PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 5c

Date of Meeting **5/10/2011**

DATE: April 29, 2011

TO: Tay Yoshitani, Chief Executive Officer

FROM: Ralph Graves, Managing Director, Capital Development Division

SUBJECT: Change Order #02 for the Terminal Escalators Modernization Project at Seattle – Tacoma International Airport, Contract MC-0316531, CIP C800237

Amount of This Request: $462,000 **Total Project Cost**: $17,407,000

Source of Funds: Design Build Contract Contingency. No additional funds required

Est. State and Local Taxes: $1,653,665 of Total Project Cost **Jobs Created:** None

ACTION REQUESTED:

Request authorization for the Chief Executive Officer to issue Change Order Number 02 for Contract MC-0316531 for the Terminal Escalators Modernization Project at Seattle-Tacoma International Airport in an amount not to exceed $462,000 to change certain escalator balustrades from high-deck stainless steel to low-deck glass; to change the escalator cladding from the existing dark bronze to stainless steel on certain escalator balustrades; to install deceleration "sleep mode" sensors in escalator newel ends; and to change the step lighting from balustrade to skirt panel for 34 replacement escalators. The total project cost is $17,407,000. No additional project funds are being requested for this change order; funds are available from the contract construction contingency.

SYNOPSIS:

This project provides for the replacement of forty-two (42) escalators in the Main Terminal, Concourse B, and the South Satellite and installation of two new escalators in the South Satellite. These escalators are critical infrastructure essential to the operation of Seattle-Tacoma International Airport (Airport) and have reached the end of their useful service life.

This change order provides for changes to the escalators to upgrade the appearance of the escalators in the Main Terminal consistent with previous terminal projects, and provide sensors in the escalators to activate an energy-saving feature that decelerates the units when not in use. The change order will be issued for a not-to-exceed amount of $462,000 and costs will be reconciled in a future change order after the Port has completed evaluation and negotiation with the contractor.

The source of funds for this change order would come from the contract construction contingency, requiring no additional funds. The project schedule remains unchanged.

BACKGROUND:

This project has utilized the Design-Build contracting method. Turner Construction Company (Turner) was the selected firm with contract execution on February 9, 2011. The contract amount is $16,945,000 with a contract completion date of May 2013.

The project is now proceeding through the final design phases, which are being performed by Turner. The Port has identified several changes to the escalator units that will provide features considered beneficial to the Airport. As part of an effort to continue the more contemporary, brighter appearance and design character of the past decade's South and Central Terminal Expansion projects, project changes will include glass escalator balustrades (sides) and stainless steel cladding under the escalators for 22 of the Main Terminal escalators. The glass balustrades had previously been considered during the procurement process last fall. However, the more recent Airport initiative to upgrade the appearance of the Main Terminal was not under consideration at that time, and the Port then elected to retain the more durable stainless steel balustrades. To address the durability aspect of the balustrades, this change order includes a more impact-resistent laminated glass versus the standard tempered glass balustrade.

Sensors are also being added in the end panels for all 44 escalators to activate in the near future pending anticipated State of Washington (WAC) Escalator code revisions an automatic deceleration "sleep mode" feature that provides significant energy savings when the units are not in use. The original units include the software necessary for the sleep mode feature in anticipation of the future regulation change. Recent discussions with the regulatory agency indicate a more favorable time frame for activation than previously known. Installing the sensors at this time allows for an earlier activation of the sleep mode feature and is more cost effective since the work will be done during the manufacturing process versus a more costly field installation.

CHANGE ORDER DESCRIPTION:

The following information relates to the pending change order scope and cost:

Change Order No. 02

- **Scope of work:** REVISE the escalator units as follows:
    1. Change escalator balustrades from high-deck stainless steel to low-deck glass in the Main Terminal for the 16 sky bridge units and six (6) North and South

Main Terminal Train Station units including the relocation of the adjacent stairway railings, estimated at $360,000;

2. Change escalator cladding from the existing dark bronze to stainless steel for 16 sky bridge units and six (6) Main Terminal Train Station units, estimated at $77,000 credit;
3. Installation of deceleration "sleep mode" sensors in escalator newel ends (44 escalators), estimated at $196,000; and
4. Change step lighting from balustrade to skirt panel for 34 replacement escalators, estimated at $17,000 credit.

The contractor shall proceed for a total amount NOT TO EXCEED $462,000. Costs will be reconciled in a future change order after the Port completes the proposal evaluation and negotiation with the contractor.

JUSTIFICATION:

The contract provides for escalators with high-deck stainless steel balustrades and dark bronze cladding encasing the bottom of the escalator, comparable to the existing escalators. The 22 escalators affected by this change are in the Main Terminal, serving the baggage claim, sky bridge and ticketing levels, and from the Main Terminal North & South Train Stations to the baggage claim level. Replacing the existing opaque, stainless steel balustrades and dark bronze cladding with new glass balustrades and stainless steel cladding will contribute toward a more contemporary appearance that continues the ambience and design character of the South and Central Terminal Expansion projects into the older parts of the terminal. Further, the transparency of the glass, and reflectivity of both glass and stainless steel will create a brighter, more open space throughout the escalator well, from the ticket lobby through the bridge level and baggage claim lobby.

The cost associated with the glass balustrade is a result of upgrading the typical tempered glass to a stronger, shatter-proof laminated glass. Further, the railings for the adjacent stairways will need to be independently supported rather than the existing method of being secured to the stainless steel balustrades. The credit for the stainless steel cladding is a result of the replacement of the existing dark bronze cladding, which is more expensive and harder to obtain than the readily available stainless steel material.

The current project scope includes the installation of the internal electronic controls/software to allow automatic deceleration and acceleration of the speed of the escalators based on passenger use. This "sleep mode" feature provides for substantial energy savings (up to 50 percent) depending on passenger frequency as well as reduces repair/maintenance costs. Current safety code does not allow for operation of the sleep mode feature at this time, although the code is expected to change as early as 2012 if not earlier through provision of a variance. The proposed change is to provide for the installation and field testing of the external sensors in each unit to activate the sleep mode feature.

The original project scope has the escalator step lighting located in the stainless steel balustrades. The change to a glass balustrade requires the relocation of the step lighting to the lower escalator skirt panels. The level of illumination is unchanged.

Not proceeding with the change to glass balustrades and stainless steel cladding would negate the opportunity to achieve the benefits of upgrading the appearance of the Main Terminal as well as continuing the design character of the South and Central Terminal. Installing the sleep mode sensors at a later date after the new escalators are installed would approximately double the cost due to the need to undertake the installations in the field versus the factory. The current schedule for manufacturing of the escalators requires the Port to direct these changes now regarding the balustrades, step lighting, and sensors in order to maintain the contractor's schedule for delivery of the first escalator units in July 2011.

FINANCIAL ANALYSIS:

The funds to pay for this change order are part of the $1,694,500 construction contract contingency. No additional project funds are being requested as a result of this change order.

CONTRACT INFORMATION:

The following information relates to the contract and competitive award:

Contract award date:	February 9, 2011
Original period of performance:	February 9, 2011, through May 15, 2013
Previous contract extensions:	0 Days
Contract extension this change order:	0 Days
Current Contract Completion Date:	May 15, 2013

FINANCIAL INFORMATION:

Original contract amount:	$16,945,000
Previous Change Orders Executed:	$0
Current contract amount	$16,945,000
This request, Change Order No. 02	$462,000
Subtotal Construction Costs	$17,407,000
Anticipated WSST @ 9.5%	$1,653,700
Revised Contract Amount	$19,060,700

PREVIOUS COMMISSION ACTION:

February 1, 2011, the Commission authorized execution of a contract with the selected Design-Build team and to construct the Terminal Escalators Modernization Project at a total estimated cost of $55,000,000.

June 22, 2010, the Commission authorized the issuance of a Request for Proposals under the Design-Build contracting procedure.

May 4, 2010, the Commission tabled a request to issue an RFP pending further information concerning the need for revenue bond financing for this project.

April 13, 2010, the Commission authorized the advertisement of the RFQ under the Design-Build contracting procedure, and the application of a PLA. The project scope was changed to include a second new escalator in the South Satellite.

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 Escalator project at Seattle-Tacoma International Airport.

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.