

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**  
**ACTION ITEM**

<b>Item No.</b>	6d
<b>Date of Meeting</b>	March 24, 2015

**DATE:** March 17, 2015  
**TO:** Ted Fick, Chief Executive Officer  
**FROM:** Dave Soike, Director, Aviation Facilities and Capital Program  
Wayne Grotheer, Director, Aviation Project Management Group  
**SUBJECT:** North Satellite Renovation & North Satellite Transit Station Lobbies Project (CIP #C800556) Seattle-Tacoma International Airport

<b>Amount of This Request:</b>	\$1,954,000	<b>Source of Funds:</b>	Airport Development Fund
<b>Est. Total Project Cost:</b>	\$421,682,944		Revenue Bonds and Passenger Facility Charges
<b>Est. State and Local Taxes:</b>	\$28,951,600		

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to take the following actions related to the North Satellite (NSAT) Renovation & North Satellite Transit Station (STS) Lobbies Project at the Seattle-Tacoma International Airport: (1) increase the project scope to expand the baggage handling system (BHS) to facilitate the previously approved building expansion, increasing the estimated total project cost by \$14,400,000 for a revised total of \$421,682,944; and (2) complete the BHS design for \$1,954,000, included within the \$14,400,000 above and execute amendments to existing design, planning, and program management consulting contracts accordingly.

**SYNOPSIS**

A key factor in renovating and expanding the North Satellite is meeting the Port's and Alaska Air Group's (AAG) vision, project objectives, and specific requirements. The Port and AAG share goals for the North Satellite including: compliance with applicable codes to ensure life safety, improved passenger experience, increased level of service, and passenger comfort.

It is also important to minimize, to the greatest extent possible, negative impacts to operations during construction, including continuity of baggage sorting. In order to meet the customer experience level-of-service goals and to minimize construction impacts to operations for the NSAT project, the baggage system must be expanded concurrent with the expansion of the building. This would ensure sufficient baggage system capacity during the renovation of the existing building. Renovation requires shutdown of the existing pier sort baggage system.

Future construction of the Baggage Recapitalization program will affect baggage capacity throughout the Airport's system. Completing the North Satellite baggage expansion early provides capacity to

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support baggage operations affected by this future construction. At completion of the NSAT project, the entire baggage system would provide AAG and the Port sufficient capacity and transport rates to accommodate the current rate of growth for the future.

The timing of constructing this baggage expansion impacts the phased construction of the larger North Satellite renovation and expansion project. To minimize any potential impacts and to ensure efficiencies, Port staff determined and AAG agreed that the baggage expansion should be implemented as part of the North Satellite renovation and expansion project by the General Contractor/Construction Manager (GC/CM). If done separately, both projects would require extensive modifications to the base building infrastructure that would severely hamper AAG operations and create a higher potential for conflict between construction projects. By timing the work to coincide with the larger North Satellite renovation project, the Port can better coordinate the installation of all infrastructure required by the project.

### **BACKGROUND**

Original passenger forecasts for the NorthSTAR program indicated that the original baggage refurbishment project (currently under construction) would provide sufficient capacity for the expected traffic levels for the duration of the NorthSTAR program. The analysis leading to the decision to expand the satellite revealed the refurbished North Satellite (C88) baggage system will be near or at capacity at the opening of the expanded 20-gate facility in 2020.

The Port Commission approved the expansion of the NSAT in August 2014 supported by approvals from the airlines by a majority-in-interest vote, support of AAG Executive Leadership and the recommendation of Port staff. NorthSTAR quarterly program updates to the Commission have included the allowance that the baggage system requirements would be evaluated to determine if the existing system needed to be expanded. Staff is now recommending the baggage system be expanded and is requesting it be added to the scope of the NSAT project. This requires that the NSAT budget be increased by \$14,400,000 for a total budget of \$421,682,944. It is requested that \$1,954,000 be authorized for design to expand the baggage system.

### **PROJECT JUSTIFICATION AND DETAILS**

The Port, collaborating with AAG, completed a thorough analysis of the baggage expansion and compiled recommendations to maximize the existing C88 baggage system by creating a cohesive and efficient baggage handling system to support the NSAT project and Alaska's future growth. The report concluded that a total of 18 piers will be required to provide adequate baggage capacity through completion of the 20-gate North Satellite project. The existing NSAT system has 11 piers resulting in the need to add 7 piers. In addition, other planned Airport projects require Airport-wide baggage capacity to be reduced during construction. The forecast of baggage capacity after completion of the NSAT expansion indicates that there may be 3-4 piers of spare capacity for future growth. A major secondary benefit of expanding the NSAT baggage system is that the additional capacity created can be immediately utilized by airlines temporarily displaced during construction phasing of other Airport capital projects. This project aids in the development of an overall capital phasing program for the Airport baggage system.

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### ***Project Objectives***

- Replace and/or modify the baggage infrastructure to support the building expansion, improve efficiency, and to reduce operating and maintenance costs.

### ***Scope of Work***

- Add 7 new sort piers built within the newly created bag well as part of the 9 bay expansion to the satellite.
- Speed up North Satellite tunnel conveyors to increase capacity to accommodate NorthSTAR traffic levels
- Replace Master Control Panels (MCPs) located in the main terminal
- Provide adequate transfer bag input belts to better accommodate final North Satellite AAG baggage operations.

### ***Schedule***

- Q2 2015 – Begin design
- Q3 2015 – Complete 60% design
- Q1 2016 – Complete 90% design
- Q1 2016 – Commission Authorization for Construction
- Q3 2016 – Begin Construction
- Q3 2017 – Utilize BHS system
- Q2 2018 – Substantial Completion for BHS

## **FINANCIAL IMPLICATIONS**

### ***Budget/Authorization Summary***

	Capital	Expense	Total Project
Original Budget	\$194,300,000	\$5,000,000	\$199,300,000
Previous budget increase	\$207,182,944	\$800,000	\$207,982,944
Proposed budget increase	\$14,400,000	\$0	\$14,400,000
Revised budget	\$415,882,944	\$5,800,000	\$421,682,944
Previous Authorizations	\$55,464,800	\$200,000	\$55,664,800
Current request for authorization	\$1,954,000	\$0	\$1,954,000
Total Authorizations, including this request	\$57,418,800	\$200,000	\$57,618,800
Remaining budget to be authorized	\$358,464,144	\$5,600,000	\$364,064,144
Total Estimated Project Cost	\$415,882,944	\$5,800,000	\$421,682,944

### ***Project Cost Breakdown***

	This Request	Total Project Budget
Construction Phase		\$334,344,600
Design Phase	\$1,954,000	\$58,386,744
State & Local Taxes (estimated)		\$28,951,600
Total		\$421,682,944

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### ***Budget Status and Source of Funds***

This project is included in the 2015 – 2019 capital budget and plan of finance with a budget of \$401.5 million. The proposed budget increase will be transferred from the Aeronautical Allowance CIP (C800404) resulting in no net change to the Aviation Division capital program. The Airport Development Fund (augmented as needed with the issuance of commercial paper) continues to be the initial source of funds for this project but funding for the entire project will include Passenger Facility Charge revenues (PFCs) and future revenue bond issues. The Port anticipates issuing revenue bonds in 2015.

The terms under which AAG will participate in the Port's NorthSTAR Program costs have been established via an April 5, 2012, Letter of Agreement between the Port and AAG. The airlines were briefed on December 18, 2013, with regard to the decision to expand the NSAT and the resultant increase in budget. The formal majority-in-interest (MII) project approval process outlined in the Signatory Lease and Operating Agreement (SLOA) will be followed, with the Port submitting a ballot to the airlines seeking approval to construct the expanded baggage system.

### ***Financial Analysis and Summary***

<b>CIP Category</b>	Renewal and Replacement
<b>Project Type</b>	Terminal Infrastructure
<b>Risk adjusted discount rate</b>	N/A
<b>Key risk factors</b>	N/A
<b>Project cost for analysis</b>	\$422M
<b>Business Unit (BU)</b>	Terminal
<b>Effect on business performance</b>	NOI after depreciation will increase
<b>IRR/NPV</b>	N/A
<b>CPE Impact</b>	\$1.32 by 2021. The actual CPE impact for this project could be lower depending on the amount of PFCs applied to construction costs and on revenue bond debt service.

### ***Lifecycle Cost and Savings***

An adequate estimate of staff hours and materials expense to operate the expanded system is not available due to the early stage of project design. However, staff will provide an accurate estimate as design progresses. It is already understood that the expansion of the existing system will employ variable frequency drives, high efficiency motors, and a new control system, all intended to improve system energy efficiency. These features are consistent with the operation of the existing system.

## **STRATEGIES AND OBJECTIVES**

The anticipated growth in domestic and international enplanements will require additional capacity in baggage processing for all airlines throughout the Airport. This project supports the Port's Century Agenda objective of meeting the region's air transportation needs at Sea-Tac Airport for the next 25

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years. This project also supports the Aviation Division's strategy of anticipating and meeting the needs of our tenants, passengers, and the region's economy.

This is one of a number of projects that are directly tied to the One-Time Reallocation (Airline Realignment) program and that are in alignment with AAG's plan to consolidate its gate operations onto the NSAT and Concourses C and D. The NSAT expansion is also in alignment with Airport master plan development objectives that identify the NSAT as the most logical location for near-term expansion of Airport capacity.

### **TRIPLE BOTTOM LINE**

#### ***Economic Development***

This project will increase the long-term ability of the Airport to serve AAG's future growth. This project cost effectively meets AAG's needs by upgrading existing systems rather than building entirely new systems.

#### ***Environmental Responsibility***

This project demonstrates environmental sustainability by improving existing Port assets to extend their life, installing variable frequency drives and higher efficiency components when replacing equipment, and better utilizing existing resources.

#### ***Community Benefits***

Long-term vitality of the Airport benefits the regional economy, the local environment and nearby communities. The Office of Social Responsibility (OSR) has established requirements that will apply to this project. The design and construction procurement acquisition plan recommends the use of an existing contract for BHS design, which includes participation of two qualifying sub-consulting small business firms. The GC/CM construction contract as presented to Commission on January 6, 2015, has not been completed.

#### ***Small Business Participation***

Project managers are coordinating with the Office of Social Responsibility to maximize small business participation opportunities including, but not limited to, Small Contractors and Suppliers (SCS) participation in accordance with Small Business Resolution No. 3618.

### **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1)** – Retain the Status Quo. No expansion of the existing NSAT baggage system will be done. This is not a recommended alternative.

#### **PROS:**

- No additional cost to the project

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### **CONS:**

- Does not support the Port's and AAG's vision and NorthSTAR objective to be able to support all flights originating from the NSAT with a baggage system located at the NSAT.
- The baggage system will not support the anticipated increase in demand and capacity of the NorthSTAR program either during construction or into the future.
- The existing NSAT BHS system has insufficient capacity to augment airport-wide baggage system capacity and demand during construction of other airport capital projects.

**Alternative 2)** – Extend the current North Satellite Baggage system (C88) mainline and recirculation baggage belt sort system, install four new sort piers, add two new transfer input belts, speed up the current sort and tunnel systems, and install all necessary power and controls infrastructure through the GC/CM contract for NorthSTAR. This is not the recommended alternative.

### **PROS:**

- Supports the Port's and AAG vision and NorthSTAR objectives at the opening of the NSAT expansion.
- The recommended GC/CM path allows the project to be completed while minimizing impacts to the baggage system operation.

### **CONS:**

- This alternative adds an estimated \$12 million to the NorthSTAR NSAT Renovation & STS Lobbies Project.
- The existing NSAT BHS system has insufficient capacity to augment the airport-wide baggage system capacity and demand during construction of other Airport capital projects.
- The baggage system at NSAT will not support the anticipated increase in demand and capacity of the NorthSTAR program beyond the opening of the NSAT after the expansion.

**Alternative 3)** – Extend the current North Satellite Baggage system (C88) mainline and recirculation baggage belt sort system, install seven new sort piers, add two new transfer input belts, speed up the current sort and tunnel systems, and install all necessary power and controls infrastructure through the GC/CM contract for NorthSTAR. **This is the recommended alternative.**

### **PROS:**

- This option will support the Port's and AAG vision and NorthSTAR objectives.
- The baggage system at NSAT will support the anticipated increase in demand and capacity of the NorthSTAR program during construction and beyond.
- The recommended GC/CM path allows the project to be completed while minimizing impacts to the baggage system operation.

### **CONS:**

- This alternative adds \$14.4 million to the NSAT Project.

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### **ATTACHMENTS TO THIS REQUEST**

- NorthSTAR BHS phased diagram.

### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- January 27, 2015 – NorthSTAR Program Status Update
- January 6, 2015 – The Commission authorized (1) \$5,000,000 preconstruction services; (2) execution of a General Contractor/Construction Manager (GC/CM) contract for preconstruction services; and (3) transfer of scope, \$1,750,000 budget and authorization for STS station roof replacement to the North Satellite Renovation and Expansion project.
- October 28, 2014 – NorthSTAR Program Status Update
- August 5, 2014 – Commission authorized an estimated \$191,323,143 to expand the NSAT by 8 additional gates, an additional \$15,717,800 for design completion, and use of the GC/CM alternative public works contracting procedure for NSAT expansion construction procurement.
- July 22, 2014 - NSAT Expansion Briefing.
- April 16, 2014 – Seattle-Tacoma International Airport Capital Program – Briefing.
- January 14, 2014 – NorthSTAR Program status update and initial NSAT Expansion briefing.
- September 24, 2013 – NorthSTAR Program status update.
- September 24, 2013 – The Commission authorized staff to: (1) advertise, award, and execute a major public works contract for the construction of the NSAT Refurbish Baggage System Project; and (2) authorize the use of Port crews.
- June 25, 2013 –NorthSTAR Program status update.
- May 28, 2013, Commission authorized the execution of separate service agreements for Construction Management Services and Commissioning Services, of approximate values of \$10 million and \$1.5 million.
- April 9, 2013 – The Commission authorized the Chief Executive Officer to enter into a project labor agreement covering the NorthSTAR program’s five major construction projects.
- March 26, 2013 –NorthSTAR Program status update.
- December 11, 2012 – The Commission was briefed on the Vertical Conveyance Modernization Project Aero Phases 1 and 2 and the possibility of adding the specified elevators and escalators to the NorthSTAR program.
- July 24, 2012 - Commission authorized \$32,000,000 for the design of the NorthSTAR NSAT Renovation and NSTS Lobbies project.
- June 26, 2012 - The Port Commission was briefed on the NorthSTAR program by Wayne Grotheer, Director Aviation Project Management Group.
- April 10, 2012 - The Commission authorized the execution of consultant contracts for design and construction support services; program management services; and the completion of site surveys for regulated materials management, in the amount of \$1,200,000.