

# Design Services for Contract No. T100.580 Replacement of Turnpike Str. Nos. E112.95A and E112.95B OPS T3826



— OWNER

NJTA

— LOCATION

East Rutherford, Bergen County, NJ

— SERVICES PROVIDED

Aerial Mapping

Land Surveying

GEOD was responsible for the mapping and land surveying services to support the preliminary engineering and final design for the replacement of structures E112.95A & E112.95B in East Rutherford, Bergen County.

GEOD established a survey control network with baseline utilizing a combination of GNSS RTK and conventional surveying at the Int. 17 toll plaza and at Route 3.

Pre-flight targeting was performed to facilitate low altitude photogrammetric mapping which was stereo compiled from 2.0cm GSD new digital aerial imagery. The basemapping was then field edited for obscured areas, to identify and label all utilities, and acquire rim/grate elevations on sanitary and drainage structures.

Existing sub-surface utility mark outs were surveyed. All the field data was then added to the basemapping which was prepared at 1"=30' in NJTA spec MicroStation V8i with a SelectCAD DTM from which 1ft contours were generated. A GNSS Control Report and a Secondary Survey Control Report were prepared.

All of the data was processed to NAD 83(2011) NJ2900 State Plane Coordinate System horizontally and to the North American Vertical Datum of 1988 (NAVD 88) with digital

tie sketches and a traverse baseline drawing of the survey control in CAD.

All services were provided from GEOD's location at 24 Kanouse Road, Newfoundland, NJ.