

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 6a
Date of Meeting August 23, 2016

DATE: August 15, 2016
TO: Ted Fick, Chief Executive Officer
FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: Concourse D Hardstand Terminal (CIP #C800769)

Amount of This Request: \$38,255,000 **Source of Funds:** Airport Development Fund
Est. Total Project Cost: \$38,400,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to: (1) develop, advertise, and execute an alternative public works delivery using the design-build (DB) method for the Concourse D Hardstand Terminal Project at Sea-Tac International Airport with a total project cost estimated at \$38,400,000 and (2) authorize the use of Port crews for preliminary work in support of the project.

SYNOPSIS

The airport is currently experiencing a shortage of gates and the related ability to accommodate passenger loading/unloading at remote facilities. With the temporary loss of gates during the construction of the International Arrivals Facility (IAF), North Satellite Expansion (NSAT) and other future projects, compounded with the unprecedented growth in passenger traffic, this shortage will be exacerbated. It is widely accepted that it will be necessary to operate inbound and outbound aircraft from remote hardstand locations, busing passengers to and from the terminal building. In order to accommodate these passengers, additional facilities with dedicated holdroom and passenger processing space are needed.

To provide for remote hardstand operations, this project will construct a 32,500 Square Foot (SF) building on the east side of Concourse D in the existing North Ground Transportation (GT) Lot. This facility will house up to seven gate lobbies, or holdrooms, for hardstand operations. It is expected that extensive hardstand operations will be required prior to summer of 2018. In order to meet this schedule, staff recommends a design build alternative public works delivery method. It is anticipated that this facility will have a useful life of 20 years.

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BACKGROUND AND JUSTIFICATION

Passenger traffic at Sea-Tac Airport continues to break records and has increased each month for the past 31 straight months (since November 2013). Passenger traffic is up 10 percent for 2016 compared to 2015. This growth in passenger traffic is mirrored in growth in the number of airline operations as well. This year, the number of flights arriving during peak periods is greater than the number of available contact gates where aircraft can be connected through a passenger loading bridge to the terminal building.

In 2015 and 2016, airlines have participated in limited trial operations at remote hardstands. In 2017, construction activities for two large projects, IAF and NSAT, will take existing gates out of service for several years. To accommodate operations when sufficient gates are not available, the airport will institute hardstand arrivals and departures where passengers are bused between the terminal building and remotely parked aircraft. Since every gate will be in use and every holdroom will be occupied when hardstand operations are activated, the airport must construct associated waiting areas for passengers for these flights.

Today, the airport has two locations where buses from remote hardstands can drop arriving passengers into the terminal building: Gates S1A and A6A. Both locations are adjacent to functioning terminal connected contact gates. Both locations offer a sloped walkway ramp between the bus drop off location and the terminal building concourse. Because both gate holdrooms were designed solely to accommodate their primary gated flights, neither gate has separate holdroom facilities for a departing hardstand bus operation.

Departing flights from a remote hardstand require four basic elements: 1) Holdroom facilities to process and hold passengers waiting to board their flights; 2) Ground access for passengers to board the buses; 3) Buses to transport passengers to the hardstand aircraft parking (along with boarding equipment) and, 4) Ground Service Equipment (GSE) for servicing aircraft at the hardstand location.

This past year the Airport began two capital projects to provide remote hardstand operations capacity. The first is the Gate D6 Holdroom Improvements project (C800771). The design is complete and is scheduled to be in use March 2017. This will provide an additional sloped walkway ramp and make use of an otherwise vacant 2500 SF holdroom on Concourse D for up to two staggered flights. The other is Concourse B Ramp Level Holdroom project (C800761), for which the Commission authorized construction in July 2016 and is scheduled to be occupied in May 2017. It will provide holdroom space of 3,400 SF to serve up to two staggered flights and ramp access to bus transport.

In 2015, AV Planning and Operations staff determined that the hardstand peak demand could eventually rise to 11-13 simultaneous operations in the 2018-19 timeframe. Airport staff agreed that the North Ground Transportation lot adjacent to Concourse D was the best location for a holdroom facility to support these operations.

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The Concourse D Hardstand Terminal will be directly linked to Concourse D by a bridge and to the North Satellite Train System (STS) Main Station landing through a passenger covered walkway. This location also allows for the simultaneous circulation of sufficient numbers of dedicated buses to/from remote hardstands for the six to seven holdrooms without impeding existing gates and ramp activities.

Construction and use of the Concourse D Hardstand Terminal will require the relocation of all operations utilizing the North Ground Transportation lot. Preliminary planning with Airport Landside Operations has determined that these Ground Transportation operations can be accommodated in other Main Terminal adjacent facilities and areas.

Staff will be seeking authorization shortly via an additional request to procure equipment necessary to support remote hardstand operations. This will include additional dedicated airfield passenger ramp buses and ground support equipment such as boarding stairs, ground power units and PC Air units.

PASSENGER EXPERIENCE AND PROJECT DETAILS

Passengers departing via the Concourse D Hardstand Terminal would begin their journey in the same way as any passenger with a flight departing from Concourse D. They would walk through Concourse D and across a connector bridge onto the upper level mezzanine of the new two-story Concourse D hardstand terminal. From the mezzanine, passengers will be able to view out into the entire space of the building and locate their gate.

The building will be light and airy with a sky-lighted curved roof structure, and display colors and patterns with a Pacific Northwest feel. The mezzanine will provide modest concessions and a place to sit and relax. From the mezzanine, one will be able to walk down the stairs or a gently sloped ramp to the ground level and departure gates.

On the ground level, there will be a number of amenities for passengers to use while waiting, such as electric charging stations, free Airport Wi-Fi, concessions and restrooms. Passengers would depart by walking through the gate door to a waiting bus instead of directly onto the aircraft. The bus will then take passengers to the waiting remotely parked aircraft.

The expected utility of the Concourse D Hardstand Holdroom is 20 years. Based on current forecasts and development plans, staff anticipates it will be used as hardstand holdroom for 10 to 15 years depending on how long it will take to provide additional gate capacity connected to a new North Terminal as envisioned under the Sustainable Airport Master Plan (SAMP). When the facility is no longer needed for passenger operations, an evaluation of the facility use, forecasted needs and the development plans of the airport should be undertaken to determine next steps for the building, likely removal.

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Project Objectives

- Provide a dedicated common-use holdroom and passenger processing space for six to seven hardstand operations.
- Provide an efficient and seamless hardstand and busing operation.
- Provide and create a positive passenger experience.
- Pursue a LEED vs.4 Silver building certification.
- Start operations by summer of 2018.

Scope of Work

This project will construct a 32,500 SF building on the East side of Concourse D in the existing North Ground Transportation Lot. This facility will be a metal building system and will house six to seven holdrooms for the hardstand operations connected to Concourse D by a connector bridge. The project will install common use casework and passenger processing equipment as well as passenger amenities including seating, Wi-Fi, restrooms and limited concessions. Outside the building, the project will delineate passenger load and drop off zones for the airfield passenger buses. The project will also add a passenger ramp and covered walkway down to the mid-level of the North Main (STS) Station. The relocation of the American Airlines storage shed and the POS garbage compactor will be required as enabling projects.

Schedule

Issue Notice to Proceed: 2nd Qtr. 2017
Construction Complete: 2nd Qtr. 2018

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

	Capital	Expense	Total Project
Original Budget	\$2,000,000		\$2,000,000
Budget Increase	\$36,000,000	\$400,000	\$36,400,000
Revised Budget	\$38,000,000	\$400,000	\$38,400,000
Previous Authorizations	\$145,000	\$0	\$145,000
Current request for authorization	\$37,855,000	\$400,000	\$38,255,000
Total Authorizations, including this request	\$38,000,000	\$400,000	\$38,400,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$38,000,000	\$400,000	\$38,400,000

Project Cost Breakdown

	This Request	Total Project
Design/Construction	\$35,879,000	\$35,879,000
Sales Tax	\$2,521,000	\$2,521,000
Total	\$38,400,000	\$38,400,000

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Budget Status and Source of Funds

This project was included in the 2016-2020 capital budget and plan of finance as a placeholder with a budget of \$2.0 million. A budget increase of \$36 million was transferred from C800404 Aeronautical Allowance resulting in no net change the Airport's capital budget. The funding source for this project will include the Airport Development Fund.

Financial Analysis and Summary

CIP Category	Renewal/ Enhancement
Project Type	Infrastructure Upgrade
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$38,400,000
Business Unit (BU)	Terminal Building
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	.12 in 2018

Lifecycle Cost and Savings

The expected life of the Concourse D Hardstand Terminal is 20 years, all assets associated with this project will be determined with this in mind. The major assets associated with this project will be associated with the mechanical, electrical, building envelope, selection of fixtures and materials. Aviation maintenance anticipates there will be some incremental costs associated with the construction of this facility.

STRATEGIES AND OBJECTIVES

This project supports the Port's Century Agenda objectives of meeting the region's air transportation needs at the Airport for the next 25 years by providing critically needed passenger holdroom space with passenger processing equipment and a busing area to facilitate hardstand/off-gate aircraft operations.

This project will also seek to support the Port's Century Agenda objective to be the greenest and most energy efficient port in North America and the strategy for a sustainable Airport to pursue LEED Certification for all new Port projects by seeking LEED vs. 4 Silver Certification. There are opportunities to meet increased energy needs through conservation and renewable resource, meet agency requirements for storm water and reduce air pollutants and carbon emissions. This facility will be designed and built to meet current building, electrical, mechanical and energy codes. The restrooms water closets will be low-flow. Interior finishes will include all paints and adhesives that are low in Volatile Organic Compounds (VOCs), and various interior materials, as applicable, will use recycled content materials.

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The construction of this project presents a number of small business opportunities. The project team is working with the Port's Economic Development Division's Small Business Team to maximize small business utilization efforts for this project.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Status Quo – Do not design or construct a hardstand terminal

Cost Implications: \$0

This option does not provide new facilities in the terminal for facilitating hardstand operations. During times of gate shortage, airlines would be required to wait on the ramp until a gate is available or run hardstand operations without a dedicated facility for processing hardstand passengers.

Pros:

- This alternative does not require a capital investment.

Cons:

- This alternative would potentially delay aircraft arrivals and departures, significantly degrading the quality of passenger experience at Sea-Tac.
- This alternative would potentially lead to airlines having to process departing hardstand passengers in severely congested holdrooms already being used for other flights.
- This alternative does not give airlines a dedicated space to provide customer service and process passengers for hardstand departures.

This is not the recommended alternative.

Alternative 2 – Build a Hardstand Terminal in an alternate location.

Cost Implications: Central Terminal Location = \$25 - \$30M; Cargo 4 South=\$65-\$80M.

Pros:

- Preserves the North GT Lot for Ground Transportation functions.

Cons:

- A decision analysis was completed in consultation with airlines and all other potential locations for this facility were ruled out due to cost, operational impact or customer service degradation.
- Specific concerns with the Central Terminal location are the loss of aircraft parking positions and traffic congestion (Vehicular and Aircraft) at a critical central point of the ramp. The airlines consider these fatal flaws with the location.
- Specific concerns with Cargo 4 South location are remoteness and overall cost. Staffing and customer service would most likely be impacted.

This is not the recommended alternative.

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Alternative 3 – Build the Concourse D Hardstand Terminal via Design-Bid-Build procurement method.

Cost Implications: \$40.6M

Pros:

- Traditional construction delivery method

Cons:

- This alternative would not provide a Concourse D hardstand terminal until 1st Qtr. 2019 and does not meet the summer 2018 in use date required to meet operational demands.

This is not the recommended alternative

Alternative 4 – Build Concourse D Hardstand Terminal via Design-Build procurement method.

Cost Implications: \$38.4M

Pros:

- This alternative meets the schedule required to meet operational demands by having an in-use facility in the summer of 2018.

Cons:

- Passengers will need to depart the holdroom and go up to the Concourse Level in order to reach amenities like dining or retail, some concession will be located in the new building.
- Eliminates North GT Lot for airport charters and Cruise ship bus operations. Alternatives are in process for the relocation of these functions.
- Design Build will require the need to decide specifically what we want early in the process and stick to it, in order to get the cost and schedule efficiencies of the method.

This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- Computer slide presentation.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None