



**FINANCIAL MANAGEMENT COMMITTEE**

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: 2018 MAY ENGINEERING CAPITAL INFRASTRUCTURE BYLAW  
FUNDING REQUEST - INFRASTRUCTURE**

**RECOMMENDATION:**

1. THAT Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$2,499,600, the use of Sanitary Sewer Reserves in the amount of \$792,400 and the use of Water Reserves in the amount of \$714,900 to finance the Engineering capital infrastructure projects, as outlined in this report.

**REPORT**

The Financial Management Committee, at its meeting held on 2018 May 23, received and adopted the attached report seeking Council approval to finance 2018 Engineering capital infrastructure projects. The bylaw appears elsewhere on this Council agenda.

Respectfully submitted,

Councillor D. Johnston  
Chair

Councillor C. Jordan  
Vice Chair

Copied to:	City Manager Director Engineering Director Finance City Solicitor Deputy Director Engineering Assistant Director, Infrastructure & Development Manager, Public Works
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Meeting 2018 May 23

## COMMITTEE REPORT

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**TO:** CHAIR AND MEMBERS FINANCIAL MANAGEMENT COMMITTEE      **DATE:** 2018 May 07

**FROM:** DIRECTOR ENGINEERING      **FILE:** 32000-05

**SUBJECT:** 2018 MAY ENGINEERING CAPITAL INFRASTRUCTURE BYLAW FUNDING REQUEST - INFRASTRUCTURE

**PURPOSE:** To request funding to finance 2018 Engineering capital infrastructure projects.

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**RECOMMENDATION:**

1. **THAT** the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$2,499,600, the use of Sanitary Sewer Reserves in the amount of \$792,400 and the use of Water Reserves in the amount of \$714,900 to finance the Engineering capital infrastructure projects as outlined in this report.

**REPORT****INTRODUCTION**

The 2018 – 2022 Annual Financial Plan will provide funding for various multi-year capital improvement projects. In order to proceed with the award of contracts for design, administration and construction, funding approval is requested for the projects listed below.

The projects contained in this report are those that had adjustments for new funding in 2018 Annual Financial Plan beyond amounts identified at Provisional. This is a result of more accurate information identified through more detailed design and the tendering process. Engineering now has more specific pricing and quantities and has honed the Engineering estimates that were used during Provisional.

**POLICY SECTION**

The following infrastructure projects are aligned with the City of Burnaby's Corporate Strategic Plan, typically by supporting the following goals and sub-goals of the Plan.

- A Connected Community – these projects provide a geographic connection to ensure that people can move easily through Burnaby, using any form of transportation.
- A Dynamic Community – build and maintain infrastructure that meets the needs of our growing community.
- A Thriving Organization – protect the integrity and security of information, City Services, and Assets.
- A Safe Community – projects will make City streets, pathways, trails and sidewalks safer.

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From: Director Engineering  
Re: 2018 MAY ENGINEERING CAPITAL INFRASTRUCTURE  
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**1.0 INFRASTRUCTURE**

**1.1 Developer Coordinated Storm ELA.3021 Estimated \$750,000**

As a result of increased single-family development in areas with limited existing storm sewers, there has been a significant increase in the number of requests for storm sewer extensions. Storm extensions are initially funded through an initiating property owner/developer contribution and initial City contribution. The City contribution is fully refunded over time through future contributions from all benefitting property owners.

In May 2017, an additional \$790,000 was requested for this project. Since then it has been identified that in order to complete all of the locations identified in the 2017 program, an additional \$750,000 is required. The 2018 program will be delayed and therefore the capital plan amount associated with the 2018 program will be reallocated to the 2017 program. This project is anticipated to be completed in 2018.

**1.2 Watermain Replacement & Road Rehab EMC.3008 Estimated \$501,000**

These projects include replacement of existing aged watermains and rehabilitation of associated roadways in the South Slopes, Clinton-Glenwood and Willingdon Heights neighborhood areas. It is anticipated that these projects will include design, tender and construction of both watermains and roadworks, and IT ducts where required.

In February 2018 this project requested \$5,162,600. Since then it was identified that in order to award the contract for this work that an additional \$501,000 was required. The additional requirement was adjusted for in the Annual Financial Plan on Local Roads Network (EMC) as a result of emergency repairs from watermain breaks on Bryant Court and Laurel Street and higher than expected unit pricing on asphalt. This project is anticipated to be completed in 2018.

**1.3 Beta Pump Station Upgrade EKA.3057 Estimated \$490,500**

Upgrades to the existing Beta Pump Station facility are required to accommodate anticipated increases in peak sanitary flows resulting from growth and re-development within the southern Brentwood Town Centre area. Construction began in 2017 with Council approved funding of \$3,200,500 and will be completed in 2018.

In February 2018 this project requested \$1,169,500 for total funding of \$4,370,000. Since then it was identified that in order to award the contract for this work that an additional \$490,500 was required. The additional requirement was adjusted for in the Annual Financial Plan as a result of unexpected sub-surface geotechnical conditions that required an enhanced pilling design. This project is anticipated to be completed in 2018.

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**1.4 Combined Sewer Separation Program (Gilmore)**

**Estimated \$328,400**

This sewer separation project is part of the City’s ongoing infrastructure renewal program involving separation of combined sewer as required under the Integrated Liquid Waste Management Plan (ILWMP). Sewer separation minimizes volumes of combined sewer over-flow to the environment and the amount of wastewater that needs to be treated resulting in better allocation of resources, lower energy use and reduced environmental impact.

This project includes separation of combined sewers, including general arrangement and sizing of sanitary and storm sewers, replacement of aged watermains and road rehabilitation.

In 2017, \$3,123,300 of funding was approved for this project. In February 2018 an additional \$1,307,100 was requested for cumulative funding of \$4,430,400. Since then it was identified that in order to award the contract for this work that an additional \$328,400 was required. The additional requirement was adjusted for in the Annual Financial Plan as a result of an unexpected increased cost of restoration of driveways, sidewalks and boulevards to meet City standards.

This project will expend funds as follows:

<b>Project Mask</b>	<b>2018</b>
EKA.3014 Sewer	301,900
EJA.3014 Water	26,500
<b>Total</b>	<b>\$328,400</b>

**1.5 Integrated Storm Water Management**

**EMC.3020**

**Estimated \$376,600**

This project includes drainage and environmental works for the implementation of the City’s Integrated Stormwater Management Plans and improvement of an existing raingarden. ISMP’s for Eagle Creek, Stoney Creek, Kaymar Creek and Byrne Creek are addressed in this project. Completion of this project will help alleviate erosion and flooding concerns, enhance aquatic habitat and fish passage, and remediate existing and/or potential stormwater quality problems. The road portion of this project will provide full width rehabilitation for all streets that had storm sewer work from 2016 and 2017.

In April 2017, this project requested \$6,030,850. In order to complete the work outstanding in 2018, it has been identified that an additional \$376,600 is required as a result of the discovery of knotweed invasive species which needed proper disposal, unexpected replacement of twin culverts on Greenall Avenue when poor condition was discovered, and intersection improvements at Holdom Avenue and Goring Street. These expenditures are included in the Annual Financial Plan and this project is anticipated to be completed in 2018.

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**1.6 10<sup>th</sup> Ave PRV & System Upgrade EJA.3011 Estimated \$420,000**

Upgrade the existing 10<sup>th</sup> Avenue PRV Station and related works as part of the City’s ongoing infrastructure renewal program.

In March 2017, this project requested \$652,000. In order to complete the work outstanding in 2018, it has been identified that an additional \$420,000 is required to construct a station that meets WorkSafe standards for work in confined spaces. These expenditures are included in the Annual Financial Plan and this project is anticipated to be completed in 2018.

**1.7 Metro Vancouver Central Park Main Project #2 Coordination Project EMC.3138 Estimated \$225,000**

This project consists of utility upgrades and road rehabilitation designated for coordination with Metro Vancouver capital works program associated with their Central Park Main (CPM2) replacement project. The 2018 component is for design only.

In February 2018 this project requested \$550,000. Since then staff have learned the project will impact approximately 10km of Burnaby streets as this project stretches from Central Park and continues through to New Westminster. It was identified that in order to award the contract for this work that an additional \$225,000 was required. The additional requirement was adjusted for in the Annual Financial Plan in order to increase the design scope of coordinated construction due to the extensive impact in Burnaby. This project is anticipated to be completed in 2018.

**1.8 Broadway, Bainbridge to Underhill EMC.3031 Estimated \$80,000**

Road upgrades on Broadway (Bainbridge Avenue to Underhill Avenue) will be cost-shared with FortisBC, who will be installing a transmission gas line on this street as part of their Lower Mainland Intermediate Pressure System Upgrade (LMIPSU) project. The road will be upgraded with widened pavement, urban trail, sidewalks, and treed boulevards to improve the street for all users. The design work has been carried forward into 2018. Construction is planned for 2020.

In January 2017, this project requested \$310,000. In order to complete the design work, it has been identified that an additional \$80,000 is required as a result of additional culvert replacements at Eagle Creek that staff identified could be coordinated with FortisBC to reduce costs and disturbance to residents. These expenditures are included in the Annual Financial Plan and this project is anticipated to be completed in 2018.

**1.9 Rumble Street Upgrade Project – Phase 1, 2 of 3 ERA.0049 Estimated \$308,500**

Transportation Services (Engineering) and Transportation Planning (Planning) have identified road improvements on Rumble Street to provide street beautification, improve the flow of vehicle traffic, and improve bicycle and pedestrian accessibility and safety. Work in 2018 is to complete project closeout, resolve deficiencies and complete plantings for Rumble Street phases 1 and 2.

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In February 2018, this project requested \$108,000. Since then it was identified that in order to complete phase 1 and 2 of this project, an additional \$308,500 was required. The additional requirement was adjusted for in the Annual Financial Plan as a result of new retaining walls, extra video inspection of the storm sewer and miscellaneous treatments to enhance the lifetime of the new urban trail. Construction was originally funded in 2016 and 2017. This project is anticipated to be completed in 2018.

**1.10 Gilmore North – Water EJA.0013 Estimated \$268,400**

Engineering has engaged in the Master Municipal Construction Documents Association’s contract dispute resolution process for this project to settle claims due to unforeseen conditions during construction. A settlement of \$300,000 has been reached. The contractor’s original claim was approximately \$950,000 with the City’s initial offer at \$200,000.

In March 2018, this project requested \$31,600. An additional \$268,400 is required. The additional requirement was adjusted for in the Annual Financial Plan to complete settlement of this claim. Construction was originally funded in 2015 and 2016. This project is anticipated to be completed in 2018.

**1.11 Ecology Centre Fire Suppression ENX.3098 Estimated \$34,400**

This project will increase the safety and functionality of the Still Creek Eco Center through the upgrade of water service to fire suppression standards.

In February 2018 this project requested \$60,000. The current request of \$34,400 will result in a total estimated plan of \$94,400. The additional requirement was adjusted for in the Annual Financial Plan. This project is anticipated to be completed in 2018.

**1.12 Traffic Signal Uninterrupted Power Supply EMF.0066 Estimated \$105,000**

In 2016 Council was informed that an uninterrupted power supply (UPS) system would be installed on an additional 16 high priority traffic signals to provide emergency battery back-up power. This was in response to a review of emergency preparedness following a previous windstorm that caused significant power outages to many parts of the Lower Mainland. The current request of \$105,000 will result in a total estimated plan of \$160,000. The additional requirement was adjusted for in the Annual Financial Plan. This project is anticipated to be completed in 2018.

**1.13 Rear Load Refuse Truck Sanitation ENZ.0046 Estimated \$11,700**

A rear Load Refuse Truck was purchased to accommodate changes to the delivery model within Solid Waste. The vehicle was ordered in 2017 and will be delivered in 2018.

In January 2017 funding of \$300,000 was requested to purchase this vehicle. Additional funding is being requested to finalize the delivery of this vehicle. These expenditures are included in the Annual Financial Plan and this project is anticipated to be completed in 2018.

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**1.14 2 - Recycle Trucks Sanitation ENZ.0046 Estimated \$44,300**

A Recycle Truck was purchased to accommodate changes to the delivery model within Solid Waste. The vehicle was ordered in 2017 and will be delivered in 2018.

In January 2017 funding of \$560,000 was requested to purchase these vehicles. Additional funding is being requested to finalize the delivery of these vehicles. These expenditures are included in the Annual Financial Plan and this project is anticipated to be completed in 2018.


**1.15 Steel Solid Waste Containers ENY.0016 Estimated \$63,100**

This request is to purchase steel waste containers for use in multi-family, industrial and commercial locations. This project is anticipated to be completed in 2018.

These expenditures are included in the 2018 – 2022 Annual Financial Plan and sufficient Reserves are available to finance the capital projects outlined in this report.

**RECOMMENDATION**

It is recommended that the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$2,499,600, the use of Sanitary Sewer Reserves in the amount of \$792,400 and the use of Water Works Reserves in the amount of \$714,900 to finance the Engineering capital infrastructure as outlined in this report.

  
Leon A. Goss, P. Eng., MBA  
DIRECTOR ENGINEERING

FV/cp

- Copied to: City Manager  
Director Finance  
City Solicitor  
Deputy Director, Engineering  
Manager, Public Works  
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