I-10, Ina Road Traffic Interchange

2016 Annual ASCE/ASHE State Conference
September 9, 2016
Proposed Project Improvements
Construction Sequencing
Challenges and Solutions
Q&A
General Overview
Construction Sequencing

- Four Phases:
  1. Preparation Work – Underway
  2. Eastbound I-10 Construction
  3. Westbound I-10 Construction
  4. Finishing Work
- Ina Road Closure anticipated to begin January 2017
Challenges and Solutions

- Ina Road Profile Revision
- Santa Cruz River Bridge
  - Straddle Bent
- Collapsible Soils/Settlement
Ina Road Profile Revision
Santa Cruz River Bridge

- Pier 6
- Pier 7
- Pier 8
- Bridge Abut 2

Bridge Profile Grade:
- Approach Slab (Typ)
- End Bridge Sta 226+36.00

- Pier 7
- Pier 8

Existing Channel
- Pedestrian Ramp
- East Bank

- New Concrete Apron
  See Grade Control Structure Drawings

- New 4' - 0" Drilled Shaft EB and WB Bridges
  Elev 2110.01

Elev 2180.73
Sta 224+25.00
81.11

Elev 2180.34
Sta 224+95.00

Elev 2179.96
Sta 225+65.00

(9) Span

Elev 2179.58
Sta 226+33.75

Elev 2179.57
Sta 226+36.00

Horizontal Alignment:
- 2' - 3'
- 68' - 9'
Santa Cruz River Bridge
Santa Cruz River Bridge
Collapsible Soils/Settlement

- Loose soils subject to collapse
- Anticipated 6”-8” settlement under high fills/retaining walls
- 3’ overexcavation/recompaction below pavement surfaces
- High ground compaction factor (0.8’)
- 5’ overexcavation/recompaction at walls
- Impacts utilities and stormdrain design
  - Eliminated utility bridges ($$$) by using box culverts
  - Sequencing of pipe construction
  - Use of flexible joints for water
Alternate Traffic Routes
EB I-10 to Ina Road

[Map of traffic routes showing alternate routes for EB I-10 to Ina Road]
Alternate Traffic Routes
WB I-10 to Ina Road
Alternate Traffic Routes
Ina Road to WB I-10

Ina Road Closed
Alternate Traffic Routes
Ina Road to EB I-10