

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**  
**ACTION ITEM**

**Item No.** 6e  
**Date of Meeting** January 12, 2016

**DATE:** January 5, 2016  
**TO:** Ted Fick, Chief Executive Officer  
**FROM:** Dave McFadden, Managing Director, Economic Development  
Tim Leonard, Capital Project Manager, Capital Development  
**SUBJECT:** Harbor Marina Corporate Center Roof and HVAC Units Replacement  
(CIP #C800196)

**Amount of This Request:** \$5,728,000      **Source of Funds:** General Fund  
**Est. Total Project Cost:** \$6,200,000

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to advertise for construction bids, execute a public work construction contract, and fund the construction phase for the Terminal 102 Harbor Marina Corporate Center (HMCC) Roof and Heating, Ventilation, and Air Conditioning (HVAC) Units Replacement Project for an estimated cost of \$5,728,000, bringing the current authorization for this project to \$6,200,000 for a total estimated project cost of \$6,200,000.

**SYNOPSIS**

The Harbor Marina Corporate Center is a four-building complex adjacent to the Harbor Island Marina at the south end of Harbor Island. The site supports the maritime industry with industrial and general office and warehouse uses, and the buildings collectively are about 80 percent occupied. The existing roofing system on the four buildings is approximately 88,000 square feet and is nearing the end of its service life. This project replaces roofing, existing rooftop gas piping, and about one-fifth of existing HVAC rooftop units.

Replacement of HVAC units along with the roof results in cost savings and reduces impact to tenant operations. Also included in the construction scope is a roof downspout stormwater treatment system to be installed by Port of Seattle Marine Maintenance. Design funding was authorized in July 2015. This authorization initiates the project's construction phase.

**BACKGROUND**

The Harbor Marina Corporate Center at Terminal 102 contains a total of approximately 138,000 square feet of flex office, warehouse, storage, and retail space. The tenant base is mixed with a few large tenants – Virtuoso, Mountaineers Books, and Puget Sound Institute of Pathology –

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occupying a third of the total leasable square footage. Other tenants include the Department of Homeland Security and several businesses that support the maritime industry.

The four roofs currently contain 69 gas-fired HVAC units. Two prior HVAC improvement projects replaced 48 and 7 of the rooftop units in 2006 and 2010, respectively. The remaining 14 HVAC units, as well as the gas piping system on the roofs that serves all of the HVAC units, are now at the end of their service life. The Port will install the new gas-fired HVAC units and associated piping per current City of Seattle building codes and these will have a 15-year typical service life.

In 2014, the Port had a condition study performed for the corporate center roofs by Cornerstone Architectural Group. The assessment determined that the roof systems were at the end of their service life and in poor condition due to observed cracking and open seams in the surface roof membrane, metal coping deficiencies, flashing failures, inadequate fall protection, and poor surface drainage resulting in large areas of ponding water. A follow-up investigation performed by Cornerstone in April 2015, involving thermal imaging, open roof cuts for sample removal, and moisture testing, revealed localized areas of moisture penetration into the roof substrate layers and degraded timber roof decking. Cornerstone rated the roof to be in “failing” condition with a maximum of two years of remaining viable life with average maintenance. While tenant space maintenance issues due to roof leakage have been routine to date, this will become a serious concern if the current moisture infiltration into the roof substrate and resultant increased rotting of timber materials is not addressed soon. A delay in replacement of the existing building roofs would also likely result in higher long-term costs, due to replacement of an increased amount of rotted timber substrate material and potential mold remediation. The proposed replacement roof will reuse the existing roof’s insulation material, and be installed per the City of Seattle building codes, with a 25-year minimum warranty life.

The current asset strategy for Harbor Marina Corporate Center is to maximize occupancy, aggressively manage costs, and to hold the property until the various major projects (e.g. the boring of the viaduct replacement tunnel and subsequent removal of the viaduct) that are negatively affecting access to the property are completed. Today, due to the very difficult access issues to the property caused by these projects, rental rates are depressed and occupancy is lower than desired and both would generate a significant discount in property value were we to decide to sell now. The payback period for this project is less than 8 years and seems to be a reasonable investment as the project is currently generating a positive operating cash flow and will likely become an attractive location in the post-viaduct environment. With the expected increases in property values, it might be prudent to consider disposition at that time.

Long-term planning assumes that the HMCC will continue to be a viable commercial office space property for the Port; therefore, this request does not affect any long-term development plans. This project is included in the 2016 Plan of Finance.

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### **PROJECT JUSTIFICATION AND DETAILS**

The proposed project will preserve revenues associated with the leased space at HMCC, extend the life of the building structures, and minimize Port liability. Deferring or forgoing this work would result in continued deterioration of the HVAC and roof system components. Eventually this could lead to additional leakage, energy loss, detrimental impacts to operations, and the need for more costly replacements. In addition, it could lead to loss of rent and revenues. Proactive asset stewardship is the key to reducing the total cost of ownership to the Port over time.

#### ***Project Objectives***

- Preserve the structural integrity of the building structure
- Preserve future revenues from the building
- Complete project on time and within budget
- Incorporate environmentally sustainable improvements into the project design and construction where practical
- Minimize disruptions to facility operations, tenants, and customers

#### ***Scope of Work***

The construction scope of work for the HMCC Roof and HVAC Units Replacement Project includes the installation of:

- Additional rooftop insulation and new energy-efficient replacement roofing system;
- New energy-efficient HVAC units;
- New rooftop gas piping system;
- Rooftop fall protection system; and
- Stormwater treatment system for rooftop runoff.

#### ***Schedule***

The project's design and construction schedule:

Commission Approval for Design	July 2015
Permit/Design Complete	December 2015
Commission Approval for Construction	January 2016
Advertise for Bids	January 2016
Construction	May 2016 through November 2016

### **FINANCIAL IMPLICATIONS**

#### ***Budget/Authorization Summary***

	Capital	Expense	Total Project
Original Budget	\$6,350,000	\$0	\$6,350,000
Previous Authorizations	\$472,000	\$0	\$472,000
Current request for authorization	\$5,728,000	\$0	\$5,728,000
Total Authorizations, including this request	\$6,200,000	\$0	\$6,200,000

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Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$6,200,000	\$0	\$6,200,000

### ***Project Cost Breakdown***

	This Request	Total Project
Construction	\$4,700,000	\$4,700,000
Construction Management	\$515,000	\$515,000
Design	\$25,000	\$290,000
Project Management	\$18,000	\$200,000
Permitting	\$22,000	\$47,000
State & Local Taxes (estimated)	\$448,000	\$448,000
Total	\$5,728,000	\$6,200,000

### ***Budget Status and Source of Funds***

This project was included in the 2016 capital plan and related Plan of Finance under CIP #C800196 – T102 Roof HVAC Replacement in the amount \$6,350,000.

The project will be funded by the general fund.

### ***Financial Analysis and Summary***

<b>CIP Category</b>	Renewal/Enhancement
<b>Project Type</b>	Renewal & Replacement
<b>Risk adjusted discount rate</b>	N/A
<b>Key risk factors</b>	Costs could exceed the estimated amounts. Future revenues generated by these buildings could decrease.
<b>Project cost for analysis</b>	\$6,200,000
<b>Business Unit (BU)</b>	Economic Development – Central Harbor Management Group
<b>Effect on business performance</b>	<ul style="list-style-type: none"><li>• This project is a renewal and replacement project and, accordingly, preserves Net Operating Income (NOI), rather than creating new NOI.</li><li>• Preserves HMCC NOI of approximately \$580K per year.</li><li>• Depreciation expense will increase an average of approximately \$248K per year based on a 25-year service life for the roof and a 15-year service life for the HVAC system.</li></ul>
<b>IRR/NPV</b>	The NPV is the present value of the project cost.

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### ***Lifecycle Cost and Savings***

Lifecycle cost analyses were performed during the design process to identify the lowest total cost of ownership for replacement roofing and HVAC systems and determine which ones were appropriate for the HMCC buildings. Associated annual operating and maintenance costs are expected to decrease for the HMCC buildings as a result of the replacement and installation of the proposed systems.

## **STRATEGIES AND OBJECTIVES**

This project supports the Port's Century Agenda strategy to "position the Puget Sound region as a premier international logistics hub" by doubling the economic value of the maritime cluster and be the greenest and most energy efficient port in North America by:

- Investing in and preserving a valuable Port asset.
- Providing maritime businesses and moorage customers close proximity to businesses located in the HMCC buildings.
- Maintaining long-term revenue-generating capability of the T102 HMCC.
- Reducing overall energy consumption by replacing old, outdated equipment with energy-efficient equipment and controls.
- Fulfilling lease commitments and obligations to the Port's tenants.
- Proactively providing stormwater treatment of rooftop runoff

## **TRIPLE BOTTOM LINE**

### ***Economic Development***

Preserving existing assets defers high-impact and high-cost asset replacement, and, therefore, reduces environmental impacts while supporting economic vitality by reducing Port costs and generating construction-related jobs. The project team will work with the Office of Social Responsibility to maximize the participation of small businesses on this project.

### ***Environmental Responsibility***

A "green" vegetative roof option as well as the addition of rooftop photovoltaic systems was included in a predesign roofing options analysis, but both were determined to be infeasible due to inadequate existing structural capacity to support the resultant additional roof load. Although the Port is not required to install any stormwater treatment in conjunction with the new roofs, this project has been identified as an opportunity to proactively address an existing stormwater runoff contaminants concern that is exacerbated from the high volume of traffic utilizing the nearby overhead West Seattle Bridge. The proposed system will consist of an oyster-shell-filled barrel installed inline at as many of the 20 existing roof downspout locations as are feasible. This type of system has been successful at Terminal 91 and the use of oyster shells as a filter material has proven to be an effective and a low-cost means of reducing heavy metals in stormwater runoff at Marine Maintenance's Horton Street facility. Additionally, the barrels are a space efficient solution (as opposed to larger "splash boxes" for example) and should only require a relatively simple replacement of the oyster shell filter material annually.

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### **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative #1:** Increase the maintenance inspections and repair of the existing roofing system, subject HVAC units, and rooftop gas piping, and delay replacement of the same indefinitely.

Pros:

- Lower initial investment cost

Cons:

- Continued moisture infiltration into roof substrate layers
- Accelerated degradation of timber roof decking
- Increased risk of mold within roofing system and tenant ceilings
- Increased risk of HVAC system failures
- Higher long-term replacement costs due to less existing roof materials being salvageable and escalating construction costs
- Increased likelihood and severity of tenant disruptions due to roof leaks, HVAC system failures, and potential mold issues
- Ongoing safety risk due to inadequate existing fall protection system
- Existing rooftop gas piping system will remain non-compliant with current code standards

**Alternative #2:** Proceed with the design and replacement of the roofing system, remaining HVAC units, and rooftop gas piping system.

Pros:

- Preservation of existing asset and generated revenues
- Minimizing roof replacement cost by maximizing salvage percentage of existing roof insulation and decking materials
- Reduced maintenance costs
- Elimination of moisture infiltration into roofing system thereby greatly reducing risk of future tenant disruptions due to leak or mold issues
- HVAC system performance will remain reliable
- Decreased safety hazard due to improved fall protection system
- The rooftop gas piping will be compliant with current code
- Treatment of roof stormwater runoff where none currently exists

Cons:

- Higher initial investment cost

**This is the recommended alternative.**

### **ATTACHMENTS TO THIS REQUEST**

- 1) T102 site aerial photo
- 2) Proposed roof downspout stormwater treatment conceptual drawing

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**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

July 14, 2015 – Commission approved design funding for the Harbor Marina Corporate Center Roof and HVAC Units Replacement (CIP #C800196)