

Project Description

Bridge No. 03612 supports State Route 745 (Kimberly Avenue) over West River in the cities of New Haven and West Haven, Connecticut. The bridge is located approximately 0.2 miles west of the Interstate 95 (I-95) Exit 44 off-ramp at the Ella T. Grasso Boulevard intersection. The Average Daily Traffic (ADT) over the bridge is approximately 16,000 vehicles per day in accordance with the CTDOT Traffic Monitoring Station Viewer (ADT Year 2021).

Bridge No. 03612 was constructed in 1969 and consists of a four-span steel multi-girder superstructure composite with a reinforced concrete bridge deck. The existing bridge substructure is comprised of two reinforced concrete abutments and three reinforced concrete piers, all founded on reinforced concrete piles. The bridge has a total length of approximately 462 feet and maximum span of approximately 114 feet. The bridge has an out-to-out width of approximately 65 feet 6 inches and a curb-to-curb width of approximately 52 feet. The supported roadway is comprised of two 12-foot travel lanes and a 2-foot shoulder in each direction. Outside of the curb-to-curb width, there are concrete sidewalks approximately 5 feet wide, and reinforced concrete parapets with metal bridge rail and an 8-foot-high curved chain link safety fence on either side of the bridge. A navigation channel, approximately 75 feet wide and 23 feet vertical clearance, with timber fender systems is below the bridge.

The purpose and need for the project are to address the structural condition of the bridge and associated components. The existing bridge is in overall poor condition (rating = 4) due to the deteriorated condition of the reinforced concrete pier piles. The pier piles exhibit random cracks, hollow areas and spalls, with some of the spalls exhibiting exposed strands with up to 100% section loss.

The proposed project consists of replacing the existing structure with a new four-span continuous steel multi-girder superstructure supported by reinforced concrete abutments and piers founded on pipe piles. The proposed superstructure will have an overall length of approximately 462 feet and a maximum span length of approximately 130 feet. The superstructure will be comprised of steel plate curved girders, supporting a reinforced concrete deck with a new waterproofing membrane and bituminous concrete wearing surface. The new structure will have a similar length, horizontal alignment, and vertical profile as the existing structure. The new structure will be wider to provide wider shoulders and a shared use path on the east side of the structure, as well as accommodate staged construction. The proposed bridge deck will have an out-to-out width of approximately 75 feet 6 inches, comprised of a 5-foot sidewalk along the southbound lanes on the west side of the bridge, two 11-foot travel lanes with a 5-foot shoulder in each direction and a 14-foot shared use path along the northbound lanes on the east side of the bridge connecting into the existing trail along Ella T. Grasso Boulevard north of the bridge. Protective fencing will be mounted on top of the new concrete parapets. The replacement bridge will maintain navigation clearances of West River and the fender system being replaced as part of the project.

The traffic signal at the intersection of Route 745 and Kimberly Avenue will be replaced along with pedestrian ramp improvements to the intersection. The intersection

Construction will be performed in two stages to maintain traffic and minimize impacts to the public.

- Stage 1: State Route 745 traffic will be reduced to one lane in each direction and shifted west to replace the east half of the bridge.
- Stage 2: State Route 745 traffic will be reduced to one lane in each direction and shifted east onto the newly constructed bridge to replace the remaining half of the bridge.
- Pedestrian access across the bridge and marine navigation below will be maintained in all stages of construction.

There are no overhead utility facilities within the vicinity of the subject project. Underground utilities, including a 30-inch water main owned by South Central Connecticut Regional Water Authority and electric facilities

owned by CTDOT are supported by the structure along the north side, and will need to be relocated onto the new structure.

Temporary right-of-way impacts, consisting of one construction easement, are anticipated to accommodate construction activities.

The project site is not located within an Aquifer Protection Area. The project site is located within a FEMA mapped flood zone. A review of the CTDEEP Natural Diversity Database (NDDDB) for New Haven and West Haven indicated that the project site is located within an area of known habitat for endangered, threatened, or special concern species (map dated June 2022), including Atlantic Sturgeon, Green Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle, Loggerhead Sea Turtle and Shortnose Sturgeon.

As a result of the proposed activities, it is anticipated that the following permits will be required for construction.

- CTDEEP Flood Management Certification
- CTDEEP General Permit for the Discharge of Stormwater & Dewatering Wastewaters from Construction Activities
- CTDEEP 401 Via DEEP Coastal Permit (Form C)
- CTDEEP Structures, Dredging, Fill and Tidal Wetlands Permit (Form C)
- CTDEEP Boating Permit
- USACE Section 408 Approval
- USACE Pre-Construction Notification (Section 404)
- US Coast Guard Bridge Permit

Construction is expected to begin in Spring of 2026 and be completed in Fall 2030.