

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 5e

ACTION ITEM

Date of Meeting December 4, 2012

DATE: November 26, 2012

TO: Tay Yoshitani, Chief Executive Officer

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

SUBJECT: Loading Bridge Gate Utilities Improvements (CIP # C800019)

Amount of This Request: \$0

Source of Funds: Existing revenue bonds

Estimated State and Local Taxes: \$567,000

Est. Jobs Created: 21

Total Estimated Project Cost: \$13,211,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to advertise, award, and execute a major construction contract not to exceed \$8,242,000 for Loading Bridges Gate Utilities Improvements at the South Satellite of Seattle-Tacoma International Airport. No funding is required for this request as the entire budget for this project has already been authorized.

SYNOPSIS:

This authorization continues progress toward all Airport common-use gates having standard utility capability to serve aircraft potable water and electricity when the aircraft engines are off. Standardizing utilities at gates helps enable more frequent use of an aircraft gate during each day to make the Airport more efficient and therefore, significantly delays costly expansion projects to add more gates. This project has been coordinated with the air carriers involved in the current realignment program so that we can meet future aircraft requirements.

On June 14, 2011, Commission authorized full funding for this project along with design and advance procurement of equipment. In the course of design, staff has decided to include the equipment in the construction contract rather than a separate procurement, and the construction will be accomplished in increments. Staff learned that the power requirements of the Boeing Dreamliner 787 are greater than anticipated. Given the expected deployment of the 787 by airlines at Sea-Tac, staff engaged in some re-design and altered the contracting and procurement plans. The requested construction contract will complete potable water and electrical work at the South Satellite. The remainder of the electrical work at other concourses will be accomplished via later construction contracts after valuable experience is gained from serving the 787, which started service earlier this year. The 787 has newer technology and requires a greater level of electrical service than older aircraft. Staff will return at a later date for any

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necessary design, scope or budget adjustments that may be needed prior to requesting authorization for follow-on electrical contracts.

This project was included in the 2013 – 2017 capital budget and plan of finance.

BACKGROUND:

Currently there are 31 Airport-owned common-use aircraft gates on Concourses B and C, and the North and South Satellites that do not have full aircraft utility capabilities. There are varying amenities at these gates, including 400 Hz electrical power supply and potable water. This overall improvement program will bring the 31 “utility deficient” Port-owned gates up to the same standard, including 400 Hz power and potable water.

The Commission previously authorized design of this project. This request is to authorize a major construction contract to update potable water systems at all of the “utility deficient” gates and to replace outdated 400Hz electrical motor generators owned by Delta Airlines at the South Satellite with Port-owned 400Hz electrical motor generators, simplifying operational and maintenance concerns. Additionally, installation of these hardwired motor generators will eliminate the need for airlines to use fossil-fuel burning motor generators that are also used at the South Satellite.

On June 14, 2011, the Commission authorized the entire budget of \$13,211,000 (including expense funds) to finish design, pre-purchase long-lead-time sole-source equipment (including motor generators) and construction. In the interim, staff learned from Boeing that the 787 has additional power requirements and that the 787 will begin international service at a gate on the South Satellite this month. The rapid deployment of the 787 by airlines to routes that serve the Airport has necessitated research and re-design and has altered the procurement plan. After extensive research, staff has decided not to pre-purchase the equipment, but instead to have the successful bidder purchase a specific motor generator for which a sole source waiver has been obtained. This project initially included providing 400Hz motor generator power at the B concourse as well; however, staff recommends that this work be delayed until such time that more is known about the 787 motor generator requirements and the availability of equipment that meets these requirements. Staff will return to the Commission at a later date for authorization for design and to advertise the construction of the remaining work. Approximately \$5 million of electrical work will be delayed until after valuable experience is gained from serving the first 787 at the Airport.

PROJECT JUSTIFICATION:

The majority of work planned under this authorization represents a time critical component in supporting the broader airline relocation effort while also providing improved operational efficiency throughout the Airport.

Project Objectives:

- Support the timely relocation of airlines
- Enable the Airport to gain more flexibility to maximize the use of each gate
- Extend the service life of each eligible gate for several more years through refurbishment of major components and systems to increase reliability and reduce maintenance costs
- Reduce the possibility of a carrier being assigned to a gate without the same amenities as it has at present

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- Advance the Port's goal of standardizing Port-provided amenities at all gates

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

The scope of work for this overall improvement program includes the replacement of the 400Hz system at the South Satellite and replace the potable water boxes at all North and South Satellite, Concourse B and Concourse C gates. This includes the replacement of existing equipment where necessary. Prior to determining replacement versus refurbishment, a condition survey was prepared by an independent contractor. Refurbishment scope of work included renewal and replacement of primary systems, equipment, components and finishes in order to extend their useful life. Purchase of the 400 Hz motor generator currently owned by Delta Airlines at the South Satellite is included, as appropriate for the corresponding work. Design will be completed using an existing previously authorized design contract. This design will be completed prior to advertising the construction contract.

Schedule:

Design	October - December 2012
Advertise Bid Package	February 2013
Award Construction Contract	April 2013
Start Work	June 2013
Complete Work	August 2014

FINANCIAL IMPLICATIONS:

<i>Budget/Authorization Summary:</i>	Capital	Expense	Total Project
Original Budget	\$9,385,000	\$0	\$9,385,000
Budget Increase	\$3,498,000	\$0	\$3,498,000
Revised Budget	\$12,883,000	\$0	\$12,883,000
Previous Authorizations	\$12,883,000	\$328,000	\$13,211,000
Current request for authorization	0	0	0
Total Authorizations, including this request	\$12,883,000	\$328,000	\$13,211,000
Total Estimated Project Cost	\$12,883,000	\$328,000	\$13,211,000

Consistent with the revised procurement plan, with this requested action, staff will execute a contract for \$8.242 million, leaving \$4.969 million available for subsequent contract execution.

<i>Project Cost Breakdown:</i>	This Request	Total Project
Construction	\$ 0	\$6,756,000
Construction Management	\$ 0	\$1,966,000
Design	\$ 0	\$2,621,000
Project Management	\$ 0	\$719,000
Permitting, CPO, Admin, Art program	\$ 0	\$582,000
State & Local Taxes	\$ 0	\$567,000
Total	\$ 0	\$13,211,000

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Budget Status and Source of Funds:

Authorization was previously obtained from Commission for the requested construction contract. This project, C800019, is included in the 2013-2017 capital budget and plan of finance with a budget of \$12,883,000. The funding source is existing revenue bonds.

Financial Analysis and Summary:

CIP Category	Renewal/Enhancement
Project Type	Renewal & Replacement
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$13,211,000
Business Unit (BU)	Terminal – Airline Equipment
Effect on business performance	NOI after depreciation will decrease
IRR/NPV	N/A
CPE Impact	CPE will increase by \$0.10 in 2014, but no change to the business plan forecast as this project was included. The airlines will realize lower operating and maintenance costs.

Lifecycle Cost and Savings

Annual operating and maintenance costs have been calculated by Aviation Maintenance at \$33,046 per gate per year or a total of \$495,685 for the first year plus an estimated 3% inflation escalation thereafter. Based upon actual costs for 2012 and budgeted costs for 2013 and beyond, additional future full time equivalent (FTE) staff members will be required to maintain the added gates and the future FTEs are included within the cost identified above. The additional Airport costs offset the lower operating and maintenance costs realized by the airlines. The Airport will efficiently centralize the work to optimize the overall costs, and will report the CPE cost shift when communicating with the airlines.

STRATEGIC OBJECTIVES:

The Gate Utilities Improvements Project supports the Century Agenda objective of meeting the region's air transportation needs at Sea-Tac for the next 25 years by providing the airlines with greater facility flexibility. Flexible gate operations will allow for greater and more efficient use of the Airport's existing facilities.

Air carriers have continually vied for increased market share since the passage of the Airline Deregulation Act of 1978, thereby driving nearly constant change in their facility requirements. Creating a flexible, common-use environment allows carriers and the Airport to spend fewer capital dollars remodeling facilities as market conditions change. More carriers are able to share the same facilities without continual redesign and construction to customize the operating environment to their specific proprietary needs. This also increases total Airport through-put rates, within the existing terminal footprint, as passenger volumes continue to increase.

ENVIRONMENTAL SUSTAINABILITY:

The new and refurbished Gate Utilities will reduce the number of staff hours necessary for maintaining and repairing the gates that have reached or exceeded their optimum design life. The project will facilitate greater utilization of gates throughout the Airport, thus reducing the potential need for, and the

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environmental impact of, major new and costly construction to increase the total number of gates and associated holdrooms over time.

BUSINESS PLAN OBJECTIVES:

This project supports the Airport's strategy to operate a world class international airport by anticipating and meeting the needs of our tenants, passengers and the region's economy. Minimizing new facilities construction requirements by making new operational improvements with up-to-date equipment and technology helps to minimize costs to the airlines, thereby supporting the Airport's strategy to reduce airline costs.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

ALTERNATIVE 1: Do nothing: Leave the Gates as-is and require airlines to negotiate new ownership, or remove, and/or purchase gates for preferential services. This would require negotiation agreements with the airlines and would continue to complicate future moves. This alternative is not recommended.

ALTERNATIVE 2: Replace the utilities at gates as described in order to optimize gate flexibility, alleviate conflict between ownership and user, and accommodate growth. **This is the recommended action.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

On March 6, 2012, the Commission authorized \$328,000 expense funding to CIP 800019 bring the total project budget to \$13,211,000 to replace the 400Hz Ground Power systems at the South Satellite and B Concourse plus upgrade 31 gates with 400Hz equipment and Potable Water Cabinets

On October 11, 2011, the Commission authorized \$6,144,000 of the authorized \$12,883,000 to advertise and award a procurement of 400Hz Ground Power systems.

On June 14, 2011, the Commission authorized \$3,349,000 to CIP 800019 bring the total project budget to \$12,883,000 to replace the 400Hz Ground Power systems at the South Satellite and B Concourse plus upgrade 31 gates with 400Hz equipment and Potable Water Cabinets.

In June of 2008, this project along with several others was suspended due to financial and other economic concerns.

On June 4, 2007, the Commission authorized \$9,385,000 (CIP 800019) to replace the 400Hz Ground Power systems at the South Satellite and B Concourse plus upgrade 29 gates with 400Hz equipment and Potable Water Cabinets.

On December 10, 2002, the Commission authorized \$2,614,000 (CIP 102102) to replace and upgrade the 400Hz system at the North Satellite.