

Interstate 35 Frontage Road Precast Prestressed Concrete Pavement

Project Information

Constructed: Fall 2001

Project Location: Northbound Interstate 35 frontage road near Georgetown, Texas

Project Length: 2,300 ft (full-width pavement: 36 ft wide, including traffic lanes and integral shoulders)



Fabrication

Contractor: Texas Concrete Company, Victoria, TX

Number of panels fabricated: 339

Panel Dimensions: 36' x 10' (full-width panels)
16' x 10' and 20' x 10' (partial-width panels)

Panel Thickness: 8"

Pretensioning: 6-0.5" Gr. 270 strands



Construction

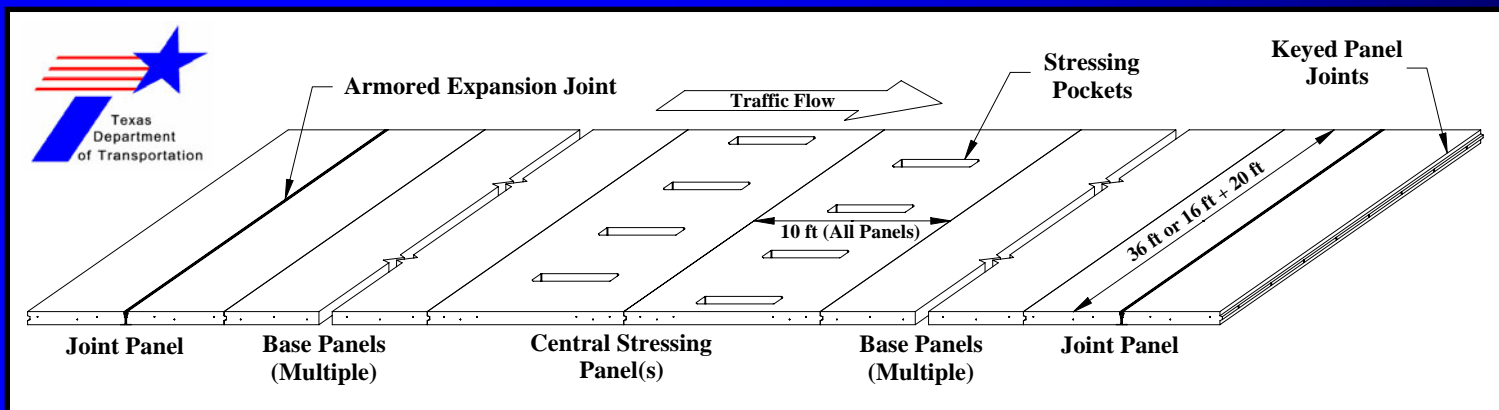
Installation Contractor: Granite Construction, Austin, Texas

Post-Tensioning Contractor: Dywidag Systems Int'l, Arlington, TX

Pavement Structure: 2" dense graded asphalt base over compacted embankment

Panel Installation Rate: 25 panels/6 hours

Post-Tensioning: Longitudinal: monostrand tendons, 0.6" Gr. 270 strand at 2 ft on center (post-tensioned in 250', 225', and 325' sections)
Transverse (partial-width panels only): 2-0.5" strands per tendon, one tendon per panel



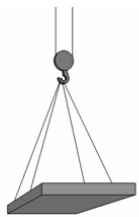
Benefits of Precast Prestressed Concrete Pavement

- ✓ Expedited Construction
 - Faster opening to traffic*
 - Weekend or nighttime construction*
- ✓ Improved Quality and Performance
 - Controlled fabrication conditions*
 - Proven performance of cast-in-place prestressed concrete pavements*
- ✓ Reduced Slab Thickness
- ✓ Reduced Cracking and Number of Joints
- ✓ Ability to Span Voids and Non-ideal Base Layers
 - Prestress can be adjusted to account for voids and “soft” underlying base materials*

Where else has Precast Prestressed Concrete Pavement been used?

- El Monte/Los Angeles, California (2004)
 - 248 ft of mainline pavement on Interstate 10*
- Sikeston, Missouri (2005)
 - Replacement of 1,010 ft of jointed reinforced concrete pavement on Interstate 57*
- Red Dog, Alaska (2002)
 - Truck apron for 200-ton mining trucks at Red Dog Mine*
- LaGuardia Airport (2002)
 - 100 ft of taxiway pavement*
- Lambert-St. Louis International Airport (2002)
 - 25 ft x 25 ft test panel for taxiway pavement*
- Sheldon, Iowa (2006)
 - 160 ft precast prestressed bridge approach slab pavement*

Precast
Pavement



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