



City of Richmond

Report to Committee

To: Finance Committee **Date:** November 16, 2022
From: Ivy Wong, CPA, CMA **File:** 03-0970-03-01/2022-
Vol 01
Re: **2023 Proposed Capital Budget**

Staff Recommendation

1. That the 2023 Proposed Capital Budget as presented in Appendix 3 totaling \$131,516,181 be approved; and
2. That the 2023 Proposed Capital Budget as approved be included in the Consolidated 5 Year Financial Plan (2023-2027).

Ivy Wong, CPA, CMA
 Acting Director, Finance
 (604-276-4046)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR MANAGEMENT TEAM	INITIALS:
APPROVED BY CAO 	

Executive Summary

The City of Richmond is responsible for providing and maintaining capital assets and infrastructure to serve its residents and businesses. The 2023 Proposed Capital Budget proposes an allocation of available financial resources to various capital projects that align with Council's strategic plans, policies and priorities.

During the 2023 capital budget process, \$129.7M for 92 capital projects and \$13.7M for contingent external contributions and internal transfers / debt payment were submitted by various departments. The Review Team (RT), which is comprised of directors from each division, reviewed and ranked each project submission based on established criteria and Council's strategic plans, policies, priorities and endorsements. The CAO and the Senior Management Team (SMT) further reviewed the project recommendations. The final recommendation is included in the 2023 Proposed Capital Budget presented to the Finance Committee for review, approval and inclusion in the Consolidated 5 Year Financial Plan (2023-2027).

The 2023 Proposed Capital Budget is \$131.5M, which includes \$117.8M for 83 capital projects and \$13.7M for contingent external contributions and internal transfers / debt payment. Some of the key capital initiatives in 2023 are continuing investments in the flood protection system, expanding the cycling network and preparing for climate emergency response. \$20.0M is recommended for the flood protection (formerly known as drainage) program, which includes improving approximately one kilometer of dikes, designing five drainage pump station upgrades, and improving drainage within the Burkeville and Horseshoe Slough drainage catchments. \$5.7M will be spent on multi-use pathway construction. The City also proposes to purchase a mobile fuel tanker to support on-site fueling for all City assets that require fuel and a skid steer loader as an emergency response unit to assist in sand bagging activities to further enable the City to respond to climate emergencies.

The City strives to maintain critical infrastructure such as roads, water, sewer, and community amenities. Many of the capital projects are city-wide capital projects where the capital work will be done across the City, such as the annual asphalt re-paving and water metering programs. In particular, \$20.5M and \$8.6M will be spent in Steveston and City Centre areas, respectively, for infrastructure, parks, facilities, and community amenities upgrades.

The projects are summarized in Table 1 with the complete list of recommended projects included in Appendix 3.

Table 1 – 2023 Proposed Capital Budget

Program Description	Number of Projects	Amount \$ (in millions)	% Budget	Operating Budget Impact
Infrastructure program includes roads, flood protection, water, and sanitary sewer.	47	\$60.1M	45.7%	\$2,100
Building program includes major building renovation projects as well as minor facility upgrades.	10	\$25.7M	19.6%	-
Parks program includes development of parks and parkland acquisition.	9	\$8.9M	6.7%	-
Land program includes funding for land acquisition where Council approval is required for each specific acquisition.	1	\$10.0M	7.6%	-
Equipment program includes fleet and equipment, as well as fire vehicle and equipment replacement.	7	\$9.4M	7.2%	\$71,482
Information Technology program includes information technology hardware and software.	9	\$3.7M	2.8%	\$309,189
Subtotal	83	\$117.8M	89.6%	\$382,771
Contingent External Contributions is an estimate of external grants that may be approved or received throughout the year for various projects.		\$10.0M	7.6%	-
Internal Transfers and Debt Payment program relates to the use of capital funding for repayment of capital funds borrowed from other internal sources of funding.		\$3.7M	2.8%	-
2023 Recommended Projects Total		\$131.5M	100.0%	\$382,771

The 2023 Proposed Capital Budget totaling \$131,516,181 aims to maximize external funding opportunities to enable the City to maintain and advance the asset inventory, which continues to provide necessities and benefits to the community. The Operating Budget Impact (OBI) associated with these projects is \$382,771. The 2023 Proposed Capital Budget is recommended to be included in the Consolidated 5 Year Financial Plan (2023-2027).

Staff Report

Origin

Subsection 165(1) of the *Community Charter* requires the City to adopt a 5 Year Financial Plan (5YFP) Bylaw. The Capital Budget is one of the main components of the 5 Year Financial Plan Bylaw. The budget includes all expenditures that improve, replace and extend the useful life of the City's asset inventory. The Capital Budget allows the City to sustain existing civic infrastructure, while also adding new assets to service the growing community.

The Long Term Financial Management Strategy (LTFMS - Policy 3707) is a set of principles created by Council to guide the financial planning process. A key component of the LTFMS is to *"ensure that long term capital funding for infrastructure (e.g. parks, trails, facilities, roads, etc.) is in place in order to maintain community liveability and generate economic development."*

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.

5.1 Maintain a strong and robust financial position.

5.2 Clear accountability through transparent budgeting practices and effective public communication.

5.3 Decision-making focuses on sustainability and considers circular economic principles.

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

Analysis

This report presents the 2023 Proposed Capital Budget which seeks Council's approval with respect to the 2023 recommended projects and the associated Operating Budget Impacts (OBI). This report also presents the projects currently planned for years 2024-2027 as required; however, the projects will be subject to final approval in each subsequent year.

As at December 31, 2021, the City owned \$3.8B of capital assets at its historical costs. The Net Book Value of Capital Assets (original cost less depreciation) was \$2.5B or 66.8% (\$1.5B or 53.6% excluding land). As the City's assets age, future replacement, repairs and maintenance will be required. Continuous capital investment in infrastructure and civic buildings is important to maintain and renew the existing asset condition, which impacts the quality of life of residents and businesses. To keep up with the pace of ageing infrastructure, the City proposes a \$131.5M capital budget for 2023. Excluding the contingent external contributions and internal transfers and debt payment, the 2023 Proposed Capital Budget equals 3.1% of the historical capital asset costs.

The City is projected to grow to a population of 280,000 by 2041 as indicated in the Official Community Plan. New infrastructure and community amenities will be required to maintain the same level of civic services for new and current residents and businesses.

2023 Capital Process

The annual capital requirements are driven by many factors including growth, existing asset condition, Council's priorities, industry standard and legislated, regulatory and safety requirements. Each division sets priorities specific to their area of expertise. A project submission is completed detailing the scope of work, review of alternatives, financial impact, and proposed funding sources. In addition, the submission is self-ranked using established criteria summarized in Appendix 1. The process behind the 2023-2027 Capital Budget is illustrated in Appendix 2.

The Senior Management Team (SMT) appointed a Review Team (RT) to review each request using established ranking criteria. The RT, which is comprised of directors from each division, reviewed and ranked each project submission to ensure consistent application of the established ranking criteria. The RT determines the final ranking for each submission giving consideration to Council's strategic plans, policies, priorities and endorsements.

The ranked projects are consolidated and recommended based on funding availability for the CAO and the Senior Management Team (SMT)'s review, discussion and final recommendation. This final recommendation is included in the 2023 Proposed Capital Budget presented to the Finance Committee for review, approval and inclusion in the Consolidated 5 Year Financial Plan (2023-2027).

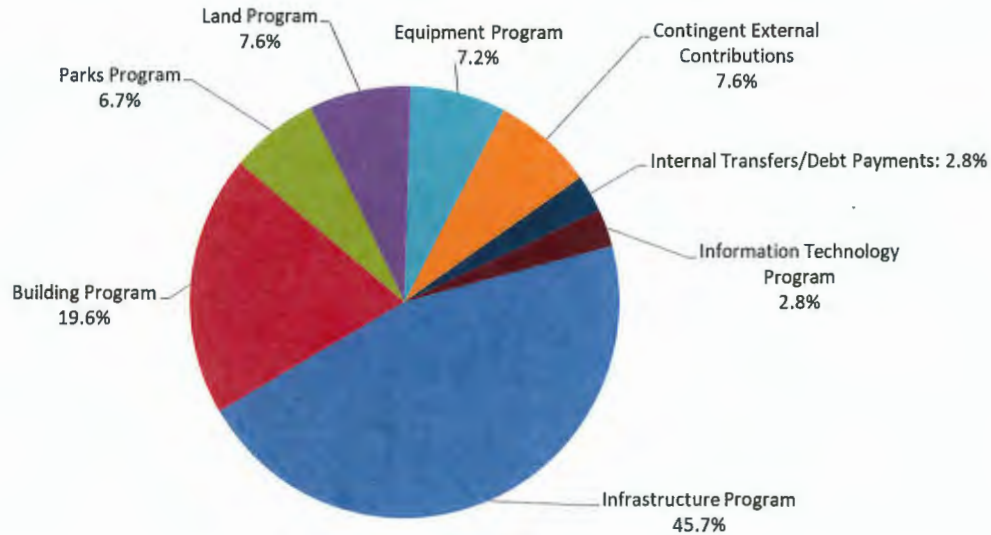
2023 Proposed Capital Budget

The 2023 Proposed Capital Budget (Appendix 3) is \$131.5M with \$382,771 OBI, addressing the following priorities:

- Advance the accelerated flood protection program to improve resilience to climate change impacts and extreme weather events
- Accelerate the water metering system project to promote water conservation
- Renew and upgrade ageing civic facilities due to safety or regulatory requirements
- Replace, rehabilitate and upgrade critical ageing water and sewer infrastructure
- Implement technology initiatives that enhance services to residents and businesses, and improve operational efficiency
- Investments in infrastructure utilizing external funding and grants

The following is an overview of the recommended capital projects by program:

Figure 1 – 2023 Recommended Projects by Program



The City’s infrastructure program for roads, flood protection (formerly known as drainage), water, and sanitary sewer accounts for 45.7% of the budget. The next largest program, which represents 19.6% of the budget, is the building program for building construction, improvements, renewals and repairs.

The 2023 Proposed Capital Budget also includes contingent external contributions which are estimates of external grants and contributions that may be approved or received throughout the year for various projects and internal transfer and debt payments.

Historically, the Capital Budget would include the funding requests for Affordable Housing, Child Care and Public Arts programs. Given that none of these programs are capital in nature, they were included in the capital budget report to seek Council approval for usage of the reserve funds. As such, effective 2023 budget year, any funding requests for Affordable Housing, Child Care and Public Arts programs have been relocated to the Proposed Operating Budget report.

Table 2 is a highlight of the recommended capital projects from the 2023 capital program:

Table 2 – 2023 Capital Projects Highlights

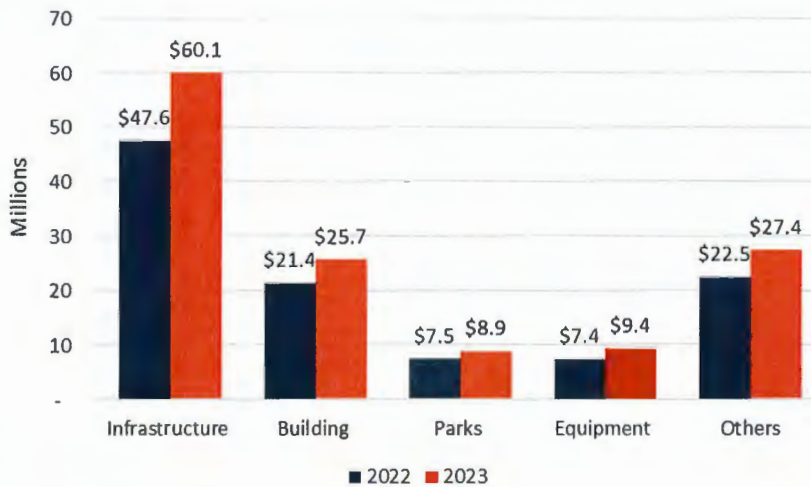
Program	Capital Projects
Building	Fire Hall No. 5 System Renewals
Flood Protection	Disaster Mitigation and Adaptation Fund Infrastructure Upgrades

Table 2 – 2023 Capital Projects Highlights (Cont'd)

Program	Capital Projects
Information Technology	ePlan Expansion and Single-Sign On (SSO) Integration
Parks	Steveston Community Park Playground Expansion
Roads	Steveston Highway Multi-Use Pathway, No. 2 Road to Railway Avenue
Roads	Top 20 Collision Prone Intersections - Implementation of Medium/Long-term Improvements
Water	Water Metering Program
Vehicle	Emergency Response Equipment for Atmospheric and Flooding Preparedness

Compared to the 2022 Capital Budget, the 2023 Proposed Capital Budget represents a 23.6% increase in capital spending. Figure 2 highlights the changes in the investment in the capital programs.

Figure 2 – Year Over Year Capital Budget Changes



Note: 2022 is restated for comparative purpose

Infrastructure Program:

Compared to the 2022 approved capital budget, there is a \$12.5M increase in the infrastructure program budget. It is partly due to a \$4.0M increase in the proposed 2023 Roads budget as a result of an increase in the capital budget request for Multi-Use Pathway project. This project supports the Council term goal of building on transportation and active mobility network.

There is also a \$7.8M increase in the flood protection program mainly due to Council's endorsed accelerated flood protection program. The increase is mainly due to \$3.5M for Horseshoe Slough drainage upgrades, \$1.3M increase for Canal Stabilization and Drainage and Irrigation Upgrades, and \$2.8M increase for Burkeville Utility Improvements. As part of the 2023 flood protection program, it is proposed that approximately one kilometer of dikes will be improved, five drainage pump station upgrades will be designed, and drainage within the Burkeville and Horseshoe Slough drainage catchments will be improved.

The net increase in the Water, Sanitary Sewer, and Infrastructure Advanced Design and Minor Public Works programs is \$0.7M.

Building Program:

The proposed building program capital budget is increased by \$4.3M from the prior year mainly due to a \$1.9M increase for the Annual Infrastructure Replacements and Building Improvements project and a \$2.4M increase for other building projects.

Parks Program:

The recommended 2023 Parks program is \$1.4M higher than the amount approved in 2022 due to the Steveston Community Park Playground Expansion.

Equipment Program:

The recommended 2023 Equipment program is \$2.0M higher than the 2022 approved Equipment program mainly due to the capital request for Gateway Theatre Technical Equipment Upgrade. Staff intend to leverage on the potential Department of Canadian Heritage Cultural Spaces grant funding of \$1.1M.

Other Programs:

There is a \$4.9M increase in the Other Program as compared to 2022 Capital Budget. This is mainly due to an increase of \$5.0M to the Land program in 2023 in order to align with the Council approved Strategic Real Estate Investment Plan. This ensures that funding is in place to act on opportunities as they arise. Council approval will be required for each specific acquisition. There is also an increase in the Information Technology program of \$0.4M. The increase is offset by a \$0.5M decrease in Internal Transfers / Debt Payment due to West Cambie Parkland Acquisition Repayment in 2022.

The 2023 recommended capital projects are listed in Appendix 3. Capital projects that are not recommended are summarized in Appendix 7.

Individual capital submission details can be found in Appendices 8 and 9.

At the discretion of the Finance Committee, any capital project recommended by staff for funding may be removed from the recommended list. In addition, any capital project that is not recommended by staff may be reconsidered for recommendation by Council, subject to funding availability.

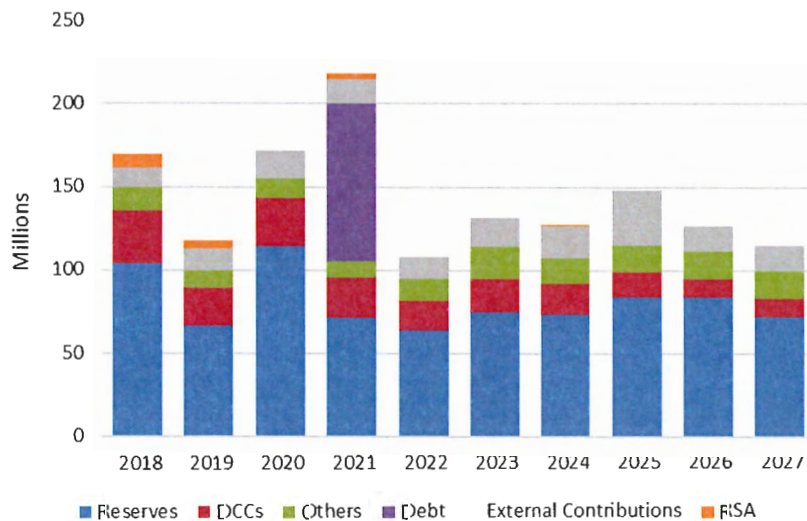
Proposed Capital Budget Funding Sources

The Proposed Capital Budget uses a variety of funding sources, which include:

- Development Cost Charges (DCCs) – These are levies placed on new development that result in increased demands on City infrastructure, and may only be used to pay for capital costs relating to drainage, parkland acquisition and development, sanitary sewer and water infrastructure that have been included in the approved DCC plan.
- External Sources – These include grants awarded from Provincial and Federal Governments, developer contributions (other than DCCs) and other non-City related sources.
- Reserves – These are funds established by bylaws for specific purposes and are funded primarily by budgeted contributions from the Operating and Utility Budgets and developer contributions plus interest earned on fund balances.
- Provisions – These are funds set aside for future commitments.

Figure 3 shows the changes in the funding sources in the past five years and the proposed 2023-2027 Capital Plan.

Figure 3: Capital Funding (2018 to 2027)



Note: 2018-2022 are restated for comparative purpose

The City uses a “pay as you go” approach to finance the majority of its capital projects from reserves. Debt financing is preserved for significant large-scale capital projects whenever it is practical based on internal funding levels and the external conditions. The City also aims to utilize as much external funding as possible to fund the capital investments. Staff have been actively applying for grants whenever opportunities arise. Successful grant applications in the past included the Infrastructure Canada Disaster Mitigation and Adaptation Fund, Canada Community Revitalization Fund, grant from ICIP Community, Culture, and Recreation, and various grant programs with TransLink and ICBC.

DCCs collected from developers can only be used for growth related capital projects and for the intended purpose; thus only 15.5% of the 2023 Proposed Capital Budget is funded by DCCs.

In terms of funding sources by capital program, Table 3 provides an overview of the funding sources by capital program.

Table 3 – 2023 Capital Program by Funding Source

Program	Reserves	DCCs	Provisions	External Funding
Infrastructure Program	62%	16%	12%	10%
Building Program	80%	-%	20%	-%
Parks Program	20%	80%	-%	-%
Land Program	100%	-%	-%	-%
Equipment Program	56%	-%	32%	12%
Information Technology Program	12%	-%	88%	-%

Funding details of each individual submission are included in Appendix 8.

For information purposes, Appendix 4 summarizes the projects recommended for funding from the Capital Reserve (Revolving Fund). The Revolving Fund is intended to be used to fund a variety of general projects, which do not have dedicated sources of funding, and funds the assist factor for Roads DCC and Parks DCC projects.

Appendix 5 summarizes all the 2023 recommended projects funded by the Capital Building and Infrastructure (CBI) Reserve. Appendix 6 summarizes all the 2023 recommended projects funded by DCCs. Under the *Local Government Act*, the City is required to fund the municipal assist factor portion for growth related projects; therefore, a project cannot be fully funded by DCCs.

Funding for Capital Projects - Building

The portfolio of civic buildings continues to grow as additional buildings are acquired as part of Council's initiatives. The City took ownership of the Richmond Curling Club in 2021 and the Richmond Ice Centre in 2019. These two buildings require significant repairs as part of the acquisition strategy that was presented to Council. The City owns over 164 civic buildings, including recreation facilities, fire halls, community centres and other public amenities.

Based on the 2023-2027 Capital Plan (Appendix 12 and 13), over \$174.6M of repairs, renewals, reconstruction or replacements will be required, including but not limited to Hugh Boyd Field House, Britannia Shipyards National Historic Site, and Phoenix Net Loft Program Implementation. Most of these projects are to be funded from the Capital Building and Infrastructure (CBI) Reserve to ensure community buildings remain safe and to enhance the cultural and heritage value to the community. Council's Long Term Financial Management

Strategy (LTFMS) policy is to transfer an additional 1% to reserves to fund community infrastructure replacement needs to ensure the safety and well-being of the community.

The 2023 Budget includes \$5M for Year 1 and the 2024 Plan includes \$7M for Year 2 of Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals. Staff recommend to procure for both Year 1 and 2 in 2023, which will result in cost efficiencies, while allowing the project to be funded over two budget years.

From 2024 to 2027, there are 13 building projects totalling \$29.5M that are recommended, but with insufficient funding.

2023 Operating Budget Impact (“OBI”)

Capital projects also include new and replacement assets. Upon completion of these capital projects, assets are added to the City’s inventory. Costs associated with maintaining these new assets include:

- Annual software licenses
- Staffing, janitorial services, gas, hydro utility costs, etc. for new buildings
- Annual maintenance and labour costs for new parks

Replacement projects may also have costs associated due to the requirement to maintain existing level of service. Ongoing costs are the Operating Budget Impact associated with the new asset and replacement projects.

OBI will not be automatically requested whenever new assets are being built. Existing operating budgets are reviewed prior to submitting a request for OBI. OBI submissions also do not include associated costs for staffing. The CAO and SMT had requested that any staffing requirement due to new assets be submitted separately as an additional level request, in order to allow for further review and assessment.

OBIs resulting from approved capital projects and developer contributed asset will be added to the Operating Budget in the same year that the capital projects are approved by Council. Funding will be distributed to the respective divisions based on the completion of the capital projects in order to reduce any operating surplus.

Total OBI relating to the 2023 recommended projects, excluding staffing requirement, is \$382,771. Of this amount, \$11,611 is related to utility projects and is included within the infrastructure program. If the respective projects are approved, this amount will be incorporated into the 2024 utility rate budget since the 2023 Utility Budgets and Rates report was approved on November 14, 2022. Table 4 provides the breakdown of the Operating Budget Impact by expense type.

Table 4: OBI by Expense Type

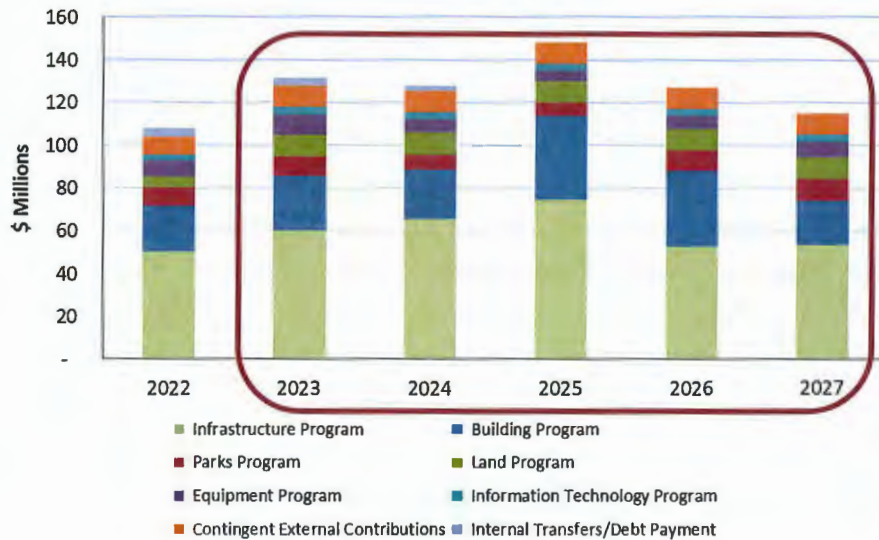
Expense Type	OBI
Contract Services	\$406,828
Services and Supplies	98,400
Public Works Maintenance	37,111
Other Operating Expenses	(159,568)
Total	\$382,771

The majority of the OBI requested are subscription fees and contract costs which could not be absorbed within the department’s existing operating budgets.

Proposed 2023 to 2027 Capital Budget and 2022 Capital Budget

The Proposed 2023 to 2027 Capital Budget will be higher than that of the 2022 Capital Budget report due to the inclusion of the Major Facilities Phase 2 projects and the accelerated flood protection program. Figure 4 shows the 2022 Capital Budget and Proposed 2023 to 2027 Capital Budget at the program level for comparative purposes.

Figure 4: Capital Budget by Program (2022-2027)



Note: 2022 is restated for comparative purpose

Future year capital submissions may be adjusted as staff review the priorities and asset conditions in the years to come. All future year capital submissions will be subject to final approval in each subsequent year. A summary of the 5 Year Capital Plan (2023-2027) is presented in Appendix 10 and the funding sources are presented in Appendix 11.

A detailed listing of the 2023-2027 recommended capital projects by program is presented in Appendix 12 with highlights of the 2024-2027 projects summarized in Appendix 14. Appendix 13 lists the 2023-2027 capital projects by program that are recommended but with insufficient funding.

Financial Impact

The 2023 Proposed Capital Budget with a total value of \$131,516,181 will enable the City to maintain and advance the asset inventory that continues to provide necessities and benefits to the community. It is recommended to include the 2023 Proposed Capital Budget in the Consolidated 5 Year Financial Plan (2023-2027). The Operating Budget Impact associated with these projects is \$382,771.

Conclusion

The recommended capital budget for 2023 is \$131,516,181. The RT worked closely with the CAO and SMT to represent the interests of all stakeholders to ensure that the 2023 capital program addresses Council's strategic plans, policies and priorities and meets the needs of the community while effectively utilizing available funding.



Jenny Ho, CPA, CGA
Manager, Tangible Capital Assets
(604-276-4223)

JH: lr

- Appendix 1: Capital Ranking Criteria
- Appendix 2: 2023 Capital Budget Process
- Appendix 3: Summary of Capital Projects – Recommended for funding in 2023
- Appendix 4: 2023 Summary of Projects Funded by Revolving Fund
- Appendix 5: 2023 Summary of Projects Funded by Capital Building and Infrastructure Reserve
- Appendix 6: 2023 Summary of Projects Funded by Development Cost Charges
- Appendix 7: Summary of Capital Projects – Not Recommended for funding in 2023
- Appendix 8: Details of Projects Recommended for funding in 2023 by Program
- Appendix 9: Details of Projects Not Recommended for funding in 2023 by Program
- Appendix 10: 5 Year Capital Plan Summary (2023 - 2027)
- Appendix 11: 5 Year Capital Plan by Funding Sources (2023 - 2027)
- Appendix 12: 5 Year Capital Plan by Program (2023 - 2027) - Recommended
- Appendix 13: 5 Year Capital Plan by Program (2023 - 2027) – Recommended but insufficient funding
- Appendix 14: 2024 - 2027 Capital Plan Highlights
- Appendix 15: Glossary of Terms

Capital Ranking Criteria



2023 Capital Budget Process



- Review Capital Budget process and identify focus areas; and
 - Publish guidelines for the preparation of capital submissions
- Prepare capital and Operating Budget Impact (OBI) submissions
- Division review and rank of 2023-2027 capital submissions
- Review Team ranks all 2023-2027 capital and reviews OBI submissions
- Prepare preliminary list of recommended projects based on rank and funding availability
- CAO/SMT review Capital Budget and recommendation finalized
- Present 2023-2027 Capital Budget to Finance Committee
- Present 2023-2027 Financial Plan Bylaw to Council for approval

Summary of Capital Projects – Recommended for funding in 2023

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
<i>Roads</i>					
2023 Translink Bus Speed & Reliability Projects	875,000	-	875,000	-	25
Active Transportation Improvement Program	-	800,000	800,000	7,580	26
Annual Asphalt Re-Paving Program - MRN	-	1,654,000	1,654,000	-	27
Annual Asphalt Re-Paving Program - Non-MRN	-	3,752,100	3,752,100	-	28
Arterial Roadway Improvement Program	-	800,000	800,000	-	29
Citywide Connector Walkways Rehabilitation Program	-	250,000	250,000	-	30
Citywide Sidewalk and Street Light Replacement Program	-	500,000	500,000	-	31
LED Street Name Sign Program	-	300,000	300,000	-	32
Moncton St Pedestrian & Cycling Improvement	-	1,100,000	1,100,000	-	33
Neighbourhood Walkway Program	-	500,000	500,000	-	34
Special Crosswalk Program	-	350,000	350,000	4,882	35
Steveston Highway Multi-Use Pathway, No. 2 Road to Railway Avenue	2,850,000	2,850,000	5,700,000	-	36
Street Light LED Upgrade Program	-	490,000	490,000	(30,000)	37
Top 20 Collision Prone Intersections- Implementation of Medium-/Long-term Improvements	750,000	1,250,000	2,000,000	-	38
Traffic Calming Program	-	300,000	300,000	-	39
Traffic Signal Power Backup System (UPS)	-	200,000	200,000	-	40
Traffic Signal Program	-	500,000	500,000	2,527	41
Traffic Video and Communication Program	-	400,000	400,000	-	42
Transit-Related Amenity Improvement Program	-	100,000	100,000	-	43
Transit-Related Roadway Improvement Program	100,000	100,000	200,000	-	44
Transportation Planning, Functional and Preliminary Design	-	400,000	400,000	-	45
Total Roads	\$4,575,000	\$16,596,100	\$21,171,100	(\$15,011)	
<i>Flood Protection</i>					
Burkeville Utility Improvements	-	4,054,000	4,054,000	-	47
Canal Stabilization and Drainage and Irrigation Upgrades	-	3,000,000	3,000,000	-	48
Development Coordinated Works - Drainage	-	250,000	250,000	-	49
Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	1,200,000	1,800,000	3,000,000	-	50
Drainage Pump Station Rehabilitation and Upgrade and Generator Installation	-	200,000	200,000	5,500	51
Flood Protection and Dike Improvements	-	3,640,000	3,640,000	-	52
Horseshoe Slough Drainage Upgrades	-	3,500,000	3,500,000	-	53
Invasive Species Management	-	300,000	300,000	-	54
Laneway Drainage Upgrade	-	1,732,000	1,732,000	-	55
SCADA System Improvements	-	350,000	350,000	-	56
Total Flood Protection	\$1,200,000	\$18,826,000	\$20,026,000	\$5,500	
<i>Water</i>					
Development Coordinated Works - Water	-	250,000	250,000	-	58
Water Metering Program	-	2,000,000	2,000,000	11,611	59
Watermain Replacement Upgrades Program	-	4,017,000	4,017,000	-	60
Watermain Tie-in and Restoration	-	300,000	300,000	-	61
Total Water	-	\$6,567,000	\$6,567,000	\$11,611	

Summary of Capital Projects – Recommended for funding in 2023

Appendix 3

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
<i>Sanitary Sewer</i>					
Development Coordinated Works - Sanitary	-	250,000	250,000	-	63
Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	-	350,000	350,000	-	64
Sanitary Sewer Gravity System Assessment and Rehabilitation	-	550,000	550,000	-	65
Sanitary Sewer Tie-in and Restoration	-	150,000	150,000	-	66
Steveston Sanitary Sewer Rehabilitation	-	1,800,000	1,800,000	-	67
Steveston Utility Upgrades	-	4,739,000	4,739,000	-	68
Total Sanitary Sewer	-	\$7,839,000	\$7,839,000	-	
<i>Infrastructure Advanced Design and Minor Public Works</i>					
Public Works Infrastructure Advanced Design	-	2,630,000	2,630,000	-	70
Public Works Minor Capital - Drainage	-	400,000	400,000	-	71
Public Works Minor Capital - Roads	-	350,000	350,000	-	72
Public Works Minor Capital - Sanitary	-	400,000	400,000	-	73
Public Works Minor Capital - Sanitation & Recycling	-	300,000	300,000	-	74
Public Works Minor Capital - Water	-	400,000	400,000	-	75
Total Infrastructure Advanced Design and Minor Public Works	-	\$4,480,000	\$4,480,000	-	
TOTAL INFRASTRUCTURE PROGRAM	\$5,775,000	\$54,308,100	\$60,083,100	\$2,100	
BUILDING PROGRAM					
<i>Building</i>					
Annual Infrastructure Replacements and Building Improvements	-	4,942,328	4,942,328	-	77
Capital Buildings Project Development Advanced Design	-	500,000	500,000	-	78
Caretaker Suite Infrastructure Renewals - Phase 1	-	1,900,000	1,900,000	-	79
City Hall Chiller Replacement and Domestic Water Line Renewal	-	4,600,000	4,600,000	-	80
Community Safety Building Upgrades	-	612,250	612,250	-	81
Fire Hall No. 5 System Renewals	-	700,000	700,000	-	82
Richmond Curling Club Priority 2 Repairs - Phase 1	-	1,300,000	1,300,000	-	83
South Arm Hall Infrastructure Renewal	-	1,800,000	1,800,000	-	84
Works Yard Capital Maintenance	-	4,400,000	4,400,000	-	85
Total Building	-	\$20,754,578	\$20,754,578	-	
<i>Heritage</i>					
Britannia Shipyards - Seine Net Loft & Shipyard Building Envelope and Structural Renewals – Year 1	-	5,000,000	5,000,000	-	87
Total Heritage	-	\$5,000,000	\$5,000,000	-	
TOTAL BUILDING PROGRAM	-	\$25,754,578	\$25,754,578	-	
PARKS PROGRAM					
<i>Parks</i>					
City-Wide Community Gardens	-	200,000	200,000	-	89
Lulu Island Park - Master Planning Phase	-	500,000	500,000	-	90
McLean Park Dog Off-Leash Area	-	200,000	200,000	-	91
Park Shelter and Shade Program	-	450,000	450,000	-	92
Parks Advance Planning and Design	-	500,000	500,000	-	93
Parks General Development	-	400,000	400,000	-	94
Playground Replacement Program	-	400,000	400,000	-	95
Steveston Community Park Playground Expansion	-	2,200,000	2,200,000	-	96
Total Parks	-	\$4,850,000	\$4,850,000	-	

Summary of Capital Projects – Recommended for funding in 2023

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
PARKS PROGRAM					
<i>Parkland</i>					
Parkland Acquisition	-	4,000,000	4,000,000	-	98
Total Parkland	-	\$4,000,000	\$4,000,000	-	
TOTAL PARKS PROGRAM	-	\$8,850,000	\$8,850,000	-	
LAND PROGRAM					
<i>Land</i>					
Strategic Real Estate Acquisition	-	10,000,000	10,000,000	-	100
TOTAL LAND PROGRAM	-	\$10,000,000	\$10,000,000	-	
EQUIPMENT PROGRAM					
<i>Vehicle</i>					
Automatic Vehicle Location/Global Positioning System Expansion	-	143,965	143,965	102,650	102
Emergency Response Equipment For Atmospheric and Flooding Preparedness	-	650,000	650,000	98,400	103
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	-	3,405,309	3,405,309	-	104
Total Vehicle	-	\$4,199,274	\$4,199,274	\$201,050	
<i>Fire Dept Vehicles and Equipment</i>					
Fire Vehicle Replacement Reserve Purchases	-	1,336,249	1,336,249	-	106
Total Fire Dept Vehicles and Equipment	-	\$1,336,249	\$1,336,249	-	
<i>Equipment</i>					
City Hall and Community Safety Building Lighting Upgrade	48,000	1,052,000	1,100,000	(30,000)	108
Energy Management Projects	-	550,000	550,000	(99,568)	109
Gateway Theatre Technical Equipment Upgrade	1,130,152	1,080,153	2,210,305	-	110
Total Equipment	\$1,178,152	\$2,682,153	\$3,860,305	(\$129,568)	
TOTAL EQUIPMENT PROGRAM	\$1,178,152	\$8,217,676	\$9,395,828	\$71,482	
INFORMATION TECHNOLOGY PROGRAM					
<i>Information Technology</i>					
Annual Hardware Refresh	-	881,216	881,216	-	112
Budget Planning & Monitoring Software Solution Phase 2	-	750,101	750,101	150,000	113
Enhanced Online Community Services Program Platform	-	100,000	100,000	-	114
ePlan Expansion and Single Sign-On (SSO) Integration	-	295,434	295,434	65,709	115
IT Service Management System Replacement	-	286,483	286,483	-	116
Meeting Management Solution	-	100,000	100,000	76,600	117
PeopleSoft FSCM 9.2 New Features	-	856,384	856,384	-	118
Roads Asset Modelling – Scoping Study	-	200,000	200,000	-	119
Wi-Fi Expansion for Civic Buildings	-	286,720	286,720	16,880	120
TOTAL INFORMATION TECHNOLOGY PROGRAM	-	\$3,756,338	\$3,756,338	\$309,189	
CONTINGENT EXTERNAL CONTRIBUTIONS					
Contingent External Contributions	10,000,000	-	10,000,000	-	122
TOTAL CONTINGENT EXTERNAL CONTRIBUTIONS	\$10,000,000	-	\$10,000,000	-	

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INTERNAL TRANSFERS/DEBT PAYMENT					
<i>Internal Transfers/Debt Payment</i>					
7080 River Road Repayment	-	2,341,384	2,341,384	-	124
River Road/North Loop (2005) Repayment	-	1,334,953	1,334,953	-	125
TOTAL INTERNAL TRANSFERS/DEBT PAYMENT	-	\$3,676,337	\$3,676,337	-	
<hr/>					
<i>Total 2023 Capital Program</i>	<i>\$16,953,152</i>	<i>\$114,563,029</i>	<i>\$131,516,181</i>	<i>\$382,771</i>	

OBI Type	
Operating OBI	\$371,160
Utility OBI	11,611
Total OBI	\$382,771

2023 Summary of Recommended Projects Funded by Revolving Fund

Each year, the Revolving Fund is utilized to fund various capital projects. This summary shows the 2023 capital projects and the corresponding amounts funded by the Revolving Fund.

Project Name	Revolving Fund	Total Investment	Total OBI	Ref
Roads				
Citywide Connector Walkways Rehabilitation Program	250,000	250,000	-	30
Citywide Sidewalk and Street Light Replacement Program	500,000	500,000	-	31
Total Infrastructure Program	\$750,000	\$750,000	-	
Infrastructure Advanced Design and Minor Public Works				
Public Works Minor Capital - Roads	350,000	350,000	-	72
Total Infrastructure Advanced Design and Minor Public Works Program	\$350,000	\$350,000	-	
Parks				
Park Shelter and Shade Program	450,000	450,000	-	92
Playground Replacement Program	400,000	400,000	-	95
Steveston Community Park Playground Expansion	380,798	2,200,000	-	96
Total Parks Program	\$1,230,798	\$3,050,000	-	
Equipment				
Gateway Theatre Technical Equipment Upgrade	1,080,153	2,210,305	-	110
Total Equipment Program	\$1,080,153	\$2,210,305	-	
Information Technology				
Meeting Management Solution	100,000	100,000	76,600	117
Wi-Fi Expansion for Civic Buildings	286,720	286,720	16,880	120
Total Information Technology Program	\$386,720	\$386,720	\$93,480	
Total Projects Funded by Revolving Fund	\$3,797,671	\$6,747,025	\$93,480	
The City Assist Factor on Roads DCC and Parks DCC projects are also funded by the Revolving Fund.				
City Assist Factor on Parks Acquisition	377,312			
City Assist Factor on Parks Development	208,250			
City Assist Factor on Roads DCC	617,550			
Total City Assist Factor	\$1,203,112			
Total Funding from Revolving Fund	\$5,000,783			

The Capital Building and Infrastructure General Fund is used for facility construction and is funded from taxes.

Capital Building and Infrastructure Reserve				
Project Name	Capital Building and Infrastructure Fund	Total Investment	Total OBI	Ref
<i>Building</i>				
Capital Buildings Project Development Advanced Design	500,000	500,000	-	78
Caretaker Suite Infrastructure Renewals - Phase 1	1,900,000	1,900,000	-	79
City Hall Chiller Replacement and Domestic Water Line Renewal	4,600,000	4,600,000	-	80
Community Safety Building Upgrades	460,000	612,250	-	81
Fire Hall No. 5 System Renewals	697,104	700,000	-	82
Richmond Curling Club Priority 2 Repairs - Phase 1	1,300,000	1,300,000	-	83
South Arm Hall Infrastructure Renewal	1,800,000	1,800,000	-	84
Works Yard Capital Maintenance	4,400,000	4,400,000	-	85
<i>Total Building</i>	<i>\$15,657,104</i>	<i>\$15,812,250</i>	<i>-</i>	
<i>Heritage</i>				
Britannia Shipyards - Seine Net Loft & Shipyard Building Envelope and Structural Renewals – Year 1	5,000,000	5,000,000	-	87
<i>Total Heritage</i>	<i>\$5,000,000</i>	<i>\$5,000,000</i>	<i>-</i>	
Total Building Program	\$20,657,104	\$20,812,250	-	
Grand Total	\$20,657,104	\$20,812,250	-	

Project Name	DCC Funding	City Assist Factor	Total Investment ¹	Total OBI	Ref
Roads					
Active Transportation Improvement Program	752,000	48,000	800,000	7,580	26
Arterial Roadway Improvement Program	752,000	48,000	800,000	-	29
LED Street Name Sign Program	282,150	17,850	300,000	-	32
Moncton St Pedestrian & Cycling Improvement	1,035,000	65,000	1,100,000	-	33
Neighbourhood Walkway Program	470,000	30,000	500,000	-	34
Special Crosswalk Program	329,000	21,000	350,000	4,882	35
Steveston Highway Multi-Use Pathway, No. 2 Road to Railway Avenue	2,680,000	170,000	5,700,000	-	36
Top 20 Collision Prone Intersections- Implementation of Medium-/Long-term Improvements	1,176,000	74,000	2,000,000	-	38
Traffic Calming Program	282,000	18,000	300,000	-	39
Traffic Signal Power Backup System (UPS)	188,100	11,900	200,000	-	40
Traffic Signal Program	470,000	30,000	500,000	2,527	41
Traffic Video and Communication Program	376,200	23,800	400,000	-	42
Transit-Related Amenity Improvement Program	94,000	6,000	100,000	-	43
Transit-Related Roadway Improvement Program	94,000	6,000	200,000	-	44
Transportation Planning, Functional and Preliminary Design	376,000	24,000	400,000	-	45
Total Roads	\$9,356,450	\$593,550	\$13,650,000	\$14,989	
Infrastructure Advanced Design and Minor Public Works					
Public Works Infrastructure Advanced Design	376,000	24,000	2,630,000	-	70
Total Infrastructure Advanced Design and Minor Public Works	\$376,000	\$24,000	\$2,630,000	-	
Parks					
City-Wide Community Gardens	188,100	11,900	200,000	-	89
Lulu Island Park - Master Planning Phase	470,250	29,750	500,000	-	90
McLean Park Dog Off-Leash Area	188,100	11,900	200,000	-	91
Parks Advance Planning and Design	470,250	29,750	500,000	-	93
Parks General Development	376,200	23,800	400,000	-	94
Steveston Community Park Playground Expansion	1,598,850	101,150	2,200,000	-	96
Total Parks	\$3,291,750	\$208,250	\$4,000,000	-	
Parkland					
Parkland Acquisition	3,762,000	238,000	4,000,000	-	98
Total Parkland	\$3,762,000	\$238,000	\$4,000,000	-	
Internal Transfers/Debt Payment					
7080 River Road Repayment	2,202,072	139,312	2,341,384	-	124
River Road/North Loop (2005) Repayment	1,334,953	-	1,334,953	-	125
Total Internal Transfers/Debt Payment	\$3,537,025	\$139,312	\$3,676,337	-	
Grand Total	\$20,323,225	\$1,203,112	\$27,956,337	\$14,989	

¹The Total Investment includes all funding sources: External and City Funding, refer to Appendix 3.

Summary of Capital Projects – Not Recommended for funding in 2023

Appendix 7

Project Name	External Funding	City Funding	City Funding	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
<i>Roads</i>					
Supplementary Asphalt Paving Program - Non-MRN	-	2,000,000	2,000,000	-	127
Williams Road Reconstruction – No. 4 Road to No. 5 Road - Design	-	850,000	850,000	-	128
Total Roads	-	\$2,850,000	\$2,850,000	-	
<i>Infrastructure Advanced Design and Minor Public Works</i>					
Public Works Minor Capital - Traffic	-	250,000	250,000	-	130
Total Infrastructure Advanced Design and Minor Public Works	-	\$250,000	\$250,000	-	
TOTAL INFRASTRUCTURE PROGRAM	-	\$3,100,000	\$3,100,000	-	
BUILDING PROGRAM					
<i>Building</i>					
Fire Hall No. 7 System Renewals	-	1,900,000	1,900,000	-	132
Olympic Oval - Envelope, Plumbing and HVAC Renewals	-	2,700,000	2,700,000	-	133
Thompson Community Centre and Hall Infrastructure Renewals	-	2,750,000	2,750,000	-	134
TOTAL BUILDING PROGRAM	-	\$7,350,000	\$7,350,000	-	
PARKS PROGRAM					
<i>Parks</i>					
Burkeville Park Redevelopment	-	500,000	500,000	-	136
Parks Ageing Infrastructure Replacement Program	-	560,000	560,000	-	137
TOTAL PARKS PROGRAM	-	\$1,060,000	\$1,060,000	-	
INFORMATION TECHNOLOGY PROGRAM					
<i>Information Technology</i>					
PeopleSoft FSCM Lease Administration Module	-	323,557	323,557	33,783	139
TOTAL INFORMATION TECHNOLOGY PROGRAM	-	\$323,557	\$323,557	\$33,783	
Total 2023 Capital Program – Not Recommended for funding	-	\$11,833,557	\$11,833,557	\$33,783	

Infrastructure Program

The City’s Infrastructure Program assets include: Road, Flood Protection (formerly Drainage), Water, and Sanitary Sewers.

Infrastructure – Roads Program

The City’s Roads program includes projects that enhance mobility, safety and accessibility of Richmond’s transportation system. Projects range from road network upgrades and replacement of ageing infrastructure, expansion of walking and cycling paths for better safety and connectivity, neighborhood and school zone traffic calming and improving access and amenities for transit users. These projects align with the City’s Official Community Plan modal share and Community Energy and Emissions Plan objectives and support a number of Council’s Strategic Focus areas through infrastructure projects that expand safe, sustainable and active travel choices in Richmond.

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Traffic Calming Program	39
Traffic Signal Power Backup System (UPS)	40
Traffic Signal Program	41
Traffic Video and Communication Program	42
Transit-Related Amenity Improvement Program	43
Transit-Related Roadway Improvement Program	44
Transportation Planning, Functional and Preliminary Design	45

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	2023 Translink Bus Speed & Reliability Projects	Submission ID:	7396

Location: Various Locations

Cost: \$875,000

OBI: \$ -

Funding Sources: Grant: \$875,000

Scope: This program funds studies and capital upgrades to improve bus service in Lower Mainland municipalities. All projects are developed in tandem with Translink, which then provides grant funding for the entirety of costs once works have been completed.

Subject to availability of external funding, the list of improvements planned for 2023 are as follows:

Studies:

1. Left Turn Improvements at Alderbridge Way & Garden City Rd and Blundell Rd & No. 3 Rd – Study will examine bus speed and reliability at left turn movements through these two intersections. The results will guide potential future signal timing and/or infrastructure improvements at these intersections to improve traffic flow.

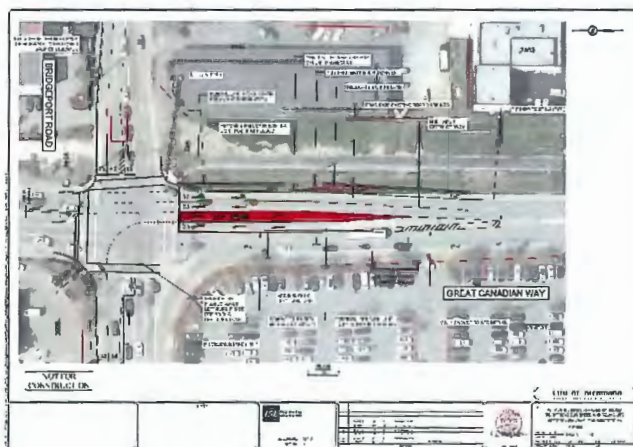
2. Northbound Access to Knight St. Bridge – This project will review transit access to the northbound Knight Street on-ramps, ascertain the issues and develop conceptual and preliminary designs, and/or operational plans to address the identified issues.


3. Functional Design of bus-only lane on Great Canadian Way – Long-term improvement of a new bus-only lane on Great Canadian Way at Bridgeport Rd to reduce the delay for buses accessing Hwy 99.

Construction:

1. Bus-only lane, Great Canadian Way at Bridgeport – Installation of a bus-only lane to alleviate bus delays and congestion travelling from Great Canadian Way towards Highway 99. Construction will include curb works, sidewalks, paving, street light and signal works, and associated civil improvements to accommodate the additional lane while improving surrounding cycling and pedestrian infrastructure.

Funding: 100% reimbursement by TransLink upon completion.



Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Active Transportation Improvement Program		Submission ID:	6432
Location:	Various Locations			
Cost:	\$800,000	OBI:	\$7,580	
Funding Sources:	Roads DCC:	\$752,000		
	Roads City Assist:	\$48,000		
Scope:	<p>Implement cycling and rolling (e.g., wheelchairs and scooters) improvements to support: 1) the expansion of on-street cycling routes and off-street multi-use pathways; and 2) cycling and rolling initiatives and on-going enhancements to existing infrastructure.</p> <p>Major Cost Components: New on-street cycling facilities, off-street multi-use pathways for transportation purposes, bike racks, pavement markings and signage, and associated road geometric improvements.</p> <p>The list of improvements currently planned for 2023 is:</p> <ol style="list-style-type: none"> 1. Westminster Hwy at Alder St - Signalized Pedestrian/Cyclist Crossing <p>The intersection currently features a gap in median that is restricted to emergency U-turns only and no pedestrian crossing. This improvement would connect neighbourhood cycling routes at the south side with the Garden City Lands Park at the north side.</p> <ol style="list-style-type: none"> 2. Lucas Rd at No. 3 Rd (South Leg) – Signalized Pedestrian/Cyclist Crossing <p>This intersection connects the offsetting north and south legs of Lucas Rd and forms a portion of expansions to the east-west neighbourhood bike routes currently in progress. Addition of this cyclist/pedestrian control crossing along with modifications to existing signal on the north leg will improve traffic safety for vehicles and cyclists to cross No 3. Rd.</p> <ol style="list-style-type: none"> 3. Steveston Hwy at Bamberton Dr – Signalized Pedestrian/Cyclist Crossing <p>This intersection will connect the expansion of the City’s neighbourhood bike route along Bamberton Dr with Phase 2 of the new MUP installation along the south side of Steveston Hwy. Both projects are currently in progress.</p> <p>Funding: Roads DCC program; potential from TransLink, ICBC and development.</p>			
				

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - MRN	Submission ID:	6460

Location: Various Locations

Cost: \$1,654,000

OBI: \$ -

Funding Sources: MRN Rehabilitation: \$1,654,000

Scope: To re-pave MRN roads in alignment with the City's Ageing Utility and Road Infrastructure Report and Pavement Management Plan. The scope also includes costs associated with ancillary work, including but not limited to curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, staff inspection time, etc.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - Non-MRN	Submission ID:	6464

Location: Various Locations

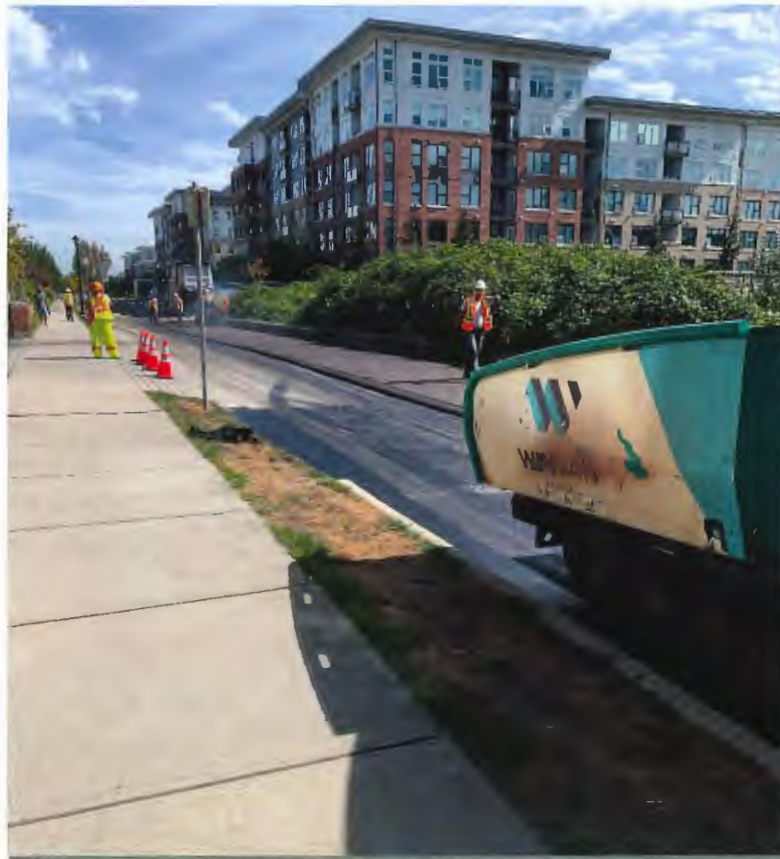
Cost: \$3,752,100 **OBI:** \$ -

Funding Sources: Asphalt Capping: \$3,752,100

Scope: To re-pave City-owned Non-MRN roads (major roads, minor roads and lanes) in alignment with the City's Ageing Utility and Road Infrastructure Report and Pavement Management Plan.

The scope also includes costs associated with ancillary work, including but not limited to curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, staff inspection time and etc.

The project includes the pavement component related to other water, sanitary and drainage upgrades capital projects that are co-ordinated by the Engineering department as well as consultant/contractor fees related to bridge upgrades and the Pavement Management Plan.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Arterial Roadway Improvement Program	Submission ID:	6433

Location: Various Locations

Cost: \$800,000

OBI: \$ -

Funding Sources: Roads DCC: \$752,000
Roads City Assist: \$48,000

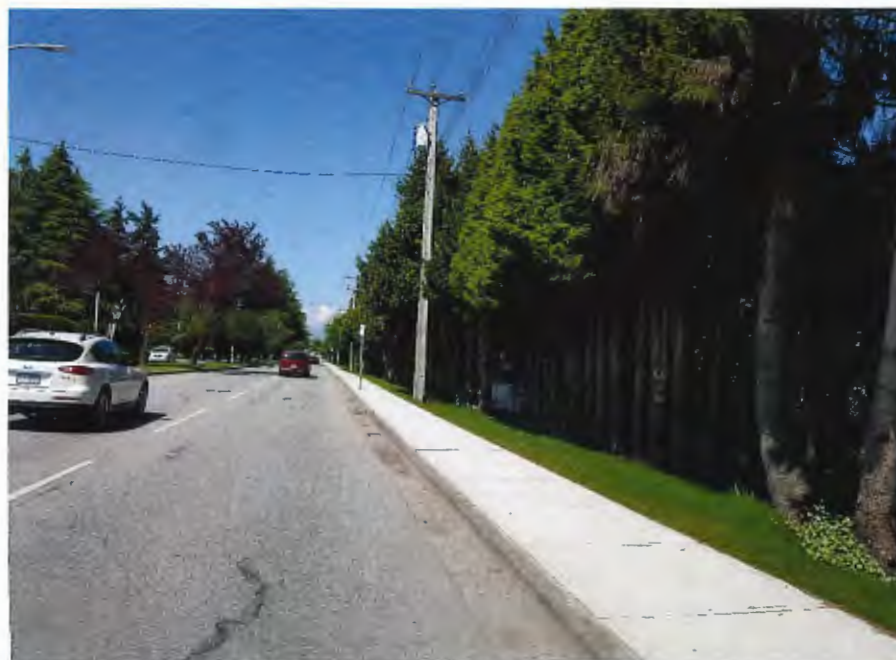
Scope: Implement pedestrian and traffic safety improvements along arterial roads and at arterial road intersections to address issues including those identified through requests from the public and/or Council.

Major Cost Components: New and/or enhancement of turn lanes, channelization, traffic signage, pedestrian safety measure enhancements and new/upgrade sidewalks/walkways.

Locations for improvements are prioritized based on traffic safety / collision risks and level of pedestrian activities (i.e., schools, neighbourhood service centres, bus stops, recreational service centres, shopping/retail centres, etc.).

The improvements currently planned for 2023 are improvements at the intersection of Railway Ave and Granville Ave. This includes removal of channelized right-turn islands and upgrade of cycling facilities.

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Citywide Connector Walkways Rehabilitation Program	Submission ID:	6767

Location: Various Locations

Cost: \$250,000


OBI: \$ -


Funding Sources: Capital Revolving: \$250,000

Scope: This project involves the replacement or rehabilitation of connector walkways located in various neighbourhoods in Richmond. Assessments conducted confirm that the walkway surface conditions have deteriorated over time due to tree root ingress, asphalt cracking, etc. The project cost includes but is not limited to costs associated with tree root pruning, asphalt re-paving, and other ancillary work.

Connector walkways are heavily used by pedestrians and their current condition in certain areas may pose a tripping hazard for the users. This project would allow the City to mitigate potential risks to public safety and promote eco-friendly modes of transportation like walking and biking.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Citywide Sidewalk and Street Light Replacement Program	Submission ID:	6466
Location:	Various Locations		
Cost:	\$500,000	OBI:	\$ -
Funding Sources:	Capital Revolving:	\$500,000	
Scope:	<p>Over time, street lighting infrastructure deteriorates and can become a hazard to residents and traffic without proper maintenance and replacement programs. As per the City's ageing infrastructure assessment program, several of the street lights and street light service panels are at the end of their service life and need to be replaced. Sidewalks that have subsided are damaged from tree roots, or have become misaligned, which pose tripping hazards to pedestrians. Replacing these sidewalks will improve pedestrian safety and encourage non-vehicular forms of transportation.</p> <p>This project includes removal and replacement of street light poles, service panels, and luminaires that have reached the end of their service life, retrofit of deteriorated concrete bases and the associated ancillary works, inspection of street lights that are nearing the end of their service life, installation of new street lights to eliminate gaps in the street lighting network, and repairing deteriorated sidewalks.</p>		
			

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	LED Street Name Sign Program	Submission ID:	6439
Location:	Various Locations		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Roads DCC:	\$282,150	
	Roads City Assist:	\$17,850	
Scope:	<p>Installation of overhead LED street name signs at key signalized intersections to enhance visibility and legibility for drivers. It is anticipated that the remaining signalized intersections (51 out of 183) can be upgraded over the next 4-5 years (i.e. 10-15 per year).</p> <p>Major Cost Components: LED street name sign, mounting hardware and electrical wiring.</p> <p>Locations are prioritized based on major, gateway and high-volume intersections, and tourist areas.</p> <p>The planned locations for 2023 upgrades include:</p> <ul style="list-style-type: none"> - Cooney Rd and Cook Rd - Cooney Rd and Saba Rd - Cooney Rd and Ackroyd Rd - Hazelbridge Way and Alexandra Rd - Hazelbridge Way and Leslie Rd - Hazelbridge Way and Browngate Rd - Garden City Rd and Williams Rd - Garden City Rd and Francis Rd - Garden City Rd and Blundell Rd - Garden City Rd and Cook Rd - Garden City Rd and Lansdowne Rd - Garden City Rd and Odlin Rd <p>Funding: Roads DCC program; potential from TransLink, ICBC and development.</p>		
			

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Moncton St Pedestrian & Cycling Improvement	Submission ID:	7398

Location: Moncton Street, No. 1 Rd to Bayview St

Cost: \$1,100,000

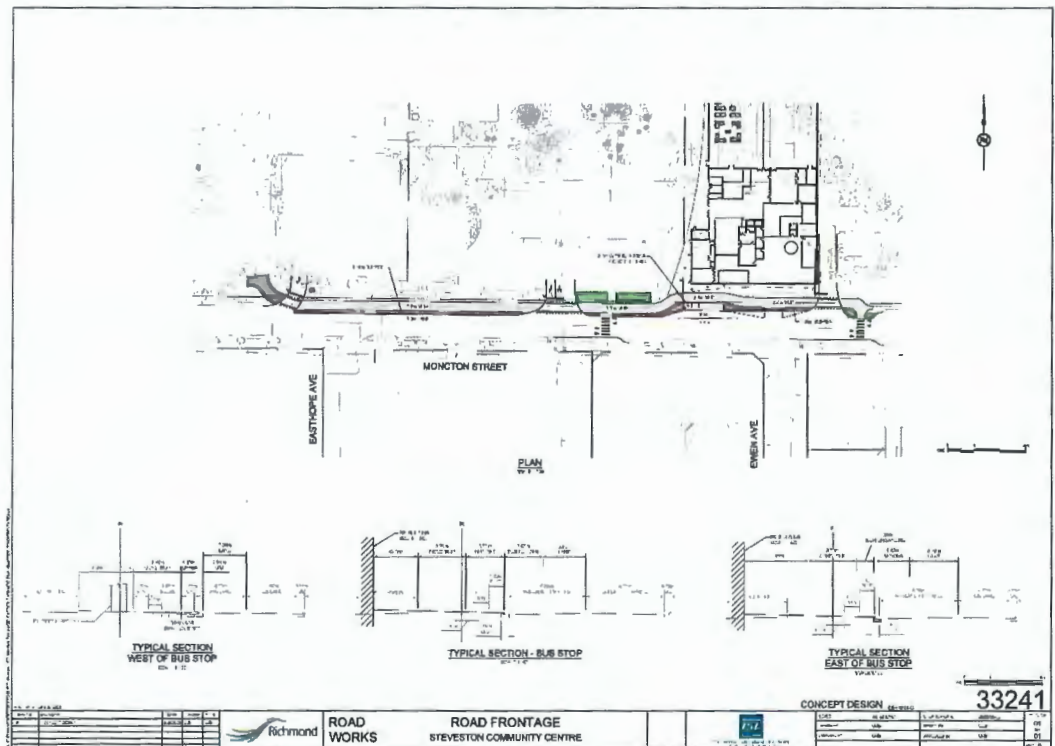
OBI: \$ -

Funding Sources: Roads DCC: \$1,035,000
Roads City Assist: \$65,000

Scope: In conjunction with the replacement of the Steveston Community Centre, the City will be constructing off-site civil upgrades and this project will fund construction of civil upgrades. The upgrades will improve the streetscape and access by integrating with the new community centre layout. These upgrades include the installation of a 3.7m concrete Multi-Use Pathway, relocating site entrances, bus pad improvements and beatification along the frontage.

Major Cost Components: Realignment of curb & gutter, paving, concrete bus pad installation, pavement marking and signage, physical barriers, pavement markings and signage, street light and other utility relocations, pedestrian crossing and traffic calming installations.

Funding: Roads DCC Program



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Neighbourhood Walkway Program	Submission ID:	6434

Location: Various Locations

Cost: \$500,000 **OBI:** \$ -

Funding Sources: Roads DCC: \$470,000
Roads City Assist: \$30,000

Scope: Construction of new and/or enhancement of existing neighbourhood walkways/sidewalks.

Major Cost Components: Construction of new or upgrade of existing sidewalks, pathways, wheelchair ramps, minor curb cuts, and boulevard modifications.

Locations are prioritized based on level of pedestrian activities (i.e., proximity to schools, bus stops, recreational centres, parks, shopping/retail centres, etc.), traffic safety/collision risks, and requests from Council and the public.

For 2023, locations are to be determined in the year of the program. In previous years, the following were completed:

1. Asphalt sidewalk installation along River Rd from No. 6 Rd to Burdette St
2. Asphalt sidewalk installation along Westminster Hwy from Muir Drive to 22411 Westminster Hwy

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Special Crosswalk Program	Submission ID:	6435

Location:	Various Locations		
Cost:	\$350,000	OBI:	\$4,882
Funding Sources:	Roads DCC:	\$329,000	
	Roads City Assist:	\$21,000	

Scope: Upgrade of existing crosswalks on arterial roads (typically four-lane) to traffic control standards that have been endorsed by Council.

Major Cost Components: Illuminated overhead crosswalk signs with amber flashers, strobe lights, poles, pole bases, underground conduit, junction boxes, pole-mount cabinet, controller, hydro service panel, Accessible Pedestrian Signal (APS) push buttons, pavement markings, and site restoration.

The preliminary list for 2023 includes the following locations:

1. 4500 Block Moncton St
2. No. 4 Rd and Denis Pl
3. Elkmond Rd and Williams Rd
4. Shell Road Trail and Granville Ave (Note: this location is subject to approval by CN Railway. Additional upgrades may be necessary)
5. Shell Road Trail and Blundell Rd (Note: this location is subject to approval by CN Railway. Additional upgrades may be necessary)

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Steveston Highway Multi-Use Pathway, No. 2 Road to Railway Avenue	Submission ID:	6923

Location:	South side Steveston Highway from No. 2 Road to Railway Avenue		
Cost:	\$5,700,000	OBI:	\$ -
Funding Sources:	Roads DCC:	\$2,680,000	
	Roads City Assist:	\$170,000	
	Grant:	\$2,850,000	
Scope:	Provision of a 2.5m (minimum) to 3.0m (preferred) wide paved multi-use pathway (MUP) along the south side of Steveston Highway from No. 2 Road to Railway Avenue. This project relies on external funding for implementation. If external funding is not available, a revised proposal will be presented to Council for consideration and approval.		

Sections of the Steveston Hwy MUP currently in progress stretch from Shell Rd west to No. 2 Road. This project will provide a further extension to the west, connecting it with the Railway Greenway, the recently constructed MUP along No. 2 Road from Steveston Highway to Dyke Road, and the future MUP along No. 2 Road from Steveston Highway to Williams Road.

Major Cost Components: lane narrowing, realignment of curb and gutter, multi-use pathways, pavement markings and signage, pedestrian crossing enhancements, lighting, relocation of above ground infrastructure (i.e., street light poles, hydrants, power poles, traffic signals, etc.), bus stops, removal and replacement of trees and hedges, and modifications to private property (i.e., re-grade driveways, retaining walls, landscaping, etc.).


Funding: Roads DCC program; potential from TransLink and ICBC



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Street Light LED Upgrade Program	Submission ID:	6760

Location:	City Wide		
Cost:	\$490,000	OBI:	(\$30,000)
Funding Sources:	Enterprise:	\$150,000	
	Gas Tax:	\$340,000	
Scope:	<p>This project is to replace high-pressure sodium (HPS) light fixtures that are over 25 years old. A total of 5,459 of these ageing fixtures have been replaced as part of this multi-phased program, and this project will replace approximately 1,200 HPS fixtures. Additional capital projects will be requested in subsequent years to replace the remaining HPS fixtures.</p> <p>It is estimated that this phase of the project will reduce electricity use by 390,000 kWh, which translates to approximately \$30,000 in energy savings.</p>		



Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Top 20 Collision Prone Intersections- Implementation of Medium-/Long-term Improvements		Submission ID:	6635
Location:	Various Locations			
Cost:	\$2,000,000	OBI:	\$ -	
Funding Sources:	Roads DCC:	\$1,176,000		
	Roads City Assist:	\$74,000		
	Grant:	\$750,000		
Scope:	<p>Implement safety improvements determined through the preliminary design for the top 20 collision prone intersections as approved by Council. Proposed improvements for each intersection will be subsequently put forward to detailed design and construction annually through this program. It is anticipated that 2 to 3 locations will be completed per year subject to TransLink funding and scope of works; otherwise 1 to 2 locations will be completed per year.</p> <p>Major Cost Components: Road geometry changes such as road widening, addition or lengthening of left-turn lanes, addition or realigning of right-turn lanes, redesign of existing channelized right-turn lanes, widening sidewalks and wheelchair ramps, completion of pedestrian and cycling connections, street light upgrade, traffic signal modifications (i.e. added left-turn phase), relocation of driveways and land acquisition.</p> <p>Subject to availability of external funding, the list of improvements planned for 2023 are as follows:</p> <ol style="list-style-type: none"> No. 4 Rd and Westminster Hwy intersection (#7) – Addition of dual westbound left-turn lanes, extension of existing left-turn lanes, reduction of curb return radii, advance warning flashers westbound and eastbound, signal phasing changes and cyclist/pedestrian facility upgrades. No. 2 Rd and Blundell Rd intersection (#10) – Reduction of curb return radii, installation of truck aprons at all 4 corners, and median modifications along south leg of Blundell Rd. Potential for additional signal works at southwest mall exit, safety upgrades at northwest and northeast mall exits pending approval from the property owner. <p>In addition to safety considerations, the locations were selected based on past public complaints, extent of determined scope of works, as well as those that are readily implementable, i.e., within City jurisdiction, minimal property acquisition, etc.</p> <p>Funding: Roads DCC program; potential from TransLink, ICBC and development.</p>			
				

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Calming Program	Submission ID:	6436

Location: Various Locations

Cost: \$300,000 **OBI:** \$ -

Funding Sources: Roads DCC: \$282,000
Roads City Assist: \$18,000

Scope: Retrofitting existing local roads with traffic calming measures to enhance safety for road users and livability for residents by reducing speed and deterring short-cutting traffic within neighbourhoods.

Major Cost Components: Road works to construct traffic calming measures such as curb bulges, curb ramps, traffic circles, speed humps, delineated walkways, traffic signage, pavement marking, and streetscape features (i.e., trees and/or other landscaping improvements).

Locations will be prioritized based on Council and/or public request.

In previous years, locations were typically identified in the year of the program. Examples of 2022 projects include:

1. New traffic circle on Barnard Drive
2. Lowered speed limit on Barnes Drive

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Signal Power Backup System (UPS)	Submission ID:	6447

Location:	Various Locations		
Cost:	\$200,000	OBI:	\$ -
Funding Sources:	Roads DCC:	\$188,100	
	Roads City Assist:	\$11,900	
Scope:	Installation of Uninterruptible Power Supply (UPS) system at signalized intersections to provide continual power during disruption. UPS protects electronic hardware from power surges. It is anticipated that the remaining signalized intersections (89 out of 183) can be upgraded over the next 10-15 years (i.e., 7-10 per year).		

Major Cost Components: UPS cabinet and base, controller, batteries, underground conduit, and site restoration.


The list of locations for 2023 includes the following locations:

1. No. 1 Rd and Chatham St
2. Oval Way and River Rd
3. Gilbert Rd and Westminster Hwy
4. Alderbridge Way and Westminster Hwy
5. Minoru Blvd and Westminster Hwy
6. Kwantlen St and Alderbridge Way
7. Hazelbridge Way and Alderbridge Way
8. Railway Ave and Williams Rd
9. Railway Ave and Blundell Rd
10. Railway Ave and Francis Rd
11. Railway Ave and Granville Ave
12. No. 1 Rd and Granville Ave
13. No. 1 Rd and Westminster Hwy

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Signal Program	Submission ID:	6437

Location:	Various Locations		
Cost:	\$500,000	OBI:	\$2,527
Funding Sources:	Roads DCC:	\$470,000	
	Roads City Assist:	\$30,000	
Scope:	<p>Installation of new/upgrade of existing traffic signals to accommodate traffic growth, respond to public requests, improve traffic management & movement of all road users, and address traffic safety concerns.</p> <p>Major Cost Components: Traffic controller, cabinet, poles, bases, junction boxes, underground conduit, in ground and camera video detection, enhanced accessible pedestrian signals, traffic signal heads, electrical wiring, traffic signal communications, LED street name signs, pavement markings, minor corner property acquisition, minor curb cuts, boulevard modifications, and site restoration.</p> <p>The preliminary list for 2023 includes the following locations:</p> <ol style="list-style-type: none"> 1. Great Canadian Way and Beckwith Rd 2. Installation of left arrows at various intersections. Locations to be determined based on outcome of left arrow warrant study <p>Funding: Roads DCC program; potential from TransLink, ICBC and development.</p>		
			

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Video and Communication Program	Submission ID:	6441

Location: Various Locations

Cost: \$400,000

OBI: \$ -

Funding Sources: Roads DCC: \$376,200
Roads City Assist: \$23,800

Scope: Install video detection cameras at signalized intersections to enhance cyclist and vehicle detection, optimize traffic operations, measure traffic speed, provide real time video of traffic conditions to the Traffic Management Centre (TMC) for observing and enhancing operations, and provide photos (in one minute intervals) of traffic conditions for public access on the City website. This program is separate from the Richmond RCMP security camera program. By the end of 2022, it is projected that 54 out 186 signalized intersections remaining, which require build out of the fibre communications network prior to camera installation. Therefore, majority of the program will focus on expanding the fibre communications network.

Upgrade conduit and cable infrastructure to install higher capacity fibre optic cable and electronics to communicate with multiple remote programmable devices at traffic signals. It is anticipated that the entire city can be upgraded over the next 8-12 years based on the current level of funding.

Major Cost Components: Video detection camera hardware and installation, fibre optic cable, fibre splicing, underground enclosures and fibre network switches required to communicate to the TMC.

The preliminary list for 2023 includes 7 locations as follows:

Traffic Video Camera

1. St. Edwards Rd & Bridgeport Rd
2. Shell Rd & Bridgeport Rd
3. Simpson Rd & Bridgeport Rd
4. McLean Ave & Westminster Hwy
5. Gilley Rd & Westminster Hwy

Fibre communications cable and conduit installation/cleaning/upgrades

6. Bridgeport Rd redundant fibre link from Garden City Rd & Bridgeport Rd to Jacombs Rd & Cambie Rd
 7. East Richmond fibre link – Fibre links to Fire Hall No. 5 and Hamilton Community Centre
- Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Amenity Improvement Program	Submission ID:	6438

Location: Various Locations

Cost: \$100,000 **OBI:** \$ -

Funding Sources: Roads DCC: \$94,000
Roads City Assist: \$6,000

Scope: Transit-related amenity improvements within the road right-of-way to support transit service and infrastructure.

Major Cost Components: Non-advertising transit shelters, benches and other supplementary amenity improvements to facilitate transit passengers.

Locations for bus stop shelters are prioritized based on boarding activity, customer requests and availability of right-of-way.

For 2023, approximately 10-15 locations are proposed for upgrade. The actual locations will be determined in early 2023 in consultation with Pattison Outdoor, the City's street furniture contractor. This program will fund two years of improvements.

Funding: Roads DCC program; potential from TransLink, ICBC and development.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Roadway Improvement Program	Submission ID:	6442

Location:	Various Locations		
Cost:	\$200,000	OBI:	\$ -
Funding Sources:	Roads DCC:	\$94,000	
	Roads City Assist:	\$6,000	
	Grant:	\$100,000	
Scope:	<p>Road and traffic improvements to increase accessibility at bus stops, support transit service improvements and existing transit infrastructure. Currently, approximately 88% of 722 existing bus stops are accessible.</p> <p>Major Cost Components: Bus stop landing pads and ramps for wheelchair accessibility, intersection geometric/corner improvements, sidewalk/walkway construction connecting to bus stops, etc. to facilitate transit passengers.</p> <p>Locations for bus stop accessibility improvements are prioritized based on boarding/alighting activity, customer requests and availability of right-of-way.</p> <p>For 2023, approximately 12-15 locations are proposed for upgrade, subject to TransLink funding. The actual locations will be determined in early 2023 in consultation with Coast Mountain Bus Company (CMBC) and through public feedback.</p> <p>Funding: Roads DCC program; potential from TransLink, ICBC and development.</p>		



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transportation Planning, Functional and Preliminary Design	Submission ID:	6443

Location: Various Locations

Cost: \$400,000

OBI: \$ -

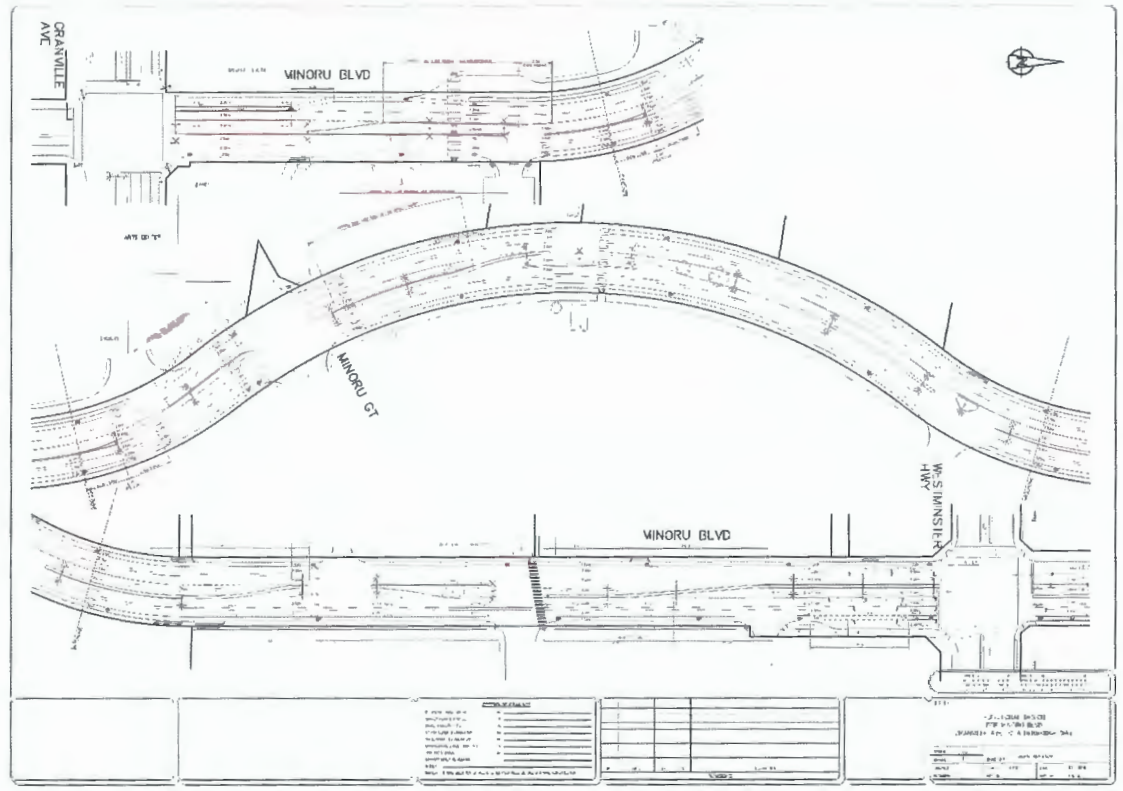
Funding Sources: Roads DCC: \$376,000
Roads City Assist: \$24,000

Scope: 1. Project design – prepare functional/preliminary designs and cost estimates required for transportation capital projects identified within the capital program. Design to identify road elements, horizontal alignment, cross-section, property impacts, etc. and high level cost estimates to carry out further detailed engineering design.

2. Project planning and coordination – Assist in the development, leading, coordinating and administering the planning, engineering, and design work on transportation capital projects approved as part of the capital program and off-site improvements for new developments.

Cost based on 5% of the cost estimate of capital projects included within annual capital programs that require functional designs; design funds for projects with more significant scope are included separately within those projects.

Major Cost Components: Consultant and/or staff costs for project design and staff costs for project planning and coordination.



Infrastructure – Flood Protection Program

The City’s Flood Protection Program (formerly known as Drainage Program) supports the maintenance and upgrade of flood protection infrastructure. Projects within this program include improvements to the flood protection system, replacement of ageing infrastructure, and upgrade of flood protection infrastructure to meet the demands of population growth and climate change, including effects of sea level rise and increased rainfall intensities.

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Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Burkeville Utility Improvements	Submission ID:	6481

Location:	Burkeville Area		
Cost:	\$4,054,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$1,100,000	
	Water Utility:	\$2,139,000	
	Sanitary Utility:	\$815,000	
Scope:	<p>Burkeville’s drainage system was designed using shallow ditches and small diameter road cross culverts. As the area is redeveloped, ditch infills are becoming common. Ditch infills change the nature of the drainage system in a way that may cause storm water flooding. A new, larger drainage system is therefore needed to accommodate these changes.</p>		

In addition, sanitary and water infrastructure will be upgraded where the scope overlaps with the upgrade of the drainage infrastructure to take advantage of construction efficiencies and minimize disruption to the residents. The current gravity sanitary sewer system is made up of vitrified clay and is approaching the end of its service life. Similarly, the ageing watermain in the area requires replacement. Engineering and construction efficiencies will be achieved, and public disruptions will be minimized by coordinating the utility improvements.

This project will be Phase 5 of multi-year phased project to improve services in the Burkeville neighbourhood. This phase will include installation of approximately 220m of storm sewer, 650m of water mains, and approximately 230m of sanitary mains. The project will also include ancillary works to support utility installation, including environmental protection and road restoration.



Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Canal Stabilization and Drainage and Irrigation Upgrades	Submission ID:	6980

Location:	City Wide		
Cost:	\$3,000,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$3,000,000	
Scope:	<p>This project will stabilize the canal walls to improve drainage, mitigate damage to the roadway, prevent damage to local infrastructure running parallel to the canals and maintain riparian management area conditions. This will include potentially widening the canal where more capacity is required, partial re-profiling of the canal plus construction of a retaining wall or similar stabilization structure, with the potential for incorporating habitat enhancements where opportunities arise. Priority locations identified for this year include but are not limited to Gilbert Road near the Gilbert Road South Drainage Pump Station and Sidaway Road between Westminster Highway and Blundell Road.</p>		



Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Development Coordinated Works – Drainage	Submission ID:	6494

Location:	City Wide		
Cost:	\$250,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$250,000	
Scope:	<p>This project will enable the City to leverage development over the next year to design and construct drainage infrastructure outside of what would be required to be completed by developers as part of their development servicing requirements. These are upgrades and replacement of ageing infrastructure that the City would complete separately, but economic and engineering efficiencies can be achieved by having the developer complete this work at the same time the development takes place. The scope of work includes upgrading and replacing ageing drainage infrastructure.</p>		



Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	Submission ID:	6703

Location:	Various locations		
Cost:	\$3,000,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$1,800,000	
	Grant:	\$1,200,000	
Scope:	<p>The City was awarded the Infrastructure Canada Disaster Mitigation and Adaptation Fund in 2019, with grant funding available for 40% of project cost, to an amount of \$13,780,000. This project will improve flood protection for the City, support the City's Flood Protection Management Strategy, and is required to be completed to receive the grant funding.</p>		


The project includes the design and construction of drainage pump station upgrades and perimeter dike raising included in the Disaster Mitigation and Adaptation Fund contribution agreement. The project will be completed in phases, with all projects to be completed by 2028.



Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Drainage Pump Station Rehabilitation and Upgrade and Generator Installation	Submission ID:	6712

Location:	City Wide		
Cost:	\$200,000	OBI:	\$5,500
Funding Sources:	Drainage Utility:	\$200,000	
Scope:	This project involves upgrading ageing drainage pump stations to extend their service life and improve efficiency, installing or upgrading generators at drainage pump stations to improve reliability, and installing new cameras and other features to improve the security at drainage pump stations.		



Program:	Infrastructure Program		Sub-program:	Flood Protection
Project Name:	Flood Protection and Dike Improvements		Submission ID:	6492
Location:	City Wide			
Cost:	\$3,640,000	OBI:	\$ -	
Funding Sources:	Drainage Utility:	\$3,640,000		
Scope:	<p>The City is protected from flooding by 49 km of dike and 39 drainage pump stations. This project includes the planning, implementation and delivery of the City's accelerated flood protection program, which involves upgrading the City's dikes in alignment with the City's Flood Protection Management Strategy and dike master plans over an implementation period of 50 years.</p> <p>The scope of work includes:</p> <ul style="list-style-type: none"> • Preparing planning studies and policies to support flood protection upgrades; • Assessing and addressing property needs for the implementation of flood protection upgrades; • Defining habitat compensation requirements, identifying habitat compensation opportunities, and delivering a strategy for the implementation of habitat compensation work to facilitate flood protection upgrades; • Managing permitting and regulatory approvals and requirements; • Designing future dike upgrade and structural rehabilitation projects including upgrades to the south dike between No. 2 Road and Gilbert Road; and • Completing dike construction work that includes dike raising, structural rehabilitation, re-grading, vegetation and critter management, tree removal and replacement, habitat and environmental compensation, dike re-armouring at priority locations, and dike improvements. <p>The Senior Project Manager, Project Coordinator (x2), Environmental Coordinator 2, and Real Estate Negotiator positions requested through the 2023 Utility Budgets and Rates report will be responsible for delivering this project and will be funded from this capital submission.</p>			
				

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Horseshoe Slough Drainage Upgrades	Submission ID:	7399

Location:	Horseshoe Slough Catchemnt		
Cost:	\$3,500,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$3,500,000	
Scope:	<p>The 'atmospheric river' events that took place in November 2021 highlighted the need for continual infrastructure improvements to address increased storm intensities resulting from climate change. This project includes assessing and improving flood protection infrastructure for the Horseshoe Slough drainage catchment to prepare for climate change and extreme weather events like atmospheric river events. The scope of work may include the construction of a new inland drainage pump station to improve flows and upgrade of existing open and closed drainage infrastructure.</p>		




Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Invasive Species Management	Submission ID:	6491

Location:	City Wide		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$300,000	
Scope:	<p>The scope of work for this project includes the ongoing identification, mapping, research, removal, and/or control of priority invasive species from the City's drainage system and City lands, with the intention of maintaining the required performance of the drainage system. Typical activities will include routine and novel control measures to eliminate or minimize the impacts that aggressive invasive species, such as parrot's feather, wild chervil, and knotweed species have to City infrastructure and local biodiversity. Further research and efforts into control of additional priority species, disposal techniques, and community-based/citizen-science management will be explored as per the City's Invasive Species Action Plan. The purpose of this project is to reduce the spread of invasive species and its impacts on the City drainage system.</p>		

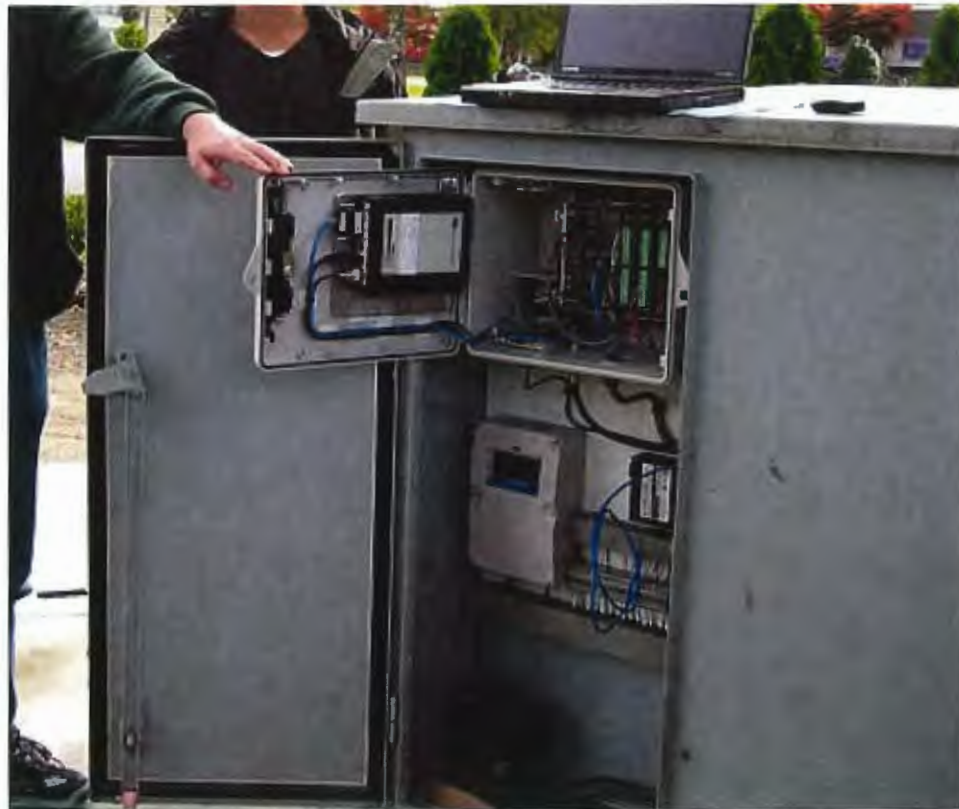


Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Laneway Drainage Upgrade	Submission ID:	6658

Location:	Various Locations		
Cost:	\$1,732,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$1,542,000	
	Sanitary Utility:	\$190,000	
Scope:	<p>The scope of work for this project includes installing drainage infrastructure at the following locations:</p> <ul style="list-style-type: none"> - Approximately 205m of lane between Seaport Avenue and Seaton Road, east of Seacote Road; and - Approximately 563m of lane between Williams Road and Seahurt Road, east of Shell Road. <p>This does not include the addition of street lighting, curbs, or gutters. Ageing sanitary sewers will also be rehabilitated to take advantage of construction efficiencies and reduce public impact.</p> <p>Costs may be recovered through City Bylaw No. 8752 as development occurs.</p>		
			

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	SCADA System Improvements	Submission ID:	6984

Location:	Various Locations		
Cost:	\$350,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$200,000	
	Sanitary Utility:	\$150,000	
Scope:	<p>Through its Supervisory Control and Data Acquisition (SCADA) system, the City monitors and controls various equipment over the sanitary sewer, drainage, and water network. This project involves rehabilitating, upgrading, and installing computers, instruments, and electrical systems throughout the SCADA system. This project will maintain and improve the sanitary sewer, drainage, and water network operation, as well as maintain system security and technological viability. The scope may also include the installation of cameras and other security features at drainage pump stations.</p> <p>Failure to complete the work will result in increased risk of sanitary system and drainage system failure, thereby reducing service levels and increasing cost and disruption of unplanned maintenance and emergency repairs.</p>		



Infrastructure – Water Program

The City's Water Capital Program supports improvements to the water system, replaces ageing water infrastructure, completes infrastructure upgrades required to accommodate population growth and development, and promotes water conservation. Completion of these projects will support Council's Strategic Goals of achieving a safe and resilient city while supporting strategic and well-planned growth.

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Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Development Coordinated Works – Water	Submission ID:	6463

Location: City Wide


Cost: \$250,000 **OBI:** \$ -

Funding Sources: Water Utility: \$250,000

Scope: This project will enable the City to leverage development over the next year to design and construct water infrastructure outside of what would be required as part of proposed developments.

These are upgrades and replacement of ageing infrastructure that the City would typically complete separately. Economic and engineering efficiencies can be achieved by having the developer complete this work at the same time as the development.



Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Water Metering Program	Submission ID:	6461
Location:	City Wide		
Cost:	\$2,000,000	OBI:	\$11,611
Funding Sources:	Water Utility:	\$714,000	
	Water Levy:	\$1,286,000	
Scope:	<p>Water metering enhances user equity by allowing customers to pay for the water and sewer that they use. All single-family and industrial, commercial and institutional (ICI) properties in Richmond are now metered. This project involves the gradual implementation of universal water metering for multi-family complexes.</p> <p>The universal multi-family water meter program will target the last remaining customer class that is not metered for water. The City will fund installation costs for installations completed under this program, provide a five-year guarantee for water charges for existing multi-family complexes, and provide active outreach by the City to complexes that will benefit from the water meter program.</p>		
			

Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Watermain Replacement Upgrades Program	Submission ID:	6453

Location: City Wide

Cost: \$4,017,000 **OBI:** \$ -

Funding Sources: Water Utility: \$4,017,000

Scope: This project supports the City's Ageing Utility and Road Infrastructure Report by replacing ageing watermains that are approaching the end of their service lives. Watermain replacement minimizes unplanned maintenance and improves available water supply for fire protection.

This project includes installation of approximately 3,556 metres of 200mm diameter watermain to replace existing ageing infrastructure in the Seacote and Danube/Minler neighbourhoods.

The watermain replacement program is determined by watermain age, material and break history, and required watermain capacity.



Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Watermain Tie-in and Restoration	Submission ID:	6458

Location:	Various Locations		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Water Utility:	\$300,000	
Scope:	This project involves tie-in and restoration work for watermain and water service installations, including restoration for watermain replacements completed as part of prior years' capital programs and restoration of water utility cuts.		




Infrastructure – Sanitary Sewer Program

The City’s Sanitary Sewer Capital Program supports improvements to the sanitary sewer system, replaces ageing infrastructure, and completes infrastructure upgrades required to accommodate population growth and development. Completion of these projects will support Council’s Strategic Goals of achieving a safe and resilient city while supporting strategic and well-planned growth.

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Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Development Coordinated Works – Sanitary	Submission ID:	6511
Location:	Various Locations		
Cost:	\$250,000	OBI:	\$ -
Funding Sources:	Sanitary Utility:	\$250,000	
Scope:	<p>This project will enable the City to leverage development over the next year to design and construct sanitary infrastructure outside of what would be required as part of the development.</p> <p>This project includes upgrades and replacement of ageing infrastructure that the City would have to complete separately had development not occurred. Economic and engineering efficiencies are achieved by completing this work in coordination with development.</p>		
			

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	Submission ID:	6509

Location:	Various Locations		
Cost:	\$350,000	OBI:	\$ -
Funding Sources:	Sanitary Utility:	\$350,000	
Scope:	This project involves the rehabilitation and upgrade of existing sanitary pump stations and forcemains.		

The scope of work for pump stations may include electrical kiosk replacement, power supply upgrade, installation or upgrade of instrumentation, new motor control center (MCC) installation, pump rewinding, and concrete slab and aluminum hatch installation. This work is needed to continue providing required levels of service.

The scope of work for forcemains may include installation of valves, hatches, and pigging chambers along forcemains to improve access and replace sections of forcemain found to be in poor condition. Installation of these appurtenances will improve isolation and control of forcemains in the event of breaks or tie-ins, and the ability to maintain and inspect the forcemains.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Sewer Gravity System Assessment and Rehabilitation	Submission ID:	7217

Location:	Various Locations		
Cost:	\$550,000	OBI:	\$ -
Funding Sources:	Sanitary Utility:	\$550,000	
Scope:	<p>The project includes assessment and rehabilitation of the gravity sewer system to meet required levels of service. Assessments are required to determine condition, identify defects, and fulfill Metro Vancouver's requirement to assess all gravity sewers on a 20-year cycle. The project also includes flushing and grease cutting as preventative maintenance measures and rehabilitation to address defects identified as part of the assessments.</p>		

The Sewer Coordinator position requested through the 2023 Utility Budgets and Rates report will be responsible for delivering this project and be funded from this capital submission.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Sewer Tie-in and Restoration	Submission ID:	6514

Location:	Various Locations		
Cost:	\$150,000	OBI:	\$ -
Funding Sources:	Sanitary Utility:	\$150,000	
Scope:	This project involves tie-in and restoration work for sanitary sewer projects completed as part of prior years' capital programs.		



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Steveston Sanitary Sewer Rehabilitation	Submission ID:	6243

Location:	Steveston Area		
Cost:	\$1,800,000	OBI:	\$ -
Funding Sources:	Sanitary Utility:	\$1,800,000	
Scope:	This project is part of a multi-year program to assess and rehabilitate or replace ageing gravity sewers in the Steveston area, which are approaching the end of their service lives. Rehabilitation and replacement will mitigate risk of infrastructure failure, thereby maintaining a high level of service to sanitary customers. This project includes assessment, rehabilitation or replacement costs, and other activities required to facilitate sanitary system rehabilitation and replacement.		



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Steveston Utility Upgrades	Submission ID:	7397

Location: Steveston, Moncton Street between No. 1 Road and Railway Avenue

Cost: \$4,739,000 **OBI:** \$ -

Funding Sources: Drainage Utility: \$1,500,000
 Water Utility: \$1,509,000
 Sanitary Utility: \$1,730,000

Scope: Installation, replacement and upgrade of water, sanitary and drainage infrastructure in the Steveston area to address ageing infrastructure and support new facilities and other changes in the area. The project will take place near Moncton Street in Steveston area, between No. 1 Road and Railway Avenue. The scope of work includes surface restoration work associated with the utility works.



Infrastructure – Infrastructure Advanced Design and Minor Public Works Program

This program includes planning, investigations and design for future infrastructure upgrades and funds minor capital rehabilitation, replacement or improvement work for water, sewer, flood protection, and sanitation and recycling infrastructure.

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Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Infrastructure Advanced Design	Submission ID:	6459

Location: Various Locations

Cost: \$2,630,000

OBI: \$ -


Funding Sources:

Drainage Utility:	\$1,500,000
Water Utility:	\$580,000
Sanitary Utility:	\$150,000
Roads DCC:	\$376,000
Roads City Assist:	\$24,000

Scope: The scope of work includes hiring consultants and contractors to plan and design future capital projects and delivery reports that define long-term infrastructure upgrades. The work may include project design, field investigations, public engagement, planning studies and system modelling. The water component will include preliminary investigations for the Ferguson Pressure Reducing Valve (PRV) replacement.

Sanitary Project Design, Planning and System Modelling	\$150,000
Water Project Design, Planning and System Modelling	\$580,000
Drainage Project Design, Planning and System Modelling	\$1,500,000
Roads	\$400,000
Total	\$2,630,000



Program:	Infrastructure Program		Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Drainage		Submission ID:	6495
Location:	City Wide			
Cost:	\$400,000	OBI:	\$ -	
Funding Sources:	Drainage Utility:	\$400,000		
Scope:	<p>Each year, Engineering and Public Works receives numerous requests for minor projects from Richmond residents, businesses, or other City departments. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.</p> <p>This project involves minor work related to drainage infrastructure, including installation of inspection chambers, rehabilitation of sewer pipes and manholes, minor repair of pump stations, installation of monitoring equipment, safety upgrades, testing of new technologies to improve efficiencies and responding to resident complaints that require site specific repairs. Additionally this project involves environmental monitoring and restoration for the construction of new drainage infrastructure, and environmental restoration for completed projects as part of prior years' capital programs.</p>			
				

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Roads	Submission ID:	6465

Location:	City Wide		
Cost:	\$350,000	OBI:	\$ -
Funding Sources:	Capital Revolving:	\$350,000	
Scope:	This project involves minor work related to road infrastructure, including installation of wheelchair ramps, replacement of uneven sidewalks, curbs and small road sections that may have been damaged through tree root ingress or settlement, repair of street lights, and response to resident complaints that require site specific repairs.		

Every year, Engineering and Public Works receives a number of requests for minor projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.



Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Sanitary	Submission ID:	6510

Location: Various Locations

Cost: \$400,000

OBI: \$ -

Funding Sources: Sanitary Utility: \$400,000

Scope: This project involves minor work related to the sanitary infrastructure, including pump station upgrades, sanitary pump replacements, modifications to improve operational efficiency and functionality, testing of new technologies, forcemain repairs, site-specific repairs in response to resident complaints, and manhole and valve box repairs.

Every year, Engineering and Public Works receives a number of requests for minor projects from Richmond residents, business, or other City departments. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.



Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Sanitation & Recycling	Submission ID:	6425

Location: City Wide
Cost: \$300,000 **OBI:** \$ -
Funding Sources: General Solid Waste and Recycling: \$300,000
Scope: To provide for Recycling Depot general site maintenance or repairs, expansion projects, funding for streetscape recycling containers in public spaces and garbage and recycling cart replacements.

To provide equipment/vehicle as required to support these program expansions as well as collection of overweight/heavy illegally dumped items.

This project will be used to:

1. Replace the city streetscape recycling containers that lose functionality, become damaged and worn due to exposure to weather conditions. The goal is to replace on a 3-year cycle.
2. Undertake repairs or minor upgrades at the Recycling Depot. This could include building or acquiring small sheds, cages, or structures to add material streams. Acquire new containers types, etc. to enable addition of new materials for collection. Undertake improvements to comply with safety — prepare and post signs, install barricades, replace concrete blocks that become damaged from equipment used to move large items as part of regular operations, etc.
3. Acquire equipment and vehicle items that may be needed to support operations, including stairs to assist safe drop off of items into taller recycling bins. May also include items to support illegal dumping clean ups and clean up of homeless camps, including carrying aids (dolly's, cutting tools, etc.).
4. Acquire garbage and recycling carts to replace receptacles used by residents, which are coming to the end of their expected life.



Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Water	Submission ID:	6462

Location:	Various Locations		
Cost:	\$400,000	OBI:	\$ -
Funding Sources:	Water Utility:	\$400,000	
Scope:	This project involves minor work related to the water infrastructure, including minor watermain repairs and replacements, operational efficiencies, changes to safety requirements, testing of new technologies, and responses to resident complaints that require minor upgrades.		

Every year, Engineering and Public Works receives a number of requests for minor projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.



Building Program

The Building Program includes major building construction and renovation projects as well as minor facility upgrades and repairs. The City’s building assets include: arenas, pools, community centres, libraries, heritage buildings, police stations, fire halls and other government facilities.

Building – Building Program

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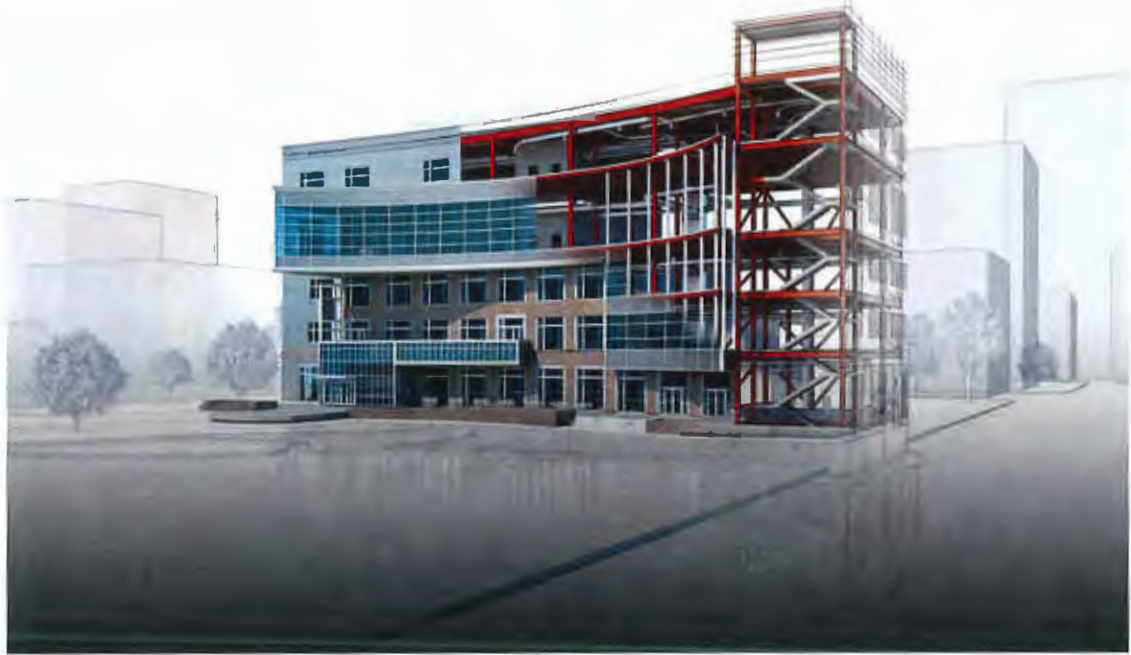
Program:	Building Program	Sub-program:	Building
Project Name:	Annual Infrastructure Replacements and Building Improvements	Submission ID:	7308

Location:	City Wide		
Cost:	\$4,942,328	OBI:	\$ -
Funding Sources:	Corporate:	\$4,942,328	

Scope: Annual Infrastructure Replacements and Building Improvements project services the City's 164+ facilities. These projects include equipment replacements of HVAC and mechanical components, interior renovations and refurbishments, building upgrades, improvements and installations.



Program:	Building Program	Sub-program:	Building
Project Name:	Capital Buildings Project Development Advanced Design	Submission ID:	7309

Location:	City Wide		
Cost:	\$500,000	OBI:	\$ -
Funding Sources:	Building and Infrastructure: \$500,000		
Scope:	<p>This funding will be used to provide feasibility and concept level consulting service required to complete the following:</p> <p>Building and feasibility assessments required to develop the 2023 Capital Plan. Staff receive on average approximately 150 projects from User Groups on an annual basis by May of each year that require feasibility level review and costing in time for the budget process. Examples for the 2022 program include feasibility and costing for Britannia Shipyards Envelope System Renewals, Caretaker Suite Renewals and Fire Hall Renewals.</p> <p>To respond to requests for feasibility and concept level design and costing services added to the 2023 work plan. Throughout the course of 2021 and 2022 there were approximately 29 such requests, examples of which include the Richmond Curling Club assessment and maintenance plan; Olympic Oval Exterior improvements, locker room renovations and 25 year capital plan generation, as well as house demolitions. The same level of requests are anticipated for 2023.</p> <p>Without this funding, building improvement and infrastructure replacement projects have to be deferred and funding reallocated to allow the feasibility and concept level design work to proceed.</p>		
			

Program:	Building Program	Sub-program:	Building
Project Name:	Caretaker Suite Infrastructure Renewals – Phase 1	Submission ID:	6560

Location: Various Locations

Cost: \$1,900,000 **OBI:** \$ -

Funding Sources: Building and Infrastructure: \$1,900,000

Scope: The caretaker program includes multiple City owned facilities located in parks and fields throughout Richmond. These facilities typically include a residential suite for the caretaker, public washrooms, fieldhouses, storage spaces and a few include concession stands. The average age of these facilities is 48 years and they typically have had minimal maintenance performed over that span of time. These facilities are generally in poor condition and require numerous replacements and renewals to ensure safe, continued operations.

Three of fifteen caretaker & fieldhouse facilities are included in phase 1: Brighthouse Park & Fieldhouse, Garden City Park and the Scoute Guide Camp & Fieldhouse.

Envelope - \$1,000,000
These works include the replacement and renewals of roofs, windows, exterior doors, siding, stairs and ramps.

Mechanical - \$300,000
These works include the replacement and renewals of water distribution piping, plumbing fixtures, hot water tanks, and water coolers.

Finishes - \$400,000
These works include the replacement of floor finishes, washroom accessories and lighting.

HVAC and Electrical - \$200,000
These works include the replacement and renewals of heat pumps, condensing units, exhaust systems, heating systems.



Program:	Building Program	Sub-program:	Building
Project Name:	City Hall Chiller Replacement and Domestic Water Line Renewal	Submission ID:	7311

Location: 6911 No. 3 Road

Cost: \$4,600,000

OBI: \$ -

Funding Sources: Building and Infrastructure: \$4,600,000

Scope: Chiller Replacements - \$2,300,000
 The chillers are original to the facility and have failed numerous times over the years. The existing chillers historically have not had sufficient capacity to meet cooling needs in Council Chambers on warm days with high attendance. These units can no longer be reliably repaired due to lack of part supply, and an outdated (now banned) refrigerant system. The units will be replaced with modern, energy efficient chillers to ensure reliable continuity of service to City Hall.

Domestic Water Line Renewal - \$2,300,000
 The domestic water branch lines are original to the facility and have failed in numerous areas. These pipes have developed leaks and corroded connections throughout the facility as to be expected with 22 years old piping.

All remaining branch lines will be renewed to complete the renewal of all water lines throughout the facility.



Program:	Building Program	Sub-program:	Building
Project Name:	Community Safety Building Upgrades	Submission ID:	7449

Location:	Community Safety Building		
Cost:	\$612,250	OBI:	\$ -
Funding Sources:	Building and Infrastructure:	\$460,000	
	RCMP Provision:	\$152,250	
Scope:	<p>Due to recent and significant increases in both municipal and policing staff level along with changes in policing requirements in recent years, the Community Safety Building requires the appropriate and efficient alignment of interior office space in order to achieve the full benefits of these resourcing enhancements.</p> <p>Upgrades would include updates to the administration and Community Engagement Team areas, technologic and physical updates to the Child Exploitation interview room, as well as creation of meeting and telephone pods for private meetings and telephone conversations to preserve confidentiality.</p>		



Program:	Building Program	Sub-program:	Building
Project Name:	Fire Hall No. 5 System Renewals	Submission ID:	7481

Location:	Fire Hall No. 5		
Cost:	\$700,000	OBI:	\$ -
Funding Sources:	Mechanical Equipment:	\$2,896	
	Building and Infrastructure:	\$697,104	
Scope:	HVAC & Mechanical - \$700,000 These works include the renewal and replacement of multiple systems including heat pumps, boilers, and water heaters.		



Program:	Building Program	Sub-program:	Building
Project Name:	Richmond Curling Club Priority 2 Repairs – Phase 1	Submission ID:	7155

Location: 5540 Hollybridge Way

Cost: \$1,300,000

OBI: \$ -

Funding Sources: Building and Infrastructure: \$1,300,000

Scope: Council approved the transfer and oversight of the Curling Club in 2021 which included a commitment to complete urgent repairs followed by three phases of priority building repairs. The immediate repair replacement of the Ice Plant commenced in 2021 and was completed by January 2022.

Interior - \$500,000

The ceiling systems are aged and can no longer be repaired due to lack of part supply. The ceiling will be replaced with a modern and efficient system.

Structural - \$500,000

This facility and its equipment are not seismically restrained. Site wide seismic restraints will be installed to prevent life safety risks in the event of a natural disaster.

Electrical - \$300,000

The lighting system is aged and can no longer be reliably repaired due to lack of part supply. The current lighting will be replaced with a new LED energy efficient lighting system.



Program:	Building Program	Sub-program:	Building
Project Name:	South Arm Hall Infrastructure Renewal	Submission ID:	6751

Location: 9020 Williams Road

Cost: \$1,800,000 **OBI:** \$ -

Funding Sources: Building and Infrastructure: \$1,800,000

Scope:

Life/Safety - \$150,000
 The fire alarm system and associated equipment can no longer be reliably repaired due to outdated equipment (lack of part supply). They will be replaced with new energy efficient units to ensure the health and safety of all occupants.

Envelope - \$1,200,000
 The roofing system of this facility will be replaced. Additionally, the accessible ramps, exterior doors and siding will be renewed.

Interior Finishes - \$200,000
 These works include the installation of a janitorial floor sink due to the occupational health and safety concern; as well as renewals to the kitchen sinks and washroom fixtures throughout the building. Additionally, building upgrades to support programming including soundproofing of the main foyer, and a storage expansion will be included in the scope of this capital submission.

Mechanical - \$200,000
 This work includes the replacement of a water heater and associated distribution piping.

Electrical - \$50,000
 The exterior lighting system can no longer be reliably repaired due to outdated equipment (lack of part supply). They will be replaced with new, energy efficient units to ensure the safety of all users of the facility.



Program:	Building Program	Sub-program:	Building
Project Name:	Works Yard Capital Maintenance	Submission ID:	7273

Location: 5599 Lynas Lane

Cost: \$4,400,000

OBI: \$ -

Funding Sources: Building and Infrastructure: \$4,400,000

Scope: Phase 1 design funding of \$420,000 was approved as part of the 2022 capital program. This is the implementation phase escalated to represent 2023 construction costs. It also includes phase 2 design funding of \$400,000.

Life / Safety - \$300,000

Fire alarm equipment in the Administration, Garage Workshop and Stores buildings can no longer be reliably repaired due to outdated equipment (lack of part supply). Will be replaced with new energy efficient systems ensuring health and safety of all occupants.

Envelope - \$2,000,000

Roofing and metal siding of the Survey Inspector building, and exterior doors of the Dispersal building are failing, allowing water ingress. Systems will be repaired and replaced as needed to ensure continued reliability of the facilities.

Mechanical & HVAC - \$1,500,000

Rooftop units, heaters, and controls systems in the Administration Annex, Dispersal, Garage Workshops, Stores and Survey Inspector buildings can no longer be repaired due to outdated equipment (lack of part supply). Units will be replaced with new energy efficient units to ensure the health and safety of all occupants. Additionally, water distribution systems of the Garage Workshop and Survey Inspector buildings, with utility sinks of the Administration building and wet sprinkler system of the Garage Workshop will be repaired and replaced.

Interior - \$200,000

Tile and resilient flooring systems throughout the Dispersal building can no longer be reliably repaired due to outdated products (lack of part supply). These will be replaced with new finishes.


Phase 2 Design - \$400,000



Building – Heritage Program

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Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals – Year 1 87

Program:	Building Program		Sub-program:	Heritage
Project Name:	Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals – Year 1		Submission ID:	7154
Location:	5180 Westwater Drive			
Cost:	\$5,000,000	OBI:	\$ -	
Funding Sources:	Building and Infrastructure: \$5,000,000			
Scope:	<p>Total budget for Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals is \$12M. The 2023 Budget includes \$5M for Year 1 and the 2024 Plan includes \$7M for Year 2. Staff recommend to procure for both Year 1 and 2 projects in 2023, which will result in cost efficiencies, while allowing the project to be funded over two budget years. The total \$12M budget breakdown is as follows:</p> <p>Structural - \$5,250,000</p> <p>The pile foundations of both the Shipyard and Seine Net Loft Buildings are deteriorating due to environmental conditions such as increased water levels, powderpost beetle infestations and age. While there are multiple repair and remediation programs already in use to prolong the life of these piles, many of them are beyond repair and require replacement. The deteriorating piles will be replaced with new and treated ones to prolong the life of these facilities.</p> <p>Envelope - \$6,750,000</p> <p>The roofing of both the Shipyard and Seine Net Loft Buildings, as well as the siding of the Shipyard building are in poor condition and can no longer be sufficiently repaired. These systems will be replaced with new and aesthetically similar systems to prolong the life of these facilities.</p> <p>Additionally, improvements and upgrades to the fire alarm system and associated devices are planned as part of this project.</p> <p>These works are planned to proceed together as the piling replacements require an open entry point through the roof to be lowered in and secured.</p>			
				

Parks Program


Richmond is renowned for its high quality parks, trails, natural areas and its vibrant urban realm. The City's park system consists of 140 parks that total approximately 2,153 acres serving the wellness and recreation needs of a diverse and growing community. More than 136 kilometres of trails support walking, rolling and cycling, bringing people to the City's many iconic parks and waterfront destinations. The development of new parks and trails along with new amenities will ensure that Richmond residents continue to receive excellent service and that Richmond continues to be a regional and tourism destination.

Parks – Parks Program

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Program:	Parks Program	Sub-program:	Parks
Project Name:	City-Wide Community Gardens	Submission ID:	7160

Location:	Various Locations		
Cost:	\$200,000	OBI:	\$ -
Funding Sources:	Parks Development DCC:	\$188,100	
	Parks Development City Assist:	\$11,900	
Scope:	<p>In March 2019, Council supported the creation of new community garden plots to address the demand by Richmond residents for space to grow food and garden. In 2020, two new community gardens were constructed at Cook Park and Riverport. In 2021, the City received ALC approval to build 200 plots on the Garden City Lands. Despite these successes, the wait list for community garden plots is growing. Also in 2021 Council directed staff to conduct a public consultation process for community gardens. The results of this process will further inform staff on where to locate gardens in the community. This submission will focus on responding to the strong community demand by constructing new gardens in the neighbourhoods where residents on the wait list reside.</p> <p>Community gardens are a shared green space with individual and group garden plots which are maintained by community garden members to grow food, flowers, and other plants. The gardens provide low-barrier opportunities for residents of all ages and abilities to not only cultivate plants, but also meet new friends, share knowledge, and build a sense of community. The food, flowers, and other plants grown in each plot belong to the registered gardeners, and cannot be used or sold for any commercial purposes.</p> <p>The infrastructure for the gardens, including site preparation, a water connection, perimeter fencing and gate, a secure garden shed, pathway surface materials and signage will be provided by the City. Urban Bounty will construct the garden beds, provide soil and garden tools through their own funding efforts and administer the garden's operations.</p>		
			

Program:	Parks Program	Sub-program:	Parks
Project Name:	Lulu Island Park – Master Planning Phase	Submission ID:	6357

Location: Middle Arm Waterfront

Cost: \$500,000 **OBI:** \$ -

Funding Sources: Parks Development DCC: \$470,250
 Parks Development City Assist: \$29,750

Scope: This capital request follows the preliminary planning and site study phase initiated in 2022, and will allow the City to advance the master planning of Lulu Island Park. 2023 will see the start of the park master planning phase, to be led by a qualified consultant team, which will include environmental and design studies, as well as public consultation. The Phase 1 cost estimate will also be prepared at this time. The leases for the City-owned industrial properties will expire in 2024, at which point demolition is tentatively scheduled to begin.

The concept for Lulu Island Park was approved by Council in 2007 and incorporated in the City Centre Area Plan in 2009. Lulu Island Park is envisioned as the City’s premier downtown park and a crucial part of its waterfront, supporting formal and informal recreation, cultural events, enhanced ecological values, and heritage interpretation. Sustained population growth in the City Centre demonstrates the need for this park, which is expected to serve as a catalyst for development in the adjacent commercial zone. The City has been acquiring the properties that will make up the park since 2005 and to date has completed acquisition of 23.29 acres.



Program:	Parks Program	Sub-program:	Parks
Project Name:	McLean Park Dog Off-Leash Area	Submission ID:	7346

Location:	McLean Park	OBI:	\$ -
Cost:	\$200,000		

Funding Sources:	Parks Development DCC:	\$188,100
	Parks Development City Assist:	\$11,900

Scope: This capital request will allow the City to create a new dog off-leash area at McLean Neighbourhood Park in the Hamilton area. Anticipated features include planting, permanent fencing and gates, a drinking fountain, seating, drainage, and durable surfacing. The City conducted a dog off-leash-focussed Let’s Talk Richmond public engagement process for Hamilton residents in March 2022. The results indicated strong support for a more accessible, centrally-located off-leash facility in the community, with McLean Park being the preferred location that was identified. This funding would allow for the planning, design, and implementation of a new dog off-leash facility at McLean Neighbourhood Park to address the needs of this growing community.



Program:	Parks Program	Sub-program:	Parks
Project Name:	Park Shelter and Shade Program	Submission ID:	7368

Location: Various Locations

Cost: \$450,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$450,000

Scope: Outdoor shelters are important for sun safety. The Canadian Dermatology Association outlines shade as being one of the most important tools in reducing sun exposure and limiting its associated health risks. Shelters and shades support Council's priorities in encouraging access to public open spaces by providing areas of refuge from sun exposure, and ensure infrastructure meets changing trends and best practices. This project proposes to construct canopies and shades in parks to improve adaptation to warming climate and increased inclement weather frequency and severity.

Creating sun-safe environments is important in well managed public open spaces as climate change continues to exacerbate the effect of warm hot summers and heat waves. In 2021 and 2022, the City installed temporary pop-up park shelters which were well received and emphasized the increasing demand for shade in the open space realm. The Parks Shelter and Shade Program will increase availability of shade amenities in parks, which include canopies and shade sails. The program will prioritize and implement new shade amenities at strategic locations in the built environment, such as playgrounds, plazas, and picnicking areas.



Program:	Parks Program	Sub-program:	Parks
Project Name:	Parks Advance Planning and Design	Submission ID:	6344

Location: Various Locations

Cost: \$500,000

OBI: \$ -

Funding Sources: Parks Development DCC: \$470,250
 Parks Development City Assist: \$29,750

Scope: This annual project submission for Parks Advance Planning and Design will provide resources for planning, research, public and stakeholder consultation, design and project management for a range of purposes, strategic planning projects, reports to City Council, meeting regulatory agency requirements (e.g., Vancouver Coastal Health, Provincial ministries), conceptual park design and technical reports for projects that require particular areas of expertise (e.g., environmental assessments).

- 2023 projects include:
- conceptual park and open space planning for various sites;
 - topographical surveys (engineering site survey pick-up);
 - park resource management planning;
 - park characterization projects;
 - best practices research; and
 - review and update the Waterfront Strategy.

The scope of work includes: researching best practices; collecting data, topographical surveys and geographical information; and securing consultation for landscape architectural and engineering services as part of a planning and design process. The design process includes preparing and producing concept designs, reports, presentations and detailed construction drawings for upcoming Major Capital projects. Projects may be community initiated or support a redeveloping area of the city.



Program:	Parks Program	Sub-program:	Parks
Project Name:	Parks General Development	Submission ID:	6341

Location: Various Locations

Cost: \$400,000

OBI: \$ -

Funding Sources: Parks Development DCC: \$376,200
 Parks Development City Assist: \$23,800

Scope: Upgrades to existing parks are required to respond to emergency requests and ongoing growth in the community. This program funds improvements of existing park amenities and facilities which are not part of other park capital programs, yet are required to support the increased use as a result of an increasing resident population. This funding allows the City the ability to be responsive to Council direction and appropriate public requests which align with existing strategic plans. These discrete, site-specific park enhancements will address our community’s needs for ongoing park improvements to infrastructure, equipment and landscape amenities.

Examples of projects that have been funded by the General Development program include walkways and pathways, new community gardens, community gathering spaces, new dogs off-leash areas, benches and other park furnishing, new drainage systems, drinking fountains and sport amenities.

Specific projects will be identified and prioritized based on public safety, community requests/complaints, and conditional assessments carried out throughout the year.



Program:	Parks Program	Sub-program:	Parks
Project Name:	Playground Replacement Program	Submission ID:	6103

Location: Various Locations

Cost: \$400,000


OBI: \$ -

Funding Sources: Capital Revolving: \$400,000

Scope: This capital program addresses playgrounds that are at the end of their useful life and do not meet the current safety guidelines (according to the industry standard, the Canadian Standards Association’s “Children’s Playspaces and Equipment”), or can no longer be maintained to meet the guidelines due to obsolescence or vandalism. The program is directed towards replacing all or part of a playground and includes replacement of playground equipment, playground infrastructure (e.g., resilient surfacing, borders, drainage) and landscape features.

Replacement of the playgrounds at Odlinwood Park and Heather-Dolphin Park will be a priority in 2023.



Program:	Parks Program		Sub-program:	Parks
Project Name:	Steveston Community Park Playground Expansion		Submission ID:	6114
Location:	Steveston Community Park			
Cost:	\$2,200,000	OBI:	\$ -	
Funding Sources:	Parks Development DCC:	\$1,598,850		
	Parks Development City Assist:	\$101,150		
	Capital Revolving:	\$380,798		
	Steveston Road Ends:	\$119,202		
Scope:	<p>The Steveston Community Park playground expansion process was initiated in 2015 in response to community requests for upgraded and universally accessible playground equipment and surfacing due to the need to replace portions of the playground in the near future as they reach the end of their life cycle. The process to date has provided an opportunity to take a holistic approach towards the future redevelopment of this highly popular destination playground.</p> <p>As Council approved the final location for the Steveston Community Centre and Library project, next steps for the playground expansion will start with developing detailed design and a detailed cost estimate for the project. After that, an RFP will be issued for the construction of the playground. This capital submission will support the construction phase of the project. Proposed playground renewal and expansion works include new, universally accessible playground surfacing and expanded playground equipment to accommodate a broader range of age groups and physical skill levels.</p>			
				

Parks – Parkland Acquisition Program

The parkland acquisition program relates to the acquisition of parkland for the City, as approved by Council.

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Program:	Parks Program	Sub-program:	Parkland
Project Name:	Parkland Acquisition	Submission ID:	6345

Location: As per Parks DCC Land Acquisition Plan

Cost: \$4,000,000

OBI: \$ -

Funding Sources: Parks Acquisition DCC: \$3,762,000
Parks Acquisition City Assist: \$238,000

Scope: The purpose of the Parkland Acquisition program is to acquire land for park requirements to address development and population growth. The program is based on the City's population projections as per the OCP with the objective of maintaining the parks provision standard of 7.66 acres per 1,000 population. The program is funded through Parkland Acquisition Development Cost Charges (DCCs) and is guided by the Council approved 2009 Park Land Acquisition Strategy which provides the criteria for evaluating proposed acquisitions. Funding is required each year to allow the City to be strategic and responsive as properties become available thus avoiding the need to borrow the funding from other City sources or pass /prepare a budget amendment for each acquisition.

Base Level Parks & Open Space Map (2031)



Land Acquisition Program

The land acquisition program relates to the acquisition and disposition of real property for the City, as approved by Council.

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Program:	Land Program	Sub-program:	Land
Project Name:	Strategic Real Estate Acquisition	Submission ID:	6522

Location: Various Locations

Cost: \$10,000,000 **OBI:** \$ -

Funding Sources: Capital Industrial Use: \$10,000,000

Scope: Funds for land acquisition to meet the Council Approved Strategic Real Estate Investment Plan, other than Development Cost Charges (DCC) and other special reserve funded projects, are set aside in the Capital Reserve under the Industrial Use Fund. This capital budget submission is to use land acquisition monies from this fund as well as additional general funds approved by Council.

\$10 million to be invested in investment class real estate.



Equipment Program

The equipment program includes machinery and vehicles for Public Works (PW), Fire Rescue Services, City Hall computer hardware, software, and other equipment.

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Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Automatic Vehicle Location/Global Positioning System Expansion	Submission ID:	7263

Location: Public Works – Fleet Operations

Cost: \$143,965 **OBI:** \$102,650

Funding Sources: Public Works Equipment: \$143,965

Scope: Working with business units and Fleet staff to:

- a. establish required Vehicles/Units for expansion
- b. refine system specifications requirements for Power to Off (PTO) and additional sensor capabilities
- c. establish resource requirements for implementation and administration
- d. work with business units to implement.

A full time Fleet Administration Systems and Project Coordinator is required for this project to be put forward including the requirement for a new Position Complement Control (PCC). An additional level request titled “Fleet Administration Systems & Project Coordinator – Regular Full Time” was submitted for Council consideration through the 2023 Proposed Operating Budget.



Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Emergency Response Equipment For Atmospheric and Flooding Preparedness	Submission ID:	7451

Location: Works Yard and Various City Departments

Cost: \$650,000

OBI: \$98,400

Funding Sources: Sewer Levy: \$220,000
 Water Levy: \$220,000
 Dike Improvement Provision: \$210,000

Scope: The purpose of this project is to purchase a mobile fuel tanker with a 10,000-20,000 litre fuel capacity holding multiple fuel types to support on site fueling for all City assets that require fuel. Recent atmospheric river and flooding events have identified that mobile fuel vendors were in high demand and therefore not available to fuel backup generators for critical equipment, leaving the City to fill this need with only one small (450 litre) mobile fuel truck. A dedicated larger fuel truck would ensure the City has the internal capability to fuel onsite generators to ensure no negative impacts to drainage pump stations, equipment and those City buildings with back up generators to ensure continuous operations. The vehicle will also be used in daily operations to fill equipment at job sites throughout the City, provide fuel support to Richmond Fire Rescue during fire fighting events, and provide fuel filtering with tank polishing services for back up emergency generators at City owned buildings and pump stations currently being performed by external vendors. The vehicle will also be outfitted with compartments storing PPE and materials regularly consumed by City crews on job sites.

Additionally, a skid steer loader will be purchased as an emergency response unit to assist in sand bagging activities at identified distribution points to be used during atmospheric river or flooding events and also to be used daily on construction sites, replacing rental units currently being used.

Note: Additional Level Position for the Mobile Fuel Tanker Operator to be submitted in 2024.



Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	Submission ID:	6424

Location: Works Yard and Various City Departments

Cost: \$3,405,309 **OBI:** \$ -

Funding Sources: Public Works Equipment: \$2,688,309
 Sewer Levy: \$335,000
 Water Levy: \$382,000

Scope: Annual replacement of vehicles eligible due to age and condition in accordance with Sustainable Green Fleet Policy 2020.

The project involves meeting with user groups to establish needs and develop specifications for vehicle/equipment replacements. Bid documentation is then issued to the marketplace, with purchases combined where possible to achieve best value. Submissions are evaluated with user input, and awards are made accordingly. Scope also includes vehicle outfitting as required to coincide with individual user department needs. The work commences upon receiving Council approval, with timing dependent on delivery timeframes/availability of product from successful vendors.

This project involves replacement of vehicles and equipment:

2 forklifts, 1 backhoe, 3 cars, 1 chipper attachment, 2 gang mower attachments, 3 heavy duty trucks, 2 heavy duty vans, 2 ice surfacers, 2 light duty trucks, 2 light duty vans, 5 medium duty trucks, 1 medium duty van, 1 minivan, 1 blower mower attachment, 4 ride on mowers, 1 roller, 4 misc. small equipment, 3 trailers, 3 transit vans, 2 utility vehicles, 1 attachment for mower, Main Garage – overhead exhaust, parts pressure washer, two post hoist, Welding shop – Metal shear equipment, plus an unallocated amount for currency exchange, inflation, accidents, COVID compliance, etc.



Equipment – Fire Vehicle Program

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Program:	Equipment Program	Sub-program:	Fire vehicle
Project Name:	Fire Vehicle Replacement Reserve Purchases	Submission ID:	6484

Location: Fire Hall #1

Cost: \$1,336,249 **OBI:** \$ -

Funding Sources: Fire Equipment: \$1,336,249

Scope: Front line fire apparatus replacement follows a life cycle replacement schedule based on best practices and industry standards. In addition, a condition inspection is conducted annually to evaluate the mechanical status of the vehicles to determine replacement need. To ensure the City is able to provide fire services to the community, Richmond Fire-Rescue (RFR) has a designated "Fire Equipment Reserve". The replacement plan for all apparatus is funded through the reserve.

The replacement plan for 2023 includes a front line vehicle budgeted at \$1,336,249.



Equipment – Equipment Program

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Program:	Equipment Program	Sub-program:	Equipment
Project Name:	City Hall and Community Safety Building Lighting Upgrade	Submission ID:	7453

Location: Various Locations

Cost: \$1,100,000 **OBI:** (\$30,000)

Funding Sources: Enterprise: \$200,000
 Grant: \$48,000
 Gas Tax: \$852,000

Scope: This capital submission replaces the approved 2021 capital project, City Hall and Community Safety Lighting Upgrades, with \$550,000 approved budget. The original project scope was to upgrade the lighting system for both buildings, resulting in the reduction of 50% of the lighting electricity load.

Additional funding of \$550,000 is needed to complete the previous submission plus the expanded scope of the project. The new scope involves replacing failing Community Safety building lighting fixtures as well as providing advanced lighting control systems that allow the integration of HVAC and lighting Direct Digital Control (DDC) systems and the creation of virtual zones to suit changing floor layouts.

If this capital submission is approved, the approved 2021 capital project will be closed and the respective funding will return to the original funding sources.



Program:	Equipment Program	Sub-program:	Equipment
Project Name:	Energy Management Projects	Submission ID:	6422

Location: Various Locations

Cost: \$550,000 **OBI:** (\$99,568)

Funding Sources: Enterprise: \$300,000
Gas Tax: \$250,000

Scope: To reduce the energy used at City assets through optimization of existing systems and/or incorporation of new technologies.

Through project development initiatives and energy audits, energy efficiency improvements at City assets will be identified and implemented that provide the best energy performance, maximizes the reduction of GHG emissions, and which can deliver the best return on investment.



Program:	Equipment Program	Sub-program:	Equipment
Project Name:	Gateway Theatre Technical Equipment Upgrade	Submission ID:	7378

Location: 6500 Gilbert Road

Cost: \$2,210,305

OBI: \$ -

Funding Sources: Capital Revolving: \$1,080,153
 Community Contribution: \$25,000
 Grant: \$1,105,152

Scope: The purpose of this project is to upgrade the Gateway Theatre's technical equipment. Much of the technical equipment and underlying infrastructure is 20 to 30 years old and therefore is obsolete and is becoming increasingly unreliable.

Investing in this infrastructure will update the venue to current standards and technologies, plus provide both an enhanced experience and reduce the need to rent equipment for both Gateway Theatres' productions and for rental clients.

Recommended work would include:

- Base electrical and networking infrastructure to support new technology;
- Replacing the audio console, wireless microphone system, and dedicated sound systems installed in the studios and the lobby;
- Installation of two HD cameras;
- Installation of two laser projectors and roll down screen;
- An upgrade to theatrical lighting; and
- An upgrade rigging to ensure safety and reliability.

City's support for this capital project will also make the project eligible for Department of Canadian Heritage Cultural Spaces grant funding, which could cover up to 50% of project costs. If the City is not successful with the grant application, a revised proposal will be presented to Council for consideration and approval.



Information Technology Program

The Information Technology Program is focused on delivering innovation and best-in-class services to staff and the public. We operate a multi-faceted portfolio that enables Council goals and provides benefits to the community while ensuring the integrity and ongoing operation of City systems through a planned approach to address ageing infrastructure.

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Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	Annual Hardware Refresh	Submission ID:	6378


Location:	City Hall		
Cost:	\$881,216	OBI:	\$ -
Funding Sources:	Telephone Equipment:	\$2,208	
	Hardware Upgrade:	\$831,056	
	Other Equipment:	\$47,952	

Scope: The City maintains the best practice of replacing ageing infrastructure on a defined schedule to mitigate the effects of equipment failure. For our desktop and laptop environment, this schedule is based on a five-year refresh cycle. The City either trades in older assets or disposes of them in a certified, environmentally sound manner.

This project scope is to perform the scheduled replacement of end-of-life cycle City computer hardware, which plans to include 107 computer desktops, 38 laptops, 200 monitors (desktop and video conferencing enabled), 12 docking stations, 178 cellular phones and 15 iPads and to provide Flexible Work Arrangement equipment (700 monitors, 350 docking stations and 350 mice\keyboards).



Program:	Information Technology Program		Sub-program:	Information Technology
Project Name:	Budget Planning & Monitoring Software Solution Phase 2		Submission ID:	7332
Location:	City Hall			
Cost:	\$750,101	OBI:	\$150,000	
Funding Sources:	Corporate: \$750,101			
Scope:	<p>The work on the Budget Planning and Monitoring Solution project that was approved by Council as part of the 2019 Capital Budget was paused during the pandemic as directed by Senior Management to redeploy all resources to daily operations. The project resumed in 2021 with the implementation of a proof of concept. This confirmed that the proposed new budget system is capable of meeting the objectives of the project, and the next phase is detail design.</p> <p>Additional opportunities have been identified that could further enhance the benefits gained from the new solution, through full integration with existing financial systems and replacement of the Month-End Operation and Analysis Reports. This eliminates manual processes that improves efficiencies, eliminate potential human error, and allows existing staff to focus on other priorities.</p> <p>In addition, the usage of the Budget Planning and Monitoring Solution would be extended to all City employees so capital or operating budget can be submitted by the budget owner through self-service capabilities.</p> <p>The following items are to be implemented :</p> <ol style="list-style-type: none"> 1. Capital Budget Entries Integration into PeopleSoft Financials 2. Operating Budget Entries Integration into PeopleSoft Financials 3. Budget Entries Integration into Data Analytics 4. Position Integration from PeopleSoft HCM 5. Salary Integration from PeopleSoft HCM 6. Financial Structure Integration from PeopleSoft Financials 7. Month-End Operation and Analysis Report 			
				

Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	Enhanced Online Community Services Program Platform	Submission ID:	7334
Location:	Citywide		
Cost:	\$100,000	OBI:	\$ -
Funding Sources:	Corporate: \$100,000		
Scope:	<p>A customer-centric online catalog/menu that offers an innovative, intuitive and personalized registration experience for Community Services programs. This request is directly related to the City's digital strategy vision.</p> <p>- To optimize and integrate business processes which leverage technology innovation to deliver exceptional services.</p> <p>Specifically this request aims to enhance the My Community section of MyRichmond to allow a complete customized user experience. While the online catalog should promote sales, it should also encourage the decommissioning of existing processes such as publication of the recreation guide and allow the reduction of on-going costs and staff-time to more innovative marketing strategies and value added activities.</p>		
			

Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	ePlan Expansion and Single Sign-On (SSO) Integration	Submission ID:	7336

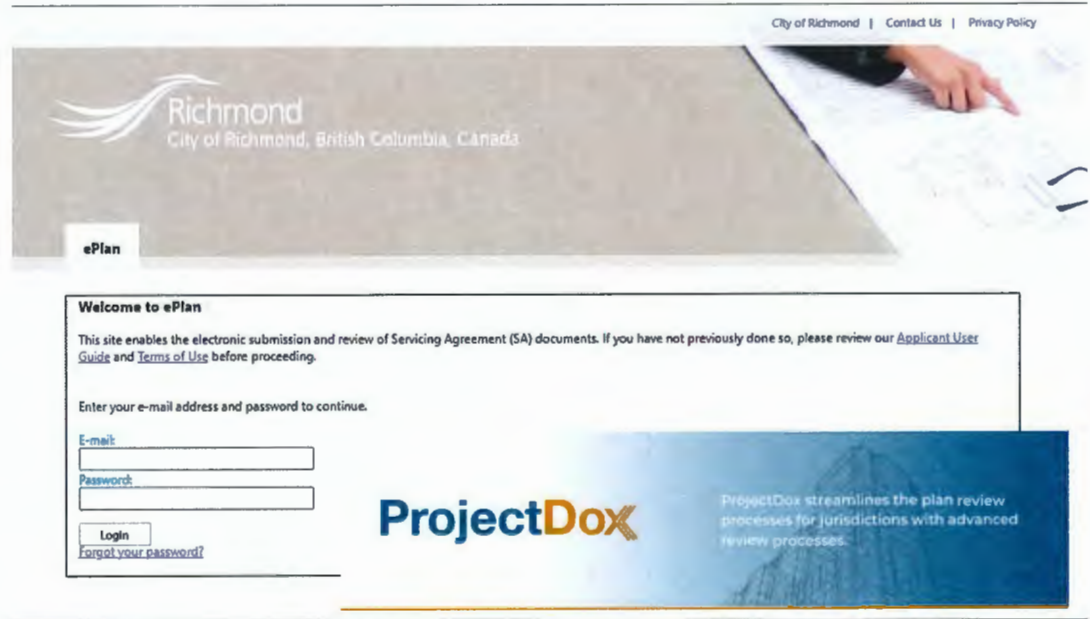
Location: Citywide
Cost: \$295,434 **OBI:** \$65,709
Funding Sources: Corporate: \$295,434

Scope: In 2022, Council endorsed a City recommendation to enhance our ability to deliver permitting and development applications using streamlined processes and enhanced technology. In early 2023, the first phase of the new permitting optimization project (MyPermits) will be delivered. This phase will enable simplified processes and immediate delivery electronically of what was traditionally “over the counter” type permits.

As staff have reviewed and optimized business processes related to permitting, an opportunity to extend and integrate the planning review system (ePlans ProjectDox) was identified. In order to integrate this system and provide a full service, seamless experience for the customer, a significant upgrade is necessary.

The detailed scope will be defined during the project planning process. This process will analyze the current environment and propose recommendations to incorporate into the enhancements. Specifically, the project planning process will include:

- Review existing workflow configuration and provide options for enhancement
- Review existing online processes and provide options for enhancement
- Review existing reporting and provide options for enhancement
- Perform software & integration assessment and define the tasks to deliver the new functionality



Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	IT Service Management System Replacement	Submission ID:	7353

Location: City Hall

Cost: \$286,483

OBI: \$ -



Funding Sources: Software: \$286,483

Scope: Information Technology uses an ITSM (IT Service Management) system to manage requests, incidents, changes and other aspects of providing technology services to the organization. Our existing solution (LANDesk) was acquired by another company and has been discontinued. The existing version we are operating on has been declared as end of life. A replacement solution will need to be implemented.

The new ITSM solution will enable IT to provide better support, including self-service options for our internal customers.



Program:	Information Technology Program		Sub-program:	Information Technology
Project Name:	Meeting Management Solution		Submission ID:	7480
Location:	City Hall			
Cost:	\$100,000	OBI:	\$76,600	
Funding Sources:	Capital Revolving:	\$100,000		
Scope:	<p>There is no tool today to effectively plan and manage Council and Committee meetings. The current system and server, being at the end of life, imposes a security risk and is no longer supported. A new tool is required to manage meeting agendas, action items, and to publish meeting minutes.</p>			
				

Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	PeopleSoft FSCM 9.2 New Features	Submission ID:	7330
Location:	City Hall		
Cost:	\$856,384	OBI:	\$ -
Funding Sources:	Corporate: \$856,384		
Scope:	<p>As part of the 2022 approved project to upgrade Peoplesoft Financials to the latest version, Finance is now seeking to implement new features that the upgraded system makes available.</p> <p>These new features enable the City to simplify and decustomize the existing implementation in favour of "out of the box" functionality and promotes employee self-service, improved reporting and matrices, modernization and better security and controls.</p> <p>The project would also review current challenges Finance encounters in the day-to-day operations and seek solutions with business process improvements.</p> <p>This project is essential as it improves service delivery from Finance to the City, streamline business processes with security and approval in place for audit and tracking, reduces staff effort on various financial processes, reconciliation and adjustment, and improves accuracy and the quality of data that is critical to the City's planning and decision making.</p> <p>The scope to be completed:</p> <ol style="list-style-type: none"> 1. Introduce self-service with modernized look and feel 2. Optimize the City's investment on PeopleSoft and leverage the full potential of PeopleSoft to better support, facilitate and improve major operational activities transacted from sourcing to payment, collections to stocking, and from projects to asset management that translate into financial data impacting decision points 3. Balance Risks and Maintain Data Integrity. PeopleSoft FSCM is the single source of financial information relied upon by the City's senior management and Council. Keeping PeopleSoft relevant to business requirements is critical to maintain its data accuracy, completeness and understandability 4. Improve reporting and matrix capability with delivered dashboards and analytics using Pivot Grid and Kibana 5. Resolve user challenges on day-to-day financial operation 		
 <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <p>PeopleSoft FSCM 9.2 <i>New Features & Enhancements</i></p> </div>			
			

Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	Roads Asset Modelling – Scoping Study	Submission ID:	7335

Location: Cityhall

Cost: \$200,000

OBI: \$ -

Funding Sources: Corporate: \$200,000


Scope: Through its Geographic Information System (GIS) and Infor Public Sector (IPS) systems, the City manages and tracks City-owned assets, such as the drainage, water and sanitary sewer networks. This project will facilitate the necessary activities, such as asset and layer development, modelling, inventorying and management procedures required for the City to have the roads network in the corporate GIS and IPS systems. The expected outcomes of this project will improve the City's asset management processes, support ageing infrastructure and capital planning, and improve efficiency for road maintenance.

The first phase of the project will include, but not be limited to, development and implementation of a methodology and strategy to obtain, track and manage road assets and their related attributes that will be input into GIS and IPS.

The strategy will identify how the City will inventory, analyse, refine and model asset and inspection related fields and data that align with Engineering standards, safety, regulatory and legislative requirements, among others.

Based on similar initiatives, project deliverables will include management workshops, research and market scan for asset configuration best practices, needs assessment and methodology, and development of a strategy and framework that will define the project requirements for the Roads asset model.



Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	Wi-Fi Expansion for Civic Buildings	Submission ID:	7338
Location:	Various Locations		
Cost:	\$286,720	OBI:	\$16,880
Funding Sources:	Capital Revolving:	\$286,720	
Scope:	<p>From 2015 to 2017, the City implemented public Wi-Fi services at all City facilities and some outdoor locations such as Britannia Shipyards National Historic Site. This service has proven to be very beneficial to staff and the public as they visit these locations. Through the last few years, feedback has been received indicating the need for better coverage in certain areas, such as Richmond Ice Arena, Fire Hall No. 5 and buildings within the Britannia Shipyards National Historic Site. This initiative will build out additional capacity and coverage for identified locations throughout the City.</p>		
			

Contingent External Contributions

Contingent external contributions is an estimate of external grants that may be received throughout the year for a variety of approved capital projects.

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Program:	Contingent External Contributions	Sub-program:	Contingent External Contributions
Project Name:	Contingent External Contributions	Submission ID:	6565
Location:	City Wide		
Cost:	\$10,000,000	OBI:	\$ -
Funding Sources:	Grant: \$10,000,000		
Scope:	<p>The Financial Plan includes an estimate for external grants and contributions that may be approved or received throughout the year for various projects. Spending will only incur if the funding is confirmed. Including an estimate in the Financial Plan will allow staff to request scope changes to existing projects without having to wait until the Bylaw Amendment, which is typically adopted in the fall.</p>		

Internal Transfers/Debt Payment Program

The internal transfers/debt program relates to the use of capital funding for repayment of capital funds borrowed from other internal sources of funding.

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7080 River Road Repayment.....	124
River Road/North Loop (2005) Repayment	125

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	7080 River Road Repayment	Submission ID:	6020
Location:	7080 River Road		
Cost:	\$2,341,384	OBI:	\$ -
Funding Sources:	Parks Acquisition DCC: \$2,202,072 Parks Acquisition City Assist: \$139,312		
Scope:	The purpose of this submission is to repay the Capital Reserve – Industrial Use Fund for previous Parkland Acquisitions from Parkland Acquisition Development Cost Charges (DCC's). In order to comply with the Community Charter and as previously approved by Council. The 2023 payment of \$2,341,384 is the 7 th of 8 payments.		

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	River Road/North Loop (2005) Repayment	Submission ID:	6336
Location:	River Road / North Loop		
Cost:	\$1,334,953	OBI:	\$ -
Funding Sources:	Roads DCC: \$1,334,953		
Scope:	<p>In 2005, Council approved \$18.2M borrowing from surplus for the acquisition of the Canadian Pacific rail land between No. 2 Rd and No. 3 Rd, and for the re-alignment of River Road.</p> <p>This \$18.2M was separated as \$17.1M borrowed in 2005 with repayments commencing in 2006 and a second amount of \$950,000 beginning repayment in 2008. The \$18.2M is to be repaid from Roads DCCs to Surplus over 18 years. The 2023 payment of \$1,334,953 is the last payment.</p>		

Infrastructure Program– Not Recommended

Due to funding constraints and higher priority projects, the following infrastructure projects are not recommended for funding.

Infrastructure – Roads Program

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Supplementary Asphalt Paving Program – Non-MRN	127
Williams Road Reconstruction – No. 4 Road to No. 5 Road – Design	128

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Supplementary Asphalt Paving Program – Non-MRN	Submission ID:	7401

Location: Various

Cost: \$2,000,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$2,000,000

Scope: The City’s Ageing Utility and Road Infrastructure report identifies an estimated annual funding gap of approximately \$4 million for the pavement of non-MRN roads. Addressing re-paving needs in a timely manner will result in overall cost savings for the City. This program is intended to supplement the annual non-MRN asphalt paving program to address additional areas that could not be covered in the Annual Asphalt Re-Paving Program – Non-MRN capital submission.

The scope also includes costs associated with ancillary work, including but not limited to, curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, staff inspection time and similar.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Williams Road Reconstruction – No. 4 Road to No. 5 Road – Design	Submission ID:	7402

Location: City Wide

Cost: \$850,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$850,000

Scope: Over \$350,000 has been spent on repairs for Williams Road from No 4 Road to No 5 Road over the last three years. It has been determined that the most cost effective solution is to complete full road reconstruction before further road deterioration occurs.

This project will include design services to facilitate reconstruction of Williams Road from No 4 Road to No. 5 Road with an asphalt roadway, thereby reducing City maintenance requirements and improving service to commuters and neighbouring homes. The project scope will also include a review of sustainable practices to recycle the removed roadway Roller Compacted Concrete (RCC) per the City’s circular economy initiatives.



Infrastructure – Infrastructure Advanced Design and Minor Public Works Program

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Public Works Minor Capital – Traffic..... 130

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital – Traffic	Submission ID:	6457

Location: Various Locations

Cost: \$250,000

OBI: \$ -

Funding Sources: Capital Revolving: \$250,000

Scope: Minor work related to traffic operations and traffic signals infrastructure including installation, repairs, or replacement of traffic/parking signage, pavement marking, traffic measure and signal device, upgrades to meet changes in safety requirements, testing of new technologies to improve efficiencies, and response to unforeseen public requests for minor upgrades. These are separate from DCC programs which fund specific projects/locations.

Transportation receives public requests throughout the year for minor transportation projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.

Funding: Revolving fund; potential from TransLink and ICBC



Building Program – Not Recommended

The following building projects are recommended but due to funding constraints and other higher priority projects, it is not included as recommended in the 2023 Capital Budget Report.

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Fire Hall No. 7 System Renewals 132

Olympic Oval – Envelope, Plumbing and HVAC Renewals..... 133

Thompson Community Centre and Hall Infrastructure Renewals..... 134

Program:	Building Program	Sub-program:	Building
Project Name:	Fire Hall No. 7 System Renewals	Submission ID:	6750

Location: Fire Hall No. 7

Cost: \$1,900,000 **OBI:** \$ -

Funding Sources: Building and Infrastructure: \$1,900,000

Scope:

Building Systems - \$80,000
 These works include baseboard heaters of the storage facility, electrical work and miscellaneous fire protection and safety system upgrades.

Envelope - \$900,000
 These works include the renewal of the: roof, windows and seals, exterior doors, overhead rolling bay doors, exterior soffits, and exterior paint finishes.

Interior Finishes - \$450,000
 These works include the replacement and renewals of ceramic and linoleum flooring, and washroom accessories.

Other renovation and upgrades included in the scope of this project are a kitchen renovation, dormitory modernization, room relocations and alterations.

Mechanical - \$350,000
 These works include the renewal of the water heater and associated distribution piping.

HVAC - \$120,000
 These works include the replacement of five exhaust systems.



Program:	Building Program	Sub-program:	Building
Project Name:	Olympic Oval – Envelope, Plumbing and HVAC Renewals	Submission ID:	7310

Location: 6111 River Road

Cost: \$2,700,000 **OBI:** \$ -

Funding Sources: Building and Infrastructure: \$2,700,000

Scope: The City owns all community amenities including Olympic Oval, community centres and Gateway Theatre. The City is responsible for the repairs and maintenances of all civic buildings.

Envelope: \$1,500,000
 These works include the replacement of multiple entrance doors, steel sliding doors and roof sealants.

Plumbing: \$700,000
 These works include the renewals of interior plumbing fixtures and equipment servicing the pond and waterfall.

HVAC: \$500,000
 These works include the relocation of an air handling unit's intake as well as replacement of the humidifier serving the yoga studio.



Program:	Building Program	Sub-program:	Building
Project Name:	Thompson Community Centre and Hall Infrastructure Renewals	Submission ID:	6265

Location: 5151 Granville Ave.

Cost: \$2,750,000 **OBI:** \$ -

Funding Sources: Building and Infrastructure: \$2,750,000

Scope:

Building Systems - \$150,000
 The fire alarm system and associated equipment in both the community centre and hall will be replaced with new, energy efficient units.

Envelope - \$1,600,000
 These works include replacement of the main roof and soffits as well as exterior doors and windows.

Interior Finishes - \$650,000
 These works include the replacement of deteriorating flooring to some areas of the community centre such as hallways, offices and multi purpose rooms, as well as washroom fixture and partition replacements in the hall facility.

Mechanical and HVAC - \$350,000
 Force flow heating units, exhaust units, water heaters and associated distribution piping throughout the community centre and hall will be replaced with new, energy efficient ones to meet the centre's growing demands.



Parks Program– Not Recommended

Due to funding constraints and higher priority projects, the following park projects are not recommended for funding.

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Burkeville Park Redevelopment.....	136
Parks Ageing Infrastructure Replacement Program	137

Program:	Parks Program	Sub-program:	Parks
Project Name:	Burkeville Park Redevelopment	Submission ID:	7373

Location: Burkeville Park

Cost: \$500,000 **OBI:** \$ -

Funding Sources: Parks Development DCC: \$188,100
 Parks Development City Assist: \$11,900
 Capital Revolving: \$300,000

Scope: Burkeville Park was originally constructed in the 1970s and is rapidly approaching end of useful service life. This project aims to replace the existing sport courts and asphalt pathways, and to implement improvements to the playground, site furnishings, and perimeter trail conditions. Redevelopment of the site will ensure continued service delivery and will update the character and aesthetic of the park consistent with the local community. Preliminary consultation with the Sea Island Community Association has resulted in positive feedback for the project and further community engagement is proposed.



Program:	Parks Program	Sub-program:	Parks
Project Name:	Parks Ageing Infrastructure Replacement Program	Submission ID:	6342

Location: Various Locations

Cost: \$560,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$560,000

Scope: This program targets the replacement of ageing parks and open space infrastructure. The types of infrastructure include waterparks, waterfront assets (e.g., piers, docks, moorage and boat launch facilities), trails and pathways, drainage systems, outdoor sport courts, sports field fencing and equipment (e.g., lighting, bleachers) as well as the replacement of other assets which cannot be funded through the Parks Development Cost Charges program. Replacement of these assets will ensure continued service delivery.

Specific projects are identified and prioritized based on condition assessments, public safety, and community requests/complaints received.

2023 Projects may include:


- sandfield upgrades;
- sport court surfacing repairs (tennis, basketball, lacrosse, etc.);
- timber structures, fencing replacement;
- drainage system replacement, and
- lighting replacement



Information Technology Program

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PeopleSoft FSCM Lease Administration Module..... 139

Program:	Information Technology Program	Sub-program:	Information Technology
Project Name:	PeopleSoft FSCM Lease Administration Module	Submission ID:	7333
Location:	City Hall		
Cost:	\$323,557	OBI:	\$33,783
Funding Sources:	Capital Revolving: \$323,557		
Scope:	<p>Real Estate Services have grown beyond the existing solution Inmagic to maintain the City's leases. It is a standalone text based system that does not provide financial data nor integrate to other systems such as Peoplesoft Financials. The platform provides basic data entry, searching and reporting capability. Due to the text based nature of the system, it is difficult to extract data for analysis in Excel or other applications. Consultant help is needed whenever change is needed to the system.</p> <p>Real Estate Services is seeking to replace InMagic with PeopleSoft Lease Administration (LA), a PeopleSoft FSCM module to maintain the City's leases. The lease module is compliant with GASB 87 accounting rules, and maintains payable and receivable information with associated expenses, as well as generates recurring payments and invoices automatically. All financial transactions flow into general ledger which reduces manual effort with strong controls on all expenses and transactions. PeopleSoft queries and delivered reports provide information to better manage leases and assist decision-making. With PeopleSoft integration capabilities, data extract is no longer an obstacle for data analytics.</p>		
			

CITY OF RICHMOND
5 YEAR CAPITAL PLAN SUMMARY (2023 – 2027)
(in \$000s)

	2023	2024	2025	2026	2027
Infrastructure Program					
Roads	21,171	22,267	19,748	12,799	13,151
Flood Protection (Drainage)	20,026	21,915	35,674	18,570	22,270
Water	6,567	11,309	10,820	8,322	10,011
Sanitary Sewer	7,839	5,901	4,900	9,000	4,800
Infrastructure Advanced Design and Minor Public Works	4,480	3,780	3,280	3,930	2,930
Total Infrastructure Program	\$ 60,083	\$ 65,172	\$ 74,422	\$ 52,621	\$ 53,162
Building Program					
Building	20,755	10,300	17,700	35,450	21,050
Heritage	5,000	13,100	21,800	-	-
Total Building Program	\$ 25,755	\$ 23,400	\$ 39,500	\$ 35,450	\$ 21,050
Parks					
Parks	4,850	3,400	2,050	5,600	6,010
Parkland	4,000	4,000	4,000	4,000	4,000
Total Parks Program	\$ 8,850	\$ 7,400	\$ 6,050	\$ 9,600	\$ 10,010
Land Program	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Equipment Program					
Vehicle	4,199	3,755	3,593	2,530	3,992
Fire Vehicle	1,336	1,504	204	2,082	2,163
Equipment	3,860	550	782	796	718
Total Equipment Program	\$ 9,395	\$ 5,809	\$ 4,579	\$ 5,408	\$ 6,873
Information Technology Program	\$ 3,757	\$ 493	\$ 540	\$ 782	\$ 868
Internal Transfers/Debt Payment	\$ 3,676	\$ 2,341	\$ -	\$ -	\$ -
Contingent External Contributions	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Total Capital Program	\$131,516	\$ 124,615	\$ 145,091	\$ 123,861	\$ 111,963

CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY FUNDING SOURCES (2023 – 2027)
(in \$000s)

DCC Reserves	2023	2024	2025	2026	2027
Park Development DCC	3,292	941	1,552	1,223	1,646
Park Land Acquisition DCC	5,964	5,964	3,762	3,762	3,762
Roads DCC	11,067	9,827	7,766	5,885	5,979
Water DCC	-	2,229	2,224	-	-
Total DCC	\$ 20,323	\$ 18,961	\$ 15,304	\$ 10,870	\$ 11,387
Statutory Reserves					
Capital Building and Infrastructure	20,657	20,400	36,500	32,450	18,050
Capital Reserve	15,001	15,000	14,860	14,981	14,973
Drainage Improvement	18,932	16,833	14,161	15,677	18,096
Equipment Replacement	4,222	4,515	3,071	3,845	5,650
Sanitary Sewer	6,535	5,771	5,775	7,722	5,820
Steveston Road Ends	119	-	-	-	-
Watermain Replacement	9,909	11,205	9,591	9,466	9,555
Total Statutory Reserves	\$ 75,375	\$ 73,724	\$ 83,958	\$ 84,141	\$ 72,144
Other Sources					
Enterprise Fund	650	550	550	205	205
Grant and Developer Contribution	16,953	19,130	33,338	15,820	15,404
Other Sources	15,472	9,119	9,397	10,225	10,564
Rate Stabilization	-	800	-	-	-
Sewer Levy	555	450	712	36	191
Solid Waste and Recycling	300	300	300	300	300
Water Levy	1,888	1,581	1,532	2,264	1,768
Total Other Sources	\$ 35,818	\$ 31,930	\$ 45,829	\$ 28,850	\$ 28,432
Total Capital Program	\$ 131,516	\$ 124,615	\$ 145,091	\$ 123,861	\$ 111,963

CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY PROGRAM (2023 – 2027)
(in \$000s)

	2023	2024	2025	2026	2027
Infrastructure Program					
Roads					
2023 Translink Bus Speed & Reliability Projects	875	-	-	-	-
Active Transportation Improvement Program	800	750	750	750	750
Annual Asphalt Re-Paving Program – MRN	1,654	1,687	1,721	1,755	1,790
Annual Asphalt Re-Paving Program – Non-MRN	3,752	3,940	4,137	4,344	4,561
Arterial Roadway Improvement Program	800	800	800	800	800
Bridge Rehabilitation Program	-	300	300	-	-
Citywide Connector Walkways Rehabilitation Program	250	250	-	-	-
Citywide Sidewalk and Street Light Replacement Program	500	500	500	-	-
Gilbert Road Off-road Cycling Facility, Granville Avenue to Elmbridge Way	-	-	3,800	-	-
LED Street Name Sign Program	300	300	300	300	300
Moncton St Pedestrian & Cycling Improvement	1,100	-	-	-	-
Neighbourhood Walkway Program	500	500	500	500	500
Shell Road Multi-Use Pathway, Highway 99 to River Road	-	8,400	-	-	-
Special Crosswalk Program	350	350	350	350	350
Steveston Highway Multi-Use Pathway, No. 2 Road to Railway Avenue	5,700	-	-	-	-
Street Light LED Upgrade Program	490	490	490	-	-
Supplementary Asphalt Paving Program – Non-MRN	-	-	2,000	-	-
Top 20 Collision Prone Intersections-Implementation of Medium-/Long-term Improvements	2,000	2,000	2,000	2,000	2,000
Traffic Calming Program	300	300	300	300	300
Traffic Signal Power Backup System (UPS)	200	200	200	200	200
Traffic Signal Program	500	500	500	500	500
Traffic Video and Communication Program	400	400	400	400	400
Transit-Related Amenity Improvement Program	100	-	100	-	100
Transit-Related Roadway Improvement Program	200	200	200	200	200
Transportation Planning, Functional and Preliminary Design	400	400	400	400	400
Total Roads	\$ 21,171	\$ 22,267	\$ 19,748	\$ 12,799	\$ 13,151
Flood Protection (Drainage)					
Box Culvert Repair	-	250	-	250	-
Burkeville Utility Improvements	4,054	4,050	3,290	3,100	3,000
Cambie Road West Drainage Pump Station Upgrade	-	-	-	-	6,000

	2023	2024	2025	2026	2027
Canal Stabilization and Drainage and Irrigation Upgrades	3,000	1,500	250	250	250
Development Coordinated Works – Drainage	250	250	250	250	-
Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	3,000	10,200	9,034	-	-
Drainage Network Ecological Enhancement	-	150	-	150	-
Drainage Pump Station Rehabilitation and Upgrade and Generator Installation	200	150	250	150	250
Flood Protection and Dike Improvements	3,640	3,500	10,500	11,690	9,800
Horseshoe Slough Drainage Upgrades	3,500	-	-	-	-
Invasive Species Management	300	200	200	200	200
Laneway Drainage Upgrade	1,732	1,215	1,200	1,580	2,070
No. 3 Road South Pump Station Upgrade	-	-	10,000	-	-
SCADA System Improvements	350	300	300	300	300
Storm Main Drainage Upgrade	-	-	250	500	250
Watercourse Crossing Rehabilitation and Replacement	-	150	150	150	150
Total Flood Protection (Drainage)	\$ 20,026	\$ 21,915	\$ 35,674	\$ 18,570	\$ 22,270
Water					
Development Coordinated Works – Water	250	250	250	250	250
Pressure Reducing Valve Upgrades	-	1,700	-	-	-
Water Metering Program	2,000	3,000	3,000	3,000	3,000
Watermain Replacement Upgrades Program	4,017	5,859	7,170	4,672	6,361
Watermain Tie-in and Restoration	300	500	400	400	400
Total Water	\$ 6,567	\$ 11,309	\$ 10,820	\$ 8,322	\$ 10,011
Sanitary Sewer					
9800 Van Horne Way Development Coordinated Works	-	2,431	-	-	-
Bennett West Sanitary Pump Station Replacement	-	-	-	5,500	-
Development Coordinated Works – Sanitary	250	250	250	250	250
Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	350	450	450	450	450
Sanitary Sewer Gravity System Assessment and Rehabilitation	550	620	750	650	850
Sanitary Sewer Tie-in and Restoration	150	150	150	150	150
Steveston Sanitary Sewer Rehabilitation	1,800	2,000	3,300	2,000	3,100
Steveston Utility Upgrades	4,739	-	-	-	-
Total Sanitary Sewer	\$ 7,839	\$ 5,901	\$ 4,900	\$ 9,000	\$ 4,800
Infrastructure Advanced Design and Minor Public Works					
Capstan Community Centre – Furniture, Fixtures and Equipment (FF&E) and OBI	-	800	-	-	-
Public Works Infrastructure Advanced Design	2,630	1,480	1,430	2,430	1,430
Public Works Minor Capital – Drainage	400	400	400	400	400
Public Works Minor Capital – Roads	350	-	350	-	-

	2023	2024	2025	2026	2027
Public Works Minor Capital – Sanitary	400	400	400	400	400
Public Works Minor Capital – Sanitation & Recycling	300	300	300	300	300
Public Works Minor Capital – Water	400	400	400	400	400
Total Infrastructure Advanced Design and Minor Public Works	\$ 4,480	\$ 3,780	\$ 3,280	\$ 3,930	\$ 2,930
Total Infrastructure Program	\$ 60,083	\$ 65,172	\$ 74,422	\$ 52,621	\$ 53,162
Building Program					
Building					
Annual Infrastructure Replacements and Building Improvements	4,943	3,000	3,000	3,000	3,000
Capital Buildings Project Development Advanced Design	500	-	-	500	500
Caretaker Suite Infrastructure Renewals – Phase 1	1,900	-	-	-	-
City Hall Chiller Replacement and Domestic Water Line Renewal	4,600	-	-	-	-
City Hall Mechanical and Interior Finish Renewals	-	-	6,800	-	-
City Wide Baseball Building & Fieldhouse Infrastructure Renewals	-	-	-	-	350
Community Safety Building – Roof Replacement and Mechanical Renewals	-	-	-	-	7,000
Community Safety Building Upgrades	612	-	-	-	-
Curling Club Priority 3 Repairs	-	-	-	900	-
Debeck House Envelope Renewals	-	-	-	500	-
East Richmond Hall Envelope and HVAC Renewals	-	-	-	250	-
Fire Hall No. 5 System Renewals	700	-	-	-	-
Gateway Theatre Mechanical and HVAC Renewals	-	-	5,500	-	-
Hamilton Community Centre Infrastructure Renewals	-	-	-	-	200
Hugh Boyd Field House	-	-	-	14,000	-
Library Cultural Centre – Life Safety Replacements and Elevator Renewals	-	-	-	-	5,000
Library Cultural Centre Envelope System Renewals	-	-	2,400	-	-
Richmond Curling Club Priority 2 Repairs – Phase 1	1,300	-	-	-	-
Richmond Ice Centre Infrastructure Renewals	-	-	-	-	1,000
Richmond Ice Centre Life / Safety and Interior Renewals	-	-	-	1,700	-
Richmond Ice Centre Mechanical and Electrical Renewals	-	3,700	-	-	-
South Arm Community Centre Envelope and Infrastructure Renewals	-	-	-	9,000	-
South Arm Hall Infrastructure Renewal	1,800	-	-	-	-
Steveston Martial Arts Envelope and Interior Renewals	-	-	-	550	-
Steveston Post Office and Museum Infrastructure Renewals	-	-	-	450	-

	2023	2024	2025	2026	2027
West Richmond Pitch & Putt Mechanical and Interior Renewals	-	-	-	600	-
Works Yard Capital Maintenance	4,400	3,600	-	4,000	4,000
Total Building	\$ 20,755	\$ 10,300	\$ 17,700	\$ 35,450	\$ 21,050
Heritage					
Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals Year 1	5,000	-	-	-	-
Britannia Shipyards – Seine Net Loft & Shipyard Building Envelope and Structural Renewals Year 2	-	7,000	-	-	-
First Nations Bunkhouse Reconstruction and Exhibit Development	-	6,100	-	-	-
Japanese Duplex Restoration and Fit Out	-	-	5,800	-	-
Phoenix Net Loft Program Implementation	-	-	16,000	-	-
Total Heritage	\$ 5,000	\$ 13,100	\$ 21,800	\$ -	\$ -
Total Building Program	\$ 25,755	\$ 23,400	\$ 39,500	\$ 35,450	\$ 21,050
Parks Program					
Parkland					
Parkland Acquisition	4,000	4,000	4,000	4,000	4,000
Total Parkland	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Parks					
City-Wide Community Gardens	200	-	-	-	-
Garden City Lands – Phase 4	-	-	-	-	4,460
Lulu Island Park – Detailed Design Phase	-	2,000	750	-	-
Lulu Island Park – Master Planning Phase	500	-	-	-	-
Lulu Island Park – Phase 1 Construction	-	-	-	4,800	-
McLean Park Dog Off-Leash Area	200	-	-	-	-
Minoru Park Central Amenity Space Design Development	-	200	-	-	-
Minoru Park Playground Renewal Detailed Design	-	-	200	-	-
Park Shelter and Shade Program	450	-	-	-	-
Parks Advance Planning and Design	500	300	300	300	300
Parks General Development	400	400	400	400	250
Parks Interpretive Signage Program – Phase 2	-	100	-	100	-
Playground Replacement Program	400	400	400	-	-
Steveston Community Park Playground Expansion	2,200	-	-	-	-
Terra Nova Slough Habitat Enhancement	-	-	-	-	500
Terra Nova Slough Upgrade Park Improvement	-	-	-	-	500
Total Parks	\$ 4,850	\$ 3,400	\$ 2,050	\$ 5,600	\$ 6,010
Total Parks Program	\$ 8,850	\$ 7,400	\$ 6,050	\$ 9,600	\$ 10,010

	2023	2024	2025	2026	2027
Land Program					
Land					
Strategic Real Estate Acquisition	10,000	10,000	10,000	10,000	10,000
Total Land Program	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Equipment Program					
Vehicle Replacement					
Automatic Vehicle Location/Global Positioning System Expansion	144	146	-	-	-
Emergency Response Equipment For Atmospheric and Flooding Preparedness	650	-	-	-	-
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	3,405	3,609	3,593	2,530	3,992
Total Vehicle Replacement	\$ 4,199	\$ 3,755	\$ 3,593	\$ 2,530	\$ 3,992
Fire Vehicle					
Fire Vehicle Replacement Reserve Purchases	1,336	1,504	204	2,082	2,163
Total Fire Vehicle	\$ 1,336	\$ 1,504	\$ 204	\$ 2,082	\$ 2,163
Equipment					
City Hall and Community Safety Building Lighting Upgrade	1,100	-	-	-	-
Energy Management Projects	550	550	550	550	550
Fire Equipment Replacement from Reserve	-	-	232	246	168
Gateway Theatre Technical Equipment Upgrade	2,210	-	-	-	-
Total Equipment	\$ 3,860	\$ 550	\$ 782	\$ 796	\$ 718
Total Equipment Program	\$ 9,395	\$ 5,809	\$ 4,579	\$ 5,408	\$ 6,873
Information Technology Program					
Information Technology					
Annual Hardware Refresh	881	493	540	782	868
Budget Planning & Monitoring Software Solution Phase 2	750	-	-	-	-
Enhanced Online Community Services Program Platform	100	-	-	-	-
ePlan Expansion and Single Sign-On (SSO) Integration	296	-	-	-	-
IT Service Management System Replacement	287	-	-	-	-
Meeting Management Solution	100	-	-	-	-
PeopleSoft FSCM 9.2 New Features	856	-	-	-	-
Roads Asset Modelling – Scoping Study	200	-	-	-	-
Wi-Fi Expansion for Civic Buildings	287	-	-	-	-
Total Information Technology Program	\$ 3,757	\$ 493	\$ 540	\$ 782	\$ 868

5 Year Capital Plan by Program (2023 - 2027) - Recommended

Appendix 12

	2023	2024	2025	2026	2027
Internal Transfers/Debt Payment					
Internal Transfers/Debt Payment					
7080 River Road Repayment	2,341	2,341	-	-	-
River Road/North Loop (2005) Repayment	1,335	-	-	-	-
Total Internal Transfers/Debt Payment	\$ 3,676	\$ 2,341	\$ -	\$ -	\$ -
Contingent External Contributions					
Contingent External Contributions					
Contingent External Contributions	10,000	10,000	10,000	10,000	10,000
Total Contingent External Contributions	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Grand Total	\$ 131,516	\$ 124,615	\$ 145,091	\$ 123,861	\$ 111,963

**CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY PROGRAM (2023 – 2027) RECOMMENDED BUT INSUFFICIENT FUNDING
(in \$000s)**

	2023	2024	2025	2026	2027
Infrastructure Program					
Roads					
Bridge Rehabilitation Program	-	-	-	300	300
Citywide Sidewalk and Street Light Replacement Program	-	-	-	500	500
Street Light LED Upgrade Program	-	-	-	490	490
Supplementary Asphalt Paving Program – Non-MRN	-	-	-	-	2,000
Williams Road Reconstruction – No 4 Road to No 5 Road – Construction	-	5,500	-	-	-
Total Roads	\$ -	\$ 5,500	\$ -	\$ 1,290	\$ 3,290
Infrastructure Advanced Design and Minor Public Works					
Public Works Minor Capital – Roads	-	350	-	350	350
Public Works Minor Capital – Traffic	-	250	250	250	250
Total Infrastructure Advanced Design and Minor Public Works	\$ -	\$ 600	\$ 250	\$ 600	\$ 600
Total Infrastructure Program	\$ -	\$ 6,100	\$ 250	\$ 1,890	\$ 3,890
Building Program					
Capital Buildings Project Development Advanced Design	-	500	500	-	-
Caretaker Suite Infrastructure Renewals – Phase 2	-	1,800	-	-	-
Caretaker Suite Infrastructure Renewals – Phase 3	-	-	2,900	-	-
City Hall Annex Infrastructure Replacements	-	2,400	-	-	-
Community Safety Building Mechanical System Renewals	-	-	1,400	-	-
Curling Club Priority 2 – Phase 3	-	-	4,885	-	-
Curling Club Priority 2 Repairs – Phase 2	-	680	-	-	-
Olympic Oval – Electrical, Interior Finishes and Mechanical Renewals	-	1,100	-	-	-
Outdoor Pool Renewals	-	3,000	-	-	-
Richmond Courthouse HVAC and Interior Renewals	-	1,300	-	-	-
Watermania Infrastructure Renewals	-	5,000	-	-	-
Works Yard Capital Maintenance	-	-	4,000	-	-
Total Building Program	\$ -	\$ 15,780	\$ 13,685	\$ -	\$ -

	2023	2024	2025	2026	2027
Parks Program					
Parks					
Lulu Island Park – Phase 2 Construction	-	-	-	-	5,300
Minoru Park Field 2 Synthetic Turf Replacement	-	750	-	-	-
Minoru Park Latrace Field Synthetic Turf Replacement	-	-	1,580	-	-
Park Shelter and Shade Program	-	500	500	500	500
Parks Ageing Infrastructure Replacement Program	-	500	500	500	250
Playground Replacement Program	-	-	-	400	450
Total Parks Program	\$ -	\$ 1,750	\$ 2,580	\$ 1,400	\$ 6,500
Grand Total	\$ -	\$ 23,630	\$ 16,515	\$ 3,290	\$ 10,390

The following is an overview of the major Capital programs proposed for the years 2024 to 2027.

INFRASTRUCTURE PROGRAM

- **Flood Protection & Dike Improvements (2024-2027: \$35,490,000)**

The City has 49 km of perimeter dike and 39 drainage pump stations that provide the City with flood protection from ocean storm surges and freshets. This project will include improvements at priority locations that maintain or increase current flood protection service levels. Dike construction works include, but is not limited to, dike raising, structural rehabilitation, brush cutting, and dike re-armouring at priority locations.

- **Disaster Mitigation and Adaptation Fund Infrastructure Upgrades (2024-2025: \$19,234,000)**

The City of Richmond invests in major disaster mitigation infrastructure to contribute to the Province of British Columbia and Canada's economic growth, public safety and ability to build a community more resilient to climate change. This project includes the design and construction of drainage pump station upgrades and perimeter dike raising included in the Disaster Mitigation and Adaptation Fund grant. The project will be completed in multiple phases. The initial phases of the project will primarily include dike upgrades.

- **Bennett West Sanitary Pump Station Replacement (2026: \$5,500,000)**

This project will include construction a new sanitary pump station complete with wet well, variable frequency drive (VFD) pumps, kiosk, backup generator, valve chamber, and transformer to replace the existing pump station. Pump station construction will be coordinated with adjacent developments.

- **Pressure Reducing Valve Upgrades (2024: \$1,700,000)**

Pressure Reducing Valve (PRV) stations reduce potable water supply pressures from Metro Vancouver's transmission system to more workable pressures before it is distributed to Richmond and businesses. PRV stations also play a key role in the City's pressure management system, which reduces system pressure during periods of low demand to reduce water leakage and ease stress on the City's watermain. The Ferguson PRV station, located on Sea Island, is approaching the end of its service life and will be replaced under this project.

- **Shell Road Multi-Use Pathway, Highway 99 to River Road (2024: \$8,400,000)**

This project will provide a northward extension of the existing MUP along Shell Road and connect to the Bridgeport Trail, the existing MUP along River Drive from Shell Road to Van Horne Way with access to the Canada Line Bridge, and the dyke trail at River Road.

Major Cost Components: lane narrowing, realignment of curb and gutter, multi-use pathways, physical protection, pavement markings and signage, pedestrian crossing enhancements, lighting, relocation of above ground infrastructure, etc.

BUILDING PROGRAM

- **Hugh Boyd Field House (2026: \$14,000,000)**

A feasibility study for a Field House was completed in the fall of 2015. The study included extensive community consultation with the following stakeholders groups: Richmond Youth Soccer, Richmond Adult Soccer, Richmond Chinese Soccer, West Richmond Community Association, Richmond School Board, Richmond Sport Hosting, Richmond Sports Council, City of Richmond Parks staff, City of Richmond Sport and Recreation staff and City of Richmond Project Development staff.

The 10,000 sq. ft. field house on Hugh Boyd Park would be utilized by various field sport users, West Richmond Community Centre and other community users. The Fieldhouse may include the following:

- 8 change rooms with showers;
- Exterior public washrooms;
- Administration/office space;
- Storage space;
- Concession; and
- Multipurpose space.

- **Gateway Theatre Mechanical and HVAC Renewals (2025: \$5,500,000)**

Multiple systems in this facility constructed in 1984 have reached the end of their life expectancy and will be replaced with modern energy efficient systems (where possible). These system renewals will also include associated miscellaneous items that will service to prolong the life of the building.

HVAC Renewals (\$2,500,000)

Renewals include the following units: heat pumps, heat exchangers, air handling and cooling units that have all reached the end of their expected and serviceable life span.

Mechanical Renewals (\$3,000,000)

Renewals include the following units: hot water heaters, boilers, expansion tanks and circulation pumps that have all reached the end of their expected and serviceable life span.

- **Works Yard Capital Maintenance (2024, 2026, 2027: \$11,600,000)**

Multiple systems in multiple buildings at the works yard complex constructed in 1980 have reached the end of their life expectancy and will be replaced with modern energy efficient systems (where possible). These system renewals will also include associated miscellaneous items that will service to prolong the life of the building. All of these works are planned to be completed at the same time to maximize savings in schedule and costs for mobilization and demobilization.

Life / Safety:

The security systems throughout the administration, garage workshop, stores, survey inspector and dispersal buildings have reached the end of their serviceable life span and will be replaced.

Interior:

Flooring, lighting, wall and restroom systems throughout the administration, garage workshop, stores, sanitation office, survey and dispersal buildings have all reached the end of their serviceable life span and will be renewed or replaced as needed.

Envelope:

Roofing, cladding, windows, doors and exterior renewals and replacement

PARKS PROGRAM

- **Garden City Lands Phase 4 (2027: \$4,460,000)**

The continuation of the development of the Garden City Lands will increase public access to the site and add a greater diversity of activities and experiences. This project is Phase 4 of the construction of the Garden City Lands (GCL). This phase includes the construction of the Community Hub and Farm Centre. This facility will include meeting rooms, displays for site interpretation, educational facilities to raise awareness about the site's ecological processes and educate visitors about sustainable agricultural farm practices. The Centre will also host community events to support site activities including workshops, festivals and farmer's markets. Finally, a food hub will be a key component of the building's program. This phase is required to achieve the vision of the Council approved plan and will add a greater diversity of activities and experiences to better serve Richmond residents and visitors.

- **Lulu Island Park Design and Construction (2024 – 2026: \$7,550,000)**

These capital requests follow the master planning phase in 2023, and will allow the City to begin to secure funding for the design and construction phase for Lulu Island Park. 2024 will see the commencement of design, detailed design, and preparation of a five-year budget. 2026 will see the initiation of phase 1 construction. The leases for the City-owned industrial properties will expire in 2024, at which point demolition is tentatively scheduled to begin.

The concept for Lulu Island Park was approved by Council in 2007 and incorporated in the City Centre Area Plan in 2009. Lulu Island Park is envisioned as the City's premier downtown park and a crucial part of its waterfront, supporting formal and informal recreation, cultural events, enhanced ecological values, and heritage interpretation. Sustained population growth in the City Centre demonstrates the need for this park, which is expected to serve as a catalyst for development in the adjacent commercial zone. The City has been acquiring the properties that will make up the park since 2005 and to date has completed acquisition of 23.29 acres.

- **Playground Improvement Program (2024 – 2025: \$800,000)**

This capital program addresses playgrounds that are at the end of their useful life and do not meet the current safety guidelines (according to the industry standard, the Canadian Standards Association's "Children's Playspaces and Equipment"), or can no longer be maintained to meet the guidelines due to obsolescence or vandalism. The program is directed towards replacing all or part of a playground and includes replacement of playground equipment, playground infrastructure (e.g., resilient surfacing, borders, drainage) and landscape features.

LAND PROGRAM

- **Strategic Real Estate Acquisition (2024 – 2027: \$40,000,000)**

Funds for land acquisition to meet the Council Approved Strategic Real Estate Investment Plan. Availability of funds in the capital budget provides the ability to act quickly when necessary and avoid costs incurred to repay the Revolving Fund.

EQUIPMENT PROGRAM

- **Vehicle and Equipment Reserve Purchases (Public Works and Corporate Fleet) (2024 – 2027: \$13,724,339)**

Annual replacement of vehicles eligible due to age and condition in accordance with Sustainable Green Fleet Policy 2020.

Process for replacement of ageing fleet is to establish needs and develop specifications for vehicle/equipment replacements. Send bid information out to the marketplace, evaluate submissions and award accordingly.

2MVA	2 Mega-Volt Ampere
5YFP	5 Year Financial Plan
AC	Air Conditioning
APS	Accessible Pedestrian Signal
AVL	Automatic Vehicle Location
CCTV	Closed Circuit Television
CN	Canadian National (Railway)
ALC	Agricultural Land Commission
CEEP	Community Energy and Emission Plan
CMBC	Coast Mountain Bus Company
CPI	Consumer Price Index
DCC	Development Cost Charges
DDC	Direct Digital Control
EV	Electrical Vehicle
FSCM	Financial Supply Chain Management
GCL	Garden City Lands
GASB	Governmental Accounting Standards Board
GHG	Greenhouse Gas
GM	General Manager
GPS	Global Positioning System
HD	High Definition
HPS	High Pressure Sodium
HVAC	Heating, Ventilation, and Air Conditioning
ICBC	Insurance Corporation of British Columbia
ITSM	Information Technology Service Management
IPS	Infor Public Sector
KPI	Key Performance Indicator
LED	Light-Emitting Diodes
MCC	Motor Control Center
MPI	Municipal Price Index
MRN	Major Road Network
MUP	Multi-Use Pathway
NIC	Neighbourhood Improvement Charges
OBI	Operating Budget Impact
OCP	Official Community Plan
PCC	Position Complement Control
PDF	Portable Document Format
PPE	Personal Protective Equipment
PRV	Pressure Reducing Valve

PTO	Power To Off
PW	Public Works
RCC	Roller Compacted Concrete
RCMP	Royal Canadian Mounted Police
RFP	Request for Proposal
RFR	Richmond Fire-Rescue
RFT	Regular Full Time
RPL	Richmond Public Library
RSA	Rate Stabilization Account
RT	Review Team
RWIS	Road Weather Information System
SCADA	Supervisory Control and Data Acquisition
SSO	Single Sign-On
TMC	Traffic Management Centre
UPS	Uninterruptable Power Supply
VFD	Variable Frequency Drive