



**Craig A. Smith & Associates, Inc.**

Engineers • Surveyors • Subsurface Utility Engineering • 3D Subsurface Imaging • Utility Coordination

## Project Profile

### Flagler Memorial Bridge Replacement, Palm Beach County, Florida – Reconstruction

**Client:** FDOT, John Krause, PSM – State Surveyor.

**Project Description:** The Flagler Memorial Bascule (moveable span) Bridge Replacement Design/Build Project consists of complete replacement of the existing bridge, related improvements include new storm water drainage, new signage and pavement markings, and new traffic signals. The existing bridge overpass at Flagler Drive will be permanently eliminated and replaced with a new at-grade signalized intersection. Reconstruction of portions of Flagler Drive from 4th Street to north of 7th Street will also be performed.

**Scope:** CAS was tasked with performing complete 3D Radar Tomography Enhanced Subsurface Utility Engineering services, 3D CADD Modeling of existing utility systems, integration of the existing utility information with 3D RT discovered and continuously mapped facilities and a complete subsurface model to assist in the development of utility relocation efforts.

**Fees:** \$164,000

**Approach:** CAS assigned existing crews and specialized staff to perform system designating utilizing EM and GPR instruments to identify and locate all utility systems within the project area. Performed extensive 3D Radar Tomography Scanning to provide continuous precision x,y,z information on critical subsurface systems. CAS performed over 500k SF of 3D RT, GPR and EM locating.

#### Key Personnel:

Gregory W. Jeffries, CUC – Project Manager

Stephen C. Smith, P.E. – Quality Assurance

James F. Driscoll – Field Management & 3D RT Scanning

Raul Carbonell – Vacuum Excavation Soft Digs

Robert D. Keener, PSM – Project Survey

Kerry Loggins, CD – CADD & 3D Modeling

