
TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT COMMITTEE

DATE: 2017 March 10

FROM: DIRECTOR ENGINEERING

FILE: 32000-05

SUBJECT: 2017 ENGINEERING CAPITAL INFRASTRUCTURE BYLAW FUNDING REQUEST

PURPOSE: To request approval and funding for multi-year Engineering capital infrastructure improvements.

RECOMMENDATIONS:

1. **THAT** Council approve the capital expenditure of \$21.068 Million for infrastructure capital improvements, as outlined in this report.
2. **THAT** Council authorize staff to bring down a Capital Reserves bylaw in the amount of \$11.408 Million (inclusive of GST), and draw from the Sanitary Sewer Capital Fund the amount of \$6.106 Million (inclusive of GST) and the Waterworks Utility Capital Fund the amount of \$4.537 Million (inclusive of GST).

REPORT

The 2017 – 2021 Provisional Capital Plan provides funding for various multi-year capital improvements. In order to proceed in a timely manner with the contracts for design and construction, funding approval is requested for the below listed projects. Sufficient Capital Reserves are available to complete these works.

1.0 2017 CAPITAL PROGRAM

For capital programs that have plan in multiple years, the funding for all years is being raised here in order to be able to award upcoming contracts for construction.

1.1 Combined Sewer Separation Program**\$5,703,107**

EJA.0015	Watermain Renewals	\$ 1,259,696
EKA.0015	Sanitary Main	4,099,731
EMC.0011	Local Road Network	27,276
EMF.0051	Minor Traffic Mgmt Projects	32,731
ERA.0063	Gilmore, Union to Pender	283,673
		<u>\$ 5,703,107</u>

This sewer separation project is part of the City's ongoing infrastructure renewal program involving separation of combined sewer as required under the Liquid Waste Management Plan (ILWRMP). 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.

To optimize the combined sewer separation program, this project also includes replacement of aged watermain alongside the affected sewers, where applicable. A total of 2.2km of watermain replacement is anticipated.

The separation of combined sewers also includes road rehabilitation on all affected streets and lanes.

This is the second and final request for funding for this project. There was \$3.3 M raised in February.

1.2 Northeast Burnaby Roads Intersection Improvements \$7,304,000

AEC.0015	Civic Communications	\$ 250,000
EJA.0015	Watermain Renewals	350,000
ERA.0056	Streetlight & Sidewalk Program	950,000
ERA.0059	North Rd Upgrade	2,169,000
ERA.0060	Gamma Upgrade - Cambridge to Albert	1,985,000
ERA.0062	Shellmont – Arden to Underhill	<u>1,600,000</u>
		\$ 7,304,000

Transportation Planning (Planning), Transportation Services (Engineering), and Infrastructure Planning & Development (Engineering) have identified road improvements at a number of locations to improve traffic flow, accessibility and safety for all users. This includes street upgrades to the urban standard, intersection improvements, installation of new or upgrade of existing sidewalks/urban trails, etc.

1.3 Hastings Street Renewal Phase 5 of 5 \$3,351,500

EJA.015	Watermain Renewals	\$ 942,500
EKA.0015	Sanitary Main	1,309,000
EMA.0008	MRN	<u>1,100,000</u>
		\$ 3,351,500

Replace existing AC and CI watermain with new DI watermain as part of the City's ongoing infrastructure renewal program. Rehabilitation of the affected roads and accessibility improvements to be coordinated with watermain replacements as part of an integrated project, where applicable.

1.4 10th Ave PRV & System Upgrade \$652,000

EJB.0011 Pump Stn, Reservoirs, PRVs

Upgrade the existing 10th Av PRV Station and related works as part of the City's ongoing infrastructure renewal program.

1.5 Water Meter Reading Project \$750,000

EJB.0012 Water Meters

Upgrade existing water meters to include automated metering reading technology, as part of the City's ongoing infrastructure renewal program. New meter reading technology improves meter reading accuracy and billing, and is anticipated to lead to significant cost saving compared to manual reading and data collection methods.

1.6 Trenchless Rehabilitation \$250,000

EKA.0015 Sanitary Main

Rehabilitation or replacement of sanitary sewer mains using Trenchless Technology (including Relining/Bursting, etc.).

1.7 Laurel St Works Yard On-Site Contamination Cleanup \$779,400

ENX.3042 Laurel Works Yard On-Site Contamination Cleanup

Soil remediation at the Laurel St Works Yard to prepare the site for the construction of the new works yard buildings.

1.8 Developer Coordinated Roads \$700,000

EMD.0022 DCW – Roads

This is an allotment of funds to complete road rehabilitation work in coordination with development projects.

1.9 Coordinated Works - Storm \$550,000

ELA.0025 Coordinated Works – Storm

This project involves development coordinated works related to storm sewers and drainage. Through development services review, the Engineering Department may identify offsite improvements adjacent to development that are more effective and/or cost efficient to be delivered by or together with development projects.

1.10 Water Coordinated Works \$343,000

EJA.0015 Watermain Renewals

Engineering Development Services will identify opportunities to coordinate City water infrastructure upgrades with development work. Location and scope to be determined based on emerging Development requirements.

1.11 Sanitary Coordinated Works \$150,000

EKA.0015 Sanitary Main

Allocation of funds from Sewer for potential coordinated works by Development. Location and scope to be determined based on emerging Development requirements.

1.12 Centennial Way – Horizons Ph II \$25,000

EJB.0011 Pump Stns, Reservoirs, PRVs, Scada

Work to include design of future flow control (PRV) chamber in conjunction with Phase II of the Centennial Main project (from 2016). Construction anticipated in 2018.

1.13 Right-of-Way Acquisitions \$20,000

EME.0001 ROW Acquisitions

This is budget allocation for right of way acquisition as required by road related projects.

1.14 Prior Year Projects \$489,500

EJA.0014	Watermain Renewal	\$ 12,500
ELA.0021	2016 Storm Sewers	202,000
ELD.0013	Byrne Creek Fish Barrier	250,000
EKB.0016	Wiggins Pump Station Upgrade	<u>25,000</u>
		\$ 489,500

Funding required to complete construction on prior year projects.

To: Chair and Members Financial Management Committee


From: Director Engineering

Re: 2017 ENGINEERING CAPITAL INFRASTRUCTURE BYLAW FUNDING REQUEST

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2.0 RECOMMENDATION

It is recommended that Council approve the capital expenditure of \$21.068 Million for multi-year Infrastructure projects, as outlined in this report and that Council authorize staff to bring down a Capital Reserves Bylaw in the amount of \$11.408 Million (inclusive of GST), and draw from the Sanitary Sewer Capital Fund the amount of \$6.106 Million (inclusive of GST) and the Waterworks Utility Fund the amount of \$4.537 Million (inclusive of GST) to finance the capital programs as outlined in this report.



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DIRECTOR ENGINEERING

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Copied to: City Manager
Director Finance
City Solicitor