PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 6c

Date of Meeting March 9, 2010

DATE: February 17, 2010

TO: Tay Yoshitani, Chief Executive Officer

FROM: Michael Burke, Director, Cargo and Container Operations
Mark Longridge, Capital Project Manager

SUBJECT: Fender system improvements at Terminal 18 South
CIP #C800121

Amount of this request: $2,850,000 **Source of Funds**: General Operating Funds

Est. State and Local Taxes: $235,000 **Est. Construction Jobs Generated:** 24

Approving This Amount Possibly Commits a total of $3,300,000 This Year or in Future Years.

ACTION REQUESTED:

Request authorization for the Chief Executive Officer to advertise, award and construct 800 feet of replacement fender system at Terminal 18 South in the amount of $2,850,000, for a total funding authorization of $3,300,000.

SYNOPSIS:

The fender system at the southerly berth at Terminal 18 (T-18) is now beyond its expected useful life and is in need of replacement. This request seeks authorization to replace 800 feet of fender system replacement of the 1200 feet of fenders. This work will create two full barge berths at T-18 South. Final design estimate of this project was included in the 2010 Plan of Finance. Total project cost, including design, permitting, and construction is $3,300,000.

PROJECT DESCRIPTION AND JUSTIFICATION:

The southern 1200 feet of dock at Terminal 18 has been used for break bulk and barge traffic. The timber fender system for that section is well beyond its estimated useful life and needs to be replaced. Replacing the fender system with steel piling instead of timber will be more cost effective in the long term.

Westway Feeds has primary berthing rights for the most southerly 400 feet of berth at T-18. Westway also has secondary rights to 300 feet of berth north of their primary berth. On February 10, 2009, the Commission authorized the second amendment to the lease with Westway Feeds. This amendment committed the port to replacing the fender system for both the primary and secondary berth for Westway. Westway agreed to a minimum revenue guarantee for dock charges in exchange for the Port constructing these improvements. Staff is also requesting the Commission authorize an additional 100 feet of fender system replacement in this area, making the entire fender project 800 feet. This would create two full barge berths at Terminal 18 South.

At the Commission's request, staff has completed design and permitting applications for the full 1200 foot area. However, due to the additional cost of construction, replacing the fender system on the most northerly 400 foot section of the break bulk berths is not recommended at this time.

PROJECT SCOPE OF WORK AND SCHEDULE:

Overall project scope would include the replacement of 800 linear feet of old and deteriorated fender pile system along with the remaining bullrail and brow at the south end of T-18 with a new steel fender system to facilitate barge moorage for existing lease tenants and transitory barge traffic.

Current Estimated Project Schedule:

100% Design Complete	March 1, 2010
Major Works Construction Advertisement	May 1, 2010
In-Water Construction Start	December 1, 2010
Construction Complete	March 1, 2011

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary

Previous Authorizations	$450,000
Current request for authorization	$2,850,000
Total Authorizations, including this request	$3,300,000
Remaining budget to be authorized *(assuming successful bidding process)*	0

Project Cost Breakdown

Design Services	$265,000
Permitting	$70,000
Project Management	$135,000
Construction	$2,490,000
WA State Sales Tax	$235,000

Construction Management	$105,000
Total	$3,300,000

Source of Funds

This project was included in the 2010 Plan of Finance under Committed CIP#C800121, T18 South End Fendering, in the amount of $3,100,000. The current estimate for all phases is $200,000 or 6.5% above the original project estimate due to higher anticipated construction costs. The additional $200,000 in funding needed is expected to be available due to timing differences in other capital projects.

This project will be funded from the general fund.

Financial Analysis Summary

CIP Category	Renewal/Enhancement
Project Type	Renewal & Replacement
Risk adjusted Discount rate	7.5% for Westway lease revenue 9.0% for other barge layberth revenue
Key risk factors	• Key risk factors include permitting delays and potential cost overruns due to project complexity/timeframe. • The estimated financial return on this project is based on Westway exercising their 10 year option to extend the lease from Sept 2018 to Sept 2028. In addition, based on a 30 year asset life, it assumes an additional 12.4 years of estimated revenue from barge layberth activity through Feb 2041. • Financial performance could be lower if Westway does not exercise their option and/or if barge layberth usage or market rates are lower than anticipated in the analysis.
Project cost for analysis	$3,300,000
Business Unit (BU)	Container Support Properties
Effect on business performance	This is a renewal and replacement project and, accordingly, this project preserves revenue rather than creates new revenue. Fender replacement at the south end of Terminal 18 will allow continued operation of break bulk and/or other barge layberth activity for approximately 30 years from date of completion. The estimated impact on Net Operating Income (NOI) and NOI after Depreciation in Year 1 through Year 5 is shown below.

NOI (in $000's)	2010	2011	2012	2013	2014
NOI	$2	$2	$245	$245	$245
Depreciation	$0	($92)	($110)	($110)	($110)
NOI After Depreciation	$2	($90)	$135	$135	$135

IRR/NPV	<table><tr><th>NPV (in $000's)</th><th>IRR</th><th>Payback (in years)</th></tr><tr><td>**($644)**</td><td>**5.9%**</td><td>**16**</td></tr></table> Due to the increase in estimated project costs and the timing delay in construction, the NPV of this project has decreased from ($285K) to ($644K) and the IRR has decreased from 6.3% to 5.9%.

STRATEGIC OBJECTIVES:

This project supports the Port's strategies to "Ensure Airport and Seaport Vitality" and "Exhibit Environmental Stewardship through our Actions", by:

- Replacing the fender system at the Terminal for berthing.
- Improving water quality by removing creosote treated timber piles from the marine environment.
- Replacement of the fender system in this area is a renewal and replacement project for the Seaport. It will help protect dock revenue the Port currently gets and may allow for some additional barge business in the future.

SUSTAINABILITY AND LIFE CYCLE COSTS:

In considering the replacement of the existing timber fender system several alternatives materials and systems were considered. Replacement of the timber system in kind, or with a steel, plastic or concrete fender system was evaluated for their performance at this site. The evaluation considered not only life cycle costs, but also structural performance, maintenance frequency, environmental feasibility and constructability issues. While steel fender systems do have higher initial costs, the overall life cycle cost proved lower than the comparable timber, concrete or plastic systems. This paired with increased protection performance of the steel system made it the recommended choice of material.

- *What plans have been made to reduce maintenance costs?*
  This project replaces an essential part of the protective system for T18S (fender piling). The project will by definition reduce maintenance costs to the Terminal by preventing damage from barges and vessels impacting the apron structure. Also, the proposed steel fender system has the lowest expected maintenance effort of the materials considered for this system

- *What is the design life span of this project?*
  Thirty (30) Years

- *What plans have been made to reduce chemical and pollutant source control (low volatile organic compounds) in the construction of this project to improve air quality?*
  This project will remove creosote treated piles and replace them with steel fender piles. In addition, due to the increased capacity of the steel system the pile spacing has been doubled therefore requiring half as many piles, further improving water quality and local environmental conditions.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Replace 800 feet of fender system: Proceeding with the advertisement, award and construction for the 800 foot section of the south Terminal 18 berths would satisfy the current lease obligations, and protect the terminal in actively leased areas. This option would not address the additional 400 foot section of failed fender system. The cost for this option is more than originally anticipated in the CIP budget but combined with the anticipated minimum revenue stream from Westway, can still give the Port a reasonable return on the investment. **This is the recommended option.**

Replace 1200 feet of fender system: The design and permitting for this project have been completed for the full 1200 foot area of currently deteriorated fender system. Proceeding with the construction for the full 1200 foot section of the south Terminal 18 berths would better protect the facility, and not leave 400 foot of the pier face without any fender system. However, this option is estimated to cost a total of $4,500,000, an additional $1,200,000 without an identified increase in potential revenue stream from Westway or other potential tenants.

Do Nothing: Doing nothing at this time would mean the Port is not meeting its minimum lease obligation to provide 700 feet of primary and secondary berth to Westway.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

June 3, 2008: Policy and Staff Briefing – Industrial Moorage Initiative

February 10, 2009: Authorization for design and permitting of fender system improvements at Terminal 18 South