

Board Report:

**Southbridge Runway Reconstruction,
Nantucket Conservation & Management Permitting,
Damage Assessment of MBTA Parking Garage Collapse &
World Economic Forum Advanced & Urban Air Mobility Initiative**

April 13, 2022

Presented to:

■ **Board of Directors**

Presented by:

■ **Aeronautics Division**

➤ **Dr. Jeff DeCarlo**

Southbridge Runway Reconstruction: Runway 2-20 and Taxiway “A” Improvements

- This project involves the reconstruction of Runway 2-20, Taxiway A, runway approach clearing, new runway and taxiway lighting, new navigational aids, and relocation of a public road
- The total cost of the FAA project is approximately \$7.3M with a state share of \$310K
- This project received additional grant assistance through the Federal CARES Act which equates to approximately \$700K
- The runway approach clearing began in March and should be completed by end of April
- The Runway 2-20 and Taxiway “A” reconstruction began at the beginning of April and should be completed in 90 days
- The project will provide a safer surface for aircraft to operate, update the taxiway geometry to current standards, and provide new updated lighting and navigational aids



Nantucket Conservation & Management Permitting: Capital Improvement Plan (CIP) Projects



- Nantucket Memorial Airport has completed a 5-Year CIP to support current and future aviation demand
- Ten of the CIP projects will require review/approval by the MA National Heritage & Endangered Species Program (NHESP) and include runway, taxiway, and airfield improvements
- The Conservation and Management Permit application provides information on existing/proposed conditions, analyzes impacts to state-listed species and proposes a Conservation and Management Plan (CMP) that requires approval by the NHESP Office
- The CMP plan was approved on 3/17/22 and MA Fisheries & Wildlife issued a draft permit to the airport for the 10 projects
- The language in the draft permit is currently being finalized by National Heritage and the final permit is anticipated by late spring



Rare Species "Sand Plain Grass"



Conservation Management Site Plan



Rare Moth Habitat

Damage Assessment of MBTA Parking Garage Collapse: Aeronautics uses Drones for Post Incident Inspection



- Provided video footage of tunnels after partial building collapse at 1 Congress Street parking garage within hours of initial request for assistance by MBTA on Sunday, 27 March
- Flew drone through Orange and Green Line tunnels in Government Center, Haymarket, and North Station to inspect existing conditions for safe access prior to structural engineers entering for further analysis
- Safety assessment by drone video ahead of access by engineering crews potentially allowed the Orange Line to open earlier
- Delivered data on-site, immediately after collection, enabling instantaneous access and analysis by engineers
- Video footage was also used for communications and news broadcasting to inform the public



World Economic Forum (WEF) Advanced and Urban Air Mobility Initiative

- The World Economic Forum launched the Advanced and Urban Air Mobility Cities and Regions Coalition
- Focus on enabling policymakers on how to approach emerging aviation technologies and their associated challenges with the goal of reducing emissions, congestion, noise disturbance and inequity
- Builds on work that has taken place in Europe under the Urban Air Mobility Initiative Cities Community (UIC2) of the EU's Smart Cities Marketplace, which MA joined as an international partner in 2021
- Founding city and region members include Amsterdam, Massachusetts, Orlando, Los Angeles, Ile-de-France (Paris region), and Sao Paulo (Brazil)



Notional Transcend Vy400 High Speed Vertical Takeoff & Landing (HSVTOL) Aircraft at Boston Seaport. (Courtesy of Transcend.aero)



Beta Alia eVTOL Electric Aircraft