

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

**COMMISSION AGENDA**

**Item No.** 5a

**Date of Meeting** February 28, 2012

**DATE:** February 17, 2012

**TO:** Tay Yoshitani, Chief Executive Officer

**FROM:** Nick Milos, Manager, Corporate Facilities  
Catherine Chu, Capital Construction Project Manager

**SUBJECT:** Pier 69 North Apron Corrosion Control  
(CIP #C800313)

**Amount of This Request:** \$200,000

**Source of Funds:** Tax Levy

**Total Project Cost:** \$3,966,000

**ACTION REQUESTED:**

Request Commission authorization for the Chief Executive Officer to direct staff to develop design documents, conduct environmental review, obtain permits, and prepare construction documents for the Pier 69 North Apron Corrosion Control Project (CIP #C800313) for an estimated cost of \$200,000 bringing the total authorized cost of this project to \$300,000. The total project cost is estimated at \$3,966,000.

**SYNOPSIS:**

Pier 69 north apron was constructed in 1991, using approximately 300 corrosion resistant galvanized steel piling and steel beams suitable for marine water conditions. Recent inspections revealed that the galvanized coating has reached the end of its service life and oxidation of varying degrees is clearly visible. If left alone, continued corrosion will distress the structure resulting in costly structural repairs and replacement. This memo requests Commission approval for \$200,000 for design, permitting, and project management for a new comprehensive corrosion control system. This system includes a cathodic protection system for the submerged portion of the steel piling supporting the north apron of Pier 69, a pile-wrap system for the portion of the steel piling in the inter-tidal zone, and an epoxy coating system for pile caps, steel beams, and other structures above the water. The purpose of the project is asset preservation. Following design, staff will return to the Commission to seek authorization for construction. This project is in the 2012 Plan of Finance

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### **PROJECT JUSTIFICATION:**

The proposed corrosion control project would preserve the Port's asset at Pier 69. Without the corrosion control project it is anticipated that the north apron steel structure will degrade over the next few years. If unattended, the facility will be subject to increased risk of failure; resulting in detrimental impact to operations and necessitate a costly replacement.

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

- Preserve the structural integrity of the steel structure
- Minimize disruptions to facility operations
- Complete project on time and within budget
- Protect the environment while performing the work

### **PROJECT SCOPE OF WORK AND SCHEDULE:**

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

Design a comprehensive corrosion control system for Pier 69 apron steel support system and obtain all necessary local, state, and federal authorizations for construction. The corrosion control system includes:

- A cathodic protection system for the submerged portions of the piling;
- A pile wrap system for the section of steel piling between inter-tidal elevations and the top of piling; and
- A protective epoxy coating system for the pile caps, steel beams, and other steel structure above the inter-tidal elevations.

#### ***Schedule:***

This will be a multi-year project and will be closely coordinated with the Pier 66 Apron Pile Wrap project to maximize efficiency in design, construction, and future maintenance.

Design and permitting efforts will begin immediately following Commission authorization. It is anticipated that design will be completed by summer 2012, at which time staff will return to the Commission to request final project authorization for construction.

### **FINANCIAL IMPLICATIONS:**

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

Original Budget	\$3,966,000
Previous Authorizations	\$100,000
Current request for authorization	\$200,000
Total Authorizations, including this request	\$300,000

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Remaining budget to be authorized	\$3,666,000
Total Estimated Project Cost	\$3,966,000

### **Project Cost Breakdown**

Construction	\$3,154,000
Construction Management	\$158,000
Design	\$158,000
Project Management	\$82,000
Permitting	\$87,000
State & Local Taxes (estimated)	\$327,000
Total	\$3,966,000

### **Source of Funds**

This project was included in the 2012 Plan of Finance under the Real Estate CIP# C800313 in the amount of \$3,966,000.

This project will be funded by the Tax Levy.

### **Financial Analysis 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>	<ul style="list-style-type: none"><li>• This project may not result in a design that adequately eliminates or reduces the corrosion identified during the inspection of the asset.</li><li>• Material costs prior to acquisition are subject to price fluctuations.</li><li>• The project schedule could be delayed due to project complexity.</li><li>• Environmental permitting may cause project delays and may result in increased costs due to the need to avoid and minimize potential negative water quality and sediment effects.</li></ul>
<b>Project cost for analysis</b>	\$3,966,000
<b>Business Unit (BU)</b>	Real Estate – Pier 69 Facilities Management

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<b>Effect on business performance</b>	<p>This project will not generate any additional revenue.</p> <p>Total depreciation expense from this project is estimated to be \$178,000/year, Depreciation was calculated based upon the useful lives of the cathodic protection, pile wraps, and epoxy coating; estimated at 30 years, 20 years, and 15 years, respectively. The allocation of actual project costs to specific assets will be finalized as assets are put in use, estimated to be at the end of calendar year 2013.</p> <p>Net Operating Income after Depreciation will decreased by the associated depreciation expense from this project.</p>																							
	<table border="1"><thead><tr><th><b><u>NOI (in \$000's)</u></b></th><th><b><u>2012</u></b></th><th><b><u>2013</u></b></th><th><b><u>2014</u></b></th><th><b><u>2015</u></b></th><th><b><u>2016</u></b></th></tr></thead><tbody><tr><td>NOI</td><td>\$0</td><td>\$0</td><td>\$0</td><td>\$0</td><td>\$0</td></tr><tr><td>Depreciation</td><td>\$0</td><td>\$0</td><td>(\$178)</td><td>(\$178)</td><td>(\$178)</td></tr><tr><td>NOI After Depreciation</td><td>\$0</td><td>\$0</td><td>(\$178)</td><td>(\$178)</td><td>(\$178)</td></tr></tbody></table>	<b><u>NOI (in \$000's)</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	NOI	\$0	\$0	\$0	\$0	\$0	Depreciation	\$0	\$0	(\$178)	(\$178)	(\$178)	NOI After Depreciation	\$0	\$0	(\$178)	(\$178)
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<b>IRR/NPV</b>	N/A																							

### **ECONOMIC IMPACTS AND BUSINESS PLAN OBJECTIVES:**

Proceeding with this project is a proactive means of preserving the North Apron asset to ensure unhindered operations for both the Port of Seattle and Pier 69 commercial tenants.

### **STRATEGIC OBJECTIVES:**

This project supports the asset preservation objective.

### **ENVIRONMENTAL SUSTAINABILITY AND COMMUNITY BENEFITS:**

Design and project implementation will include practices to avoid and minimize potential negative environmental effects. The project will identify construction and maintenance methods, materials, and practices for effective under-pier work while avoiding release of deleterious materials to the environment and reducing the potential for adverse effects on aquatic area natural resource values. Timely asset preservation extends the service life of existing infrastructure, as an alternative for avoiding more environmentally disruptive and resource/materials consumptive large scale structure replacement actions. Petrolatum tape piling wrap materials are planned for protection and enclosure of existing steel piling, as an alternative to liquid coating materials.

### **TRIPLE BOTTOM LINE:**

Preserving existing assets defers high-impact and high cost asset replacement and therefore reduces environmental impact and supports the economic vitality by reducing Port costs and

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generating construction jobs. The proposed construction methods will have minimal noise and traffic impact to the surrounding community.

### **ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:**

- Proceed with design and permitting for a comprehensive corrosion control project for Pier 69 North Apron. **This is the recommended alternative.**
- Do nothing and continue to monitor the condition of the north apron. This alternative is not recommended because recent inspections revealed that corrosion has already begun to occur. Not installing the corrosion control system will lead to structural failure and the need for more costly replacement. Replacement of the North Apron would cost in the tens of millions of dollars and would have significant impact on operations and the environment.

### **OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:**

Photos of pilings under the north apron of Pier 69

### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:**

None