

**REPLACEMENT OF THE  
GLOUCESTER DRAWBRIDGE  
OVER THE ANNISQUAM RIVER  
BRIDGE NO. G-05-028**



March, 2019

MBTA Contract No. H62CN03



# PRESENTATION OUTLINE

- Existing Bridge
- Project components
- Existing structure conditions
- Proposed replacement
- Construction staging
- Proposed Bridge Rendering
- Upcoming Activities



# EXISTING BRIDGE



**GLOUCESTER DRAW | BRIDGE NO. G-05-028 | GLOUCESTER, MA  
PHOTOGRAPH OF EXISTING BRIDGE**

- MBTA Bridge over the Annisquam River in Gloucester. Carries the Newburyport/Rockport commuter line
- Steel single leaf trunnion bascule drawbridge
- Built in 1911, Reconstructed in 1932 and Updated in 1984

# PROJECT COMPONENTS





# BASCULE SPAN – CLOSED POSITION





# BASCULE SPAN – OPEN POSITION





# EXISTING CONTROL TOWER (WEST OF RIVER)





# EXISTING WEST ABUTMENT





# EXISTING EAST ABUTMENT





# EXISTING TIMBER TRESTLE





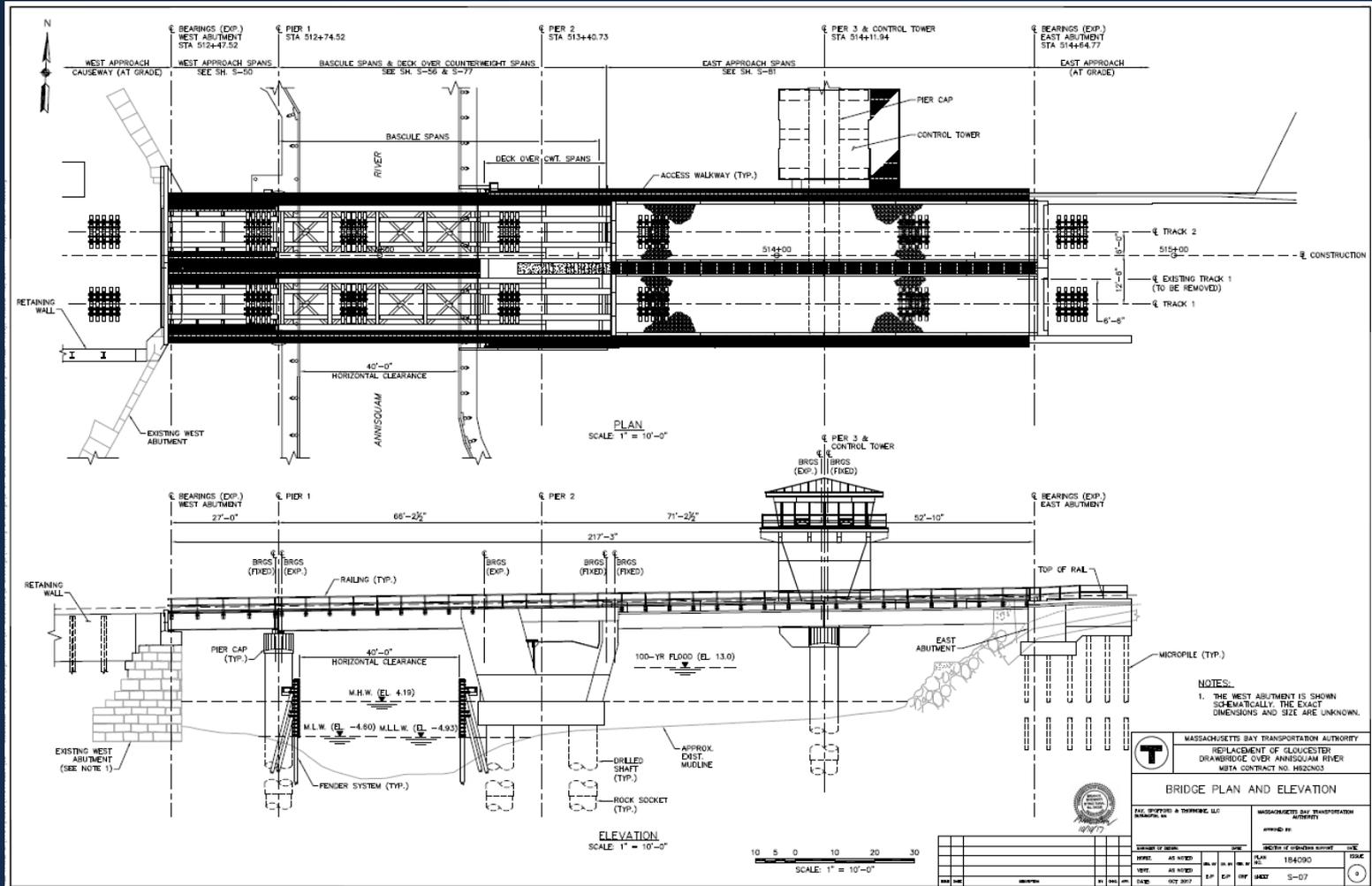
# EXISTING BRIDGE CONDITIONS



- Extensive deterioration of steel members, including rusting, corrosion, and pockets of pack rusts



# PROPOSED BRIDGE





# CONSTRUCTION STAGING



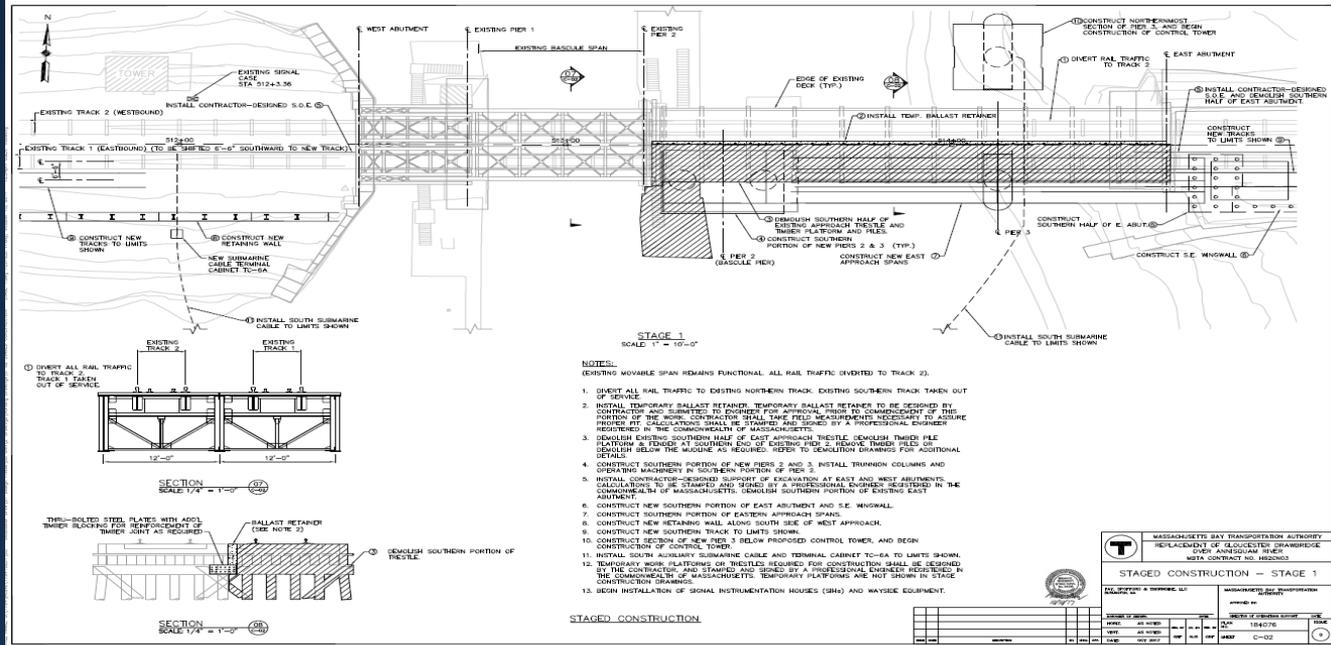
# STAGE 0 - COMPLETE



- Preliminary repair work to strengthen bridge to maintain service during construction stages



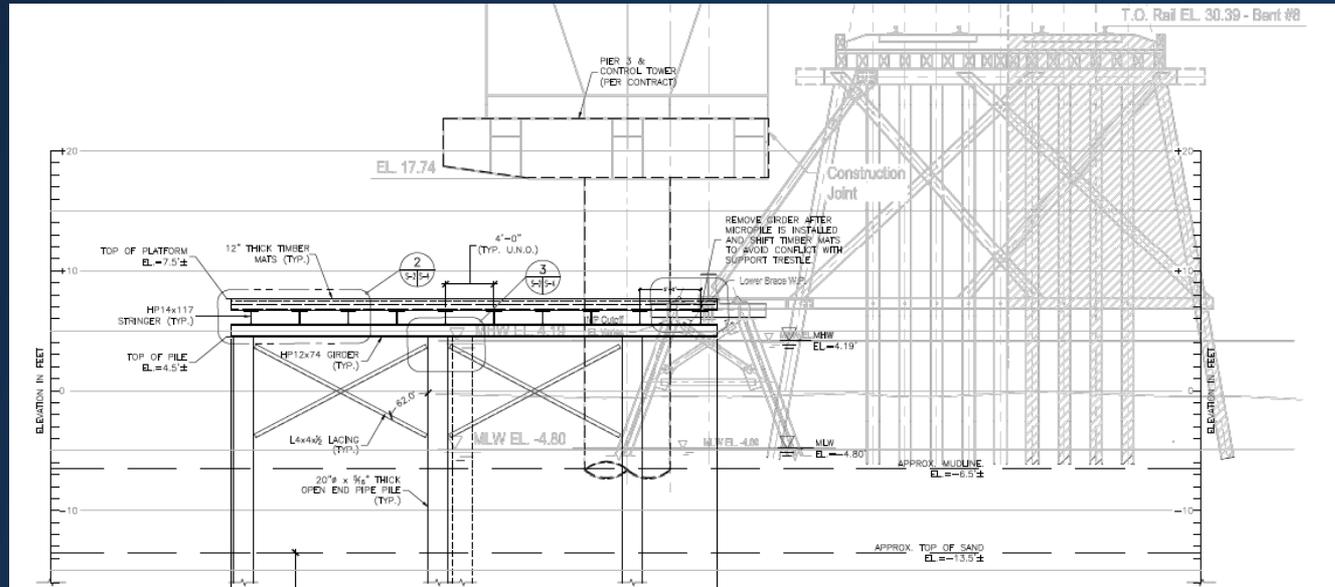
# STAGE 1



- Divert all train traffic to the existing northerly track.
- Demolish the southern half of the timber trestle.
- Install control house and in-water foundations on south side.



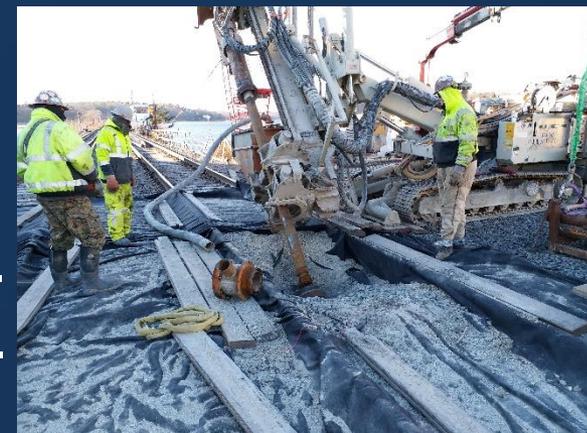
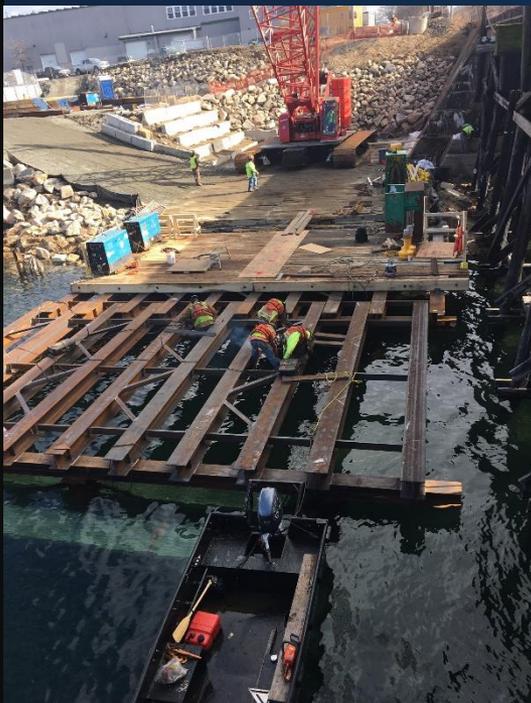
# STAGE 1 – TEMPORARY WORKS, DEMOLITION AND IN WATER FOUNDATION



- Contractor to install external bracing and access platform prior to demolition of existing southern timber trestle.



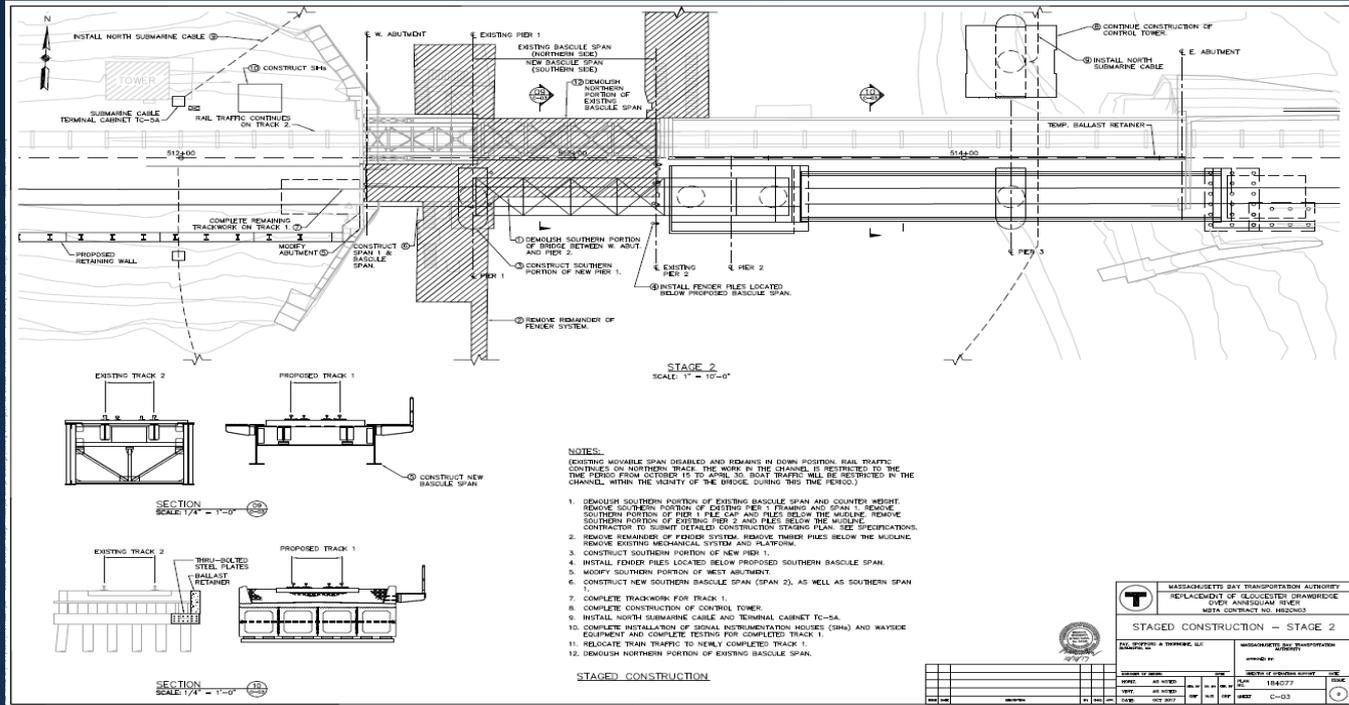
# STAGE 1 - CURRENT



- Installation of temporary work platform.
- Drilling of micropiles for lateral bracing.
- Installation of longitudinal strengthening.



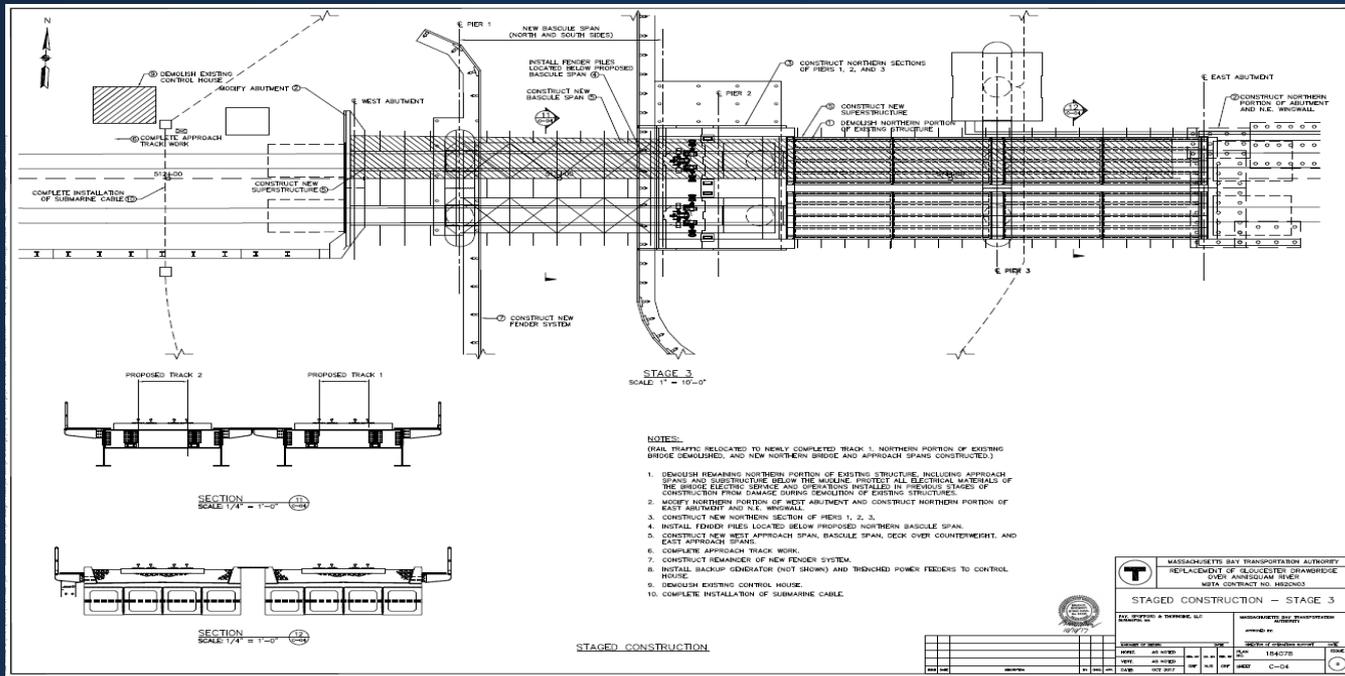
# STAGE 2



- Demolish existing southern bascule span.
- Construct new southern bascule span and approach spans.
- Install new southern track and signal system.



# STAGE 3



- Relocate traffic onto new southern track, demolish the existing northern structure and track.
- Reconstruct new northern bascule span and approaches.
- Install new northern track and signal system.



# PROPOSED BRIDGE RENDERING



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PHOTOSIMULATION OF PROPOSED BRIDGE**



# UPCOMING ACTIVITIES

- Stage 1 Construction - Fall 2018 to Summer 2020
  - Contractor Temp Work Facilities – on going
  - Lateral and Longitudinal bracing – on going
  - Single Track Train Operations – anticipated Late Spring 2019
  - Demolition of South Trestle – anticipated Summer 2019
  - Southside In water foundation work – Fall 2019 to Fall 2020
  - Begin Stage 2 Work – Fall 2020



# OPERATIONS DURING DIVERISIONS THROUGH SUMMMER 2019

- Planned Weekend Diversions (Two Planned):
  - Commuter Rail Service to terminate at West Gloucester Station – Weekend Only.
  - Free bus shuttles to be provided to Gloucester and Rockport Stations.
  - (1) Weekend in April 2019
  - Weekend of May 18, 2019
- Potential Summer Weekday Diversions (if needed):
  - Commuter Rail Service to terminate at West Gloucester Station – Monday to Friday.
  - Free bus shuttles to be provided to Gloucester and Rockport Stations.
  - Similar to Summer Service 2018.
  - Diversions to be outside of peak rush hour, between 9 am and 4 pm.



# OVERALL PROJECT SCHEDULE

- Construction Stage 0 (Completed Fall 2018)
- Construction Stage 1 (Current)
  - Target Completion – Fall 2020
- Construction Stage 2 (Contract Milestone #1)
  - New South Bridge/Track complete and Operating – Spring 2021
- Construction Stage 3 (Contract Milestone #2)
  - New North Bridge/Track complete – Spring 2022
- Substantial Completion (Contract Milestone #3)
  - Both Bridges/Tracks Operational – Summer 2022