

Services Provided

Surveying
Civil Design
Environmental

Date of Completion

On -going

Client

TxDOT

Project Designer

Paul Purpura, PE

Project Manager

Paul Purpura PE

F.M. 1171 from I.H. 35 to Shiloh Road (Design Phase)

This 6.892 mile long \$50 million project is for the widening and reconstruction of the existing 2-lane rural roadway to a 6-lane divided urban arterial. The scope of services provided by AZ&B includes design surveying, Environmental Documentation, design of horizontal & vertical geometries, hydrologic analysis and drainage design for 20 culverts, storm drainage system and four bridges at major stream crossings, signing & striping, design of permanent & temporary traffic signals w/ VIVDS cameras, staged-phased traffic control plans, earthwork determination, erosion control plans including development of permanent BMP's and preparation of the PS&E package.

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- ✓ Environmental Documentation
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- ✓ Hydrologic analysis and drainage design for 20 culverts, storm drainage system and four bridges at major stream crossings
- ✓ Signing & striping
- ✓ Design of permanent & temporary traffic signals w/ VIVDS cameras, staged-phased traffic control plans
- ✓ Earthwork determination, erosion control plans including development of permanent BMP's and preparation of the PS&E package
- ✓ Public meetings and presentations

Project issues: The project crosses a US Army Corp of Engineers flowage easement where, due to the roadway widening, additional fill will be placed within the easement. The Corp has a policy where storage capacity within a flowage easement cannot be lost without the additional fill being compensated for within the same easement. AZ&B provided two solutions to the flowage easement issue. The first was to lengthen the bridge spanning White's Branch and placing the approaches within retaining walls. The second, which was chosen since the bridges were designed and approved by TxDOT, was to balance the fill by excavating at another location within the easement. The project was originally designed in Metric units and AZ&B was awarded a Supplemental Agreement in 2004 to convert the project to English units. Design of the project was halted in December 2007 due to the contract expiring and lack of funding. AZ&B was awarded a sub consultants contract in January 2010 to complete the design.



Pre-existing FM 1171 before widening



Existing FM 1171 after widening