Metropolitan Tunnel Redundancy Program Update

December 16, 2020



- Program Staffing
- Preliminary Design, Geotechnical Investigation and

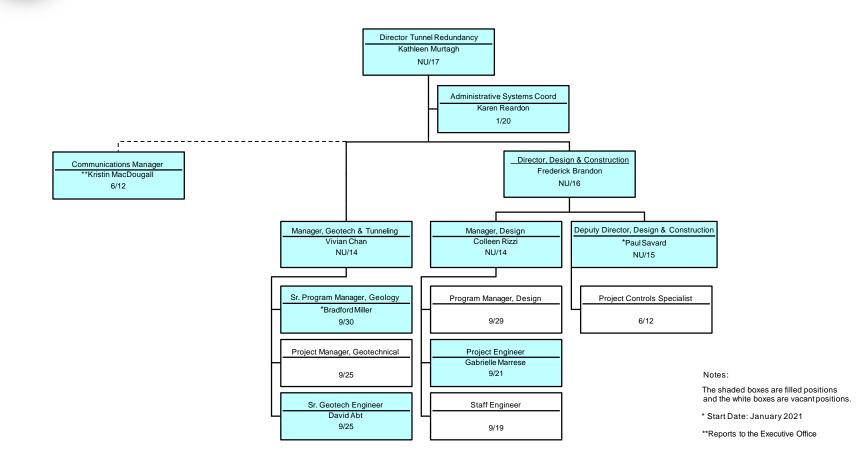
Environmental Impact Report

- Community and Stakeholder Outreach
- Expert Review Panel (ERP)
- Other Ongoing Program-Wide Activities



- Build staff capacity to match Program needs
 - Bring expertise and experience necessary to support the Program
 - Plan for the future of the Tunnel Department
 - Grow with the Program
 - Consistent with Expert Review Panel recommendations
 - Approach is consistent with Boston Harbor Project and MetroWest Tunnel
- Tunnel Department staff are assisting with non-tunnel projects where their expertise is helpful

Tunnel Redundancy Department Organization Chart





Preliminary Design Began in July 2020:

- Duration of 3.5 years
- File Environmental Notification Form (ENF) in early 2021
 - ENF will propose Program Study Area for Tunnel Alignment Alternatives Evaluation
- Evaluation of Alternatives (2021 2022) Select Shaft and Connection Locations
- Extensive Public Engagement Working Group (early 2021 2023)
- Geotechnical Investigations (begin early 2021)
- Mapping and Survey
- Environmental Impact Reports (Fall 2022)
- Preliminary Design (complete by Dec 2023)



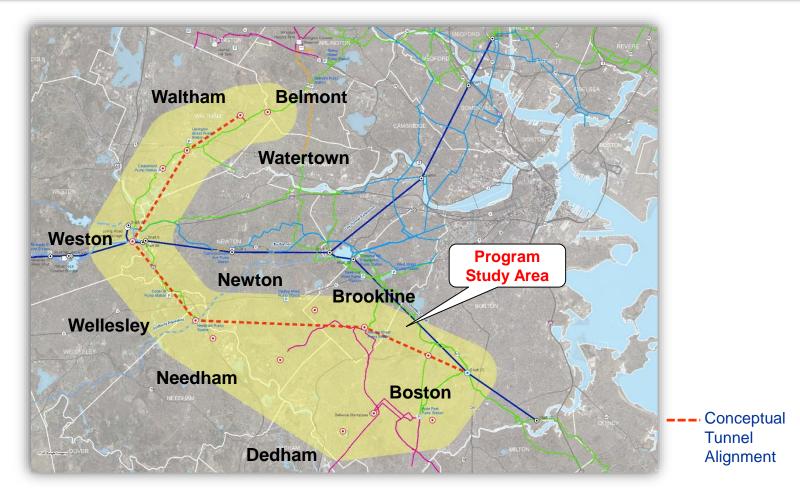
Tunnel Redundancy Program Schedule

- Technical Assistance: 2023
 - Field work borings, survey, etc.
 - Other "data" collection
- Final Design: begin in 2024
 - Two or more final design contracts
 - Additional geotechnical investigation, survey, State and local permitting
 - Preparation of bid documents
- Construction Manager: begin in 2025
 - Evaluating # of contracts
 - Provides management and inspections of all construction work
 - Experienced with rock tunnel construction
- Construction: begin in 2026 or 2027
 - Two or more tunnel construction packages
 - Each contract lasts 5 years+/-











- Includes all 10 communities
 - One (or more) representative from each community
 - Initial Working Group for this Program will consist to 10 to 12 members
- Transparent process for evaluating and selecting shaft sites and tunnel alignments
- First Working Group meeting in early 2021, prior to filing ENF
- Monthly meetings through the evaluation of alternatives (Winter 2021 Spring 2022)





- November 2019 Program Kick-Off
 - Program management, staffing, communications, tunneling and geotechnical challenges, contract practices
- September 2020
 - Risk Management Plan
- September 2020
 - Preliminary Design Work Plan and Schedule
- January 2021
 - Geotechnical Investigation Work Plan (Ph1A)





Other Program Activities

Completed Program-Wide Guidelines and Standards

- Program Risk Management Plan
- Program Quality Management Plan
- Program Delineation Report
- Existing Geotechnical Data Report
- Geotechnical Field Manual
- Geotechnical Data Management Plan
- Hydraulic Analysis
- Program Management Plan
- Document Control Plan
- Style Guide
- Program Web Page

Ongoing Program-Wide Activities

- Expert Review Panel
- Program Guide Specifications
- Program Budget Analysis
- Program Schedule Development
- Project Controls
- Contract Practices
- Community and Stakeholder Outreach
- Industry Outreach



Plan to update Board at key milestones through Preliminary Design

- Proposed tunnel alignment and shaft sites (late 2021/early 2022)
- Draft Environmental Impact Report (mid 2022)
- Geotechnical program progress (TBD)
- Preliminary Design (multiple, mid-late 2023)
 - Cost estimate
 - Schedule
 - Contract packaging



Additional updates – topics/dates TBD



