




To: Public Works and Transportation Committee **Date:** May 21, 2002
From: Robert Gonzalez, P.Eng.
 Manager, Engineering Design and Construction **File:** 6340-20-P.02303
Re: **Waterfront Improvements at No.1 Road South Drainage Pump Station**

Staff Recommendation

That Council allocate up to \$100,000 from the 2002 Waterfront Improvement Program capital project for waterfront upgrades to the No. 1 Road south drainage pump station.

Robert Gonzalez, P.Eng.
 Manager, Engineering Design and Construction

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Staff Report

Origin

The No. 1 Road south drainage pump station is currently at capacity in terms of its ability to drain storm water. Council approved upgrades to the No. 1 Road south drainage pump station as part of the 2002 Capital Program. Upon commencing the design of the new drainage pump station, the Waterfront Improvement and Civic and Beautification Design Teams commented that this station and its surroundings could also serve as a public waterfront amenity in light of its central location and proximity to the waterfront.

Analysis

The No. 1 Road south drainage pump station is located at the intersection of No. 1 Road, Bayview Street, and the new dyke and foreshore improvements. This intersection will be a focal point for anyone walking along the new Steveston waterfront boardwalk. As a result of this intersection's prominence, there is an opportunity to construct a new drainage pump station that will meet functional drainage needs as well as serve as a public amenity that will enhance the public realm.

Four concepts for the pump station and its surroundings were developed. Three of the concepts focussed on architectural improvements to the drainage pump station building, and therefore did not provide a significant public amenity. The final concept (recommended), suggested that the pump station building serve as a lookout, which people could continue to use in the future (see Appendix A). The following enhancements are proposed by the recommended lookout concept:

- Minimized pump station building footprint, including two transparent walls, in order for the public to see the generator and control panel inside the building;
- Structural enhancements to the building in order for it to serve as a lookout and an additional second storey lookout. The third storey lookout as suggested in the concept will not be constructed as a result of its excessive height and respective costs;
- Ground plane enhancements such as brick paver or concrete patterns to fit in with the new boardwalk, as proposed in the Imperial Landing project. The current proposal for the area surrounding the pump station is asphalt. In addition, street furniture such as benches, bollards, bicycle racks, and area lighting will be considered and incorporated where possible; and
- Overflow spillway enhancements include opening of the spillway for public view. Currently the proposed overflow spillway is enclosed. Although the spillway is typically used only during very large storms, it may be possible to pump water through the spillway during minor storms for effect.

A typical conventional pump station structure is presented in Appendix B. This is the standard structure that would be constructed without the foregoing improvements.

Design and Construction Schedule

In light of the forthcoming Tall Ships event, which will likely attract thousands of visitors to Steveston, staff recognize that it would be desirable to have as many of the proposed amenities as possible in place for Tall Ships in August. Based upon the concept plan, and the amount of associated custom fabrication, it is likely that only the building and ground plane will be constructed in time for Tall Ships provided that the project is fast-tracked and proceeds immediately. The building will serve as a lookout, although the second tier will not be in place by Tall Ships. The remaining enhancements will be constructed after the Tall Ships event.

Financial Impact

The total estimated cost for the proposed enhancements is as follows:

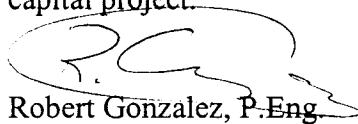
Building structural reinforcements incl. second lookout tier, & transparent walls	\$ 50,000
Ground plane enhancements incl. street furniture	\$ 35,000
Overflow spillway	\$ 15,000
Total estimated cost	\$ 100,000

The estimated costs to implement the enhancements are based upon the concept plan in Appendix A. As the costs are based upon the concept plan, it is possible that the final cost will be less than \$100,000 for these improvements. Should Council endorse the project, working drawings will be produced and the cost estimate refined and only the funding required, not to exceed \$100,000, will be spent.

The proposed funding source for these enhancements is the 2002 Waterfront Improvement Program on the basis that the enhancements will be of benefit to the general public using the Steveston waterfront boardwalk for many years. The balance of currently available funds in the 2002 Waterfront Improvement Program is \$460,000. Allocating \$100,000 to the No. 1 Road south drainage pump station project would leave a balance of \$360,000.

Conclusion

Improvements to the No. 1 Road south drainage pump station are required to increase its pumping capacity. In addition, it is recognized that the pump station is strategically located and could be constructed such that it would serve as a public amenity and point of interest for anyone walking along the Steveston waterfront boardwalk. To undertake the proposed works, staff recommend that up to \$100,000 be allocated from the 2002 Waterfront Improvement Program capital project.

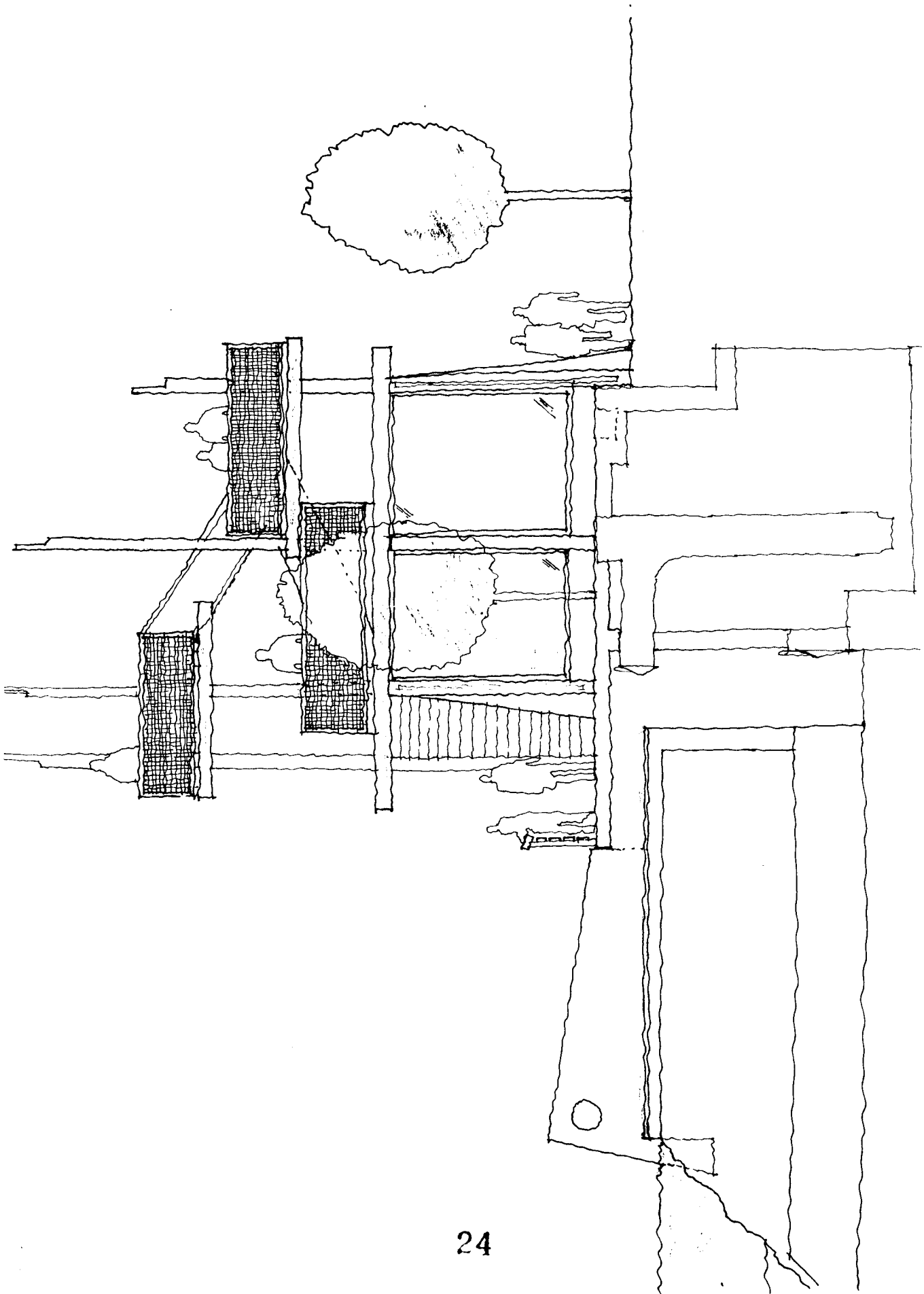


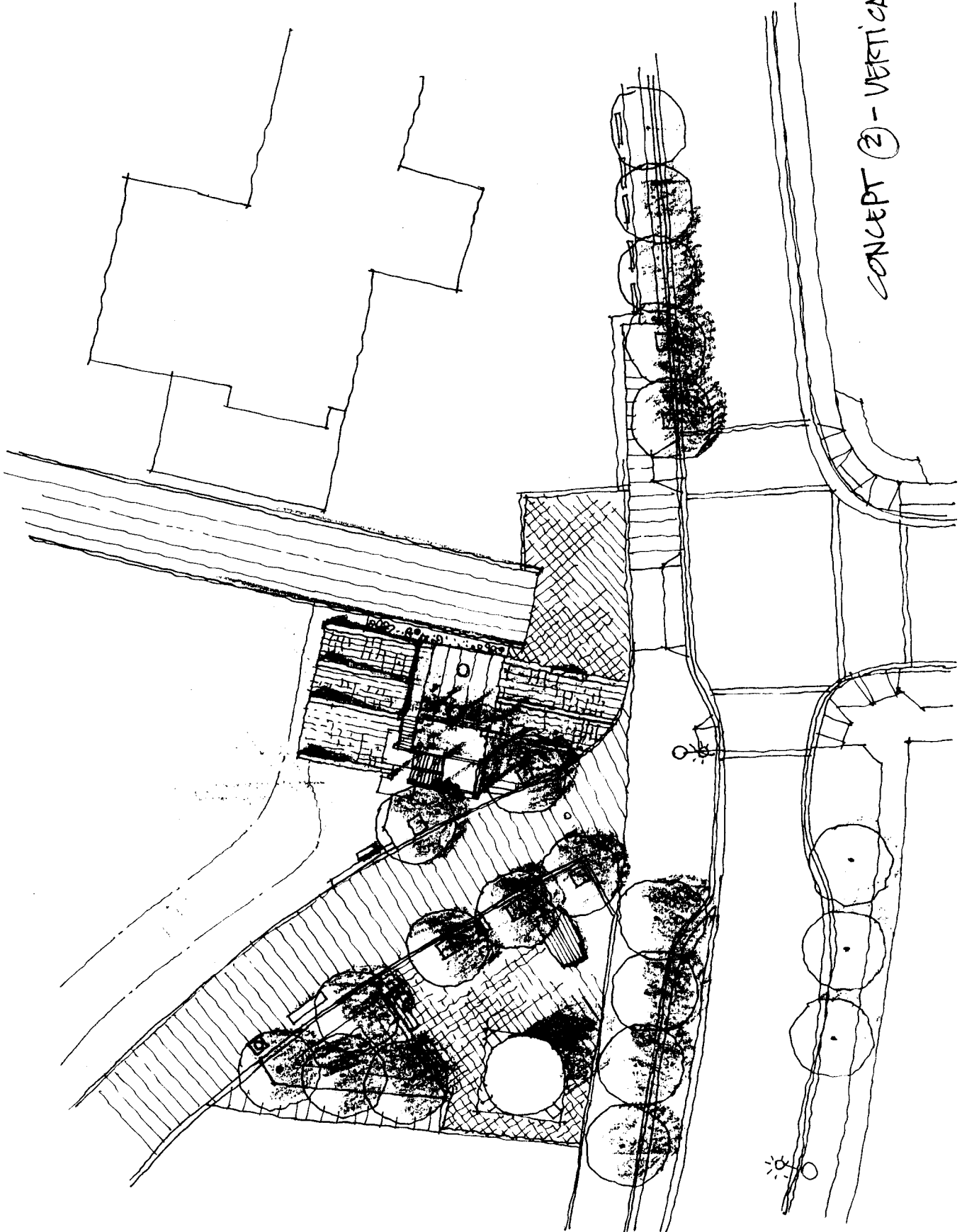
Robert Gonzalez, P.Eng.
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 RG:rg

Appendix A

No. 1 Road South Drainage Pump Station

Recommended Concept Plan





CONCEPT ② - VERTICAL 11

Appendix B

Typical Drainage Pump Station Construction

