**Segmental Bridge Overview**

Eric Johnson

**WHY SEGMENTAL?**

- Minimize duration of interstate closure (offsite prefabrication and rapid construction methods)
- Increase span lengths
- Reduce noise
- Improve Aesthetics

**FOUNDATIONS**

**Challenges**

- Full interstate closure for up to 14-months
- Limited right-of-way
- Utility conflicts
- Varying geotechnical conditions along project corridor
- Limited vertical clearance under the bridges

**Solutions**

- Build as many foundations as possible, prior to closure of interstates
- Compact, low-overhead equipment
- Multiple foundation types
- Precast columns
SUPERSTRUCTURE FACTS

- Over 1-million square feet
- Total Number of Spans = 172
- Typical Span Lengths = 165-ft
- Number of Segments = 2,316
- Typical Segment Depth = 9-ft
- Typical Segment Length = 12-ft
LONGITUDINAL POST-TENSIONING

- All external tendons
- Four (4) permanent tendons, with contingency for one (1) future tendon, per web.
- Permanent Tendon Anchor Size = 22-strand
- Longer / Wider spans feature one (1) additional 12-strand anchorage at each deviation diaphragm
- Future Tendon Anchor Size = 12-strand