



NANTUCKET MEMORIAL AIRPORT

Master Plan

Working Group Workshop

Thursday, December 18, 2014





Meeting Agenda

Thursday, December 18, 2014

1. Welcome & Introductions
2. Review of Master Plan Status
3. Master Plan Improvement Concepts
 - ✓ Safety and Security
 - ✓ Capacity
 - ✓ Efficiency
 - ✓ Revenue Enhancement
 - ✓ Environmental/Sustainability
4. Priorities Table/Discussion
5. Next Steps



Safety and Security Concepts



Terminal Apron Repaving

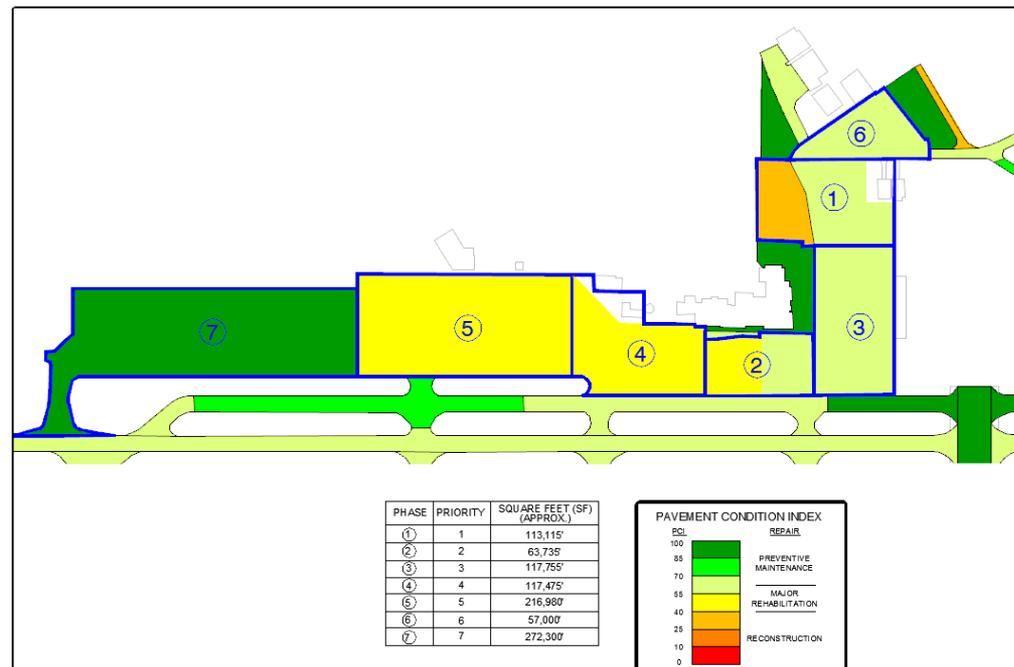
Recommended: Apron Repaving in 7 Phases- Alternate Years

Pros:

- FAA AIP eligible
- Identified on prior CIP
- Minimizes disruption to airside operations

Cons:

- Construction season to work around peak season traffic and winter conditions
- Prioritize in context with financials and other CIP projects



Bottom Line: Phase 1 is needed due to Apron PCI condition in Terminal Area, addresses the need for additional air carrier jet parking spot at Terminal Building

Terminal Apron Phase 1 – New Parking Position

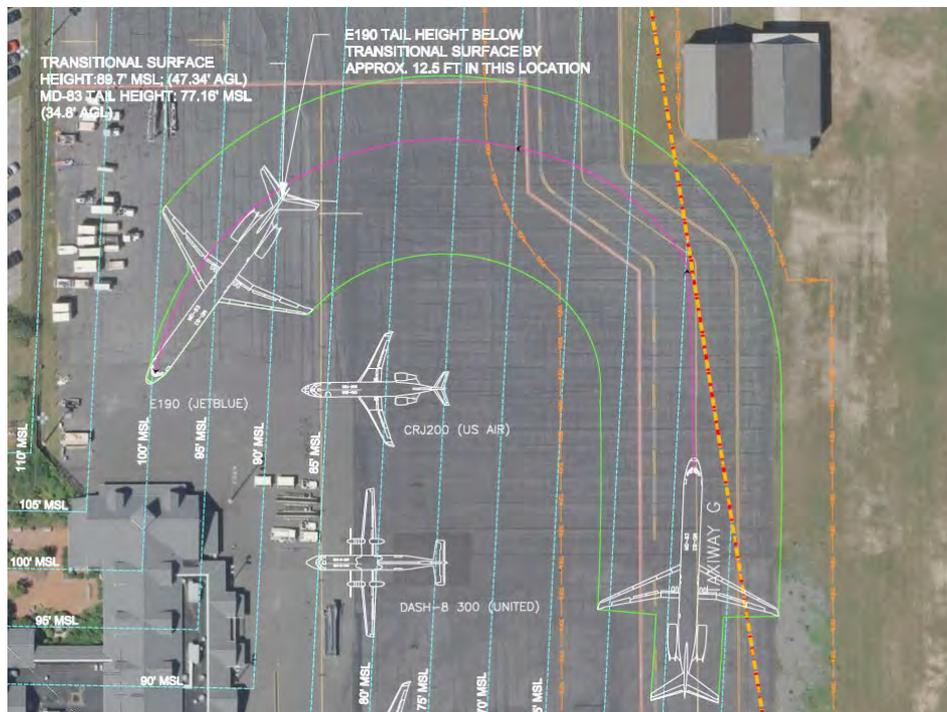
Recommended: Create New Jet Airline Parking Position

Pros:

- Meets need for second E-190 parking position for growing NYC market
- Complies with Part 77 Regulations

Cons:

- Modifies current aircraft parking
- Loss of GA tiedowns



Bottom Line: Immediate action is necessary to prevent the current E190 parking position from penetrating the Part 77 Transitional surface by up to 7ft.

South Apron Redesign

Recommended: South Apron Redesign in 5 Phases- Alternate Years



Pros:

- Phasing allows for CIP prioritization
- Meets FAA taxiway standards for increasing wingspans
- Minimizes ramp and apron congestion

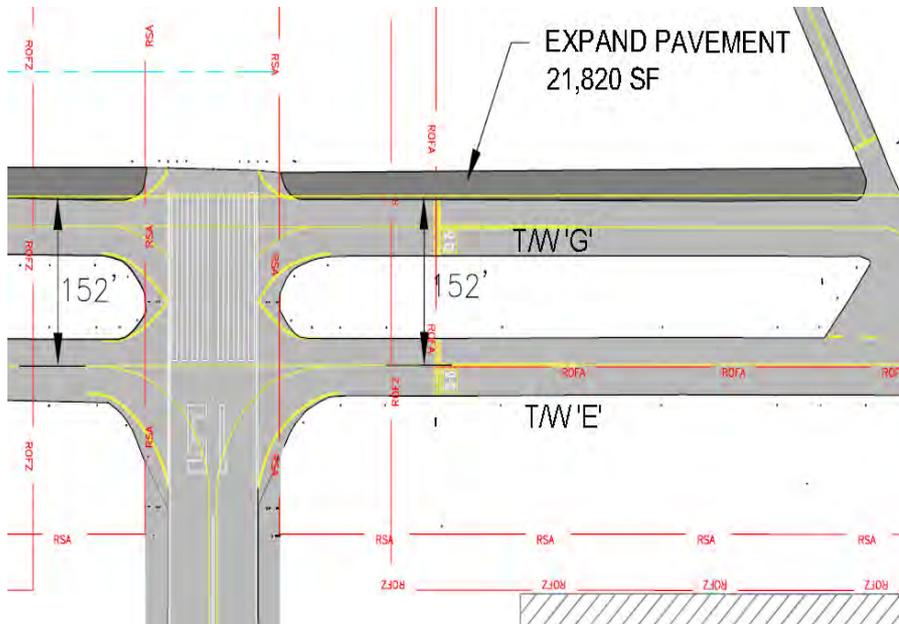
Cons:

- Requires EA/EIR Permitting (Year 2)
- Construction season to work around peak season traffic and winter conditions
- Prioritize in context with financials and other CIP projects
- Lower priority for FAA funding

Bottom Line: Reduces ramp congestion, meets FAA design standards

Separation of Taxiways 'E' and 'G'

Recommended: Separate Taxiways 'E' and 'G'



Pros:

- Relocating Taxiway 'G' centerline will bring separation into FAA compliance
- Allows two E-190's to pass
- Eligible for FAA funding

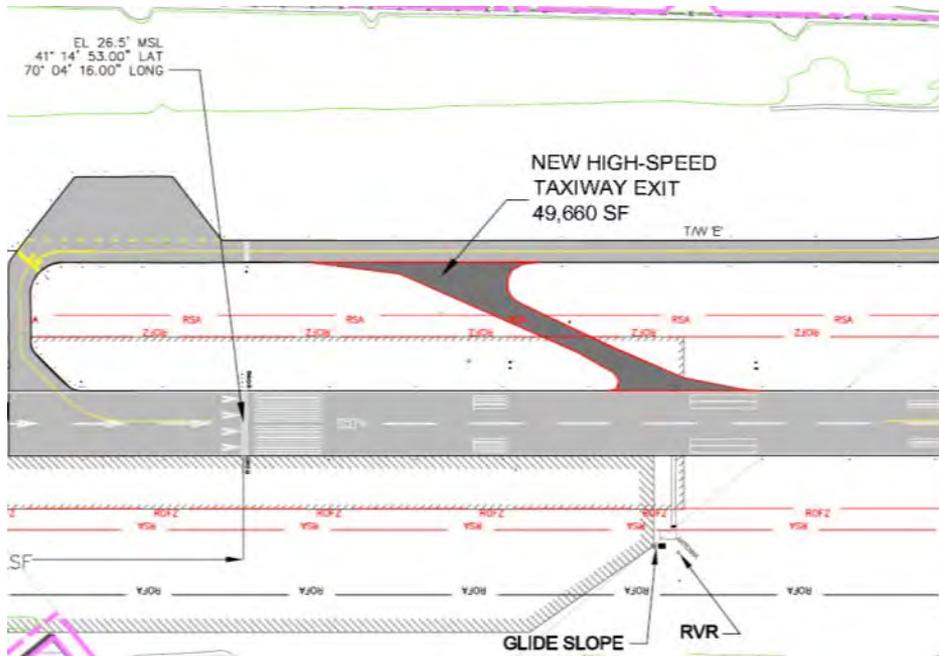
Cons:

- Construction season needs to work around peak season and winter conditions
- Permitting and mitigation for potential impacts to habitat for listed species

Bottom Line: Increases operational efficiency, non-compliant per AC 150/5300-13A.

Runway 24 Exit Taxiway

Recommended: RW 24 High-Speed Exit



Pros:

- Enhances safety and minimizes delay
- Reduces taxi times, fuel use, emissions, and sound
- Assists Air Traffic Controllers

Cons:

- Somewhat higher costs than right-angle alternative
- Permitting for environmental (Year 2)
- Concrete Pad at TW 'E' intersection

Bottom Line: Increases safety, reduces noise and improves operational efficiency

Information Technology and Security System Upgrades

Recommended: Terminal PA System/FIDS

Pros:

- Integrate PA with FIDS automated flight announcements
- Low maintenance and minimal support
- Enhanced reliability

Cons:

- Brief system outage during setup
- Ties-in to Passur Feed
- High initial costs (\$375K)

Recommended: Vehicular and Pedestrian Access Controls

Pros:

- Central control and administration
- Positive access control
- Consolidate access cards/keys to a single system
- Simplify and streamline access badging
- Wildlife protection

Cons:

- High initial costs (\$300K)

Information Technology and Security System Upgrades

Recommended: Consolidate Communications Facilities- Main Terminal

Pros:

- Single location for all data/security systems
- Provide clean, environmentally controlled space for all equipment
- Access controlled equipment space

Cons:

- Cutover and system downtime will need to be closely coordinated
- Initial upfront Costs (\$100K)

Recommended: New Communications Pathways- Terminal to SRE Building IT Communications Link

Pros:

- Enhance communications to SRE building
- Provide path for security data to central system
- Relatively inexpensive to implement
- Simplified setup and configuration
- Low maintenance and minimal support

Cons:

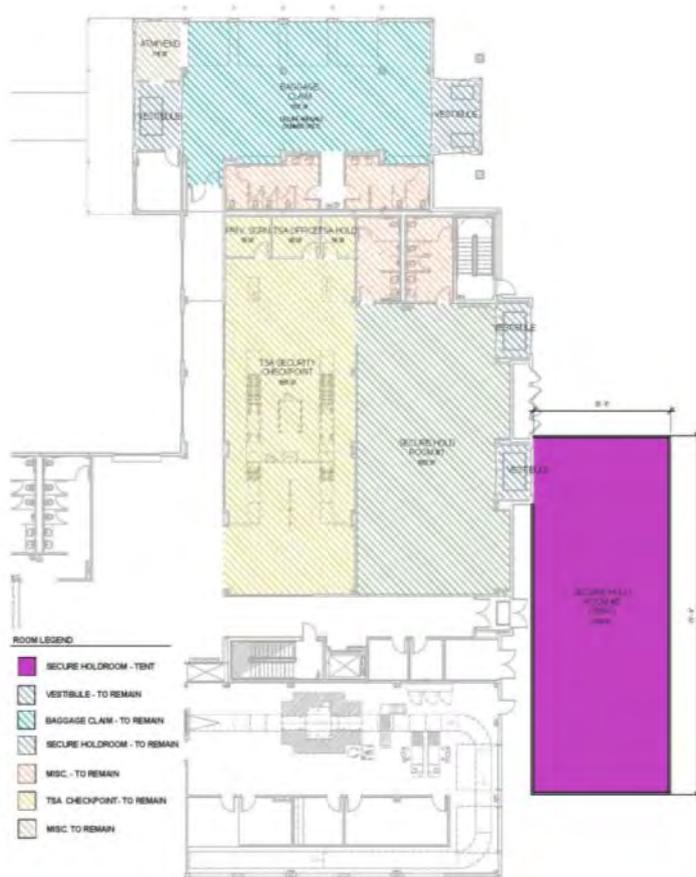
- None

Terminal and Airfield Capacity



Temporary Tent/Secure Hold Room

Recommended: Temporary Tent/Secure Hold Room



Pros:

- Airport previously used tent as solution for secure airside holding room
- Meets growing needs of NYC market
- Low cost
- Meets temporary code issues for seasonal overcrowding
- Allows arriving passengers to access main terminal thru “402” gate or bag claim gate
- Potential MassDOT ASMP 80% Funding

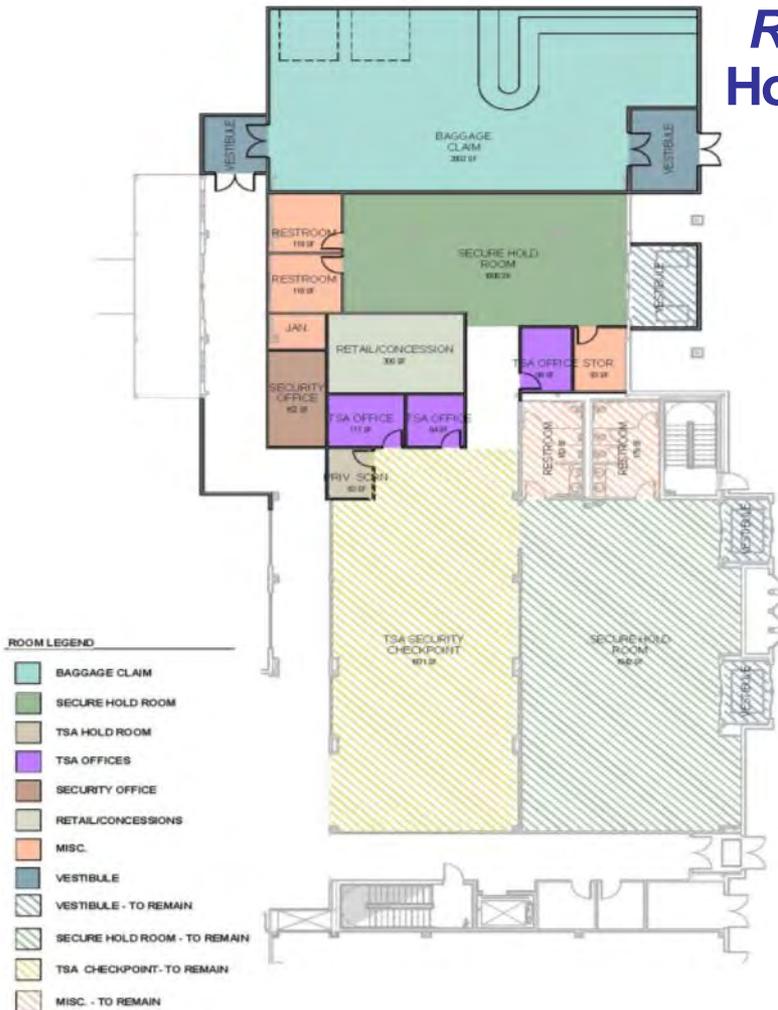
Cons:

- Short-term solution
- Expansion into airside

Bottom Line: Immediate cost effective solution to temporarily address seasonal congestion

Terminal 10 Year Plan

Recommended: Convert Bag Claim to Second Hold Room and Build new Bag Claim – Mid-Term



Pros:

- Long-Term Solution
- Addresses seasonal secure Hold Room congestion for growing NYC Market
- Addresses secure side concession needs
- Address increased secure side restroom facility needs

Cons:

- High Costs (\$5 Million estimated)
- No significant increase in TSA screening area
- Effect on North Ramp airline GSE area

Bottom Line: Long-Term Solution to address seasonal congestion

Terminal 20 Year Plan



Recommended: Long-Term Major Terminal Renovation/Expansion

Pros:

- Ultimate Long-Term Solution
- Adds concession, TSA, and Hold Room space
- Adds Airport Security Office space
- Expands restroom capacity
- Addresses seasonal congestion

Cons:

- Highest cost (\$8 Million +)
- Effect on North Ramp airline GSE area

Bottom Line: Long-term solution that will address all spatial needs for the 2025 forecast

Efficiency/Accessory Needs



ACK Fund Phase 2 of Tower Rehab



- ✓ Lack of Local Funding – Requires \$1 Million
- ✓ Exceeds Balance of OTA Earmark
- ✓ Need to use Annual FAA Entitlement \$?
- ✓ Financial impact on 5 Year CIP funding



Airport GSE Storage Building

Recommended: Build new Airport GSE Storage Garage



Pros:

- Provides adequate space for all GSE
- Protects the condition and airport's investment in equipment.
- Potential MassDOT 80% ASMP Grant

Cons:

- Not FAA AIP Eligible
- Cost (\$312K)

Bottom Line: All GSE Equipment should be stored in one location at South Ramp

SRE Storage Building Addition

Recommended: Build new Addition to SRE Garage



Pros:

- More space for SRE, eliminates existing fragmented storage
- Protects Airport's investment in SRE
- Extends life of SRE
- Potential MassDOT 80% ASMP Grant

Cons:

- Modifies current aircraft parking
- Loss of GA tiedowns
- Cost (up to \$1.4M)

Bottom Line: All GSE Equipment should be stored in one location

Need for Manager's House/Thompson House Rehab

Recommended: Relocate/Rehab House for Manager's Use



Pros:

- Rehab building as Manager's House or create new structure
- Costs offset by lease of other non-aviation surplus parcels (\$750K+)



Cons:

- Recent ownership/title issues
- Requires FAA approval
- Potential environmental permitting

Bottom Line: Addresses immediate need to provide use for seasonal employees, or to create a new Manager's House

Revenue Enhancement Concepts

Potential New Non-Aviation Revenue Sources

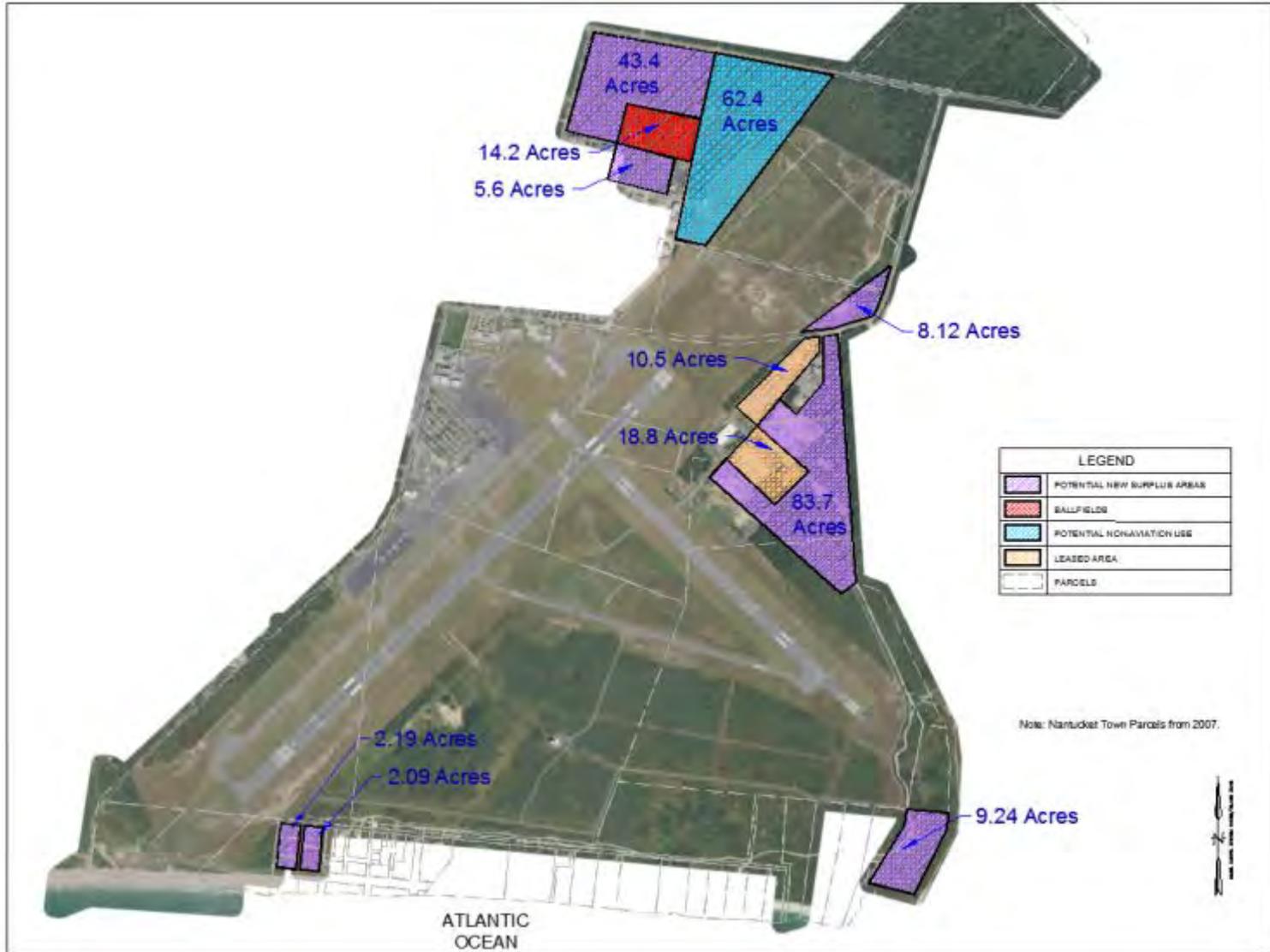
- ✓ Lease Non-Aviation Surplus Parcels

Potential New Aviation Revenue Sources

- ✓ Potential GA Hangar/Commercial Combo Space
- ✓ Benchmarking comparable airports' rates and charges
- ✓ Equitable restructuring of ACK rates and charges (landing fees, weight based, ground leases etc.)



Potential Non-Aviation Surplus Parcels



Expand Bunker Area Industrial Development

Recommended: Expand Bunker Area Industrial Development



Pros:

- Generates sustainable revenues to airport
- Compatible with proposed solar development area limits

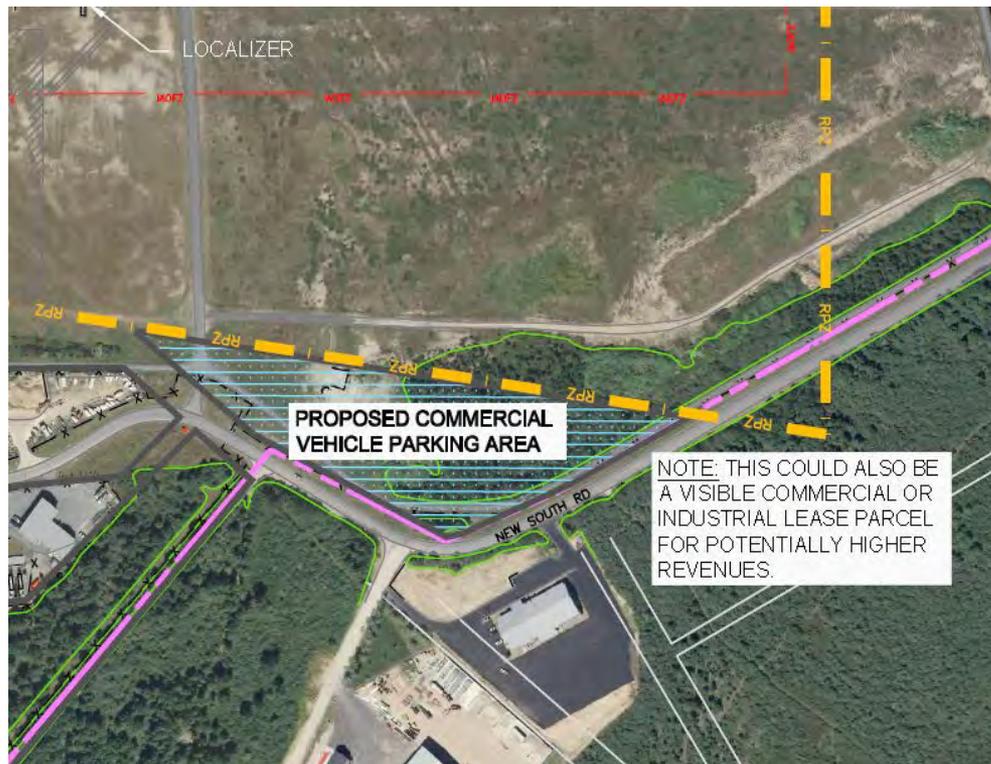
Cons:

- FUDS clean-up
- Potential habitat permitting issues

Bottom Line: Addresses island-wide demand for light industrial sites and provides additional source of Airport revenue

Bunker Road: Remote Commercial Vehicle Parking Area

Recommended: Remote Commercial Vehicle Parking Area



Pros:

- Revenue source
- Minimal cost to airport
- Meets current need for contractor parking

Cons:

- Remote location relative to terminal area
- Environmental permitting
- Habitat replacement

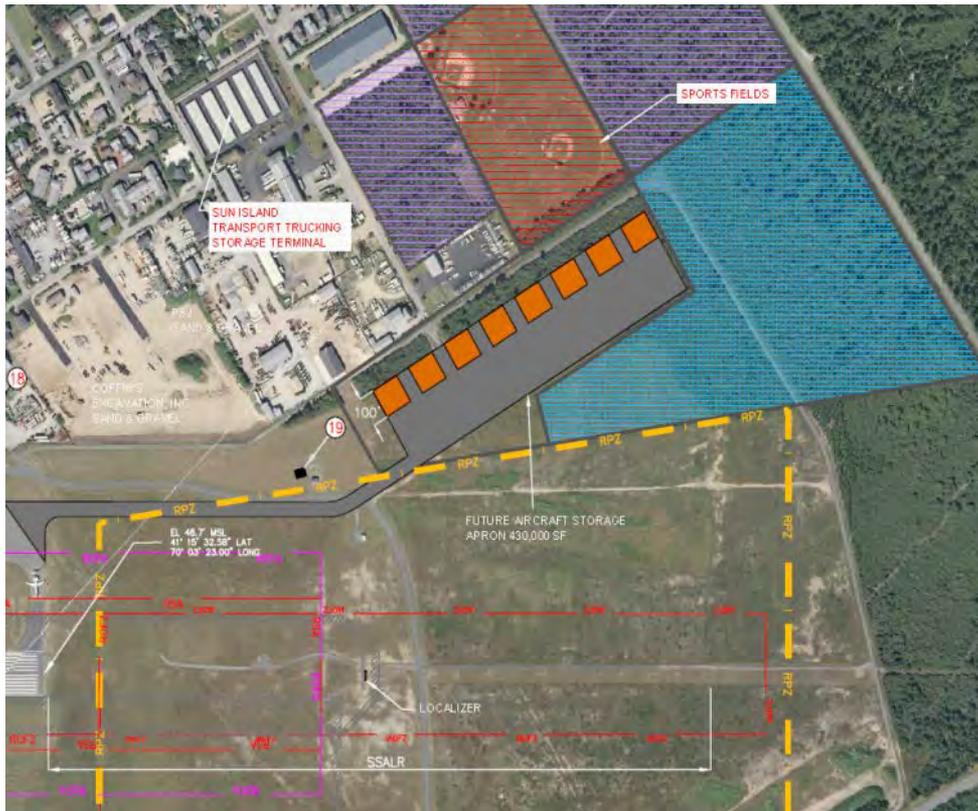
Bottom Line: Addresses existing demand for long-term commercial vehicle parking.

Delta Area- Non-Aviation Parcels



Large GA Jet Hangars

Recommended: Large GA Jet Hangars- Private Development



Pros:

- New revenue source
- Potential ASMP pavement grant

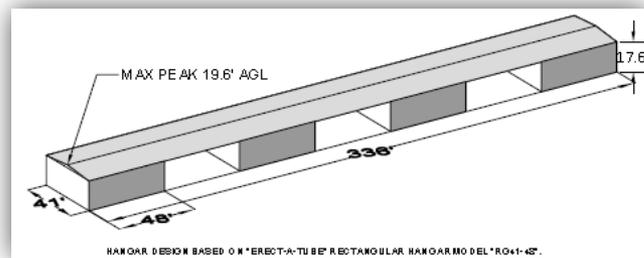
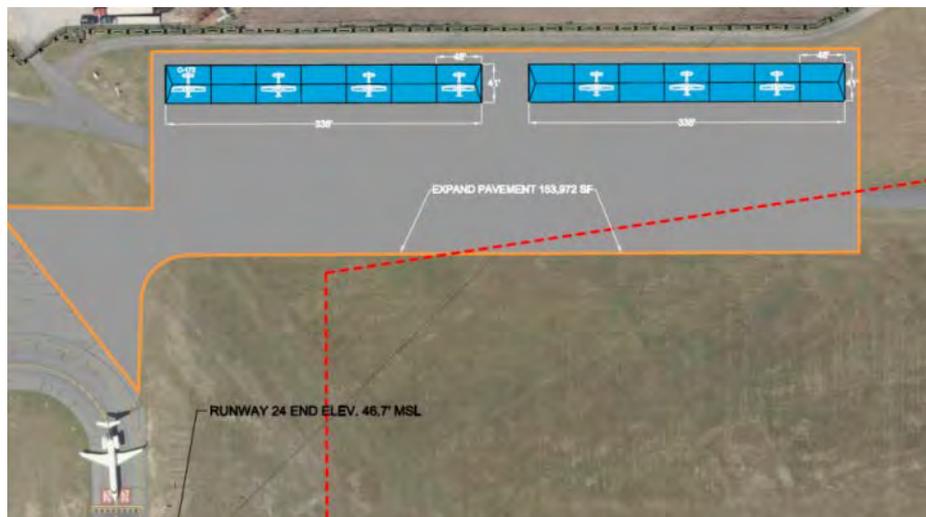
Cons:

- Environmental permitting
- Additional habitat mitigation area required
- Not FAA priority for funding

Bottom Line: Addresses long-term potential need for large-sized GA storage hangars and provides additional source of revenue

GA Hangar-Commercial Combo Space

Recommended: North Apron GA Hangars - Year pending Private Development



Pros:

- New revenue source
- Potential ASMP pavement grant

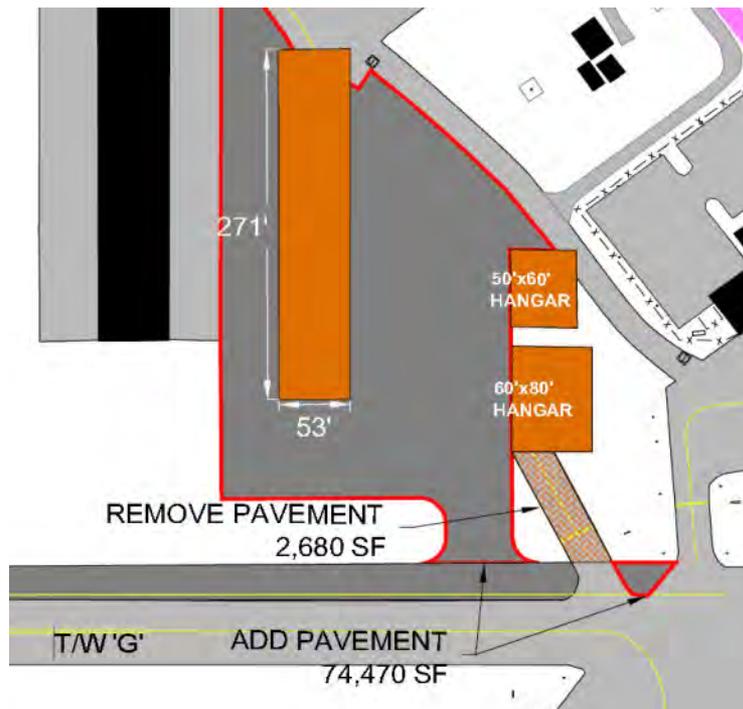
Cons:

- Requires FAA approval for through-the-fence and non-aviation commercial uses
- Environmental permitting
- Additional habitat mitigation area required

Bottom Line: Addresses long-term potential need for GA storage hangars and commercial space and provides additional source of revenue

North Apron GA Hangars

Recommended: North Apron GA Hangars- Year pending Private Development



Pros:

- New revenue source
- Potential ASMP funding

Cons:

- Potential environmental permitting

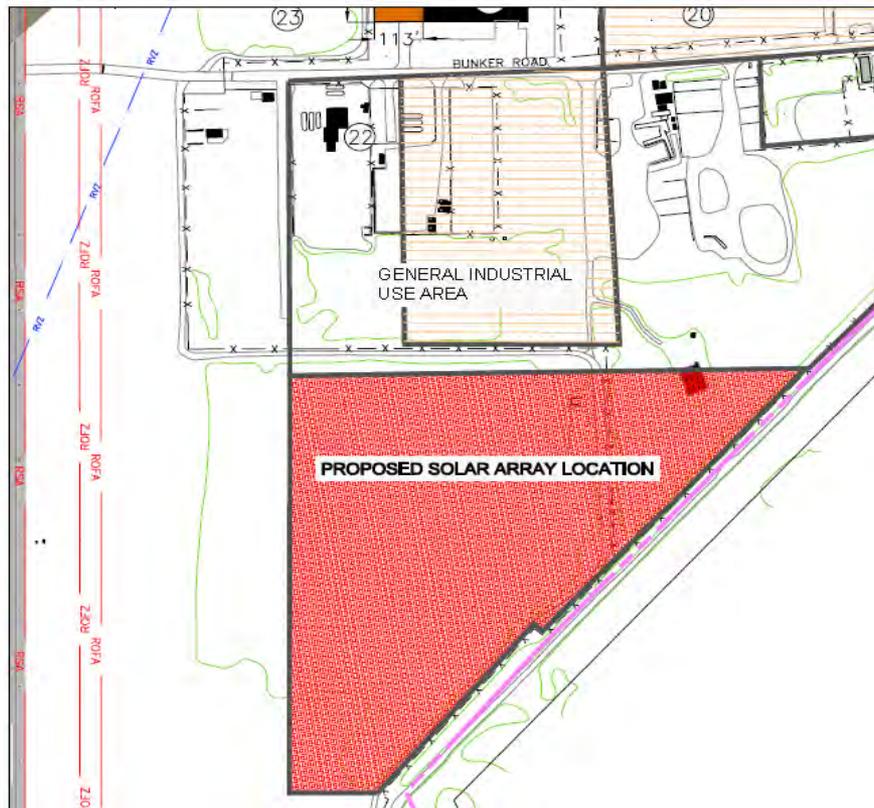
Bottom Line: Addresses current demand for GA hangar space and provides additional source of revenue

Environmental/Sustainability Concepts



Bunker Area Solar Development

Recommended: 17 Acre Solar Array Development in Bunker Area



Pros:

- Potential revenue source
- Sustainable energy source
- Electric power costs offset

Cons:

- Environmental permitting
- Costs of Habitat Mitigation program
- FAA Approvals/FAA glint and glare review
- Limits future aviation use
- Limits future leasing of additional non-aviation industrial parcels

Bottom Line: Potential sustainable power source and revenue generation to airport

Runway 24 Solar Development

Recommended: 23 Acre Solar Array Development adjacent to Runway 24



Pros:

- Potential Long-term revenue source
- Sustainable energy source
- Electric power costs offset
- Potentially larger site

Cons:

- Environmental permitting
- Costs of Habitat Mitigation program
- FAA Approvals/FAA glint and glare review

Bottom Line: Potential long-term sustainable power source and revenue generation to airport

Ground Transportation Initiatives

- Promote increased use of NRTA Service
- Preferential parking for alternative-fuel cars/EV charging stations
- Promote increase in use of bicycle transport to airport
- Ramp Lighting /PCL Controls
- Ride-Share



Project Evaluation & Priorities Discussion

- ✓ Review Evaluation Matrix (example)
- ✓ Review 5 Year Capital Improvements Projects (CIP)



Proposed Projects Priority List 0-5 Years (Sheet 1)

Nantucket Airport Master Plan
MASTER PLAN ALTERNATIVE CONCEPTS - PRIORITY LIST

0 Years- 5 Years

Project Chapter	Section	Project	Engineers Probable Cost	FAA Eligible		Recommended		Total Time Frame	Priority Score	Time Frame								
				Yes	No	Yes	No	0 Years - 5 Years	(WV X B)	1	2	3	4	5				
SAFETY & SECURITY CONCEPTS: 0-5 Years																		
7.1.7	1	Terminal Apron Repaving in 7 Phases Phase 1	\$1.7M	✓		✓		X	197	X								
7.1.11	1	North Ramp Part 77 Aircraft Tail Heights Concepts Create New Parking Position	\$5K	✓		✓		X	194	X								
	2	Swap Parking Position		✓		✓		X	184									
		Taxiway/South Apron MEPA-MESA Permitting	\$750K	✓		✓		X			X							
7.1.2		Separation of Taxiways "E" and "G"	\$600K	✓		✓		X	164		X							
7.1.5	2	RW 24 Exit Taxiway High-Speed Angle Exit Taxiway	\$830K	✓		✓		X	166			X						
7.1.12	8	Information Technology System Upgrades Upgrade Voice Telephone System	\$300K	✓		✓		X	161						X			
7.1.8	1	South Apron Redesign/Expansion Phase 1	\$1.8M	✓		✓		X	159			X						
7.1.7	2	Terminal Apron Repaving in 7 Phases Phase 2	\$1.8M	✓		✓		X	159				X					
7.1.12	6 & 7	Information Technology System Upgrades Terminal PA System/FIDS	\$375K	✓		✓		X	155	X								
7.1.10		RW 15 RPZ (Runway Protection Zone) Overlay Zone	\$5K	✓		✓		X	147	X								
7.1.12	1	Security System Upgrade Vehicular and Pedestrian Access Controls	\$300K	✓				X	140						X			
7.1.12	5	Information Technology System Upgrades Consolidate Communications Facilities- Main Terminal	\$100K	✓		✓		X	127						X			
7.1.12	4	Information Technology System Upgrades Terminal Building to SRE - IT Communication Link	\$10K	✓		✓		X	122						X			
7.1.1	1	RW 6 RSA (Runway Safety Area) Concepts Existing Irregular RSA	N/A	N/A		✓		X	N/A									
Sub Total=			\$8.58M							Sub Total=	\$2.09M	\$1.35M	\$2.63M	\$1.8M	\$710K			

AIP ELIGIBLE

Proposed Projects Priority List

0-5 Years (Blank Sheet 1)

Project Chapter	Section	Project	Engineers Probable Cost	FAA Eligible		Recommended		Total Time Frame 0 Years - 5 Years	Priority Score (WV X B)	Time Frame					
				Yes	No	Yes	No			1	2	3	4	5	
CAPACITY/TERMINAL AIRFIELD CONCEPTS: 0-5 Years															
7.2.1	Terminal Secure Hold Room Concepts														
	1	Seasonal Tent/Secure Hold Room	\$20K		✓			X	99						
Sub Total=			\$20K						Sub Total=						
EFFICIENCY-ACCESSORY CONCEPTS: 0-5 Years															
7.3.4	Need for Providing Airport Manager's House		\$750K		✓			X	85						
	Air Traffic Control Tower Rehabilitation		\$1M		✓			X	N/A						
Sub Total=			\$1.75M						Sub Total=						
REVENUE-ENHANCEMENTS: 0-5 Years															
7.4.10	Wingspan vs. Weight-based Fees/Rates and Charges		N/A		✓	✓		X	145						
7.4.2	Combo GA Hangars/Commercial Space (Private Costs)		\$2.5M		✓	✓		X	143						
7.4.6	Expand Bunker Area Industrial Development		N/A		✓	✓		X	128						
7.4.7	DELTA Parcel/Public Employee Housing/Seasonal Employee		N/A		✓	✓		X	120						
7.4.4	Parking Lot Operations: Hourly vs. Overnight Rates / Access Gate		\$80K		✓	✓		X	119						
7.4.5	Bunker Road Commercial Vehicle Parking Areas		\$15K		✓	✓		X	103						
7.4.11	Revenue and Enhancement Concepts - Flex Space Terminal/GA		N/A		✓	✓		X	95						
7.4.12	GA Revitalization/Special Events/Owner Type Group Fly-ins		N/A		✓	✓		X	93						
Sub Total=			\$2.6M						Sub Total=						
ENVIRONMENTAL-SUSTAINABILITY: 0-5 Years															
7.5.3	Coastal Management Initiative (On-Going)		\$50K (Per-Year)		✓	✓		X	151						
7.5.12	Apron Lighting Control/PCL Dimmer Concept		\$80K	✓		✓		X	128						
7.5.11	Ramp Electrification- VALE		(\$4M)		✓	✓		X	115						
7.5.1	Solar Array Development														
	7.5.1.1	Bunker Area Solar Development	N/A		✓	✓		X	111						
7.5.10	"Fly Friendly" Aircraft Noise Mitigation Measures (On-Going)		\$10K (Per-Year)		✓	✓		X	105						
7.5.6	Advertise Rental Cars/Taxis/Bike/Courtesy Vans/NRTA		\$5K (Per-Year)		✓	✓		X	98						
7.5.8	Bike Share/Rental Program		N/A		✓	✓		X	97						
Sub Total=			\$405K						Sub Total=						
(0 - 5 Year Engineer Probable Cost) TOTAL=			\$13.5M						(Per-Year) TOTAL=						

 AIP ELIGIBLE

Next Steps, Milestones & Schedule



- ✓ **Finalize 5 Year CIP Improvements Plan**
- ✓ **Develop Financial Plan (PB Aviation)**
- ✓ **Prepare ALP Set for FAA Approval**
- ✓ **Environmental Notification Form
for 5 Year Improvements Plan**





Discussion



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<http://masterplan.nantucketairport.com/>