



**COMMISSION**  
**AGENDA MEMORANDUM**

**Item No.** 9d

**BRIEFING ITEM**

**Date of Meeting** May 22, 2018

**DATE:** April 23, 2018  
**TO:** Stephen P. Metruck, Executive Director  
**FROM:** George England, Senior Program Leader, Aviation Project Management Group  
Michael Ehl, Director, Aviation Operations  
Jeffrey Brown, Director, Aviation Facilities and Capital Programs  
**SUBJECT:** 2018 Q1 NorthSTAR Program and North Satellite Project (CIP C800556) Briefing

**EXECUTIVE SUMMARY**

The North Sea-Tac Airport Renovation (NorthSTAR) Program is a collaborative effort of the Port and Alaska Airlines (AS) to improve traveler experience and customer service. The North Satellite (NSAT) Renovation and Expansion project is the largest segment of the NorthSTAR Program. This component project addresses the expansion of the North Satellite from 12 to 20 contact gates, modernization of the existing North Satellite facility including North Satellite and Concourse C Satellite Transit Stations, and expansion of the baggage system to accommodate the satellite expansion. On August 15, 2017 the Commission approved the remaining unauthorized funds for the entire NSAT project. The update reflects that construction is well underway, is currently progressing on schedule and if forecasting to remain within authorized budget. Current risks, concerns and issues are: 1) finding skilled and qualified labor as the project ramps up for completion; 2) finalizing the Concourse C vertical transportation improvements construction work plan and schedule that minimizes closure of the C STS station; 3) finalizing the operational aspects of the Phase 2 ground boarding to be safe and minimize passenger exposure to the elements; and 4) negotiate the design development change orders to remain within the contractual allowance.

This presentation details the progress made over the past quarter on these projects.

**1. CIP C800556 NorthSTAR NSAT Renovation & North Satellite Transit System Lobbies**

This project includes the modernization of NSAT and the satellite transit system (STS) lobbies at Concourse C and North Satellite including infrastructure and seismic reinforcement, the expansion of the NSAT to 20 contact gates and expansion of the baggage handling system to improve customer service, provide a balance of holdrooms, concessions and circulation space to meet the overall program vision.

***Accomplishments***

- (1) Met 2018 Project Q1 Goal – Primary structural steel installed for Phase 1

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- (2) Alaska level of service and passenger flow analysis completed for Concourse C to NSAT, preparing stakeholder for decisions to transport passengers via Cobus to NSAT ground board positions during NSAT Phase 2 construction
- (3) 60% Alaska Airline lounge design & 30% Ground Board design reviewed
- (4) Received final building permit for the project on 1/16/2018
- (5) Received Passenger Loading Bridge installation and Casework bids
- (6) Completed Puget Sound Energy gas pipe work under east taxiway
- (7) Opened escalator NS4 in NSAT central core
- (8) Completed decision to process passengers via Concourse D Annex to NSAT ground board gates via Cobus during NSAT Phase 2 construction

**Progress**

- (1) Phase 1 Expansion floor slabs nearly complete, with roofing, interior concrete walls and site utilities ongoing.
- (2) Critical path central core escalator NS3 replacement started
- (3) Alaska Lounge 90% design and coordination ongoing
- (4) Concourse C Satellite Transit System station vertical transportation constructability review and redesign nearly complete
- (5) Expediting design of Phase 1 dining and retail projects
- (6) Finalizing Phase 2 Cobus ground board design
- (7) East taxiway vehicle service road striping design being modified

**Schedule**

Milestone	Baseline	Current
Phase 1A Open	Jan 2019	Jan 2019
Phase 1B Open	May 2019	May 2019
Concourse C Substantial Completion	Nov 2019	Nov 2019
Phase 2A Open	May 2021	May 2021
Phase 2B Open/Substantial Completion	July 2021	July 2021

**Project Metrics**

	Budget/Planned	Utilization to Date
Cumulative Spent Against Authorization	\$670.6 M	\$133.6 M
Overall Work Complete	20%	20%
Cash flow for Reporting Period (Q1 2018)	\$30.0 M	\$24.3 M
Contingency	\$23.6 M	\$9.1 M
Management Reserve *	\$29.0 M	\$2.3 M
Small Contractor Supplier (SCS) Design	10.0%	12.0%
SBE Participation (Construction)	16.0%	14.6%
SCS Participation (Construction)	5.5%	5.93%
WMBE Participation (Construction)	3.6%	3.94%

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Apprenticeship Utilization	15.0%	16.4%
Minority Utilization (% of apprenticeship)	15.0%	25.5%
Women Utilization (% of apprenticeship)	10.0%	17.3%
* Requires Commission Notification M = million		

**Total Construction Contract Metrics**

	Budget/Planned	Percent
Original Contract Sum	\$445.9 M	
Executed Change Orders	\$9.1 M	2.03 %
Current Contract Sum	\$455.0 M	
Original Construction Contingency	\$23.6 M	
Contingency Expended/Authorized	\$9.1 M	38.5 %
Remaining Construction Contingency	\$15.7 M	61.5 %
Negotiated Support Services (NSS)		
NSS Original Budget Value	\$40.0 M	
NSS Authorized Amount	\$6.8 M	17.2 %
NSS Remaining Amount	\$33.2 M	82.8 %

**Change Orders executed over \$300,000:**

- Central Core Structural Framing Revisions for \$459,284 executed 1/22/2018 due to intermediate structural framing to meet code and escalator design submittal.
- Fire Pump Additions for \$712,176 and executed 2/22/2018 as requested by Port Facilities and Infrastructure.

**Risks**

- (1) Ability to maintain current construction schedule could be impacted by further scope changes, operational changes, customer service, unforeseen or unanticipated situations
- (2) Central Core phasing challenges – Complexity of central core escalator and elevator phasing and impacts to passenger and operational levels of service
- (3) Adequately covering within budget non-discretionary/discretionary post final design scope changes, change orders, errors and omissions and differing site conditions during construction
- (4) Ability to provide adequate terminal/airside facilities (12 vs 14 gates) to minimize passenger & operational levels of service impacts during Phase 2
- (5) Uncertainty regarding certification level, Leadership in Energy & Environmental Design (LEED)

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2. **CIP 800544 NorthSTAR Program Management & Controls - Consolidated**
3. **CIP 800547 NorthSTAR Concourse C Vertical Circulation – Complete**
4. **CIP C800555 NorthSTAR Refurbish Baggage System – Complete**
5. **CIP C800545 NorthSTAR Main Terminal Improvement – Removed**
6. **CIP C800554 NorthSTAR Concourse C&D Exterior Stairs - Deleted**

#### **ATTACHMENTS TO THIS BRIEFING**

- (1) Attachment A: Quarterly Commission Update PowerPoint

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

##### **North Sea-Tac Airport Renovations (NorthSTAR) (CIP #C800544)**

Jan 30, 2018 – NorthSTAR Program status update

Oct 24, 2017 – NorthSTAR Program status update

July 25, 2017 – NorthSTAR Program status update

April 25, 2017 – NorthSTAR Program status update

January 24, 2017 – NorthSTAR Program status update

September 13, 2016 – Request Commission authorization for the Chief Executive Officer to (1) increase the North Satellite Renovation & North Satellite Transit Station Lobbies (NSAT) project scope and budget; (2) increase authorization for project design; (3) amend design service agreement with URS that exceeds 50% of the value of the original contract; and (4) increase authorization for Preliminary Work Package #2 (PWP #2) construction.

August 9, 2016 – NorthSTAR Program Status Update

May 24, 2016 – Commission authorized Chief Executive Officer to 1) increase the North Satellite project scope and budget; 2) increase authorization for NSAT design and overall project support; 3) amend service agreements with Jacobs Project Management Company and AECOM; and 4) authorize the use of port crews and small works contactors to perform work for the project.

February 23, 2016 – NorthSTAR Program status update

November 24, 2015 – NorthSTAR Program status update

July 14, 2015 – NorthSTAR Program status update

April 28, 2015 – NorthSTAR Program status update

January 27, 2015 – NorthSTAR Program status update

October 28, 2014 - NorthSTAR Program status update

August 19, 2014 - NorthSTAR Program status update

May 27, 2014 – NorthSTAR Program status update

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January 14, 2014 – NorthSTAR Program status update

September 24, 2013 – NorthSTAR Program status update

June 25, 2013 –NorthSTAR Program status update

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

June 26, 2012 – The Commission received a briefing on the status of the Airline Realignment Program and budget restructuring in association with the NorthSTAR Program.

April 10 2012 – Authorizations for the North Sea-Tac Airport Renovations program for: 1) preliminary project funding; 2) execution of consulting contracts for design/construction support services and project management services; and 3) use of Port crews and consultants to conduct regulated materials management surveys and field support services for preliminary project planning tasks.

**North Satellite Renovation & North Satellite Transit Station Lobbies (CIP #C800556)**

August 15, 2017 – The Commission authorized

Increase the authorized budget by \$107,000,000 capital and \$500,000 expense and authorize the remaining \$261,547,392 capital and \$8,800,000 expense, amending the Hensel Phelps (HP) contract by \$161,563,526 for the final MACC to complete the project in Q3 2021. Authorize execution of all pending and future change orders to the HP contract within the authorized budget and project scope to avoid potential delays. Authorize Port crews to support NSAT construction and authorize Port staff to enter into a TRA with AS for the reimbursement of AS and Port responsible design efforts and improvements.

June 27, 2017 – The Commission authorized four NSAT related items:

increase project authorization for the North Satellite Renovation & North Satellite Transit Station Lobbies Project by \$200,000,000; execute Preliminary Work Amendment #3 (PWA #3) with Hensel Phelps (HP) for up to \$200,000,000; authorize Port staff to execute all change orders to the HP contract within authorized budget and project scope without returning for additional Commission authorization; and authorize Port Construction Services (PCS) to execute small works contracts and use Port crews to support NSAT construction

September 13, 2016 – The Commission authorized four NSAT related items:

the increase of project scope and budget (capital) by \$7,000,000 for the revised third floor layout to better accommodate the signature restaurant, provide 3,000 additional square feet of future airport related leasable space, and increase AS premium traveler lounge as requested by 4,850 square feet.

Increase authorization by \$1,000,000 for project design.

Amend design service agreements with AECOM that exceed 50% value of the original contract.

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Increase authorization by \$30,000,000 to accommodate Preliminary Work Package #2 construction.

May 24, 2016 - The Commission authorized four NSAT related items:

Increase of project scope and budget (capital and expense) by \$121,219,098 for 30% & 60% design scope additions and risk contingencies

Increased authorization of \$11,000,000 for continued NorthSTAR Program/Project Management services and NSAT design and overall project support.

Amend service agreements with Jacobs Project Management Co. and AECOM.

Authorize the use of port crews and small works contractors.

December 8, 2015 – The Commission authorized \$98,100,000 for the following:

Additional Pre-Construction services (\$1,200,000)

Construction auditing services

Preliminary Construction work

March 24, 2015 – The Commission authorized three NSAT related items:

Expand the baggage handling system increasing the project scope for \$14,400,000 and \$1,954,000 to complete the design.

Entering into a developer agreement with Puget Sound Energy and \$200,000 in reimbursement for the design and construction of underground gas infrastructure.

\$5,300,000 to Prepare four locations to accommodate temporary passenger loading bridges, to construct temporary construction offices; To complete construction of a Satellite Transit System (STS) North loop Dynamic Display system; \$600,000 in expense funds for regulated materials management for AS's tenant improvement project; and Approval to use Port crew labor and small works contractors to complete early project work.

August 5, 2014 – The Commission authorized expansion of the NSAT, \$191,323,143 budget increase, \$15,717,800 to complete the design, execute amendments to existing consulting contracts; execute future consulting contracts and use of and to advertise for General Contractor/Construction Manager (GC/CM) alternative public works contractor.

July 22, 2014 - NSAT Expansion Briefing

April 22, 2014 – Seattle-Tacoma International Airport Capital Program - Briefing

January 14, 2014 – NSAT expansion briefing.

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.

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.

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, for \$1,200,000.

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**NorthSTAR Concourse C Vertical Circulation Project (CIP #C800547)**

October 22, 2013 – Commission authorized \$16,145,000 for advertising for bids, executing a major construction contract, executing a tenant reimbursement agreement with AS, using Port crews to provide construction services for the Concourse C Vertical Circulation.

November 6, 2012 – Commission authorized the design for the 1:20 sloped walkways and elevator(s) at Gates C2, C10-12, and C14 on Concourse C.

**NorthSTAR North Main Terminal Improvements Project (CIP #C800545)**

December 3, 2013 – Commission authorized \$1,500,000 for preliminary engineering up to 30% design.

**North Satellite Refurbish Baggage System Project (CIP#C800555)**

September 24, 2013 – The Commission authorized staff to: (1) advertise, award, and execute a major public works contract for the construction of the North Satellite Refurbish Baggage System Project; and (2) authorize the use of Port crews.

July 12, 2013 – The Commission was notified of 1 added scope item and 2 scope items moved into the scope previously identified as suggested scope.

November 6, 2012 – The Commission authorized staff to prepare design documents and use Port crews to support site investigation needed to develop the contract documents, for \$3,760,000.