

FINANCIAL MANAGEMENT COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: ENGINEERING CAPITAL PROJECTS STATUS UPDATE

RECOMMENDATION:

1. THAT Council receive this report for information.

REPORT

The Financial Management Committee, at its meeting held on 2022 April 19, received and adopted the attached report providing an update on the current of Engineering capital projects.

Respectfully submitted,

Councillor Dhaliwal
Chair

Councillor Gu
Vice Chair

Copied to:	Chief Administrative Officer Acting CFO GM Corporate Services GM Parks, Recreation & Cultural Services GM Planning & Development Purchasing Manager Director Engineering Projects
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TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT COMMITTEE **DATE:** 2022 April 12

FROM: GENERAL MANAGER ENGINEERING **FILE:** 35000-01

SUBJECT: ENGINEERING CAPITAL PROJECTS STATUS UPDATE

PURPOSE: To provide an update on the current status of Engineering capital projects.

RECOMMENDATION:

1. **THAT** the Finance Management Committee forward this report to Council for information.

REPORT

1.0 INTRODUCTION

The purpose of this report is to update the Finance Management Committee and Council on the current status of 20 Engineering capital projects. Projects are selected for this report by value and/or particular interest to Council.

2.0 POLICY SECTION

Goal

- A Thriving Organization
 - Financial viability –
Maintain a financially sustainable City for the provision, renewal and enhancement of City services, facilities and assets
Practice open and transparent communication among staff, Council and the community
 - Reliable services, technology and information –
Protect the integrity and security of City information, services and assets

3.0 BACKGROUND

Engineering capital projects typically progress through the following five phases:

1. Planning – this phase includes identification of the overall scope and need for the project, acquisition of land or statutory rights-of-way, application for long-lead permits, and issuance of a Request for Proposals (RFP) for consulting services;
2. Design – in this phase conceptual designs are refined to a quality that can be issued for tender. Permits and approvals such as environmental permits, Preliminary Plan Approval (PPA), and Building Permits (BP) are obtained during this phase;
3. Tender – in this phase the project is tendered through a competitive bid process with the intent of selecting a contractor to construct the project. Contract documents and project schedule are finalized;
4. Construction – in this phase the successful contractor builds the project through to substantial completion. Engineering projects are typically constructed as per the Master Municipal Construction Documents (MMCD).
5. Closeout – this phase includes the collection of as-constructed drawings and closeout of all purchase orders.

The current status of all Engineering capital projects are available to the public at:

<https://gis.burnaby.ca/capitalworksprogram/>

To: *Financial Management Committee*
From: *General Manager Engineering*
Re: *Engineering Capital Projects Status Update*
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4.0 RECOMMENDATION

Staff recommend that the Finance Management Committee forward this report on the current status of Engineering capital projects to Council for information.



James Lota, P.Eng., MBA, MPA
General Manager Engineering

MN/nh

Attachment

Copied to: Chief Administrative Officer
Deputy General Manager Finance
General Manager Parks, Recreation and Cultural Services
General Manager Planning and Development
General Manager Corporate Services
Purchasing Manager
Director Engineering Projects

#	Project Name	Executive Summary For Council	Project Status	Project Target Start	Project Target Finish	Tender Award Amount	Project Percent Complete	Status Update
1	3183B INF 2021 Culvert Rehabilitation Program	The City has completed an inventory review and general visual inspections of culverts throughout the City. Sixteen (16) culverts were prioritized for rehabilitation or replacement within the one to five year horizon due to the results from the general visual inspections.	Construction	7/15/2021	4/30/2022	\$1,025,102	90%	On track and on budget. Construction started July 2021. Due to weather/supply delays, substantial completion (including landscaping) expected by April 2022.
2	3010 INF SCADA Water & Sewer Pump Station Controls Upgrades	This project includes upgrade or replace existing water and sewer pump station RTU's and PLC's as part of the City's ongoing infrastructure renewal program of 51 SCADA stations.	Construction	1/1/2016	6/1/2023	\$1,561,526	30%	On track and on budget. The 3 year SCADA program 2021-2023 being delivered per plan.
3	3195 INF Thorne Ave - ERA.0047 Roadworks & Utilities	Scope of work involves offsite improvements for the development at 6000 Thorne Avenue. Improvements will be completed on road works, street lighting, sanitary sewer, storm sewer, and watermain to provide site services to this development. Previous work and preloading was performed by Matcon. Final Thorne Avenue roadworks and utilities are being completed by Jack Cewe.	Construction	8/13/2020	3/31/2022	\$1,217,643	95%	On track and on budget. Outstanding work from BC Hydro to be completed by end of May 2022.
4	3191A INF 2021 Sidewalks and Full Road Upgrades	Selected sidewalk construction locations based on prioritization (for example near schools/community centres/parks/transit, most cost effective first, network gaps, and neighbourhoods without sidewalks). Boulevard trees would also be replaced and added as necessary, in order to complete the public realm. This planned program would include new sidewalks and full road upgrades with curb & gutter.	Construction	5/3/2021	5/31/2022	\$5,558,911	60%	On track and on budget. Construction started July 2021. Works to be completed by July, 2022.
5	3035 INF Imperial & Patterson Left Turn Bays	To improve traffic flow and safety, intersection improvements at Imperial St and Patterson Avenue involving the addition of eastbound and westbound left turn bays are required.	Construction	8/31/2021	4/30/2022	\$1,078,117	85%	On track and on budget. Contract currently in construction. Substantial completion to be met by end of April 2022.
6	3187 INF Holdom Overpass	The Holdom Overpass is a third party (vancouver fraser port authority) project that will complete the City's long-term goal to have a major north south connector in the Brentwood Town Centre Area. With this significant project the City identifies associated City upgrades to be completed as part of this opportunity. It will be the Vancouver Fraser Port Authority's responsibility to build the overpass to connect Holdom Ave. and Douglas Road. The City is anticipating to perform coordinated works with this project and will cost share portions of work to ensure ultimate restorations and infrastructure are captured.	Design	1/1/2022	3/31/2025		25%	On track and on budget. 3rd party project. Minimal spending expected from owners representative.
7	3189 INF Central Burnaby Water & Roads Package	This project package includes watermain replacements in which City forces will construct, road rehabilitation/upgrades and communication ducting for various project sites in Central Burnaby. The project involves replacement of existing aged AC or CI watermains and services, hydrants for enhanced fire fighting and capacity upgrades, and is then completed with pavement rehabilitation and/or upgrades on local and collector streets to be tendered out to retain a contractor over multiple years and contracts. Interim strip roads and traffic safety improvements will be upgraded to current urban street standards (curb, gutter & sidewalk) as part of an integrated project approach. Total program value nearly \$13M over multiple years.	Construction	5/1/2020	12/30/2022	\$2,680,000	90%	On track and on budget. Substantial completion by end of April, 2022 due to 2 locations being added.
8	3193A INF Burnaby Heights CSS	This project is part of the City's ongoing infrastructure renewal program involving separation of combined sewers as required under the local 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.	Closeout	4/5/2021	3/31/2022	\$3,098,748	95%	On track and on budget. Construction completion to be expected end of April 2022.
9	3194 INF Wright St. Watermain & Road Upgrades	This watermain and roads package consists of project sites in the Cariboo-Armstrong neighborhood of Burnaby. The project involves replacement of existing aged watermains, hydrants and services, a limited section of new storm and sanitary sewers (sewer separation) complete with pavement rehabilitation and/or upgrade to local/collector streets. This project is intended for design by an engineering consultant(s) and construction by City forces with separate tender of roadworks as a separate tender.	Construction	1/1/2021	3/31/2023	\$2,409,366	40%	On track and on budget. Tender was posted February 14, 2022. Closed March 9, 2022. Awarded March 21, 2022.
10	3040A INF Marine Dr: Boundary Road to Greenall Ave.	This project is to upgrade Marine Drive from Boundary Road to Greenall Avenue. The project is currently under construction and will provide watermain and road upgrades including curb and gutter, sidewalks and improved street lighting	Construction	8/12/2021	6/30/2022	\$3,986,286	60%	On track and on budget. Construction ongoing. Substantial completion end of May 2022.

11	3218 INF Capitol Hill Watermain and Road Upgrades	This watermain and road package consists of project sites in the Capitol Hill North Burnaby. The projects involve replacement of existing aged watermains, hydrants and services, a limited section of new storm sewer, additional street lighting, multi-use path, complete with pavement rehabilitation and/or upgrade on local/collector streets. This project is intended for design by an engineering consultant(s), watermain construction by City forces and a separate tender for contract services of roadworks and street lighting improvements.	Tender	9/6/2021	3/31/2023		50%	On track and on budget. CF completed waterworks. Roadwork is tendered and closed in March, 2022. Substantial completion for watermain March, 2022.
12	3228 INF Glenwood and Willingdon Heights Water and Road Upgrades	This is a watermain replacement and roadworks package with work on mostly local streets in the Clinton-Glenwood and Willingdon Heights areas. AC watermains are replaced and upsized to hydraulic model requirements. Impacted roads will be restored with new pavement or full street upgrade if they are currently in interim street condition. Sidewalks and wheelchair ramps are added to all streets where they are missing. Civic communication conduits have been added to locations as required by the IT Department.	Design	5/1/2021	12/31/2023		5%	On track and on budget. early design phases. Detailed design to be completed April 2022.
13	3239 INF Kincaid Street Watermain, Roadworks, and PRVs	Construct new 150mm & 250mm mains along Douglas Road (Woodsworth to Canada Wy) to facilitate expansion of the Kincaid Zone into the Central Valley Zone. Transfer existing services fronting Douglas Road to new 150mm main (Kincaid Zone). 'Close' existing valve at Woodsworth and Douglas Rd., to complete zone boundary change.	Tender	5/31/2022	12/31/2022		10%	On track and on budget. Tendering out by beginning of April 2022.
14	3040B INF Marine Drive: Greenall Avenue to Strathearn Avenue	This project will bring Marine Dr. from Greenall Ave. to Strathearn Ave. to the urban street standard, including curb and gutter, sidewalk on both sides of the road, bus route pavement, new bus stops, intersection upgrades, new streetlights, boulevard, and street trees as required.	Design	7/1/2022	4/30/2025		15%	On track and on budget. Currently under Design. Will be tendered out end of Aug/Sept 2022.
15	3276 INF BC Parkway Lighting	Providing accent lighting along the BC Parkway trail using Skytrain columns and guideways from Patterson to Imperial Street.	Construction	11/10/2021	4/30/2023		30%	On track and on budget. Currently working on design of Zone 2
16	3031 INF Broadway Improvements Bainbridge to Underhill	Road upgrades on Broadway (Bainbridge Av to Underhill Av) will be upgraded with widened pavement, urban trail, sidewalks, and treed boulevards to improve the street for all users. Storm sewers and watermains requiring condition or capacity upgrades in this section will also be addressed in this project. Installation of the City's IT network conduit will also be completed along the full length of the project.	Construction	8/4/2020	4/29/2022	\$8,628,241	80%	Overspent (Resolve by reallocation) due to Unknown 3rd party utilities found during construction caused multiple design changes and construction change orders. This also resulted in one delay claim.
17	3147B INF 2021 North Burnaby Road Rehabilitation & Upgrade	This is a roads rehabilitation package including pavement rehabilitation on local/collector streets in various locations of north Burnaby. This project will be designed by an engineering consultant(s) and constructed through a tendered contract. Southlawn lane paving and Warwick RRFB have been added to scope.	Closeout	4/12/2021	4/29/2022	\$2,996,949	95%	On track and on budget. Minimal schedule changes due to change order at Southlawn lane/Brentwood School. Projection completion April, 2022.
18	3188B INF 2021 Sidewalk Program - Package B	The scope consist of about 4km of sidewalk and 2 crosswalks. Council instructed staff to accelerate net new sidewalk construction in various locations. Boulevard trees would also be replaced and added as necessary, in order to complete the public realm.	Construction	9/1/2021	12/31/2022	\$2,610,170	30%	On track and on budget. Completion date December 2022.
19	3193B INF Burnaby Heights CSS	This project is part of the City's ongoing infrastructure renewal program involving separation of combined sewers as required under the local 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.	Closeout	1/1/2021	4/15/2022	\$2,490,181	95%	On track and on budget. Substantial achieved December, 2021 per plan remaining deficiencies are weather related and expected to be done by April, 2022.
20	3270 INF Laurel St (Douglas to Godwin) and Lanes	Design and Construction is required for Laurel Street fronting the new works yard (Douglas to Godwin). Design and Construction are also required for lanes adjacent to the new works yard (lanes to the west and to the south of Works Yard) and an urban trail (east of works yard). The design and construction of utility improvements on Laurel Street and the lanes are also required. This project requires close coordination with the Laurel Street Works Yard construction project. Construction is underway.	Design	10/1/2021	5/1/2023		9%	On track and on budget. Currently in Design. Project is scheduled to tender in the spring of 2022 in coordination with Laurel Street Works Yard construction.