

DATE OF MEETING APRIL 8, 2019

AUTHORED BY [BILL CORSAN, DEPUTY DIRECTOR, COMMUNITY DEVELOPMENT]

SUBJECT [DEPARTURE BAY WATERFRONT WALKWAY FEASIBILITY
STUDY]

OVERVIEW

Purpose of Report

To provide Council with background information, and the steps required to examine the viability of an on-beach walkway at the toe of slope or on-beach green-shores approach for a section of the waterfront walkway from BC Ferries Departure Bay Terminal to Battersea Road.

Recommendation

That the report titled "Departure Bay Waterfront Walkway Feasibility Study", dated 2019-APR-08, be received for information.

DISCUSSION

The waterfront walkway is one of the City's key recreational assets for both local residents and visitors. In the 2012-2015 Strategic Plan, City Council identified a vision for a 'continuous, uninterrupted and accessible trail from Departure Bay to the Nanaimo River Estuary'; a total distance of 13km. In the 2016-2019 Strategic Plan Update, Council identified the waterfront walkway as one of the City's key Capital Projects. The expansion of the existing waterfront walkway is also supported by several neighbourhood plans and other City policies, including the Transportation Master Plan and Official Community Plan.

To date, 4.5km of the planned 13km walkway has been built to varying standards and widths, and has been focused along the downtown core, the Newcastle Channel, the Departure Bay seawall, and behind the BC Ferries Departure Bay Terminal. There are currently a number of missing gaps that limit the connectivity and use of the walkway between the Departure Bay seawall and downtown, and there are no waterfront connections south of downtown.

At the 2017-DEC-18 Council meeting, Council endorsed the Waterfront Walkway Implementation Plan. The plan set out an orderly approach to completing a continuous 13km pathway over a ten-year period, and included order-of-magnitude construction cost estimates valued at over \$36M. The plan was completed with significant input from the community and revealed a strong public support for the development of the waterfront walkway. The community engagement process also revealed that development of the walkway between the existing Departure Bay seawall and the BC Ferries Terminal was the top priority section. The consultant team identified two main options for completing this 1,200 meter section of walkway: an elevated walkway (\$15.5M) and an 'on-beach' option (\$7M).

The Waterfront Walkway Implementation Plan included a recommendation that the project be broken up into two sections: from BC Ferries Departure Bay Ferry Terminal past Northfield

Creek to the existing trail at White Eagle Terrace; and from White Eagle Terrace to Battersea Road.

As part of the public consultation, both an elevated walkway and a trail at the toe of the slope were presented. There was a preference for the elevated walkway with approximately 60% of respondents choosing that option.

The first phase of the Departure Bay Walkway (Northfield Creek section) included the following design elements:

- 350m of elevated concrete walkway;
- steel pile foundations to minimize disturbance to the marine environment, shoreline vegetation, and steep slopes;
- a width of 7.2m wide to allow safe use by pedestrians and cyclists of all ages and abilities.
- appropriate safety features such as LED lighting and cycling-height railings;
- amenities such as benches and waste receptacles and a viewing platform;
- connections to Beach Estates Park and White Eagle Terrace; and
- safety improvements to the existing White Eagle Terrace Trail.

In 2018, functional design work was completed for the project and permits were submitted to Provincial and Federal agencies for review. The original cost estimate based on the conceptual design pegged the project at \$3.5M. Through the functional design work, additional scope was added and new site-specific constraints were discovered, such as constructability. This led to a project cost estimate of \$10.5M.

To better understand the costs, risks, and feasibility of the project, Staff subsequently undertook a value engineering study of the functional design. A team of value engineering consultants were engaged in the fall of 2018 to review the project design, confirm costs, and identify alternative design options. The key findings included:

- Cost Savings – ideas were generated that could reduce the elevated walkway project costs by up to \$2M (from \$10.5M to \$8.5M).
- Constructability – the project as envisioned is very difficult to build due to the sensitive nature of the foreshore and the lack of access points. Construction access risks could subject the project to additional costs of at least \$4.1M.
- Rise of Further Price Escalation – a key component of the project is the use of steel piles. The cost of steel has risen sharply due to tariffs introduced by Canada and the United States. It is difficult to predict the cost of steel in six months and this poses a significant financial risk.
- Alternative walkway design concepts and order-of-magnitude cost estimates were presented including:
 - an on-beach walkway along the existing toe of the slope (\$4.8M)
 - an on-beach green-shores walkway with headland pocket beach (\$5.4M)
 - a shoreline boardwalk structure along the existing toe of slope (\$6.3M)

Staff believe it would be prudent to explore the Northfield Creek walkway alternatives presented in the value engineering study and investigate the feasibility of extending these designs beyond White Eagle Terrace to Battersea Road to ensure future phases can also be constructed with the same alternative approach. The preparation of an alternative option will enable Council to

compare it to the elevated walkway with information at a similar level of detail with respect to cost, constructability, durability, impact, and aesthetics.

The scope of work will be broken into two phases, starting with the feasibility study consisting of survey work, environmental work, and coastal engineering to proof out the on-beach/toe-of-slope approach. A functional design and detailed costing will be completed if the feasibility study shows merit.

At the 2019-MAR-18 Council Meeting, Council passed a motion which allowed \$400,000 from the 2018 general surplus to be allocated to the General Financial Stability Reserve to fund the Waterfront Walkway Feasibility Study.

Staff will now proceed with a Request for Qualifications for a consultant team to undertake the Waterfront Walkway Feasibility Study. When the project work is complete, Council will be able to compare the raised walkway with the on beach/toe of slope and the associated costs, impacts, and benefits.

If Council wishes to proceed with construction of the walkway, the project will be funded through borrowing, which will require the assent of the electors through an Alternative Approval Process or a Referendum.

Staff believe the above-noted work is critical in understanding the overall cost and implications of the design and would recommend this work prior to seeking electoral assent.

SUMMARY POINTS

- The expansion of the waterfront walkway is one of the five projects identified by Council in the 2016-2019 Strategic Plan.
- The Waterfront Walkway Implementation Plan was endorsed by Council in December 2017 and identified the Northfield Creek section of the Departure Bay Walkway as a priority.
- In 2018, a functional design for the Northfield Creek Section was completed. The design was based on a 350m elevated walkway. A value engineering review of the project noted concerns about price and constructability. In addition, the report identified that an on-beach walkway at the toe of slope or on-beach green-shores approach may be less expensive and be easier to construct.
- At the 2019-MAR-18 Council Meeting, Council allocated \$400,000 from the 2018 general surplus to the General Financial Stability Reserve to fund the Waterfront Walkway Feasibility Study.
- When complete, Council will be in a position to evaluate the two options and to compare costs, constructability, durability, impact, and aesthetics.
- If Council wishes to proceed with construction of the walkway, the project will be funded through borrowing, which will require the assent of the electors through an Alternative Approval Process or a Referendum.

ATTACHMENTS

ATTACHMENT A: Proposed Study Area

Submitted by:

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Concurrence by:

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