# PORT OF SEATTLE MEMORANDUM

COMMISSION AGENDA	Item No.	6b
	Date of Meeting	April 13, 2010

**DATE:** March 26, 2010

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

**FROM:** Michael Smith, Mechanical Manager, Aviation Facilities and Infrastructure

Wayne Grotheer, Director, Aviation Project Management Group

**SUBJECT:** Renewal and Replacement of 42 Escalators and 2 New Escalators project at

Seattle-Tacoma International Airport (CIP # C800237).

**Amount of This Request:** \$51,817,000 **Source of Funds:** Airport Development Fund

& Future Bonds

**Amount of Sales Tax:** \$3,801,000 **Number of Workers Employed:** 80

#### **ACTION REQUESTED:**

Request Port Commission authorization for the Chief Executive Officer (CEO) to advertise a request for qualifications, issue a request for proposals, execute the design-build contract, apply a Project Labor Agreement, and construct the Renew/Replace 42 Escalators and 2 New Escalators project (CIP # C800237) at Seattle-Tacoma International Airport (Airport) for an additional amount of \$51,817,000, bringing the total authorization to \$55,000,000.

## **SYNOPSIS:**

This memorandum requests approval to advertise a Request for Qualifications and authorization to execute a design-build construction contract, in accordance with RCW 30.10.280 and 300 – 330, to replace forty-two (42) existing escalators in the Main Terminal, Concourse B, and the South Satellite, and install two new escalators in the South Satellite. These escalators are critical infrastructure essential to the operation of Sea-Tac International Airport. The subject escalators have reached the end of their useful service life, resulting in increasing levels of repairs and impacts on the traveling public. The installation of the new escalators will reduce annual escalator repair costs by an estimated \$250,000 and achieve an estimated 20% increase in energy efficiency. The use of a Project Labor Agreement is recommended for this project to avoid potential work stoppage and benefit safety. The Commission previously authorized \$3,183,000 for design on July 22, 2008. This authorization for construction will increase the project authorization by \$51,817,000 for an estimated total project cost of \$55,000,000. The airline cost per enplaned passenger (CPE) will increase incrementally by \$0.22 through 2013, which had earlier been factored into the 2010 - 2014 business plan forecast.

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# **BACKGROUND:**

The escalators included in this project have been in daily use since their installation in the early 1970's and have reached the end of their useful service life. Several of the escalators have failed over the past few years causing passenger disruptions and requiring costly emergency repairs. In an effort to lessen the impact of further failures, a significantly higher level of repairs and maintenance has also been necessary, resulting in continuing impacts on the traveling public and increased maintenance expenses. Due to the age of these escalators, repair parts are difficult to obtain and sometimes are only available through custom manufacturing which is expensive and has long lead times. The level of the recent repairs has only marginally improved reliability due to the age of the escalator components, with a propensity for further failures despite increased levels of inspection and maintenance.

This project will be executed using the "Design-Build" contracting method in accordance with RCW 39.10.280 and 300-330. The project was approved by the legislatively-mandated Capital Projects Advisory Review Board (CPARB), Project Review Committee on February 2, 2010, to use the Design-Build method. This contracting method promotes competition and innovation necessary to address the complex construction methodologies and scheduling issues in this project, in order to minimize disruptions to the traveling public and airport operations while maximizing schedule performance. Performance specifications will be established that can be addressed by multiple manufacturers and/or general contractors. This approach allows the Port to evaluate and select the design-builder based on technical qualifications/approach and price, using a specifically defined set of evaluation criteria. The award will be based upon the highest scored proposal but not necessarily the lowest price, as determined by the Port. The Port previously stated in the July 2008 Commission Memorandum its intent to use a "Best Bid" approach, however, it was later determined that the applicability of the Best Bid procedures for the type of selection desired for this project was uncertain. The use of the Design-Build method will achieve the same approach but within defined statutory contracting procedures including CPARB approval..

Under the design-build method, the Port will publicly advertise a Request for Qualifications from which no more than five respondents will be selected to submit a Request for Proposal (RFP). The proposers will prepare and submit their proposed technical approach, escalator product, and price. The successful proposer will perform the design, manufacturing and installation in accordance with the RFP requirements. As required by RCW39.10.330, honorarium payments will be provided to finalists submitting best and final proposals that are not awarded the contract.

As provided by Resolution No. 3605 (Section 4.2.3.2), the CEO will promptly notify the Commission of the award. The Commission has five business days after the CEO's notification to request a delay in award.

The use of a Project Labor Agreement is recommended for this project. The primary factors contributing to the recommendation are the inclusion of a no-strike clause to avoid the potential

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for work stoppage and subsequent impacts on airport operations and to the traveling public, and a substance abuse prevention program to benefit safety.

# PROJECT DESCRIPTION/SCOPE OF WORK:

## Project Statement:

This project will replace 42 existing escalators that have reached the end of their useful life, and include the installation of 2 new escalators at the South Satellite by December 2013 for \$55,000,000.

## **Project Objectives:**

- Remove and replace the 42 existing escalators in an accelerated manner with the least amount of disruption to Airport operations as possible.
- Install 2 new escalators in the South Satellite to improve operational performance and reliability, and address future passenger growth.
- Include heavy-duty escalator components for improved reliability and overall longevity.
- Increase the energy efficiency of the escalators.

#### Scope of Work:

Remove and replace 42 existing escalators at the Airport with new heavy-duty escalators in the same locations and configurations, and add 2 new escalators at the South Satellite. The new escalators in the South Satellite will be installed adjacent to the existing escalators traveling from the transit station level, up to the mezzanine level, and continuing up to the concourse level. The second new escalator between the transit station and the mezzanine was added following the original Commission authorization to address future capacity demands and maintenance flexibility. The escalators will meet all current escalator code requirements, and provide a safe convenient mode of vertical transportation for the traveling public.

## **STRATEGIC OBJECTIVES:**

#### **Ensure Airport and Seaport Vitality**

The project provides enhanced reliability and performance for critical vertical transportation in significant areas of the Airport, which facilitates use of the Airport by the traveling public.

#### **Exhibit Environmental Stewardship through Our Actions**

This project is consistent with the Port's goal of improving the long term sustainability of its facilities and operations. This project supports and encourages Airport environmental initiatives. This project has a generally positive effect on the environment to the extent that the new escalators will have features that improve energy efficiency compared to the existing units. The energy efficient features adjust the speed and energy use of the escalators based on load and usage.

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# **FINANCIAL IMPLICATIONS:**

# **Budget/Authorization Summary**

Original Budget	\$55,000,000
Budget Increase	\$0
Revised Budget	\$55,000,000
Previous Authorizations	\$3,183,000
Current request for authorization	\$51,817,000
Total Authorizations, including this request	\$55,000,000
Remaining budget to be authorized	\$0

# Project Cost Breakdown Total Project

Construction costs	\$41,161,000
Port furnished equipment	\$0
Sales tax	\$3,801,000
Outside professional services	\$1,343,000
Art Program	\$262,000
Aviation PMG and other soft costs	\$8,433,000
Total	\$55,000,000

Given the nature of the design-build process being used for the escalator project, the accelerated schedule, and the difficulty of integrating artwork into the specification criteria for the escalator units, the Port will establish a separate work project for the art. The Art Oversight Committee will be defining an art plan for this project.

## **Source of Funds**

This project (CIP # C800237) was included in the 2010-14 capital budget and plan of finance as a committed project with a budget of \$55.0 million. The funding source will be the Airport Development Fund and/or future revenue bonds. A new revenue bond issue is planned for the second half of 2010.

# **Financial Analysis**

CIP Category	Renewal/Enhancement
Project Type	Infrastructure Upgrade
Risk adjusted Discount rate	N/A

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Key risk factors	N/A	
Project cost for analysis	\$55,000,000	
<b>Business Unit (BU)</b>	Terminal	
Effect on business performance	Increase NOI after depreciation	
IRR/NPV	N/A	
CPE Impact	CPE will increase incrementally through 2013 at	
	which point approximately \$.22 will have added to	
	CPE; however, this project was already included in	
	the budgeted business plan forecast so there is no	
	change.	

## **ECONOMIC IMPACTS:**

The Airport will provide a higher level of service to the traveling public, while reducing escalator repair costs an estimated \$250,000 annually.

# **ENVIRONMENTAL SUSTAINABILITY/COMMUNITY BENEFITS:**

The new escalators will be 20% more energy efficient than the existing escalators reducing the carbon footprint for this activity.

#### TRIPLE BOTTOM LINE SUMMARY:

This project will reduce the overall maintenance costs by reducing the high costs of emergency repairs. This effort reduces the Airport's exposure to liability by replacing the escalators that are beyond their useful life. Ensuring that the Airport's vertical transportation system is safe and reliable promotes efficient Airport operations to benefit the traveling public.

## **PROJECT SCHEDULE:**

•	Commission Authorization to Advertise	April 2010
•	Advertise Request for Qualifications	May 2010
•	Issue Request for Proposals	June 2010
•	Commission Authorization to Award (if needed)	December 2010
•	Design/Installation Start	January 2011
•	Installation Complete	December 2013

## ALTERNATIVES CONSIDERED/RECOMMENDED ACTION:

Alternative 1: Proceed with the Renew/Replace 42 Escalators and 2 New Escalators project using the "Design-Build" contracting method. This approach renews and upgrades the aging escalators at the Airport, improving passenger flow through the reduction of service outages. This contracting method provides the opportunity for competitive delivery schedules and design

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solutions, and effective pricing by proposers. This method will shorten the overall schedule and decrease the risk associated with the traditional design-bid-build approach. This is the recommended alternative.

Alternative 2: Continue the repair and maintenance of the existing escalators. This is a reactive approach that disrupts passenger flows throughout the facility and is not cost effective. This is not the recommended alternative.

Alternative 3: Proceed with the Renew/Replace 42 Escalators and 2 New Escalators project using the "Design-Bid-Build" contracting method. This approach renews and upgrades the aging escalators at the Airport; however, the traditional Design-Bid-Build contracting method does not adequately allow for innovation and competition by prospective manufacturers and/or general contractor. This method would base the selection on price versus best overall approach that considers technical approach and price, lengthen the overall schedule, and put the Port at greater risk for design changes, schedule delays, and change orders. This is not the recommended alternative.

# **ATTACHMENTS:**

None.

## PREVIOUS COMMISSION ACTION:

On September 22, 2009, the Commission was briefed on the Airport's "Facility Functionality and Readiness", which included a short discussion of the escalators and elevators.

On July 22, 2008, the Commission authorized \$3,183,000 to prepare the performance specifications and preliminary design for the Renew/Replace 42 Escalators and 1 New Escalators project at Seattle-Tacoma International Airport. The current request includes an additional new escalator, as noted in the Scope of Work section.