

# Replacement of Bridge F-45, White Bridge over Capoolong Creek

Township of Franklin | Hunterdon County, NJ



Van Cleef was contracted by the County of Hunterdon to provide design services for the replacement of existing deteriorated 20.8 foot span concrete-encased rolled steel girder bridge with reinforced concrete deck in the Mount Pleasant Historic District, with a new precast concrete rigid frame with HMA wearing surface on new reinforced concrete spread footings. The proposed bridge has a 20.5 foot span and a 28.0 foot wide roadway, with 9 foot wide vegetated berms along both sides, for an out to out width of 49.25 feet, including railing. Project included approximately 115 Linear Feet of approach roadway reconstruction and replacement of low dam/weir immediately upstream of the bridge. The 9 foot wide vegetated berms were utilized to improve sight distance for driveways adjacent to the bridge and to move bridge rail out of clear zone, eliminating the need for approach guide rail or crash cushions. Although not a contributing element to the Mt. Pleasant Historic District, easement acquisition made it necessary to prepare an Alternatives Analysis, submit the project to the NJHPO, and present the project to the NJ Historic Sites Council. Project design included stone-faced wingwalls and decorative pedestrian rails for compatibility with the district. Project also included landscaping and approximately 100 Linear Feet of Embankment Stabilization of eroded streambanks downstream of the bridge with riprap.

Project included topographic survey, alternatives analysis (with emphasis on impacts to the Mt. Pleasant Historic District), roadway and bridge design, obtaining NJDEP Flood Hazard Area and Freshwater Wetlands permits, hydraulic analysis of existing and proposed bridge and low dam/weir, detour plan, coordination with Township Officials, preparation of cost and quantity estimates, specifications, coordination with utilities, Easement acquisition documents, Working Drawing review and addressing contractors RFI's.

## CLIENT CONTACT

County of Hunterdon  
Engineering Department  
Flemington, NJ

## PROJECT HIGHLIGHTS

- Pre-manufactured Welded Truss
- Stone Faced Abutments & Lattice-work on Truss
- Channel Embankment Stabilization
- Utility Coordination & Relocation
- Hydraulic Analysis of Existing & Proposed Bridge
- NJDEP Flood Hazard & Freshwater Wetlands Permits
- ROW Acquisitions from NJDEP and Private Property