**e-Construction on I-4 Ultimate**

Presented by Teresa Driskell, PE

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**Volkert**

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**I-4 Ultimate**

**Contract Structure**

- PPP
- FDOT/COS
- Concessionaire
- Quality
- Contractor

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**Document Management Starting Parameters**

- Paperless
- Internet-based
- Access and approval levels
- Long-term storage

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**Volkert’s Role**

- Provide on-site inspection
- Off-site fabrication inspection
- Federal compliance
- Engineering acceptance

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**e-Construction Definition**

• For the purpose of this presentation – we are limiting the e-construction to daily work reports and document management

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**Volkert is providing CEI services on this $2.3B project, which consists of the reconstruction and widening of 21 miles of the I-4 from Orange and Seminole Counties. Elements of the public-private partnership include:**

- 20,000 piling
- 2.3 billion CF of FDOT material
- 44,000 ft of PNB (PB) FDOT improvements to adjacent cross-roads, frontage roads and courses
- Accent lighting
- Art installations and monuments

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**The I-4 Ultimate Project received the prestigious Envision Platinum Certification from the Institute for Sustainable Infrastructure**

- Full reconstruction of the existing general usage lanes (GUL)
- Addition of four dynamically tolled express lanes in the median
- Reconstruction of six major interchanges
- Construction or reconstruction of 148 various types of bridges, including 36” through 96” Florida I-Beam, curvilinear steel girder and steel tub girder, and two steel truss pedestrian bridges

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**65th Annual Alabama Transportation Conference**

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**e-Construction on the I-4 Ultimate, $2.3 Billion, P-3 Project in Orlando, Florida**
e-Construction on the I-4 Ultimate, $2.3 Billion, P-3 Project in Orlando, Florida
V-AIR Materials
- Design mixes
- Other information

V-AIR Nonconforming Work Report (NCWR)

V-AIR Federal Payroll Compliance
- Interviews
- Identification of sub-consultants on site - begin and end work
- Certified Payroll
- DBE compliance
- On-the-job-training (OJT)

V-AIR Supporting Technology
- Solocator
- Drones
- ArcGIS
- Remote temperature monitoring – mass concrete

V-AIR Benefits
- Utilizes Contractor schedule
- Standard guide list
- Shared database
- E-mail distribution
- Narrative
- Easy to update
- No data limitation

V-AIR What we did not include and why
- Video
- RFIs, RFCs
- Other general communications
  - Letters

e-Construction on the I-4 Ultimate, $2.3 Billion, P-3 Project in Orlando, Florida
Asphalt
SharePoint site
(MS SharePoint)
- I-4 Ultimate had 1.4 million tons of asphalt to date (tracked in over 1025 lots)
- FDOT local spreadsheet limited to traditional projects
- FDOT MAC limited for volume
- Tracked in one location
- Central resource to coordinate and verify
- Shared by email and easily deleted and verified
- Quantities and mix designs

PDP
Project Development Portal
- Project-specific SharePoint site
- Used for document storage
- Shop drawing processing
- RFI/RFA/PCR processing
- Project communication
- Overall record retention

Other
Supporting
Resources/Tools
- FDOT SharePoint site (ProjectSolve) record retention and approval
- Submittals
- Materials Acceptance & Certification System (MAC)
- R-BAP
- Audit reporting system for NCWRs

Summary
- 270,000+ Daily reports
- 8,000+ findings
- 8,282 RFIs
- 5,300 Transmittals
- 2,630 Letter sequences

Questions?

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