

Project Description

Bridge Nos. 02393 and 02394 carry Route 11 Northbound and Southbound, respectively, over the Eightmile River approximately 0.6 miles north of Route 82 (East Haddam Road) in the Town of Salem.

Both bridges were constructed in 1971 and consist of 94-foot single-span AASHTO prestressed concrete box beam superstructures supporting a 3-inch bituminous concrete wearing surface over membrane waterproofing. The superstructures are supported by reinforced concrete abutments founded on steel piles. The bridge superstructures exhibit cracking, spalling, exposed reinforcing steel, section loss, and efflorescence. The substructures exhibit minor cracking, efflorescence, and isolated areas of deterioration.

The out-to-out deck width of both Bridges is 43.7 feet with an existing curb-to-curb width of 40.2 feet consisting of two 12-foot travel lanes, a 6-foot shoulder, and a 10-foot shoulder. Bridge No. 02393 has a minimum vertical underclearance of approximately 9.5 feet at Abutment 1 for the cattle pass, while Bridge No. 02394 has a minimum vertical underclearance of approximately 8.9 feet at Abutment 1 for the cattle pass. The Average Daily Traffic (ADT) of Route 11 Northbound is approximately 5,000 vehicles per day (VPD) (2024). The ADT of Route 11 Southbound is approximately 4,000 VPD (2024).

There are no underground or overhead utility facilities in the vicinity of either bridge, and no utility relocations are anticipated as part of the project.

Both bridges are located within the East Branch Eightmile River Regional Drainage Basin. The Eightmile River is a federally designated Wild and Scenic River. The project area is not located within a public water supply watershed or Aquifer Protection Area but is located within a FEMA Special Flood Hazard Area (Zone AE floodway). A review of the Connecticut Department of Energy and Environmental Protection Natural Diversity Database indicates the potential presence of state-listed species within the project area. U.S. Fish and Wildlife Service mapping also indicates the potential presence of the Northern Long-eared Bat and Tricolored Bat.

The purpose and need of this project is to address the structural deterioration of the existing bridge superstructures and extend the service life of the structures.

The proposed work includes rehabilitation of Bridge Nos. 02393 and 02394 through replacement of the existing superstructures with adjacent precast concrete box beam systems supporting cast-in-place reinforced concrete decks and bituminous wearing surfaces while retaining the existing substructures. New approach slabs, elastomeric bearings, bridge deck expansion joints, and MASH-compliant concrete parapets will be constructed. Existing abutments will receive patching and preservation-type repairs, new abutment backwalls will be constructed, and the existing approach guiderail systems will be upgraded to MASH-compliant standards. Limited roadway reconstruction and profile adjustments will be completed at the bridge approaches to accommodate the proposed superstructure configuration.

Construction of both bridges is anticipated to occur under short-duration full closures of Route 11 utilizing signed detour routes. Detours are expected to remain in place for approximately four to six weeks during construction. Additional work will be completed before and after the closure periods to support staging and minimize impacts to the traveling public.

Construction is anticipated to begin in Spring 2029.