City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	November 25, 2011
From:	John Irving, P.Eng. MPA Director, Engineering	**File:**	10-6340-20- P.11301/Vol 01
Re:	**Williams Road Drainage Pump Station**		

Staff Recommendation

That the concept for the Williams Road Drainage Pump Station be endorsed.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 1

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**	
Sewerage and Drainage Parks	Y ☑ N ☐ Y ☑ N ☐		
REVIEWED BY TAG	YES ☑ NO ☐	**REVIEWED BY CAO**	YES ☑ NO ☐

Staff Report

Origin

The Williams Road Drainage Pump Station was constructed in 1964. Upgrade of this station was approved by Council as part of the 2011 Capital Program. Staff have advanced design to the point whereby the general layout and architectural features have been identified.

The purpose of this report is to provide Council information regarding the intended pump station layout, including potential architectural and public art features.

Analysis

The City's extensive flood protection and drainage system includes 49 kilometres of dikes, a series of ditches/canals, underground pipe and 39 drainage pump stations. The drainage system is designed to prevent the City from flooding during up to a 1:10 year rainfall event.

The existing Williams Road Drainage Pump Station services an area bounded approximately by the west dike, No. 1 Road, Springfield Drive and Trumond Avenue. This station was constructed in 1964 and contains old, antiquated equipment and is in need of a pumping capacity increase to adequately meet current flood protection standards. In 2011, Council approved funding of $1.9 million to complete the upgrade of this station.

Design of an upgraded Williams Road Drainage pump station commenced in the Spring 2011 and has advanced to a point whereby the general layout and architectural features have been identified (Attachment 1).

In general, the pump station layout has been designed to keep as low a profile as possible in order to preserve view corridors. The design currently has the proposed pump station roof at a slightly lower elevation than the existing pump station roof, thereby preserving and/or enhancing the view corridor. The proposed pump station wall facing Williams Road will be relatively prominent and present an opportunity for beautification and/or public art.

The station is also incorporated into to the highly utilized dike trail system connecting Steveston to Terra Nova. Accordingly the pump station maintenance access roads are visualized to be appealing and complimentary to the existing trails while at the same time providing the necessary means for pump station operations and maintenance activities. It is also proposed that short sections of the adjacent north-south sections of the existing dike be raised to meet the look-out/viewing area at the top of the proposed pump station structure which will be at 4.7 metres geodetic. The current elevation of the dike is approximately 3.3 metres geodetic. The 4.7 metre elevation is consistent with the City's Long Term Flood Management Strategy.

Communication with some of the residents adjacent to the pump station has taken place through the process of design development. Subject to Council's support, a public open house will be held shortly to get feedback on the design.

It is anticipated that design will be complete in the February/March 2012 timeframe with construction to follow immediately thereafter. It is anticipated that construction will take place over a period of approximately 6 months.

Financial Impact

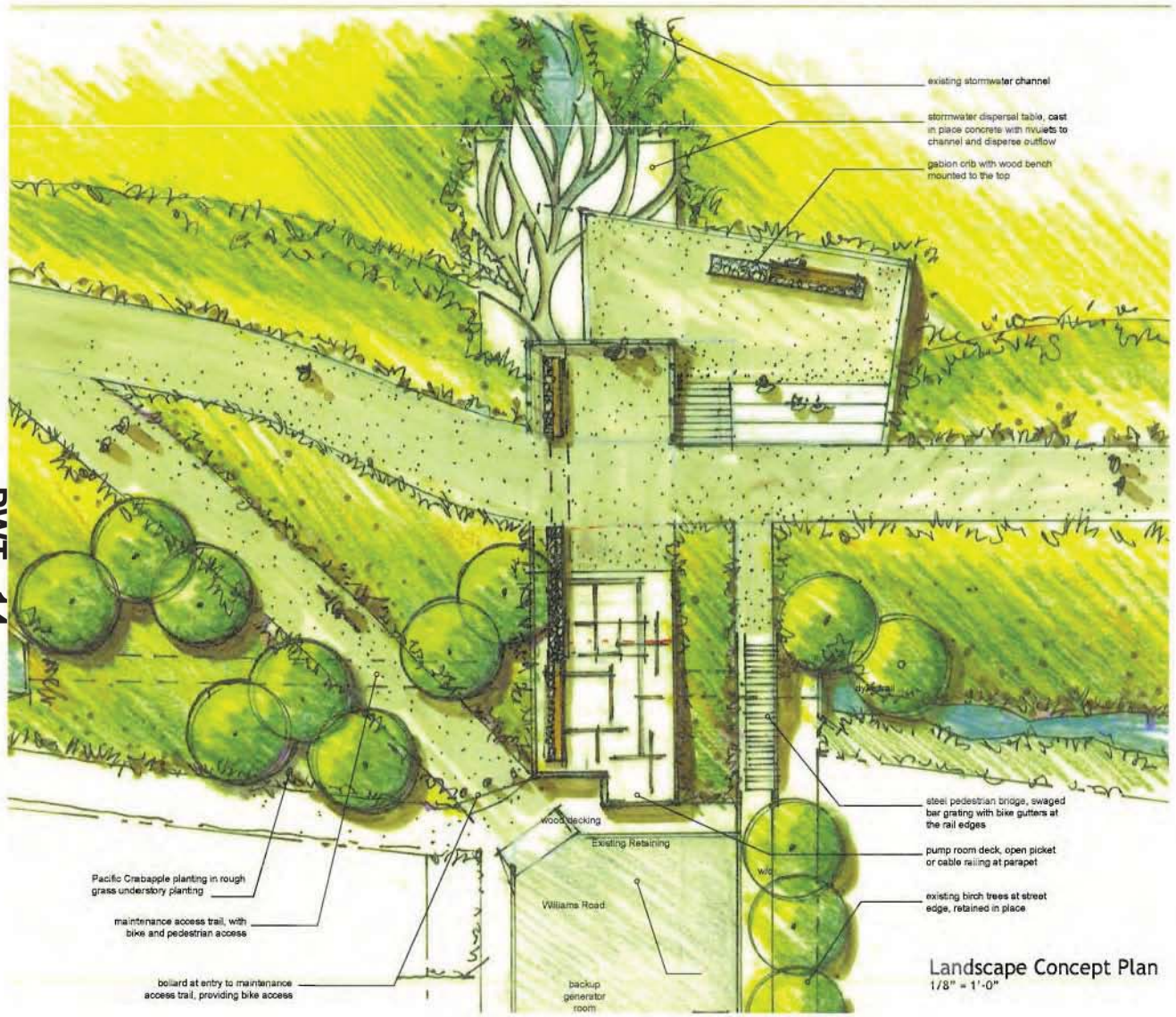
Funding to complete Williams Road Drainage Pump Station upgrades was previously approved by Council as part of the 2011 Capital Program.

Conclusion

Council approved funding in 2011 to complete upgrade of the Williams Road Drainage Pump Station. Design has progressed to the point where the general layout and architectural features/opportunities have been identified. Subject to Council's support, a public open house will be held shortly to gain feedback on the proposed design.

Jim V. Young, P. Eng.
Manager, Engineering Design and Construction
(604-247-4610)

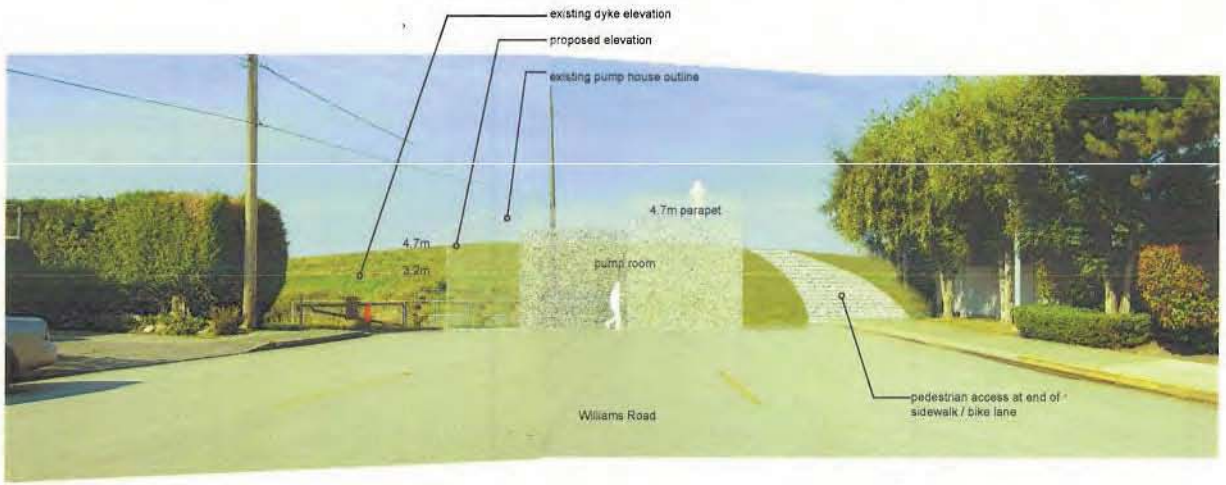
JVY:jvy



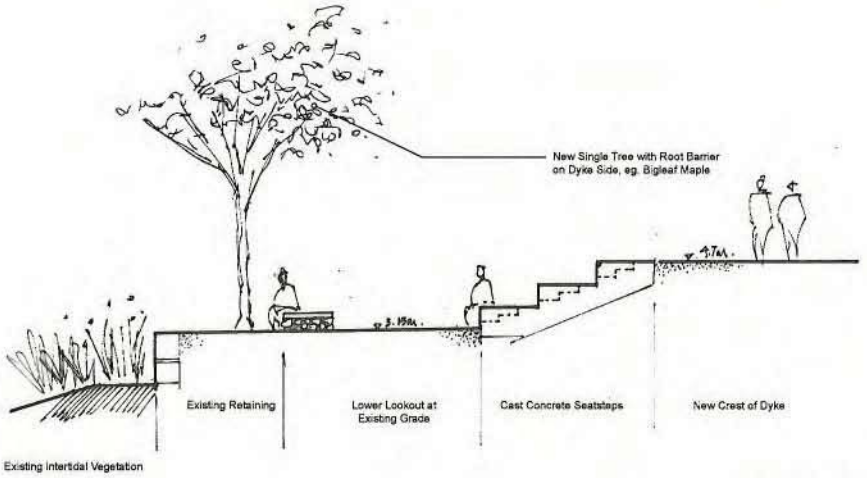
Landscape Concept Plan
1/8" = 1'-0"

hapa
COLLABORATIVE

landscape concept plan
williams road pump station
richmond bc



Massing Study



Section Through Lookout
1/4" = 1'-0"

PWT - 15

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landscape concept plan
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