PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 5a

Date of Meeting July 27, 2010

DATE: July 9, 2010

TO: Tay Yoshitani, Chief Executive Officer

FROM: Dave Soike, Director, Aviation Facilities and Capital Program
Wayne Grotheer, Director Aviation Project Management Group

SUBJECT: C-1 Lift Station Lid Design and Repair (CIP # C102163).

This Request: $0

Source of Funds: Previously authorized project funds and potential reimbursement

Total Project Budget: $315,000

Jobs Created: 10

Sales Tax Paid: $22,500

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to (1) execute a no-cost contract with URS Corporation (URS), the designer-of-record, to design repairs to the C-1 Lift Station Lids, and provide construction support services at Seattle-Tacoma International Airport (Airport); and (2) authorize Port Construction Services (PCS) to perform work. If consistent with small works rules, construction may be accomplished with small works contracts and/or PCS crews; otherwise, Airport staff will return for authorization to advertise and award a major construction contract. The estimated total project cost is $315,000 (CIP # C102163).

SYNOPSIS:

The C-1 Lift Station Lid design and repair is needed to replace the existing lids, which are not adequate for the intended purpose. One lid has already failed under the weight of an Alaska Airlines glycol truck. Subsequent analysis of the failed lid indicated the concrete lid was not designed to support the expected vehicle weight on the airfield. The analysis also indicated that the construction did not comply with the design, also contributing to the structural failure. For future projects, all structural load bearing design elements of a project will be identified and supporting documentation provided to the Airport Building Department during the building permit review process. This will ensure that the structural calculations receive independent review. Under the terms of the Owner Controlled Insurance Program (OCIP), the designer-of-record is responsible for the first $250,000 in repairs, including redesign fees. In addition to the extent that construction related defects are demonstrated, then the contractor may be responsible for some repair costs. The repair work will be accomplished, while the Port pursues proper cost sharing.

BACKGROUND:

On December 1, 2009, an Alaska Airlines Glycol truck broke through a concrete lid over the C-1 pump valve vault. The C-1 pump system handles the industrial waste run-off for the northern half of the airfield, and was constructed as part of the C-1 Baggage Handling System (BHS) project. The C-1 pump system replaced an existing drainage system that had to be removed to accommodate construction of the C-1 building. The C-1 pump system consists of a mixing vault, four 5,000 gallons per minute pumps which discharge to a four valve manifold system located in an adjacent valve vault. Both the pump vault and the valve vault have four removable concrete lids to provide maintenance access to the respective vaults. The lid panel that failed was one of the valve vault lid panels. All of these concrete lid panels need to be replaced, four panels for the valve vault, four panels for the pump vault and one panel for the mixing vault, for a total of nine lid panels. Currently, this area of the ramp is barricaded off from vehicular traffic. The concrete lids were constructed on May 25, 2005. The vault construction preceded the construction of the concrete lids.

The OCIP carrier was notified, and they hired a forensic engineering firm to conduct an investigation into the failure. The engineering firm's report indicated that design was defective for the anticipated loads to be encountered, and the construction of the panels by the construction contractor was also defective as it was not in compliance with the design. Previously, the OCIP carrier had indicated that they would provide a corrective redesign for the repairs. In late April, the OCIP carrier notified the Port they would not direct their forensic engineer to provide a corrective design but rather that the Port is responsible for the redesign effort and subsequent construction, including related Project Management. The Port will then pursue reimbursement under the OCIP program at the completion of the project. Any claim submitted by Alaska Airlines for damages to their glycol vehicle will be covered under the OCIP policy.

The designer-of-record, URS, was notified of the incident and has offered to provide a redesign that would comply with the Port's requirements for airfield loading at no additional cost to the Port. They are aware of their financial liability and wish to limit their liability exposure while at the same time limiting their out of pocket expenditures by not having to pay for a third party designer. URS has the in-house resources to provide a corrective redesign.

The use of URS to provide a replacement design would be accomplished by entering into a no-cost Service Agreement. Construction of the replacement vault panels would be contracted using appropriate procurement methods. At this time, it is estimated the construction amount would fall within the Small Works contracting limits of $300,000.

Following construction of the replacement concrete lid panels, reimbursement to the Port will be pursued under the terms of the OCIP program. URS is responsible for a $250,000 deductible before the OCIP insurer pays the remainder, if any. Recovery of the deductible from the designer-of-record is the responsibility of the Port and will be pursued. To the extent that the failure of the vault panel may have been related to any construction defects, there may be a

responsibility toward an additional deductible by the general contractor. This will also be pursued by the Port as appropriate.

Of the currently estimated $315,000 cost to rebuild, $25,000 will be expense funded for the demolition of the existing system, and the remainder will be funded by existing capital funds in the C-1 BHS Program.

PROJECT DESCRIPTION/SCOPE OF WORK:

Project Statement:
Design a replacement panel system capable of supporting airfield traffic loads, and contract for the construction of the necessary repairs to the C-1 pump lids system.

Project Objectives:
Provide a C-1 pump lid replacement panel system that will accomplish the following:

- Provide vault panels that will safely support the anticipated vehicular loads.
- Provide vault panels that are capable of being removed for maintenance access to the valve vault, pump vault and mixing vault, including replacement of the pumps.
- Allow unrestricted vehicular access to the C-1 pump system and adjacent structures.

Scope of Work:
Enter into a Service Agreement at no cost to the Port with URS to provide a corrective redesign, and to contract for the repairs.

STRATEGIC OBJECTIVES:

This is a latent defect repair to a capital project to restore operational capability.

FINANCIAL IMPLICATIONS:

Project Cost Breakdown	**This Request**	**Total Project**
Construction costs	$225,000	$225,000
Sales tax	$22,500	$22,500
Outside professional services	$0	$0
Aviation PMG and other soft costs	$67,500	$67,500
Total	$ 315,000	$ 315,000

Source of Funds and Financial Implications:

Any unreimbursed costs will be included in airline rate base. Demolition costs will be accounted for as expense, while the costs to rebuild the lids will be capitalized. The original project (CIP # C102163) has budget savings of $2.7 million. This will be used to cover any unreimbursed capital costs. The funding source will be the Airport Development Fund.

TRIPLE BOTTOM LINE SUMMARY:

This is a latent defect repair to a capital project to restore operational capability.

PROJECT SCHEDULE:

Following is a list of key milestone dates for the C-1 Pump Station Lid Replacement Project Construction work will be planned for the dry, summer season:

- Start Preliminary Design — August 2010
- Complete Design — November 2010
- Seek approval from Commission to advertise (if needed) — February 2011
- Award Contract — March 2011
- Anticipated Start of Phased Construction — May 2011
- Anticipated Project Completion — September 2011

ALTERNATIVES CONSIDERED/RECOMMENDED ACTION:

Alternative 1 – Proceed with negotiating a no-cost Service Agreement with URS to design repairs, and then proceed to issue a Construction Contract to effect the needed repairs. **This is the recommended alternative.**

Alternative 2 – Proceed with a normal procurement process whereby we select a third party design firm to perform the design. This process would add one to two months to our repair timeline. This is not the recommended alternative.

Alternative 3 – Do nothing. Continue to barricade that part of the ramp area and not use the area for vehicle transit or parking. This is not the recommended alternative.

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

- Map showing location of C-1 Pump Station.

PREVIOUS COMMISSION ACTION:

On October 3, 2007, the Commission authorized $34,000,000 for the C-1 BHS project, bringing the total authorization to $230,517,104 (CIP # C102163).

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