

**AASHTO-Technology Implementation Group**  
**Embedded Data Collector Workshop**  
Doubletree Hotel Orlando – Sawgrass Room  
5780 Major Blvd. Orlando, FL 32819  
August 27-28, 2013

**Workshop Notes**

**Take Aways from Tuesday, August 27**

- Developed, proven technology
  - Implemented by FDOT as an option for dynamic testing on all projects with prestressed, concrete piles.
  - Used by VDOT and implementation anticipated to be similar to FDOT.
  - Used by NCDOT and implementation being determined after the two pilot projects.
- Hurdles:
  - Need single document that links theory and development to software to allow Owner Agency confidence in software outside of Florida.
  - Need engineering support for engineering software updates.
- Allow the ability for the office engineer to view the workstation in real time similar to GoToMeeting.
- Technology is constantly improving- harsh environment- every project presents challenges like working close to an airport.
- EDC equipment and data access/ storage are leased instead of purchased. Project data may still be downloaded and stored on individual computer.
- Data collector training
  - Cost- \$1295 per person for 2.5 days
  - Focus is operation of equipment with some theory
  - Prequalification requirements for dynamic testing operators
- Contractor's perspective
  - Production is key- no climbing leads which equates to higher production rates.
  - Top and tip data allows early detection of pile damage- higher production rates.
- Owner's perspective- top and tip data allows better knowledge of the pile integrity

- Data Collectors perspective- comfort level will increase as experience is gained with new technology- all data is collected it is just presented in a different format
- Costs
  - Gauges
  - Installation
  - Data collector training
  - Monitoring during driving
  - Data processing/ engineering
- Different owner contracting methods

### **Steps to Implementation**

- Initial implementation (pilot program)- Use EDC along with dynamic testing with external gauges- pilot projects.
  - Costs- see presentation for detailed information
    - Pilot Program pricing- \$9,995 for 10 sets (monitoring not included)
    - Small projects pricing- \$895 per set (equipment lease and monitoring not included)
    - Owners need to establish a pricing with in-house monitoring or consultant monitoring.
  - Funding
  - Benefit received- agency dependent
  - NCDOT invested \$15,000 in their pilot program (\$10,000 for gauges, installation, training and \$5,000 for consultant monitoring)
  - Each workshop participant prepares a white paper to address benefit, funding, and cost that is specific to their agency to start pilot program. Include long term goal.
  - Industry education such as precast plants
- Immediate implementation possibilities
  - Design-bid-build through a contractor proposed change (value engineering change proposal or cost savings initiative)
  - Design-build through a DB Team's proposal
  - Possible responses:
    - Allow

- Allow with conditions such as need to verify with dynamic testing with external gauges
  - Not allow
- Each workshop participant includes in white paper how their agency plans to respond to any immediate implementation possibilities.
- AASHTO-TIG Lead States Team will provide support for initial implementation and immediate implementation white paper development.
- AASHTO-TIG Lead States Team will provide initial project support.
- Schedule a workshop follow up using GoToMeeting in 3 months.