

Construction of a Roundabout at the Intersection of CR 638 and North Post Road

Township of West Windsor | Mercer County, NJ



Van Cleef was contracted by the Mercer County to design a roundabout at the intersection of Clarksville Road and North Post Road. CR 638 (Clarksville Road) is an east-west connector through West Windsor Township and Lawrence Township connecting CR 615 (Cranbury Road) and CR 571 (Princeton-Hightstown Road) to US Route 1. West Windsor-Plainsboro High School South, Maurice Hawk Elementary School, and the West Windsor Municipal Complex are all located on CR 638 within proximity of the proposed project area. The project will increase safety along the corridor by providing speed control and traffic calming through the use of a roundabout. The project aims to promote multimodal facilities and improve traffic flow along Clarksville Road. The roundabout and roadway approaches were designed to provide appropriate horizontal and vertical alignments to calm traffic, limit property impacts, and accommodate the identified design vehicle. A traffic analysis was performed to evaluate operational and safety conditions of traffic, and develop multiple improvement alternatives at the intersection. The design alternatives include concept sketches, truck turning paths, fastest paths, preliminary cost comparison and selecting a Preliminary Preferred Alternative (PPA). The design also includes drainage improvements, shoulders, sidewalks/shared-use path, relocation of a variety of utilities, and improvement to the overall intersection capacity.

This state-funded project requires an environmental screening and, if applicable, EO 215 Environmental Assessment documentation, along with securing necessary construction permits. An early environmental screening was conducted to assess the socioeconomic and environmental conditions at the site and evaluate potential impacts from different alternatives. This process also identified necessary environmental studies and permits for the project. All environmental work will be reviewed by Mercer County and the NJDOT Division of Environmental Resources (DER). The site doesn't drain into the canal or its watercourses, nor does it involve any structures taller than 40 feet. Based on this, the project will apply to DRCC for a written determination to confirm it is exempt from DRCC review and approval. All design follows Mercer County, NJDOT, and AASHTO standards.

CLIENT CONTACT

Mercer County
Engineering Department
Trenton, NJ

PROJECT HIGHLIGHTS

- County Client
- Alternatives Analysis
- Roundabout Design
- Construction Staging
- Complete Streets Design
- Stormwater Management Design
- ROW Acquisitions
- NJDEP Environmental Permits
- Utility Relocations
- Public Outreach