

Replacement of Waackaack Creek Pedestrian Bridge Henry Hudson Trail over Waackaack Creek

Borough of Keansburg | Monmouth County, NJ



Van Cleef was contracted by the Monmouth County Park System to provide final design and construction inspection services for the replacement of the Waackaack Creek Pedestrian Bridge along the Henry Hudson Trail over Waackaack Creek in Keansburg, NJ. The existing structure was a nine (9) span, 105' long timber truss supported by timber due to advanced deterioration. The existing bridge was replaced with a single span, 120' long prefabricated steel Pratt truss bridge with new concrete abutments constructed landward of the existing timber abutments. The new reinforced concrete abutments were supported on helical piles. The bridge was designed for pedestrian loading and H-10 maintenance trucks. At the west abutment, permanent sheet piling will be installed behind the existing abutment prior to its removal and will provide protection against erosion resulting from the tidal flows of Waackaack Creek. Asphalt overlay ramps were constructed at each approach due to a slight increase in grade required for the proposed bridge to span over the existing abutments. Surrounded by wetlands and located within a brackish environment, the new steel truss is protected from corrosion by a duplex coating system consisting of both painting and galvanizing, guaranteeing a lifespan of 50 years. A detour of the trail pedestrian and bicycle traffic in the vicinity of the bridge was in effect throughout the duration of construction.

Project elements included topographic LiDAR scanning, bridge design, foundation design, steel bridge fabricator coordination, construction administration services, and construction inspection services.

Monmouth County Park System
Lincroft, NJ

- 🌀 Bridge Replacement
- 🌀 Geotechnical Design
- 🌀 Aerial Drones and LiDAR Scanning
- 🌀 Traffic Control
- 🌀 Construction Administration
- 🌀 Construction Inspection