



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6b

**ACTION ITEM**

**Date of Meeting** June 25, 2019

**DATE:** June 12, 2019  
**TO:** Stephen P. Metruck, Executive Director  
**FROM:** John Hall, Marine Maintenance Project Manager III  
Shannon Zink, Real Estate Manager  
**SUBJECT:** Pier 66 HVAC Controls Replacement (CIP #C801006)

**Amount of this request:** \$450,000  
**Total estimated project cost:** \$750,000

**ACTION REQUESTED**

Request a single Commission authorization for the Executive Director to: (1) complete design and construction of Phase II of the modernization of HVAC controls at the Bell Harbor International Conference Center at Pier 66 in an amount not to exceed \$450,000 of a total estimated project cost of \$750,000; and (2) use port crews to complete the work.

**EXECUTIVE SUMMARY**

Approval of this request will allow completion of the final phase of updating the 24-year-old HVAC control system at Pier 66. Currently, there are two control systems in operation — the legacy system, which controls pre-existing equipment and was installed in 1995, and the new stand-alone digital controls (SDC) system, which is an updated operating system installed during the recent cruise terminal build out. While the newer system is able to interact with both the new and original controls, the legacy system is only able to work with the original controls.

In May of this year, Phase I of the modernization of the legacy controls was completed as a small project in response to a control system failure determined to be extremely urgent. This current request is for funding Phase II of the project to modernize the remaining legacy controls.

**JUSTIFICATION**

The legacy control system, which controls critical heating and cooling equipment, is obsolete and vendors are no longer able to obtain replacement control boards. If the remaining outdated controls fail, we will not be able to operate the affected heating and cooling equipment servicing the facility. In addition to minimizing disruptions of building operations, modernized controls will improve building energy efficiencies, assist in developing a

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comprehensive sequence of operations, and reinforce compliance with the City of Seattle Ordinance regarding building energy tune-ups.

**DETAILS**

The project will be led by Marine Maintenance Electricians working in conjunction with a small-works mechanical contractor. Given the relatively small scope of the project, the required design is minimal and will be completed with in-house resources.

***Scope of Work***

This project will replace remaining building control units (BCUs) and their associated unit controllers (UCs). Once installed, the new units will be commissioned and added to the sequence of operations.

***Schedule***

The work of this project will be completed in the fourth quarter of 2019.

*Activity*

Commission design authorization	2019Q2
Design start	2019Q2
Commission construction authorization	2019Q2
Construction start	2019Q3
In-use date	2109Q4

***Cost Breakdown***

	This Request	Total Project
Design	\$20	\$20
Construction	\$430K	\$730K
Total	\$450	\$750

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Do not complete the controls modernization; instead complete minor repairs to the controls system as needed.

Cost Implications: \$5,000 to \$15,000 estimated for annual urgent repairs to legacy controls.

Pros:

- (1) Conserves capacity on the capital budget.

Cons:

- (1) Risks a major controls failure that would significantly disrupt conference center operations.
- (2) Existing controls do not support building energy efficiency.

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This is not the recommended alternative.

**Alternative 2** – Fund Phase II of the project and modernize all remaining legacy controls.

Cost Implications: \$450,000 expenditure from the capital budget.

Pros:

- (1) Maintains Port standards for modern facilities.
- (2) Provides effective climate control for the conference center.
- (3) Supports building energy efficiency.

Cons:

- (1) Requires an expenditure from the capital budget.

***This is the recommended alternative.***

**FINANCIAL IMPLICATIONS**

***Cost Estimate/Authorization Summary***

	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$850,000	\$0	\$850,000
Previous changes – net	0	0	0
Current change	(\$100,000)	0	(\$100,000)
Revised estimate	\$750,000	0	\$750,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$300,000	0	\$300,000
Current request for authorization	\$450,000	0	\$450,000
Total authorizations, including this request	\$750,000	0	\$750,000
Remaining amount to be authorized	\$450,000	0	\$450,000

***Annual Budget Status and Source of Funds***

The funding for this project was included in the 2019 Plan of Finance for Economic Development Division under CIP C801006 P66 HVAC Systems Upgrade with a total project cost of \$2,915,000. The current total project estimate is \$2,530,000 including HVAC Controls Replacement of \$750,000.

The project will be funded by the General Fund.

***Financial Analysis and Summary***

Project cost for analysis	\$750,000
Business Unit (BU)	Portfolio Management

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Effect on business performance (NOI after depreciation)	Depreciation of \$75K per year for 10 years. There are no incremental revenues associated with this project.
IRR/NPV (if relevant)	NPV is present value of project costs.

***Future Revenues and Expenses (Total cost of ownership)***

Modernizing our existing assets readies them for current and future changes, extends their useful life, and preserves the economic vitality of our operations. The cost saving of keeping the existing legacy components offers no long-term savings. Even without considering the risk of a major failure, if these upgrades are not made at this time then the system will need replacement in a few years and will require a capital expenditure at that time. In considering maintenance costs, the new control units will not result in any additional increases.

**ATTACHMENTS TO THIS REQUEST**

Presentation slides

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None