STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ASSESSMENT CHECKLIST

Date: August 8, 2017
Project Name: Intersection Improvements on Route 74 and Route 195
Municipality: Tolland
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:
The purpose of this project is to address congestion concerns and vehicular and pedestrian safety concerns on Route 74 and Route 195 within the Tolland Green Historic District.

Route 195 will be widened beginning approximately 500 feet to the south of its intersection with Old Post Road to accommodate a flush splitter island intended to slow vehicles entering and leaving the Tolland Green area. The island will be separated into three sections to provide access to adjacent driveways. The island will be textured and flush with the pavement, providing traffic calming for vehicles by introducing curvature and channelizing, visualizing narrowing the pavement width, and providing an area of refuge for pedestrians. It is also suggested that the existing gateway signage to the Tolland Green be moved closer to the Southerly Gateway to improve the sign's effectiveness.

Extending north from the Southerly Gateway, the widening of Route 195 will accommodate a northbound exclusive left-turn lane at Old Post Road, approximately 150 feet in length. The receiving northbound lane will require realignment, which will have minor impacts to the southwest corner of the Tolland Green. The southerly leg of the intersection will be widened to allow for: two travel lanes, a left-turn lane, and two 4-foot shoulders. On the northern leg of the intersection, the existing southbound shoulder will be narrowed to shorten the distance of the crosswalk. Minor realignments to both legs of Old Post Road will be required due to the modification of Route 195. A new traffic signal is also proposed at this intersection.

The existing configuration of the intersection of Route 74 at Route 195 and at Old Stafford Road will be realigned. The easterly leg of Route 74 will be realigned to the south to form a new stop controlled "T" type intersection with Route 195. The approach to Route 74 from Old Stafford Road will be realigned to the west to form a "T" type intersection. Both intersections will be side-street, stop-sign controlled. The mid-block crosswalk, currently located 160 feet south of the existing Route 74/195 intersection, will be relocated north to the intersection. The new intersection configurations will result in a long

uncontrolled tangential section of Route 195 along the Tolland Green. To calm traffic along this straightaway, a flush splitter island will be installed on Route 195 approximately 200 feet to the south of the new intersection with Route 74.

The north western leg of Route 74 will be widened and realigned west of its intersection with Old Stafford Road to provide traffic calming. In order to avoid impacting historic homes in the area, the new horizontal curvature and widening will realign the roadway away from the historic properties. Drainage modifications will be required as a result of the widening and realignment. The horizontal curve on Route 74 at Old Stafford Road will be realigned in order to calm traffic. Old Stafford Road at Route 74 will be realigned to the west to form a "T" type intersection with stop control on Old Stafford Road. This reconfiguration will increase the distance between this intersection and the Route 195 intersection with Route 74 as well as normalize vehicular movements. The shoulder of Route 74 eastbound, prior to its intersection with Route 195, will be widened to allow for the bypass of left-turning vehicles onto Old Stafford Road.

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 for carbon monoxide, PM2.5 and 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 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 also conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.

    c) *Ambient Noise Levels*- No negative impacts are anticipated.

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 that the project area is not within a public water supply source water area.

b) *Groundwater* - No negative impacts are anticipated. Registration under CTDEEP's *General Permit for Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* will be needed. The Connecticut Department of Transportation will employ best management practices regarding stormwater management. All CTDOT projects are designed in conformance with the 2004 CTDEEP Stormwater Quality Manual. All CTDOT projects also conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.

c) *Flooding* – The project is not within the 100-year flood zone on the community's Flood Insurance Rate Map. No negative impacts are anticipated.

d) *Erosion or Sedimentation*- No negative impacts are anticipated. Construction-period erosion and sedimentation control measures will comply with *The 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* – Staff from the CTDOT's Office of Environmental Planning performed wetland delineation for this project. There are inland wetlands present, however there will be no impacts to any wetlands.

4. *Disruption or alteration of an historic, archaeological, cultural, or recreational building, object, district, site or its surroundings* – The Connecticut State Historic Office (CTSHPO) has undertaken a review under Section 106 of the National Historic Preservation Act and determined that the project will have an adverse effect on cultural resources. The project takes place within the Tolland Green Historic District and will require reconfiguration of the Historic Tolland Green, as well as easements from two residential properties that are listed 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 alternative. A Memorandum of Agreement was executed between CTDOT, CTSHPO, and the Federal Highway Administration (FHWA) to outline the measures that will be implemented to mitigate for the adverse effect. The mitigation measures include (1) resetting and leveling stone pavers that serve as sidewalks within the project area to provide an even, level walking surface. Pavers will remain in their original locations; and (2) providing National Historic Registry Plaques to homes along the Historic Tolland Green. A Phase I Archaeological Reconnaissance Survey was conducted at various locations within the project area. Two historic period archaeological sites were identified. These sites contained small quantities of 19th century material, but because of the lack of integrity and the low artifact counts, these sites do not meet any eligibility criteria for listing in the National Register of Historic Places, so there are no impacts to archaeological resources.

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* – A letter dated July 17, 2016 from CTDEEP states that the Natural Diversity Data Base contains records for two State Special Concern Species from the project area. These include the box turtle (Terrapene carolina) and the red bat (Lasiurus borealis). CTDOT has outlined protective strategies and protocols that will be adhered to in the Notice to Contractor. Following these guidelines will ensure that the project has no adverse impact on the species.

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.

7. *Substantial aesthetic or visual effects* - No negative impacts are anticipated. CTDOT coordinated with the Tolland Historical Society and Historic District Commission to design a project that would blend with the historic character of the area as much as possible. Any adverse impacts will be mitigated to the extent practicable as detailed in a Memorandum of Agreement between CTDOT, CTSHPO, and the FHWA. 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* – – It is CTDOT's interpretation that this type of project is characterized as "Renovations for Safety, No Significant Capacity Improvement", requiring a consistency review. It is recognized that some renovations for safety may also provide an increase in operational capacity (aka level of service), whether intentional to address congestion related crash patterns or incidental, but the intent of these projects is not to increase capacity the capacity of the road. As stated in a memo from CTDOT to OPM, dated March 2015, it is CTDOT's interpretation that this category of activities is 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 Town of Tolland's Plan of Conservation and Development. CTDOT has held several meetings with the Town of Tolland including the Tolland Historic Society and Historic District Commission, in order to design a project that the Town would support and be consistent with Tolland's Plan of Conservation and Development. Through these meetings, CTDOT agreed to minor design changes suggested by the Town that are more consistent with maintaining the character of the Tolland Green Historic District. On May 11, 2016, CTDOT received signed concurrence from the Town of Tolland on the design of the project; and as such the Town fully supports the project.

10. *Displacement or addition of substantial numbers of people* - No negative impacts are anticipated. This project does not involve the displacement of people.

11. *Substantial increase in congestion (traffic, recreational, other)* - No negative impacts are anticipated. The purpose of this project is to address congestion and address vehicular/pedestrian safety concerns.

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 purpose of this project is to address congestion and address vehicular/pedestrian safety concerns.

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

Recommendations from State Agencies

Department of Public Health (Environmental Engineering Program)
It is recommended that the project details be submitted to the local health department (Eastern Highlands Health District) so they can determine if there are any conflicts with septic's and wells on any of the properties, and to ensure potential septic repair areas are protected (per CT PHC Sec 19-13-B100a). Any proposed drainage systems shall also meet minimum separation distances to existing septic systems and wells. It does appear that most of the proposed work is located on town or state property.

Connecticut Department of Energy and Environmental Protection (CTDEEP)

If the drainage modifications noted in the project description will direct runoff to the Paulk Hill Brook basin, this would be a good opportunity for cross-program discussions about stormwater discharges in this local watershed. This could potentially lead to leveraging the CTDOT and local town project to collaboratively address water quality issues affecting the town swimming beach at Crandall Pond. Drainage plans and stormwater management alternatives should be developed in consultation with Town of Tolland staff responsible for managing implementation of the Crandall Pond watershed based plan.

The entire project is within the Skungamaug River basin. Water quality treatment and volume reduction measures designed to encourage stormwater to infiltrate into the ground should be employed. Several studies examining the bacteria removal performance of stormwater best management practices suggest that flow reduction is the most effective approach to pathogen attenuation in stormwater.

There does not appear to be any wetlands or watercourses crossed by roadways to be improved. The Natural Resources Conservation Service's Soil Survey does depict a lobe of Ridgebury fine sandy loam west of the intersection of Route 74 and Old Stafford Road and a lobe of Ridgebury, Leicester, and Whitman soils just east of Route 195 and directly south of the project limits. It is recommended that a certified soil scientist perform a reconnaissance of the project site in order to confirm that there are not any areas which would be regulated as wetlands or watercourses as defined by section 22a-38 (15) and (16) of the Connecticut General Statutes (CGS), respectively. Any work or construction activity within the inland wetland areas or watercourses on-site will require a permit from the Inland Water Resources Division (IWRD) pursuant to section 22a-39(h) of the Connecticut General Statutes (CGS).

The Natural Diversity Database (NDDB) mapping show records of extant species listed by the State as species of special concern that occur within the project corridor. These are the Box Turtle (Terrapene carolina carolina) and Red Bat (Lasiurus borealis). A request from CTDOT included protection strategies and protocols CTDOT proposed to put in place to protect these two species from project impact. If these protection strategies are followed, then the proposed activities will not have an adverse effect on these species. An updated letter reiterating these comments/recommendations, dated July 17, 2016, was received by CTDOT.

CTDEEP typically encourages the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If that newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.

CTDEEP also encourages the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of CTDEEP.

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 be prepared.

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, as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA), 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, as provided in Section 22a-209-1 of the RCSA. 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 & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* (DEP-SW-GP-001). Temporary storage of less than 1000 cubic yards of contaminated soils (which are not hazardous waste) at the excavation site does not require registration, provided that activities are conducted in accordance with the applicable conditions of the general permit. Registration is required for on-site storage of more than 1000 cubic yards for more than 45 days or transfer of more than 10 cubic yards off-site.

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 Intersection Improvements to Route 74 and Route 195 near Tolland Green.