

DESIGN REPORT
State Project # 172-391
REHABILITATION OF 2 METAL PIPE CULVERTS
ON ROUTE 9 IN HADDAM

Town: Haddam

Road: Route 9

Construction District No.: 2

Final Maintenance Responsibility: State of Connecticut

Project Location:

Project No. 172-391 consists of two culverts located in Haddam under Route 9. Culvert #06734 (Site 1) is located on the northbound side of Route 9 at exit 8 just south of Beaver Meadow Road. Culvert #6683 (Site 2) is located approximately 2 miles south of Site 1 in the vicinity of Cedar Lake Road.

Project Description:

The subject section of Chester Bowles Highway (Route 9) is classified as a rural principal arterial roadway that connects Haddam to Middletown to the north and Chester to the south. The roadside development within the project limits is sparsely populated with private residences. The existing roadway in the project limits has two 12-foot travel lanes and a 13-foot shoulder on both sides of Route 9.

This project will address the deterioration of the two corrugated metal pipes (CMP) by relining the pipes. This project is the result of a condition study and inventory of existing corrugated metal pipe culverts around the state performed by the Department's Bridge Safety and Evaluation Unit. Both culverts are deformed from their original diameter at various locations inside the pipes. The Department is proposing to "slip-line" the pipes with smaller diameter corrugated metal pipes (Aluminum) and to use grout to fill the void between the liner pipe and the host pipe. It is proposed that the 108" pipe (Site 1) will be lined with a 96" pipe and the 72" pipe (Site 2) will be lined with a 60" pipe. The existing rip-rap around the inlet of Culvert #6734 will be secured using shotcrete, and concrete weirs will be installed at the inlet and outlet of the culvert to improve the fish habitat. The concrete collar around Culvert #6683 will be stabilized with rip-rap and aluminum baffles will be installed inside the pipe to create backflows for fish passage.

Rights of Way:

Temporary work areas and flooding easements have been acquired for Culvert #6683 (Site 2). All construction activities for Culvert #6734 (Site 1) will be performed within the State's Right of Way.

Public Utilities: None

Salvage: None

Permits: Inland Wetlands, Flood Plain Management, Army Corps (Cat 2) are required and are pending approval.

Reimbursable Agreements: None

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