TXDOT ACCELERATED BRIDGE CONSTRUCTION

Jamie F. Farris, P.E.
TxDOT Accelerated Bridge Construction

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2. Prefabricated Elements - Superstructure
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4. Self Propelled Modular Transporters (SPMTS)
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Foundations: Precast Cylinder Piles

Copano Bay Bridge (first in TX) 54” and 66” dia.
Foundations: Large Monoshafts

- 12 ft. dia. x 130 ft.
- IH 45 Clear Lake, TX
GIRDERS, BEAMS, AND DECKS
Prefabricated Elements - Superstructure

- Precast, Prestressed
  - I-Girders
  - Box Beams
  - X Beams
  - Slab Beams
  - Decked Slab Beams
  - U Beams
  - Precast Concrete Panels
  - Full Width, Full Depth Panels
Box Beams

TYPICAL SECTION ~ TYPE 5B28
Spread Box Beam (X Beams)

TYPICAL SECTION ~ TYPE 4XB28

TYPICAL SECTION ~ TYPE 5XB28
Slab Beams
Decked Slab Beams

FM 1660 Cottonwood Creek, AUS
U Beams

IH35 and 290 Interchange, Austin, Texas

U54 Spur 115 at FM 1016, Hidalgo Co.

U54
Prestressed Concrete Panels
Prestressed Concrete Overhang Panels

- Improved work area
- No overhang forms to strip
- TxDOT Standard
Full Width, Full Depth Panels – Ozona Live Oak Creek 2008
Full Width, Full Depth Panels – Upcoming Waco Project

SECTION B-B

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PRECAST CAPS AND COLUMNS
Precast Bent Caps
Standard Precast Cap Details for Conc Piles and Steel H Piles
Standard Precast Cap Details for Round Columns
Standard Precast Cap Details for Round Columns
Precast Abutments
Precast Columns
SPMT – Fort Worth West 7th Street Arches
Modular Units (No Deck) – West Dallas St. in Houston
Modular Units – West Dallas St. in Houston
Lateral Slide-in – LP 345 (San Antonio)
Lateral Slide-in – LP 345 (San Antonio)
Questions?
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General Design Considerations

- For more
  - TxDOT Bridge Design Manual – LRFD

  - TxDOT Bridge Division Website
    http://www.txdot.gov/inside-txdot/division/bridge.html

  - TxDOT Bridge Standard Details
    http://www.dot.state.tx.us/insdtdot/orgchart/cmd/cserve/standard/bridge-e.htm

  - TxDOT Bridge Detailing Guide