



PROJECT DESCRIPTION

State Project No. 0134-0151
Replacement of Existing Stone Culvert Under Route 19 (East Street)
Town of Stafford

PROJECT LOCATION:

This project is located on Route 19 (East Street) in Stafford, CT at an existing stone clapper box culvert, approximately ½ mile south of the intersection of Route 319 and Route 19.



PURPOSE AND NEED:

The purpose of this project is to replace the existing stone clapper box culvert due to structural deficiencies. The stone culvert is showing signs of bulging due to its age and continued live load from truck traffic. There are no existing catch basins along the edge of road and there is evidence of ponding during rain events. Roadside safety along Route 19 is also substandard.







EXISTING CONDITIONS

Route 19 (East Street) is classified as a Rural Major Collector roadway with an existing Average Daily Traffic of 2,200 vehicles per day. The posted speed limit is 40 miles per hour. Route 19 (East Street), originally constructed in 1924, runs south to north, connecting the Stafford Hollow Historic District (also known as Furnace Hollow) to the current downtown area, Stafford Springs. The existing roadway consists of two 11-foot-wide travel lanes with shoulders varying between 1.8 and 6 feet wide. The existing roadside safety includes metal beam rail (Type R-B 350) along portions of the northbound and southbound edges of the roadway.

Along the northbound edge of road, there is a historically notable fieldstone masonry boundary wall, which transitions into a retaining wall, supporting Route 19. This wall also acts as the headwall to the existing 3 ft x 3.5 ft stone clapper box culvert that is to be replaced. The outlet of the stone culvert is located in a "Type C-L" catch basin that collects runoff from a drainage area of approximately 1.2 acres. This catch basin is located within the state Right of Way but is in the driveway of a privately owned business, Williams Fuel Oil Company. This catch basin discharges back into the unnamed tributary through a 36-inch CMP, which runs under the residential driveway (158 East Street). There is no headwall at the outlet of the CMP.

PROJECT DESCRIPTION:

The existing stone culvert will be replaced with a 48-inch RCP culvert embedded with 1 foot of native streambed material. In addition to replacing the existing catch basin at the outlet of the existing culvert and the 36" metal outlet pipe, additional catch basins will be installed at the low point of the highway to mitigate the existing drainage issues.

The highway will be fully reconstructed within the limits of the existing and proposed culverts. The paving limits will be extended beyond the limits of the full depth construction to correct the existing cross slopes. Prior to placing the final pavement lift, wedge courses will be placed to achieve standard cross slopes, according to the Highway Design Manual. Also, the existing roadside safety elements will be replaced with MASH-compliant Metal Beam Rail (MBR).

RIGHTS OF WAY / ENVIRONMENTAL PERMITS:

Temporary construction easements, drainage easements, an aerial easement, right to remove and reset stone wall, and rights to grade and construct driveways are anticipated.

The culvert replacement requires coordination with DEEP Fisheries, DEEP Inland Wetlands, U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife (USFWS) due to potential endangered species and other regulated resources in the area. The culvert is not located in FEMA Floodplain.

PROJECT SCHEDULE:

FDP: 4/15/2026 DCD: 5/27/2026 ADV: 6/24/2026

PROJECT COST (CONSTRUCTION):

This project will be funded with 80% federal and 20% state funds.

Estimated Construction Cost: \$2,500,000

Utility Cost: \$200,000

