



FINAL EVALUATION CRITERIA

KEY: DECIDING PARAMETERS BETTER + WORSE - NO DIFFERENCE

PERFORMANCE MEASURES	CRITERION	EVALUATION PARAMETERS	EVALUATION PARAMETERS (UNITS)	ALTERNATIVE A	ALTERNATIVE C	NO-BUILD ALTERNATIVE
MOBILITY						
Improve mobility and operational efficiency	Improves US 290 operational efficiency—increases roadway capacity and reduces travel time during peak hour for 2040 traffic	Through 2040 volume of US 290 mainlanes and frontage roads	Vehicles/day	152,030	151,120	61,400
		Westbound mainlanes: Travel time along WB US 290 mainlanes Old Fredericksburg Road to Circle Drive, p.m. peak	Minutes	3.5	3.4	9.5
		Westbound frontage roads: Travel time along WB US 290 frontage road from Old Fredericksburg Road to Circle Drive, p.m. peak	Minutes	7.7	7.5	9.5
		Eastbound mainlanes: Travel time along EB US 290 mainlanes from Circle Drive to Old Fredericksburg Road, a.m. peak	Minutes	3.5	3.5	7.9
		Eastbound frontage road: Travel time along EB US 290 frontage road from Circle Drive to Old Fredericksburg Road, a.m. peak	Minutes	7.9	7.7	8.4
		Through 2040 volume of SH 71	Vehicles/day	57,760	62,040	41,750
	Improves SH 71 operational efficiency—increases roadway capacity and reduces travel time during peak hour for 2040 traffic	Westbound mainlanes: Travel time along WB US 290 and SH 71 from Old Fredericksburg Road to Silvermine Drive, p.m. peak	Minutes	2.8	2.9	5.7
		Westbound frontage roads: Travel time along WB US 290 and SH 71 from Old Fredericksburg Road to Silvermine Drive, p.m. peak	Minutes	5.4	4.9	5.7
		Eastbound mainlanes: Travel time along EB SH 71 and US 290 from Silvermine Drive to Old Fredericksburg Road, a.m. peak	Minutes	2.8	2.9	6.2
		Eastbound frontage road: Travel time along EB SH 71 and US 290 from Silvermine Drive to Old Fredericksburg Road, a.m. peak	Minutes	6.5	5.6	6.7
	Minimize conflicts between pedestrians/bicyclists and motor vehicles	Number of at-grade crossings of the shared-use path and streets	Number	19	23	N/A



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COST AND HUMAN IMPACTS						
Potential property impacts	Minimize residential relocations	Number of residential relocations	Each	1	1	N/A
	Minimize commercial displacements	Number of commercial displacements	Each	4	4	N/A
	Changes in access	Control of access purchased	Length of control of access to be purchased	10,480	10,890	N/A
Potential noise impacts	Minimize noise impacts to sensitive receivers	Average noise levels (No-Build 2013 and Build 2040 with noise walls)	Decibels	61.5	62.1	61.4
		Number of potential noise impacts (No-Build shows noise impacts as of 2013. Build Alternatives A and C show projected impacts)	Each	176	172	98
		Average decibel (dB) increase for all residents	Decibels	0.1	0.7	N/A
Potential air quality impacts	Minimize impacts to air quality	Reduces MSAT?	Yes/No	Yes	Yes	Yes
		Exceeds CO threshold?	Yes/No	No	No	No



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Community impacts	Minimize impacts to EJ communities	Are there EJ communities with disproportionate impacts?	Yes/No	No	No	No
	Minimize impacts to community cohesion/access	Change in length of access—SB Patton Ranch Road to EB US 290	Length	2,700	1,070	0
		Change in length of access—SB Old Bee Cave Road to EB US 290	Length	2,000	4,950	0
		Change in length of access—WB US 290 to McCarty Lane	Length	2,500	1,100	0
		Change in length of access—NB drive (Jim's Restaurant) to WB SH 71	Length	0	1,350	0
		Change in length of access—EB SH 71 to SB drive (McDonald's)	Length	0	1,450	0
		Change in length of access—WB SH 71 to NB drive (McDonald's)	Length	0	1,400	0
		Change in length of access—WB SH 71 to NB drive (Jim's Restaurant)	Length	0	1,400	0
		Total change in the length of access points in/out where there is a difference between Alternatives A and C	Length	7,200	12,720	0
Aesthetics and visual impacts	Community values	Feet of elevated structure	Linear Feet	10,840	14,000	0
		Area of Williamson Creek disturbance/restoration (including reconstruction of Old Bee Cave Road, William Cannon, and US 290 bridges)	Acres	0.84	0.69	N/A
		Volume of concrete bridges and culverts within floodplain removed	Cubic Yards	2,933	2,933	0
Preliminary project cost	Minimize construction cost	Preliminary total implementation cost estimate	\$ Million	536	542	N/A
	Minimize right of way cost	Right of way area	Acres	74.58	75.19	N/A
	Minimize utility relocation cost	Preliminary right of way estimated cost	\$ Million	26.5	26.8	N/A
		Preliminary utility relocation cost	\$ Million	7.7	7.7	N/A



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CULTURAL RESOURCES IMPACTS						
Cultural resources	Minimize impacts to NHRP structures	Number of NHRP structures or properties affected by the project	Each	0	0	N/A
	Minimize impacts to recorded arch. sites	Number of recorded archeological sites affected by the project	Each	4	4	4
	Avoid impacts to Section 6(f) and 4(f) properties	Number of Section 6(f) and 4(f) properties affected by the project	Each	0	0	N/A
NATURAL RESOURCE IMPACTS						
Potential water resources impacts	Minimize Edwards Aquifer Recharge Zone and Contributing Zone impacts	Acres of additional impervious cover in the Edwards Aquifer Recharge Zone and Contributing Zone	Acres	74.0	73.6	N/A
	Minimize 100-year floodplain (FEMA) impacts	Acres of floodplain within proposed right of way	Cubic Feet per second	70.72	70.96	58.16
	Minimize flood-stage flow in Williamson Creek	100-year flow rate of Williamson Creek at William Cannon Drive	Each	10,114	10,114	11,159
	Minimize recharge features affected	Number of known recharge features filled	Acres	1	1	N/A
	Minimize stream/creek crossings	Acres of streams and water bodies within right of way	Pounds	3.40	4.78	2.73
	Maximize improvement of water quality	Total suspended solid (TSS) removal	Each	82,837	83,220	18,428
	Minimize impacts to wetlands	Acres of wetland impacted	Acres	0.03	0.03	0
Threatened endangered species potential impacts	Minimize endangered songbird impacts	Acres of potential habitat within proposed right of way	Acres	0	0	0
	Minimize endangered karst species impacts	Presence/absence within the proposed right of way	Yes/No	No	No	No
	Minimize endangered salamander species impacts	Is water quality improved?	Yes/No	Yes	Yes	No
Vegetation impacts	Minimize riparian woodland impacts	Area of riparian woodlands removed by the project	Acres	6.06	5.2	0
	Minimize impacts to large trees (larger than 35-inch diameter at breast height [DBH])	Number of trees (all species) removed (greater than 35-inch DBH)	Number	29	26	0
DOES THE ALTERNATIVE MEET THE STATED PURPOSE AND NEED?				YES	YES	NO
RECOMMENDED ALTERNATIVE?				YES	NO	NO