

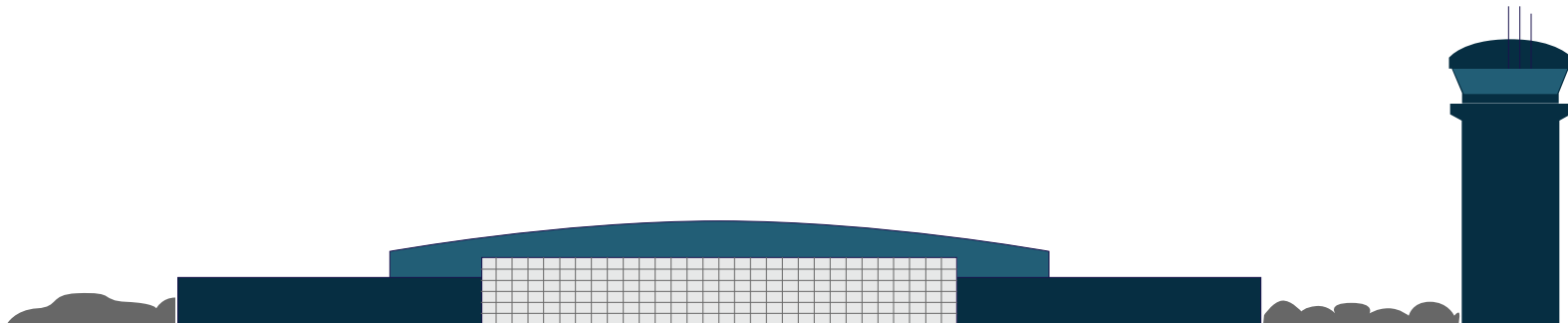
# Cape Cod Gateway Airport

Town Council Presentation

2023-002

SUPPLEMENTAL APPROPRIATION AND LOAN  
ORDER

September 1, 2022



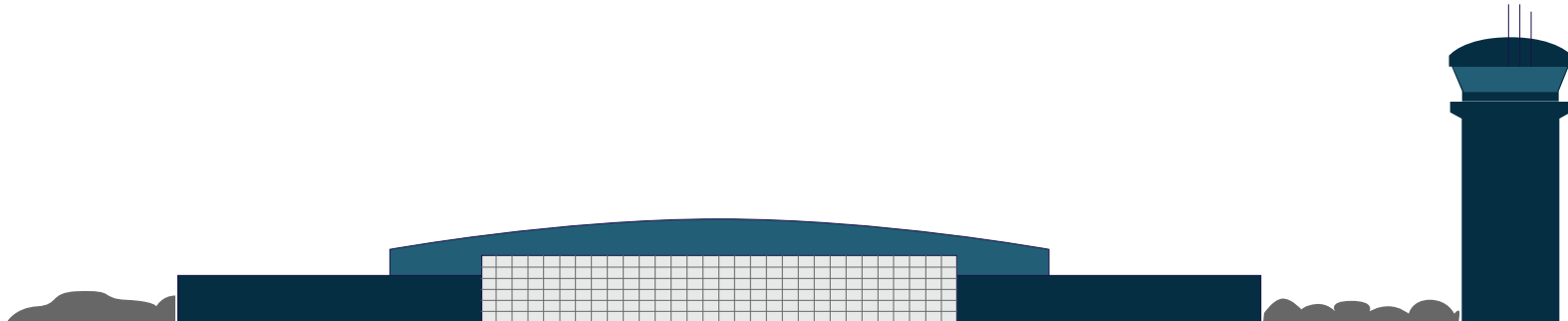
# Item 2023-002

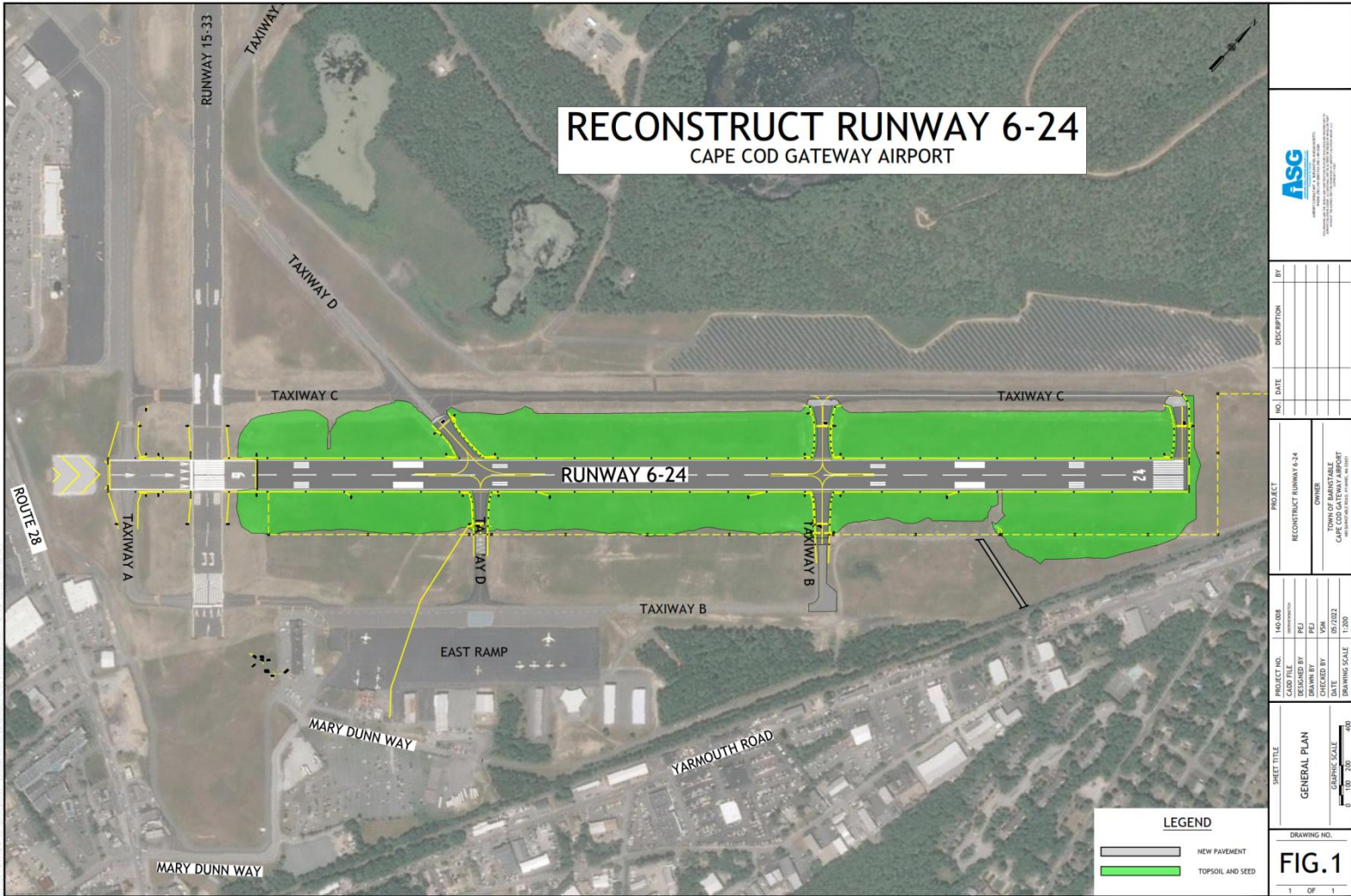
## BARNSTABLE TOWN COUNCIL

**ITEM# 2023-002**  
**INTRO: 07/21/2022**

**2023-002 SUPPLEMENTAL APPROPRIATION AND LOAN ORDER IN THE AMOUNT OF \$6,007,000 FOR THE PURPOSE OF FUNDING THE RECONSTRUCTION OF RUNWAY 6-24 PROJECT AT THE CAPE COD GATEWAY AIRPORT**

**ORDERED:** That the amount of \$13,045,000 appropriated under Town Council Order 2021-088 be increased by **\$6,007,000** for a total revised appropriation amount of \$19,052,000 for the purpose of funding the Airport's Design and Reconstruction of Runway 6-24 Project, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow \$19,052,000 under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Cape Cod Gateway Airport Commission is authorized to contract for and expend the appropriation made available for these purposes.



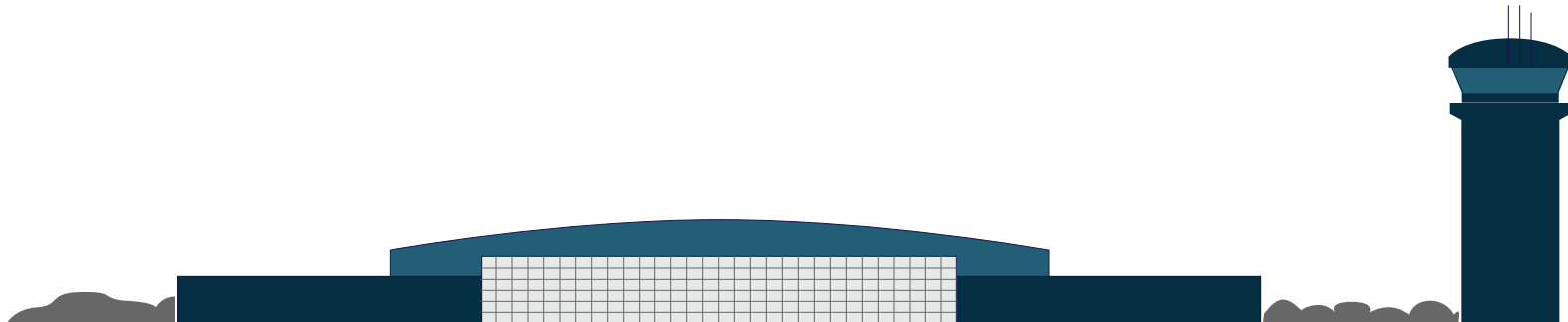


The Airport is scheduled to reconstruct Runway 6-24 in the spring of 2023.



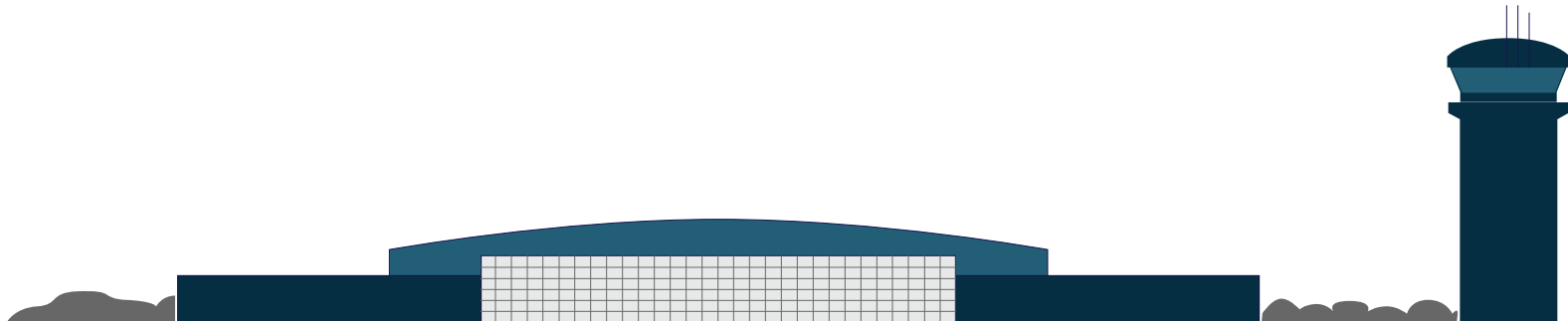
# Summary

- The cost increase for the reconstruction of Runway 6-24 from previous construction cost estimates is attributable to the following three (primary) factors:
- A 225% increase in the thickness of the asphalt pavement required (from 4" to 9") to comply with FAA design criteria;
  - Added safety area and glide slope critical area grading to comply with FAA design standards; and
  - General increase in construction costs for post-COVID bidding vs. pre-COVID estimates.



# 225% Factor

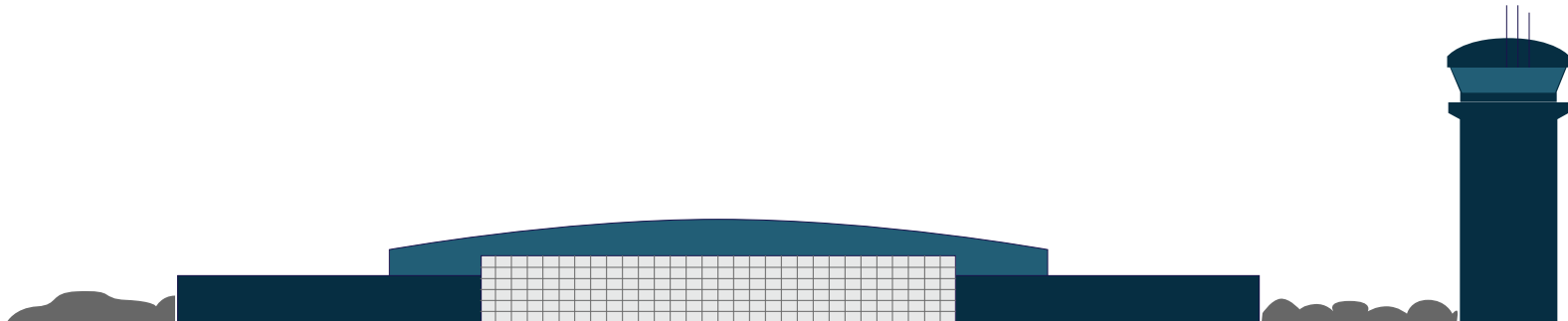
- The runway project was conceived over five years ago as part of the Airport's Capital Improvement Plan (CIP) by the Airport and its former on-call engineering consultant.
- The FAA requires a 5-Year CIP for all airport improvements, the project was programmed as far back as 2017.



# 225% Factor (cont.)

→ Since 2013, the former on-call consultants had designed many airfield reconstruction projects, using a standard pavement box section with four inches (4”) of asphalt:

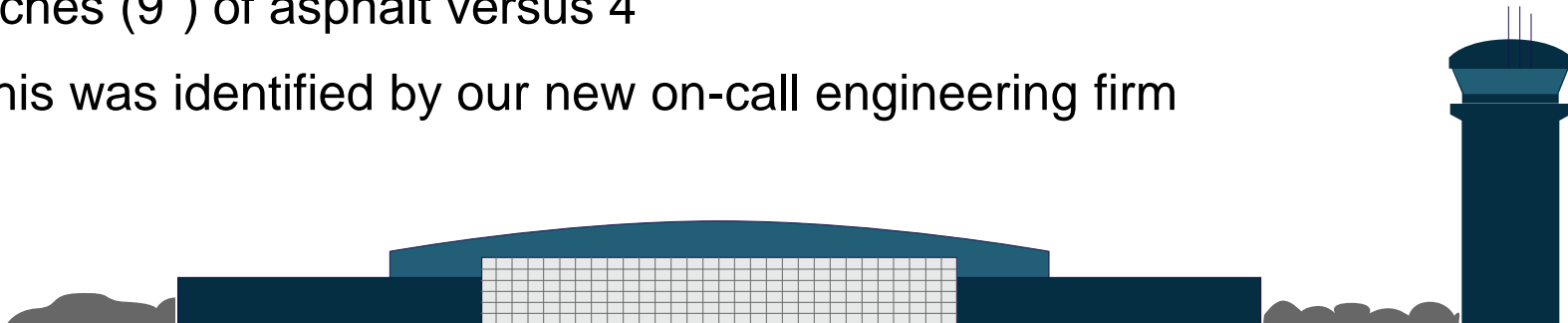
- 2013 Reconstruct and Relocate Taxiway A;
- 2014 Reconstruct East Ramp/A Portion of Taxiway B;
- 2015 Reconstruct & Light Taxiway C; and
- 2016 Reconstruct, Light, Groove & Mark Runway 15-33.



# 225% Factor (cont.)

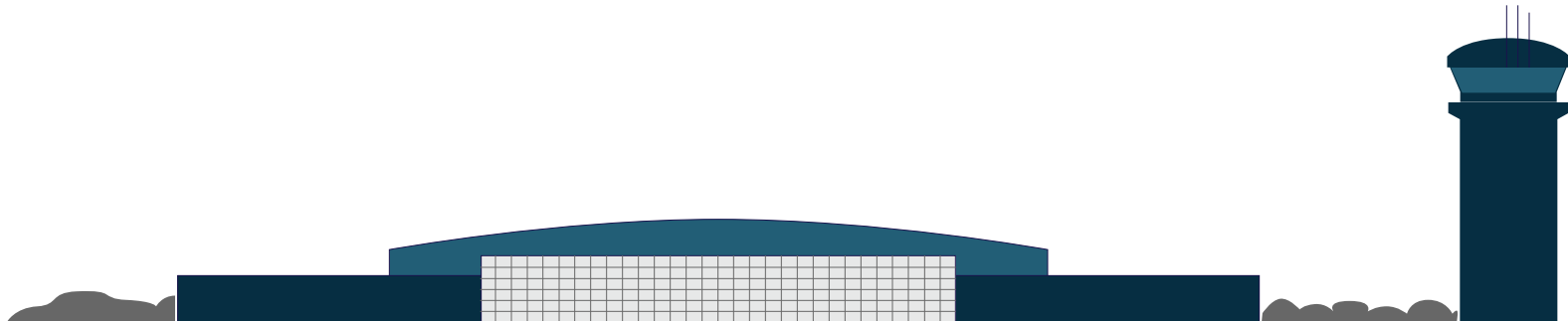
→ **However**, in 2014 JetBlue started using the Embraer 190 (E190) aircraft at the Airport with a gross weight of approximately 124,000 pounds.

- The pavement design from 2014 forward should have been modified to include a stabilized base course to accommodate aircraft over 100,000 pounds
  - Many corporate aircraft also surpass this weight
- This = using a higher standard pavement box section with nine inches (9”) of asphalt versus 4”
- This was identified by our new on-call engineering firm



# What Does This Mean?

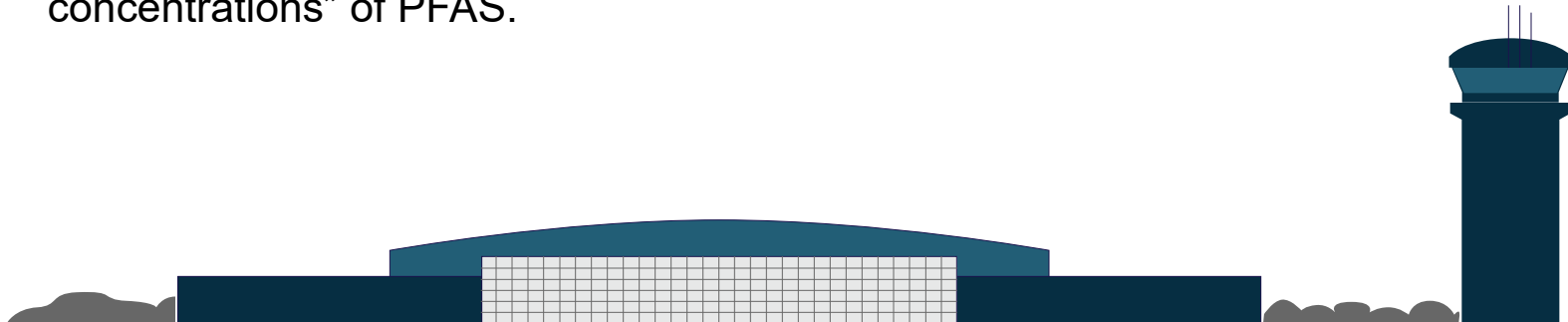
→ This 225% increase in asphalt thickness more than doubled the cost.





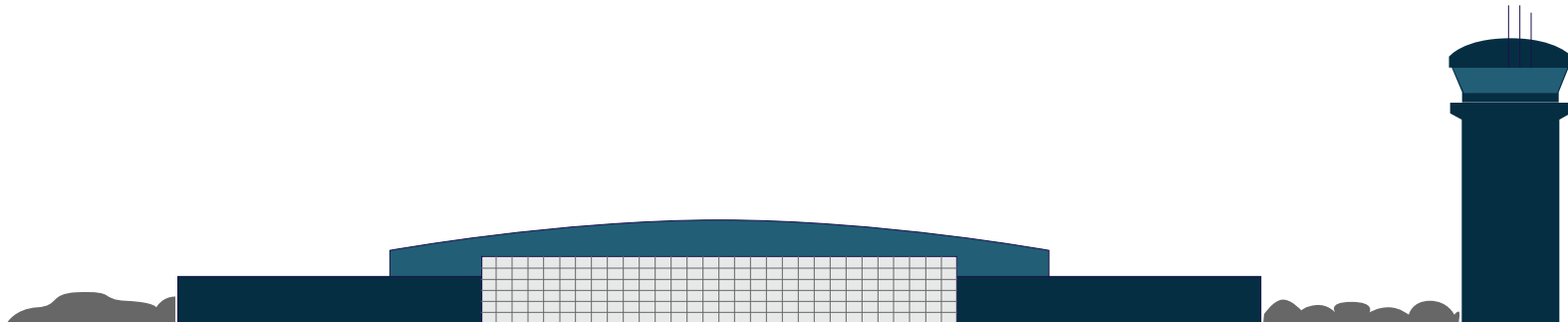
# Grading Factor

- Topographical survey = the existing safety area (like shoulders on a highway) along both sides of Runway 6-24 did not meet FAA design criteria for grade.
  - The FAA agreed that the grading be included in the project.
- The FAA also requested that the Airport fix a long-standing concern with non-compliant grading for protection of the glide slope critical area
  - An area associated with navigational aids - approach to Runway 24 (Yarmouth Road/Willow Street)
- Re-grading = an unanticipated excess soils (100,000+ CY).
  - Re-grading = MassDEP specific material handling procedures including off-site disposal for the handling and disposition of soils which might contain PFAS.
    - Soil sampling and testing for PFAS = test results indicated only “background concentrations” of PFAS.



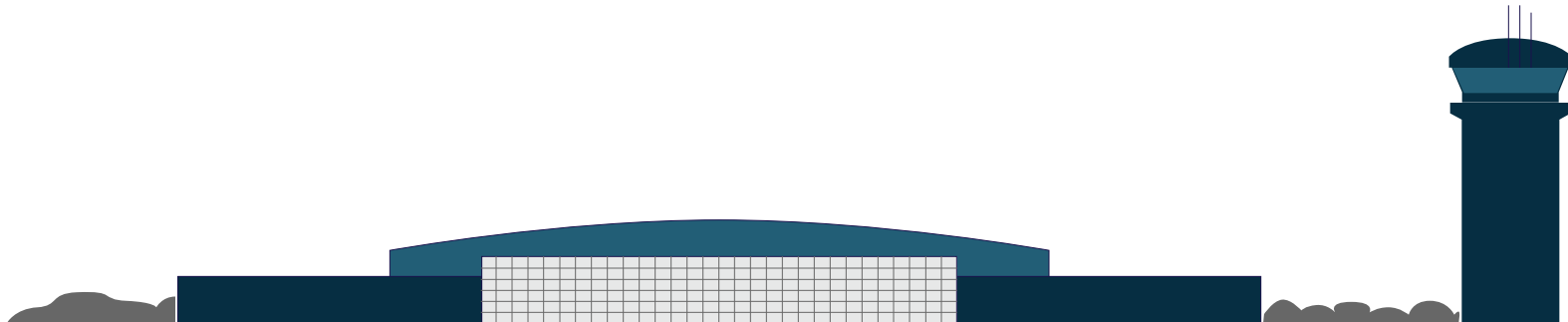
# Post-COVID Bidding Factors

- Current post-COVID bidding climate, and fluctuations in oil prices = increases in the cost of asphalt
- The costs are greater today than when the project was originally programmed.
  - 2017 estimates were updated in 2018, 2019 and most recently on 8/26/2020 and again on 9/17/2021 in preparation for FY2022 CIP



# Conclusion

- For these reasons, the costs have increased for the reconstruction of Runway 6-24
  - A 225% increase in the thickness of the asphalt pavement;
  - Added grading; and
  - Construction costs increases for post-COVID bidding vs. pre-COVID estimates.
- Project funding is heavily supplemented by the FAA and MassDOT Aeronautics @ 95%, or \$18,099,400 with a 5% matching share by the Airport, or \$952,600
- As of July 1, 2021 the Airport Enterprise Fund had \$6,240,318 certified in cash reserves with anticipated increases in 2022



Questions?

Thank you

