DFW Connector Project
2009 - Present
ORIGINAL SCOPE

First Design-Build Project in N. Texas

$1.02 Billion Total Project Cost

8.4 Mile Design And Reconstruction Of Existing Facilities And Addition Of Managed Lanes

Improved Mobility Between SH 121 And SH 114

Main Project Completed In March 2014
ORIGINAL SCOPE
FM 2499

$90 Million Total Project Cost

Depressed FM 2499 Main Lanes To Bypass Two Intersections

New Frontage Roads At Existing Grade To Connect Cross Streets

Construction Completed In July 2016
- **SH 121/360 RAMPS**

  - $17 Million Project Cost
  - Ramp Connecting William D Tate Directly To SH 121 And SH 360
  - Allows Traffic To Bypass Stone Myers
  - Construction Completed In November 2015
SH 121/360 INTERCHANGE

$61 Million Project Cost

Minimizes Weaving And Congestion On Both SH 121 And SH 360

Added New CD From SH 121/360 To WB 114

Reconfigured EB SH 114 And SB SH 121 Ramps To SH 360

Construction Completed In June 2018
SH 121/360 INTERCHANGE
IH 635/SH 121 INTERCHANGE (Connect 4)

$370 Million Project Cost

3 Mile Reconstruction And Widening Of SH 121 From IH 635 Interchange To FM 2499

Estimated Substantial Completion In 2022
IH 635/SH 121 INTERCHANGE
(Connect 4)
DFW AIRPORT FLIGHT PATH
DFW AIRPORT FLIGHT PATH
Photometric Analysis to Meet Luminance Requirements
PERMANENT TRAFFIC SIGNALS
TEMPORARY TRAFFIC SIGNALS
BRIDGE 105 WIDENING

Existing WB 635 To SB International Pkwy

Proposed CD From FM 2499 And SBFR To International Pkwy

Existing Bridge Widened To Carry 2 Lanes
BRIDGE 105 WIDENING
BRIDGE 105 WIDENING
BRIDGE 78 – ELIMINATE STRADDLE BENT

At 60% Design

PT Straddle Bent Over Existing SB SH 121
BRIDGE 78 – ELIMINATE STRADDLE BENT

Better Solution For NGC
PT Straddle Bent More Costly And More Difficult To Construct
Avoid Construction Of Bent Over Traffic
Nonconventional Bent Skews
MAINTENANCE OF TRAFFIC

Most Critical Design Component – Schedule

Most Dynamic Part Of Post Design

MOT Design Logs

Field Design Change (FDC)
WB 635 DETOUR

PHASE 4

- Remove existing MSE wall
- Install new MSE wall
- Trenching

PHASE 5

- Soil Nailing
- Traffic on ramp
- Watch existing flowline elevation
- Proposed 24" RCP
- Grate break
WB 635 DETOUR

- Close FR access to 121. Detour through Texitan Trail
- New temp ramp to get 635 traffic to SB 121
- New SBFR ramp must be open
- Remove traffic from this existing connector and opens up work area to build full tie in
- Traffic on Bridge 75 (WB 635 to IP)
CONSTRUCTION SERVICES

Primary Point Of Contact Between Design And Contractor

Resource To Support Contractor – Resolve Field Issues Promptly, Site Visits

Track And Monitor Post Design Activities (RFIs, NCRs, FDCs, NDCs, Shop Drawings)

Review Lane Closure Requests

Review CMA Issues/Repairs

Compile Record Drawings

Keep NGC Happy Throughout Project Construction
NCR FOR DECK POUR

Bass Pro Bridge

NGC Was Not Able To Protect Freshly Poured Concrete From Storm Event (Rain and Hail)

After Storm Passed, Continued With Deck Pour

Concern Of Over Hydrated Concrete, Which Could Lead To Insufficient Strength And Quality

12:42 AM – Concrete was added to previously placed concrete

12:42 AM – Bidwell used to screed concrete, deck was vibrated to ensure consolidation.
NCR FOR DECK POUR - SOLUTION

Cored Deck To Test For Compressive Strength And Water/Cement Ratio

Performed Life Cycle Analysis (Life 365)
NCR FOR PAVEMENT SUBGRADE

WB 635, 36” LTS Section Was Built 2.5” Too high

Structural Number Assessment

Reviewed Pavement Report
RFI FOR BRIDGE BENT REINFORCEMENT

Cut Existing M Bars
Add New C Bars
Thank you!

Questions?

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