

Appendix E

Cost Estimates

Webb County-City of Laredo Regional Mobility Authority
March 2020

Prepared by:
HNTB Corporation

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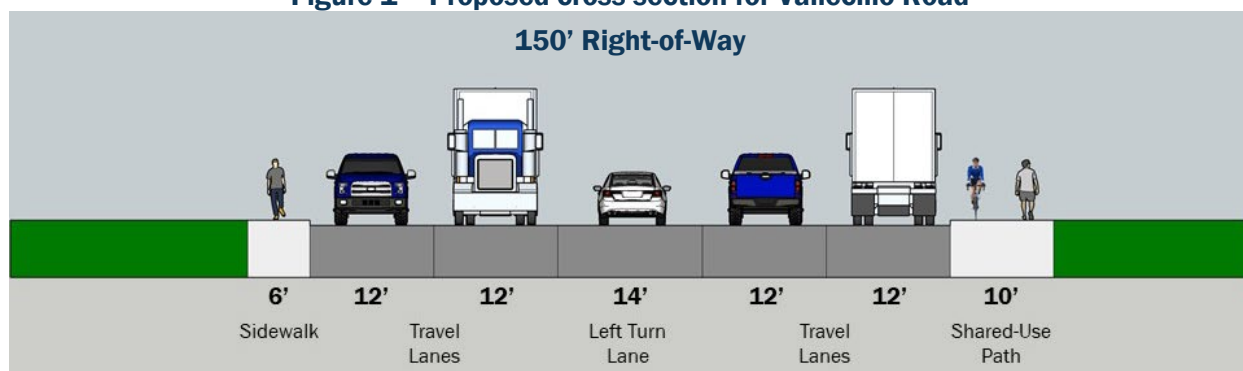
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Basis for Cost Estimating

The first step toward estimating cost and establishing right-of-way is to understand a roadway’s intended cross-section (see **Figure 1**), which may or may not fit within the existing right-of-way, and when combined with the length of a potential project provides a clear assumption for material quantities and project complexity that can be used to develop probable construction cost. Unit cost assumptions came from TxDOT and City of Laredo 2019 average bid item unit prices. Major project element quantities, such as pavement, sidewalk, and bridges, were estimated to produce a roadway construction cost. The roadway construction cost then provides a basis for estimating additional project construction costs (i.e. drainage, traffic control) as well as professional services as percentages of that cost. As a project is developed further, beyond this study, the costs will be refined and are likely to change.

Figure 1 – Proposed cross-section for Vallecillo Road



The *Future Thoroughfare Plan* was the basis for establishing desired street cross-sections. This essential component of the *VIVA Laredo* plan is meant to provide guidance for how and where new roadways should be implemented throughout the region over the next few decades. An initial traffic analysis provided key information about where congestion is the most prevalent and helped to inform possible modifications to the prescribed cross-sections, especially when considering the number of freight trucks operating in the area daily and accounting for their size. When considering localized traffic patterns and congestion, modifications were explored through further traffic analysis and indicated some degree of benefit across the roadway network when additional capacity was tested. As the study progressed, modified cross-sections based on the initial traffic analysis were used to determine cost and right-of-way needs, though whenever possible, the *Future Thoroughfare Plan* served as the basis for each cross-section.

Following this study, projects not already in progress will need to be initiated by defining their scope and the need with all project partners in agreement. Funding will also have to be identified. Then, the project will be further defined through schematic design, and any potential environmental impacts will be identified and mitigated. This is when the general public will have an opportunity to review the proposed project and provide comments. This is a formal process that is required by the state or federal government, depending upon the project scope and funding sources. Once all environmental approvals are acquired, the project moves into the design phase where detailed plans and specifications are refined along with the project’s cost estimate.

As the project becomes more defined and progresses through the project development process, the certainty of the estimated capital costs increases. Changes to the initial cost estimate are expected

and reflect changes that may be a result of the project development process. As stated above, costs are based on each project’s intended cross-section, understanding which aspects of that section need to be built, calculating the length of the improvement, quantifying materials needed to construct the project and then calculating a cost based on unit prices from recent similar TxDOT and City of Laredo capital projects. Costs shown in this appendix are planning-level estimates and rounded up to the nearest thousand dollars. It should be noted that the costs included in this study represent an estimate of probable costs prepared in good faith and with reasonable care. The costs of construction labor, materials, equipment, internal staffing and operations structure, or results from bidding cannot be controlled. **Section 4** of the main report contains more descriptive detail on what is included in each project. This appendix provides more detailed line items that feed into each cost.

Table 1 provides an overview of all project costs in FY19 dollars, which is how they were calculated, then applies a 3.5% annual inflation factor, which reflects the potential Year-of-Expenditure (YOE) amount since the project cost can be expected to increase by the time it would be let for construction, consistent with the implementation plan in **Section 5** of the main report.

Table 1 – Overview of project costs with annual inflation

North Laredo-Webb County Transportation Planning Study		2019 \$		Implementation timeline provides planning tool to assess costs over time. This is <i>not</i> a final cash flow.	
Page #	Facilities	FY19 Total Cost	YOE Total Cost	Opening Year	Const. Duration (Years)
	<i>Capital Cost Inflation Factor</i>			update as appropriate	
42	FM 1472 - Mines Road Capacity Upgrades	\$ 18,905,000	\$ 19,909,000	2022	2
43	Milo Road Extension	\$ 14,713,000	\$ 16,598,000	2024	2
44	Hachar Parkway	\$ 55,530,000	\$ 60,526,000	2023	2
45	Pedestrian/Bike Improvement Projects I	\$ 5,610,000	\$ 6,438,000	2024	1
46	Vallecillo Road	\$ 31,471,000	\$ 34,302,000	2023	2
		\$ 126,229,000	\$ 137,773,000		
47	Aquero Boulevard	\$ 59,134,000	\$ 71,462,000	2026	2
48	Carrier Drive Extension	\$ 5,255,000	\$ 6,136,000	2025	2
49	Sara Road & Milo Road Widening	\$ 39,163,000	\$ 49,846,000	2028	3
50	Hachar Parkway Extension	\$ 79,461,000	\$ 108,554,000	2032	7
51	Pedestrian/Bike Improvement Projects II	\$ 12,239,000	\$ 15,045,000	2026	1
52	Port Drive Widening & Extension	\$ 24,742,000	\$ 33,170,000	2030	4
53	Uniroyal Drive Widening & Extension	\$ 31,315,000	\$ 41,982,000	2030	4
54	Vallecillo Road Extension	\$ 40,887,000	\$ 49,411,000	2026	2
55	FM 3338 - Las Tiendas Road Widening	\$ 45,000,000	\$ 60,293,000	2029	2
56	International Boulevard Extension	\$ 15,889,000	\$ 19,873,000	2027	2
57	McPherson Road Extension	\$ 21,096,000	\$ 26,386,000	2027	2
58	United Avenue Extension	\$ 16,799,000	\$ 21,012,000	2027	2
		\$ 390,980,000	\$ 503,170,000		
59	FM 1472 - Mines Road Widening to Freeway	\$ 772,674,000	\$ 1,148,501,000	2033	4
60	North-South Boulevard (unnamed)	\$ 137,807,000	\$ 197,909,000	2032	4
61	Trade Center Boulevard Extension	\$ 28,241,000	\$ 43,447,000	2034	4
62	Verde Boulevard Extension	\$ 70,112,000	\$ 117,508,000	2036	3
63	East-West Boulevard (unnamed)	\$ 174,827,000	\$ 336,238,000	2040	3
64	Sara Road Extension	\$ 103,068,000	\$ 185,047,000	2038	3
65	TX 255 Widening	\$ 129,388,000	\$ 248,847,000	2040	3
		\$ 1,416,117,000	\$ 2,277,497,000		
TOTAL PASSENGER FACILITY CAPITAL COST					
Assumptions					
	Construction Cost Escalation Rate	3.5%			

Description of Costs in this Appendix

This appendix provides a level of detail behind each cost estimate that reflects what costs can be expected to be associated with each phase of project development after project initiation. There may be additional feasibility studies or data collection done to properly initiate some of these projects, which could be a nominal additional cost. The project development process is illustrated in **Figure 2**.

Figure 2 – Typical capital project development process



Cost estimates in this appendix are provided in tables similar to **Table 2**. Many recommended capital projects have been organized as components combined into project packages. Information about project extents, length and acreage of right-of-way is included. The page number in the main report where more detail about each project is found in the top right corner of each table. A 20% contingency was placed on the construction cost to account for variability and unknown factors. Estimates in this study are considered to be fairly conservative, assuming challenging site conditions and using the most durable materials. As development of the project progresses, some savings may be realized. In some cases, the right-of-way cost may be negotiable with the property owner, though this should not be assumed. Property values, particularly in the denser locations where these projects are being proposed, are particularly high and therefore right-of-way costs can be fairly substantial, depending on the project.

Table 2 – Format of cost estimate tables in this appendix

Project Package Name		Section 4 Page #
Individual Project Name		
Limits From: Project begins	Limits To: Project ends	
		Estimated Cost (FY19)
<i>Length: Project Length (miles)</i>	<i>ROW: Total ROW Area (acres)</i>	
Environmental & Planning		Costs associated with Project Planning
Plans, Specs & Estimate		Costs associated with Project Development
Construction Engineering & Inspection		Professional Services during Construction
Right-of-Way		Estimated Right-of-Way cost (\$1-\$20/sf)
Construction Cost		Total Cost of Construction
Contingency (20%)		20% contingency on Construction
Total Project Cost (FY19)		Total Individual Project Cost
Project Priority (Short- Mid- Long-Term)		Assumed Opening Date: 2020
Total Package Cost (FY19)		Sum of Individual Projects

Detailed Cost Estimates

FM 1472 - Mines Road Capacity Upgrades		Page 42
A) FM 1472 Widening		
Limits From: Big Bend Boulevard		Limits To: Killam Industrial Boulevard
		Estimated Cost
Length: 1.4 miles	ROW: 0.0 acres	
Construction Cost	\$	4,168,000
Total Project Cost (FY19)	\$	4,168,000
Short-Term Project		Assumed Opening Date: 2022
B) IH 69W Bridge Widening		
Limits From: World Trade Bridge POE		Limits To: US 59 (Loop 20)
		Estimated Cost (FY19)
Length: 0.33 miles	ROW: 0.0 acres	
Construction Cost	\$	13,457,000
Total Project Cost (FY19)	\$	13,457,000
Short-Term Project		Assumed Opening Date: 2022
C) Killam Industrial Boulevard Turn Lanes		
Limits From: 1500' north of Killam Industrial Blvd.		Limits To: 500' east of FM 1472
		Estimated Cost (FY19)
Length: 0.5 miles	ROW: 0.0 acres	
Construction Cost	\$	1,280,000
Total Project Cost (FY19)	\$	1,280,000
Short-Term Project		Assumed Opening Date: 2022
Total Package Cost		\$ 18,905,000

FM 1472 – Mines Road Capacity Upgrades
 Each of these three project components is fully funded and entering the Project Development Phase.
 A) FM 1472 Widening cost estimate is found in the Laredo MPO Transportation Improvement Program 2019-2022.
 B) IH 69W Bridge Widening cost estimate is found on the TxDOT Project Tracker website.
 C) Killam Industrial Boulevard Turn Lanes construction cost estimate was done by HNTB Corporation.

Milo Road Extension		Page 43
A) Milo Road Extension		
Limits From: FM 1472		Limits To: River Bank Drive
		Estimated Cost (FY19)
Length: 0.5 miles	ROW: 2.5 acres	
Environmental & Planning	\$	423,000
Plans, Specs & Estimate	\$	846,000
Construction Engineering & Inspection	\$	677,000
Right-of-Way	\$	2,196,000
Construction Cost	\$	8,880,000
Contingency (20%)	\$	1,691,000
Total Project Cost (FY19)	\$	14,713,000
Short-Term Project		Assumed Opening Date: 2024
Total Package Cost (FY19)		\$ 14,713,000

Milo Road Extension
 This project has not been initiated and has no funding. Estimate done by HNTB Corporation.

Hachar Parkway		Page 44
Hachar Parkway - Phase I & II		
Limits From: FM 1472	Limits To: IH 35	Estimated Cost
<i>Length: 8.5 miles</i>	<i>ROW: 412 acres</i>	
Phase I & II PS&E	\$	1,634,000
Phase I Total (FM 1472 to Beltway)	\$	32,455,000
Phase II Total (Beltway to IH 35)	\$	21,441,000
Total Project Cost	\$	55,530,000
Short-Term Project	Assumed Opening Date: 2023	
Total Package Cost \$		55,530,000

Hachar Parkway

This project has partial funding (Phase I) and is in the Project Planning phase. The cost estimate was found in a presentation by Webb County (dated June 18, 2018) that was available on the Laredo MPO website in January 2020.

Vallecillo Road		Page 46
A) Vallecillo Road		
Limits From: FM 1472	Limits To: IH 35	Estimated Cost
<i>Length: 2.8 miles</i>	<i>ROW: 51 acres</i>	
Environmental & Planning	\$	539,000
Plans, Specs & Estimate	\$	2,690,000
Construction Engineering & Inspection	\$	1,417,000
Right-of-Way	\$	-
Construction Cost	\$	22,525,000
Contingency (20%)	\$	4,300,000
Total Project Cost	\$	31,471,000
Short-Term Project	Assumed Opening Date: 2023	
Total Package Cost \$		31,471,000

Vallecillo Road

This project has partial funding and is in the Project Planning phase. Estimate was done by HNTB Corporation.

Pedestrian/Bike Improvement Projects I		Page 45
A) Killam Industrial Boulevard Improvements		
Limits From: FM 1472	Limits To: IH 35	
		Estimated Cost (FY19)
Length: 2.4 miles	ROW: 0.0 ac	
Environmental & Planning	\$	135,000
Plans, Specs & Estimate	\$	270,000
Construction Engineering & Inspection	\$	216,000
Right-of-Way	\$	-
Construction Cost	\$	2,697,000
Contingency (20%)	\$	539,000
Total Project Cost (FY19)	\$	3,857,000
Short-Term Project		Assumed Opening Date: 2024
B) River Bank Drive Sidewalk Gaps		
Limits From: Aquero Boulevard	Limits To: FM 1472	
		Estimated Cost (FY19)
Length: 0.8 miles	ROW: 0.0 ac	
Environmental & Planning	\$	15,000
Plans, Specs & Estimate	\$	29,000
Construction Engineering & Inspection	\$	24,000
Right-of-Way	\$	-
Construction Cost	\$	295,000
Contingency (20%)	\$	59,000
Total Project Cost (FY19)	\$	422,000
Short-Term Project		Assumed Opening Date: 2024
C) River Bank Drive Sidewalks & Protected Bike Lane		
Limits From: IH 69W	Limits To: Aquero Boulevard	
		Estimated Cost (FY19)
Length: 0.6 miles	ROW: 0.0 ac	
Environmental & Planning	\$	40,000
Plans, Specs & Estimate	\$	79,000
Construction Engineering & Inspection	\$	63,000
Right-of-Way	\$	-
Construction Cost	\$	788,000
Contingency (20%)	\$	158,000
Total Project Cost (FY19)	\$	1,128,000
Short-Term Project		Assumed Opening Date: 2024
D) A.F. Muller Boulevard Shared-Use Path		
Limits From: Gate House	Limits To: FM 1472	
		Estimated Cost (FY19)
Length: 0.35 miles	ROW: 0.0 ac	
Environmental & Planning	\$	7,000
Plans, Specs & Estimate	\$	15,000
Construction Engineering & Inspection	\$	11,000
Right-of-Way	\$	-
Construction Cost	\$	142,000
Contingency (20%)	\$	28,000
Total Project Cost (FY19)	\$	203,000
Short-Term Project		Assumed Opening Date: 2024
Total Package Cost (FY19)		\$ 5,610,000

Pedestrian/Bike Improvement Projects I
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Aquero Boulevard		Page 47
A) Aquero Bike Lanes		
Limits From: River Bank Drive		Limits To: Bernadette Lane
		Estimated Cost (FY19)
Length: 0.2 miles	ROW: 0.0 ac	
Environmental & Planning	\$	25,000
Plans, Specs & Estimate	\$	50,000
Construction Engineering & Inspection	\$	40,000
Right-of-Way	\$	-
Construction Cost	\$	530,000
Contingency (20%)	\$	101,000
Total Project Cost (FY19)	\$	746,000
Mid-Term Project		Assumed Opening Date: 2026
B) La Bota Extension		
Limits From: Bernadette Lane		Limits To: Muller Memorial Boulevard Extension
		Estimated Cost (FY19)
Length: 0.85 miles	ROW: 10.4 acres	
Environmental & Planning	\$	250,000
Plans, Specs & Estimate	\$	501,000
Construction Engineering & Inspection	\$	401,000
Right-of-Way	\$	2,706,000
Construction Cost	\$	5,007,000
Contingency (20%)	\$	1,001,000
Total Project Cost (FY19)	\$	9,866,000
Mid-Term Project		Assumed Opening Date: 2026
C) Muller Memorial Boulevard Extension		
Limits From: Aquero Boulevard Extension		Limits To: Muller Memorial Boulevard
		Estimated Cost (FY19)
Length: 0.34 miles	ROW: 3.3 acres	
Environmental & Planning	\$	46,000
Plans, Specs & Estimate	\$	93,000
Construction Engineering & Inspection	\$	74,000
Right-of-Way	\$	850,000
Construction Cost	\$	930,000
Contingency (20%)	\$	186,000
Total Project Cost (FY19)	\$	2,179,000
Mid-Term Project		Assumed Opening Date: 2026
D) North Extension		
Limits From: Muller Memorial Boulevard Extension		Limits To: FM 1472
		Estimated Cost (FY19)
Length: 3.97 miles	ROW: 48.1 acres	
Environmental & Planning	\$	1,181,000
Plans, Specs & Estimate	\$	2,362,000
Construction Engineering & Inspection	\$	1,890,000
Right-of-Way	\$	12,566,000
Construction Cost	\$	23,620,000
Contingency (20%)	\$	4,724,000
Total Project Cost (FY19)	\$	46,343,000
Mid-Term Project		Assumed Opening Date: 2026
Total Package Cost (FY19)		\$ 59,134,000

Aquero Boulevard

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

A) Aquero Bike Lanes cost estimate done by HNTB Corporation.

Carrier Drive Extension		Page 48
A) West Extension		
Limits From: IH 35		Limits To: Beltway Parkway
		Estimated Cost (FY19)
<i>Length:</i> 0.66 miles	<i>ROW:</i> 6.4 acres	
Environmental & Planning	\$	154,000
Plans, Specs & Estimate	\$	308,000
Construction Engineering & Inspection	\$	246,000
Right-of-Way	\$	280,000
Construction Cost	\$	3,384,000
Contingency (20%)	\$	615,000
Total Project Cost (FY19)	\$	4,987,000
Mid-Term Project		Assumed Opening Date: 2025
B) East Sidewalks		
Limits From: Unitec Drive		Limits To: Port Drive
		Estimated Cost (FY19)
<i>Length:</i> 0.5 miles	<i>ROW:</i> 0.0 acres	
Environmental & Planning	\$	10,000
Plans, Specs & Estimate	\$	19,000
Construction Engineering & Inspection	\$	15,000
Right-of-Way	\$	-
Construction Cost	\$	187,000
Contingency (20%)	\$	37,000
Total Project Cost (FY19)	\$	268,000
Mid-Term Project		Assumed Opening Date: 2025
Total Package Cost (FY19)		\$ 5,255,000

Carrier Drive
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Sara Road & Milo Road Widening		Page 49
B) Milo Road Widening		
Limits From: FM 1472		Limits To: Sara Road
		Estimated Cost (FY19)
<i>Length: 0.8 miles</i>	<i>ROW: 0.0 acres</i>	
Environmental & Planning	\$	307,000
Plans, Specs & Estimate	\$	614,000
Construction Engineering & Inspection	\$	491,000
Right-of-Way	\$	-
Construction Cost	\$	6,444,000
Contingency (20%)	\$	1,227,000
Total Project Cost (FY19)	\$	9,083,000
Mid-Term Project		Assumed Opening Date: 2028
C) Sara Road Widening		
Limits From: IH 69W		Limits To: Vallecillo Road
		Estimated Cost (FY19)
<i>Length: 1.5 miles</i>	<i>ROW: 7.5 acres</i>	
Environmental & Planning	\$	796,000
Plans, Specs & Estimate	\$	1,593,000
Construction Engineering & Inspection	\$	1,274,000
Right-of-Way	\$	6,505,000
Construction Cost	\$	16,726,000
Contingency (20%)	\$	3,186,000
Total Project Cost (FY19)	\$	30,080,000
Mid-Term Project		Assumed Opening Date: 2028
Total Package Cost (FY19)		\$ 39,163,000

Sara Road & Milo Road Widening

This project has not been initiated and has no funding. Estimates done by HNTB Corporation.

Hachar Parkway Extension		Page 50
C) Interchange at IH 35		
Limits From: IH 35		Limits To: IH 35
		Estimated Cost (FY19)
<i>Length: 0.3 miles</i>	<i>ROW: 0.0 ac</i>	
Environmental & Planning	\$	818,000
Plans, Specs & Estimate	\$	1,635,000
Construction Engineering & Inspection	\$	1,308,000
Right-of-Way	\$	-
Construction Cost	\$	17,171,000
Contingency (20%)	\$	3,271,000
Total Project Cost (FY19)	\$	24,203,000
Mid-Term Project		Assumed Opening Date: 2028
D) East Extension		
Limits From: IH 35		Limits To: Uniroyal Drive Extension
		Estimated Cost (FY19)
<i>Length: 3.37 miles</i>	<i>ROW: 61.3 acres</i>	
Environmental & Planning	\$	674,000
Plans, Specs & Estimate	\$	1,347,000
Construction Engineering & Inspection	\$	1,078,000
Right-of-Way	\$	10,672,000
Construction Cost	\$	13,471,000
Contingency (20%)	\$	2,694,000
Total Project Cost (FY19)	\$	29,936,000
Long-Term Project		Assumed Opening Date: 2030
E) South Extension		
Limits From: Uniroyal Drive Extension		Limits To: North-South Boulevard
		Estimated Cost (FY19)
<i>Length: 2.87 miles</i>	<i>ROW: 52.1 acres</i>	
Environmental & Planning	\$	568,000
Plans, Specs & Estimate	\$	1,136,000
Construction Engineering & Inspection	\$	909,000
Right-of-Way	\$	9,078,000
Construction Cost	\$	11,359,000
Contingency (20%)	\$	2,272,000
Total Project Cost (FY19)	\$	25,322,000
Long-Term Project		Assumed Opening Date: 2032
Total Package Cost (FY19)		\$ 79,461,000

Hachar Parkway Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.
 C) Interchange at IH 35 cost estimate done by HNTB Corporation.

Pedestrian/Bike Improvement Projects II		Page 51
E) Lamar Drive Extension		
Limits From: Milo Road		Limits To: Vallecillo Road
		Estimated Cost (FY19)
Length: 1.3 miles	ROW: 0.0 ac	
Environmental & Planning	\$	170,000
Plans, Specs & Estimate	\$	340,000
Construction Engineering & Inspection	\$	272,000
Right-of-Way	\$	6,283,000
Construction Cost	\$	3,570,000
Contingency (20%)	\$	680,000
Total Project Cost (FY19)	\$	11,315,000
Mid-Term Project	Assumed Opening Date: 2026	
F) El Gato Road Shared-Use Path		
Limits From: Lamar Drive		Limits To: Cul-de-sac
		Estimated Cost (FY19)
Length: 0.6 miles	ROW: 0.0 acres	
Environmental & Planning	\$	11,000
Plans, Specs & Estimate	\$	22,000
Construction Engineering & Inspection	\$	17,000
Right-of-Way	\$	-
Construction Cost	\$	218,000
Contingency (20%)	\$	44,000
Total Project Cost (FY19)	\$	312,000
Mid-Term Project	Assumed Opening Date: 2026	
G) Archer Drive Sidewalks		
Limits From: Killam Industrial Boulevard		Limits To: Vallecillo Road
		Estimated Cost (FY19)
Length: 0.46 miles	ROW: 0.0 acres	
Environmental & Planning	\$	11,000
Plans, Specs & Estimate	\$	21,000
Construction Engineering & Inspection	\$	17,000
Right-of-Way	\$	-
Construction Cost	\$	212,000
Contingency (20%)	\$	42,000
Total Project Cost (FY19)	\$	303,000
Mid-Term Project	Assumed Opening Date: 2026	
H) Spivey Drive Sidewalks		
Limits From: Killam Industrial Boulevard		Limits To: Vallecillo Road
		Estimated Cost (FY19)
Length: 0.48 miles	ROW: 0.0 acres	
Environmental & Planning	\$	11,000
Plans, Specs & Estimate	\$	22,000
Construction Engineering & Inspection	\$	17,000
Right-of-Way	\$	-
Construction Cost	\$	216,000
Contingency (20%)	\$	43,000
Total Project Cost (FY19)	\$	309,000
Mid-Term Project	Assumed Opening Date: 2026	
Total Package Cost (FY19) \$		12,239,000

Pedestrian/Bike Improvement Projects II

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

E) Lamar Drive Extension and F) El Gato Road Shared-Use Path estimates done by HNTB Corporation.

Port Drive Widening & Extension		Page 52
A) Port Drive Widening		
Limits From: Uniroyal Drive	Limits To: Verde Boulevard Extension	
		Estimated Cost (FY19)
<i>Length: 0.62 miles</i>	<i>ROW: 0.0 acres</i>	
Environmental & Planning	\$	122,000
Plans, Specs & Estimate	\$	244,000
Construction Engineering & Inspection	\$	195,000
Right-of-Way	\$	-
Construction Cost	\$	2,435,000
Contingency (20%)	\$	487,000
Total Project Cost (FY19)	\$	3,483,000
Mid-Term Project		Assumed Opening Date: 2028
B) Port Drive Extension		
Limits From: Cul-de-sac	Limits To: Hachar Parkway Extension	
		Estimated Cost (FY19)
<i>Length: 3.07 miles</i>	<i>ROW: 26.1 acres</i>	
Environmental & Planning	\$	585,000
Plans, Specs & Estimate	\$	1,169,000
Construction Engineering & Inspection	\$	935,000
Right-of-Way	\$	4,543,000
Construction Cost	\$	11,689,000
Contingency (20%)	\$	2,338,000
Total Project Cost (FY19)	\$	21,259,000
Long-Term Project		Assumed Opening Date: 2030
Total Package Cost (FY19)		\$ 24,742,000

Port Drive Widening & Extension
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Uniroyal Drive Widening & Extension		Page 53
A) Uniroyal Drive Widening		
Limits From: IH 35	Limits To: Cul-de-sac	Estimated Cost (FY19)
<i>Length: 0.98 miles</i>	<i>ROW: 0.0 acres</i>	
Environmental & Planning	\$	240,000
Plans, Specs & Estimate	\$	480,000
Construction Engineering & Inspection	\$	383,000
Right-of-Way	\$	-
Construction Cost	\$	4,791,000
Contingency (20%)	\$	958,000
Total Project Cost (FY19)	\$	6,852,000
Mid-Term Project	Assumed Opening Date: 2028	
B) Uniroyal Drive Extension		
Limits From: Cul-de-sac	Limits To: Hachar Parkway Extension	Estimated Cost (FY19)
<i>Length: 2.56 miles</i>	<i>ROW: 31 acres</i>	
Environmental & Planning	\$	623,000
Plans, Specs & Estimate	\$	1,245,000
Construction Engineering & Inspection	\$	997,000
Right-of-Way	\$	5,409,000
Construction Cost	\$	13,698,000
Contingency (20%)	\$	2,491,000
Total Project Cost (FY19)	\$	24,463,000
Long-Term Project	Assumed Opening Date: 2030	
Total Package Cost (FY19)		\$ 31,315,000

Uniroyal Drive Widening & Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Vallecillo Road Extension		Page 54
B) Interchange at IH 35		
Limits From: IH 35		Limits To: IH 35
		Estimated Cost (FY19)
Length: 0.5 miles	ROW: 0.0 acres	
Environmental & Planning	\$	948,000
Plans, Specs & Estimate	\$	1,896,000
Construction Engineering & Inspection	\$	1,517,000
Right-of-Way	\$	-
Construction Cost	\$	19,906,000
Contingency (20%)	\$	3,792,000
Total Project Cost (FY19)	\$	28,059,000
Mid-Term Project		Assumed Opening Date: 2026
C) East Extension		
Limits From: IH 35		Limits To: International Boulevard Extension
		Estimated Cost (FY19)
Length: 1.63 miles	ROW: 19.8 acres	
Environmental & Planning	\$	388,000
Plans, Specs & Estimate	\$	777,000
Construction Engineering & Inspection	\$	621,000
Right-of-Way	\$	1,724,000
Construction Cost	\$	7,765,000
Contingency (20%)	\$	1,553,000
Total Project Cost (FY19)	\$	12,828,000
Mid-Term Project		Assumed Opening Date: 2026
Total Package Cost (FY19)		\$ 40,887,000

Vallecillo Road Extension
 This project has not been initiated and has no funding.
 B) Interchange at IH 35 estimate was done by HNTB Corporation.
 C) East Extension estimate was done by Crane Engineering.

FM 3338 - Las Tiendas Road Widening		Page 55
FM 3338 - Las Tiendas Road Widening		
Limits From: FM 1472		Limits To: TX 255
		Estimated Cost
Length: 8.2 miles	ROW: 0.0 acres	
Estimated Construction Cost	\$	45,000,000
Total Project Cost	\$	45,000,000
Mid-Term Project		Assumed Opening Date: 2029
Total Package Cost		\$ 45,000,000

FM 3338 – Las Tiendas Road Widening
 Funding has not been identified for this project, and it is ready to go into the Project Development phase.
 Estimate is found on the TxDOT Project Tracker website.

International Boulevard Extension		Page 56
A) North Extension		
Limits From: United Avenue	Limits To: North-South Boulevard (unnamed)	
	Estimated Cost	
<i>Length: 2 miles</i>	<i>ROW: 28.9 acres</i>	
Environmental & Planning	\$	468,000
Plans, Specs & Estimate	\$	935,000
Construction Engineering & Inspection	\$	748,000
Right-of-Way	\$	2,520,000
Construction Cost	\$	9,348,000
Contingency (20%)	\$	1,870,000
Total Project Cost	\$	15,889,000
Mid-Term Project	Assumed Opening Date: 2027	
Total Package Cost \$		15,889,000

International Boulevard Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

McPherson Road Extension		Page 57
A) North Extension		
Limits From: Union Pacific Boulevard	Limits To: North-South Boulevard (unnamed)	
	Estimated Cost	
<i>Length: 2.65 miles</i>	<i>ROW: 38.5 acres</i>	
Environmental & Planning	\$	620,000
Plans, Specs & Estimate	\$	1,241,000
Construction Engineering & Inspection	\$	993,000
Right-of-Way	\$	3,352,000
Construction Cost	\$	12,408,000
Contingency (20%)	\$	2,482,000
Total Project Cost	\$	21,096,000
Mid-Term Project	Assumed Opening Date: 2027	
Total Package Cost \$		21,096,000

McPherson Road Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

United Avenue Extension		Page 58
A) West Extension		
Limits From: Cul-de-sac	Limits To: IH 35	Estimated Cost
<i>Length: 1.69 miles</i>	<i>ROW: 18.5 acres</i>	
Environmental & Planning	\$	427,000
Plans, Specs & Estimate	\$	853,000
Construction Engineering & Inspection	\$	683,000
Right-of-Way	\$	1,608,000
Construction Cost	\$	11,521,000
Contingency (20%)	\$	1,707,000
Total Project Cost	\$	16,799,000
Mid-Term Project	Assumed Opening Date: 2027	
Total Package Cost \$		16,799,000

United Avenue Extension
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.

FM 1472 - Mines Road Widening to Freeway		Page 59
A) Direct Connectors (2) at IH 69W		
Limits From: IH 69W		Limits To: IH 69W
		Estimated Cost (FY19)
<i>Length: 2.2 miles</i>		<i>ROW: 10.2 acres</i>
Environmental & Planning	\$	2,212,000
Plans, Specs & Estimate	\$	4,423,000
Construction Engineering & Inspection	\$	3,539,000
Right-of-Way	\$	8,927,000
Construction Cost	\$	46,444,000
Contingency (20%)	\$	8,846,000
Total Project Cost (FY19)	\$	74,391,000
Long-Term Project		Assumed Opening Date: 2033
B) Central Segment		
Limits From: IH 69W		Limits To: Hachar Parkway
		Estimated Cost (FY19)
<i>Length: 5.1 miles</i>		<i>ROW: 27.7 acres</i>
Environmental & Planning	\$	8,541,000
Plans, Specs & Estimate	\$	17,083,000
Construction Engineering & Inspection	\$	13,666,000
Right-of-Way	\$	24,090,000
Construction Cost	\$	179,371,000
Contingency (20%)	\$	34,166,000
Total Project Cost (FY19)	\$	276,917,000
Long-Term Project		Assumed Opening Date: 2033
C) North Segment		
Limits From: Hachar Parkway		Limits To: TX 255
		Estimated Cost (FY19)
<i>Length: 11.8 miles</i>		<i>ROW: 30.2 acres</i>
Environmental & Planning	\$	13,348,000
Plans, Specs & Estimate	\$	26,696,000
Construction Engineering & Inspection	\$	21,357,000
Right-of-Way	\$	26,267,000
Construction Cost	\$	280,306,000
Contingency (20%)	\$	53,392,000
Total Project Cost (FY19)	\$	421,366,000
Long-Term Project		Assumed Opening Date: 2033
Total Package Cost (FY19)		\$ 772,674,000

FM 1472 – Mines Road Widening to Freeway

This project has not been initiated and has no funding. Estimates done by HNTB Corporation.

North-South Boulevard (unnamed)		Page 60
A) North Segment		
Limits From: TX 255	Limits To: IH 35	Estimated Cost (FY19)
Length: 9.67 miles	ROW: 140.6 acres	
Environmental & Planning	\$	2,396,000
Plans, Specs & Estimate	\$	4,793,000
Construction Engineering & Inspection	\$	3,834,000
Right-of-Way	\$	6,125,000
Construction Cost	\$	47,924,000
Contingency (20%)	\$	9,585,000
Total Project Cost (FY19)	\$	74,657,000
Long-Term Project		Assumed Opening Date: 2032
B) Interchange at IH 35		
Limits From: IH 35	Limits To: IH 35	Estimated Cost (FY19)
Length: 1.4 miles	ROW: 0.0 acres	
Environmental & Planning	\$	850,000
Plans, Specs & Estimate	\$	1,700,000
Construction Engineering & Inspection	\$	1,360,000
Right-of-Way	\$	-
Construction Cost	\$	17,855,000
Contingency (20%)	\$	3,401,000
Total Project Cost (FY19)	\$	25,166,000
Long-Term Project		Assumed Opening Date: 2030
C) East Segment		
Limits From: IH 35	Limits To: Hachar Parkway Extension	Estimated Cost (FY19)
Length: 4.52 miles	ROW: 65.8 acres	
Environmental & Planning	\$	1,128,000
Plans, Specs & Estimate	\$	2,255,000
Construction Engineering & Inspection	\$	1,804,000
Right-of-Way	\$	5,733,000
Construction Cost	\$	22,553,000
Contingency (20%)	\$	4,511,000
Total Project Cost (FY19)	\$	37,984,000
Long-Term Project		Assumed Opening Date: 2030
Total Package Cost (FY19)		\$ 137,807,000

North-South Boulevard (unnamed)
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.
 B) Interchange at IH 35 estimate was done by HNTB Corporation.

Trade Center Boulevard Extension		Page 61
A) West Extension		
Limits From: Cul-de-sac		Limits To: Aquero Boulevard
		Estimated Cost (FY19)
<i>Length: 0.81 miles</i>		<i>ROW: 7.9 acres</i>
Environmental & Planning	\$	147,000
Plans, Specs & Estimate	\$	293,000
Construction Engineering & Inspection	\$	234,000
Right-of-Way	\$	2,057,000
Construction Cost	\$	2,930,000
Contingency (20%)	\$	586,000
Total Project Cost (FY19)	\$	6,247,000
Long-Term Project		Assumed Opening Date: 2032
B) East Extension		
Limits From: FM 1472		Limits To: IH 35
		Estimated Cost (FY19)
<i>Length: 3.02 miles</i>		<i>ROW: 29.3 acres</i>
Environmental & Planning	\$	680,000
Plans, Specs & Estimate	\$	1,359,000
Construction Engineering & Inspection	\$	1,088,000
Right-of-Way	\$	2,554,000
Construction Cost	\$	13,594,000
Contingency (20%)	\$	2,719,000
Total Project Cost (FY19)	\$	21,994,000
Long-Term Project		Assumed Opening Date: 2034
Total Package Cost (FY19)		\$ 28,241,000

Trade Center Boulevard Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Verde Boulevard Extension		Page 62
A) Central Segment		
Limits From: FM 1472	Limits To: IH 35	Estimated Cost (FY19)
Length: 5.6 miles	ROW: 67.9 acres	
Environmental & Planning	\$	1,297,000
Plans, Specs & Estimate	\$	2,594,000
Construction Engineering & Inspection	\$	2,075,000
Right-of-Way	\$	2,959,000
Construction Cost	\$	25,939,000
Contingency (20%)	\$	5,188,000
Total Project Cost (FY19)	\$	40,052,000
Long-Term Project		Assumed Opening Date: 2036
B) Interchange at IH 35		
Limits From: IH 35	Limits To: IH 35	Estimated Cost (FY19)
Length: 0.7 miles	ROW: 0.0 acres	
Environmental & Planning	\$	704,000
Plans, Specs & Estimate	\$	1,409,000
Construction Engineering & Inspection	\$	1,127,000
Right-of-Way	\$	-
Construction Cost	\$	14,793,000
Contingency (20%)	\$	2,818,000
Total Project Cost (FY19)	\$	20,851,000
Long-Term Project		Assumed Opening Date: 2036
C) East Segment		
Limits From: IH 35	Limits To: Port Drive	Estimated Cost (FY19)
Length: 1.05 miles	ROW: 12.7 acres	
Environmental & Planning	\$	245,000
Plans, Specs & Estimate	\$	490,000
Construction Engineering & Inspection	\$	391,000
Right-of-Way	\$	2,214,000
Construction Cost	\$	4,891,000
Contingency (20%)	\$	978,000
Total Project Cost (FY19)	\$	9,209,000
Long-Term Project		Assumed Opening Date: 2036
Total Package Cost (FY19)		\$ 70,112,000

Verde Boulevard
 This project has not been initiated and has no funding. Estimates done by Crane Engineering.
 B) Interchange at IH 35 estimate was done by HNTB Corporation.

East-West Boulevard (unnamed)		Page 63
A) East-West Boulevard		
Limits From: TX 255	Limits To: IH 35	Estimated Cost
<i>Length: 19.25 miles</i>	<i>ROW: 326.7 acres</i>	
Environmental & Planning	\$	5,615,000
Plans, Specs & Estimate	\$	11,230,000
Construction Engineering & Inspection	\$	8,985,000
Right-of-Way	\$	14,232,000
Construction Cost	\$	112,304,000
Contingency (20%)	\$	22,461,000
Total Project Cost	\$	174,827,000
Long-Term Project	Assumed Opening Date: 2040	
Total Package Cost \$		174,827,000

East-West Boulevard (unnamed)

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

Sara Road Extension		Page 64
A) North Extension		
Limits From: TX 255	Limits To: Vallecillo Road	Estimated Cost
<i>Length: 11.31 miles</i>	<i>ROW: 191.9 acres</i>	
Environmental & Planning	\$	3,312,000
Plans, Specs & Estimate	\$	6,623,000
Construction Engineering & Inspection	\$	5,298,000
Right-of-Way	\$	8,360,000
Construction Cost	\$	66,229,000
Contingency (20%)	\$	13,246,000
Total Project Cost	\$	103,068,000
Long-Term Project	Assumed Opening Date: 2038	
Total Package Cost \$		103,068,000

Sara Road Extension

This project has not been initiated and has no funding. Estimates done by Crane Engineering.

TX 255 Widening		Page 65
A) TX 255 Widening		
Limits From: FM 1472	Limits To: IH 35	Estimated Cost
<i>Length: 17.8 miles</i>	<i>ROW: 0.0 acres</i>	
Environmental & Planning	\$	4,371,000
Plans, Specs & Estimate	\$	8,742,000
Construction Engineering & Inspection	\$	6,994,000
Right-of-Way	\$	-
Construction Cost	\$	91,796,000
Contingency (20%)	\$	17,485,000
Total Project Cost	\$	129,388,000
Long-Term Project	Assumed Opening Date: 2040	
Total Package Cost \$		129,388,000

TX 255 Widening
 This project has not been initiated and has no funding. Estimates done by HNTB Corporation.

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