

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ASSESSMENT CHECKLIST**

Date: September 4, 2018

Project Name: Replacement of Bridge No. 04067 – Cedar Heights Road over Rippowam River

Municipality: Stamford

Staff Contact: Kevin Fleming

This assessment is being conducted in conformance to the Connecticut Department of Transportation's Environmental Classification Document (ECD) to determine Connecticut Environmental Policy Act (CEPA) obligations.

Project Description:

Bridge No. 04067 is eligible for listing on the National Register of Historic Places; and consists of concrete encased steel interior beams with a stone façade and a reinforced concrete deck superstructure supported by stone masonry abutments and wingwalls. There is a bronze memorial marker attached to the bridge identifying it as the "Old Wire Mill Bridge" with a date of 1930. The existing structure length and width measure 32 feet and 34 feet, respectively. The bridge roadway curb-to-curb width is 29.75 feet and the approach roadway measures 28 feet, providing for two lanes (one in each direction) of vehicular traffic. Cedar Heights Road is functionally classified as an Urban Local Road, and has an Average Daily Traffic (ADT) volume of approximately 3,200 vehicles per day.

Bridge No. 04067 is considered to be structurally deficient and functionally obsolete. Up to 40% of the concrete encasement area is hollow. Fascia beams exhibit crack separation with heavy efflorescent and rust seepage on the underside. The exposed steel beams exhibit heavy rust with section loss. The structure has been deemed eligible for replacement.

The proposed construction involves replacement of the existing bridge with galvanized steel beams and reinforced concrete deck superstructure system supported on reinforced concrete abutments and wingwalls. The new structure will be built on the existing vertical and horizontal alignment, will be 28 feet curb-to-curb, and utilize 12 foot travel lanes and 2 foot shoulders. Full height parapets will be utilized along the length of the structure and will transition into metal guiderail on both approaches. Precast arch fascia panels and stone veneer are proposed to match the aesthetics of the existing bridge. Cedar Heights Road will be closed during construction. Traffic will be staged for the duration of the project (approximately 8-9 months). Access to adjacent properties will be maintained at all times during construction

Regulations of Connecticut State Agencies (RCSA) Section 22a-1a-3 Determination of Environmental Significance (Direct/Indirect)

1. Impact on air and water quality or on ambient noise levels

- a) **Air Quality** – No negative impacts are anticipated. The project is located within the boundaries of the portion of the state which has been classified as attainment maintenance for carbon monoxide (CO) and PM2.5, attainment for PM10, and non-attainment for Ozone. However, this project has been determined to be exempt from the requirement that an air quality conformity determination be made. An Air Quality Assessment was performed for the project by CTDOT and the analysis determined that the project is in conformity with the Clean Air Act, as amended, pursuant to all Environmental Protection Agency regulations. Potential temporary impacts during construction can be avoided or limited by proper operation of construction equipment and adherence to regulations limiting idling of engines.
- b) **Water Quality**- No negative impacts are anticipated. All CTDOT projects must conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10.03, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.
- c) **Ambient Noise Levels**- No negative impacts are anticipated. Any noise impacts during construction will be temporary and be minimized to the best extent practicable by compliance with CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817 regarding construction noise pollution:

“1.10.05 – Noise Pollution: The contractor shall take measures to control noise intensity caused by his construction operations and equipment, including but not limited to equipment used for drilling, pile driving, blasting, and excavating or hauling. All methods and devices employed to minimize noise shall be subject to continuing approval of the Engineer. The maximum allowable level of noise at the nearest residence or occupied building shall be 90 decibels on the “A” weighted scale (dB(A)). Any operation that exceeds this standard will cease until a different construction methodology is developed to allow work to proceed within the 90-dB(A) limit.”

2. Impact on a public water supply system or serious effects on groundwater, flooding, erosion, or sedimentation

- a) **Water Supply** – No negative impacts are anticipated. The Department of Public Health (Drinking Water Section) indicated in their comments dated August 8, 2017 that the project area is not within a public water supply source water area.
- b) **Groundwater** - No negative impacts are anticipated. All CTDOT projects conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10.03, Environmental Compliance, specifically deals with water pollution control and

Best Management Practices. See item Number 6 below for additional information. Additionally, the project is not located within or near an Aquifer Protection Area.

c) Flooding – No negative impacts are anticipated. The project is located within the 100-year flood zone on the community's Flood Insurance Rate Map. A Flood Management Certification will be required. The project will be certified by CTDOT as being in compliance with flood and stormwater management standards specified in the Connecticut General Statutes and in the Regulations of Connecticut State Agencies. Since the Rippowam River has a mapped floodway, it will be demonstrated that there will be no activity within the floodway that will result in any increase in water surface elevation for the 10 or 100 year event as determined by hydraulic modeling. Coordination will take place with CTDEEP as appropriate.

d) Erosion or Sedimentation- No negative impacts are anticipated. Erosion and sedimentation control measures utilized during construction will comply with *The 2002 Connecticut Guidelines for Soil Erosion and Sediment Control*.

3. Effect on natural land resources and formations, including coastal and inland wetlands, and the maintenance of in-stream flows – No negative impacts are anticipated. Any activity within federally regulated wetland areas or watercourses at the site will require a permit from the U.S. Army Corps of Engineers (USACOE) pursuant to Section 404 of the Clean Water Act. If a permit is required from the USACOE, a Water Quality Certificate will also be required from CTDEEP pursuant to Section 401 of the Clean Water Act. The project site will be evaluated for the presence of inland wetlands. Since the project is on a local road, consultation with the municipal inland wetlands agency will take place to determine if a permit is required. Registration under CTDEEP's *General Permit for Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* will be completed if required; and CTDOT will employ Best Management Practices regarding stormwater management. All CTDOT projects are designed in conformance with the 2004 CTDEEP Stormwater Quality Manual.

4. Disruption or alteration of an historic, archaeological, cultural, or recreational building, object, district, site or its surroundings – The Connecticut State Historic Preservation Officer (CTSHPO) has reviewed the project under Section 106 of the National Historic Preservation Act and determined that the project will have an adverse effect on cultural resources. The project involves replacing Bridge No. 04067, which is eligible for listing on the National Register of Historic Places. After extensive analysis, it has been determined that there are no feasible and prudent alternatives to the proposed replacement. A Memorandum of Agreement was executed between CTDOT, CTSHPO, and the Federal Highway Administration (FHWA) to outline the following measures that will be implemented to mitigate for the adverse effect:

- CTDOT will develop a context-sensitive design for the replacement bridge. The design will include cladding the replacement structure with stone salvaged from the existing bridge. The bronze commemorative plaque that is currently attached to the bridge parapet will be installed on the replacement bridge.

- CTDOT will install interpretive signage in a visible public space near Bridge No. 04067. The signage will include a brief overview of the area and its past milling industry. The text and context of the interpretive sign will be submitted to Stamford's Historic Preservation Advisory Commission for their review and approval prior to the sign's fabrication. Following installation of the signage, the City of Stamford will be responsible for maintenance of the signage.
- Prior to construction, CTDOT will submit final design drawings of the proposed structure to the CTSHP for review and approval. CTDOT will provide copies of the design documents to Stamford's Historic Preservation Advisory Commission for their review and comment.

5. *Effect on natural communities and upon critical species of animal or plant and their habitats; interference with the movement of any resident or migratory fish or wildlife species* –No negative impacts are anticipated. Review of the Connecticut Department of Energy and Environmental Protection's Natural Diversity Database Mapping indicates that there are no State species of concern in the project area. The existing single span bridge provides for unrestricted fish passage at this crossing and the channel under the bridge is composed of natural streambed material. CTDEEP suggests that the final design must maintain these conditions.

6. *Use of pesticides, toxic or hazardous materials or any other substance in such quantities as to create extensive detrimental environmental impact* - No negative impact is anticipated. Land use in the vicinity of the project limits and the potential for excess soil as a result of construction will be considered during the initial phases of project design. Should there be sites with known contamination issues in the vicinity of the project, additional study will be performed within the project area and/or adjacent right-of-way. As design progresses, a testing plan will be developed to assess soil and groundwater in any moderate-to high-risk areas within which intrusive construction activities are proposed. Remediation measures will be put in place to mitigate potential impacts if contaminated soils or groundwater is confirmed by the testing. If needed, registration under CTDEEP's *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* will be obtained, and soil management will be conducted in accordance with the General Permit.

7. *Substantial aesthetic or visual effects* - No negative impacts are anticipated. CTDOT coordinated with Stamford's Historic Preservation Advisory Commission; and prior to construction CTDOT will submit final design drawings of the proposed structure to the CTSHP for review and approval. CTDOT will develop a context-sensitive design for the replacement bridge; and the new structure will include elements salvaged from the existing bridge to maintain its historic characteristics to the best extent practicable. See Item 4 above.

- 8. Consistency with the written and/or mapped policies of the Statewide Plan of Conservation and Development and such other plans and policies developed or coordinated by the Office of Policy and Management or other agency** – CTDOT has adopted a programmatic approach for determining consistency with the Statewide Plan of Conservation and Development. It is CTDOT’s interpretation that this type of falls within the category of “Renovations for Safety, No Significant Capacity Improvement”. As stated in a memo from CTDOT to OPM dated March 2015, it is CTDOT’s interpretation that this category of activities is always consistent with the Plan through Growth Management Principle (GMP) #1 (Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure), and GMP #5 (Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety). Furthermore, it is CTDOT’s interpretation that this category of projects constitutes an exception to the definition of a Growth Related Project as defined in Sec. 16a-35c, Item (2), Subsection (D), Sub-Subsection (i) “Projects for maintenance, repair, additions or renovations to existing facilities”.
- 9. Disruption or division of an established community or inconsistency with adopted municipal and regional plans** - No negative impacts are anticipated. The project is consistent with the City of Stamford’s Master Plan (2014). The Mater Plan indicates the importance of maintaining historic character of bridges, buildings, and other structures. Although replacement of an historic bridge is required for this project, CTDOT has coordinated with the City as well as the Stamford Historic Preservation Advisory Commission regarding mitigation measures for replacement of the historic structure; and CTDOT will develop a context-sensitive design for the replacement bridge.
- 10. Displacement or addition of substantial numbers of people** - No negative impacts are anticipated. This project does not involve any displacement of individuals.
- 11. Substantial increase in congestion (traffic, recreational, other)** - No negative impacts are anticipated. Impacts are limited to temporary impact during construction, as Cedar Heights Road will be closed. A suitable detour will be utilized during construction. Access to the adjacent properties, however, will be maintained at all times during construction.
- 12. A substantial increase in the type or rate of energy use as a direct or indirect result of this action** - No negative impact is anticipated.
- 13. The creation of a hazard to human health or safety** - No negative impact is anticipated. The project will be reviewed for the potential of having lead, asbestos, or other hazardous material constituents in existing infrastructure components. Testing will be performed on any suspect materials. Should the presence of hazardous materials be confirmed through the testing, specifications to properly handle and dispose the hazardous materials will be incorporated into the design to mitigate potential impacts to human health or safety. Additionally, OSHA guidelines and CTDOT Best Management Practices will be followed throughout construction to provide safety measures for both construction workers and the public.

14. Any other substantial impact on natural, cultural, recreational or scenic resources - No other negative impacts are anticipated.

Conclusion:

After examining any potential environmental impacts and reviewing all comments received, CTDOT has concluded that the preparation of an Environmental Impact Evaluation (EIE) will not be required for the replacement of Bridge No. 04067 – Cedar Heights Road over the Rippowam River.

Recommendations from State Agencies

Connecticut Department of Energy and Environmental Protection (CTDEEP)

In order to protect the Rippowam River, strict erosion and sediment controls should be employed during construction. The Connecticut Guidelines for Soil Erosion and sediment Control prepared by the Connecticut Council on Soil and Water Conservation in cooperation with CTDEEP is a recommended source of technical assistance in the selection and design of appropriate control measures.

Any activity within federally regulated wetlands areas or watercourses at the site may require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. If a permit is required from the U.S. Army Corps of Engineers, a Water Quality Certificate will also be required from CTDEEP pursuant to Section 401 of the Clean Water Act.

The proposed project is located within the 100-year flood zone on the community's Flood Insurance Rate Map. The project must be certified by CTDOT as being in compliance with flood and stormwater management standards specified in the Connecticut General Statutes (CGS) and the Regulations of Connecticut State Agencies (RCSA). In addition, the Rippowam River has a mapped floodway, it must be demonstrated that there will be no activity within the floodway that will result in any increase in the water surface elevation for the 10-year or 100-year event as determined by hydraulic modeling. The CTDOT project team should coordinate with CTDEEP to be made aware of the design constraints under the Flood Management Statutes and National Flood Insurance Program regulations.

Since the property is located on a local road the municipal inland wetlands agency should be consulted to determine if a permit is required.

The general permit for Stormwater and Dewatering Wastewaters from Construction Activities may be applicable depending on the size of the disturbance regardless of phasing. This general permit applies to all discharges of stormwater and dewatering wastewater from construction activities. The construction stormwater general permit dictates separate compliance procedures for Locally Approvable projects and Locally Exempt projects (as defined in the permit). Locally Exempt construction projects disturbing over 1 acre must submit a registration form and Stormwater Pollution Control Plan

(SWPCP) to the Department. Locally Approvable construction projects with a total disturbed area of one to five acres are not required to register with the Department provided the development plan has been approved by a municipal land use agency and adheres to local erosion and sediment control land use regulations and the CT Guidelines for Soil Erosion and Sediment Control. Locally Approvable construction projects with a total disturbed area of five or more acres must submit a registration form to the Department prior to the initiation of construction. This registration shall include a certification by a Qualified Professional who designed the project and a certification by a Qualified Professional or regional Conservation District who reviewed the SWPCP and deemed it consistent with the requirements of the general permit. The SWPCP for Locally Approvable projects is not required to be submitted to the Department unless requested. The SWPCP must include measures such as erosion and sediment controls and post construction stormwater management. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. Stormwater treatment systems must be designed to comply with the post-construction stormwater performance management requirements of the permit. These include post-construction performance standards requiring retention of the water quality volume and incorporating control measures for runoff reduction and low impact development practices.

The existing single span bridge provides for unrestricted fish passage at this crossing and the channel under the bridge is composed of natural streambed materials. The final design of this project must maintain these conditions. The Fisheries Division recommends the following best management practices:

- Proper erosion and sedimentation controls should be installed and maintained throughout the duration of this project. Care should be exercised so as to not increase turbidity levels and all disturbed areas will need to be stabilized and restored after completion of the project.
- As design proceeds, more details may need to be provided regarding any future instream work associated with substructure repairs or installation of riprap.
- As a best management practice, unconfirmed instream work should be restricted to the period from June 1 to September 30. If this project requires excavation in the stream to pour new footings or for other reasons, CTDEEP Fisheries will need to be consulted to ensure that the impacts to fish passage and suitable habitat are not significantly impacted.

CTDEEP staff determined that it is likely that there are hazardous or solid waste related concerns due to the historic nature of the site. Any project that has the potential for excavation contaminated soil must adhere to CTDEEP's laws, regulations, and policies governing such media.

A site-specific hazardous materials management plan should be developed prior to commencement of construction and a health and safety plan for construction workers should also be prepared. The Development plans in urban areas that entail soil excavation should include a protocol for sampling and

analysis of potentially contaminated soil. Soil with contaminant levels that exceed the applicable criteria of the Remediation Standard Regulations, that is not hazardous waste, is considered to be special waste. The disposal of special wastes requires written authorization from the Waste Engineering and Enforcement Division prior to delivery to any solid waste disposal facility in Connecticut. If clean fill is to be segregated from waste material, there must be strict adherence to the definition of clean fill. In addition, the regulations prohibit the disposal of more than 10 cubic yards of stumps, brush or woodchips on the site, either buried or on the surface.

The Waste Engineering and Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)*. It establishes a uniform set of environmentally protective management measures for stockpiling soils when they are generated during construction or utility installation projects where contaminated soils are typically managed.

The contractor should have completed an environmental assessment of the site, checking for Constituents of Concerns such as lead and asbestos, at a minimum. The assessment should be submitted to the municipality and the Connecticut Department of Public Health. During demolition, the contractor should take measures to prevent waste from entering land, air and water. All wastes generated at the site would need to be characterized and properly disposed.