

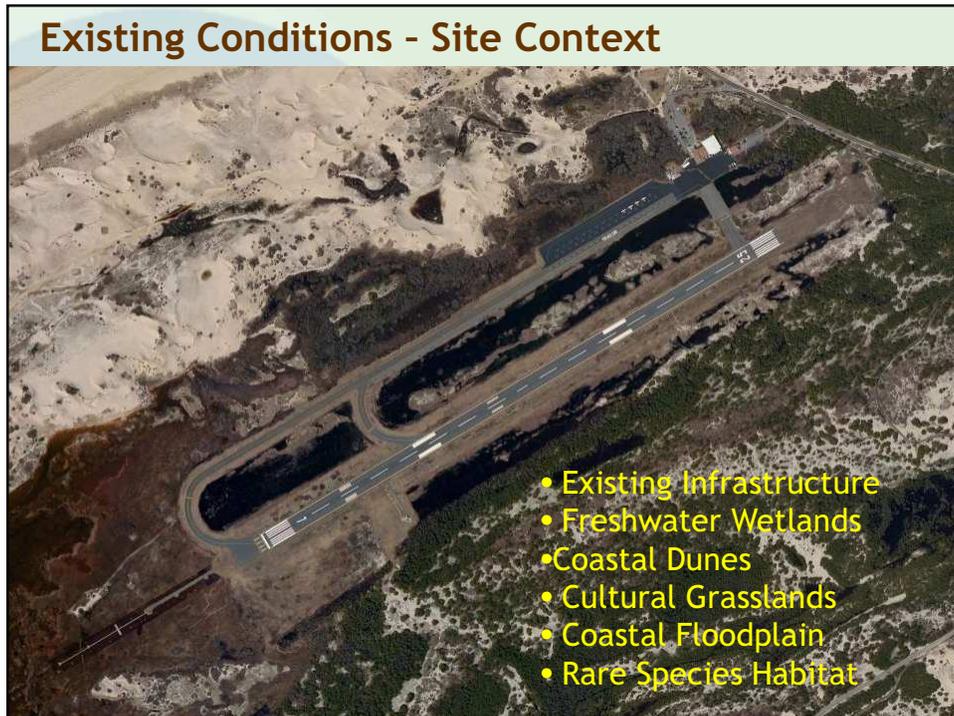


**Provincetown Municipal Airport
Capital Improvement Plan
Development of Regional Impact
Hardship Exemption**

Provincetown, MA
Cape Cod Commission Public Hearing
November 4, 2015

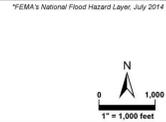
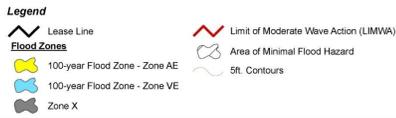


Existing Conditions - Site Context



- Existing Infrastructure
- Freshwater Wetlands
- Coastal Dunes
- Cultural Grasslands
- Coastal Floodplain
- Rare Species Habitat

Existing Conditions - Coastal Floodzone



Horsley Witten Group
Sustainable Environmental Solutions
www.horsleywitten.com

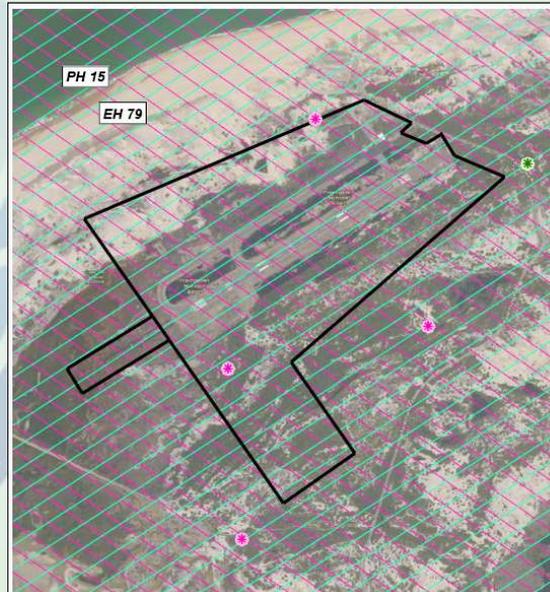
FEMA's National Flood Hazard Layer
Provincetown Airport
Provincetown, MA

Date: 3/12/2015 Figure 8

Existing Conditions - Rare Species Habitat

- Eastern Box Turtle
- Eastern Spadefoot
- Vesper Sparrow

MESA Project
Review *complete*



Proposed Conditions

1. Westerly Taxiway System Improvements
2. Relocate East End Taxiway
3. Reconstruct Terminal Apron - *completed*
4. Reconstruct Easterly End of Taxiway - *completed*
5. Install Taxiway Lighting and Construct Electric Vault
6. Repair Sightseeing Shack
7. Improve Access Road to Approach Light System
8. Construct Service Access Roads to LES and AWOS
9. Install a Perimeter Safety/Security Fence
10. Expand Auto Parking
11. Expand Terminal Building - *to be deferred*
12. Expand Turf Apron

Regional / Community Benefit

- Supports Goals of Regional Policy Plan
 - fosters sustainable economy
 - provides safe and reliable regional transportation options
- Resources
 - provides on-site and regional mitigation
 - manages invasive species
 - protects water quality
 - protects/restores habitat

East End TW & Access Roadways to AWOS and LES



Proposed Conditions

Install Taxiway Lighting and Construct Electric Vault

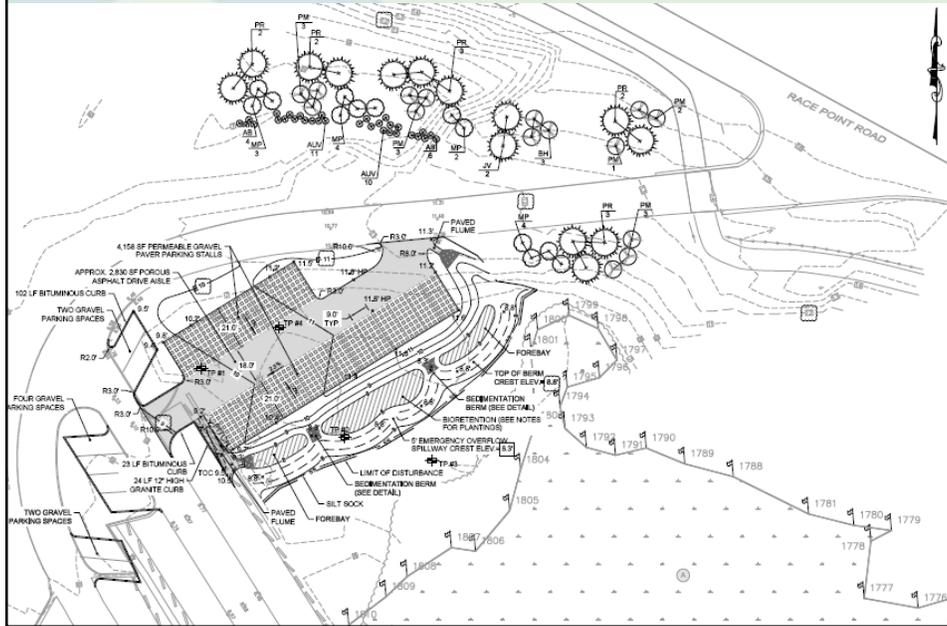


Repair Sightseeing Shack



Proposed Conditions

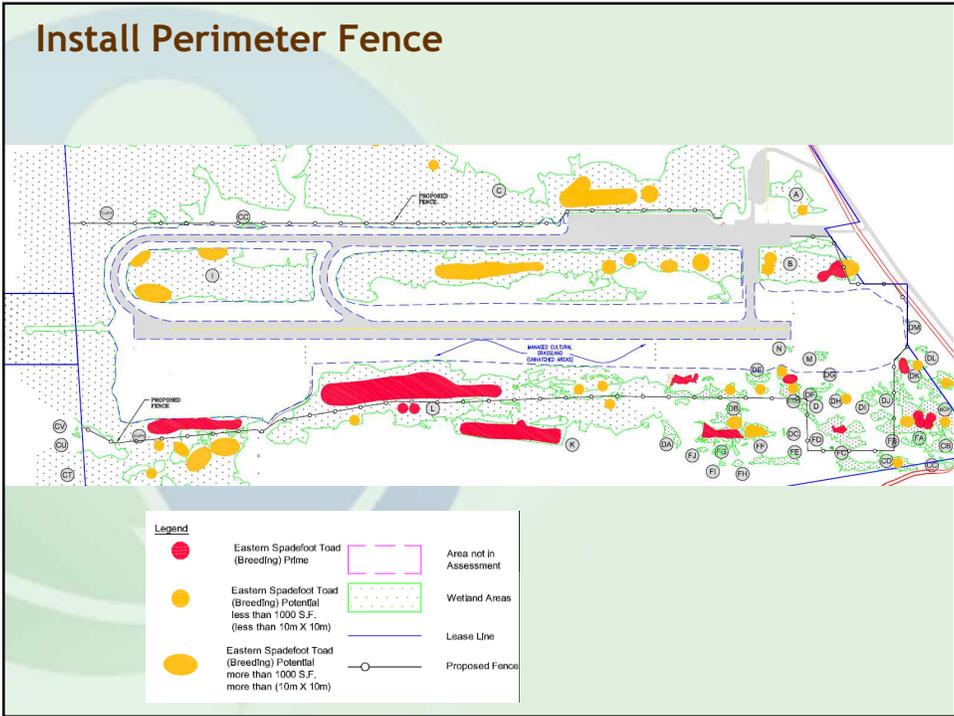
Additional Auto Parking



Proposed Conditions

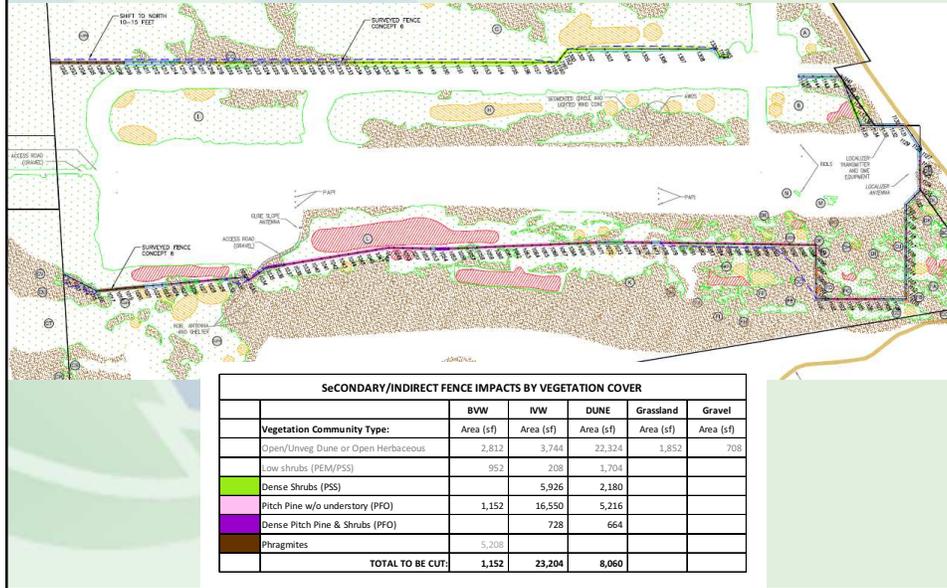
Additional Auto Parking





Breakdown of Fence Impacts

(to determine secondary impacts to resource areas)



Freshwater Wetlands

Total Direct Impacts: 83,010 SF (1.91 ac)

- *Westerly Taxiway Improvements* 29,465 SF (0.68 ac)
- *East End Taxiway* 28,110 SF (0.65 ac)
- *Improve MALSF Access Road* 238 SF (<0.01 ac)
- *AWOS Access Road* 335 SF (<0.01 ac)
- *Install Perimeter Fence*
 - *Post Installation* 506 SF (0.01 ac)
 - *Vegetation Cutting* 24,356 SF (0.56 ac)

Total Indirect Impacts: 41,304 SF (0.95 ac)

Coastal Dunes

<u>Total Direct Impacts:</u>	44,871 SF (1.03 ac)
• <i>Westerly TW System Improvements</i>	5,567 SF (0.13 ac)
• <i>Relocate East End TW</i>	4,781 SF (0.11 ac)
• <i>LES Service Access Road</i>	4,768 SF (0.11 ac)
• <i>AWOS Service Access Road</i>	6,595 SF (0.15 ac)
• <i>Expand Auto Parking (Phase 1)</i>	15,100 SF (0.35 ac)
• <i>Install Perimeter Fence*</i>	8,060 SF (0.19 ac)
<i>*Total Impacts from Change in Vegetation Community</i>	
<u>*Total Indirect Impacts:</u>	24,028 SF (0.55 ac)

Proposed Mitigation

- On-site Wetland Mitigation
 - BVW Replication at 3:1
 - Wetland Restoration at 1:1 for all vegetated wetlands
- Participation in MA In Lieu Fee Program
- On-site Coastal Dune creation
- On-site Invasive Species Management
- Net Reduction in Pavement by 34,111 SF (0.78 ac)
- Stormwater Management (per MASWMS)
- Erosion and Sedimentation Control
- Construction Timing
- Mitigation Oversight - Environmental Monitor
- Rare Species Protection Plans

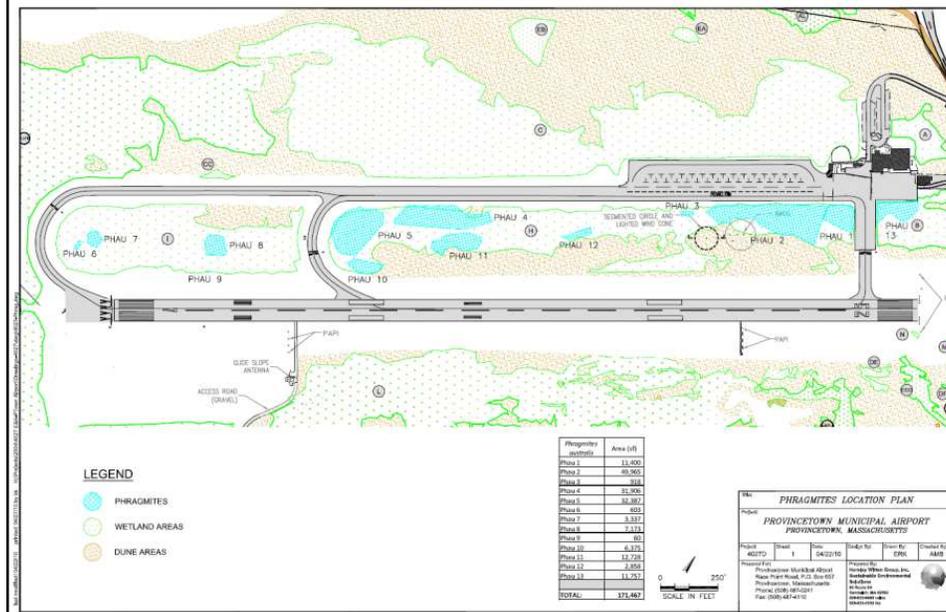
Hardship Exemption

- CR3.1 Buffers to Coastal Wetlands
- CR3.3 Stormwater Discharges in 100-foot Buffer
- WET1.1 Wetlands
- WET1.2 Wetland Buffers
- WET1.4 Stormwater Mgt. in 100-foot Buffer

Flexibility Sought

- WR7.8 Min. 2-foot Separation to Groundwater
- CR2.8 Public Infrastructure in LSCSF
- CR3.4 Stormwater Mgt to Accommodate SLR

On-Site Invasive Species Management



Overall Permitting

- Water Quality Certification (WQC) w/Variance
 - MA DEP
- Individual Permit
 - U.S. Army Corps of Engineers
- CZM Consistency Review
 - MA Coastal Zone Management
- Development of Regional Impact
 - Cape Cod Commission
- Order of Conditions (under Wetlands Bylaw)
 - Provincetown Conservation Commission

