

Interchange 127 Improvements, Superstructure Replacement Widening of GSP Structures 128.0A & 128.0B

Township of Woodbridge | Middlesex County, NJ



Van Cleef provided design and construction support engineering services to the NJ Turnpike Authority (NJTA) for the \$65M superstructure replacement and widening of Garden State Parkway (GSP) Structure Nos. 128.0A & 128.0B at Interchange 127. These structures accommodate multiple exit ramps that provide a critical transportation link from the northbound Driscoll Bridge to northbound US Route 9 and northbound & southbound NJ Route 440.

This effort involved geometric modifications to improve the horizontal curvature and sight distance along the ramp. The proposed design also included improvements to the parapets, lighting, drainage, new retaining walls, guide rail, full depth approach pavement, and overhead signage along the ramps. We performed geotechnical investigations of the surrounding soils, obtained the necessary environmental permitting, and incorporated the accommodations for existing fiber and sanitary sewer lines in the contract documents.

The project was designed to continuously maintain heavy traffic volumes during peak travel periods throughout construction, which resulted in the development of numerous construction stages. Structure No. 128.0A was a NSTM thru-girder bridge, and this required complex structural design and staging methods to replace the superstructure adjacent to continuous live traffic. Both bridges are heavily skewed with complex geometry.

To meet an aggressive design schedule, all field inspection work, development of Phase A recommendations report, and the preparation of final plans, specifications, estimates, and contract documents were completed within 10 months.

CLIENT CONTACT

New Jersey Turnpike Authority
Woodbridge, NJ

PROJECT HIGHLIGHTS

- ◀ Structural Design
- ◀ Temporary Bridge/Roadway
- ◀ Interchange Ramp Design
- ◀ Drainage Design
- ◀ Guide Rail/Barrier Design
- ◀ Overhead Sign Structures
- ◀ Complex MPT/Structure Staging
- ◀ Environmental Permitting
- ◀ Geotechnical Engineering Support
- ◀ Lighting Design
- ◀ Utility Relocations