



Mixmaster Rehabilitation NEWSLETTER

June 2022



this issue

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Repairs

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Awareness Week

Retirement News

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Project Status

Route 8 Northbound (Bridge 3190A):

- The new bridge is open to traffic, the Exit#30 on ramp and the Exit #31 and #32 off ramps remain closed.
- Installation of overhead sign structure #20555 completed. Temporary signage remains in place until permanent overhead sign structure #20556 and 20792 could be installed.
- Forming and rebar for wingwall 1B in progress.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.
- Continued installation of the fiberglass bridge drainage.

Route 8 Southbound (Bridge 3190B):

- The new bridge is fully opened to traffic.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.
- Continued installation of the fiberglass bridge drainage.

I-84 Eastbound (Bridge 3191A):

- Deck End reconstruction (Night Work) continued at several piers in the left lane at

west end of bridge and in the right lane at east end of bridge.

- The Highland Ave on ramp and Exit #21 off ramp remain closed.
- The Exit #22 off ramp was staged to allow for daytime deck end reconstruction at Pier #40 through #43.
- Parapet cap work began on the north side parapet starting at the west end of the bridge.
- Existing Overhead Sign Support #20418 has been removed.
- Temporary moveable barrier was installed along the left shoulder from the western abutment to Pier #15.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.
- Illumination cable installation in progress.
- Continued installation of the fiberglass bridge drainage.

I-84 Westbound (Bridge 3191B):

- The right-side Bank Street on ramp remains open but the left side Bank Street on ramp was closed at the beginning of the year to allow for temporary support installation and Class S repairs at Bridge 3191A Pier #42 south column.

Project Status (Continued...)

- Temporary pavement in the left auxiliary and left lanes from the East abutment to Pier #31 has been milled to expose the deck slab for upcoming membrane placement. The center lane was also milled for this stretch and partial/full depth patching is underway.
- Began installation of the permanent pre-formed joints starting at west end of the bridge and working east.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.
- Continued installation of the fiberglass bridge drainage.

I-84 Eastbound (Bridge 3190C)

- Exit #31 ramp remains closed.
- Work to install new keeper blocks and existing bearings continued.
- Work to install permanent restraints continued.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.

I-84 Westbound (Bridge 3190D):

- Structural steel repairs continued.
- Work to install permanent restraints continued.
- Class S Concrete sub-structure repairs continued.

Route 8 Northbound (Bridge 3190E):

- Exit #32 ramp remains closed.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.
- Shoulder reconstruction and installation of new F-shape barrier began.

Route 8 Northbound (Bridge 3190F)

- Structural steel repairs completed
- Safespan platform removed.
- Class S Concrete sub-structure repairs continued.

Route 8 Southbound (Bridge 3191D):

- Ramp remains in Stage 2 traffic configuration.
- Class S Concrete sub-structure repairs continued.
- Structural steel repairs continued.
- Portion of safespan platform removed.

I-84 Westbound (Bridge 3191E):

- Ramp remains in Stage 2 traffic configuration.
- Continued parapet modifications and parapet cap for Stage 2.
- Began deck end reconstruction for Stage 2.
- Parapet illumination conduit installation continued.
- Structural steel repairs continued.
- Class S Concrete sub-structure repairs continued.

Temporary Route 8 Northbound Bypass:

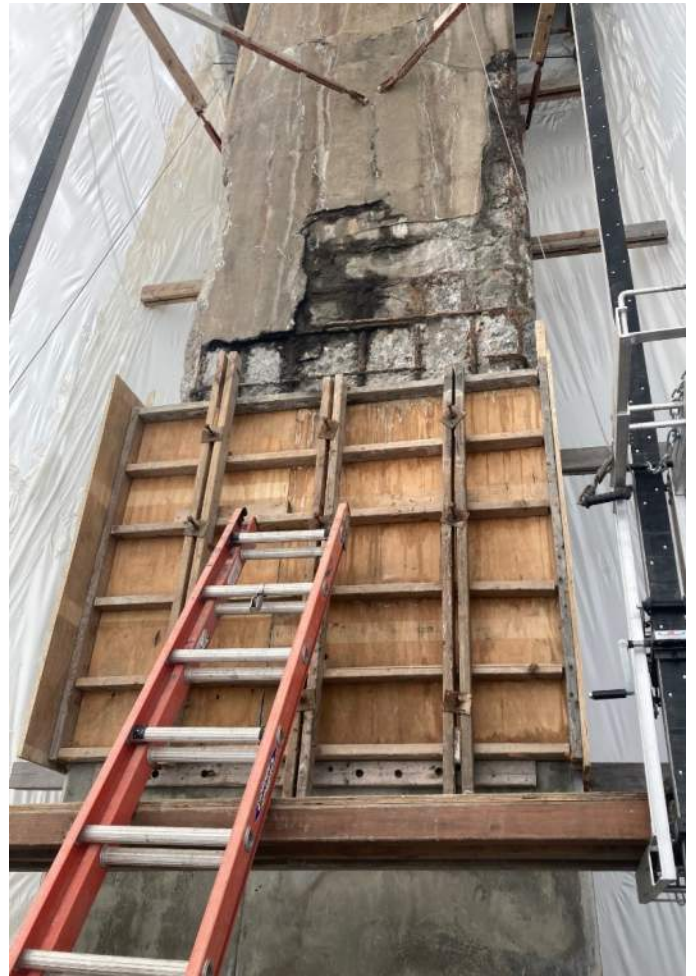
- Only the Temporary U-Turn remains in use.
- Temporary Truss Bridge #1 over the Naugatuck River has been completely removed, the steel cap beams have been removed at Pier#1 and Pier #2, temporary Abutment #1 and #2 have been removed.
- Temporary retaining wall at Temporary Bridge #1 Abutment #2 side has been removed.
- Temporary Bridge #2 deck slab and structural steel over the Naugatuck River has been removed, began removal of Pier# 3 pile cap.
- Temporary Truss Bridge #3 over Freight St. has been completely removed, temporary abutment #1 has been completely removed.
- Excavation and removal of the Temporary Bypass asphalt and earth embankment continued between Temporary Bridge #1 and Temporary Bridge #3.

Northbound Riverside Street Restoration:

- Grading for reconstruction of Riverside Street began between Sunnyside Avenue and Freight Street.
- Eversource MH #409 and #410 have been lowered and rebuilt to the final Riverside Street grades.

Temporary Bridge Supports & Class S Repairs

Like completing renovations on a vintage house, or restoring a classic car, rehabilitating a bridge can come with some surprises and may require some additional help or “support”. For the Route 8 / I-84 Mixmaster Rehabilitation project one of these unknowns that required a little extra help or “support” was related to the existing columns of the bridge. During the work, one of the activities required is an investigation of the concrete associated with the vertical columns that hold up the bridge. An inspector uses a hammer to tap the entire surface area of the columns. The sound that the hammer makes as it taps the different areas helps determine whether the existing concrete is sound and intact. A high-pitched ping of a sound means that the concrete is in good condition whereas a hollow thud of a sound, like a child’s plastic drum, identifies that a repair is necessary. As this process is completed, it only identifies the area of the repair and not necessarily the depth and overall extent of the repair. Once all areas are identified, the concrete is removed through small handheld pneumatic chipping hammers to a depth where sound concrete is found. The exposed reinforcement steel and concrete surfaces are then cleaned, and anti-corrosion devices are then installed within the network of reinforcement to help stretch the life of the steel. It is then formed to achieve an appropriate thickness of concrete over the existing reinforcement and new concrete is poured back in place.



These columns’ purpose is to support the structure and all traffic traveling over the bridge. As failure of a column could result in catastrophic failure of the bridge, the construction team needs to take great care and means to assure that during the repair process there are no chances of column failure. During the process of completing the concrete repairs, some of the repairs found were severe enough to require some temporary support of the bridge.

Article: Temporary Bridge Supports & Class S Repairs (Continued)

These temporary supports can be very large as they need to completely support the bridge to safely perform the repairs while allowing the bridge to stay in service. An example from this project where this was the case is on I-84 Westbound at Pier 42 on the Southern side of the bridge. This could be seen as you traveled on the I-84 Eastbound on-ramp from Meadow Street. Two large steel towers were constructed on wooden timber matting directly next to the existing concrete column which remained in place for several weeks. The column that needed the repairs was not visible for long at this point since it was encapsulated and heated to successfully complete the concrete repairs during the winter months. White plastic sheeting was wrapped around scaffolding and a wooden frame to contain the heat and give the contractor enough working space and access to complete the work. A series of heaters were kept running until the concrete reached a specific required strength. As the weather has become warmer and the chance of freezing weather is no longer a concern the enclosure has now been removed and the concrete repairs are on their way to completion.





National Work Zone Safety Awareness Week

April 11th – 15th

National Work Zone Awareness Week (NWZAW) has been successful in spreading awareness for work zone safety across the country because of participation from organizations and individuals. The Mixmaster Team comes together each year to raise awareness for this campaign. Each day our family puts their lives in danger on the highways that they are keeping safe for you and your family. In 2020, 117 workers died in work zones, making it all the more important for drivers to slow down and stay focused while approaching and passing through a roadway work zone.

Not only do these accidents kill the workers on our highways - the vast majority of people killed in work zone crashes are motorists and their passengers. We stress the importance on paying attention and stay alert, especially while driving in work zones.

2022 NATIONAL WORK ZONE AWARENESS WEEK

WORK ZONES ARE A SIGN TO SLOW DOWN





Best Wishes to AL FITZGERALD



In late April, the Mixmaster Rehabilitation team wished Al Fitzgerald, Project General Superintendent, a happy retirement as he wrapped up a stellar construction career with 11 of his last 45 years with Walsh Construction II, LLC. Most recently, Al led the "Mixmaster" Rehabilitation team through three temporary bridges and a 2,500 foot long bypass which served as the new Route 8 while Walsh constructed two new concrete bridge decks for the existing Route 8. This included the rehabilitation of six other connector bridges.

Al's career with Walsh ranges from multiple new bridges, including the construction of the "Q" bridge in New Haven, Connecticut and other infrastructure improvement projects throughout the region. We all wish Al happy travels as he galivants around the country in his brand new, well deserved, RV and his new chapter in life. We will miss you and all that you gave to the project and team! We wish you the best of luck. Happy Retirement, Al!

PROGRESS PHOTOS

