

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 6b

Date of Meeting January 24, 2012

DATE: January 12, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group

SUBJECT: Airfield Pavement Replacement (CIP #C102573), Runway 16 Center/34 Center (16C/34C) Panel Replacement (CIP #C800112), Exterior Gate Improvements – Airline Realignment (CIP #C800472), and Snow Dump Pavement Expansion (Small Jobs CIP #C800017 WP104647)

Amount of This Request: \$7,320,000

Source of Funds: Airport Development Fund
and Revenue Bonds

State and Local Taxes Paid: \$529,000

Jobs Created: 41

Total Project Cost: \$9,033,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to advertise and execute a single construction contract comprised of: (1) Airfield Pavement Replacement (CIP #C102573); (2) Runway 16 Center/34 Center (16C/34C) Panel Replacement (CIP #C800112); (3) Exterior Gate Improvements – Airline Realignment (CIP #C800472); and (4) Snow Dump Pavement Expansion (Small Jobs CIP #C800017 WP104647). This authorization is for \$7,320,000, and the total cost for all four projects is \$9,033,000.

SYNOPSIS:

Multiple projects to be constructed on the airfield in 2012 have been combined into a single construction contract in order to minimize disruption to the airlines and Airport patrons. Advertising these projects in a single contract is wise because separate contracts could result in a disjointed effort with greater risk to Airport operations. It is common practice to combine multiple work packages into a single contract for work on the airfield.

Airfield Pavement Replacement (CIP #C102573) includes replacement of deteriorated concrete pavement panels and joint seal. This request includes \$4,707,000 in additional fund authorization for a total project authorization of \$11,801,000 for a multi-year program cost of \$30,800,000, and a potential expense cost for contaminated soil estimated at \$80,000.

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Runway 16 Center/34 Center (16C/34C) Panel Replacement (CIP #C800112) includes replacement of deteriorated concrete pavement panels and joint seal. This request has no additional fund authorization. Total funding of \$5,650,000 was authorized February 9, 2010.

Exterior Gate Improvements – Airline Realignment (CIP #C800472) includes additional fuel pits and aircraft docking systems. This request would authorize \$2,613,000 in additional funds for a total project authorization of \$3,112,000.

Snow Dump Pavement is a small jobs capital project and is included with the major capital projects for coordination purposes. It has a total cost of less than \$300,000 and funds were previously authorized under the small jobs capital program.

For administrative purposes, to facilitate the distribution of costs during construction, funds for these projects may be transferred to a single CIP.

BACKGROUND:

Starting in 2009, Airport staff conducted a visual survey of pavement on the airfield, to determine which pavement needed replacing, and in what priority. Work in 2012 will focus on replacing deteriorated panels on both non-runway areas and Runway 16C/34C. Pavement joint seals will also be replaced, to take advantage of the already closed areas.

Many of the concrete pavements that are currently failing were originally installed as early as 1969 with an expected service life of 20 years. Typical degradation of the concrete is occurring. The concrete and joint seal work must occur in phases to minimize impacts to airline operations.

The airfield pavement replacement is part of a multi-year program to replace some of the worst pavement and joint seal on the airfield in non-runway areas. The project will generally replace the most critical pavement first, but will include other pavement sections when it makes sense. The criticality and order of the pavement replacement may change over time, based on pavement deterioration, operational impacts, and available funding.

The Airline Realignment program will require a number of modifications associated with the airlines that will relocate their gates, to effectively operate in their new locations. The airline realignment is driven by airline mergers and the consolidation needs of Alaska Airlines which necessitates the repositioning of gates, holdrooms, and ticketing positions throughout the Airport.

PROJECT JUSTIFICATION:

Much of the concrete pavement on the airfield has exceeded its service life and deteriorated to the point of needing replacement. Concrete debris resulting from the deteriorating pavement can become a hazard for aircraft and personnel. The replacement of pavement panels requires phasing by area. The fuel pits and aircraft docking systems are part of the Airline Realignment program. Expansion of the snow dump area is needed to clearly designate access and storage areas for the snow clearing operation. The combination of these projects into a single contract will limit impacts to airline operations and Airport customers.

Project Objective:

Maintain the structural integrity of pavements by the replacement of deteriorated pavement panels and joint sealant on non-runway areas and Runway 16C/34C and accommodate the airline

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relocations by providing fuel pits and aircraft docking systems as needed by the airlines at various gates at the Airport terminal.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

This request includes the following elements:

- Runway panel replacement
- Apron panel replacement
- Additional fuel pits at exterior terminal gates
- Additional aircraft docking systems at exterior terminal gates
- Pavement expansion at snow dump area

Schedule:

Design Start	June 2011
Design Complete	January 2012
Commission Authorization to Bid Work	January 2012
Construction Start	May 2012
Construction Complete	October 2013

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary:

C102573 - Airfield Pavement Replacement

Original Budget	\$30,800,000
Budget Increase	\$0
Revised Budget	\$30,800,000
Previous Authorizations for this CIP	\$7,094,000
Current request for authorization	\$4,707,000
Total Authorizations, including this request	\$11,801,000
Remaining budget to be authorized	\$18,999,000

The \$30,800,000 original budget for pavement replacement is intended to cover replacement over the next several years. Each successive authorization will be requested on a yearly basis.

C800112 – Runway 16C/34C Panel Replacement

Original Budget	\$5,650,000
Budget Savings	-\$1,488,377
Revised Budget	\$4,161,623
Previous Authorizations for this CIP	\$5,650,000
Current request for authorization	\$0
Total Authorizations, including this request	\$5,650,000
Remaining budget to be authorized	\$0

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Previous authorizations for Runway 16C/34C are adequate to cover the project cost and no additional funds are being requested.

C800472 – Exterior Gate Improvements – Airline Realignment

Original Budget	\$2,650,000
Budget Increase	\$462,000
Revised Budget	\$3,112,000
Previous Authorizations for this CIP	\$499,000
Current request for authorization	\$2,613,000
Total Authorizations, including this request	\$3,112,000
Remaining budget to be authorized	\$0

Project Cost Breakdown:

Total Project

C102573 – Airfield Pavement Replacement and Joint Sealant

Design	\$333,000
Site Work	\$3,639,000
PMG and Soft Costs	\$886,000
WA State Sales Taxes	\$314,000
Total	\$5,172,000

C800112 – Runway 16C/34C Panel Replacement

Design	\$43,000
Site Work	\$304,000
PMG and Soft Costs	\$87,000
WA State Sales Taxes	\$27,000
Total	\$461,000

C800472 – Exterior Gate Improvements – Airline Realignment

Design	\$188,000
Site Work	\$2,001,000
PMG and Soft Costs	\$749,000
WA State Sales Taxes	\$174,000
Total	\$3,112,000

C800017 – Snow Dump

Design	\$30,000
Site Work	\$176,000
PMG and Soft Costs	\$67,000
WA State Sales Taxes	\$14,000
Total	\$287,000

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Combined CIP Cost Breakdown

Design	\$594,000
Site Work	\$6,120,000
PMG and Soft Costs	\$1,790,000
WA State Sales Taxes	\$529,000
Total	\$9,033,000

Budget Status and Source of Funds:

All projects are included in the 2012 – 2016 capital budget and plan of finance.

The airfield panel replacement project, CIP # C102573, is part of a multi-year program to replace deteriorated pavement panels. The funding source will be existing revenue bond proceeds and future bonds.

The funding source for the replacement of panels on Runway 16C/34C, CIP # C800112, will be the Airport Development Fund.

This funding source for the Exterior Gate Improvements project, CIP # C800472, will be the Airport Development Fund and existing and/or future revenue bonds.

Financial Analysis:

<i>CIP Category</i>	New/Enhancement
Project Type	Renewal & Replacement
Risk adjusted Discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$9,033,000
Business Unit (BU)	Airfield
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	By 2014, the combined effect of these projects will increase CPE by \$.06, but no change to business plan forecast as these project were included.

Lifecycle Costs and Savings:

Annual Operating and Maintenance costs are not anticipated to change appreciably. The replacement of concrete panels will result in cost avoidance for maintaining them. The fuel hydrant system is maintained by the fuel consortium, not the Port. The docking guidance system will require minimum maintenance. The replacement of failing panels and joint sealant will result in future cost avoidance.

BUSINESS PLAN OBJECTIVES:

These projects support the Aviation Strategic Goals in the Business Plan Objectives: operating a world-class international airport by ensuring safe and secure operations, meeting the needs of

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tenants, passengers and the region's economy and managing Port assets to minimize the long-term total cost of ownership.

ENVIRONMENT AND SUSTAINABILITY:

These projects demonstrate environmental sustainability by improving existing Port assets and better utilizing existing resources. Realignment will allow more effective use of terminal facilities and this enables efficient operation for airlines at new locations. More sustainable operations of the Airport are expected to generate lower lifecycle costs of the needed investments.

STRATEGIC OBJECTIVES:

These projects support the Port's strategy to "Ensure Airport Vitality" by maintaining a safe operating environment as well as maximizing asset utilization.

TRIPLE BOTTOM LINE SUMMARY:

Replacement of concrete pavement panels and joint sealant are a financially responsible way to insure continued access to the gate areas for the airline tenants and continued gate availability for the traveling public.

Re-alignment of the airlines increases the long-term ability of the Airport to serve a growing number of both passengers and airlines. Long-term vitality of the Airport benefits the regional economy, the local environment, and nearby communities.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

- 1) Do nothing. This alternative would result in an increasing risk of aircraft ingesting concrete debris into aircraft engines on Runway 16C/34C and possible need for closure of the center runway. This alternative would preclude the realignment program as jointly recommended by the Airline Airport Affairs Committee and the Aviation Division. This alternative is not recommended.
- 2) Split out the four projects into four separate construction contracts. This alternative would create greater administrative burden and would heighten concerns related to safety by increasing the number of individual contractors on the active airfield. This alternative is not recommended.
- 3) Replace pavement & joint seal and construct exterior gate improvements consisting of additional fuel hydrant valve pits and aircraft docking system additions during the 2012 construction season. **This is the recommended alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

Attachment A – Diagram Map

PREVIOUS COMMISSION ACTION/BRIEFINGS:

Airfield Pavement Replacement

On July 26, 2011, the Commission authorized \$465,000 and for the Chief Executive Officer to complete the design and perform any advance work in support of the 2012 Pavement and Joint

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Sealant Project for non-runway concrete pavement panels, joint seal replacement, spall repair, and associated or temporary facilities, such as striping, lighting, etc., on the Aircraft Operations Area.

On March 1, 2011, the Commission authorized \$6,235,000 and for the Chief Executive Officer to advertised and execute a construction contract that included slot drain, pavement, and joint seal replacement at the South Satellite and perform installation of temporary common use podiums and minor removal of hazardous materials through Port Construction Services.

On August 10, 2010, the Commission authorized \$394,000 and for the Chief Executive Officer to direct staff to: 1) proceed with project management, design, environmental support, and preparation of 100 percent design level construction documents for the replacement of slot drains, pavement and joint seal at the South Satellite at Seattle-Tacoma International Airport; 2) execute and award outside professional service agreements; 3) pre-purchase common-use gate equipment; and 4) allow Port Construction Services to self-perform, advertise for bids, and execute and award small works construction contracts for common use equipment installation.

On September 22, 2009, senior Aviation staff briefed the Commission on Seattle-Tacoma International Airport Facility Functionality and Readiness.

C800112 – Runway 16C/34C Panel Replacement

On July 26, 2011, the Commission authorized the Chief Executive Officer to modify the Scope of Work for the Runway 16C/34C Surface Panel Replacement project by extending the project period through the end of 2012, and approval of the use of \$200,000 of the previously authorized funds to prepare design documents for surface panel replacement construction contract to be advertised and constructed in 2012.

On February 9, 2010, the Commission authorized \$5,650,000 for the design, advertisement, and award of a construction contract for the 2010 Airfield Improvement Projects – Contract 1, consisting of panel replacements on Runway 16C/34C.

On February 26, 2008, the Commission authorized \$450,000 for joint seal replacement on runway 16C/34C (CIP 800112).

Note: On October 30, 2003, runway 16 Right/34 Left (16R/34L) was renamed runway 16C/34C, in preparation for the Third Runway to assume the runway 16R/34L designation.

On January 14, 2003, the Commission authorized \$5,000,000 for a multi-year program of panel replacement on runway 16R/34L (CIP 102037).

On November 26, 1996, the Commission authorized \$2,000,000 for a multi-year program of panel replacement on runway 16R/34L (CIP 100663).

On June 13, 1993, the Commission authorized \$10,422,000 for runway 16R/34L rehabilitation and other airfield improvements (CIP 100663).

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Exterior Gate Improvements – Airline Realignment

On December 6, 2011, the Port Commission authorized construction of Baggage Handling System (BHS) Improvements – C22 BHS Connection to C1/C1-MK1 Replacement (C800382) at Seattle-Tacoma International Airport in the amount of \$3,604,000.

On December 6, 2011, the Port Commission authorized design of the Miscellaneous Building Improvements-Airline Realignment project (C800475) at Seattle-Tacoma International Airport in the amount of \$1,721,000.

On December 6, 2011, the Port Commission authorized design of the Airline Tenant Improvements – Airline Realignment (expense) at Seattle-Tacoma International Airport in the amount of \$3,776,000.

On September 27, 2011, the Port Commission authorized execution of an IDIQ contract for Airline Realignment Tenant Improvements and Ticket Counter Design services totaling \$10,000,000.

On September 12, 2011, the Port Commission received a summary briefing on the Airport Realignment Program at Seattle-Tacoma International Airport.

On June 14, 2011, the Port Commission authorized design of the Exterior Gate Improvements-Airline Realignment project (C800472) at Seattle-Tacoma International Airport in the amount of \$499,000.

On June 14, 2011, the Port Commission authorized design of the Airport Signage-Airline Realignment project (C800474) at Seattle-Tacoma International Airport in the amount of \$238,000.

On March 1, 2011, the Port Commission authorized design and some construction of the Baggage Handling System (BHS) Improvements - C22 BHS connection to C1/C1-MK1 Replacement /TC3 Replacement (C800382) in the amount of \$1,731,000.

On February 22, 2011, the Port Commission was shown a summary listing of realignment projects and authorized Planning for Terminal Realignment in the amount of \$713,000.

On February 22, 2011, the Port Commission authorized design and some construction for the Passenger Loading Bridge Replacement Project - Airline Realignment (C800467) in the amount of \$6,700,000.

On January 25, 2011, the Port Commission was given an overview of the airline realignment and authorized design and construction of the Concourse D Common Use Expansion Project (C800455) in the amount of \$4,250,000. The Commission was also briefed on the Airline Realignment Program as part of this item.

On September 28, 2010, the Port Commission was given a summary briefing of the upcoming 2011 capital improvement plan that included the airline realignment program elements.

On June 8, 2010, the Port Commission authorized execution of an IDIQ contract for the Terminal Development Strategy Campus Planning Services IDIQ in the amount of \$1,300,000.