

Sea-Tac International Airport



NorthSTAR Program

**Program Commission First Quarter 2016 Update
and North Satellite Project Update**



NorthSTAR Program

The **North Sea-Tac Airport Renovation** (NorthSTAR) Program is being planned and delivered in collaboration with Alaska Airlines to better serve passengers and improve operational efficiency. This program consists of renovating and expanding the north satellite, improving the north main terminal, refurbishing the north satellite baggage system, and new exterior walkways, stairs and elevators at Concourse C.

Purpose:

- Improve the travel experience from airport drop-off to flight departure and working environment for employees

Outcome:






- Facility modernization; seismic reinforcement; enhanced traveler amenities; new contact gates; long-term energy savings; and operational efficiencies

Mission Statement




ACTIVE PROJECTS

	C800554	WP 104802	NS NorthSTAR Program Management	George England, Program Mgr
	C800556	WP 104791	NS NSAT Renovation NSTS Lobbies	Ken Warren, Project Mgr
	"	WP U00019	NS NSAT STS Roof Leak Repairs	Ken Warren, Project Mgr
	"	WP U00209	NS NSAT Art Program	Colleen McPoland, Project Mgr
	"	WP U00221	NS STS Train Display	Doug Honeyman, Project Mgr
	C800545	WP U00042	NS Main Terminal Improvements	ON HOLD
	C800547	WP 104784	NS Conc C Vertical Circulation	COMPLETED
	C800555	WP 104792	NS Refurbish Baggage System	COMPLETED

EXPENSE PROJECTS

	WP U00072	NorthSTAR TI Work	Doug Honeyman, Project Mgr
	WP U00137	Project Activation	Doug Honeyman, Project Mgr
	WP U00167	Misc Expense - NSAT	Ken Warren, Project Mgr
	WP U00207	NSAT RMM - Contaminated Soils	Ken Warren, Project Mgr
	WP U00208	NSAT RMM - Asbestos Removal	Ken Warren, Project Mgr
	WP U00094	PLB Relocation at C14	COMPLETED
	WP U00095	eGSE Relocation at Concourse C	COMPLETED
	WP U00129	CM Office (Retired)	COMPLETED
	WP U00130	BHS RMM	COMPLETED
	WP 104656	Alaska NSAT & Conc C (CLOSED)	CLOSED
	WP U00148	MCP Expansion Tenant Move (CLOSED)	COMPLETED

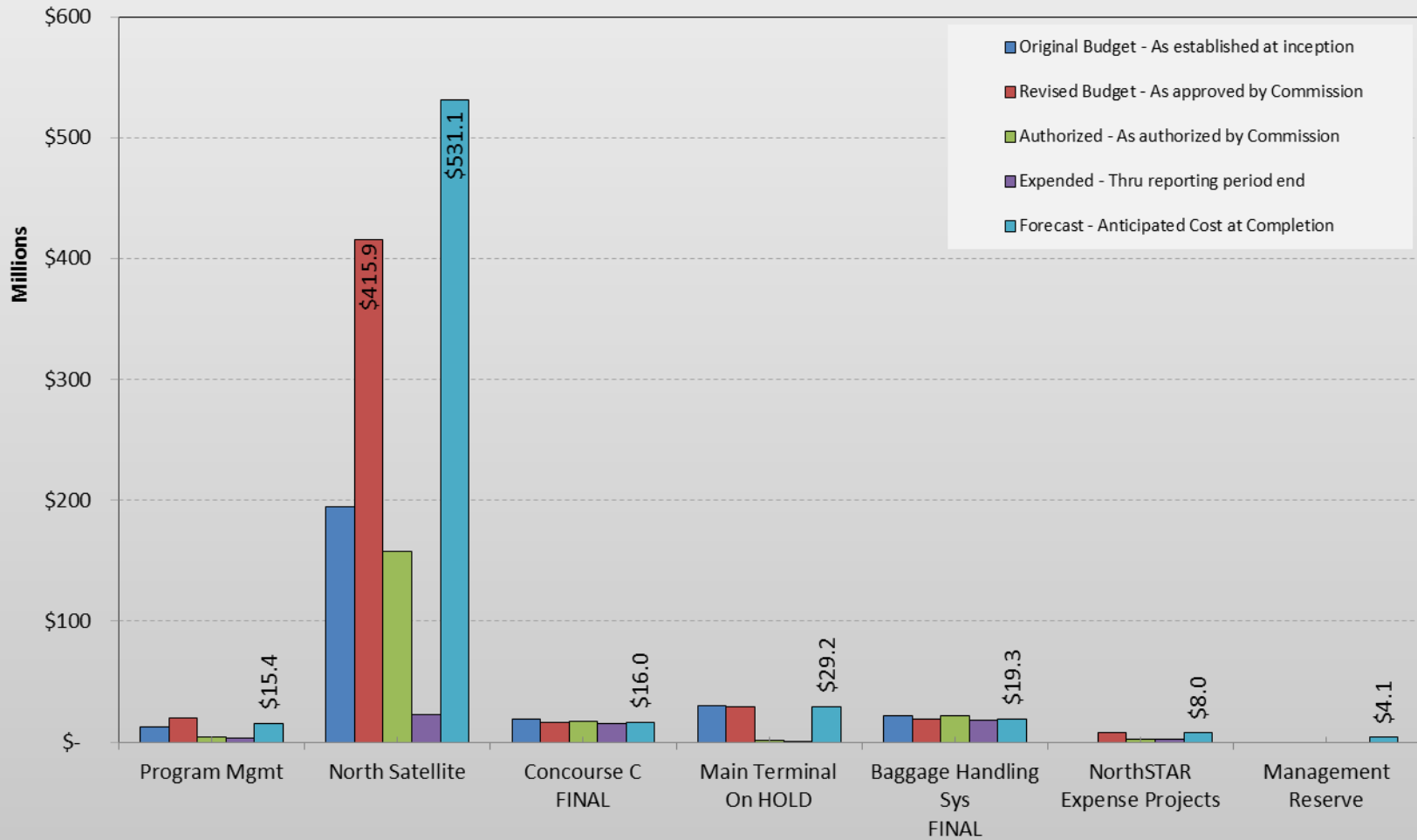
Legend:

-  - Reflects Additional Budget Required or Behind Schedule
-  - Reflects concern on Budget or No Float remaining on Schedule
-  - Reflects Good Status on Budget and Schedule

NorthSTAR Projects & Status

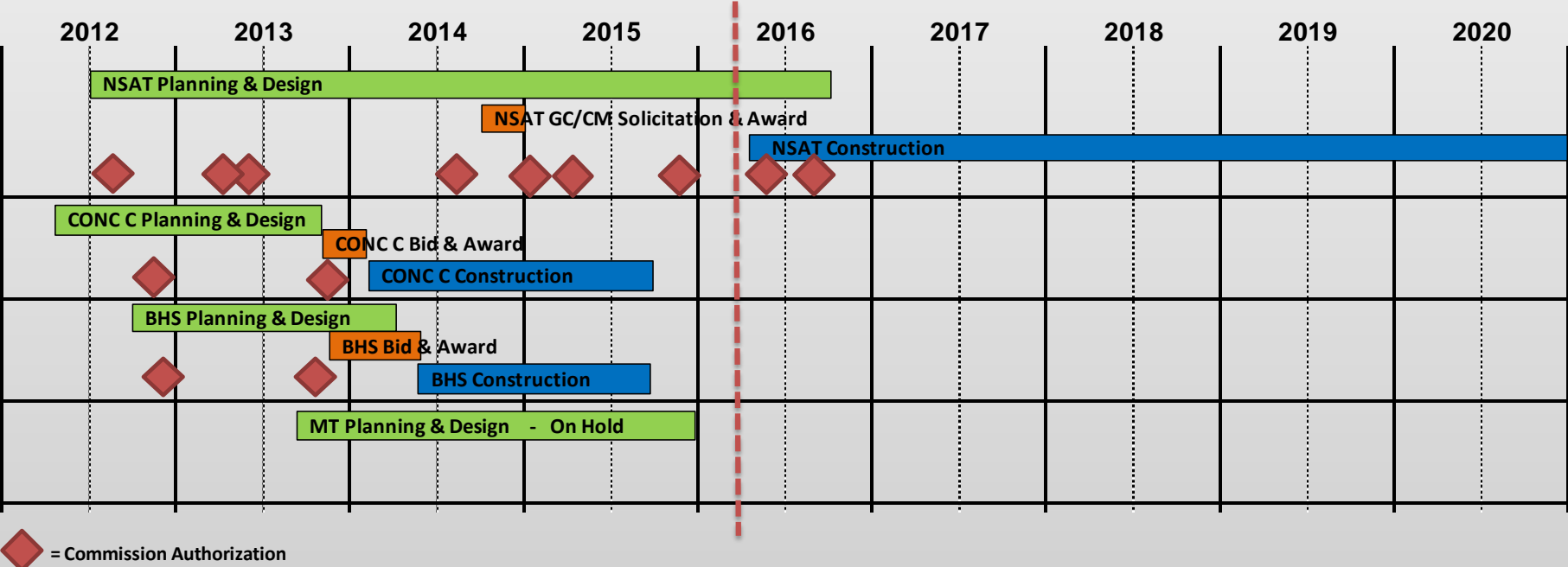
Approved Program: \$508M

NorthSTAR Program Overall Budget



Q1 2016 – North Satellite Forecasting Scope Growth

NorthSTAR Program Overall Schedule

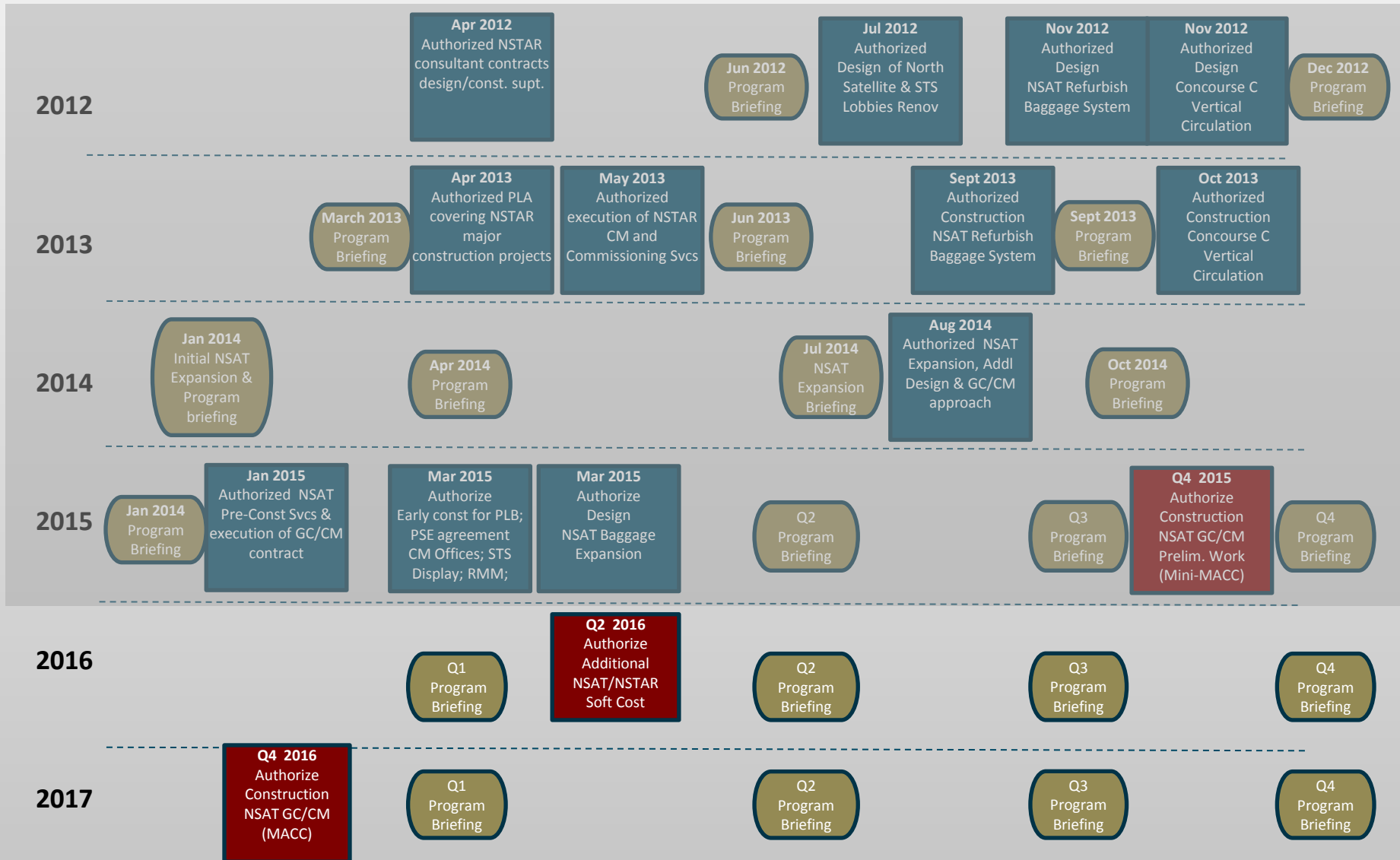


◆ = Commission Authorization

	Design		Construction		Overall	
	Plan	Actual	Plan	Actual	Plan	Actual
North Satellite/STS Renovation	100%	87%	0%	0%	9%	5%
Main Terminal Improvements	8%	5%	0%	0%	1%	1%
Concourse C Vertical Circulation	COMPLETE					
Refurbish Baggage Handling System	COMPLETE					

Q1 2016–Schedules & % Progress

NorthSTAR Program Commission Action



Commission Schedule – Past & Future

NorthSTAR Program Management

CIP: C800554 – NorthSTAR Program Management

 Project Status Good

Purpose:

- Overall management of the program; programmatic oversight, coordination and controls for consistency; support between stakeholders and projects; and efficient and successful execution of the entire program's objectives.

Accomplishments:

- Began coordination with Port Finance & Budget to evaluate percentage of costs for NSAT that are eligible for PFC (Passenger Facility Charge) funding.

Progress:

- Continuing to update Program Master Schedule with changes to project schedules in design/construction.

Issues:

- Resolving remaining design decisions and AAG concurrence have budget and schedule implications.

Q1 2016 Status – Program Management

NorthSTAR Program Management

Metrics:

Project Metrics	Budget/ Planned	Actual
Overall Schedule Progress	54%	46%
SCS Participation (Program Management)	27.0%	18.1%*

* denotes % of Prime Contractor Budget to date.

Financial Metrics	Budget/ Planned	Actual	Remaining
Estimated Total Costs *	\$19.5M	\$3.7M	\$15.8M
Estimated Contingency (including Mgmt Reserve)	\$0.94M		\$5.2M
Q1 Cashflow	\$140k	\$145k	

* Contingency included

Risks:

- Communication and coordination between multiple teams, stakeholders and people
- Maintain baseline schedule agreed to by all stakeholders
- Further budget implications and schedule delays due to NSAT decisions

Q1 2016 Metrics/Risks – Metrics tracking within acceptable limits

NSAT Renovation & NSTS Lobbies

CIP: C800556 - NSAT Renovation & NSTS Lobbies

◆ Project has budget & schedule concerns

Purpose:

- Renovate and expand the satellite, including infrastructure, seismic reinforcement, gate relocations, north loop STS stations, and new penthouse shell
- Provide improved travel experience for customers, improved working environment for employees and long-term energy savings and operational efficiencies

Accomplishments:

- Initiated coordination with Art Program artists
- Prepared, Submitted and Received a favorable MII vote for the project on March 31
- Developed criteria for Safegate Aircraft Docking system
- Phasing criteria for Preliminary Work Package 1 has been incorporated into the design
- Preliminary Work Package 1 has been issued for Bid
- Added 8 new scope items; 3 await AAG's final decision whether Port provides
- Completed budget review; increasing budget requiring Majority-In-Interest Ballot
- Developed 22 construction phasing options to maintain 14 terminal adjacent gates through NSAT construction per AAG request
- AAG identified urgent need to replace Gate C17 PLB; Designated as "Hot Project" due to operational impacts and decided to fast track under a separate pre-existing CIP

North Satellite – Accomplishments

NSAT Renovation & NSTS Lobbies

(continued):

Progress:

- Progressed implementation of Value Engineering refinement; Emergency Power redesign saves \$1.7 million
- Progressed Airport Dining & Retail coordination during construction, at opening of Phase 1 completion and final construction
- Identified additional temporary infrastructure requirements for Phase 1 to Phase 2 transition
- Continue resolving AAG 60% design comments
- Working to resolve existing holdroom Level of Service (LOS) concerns by AAG during construction
- Awaiting AAG's approval of refined space layout for Boardroom impacted by Port's value engineering decision modifying the roof & slightly reducing boardroom space
- Port & GC/CM discussing contract requirements, refining bid package scopes of work and finalizing construction phasing in preparation to begin work
- "Push/Pull Planning" session conducted to critical path schedule to compete design of Preliminary Work Package 2 & Base Building packages incorporating 8 added scope items and submittal dates without impact to construction schedule
- Conducting workshops on Phase 2 construction phasing; 3 preferred options need refining

North Satellite – Progress

NSAT Renovation & NSTS Lobbies

ID	Task Name	Start	Finish	2016				2017				2018				2019				2020				2021
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
1	Commission Authorization Preliminary Work	12/8/2015	12/8/2015																					
2	100% Design - Prelim Work Pkg #1	3/4/2016	3/4/2016																					
3	100% Design – Prelim Work Pkg #2	6/3/2016	6/3/2016																					
4	Commission Authorization - MACC	8/25/2016	8/25/2016																					
5	100% Design – Base Building	9/14/2016	9/14/2016																					
6	MII Vote	3/31/2016	3/31/2016																					
7	Construction – Prelim Work Pkg #1	4/21/2016	11/23/2016	PLB Relocation																				
8	Construction – Prelim Work Pkg #2	11/25/2016	12/26/2017	Mass Excavation for Expansion / Utility Reroute / Structural Steel																				
9	Construction – Base Building Phase 1	12/7/2017	2/21/2019	Phase 1 - Expansion Buildout																				
10	Construction – Base Building Phase 2	2/21/2019	12/22/2020	Phase 2 - Building Renovation																				

Project Schedule by Phase – Completion in Q4 2020 pending MII vote

NSAT Renovation & NSTS Lobbies

(\$ in Millions)	Commission Budget	Current PMG 60% Budget (Post VE)	MII Submittal
Design Phase	\$62.1	\$65.2	\$67.2
Construction Phase	\$325.0	\$372.4	\$426.0
Sales Tax	\$28.8	\$33.2	\$37.9
Subtotal (Capital)	\$415.9	\$470.8	\$531.1
Expense (RMM)	\$5.8	\$11.8	\$11.8
Total	\$421.7	\$482.6	\$542.9

Overall Budget Growth (see next page for details)

- Scope Additions (\$48.8M)
- Market Conditions/Risks (\$66.4M)

Project Cost Growth Summary – MII Submitted Budget / Scope Additions

NSAT Renovation & NSTS Lobbies

Growth from Commission Budget to 60%:

- Additional Scope
 - ✓ Relo of STS Switchgear/Smoke Evac Ductwork (\$5.3M)
 - ✓ Temp Facilities/PLB Relo for Gate Operations (\$12.0M)
 - ✓ Addl eGSE parking/charging stations (\$2.5M)
 - ✓ Connect AAG MDF to Emergency Power (\$0.1M)
 - ✓ Taxiway Lighting / Panel Replacement (\$3.2M)
 - ✓ Chilled Water Service Backbone Increase (\$2.1M)
 - ✓ Site / Civil Regrade & Panel Replacement (\$8.0M)
 - ✓ Potable Water Cabinets (\$0.3M)
 - ✓ LEED Certification (\$0.5M)
 - ✓ Rainwater Collection (\$0.3M)
 - ✓ HVAC Heat Recovery Pump System (\$1.0M)
 - ✓ Natural Gas (\$0.2M)
 - ✓ Anticipated Value Engineering (-\$18.6M)
- Market Conditions & Risks
 - ✓ 60% Estimate Adjustments (\$19.3M)
 - ✓ GC/CM Fee Distribution Adjustment (\$18.7M)

Growth from 60% to MII:

- Additional Scope
 - ✓ Reroute Roof Drainage to Storm Sewer (\$1.7M)
 - ✓ SafeDock / Ramp Information Displays (\$5.0M)
 - ✓ Gate, Flight & Baggage Information Displays and Closed Circuit TV (\$1.5M)
 - ✓ Living Wall; Ramp Lighting & Increase CCTV (\$0.2M)
 - ✓ Portable Emergency Power Generator (credit incl. in VE)
 - ✓ Potential Port purchase of holdroom seats and casework (\$2.5M)
 - ✓ Potential Port purchase of 21 Passenger Loading Bridges (\$21M)
- Market Conditions & Risks
 - ✓ Additional Bid and Market Risk Contingency (\$14.4M)
 - ✓ Phase II Construction Sequencing / Gate Availability Risk (\$14.0M)

Project Cost Growth Summary – MII Submitted Budget / Scope Additions

NSAT Renovation & NSTS Lobbies

Issues:

- AAG submitted letter identifying issues requiring resolution for concurrence
 - 17 gates during NSAT construction, Approval of revised Boardroom, LOS concerns
- Final definition and agreement required of AAG “betterments” (cost sharing items), including budget quantification

Metrics:

Project Metrics	Budget/ Planned	Actual
Overall Schedule Progress	9%	5%
SCS Participation (Design)	3.3%	1.9%
SCS Participation (Const)	0.0% *	0.0% *
Apprenticeship Utilization	15.0%	0.0% *
Minority Utilization	15.0%	0.0% *
Women Utilization	10.0%	0.0% *
Preferred Entry Apprentices	1 in 5	0 *

* No Information available yet – Too early to report

Financial Metrics	Budget/ Planned	Actual	Remaining
Estimated Total Costs (including Contingency)	\$415.9M	\$25.2M	\$505.9M ¹
Estimated Contingency	\$38.5M		\$28.3M
Q1 Cashflow	\$3.2M	\$2.7M	

¹ – Reflects remaining to Forecast

Q1 2016 Issues/Metrics – Metrics show delay & cost risk

NSAT Renovation & NSTS Lobbies

Risks:

- Final reconciliation of project cost with Contractor results in budget growth
- Ability to implement preliminary construction phasing plan and terminal/airside modifications that minimizes impacts to AAG's customers level of service, operations, schedule and construction costs
- Supporting AAG's continued requests for more detailed analysis that minimizes impacts to complete the design of the project and maintain schedule
- Continued analysis of Phase 2 to increase number of operating gates impacts design and construction
- Resolution of AAG & Port comments as the design progresses that increase scope
- Impact of the aggressive construction market on cost and availability of materials and work force

Risks – Final budget, AAG concurrence, and design scope