City of Richmond

Report to Committee

To:	Finance Committee	**Date:**	November 15, 2023
From:	Mike Ching, CPA, CMA Director, Finance	**File:**	03-0985-01/2023-Vol 01
Re:	**2024 Proposed Capital Budget**		

Staff Recommendation

1. That the 2024 Proposed Capital Budget as presented in Appendix 3 totaling $208,564,335 be approved; and

2. That the 2024 Proposed Capital Budget as approved be included in the Consolidated 5 Year Financial Plan (2024-2028).

Mike Ching, CPA, CMA
Director, Finance
(604-276-4137)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
SENIOR MANAGEMENT TEAM	INITIALS: AC
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 2024 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 2024 Capital Budget process, a total of 96 capital projects totalling $214.5 million 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 Council-approved 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 2024 Proposed Capital Budget presented to the Finance Committee for review, approval and inclusion in the Consolidated 5 Year Financial Plan (2024-2028).

The 2024 Proposed Capital Budget is $208.6 million, which includes $198.6 million for 86 capital projects and $10.0 million for contingent external contributions.

The City maintains critical infrastructure such as dikes, roads, water, sewer and community amenities. Over 79 per cent of the 2024 Proposed Capital Budget relates to the Infrastructure and Building programs. $20.6 million is recommended for the flood protection program, which includes dike improvements, drainage pump station rehabilitation and upgrades, canal stabilization at priority locations, and drainage improvements in the Burkeville area. The Building program includes the replacement of the existing Works Yard, with a $70.0 million capital request for Phase 1. An additional $7.0 million is recommended for the Britannia Shipyards to complete repairs, replacements and associated works to the Shipyard building.

Parks program comprises of 5.5 per cent of the 2024 Proposed Capital Budget, where $2.5 million will be for the Minoru Lakes Renewal: Phase 2 and $0.6 million will be for the Burkeville Neighbourhood Park Redevelopment.

The 2024 Information Technology program includes $2.9 million for the MyPermits and the Automated Plan Review AI (artificial intelligence) Software projects, which are anticipated to be funded by an external grant. It also includes $0.4 million for the Database Encryption Project which will enhance cybersecurity measures.

The Equipment program sums to $5.9 million of the 2024 Proposed Capital Budget which includes vehicle and equipment replacement purchases and the Automatic Vehicle Location/Global Positioning System (AVL/GPS) expansion.

Land program and Contingent External Contributions comprises the remaining 10.2 per cent of the Proposed 2024 Capital Budget, which are for strategic real estate acquisition where Council approval is required for each specific acquisition and potential external grants that may be approved or received throughout the year for various projects respectively.

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

Table 1: 2024 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.	50	$63.9M	30.7%	$27,065
Building program includes major facilities replacements, major building renovation projects, as well as minor facility upgrades.	Works Yard	$70.0M	33.5%	-
	10	$31.1M	14.9%	$185,824
Parks program includes development of parks and parkland acquisition.	13	$11.4M	5.5%	$21,150
Land program includes funding for land acquisition where Council approval is required for each specific acquisition.	1	$11.2M	5.4%	-
Equipment program includes fleet and equipment, as well as fire vehicle and equipment replacement.	4	$5.9M	2.8%	$121,762
Information Technology program includes information technology hardware and software.	7	$5.0M	2.4%	$194,052
Subtotal	**86**	**$198.6M**	**95.2%**	**$549,853**
Contingent External Contributions is an estimate of external grants that may be approved or received throughout the year for various projects.		$10.0M	4.8%	-
2024 Recommended Projects Total		**$208.6M**	**100.0%**	**$549,853**

The 2024 Proposed Capital Budget totaling $208,564,335 aims to maximize external funding opportunities to enable the City to maintain and advance the City's ageing infrastructure and facilities, which continues to provide necessities and benefits to the community. The Operating Budget Impact (OBI) associated with these projects is $549,853. The 2024 Proposed Capital Budget is recommended to be included in the Consolidated 5 Year Financial Plan (2024-2028).

Staff Report

Origin

Subsection 165(1) of the *Community Charter* requires the City to adopt a 5 Year Financial Plan (5YFP) Bylaw. The Proposed 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 Proposed 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 2022-2026 Strategy #4 Responsible Financial Management and Governance:

> *Responsible financial management and efficient use of public resources to meet the needs of the community.*
>
> *4.1 Ensure effective financial planning to support a sustainable future for the City.*
>
> *4.2 Seek improvements and efficiencies in all aspects of City business.*
>
> *4.3 Foster community trust through open, transparent and accountable budgeting practices and processes.*
>
> *4.4 Work with all levels of governments for grant and funding opportunities.*

Analysis

This report presents the 2024 Proposed Capital Budget with respect to the 2024 recommended projects and the associated Operating Budget Impacts (OBI). This report also presents the projects currently planned for years 2025-2028 as required; however, the projects will be subject to final approval in each subsequent year.

The City owns over $3.8 billion of infrastructure and amenities (historical value), encompassing flood protection, water and sewer infrastructure; roadways, walkways and multi-use pathways; community facilities, parks and trails; and civic facilities including the Works Yard. As the City's assets age, asset replacement, repairs and maintenance will be required. Continuous capital investment is required to maintain the asset condition of the infrastructure and civic buildings, as it impacts the quality of life of residents and businesses.

2024 Capital Process

The annual capital requirements are driven by many factors including growth, global environment, existing asset condition, Council's priorities, industry standard, and legislated, regulatory and safety requirements. Each division prepares and prioritizes their capital submissions based on their area of expertise. Project scopes are detailed, alternatives are reviewed, and funding sources are considered. Each division also self-ranks their submissions using the established criteria as summarized in Appendix 1.

The Review Team (RT), comprised of directors from each division, is appointed by the Senior Management Team (SMT) to review each request using the established ranking criteria. The RT reviews and 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 SMT's review, discussion and final recommendation. This final recommendation is included in the 2024 Proposed Capital Budget presented to the Finance Committee for review, approval and inclusion in the Consolidated 5 Year Financial Plan (2024-2028). The capital budgeting process is illustrated in Appendix 2.

2024 Proposed Capital Budget

The 2024 Proposed Capital Budget (Appendix 3) is $208.6 million with $549,853 OBI to support multiple Council priorities to ensure that Richmond remains an appealing, livable and well-managed community. Highlights of the 2024 Proposed Capital Budget are:

- $20.0 million is recommended for the Roads program to maintain the condition of the roads and to enhance Richmond's robust transportation network. A total of $8.3 million will fund the annual asphalt re-paving program to maintain existing road conditions.

- $20.6 million to advance the accelerated Flood Protection program. The Flood Protection program continues to leverage the senior government funding to improve the prevention and management of climate change impacts and extreme weather events.

- A combined $23.3 million is recommended for the remaining Infrastructure program (sanitary sewer, water, and infrastructure advanced design and minor public works) to ensure the assets are effectively maintained and continue to meet the needs of the growing community. Specifically, $5.1 million will be for development-coordinated works at planned neighborhoods to achieve cost efficiencies and to reduce construction impacts to residents.

- A total of $101.1 million for the Building program, of which $70.0 million is allocated for Phase 1 of the Works Yard Replacement project, $7.0 million is for Britannia Shipyards - Britannia Shipyard Building Envelope and Structural Renewals, and $4.3 million for Steveston and South Arm Outdoor Pool Renewals. The Works Yard facility supports public works services, equipment, fuel and storage of materials that are fundamental to the operations and maintenance of the City's infrastructure. Built in the late 1970s and early 1980s, the Works Yard is crucial to the City's operations, emergency response and disaster recovery, and has not been replaced nor upgraded to modern standards.

  For the Britannia Shipyards - Building Envelope and Structural Renewals project, $7.0 million is required to complete repairs, replacements and associated works to the Shipyard building. The remaining work on the Seine Net Loft is included in the 2025 capital submission.

- Of the $11.4 million for the Parks program, $4.0 million is for Parkland Acquisition, and $2.5 million is for the Minoru Lakes Renewal: Phase 2 project, which encompasses a stormwater detention pond system and other amenities to offer a more inviting entry into the Minoru Lakes area.

- The Equipment program is $5.9 million which includes vehicle and equipment replacement projects, GHG and Energy Management projects, and the last phase of the Automatic Vehicle Location/Global Positioning System (AVL/GPS) expansion.

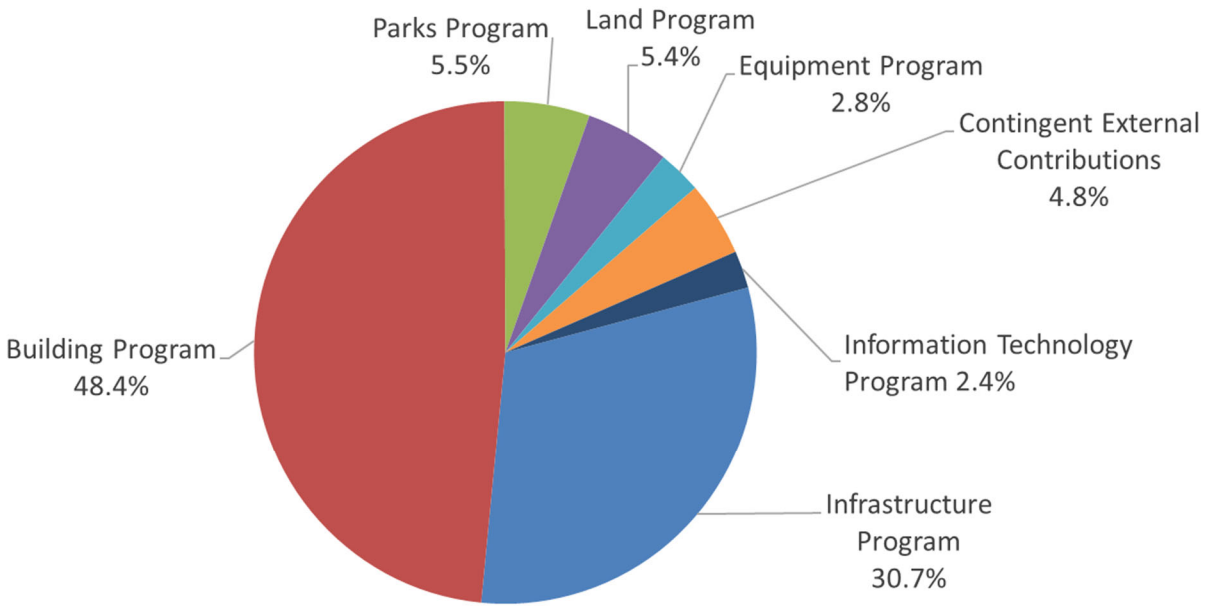
- The Information Technology program totals $5.0 million, of which $2.9 million includes both the MyPermits project and the Automated Plan Review AI (artificial intelligence) Software project. MyPermits focuses on reviewing and streamlining the permitting process and enabling digital access for development application submissions, review and status tracking. The Automated Plan Review AI Software project focuses on implementing an AI-driven automated plan review system to significantly enhance the speed and accuracy for processing building and development permit applications. Both projects are expected to be funded through an external grant, subject to the successful grant application for the Canada Mortgage and Housing Corporation (CMHC) Housing Accelerator Fund (HAF). HAF is a unique funding program that provides incentive funding for achieving housing supply growth targets, and both projects are part of the initiatives to fulfill this target.

  Approximately $0.4 million will be spent on the Database Encryption Project to enhance cybersecurity measures.

The 2024 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.

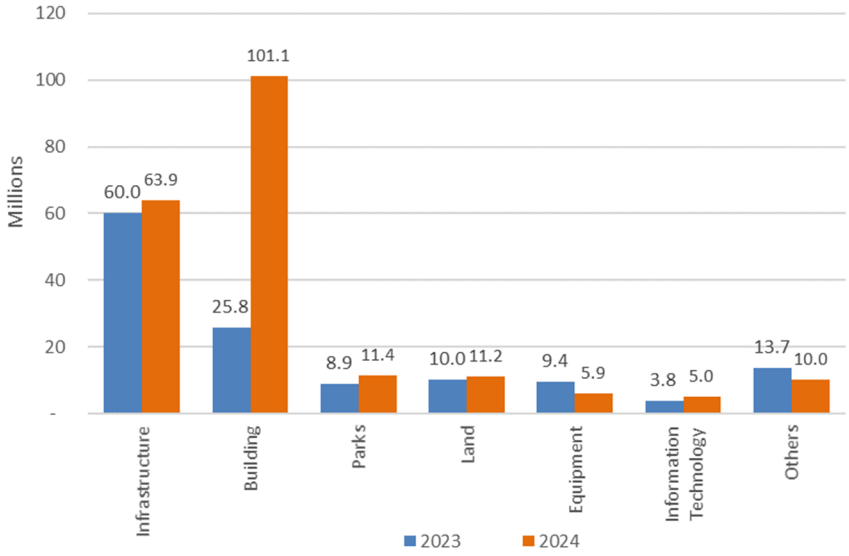
The following is an overview of the recommended capital projects by program:

Figure 1: 2024 Recommended Projects by Program



With the exception of the Works Yard Replacement: Phase 1 project, the 2024 Proposed Capital projects are in line with prior years. Figure 2 highlights the changes by capital program between 2023 Capital Budget and 2024 Proposed Capital Budget.

Figure 2: Year Over Year Capital Budget Changes by Capital Program



The 2024 recommended capital projects are listed in Appendix 3. Capital projects that are recommended but with insufficient funding 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 recommended but with insufficient funding may be reconsidered for recommendation by Council, subject to funding availability.

Capital Budget Funding Sources

The 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 and obligations.

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 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 include the Infrastructure Canada Disaster Mitigation and Adaptation Fund, the Canada Community Revitalization Fund, and various grant programs with TransLink and ICBC. Developers and local communities could also contribute to the capital projects for initiatives that they support. In addition to the Contingent External Contributions, the following potential external contributions are budgeted for 2024:

Table 2: 2024 Budgeted External Funding by Capital Program

Program	Amount
Infrastructure Program	$7,213,000
Land Program	$1,186,407
Parks Program	$1,185,000
Information Technology Program	$2,893,499
Total	**$12,477,906**

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

Table 3: 2024 Capital Program by Funding Source

Program	Reserves	DCCs	Provisions	External Funding
Infrastructure Program	58%	16%	15%	11%
Building Program	94%	- %	6%	- %
Parks Program	28%	58%	4%	10%
Land Program	89%	- %	- %	11%
Equipment Program	78%	- %	22%	- %
Information Technology Program	8%	- %	34%	58%

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

For information purposes, Appendix 4 summarizes the projects that are 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 funding sources.

Appendix 5 summarizes all the 2024 recommended projects funded by the Capital Building and Infrastructure (CBI) Reserve. Appendix 6 summarizes all the 2024 recommended projects funded by DCCs. Where an approved DCC capital project benefits both growth and existing population, the City is required to pay for the portion that benefits the existing population through tax or other financing sources. Under the *Local Government Act*, in addition to the portion of the total DCC infrastructure cost that is allocated to existing population, the City is also required to provide a one per cent municipal assist factor to assist future growth in paying its portion of the DCC infrastructure costs.

Growing Communities Reserve Fund

On February 10, 2023, the Province of BC ("the Province") announced a one-time total of $1 billion for all 188 of BC communities and regional districts for the Growing Communities Fund (the "GCF") to support the delivery of infrastructure and amenities related to community growth. City of Richmond was allocated $20,354,000 of grant funding, and the payment was received on March 23, 2023. The funds must be spent on previously approved projects and the Province also requested that all funds be expended within approximately five years of receipt.

The RT has carefully reviewed all previously approved projects against the Province's eligibility criteria. Staff recommend the following capital projects to be funded from the GCF:

Table 4: Growing Communities Fund

Project	Year	Growing Communities Fund	Total Investment
First Nations Bunkhouse Reconstruction and Exhibit Development	2024	$3,354,000	$6,500,000
Hugh Boyd Community Facility and Fieldhouse	2025	$17,000,000	$17,000,000
Total		$20,354,000	$23,500,000

Staff will bring a separate report on the concept design and budget for these two capital projects to Council for consideration.

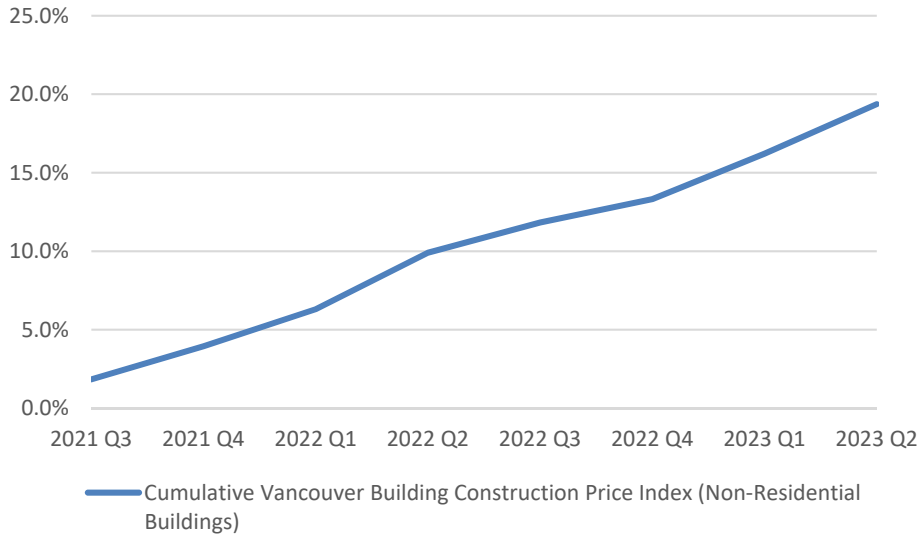
Funding for Capital Projects - Building

Each year, building assessment is conducted on selected City owned buildings to identify the potential capital work required. Feasibility level review and costing would then be performed before submitting the capital requests to the budget process for consideration. Council priorities are considered when staff prepare the capital submissions. Approximately $340.7 million of building repairs, renewals, reconstruction or replacements will be required between 2024 and 2028, of which $215.3 million are related to major facilities projects like the Works Yard Replacement, Garden City Lands - Community Hub, Hugh Boyd Community Facility and Fieldhouse, Phoenix Net Loft Program Implementation, First Nations Bunkhouse Reconstruction and Exhibit Development and Japanese Duplex Restoration and Fit Out.

The total budget for the Works Yard Replacement project is estimated at $247.0 million, of which $30.0 million was approved in 2023 and $150.0 million is recommended to be included in the Proposed 2024–2028 Capital Plan. The remaining $67.0 million for the Works Yard replacement is projected to be funded by 2032.

The uncommitted balance of CBI as of December 31, 2022 is $74.1 million. Staff recommend that in order to ensure there is sufficient funding in CBI for the Works Yard project, and the maintenance and replacement of the City's ageing facilities, Council Policy LTFMS concerning the 1 per cent annual transfer be maintained. This also allows the City to keep up with the unprecedented increase in construction costs, where the non-residential building construction price index has increased by 19.4 per cent in the past 2 years. Figure 3 highlights the rising trend of the non-residential building construction price index between Q3, 2021 to Q2, 2023.

Figure 3: Cumulative Vancouver Building Consumer Price Index (Non-Residential Buildings)



2024 Operating Budget Impact ("OBI")

Capital projects include new and replacement assets. Upon completion of these capital projects, assets are added to the City's inventory. Replacement projects may also have costs associated to maintain existing levels of service. Operating Budget Impact associated with the new assets and replacement projects may include:

- Annual software subscription and support contract
- Janitorial services, utility costs, maintenance costs

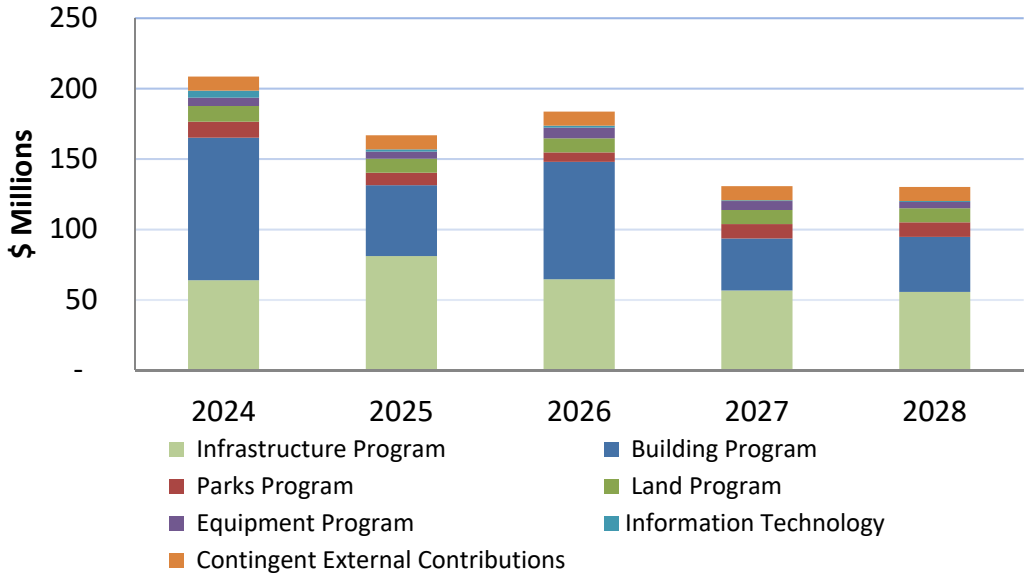
The existing operating budget is reviewed prior to submitting a request for OBI to ensure it cannot be accommodated within the existing budget. OBIs resulting from approved capital projects will be added to the Operating Budget in the same year that the capital projects are approved by Council.

Total OBI relating to the 2024 recommended projects, excluding staffing requirements, is $549,853. Of this amount, $50,118 included within the Infrastructure program is related to the utility projects. As such, if the respective projects are approved, this amount will be incorporated into the 2025 utility rate budget, as the 2024 Utility Budgets and Rates report has already been approved by Council on November 14, 2023.

Proposed 2024 to 2028 Capital Plan

The Proposed 2024 to 2028 Capital Plan supports a significant capital investment for the Major Facilities projects. The Works Yard project is planned to be funded over the next 10 years. Other major facilities projects to be funded within the Proposed 2024 to 2028 Capital Plan include Hugh Boyd Community Facility and Fieldhouse, First Nations Bunkhouse Reconstruction and Exhibit Development, Japanese Duplex Restoration and Fit Out, Garden City Lands - Community Hub, and Phoenix Net Loft Program Implementation. Figure 4 shows the Proposed 2024 to 2028 Capital Plan by program.

Figure 4: Capital Budget by Program (2024-2028)



Future year capital submissions may be adjusted as staff review the priorities, asset conditions and funding availability 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 (2024-2028) is presented in Appendix 10, and the funding sources are presented in Appendix 11.

A detailed listing of the 2024–2028 recommended capital projects by program is presented in Appendix 12 with highlights of the 2025–2028 projects summarized in Appendix 14. Appendix 13 lists the 2024–2028 capital projects by program that are recommended but with insufficient funding.

Financial Impact

The 2024 Proposed Capital Budget with a total value of $208,564,335 will enable the City to maintain and advance the asset inventory in order to provide necessities and benefits to the community. It is recommended to include the 2024 Proposed Capital Budget in the Consolidated 5 Year Financial Plan (2024–2028). The Operating Budget Impact associated with these projects is $549,853.

Conclusion

The recommended capital budget for 2024 is $208,564,335. The Review Team worked closely with the CAO and SMT to represent the interests of all stakeholders to ensure that the 2024 capital program addresses Council's strategic plans, policies and priorities and meets the needs of the community while effectively utilizing available funding.



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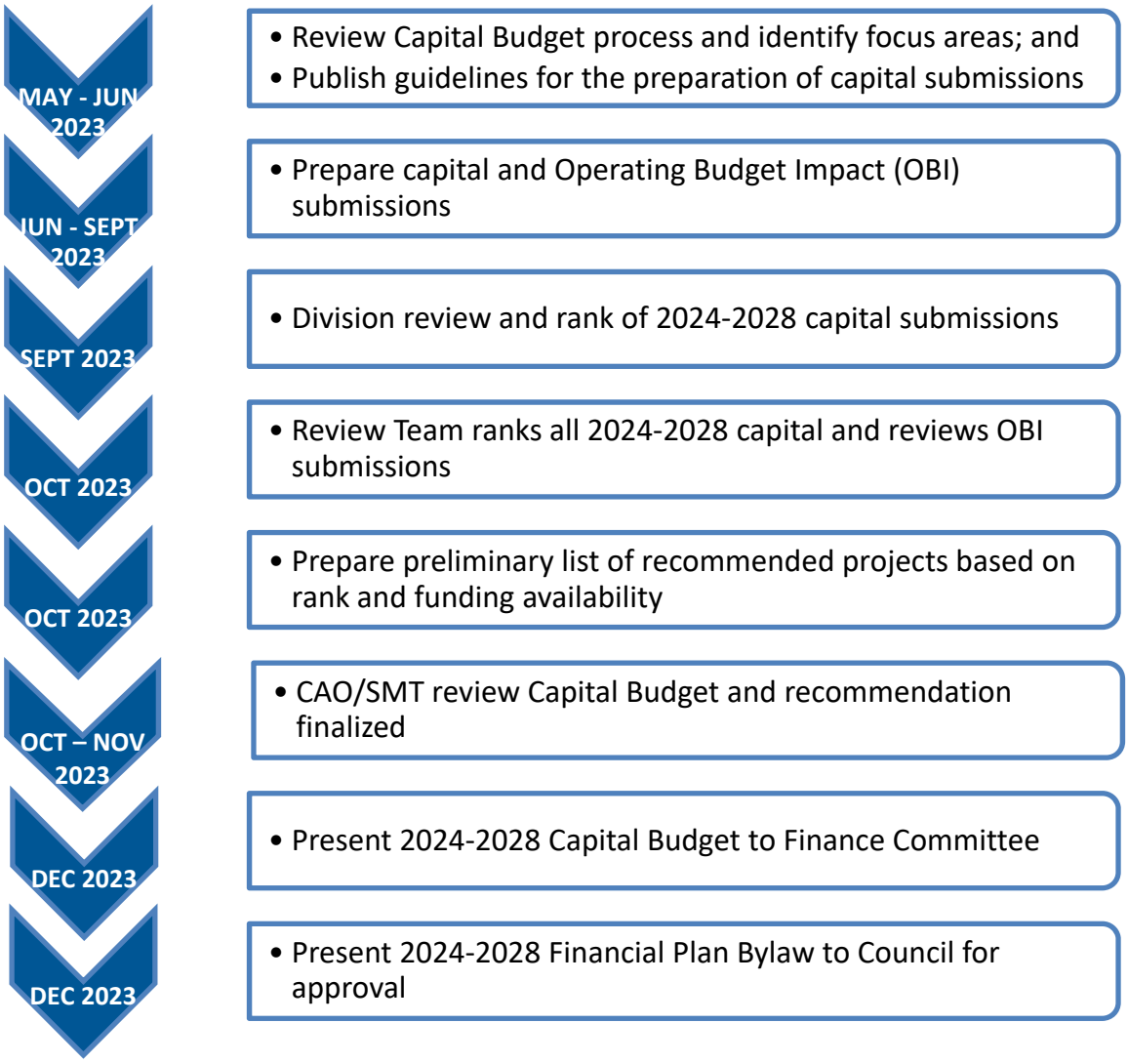
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Appendix 1: Capital Ranking Criteria
Appendix 2: 2024 Capital Budget Process
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Appendix 12: 5 Year Capital Plan by Program (2024 - 2028) - Recommended
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Capital Ranking Criteria

Alignment with City Vision	Does this support Council's Strategic Plan or an approved City strategy?
Risk Management	Is there a legal or regulatory compliance requirement, life safety and property protection and/or other key risks that need to be managed?
Social	Will this enhance social equity, vibrancy and/or health and wellness of the community?
Environmental	Will this improve environmental conditions or reduce waste?
Economic	Is there Operating Budget Impact (OBI) and external funding for the project?
Innovation & Efficiency	Is this innovative and does it increase productivity? (applicable only to IT related submissions)

2024 Capital Budget Process



Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
Roads					
Active Transportation Improvement Program	-	1,000,000	1,000,000	1,920	26
Annual Asphalt Re-Paving Program - MRN	-	3,370,000	3,370,000	-	27
Annual Asphalt Re-Paving Program - Non-MRN	-	3,939,705	3,939,705	-	28
Arterial Roadway Improvement Program	-	1,000,000	1,000,000	-	29
Bridge Rehabilitation Program	-	300,000	300,000	-	30
Citywide Connector Walkways Rehabilitation Program	-	250,000	250,000	-	31
Citywide Sidewalk and Street Light Replacement Program	-	500,000	500,000	-	32
Gilbert Road Off-road Cycling Facility, Granville Avenue to Elmbridge Way	3,113,000	1,037,000	4,150,000	-	33
LED Street Name Sign Program	-	200,000	200,000	-	34
Neighbourhood Walkway Program	-	500,000	500,000	-	35
Special Crosswalk Program	-	350,000	350,000	5,696	36
Street Light LED Upgrades	-	490,000	490,000	(35,000)	37
Supplementary Asphalt Re-Paving Program - Non-MRN	-	1,000,000	1,000,000	-	38
Top 20 Collision Prone Intersections - Implementation of Medium-/Long-term Improvements	-	600,000	600,000	-	39
Traffic Calming Program	-	300,000	300,000	-	40
Traffic Signal Power Backup System (UPS)	-	200,000	200,000	-	41
Traffic Signal Program	-	600,000	600,000	4,331	42
Traffic Video and Communication Program	-	400,000	400,000	-	43
Transit-Related Amenity Improvement Program	-	100,000	100,000	-	44
Transit-Related Roadway Improvement Program	100,000	100,000	200,000	-	45
Transportation Planning, Functional and Preliminary Design	-	600,000	600,000	-	46
Total Roads	***$3,213,000***	***$16,836,705***	***$20,049,705***	***($23,053)***	
Flood Protection					
Burkeville Utility Improvements	-	4,005,000	4,005,000	13,700	48
Canal Stabilization and Drainage and Irrigation Upgrades	-	3,000,000	3,000,000	-	49
Development Coordinated Works – Flood Protection	-	250,000	250,000	-	50
Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	4,000,000	6,000,000	10,000,000	-	51
Drainage Pump Station Rehabilitation and Generator Upgrade	-	200,000	200,000	5,800	52
Flood Protection and Dike Improvements	-	1,084,000	1,084,000	-	53
Invasive Species Management	-	200,000	200,000	-	54
Laneway Drainage Upgrade	-	1,272,000	1,272,000	13,200	55
SCADA System Improvements	-	350,000	350,000	-	56
Watercourse Rehabilitation and Replacement	-	200,000	200,000	-	57
Total Flood Protection	***$4,000,000***	***$16,561,000***	***$20,561,000***	***$32,700***	
Water					
Development Coordinated Works - Water	-	250,000	250,000	-	59
Fire Hydrant Upgrades	-	400,000	400,000	-	60
Water Metering Program	-	2,000,000	2,000,000	17,418	61
Watermain Replacement Upgrades Program	-	6,668,274	6,668,274	-	62
Watermain Tie-in and Restoration	-	300,000	300,000	-	63
Total Water	***-***	***$9,618,274***	***$9,618,274***	***$17,418***	

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
Sanitary Sewer					
6333 Cooney Road Development Coordinated Works – Sanitary System Upgrade	-	2,300,000	2,300,000	-	65
9800 Van Horne Way Development Coordinated Works	-	2,800,000	2,800,000	-	66
Development Coordinated Works - Sanitary	-	250,000	250,000	-	67
Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	-	700,000	700,000	-	68
Sanitary Sewer Gravity System Assessment and Rehabilitation	-	1,050,000	1,050,000	-	69
Sanitary Sewer Tie-in and Restoration	-	150,000	150,000	-	70
Steveston Sanitary Sewer Rehabilitation	-	900,000	900,000	-	71
Total Sanitary Sewer	-	***$8,150,000***	***$8,150,000***	-	
Infrastructure Advanced Design and Minor Public Works					
Public Works Infrastructure Advanced Design	-	2,970,000	2,970,000	-	73
Public Works Minor Capital - Dikes	-	400,000	400,000	-	74
Public Works Minor Capital - Drainage	-	455,000	455,000	-	75
Public Works Minor Capital - Roads	-	250,000	250,000	-	76
Public Works Minor Capital - Sanitary	-	455,000	455,000	-	77
Public Works Minor Capital - Sanitation and Recycling	-	600,000	600,000	-	78
Public Works Minor Capital - Water	-	450,000	450,000	-	79
Total Infrastructure Advanced Design and Minor Public Works	-	***$5,580,000***	***$5,580,000***	-	
TOTAL INFRASTRUCTURE PROGRAM	**$7,213,000**	**$56,745,979**	**$63,958,979**	**$27,065**	
BUILDING PROGRAM					
Building					
Annual Infrastructure Replacements and Building Improvements	-	3,460,013	3,460,013	-	81
Capital Buildings Project Development Advanced Design	-	1,500,000	1,500,000	-	82
City Hall Annex Infrastructure Replacements	-	600,000	600,000	-	83
Community Safety Building Security Enhancements and Infrastructure Replacement	-	1,787,525	1,787,525	-	84
Fire Hall No. 7 System Renewals	-	1,900,000	1,900,000	-	85
Richmond Curling Club Priority 2 Repairs - Phase 2	-	3,100,000	3,100,000	-	86
Steveston and South Arm Outdoor Pool Renewals	-	4,300,000	4,300,000	-	87
Steveston Martial Arts Roof Beam Remediation and Fascia Board Replacement	-	1,000,000	1,000,000	-	88
Works Yard Replacement - Phase 1	-	70,000,000	70,000,000	-	89
Total Building	-	***$87,647,538***	***$87,647,538***	-	
Heritage					
Britannia Shipyards – Britannia Shipyard Building Envelope and Structural Renewals	-	7,000,000	7,000,000	-	91
First Nations Bunkhouse Reconstruction and Exhibit Development	-	6,500,000	6,500,000	185,824	92
Total Heritage	-	***$13,500,000***	***$13,500,000***	***$185,824***	
TOTAL BUILDING PROGRAM	-	**$101,147,538**	**$101,147,538**	**$185,824**	

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
PARKS PROGRAM					
Parks					
Bowling Green Lighting LED Replacement	-	450,000	450,000	-	94
Burkeville Neighbourhood Park Redevelopment	-	600,000	600,000	-	95
City-Wide Community Gardens	-	300,000	300,000	5,700	96
Hugh Boyd Community Park Playground Renewal	-	300,000	300,000	-	97
Minoru Lakes Renewal: Phase 2	1,150,000	1,350,000	2,500,000	7,950	98
Minoru Park Central Amenity Space Concept Design	35,000	350,000	385,000	-	99
Parks Advance Planning and Design	-	800,000	800,000	-	100
Parks Ageing Infrastructure Replacement Program	-	730,000	730,000	-	101
Parks General Development	-	500,000	500,000	-	102
Parks Interpretive Signage Program - Phase 2	-	120,000	120,000	7,500	103
Playground Replacement Program	-	600,000	600,000	-	104
Waterfront Infrastructure Renewals	-	120,000	120,000	-	105
Total Parks	***$1,185,000***	***$6,220,000***	***$7,405,000***	***$21,150***	
Parkland					
Parkland Acquisition	-	4,000,000	4,000,000	-	107
Total Parkland	***-***	***$4,000,000***	***$4,000,000***	***-***	
TOTAL PARKS PROGRAM	**$1,185,000**	**$10,220,000**	**$11,405,000**	**$21,150**	
LAND PROGRAM					
Land					
Strategic Real Estate Acquisition	1,186,407	10,000,000	11,186,407	-	109
TOTAL LAND PROGRAM	**$1,186,407**	**$10,000,000**	**$11,186,407**	**-**	
EQUIPMENT PROGRAM					
Vehicle					
Automatic Vehicle Location/Global Positioning System Expansion	-	189,554	189,554	121,762	111
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	-	3,685,000	3,685,000	-	112
Total Vehicle	***-***	***$3,874,554***	***$3,874,554***	***$121,762***	
Fire Dept Vehicles and Equipment					
Fire Vehicle Replacement Reserve Purchases	-	1,476,000	1,476,000	-	114
Total Fire Dept Vehicles and Equipment	***-***	***$1,476,000***	***$1,476,000***	***-***	
Equipment					
GHG and Energy Management Projects	-	550,000	550,000	-	116
Total Equipment	***-***	***$550,000***	***$550,000***	***-***	
TOTAL EQUIPMENT PROGRAM	**-**	**$5,900,554**	**$5,900,554**	**$121,762**	
INFORMATION TECHNOLOGY PROGRAM					
Information Technology					
Annual Hardware Refresh	-	447,700	447,700	-	118
Automated Plan Review AI Software	717,414	-	717,414	55,000	119
Commvault City Hall Storage Refresh	-	131,658	131,658	6,552	120
CRM Public Works Expansion	-	400,000	400,000	-	121
Database Encryption Project	-	355,000	355,000	44,500	122
MyPermits	2,176,085	-	2,176,085	-	123
VXRail Host Expansion and Refresh	-	738,000	738,000	88,000	124
TOTAL INFORMATION TECHNOLOGY PROGRAM	**$2,893,499**	**$2,072,358**	**$4,965,857**	**$194,052**	

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
CONTINGENT EXTERNAL CONTRIBUTIONS					
Contingent External Contributions	10,000,000	-	10,000,000	-	126
TOTAL CONTINGENT EXTERNAL CONTRIBUTIONS	**$10,000,000**	**-**	**$10,000,000**	**-**	
Total 2024 Capital Program	***$22,477,906***	***$186,086,429***	***$208,564,335***	***$549,853***	

OBI Type	
Operating OBI	$499,735
Utility OBI	50,118
Total OBI	**$549,853**

Each year, the Revolving Fund is utilized to fund various capital projects. This summary shows the 2024 capital projects and the corresponding amounts funded by the Revolving Fund.

PROGRAM NAME	Revolving Fund	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM				
Roads				
Bridge Rehabilitation Program	300,000	300,000	-	30
Citywide Connector Walkways Rehabilitation Program	250,000	250,000	-	31
Citywide Sidewalk and Street Light Replacement Program	500,000	500,000	-	32
Supplementary Asphalt Re-Paving Program - Non-MRN	1,000,000	1,000,000	-	38
Total Roads	***$2,050,000***	***$2,050,000***	**-**	
Infrastructure Advanced Design and Minor Public Works				
Public Works Minor Capital - Roads	250,000	250,000	-	76
Total Infrastructure Advanced Design and Minor Public Works Program	**$250,000**	**$250,000**	-	
TOTAL INFRASTRUCTURE PROGRAM	**$2,300,000**	**$2,300,000**	**-**	
BUILDING				
Works Yard Replacement – Phase 1	15,000,000	70,000,000	-	89
TOTAL BUILDING PROGRAM	**$15,000,000**	**$70,000,000**	**-**	
PARKS				
Burkeville Neighbourhood Park Redevelopment	600,000	600,000	-	95
Minoru Lakes Renewal: Phase 2	650,000	2,500,000	7,950	98
Parks Ageing Infrastructure Replacement Program	730,000	730,000	-	101
Playground Replacement Program	600,000	600,000	-	104
Waterfront Infrastructure Renewals	120,000	120,000	-	105
TOTAL PARKS PROGRAM	**$2,700,000**	**$4,550,000**	**$7,950**	
Total Projects Funded by Revolving Fund	**$20,000,000**	**$76,850,000**	**$7,950**	

The City funding related to Roads DCC and Parks DCC capital projects are also funded by the Revolving Fund.

City funding for Parks Acquisition DCC capital projects	297,500
City funding for Parks Development DCC capital projects	123,165
City funding for Roads DCC capital projects	460,351
Total City Funding for DCC Capital Projects	**$881,016**

TOTAL FUNDING FROM REVOLVING FUND	**$20,881,016**

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
Building				
Capital Buildings Project Development Advanced Design	1,500,000	1,500,000	-	82
City Hall Annex Infrastructure Replacements	600,000	600,000	-	83
Community Safety Building Security Enhancements and Infrastructure Replacement	1,787,525	1,787,525	-	84
Fire Hall No. 7 System Renewals	1,900,000	1,900,000	-	85
Richmond Curling Club Priority 2 Repairs - Phase 2	3,100,000	3,100,000	-	86
Steveston and South Arm Outdoor Pool Renewals	2,700,000	4,300,000	-	87
Works Yard Replacement - Phase 1	35,000,000	70,000,000	-	89
Total Building	***$46,587,525***	***$83,187,525***	**-**	
Heritage				
Britannia Shipyards - Britannia Shipyard Building Envelope and Structural Renewals	7,000,000	7,000,000	-	91
First Nations Bunkhouse Reconstruction and Exhibit Development	3,146,000	6,500,000	185,824	92
Total Heritage	***$10,146,000***	***$13,500,000***	***$185,824***	
Total Building Program	**$56,733,525**	**$96,687,525**	**$185,824**	
Grand Total	**$56,733,525**	**$96,687,525**	**$185,824**	

DCC are levies placed on new development that result in increased demands on City infrastructure and could be used on capital projects included in the approved DCC plan.

Project Name	DCC Funding	City Funding[1]	Total Investment[2]	Total OBI	Ref
ROADS DCC					
Roads					
Active Transportation Improvement Program	940,500	59,500	1,000,000	1,920	26
Arterial Roadway Improvement Program	940,500	59,500	1,000,000	-	29
Gilbert Road Off-road Cycling Facility, Granville Avenue to Elmbridge Way	975,299	61,701	4,150,000	-	33
LED Street Name Sign Program	188,100	11,900	200,000	-	34
Neighbourhood Walkway Program	470,250	29,750	500,000	-	35
Special Crosswalk Program	329,175	20,825	350,000	5,696	36
Top 20 Collision Prone Intersections - Implementation of Medium-/Long-term Improvements	564,300	35,700	600,000	-	39
Traffic Calming Program	282,150	17,850	300,000	-	40
Traffic Signal Power Backup System (UPS)	188,100	11,900	200,000	-	41
Traffic Signal Program	564,300	35,700	600,000	4,331	42
Traffic Video and Communication Program	376,200	23,800	400,000	-	43
Transit-Related Amenity Improvement Program	94,050	5,950	100,000	-	44
Transit-Related Roadway Improvement Program	94,050	5,950	200,000	-	45
Transportation Planning, Functional and Preliminary Design	564,300	35,700	600,000	-	46
Total Roads	**$6,571,274**	**$415,726**	**$10,200,000**	**$11,947**	
Infrastructure Advanced Design and Minor Public Works					
Public Works Infrastructure Advanced Design[3]	705,375	44,625	2,970,000	-	73
Total Infrastructure Advanced Design and Minor Public Works	**$705,375**	**$44,625**	**$2,970,000**	-	
TOTAL ROADS DCC	**$7,276,649**	**$460,351**	**$13,170,000**	**$11,947**	
DRAINAGE DCC					
Flood Protection					
Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	1,138,500	3,461,500	10,000,000	-	51
Total Flood Protection	**$1,138,500**	**$3,461,500**	**$10,000,000**	-	
TOTAL DRAINAGE DCC	**$1,138,500**	**$3,461,500**	**$10,000,000**	-	
WATER DCC					
Water					
Watermain Replacement Upgrades Program	1,436,521	90,879	6,668,274	-	62
Total Water	**$1,436,521**	**$90,879**	**$6,668,274**	-	
TOTAL WATER	**$1,436,521**	**$90,879**	**$6,668,274**	-	
SANITARY SEWER DCC					
Infrastructure Advanced Design and Minor Public Works					
Public Works Infrastructure Advanced Design[3]	103,950	1,050	2,970,000	-	73
Total Infrastructure Advanced Design and Minor Public Works	**$103,950**	**$1,050**	**$2,970,000**	-	
TOTAL SANITARY SEWER DCC	**$103,950**	**$1,050**	**$2,970,000**	-	

Project Name	DCC Funding	City Funding[1]	Total Investment[2]	Total OBI	Ref
PARKS ACQUISITION DCC					
Parks					
Hugh Boyd Community Park Playground Renewal	282,150	17,850	300,000	-	97
Minoru Lakes Renewal: Phase 2	658,350	41,650	2,500,000	7,950	98
Total Parks	**$940,500**	**$59,500**	**$2,800,000**	**$7,950**	
Parkland					
Parkland Acquisition	3,762,000	238,000	4,000,000	-	107
Total Parkland	**$3,762,000**	**$238,000**	**$4,000,000**	**-**	
TOTAL PARKS ACQUISITION DCC	**$4,702,500**	**$297,500**	**$6,800,000**	**$7,950**	
PARKS DEVELOPMENT DCC					
Parks					
City-Wide Community Gardens	282,150	17,850	300,000	5,700	96
Minoru Park Central Amenity Space Concept Design	329,175	20,825	385,000	-	99
Parks Advance Planning and Design	752,400	47,600	800,000	-	100
Parks General Development	470,250	29,750	500,000	-	102
Parks Interpretive Signage Program - Phase 2	112,860	7,140	120,000	7,500	103
Total Parks	**$1,946,835**	**$123,165**	**$2,105,000**	**$13,200**	
TOTAL PARKS DEVELOPMENT DCC	**$1,946,835**	**$123,165**	**$2,105,000**	**$13,200**	
Grand Total	**$16,604,955**	**$4,434,445**	**$38,743,274**	**$33,097**	

[1]The City funding includes the funding for the portion of the DCC capital project that benefits the existing population and the municipal assist factor.

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

[3]This project is funded by multiple funding sources including Roads DCC and Sanitary Sewer DCC. The grant total of the total investment has been adjusted accordingly as the same project has been shown under multiple DCC categories.

Project Name	External Funding	City Funding	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAM					
Infrastructure Advanced Design and Minor Public Works					
Public Works Minor Capital - Traffic	-	250,000	250,000	-	128
TOTAL INFRASTRUCTURE PROGRAM	**-**	**$250,000**	**$250,000**	**-**	
BUILDING PROGRAM					
Building					
Facility Services Minor Capital Works	-	500,000	500,000	-	130
UPS Replacement	-	400,000	400,000	60,000	131
TOTAL BUILDING PROGRAM	**-**	**$900,000**	**$900,000**	**$60,000**	
PARKS PROGRAM					
Parks					
Park Shelter and Shade Program	-	500,000	500,000	4,000	133
Pickleball Court Construction	-	1,430,000	1,430,000	2,110	134
Waterfront Infrastructure Renewals	-	550,000	550,000	-	135
TOTAL PARKS PROGRAM	**-**	**$2,480,000**	**$2,480,000**	**$6,110**	
EQUIPMENT PROGRAM					
Vehicle					
Pick-Up Truck for Parks Maintenance Work	-	140,000	140,000	34,464	137
TOTAL EQUIPMENT PROGRAM	**-**	**$140,000**	**$140,000**	**$34,464**	
INFORMATION TECHNOLOGY PROGRAM					
Information Technology					
City Hall Meeting Room AV Equipment Upgrade	-	111,208	111,208	23,553	139
Document and Record Management System Modernization	-	2,077,258	2,077,258	(112,000)	140
TOTAL INFORMATION TECHNOLOGY PROGRAM	**-**	**$2,188,466**	**$2,188,466**	**($88,447)**	
Total 2024 Capital Program – Recommended but Insufficient Funds	**-**	**$5,958,466**	**$5,958,466**	**$12,127**	

Infrastructure Program

The City's Infrastructure Program assets include: Road, Flood Protection, 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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Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Active Transportation Improvement Program**	**Submission ID:**	**6625**

Location:
Various Locations

Cost:
$1,000,000

Funding Sources:
Roads DCC:
$940,500

Capital Reserve (Revolving Fund):
$59,500

OBI:
$1,920



Scope:

Implement pedestrian, 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. The project includes design, fabrication of materials, construction, public and stakeholder engagement and outreach, and land acquisition as required.

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.

The list of improvements currently planned for 2024 includes:

1. Midtown Neighbourhood Cycling Route - Improvements to signage, bike stencil painting and installation of improved, accessible concrete letdowns along 3.8 km of neighbourhood cycling route.
2. Alder Neighbourhood Cycling Route - Improvements to signage and bike stencil painting along 340 m of neighborhood cycling route.
3. Great Canadian Way Cycling Protection - Protecting existing on-street cycling lanes between Bridgeport Road and River Road with delineators, improved line painting or concrete curbing.
4. Gilbert Road Cycling Protection - Protecting existing on-street cycling lanes between Elmbridge Way and Dinsmore Bridge with delineators and improved line painting.
5. Funding to seek land acquisition to implement improvements to the cycling network, including at No 3 Road and Lucas Road (as part of the Crosstown Neighbourhood Cycling Route), and along the Alderbridge Way Multi-Use Pathway.
6. Minor improvements to improve connectivity in the walking and cycling network.

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

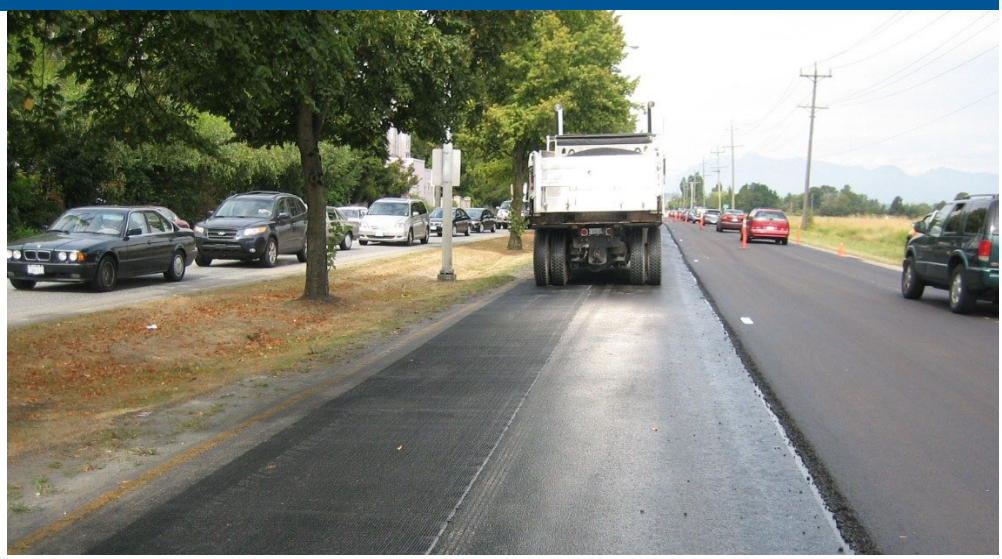
Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Annual Asphalt Re-Paving Program - MRN**	**Submission ID:**	**6743**

Location:
Various Locations

Cost:
$3,370,000

Funding Sources:
MRN Rehabilitation:
$3,370,000

OBI:
$ -



Scope:

This project involves re-paving Major Road Network (MRN) roads in alignment with the City's Ageing Utility and Road Infrastructure Planning – 2022 Update and Pavement Management Plan. The project scope 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 and staff inspection time.

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Annual Asphalt Re-Paving Program - Non-MRN**	**Submission ID:**	**6744**

Location:
Various Locations

Cost:
$3,939,705

Funding Sources:
Asphalt Capping:
$3,939,705

OBI:
$ -



Scope:

This project involves re-paving City-owned Non-MRN roads in alignment with the City's Ageing Utility and Road Infrastructure Planning – 2022 Update and Pavement Management Plan.

The project scope 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, and staff inspection time. In addition, this project includes paving components of water, sanitary, and flood protection capital projects, as well as consultant/contractor fees for bridge upgrades and the Pavement Management Plan.

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Arterial Roadway Improvement Program**	**Submission ID:**	**6626**

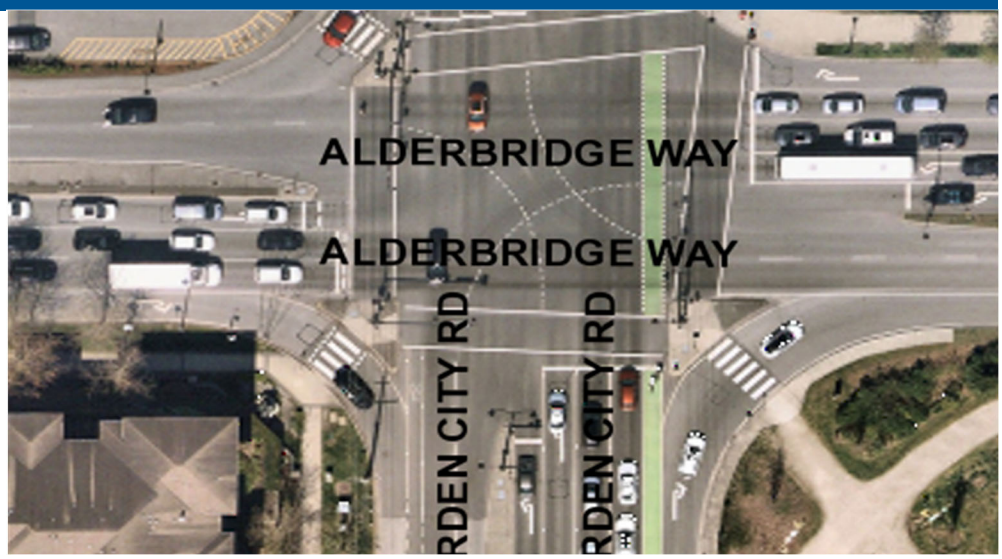
Location:
Various Locations

Cost:
$1,000,000

Funding Sources:
Roads DCC:
$940,500

Capital Reserve (Revolving Fund):
$59,500

OBI:
$ -



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 measures 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 proposed works in 2024 include:

1. Removal or modification of the channelized right turn island at the southeast corner of Garden City Road and Alderbridge Way to improve pedestrian and traffic safety; and
2. Other upgrades as identified through public requests or staff review.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Bridge Rehabilitation Program**	**Submission ID:**	**6748**

Location:
Various Locations

Cost:
$300,000

Funding Sources:
Capital Reserve (Revolving Fund): $300,000

OBI:
$ -



Scope:

The City completed inspections on a number of road and pedestrian bridges and watercourse crossings, and identified priority structures that are in need of repair or replacement. The scope of work for this project includes further structural inspections, engineering design, and repair or replacement of bridge structures and watercourse crossings. Specific planned areas include, but are not limited to, Bird Road Bridge, Shell Road Pedestrian Bridge, Finn Road Bridge and watercourse crossings throughout the City.

Repair or replacement work may include, but not be limited to, culvert installation, utility relocation, restoration, railing improvements, barrier installation, sidewalk repair, signage installation, crack sealing, erosion repair, expansion joint sealing and ancillary works associated with bridge and watercourse crossing repair or replacement.

Completion of this project will improve road user and pedestrian safety, improve the City's ability to manage emergency response, and reduce the potential for unplanned maintenance that is disruptive and costly through proactive management of ageing infrastructure. This project will also allow staff to conduct required assessments and investigations of City-owned bridges.

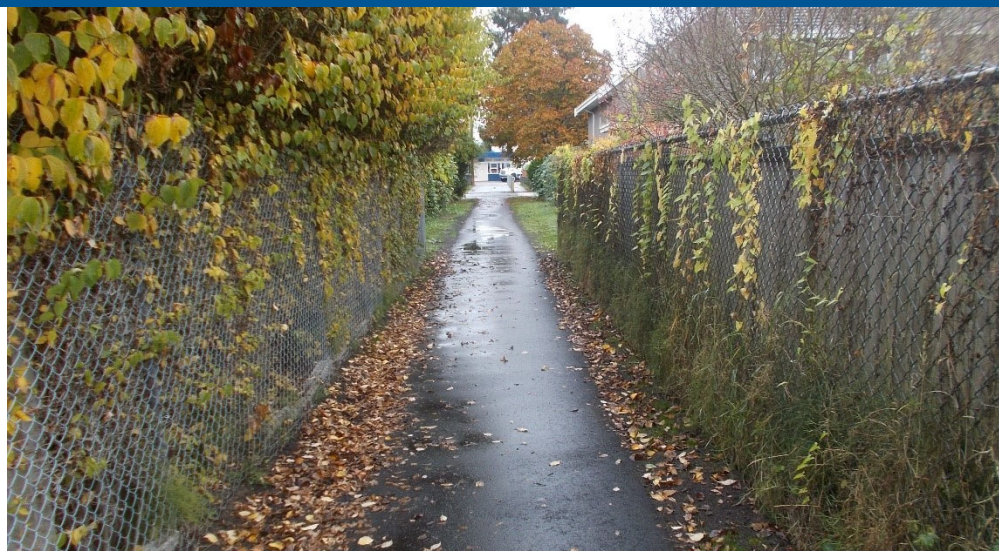
Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Citywide Connector Walkways Rehabilitation Program	Submission ID:	7403

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Capital Reserve (Revolving Fund): $250,000

OBI:
$ -



Scope:

This project involves the replacement or rehabilitation of connector walkways located in various neighbourhoods in Richmond. The assessments that have been conducted confirm that the walkway surface conditions have deteriorated over time due to tree root ingress and asphalt cracking. In addition, the scope of work for this project includes, but is not limited to, tree root pruning, asphalt re-paving and other ancillary work.

Connector walkways are heavily used by pedestrians and their current conditions 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, such as walking and biking.

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Citywide Sidewalk and Street Light Replacement Program	Submission ID:	6747

Location:
Various Locations

Cost:
$500,000

Funding Sources:
Capital Reserve (Revolving Fund): $500,000

OBI:
$ -



Scope:

Over time, street lighting infrastructure deteriorate and can become a hazard to residents and traffic without proper maintenance and replacement programs. Per the City's Ageing Utility and Road Infrastructure Planning – 2022 Update, several of the street lights and street light service panels are at the end of their design life and need to be replaced. Sidewalks that have subsided are damaged from tree roots or have become misaligned, posing tripping hazards to pedestrians. Replacing these sidewalks will improve pedestrian safety and encourage non-vehicular forms of transportation.

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. This project will also allow staff to conduct required assessments and investigations of the City's street lighting network.

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Gilbert Road Off-road Cycling Facility, Granville Avenue to Elmbridge Way	Submission ID:	6926

Location:
Gilbert Road, Granville Avenue to Elmbridge Way

Cost:
$4,150,000

Funding Sources:
Roads DCC:
$975,299

Capital Reserve (Revolving Fund):
$61,701

Grant:
$3,113,000

OBI:
$ -



Scope:

Provision of 1.7 km of new protected cycling facilities along Gilbert Road, from Granville Avenue to Elmbridge Way. The City has an approved funding contribution from the Government of Canada as part of the Active Transportation Fund for implementation of this project. This agreement requires project completion by the end of 2025. Additional funding opportunities may be available through TransLink and ICBC.

Upon completion, this project would connect to the separated bicycle lanes on Granville Avenue and the existing bike lane on Gilbert Road north of Elmbridge Way to provide a cycling connection between the Granville Avenue bike route and the Dinsmore Bridge.

Major Cost Components: Lane narrowing, realignment of curb and gutter and sidewalk, physical barriers, pavement markings and signage, pedestrian crossing enhancements, relocation of above ground infrastructure (i.e., streetlight poles, hydrants, power poles, traffic signals, etc.), bus stops, and modifications to private property (i.e., re-grade driveways, retaining walls, landscaping, etc.).

Funding: Roads DCC program, Government of Canada; potential funding from TransLink and ICBC.

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**LED Street Name Sign Program**	**Submission ID:**	**6620**

Location:
Various Locations

Cost:
$200,000

Funding Sources:
Roads DCC:
$188,100

Capital Reserve (Revolving Fund):
$11,900

OBI:
$ -



Scope:

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 (26 out of 189) can be upgraded over the next 2 to 3 years (i.e. 10 to 15 per year).

Major Cost Components: LED street name sign, mounting hardware and electrical wiring.

Locations are prioritized based on major, gateway and high-volume intersections and in tourist areas.

The preliminary list of locations for 2024 includes:

1. Great Canadian Way and Van Horne Way
2. Great Canadian Way and River Rd
3. No. 4 Rd and Williams Rd
4. No. 4 Rd and Francis Rd
5. No. 4 Rd and Granville Ave
6. No. 4 Rd and Alderbridge Way
7. No. 4 Rd and Odlin Rd
8. No. 4 Rd and Cambie Rd
9. Cambie Rd at Aberdeen Centre
10. Hazelbridge Way and Cambie Rd
11. Sexsmith Rd and Cambie Rd

Funding: Roads DCC Program; potential funding from Translink, ICBC and development.

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Neighbourhood Walkway Program**	**Submission ID:**	**6615**

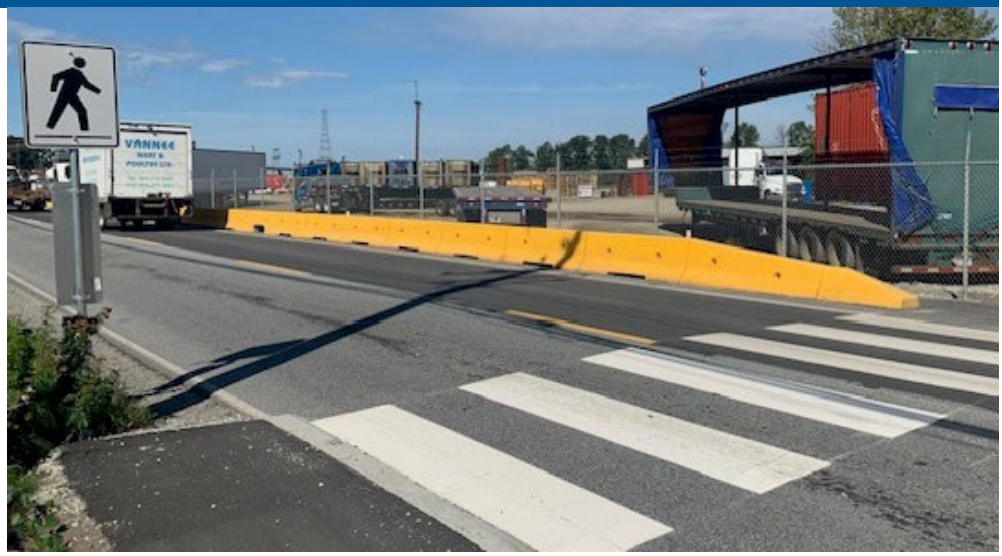
Location:
Various Locations

Cost:
$500,000

Funding Sources:
Roads DCC:
$470,250

Capital Reserve (Revolving Fund):
$29,750

OBI:
$ -



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/or the public.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Special Crosswalk Program**	**Submission ID:**	**6621**

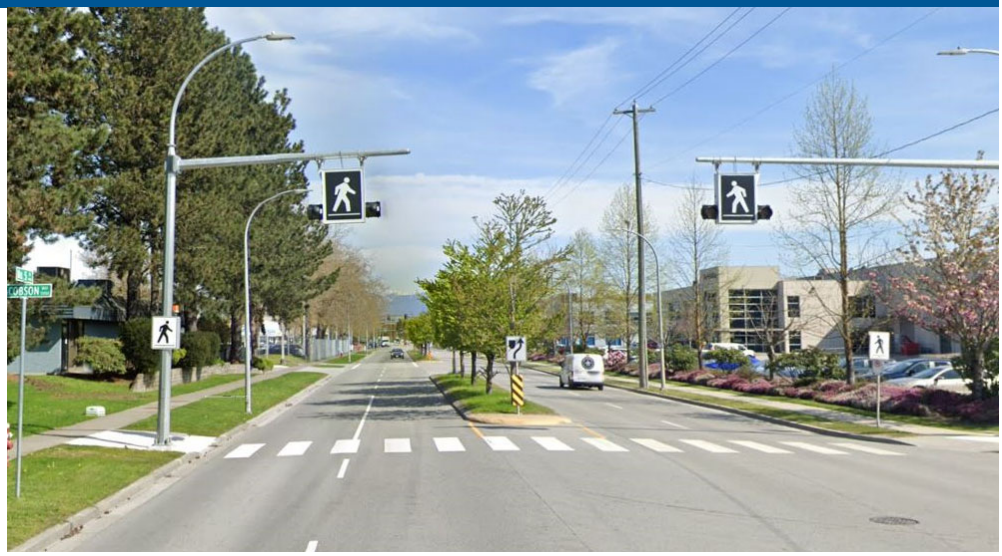
Location:
Various Locations

Cost:
$350,000

Funding Sources:
Roads DCC:
$329,175

Capital Reserve (Revolving Fund):
$20,825

OBI:
$5,696



Scope:

Upgrade of existing crosswalks on arterial roads (typically four-lane) to new 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 of locations for 2024 includes:

1. Heather St and Granville Ave
2. No. 2 Rd and Kittiwake Dr
3. Others as prioritized by warrant studies

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

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Street Light LED Upgrades	Submission ID:	6761

Location:
Various Locations

Cost:
$490,000

Funding Sources:
Enterprise:
$490,000

OBI:
($35,000)



Scope:

The scope of this project includes replacing high-pressure sodium (HPS) light fixtures that are over 25 years old as part of the multi-phased program. It will also extend the City's street light network by integrating more LED street lights.

It is estimated that this phase of the project will reduce electricity use by 390,000 kilowatt-hour, which translates to approximately $35,000 in cost savings annually.

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Supplementary Asphalt Re-Paving Program - Non-MRN**	**Submission ID:**	**7499**

Location:
Various Locations

Cost:
$1,000,000

Funding Sources:
Capital Reserve (Revolving Fund): $1,000,000

OBI:
$ -



Scope:

In accordance with the City's Ageing Utility and Road Infrastructure Planning – 2022 Update, approximately $4 million in additional funding beyond the Annual Asphalt Re-Paving Program – MRN and Annual Asphalt Re-Paving Program – Non-MRN capital projects are required to maintain roadway service levels and support proactive roadway upgrades. Addressing re-paving needs in a timely manner will result in an overall cost savings for the City.

This project will allow the City to re-pave City-owned non-MRN roads that have exceeded their service life and could not be covered in the Annual Asphalt Re-Paving Program Non-MRN capital project. The project scope 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 and staff inspection time.

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Top 20 Collision Prone Intersections - Implementation of Medium-/Long-term Improvements	Submission ID:	6636

Location:
Various Locations

Cost:
$600,000

Funding Sources:
Roads DCC:
$564,300

Capital Reserve (Revolving Fund):
$35,700

OBI:
$ -



Scope:

Implement safety improvements for the top 20 collision prone intersections per the network screening study presented to Council in June 24, 2019. Short term improvements were implemented through 2022. This project involves implementation of medium and long-term improvements for the top 20 collision prone intersections at selected locations. 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.

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, streetlighting upgrade, traffic signal modifications (i.e., added left-turn phase), relocation of driveways and land acquisition.

Improvements planned for 2024 involve design of upgrades at the Sea Island Way and Garden City Road intersection, and at the Alderbridge Way and Shell Road intersection. Works will include survey, detailed design works, consultation with external agencies (Canadian National Rail, Ministry of Transportation and Infrastructure) and permit applications as required. Funding for construction at the planned locations will be sought as part of future capital programs.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Traffic Calming Program**	**Submission ID:**	**6614**

Location:
Various Locations

Cost:
$300,000

Funding Sources:
Roads DCC:
$282,150

Capital Reserve (Revolving Fund):
$17,850

OBI:
$ -



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 identified and prioritized based on Council and/or public feedback.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Traffic Signal Power Backup System (UPS)**	**Submission ID:**	**6622**

Location:
Various Locations

Cost:
$200,000

Funding Sources:
Roads DCC:
$188,100

Capital Reserve (Revolving Fund):
$11,900

OBI:
$ -



Scope:

Installation of Uninterruptible Power Supply (UPS) systems at signalized intersections to provide continual power during disruption or outage. UPS protects electronic hardware from power surges. It is anticipated that the remaining signalized intersections (68 out of 189) can be upgraded in over the next 8 to 10 years.

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

The preliminary list of locations for 2024 includes:

1. No. 1 Rd and Williams Rd
2. No. 1 Rd and Osmond Rd
3. No. 1 Rd and Blundell Rd
4. Garden City Rd and Williams Rd
5. Garden City Rd and Francis Rd
6. Garden City Rd and Cook Rd
7. Garden City Rd and Lansdowne Rd
8. Garden City Rd and Capstan Way

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Traffic Signal Program**	**Submission ID:**	**6623**

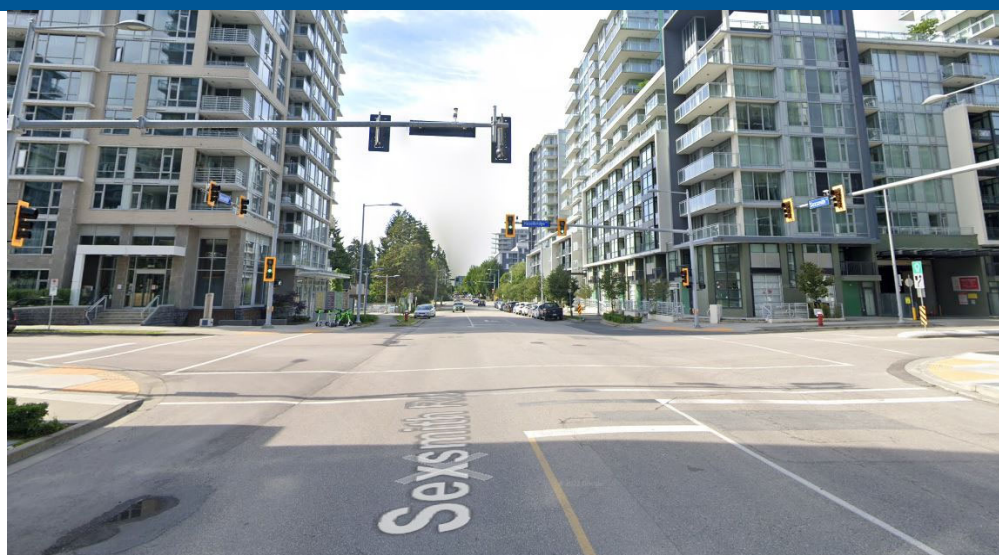
Location:
Various Locations

Cost:
$600,000

Funding Sources:
Roads DCC:
$564,300

Capital Reserve (Revolving Fund):
$35,700

OBI:
$4,331



Scope:

Installation of new/upgrade of existing traffic signals to accommodate traffic growth, respond to public requests, improve traffic management and movement of all road users and address traffic safety concerns.

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.

The preliminary list of locations for 2024 includes:

1. No. 5 Rd and Granville Ave - new traffic signal
2. St. Edwards Rd and Cambie Rd - traffic signal modifications
3. Jacombs Rd and Westminster Hwy – westbound left arrow
4. No. 4 Rd and Steveston Hwy – eastbound/westbound left arrows
5. No. 4 Rd and Granville Ave – eastbound/westbound left arrows
6. Traffic signal modifications at locations to be finalized pending traffic analysis

Locations to be portentially upgraded to a full traffic signal is contingent on a traffic signal warrant study.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Traffic Video and Communication Program**	**Submission ID:**	**6619**

Location:
Various Locations

Cost:
$400,000

Funding Sources:
Roads DCC:
$376,200

Capital Reserve (Revolving Fund):
$23,800

OBI:
$ -



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 approaching traffic conditions for public access on the City website. By the end of 2024, there will be 48 out of 189 signalized intersections remaining which require build-out of the fibre communications network prior to camera installation. Therefore, the 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 to 12 years based on the current level of funding.

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

The preliminary list of locations for 2024 includes:

Traffic video camera installation

1. No. 4 Rd & Francis Rd
2. No. 4 Rd & Blundell Rd
3. No. 4 Rd & Granville Ave
4. No. 4 Rd & Westminster Hwy

Fibre communications cable and conduit installation/cleaning/upgrades

5. No. 4 Rd – Between Williams Rd and Westminster Hwy
6. Bridgeport Rd – Between No. 5 Rd and Sweden Way
7. No 1 Rd – Between Steveston Hwy and Williams Rd
8. No 1 Rd – Blundell Rd to Westminster Hwy

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Transit-Related Amenity Improvement Program**	**Submission ID:**	**7540**

Location:
Various Locations

Cost:
$100,000

Funding Sources:
Roads DCC:
$94,050

Capital Reserve (Revolving Fund):
$5,950

OBI:
$ -



Scope:

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

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

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

For 2024, approximately 10 to 15 locations are proposed for upgrade. The actual locations will be determined in early 2024 in consultation with Pattison Outdoor, the City's street furniture contractor.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Transit-Related Roadway Improvement Program**	**Submission ID:**	**6613**

Location:
Various Locations

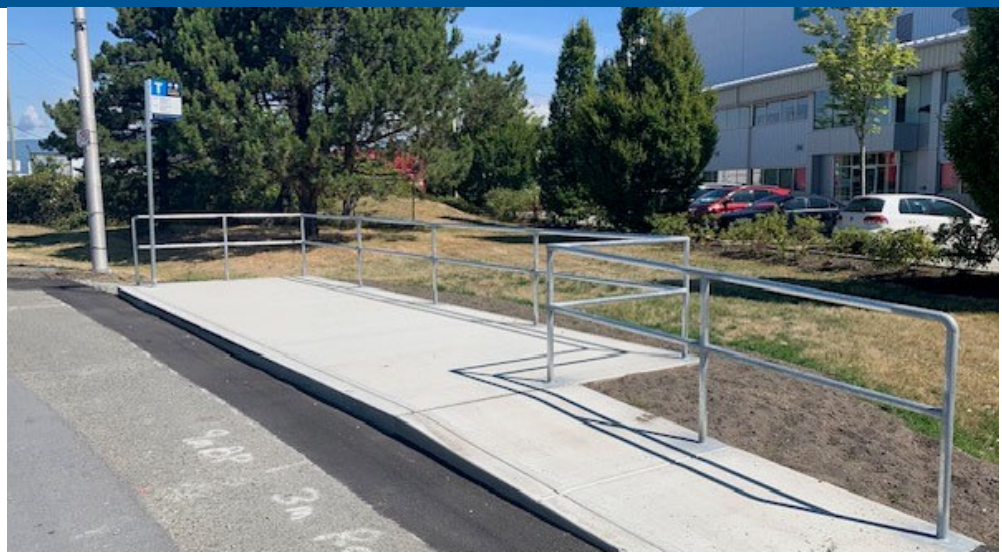
Cost:
$200,000

Funding Sources:
Roads DCC:
$94,050

Capital Reserve (Revolving Fund):
$5,950

Grant:
$100,000

OBI:
$ -



Scope:

Road and traffic improvements to increase accessibility at bus stops, support transit service improvements and existing transit infrastructure. Currently, approximately 90 per cent of 728 existing bus stops are accessible.

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.

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

For 2024, approximately 10 to 15 locations are proposed for upgrade, subject to TransLink funding. The actual locations will be determined in early 2024 in consultation with Coast Mountain Bus Company (CMBC) and through public feedback.

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

Program:	**Infrastructure Program**	**Sub-program:**	**Roads**
Project Name:	**Transportation Planning, Functional and Preliminary Design**	**Submission ID:**	**6627**

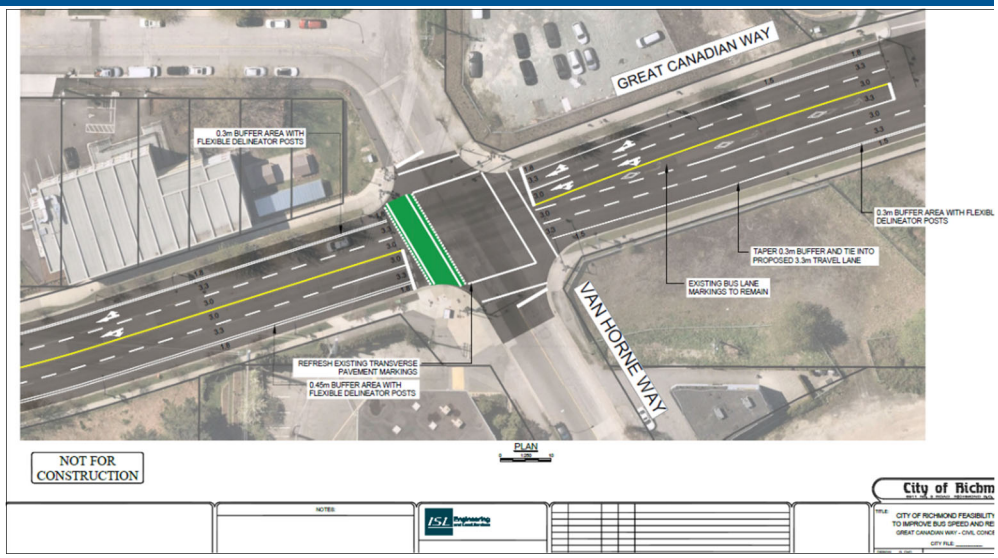
Location:
Various Locations

Cost:
$600,000

Funding Sources:
Roads DCC:
$564,300

Capital Reserve (Revolving Fund):
$35,700

OBI:
$ -



Scope:

The scope of work includes the planning, coordination and administration of the following works:

1. Project Design - Prepare functional and preliminary designs for potential transportation capital projects to identify road elements, horizontal alignment, cross-section, property impacts, etc., and prepare high level cost estimates to carry out further detailed engineering design.
2. Traffic and transportation planning studies and assessments - Undertake planning studies and assessments to inform traffic and transportation plans and projects.

Potential projects for 2024 includes:

1. Functional design and traffic study for intersection reconfiguration and safety improvements (e.g. Granville Avenue and Garden City Road).
2. Conceptual design of cycling improvements to advance the City's Cycling Network Plan, (e.g., protection of existing bike lanes on Williams Road and Westminster Highway between Garden City Road and No. 5 Road).
3. Conceptual design of pedestrian improvements (e.g. Mitchell Road at Knight Street).

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

Infrastructure – Flood Protection Program

The City's Flood Protection 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:**	**6723**

Location:
Burkeville Area

Cost:
$4,005,000

Funding Sources:
Drainage Improvement:
$2,700,000

Watermain Replacement:
$1,000,000

Sanitary Sewer:
$305,000

OBI:
$13,700



Scope:

Burkeville's drainage system was initially designed using shallow ditches and small diameter road cross culverts. As the area is redeveloped, watercourse infills are becoming common. Watercourse infills change the nature of the drainage system in a way that may cause flooding. Therefore, a new drainage system with an increased capacity is required to accommodate these changes.

In addition, sanitary and water infrastructure will be upgraded where the scope of work overlaps with the upgrade of the drainage system 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, ageing watermains in the area require replacement. By coordinating the utility improvements, engineering and construction efficiencies will be achieved and public disruptions will be minimized.

This project is the sixth phase of the overall multi-year utility improvements project in the Burkeville neighbourhood. This phase will include installation of new storm sewers, watermains and sanitary sewers. The project will also include ancillary works to support utility installation, including environmental protection and road restoration.

City staff that will be required for managing, administering, constructing and delivering the project will be assigned and created as required.

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Canal Stabilization and Drainage and Irrigation Upgrades	Submission ID:	6987

Location:
Various Locations

Cost:
$3,000,000

Funding Sources:
Drainage Improvement:
$3,000,000

OBI:
$ -



Scope:

The objective of this project is to stabilize canal banks and upgrade drainage and irrigation infrastructure throughout Richmond. The scope of work for this project includes, but is not limited to, canal bank stabilization and associated road restoration, culvert and headwall upgrades, canal re-grading, and flap gate and sensor installations. This project will also allow staff to conduct required assessments and investigations that will further enhance the City's drainage and irrigation network.

City staff that will be required for managing, administering, constructing and delivering the project will be assigned and created as required.

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Development Coordinated Works - Flood Protection	Submission ID:	6715

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Flood Protection BL10403:
$250,000

OBI:
$ -



Scope:

This project will enable the City to leverage development to design and construct drainage infrastructure beyond what would be required as part of their development. These works include upgrades and replacement of ageing infrastructure that the City would complete, but economic and engineering efficiencies can be achieved by having the developer complete this work at the same time the development takes place.

Program:	**Infrastructure Program**	**Sub-program:**	**Flood Protection**
Project Name:	**Disaster Mitigation and Adaptation Fund Infrastructure Upgrades**	**Submission ID:**	**6728**

Location:
Various Locations

Cost:
$10,000,000

Funding Sources:
Drainage Improvement:
$4,850,000

Flood Protection BL10403:
$11,500

Drainage DCC:
$1,138,500

Grant:
$4,000,000

OBI:
$ -



Scope:

In 2019, the City was awarded the Infrastructure Canada Disaster Mitigation and Adaptation Fund Grant in the amount of $13,780,000. The grant funding will contribute up to 40 per cent of the project cost.

The objective of this project is to improve flood protection for the City and support the City's Flood Protection Management Strategy. 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 phases, with all work to be completed by 2028.

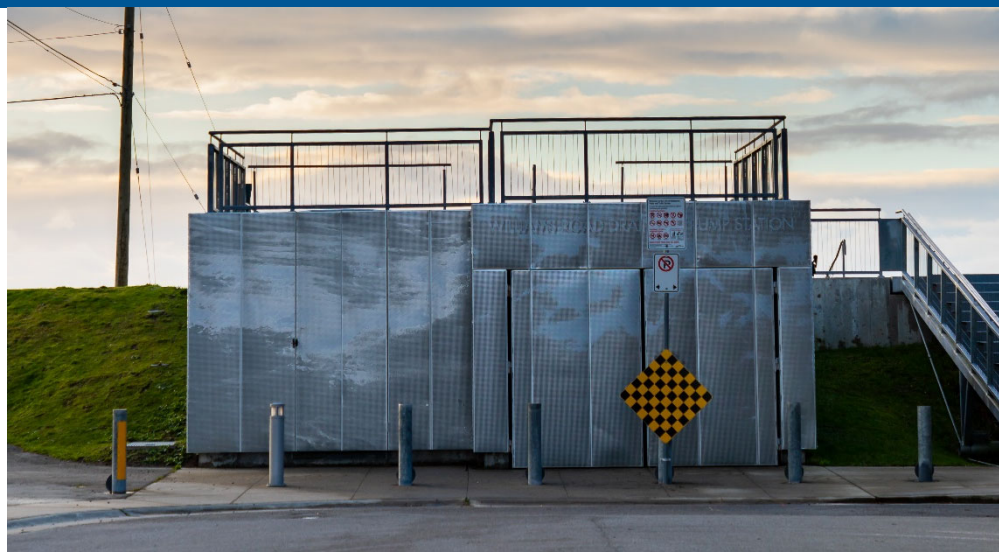
Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Drainage Pump Station Rehabilitation and Generator Upgrade	Submission ID:	7420

Location:
Various Locations

Cost:
$200,000

Funding Sources:
Drainage Improvement:
$200,000

OBI:
$5,800



Scope:

This project involves upgrading ageing drainage pump stations to extend their service life and improve efficiency. This scope of work for this project includes, but is not limited to, the following:

1. Installation of new pumps and generators;
2. Upgrade of existing pumps and generators;
3. Installation of new cameras and associated security infrastructure; and
4. Replacement of electrical and mechanical pump station components.

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Flood Protection and Dike Improvements	Submission ID:	6718

Location:
Various Locations

Cost:
$1,084,000

Funding Sources:
Flood Protection BL10403:
$1,084,000

OBI:
$ -



Scope:

The City is protected from flooding by 49 km of perimeter dike and 39 drainage pump stations. This project includes flood protection improvements at priority locations to maintain or increase current flood protection service levels.

Dike improvements are required to meet medium to long-term flood protection needs and to accommodate local area objectives such as the provision of basic recreation trails.

This project involves dike construction work that includes dike raising, structural rehabilitation, re-grading, vegetation and critter management, tree removal and replacement, habitat and environmental compensation, and dike re-armouring at priority locations.

The scope of work for this project includes, but is not limited to, the implementation of the City's Accelerated Flood Protection Program, preparation of planning studies and policies, and consulting services that support the Flood Protection Management Strategy and the City’s flood protection improvement works.

The Project Coordinator requested through the 2024 Utility Budgets and Rates report will be responsible for delivering this project.

Program:	**Infrastructure Program**	**Sub-program:**	**Flood Protection**
Project Name:	**Invasive Species Management**	**Submission ID:**	**6719**

Location:
Various Locations

Cost:
$200,000

Funding Sources:
Flood Protection BL10403:
$200,000

OBI:
$ -



Scope:

The purpose of this project is to reduce the spread of invasive species to reduce the impacts on the City's flood protection system. 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 flood protection system and City lands, with the intention of maintaining the required performance of the flood protection 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 on the 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.

Program:	**Infrastructure Program**	**Sub-program:**	**Flood Protection**
Project Name:	**Laneway Drainage Upgrade**	**Submission ID:**	**6720**

Location:
Various Locations

Cost:
$1,272,000

Funding Sources:
Flood Protection BL10403:
$1,164,000

Sanitary Sewer:
$108,000

OBI:
$13,200



Scope:

The scope of work for this project includes installation of drainage infrastructure in the Seafield Crescent Lane and 10,000 Block of No. 4 Road. This does not include the addition of street lighting, curbs or gutters. To leverage construction efficiencies and minimize disruptions to the public, ageing sanitary sewers will also be rehabilitated where the scope of work overlaps with the laneway drainage upgrade.

City staff that will be required for managing, administering, constructing and delivering the project will be assigned and created as required.

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	SCADA System Improvements	Submission ID:	6991

Location:
Various Locations

Cost:
$350,000

Funding Sources:
Flood Protection BL10403:
$200,000

Sanitary Sewer:
$150,000

OBI:
$ -



Scope:

Through its supervisory control and data acquisition (SCADA) system, the City monitors and controls various equipment for the sanitary sewer, flood protection and water networks. The objective of this project is to maintain and improve the sanitary sewer, flood protection and water network operation, as well as maintain system security and technological viability.

The scope of work for this project includes, but is not limited to, the following:

1. Rehabilitating, upgrading, and installing computers, instruments, and electrical systems throughout the SCADA system;
2. Installing cameras and other security features at sanitary pump stations; and
3. Implementing improvements for SCADA reporting efficiencies.

Program:	Infrastructure Program	Sub-program:	Flood Protection
Project Name:	Watercourse Rehabilitation and Replacement	Submission ID:	6993

Location:
Various Locations

Cost:
$200,000

Funding Sources:
Flood Protection BL10403:
$200,000

OBI:
$ -



Scope:

The objective of this project is to repair watercourses throughout Richmond that pose safety risks to vehicles and pedestrians. The scope of work for this project includes, but is not limited to, rehabilitating failed headwalls, culvert crossings, and watercourse banks.

In addition, this project involves the infilling of non-Riparian Management Area watercourses, extending the lengths of existing watercourse infills that pose safety risks to the public, and assessing and replacing ageing wood stave and corrugated steel culverts.

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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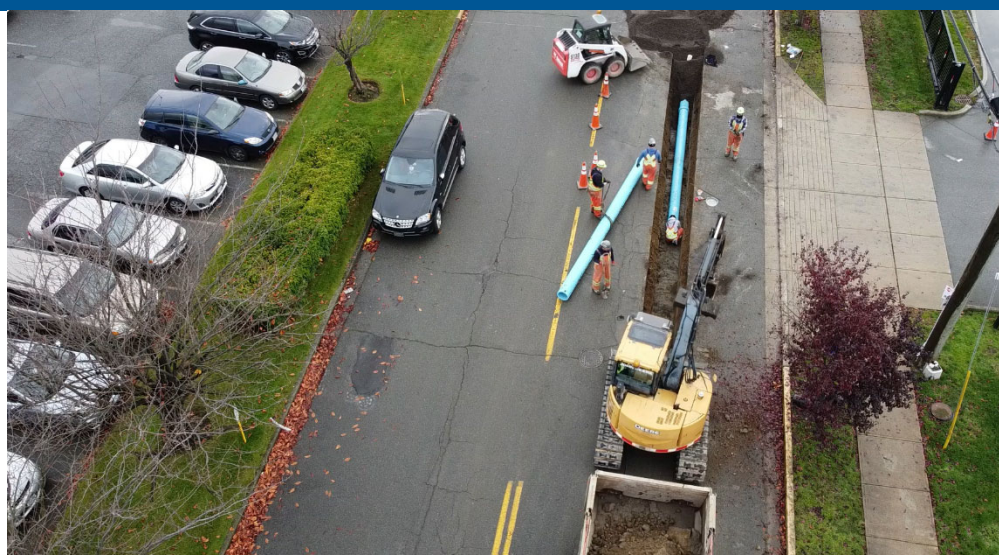
Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Development Coordinated Works - Water	Submission ID:	6696

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Watermain Replacement:
$250,000

OBI:
$ -



Scope:

This project will enable the City to leverage development to design and construct water infrastructure beyond what would be required as part of their development. These works include upgrades and replacement of ageing infrastructure that the City would complete, but economic and engineering efficiencies can be achieved by having the developer complete this work at the same time the development takes place.

Program:	**Infrastructure Program**	**Sub-program:**	**Water**
Project Name:	**Fire Hydrant Upgrades**	**Submission ID:**	**7595**

Location:
Various Locations

Cost:
$400,000

Funding Sources:
Watermain Replacement:
$400,000

OBI:
$ -



Scope:

This project involves replacing ageing slide gate-style fire hydrants to compression-style fire hydrants. Compression-style hydrants have a break-away flange that prevents them from leaking. Replacement of slide gate-style fire hydrants will increase public safety and mitigate potential damage to properties that may be caused by impacts to fire hydrants, such as vehicle strikes.

Program:	**Infrastructure Program**	**Sub-program:**	**Water**
Project Name:	**Water Metering Program**	**Submission ID:**	**6693**

Location:
Various Locations

Cost:
$2,000,000

Funding Sources:
Watermain Replacement:
$714,000

Water Levy:
$1,286,000

OBI:
$17,418



Scope:

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.

The universal multi-family water meter program will target the last remaining customer class that is not metered for water consumption. The City will fund the water meter installations completed under this program, provide a five-year guarantee for water charges for existing multi-family complexes, and provide active outreach to complexes that will benefit from the water meter program.

City staff that will be required for managing, administering, constructing and delivering the project will be assigned and created as required.

Program:	**Infrastructure Program**	**Sub-program:**	**Water**
Project Name:	**Watermain Replacement Upgrades Program**	**Submission ID:**	**6690**

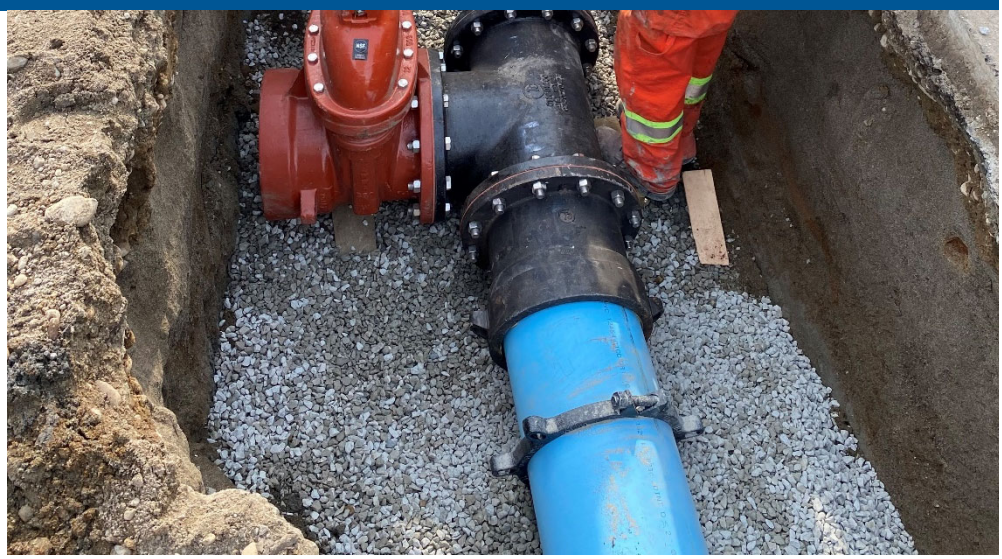
Location:
Various Locations

Cost:
$6,668,274

Funding Sources:
Watermain Replacement:
$5,231,753

Water DCC:
$1,436,521

OBI:
$ -



Scope:

The scope of work for this project supports the City's Ageing Utility and Road Infrastructure Planning - 2022 Update by replacing ageing watermains that are approaching the end of their service life. Watermain replacement minimizes unplanned maintenance and improves the available water supply for fire protection.

The watermain replacement and upgrades program is informed by watermain age, material, and break history. This project consists of the installation of approximately 3,500 m of 200 mm to 300 mm diameter watermains to replace existing ageing water infrastructure.

City staff that will be required for managing, administering, constructing and delivering the project will be assigned and created as required.

Program:	**Infrastructure Program**	**Sub-program:**	**Water**
Project Name:	**Watermain Tie-in and Restoration**	**Submission ID:**	**6691**

Location:
Various Locations

Cost:
$300,000

Funding Sources:
Watermain Replacement:
$300,000

OBI:
$ -



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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Steveston Sanitary Sewer Rehabilitation 71

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	6333 Cooney Road Development Coordinated Works - Sanitary System Upgrade	Submission ID:	7613

Location:
6333 Cooney Road

Cost:
$2,300,000

Funding Sources:
Sanitary Sewer:
$2,300,000

OBI:
$ -



Scope:

This project includes installation of a new sanitary sewer on Cooney Road to improve sanitary sewer capacity and conveyance for the neighborhood. The work will be coordinated with the offsite sanitary sewer upgrades for the proposed development at 6333 Cooney Road to achieve cost efficiencies and reduce construction impacts to residents. This project will be funded by the City as it is beyond the scope of work for the proposed development.

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	9800 Van Horne Way Development Coordinated Works	Submission ID:	7342

Location:
Van Horne Way, River Drive to railway crossing

Cost:
$2,800,000

Funding Sources:
Watermain Replacement:
$900,000

Sanitary Sewer:
$1,900,000

OBI:
$ -



Scope:

The sanitary sewer and watermain fronting the proposed development at 9800 Van Horne Way are approaching the end of their service life and require replacement. Coordinating the replacement with the proposed development at 9800 Van Horne Way will provide cost efficiencies, support development, and reduce construction impacts to residents. The replacement of the sanitary sewer and watermain will be completed as one project.

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Development Coordinated Works - Sanitary	Submission ID:	6736

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Sanitary Sewer:
$250,000

OBI:
$ -



Scope:

This project will enable the City to leverage development to design and construct sanitary infrastructure beyond what would be required as part of their development. These works include upgrades and replacement of ageing infrastructure that the City would complete, but economic and engineering efficiencies can be achieved by having the developer complete this work at the same time the development takes place.

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	Submission ID:	6732

Location:
Various Locations

Cost:
$700,000

Funding Sources:
Sanitary Sewer:
$700,000

OBI:
$ -



Scope:

This project involves the rehabilitation and upgrade of existing sanitary pump stations and forcemains.

The scope of work for pump station upgrades and rehabilitation includes electrical kiosk replacement, power supply upgrade, new motor control center installation, pump rewinding, and concrete slab and aluminum hatch installation, etc. This work is needed to continue providing required levels of sanitary service.

The scope of work for forcemain upgrades and rehabilitation includes installation of valves, hatches, and pigging chambers along City forcemains to improve access and replace sections of forcemain found to be in poor condition. New valves, hatches and pigging chambers will also be installed at various locations along the new Metro Vancouver Gilbert Trunk Sewer to improve access and connectivity between City and Metro Vancouver sanitary infrastructure. Installation of these appurtenances will allow for improved isolation and control of forcemains in the event of breaks or tie-ins, and improve 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:	6733

Location:
Various Locations

Cost:
$1,050,000

Funding Sources:
Sanitary Sewer:
$1,050,000

OBI:
$ -



Scope:

The project consists of the assessment and rehabilitation of the gravity sanitary 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 sanitary sewers on a 20-year cycle. The project also includes ongoing flushing and grease cutting as a preventative maintenance measure and rehabilitation to address defects identified as part of the assessments.

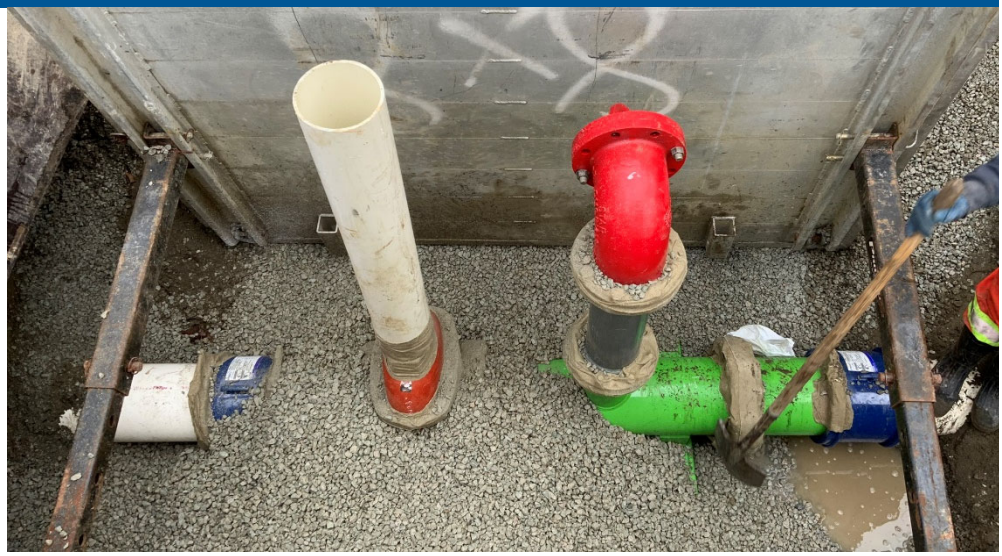
Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Sewer Tie-in and Restoration	Submission ID:	6735

Location:
Various Locations

Cost:
$150,000

Funding Sources:
Sanitary Sewer:
$150,000

OBI:
$ -



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:**	**7360**

Location:
Steveston Area

Cost:
$900,000

Funding Sources:
Sanitary Sewer:
$900,000

OBI:
$ -



Scope:

This project is part of a multi-year program to assess and rehabilitate or replace ageing gravity sewers in the Steveston area that are approaching the end of their service life.

Rehabilitation and replacement will mitigate risk of infrastructure failure, thereby maintaining a high level of sanitary service to residents. This project includes assessment, rehabilitation or replacement costs, and associated activities required to facilitate sanitary system rehabilitation and replacement.

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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Public Works Minor Capital - Water 79

Program:	**Infrastructure Program**	**Sub-program:**	**Infrastructure Advanced Design and Minor Public Works**
Project Name:	**Public Works Infrastructure Advanced Design**	**Submission ID:**	**6692**

Location:
Various Locations

Cost:
$2,970,000

Funding Sources:
Drainage Improvement:
$1,270,000

Watermain Replacement:
$550,000

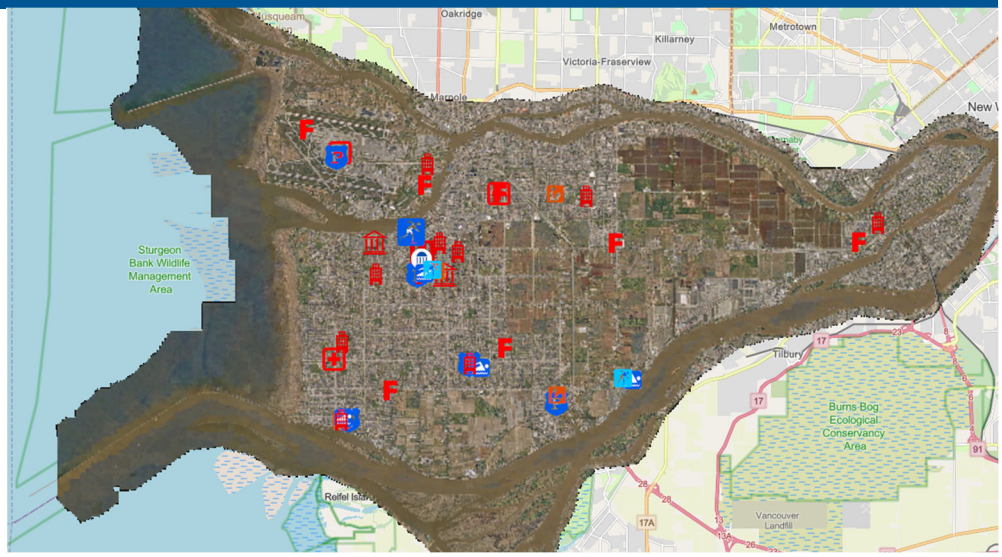
Sanitary Sewer:
$296,050

Roads DCC:
$705,375

Capital Reserve (Revolving Fund):
$44,625

Sanitary Sewer DCC:
$103,950

OBI:
$ -



Scope:

This project involves hiring consultants and contractors to plan and design future capital projects and deliver reports that define long-term infrastructure upgrades. The scope of work for this project includes, but is not limited to, project design, field investigations, public engagement, planning studies and infrastructure modelling.

Sanitary Project Design, Planning and System Modelling	$400,000
Water Project Design, Planning and System Modelling	$550,000
Flood Protection Project Design, Planning and System Modelling	$1,270,000
Roads Project Design, Planning and System Modelling	$750,000
Total	$2,970,000

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Dikes	Submission ID:	6722

Location:
Various Locations

Cost:
$400,000

Funding Sources:
Drainage Improvement:
$371,212

Flood Protection BL10403:
$28,788

OBI:
$ -



Scope:

Each 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.

This project involves minor work related to flood protection infrastructure, including but not limited to, the following:

1. Restoration of rip rap and erosion repairs for dikes;
2. Management of high risk vegetation;
3. Purchasing of flood protection devices, safety equipment and emergency supplies; and
4. Testing and implementation of new technologies to improve efficiencies for flood protection infrastructure inspections and response to resident inquiries that require site specific repairs.

In addition, this project involves environmental monitoring and restoration for the construction of new flood protection infrastructure, and environmental restoration for completed projects as part of prior years' capital programs.

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Drainage	Submission ID:	7607

Location:
Various Locations

Cost:
$455,000

Funding Sources:
Drainage Improvement:
$355,000

Flood Protection BL10403:
$100,000

OBI:
$ -



Scope:

Each 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.

This project involves minor work related to flood protection infrastructure, including but not limited to, the following:

1. Installation of drainage inspection chambers and rehabilitation of pipes and manholes;
2. Installation of monitoring equipment, safety upgrades, testing of new technologies to improve efficiencies, and minor repairs at drainage pump stations;
3. Purchasing of flood protection devices, safety equipment and emergency supplies;
4. Acquiring vehicles and vehicle items that may be needed to support operations; and
5. Testing and implementation of new technologies to improve efficiencies for flood protection infrastructure inspections and response to resident inquiries that require site specific repairs.

In addition, this project involves environmental monitoring and restoration for the construction of new flood protection infrastructure, and environmental restoration for completed projects as part of prior years' capital programs.

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Roads	Submission ID:	6746

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Capital Reserve (Revolving Fund): $250,000

OBI:
$ -



Scope:

Each 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.

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.

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Sanitary	Submission ID:	6738

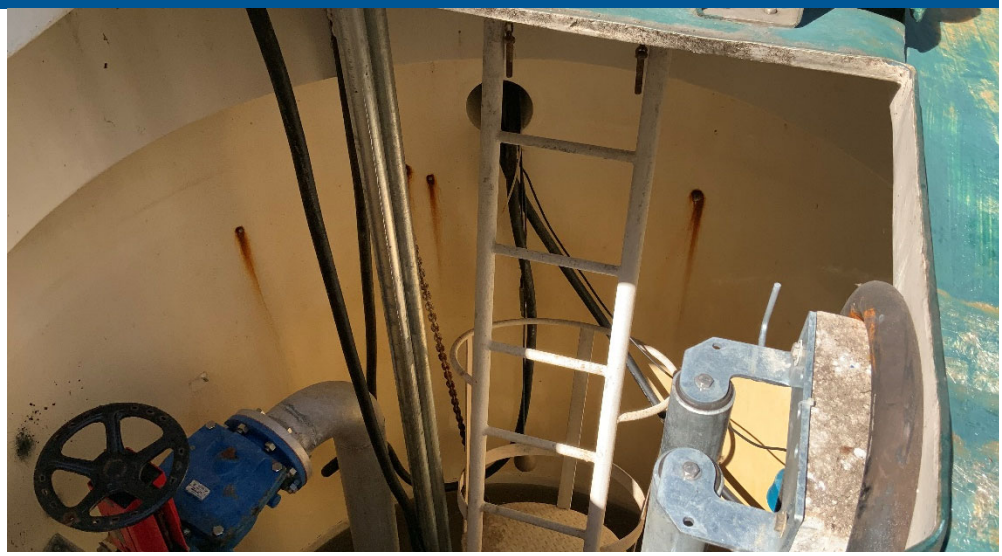
Location:
Various Locations

Cost:
$455,000

Funding Sources:
Sanitary Sewer:
$355,000

Sanitary Sewer BL10401:
$100,000

OBI:
$ -



Scope:

Each 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.

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, manhole and valve box repairs, as well as purchase of required equipment, vehicle and vehicle parts to support operations.

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Sanitation and Recycling	Submission ID:	6771

Location:
Various Locations

Cost:
$600,000

Funding Sources:
General Solid Waste and Recycling:
$600,000

OBI:
$ -



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. Our 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 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 vehicles, equipment and vehicle-related 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.
5. Undertake Solid Waste consulting services.

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design and Minor Public Works
Project Name:	Public Works Minor Capital - Water	Submission ID:	6695

Location:
Various Locations

Cost:
$450,000

Funding Sources:
Watermain Replacement:
$300,000

Water Supply BL10402:
$150,000

OBI:
$ -



Scope:

Each 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.

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, response to resident complaints that require minor upgrades, and acquiring vehicles and vehicle items that may be needed to support operations.

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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Works Yard Replacement - Phase 1 89

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Annual Infrastructure Replacements and Building Improvements**	**Submission ID:**	**7318**

Location:
Various Locations

Cost:
$3,460,013

Funding Sources:
Corporate:
$3,460,013

OBI:
$ -



Scope:

Annual Infrastructure Replacement and Building Improvement projects servicing the City's 168+ facilities. These projects include equipment replacements of HVAC and mechanical components, interior renovations and refurbishments, building upgrades, improvements and installations.

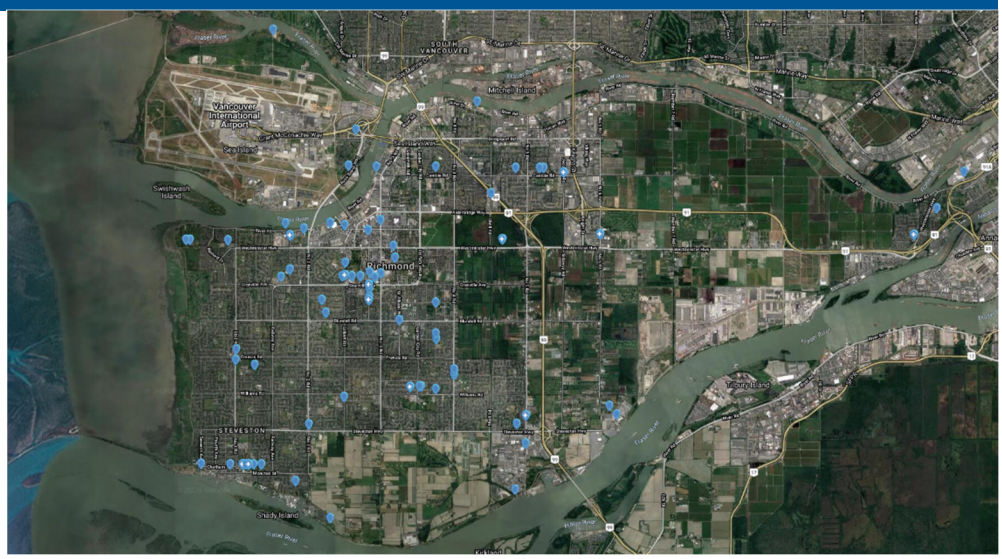
Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Capital Buildings Project Development Advanced Design**	**Submission ID:**	**7474**

Location:
Various Locations

Cost:
$1,500,000

Funding Sources:
Building and Infrastructure:
$1,500,000

OBI:
$ -



Scope:

This funding will be used to provide feasibility and concept level consulting service required to complete the following:

Building and feasibility assessments required to develop the 2024 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 2023 program include feasibility and costing for Britannia Shipyards – Britannia Shipyard Building Envelope and Structural Renewals, City Hall and Annex Renewals, Hugh Boyd Community Facility and Fieldhouse concept design as well as South Arm and Steveston Outdoor Pool Renewals.

To respond to requests for feasibility and concept level design and costing services added to the 2024 work plan. Over the past three years, there were approximately 37 such requests, examples of which include the Richmond Curling Club assessment and maintenance plan; Caring Place Facility Condition Assessment and Capital Plan; Olympic Oval Exterior improvements, locker room renovations and 25 year capital plan generation, as well as multiple house demolitions requested from Real Estate. The same level of requests are anticipated for 2024.

To respond to market escalation and volatile pricing by including design elements into our planning cycle. Future capital submissions will be developed through to schematic level design and costing, then sent for escalation just prior to final reviews and approvals. This process is anticipated to decrease the award period needed on projects once they've been approved and reduces escalation impacts on project budgets.

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. For example, the 2022 Advanced Design submission was not approved and resulted in the deferment of approximately $750,000 of facility infrastructure and building improvement projects.

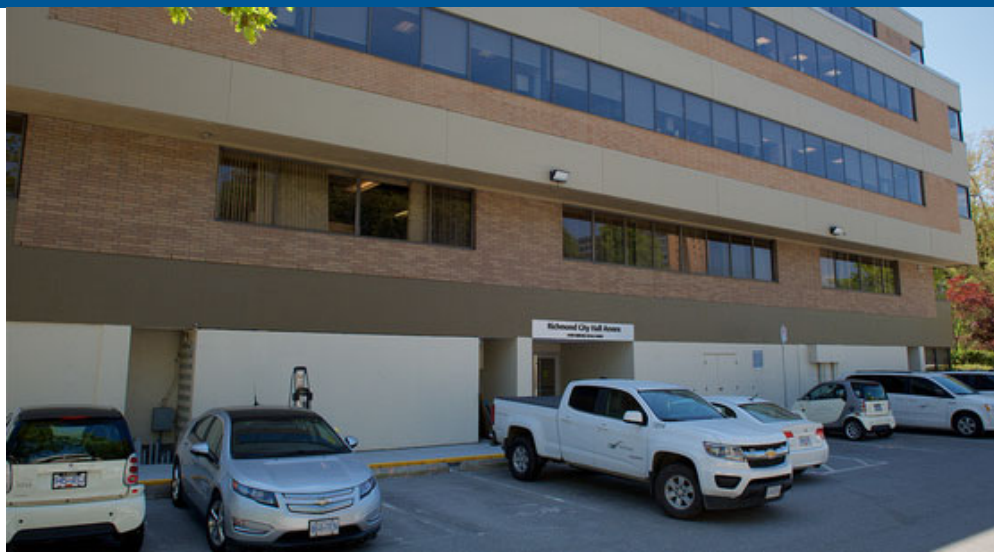
Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**City Hall Annex Infrastructure Replacements**	**Submission ID:**	**6753**

Location:
6900 Minoru Blvd

Cost:
$600,000

Funding Sources:
Building and Infrastructure:
$600,000

OBI:
$ -



Scope:

This will include replacement of the Emergency Generator system and associated works to facilitate the new equipment. The current system is original to building, and replacement parts are no longer available to repair the system.

Program:	Building Program	Sub-program:	Building
Project Name:	Community Safety Building Security Enhancements and Infrastructure Replacement	Submission ID:	7631

Location:
Community Safety Building

Cost:
$1,787,525

Funding Sources:
Building and Infrastructure:
$1,787,525

OBI:
$ -



Scope:

The Officer In Charge (OIC) of the Richmond Detachment has reviewed the overall safety at the Community Safety Building's front counter and entranceway.

This project will require replacement and enhancements to the vital infrastructure of the main detachment, including interior and exterior front entrance ehancements, upgrades to a radio frequency room and replacement of the outdated card reader system.

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

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

OBI:
$ -



Scope:

System - $40,000

This work includes the renewal of a fire alarm system and devices, exit signs, emergency lighting, baseboard heaters of the storage facility and associated works.

Envelope - $900,000

These works include the renewal of the roof, windows and seals, exterior doors, overhead rolling bay doors, exterior paint finishes and associated works.

Interior Finishes - $450,000

These works include the replacement and renewals of ceramic and linoleum flooring, washroom accessories, and enabling works.

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

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.

Electrical - $40,000

These works include renewal of the emergency generator.

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Richmond Curling Club Priority 2 Repairs - Phase 2**	**Submission ID:**	**7156**

Location:
5540 Hollybridge Way

Cost:
$3,100,000

Funding Sources:
Building and Infrastructure:
$3,100,000

OBI:
$ -



Scope:

The roof has now failed and can no longer be repaired. The roof and associated insulation will be replaced to prevent further water ingress and provide continued service to the facility.

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Steveston and South Arm Outdoor Pool Renewals**	**Submission ID:**	**6754**

Location:
Various Locations

Cost:
$4,300,000

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

Steveston Community Amenity:
$1,600,000

OBI:
$ -



Scope:

South Arm Pool $2.7 Million

Envelope:

Roof replacement including drainage, exterior door replacements and associated works to the administrative building.

Mechanical:

Replacement of boilers, water heaters, water distribution systems and associated works throughout the facility.

Pool Systems and Operator Requests:

Resealing of the pool liners to both the main pool and the wading pool. Installation of shade structures to the guard stations and park area.

Interior Finishes:

Repairs and spot replacements of ceramic floor and wall tiles in the change room, bathroom and shower areas as needed.

Steveston Pool $1.6 Million

Envelope:

Roof replacement and associated work regarding the solar system on the roof of the administration building.

Mechanical and HVAC:

Renewals and replacements to the perimeter heating system, exhaust system, storage tanks and associated works.

Site Work and Operator Requests:

Replacement of the bleacher system and installation of shaded areas for the new bleachers, as well as guard stations and building entry from the pool deck.

Program:	Building Program	Sub-program:	Building
Project Name:	Steveston Martial Arts Roof Beam Remediation and Fascia Board Replacement	Submission ID:	7507

Location:
4251 Moncton St

Cost:
$1,000,000

Funding Sources:
Steveston Community Amenity: $1,000,000

OBI:
$ -



Scope:

The Steveston Martial Arts building was built in 1971 and is approximately 10,000 square feet. The facility is primarily used as a martial arts community hub, consisting of both a Judo and Kendo Hall.

The glulam beam and fascia boards have deteriorated and show signs of rot. Work will involve design and construction services for the following:

1. Replacement of the deteriorated glulam beam, gutter and downspout system.
2. Replacement of rotten roof above the front gate, wood deck and glulam beam overhangs.
3. Installation of fascia boards and associated works.

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Works Yard Replacement - Phase 1**	**Submission ID:**	**7261**

Location:
5599 Lynas Lane

Cost:
$70,000,000

Funding Sources:
Building and Infrastructure:
$35,000,000

Capital Reserve (Revolving Fund):
$15,000,000

Sanitary Sewer BL10401:
$8,343,000

Water Supply BL10402:
$11,657,000

OBI:
$ -



Scope:

Replacement of the Works Yard located at 5599 Lynas Lane was approved by Council in July 2023. The approved project is to be completed while keeping the existing Works Yard operations functional at all times.

Early works will include a comprehensive geotechnical assessment, a detailed environmental assessment, ground preparation for the construction of the new buildings, and a complete program review.

The first phase of the Works Yard replacement will include construction of a new administration building, as well as a three to five storey staff parkade at the southeast corner of the site. This phase will include demolition of some existing site facilities along with staff relocation and associated works.

Building – Heritage Program

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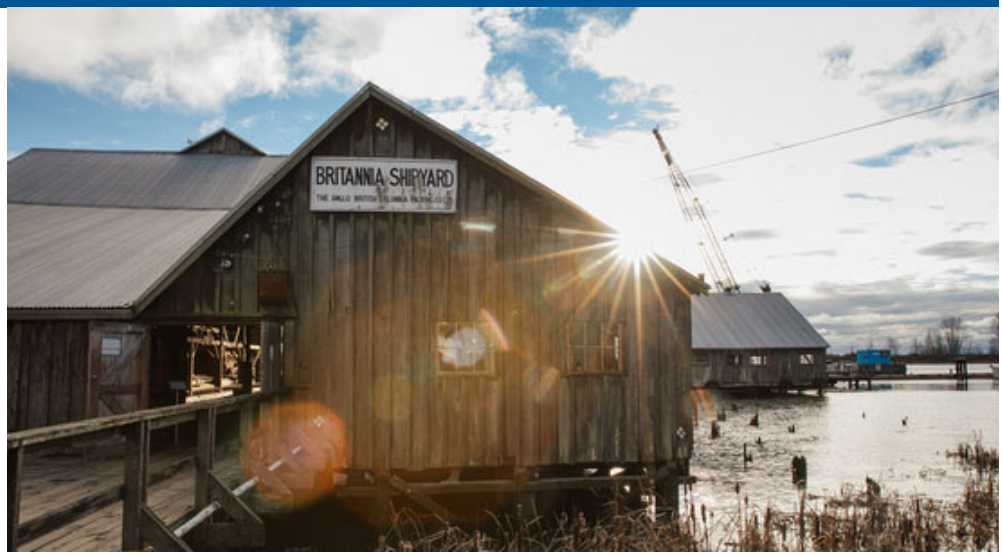
Program:	**Building Program**	**Sub-program:**	**Heritage**
Project Name:	**Britannia Shipyards – Britannia Shipyard Building Envelope and Structural Renewals**	**Submission ID:**	**7483**

Location:
5180 Westwater Drive

Cost:
$7,000,000

Funding Sources:
Building and Infrastructure:
$7,000,000

OBI:
$ -



Scope:

This is the second year of funding for this project and the scope is to complete repairs, replacements and associated works to the Shipyard building. There will be a submission for the budget year 2025 for the remaining work on the Seine Net Loft.

Structural - $3,000,000

The pile foundations of the Shipyard Building is 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.

Envelope - $3,500,000

The roofing of the Shipyard Building, as well as the siding 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.

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.

Life / Safety - $200,000

This includes replacements and upgrades to the fire alarm and security systems present.

Mechanical and Electrical - $300,000

Repairs and replacements to the mechanical and electrical systems affected by this project.

Program:	Building Program	Sub-program:	Heritage
Project Name:	First Nations Bunkhouse Reconstruction and Exhibit Development	Submission ID:	7317

Location:
5180 Westwater Drive

Cost:
$6,500,000

Funding Sources:
Building and Infrastructure:
$3,146,000

Growing Communities Reserve:
$3,354,000

OBI:
$185,824



Scope:

The purpose of this project is to restore and develop the First Nations Bunkhouse at Britannia Shipyards for visitor services, heritage exhibits and program spaces.

On February 8, 2021, Council endorsed the program plan for the First Nations Bunkhouse.

On July 23, 2021, Council endorsed the Britannia Shipyards National Historic Site Strategic Development Plan which recommended completing reconstruction, exhibit and program development of the Japanese Duplex and First Nations Bunkhouse as key priorities for 2019.

The preservation and interpretation of the building in this project supports the goals identified in the Cultural Harmony Plan adopted by Council on May 25, 2020, including recognizing and celebrating Richmond's diverse cultures and unique heritage and responding to the calls to action from the Truth and Reconciliation Commission.

All estimates provided are Class D. The OBI for this project is an estimate. Staff will prepare detailed service level and budget options for Council consideration prior to the 2025 budget process being initiated.

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:	Bowling Green Lighting LED Replacement	Submission ID:	7562

Location:
Minoru Park

Cost:
$450,000

Funding Sources:
Gas Tax:
$450,000

OBI:
$ -



Scope:

The Minoru Park lawn bowling greens were constructed with field lights in the 1970s. Field lights enable all-season and evening play, and support event hosting capabilities. While the light fixtures were replaced in 1994, the light poles were original to the 1970s and are nearly 50 years old. The light fixtures and the light poles have both exceeded their expected service life and requires total replacement of the lighting system in order to be consistent with present structural codes and lighting technology.

The existing field is illuminated through eight light poles and metal halide fixtures, and is powered through 8.0 kilowatt of load. With advancements in technology, the proposed system will require only four light poles with LED light fixtures, and will draw 4.0 kilowatt load, and therefore reduces energy usage by half for the same hours of operation. The reduction of total light poles and improved light fixtures will also reduce glare onto neighbouring residential properties while increasing illumination onto playing surfaces.

The project has been designed to meet IES RP-6-20 standards for recreational amenities, such as lawn bowling. Furthermore, the use of shields and pre-aimed light fixtures ensures that the installation minimizes glare and meets International Dark Sky Association criteria for community-friendly outdoor sports lighting.

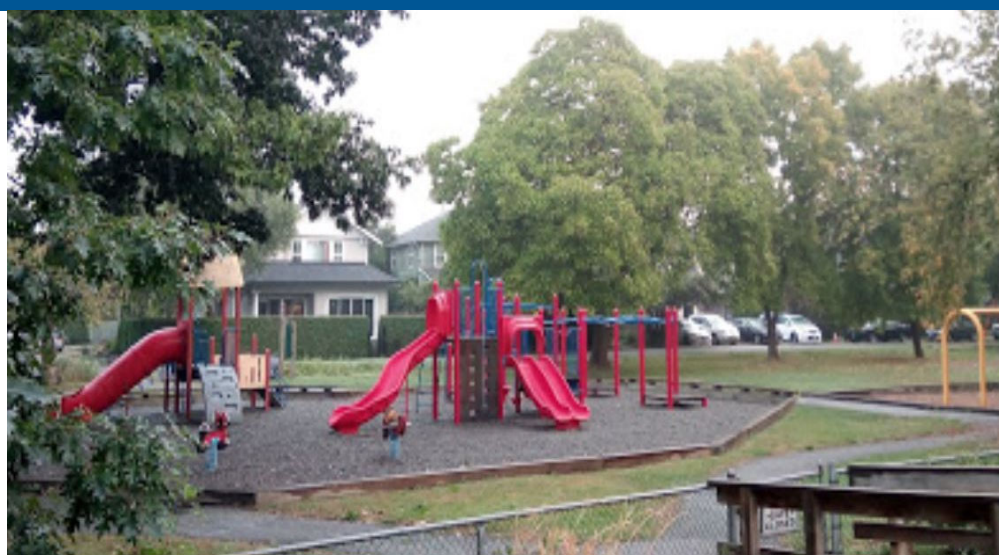
Program:	Parks Program	Sub-program:	Parks
Project Name:	Burkeville Neighbourhood Park Redevelopment	Submission ID:	7549

Location:
Burkeville Park

Cost:
$600,000

Funding Sources:
Capital Reserve (Revolving Fund): $600,000

OBI:
$ -



Scope:

Burkeville Neighbourhood Park was originally constructed in the 1970s and its amenities are rapidly approaching end of useful service life. Situated in the center of the Sea Island's residentially zoned area, the park is a key defining component to the neighbourhood and integral to satisfying the OCP's park distribution standards. It is also the only park to provide a full range of trails, playgrounds and informal active recreation amenities, ensuring that residents have equitable access to achieve outdoor active healthy lifestyles.

This project aims to replace the existing sport courts and asphalt pathways, and to implement improvements to the playground, splash pad, site furnishings and perimeter trail conditions. Assets such as the splash pad and play equipment require full replacement to keep up with present safety standards, and the sports courts require significant repairs to the asphalt and underlying base.

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:	**City-Wide Community Gardens**	**Submission ID:**	**7506**

Location:
Various Locations

Cost:
$300,000

Funding Sources:
Parks Development DCC:
$282,150

Capital Reserve (Revolving Fund):
$17,850

OBI:
$5,700



Scope:

In 2019, Council supported the creation of new community garden plots to meet the desires of Richmond residents for space to grow food and garden. In 2022, the Cook Community Garden expansion added 40 new plots. That same year, three new community gardens were built along the Railway Greenway with 96 total plots.

In 2023, the program focused on creating new gardens in underserved neighbourhoods such as Hamilton and West Cambie. Staff conducted a comprehensive study of the City's community gardens and their access, and gained a better understanding of the existing service gaps and needs. The study will help guide the planning and implementation of the program in the next five years.

The objective of this submission is to continue to focus on addressing existing garden provision gaps and creating new gardens in underserved neighborhoods with increasing demand. The proposed neighbourhoods are Broadmoor and Blundell, with exact locations to be determined with input from future public engagement.

Community gardens are member-maintained, shared green spaces with individual and group plots for growing food, flowers and other plants. Community gardens help to create welcoming, safe and inclusive communities, and allow residents to feel connected to nature and with one another. Community gardens can play a significant role in addressing social equity by promoting inclusivity, access, and empowerment within communities.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Hugh Boyd Community Park Playground Renewal**	**Submission ID:**	**7515**

Location:
Hugh Boyd Community Park

Cost:
$300,000

Funding Sources:
Parks Acquisition DCC:
$282,150

Capital Reserve (Revolving Fund):
$17,850

OBI:
$ -



Scope:

The Hugh Boyd Community Park playground is a designated community playground, serving the greater surrounding area and acting as a significant destination for West Richmond. The majority of the play equipment and supporting infrastructure have reached the end of their life cycle.

To address these issues and create a more inclusive and safe environment, the playground requires a comprehensive renewal. This project will involve consulting services, encompassing community and stakeholder engagement, concept and detailed design, and the development of custom play structures. Detailed costing will also be prepared as part of the renewal design work.

The renewal of the Hugh Boyd Community Park playground is imperative to establish a more inclusive, safe and captivating space for all community members. The project aims to develop a comprehensive design ready for construction, which prioritizes safety, accessibility, and sustainability to establish a captivating and enjoyable playground for everyone.

Until sufficient funds are collected within the Parks Development DCC program, it is recommended that this project to be funded from Parkland Acquision DCCs and repaid to Park Development DCCs with interest.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Minoru Lakes Renewal: Phase 2**	**Submission ID:**	**7522**

Location:
Minoru Park

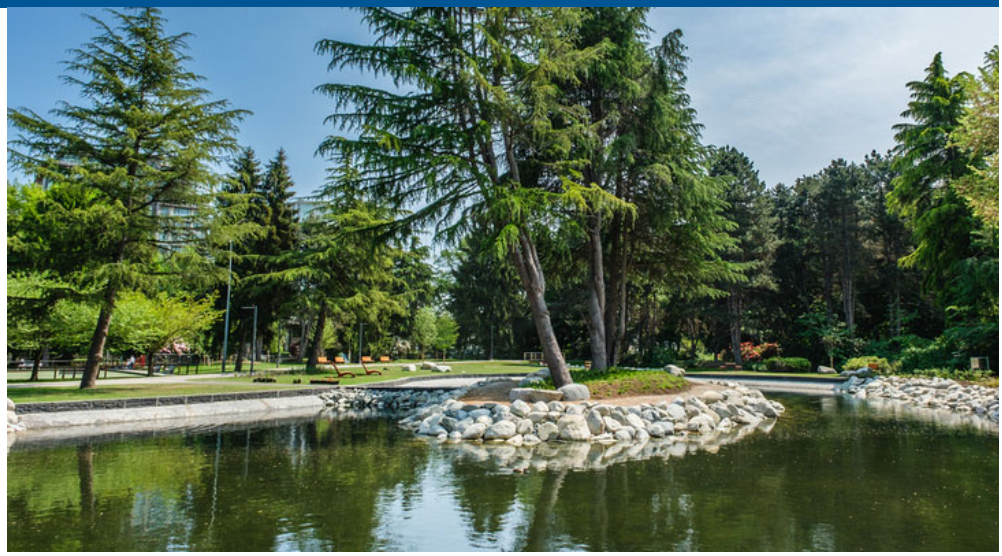
Cost:
$2,500,000

Funding Sources:
Parks Acquisition DCC:
$658,350

Capital Reserve (Revolving Fund):
$691,650

Grant:
$1,150,000

OBI:
$7,950



Scope:

Minoru Lakes Renewal: Phase 2 includes a stormwater detention pond system (liner, edging, recirculation pump, oil interceptor, aquatic, emergent, and riparian planting, as well as irrigation) to further enhance the environmental sustainability of Minoru Lakes and the neighbourhood stormwater catchment area to the east of Minoru Park. More robust bridges over the drainage canal, wayfinding, and lighting, which are all aimed at providing a more welcoming entry into the Minoru Lakes, are also included.

This next phase of construction will build on the success of the first phase, which was completed in June 2023. The new stormwater detention pond will intercept, treat (mechanically and passively via soil and plants) and detain stormwater from upstream private developments and public roadways. A recirculating pump system will supply water to the lakes and help maintain its water levels. Via the Minoru Park Vision Plan process, the community noted that the Minoru Lakes area is hidden, generally unwelcoming and viewed as unsafe. The new bridges, lighting and wayfinding will offer a more inviting entry into the Minoru Lakes area along its south edge and provide improved connections to adjacent areas within Minoru Park.

This capital request relates to a pending grant application to Investing in Canada Infrastructure Program: Green Infrastructure Environmental Quality Stream and has further taken into account of the grant's eligible cost items and price adjustment due to construction cost inflation.

Until sufficient funds are collected within the Parks Development DCC program, it is recommended that this project to be funded from Parkland Acquision DCCs and repaid to Park Development DCCs with interest.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Minoru Park Central Amenity Space Concept Design**	**Submission ID:**	**6681**

Location:
Minoru Park

Cost:
$385,000

Funding Sources:
Parks Development DCC:
$329,175

Capital Reserve (Revolving Fund):
$20,825

Community Contribution:
$35,000

OBI:
$ -



Scope:

The scope of work for Minoru Park Central Amenity Space Concept Design will include public and stakeholder engagement, concept plan options, and a final preferred concept plan. A summary of the process and the preferred concept plan will be included in a report for Council consideration prior to detailed design.

Minoru Park is the primary City-wide Park within the City Centre Area and has long been a destination for sport and recreation. It includes a wide range of amenities that serve the local surrounding neighbourhood, broader Richmond community and visitors. During public engagement that was focused on potential future park amenities at Minoru Park, the local community expressed a strong desire for additional informal park uses such as a large playground, expanded picnic area, updated outdoor fitness stations and basketball courts. This desire is further supported by a need to expand informal park services in response to the rapidly growing population living within a five minute walking distance (400 meters) of the park, which is anticipated to double by 2041. The majority of new local residents will be living in high density housing with limited access to outdoor space. New and enhanced informal park uses that serve a broad range of ages and abilities will contribute to the social, physical and mental health and wellness of the Brighouse and broader Richmond community into the future. Design development of a central amenity space at Minoru Park will be the next step towards expanded opportunities for informal recreation and socialization within Minoru Park and the benefits they offer.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Parks Advance Planning and Design**	**Submission ID:**	**6375**

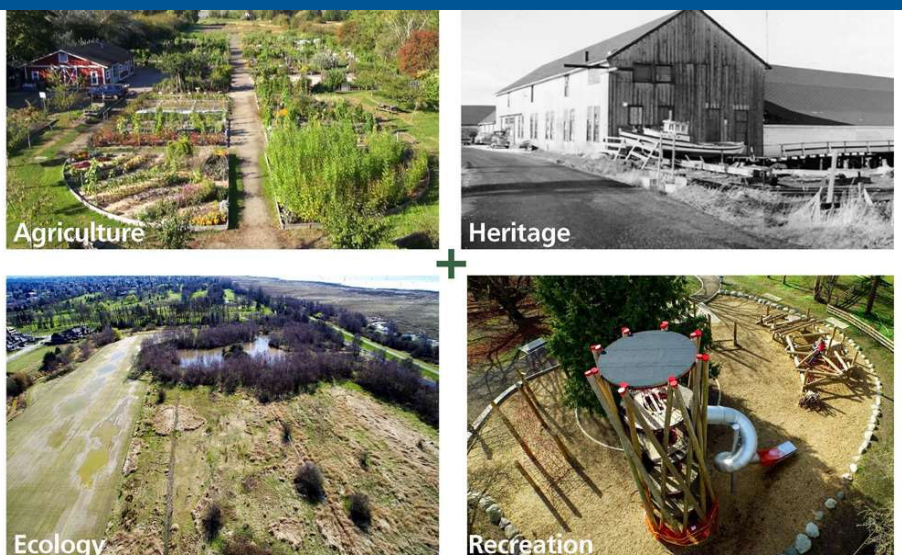
Location:
Various Locations

Cost:
$800,000

Funding Sources:
Parks Development DCC:
$752,400

Capital Reserve (Revolving Fund):
$47,600

OBI:
$ -



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).

2024 projects include:

1. Richmond Nature Park Improvement Study;
2. Electrical Infrastructure Condition Assessments;
3. Stormwater Infrastructure Improvement Study;
4. Conceptual park and open space planning for various sites;
5. Topographical surveys (engineering site survey pick-up);
6. Park characterization projects; and
7. Best practices research.

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 Ageing Infrastructure Replacement Program	Submission ID:	6374

Location:
Various Locations

Cost:
$730,000

Funding Sources:
Capital Reserve (Revolving Fund): $730,000

OBI:
$ -



Scope:

This program targets the replacement of ageing parks and open space infrastructure, including drainage, electrical and structural systems. Park assets that have exceeded their expected service life are prioritized for repairs or total replacement depending on operational impact and safety to life and property. If not addressed, declining condition of assets may result in closure of amenities and public open spaces, and also increase operational effort required to address increasing frequency and severity of issues.

Priority projects currently identified for 2024 include:

1. Steveston Park lacrosse box replacement: Constructed in the 1970s, the perimeter fence and bleachers are in poor condition and have exceeded expected service life. Issues in the construction cannot be feasibly addressed through minor repairs.
2. Steveston Park spray pad mechanical upgrades: Primary pump and UV treatment systems have exceeded warranty and design life, with spare parts not readily available if issues arise. Upgrades will improve system reliability and performance.
3. South Arm Park court resurfacing: The sport surfacing coatings have completely worn off in high-use areas like the service boxes and require resurfacing. Pavement cracks will be repaired through spot removals and/or surface treatments.
4. Richmond Skateboard Park repairs: Cracked skate features and concrete walls will be repaired to ensure safe operation of the skate park.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Parks General Development**	**Submission ID:**	**6373**

Location:
Various Locations

Cost:
$500,000

Funding Sources:
Parks Development DCC:
$470,250

Capital Reserve (Revolving Fund):
$29,750

OBI:
$ -



Scope:

Upgrades to existing parks are required to respond to urgent 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 to be agile and responsive to Council direction and appropriate public requests that align with the City's strategic plans. These discrete, site-specific park enhancements address the community's needs for ongoing park improvements to infrastructure, equipment and landscape amenities.

Examples of projects that have been supported by the General Development program include:

1. New benches;
2. New drinking fountains; and
3. New tennis tables.

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

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Parks Interpretive Signage Program - Phase 2**	**Submission ID:**	**6680**

Location:
Various Locations

Cost:
$120,000

Funding Sources:
Parks Development DCC:
$112,860

Capital Reserve (Revolving Fund):
$7,140

OBI:
$7,500



Scope:

This project is a continuation of the initiative to develop interpretation signage in underserved parks and trail areas. There are gaps in the Parks and Trails interpretation program and this capital request seeks to close those gaps and provide relevant, active engagement through education and site interpretation of our natural, cultural and historic landscapes. This phase of the project includes up to 10 new interpretation sites. None of these locations have such existing park signage and are still being developed directly related to growth. The new design for the interpretation signage program takes its design cues from the Parks Identification and Wayfinding Signage program and will become part of a larger family of visual identity for Parks.

The scope of work includes:

1. Designing and completing an analysis per interpretation site (natural, cultural and historic);
2. Developing site plans for interpretation signage deployment;
3. Coordinating with vendors and/or in-house services for the fabrications of the signs; and
4. Coordinating installation deployment of Phase 2 with in-house services.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Playground Replacement Program**	**Submission ID:**	**6640**

Location:
Various Locations

Cost:
$600,000

Funding Sources:
Capital Reserve (Revolving Fund): $600,000

OBI:
$ -



Scope:

This capital program currently addresses playgrounds that are over 20 years of age, which are at the end of their life span, no longer meet current safety guidelines (according to the Canadian Standards Association's "Children's Playspaces and Equipment"), and/or contain damaged parts that can no longer be replaced due to obsolescence or severe vandalism. Updates of all playground components such as play equipment, safety surfacing, edging, drainage, and surrounding landscape features are considered. While the cornerstone of this program is to ensure that playgrounds continue to be safe and operational into the future, opportunities to broaden the range of play offered and enhance or introduce inclusive play with environmental sustainability condition will also be explored.

A priority in 2024 are replacement of the playgrounds at:
1. Fedoruk Kartner Park;
2. McLean Neighbourhood Park; and
3. Dover Neighbourhood Park.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Waterfront Infrastructure Renewals**	**Submission ID:**	**7651**

Location:
Imperial Landing and Garry Point Park

Cost:
$120,000

Funding Sources:
Capital Reserve (Revolving Fund): $120,000

OBI:
$ -



Scope:

The City's parks and open space system features a wide range of opportunities for residents and visitors to access and enjoy the waterfront. Unique structures along the river celebrate Richmond's history and create appealing destinations. Waterfront infrastructure at Garry Point Park includes steel piles, concrete abutments, mooring supports, and site servicing capable of supporting moorage of vessels.

Garry Point Park is exposed to adverse conditions of the Fraser River. Scouring, large wakes, deadheads and storm events require structural renewals to ensure the assets are in serviceable conditions. Works proposed include re-coating or repairing damaged steel piles, concrete abutment repairs, steel pontoon floats, and detailed inspections of site services such as water supply and hydro connections.

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:**	**6377**

Location:
As per Parks DCC Land Acquisition Plan

Cost:
$4,000,000

Funding Sources:
Parks Acquisition DCC:
$3,762,000

Capital Reserve (Revolving Fund):
$238,000

OBI:
$ -



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.

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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Strategic Real Estate Acquisition 109

Program:	**Land Program**	**Sub-program:**	**Land**
Project Name:	**Strategic Real Estate Acquisition**	**Submission ID:**	**6687**

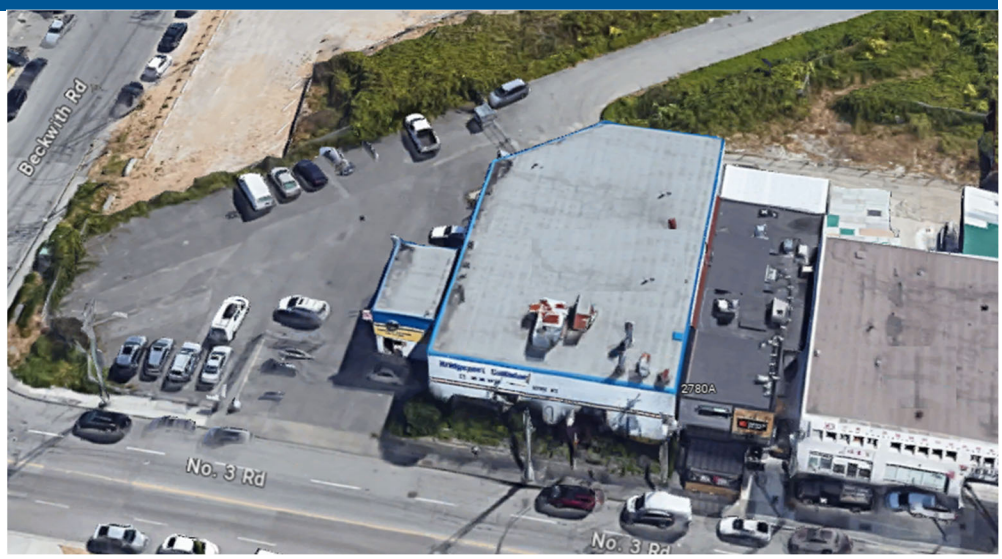
Location:
Various Locations

Cost:
$11,186,407

Funding Sources:
Capital Reserve (Industrial Use):
$10,000,000

Developer Contribution:
$1,186,407

OBI:
$ -



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.

$1,186,407 from Developer Contributions will be used to acquire a previously identified property for future road purposes.

Equipment Program

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

Equipment – Vehicle Program

Automatic Vehicle Location/Global Positioning System Expansion 111

Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet) 112

Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Automatic Vehicle Location/Global Positioning System Expansion	Submission ID:	7264

Location:
Public Works – Fleet Operations

Cost:
$189,554

Funding Sources:
Public Works Equipment:
$189,554

OBI:
$121,762



Scope:

The Automatic Vehicle Location/Global Positioning System (AVL/GPS) supports the City's sustainability objectives relating to social accountability, greenhouse gas (GHG) emissions reductions in relation to efficient fleet use, and fuel efficiency. This is the third year and the final phase of the AVL/GPS expansion.

This project will implement the Power to Off (PTO) and additional sensor capabilities on the remaining approximate 160 units in the corporate fleet including all Richmond Fire-Rescue non-emergency response vehicles. The system specifications requirements will also be refined as a result of this expansion.

dProgram:	Equipment Program	Sub-program:	Vehicle
Project Name:	Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	Submission ID:	6770

Location:
Works Yard and Various City Departments

Cost:
$3,685,000

Funding Sources:
Public Works Equipment:
$2,960,000

Sewer Levy:
$350,000

Water Levy:
$375,000

OBI:
$ -



Scope:

In accordance with Sustainable Green Fleet Policy 2020, vehicles are eligible for the annual replacement project based on their age and condition.

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.

The preliminary list of replacement vehicles and equipment includes, but not limited to, the following: 1 tandem dump truck, 3 heavy duty trucks, 2 medium duty trucks, 1 tractor, 1 bus, 3 medium duty vans, 4 light duty vans, 2 excavators, 2 ice resurfacers, 2 recreational terrain vehicles (RTV), 1 trailer, 1 curb builder, plus an unallocated amount for unforeseen replacements, pricing adjustments, equipment failure, etc.

Equipment – Fire Vehicle Program

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Fire Vehicle Replacement Reserve Purchases 114

Program:	Equipment Program	Sub-program:	Fire Vehicle
Project Name:	Fire Vehicle Replacement Reserve Purchases	Submission ID:	7434

Location:
Various Locations

Cost:
$1,476,000

Funding Sources:
Fire Equipment:
$1,476,000

OBI:
$ -



Scope:

Richmond Fire-Rescue (RFR) follows a life-cycle replacement schedule based on the National Fire Protection Association standard 1904-194.

Following this international standard includes RFR mechanical staff conducting an inspection annually on each frontline apparatus to evaluate replacement schedules due to age and operational condition, and to avoid mechanical failures.

This inspection and replacement cycle allows Richmond Fire-Rescue to respond to calls for service and ensure the continuous and uninterrupted delivery of fire suppression services, which provides a favourable fire underwriters rating and the lowest possible insurance lines for commercial and residential customers in the City of Richmond.

RFR has designated “Fire Equipment Reserve”, the replacement plan for all apparatus funded through this reserve.

The replacement plan for 2024 includes a frontline truck budgeted at $1,476,000.

Equipment – Equipment Program

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GHG and Energy Management Projects 116

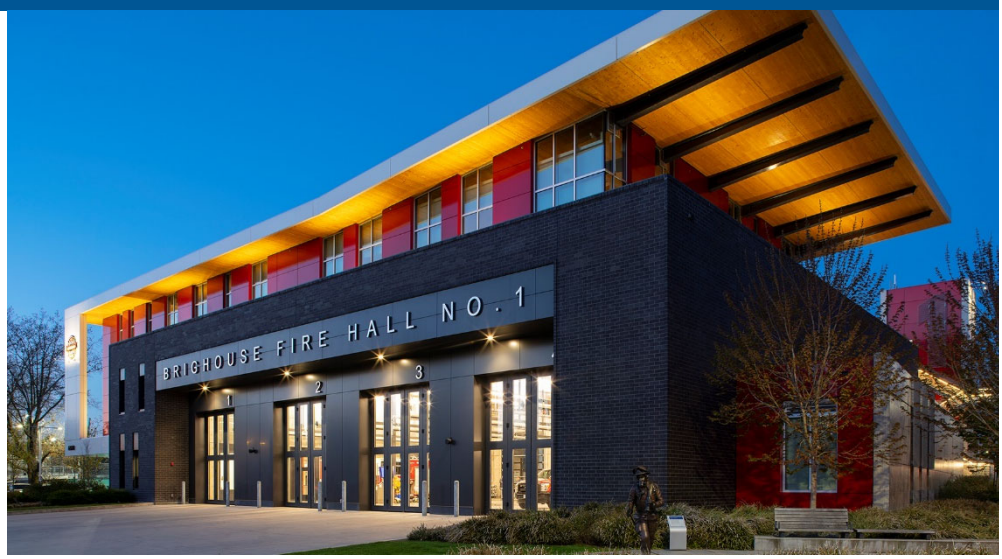
Program:	Equipment Program	Sub-program:	Equipment
Project Name:	GHG and Energy Management Projects	Submission ID:	7089

Location:
Various Locations

Cost:
$550,000

Funding Sources:
Gas Tax:
$550,000

OBI:
$ -



Scope:

Greenhouse gas (GHG) reduction, energy management and building mechanical projects (e.g. HVAC) as identified through the completion of the following ongoing studies:

1. Low Carbon Electrification (BC Hydro);
2. GHG Reduction Master Plan (FortisBC); and
3. GHG Reduction Pathway Feasibility Study (Federation of Canadian Municipalities).

The City is utilizing these studies to identify a variety of GHG emission reduction measures, as well as project phasing and funding pathways for a group of civic facilities that collectively represent over 50 per cent of annual natural gas consumption within the City's corporate portfolio.

Key objectives for this project include significantly reducing operational greenhouse gas emissions through a combination of energy efficiency improvements, mechanical system electrification, and assessing how these measures can make these buildings more resilient to the negative effects of climate change.

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 adoption of recognized best practices in IT Systems and Cybersecurity Management and a planned approach to address ageing infrastructure requirements.

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Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	Annual Hardware Refresh	Submission ID:	6668

Location:
City Hall

Cost:
$447,000

Funding Sources:
Hardware Upgrade:
$447,000

OBI:
$ -



Scope:

The City maintains the best practice of replacing ageing computer hardware 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. These assets are depreciated and written off after disposal approvals have been received. The City either trades in older assets or disposes them in a certified, environmentally sound manner.

This project scope is to perform the scheduled replacement of end-of-life City computer hardware, which includes 77 desktops, 3 laptops, 211 monitors (desktop and video conferencing enabled), 12 docking stations, 121 mobile phones and 124 iPads.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	Automated Plan Review AI Software	Submission ID:	7638

Location:
City Hall

Cost:
$717,414

Funding Sources:
Grant:
$717,414

OBI:
$55,000



Scope:

The goal of this project is to implement an AI (artificial intelligence) driven, automated plan review system to significantly enhance the speed and accuracy for processing building and development permit applications. The project will be implemented in phases, with the submission focusing on the first phase for single occupancy building types.

The scope of work includes:

1. Planning study to design the plan review automation rules for single occupancy building types; and
2. Implementation of the automated plan review software, with machine learning capabilities.

Subject to the grant application being successful, this project will be funded by the Housing Accelerator Fund (HAF), which the application was approved by Council. At the time of writing this report, no funding decision has been announced.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	Commvault City Hall Storage Refresh	Submission ID:	7561

Location:
City Hall

Cost:
$131,658

Funding Sources:
Hardware Upgrade:
$131,658

OBI:
$6,552



Scope:

The City's backup storage solution is critical for the protection, retention and recovery of data. The system is used to store all City data and is required for business productivity, continuity and risk management.

The existing disk storage solution at City Hall has begun to have drive failures and has been in operation for about 10 years. It has exceeded recommended life cycle targets and needs to be replaced.

This project will replace the existing unsupported end-of-life hardware with new technology and increased storage capacity to meet future growth.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	CRM Public Works Expansion	Submission ID:	7521

Location:
City Hall

Cost:
$400,000

Funding Sources:
Computer Equipment:
$400,000

OBI:
$ -



Scope:

Expanding the use of the City's Customer Relationship Management (CRM) platform to be used as the source system to capture requests for service and problems that Dispatch capture in phone calls, and emails to Infor Public Sector (IPS). This process will also streamline the process that website visitors follow to submit a request for service or problems that are associated to Dispatch-related activities.

This solution would require the following categories to be updated and re-assessed in the City's CRM:

1. Graffiti - on roadways and City building
2. Meter Service requests
3. Traffic signal not working (1 or multiple)
4. Roads category
5. Water and Sewers category

Integration, consulting/coaching, design, event handling, automation and orchestration will be necessary to keep the City's source systems, IPS, CRM, corporate website and MyRichmond, updated and optimized.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	Database Encryption Project	Submission ID:	7516

Location:
City Hall

Cost:
$355,000

Funding Sources:
Software:
$355,000

OBI:
$44,500



Scope:

As part of best practice as it relates to security protections, it is recommended that all databases be fully encrypted to prevent data being potentially stolen by cybercriminals. Data that is encrypted is not easily accessible without the encryption keys, which would be highly secured.

Implementing database encryption prevents attempts from malicious parties from gaining access to confidential information stored in Oracle and SQL Server databases, by transparently encrypting corporate enterprise system data stored in databases and backups.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	MyPermits	Submission ID:	7519

Location:
City Hall

Cost:
$2,176,085

Funding Sources:
Grant:
$2,176,085

OBI:
$ -



Scope:

The MyPermits will support development and related activities to reduce administrative time for permit processing and provide customer online digital access. The primary objective is to optimize and streamline processes for development applications, plan review, and permitting, with end-to-end modernization to enable digital submission, review/approval, and issuance. By leveraging technology, the project aims to improve the efficiency and effectiveness of the review process, while also introducing customer-focused enhancements such as online application submission and payment. This will lead to increased stakeholder engagement and improved accessibility to information.

The scope involves reviewing and streamlining the permitting process and enabling digital access for development application submissions and review, as well as status tracking. This includes upgrading the current permitting system and implementing the Permit Portal within MyRichmond.

Subject to the grant application being successful, this project will be funded by the Housing Accelerator Fund (HAF), which the application was approved by Council. At the time of writing this report, no funding decision has been announced.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	VXRail Host Expansion and Refresh	Submission ID:	7528

Location:
City Hall

Cost:
$738,000

Funding Sources:
Hardware Upgrade:
$738,000

OBI:
$88,000



Scope:

This project is to expand the computer and storage capacity of the Datacentre production virtualized server environment to meet the increasing resource demand and to replace ageing, end of life servers with the same technology platform.

There is an additional compute demand being placed on the server environments due to advanced detection and reporting services, namely Carbon Black, that has been put in place. As a result, the server compute environment is running out of compute resources. This project is to ensure that the capacity is able to continue to serve the requirements of the City and not be prone to outages or performance impacts in the future.

Contingent External Contributions

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

Table of Contents

Contingent External Contributions 126

Program:	Contingent External Contributions	Sub-program:	Contingent External Contributions
Project Name:	Contingent External Contributions	Submission ID:	6769

Location:
Various Locations

Cost:
$10,000,000

Funding Sources:
Grant:
$10,000,000

OBI:
$ -

Scope:

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.

Infrastructure Program – Recommended But Insufficient Funding

Due to funding constraints and higher priority projects, the following infrastructure project is recommended but with insufficient funding.

Infrastructure Advanced Design and Minor Public Works Program

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Public Works Minor Capital - Traffic..... 128

Program:	**Infrastructure Program**	**Sub-program:**	**Infrastructure Advanced Design and Minor Public Works**
Project Name:	**Public Works Minor Capital - Traffic**	**Submission ID:**	**6624**

Location:
Various Locations

Cost:
$250,000

Funding Sources:
Capital Reserve (Revolving Fund): $250,000

OBI:
$ -



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.

Note: 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.

Building Program – Recommended But Insufficient Funding

Due to funding constraints and higher priority projects, the following building projects are recommended but with insufficient funding.

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Facility Services Minor Capital Works 130
UPS Replacement 131

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**Facility Services Minor Capital Works**	**Submission ID:**	**7505**

Location:
Various Locations

Cost:
$500,000

Funding Sources:
Building and Infrastructure:
$500,000

OBI:
$ -



Scope:

This project involves minor work related to the building infrastructure maintenance, including replacement of chiller gaskets, rehabilitation of building envelope systems, upgrades to multiple trail washrooms, fire panel and equipment replacements, as well as associated works to complete these.

Every year, Facility Services receives requests for minor projects. The minor capital program will allow the department to respond to these requests in a timely and cost effective manner.

Program:	**Building Program**	**Sub-program:**	**Building**
Project Name:	**UPS Replacement**	**Submission ID:**	**7591**

Location:
City Hall

Cost:
$400,000

Funding Sources:
Building and Infrastructure:
$400,000

OBI:
$60,000



Scope:

Uninterruptible Power Supply (UPS) protect computers and other equipment from power surges and guarantee power in the event of an outage. The UPS at City Hall and Works Yard is 15+ years and is at its end of life, with limited support and replacement parts available. Also there are several equipment communications rooms which do not have any UPS protection.

This project will replace the UPS systems in the City Hall and Works Yards data centres and provide individual UPS protection for 15 equipment communication rooms.

Parks Program – Recommended But Insufficient Funding

Due to funding constraints and higher priority projects, the following park projects are recommended but with insufficient funding.

Table of Contents

Park Shelter and Shade Program 133
Pickleball Court Construction 134
Waterfront Infrastructure Renewals 135

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Park Shelter and Shade Program**	**Submission ID:**	**7369**

Location:
Various Locations

Cost:
$500,000

Funding Sources:
Capital Reserve (Revolving Fund): $500,000

OBI:
$4,000



Scope:

This project proposes to construct canopies and shades in parks to improve adaptation to warming climates. Construction of permanent shelters at Dover Neighbourhood Park, Garden City Park, McLean Neighbourhood Park and Steveston Park were planned through a previous capital submission in 2023.

This project proposes the construction of four additional shade structures. The program will prioritize and implement new shade amenities at strategic locations in the built environment, such as playgrounds, plazas and picnicking areas.

If this capital submission is not approved, the City will continue with the installation of temporary pop-up park shelters as neededou could .

Program:	Parks Program	Sub-program:	Parks
Project Name:	Pickleball Court Construction	Submission ID:	7538

Location:
Various Locations

Cost:
$1,430,000

Funding Sources:
Capital Reserve (Revolving Fund): $1,430,000

OBI:
$2,110



Scope:

In 2020, the City constructed nine new pickleball courts through renovation of underutilized spaces in Hugh Boyd Community Park and South Arm Community Park. As the only pickleball courts in the City, the courts are frequently full with users waiting for court time. Pickleball is the fastest growing sport in North America and demand is expected to continue to increase as the sport features a low barrier to entry and a highly social playing environment. This project is identified as a priority project through the Recreation Sports Facility Needs Assessment.

The project proposes the construction of nine new pickleball courts inclusive of paving, coloured sport performance surfacing, perimeter fencing, drainage improvements and sport lighting. An acoustic engineer will be retained to improve noise performance of the amenity through site selection and design methodology. Several sites will be assessed in consideration to noise impacts, amenity provision service areas and overall park planning objectives.

Program:	**Parks Program**	**Sub-program:**	**Parks**
Project Name:	**Waterfront Infrastructure Renewals**	**Submission ID:**	**7527**

Location:
Imperial Landing and Garry Point Park

Cost:
$550,000

Funding Sources:
Capital Reserve (Revolving Fund): $550,000

OBI:
$ -



Scope:

The City's parks and open space system features a wide range of opportunities for residents and visitors to access and enjoy the waterfront. Unique structures along the river celebrate Richmond's history and create appealing destinations. Waterfront infrastructure at Imperial Landing include look-out piers, pilings, gangways, floats and a pedestrian bridge. These assets provide circulation, historic interpretation, and contribute to the vibrancy of Steveston and the public realm.

A condition assessment completed in 2023 by marine structural engineers Westmar Advisors Inc. identified infrastructure renewals required to ensure waterfront assets at Imperial Landing remain in serviceable conditions. Proposed works will address decaying timber structures, failing steel coatings, and general updates to components such as safety ladders and surfaces.

Equipment Program – Recommended But Insufficient Funding

Due to funding constraints and higher priority projects, the following vehicle project is recommended but with insufficient funding.

Vehicle Program

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Pick-Up Truck for Parks Maintenance Work 137

Program:	**Equipment Program**	**Sub-program:**	**Vehicle**
Project Name:	**Pick-Up Truck for Parks Maintenance Work**	**Submission ID:**	**7606**

Location:
Works Yard

Cost:
$140,000

Funding Sources:
Capital Reserve (Revolving Fund): $140,000

OBI:
$34,464



Scope:

Various major new parks have been constructed through Parks capital projects or through new development, such as Aberdeen Neighbourhood Park, Alexandra Neighbourhood Park and Tait Riverfront Park. An additional vehicle is required to support the maintenance of the new assets to transport maintenance staff, materials and equipment. This additional truck will enable the Parks department to respond to Council priorities and goals and maintain current service levels throughout the overall park system.

The scope of work is for the purchase of one 1-tonne truck with a dump box to support additional maintenance required for the growth in our park assets.

Information Technology Program – Recommended But Insufficient Funding

Due to funding constraints and higher priority projects, the following information technology projects are recommended but with insufficient funding.

Table of Contents

City Hall Meeting Room AV Equipment Upgrade 139
Document and Record Management System Modernization 140

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	City Hall Meeting Room AV Equipment Upgrade	Submission ID:	7646

Location:
City Hall

Cost:
$111,208

Funding Sources:
Capital Reserve (Revolving Fund): $111,208

OBI:
$23,553



Scope:

The project's primary objective is to upgrade the AV equipment in the City Hall Meeting House rooms to a modern, integrated system with hybrid meeting capabilities.

Changing demographics and technological advancements indicate a growing demand for hybrid meeting capabilities, signifying that this is not a short-term issue. As the City continues to grow, the need for accessible and efficient meeting spaces is projected to increase steadily.

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	Document and Record Management System Modernization	Submission ID:	7517

Location:
City Hall

Cost:
$2,077,258

Funding Sources:
Capital Reserve (Revolving Fund): $2,077,258

OBI:
($112,000)



Scope:

The existing document and record management system is reaching its end of life. The system (REDMS) has been in place at the City for over 20 years, playing a vital role in support of the City's operations, while also supporting legislative requirements to keep vital records as evidence of City processes and activities. The last major upgrade was in 2016. There is a need to replace this system due to outdated and unsupported technology, limited functionality and increased support costs.

This project will implement a modern electronic document and records management system with new and existing system functionalities, migrating the existing data records and improving user experience while supporting records management industry best practices.

CITY OF RICHMOND
5 YEAR CAPITAL PLAN SUMMARY (2024 – 2028)
(in $000s)

	2024	2025	2026	2027	2028
Infrastructure Program					
Roads	20,050	23,180	22,721	13,033	13,296
Flood Protection	20,561	36,956	20,529	21,301	21,016
Water	9,618	10,236	11,110	13,146	11,490
Sanitary Sewer	8,150	6,417	5,614	5,541	5,800
Infrastructure Advanced Design and Minor Public Works	5,580	4,320	4,703	3,655	4,015
Total Infrastructure Program	**$63,959**	**$81,109**	**$64,677**	**$56,676**	**$55,617**
Building Program					
Building	87,648	34,500	57,900	31,500	35,500
Heritage	13,500	15,800	16,450	-	-
Total Building Program	**$101,148**	**$50,300**	**$74,350**	**$31,500**	**$35,500**
Parks					
Parks	7,405	4,870	2,650	6,270	6,400
Parkland	4,000	4,000	4,000	4,000	4,000
Total Parks Program	**$11,405**	**$8,870**	**$6,650**	**$10,270**	**$10,400**
Land Program	**$11,186**	**$10,000**	**$10,000**	**$10,000**	**$10,000**
Equipment Program					
Vehicle	3,875	3,983	4,013	3,416	3,455
Fire Vehicle	1,476	220	1,916	2,290	336
Equipment	550	782	1,715	655	550
Total Equipment Program	**$5,901**	**$4,985**	**$7,644**	**$6,361**	**$4,341**
Information Technology Program	**$4,966**	**$1,621**	**$1,301**	**$543**	**$671**
Contingent External Contributions	**$10,000**	**$10,000**	**$10,000**	**$10,000**	**$10,000**
Total Capital Program	**$208,565**	**$166,885**	**$174,622**	**$125,350**	**$126,529**

CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY FUNDING SOURCES (2024 – 2028)
(in $000s)

DCC Reserves	2024	2025	2026	2027	2028
Drainage DCC	1,139	2,723	3,906	1,609	328
Parks Acquisition DCC	4,703	3,762	3,762	3,762	3,762
Parks Development DCC	1,947	1,288	846	959	846
Roads DCC	7,277	8,559	9,828	5,878	5,878
Sanitary DCC	104	509	79	-	-
Water DCC	1,437	1,304	1,696	1,447	-
Total DCC	**$16,607**	**$18,145**	**$20,117**	**$13,655**	**$10,814**
Statutory Reserves					
Capital Building and Infrastructure	56,734	29,300	45,800	27,500	15,500
Capital Reserve	30,881	15,851	22,553	15,921	21,163
Capstan Station	-	2,000	-	-	-
Drainage Improvement	12,746	-	-	-	-
Equipment Replacement	5,026	4,225	5,705	5,467	3,108
Flood Protection BL10403	3,238	23,456	17,440	20,715	22,203
Growing Communities Reserve Fund	3,354	17,000	-	-	-
Sanitary Sewer	8,464	6,912	6,321	3,823	550
Sanitary Sewer BL10401	8,443	-	6,675	2,800	10,789
Water Supply BL10402	11,807	-	9,325	2,324	17,465
Watermain Replacement	9,646	9,396	10,178	8,939	-
Total Statutory Reserves	**$150,339**	**$108,140**	**$123,997**	**$87,489**	**$90,778**
Other Sources					
Enterprise Fund	490	-	-	-	-
Grant and Developer Contribution	22,478	25,094	15,155	11,400	11,400
Other Sources	13,440	13,010	12,627	10,875	11,268
Sewer Levy	350	513	215	65	221
Solid Waste and Recycling	600	300	300	300	300
Steveston Community Amenity Fund	2,600	-	550	-	-
Water Levy	1,661	1,683	1,661	1,566	1,748
Total Other Sources	**$41,619**	**$40,600**	**$30,508**	**$24,206**	**$24,937**
Total Capital Program	**$208,565**	**$166,885**	**$174,622**	**$125,350**	**$126,529**

CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY PROGRAM (2024 – 2028)
(in $000s)

	2024	2025	2026	2027	2028
Infrastructure Program					
Roads					
Active Transportation Improvement Program	1,000	750	750	750	750
Annual Asphalt Re-Paving Program - MRN	3,370	3,403	1,737	1,772	1,808
Annual Asphalt Re-Paving Program - Non-MRN	3,940	4,137	4,344	4,561	4,788
Arterial Roadway Improvement Program	1,000	800	800	800	800
Bridge Rehabilitation Program	300	-	300	-	-
Capstan Station Integration Capital Works	-	2,000	-	-	-
Citywide Connector Walkways Rehabilitation Program	250	250	250	-	-
Citywide Sidewalk and Street Light Replacement Program	500	500	500	-	-
Gilbert Road Off-road Cycling Facility, Granville Avenue to Elmbridge Way	4,150	-	-	-	-
LED Street Name Sign Program	200	200	200	200	200
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, Shell Road to Hwy 99 Overpass	-	5,700	-	-	-
Street Light LED Upgrades	490	490	490	-	-
Supplementary Asphalt Re-Paving Program - Non-MRN	1,000	-	-	-	-
Top 20 Collision Prone Intersections - Implementation of Medium-/Long-term Improvements	600	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	600	500	500	500	500
Traffic Video and Communication Program	400	400	400	400	400
Transit-Related Amenity Improvement Program	100	100	100	100	100
Transit-Related Roadway Improvement Program	200	200	200	200	200
Transportation Planning, Functional and Preliminary Design	600	400	400	400	400
Total Roads	**$20,050**	**$23,180**	**$22,721**	**$13,033**	**$13,296**
Flood Protection					
Box Culvert Repair	-	1,500	500	250	250
Burkeville Utility Improvements	4,005	3,104	2,900	500	3,000
Canal Stabilization and Drainage and Irrigation Upgrades	3,000	4,300	1,955	940	250
Development Coordinated Works - Flood Protection	250	250	250	250	250

	2024	2025	2026	2027	2028
Disaster Mitigation and Adaptation Fund Infrastructure Upgrades	10,000	9,234	-	-	-
Drainage Network Ecological Enhancement	-	150	-	150	-
Drainage Pump Station Rehabilitation and Generator Upgrade	200	500	250	150	250
Flood Protection and Dike Improvements	1,084	4,502	11,366	16,200	15,116
Habitat Offsetting	-	-	1,500	-	-
Invasive Species Management	200	200	200	200	200
Laneway Drainage Upgrade	1,272	1,766	1,158	2,211	1,250
No. 3 Road South Pump Station Upgrade	-	11,000	-	-	-
SCADA System Improvements	350	300	300	300	300
Watercourse Rehabilitation and Replacement	200	150	150	150	150
Total Flood Protection	**$20,561**	**$36,956**	**$20,529**	**$21,301**	**$21,016**
Water					
Development Coordinated Works - Water	250	250	250	250	250
Fire Hydrant Upgrades	400	-	-	-	-
Pressure Reducing Valve Upgrades	-	2,250	-	-	-
Water Metering Program	2,000	3,000	3,000	3,000	3,000
Watermain Replacement Upgrades Program	6,668	4,406	7,517	9,536	7,865
Watermain Tie-in and Restoration	300	330	343	360	375
Total Water	**$9,618**	**$10,236**	**$11,110**	**$13,146**	**$11,490**
Sanitary Sewer					
6333 Cooney Road Development Coordinated Works - Sanitary System Upgrade	2,300	-	-	-	-
9800 Van Horne Way Development Coordinated Works	2,800	-	-	-	-
Cabot Sanitary Pump Station Upgrade	-	-	1,714	-	-
Chevoit Sanitary Pump Station Upgrade	-	-	-	-	2,000
Danube Sanitary Pump Station Upgrade	-	-	-	1,791	-
Development Coordinated Works - Sanitary	250	250	250	250	250
Richmond Park Sanitary Pump Station Upgrade	-	2,767	-	-	-
Sanitary Pump Station and Forcemain Upgrades and Rehabilitation	700	550	600	600	600
Sanitary Sewer Gravity System Assessment and Rehabilitation	1,050	700	700	750	800
Sanitary Sewer Tie-in and Restoration	150	150	150	150	150
Steveston Sanitary Sewer Rehabilitation	900	2,000	2,200	2,000	2,000
Total Sanitary Sewer	**$8,150**	**$6,417**	**$5,614**	**$5,541**	**$5,800**
Infrastructure Advanced Design and Minor Public Works					
Public Works Infrastructure Advanced Design	2,970	2,170	2,453	1,755	2,115
Public Works Minor Capital - Dikes	400	400	400	400	400
Public Works Minor Capital - Drainage	455	400	400	400	400
Public Works Minor Capital - Roads	250	250	350	-	-
Public Works Minor Capital - Sanitary	455	400	400	400	400

	2024	2025	2026	2027	2028
Public Works Minor Capital - Sanitation and Recycling	600	300	300	300	300
Public Works Minor Capital - Water	450	400	400	400	400
Total Infrastructure Advanced Design and Minor Public Works	**$5,580**	**$4,320**	**$4,703**	**$3,655**	**$4,015**
Total Infrastructure Program	**$63,959**	**$81,109**	**$64,677**	**$56,676**	**$55,617**
Building Program					
Building					
Annual Infrastructure Replacements and Building Improvements	3,460	4,000	4,000	4,000	4,000
Capital Buildings Project Development Advanced Design	1,500	500	500	500	500
Childcare Facility Infrastructure Renewals	-	-	-	-	1,000
City Hall Annex Infrastructure Replacements	600	-	-	-	-
City Hall Mechanical and Interior Finish Renewals		6,800	-	-	-
Community Safety Building - Roof Replacement and Mechanical Renewals	-	-	-	7,000	-
Community Safety Building Mechanical System Renewals	-	1,400	-	-	-
Community Safety Building Security Enhancements and Infrastructure Replacement	1,788	-	-	-	-
East Richmond Hall Envelope and HVAC Renewals	-	-	250	-	-
Fire Hall No. 7 System Renewals	1,900	-	-	-	-
Garden City Lands - Community Hub	-	-	-	20,000	-
Hugh Boyd Community Facility and Fieldhouse	-	17,000	-	-	-
Library Cultural Centre Envelope System Renewals	-	2,400	-	-	-
Richmond Curling Club Priority 2 Repairs - Phase 2	3,100	-	-	-	-
Richmond Curling Club Priority 2 Repairs - Phase 3	-	2,400	-	-	-
Richmond Curling Club Priority 3 Repairs	-	-	900	-	-
Richmond Ice Centre System and Interior Renewals	-	-	1,700	-	-
Steveston and South Arm Outdoor Pool Renewals	4,300	-	-	-	-
Steveston Martial Arts Envelope and Interior Renewals	-	-	550	-	-
Steveston Martial Arts Roof Beam Remediation and Fascia Board Replacement	1,000	-	-	-	-
Works Yard Replacement - Phase 1	70,000	-	-	-	-
Works Yard Replacement - Phase 2	-	-	50,000	-	-
Works Yard Replacement - Phase 3	-	-	-	-	30,000
Total Building	**$87,648**	**$34,500**	**$57,900**	**$31,500**	**$35,500**
Heritage					
Britannia Shipyards - Britannia Shipyard Building Envelope and Structural Renewals	7,000	-	-	-	-
Britannia Shipyards - Seine Net Loft Envelope and Structural Renewals	-	10,000	-	-	-

	2024	2025	2026	2027	2028
First Nations Bunkhouse Reconstruction and Exhibit Development	6,500	-	-	-	-
Japanese Duplex Restoration and Fit Out	-	5,800	-	-	-
Phoenix Net Loft Program Implementation	-	-	16,000	-	-
Steveston Post Office and Museum Infrastructure Renewals	-	-	450	-	-
Total Heritage	**$13,500**	**$15,800**	**$16,450**	**$ -**	**$ -**
Total Building Program	**$101,148**	**$50,300**	**$74,350**	**$31,500**	**$35,500**
Parks Program					
Parks					
Bowling Green Lighting LED Replacement	450	-	-	-	-
Burkeville Neighbourhood Park Redevelopment	600	-	-	-	-
City-Wide Community Gardens	300	-	-	-	-
Hugh Boyd Community Park Playground Renewal	300	-	-	-	-
Lulu Island Park - Detailed Design Phase	-	2,000	750	-	-
Lulu Island Park - Phase 1 Construction	-	-	-	4,750	-
Lulu Island Park - Phase 2 Construction	-	-	-	-	5,500
Minoru Lakes Renewal: Phase 2	2,500	-	-	-	-
Minoru Park Central Amenity Space Concept Design	385	-	-	-	-
Minoru Park Playground Renewal Detailed Design	-	350	-	-	-
Parks Advance Planning and Design	800	400	400	400	400
Parks Ageing Infrastructure Replacement Program	730	500	500	-	-
Parks General Development	500	500	500	500	500
Parks Identity and Wayfinding Signage Program	-	120	-	120	-
Parks Interpretive Signage Program - Phase 2	120	-	-	-	-
Parks Sustainable Stormwater Management Program	-	500	-	-	-
Playground Replacement Program	600	500	500	500	-
Waterfront Infrastructure Renewals	120	-	-	-	-
Total Parks	**$7,405**	**$4,870**	**$2,650**	**$6,270**	**$6,400**
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**
Total Parks Program	**$11,405**	**$8,870**	**$6,650**	**$10,270**	**$10,400**
Land Program					
Land					
Strategic Real Estate Acquisition	11,186	10,000	10,000	10,000	10,000
Total Land Program	**$11,186**	**$10,000**	**$10,000**	**$10,000**	**$10,000**

Equipment Program					
Vehicle Replacement					
Automatic Vehicle Location/Global Positioning System Expansion	190	-	-	-	-
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	3,685	3,983	4,013	3,416	3,455
Total Vehicle Replacement	**$3,875**	**$3,983**	**$4,013**	**$3,416**	**$3,455**
Fire Vehicle					
Fire Vehicle Replacement Reserve Purchases	1,476	220	1,916	2,290	336
Total Fire Vehicle	**$1,476**	**$220**	**$1,916**	**$2,290**	**$336**
Equipment					
Capstan Community Centre - Furniture, Fixtures and Equipment (FF&E)	-	-	800	-	-
Fire Equipment Replacement from Reserve	-	232	365	105	-
GHG and Energy Management Projects	550	550	550	550	550
Total Equipment	**$550**	**$782**	**$1,715**	**$655**	**$550**
Total Equipment Program	**$5,901**	**$4,985**	**$7,644**	**$6,361**	**$4,341**
Information Technology Program					
Information Technology					
Annual Hardware Refresh	448	921	1,301	543	671
Automated Plan Review AI Software	717	-	-	-	-
Commvault City Hall Storage Refresh	132	-	-	-	-
CRM Public Works Expansion	400	-	-	-	-
Database Encryption Project	355	-	-	-	-
MyPermits	2,176	-	-	-	-
Roads Network Phase 2: Model/Inventory/Manage	-	700	-	-	-
VXRail Host Expansion and Refresh	738	-	-	-	-
Total Information Technology Program	**$4,966**	**$1,621**	**$1,301**	**$543**	**$671**
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	**$208,565**	**$166,885**	**$174,622**	**$125,350**	**$126,529**

CITY OF RICHMOND
5 YEAR CAPITAL PLAN BY PROGRAM (2024 – 2028) RECOMMENDED BUT INSUFFICIENT FUNDING
(in $000s)

	2024	2025	2026	2027	2028
Infrastructure Program					
Roads					
Bridge Rehabilitation Program	-	-	-	-	300
Citywide Sidewalk and Street Light Replacement Program	-	-	-	500	500
Street Light LED Upgrades	-	-	-	490	490
Supplementary Asphalt Re-Paving Program - Non-MRN	-	-	3,000	-	3,000
Total Roads	**$ -**	**$ -**	**$3,000**	**$990**	**$4,290**
Infrastructure Advanced Design and Minor Public Works					
Public Works Minor Capital – Roads	-	-	-	350	250
Public Works Minor Capital – Traffic	250	250	250	250	250
Total Infrastructure Advanced Design and Minor Public Works	**$250**	**$250**	**$250**	**$600**	**$500**
Total Infrastructure Program	**$250**	**$250**	**$3,250**	**$1,590**	**$4,790**
Building Program					
Caretaker Suite Infrastructure Renewals - Phase 2	-	1,800	-	-	-
Caretaker Suite Infrastructure Renewals - Phase 3	-	-	2,900	-	-
City Hall Infrastructure Replacements	-	-	-	-	4,200
City Wide Baseball Building & Fieldhouse Infrastructure Renewals	-	-	-	350	-
Debeck House System and Envelope Renewals	-	-	500	-	-
Facility Services Minor Capital Works	500	-	-	-	500
Fire Hall Infrastructure Replacements	-	-	-	-	3,600
Gateway Theatre Mechanical and HVAC Renewals	-	5,500	-	-	-
Hamilton Community Centre Infrastructure Renewals	-	-	-	200	-
Library Cultural Centre - System Replacements and Elevator Renewals	-	-	-	5,000	-
Richmond Ice Centre Infrastructure Renewals	-	-	-	1,000	-
Richmond Ice Centre Mechanical and Electrical Renewals	-	3,700	-	-	-
South Arm Community Centre Envelope and Infrastructure Renewals	-	-	9,000	-	-
Thompson Community Centre and Hall Infrastructure Renewals	-	-	-	2,950	-
UPS Replacement	400	-	-	-	-
Watermania Infrastructure Renewals	-	-	-	5,200	-
West Richmond Pitch & Putt Mechanical and Interior Renewals	-	-	600	-	-
Total Building Program	**$900**	**$11,000**	**$13,000**	**$14,700**	**$8,300**
Parks Program					
Parks					
Brighouse Park Baseball Diamond Infield Upgrade	-	520	-	-	-

	2024	2025	2026	2027	2028
Hugh Boyd Community Park Playground Renewal	-	1,500	-	-	-
London Steveston Softball Diamond Construction	-	-	2,500	-	-
Minoru Park Field 2 Synthetic Turf Replacement	-	-	-	750	-
Minoru Park Latrace Field Synthetic Turf Replacement	-	-	-	-	1,580
Minoru Park Playground Construction Services	-	-	2,000	-	-
Park Shelter and Shade Program	500	500	500	500	500
Parks Ageing Infrastructure Replacement Program	-	-	-	250	500
Parks Sustainable Stormwater Management Program	-	-	500	500	500
Pickleball Court Construction	1,430	-	-	-	-
Playground Replacement Program	-	-	-	-	500
Richmond Nature Park Enhancements	-	500	-	-	-
Terra Nova Slough Habitat Enhancement	-	-	-	500	-
Trail Network Enhancements	-	-	-	-	200
Waterfront Infrastructure Renewals	550	-	-	-	-
Total Parks Program	**$2,480**	**$3,020**	**$5,500**	**$2,500**	**$3,780**
Equipment Program					
Vehicle					
Pick-Up Truck for Parks Maintenance Work	140	-	-	-	-
Total Equipment Program	**$140**	**$ -**	**$ -**	**$ -**	**$ -**
Information Technology Program					
City Hall Meeting Room AV Equipment Upgrade	111	-	-	-	-
Document and Record Management System Modernization	2,077	-	-	-	-
Total Information Technology Program	**$2,188**	**$ -**	**$ -**	**$ -**	**$ -**
Grand Total	**$5,958**	**$14,270**	**$21,750**	**$18,790**	**$16,870**

The following is an overview of the major Capital programs proposed for the years 2025 to 2028.

INFRASTRUCTURE PROGRAM

Flood Protection and Dike Improvements (2025–2028: $47,184,000)

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 includes flood protection improvements at priority locations to maintain or increase current flood protection service levels. Dike construction works includes, but is not limited to, dike raising, structural rehabilitation, re-grading and dike re-armouring at priority locations.

Disaster Mitigation and Adaptation Fund Infrastructure Upgrades (2025: $9,234,000)

The City 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, with all work to be completed by 2028.

Pressure Reducing Valve Upgrades (2025: $2,250,000)

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 residents 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 watermains. The Ferguson PRV station, located on Sea Island, is approaching the end of its service life, and will be replaced under this project.

Richmond Park Sanitary Pump Station Upgrade (2025: $2,767,000)

This project will upgrade the Richmond Park Sanitary Pump Station to support the potential for future local redevelopment. The scope of work for this project will include major upgrades of the station's ageing mechanical and electrical components. The pump station upgrade will be designed to service the projected 2041 OCP population in the catchment area, and the project requirements will be determined in a technical assessment to be carried out in 2024.

Capstan Station Integration Capital Works (2025 - $2,000,000)

Development and implementation of the Capstan Station integration features is based on four general directions (i.e. Mobility Belt, Signature Elements, Supportive Infrastructure, and Coordinated Activation Zones). The designs will integrate the public realm, transit plaza, guideway park, City-owned park, and neighbourhood park with the Canada Line Capstan Station. The Capstan Integration Study will identify the implementation strategy anticipated in Q2 2024.

Major integration features include, but is not limited to, weather protection, seating, bike parking and interactive elements.

BUILDING PROGRAM

Hugh Boyd Community Facility and Fieldhouse (2025: $17,000,000)

On February 13, 2018, staff presented a report to Council titled “Hugh Boyd Field House Feasibility Study” from the Interim Director, Parks and Recreation dated January 5, 2018, which proposed a fieldhouse of approximately 6,300 sq. ft. with a concept level cost estimate of $5.3 million (2018 dollars). In response, Council carried a motion to add “a community facility of up to 10,000 sq. ft., which would incorporate a soccer fieldhouse” to the previously approved list of Phase 2 Major Facility Projects (2016–2026).

The addition of a community facility in Hugh Boyd Community Park would support the provision of community programs and the daily use of sport groups while also serving as a tournament hub capable of hosting both provincial and national level events. In order to progress this project, the program and concept design need to be updated and costed for a facility of up to 10,000 sq. ft.

The engagement plan and timeline for the delivery of a community facility and soccer fieldhouse in Hugh Boyd Community Park was received by Council for information in June 2023. Staff will prepare a report with the concept design and budget to Council for consideration.

Works Yard Replacement (2025–2028: $80,000,000)

In July 2023, Council approved the replacement of the Works Yard at 5599 Lynas Lane. This project will be executed in phases to ensure uninterrupted operations at the existing Works Yard. The plan includes demolishing current facilities, designing and constructing a new administration building, yard buildings, storage facilities, and parking structures.

PARKS PROGRAM

Lulu Island Park Design and Construction (2025–2028: $13,000,000)

These capital requests follow the master planning phase beginning in 2024, and will allow the City to begin to secure funding for the design and construction phase for Lulu Island Park. 2025 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 concept for Lulu Island Park was approved by Council in 2007 and was 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 the acquisition of 23.29 acres.

Playground Replacement Program (2025–2027: $1,500,000)

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 (2025–2028: $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) (2025–2028: $14,867,156)

In accordance with Sustainable Green Fleet Policy 2020, vehicles are eligible for the annual replacement project based on their age and condition. The replacement process 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.

INFORMATION TECHNOLOGY PROGRAM

Annual Hardware Refresh (2025–2028: $3,435,630)

The City maintains the best practice of replacing ageing computer hardware 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. These assets are depreciated and written off after disposal approvals have been received. The City either trades in older assets or disposes them in a certified, environmentally sound manner.

This project scope is to perform the scheduled replacement of end-of-life City computer hardware, which includes desktops, laptops, monitors (desktop and video conferencing enabled), docking stations, cellular phones and iPads.

2MVA	2 Mega-Volt Ampere
5YFP	5 Year Financial Plan
AC	Air Conditioning
APS	Accessible Pedestrian Signal
AI	Artificial Intelligence
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
HAF	Housing Accelerator Fund
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
OIC	Officer In Charge
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
REDMS	Richmond's Electronic Document Management Software
RFP	Request for Proposal
RFR	Richmond Fire-Rescue
RFT	Regular Full Time
RPL	Richmond Public Library
RSA	Rate Stabilization Account
RT	Review Team
RTV	Recreational Terrain Vehicle
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