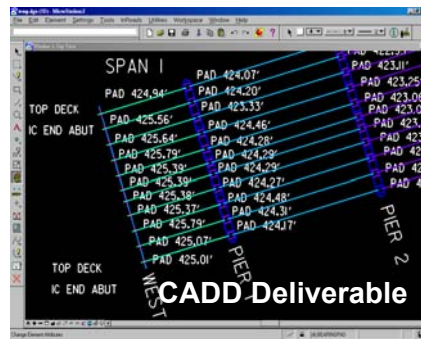
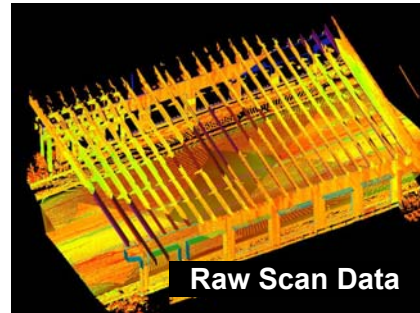


# MD 144 / I-695 Bridge

# GPI



Digital Photo



3D Laser Scanning

**Client/Owner:** MD State Highway Administration  
**Project Location:** Baltimore, Maryland

GPI used its state of the art 3D Laser Scanning technology to provide fast track as built plans exceeding field survey accuracy to assist in the design of the widening of I-695. The MicroStation CADD deliverables were produced in significantly less time and money than would have been required by conventional methods. No lane closures or traffic disruptions were required resulting in less disruption to the public and higher levels of safety to workers. The raw data file was archived to be available to prevent future call backs. This will result in additional savings of time and money, as well as the ability to “double check” items of question.

GPI was contracted to provide a survey for the MD 144 Frederick Road bridge as it passes over the I-695 Baltimore Beltway. Traffic control and lane closures would have been a major undertaking and personnel safety would have been a concern because the road provided no shoulders or median to work in.

The decision was made to use 3D Laser Scanning to provide the survey information. All raw scan data was acquired from behind traffic barriers, eliminating the need for traffic control, ladders or bucket trucks. The raw data was registered to Maryland state plane coordinates utilizing GPS and Conventional Survey techniques. The deliverable included a 3D MicroStation drawing. Pad elevations were also provided as a deliverable. With the raw data scans archived as the digital field book for the project, future inquiries about the structure could be addressed from the office without mobilizing a field crew and necessitating traffic control.

Completion Date: 2000