



COUNCIL REPORT

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Meeting Date: January 21, 2025
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TO: Vancouver City Council
FROM: General Manager of Finance and Supply Chain Management
SUBJECT: Federal Funding for Cambie Street Bridge Seismic Upgrade Project

Recommendations

THAT Council endorse a funding application in the amount of \$84.4 million submitted to the Disaster Mitigation and Adaptation Fund towards 40% of the \$211.0 million of eligible costs for Cambie Street Bridge Seismic Upgrade Project;

FURTHER THAT, subject to the successful application for funding and completion of the related agreements:

- i. Council approve a \$35.0 million increase to the multi-year capital project budget for the Cambie Bridge Seismic Upgrade to \$68.5 million as described in this report, to enable the next phase of work; and
- ii. Council direct staff to prioritize the City's remaining funding commitment for the project in development of future capital plans.

Purpose and Executive Summary

The purpose of this report is to seek Council endorsement for the funding application for the Cambie Street Bridge Seismic Upgrade Project submitted in July 2023 to the Disaster Mitigation and Adaptation Fund (DMAF), which requires a resolution indicating Council's endorsement of the proposed project.

Vancouver is in an active seismic region that could be impacted by an earthquake at any time. The Cambie Street Bridge Seismic Upgrade Project will significantly increase seismic resiliency of the bridge, improving how the bridge would perform during a seismic event and minimizing costs associated with its repairs.

Council Authority/Previous Decisions

Between 2018 and 2022, Council approved \$3.3 million for a seismic assessment of the Cambie Bridge and \$3.5 million to perform routine repairs and begin the first phase of seismic upgrades to the Cambie Bridge.

On June 29, 2022, Council approved the 2023-2026 Capital Plan, which included \$30 million for rehabilitation and seismic upgrades to the Cambie Bridge and on July 23, 2024, Council approved the 2023-2026 Capital Plan mid-term update which increased planned funding for the rehabilitation and seismic upgrades to the Cambie Bridge to \$33.5 million.

During 2023 and 2024 Council approved capital budgets using all \$33.5 million of planned funding to fund Phase 2 seismic upgrades to the downtown segment of the bridge (\$30.2 million) and rehabilitation of the south end of the bridge (\$3.3 million).

City Manager's Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

DMAF is a national program that funds public infrastructure projects designed to mitigate current and future climate-related risks and disasters triggered by climate change and natural hazards, such as floods, wildland fires, droughts and seismic events.

Launched in 2018, DMAF is part of the Government of Canada's broader strategy to adapt to climate change and reduce the risks associated with natural disasters. The Government initially committed \$2 billion over 10 years and renewed the fund with an additional \$1.375 billion in Federal Budget 2021.

DMAF is administered through Housing, Infrastructure and Communities Canada.

Discussion

Vancouver is situated in an active seismic zone, making it vulnerable to a potential earthquake that could happen at any moment. According to the Government of Canada's Get Prepared website, the coast of British Columbia is the most at risk for a major earthquake. Given the high likelihood of an earthquake in B.C. and the significant economic impacts expected, it is important to continue prioritizing seismic upgrades of critical City infrastructure to modern seismic standards.

One such piece of critical infrastructure is the Cambie Street Bridge, which is vital for maintaining a resilient transportation network that will support emergency response and recovery after an earthquake. Built in 1985, the Cambie Street Bridge is one of three City owned bridges spanning False Creek (Granville, Burrard and Cambie), connecting the densely populated downtown peninsula with the rest of Vancouver. It has five vehicle lanes and is a major transit route, with over 13 million vehicle crossings annually. The bridge is also part of TransLink's Major Road Network (MRN), which facilitates the safe and efficient movement of people and goods across the region.

There are many variables that dictate whether a bridge can be seismically upgraded in an effective manner, such as age, condition, and location. Among the three bridges over False Creek, Cambie Street Bridge can be seismically upgraded to levels that are not achievable with Granville and Burrard.

The proposed work will enhance the bridge's seismic resilience by significantly reducing the potential damage it may sustain from an earthquake. This means emergency vehicles will be able to use the bridge shortly after an earthquake and repair costs to fully reopen the bridge to the public will be minimized. This level of performance is nearly equivalent to today's modern bridge code for a 1 in 2475-year seismic event. Additionally, this work will protect critical infrastructure located directly below the bridge and reduce future rehabilitation needs over the lifespan of the bridge.

The design of the seismic upgrade and rehabilitation of the Cambie Street Bridge began in 2019. Construction of Phase 1 of this work, which included localized seismic foundation upgrades near 1800 Spyglass place, and various rehabilitation work such as expansion joint repairs, concrete repairs, and stair repainting, was complete in 2022.

The scope of the overall \$211M+ seismic upgrade and rehabilitation program includes pedestrian/cycle staircase and ramp replacements, 10 foundation upgrades, 65 pier modifications, abutment modifications at 6 locations, repaving the entire bridge deck and other associated work to facilitate the structural work such as utility relocates.

Scope to be completed with the current approved \$33.5M budget includes completion of the seismic upgrade design, expansion joint repairs, the scope includes seismic upgrades of the Cambie bridge on the north side of False Creek within Cooper's Park and the 2nd Ave Off-Ramp. Work on the 2nd Ave-Off ramp also includes repaving and concrete deck repairs.

With the proposed adjusted budget of \$68.5M, the scope can be increased to include seismically upgrading the South Approach, 2nd Ave-Off Ramp and marine span above False Creek.

Future phases of this work will include more localized foundational upgrades, rehabilitation work and seismic updates directly below the bridge deck.

Financial Implications

DMAF funding is expected to cover 40% of eligible costs up to \$84.4 million with the remaining cost shared between TransLink and the City as laid out in the table below. Some elements of the seismic upgrade project, including legal costs and design and construction contracts signed prior to November 8, 2024 are not eligible for DMAF cost sharing

To meet the DMAF deadline of December 31, 2032, staff recommends increasing the current approved budget for the project to \$68.5 million to deliver scope presented above.

<i>\$ million</i>	Existing budgets	Proposed adjustment	Adjusted budget	For future approval	Total
City	\$15.1	\$3.5	\$18.6	\$62.8	\$81.4
TransLink	11.9	6.7	18.6	26.6	45.2
DMAF	-	24.8	24.8	59.6	84.4
Subtotal DMAF eligible	\$27.0	\$35.0	\$62.0	\$149.0	\$211.0
City (ineligible)	3.4	-	3.4	-	3.4
TransLink (ineligible)	3.1	-	3.1	-	3.1
Overall	\$33.5	\$35.0	\$68.5	\$149.0	\$217.5

The City's \$3.5 million portion of the proposed capital budget adjustment will be funded using the 2023-2026 Capital Plan provision for Emerging Priorities, with the remaining \$31.5 million adjustment added to the 2023-2026 Capital Plan as partner funding.

The remaining \$149.0 million of DMAF eligible spending is expected to be delivered in future capital plans and is subject to future budget approval including approval of future capital plans and electoral approval of any related borrowing questions and future agreements with TransLink

Transportation improvements on the bridge such as widening and additional active transportation lanes are not included in the amounts present above. Any such transportation improvements would be funded by separate capital project budgets; however, scope might be combined to capture contracting efficiencies as practical.

Legal Implications

If the funding applications are approved, the City will enter into Contribution Agreements signed by the Director of Legal Services.

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