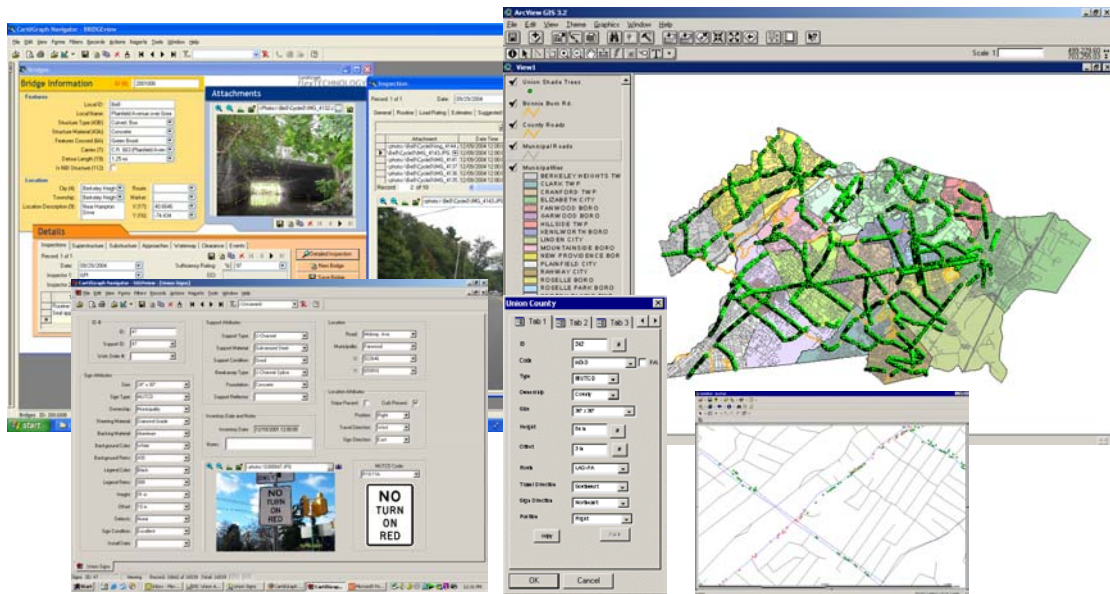


Union County Transportation Asset Management System



Asset Management / GIS

Client/Owner: Union County Engineering Department
Project Location: Scotch Plains, NJ

GPI created a Transportation Management System for Union County consisting of a Traffic Sign Management System, a Shade Tree Management System, a Bridge Management System (BMS), and a digital roadway Videolog Viewing System (VLVS). The inventory work included collecting sign and panel data related to the MUTCD sign designation, retroreflectivity and sheeting type, GPS and roadway location, dimensions, sign type and material, support type and material, and other pertinent sign information for 17,000 warning, guide and regulatory signs. A digital image of each sign was collected. A uniquely numbered weather resistant bar code label was affixed to the back of the sign panel when inventoried. CartêGraph was used to create a management system for the SMS & BMS, and the trees are managed in ESRI's ArcView. These system's allow the sign, tree and videolog data to be stored, queried and displayed on a map-based database to aid the County with managing these assets. 13,000 shade trees were inventoried using Trimble's ProXR GPS hardware and ESRI's ArcPad software. A VLVS of each of the roadways was created to aid the County in prioritizing their signage and roadway needs. The VLVS included the project design, data collection, delivery and installation of a client-server type application on which county personnel are able to view digital video along any section of county roadway.

The BMS involved in-depth inspection, rating, report preparation, SI&A coding and collection of GPS data for 300 less than 20 foot-long structures and the development of the GIS based BMS, all in accordance with NBIS and NJDOT standards. The reports followed the same format and required the same level of effort as NJDOT NBIS inspections.