MANAGING MEMBERS
ACTION ITEM
Item No. 5C
Date of Meeting October 4, 2016

DATE: September 8, 2016
TO: Managing Members, The Northwest Seaport Alliance
FROM: Sponsor: Tong Zhu, Chief Commercial Officer, Container & Real Estate, NWSA
Project Manager: Anne Porter, POS Capital Project Manager
SUBJECT: Terminal 18 Dock Rehabilitation – Design Funding Authorization

A. ACTION REQUESTED

Request project authorization in the amount $200,000 for a total authorized amount of $350,000 to complete design and permitting for dock rehabilitation at Terminal 18 (T-18), Master Identification No.C800600.

As referenced in NWSA Resolution No. 2015-06, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.b.iii., project costs exceeding $300,000 require approval from Managing Members.

B. SYNOPSIS

This memo requests approval for permitting, design, and project management funding in the amount of $200,000 for the proposed T18 Dock Rehabilitation project. This project includes rehabilitation and improvements to T-18 piles and toe wall that have deteriorated with the passage of time. Specifically, the project will address deterioration of steel-reinforced concrete piles, repair gaps in the sheet pile toe wall, and reattach zinc anodes that provide corrosion protection of the toe wall. Completion of this project is expected to preserve the existing use and capacity of the T-18 dock. It was included in the 2016 capital budget. Total project costs are estimated at $1,639,000.

C. BACKGROUND

In 2011, the Port of Seattle completed detailed condition surveys of concrete docks. The 2011 condition survey of the T-18 dock confirmed and expanded on prior survey findings regarding deterioration of key elements of the dock, including the piles, pile caps, deck panels and toe walls. Included in the Dock Condition Assessment Report is information describing the causes of this deterioration and recommendations for rehabilitation, including optimal scheduling and
estimated costs. The report also proposes a schedule for ongoing inspections of the dock. Combined, these steps are designed to ensure the dock remains fully in service over time.

T-18 is fully leased and is actively used for movement of both import and export cargo between ships, trucks and rail. Accordingly, the project will need to be performed in stages to enable terminal operations to continue with minimum disruption. Coordination with the tenant will be important to management of the project.

The project was anticipated in the 2016 operating expense budget and budgeted expenditures are consistent with this request.

D. PROJECT DESCRIPTION AND DETAILS

The matter before the Managing Members is limited to funds to complete the permitting, design and project management to rehabilitate piles and toe wall sections that have deteriorated with the passage of time.

Project Objectives

Project objectives include timely rehabilitation of the dock system at T-18 to extend the existing useful life.

Scope of Work

Replace One Pile and Repair 39 Piles – Inject grout into cracks and spalls; replace one pile that is broken; and install jackets around piles in areas where there is deterioration; includes replacement of one existing pile jacket. This work is expected to preserve and extend the useful life of the piles that support the rehabilitated dock elements.

Toe Wall – Repair cathodic protection in areas where two anodes have detached and patch a total of 12 gaps to prevent further sloughing of materials into the berth. This work is expected to extend the life and maintain functionality of the toe wall through the extended life of the rehabilitated dock elements.

Schedule

Design and permitting will occur in 2016, followed by construction in late 2017 due to construction window for in-water work.

E. FINANCIAL IMPLICATIONS

Project Cost Details

<table>
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<tr>
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<th>This Request</th>
<th>Total Project Cost</th>
<th>Cost To Date</th>
<th>Remaining Cost</th>
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<td><strong>Total</strong></td>
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Source of Funds

The 2016-2020 Capital Improvement Plan allocates $1,639,000 for this project, of which $139,000 has already been spent.

Financial Impact

Total project costs will be capitalized, resulting in annual depreciation of $55,000 over a 30-year life. There will be no depreciation until the construction is completed. No incremental revenue is associated with this project, and incremental operating expense, if any, is not yet known.

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Do Nothing: No action at this time would result in delayed rehabilitation of piles and toe wall, increasing costs in the future, as the conditions are expected to worsen. For example, piles affected by delayed ettringite formation will deteriorate further and need replacement. Toe wall conditions contribute to sloughing of slope material into the berth creating high spots requiring maintenance dredging that would otherwise be avoided.

Alternative 2) This request: Completing the rehabilitation of piles and toe wall will extend the life and function of the wharf and enable operations to continue unimpeded.

Alternative 2 is the recommended course.

G. ENVIRONMENTAL IMPACTS/REVIEW

Permitting: The project as currently configured would be covered under the Port of Seattle’s programmatic piling permit. The programmatic permit contains construction conditions to protect the environment that will be included as part of the construction specifications and bid conditions.

Water Quality: Conditions include protection of water quality by minimizing the amount of material that will enter the water.

H. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation

I. PREVIOUS ACTIONS OR BRIEFINGS

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<td>July 21, 2015</td>
<td>Pre-Design Authorization*</td>
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<td>March 11, 2014</td>
<td>Terminal 18 Dock Rehabilitation Briefing</td>
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*Pre-Design Authorization was approved at the Division level per delegation authority allowed by Port of Seattle policy.