

**ROUTE 7/15 INTERCHANGE PROJECT  
NORWALK, CONNECTICUT**

**DRAFT PURPOSE AND NEED STATEMENT**



March 2017

Rev. May 5, 2017

## **ROUTE 7/15 NORWALK PROJECT DRAFT PURPOSE AND NEED STATEMENT**

### **PROJECT LOCATION**

The proposed project is located in the northern portion of the City of Norwalk and encompasses the interchange of the Route 15 (Merritt Parkway) and Route 7; the interchange of the Merritt Parkway with Main Avenue; Main Avenue (SR 719); and Glover Avenue/Creeping Hemlock Drive in the vicinity of Main Avenue. The project area extends along the Merritt Parkway from approximately 0.5 miles west of Route 7 to approximately 0.5 miles east of Main Avenue and along Route 7 from approximately 0.5 miles south of the Merritt Parkway to approximately 0.5 miles north of the Merritt Parkway.

The project area is illustrated in Figure No. 1.

### **EXISTING TRANSPORTATION NETWORK**

#### **Route 7**

Regionally, Route 7 serves as an important north-south transportation corridor in western Connecticut, connecting Interstate 84 (I-84) in Danbury and Interstate 95 (I-95) in Norwalk. Throughout the corridor, Route 7 provides essential service to residential communities and businesses in the towns of Ridgefield, Redding and Wilton as well as the cities of Danbury and Norwalk. Within and abutting the project area, Route 7 is a four lane limited access expressway between I-95 and Grist Mill Road in Norwalk, where it intersects with the Route 7 arterial roadway to the north. The roadway that previously functioned as Route 7 between I-95 and Grist Mill Road prior to the completion of the Route 7 expressway is now called Main Avenue.

#### **Merritt Parkway**

The Merritt Parkway is approximately 37 miles long. It connects the Hutchinson River Parkway at the New York State line in Greenwich to the Wilbur Cross Parkway at the Housatonic River in Stratford. The Parkway has two travel lanes in each direction and is restricted to non-commercial use. It was listed in the National Register of Historic Places for its significance in the areas of landscape design, transportation and architecture. It was also designated as a National Scenic Byway and State Scenic Road. Therefore, the overall character of the Merritt Parkway (its form, geometry and appearance) is an intrinsic element to its significance. In the project area, the Merritt Parkway carries traffic over Perry Avenue, Route 7 and Main Avenue as well as the Norwalk River and Metro North Railroad. This portion of the Parkway includes four historic bridges that are contributing resources to the Merritt Parkway National Register listing. They are the Perry Avenue Overpass (CTDOT Bridge No. 00719), the Main Avenue Bridge (Nos. 00530A and 00530B), the Metro North Railroad Overpass (No. 00720) and the Norwalk River Overpass (No. 00721).



Figure No. 1: Project Area

**Historic Bridges**

- A** Perry Avenue Overpass
- B** Main Avenue Bridge
- C** MNRR Overpass
- D** Norwalk River Overpass
- E** Glover Avenue over Norwalk River

**Existing Interchanges**

Interchange No. 39 provides partial connections between Route 7 and the Merritt Parkway. Connections are provided from Route 7 northbound to the Merritt Parkway southbound, from Route 7 southbound to the Merritt Parkway southbound, from the Merritt Parkway northbound to Route 7 northbound and from the Merritt Parkway northbound to Route 7 southbound. Connections between Route 7 and the Merritt Parkway to and from the north are not provided. Due to the missing connections, the Merritt Parkway southbound motorists must use the Merritt Parkway/Main Avenue interchange (Exit 40B) to access Route 7 northbound, north of Grist Mill Road. Merritt Parkway northbound motorists must use the Merritt Parkway /Main Avenue interchange (Exit 40A) to access Route 7 southbound south of Route 123/New Canaan Avenue. Similarly, motorists on Route 7 have no direct access to the Merritt Parkway northbound and must use Main Avenue to access the Parkway.

Interchange No. 40, a second nearby interchange provides connections in all directions between the Merritt Parkway and Main Avenue. This interchange is located approximately 1,500 feet east of the Route 7 and Merritt Parkway interchange and the Norwalk River.

**Main Avenue**

Main Avenue is a four lane urban minor arterial which parallels Route 7 and the Norwalk River and extends north and south of the Merritt Parkway/Route 7 interchange. Connections between Route 7 and Main Avenue do not exist in the vicinity of Interchange No. 39 or Interchange No. 40.

**Glover Avenue**

The Glover Avenue Bridge (No. 04155) which carries Glover Avenue over the Norwalk River is independently eligible for listing in the National Register of Historic Places. Glover Avenue, also connects with Creeping Hemlock Drive at the signalized intersection with Main Avenue. Creeping Hemlock Drive serves the residential community east of Main Avenue.

**PROJECT PURPOSE**

The purpose of the project is to improve system linkage between Route 7 and the Merritt Parkway at Interchange No. 39; improve the mobility for all users at the Merritt Parkway's Main Avenue and Route 7 Interchanges (No. 39 & No. 40); and improve safety in the vicinity of these interchanges.

**PROJECT NEEDS**

CTDOT and FHWA are undertaking the project to improve the efficiency and/or reduce the deficiencies of the existing Interchanges and streets in the vicinity of the interchanges.

**System Linkage**

The existing Merritt Parkway and Route 7 Interchange configuration does not provide all connections between Route 7 and the Merritt Parkway. As a result, approximately 250 and 125 vehicles use the Main Avenue corridor to connect between Route 7 and the Merritt Parkway during the weekday morning and weekday evening peak hours, respectively. This is approximately 5 to 15 percent of the traffic currently using the Main Avenue corridor between CT 123 and CT 15 during either peak hour. These additional vehicles contribute to peak hour congestion along the Main Avenue corridor (LOS D/E). Providing the missing connections would allow access in all

directions, eliminate the need for motorists to use Main Avenue to connect between Route 7 and the Merritt Parkway, and improve the efficiency of motorists connecting between the roadways.

### **Safety**

The existing Main Avenue and Merritt Parkway Interchange ramps have inadequate acceleration and deceleration lanes, steep grades, sharp curves, and limited sight distance that contribute to a high number of crashes. Over a three-year period, (2012-2014) a total of 190 crashes have occurred along Main Avenue or on the Merritt Parkway in the vicinity of Interchange No. 40. Of those, 28 crashes have occurred on Main Avenue and 162 crashes have occurred on the Merritt Parkway in the vicinity of the Interchange. Over a three-year period, (2012-2014) a total of 120 crashes have occurred along Route 7 or on the Merritt Parkway in the vicinity of Interchange No. 39. Of those, 29 crashes have occurred on Route 7 and 91 crashes have occurred on the Merritt Parkway in the vicinity of the Interchange.

### **Mobility**

Providing vehicular connections between Main Avenue and Route 7 would improve mobility for some users of Main Avenue and Route 7. Up to approximately 250 peak hour vehicles accessing the roadways from locations north or south of the project area either originate from or are connecting between portions of Route 7 and Main Avenue in the vicinity of the Merritt Parkway interchanges. Providing for pedestrian and/or bicycle access would allow connections between neighborhoods and land uses for pedestrians and bicyclists that currently do not exist.

### **Congestion**

Main Avenue and Glover Avenue in the vicinity of Interchange No. 40, are currently experiencing heavy congestion and delays during peak hours. The intersection of Main Avenue at Glover Avenue / Creeping Hemlock Drive operates at LOS F and LOS E during both the weekday morning and weekday evening peak hours. Furthermore, certain ramps at the Merritt Parkway interchange with Main Avenue operate at LOS E or F. Improvements at the interchange and/or Main Avenue would reduce congestion and reduce delays at those intersections with the existing traffic volumes. With long term traffic growth, it is possible that congestion could continue to occur but the impacts of that congestion would be less with the Interchange/ Main Avenue improvements than it would be if the improvements are not made.

## **PROJECT GOALS AND OBJECTIVES**

Goals and objectives that provide other factors that would be considered in the alternative analyses screening process include:

- A. Long Term Serviceability of the Affected Roadways within the Project Area:
  1. Creating opportunities for improved connections to existing and reasonably foreseeable future modes of transportation within the project area. (i.e. surface transit, Metro-North Railroad, bicycles/pedestrians, etc.)
  2. Coordinating with the City of Norwalk toward a workable solution that is compatible with city and regional initiatives.
  
- B. Maximize the Public Investment with the Project:

1. Utilizing cost-effective solutions that maximize capital investment over the lifespan of the project.
  2. Reducing short term maintenance costs of the affected bridges and roadways.
  3. Minimizing the impact of construction on the traveling public and local communities.
  4. Implementing sustainable practices.
- C. Integrate the Project Roadways with the Environment and Neighborhood context:
1. Incorporating design elements that are not only consistent with the *'Merritt Parkway Guidelines for General Maintenance and Transportation Improvements'* for maintaining and improving the Parkway's resource characteristics within the confines of the Merritt Parkway Scenic Byway Corridor, but identify opportunities for design elements that are sensitive to the historic character of the Parkway corridor and integrity, and where feasible, elements of the original design intent
  2. Incorporating features and details that would improve the aesthetic qualities of the project roadways as viewed from adjacent areas and sustain a contiguous and recognizable character of the scenic Parkway.
- D. Provide for Reasonably Foreseeable Future Pedestrian and Bicycle Access Through the Project Area:
1. Provide pedestrian and bicycle accommodations for the future extension of the pedestrian access and bike trails through the project area.