Texas Department of Transportation

SEGMENT ANALYSIS MATRIX

US 380 FROM COIT ROAD TO FM 1827

CSJs: 0135-02-065, 0135-03-053, AND 0135-15-002

- **EXEMPLARY:** Highly Meets Criteria
- **GOOD:** Mostly Meets Criteria
- **ADEQUATE OR NEUTRAL:** No Change
- **INADEQUATE:** Sometimes Meets Criteria
- **POOR:** Does Not Meet Criteria

*All references to "with Spur 399 Extension connection" refer to impacts that would be caused should the separate Spur 399 Extension project be constructed.

	SCREENING/ EVALUATION CATEGORY	SEGMENT A & SEGMENT A SHIFT* (MCKINNEY-WEST) COIT ROAD TO CR 161/RIDGE ROAD *The Segment A shift provides for an alternative design near University Drive and future US 380 intersection to better accommodate future developments.	SEGMENT B (PROSPER - FURTHEST WEST) COIT ROAD TO CR 161/RIDGE ROAD	SEGMENT E (BLOOMDALE) CR 161/RIDGE ROAD TO SH 5 COMMON TO ALL ALTERNATIVES	SEGMENT C (MCKINNEY FURTHEST EAST) SH 5 TO FM 1827	SEGMENT D (MCKINNEY - EAST) SH 5 TO FM 1827	NO-BUILD ALTERNATIVE (NO FREEWAY) COIT ROAD TO FM 1827	KEY TAKEAWAYS
Engineering	**Total Segment Length along Centerline (miles)**	5.5 miles	4.5 miles	5.6 miles	4.7 miles	4.9 miles	0 miles	Segment A is 1 mile longer than Segment B. Segment C is 0.2 miles longer than Segment D.
	Total Bridge Length (miles)	3.31 miles	4.91 miles	12.38 miles	7.23 miles	14.69 miles	0 miles	Segment B includes 1.6 miles more bridge section than Segment A. Segment D includes 7.46 miles more bridge section than Segment C. Bridge sections include mainlanes, frontage roads, ramps, direct connectors, cross streets, and turnarounds.
	Number of New Grade-Separated Interchanges	6 new interchanges	5 new interchanges	9 new interchanges	*without Spur 399 Ext.interchange* **4 new interchanges** *with Spur 399 Ext. interchange* **5 new interchanges**	*without Spur 399 Ext. interchange* **2 new interchanges** *with Spur 399 Ext. interchange* **4 new interchanges**	No new grade-separated interchanges	Segment A would require 1 more grade-separated interchange than Segment B. Segment C would require more grade-separated interchanges than Segment D. Interchange locations are coordinated with local governments.
	Number of Major Utility Conflicts Estimated Cost to Relocate and Accommodate Utilities in Millions (M) All utilities listed are within proposed project ROW (PROW). If listed as longitudinal or skewed crossing, it was assumed to be a relocation.	**7 potential major utility conflicts** 48" NTMWD Waterline (longitudinal - would require complete relocation of portion within PROW) 30"-66" McKinney Waterline (partial longitudinal/partial crossing) 3 separate 36" McKinney Waterlines (1 crossing/2 longitudinal) 72" Irving Waterline (crossing) McKinney University water distribution lines **Cost for relocating major and minor utilities is estimated to be $74.7M**	**2 potential major utility conflicts** 48" NTMWD Waterline 72" Irving Waterline **Cost for relocating major and minor utilities is estimated to be $25.4M**	**7 potential major utility conflicts** 36" McKinney Waterlines (2 perpendicular crossings) 36" McKinney Wastewater lines (1 skewed crossing/1 perpendicular crossing) 48" Melissa Wastewater line (1 perpendicular crossing) Transmission Line (2 crossings) **Cost for relocating major and minor utilities is estimated to be $23.1M**	**2 potential major utility conflicts** 72" Irving Waterline (crossing) 84" NTMWD Waterline (crossing/under construction) **Cost for relocating major and minor utilities is estimated to be $30M**	**6 potential major utility conflicts** 72" Irving Waterline (crossing) 84" NTMWD Waterline (crossing/under construction) 48" Melissa Wastewater line (2 cross street crossings) 72" NTMWD Waterline (crossing) 48" NTMWD Wastewater line (cross street crossing) 36" McKinney Waterline (cross street crossing) **Cost for relocating major and minor utilities is estimated to be $73M**	No cost to relocate any utilities	Utility impacts are much more substantial and costly for Segment A than Segment B, as well as more costly for Segment D than Segment C. Major utility conflicts include existing transmission lines and power, electric, water, and wastewater utilities that are 36" or larger in diameter. At least two years of design and construction would be required for all Build Alternatives prior to taking existing utilities out of service.