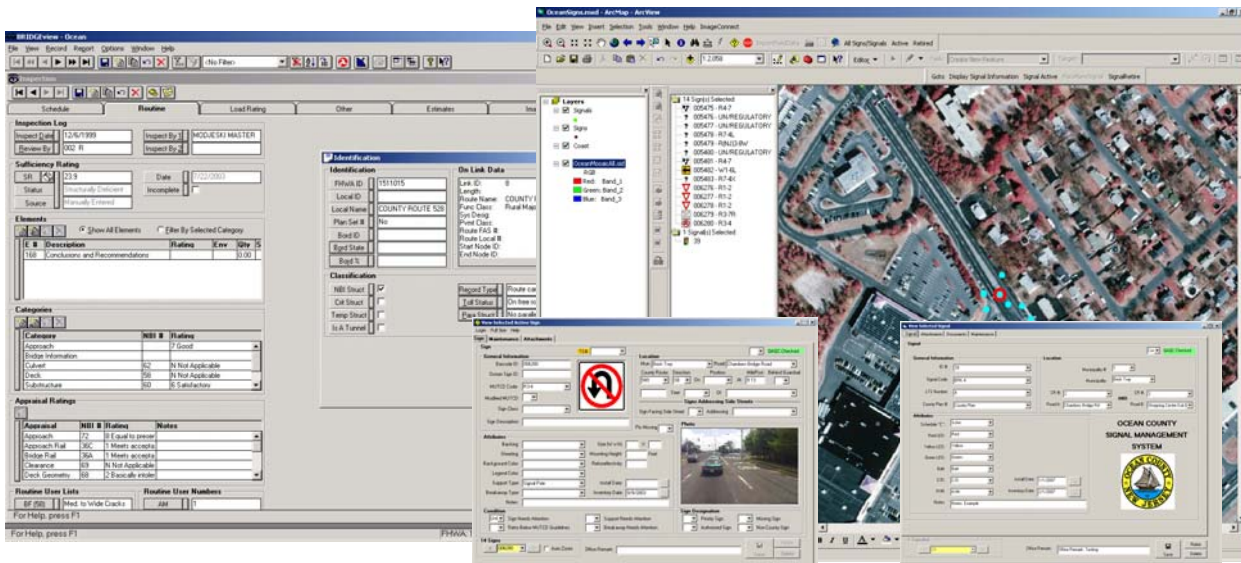


Ocean County Transportation Asset Management System



Client: Ocean County Engineering Department

Project Location: Tom's River, NJ

GPI implemented a Transportation Asset Management System for Ocean County, NJ, consisting of a Bridge Management System (BMS), a Traffic Sign and Guiderail Management System, a Traffic Signal Management System, and a drainage feature geodatabase.

The BMS involved obtaining GPS locations and digital images for approximately 230 bridges; collection of County information and entry of data into the BMS database; and development of local and County wide bridge infrastructure maps indicating all structures by type (NBIS and Non-NBIS arch, culvert, bridge). The BMS also involved a Needs Assessment Study to evaluate the County's existing computer capabilities and development of specifications for the purchase of a new network file server, workstations, pen computers, digital cameras, and printers. GPI installed and configured the network and all hardware/software. ESRI's ArcGIS and CarteGraph's BRIDGEview software formed the foundation of the BMS.

For the Sign Management System GPI provided three (3) separate databases; a sign panel, a guiderail, and drainage feature information located along all 375 centerline miles of County roadways. The inventory was conducted by utilizing high-resolution digital imagery to collect all visible feature information including GPS location, codes, types and conditions among others. The imagery being used is a component of the NJDOT pavement management system. The collected data is accessed and managed in a custom ESRI GIS software application created by GPI.

GPI created the Transportation Asset Management System's interface using a customized ArcObjects based application, allowing the application to work seamlessly with ESRI's ArcGIS. The system stores scans of timing directives, plan sheets, etc. along with digital photos and basic signal location and name information. This application allows the County to view both sign information and signal information in the same ArcGIS project, thus decreasing both training time and software costs.