,663,000. All projects are fully funded through previously approved Capital Budgets. Should any submitted projects receive funding from ICBC, these external grants will be used to reduce the previously approved City funding sources and the Consolidated 5 Year Financial Plan (2023-2027) will be amended accordingly.

Conclusion

ICBC is a significant long-time partner working with the City to promote traffic safety in Richmond. The traffic safety initiatives jointly implemented by ICBC and the City, including various road and traffic management enhancements, educational efforts and enforcement measures, have resulted in safer streets for all road users in Richmond. Therefore, staff recommend that Council endorse the various local road safety improvement projects for submission to the 2023 joint ICBC-City of Richmond Road Improvement Program.



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Att. 1: 2022 Road Improvement Projects receiving ICBC Funding

Att. 2: Proposed 2023 City-ICBC Road Improvement Projects

2022 Road Improvement Projects receiving ICBC Funding

Project Description	Location	ICBC Contribution	Est. Total Cost
Installation of Special Crosswalk	<ul style="list-style-type: none"> Third Ave-Chatham Street 	\$3,500	\$92,000
Installation of Pedestrian Signal	<ul style="list-style-type: none"> Westminster Hwy-Westminster Hwy North (upgrade from existing fire signal) 	\$16,500	\$100,000
Installation of UPS (Uninterruptible Power Supply) at Intersections	<ul style="list-style-type: none"> Jacobs Road-Cambie Road No. 6 Road-Mayfield Drive No. 8 Road-Blundell Road No. 6 Road-Commerce Parkway No. 3 Road-Leslie Road No. 3 Road-Ackroyd Road No. 6 Road-Cambie Road No. 4 Road-Alderbridge Way Viking Way-Cambie Road 	\$22,500	\$225,000
Construction of New Multi-Use Pathway	<ul style="list-style-type: none"> Westminster Highway (Smith Crescent to Fraserside Gate) 	\$5,000	\$1,100,000
Installation of Traffic Video Cameras	<ul style="list-style-type: none"> No. 1 Road-Osmond Avenue Bridgeport Road-St. Edwards Dr Bridgeport Road-Shell Road Bridgeport Road-Simpson Road 	\$37,000	\$115,000
Installation of Overhead LED Street Name Signs	<ul style="list-style-type: none"> No. 1 Road-Chatham Street No. 1 Road-Williams Road No. 1 Road-Osmond Ave No. 1 Road-Francis Road No. 1 Road-Blundell Road No. 1 Road-Granville Ave No. 1 Road-Westminster Hwy Gilbert Road-Williams Road Gilbert Road-Francis Road Gilbert Road-Blundell Road No. 3 Road-Park Road No. 3 Road-Cook Road Shell Road-Williams Road No. 5 Road at 11000-block Railway Ave-Moncton Street Elmbridge Way-Westminster Hwy Minoru Blvd-Minoru Gate Minoru Blvd-Alderbridge Way Alderbridge Way-Westminster Hwy Alderbridge Way-Elmbridge Way 	\$66,000	\$300,000
Installation of a New Traffic Signal and Rail Crossing System	<ul style="list-style-type: none"> Shell Road-Williams Road 	\$93,500	\$1,330,000
Construction of Pedestrian Pathways	<ul style="list-style-type: none"> River Road (No 6 Road to Burdette Avenue) 	\$5,000	\$700,000
Granville Avenue - Bike Lane Protection Project	<ul style="list-style-type: none"> Granville Avenue – Gilbert Road to Railway Avenue 	\$10,000	\$75,000
Traffic Calming: Traffic Circle	<ul style="list-style-type: none"> Barnard Drive-Robson Drive/Lam Drive 	\$3,000	\$22,000
Traffic Calming: Speed Humps	<ul style="list-style-type: none"> 4 Avenue / Manoah Steves Elementary School 	\$1,000	\$6,000
Speed Reader Boards	<ul style="list-style-type: none"> 22760 Westminster Highway Northbound Westminster Highway at Hamilton Transit Centre 	\$6,000	\$14,000
Installation of Pedestrian Zone Markers at Schools	<ul style="list-style-type: none"> Anderson Elementary School Cook Elementary School Diefenbaker Elementary School General Currie School Thomas Kidd Elementary School Bridge Elementary School Debeck Elementary School Errington Elementary School Gilmore Elementary School Brighthouse Elementary School 	\$8,000	\$10,000
Total		\$277,000	\$4,089,000

Proposed 2023 City-ICBC Road Improvement Projects

Proposed 2023 ICBC-City of Richmond Road Improvement Program Project	Estimated Total Cost
Installation of special crosswalk: <ul style="list-style-type: none"> • Granville Ave-Mayflower Drive • Williams Road-Leonard Road • 4500 BLK and Moncton St. • Shell Road Trail and Granville Ave. • Shell Road Trail and Blundell Rd. • Other locations to be determined⁽²⁾ 	\$410,000
Installation of full traffic signal: <ul style="list-style-type: none"> • St Albans Road-Bennett Road • Other locations to be determined⁽²⁾ 	\$350,000
Installation of pedestrian signal: <ul style="list-style-type: none"> • No. 3 Road-Saunders Road (upgrade from existing special crosswalk) • Other locations to be determined⁽²⁾ 	\$180,000
Installation of traffic video cameras: <ul style="list-style-type: none"> • No. 5 Road and Bridgeport Road • Sweden Way and Bridgeport Road • No. 5 Road and Cambie Road • Other locations to be determined⁽²⁾ 	\$90,000
Installation of overhead LED street name signs: <ul style="list-style-type: none"> • St. Albans Rd.-Blundell Rd. • No. 3 Rd.-Williams Rd. • No. 3 Rd.-Francis Rd. • No. 3 Rd.-Blundell Rd. • Cooney Rd.-Cook Rd. • Cooney Rd.-Saba Rd. • Cooney Rd.-Ackroyd Rd. • Hazelbridge Way-Alexandra Rd. • Hazelbridge Way-Leslie Rd. • Hazelbridge Way-Browngate Rd. • Garden City Rd.-Williams Rd. • Garden City Rd.-Francis Rd. • Garden City Rd.-Blundell Rd. • Garden City Rd.-Cook Rd. • Garden City Rd.-Lansdowne Rd. • Garden City Rd.-Cook Rd. • Other locations to be determined⁽²⁾ 	\$240,000
Installation of pedestrian zone markers in various locations as identified through of traffic studies ⁽¹⁾	\$16,000
Traffic calming measures: <ul style="list-style-type: none"> • Raised Crosswalks – Tomsett School and Walter Lee School • Other locations pending results of traffic studies⁽¹⁾ 	\$14,000

Proposed 2023 City-ICBC Road Improvement Projects

Proposed 2023 ICBC-City of Richmond Road Improvement Program Project	Estimated Total Cost
Installation of UPS (uninterruptible power supply): <ul style="list-style-type: none"> • No. 1 Rd.-Westminster Hwy. • No. 1 Rd.-Granville Ave. • Railway Ave.-Granville Ave. • Railway Ave.-Blundell Rd. • Railway Ave.-Francis Rd. • Railway Ave.-Williams Rd. • No. 1 Rd.-Chatham St. • Oval Way-River Rd. • Elmbridge Way-Westminster Hwy. • Minoru Blvd.-Westminster Hwy. • Kwantlen St.-Alderbridge Way • Other locations to be determined⁽²⁾ 	\$240,000
Construction of pedestrian pathway: <ul style="list-style-type: none"> • St. Edwards Drive (350m east of Cambie Road-Bird Road) • Westminster Hwy (Muir Road- 150 m east) • Other locations to be determined⁽²⁾ 	\$823,000
Bike Lane Protection Project: Garden City Rd – Granville Ave to Sea Island Way	\$300,000
Total	\$2,663,000

(1) Implementation is subject to consultation with and support from affected residents.

(2) Additional locations may be identified for submission to ICBC prior to its annual program deadline.