

CITY OF SEGUIN, TEXAS

2022 Roadway Impact Fee Study Update

SEPTEMBER 2022

Prepared for:

CITY OF SEGUIN

Prepared by:

Kimley»Horn

Expect More. Experience Better.

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TBPE Firm Registration Number: F-928

Project Number: 064500203

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City of Seguin, Texas

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September 2022



It's real.

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09/30/2022



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1. Introduction

Chapter 395 of the Texas Local Government Code describes the procedure Texas cities must follow in order to create and implement Impact Fees. Senate Bill 243 (SB 243) amended Chapter 395 in September 2001 to define an Impact Fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.”

The City has retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for an update to their current Roadway Impact Fees, which were developed in 2016. This report includes the details of the Roadway Impact Fee calculation methodology in accordance with Chapter 395 and the development of the Land Use Assumptions, Capital Improvement Plan, and Land Use Equivalency Table.

This report introduces and references two of the basic inputs to the Roadway Impact Fee:

1. Land Use Assumptions (Pg. 2)
2. Capital Improvement Plan (Pg. 4)

Information from the Land Use Assumptions and this Capital Improvement Plan is used extensively throughout the remainder of the report.

The final report will consist of a detailed discussion of the methodology for the computation of impact fees and is broken down into two components:

3. Methodology for Roadway Impact Fees (Pg. 11)
4. Roadway Impact Fee Calculation (Pg. 21)

The components of the Methodology for Roadway Impact Fee include development of:

- Service Areas
- Service Units
- Cost Per Service Unit
- Cost of the CIP
- Service Unit Calculation

The components of the Roadway Impact Fee Calculation include:

- Maximum Assessable Impact Fee Per Service Unit
- Service Unit Demand Per Unit of Development

This report also includes a section concerning the Plan for Awarding the Roadway Impact Fee Credit. This plan details the maximum assessable impact fee per service unit the City of Seguin may apply under Chapter 395 of the Texas Local Government Code.

The final section of the report is the Conclusion, which presents the findings of the analysis and summarizes the report.



2. Roadway Impact Fee Calculation Inputs

A. Land Use Assumptions

In order to assess an impact fee, land use assumptions must be developed to provide the basis for population and employment growth projections within a political subdivision. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, and population in the service area in a 10-year span. The land use assumptions used in this report were provided by City staff.

The geographic boundaries of the impact fee service areas for roadway facilities are shown in Exhibit 1, which shows the City of Seguin divided into four (4) service areas. Although Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles, each service area was limited to 5.0 miles based on a review of the City of Seguin's roadway network.

Table 1 summarizes the residential and non-residential 10-year growth projections by service area within the City of Seguin.

Table 1 – Residential and Non-Residential 10-Year Growth Projections for the City of Seguin

Service Area	Residential	Employment		
	Single & Multi-Family	Basic (Low) (i.e. Industrial)	Service (Medium) (i.e. Office)	Retail (High)
	<i>Dwelling Units</i>	<i>Sq. Ft.</i>		
SA A	8,556	320,933	3,556,514	8,786,740
SA B	2,017	916,944	144,696	3,633,196
SA C	1,486	5,861,336	1,422,398	2,034,285
SA D	1,487	1,611,688	1,531,042	2,669,668
Sub-total	13,546	8,710,901	6,654,651	17,123,889
Total	13,546	32,489,442		

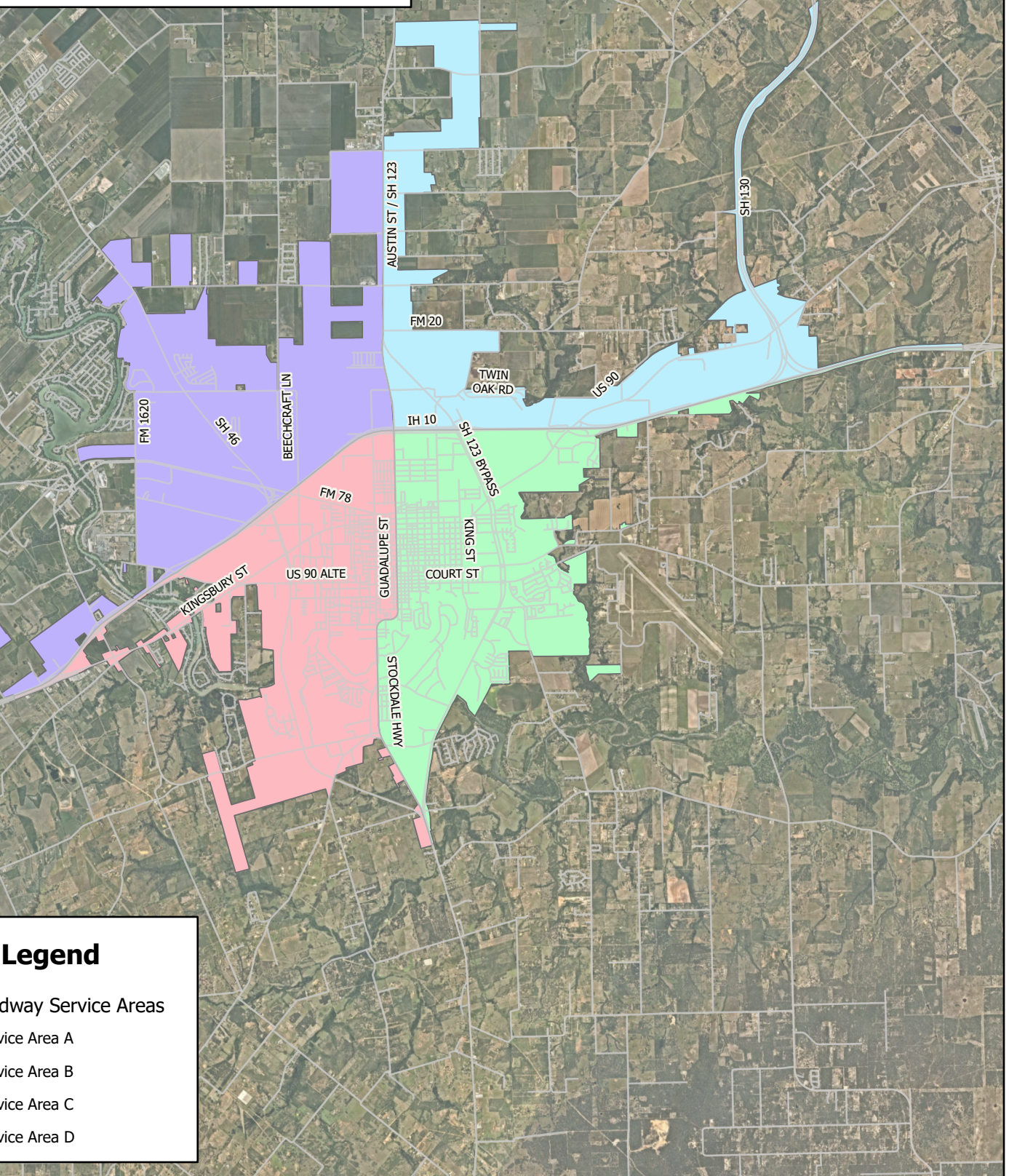
Exhibit 1
Proposed 2022 Roadway Service Areas
2022 Roadway Impact Fee Study Update
September 2022



0 0.5 1 2
Miles







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Legend

2022 Roadway Service Areas

-  Service Area A
-  Service Area B
-  Service Area C
-  Service Area D



B. Capital Improvement Plan

The City has identified the City-funded roadway projects needed to accommodate the projected growth within the City in the next 10 years. The Capital Improvement Plan (CIP) for the Roadway Impact Fee Update is made up of the following:

- Projects currently under construction; and
- All remaining projects needed to complete the City's Master Thoroughfare Plan.

The CIP includes arterial, parkway, major collector and collector class roadway facilities as well as intersection improvements. All of the facilities are part of the Master Thoroughfare Plan or Regional Transportation Plan.

The CIP for the 2022 Roadway Impact Fee Update is listed in Tables 2A-D and mapped in Exhibits 2A-D. The tables show the length of each project as well as the facility's Master Thoroughfare Plan classification by service area. The CIP was developed in conjunction with input from City of Seguin staff and represents those projects that will be needed to accommodate the growth projected by the 2022 Land Use Assumptions for Roadway Impact Fee.

Table 2A – Capital Improvement Plan for Roadway Impact Fees – Service Area A

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area
A	<i>Roadway Improvements</i>					
	A-1	ARTE	Cordova Road	1,150' E of SH 46 to SH 123	3.23	100%
	A-2	PKWY	Outer Loop (1)	FM 1620 to SH 46	1.06	100%
	A-3	PKWY	Outer Loop (2)	SH 46 to Rudeloff Road	0.71	100%
	A-4	PKWY	Pecan Parkway (1)	Rudeloff Road to City Limits	0.63	100%
	A-5	MAJC	Rudeloff Road (1)	Ridge Crest Drive to 1,320' N of FM 78	0.70	50%
	A-6	MAJC	Rudeloff Road (2)	1,320' N of FM 78 to FM 78	0.23	50%
	A-7	MAJC	Rudeloff Road (3)	Ridge Crest Drive to SH 46	0.69	100%
	A-8	ARTE	Rudeloff Road (4)	SH 46 to Huber Road	1.52	100%
	A-9	ARTE	Rudeloff Road (5)	Huber Road to 4156' E of Huber Road	0.96	100%
	A-10	ARTE	Rudeloff Road (6)	6126' E of Huber Road to SH 123	0.27	100%
	A-11	ARTE	Strempel Road (1)	Rudeloff Road to SH 123	0.84	100%
	A-12	ARTE	Huber Road (1)	IH 10 to Rudeloff Road	1.30	100%
	A-13	COL	Future Collector I	SH 46 to 775' E of Coral Way	0.82	100%
	A-14	COL	Pecan Parkway (2)	Cordova Road to 1,750' N of Cordova Road	0.33	100%
	A-15	COL	Huber Road (2)	Rudeloff Road to City Limits	0.74	100%
	A-16	ARTE	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	50%
	A-17	MAJC	Link Road	SH 123 to City Limits	0.73	50%
	<i>Intersection Improvements</i>					
	A-S1	-	Outer Loop & SH 46	Future Grade Separated	-	100%
	A-S2	-	SH 123 & Cordova Road	Turn Lane Installation	-	50%
	A-S3	-	Huber Road & Rudeloff Road	Intersection Improvements	-	100%
	A-S4	-	Rudeloff Road & Pecan Parkway	Signal Installation	-	100%

Table 2B – Capital Improvement Plan for Roadway Impact Fees – Service Area B

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area
B	<i>Roadway Improvements</i>					
	B-1	MAJC	FM 20 (1)	SH 123 to 1067' E of SH 123	0.41	100%
	B-2	MAJC	FM 20 (2)	1067' E of SH 123 to City Limits	1.18	50%
	B-3	PKWY	SH 123 Bypass	SH 123 to IH 10	1.65	100%
	B-4	ARTE	Strempel Road (2)	SH 123 to SH 123 Bypass	0.47	100%
	B-5	MAJC	Strempel Road (3)	SH 123 Bypass to 825' E of SH 123 Bypass	0.16	100%
	B-6	MAJC	Martindale Rd (1)	825' E of SH 123 Bypass to 170' W of Parkwood Rd	0.17	100%
	B-7	MAJC	Martindale Rd (2)	170' W of Parkwood Rd to 160' E of Almond Crk	0.18	100%
	B-8	MAJC	Martindale Rd (3)	160' E of Almond Crk to Martindale Rd	0.07	100%
	B-9	MAJC	Martindale Rd (4)	156' NE of Twin Oak Road to 1300' NE of Twin Oak Road	0.23	50%
	B-10	MAJC	Future Major Collector C	1300' NE of Twin Oak Road to FM 20	0.60	100%
	B-11	MAJC	Heideke Street (1)	SH 123 to IH 10 Frontage Road	0.33	100%
	B-12	MAJC	Glenewinkel Road	SH 123 to 2,970' E of SH 123	0.56	100%
	B-13	ARTE	Laubach Road	SH 123 to 2,000' E of SH 123	0.38	100%
	B-14	ARTE	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	50%
	B-15	PKWY	Outer Loop (3)	1,300' W of Heinemeyer Road to Boenig Road	0.64	100%
	<i>Intersection Improvements</i>					
	B-S1	-	SH 123 & Cordova Road	Turn Lane Installation	-	50%

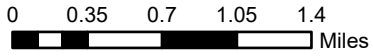
Table 2C – Capital Improvement Plan for Roadway Impact Fees – Service Area C

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area
C	<i>Roadway Improvements</i>					
	C-1	ARTE	Austin Street	Kingsbury Street to IH 10 Frontage Road	1.27	50%
	C-2	ARTE	Fleming Drive	FM 78 to Kingsbury Street	0.67	100%
	C-3	COL	Vaughn Ave, Hidalgo St	US 90 ALTE to FM 78	1.08	100%
	C-4	COL	C H Matthies Jr	IH 10 Frontage Road to Lawson Street	0.78	100%
	C-5	COL	Lawson Street	C H Matthies Jr to Kingsbury Street	0.16	100%
	C-6	COL	B and B Road (1)	Inner Loop to 930' S of MI Mountain	0.36	100%
	C-7	COL	Rodeo Run	3,615' W of SH 46 to SH 46	0.68	100%
	C-8	ARTE	Huber Road (3)	IH 10 Frontage Road to FM 78	0.13	100%
	C-9	COL	B and B Road (2)	930' S of MI Mountain to Volunteer Street	0.34	100%
	<i>Intersection Improvements</i>					
	C-S1	-	Stockdale Highway & Tor Drive	Intersection Improvements	-	50%
	C-S2	-	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements	-	50%

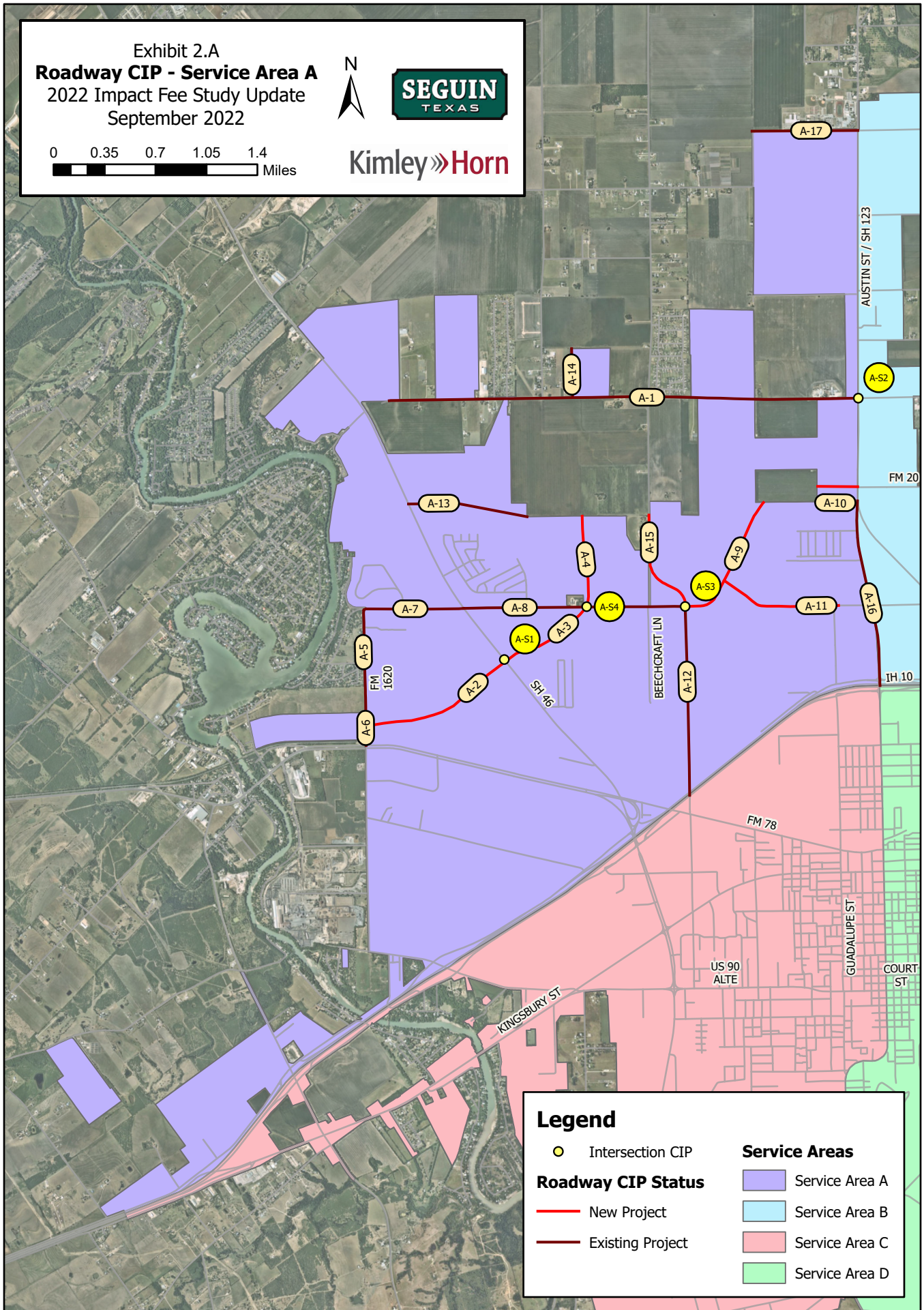
Table 2D – Capital Improvement Plan for Roadway Impact Fees – Service Area D

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area
D	<i>Roadway Improvements</i>					
	D-1	ARTE	Austin Street	Kingsbury Street to IH 10	1.27	50%
	D-2	COL	Walnut St (1)	King Street to SH 123	0.62	100%
	D-3	MAJC	Walnut St (2)	SH 123 to Baer Creek Trail	0.80	100%
	D-4	COL	Meadow Lake Dr	Stockdale Highway to SH 123 Bypass	0.65	100%
	D-5	COL	Heideke Street (2)	Kingsbury Street to IH 10	1.23	100%
	D-6	MAJC	FM 466 (1)	SH 123 Bypass to 950' S of Joe Carillo Blvd	1.01	100%
	D-7	MAJC	FM 466 (2)	950' S of Joe Carillo Blvd to 330' S of Mueller Lane	0.30	50%
	D-8	PKWY	FM 466 (3)	100' S of Kimbrough Road to Holhub Lane	0.16	50%
	<i>Intersection Improvements</i>					
	D-S1	-	Eastwood Drive & Preston Drive	Realignment	-	100%
	D-S2	-	King Street & Gloria Drive	Turn Lane Installation	-	100%
	D-S3	-	Stockdale Highway & Tor Drive	Intersection Improvements	-	50%
	D-S4	-	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements	-	50%

Exhibit 2.A
Roadway CIP - Service Area A
 2022 Impact Fee Study Update
 September 2022



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Legend

● Intersection CIP

Roadway CIP Status

— New Project

— Existing Project

Service Areas

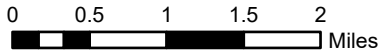
Service Area A

Service Area B

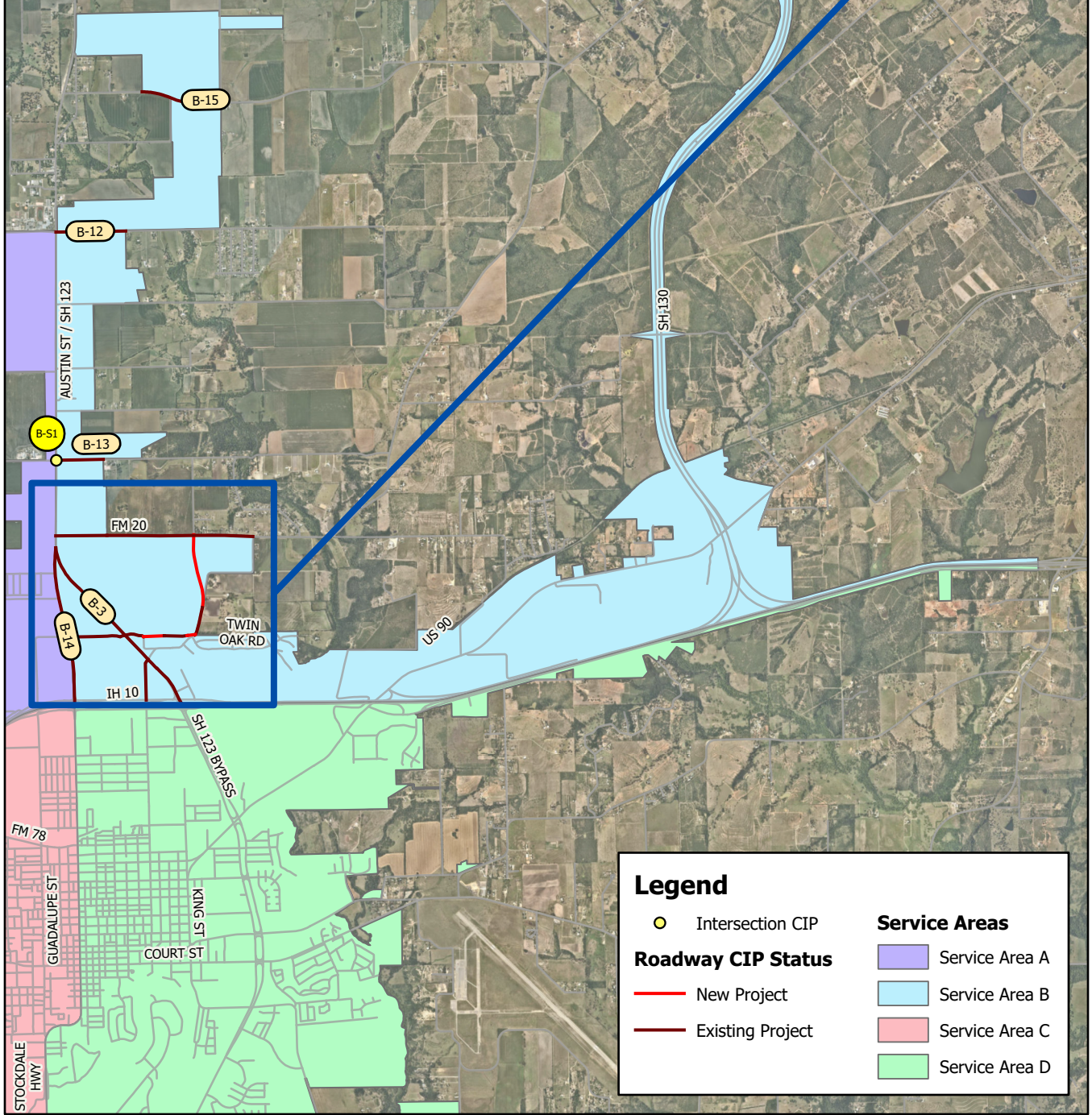
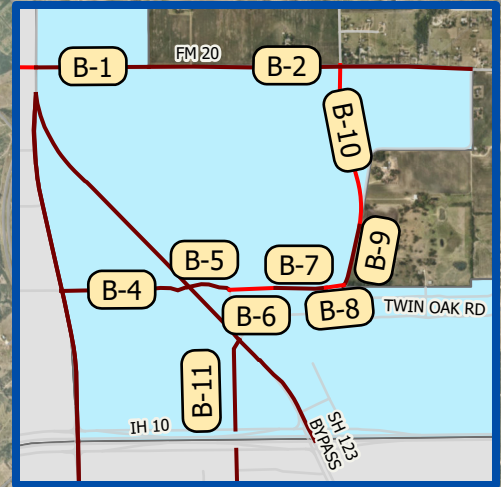
Service Area C

Service Area D

Exhibit 2.B
Roadway CIP - Service Area B
 2022 Impact Fee Study Update
 September 2022



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Legend

● Intersection CIP

Roadway CIP Status

— New Project

— Existing Project

Service Areas

Service Area A

Service Area B

Service Area C

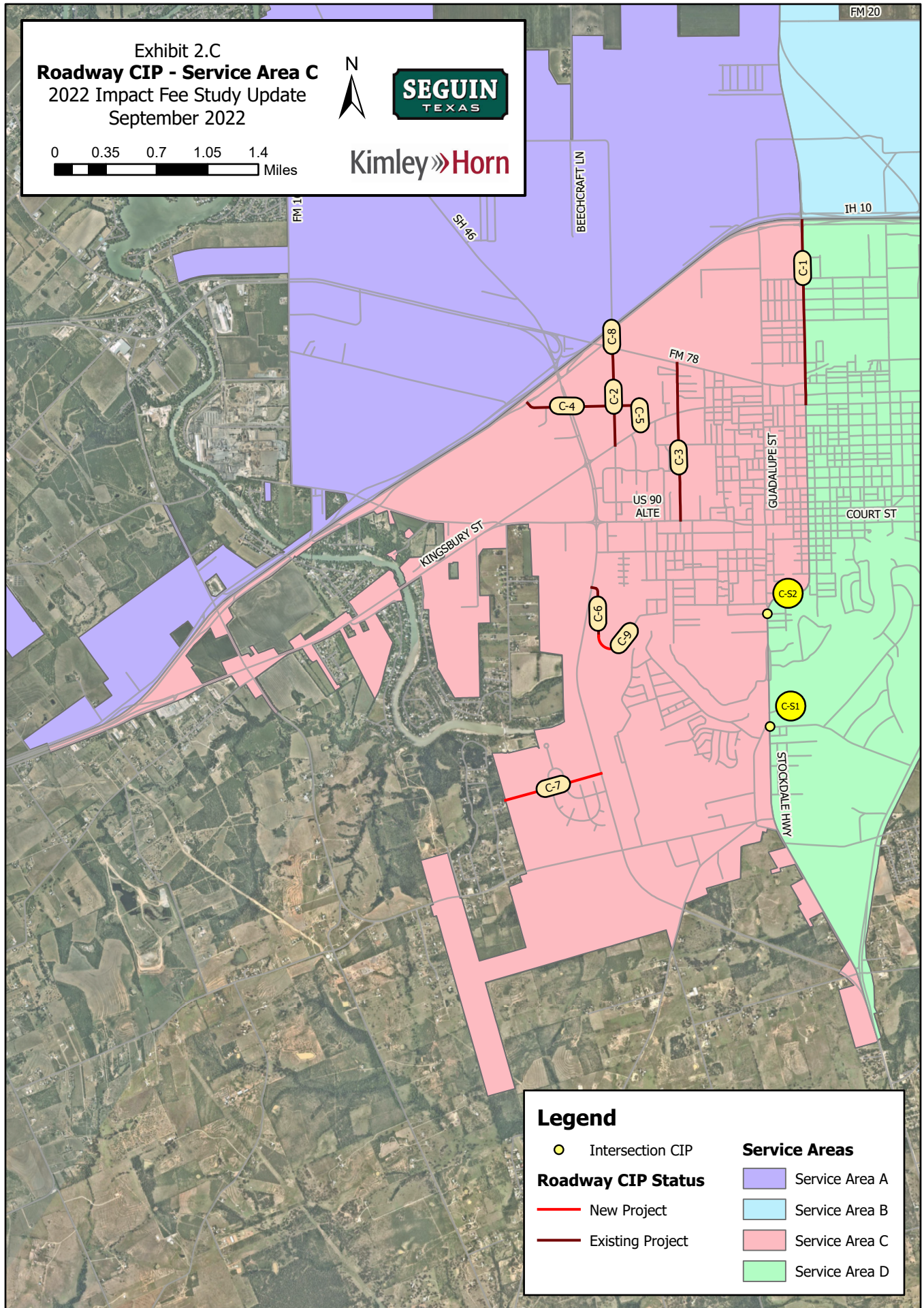
Service Area D

Exhibit 2.C
Roadway CIP - Service Area C
 2022 Impact Fee Study Update
 September 2022



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0 0.35 0.7 1.05 1.4
 Miles



Legend

● Intersection CIP

Roadway CIP Status

— New Project

— Existing Project

Service Areas

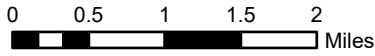
Service Area A

Service Area B

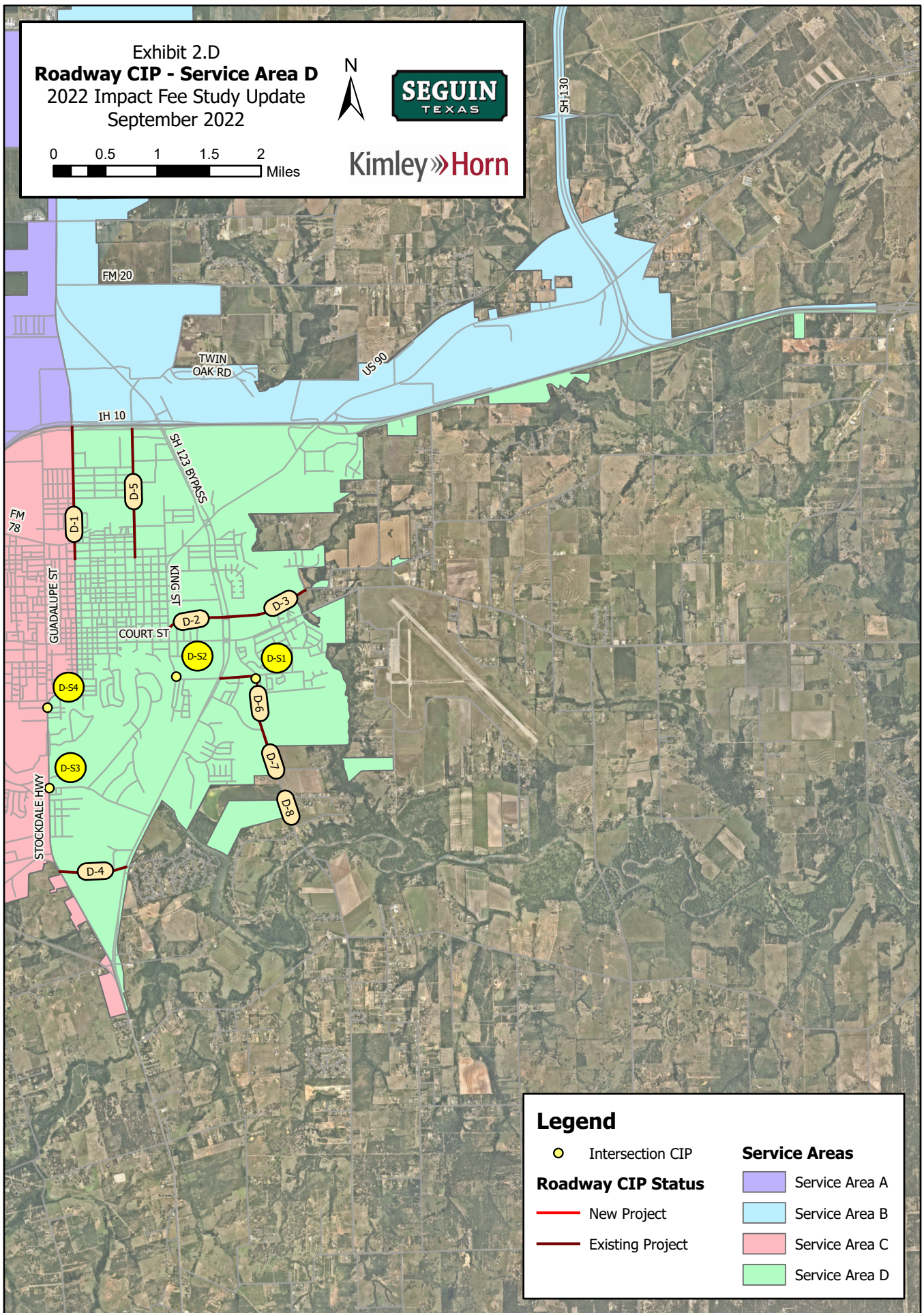
Service Area C

Service Area D




Exhibit 2.D
Roadway CIP - Service Area D
 2022 Impact Fee Study Update
 September 2022







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Legend

-  Intersection CIP
- Roadway CIP Status**
-  New Project
-  Existing Project

- Service Areas**
-  Service Area A
-  Service Area B
-  Service Area C
-  Service Area D



3. Methodology for Roadway Impact Fees

A. Service Areas

The four (4) service areas used in the 2022 Roadway Impact Fee Update are shown in the previously referenced Exhibit 1. These service areas cover the entire corporate boundary of the City of Seguin. Chapter 395 of the Texas Local Government Code specifies that “the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six (6) miles.” Based on a review of the City of Seguin’s roadway network, however, this limit was reduced to a maximum of five (5) miles for Service Areas A-D.

B. Service Units

The “service unit” is a measure of consumption or use of the roadway facilities by new development. In other words, it is the measure of supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile.

Another aspect of the service unit is the service volume that is provided (supplied) by a lane-mile of roadway facility. This number, also referred to as capacity, is a function of the facility type, facility configuration, number of lanes, and level of service. Below is the definition for vehicle-mile.

Vehicle-Mile: The capacity consumed in a single lane in the PM peak hour by a vehicle making a trip one mile in length. The PM Peak is commonly used as the basis for transportation planning and the estimation of trips caused by new development.

Total Vehicle-Miles of Supply: Based on the total length (miles), number of lanes, and capacity (vehicles per hour) provided by Seguin’s Master Thoroughfare Plan (see Appendix B).

Total Vehicle-Miles of Demand: Based on the 10-year growth projections. The demand is equal to PM Trip Rate (trips) * Trip Length (miles).

The hourly service volumes used in the Roadway Impact Fee are based upon Thoroughfare Capacity Criteria based by information in the Highway Capacity Manual (HCM) and general transportation planning principles applied to the City of Seguin. Table 3 shows the service volumes as a function of the facility type.

Table 3 – Level of Use for Proposed Facilities
(used in Appendix B – CIP Units of Supply)

Roadway Type (MTP Classifications)	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
6D_(180) – Parkway	Divided	925
6D_(120) – Major Arterial	Divided	900
4D_(90) - Arterial	Divided	750
5U_(120) - Arterial	Undivided	700
4U_(90) – Major Collector	Undivided	575
3U_(60) - Collector	Undivided	525



C. Cost Per Service Unit

A fundamental step in the impact fee process is to establish the cost for each service unit. In the case of the Roadway Impact Fee, this is the cost for each vehicle-mile of travel. This cost per service unit is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel at a level of service corresponding to the City's standards. The cost per service unit is calculated for each service area based on a specific list of projects within that service area.

The second component of the cost per service unit is the number of service units in each service area. This number is the measure of the growth in transportation demand that is projected to occur in the ten-year period. Chapter 395 requires that impact fees be assessed only to pay for growth projected to occur in the City limits within the next ten-years, a concept that will be covered in a later section of this report (see Section 3.E). As noted earlier, the units of demand are vehicle-miles of travel.

D. Cost of the CIP

The costs that may be included in the cost per service unit are all of the implementation costs for the Roadway Impact Fee Study, as well as project costs for thoroughfare system elements within the Capital Improvement Plan. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are "...including and limited to the:

1. Construction contract price;
2. Surveying and engineering fees;
3. Land acquisition costs, including land purchases, court awards and costs, attorney's fees, and expert witness fees; and
4. Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the Capital Improvement Plan who is not an employee of the political subdivision."

The engineer's opinion of the probable costs of the projects in the CIP is based, in part, on the calculation of a unit cost of construction. This means that a cost per linear foot of roadway is calculated based on an average price for the various components of roadway construction. This allows the probable cost to be determined by the type of facility being constructed, the number of lanes, and the length of the project. The costs for location-specific items such as bridges, highway ramps, drainage structures, and any other special components are added to each project as appropriate. The following is a detailed description of the costing worksheet/methodology for the Roadway Impact Fee CIP.

1. Overview of Roadway Impact Fee CIP Costing Worksheets

For each project a specific costing worksheet was developed (see Appendix A). Each worksheet contained the following four (4) main components:

- Project Information,
- Construction Pay Items,
- Construction Component Allowances and
- Summary of Costs and Allowances

An example costing sheet showing these four components is provided on the following page.

2022 Roadway Impact Fee Study Update
City of Seguin, Texas
September 2022



City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information

Project Information:	Description:	Project No.	A-5
Name:	Rudeloff Road (1)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.	
Limits:	Ridge Crest Drive to 1,320' N of FM 78		
Impact Fee Class:	4U_(80)		
Ultimate Class:	MAJC		
Length (lf):	3700		
Service Area(s):	A		

Construction Pay Items

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	25,489	cy	\$ 15.00	\$ 382,333
202	4" Type D Asphalt	23,433	ton	\$ 30.00	\$ 703,000
302	15" Crushed Limestone Flexible Base Material	25,078	sy	\$ 70.00	\$ 1,755,444
402	6" Lime Stabilization (with Lime @ 27#/sy)	25,078	sy	\$ 5.00	\$ 125,389
502	4" Topsoil	4,522	sy	\$ 4.00	\$ 18,089
602	5' Concrete Sidewalk	37,000	sf	\$ 8.00	\$ 296,000
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 3,280,256

Construction Component Allowances

Major Construction Component Allowances**:			
Item Description	Notes	Allowance	Item Cost
✓ Traffic Control	Construction Phase Traffic Control	5%	\$ 164,013
✓ Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 98,408
✓ Roadway Drainage	Standard Internal System	15%	\$ 492,038
✓ Illumination		6%	\$ 196,815
Special Drainage Structures	None Anticipated	0%	\$ -
✓ Water	Minor Adjustments	5%	\$ 164,013
✓ Sewer	Minor Adjustments	2%	\$ 65,605
✓ Basic Landscaping and Irrigation		4%	\$ 131,210
Miscellaneous:		0%	\$ -
**Allow ances based on % of Paving Construction Cost Subtotal			Allowance Subtotal: \$ 1,312,102
Paving and Allowance Subtotal:			\$ 4,592,358
Construction Contingency:		15%	\$ 688,854
Mobilization		6%	\$ 275,541
Prep ROW		5%	\$ 229,618
Construction Cost TOTAL:			\$ 5,787,000

Summary of Costs and Allowances

Impact Fee Project Cost Summary			
Item Description	Notes	Allowance	Item Cost
Construction:		-	\$ 5,787,000
Engineering/Survey/Testing:		20%	\$ 1,157,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 578,700
Project Subtotal:			\$ 7,524,000
Impact Fee Project Cost TOTAL			\$ 7,524,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Seguin
The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

2. Project Information

In order to correctly estimate the cost of a roadway project, several attributes are first identified:

- Project Number – Identifies which Service Area the project is in with a corresponding number. The corresponding number does not represent any prioritizations and is used only to identify projects. For example, Project A-10 is in Service Area A and is the 10th project on the list.
- Name – A unique identifier for each project.
- Limits – Represents the beginning and ending location for each project.
- Impact Fee Class – The costing class to be used in the analysis. The impact fee class provides the width for the various elements in the roadway. The construction costs are variable, based on the proposed Master Thoroughfare Plan classification of the roadway. For example, 4D_(90) represents a four lane divided arterial within 90' of ROW.
- Ultimate Class – The functional classification on Seguin's Master Thoroughfare Plan .
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Service Area(s) – Represents the service area(s) where the project is located.
- Description – Used to describe the project type assumed in the costing such as a widening or reconstruction.

3. Construction Pay Items

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, construction and inspection. While the construction cost component of a project may actually consist of approximately 100 various pay items, a simplified approach was used for developing the conceptual level project costs. Each new project's construction cost was divided into three cost components: roadway construction cost, major construction component allowances, and summary of cost and allowances.

4. Construction Component Allowances

A percentage of the paving construction cost is allotted for various major construction component allowances, as appropriate. These allowances include traffic control, pavement markings and signage, roadway drainage, illumination, minor water and sewer adjustments, landscaping and irrigation. These allowance percentages are also based on historical data.

In addition, lump sum dollar allowances are provided for special drainage structures, railroad crossings, and intersection improvements where needs are anticipated. The paving and allowance subtotal is given a fifteen percent (15%) contingency. An additional six percent (6%) of the construction cost total is added for mobilization and an additional five percent (5%) of the construction cost total is added for preparation of ROW.

5. Summary of Cost and Allowances

To determine the total Impact Fee Project Cost, twenty percent (20%) of the construction cost total is added for engineering, surveying, and testing.

ROW/easement acquisition was based on a percentage of the total construction cost and is adjusted depending on whether the project was an existing alignment or future alignment. For an existing alignment, the ROW/easement acquisition cost was based on 10% of the total construction cost. For a new alignment, the ROW/easement acquisition cost was based on 20% of the total construction cost. The value for ROW/easement acquisition is an estimated contribution allocation and does not represent actual ROW/easement acquisition needs. For TxDOT facilities, no ROW/easement acquisition was allotted.

The Impact Fee Project Cost Total is the Construction Cost Total plus engineering, surveying, testing, and inspection; plus ROW/easement acquisition; and minus roadway escrow agreements.

**Table 4A – 10-Year Capital Improvement Plan for Roadway Impact Fees
with Conceptual Level Project Cost Projections – Service Area A**

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area	Project Cost in Service Area
A	<i>Roadway Improvements</i>						
	A-1	ARTE	Cordova Road	1,150' E of SH 46 to SH 123	3.23	100%	\$ 41,220,000
	A-2	PKWY	Outer Loop (1)	FM 1620 to SH 46	1.06	100%	\$ 3,695,600
	A-3	PKWY	Outer Loop (2)	SH 46 to Rudeloff Road	0.71	100%	\$ 13,477,000
	A-4	PKWY	Pecan Parkway (1)	Rudeloff Road to City Limits	0.63	100%	\$ 9,334,000
	A-5	MAJC	Rudeloff Road (1)	Ridge Crest Drive to 1,320' N of FM 78	0.70	50%	\$ 3,762,000
	A-6	MAJC	Rudeloff Road (2)	1,320' N of FM 78 to FM 78	0.23	50%	\$ 1,240,500
	A-7	MAJC	Rudeloff Road (3)	Ridge Crest Drive to SH 46	0.69	100%	\$ 7,391,000
	A-8	ARTE	Rudeloff Road (4)	SH 46 to Huber Road	1.52	100%	\$ 19,502,000
	A-9	ARTE	Rudeloff Road (5)	Huber Road to 4156' E of Huber Road	0.96	100%	\$ 12,596,000
	A-10	ARTE	Rudeloff Road (6)	6126' E of Huber Road to SH 123	0.27	100%	\$ 3,600,000
	A-11	ARTE	Stempel Road (1)	Rudeloff Road to SH 123	0.84	100%	\$ 10,384,000
	A-12	ARTE	Huber Road (1)	IH 10 to Rudeloff Road	1.30	100%	\$ 15,669,000
	A-13	COL	Future Collector I	SH 46 to 775' E of Coral Way	0.82	100%	\$ 5,521,000
	A-14	COL	Pecan Parkway (2)	Cordova Road to 1,750' N of Cordova Road	0.33	100%	\$ 2,177,000
	A-15	COL	Huber Road (2)	Rudeloff Road to City Limits	0.74	100%	\$ 4,962,000
	A-16	ARTE	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	50%	\$ 1,430,600
	A-17	MAJC	Link Road	SH 123 to City Limits	0.73	50%	\$ 3,904,000
	<i>Intersection Improvements</i>						
	A-S1	-	Outer Loop & SH 46	Future Grade Separated	-	100%	\$ 3,000,000
	A-S2	-	SH 123 & Cordova Road	Turn Lane Installation	-	50%	\$ 300,000
	A-S3	-	Huber Road & Rudeloff Road	Intersection Improvements	-	100%	\$ 750,000
	A-S4	-	Rudeloff Road & Pecan Parkway	Signal Installation	-	100%	\$ 500,000
	Service Area Roadway Project Cost Subtotal						\$159,865,700
	Service Area Intersection Project Cost Subtotal						\$ 4,550,000
	2022 Roadway Impact Fee Study Update Cost Per Service Area						\$ 10,750
	Total Cost in SERVICE AREA A						\$164,426,450

Table 4B – 10-Year Capital Improvement Plan for Transportation Impact Fees
with Conceptual Level Project Cost Projections – Service Area B

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area	Project Cost in Service Area
B	<i>Roadway Improvements</i>						
	B-1	MAJC	FM 20 (1)	SH 123 to 1067' E of SH 123	0.41	100%	\$ 816,600
	B-2	MAJC	FM 20 (2)	1067' E of SH 123 to City Limits	1.18	50%	\$ 1,165,500
	B-3	PKWY	SH 123 Bypass	SH 123 to IH 10	1.65	100%	\$ 5,185,800
	B-4	ARTE	Stempel Road (2)	SH 123 to SH 123 Bypass	0.47	100%	\$ 5,635,000
	B-5	MAJC	Stempel Road (3)	SH 123 Bypass to 825' E of SH 123 Bypass	0.16	100%	\$ 1,668,000
	B-6	MAJC	Martindale Rd (1)	825' E of SH 123 Bypass to 170' W of Parkwood Rd	0.17	100%	\$ 1,840,000
	B-7	MAJC	Martindale Rd (2)	170' W of Parkwood Rd to 160' E of Almond Crk	0.18	100%	\$ 1,830,000
	B-8	MAJC	Martindale Rd (3)	160' E of Almond Crk to Martindale Rd	0.07	100%	\$ 719,000
	B-9	MAJC	Martindale Rd (4)	156' NE of Twin Oak Road to 1300' NE of Twin Oak Road	0.23	50%	\$ 1,236,000
	B-10	MAJC	Future Major Collector C	1300' NE of Twin Oak Road to FM 20	0.60	100%	\$ 6,536,000
	B-11	MAJC	Heideke Street (1)	SH 123 to IH 10 Frontage Road	0.33	100%	\$ 3,590,000
	B-12	MAJC	Glenewinkel Road	SH 123 to 2,970' E of SH 123	0.56	100%	\$ 6,029,000
	B-13	ARTE	Laubach Road	SH 123 to 2,000' E of SH 123	0.38	100%	\$ 4,859,000
	B-14	ARTE	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	50%	\$ 1,430,600
	B-15	PKWY	Outer Loop (3)	1,300' W of Heinemeyer Road to Boenig Road	0.64	100%	\$ 2,347,000
	<i>Intersection Improvements</i>						
	B-S1	-	SH 123 & Cordova Road	Turn Lane Installation	-	50%	\$ 300,000
	Service Area Roadway Project Cost Subtotal						\$ 44,887,500
	Service Area Intersection Project Cost Subtotal						\$ 300,000
	2022 Roadway Impact Fee Study Update Cost Per Service Area						\$ 10,750
	Total Cost in SERVICE AREA B						\$ 45,198,250

Table 4C – 10-Year Capital Improvement Plan for Transportation Impact Fees
with Conceptual Level Project Cost Projections – Service Area C

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area	Project Cost in Service Area
C	<i>Roadway Improvements</i>						
	C-1	ARTE	Austin Street	Kingsbury Street to IH 10 Frontage Road	1.27	50%	\$ 1,415,800
	C-2	ARTE	Fleming Drive	FM 78 to Kingsbury Street	0.67	100%	\$ 8,115,000
	C-3	COL	Vaughn Ave, Hidalgo St	US 90 ALTE to FM 78	1.08	100%	\$ 7,748,000
	C-4	COL	C H Matthies Jr	IH 10 Frontage Road to Lawson Street	0.78	100%	\$ 5,122,000
	C-5	COL	Lawson Street	C H Matthies Jr to Kingsbury Street	0.16	100%	\$ 1,026,000
	C-6	COL	B and B Road (1)	Inner Loop to 930' S of MI Mountain	0.36	100%	\$ 2,376,000
	C-7	COL	Rodeo Run	3,615' W of SH 46 to SH 46	0.68	100%	\$ 4,587,000
	C-8	ARTE	Huber Road (3)	IH 10 Frontage Road to FM 78	0.13	100%	\$ 1,555,000
	C-9	COL	B and B Road (2)	930' S of MI Mountain to Volunteer Street	0.34	100%	\$ 2,294,000
	<i>Intersection Improvements</i>						
	C-S1	-	Stockdale Highway & Tor Drive	Intersection Improvements	-	50%	\$ 375,000
	C-S2	-	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements	-	50%	\$ 375,000
	Service Area Roadway Project Cost Subtotal						\$ 34,238,800
	Service Area Intersection Project Cost Subtotal						\$ 750,000
	2022 Roadway Impact Fee Study Update Cost Per Service Area						\$ 10,750
	Total Cost in SERVICE AREA C						\$ 34,999,550



Table 4D – 10-Year Capital Improvement Plan for Transportation Impact Fees
with Conceptual Level Project Cost Projections – Service Area D

Service Area	Proj. #	Impact Fee Class	Project	Limits	Length (mi)	% In Service Area	Project Cost in Service Area
D	<i>Roadway Improvements</i>						
	D-1	ARTE	Austin Street	Kingsbury Street to IH 10	1.27	50%	\$ 1,415,800
	D-2	COL	Walnut St (1)	King Street to SH 123	0.62	100%	\$ 4,079,000
	D-3	MAJC	Walnut St (2)	SH 123 to Baer Creek Trail	0.80	100%	\$ 8,570,000
	D-4	COL	Meadow Lake Dr	Stockdale Highway to SH 123 Bypass	0.65	100%	\$ 4,253,000
	D-5	COL	Heideke Street (2)	Kingsbury Street to IH 10	1.23	100%	\$ 8,086,000
	D-6	MAJC	FM 466 (1)	SH 123 Bypass to 950' S of Joe Carillo Blvd	1.01	100%	\$ 2,006,200
	D-7	MAJC	FM 466 (2)	950' S of Joe Carillo Blvd to 330' S of Mueller Lane	0.30	50%	\$ 294,800
	D-8	PKWY	FM 466 (3)	100' S of Kimbrough Road to Hollub Lane	0.16	50%	\$ 247,500
	<i>Intersection Improvements</i>						
	D-S1	-	Eastwood Drive & Preston Drive	Realignment	-	100%	\$ 1,000,000
	D-S2	-	King Street & Gloria Drive	Turn Lane Installation	-	100%	\$ 600,000
	D-S3	-	Stockdale Highway & Tor Drive	Intersection Improvements	-	50%	\$ 375,000
	D-S4	-	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements	-	50%	\$ 375,000
	Service Area Roadway Project Cost Subtotal						\$ 28,952,300
	Service Area Intersection Project Cost Subtotal						\$ 2,350,000
	2022 Roadway Impact Fee Study Update Cost Per Service Area						\$ 10,750
	Total Cost in SERVICE AREA D						\$ 31,313,050

Notes:

- The planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Seguin.
- The planning level cost projections shall not supersede the City's design standards contained within the Subdivision Ordinance or the determination of the City Engineer for a specific project.
- The project cost total within each Service Area may differ from the total shown in the Summary sheets contained within Appendix A due to some projects that are split between multiple service areas.

E. Service Unit Calculation

The basic service unit for the computation of Seguin's Roadway Impact Fees is the vehicle-mile of travel during the afternoon peak-hour. To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service area for the ten-year period.

The growth in vehicle-miles from 2022 to 2032 is based upon projected changes in residential and non-residential growth for the period. In order to determine this growth, baseline estimates of population, basic square feet, service square feet, and retail square feet for 2022 were made by the City, along with projections for each of these demographic statistics through 2032. The Land Use Assumptions section of this report details the growth estimates used for the impact fee determination.

The residential and non-residential statistics in the Land Use Assumptions provide the "independent variables" that are used to calculate the existing (2022) and projected (2032) roadway service units used to establish the Roadway Impact Fee maximum rates within each service area. The roadway demand service units (vehicle-miles) for each service area are the sum of the vehicle-miles "generated" by each category of land use in the service area.

For the purpose of impact fees, all developed and developable land is categorized as either residential or non-residential. For residential land uses, the existing and projected population is converted to dwelling units. The number of dwelling units in each service area is multiplied by a transportation demand factor to compute the vehicle-miles of travel that occur during the afternoon peak hour. This factor computes the average amount of demand caused by the residential land uses in the service area. The transportation demand factor is discussed in more detail below.



For non-residential land uses, the process is similar. The Land Use Assumptions provide existing and projected number of building square footages for three (3) categories of non-residential land uses – basic, service, and retail. These categories correspond to an aggregation of other specific land use categories based on the North American Industrial Classification System (NAICS).

Building square footage is the most common independent variable for the estimation of non-residential trips in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. This characteristic is more appropriate than the number of employees because building square footage is tied more closely to trip generation and is known at the time of application for any development or development modification that would require the assessment of an impact fee.

The existing and projected Land Use Assumptions for the dwelling units and the square footage of basic, service, and retail land uses provide the basis for the projected increase in vehicle-miles of travel. As noted earlier, a transportation demand factor is applied to these values and then summed to calculate the total peak hour vehicle-miles of demand for each service area.

The transportation demand factors are aggregate rates derived from two sources – the ITE Trip Generation Manual, 11th Edition and the Replica online platform. ITE's Trip Generation Manual, 11th Edition provides the number of trips that are produced or attracted to the land use for each dwelling unit, square foot of building, or other corresponding unit. For the retail category of land uses, the rate is adjusted to account for the fact that a percentage of retail trips are made by people who would otherwise be traveling past that particular establishment anyway, such as a trip between work and home. These trips are called pass-by trips, and since the travel demand is accounted for in the land use calculations relative to the primary trip, it is necessary to discount the retail rate to avoid double counting trips.

The next component of the transportation demand factor accounts for the length of each trip. The average trip length for each category is based on the region-wide travel characteristics determined through the Replica online platform. This database serves as an activity-based travel demand model from which several travel parameters can be extracted based on a combination of existing data and projected traffic conditions. Trips tied to residential and industrial land uses were assumed by considering traffic both entering and exiting the City of Seguin, as well as internal travel within the City limits. Trips for all remaining land uses were assumed to be exclusively within the City limits.

The computation of the *transportation demand factor* is detailed in the following equation:

$$TDF = T * (1 - P_b) * L_{max}$$

where... $L_{max} = \min(L * OD \text{ or } SA_L)$

Variables:

- TDF = Transportation Demand Factor,
- T = Trip Rate (peak hour trips / unit),
- P_b = Pass-By Discount (% of trips),
- L_{max} = Maximum Trip Length (miles),
- L = Average Trip Length (miles),
- OD = Origin-Destination Reduction (50%)
- SA_L = Max Service Area Trip Length (see Table 5)



Although Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles, the maximum trip length was limited to 5.0 miles for all Service Areas A-D based on a review of the City of Seguin's roadway network.

The adjustment made to the average trip length statistic in the computation of the maximum trip length is the origin-destination reduction. This adjustment is made because the Roadway Impact Fee is charged to both the origin and destination end of the trip. For example, impact fee methodology will account for a trip from home to work within Seguin to both residential and non-residential land uses. To avoid counting these trips as both residential and non-residential trips, a 50% origin-destination (OD) reduction factor is applied. Therefore, only half of the trip length is assessed to each land use. This methodology is consistent with that used in the Replica platform and additional standard transportation practices.

Table 5 shows the derivation of the Transportation Demand Factor for the residential land uses and the three (3) non-residential land use categories for each service area. The values utilized for all variables shown in the transportation demand factor equation are also shown in the table.

Table 5 – Transportation Demand Factor Calculations

Variable	Residential (ITE #210)	Basic (ITE #110)	Service (ITE #710)	Retail (ITE #821)
T	0.94	0.65	1.44	3.11
Pb	0%	0%	0%	40%
L	5.01	10.18	3.70	1.95
Lmax	5.00	5.00	3.70	1.95
TDF	4.70	3.25	5.33	6.07

The application of the demographic projections and the transportation demand factors are presented in the 10-Year Growth Projections in Table 6. This table shows the total vehicle-miles by service area for the years 2022 and 2032. These estimates and projections lead to the Vehicle-Miles of Travel for both 2022 and 2032.



2022 - 2032 Growth Projections¹

Table 6 – 10-Year Growth Projections

SERVICE AREA	RESIDENTIAL VEHICLE-MILES			NON-RESIDENTIAL SQUARE FEET ⁴			TRANS. DEMAND FACTOR ⁵			NON-RESIDENTIAL VEHICLE-MILES ⁹				TOTAL VEHICLE MILES ¹⁰
	Single Family Units	Trip Rate TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC ⁶	SERVICE ⁷	RETAIL ⁸	BASIC	SERVICE	RETAIL	TOTAL	
		0.94					0.65	1.44	3.11					
A	8,556	4.70	40,213	320,933	3,556,514	8,786,740	3.25	5.33	6.07	1,043	18,956	53,336	73,335	113,548
B	2,017		9,480	916,944	144,696	3,633,196				2,980	771	22,053	25,804	35,284
C	1,486		6,984	5,861,336	1,422,398	2,034,285				19,049	7,581	12,348	38,978	45,962
D	1,487		6,989	1,611,688	1,531,042	2,669,668				5,238	8,160	16,205	29,603	36,592
Totals	13,546		63,666	8,710,901	6,654,651	17,123,889				28,310	35,468	103,942	167,720	231,386

VEHICLE-MILES OF INCREASE (2022 - 2032)

SERVICE AREA	VEH-MILES
A	113,548
B	35,284
C	45,962
D	36,592

Notes:

¹ From Land Use Assumptions

² Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and *trip generation rate*

³ Calculated by multiplying TDF by the number of dwelling units

⁴ From Land Use Assumptions

⁵ *Trip generation rate* and Transportation Demand Factors from LUVMET for each land use

⁶ 'Basic' corresponds to *General Light Industrial* land use and *trip generation rate*

⁷ 'Service' corresponds to *General Office Building* land use and *trip generation rate*

⁸ 'Retail' corresponds to *Shopping Plaza (40-150k)* land use and *trip generation rate*

⁹ Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use

¹⁰ Residential plus non-residential vehicle-mile totals for each Service Area



4. Roadway Impact Fee Calculation

A. Maximum Assessable Impact Fee Per Service Unit

This section presents the maximum assessable impact fee rate calculated for each service area. The maximum assessable impact fee is the sum of the eligible Roadway Impact Fee CIP costs for the service area divided by the growth in travel attributable to new development projected to occur within the 10-year period. A majority of the components of this calculation have been described and presented in previous sections of this report. The purpose of this section is to document the computation for each service area and to demonstrate that the guidelines provided by Chapter 395 of the Texas Local Government Code have been addressed. Table 7 illustrates the computation of the maximum assessable impact fee computed for each service area. Each row in the table is numbered to simplify explanation of the calculation.

Table 7 – Maximum Assessable Roadway Impact Fee Computation

Line	Title	Description
1	<i>Total Vehicle-Miles of Capacity To Be Added by the CIP</i>	The total number of vehicle-miles added to the service area based on the capacity, length, and number of lanes in each project (from Appendix B – CIP Service Units of Supply)

Each project identified in the Impact Fee CIP will add a certain amount of capacity to the City's roadway network based on its length and classification. This line displays the total amount added within each service area.

2	<i>Total Vehicle-Miles of Existing Demand</i>	A measure of the amount of traffic currently using the roadway facilities upon which capacity is being added. (from Appendix B – CIP Service Units of Supply)
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A number of facilities identified in the Impact Fee CIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently being used by existing traffic.

3	<i>Net Amount of Vehicle-Miles of Capacity Added</i>	A measurement of the amount of vehicle-miles added by the CIP that will not be utilized by existing demand (Line 1 – Line 2)
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This calculation identifies the portion of the Impact Fee CIP (in vehicle-miles) that may be recoverable through the collection of impact fees.

4	<i>Total Vehicle-Miles of New Demand over Ten Years</i>	Based upon the growth projection provided in the Land Use Assumptions, an estimate of the number of new vehicle-miles within the service area over the next ten years. (from Table 6)
5	<i>Chapter 395 Check</i>	Does the 10-year demand exceed capacity to be provided by the CIP?

This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years. This step is followed by a measure of projected demand vs. added capacity over the next ten years.

6	<i>Total Cost of the Roadway Impact Fee CIP and Study within the Service Area</i>	The total cost of the roadway projects and Impact Fee Study within each service area (from Table 4: 10-Year Transportation Impact Fee Transportation Improvements Plan with Conceptual Level Cost Opinions)
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This line simply identifies the total cost of all the roadway projects identified in each service area.

7	<i>Percent of Roadway Capacity Added Attributable to New Growth</i>	The result of dividing Net Amount of Capacity Added (Line 3) by the Total Vehicle-Miles of Capacity to be Added by the CIP (Line 1), limited to 100%. This calculation is required by Chapter 395 to ensure capacity added is attributable to new growth.
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In order to ensure that the vehicle-miles added by the Roadway Impact Fee CIP do not exceed the amount needed to accommodate growth beyond the ten-year window, a comparison of the two values is performed. If the amount of vehicle-miles added by the Roadway Impact Fee CIP exceeds the growth projected to occur in the next ten years, the Roadway Impact Fee CIP cost is reduced accordingly.

8	<i>Cost of Roadway Impact Fee CIP Added Attributable to New Growth</i>	The result of multiplying the Total Cost of the Roadway Impact Fee CIP and Study (Line 6) by the Percent of Roadway Capacity Added Attributable to New Growth, limited to 100% (Line 7).
---	--	--

This value is the total roadway Impact Fee CIP project costs (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

9	<i>Cost to Meet Existing Needs and Usage</i>	The difference between the Total Cost of the Roadway Impact Fee CIP (Line 6) and the Cost of the Roadway CIP Added Attributable to New Growth (Line 8).
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This line is provided for information purposes only – it is to present the portion of the total cost of the Roadway Impact Fee CIP that is required to meet existing demand.

10	<i>Total Cost of the Intersection Impact Fee CIP within the Service Area</i>	The total cost of the intersection projects within each service area (from Table 4: 10-Year Transportation Impact Fee Transportation Improvements Plan with Conceptual Level Cost Opinions)
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This line simply identifies the total cost of all the intersection projects identified in each service area.

11	<i>Percent of Intersection Capacity Added Attributable to New Growth</i>	The result of dividing Total Vehicle-Miles of New Demand (Line 4) by the 10-year increase in vehicle-mile capacity per service area (Table 6).
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In order to ensure that the capacity added by the Intersection Impact Fee CIP does not exceed the amount needed to accommodate growth beyond the ten-year window, the anticipated vehicle-mile growth in each service area is calculated as a percentage of the vehicle-mile carrying capacity.



12	<i>Cost of Intersection Impact Fee CIP Attributable to New Growth</i>	The result of multiplying the Total Cost of the Intersection Impact Fee CIP (Line 10) by the Percent of Intersection Capacity Added Attributable to New Growth (Line 11).
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This value is the total Intersection Impact Fee CIP project cost (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

13	<i>Cost of Total Roadway Impact Fee CIP Attributable to New Growth</i>	The result of adding the Cost of the Roadway Impact Fee CIP Attributable to New Growth (Line 8) to the Cost of the Intersection Impact Fee CIP Attributable to New Growth (Line 12).
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This value is the total Roadway (roadway + intersection projects) Impact Fee CIP project cost (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

B. Plan for Awarding the Roadway Impact Fee Credit

Chapter 395 of the Texas Local Government Code requires the Capital Improvement Plan for Roadway Impact Fees contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code states:

"(7) A plan for awarding:

- (A) a credit for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt, that are included in the capital improvements plan; or
- (B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the capital improvements plan..."

The following table summarizes the portions of Table 7 that utilize this credit calculation, based on awarding a 50 percent credit.

Line	Title	Description
14	<i>Cost of Capacity Added Attributable to Growth with 50% Credit for Ad Valorem Taxes</i>	A credit equal to 50% of the total projected cost, as per Section 395.014 of the Texas Local Government Code.
15	<i>Maximum Assessable Fee Per Service Unit</i>	Found by dividing the Total Recoverable Cost (after applying credits) of the CIP Attributable to New Growth (Line 14) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 4).



Table 8. Maximum Assessable Transportation Impact Fee

SERVICE AREA:		A	B	C	D
1	TOTAL VEH-MI OF CAPACITY TO BE ADDED BY THE CIP (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	49,362	27,937	11,578	13,471
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	3,994	3,588	794	2,362
3	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2)	45,368	24,349	10,784	11,109
4	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 6 AND LAND USE ASSUMPTIONS)	113,548	35,284	45,962	36,592
5	CHAPTER 395 CHECK: DOES THE 10 YEAR DEMAND EXCEED CAPACITY TO BE PROVIDED BY THE CIP? "YES" IF LINE 4 > LINE 3	YES	YES	YES	YES
6	TOTAL COST OF THE ROADWAY IMPACT FEE CIP AND STUDY WITHIN SERVICE AREA (FROM TABLES 4A TO 4D)	\$ 159,876,450	\$ 44,898,250	\$ 34,249,550	\$ 28,963,050
7	PERCENT OF ROADWAY CAPACITY ADDED ATTRIBUTABLE TO NEW GROWTH (LINE 3 / LINE 1)	91.91%	87.16%	93.14%	82.47%
8	COST OF ROADWAY IMPACT FEE CIP ATTRIBUTABLE TO NEW GROWTH (LINE 6 * LINE 7)	\$ 146,940,456	\$ 39,131,886	\$ 31,900,773	\$ 23,884,680
9	COST TO MEET EXISTING NEEDS AND USAGE (LINE 6 - LINE 8)	\$ 12,935,994	\$ 5,766,364	\$ 2,348,777	\$ 5,078,370
10	TOTAL COST OF THE INTERSECTION IMPACT FEE CIP WITHIN THE SERVICE AREA (FROM TABLES 4A TO 4Z)	\$ 4,550,000	\$ 300,000	\$ 750,000	\$ 2,350,000
11	PERCENT OF INTERSECTION CAPACITY ADDED ATTRIBUTABLE TO NEW GROWTH (FROM TABLE 6 AND LAND USE ASSUMPTIONS)	71.90%	69.40%	32.60%	24.60%
12	COST OF INTERSECTION IMPACT FEE CIP ATTRIBUTABLE TO NEW GROWTH (LINE 10 * LINE 11)	\$ 3,271,450	\$ 208,200	\$ 244,500	\$ 578,100
13	COST OF TOTAL ROADWAY IMPACT FEE CIP ATTRIBUTABLE TO NEW GROWTH (LINE 8 + LINE 12)	\$ 150,211,906	\$ 39,340,086	\$ 32,145,273	\$ 24,462,780
14	CREDIT FOR AD VALOREM TAXES (50% OF LINE 13)	\$ 75,105,953	\$ 19,670,043	\$ 16,072,637	\$ 12,231,390
15	MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 14 / LINE 4)	\$ 661	\$ 557	\$ 350	\$ 334



C. Service Unit Demand Per Unit of Development

The Roadway Impact Fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City utilizes the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in Table 9. This table lists the predominant land uses that may occur within the City of Seguin. For each land use, the development unit that defines the development's magnitude with respect to transportation demand is shown. Although every possible use cannot be anticipated, the majority of uses are found in this table. If the exact use is not listed, one similar in trip-making characteristics can serve as a reasonable proxy. The individual land uses are grouped into categories, such as residential, office, commercial, industrial, and institutional.

The trip rates presented for each land use are a fundamental component of the LUVMET. The trip rate is the average number of trips generated during the afternoon peak hour by each land use per development unit. The next column, if applicable to the land use, presents the number of trips to and from certain land uses reduced by pass-by trips, as previously discussed.

The source of the trip generation and pass-by statistics is ITE's Trip Generation Manual, 11th Edition, the latest edition of the definitive source for trip generation data. This manual utilizes trip generation studies for a variety of land uses throughout the United States, and is the standard used by traffic engineers and transportation planners for traffic impact analysis, site design, and transportation planning.

To convert vehicle trips to vehicle-miles, it is necessary to multiply trips by trip length. The adjusted trip length values are based on the region-wide travel characteristics determined by the Replica online travel demand model. The other adjustment to trip length is the 50% origin-destination reduction to avoid double counting of trips. At this stage, another important aspect of the state law is applied – the limit on transportation service unit demand. If the adjusted trip length is above the maximum service area trip length, the maximum trip length used for calculation is reduced. This reduction, as discussed previously, limits the maximum trip length to the approximate size of the service areas (SA A - D – 5.0 mi).

The remaining column in the LUVMET shows the vehicle-miles per development unit. This number is the product of the trip rate and the maximum trip length. This number, previously referred to as the Transportation Demand Factor, is used in the impact fee estimate to compute the number of service units attributed to each land use category. The number of service units is multiplied by the impact fee rate (established by City ordinance) in order to determine the impact fee for a development.



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Table 9 – Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev.-Unit
PORT AND TERMINAL											
Intermodal Truck Terminal	030	1,000 SF GFA	1.87			1.87	20.36	50%	10.18	5.00	9.35
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.65			0.65	20.36	50%	10.18	5.00	3.25
Industrial Park	130	1,000 SF GFA	0.34			0.34	20.36	50%	10.18	5.00	1.70
Warehousing	150	1,000 SF GFA	0.18			0.18	20.36	50%	10.18	5.00	0.90
Mini-Warehouse	151	1,000 SF GFA	0.15			0.15	20.36	50%	10.18	5.00	0.75
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Units	0.94			0.94	10.03	50%	5.01	5.00	4.70
Single-Family Attached Housing	215	Dwelling Units	0.57			0.57	10.03	50%	5.01	5.00	2.85
Multifamily Housing (Low-Rise)	220	Dwelling Units	0.51			0.51	10.03	50%	5.01	5.00	2.55
Multifamily Housing (Mid-Rise)	221	Dwelling Units	0.39			0.39	10.03	50%	5.01	5.00	1.95
Multifamily Housing (High-Rise)	222	Dwelling Units	0.32			0.32	10.03	50%	5.01	5.00	1.60
Mobile Home Park	240	Dwelling Units	0.58			0.58	10.03	50%	5.01	5.00	2.90
Senior Adult Housing - Single-Family	251	Dwelling Units	0.30			0.30	10.03	50%	5.01	5.00	1.50
Senior Adult Housing - Multifamily	252	Dwelling Units	0.25			0.25	10.03	50%	5.01	5.00	1.25
Assisted Living	254	Beds	0.24			0.24	10.03	50%	5.01	5.00	1.20
LODGING											
Hotel	310	Rooms	0.59			0.59	6.43	50%	3.22	3.22	1.90
Motel	320	Rooms	0.36			0.36	6.43	50%	3.22	3.22	1.16
RECREATIONAL											
Golf Course	430	Holes	2.91			2.91	4.80	50%	2.40	2.40	6.98
Miniature Golf Course	431	Holes	0.33			0.33	4.80	50%	2.40	2.40	0.79
Golf Driving Range	432	Tees/Driving Positions	1.25			1.25	4.80	50%	2.40	2.40	3.00
Multipurpose Recreational Facility	435	1,000 SF GFA	3.58			3.58	4.80	50%	2.40	2.40	8.59
Movie Theater	445	Movie Screens	13.96			13.96	4.80	50%	2.40	2.40	33.50
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	4.80	50%	2.40	2.40	3.19
Racquet/Tennis Club	491	Tennis Courts	3.82			3.82	4.80	50%	2.40	2.40	9.17
Health/Fitness Club	492	1,000 SF GFA	3.45			3.45	4.80	50%	2.40	2.40	8.28
Recreational Community Center	495	1,000 SF GFA	2.50			2.50	4.80	50%	2.40	2.40	6.00
INSTITUTIONAL											
Elementary School	520	Students	0.16			0.16	3.49	50%	1.75	1.75	0.28
Middle School/Junior High School	522	Students	0.15			0.15	3.49	50%	1.75	1.75	0.26
High School	525	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Private School (K-8)	530	Students	0.26			0.26	3.49	50%	1.75	1.75	0.46
Private High School	534	Students	0.19			0.19	3.49	50%	1.75	1.75	0.33
Charter Elementary School	536	Students	0.16			0.16	3.49	50%	1.75	1.75	0.28
Junior/Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.00	0.55
University/College	550	Students	0.15			0.15	10.44	50%	5.22	5.00	0.75
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	C	6.23	3.49	50%	1.75	1.75	10.90
MEDICAL											
Hospital	610	1,000 SF GFA	0.86			0.86	9.85	50%	4.93	4.93	4.24
Nursing Home	620	Beds	0.14			0.14	9.85	50%	4.93	4.93	0.69
Clinic	630	1,000 SF GFA	3.69			3.69	9.85	50%	4.93	4.93	18.19
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	9.85	50%	4.93	4.93	12.18
OFFICE											
General Office Building	710	1,000 SF GFA	1.44			1.44	7.40	50%	3.70	3.70	5.33
Corporate Headquarters Building	714	1,000 SF GFA	1.30			1.30	7.40	50%	3.70	3.70	4.81
Single Tenant Office Building	715	1,000 SF GFA	1.76			1.76	7.40	50%	3.70	3.70	6.51
Medical-Dental Office Building	720	1,000 SF GFA	3.93			3.93	9.85	50%	4.93	4.93	19.37
Office Park	750	1,000 SF GFA	1.30			1.30	7.40	50%	3.70	3.70	4.81

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (September 2017)

B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: 2021 Pass-By Tables for ITETripGen Appendices



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Table 9 Cont'd. – Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Mength (mi)	Max Trip Length (mi)	Veh-Mi Per Dev.-Unit
COMMERCIAL											
Automobile Related											
Automobile Sales (New)	840	1,000 SF GFA	2.42	20%	B	1.94	5.00	50%	2.50	2.50	4.84
Automobile Sales (Used)	841	1,000 SF GFA	3.75	20%	B	3.00	5.00	50%	2.50	2.50	7.50
Automobile Parts Sales	843	1,000 SF GFA	4.90	43%	A	2.79	5.00	50%	2.50	2.50	6.98
Tire Store	848	1,000 SF GFA	3.75	25%	C	2.81	5.00	50%	2.50	2.50	7.03
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	5.00	50%	2.50	2.50	7.28
Automobile Care Center	942	1,000 SF GFA	3.11	40%	B	1.87	5.00	50%	2.50	2.50	4.67
Gasoline/Service Station	944	Vehicle Fueling Positions	13.91	57%	C	5.98	5.00	50%	2.50	2.50	14.95
Convenience Store/Gas Station	945	Vehicle Fueling Positions	13.51	56%	B	5.94	5.00	50%	2.50	2.50	14.86
Self-Service Car Wash	947	Wash Stalls	5.54	40%	B	3.32	5.00	50%	2.50	2.50	8.31
Car Wash and Detail Center	949	Wash Stalls	13.60	40%	B	8.16	5.00	50%	2.50	2.50	20.40
Dining											
Fast Casual Restaurant	930	1,000 SF GFA	12.55	43%	A	7.15	4.60	50%	2.30	2.30	16.45
Fine Dining Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	4.60	50%	2.30	2.30	10.05
High-Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.05	43%	A	5.16	4.60	50%	2.30	2.30	11.86
Fast-Food Restaurant without Drive-Through Window	933	1,000 SF GFA	33.21	50%	B	16.61	4.60	50%	2.30	2.30	38.19
Fast-Food Restaurant with Drive-Through Window	934	1,000 SF GFA	33.03	50%	A	16.52	4.60	50%	2.30	2.30	37.98
Coffee/Donut Shop with Drive-Through Window	937	1,000 SF GFA	38.99	70%	A	11.70	4.60	50%	2.30	2.30	26.90
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.86	20%	C	3.89	3.90	50%	1.95	1.95	7.58
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	3.90	50%	1.95	1.95	9.47
Shopping Center (>150k SF)	820	1,000 SF GFA	3.40	29%	C	2.41	3.90	50%	1.95	1.95	4.71
Shopping Plaza (40-150k)	821	1,000 SF GFA	5.19	40%	C	3.11	3.90	50%	1.95	1.95	6.07
Strip Retail Plaza (<40k SF)	822	1,000 SF GFA	6.59	40%	B	3.95	3.90	50%	1.95	1.95	7.71
Supermarket	850	1,000 SF GFA	8.95	24%	C	6.80	3.90	50%	1.95	1.95	13.26
Home Improvement Superstore	862	1,000 SF GFA	2.29	42%	A	1.33	3.90	50%	1.95	1.95	2.59
Toy/Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	3.90	50%	1.95	1.95	6.83
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	3.90	50%	1.95	1.95	2.66
Pharmacy/Drugstore without Drive-Through Window	880	1,000 SF GFA	8.51	53%	A	4.00	3.90	50%	1.95	1.95	7.80
Pharmacy/Drugstore with Drive-Through Window	881	1,000 SF GFA	10.25	49%	A	5.23	3.90	50%	1.95	1.95	10.19
SERVICES											
Walk-in Bank	911	1,000 SF GFA	12.13	40%	B	7.28	5.00	50%	2.50	2.50	18.20
Drive-in Bank	912	Drive-in Lanes	27.07	35%	A	17.60	5.00	50%	2.50	2.50	43.99
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	5.00	50%	2.50	2.50	2.54

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (September 2017)

B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: 2021 Pass-By Tables for ITETripGen Appendices



5. Sample Calculations

The following section details two (2) examples of maximum assessable Roadway Impact Fee calculations.

Example 1:

Development Type - One (1) Unit of Single-Family Housing in Service Area A

Roadway Impact Fee Calculation Steps – Example 1	
Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	<i>From Table 9 [Land Use – Vehicle-mile Equivalency Table]</i> Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 4.70
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit
	<i>From Table 8, Line 12 [Maximum Assessable Fee Per Service Unit]</i> Service Area A: \$661
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit Impact Fee = 1 * 4.70 * \$661 Maximum Assessable Impact Fee = \$3,106.70

Example 2:

Development Type – 125,000 square foot Home Improvement Superstore in Service Area B

Roadway Impact Fee Calculation Steps – Example 2	
Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	<i>From Table 9 [Land Use – Vehicle-mile Equivalency Table]</i> Development Type: 125,000 square feet of Home Improvement Superstore Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 2.59
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit
	<i>From Table 8, Line 12 [Maximum Assessable Fee Per Service Unit]</i> Service Area B: \$557
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit Impact Fee = 125 * 2.59 * \$557 Maximum Assessable Impact Fee = \$180,328.75



6. Conclusion

The City of Seguin has established a process to implement the assessment and collection of Roadway Impact Fees through the adoption of an impact fee ordinance that is consistent with Chapter 395 of the Texas Local Government Code.

This report establishes the maximum allowable Roadway Impact Fee that could be assessed by the City of Seguin within each of the four (4) service areas. The maximum assessable Roadway Impact Fees calculated in this report are presented in the table below:

Service Area	1	2	3	4
2022 Roadway Impact Fee Study Maximum Assessable Fee Per Vehicle-Mile	\$ 661	\$ 557	\$ 350	\$ 334

This document serves as a guide to the assessment of Roadway Impact Fees pertaining to future development and the City's need for roadway improvements to accommodate that growth. Following the public hearing process, the City Council may establish an amount to be assessed (if any) up to the maximum established within this report and update the Roadway Impact Fee Ordinance accordingly.

In conclusion, it is our opinion that the data and methodology used in this update are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Capital Improvement Plan are appropriately incorporated into the process.



7. Appendices

A. Conceptual Level Project Cost Projections

SERVICE AREA A
SERVICE AREA B
SERVICE AREA C
SERVICE AREA D

B. CIP Service Units of Supply



A. Conceptual Level Project Cost Projections

City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-1
Name:	Cordova Road	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	1,150' E of SH 46 to SH 123			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	17030			
Service Area(s):	A			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	124,887	cy	\$ 15.00	\$ 1,873,300
205	4" Type D Asphalt	105,964	ton	\$ 30.00	\$ 3,178,933
305	15" Crushed Limestone Flexible Base Material	121,102	sy	\$ 70.00	\$ 8,477,156
405	6" Lime Stabilization (with Lime @ 27#/sy)	121,102	sy	\$ 5.00	\$ 605,511
505	4" Topsoil	37,844	sy	\$ 4.00	\$ 151,378
605	5' Concrete Sidewalk	170,300	sf	\$ 8.00	\$ 1,362,400
705	Turn Lanes and Median Openings	12,622	sy	\$ 105.00	\$ 1,325,308

Paving Construction Cost Subtotal: \$ 16,973,986

Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Traffic Control	Construction Phase Traffic Control	5%	\$ 848,699
✓ Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 509,220
✓ Roadway Drainage	Standard Internal System	15%	\$ 2,546,098
✓ Illumination		6%	\$ 1,018,439
✓ Special Drainage Structures	Bridge Crossing	0%	\$ 1,400,000
✓ Water	Minor Adjustments	5%	\$ 848,699
✓ Sewer	Minor Adjustments	2%	\$ 339,480
✓ Basic Landscaping and Irrigation		4%	\$ 678,959
Miscellaneous:		0%	\$ -

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 8,189,594

Paving and Allowance Subtotal: \$ 25,163,580

Construction Contingency: 15% \$ 3,774,537

Mobilization 6% \$ 1,509,815

Prep ROW 5% \$ 1,258,179

Construction Cost TOTAL: \$ 31,707,000

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 31,707,000
Engineering/Survey/Testing:		20%	\$ 6,341,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 3,170,700

Project Subtotal: \$ 41,220,000

Impact Fee Project Cost TOTAL \$ 41,220,000

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Seguin

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-2
Name:	Outer Loop (1)	This project consists of the construction of a new six lane divided parkway.		
Limits:	FM 1620 to SH 46			
Impact Fee Class:	6D_(180)			
Ultimate Class:	PKWY			
Length (lf):	5600			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	52,267	cy	\$ 15.00	\$ 784,000
207	4" Type D Asphalt	46,044	ton	\$ 30.00	\$ 1,381,333
307	15" Crushed Limestone Flexible Base Material	51,022	sy	\$ 70.00	\$ 3,571,556
407	6" Lime Stabilization (with Lime @ 27#/sy)	51,022	sy	\$ 5.00	\$ 255,111
507	4" Topsoil	49,778	sy	\$ 4.00	\$ 199,111
607	12' Shared Use Path	134,400	sf	\$ 8.00	\$ 1,075,200
707	Turn Lanes and Median Openings	5,883	sy	\$ 105.00	\$ 617,697
Paving Construction Cost Subtotal:					\$ 7,884,008
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 236,520	
✓	Roadway Drainage	Standard Internal System	15%	\$ 1,182,601	
✓	Illumination		6%	\$ 473,040	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 394,200	
✓	Sewer	Minor Adjustments	2%	\$ 157,680	
✓	Basic Landscaping and Irrigation		4%	\$ 315,360	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,759,403	
Paving and Allowance Subtotal:				\$ 10,643,411	
Construction Contingency:				15%	\$ 1,596,512
Mobilization				6%	\$ 638,605
Prep ROW				3%	\$ 319,302
Construction Cost TOTAL:				\$ 13,198,000	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 13,198,000
Engineering/Survey/Testing:		20%	\$ 2,639,600
ROW/Easement Acquisition:		20%	\$ 2,639,600
Project Subtotal:			\$ 18,478,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 3,695,600

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Seguin
The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-3
Name:	Outer Loop (2)	This project consists of the construction of a new six lane divided parkway.		
Limits:	SH 46 to Rudeloff Road			
Impact Fee Class:	6D_(180)			
Ultimate Class:	PKWY			
Length (lf):	3765			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	35,140	cy	\$ 15.00	\$ 527,100
207	4" Type D Asphalt	30,957	ton	\$ 30.00	\$ 928,700
307	15" Crushed Limestone Flexible Base Material	34,303	sy	\$ 70.00	\$ 2,401,233
407	6" Lime Stabilization (with Lime @ 27#/sy)	34,303	sy	\$ 5.00	\$ 171,517
507	4" Topsoil	33,467	sy	\$ 4.00	\$ 133,867
607	12' Shared Use Path	90,360	sf	\$ 8.00	\$ 722,880
707	Turn Lanes and Median Openings	3,955	sy	\$ 105.00	\$ 415,291
Paving Construction Cost Subtotal:					\$ 5,300,588
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 159,018	
✓	Roadway Drainage	Standard Internal System	15%	\$ 795,088	
✓	Illumination		6%	\$ 318,035	
✓	Special Drainage Structures	Bridge Crossing	0%	\$ 607,000	
✓	Water	Minor Adjustments	5%	\$ 265,029	
✓	Sewer	Minor Adjustments	2%	\$ 106,012	
✓	Basic Landscaping and Irrigation		4%	\$ 212,024	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,462,206	
Paving and Allowance Subtotal:				\$ 7,762,793	
Construction Contingency:				15%	\$ 1,164,419
Mobilization				6%	\$ 465,768
Prep ROW				3%	\$ 232,884
Construction Cost TOTAL:				\$ 9,626,000	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 9,626,000
Engineering/Survey/Testing:		20%	\$ 1,925,200
ROW/Easement Acquisition:		20%	\$ 1,925,200
Project Subtotal:			\$ 13,477,000
Impact Fee Project Cost TOTAL			\$ 13,477,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-4
Name:	Pecan Parkway (1)	This project consists of the construction of a new six lane divided parkway.		
Limits:	Rudeloff Road to City Limits			
Impact Fee Class:	6D_(180)			
Ultimate Class:	PKWY			
Length (lf):	3300			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	30,800	cy	\$ 15.00	\$ 462,000
207	4" Type D Asphalt	27,133	ton	\$ 30.00	\$ 814,000
307	15" Crushed Limestone Flexible Base Material	30,067	sy	\$ 70.00	\$ 2,104,667
407	6" Lime Stabilization (with Lime @ 27#/sy)	30,067	sy	\$ 5.00	\$ 150,333
507	4" Topsoil	29,333	sy	\$ 4.00	\$ 117,333
607	12' Shared Use Path	79,200	sf	\$ 8.00	\$ 633,600
707	Turn Lanes and Median Openings	3,467	sy	\$ 105.00	\$ 364,000
Paving Construction Cost Subtotal:					\$ 4,645,933
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 139,378	
✓	Roadway Drainage	Standard Internal System	15%	\$ 696,890	
✓	Illumination		6%	\$ 278,756	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 232,297	
✓	Sewer	Minor Adjustments	2%	\$ 92,919	
✓	Basic Landscaping and Irrigation		4%	\$ 185,837	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,626,077	
Paving and Allowance Subtotal:				\$	6,272,010
Construction Contingency:				15%	\$ 940,802
Mobilization				6%	\$ 376,321
Prep ROW				3%	\$ 188,160
Construction Cost TOTAL:				\$	7,778,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,778,000
Engineering/Survey/Testing:		20%	\$ 1,555,600
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 9,334,000
Impact Fee Project Cost TOTAL			\$ 9,334,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-5
Name:	Rudeloff Road (1)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	Ridge Crest Drive to 1,320' N of FM 78			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	3700			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	25,489	cy	\$ 15.00	\$ 382,333
202	4" Type D Asphalt	23,433	ton	\$ 30.00	\$ 703,000
302	15" Crushed Limestone Flexible Base Material	25,078	sy	\$ 70.00	\$ 1,755,444
402	6" Lime Stabilization (with Lime @ 27#/sy)	25,078	sy	\$ 5.00	\$ 125,389
502	4" Topsoil	4,522	sy	\$ 4.00	\$ 18,089
602	5' Concrete Sidewalk	37,000	sf	\$ 8.00	\$ 296,000
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 3,280,256
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	164,013
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	98,408
✓	Roadway Drainage	Standard Internal System	15%	\$	492,038
✓	Illumination		6%	\$	196,815
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	164,013
✓	Sewer	Minor Adjustments	2%	\$	65,605
✓	Basic Landscaping and Irrigation		4%	\$	131,210
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,312,102
Paving and Allowance Subtotal:				\$	4,592,358
Construction Contingency:				15%	\$ 688,854
Mobilization				6%	\$ 275,541
Prep ROW				5%	\$ 229,618
Construction Cost TOTAL:				\$	5,787,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,787,000
Engineering/Survey/Testing:		20%	\$ 1,157,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 578,700
Project Subtotal:			\$ 7,524,000
Impact Fee Project Cost TOTAL			\$ 7,524,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-6
Name:	Rudeloff Road (2)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	1,320' N of FM 78 to FM 78			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	1220			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	8,404	cy	\$ 15.00	\$ 126,067
202	4" Type D Asphalt	7,727	ton	\$ 30.00	\$ 231,800
302	15" Crushed Limestone Flexible Base Material	8,269	sy	\$ 70.00	\$ 578,822
402	6" Lime Stabilization (with Lime @ 27#/sy)	8,269	sy	\$ 5.00	\$ 41,344
502	4" Topsoil	1,491	sy	\$ 4.00	\$ 5,964
602	5' Concrete Sidewalk	12,200	sf	\$ 8.00	\$ 97,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,081,598
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	54,080
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	32,448
✓	Roadway Drainage	Standard Internal System	15%	\$	162,240
✓	Illumination		6%	\$	64,896
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	54,080
✓	Sewer	Minor Adjustments	2%	\$	21,632
✓	Basic Landscaping and Irrigation		4%	\$	43,264
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 432,639	
Paving and Allowance Subtotal:				\$	1,514,237
Construction Contingency:				15%	\$ 227,136
Mobilization				6%	\$ 90,854
Prep ROW				5%	\$ 75,712
Construction Cost TOTAL:				\$	1,908,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,908,000
Engineering/Survey/Testing:		20%	\$ 381,600
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 190,800
Project Subtotal:			\$ 2,481,000
Impact Fee Project Cost TOTAL			\$ 2,481,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-7
Name:	Rudeloff Road (3)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	Ridge Crest Drive to SH 46			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	3635			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	25,041	cy	\$ 15.00	\$ 375,617
202	4" Type D Asphalt	23,022	ton	\$ 30.00	\$ 690,650
302	15" Crushed Limestone Flexible Base Material	24,637	sy	\$ 70.00	\$ 1,724,606
402	6" Lime Stabilization (with Lime @ 27#/sy)	24,637	sy	\$ 5.00	\$ 123,186
502	4" Topsoil	4,443	sy	\$ 4.00	\$ 17,771
602	5' Concrete Sidewalk	36,350	sf	\$ 8.00	\$ 290,800
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 3,222,629
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	161,131
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	96,679
✓	Roadway Drainage	Standard Internal System	15%	\$	483,394
✓	Illumination		6%	\$	193,358
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	161,131
✓	Sewer	Minor Adjustments	2%	\$	64,453
✓	Basic Landscaping and Irrigation		4%	\$	128,905
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,289,052
Paving and Allowance Subtotal:				\$	4,511,681
Construction Contingency:				15%	\$ 676,752
Mobilization				6%	\$ 270,701
Prep ROW				5%	\$ 225,584
Construction Cost TOTAL:				\$	5,685,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,685,000
Engineering/Survey/Testing:		20%	\$ 1,137,000
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 568,500
Project Subtotal:			\$ 7,391,000
Impact Fee Project Cost TOTAL			\$ 7,391,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-8
Name:	Rudeloff Road (4)	This project consists of the reconstruction of the existing pavement to a five lane undivided arterial.		
Limits:	SH 46 to Huber Road			
Impact Fee Class:	5U_(120)			
Ultimate Class:	ARTE			
Length (lf):	8030			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	66,024	cy	\$ 15.00	\$ 990,367
204	4" Type D Asphalt	61,563	ton	\$ 30.00	\$ 1,846,900
304	15" Crushed Limestone Flexible Base Material	65,132	sy	\$ 70.00	\$ 4,559,256
404	6" Lime Stabilization (with Lime @ 27#/sy)	65,132	sy	\$ 5.00	\$ 325,661
504	4" Topsoil	34,797	sy	\$ 4.00	\$ 139,187
604	5' Concrete Sidewalk	80,300	sf	\$ 8.00	\$ 642,400
704	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 8,503,770
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	425,189
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	255,113
✓	Roadway Drainage	Standard Internal System	15%	\$	1,275,566
✓	Illumination		6%	\$	510,226
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	425,189
✓	Sewer	Minor Adjustments	2%	\$	170,075
✓	Basic Landscaping and Irrigation		4%	\$	340,151
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 3,401,508	
Paving and Allowance Subtotal:				\$	11,905,278
Construction Contingency:				15%	\$ 1,785,792
Mobilization				6%	\$ 714,317
Prep ROW				5%	\$ 595,264
Construction Cost TOTAL:					\$ 15,001,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 15,001,000
Engineering/Survey/Testing:		20%	\$ 3,000,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 1,500,100
Project Subtotal:			\$ 19,502,000
Impact Fee Project Cost TOTAL			\$ 19,502,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-9
Name:	Rudeloff Road (5)	This project consists of the construction of a new five lane undivided arterial.		
Limits:	Huber Road to 4156' E of Huber Road			
Impact Fee Class:	5U_(120)			
Ultimate Class:	ARTE			
Length (lf):	5075			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	41,728	cy	\$ 15.00	\$ 625,917
204	4" Type D Asphalt	38,908	ton	\$ 30.00	\$ 1,167,250
304	15" Crushed Limestone Flexible Base Material	41,164	sy	\$ 70.00	\$ 2,881,472
404	6" Lime Stabilization (with Lime @ 27#/sy)	41,164	sy	\$ 5.00	\$ 205,819
504	4" Topsoil	21,992	sy	\$ 4.00	\$ 87,967
604	5' Concrete Sidewalk	50,750	sf	\$ 8.00	\$ 406,000
704	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 5,374,425
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 161,233	
✓	Roadway Drainage	Standard Internal System	15%	\$ 806,164	
✓	Illumination		6%	\$ 322,466	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 268,721	
✓	Sewer	Minor Adjustments	2%	\$ 107,489	
✓	Basic Landscaping and Irrigation		4%	\$ 214,977	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,881,049	
Paving and Allowance Subtotal:				\$	7,255,474
Construction Contingency:				15%	\$ 1,088,321
Mobilization				6%	\$ 435,328
Prep ROW				3%	\$ 217,664
Construction Cost TOTAL:					\$ 8,997,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,997,000
Engineering/Survey/Testing:		20%	\$ 1,799,400
ROW/Easement Acquisition:		20%	\$ 1,799,400
Project Subtotal:			\$ 12,596,000
Impact Fee Project Cost TOTAL			\$ 12,596,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-10
Name:	Rudeloff Road (6)	This project consists of the construction of a new five lane undivided arterial.		
Limits:	6126' E of Huber Road to SH 123			
Impact Fee Class:	5U_(120)			
Ultimate Class:	ARTE			
Length (lf):	1450			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	11,922	cy	\$ 15.00	\$ 178,833
204	4" Type D Asphalt	11,117	ton	\$ 30.00	\$ 333,500
304	15" Crushed Limestone Flexible Base Material	11,761	sy	\$ 70.00	\$ 823,278
404	6" Lime Stabilization (with Lime @ 27#/sy)	11,761	sy	\$ 5.00	\$ 58,806
504	4" Topsoil	6,283	sy	\$ 4.00	\$ 25,133
604	5' Concrete Sidewalk	14,500	sf	\$ 8.00	\$ 116,000
704	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,535,550
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 46,067	
✓	Roadway Drainage	Standard Internal System	15%	\$ 230,333	
✓	Illumination		6%	\$ 92,133	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 76,778	
✓	Sewer	Minor Adjustments	2%	\$ 30,711	
✓	Basic Landscaping and Irrigation		4%	\$ 61,422	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 537,443	
Paving and Allowance Subtotal:				\$	2,072,993
Construction Contingency:				15%	\$ 310,949
Mobilization				6%	\$ 124,380
Prep ROW				3%	\$ 62,190
Construction Cost TOTAL:				\$	2,571,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,571,000
Engineering/Survey/Testing:		20%	\$ 514,200
ROW/Easement Acquisition:		20%	\$ 514,200
Project Subtotal:			\$ 3,600,000
Impact Fee Project Cost TOTAL			\$ 3,600,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-11
Name:	Stempel Road (1)	This project consists of the construction of a new four lane divided arterial.		
Limits:	Rudeloff Road to SH 123			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	4445			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	32,597	cy	\$ 15.00	\$ 488,950
205	4" Type D Asphalt	27,658	ton	\$ 30.00	\$ 829,733
305	15" Crushed Limestone Flexible Base Material	31,609	sy	\$ 70.00	\$ 2,212,622
405	6" Lime Stabilization (with Lime @ 27#/sy)	31,609	sy	\$ 5.00	\$ 158,044
505	4" Topsoil	9,878	sy	\$ 4.00	\$ 39,511
605	5' Concrete Sidewalk	44,450	sf	\$ 8.00	\$ 355,600
705	Turn Lanes and Median Openings	3,294	sy	\$ 105.00	\$ 345,919
Paving Construction Cost Subtotal:					\$ 4,430,380
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 132,911	
✓	Roadway Drainage	Standard Internal System	15%	\$ 664,557	
✓	Illumination		6%	\$ 265,823	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 221,519	
✓	Sewer	Minor Adjustments	2%	\$ 88,608	
✓	Basic Landscaping and Irrigation		4%	\$ 177,215	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,550,633	
Paving and Allowance Subtotal:				\$ 5,981,013	
Construction Contingency:				15%	\$ 897,152
Mobilization				6%	\$ 358,861
Prep ROW				3%	\$ 179,430
Construction Cost TOTAL:				\$ 7,417,000	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,417,000
Engineering/Survey/Testing:		20%	\$ 1,483,400
ROW/Easement Acquisition:		20%	\$ 1,483,400
Project Subtotal:			\$ 10,384,000
Impact Fee Project Cost TOTAL			\$ 10,384,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-12
Name:	Huber Road (1)	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	IH 10 to Rudeloff Road			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	6855			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	50,270	cy	\$ 15.00	\$ 754,050
205	4" Type D Asphalt	42,653	ton	\$ 30.00	\$ 1,279,600
305	15" Crushed Limestone Flexible Base Material	48,747	sy	\$ 70.00	\$ 3,412,267
405	6" Lime Stabilization (with Lime @ 27#/sy)	48,747	sy	\$ 5.00	\$ 243,733
505	4" Topsoil	15,233	sy	\$ 4.00	\$ 60,933
605	5' Concrete Sidewalk	68,550	sf	\$ 8.00	\$ 548,400
705	Turn Lanes and Median Openings	5,081	sy	\$ 105.00	\$ 533,470
Paving Construction Cost Subtotal:					\$ 6,832,453
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	341,623
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	204,974
✓	Roadway Drainage	Standard Internal System	15%	\$	1,024,868
✓	Illumination		6%	\$	409,947
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	341,623
✓	Sewer	Minor Adjustments	2%	\$	136,649
✓	Basic Landscaping and Irrigation		4%	\$	273,298
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,732,981	
Paving and Allowance Subtotal:				\$	9,565,434
Construction Contingency:				15%	\$ 1,434,815
Mobilization				6%	\$ 573,926
Prep ROW				5%	\$ 478,272
Construction Cost TOTAL:					\$ 12,053,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 12,053,000
Engineering/Survey/Testing:		20%	\$ 2,410,600
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 1,205,300
Project Subtotal:			\$ 15,669,000
Impact Fee Project Cost TOTAL			\$ 15,669,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-13
Name:	Future Collector I	This project consists of the construction of a new three lane undivided collector.		
Limits:	SH 46 to 775' E of Coral Way			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	4345			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	19,311	cy	\$ 15.00	\$ 289,667
201	3" Type D Asphalt	16,897	ton	\$ 22.50	\$ 380,188
301	12" Crushed Limestone Flexible Base Material	18,828	sy	\$ 56.00	\$ 1,054,387
401	6" Lime Stabilization (with Lime @ 27#/sy)	18,828	sy	\$ 5.00	\$ 94,142
501	4" Topsoil	3,862	sy	\$ 4.00	\$ 15,449
601	5' Concrete Sidewalk + 10' Shared Use Path	65,175	sf	\$ 8.00	\$ 521,400
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 2,355,231
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 70,657	
✓	Roadway Drainage	Standard Internal System	15%	\$ 353,285	
✓	Illumination		6%	\$ 141,314	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 117,762	
✓	Sewer	Minor Adjustments	2%	\$ 47,105	
✓	Basic Landscaping and Irrigation		4%	\$ 94,209	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 824,331	
Paving and Allowance Subtotal:				\$	3,179,562
Construction Contingency:				15%	\$ 476,934
Mobilization				6%	\$ 190,774
Prep ROW				3%	\$ 95,387
Construction Cost TOTAL:				\$	3,943,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,943,000
Engineering/Survey/Testing:		20%	\$ 788,600
ROW/Easement Acquisition:		20%	\$ 788,600
Project Subtotal:			\$ 5,521,000
Impact Fee Project Cost TOTAL			\$ 5,521,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No. A-14
Name:	Pecan Parkway (2)	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.	
Limits:	Cordova Road to 1,750' N of Cordova Road		
Impact Fee Class:	3U_(60)		
Ultimate Class:	COL		
Length (lf):	1750		
Service Area(s):	A		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	7,778	cy	\$ 15.00	\$ 116,667
201	3" Type D Asphalt	6,806	ton	\$ 22.50	\$ 153,125
301	12" Crushed Limestone Flexible Base Material	7,583	sy	\$ 56.00	\$ 424,667
401	6" Lime Stabilization (with Lime @ 27#/sy)	7,583	sy	\$ 5.00	\$ 37,917
501	4" Topsoil	1,556	sy	\$ 4.00	\$ 6,222
601	5' Concrete Sidewalk + 10' Shared Use Path	26,250	sf	\$ 8.00	\$ 210,000
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 948,597
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	47,430
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	28,458
✓	Roadway Drainage	Standard Internal System	15%	\$	142,290
✓	Illumination		6%	\$	56,916
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	47,430
✓	Sewer	Minor Adjustments	2%	\$	18,972
✓	Basic Landscaping and Irrigation		4%	\$	37,944
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 379,439	
Paving and Allowance Subtotal:				\$	1,328,036
Construction Contingency:				15%	\$ 199,205
Mobilization				6%	\$ 79,682
Prep ROW				5%	\$ 66,402
Construction Cost TOTAL:				\$	1,674,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,674,000
Engineering/Survey/Testing:		20%	\$ 334,800
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 167,400
Project Subtotal:			\$ 2,177,000
Impact Fee Project Cost TOTAL			\$ 2,177,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-15
Name:	Huber Road (2)	This project consists of the construction of a new three lane undivided collector.		
Limits:	Rudeloff Road to City Limits			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	3905			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	17,356	cy	\$ 15.00	\$ 260,333
201	3" Type D Asphalt	15,186	ton	\$ 22.50	\$ 341,688
301	12" Crushed Limestone Flexible Base Material	16,922	sy	\$ 56.00	\$ 947,613
401	6" Lime Stabilization (with Lime @ 27#/sy)	16,922	sy	\$ 5.00	\$ 84,608
501	4" Topsoil	3,471	sy	\$ 4.00	\$ 13,884
601	5' Concrete Sidewalk + 10' Shared Use Path	58,575	sf	\$ 8.00	\$ 468,600
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 2,116,727
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 63,502	
✓	Roadway Drainage	Standard Internal System	15%	\$ 317,509	
✓	Illumination		6%	\$ 127,004	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 105,836	
✓	Sewer	Minor Adjustments	2%	\$ 42,335	
✓	Basic Landscaping and Irrigation		4%	\$ 84,669	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 740,854	
Paving and Allowance Subtotal:				\$	2,857,581
Construction Contingency:				15%	\$ 428,637
Mobilization				6%	\$ 171,455
Prep ROW				3%	\$ 85,727
Construction Cost TOTAL:				\$	3,544,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,544,000
Engineering/Survey/Testing:		20%	\$ 708,800
ROW/Easement Acquisition:		20%	\$ 708,800
Project Subtotal:			\$ 4,962,000
Impact Fee Project Cost TOTAL			\$ 4,962,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-16
Name:	Austin Street / BUS SH 123	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	IH 10 Frontage Road to SH 123 Bypass			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	6780			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	49,720	cy	\$ 15.00	\$ 745,800
205	4" Type D Asphalt	42,187	ton	\$ 30.00	\$ 1,265,600
305	15" Crushed Limestone Flexible Base Material	48,213	sy	\$ 70.00	\$ 3,374,933
405	6" Lime Stabilization (with Lime @ 27#/sy)	48,213	sy	\$ 5.00	\$ 241,067
505	4" Topsoil	15,067	sy	\$ 4.00	\$ 60,267
605	5' Concrete Sidewalk	67,800	sf	\$ 8.00	\$ 542,400
705	Turn Lanes and Median Openings	5,025	sy	\$ 105.00	\$ 527,633
Paving Construction Cost Subtotal:					\$ 6,757,700
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	337,885
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	202,731
✓	Roadway Drainage	Standard Internal System	15%	\$	1,013,655
✓	Illumination		6%	\$	405,462
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	337,885
✓	Sewer	Minor Adjustments	2%	\$	135,154
✓	Basic Landscaping and Irrigation		4%	\$	270,308
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,703,080	
Paving and Allowance Subtotal:				\$	9,460,779
Construction Contingency:				15%	\$ 1,419,117
Mobilization				6%	\$ 567,647
Prep ROW				5%	\$ 473,039
Construction Cost TOTAL:					\$ 11,921,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 11,921,000
Engineering/Survey/Testing:		20%	\$ 2,384,200
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 14,306,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,861,200

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	A-17
Name:	Link Road	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 to City Limits			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	3840			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	26,453	cy	\$ 15.00	\$ 396,800
202	4" Type D Asphalt	24,320	ton	\$ 30.00	\$ 729,600
302	15" Crushed Limestone Flexible Base Material	26,027	sy	\$ 70.00	\$ 1,821,867
402	6" Lime Stabilization (with Lime @ 27#/sy)	26,027	sy	\$ 5.00	\$ 130,133
502	4" Topsoil	4,693	sy	\$ 4.00	\$ 18,773
602	5' Concrete Sidewalk	38,400	sf	\$ 8.00	\$ 307,200
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 3,404,373
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	170,219
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	102,131
✓	Roadway Drainage	Standard Internal System	15%	\$	510,656
✓	Illumination		6%	\$	204,262
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	170,219
✓	Sewer	Minor Adjustments	2%	\$	68,087
✓	Basic Landscaping and Irrigation		4%	\$	136,175
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,361,749
Paving and Allowance Subtotal:				\$	4,766,123
Construction Contingency:				15%	\$ 714,918
Mobilization				6%	\$ 285,967
Prep ROW				5%	\$ 238,306
Construction Cost TOTAL:				\$	6,006,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,006,000
Engineering/Survey/Testing:		20%	\$ 1,201,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 600,600
Project Subtotal:			\$ 7,808,000
Impact Fee Project Cost TOTAL			\$ 7,808,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-1
Name:	FM 20 (1)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 to 1067' E of SH 123			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	2175			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	14,983	cy	\$ 15.00	\$ 224,750
202	4" Type D Asphalt	13,775	ton	\$ 30.00	\$ 413,250
302	15" Crushed Limestone Flexible Base Material	14,742	sy	\$ 70.00	\$ 1,031,917
402	6" Lime Stabilization (with Lime @ 27#/sy)	14,742	sy	\$ 5.00	\$ 73,708
502	4" Topsoil	2,658	sy	\$ 4.00	\$ 10,633
602	5' Concrete Sidewalk	21,750	sf	\$ 8.00	\$ 174,000
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,928,258
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	96,413
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	57,848
✓	Roadway Drainage	Standard Internal System	15%	\$	289,239
✓	Illumination		6%	\$	115,696
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	96,413
✓	Sewer	Minor Adjustments	2%	\$	38,565
✓	Basic Landscaping and Irrigation		4%	\$	77,130
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 771,303	
Paving and Allowance Subtotal:				\$	2,699,562
Construction Contingency:				15%	\$ 404,934
Mobilization				6%	\$ 161,974
Prep ROW				5%	\$ 134,978
Construction Cost TOTAL:				\$	3,402,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,402,000
Engineering/Survey/Testing:		20%	\$ 680,400
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 4,083,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 816,600

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-2
Name:	FM 20 (2)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	1067' E of SH 123 to City Limits			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	6210			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	42,780	cy	\$ 15.00	\$ 641,700
202	4" Type D Asphalt	39,330	ton	\$ 30.00	\$ 1,179,900
302	15" Crushed Limestone Flexible Base Material	42,090	sy	\$ 70.00	\$ 2,946,300
402	6" Lime Stabilization (with Lime @ 27#/sy)	42,090	sy	\$ 5.00	\$ 210,450
502	4" Topsoil	7,590	sy	\$ 4.00	\$ 30,360
602	5' Concrete Sidewalk	62,100	sf	\$ 8.00	\$ 496,800
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 5,505,510
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	275,276
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	165,165
✓	Roadway Drainage	Standard Internal System	15%	\$	825,827
✓	Illumination		6%	\$	330,331
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	275,276
✓	Sewer	Minor Adjustments	2%	\$	110,110
✓	Basic Landscaping and Irrigation		4%	\$	220,220
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	2,202,204
Paving and Allowance Subtotal:				\$	7,707,714
Construction Contingency:				15%	\$ 1,156,157
Mobilization				6%	\$ 462,463
Prep ROW				5%	\$ 385,386
Construction Cost TOTAL:				\$	9,712,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 9,712,000
Engineering/Survey/Testing:		20%	\$ 1,942,400
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 11,655,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,331,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-3
Name:	SH 123 Bypass	This project consists of the reconstruction of the existing pavement to a six lane divided parkway.		
Limits:	SH 123 to IH 10			
Impact Fee Class:	6D_(180)			
Ultimate Class:	PKWY			
Length (lf):	8700			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	81,200	cy	\$ 15.00	\$ 1,218,000
207	4" Type D Asphalt	71,533	ton	\$ 30.00	\$ 2,146,000
307	15" Crushed Limestone Flexible Base Material	79,267	sy	\$ 70.00	\$ 5,548,667
407	6" Lime Stabilization (with Lime @ 27#/sy)	79,267	sy	\$ 5.00	\$ 396,333
507	4" Topsoil	77,333	sy	\$ 4.00	\$ 309,333
607	12' Shared Use Path	208,800	sf	\$ 8.00	\$ 1,670,400
707	Turn Lanes and Median Openings	9,139	sy	\$ 105.00	\$ 959,636
Paving Construction Cost Subtotal:					\$ 12,248,370
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	612,418
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	367,451
✓	Roadway Drainage	Standard Internal System	15%	\$	1,837,255
✓	Illumination		6%	\$	734,902
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	612,418
✓	Sewer	Minor Adjustments	2%	\$	244,967
✓	Basic Landscaping and Irrigation		4%	\$	489,935
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 4,899,348	
Paving and Allowance Subtotal:				\$ 17,147,718	
Construction Contingency:				15%	\$ 2,572,158
Mobilization				6%	\$ 1,028,863
Prep ROW				5%	\$ 857,386
Construction Cost TOTAL:				\$ 21,607,000	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 21,607,000
Engineering/Survey/Testing:		20%	\$ 4,321,400
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 25,929,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 5,185,800

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-4
Name:	Strempe Road (2)	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	SH 123 to SH 123 Bypass			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	2465			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	18,077	cy	\$ 15.00	\$ 271,150
205	4" Type D Asphalt	15,338	ton	\$ 30.00	\$ 460,133
305	15" Crushed Limestone Flexible Base Material	17,529	sy	\$ 70.00	\$ 1,227,022
405	6" Lime Stabilization (with Lime @ 27#/sy)	17,529	sy	\$ 5.00	\$ 87,644
505	4" Topsoil	5,478	sy	\$ 4.00	\$ 21,911
605	5' Concrete Sidewalk	24,650	sf	\$ 8.00	\$ 197,200
705	Turn Lanes and Median Openings	1,827	sy	\$ 105.00	\$ 191,831
Paving Construction Cost Subtotal:					\$ 2,456,892
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	122,845
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	73,707
✓	Roadway Drainage	Standard Internal System	15%	\$	368,534
✓	Illumination		6%	\$	147,414
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	122,845
✓	Sewer	Minor Adjustments	2%	\$	49,138
✓	Basic Landscaping and Irrigation		4%	\$	98,276
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	982,757
Paving and Allowance Subtotal:				\$	3,439,649
Construction Contingency:				15%	\$ 515,947
Mobilization				6%	\$ 206,379
Prep ROW				5%	\$ 171,982
Construction Cost TOTAL:				\$	4,334,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,334,000
Engineering/Survey/Testing:		20%	\$ 866,800
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 433,400
Project Subtotal:			\$ 5,635,000
Impact Fee Project Cost TOTAL			\$ 5,635,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-5
Name:	Strempe Road (3)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 Bypass to 825' E of SH 123 Bypass			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	820			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	5,649	cy	\$ 15.00	\$ 84,733
202	4" Type D Asphalt	5,193	ton	\$ 30.00	\$ 155,800
302	15" Crushed Limestone Flexible Base Material	5,558	sy	\$ 70.00	\$ 389,044
402	6" Lime Stabilization (with Lime @ 27#/sy)	5,558	sy	\$ 5.00	\$ 27,789
502	4" Topsoil	1,002	sy	\$ 4.00	\$ 4,009
602	5' Concrete Sidewalk	8,200	sf	\$ 8.00	\$ 65,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 726,976
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	36,349
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	21,809
✓	Roadway Drainage	Standard Internal System	15%	\$	109,046
✓	Illumination		6%	\$	43,619
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	36,349
✓	Sewer	Minor Adjustments	2%	\$	14,540
✓	Basic Landscaping and Irrigation		4%	\$	29,079
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	290,790
Paving and Allowance Subtotal:				\$	1,017,766
Construction Contingency:				15%	\$ 152,665
Mobilization				6%	\$ 61,066
Prep ROW				5%	\$ 50,888
Construction Cost TOTAL:				\$	1,283,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,283,000
Engineering/Survey/Testing:		20%	\$ 256,600
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 128,300
Project Subtotal:			\$ 1,668,000
Impact Fee Project Cost TOTAL			\$ 1,668,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-6
Name:	Martindale Rd (1)	This project consists of the construction of a new four lane undivided major collector.		
Limits:	825' E of SH 123 Bypass to 170' W of Parkwood Rd			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	885			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	6,097	cy	\$ 15.00	\$ 91,450
202	4" Type D Asphalt	5,605	ton	\$ 30.00	\$ 168,150
302	15" Crushed Limestone Flexible Base Material	5,998	sy	\$ 70.00	\$ 419,883
402	6" Lime Stabilization (with Lime @ 27#/sy)	5,998	sy	\$ 5.00	\$ 29,992
502	4" Topsoil	1,082	sy	\$ 4.00	\$ 4,327
602	5' Concrete Sidewalk	8,850	sf	\$ 8.00	\$ 70,800
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 784,602
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 23,538	
✓	Roadway Drainage	Standard Internal System	15%	\$ 117,690	
✓	Illumination		6%	\$ 47,076	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 39,230	
✓	Sewer	Minor Adjustments	2%	\$ 15,692	
✓	Basic Landscaping and Irrigation		4%	\$ 31,384	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 274,611	
Paving and Allowance Subtotal:				\$	1,059,212
Construction Contingency:				15%	\$ 158,882
Mobilization				6%	\$ 63,553
Prep ROW				3%	\$ 31,776
Construction Cost TOTAL:				\$	1,314,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,314,000
Engineering/Survey/Testing:		20%	\$ 262,800
ROW/Easement Acquisition:		20%	\$ 262,800
Project Subtotal:			\$ 1,840,000
Impact Fee Project Cost TOTAL			\$ 1,840,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-7
Name:	Martindale Rd (2)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	170' W of Parkwood Rd to 160' E of Almond Crk			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	975			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	6,717	cy	\$ 15.00	\$ 100,750
202	4" Type D Asphalt	6,175	ton	\$ 30.00	\$ 185,250
302	15" Crushed Limestone Flexible Base Material	6,608	sy	\$ 70.00	\$ 462,583
402	6" Lime Stabilization (with Lime @ 27#/sy)	6,608	sy	\$ 5.00	\$ 33,042
502	4" Topsoil	1,192	sy	\$ 4.00	\$ 4,767
602	5' Concrete Sidewalk	9,750	sf	\$ 8.00	\$ 78,000
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 864,392
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	43,220
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	25,932
✓	Roadway Drainage	Standard Internal System	15%	\$	129,659
✓	Illumination		6%	\$	51,864
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	43,220
✓	Sewer	Minor Adjustments	2%	\$	17,288
✓	Basic Landscaping and Irrigation		4%	\$	34,576
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 345,757	
Paving and Allowance Subtotal:				\$	1,210,148
Construction Contingency:				15%	\$ 181,522
Mobilization				6%	\$ 72,609
Prep ROW				5%	\$ 60,507
Construction Cost TOTAL:				\$	1,525,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,525,000
Engineering/Survey/Testing:		20%	\$ 305,000
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 1,830,000
Impact Fee Project Cost TOTAL			\$ 1,830,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-8
Name:	Martindale Rd (3)	This project consists of the construction of a new four lane undivided major collector.		
Limits:	160' E of Almond Crk to Martindale Rd			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	345			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	2,377	cy	\$ 15.00	\$ 35,650
202	4" Type D Asphalt	2,185	ton	\$ 30.00	\$ 65,550
302	15" Crushed Limestone Flexible Base Material	2,338	sy	\$ 70.00	\$ 163,683
402	6" Lime Stabilization (with Lime @ 27#/sy)	2,338	sy	\$ 5.00	\$ 11,692
502	4" Topsoil	422	sy	\$ 4.00	\$ 1,687
602	5' Concrete Sidewalk	3,450	sf	\$ 8.00	\$ 27,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 305,862
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 9,176	
✓	Roadway Drainage	Standard Internal System	15%	\$ 45,879	
✓	Illumination		6%	\$ 18,352	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 15,293	
✓	Sewer	Minor Adjustments	2%	\$ 6,117	
✓	Basic Landscaping and Irrigation		4%	\$ 12,234	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 107,052	
Paving and Allowance Subtotal:				\$	412,913
Construction Contingency:				15%	\$ 61,937
Mobilization				6%	\$ 24,775
Prep ROW				3%	\$ 12,387
Construction Cost TOTAL:				\$	513,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 513,000
Engineering/Survey/Testing:		20%	\$ 102,600
ROW/Easement Acquisition:		20%	\$ 102,600
Project Subtotal:			\$ 719,000
Impact Fee Project Cost TOTAL			\$ 719,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-9
Name:	Martindale Rd (4)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	156' NE of Twin Oak Road to 1300' NE of Twin Oak Road			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	1215			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	8,370	cy	\$ 15.00	\$ 125,550
202	4" Type D Asphalt	7,695	ton	\$ 30.00	\$ 230,850
302	15" Crushed Limestone Flexible Base Material	8,235	sy	\$ 70.00	\$ 576,450
402	6" Lime Stabilization (with Lime @ 27#/sy)	8,235	sy	\$ 5.00	\$ 41,175
502	4" Topsoil	1,485	sy	\$ 4.00	\$ 5,940
602	5' Concrete Sidewalk	12,150	sf	\$ 8.00	\$ 97,200
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,077,165
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	53,858
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	32,315
✓	Roadway Drainage	Standard Internal System	15%	\$	161,575
✓	Illumination		6%	\$	64,630
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	53,858
✓	Sewer	Minor Adjustments	2%	\$	21,543
✓	Basic Landscaping and Irrigation		4%	\$	43,087
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	430,866
Paving and Allowance Subtotal:				\$	1,508,031
Construction Contingency:				15%	\$ 226,205
Mobilization				6%	\$ 90,482
Prep ROW				5%	\$ 75,402
Construction Cost TOTAL:				\$	1,901,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,901,000
Engineering/Survey/Testing:		20%	\$ 380,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 190,100
Project Subtotal:			\$ 2,472,000
Impact Fee Project Cost TOTAL			\$ 2,472,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No. B-10
Name:	Future Major Collector C	This project consists of the construction of a new four lane undivided major collector.	
Limits:	1300' NE of Twin Oak Road to FM 20		
Impact Fee Class:	4U_(80)		
Ultimate Class:	MAJC		
Length (lf):	3145		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	21,666	cy	\$ 15.00	\$ 324,983
202	4" Type D Asphalt	19,918	ton	\$ 30.00	\$ 597,550
302	15" Crushed Limestone Flexible Base Material	21,316	sy	\$ 70.00	\$ 1,492,128
402	6" Lime Stabilization (with Lime @ 27#/sy)	21,316	sy	\$ 5.00	\$ 106,581
502	4" Topsoil	3,844	sy	\$ 4.00	\$ 15,376
602	5' Concrete Sidewalk	31,450	sf	\$ 8.00	\$ 251,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 2,788,217
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 83,647	
✓	Roadway Drainage	Standard Internal System	15%	\$ 418,233	
✓	Illumination		6%	\$ 167,293	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 139,411	
✓	Sewer	Minor Adjustments	2%	\$ 55,764	
✓	Basic Landscaping and Irrigation		4%	\$ 111,529	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 975,876	
Paving and Allowance Subtotal:				\$	3,764,093
Construction Contingency:				15%	\$ 564,614
Mobilization				6%	\$ 225,846
Prep ROW				3%	\$ 112,923
Construction Cost TOTAL:				\$	4,668,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,668,000
Engineering/Survey/Testing:		20%	\$ 933,600
ROW/Easement Acquisition:		20%	\$ 933,600
Project Subtotal:			\$ 6,536,000
Impact Fee Project Cost TOTAL			\$ 6,536,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-11
Name:	Heideke Street (1)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 to IH 10 Frontage Road			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	1765			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	12,159	cy	\$ 15.00	\$ 182,383
202	4" Type D Asphalt	11,178	ton	\$ 30.00	\$ 335,350
302	15" Crushed Limestone Flexible Base Material	11,963	sy	\$ 70.00	\$ 837,394
402	6" Lime Stabilization (with Lime @ 27#/sy)	11,963	sy	\$ 5.00	\$ 59,814
502	4" Topsoil	2,157	sy	\$ 4.00	\$ 8,629
602	5' Concrete Sidewalk	17,650	sf	\$ 8.00	\$ 141,200
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,564,771
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	78,239
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	46,943
✓	Roadway Drainage	Standard Internal System	15%	\$	234,716
✓	Illumination		6%	\$	93,886
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	78,239
✓	Sewer	Minor Adjustments	2%	\$	31,295
✓	Basic Landscaping and Irrigation		4%	\$	62,591
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 625,908	
Paving and Allowance Subtotal:				\$	2,190,679
Construction Contingency:				15%	\$ 328,602
Mobilization				6%	\$ 131,441
Prep ROW				5%	\$ 109,534
Construction Cost TOTAL:				\$	2,761,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,761,000
Engineering/Survey/Testing:		20%	\$ 552,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 276,100
Project Subtotal:			\$ 3,590,000
Impact Fee Project Cost TOTAL			\$ 3,590,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-12
Name:	Glenewinkel Road	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 to 2,970' E of SH 123			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	2965			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	20,426	cy	\$ 15.00	\$ 306,383
202	4" Type D Asphalt	18,778	ton	\$ 30.00	\$ 563,350
302	15" Crushed Limestone Flexible Base Material	20,096	sy	\$ 70.00	\$ 1,406,728
402	6" Lime Stabilization (with Lime @ 27#/sy)	20,096	sy	\$ 5.00	\$ 100,481
502	4" Topsoil	3,624	sy	\$ 4.00	\$ 14,496
602	5' Concrete Sidewalk	29,650	sf	\$ 8.00	\$ 237,200
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 2,628,637
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	131,432
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	78,859
✓	Roadway Drainage	Standard Internal System	15%	\$	394,296
✓	Illumination		6%	\$	157,718
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	131,432
✓	Sewer	Minor Adjustments	2%	\$	52,573
✓	Basic Landscaping and Irrigation		4%	\$	105,145
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,051,455
Paving and Allowance Subtotal:				\$	3,680,092
Construction Contingency:				15%	\$ 552,014
Mobilization				6%	\$ 220,806
Prep ROW				5%	\$ 184,005
Construction Cost TOTAL:				\$	4,637,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,637,000
Engineering/Survey/Testing:		20%	\$ 927,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 463,700
Project Subtotal:			\$ 6,029,000
Impact Fee Project Cost TOTAL			\$ 6,029,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No. B-13
Name:	Laubach Road	This project consists of the reconstruction of the existing pavement to a five lane undivided arterial.	
Limits:	SH 123 to 2,000' E of SH 123		
Impact Fee Class:	5U_(120)		
Ultimate Class:	ARTE		
Length (lf):	2000		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	16,444	cy	\$ 15.00	\$ 246,667
204	4" Type D Asphalt	15,333	ton	\$ 30.00	\$ 460,000
304	15" Crushed Limestone Flexible Base Material	16,222	sy	\$ 70.00	\$ 1,135,556
404	6" Lime Stabilization (with Lime @ 27#/sy)	16,222	sy	\$ 5.00	\$ 81,111
504	4" Topsoil	8,667	sy	\$ 4.00	\$ 34,667
604	5' Concrete Sidewalk	20,000	sf	\$ 8.00	\$ 160,000
704	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 2,118,000
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	105,900
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	63,540
✓	Roadway Drainage	Standard Internal System	15%	\$	317,700
✓	Illumination		6%	\$	127,080
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	105,900
✓	Sewer	Minor Adjustments	2%	\$	42,360
✓	Basic Landscaping and Irrigation		4%	\$	84,720
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 847,200	
Paving and Allowance Subtotal:				\$ 2,965,200	
Construction Contingency:				15%	\$ 444,780
Mobilization				6%	\$ 177,912
Prep ROW				5%	\$ 148,260
Construction Cost TOTAL:				\$ 3,737,000	

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,737,000
Engineering/Survey/Testing:		20%	\$ 747,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 373,700
Project Subtotal:			\$ 4,859,000
Impact Fee Project Cost TOTAL			\$ 4,859,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	B-14
Name:	Austin Street / BUS SH 123	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	IH 10 Frontage Road to SH 123 Bypass			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	6780			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	49,720	cy	\$ 15.00	\$ 745,800
205	4" Type D Asphalt	42,187	ton	\$ 30.00	\$ 1,265,600
305	15" Crushed Limestone Flexible Base Material	48,213	sy	\$ 70.00	\$ 3,374,933
405	6" Lime Stabilization (with Lime @ 27#/sy)	48,213	sy	\$ 5.00	\$ 241,067
505	4" Topsoil	15,067	sy	\$ 4.00	\$ 60,267
605	5' Concrete Sidewalk	67,800	sf	\$ 8.00	\$ 542,400
705	Turn Lanes and Median Openings	5,025	sy	\$ 105.00	\$ 527,633
Paving Construction Cost Subtotal:					\$ 6,757,700
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	337,885
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	202,731
✓	Roadway Drainage	Standard Internal System	15%	\$	1,013,655
✓	Illumination		6%	\$	405,462
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	337,885
✓	Sewer	Minor Adjustments	2%	\$	135,154
✓	Basic Landscaping and Irrigation		4%	\$	270,308
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,703,080	
Paving and Allowance Subtotal:				\$	9,460,779
Construction Contingency:				15%	\$ 1,419,117
Mobilization				6%	\$ 567,647
Prep ROW				5%	\$ 473,039
Construction Cost TOTAL:					\$ 11,921,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 11,921,000
Engineering/Survey/Testing:		20%	\$ 2,384,200
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 14,306,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,861,200

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No. B-15
Name:	Outer Loop (3)	This project consists of the reconstruction of the existing pavement to a six lane divided parkway.	
Limits:	1,300' W of Heinemeyer Road to Boenig Road		
Impact Fee Class:	6D_(180)		
Ultimate Class:	PKWY		
Length (lf):	3375		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	31,500	cy	\$ 15.00	\$ 472,500
207	4" Type D Asphalt	27,750	ton	\$ 30.00	\$ 832,500
307	15" Crushed Limestone Flexible Base Material	30,750	sy	\$ 70.00	\$ 2,152,500
407	6" Lime Stabilization (with Lime @ 27#/sy)	30,750	sy	\$ 5.00	\$ 153,750
507	4" Topsoil	30,000	sy	\$ 4.00	\$ 120,000
607	12' Shared Use Path	81,000	sf	\$ 8.00	\$ 648,000
707	Turn Lanes and Median Openings	3,545	sy	\$ 105.00	\$ 372,273
Paving Construction Cost Subtotal:					\$ 4,751,523
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	237,576
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	142,546
✓	Roadway Drainage	Standard Internal System	15%	\$	712,728
✓	Illumination		6%	\$	285,091
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	237,576
✓	Sewer	Minor Adjustments	2%	\$	95,030
✓	Basic Landscaping and Irrigation		4%	\$	190,061
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,900,609	
Paving and Allowance Subtotal:				\$	6,652,132
Construction Contingency:				15%	\$ 997,820
Mobilization				6%	\$ 399,128
Prep ROW				5%	\$ 332,607
Construction Cost TOTAL:				\$	8,382,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,382,000
Engineering/Survey/Testing:		20%	\$ 1,676,400
ROW/Easement Acquisition:		20%	\$ 1,676,400
Project Subtotal:			\$ 11,735,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,347,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-1
Name:	Austin Street	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	Kingsbury Street to IH 10 Frontage Road			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	6710			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	49,207	cy	\$ 15.00	\$ 738,100
205	4" Type D Asphalt	41,751	ton	\$ 30.00	\$ 1,252,533
305	15" Crushed Limestone Flexible Base Material	47,716	sy	\$ 70.00	\$ 3,340,089
405	6" Lime Stabilization (with Lime @ 27#/sy)	47,716	sy	\$ 5.00	\$ 238,578
505	4" Topsoil	14,911	sy	\$ 4.00	\$ 59,644
605	5' Concrete Sidewalk	67,100	sf	\$ 8.00	\$ 536,800
705	Turn Lanes and Median Openings	4,973	sy	\$ 105.00	\$ 522,185
Paving Construction Cost Subtotal:					\$ 6,687,930
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	334,396
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	200,638
✓	Roadway Drainage	Standard Internal System	15%	\$	1,003,189
✓	Illumination		6%	\$	401,276
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	334,396
✓	Sewer	Minor Adjustments	2%	\$	133,759
✓	Basic Landscaping and Irrigation		4%	\$	267,517
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,675,172	
Paving and Allowance Subtotal:				\$	9,363,102
Construction Contingency:				15%	\$ 1,404,465
Mobilization				6%	\$ 561,786
Prep ROW				5%	\$ 468,155
Construction Cost TOTAL:					\$ 11,798,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 11,798,000
Engineering/Survey/Testing:		20%	\$ 2,359,600
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 14,158,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,831,600

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-2
Name:	Fleming Drive	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	FM 78 to Kingsbury Street			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	3550			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	26,033	cy	\$ 15.00	\$ 390,500
205	4" Type D Asphalt	22,089	ton	\$ 30.00	\$ 662,667
305	15" Crushed Limestone Flexible Base Material	25,244	sy	\$ 70.00	\$ 1,767,111
405	6" Lime Stabilization (with Lime @ 27#/sy)	25,244	sy	\$ 5.00	\$ 126,222
505	4" Topsoil	7,889	sy	\$ 4.00	\$ 31,556
605	5' Concrete Sidewalk	35,500	sf	\$ 8.00	\$ 284,000
705	Turn Lanes and Median Openings	2,631	sy	\$ 105.00	\$ 276,268
Paving Construction Cost Subtotal:					\$ 3,538,324
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	176,916
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	106,150
✓	Roadway Drainage	Standard Internal System	15%	\$	530,749
✓	Illumination		6%	\$	212,299
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	176,916
✓	Sewer	Minor Adjustments	2%	\$	70,766
✓	Basic Landscaping and Irrigation		4%	\$	141,533
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,415,329	
Paving and Allowance Subtotal:				\$	4,953,653
Construction Contingency:				15%	\$ 743,048
Mobilization				6%	\$ 297,219
Prep ROW				5%	\$ 247,683
Construction Cost TOTAL:				\$	6,242,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,242,000
Engineering/Survey/Testing:		20%	\$ 1,248,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 624,200
Project Subtotal:			\$ 8,115,000
Impact Fee Project Cost TOTAL			\$ 8,115,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-3
Name:	Vaughn Ave, Hidalgo St	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	US 90 ALTE to FM 78			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	5705			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	25,356	cy	\$ 15.00	\$ 380,333
201	3" Type D Asphalt	22,186	ton	\$ 22.50	\$ 499,188
301	12" Crushed Limestone Flexible Base Material	24,722	sy	\$ 56.00	\$ 1,384,413
401	6" Lime Stabilization (with Lime @ 27#/sy)	24,722	sy	\$ 5.00	\$ 123,608
501	4" Topsoil	5,071	sy	\$ 4.00	\$ 20,284
601	5' Concrete Sidewalk + 10' Shared Use Path	85,575	sf	\$ 8.00	\$ 684,600
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 3,092,427
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	154,621
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	92,773
✓	Roadway Drainage	Standard Internal System	15%	\$	463,864
✓	Illumination		6%	\$	185,546
✓	Special Drainage Structures	Bridge Crossing	0%	\$	400,000
✓	Water	Minor Adjustments	5%	\$	154,621
✓	Sewer	Minor Adjustments	2%	\$	61,849
✓	Basic Landscaping and Irrigation		4%	\$	123,697
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,636,971
Paving and Allowance Subtotal:				\$	4,729,398
Construction Contingency:				15%	\$ 709,410
Mobilization				6%	\$ 283,764
Prep ROW				5%	\$ 236,470
Construction Cost TOTAL:				\$	5,960,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,960,000
Engineering/Survey/Testing:		20%	\$ 1,192,000
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 596,000
Project Subtotal:			\$ 7,748,000
Impact Fee Project Cost TOTAL			\$ 7,748,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-4
Name:	C H Matthies Jr	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	IH 10 Frontage Road to Lawson Street			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	4120			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	18,311	cy	\$ 15.00	\$ 274,667
201	3" Type D Asphalt	16,022	ton	\$ 22.50	\$ 360,500
301	12" Crushed Limestone Flexible Base Material	17,853	sy	\$ 56.00	\$ 999,787
401	6" Lime Stabilization (with Lime @ 27#/sy)	17,853	sy	\$ 5.00	\$ 89,267
501	4" Topsoil	3,662	sy	\$ 4.00	\$ 14,649
601	5' Concrete Sidewalk + 10' Shared Use Path	61,800	sf	\$ 8.00	\$ 494,400
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 2,233,269
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	111,663
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	66,998
✓	Roadway Drainage	Standard Internal System	15%	\$	334,990
✓	Illumination		6%	\$	133,996
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	111,663
✓	Sewer	Minor Adjustments	2%	\$	44,665
✓	Basic Landscaping and Irrigation		4%	\$	89,331
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	893,308
Paving and Allowance Subtotal:				\$	3,126,576
Construction Contingency:				15%	\$ 468,986
Mobilization				6%	\$ 187,595
Prep ROW				5%	\$ 156,329
Construction Cost TOTAL:				\$	3,940,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,940,000
Engineering/Survey/Testing:		20%	\$ 788,000
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 394,000
Project Subtotal:			\$ 5,122,000
Impact Fee Project Cost TOTAL			\$ 5,122,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-5
Name:	Lawson Street	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	C H Matthies Jr to Kingsbury Street			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	825			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	3,667	cy	\$ 15.00	\$ 55,000
201	3" Type D Asphalt	3,208	ton	\$ 22.50	\$ 72,188
301	12" Crushed Limestone Flexible Base Material	3,575	sy	\$ 56.00	\$ 200,200
401	6" Lime Stabilization (with Lime @ 27#/sy)	3,575	sy	\$ 5.00	\$ 17,875
501	4" Topsoil	733	sy	\$ 4.00	\$ 2,933
601	5' Concrete Sidewalk + 10' Shared Use Path	12,375	sf	\$ 8.00	\$ 99,000
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 447,196
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	22,360
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	13,416
✓	Roadway Drainage	Standard Internal System	15%	\$	67,079
✓	Illumination		6%	\$	26,832
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	22,360
✓	Sewer	Minor Adjustments	2%	\$	8,944
✓	Basic Landscaping and Irrigation		4%	\$	17,888
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	178,878
Paving and Allowance Subtotal:				\$	626,074
Construction Contingency:				15%	\$ 93,911
Mobilization				6%	\$ 37,564
Prep ROW				5%	\$ 31,304
Construction Cost TOTAL:				\$	789,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 789,000
Engineering/Survey/Testing:		20%	\$ 157,800
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 78,900
Project Subtotal:			\$ 1,026,000
Impact Fee Project Cost TOTAL			\$ 1,026,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-6
Name:	B and B Road (1)	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	Inner Loop to 930' S of MI Mountain			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	1910			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	8,489	cy	\$ 15.00	\$ 127,333
201	3" Type D Asphalt	7,428	ton	\$ 22.50	\$ 167,125
301	12" Crushed Limestone Flexible Base Material	8,277	sy	\$ 56.00	\$ 463,493
401	6" Lime Stabilization (with Lime @ 27#/sy)	8,277	sy	\$ 5.00	\$ 41,383
501	4" Topsoil	1,698	sy	\$ 4.00	\$ 6,791
601	5' Concrete Sidewalk + 10' Shared Use Path	28,650	sf	\$ 8.00	\$ 229,200
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 1,035,326
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	51,766
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	31,060
✓	Roadway Drainage	Standard Internal System	15%	\$	155,299
✓	Illumination		6%	\$	62,120
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	51,766
✓	Sewer	Minor Adjustments	2%	\$	20,707
✓	Basic Landscaping and Irrigation		4%	\$	41,413
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 414,130	
Paving and Allowance Subtotal:				\$	1,449,457
Construction Contingency:				15%	\$ 217,418
Mobilization				6%	\$ 86,967
Prep ROW				5%	\$ 72,473
Construction Cost TOTAL:				\$	1,827,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,827,000
Engineering/Survey/Testing:		20%	\$ 365,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 182,700
Project Subtotal:			\$ 2,376,000
Impact Fee Project Cost TOTAL			\$ 2,376,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-7
Name:	Rodeo Run	This project consists of the construction of a new three lane undivided collector.		
Limits:	3,615' W of SH 46 to SH 46			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	3610			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	16,044	cy	\$ 15.00	\$ 240,667
201	3" Type D Asphalt	14,039	ton	\$ 22.50	\$ 315,875
301	12" Crushed Limestone Flexible Base Material	15,643	sy	\$ 56.00	\$ 876,027
401	6" Lime Stabilization (with Lime @ 27#/sy)	15,643	sy	\$ 5.00	\$ 78,217
501	4" Topsoil	3,209	sy	\$ 4.00	\$ 12,836
601	5' Concrete Sidewalk + 10' Shared Use Path	54,150	sf	\$ 8.00	\$ 433,200
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 1,956,821
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 58,705	
✓	Roadway Drainage	Standard Internal System	15%	\$ 293,523	
✓	Illumination		6%	\$ 117,409	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 97,841	
✓	Sewer	Minor Adjustments	2%	\$ 39,136	
✓	Basic Landscaping and Irrigation		4%	\$ 78,273	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 684,887	
Paving and Allowance Subtotal:				\$	2,641,708
Construction Contingency:				15%	\$ 396,256
Mobilization				6%	\$ 158,502
Prep ROW				3%	\$ 79,251
Construction Cost TOTAL:				\$	3,276,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,276,000
Engineering/Survey/Testing:		20%	\$ 655,200
ROW/Easement Acquisition:		20%	\$ 655,200
Project Subtotal:			\$ 4,587,000
Impact Fee Project Cost TOTAL			\$ 4,587,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-8
Name:	Huber Road (3)	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	IH 10 Frontage Road to FM 78			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	680			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	4,987	cy	\$ 15.00	\$ 74,800
205	4" Type D Asphalt	4,231	ton	\$ 30.00	\$ 126,933
305	15" Crushed Limestone Flexible Base Material	4,836	sy	\$ 70.00	\$ 338,489
405	6" Lime Stabilization (with Lime @ 27#/sy)	4,836	sy	\$ 5.00	\$ 24,178
505	4" Topsoil	1,511	sy	\$ 4.00	\$ 6,044
605	5' Concrete Sidewalk	6,800	sf	\$ 8.00	\$ 54,400
705	Turn Lanes and Median Openings	504	sy	\$ 105.00	\$ 52,919
Paving Construction Cost Subtotal:					\$ 677,763
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	33,888
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	20,333
✓	Roadway Drainage	Standard Internal System	15%	\$	101,665
✓	Illumination		6%	\$	40,666
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	33,888
✓	Sewer	Minor Adjustments	2%	\$	13,555
✓	Basic Landscaping and Irrigation		4%	\$	27,111
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	271,105
Paving and Allowance Subtotal:				\$	948,869
Construction Contingency:				15%	\$ 142,330
Mobilization				6%	\$ 56,932
Prep ROW				5%	\$ 47,443
Construction Cost TOTAL:				\$	1,196,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,196,000
Engineering/Survey/Testing:		20%	\$ 239,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 119,600
Project Subtotal:			\$ 1,555,000
Impact Fee Project Cost TOTAL			\$ 1,555,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	C-9
Name:	B and B Road (2)	This project consists of the construction of a new three lane undivided collector.		
Limits:	930' S of MI Mountain to Volunteer Street			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	1805			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	8,022	cy	\$ 15.00	\$ 120,333
201	3" Type D Asphalt	7,019	ton	\$ 22.50	\$ 157,938
301	12" Crushed Limestone Flexible Base Material	7,822	sy	\$ 56.00	\$ 438,013
401	6" Lime Stabilization (with Lime @ 27#/sy)	7,822	sy	\$ 5.00	\$ 39,108
501	4" Topsoil	1,604	sy	\$ 4.00	\$ 6,418
601	5' Concrete Sidewalk + 10' Shared Use Path	27,075	sf	\$ 8.00	\$ 216,600
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 978,410
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
Traffic Control		None Anticipated	0%	\$ -	
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 29,352	
✓	Roadway Drainage	Standard Internal System	15%	\$ 146,762	
✓	Illumination		6%	\$ 58,705	
Special Drainage Structures		None Anticipated	0%	\$ -	
✓	Water	Minor Adjustments	5%	\$ 48,921	
✓	Sewer	Minor Adjustments	2%	\$ 19,568	
✓	Basic Landscaping and Irrigation		4%	\$ 39,136	
Miscellaneous:			0%	\$ -	
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 342,444	
Paving and Allowance Subtotal:				\$	1,320,854
Construction Contingency:				15%	\$ 198,128
Mobilization				6%	\$ 79,251
Prep ROW				3%	\$ 39,626
Construction Cost TOTAL:				\$	1,638,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,638,000
Engineering/Survey/Testing:		20%	\$ 327,600
ROW/Easement Acquisition:		20%	\$ 327,600
Project Subtotal:			\$ 2,294,000
Impact Fee Project Cost TOTAL			\$ 2,294,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-1
Name:	Austin Street	This project consists of the reconstruction of the existing pavement to a four lane divided arterial.		
Limits:	Kingsbury Street to IH 10			
Impact Fee Class:	4D_(90)			
Ultimate Class:	ARTE			
Length (lf):	6710			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	49,207	cy	\$ 15.00	\$ 738,100
205	4" Type D Asphalt	41,751	ton	\$ 30.00	\$ 1,252,533
305	15" Crushed Limestone Flexible Base Material	47,716	sy	\$ 70.00	\$ 3,340,089
405	6" Lime Stabilization (with Lime @ 27#/sy)	47,716	sy	\$ 5.00	\$ 238,578
505	4" Topsoil	14,911	sy	\$ 4.00	\$ 59,644
605	5' Concrete Sidewalk	67,100	sf	\$ 8.00	\$ 536,800
705	Turn Lanes and Median Openings	4,973	sy	\$ 105.00	\$ 522,185
Paving Construction Cost Subtotal:					\$ 6,687,930
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	334,396
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	200,638
✓	Roadway Drainage	Standard Internal System	15%	\$	1,003,189
✓	Illumination		6%	\$	401,276
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	334,396
✓	Sewer	Minor Adjustments	2%	\$	133,759
✓	Basic Landscaping and Irrigation		4%	\$	267,517
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 2,675,172	
Paving and Allowance Subtotal:				\$	9,363,102
Construction Contingency:				15%	\$ 1,404,465
Mobilization				6%	\$ 561,786
Prep ROW				5%	\$ 468,155
Construction Cost TOTAL:					\$ 11,798,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 11,798,000
Engineering/Survey/Testing:		20%	\$ 2,359,600
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 14,158,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,831,600

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-2
Name:	Walnut St (1)	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	King Street to SH 123			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	3280			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	14,578	cy	\$ 15.00	\$ 218,667
201	3" Type D Asphalt	12,756	ton	\$ 22.50	\$ 287,000
301	12" Crushed Limestone Flexible Base Material	14,213	sy	\$ 56.00	\$ 795,947
401	6" Lime Stabilization (with Lime @ 27#/sy)	14,213	sy	\$ 5.00	\$ 71,067
501	4" Topsoil	2,916	sy	\$ 4.00	\$ 11,662
601	5' Concrete Sidewalk + 10' Shared Use Path	49,200	sf	\$ 8.00	\$ 393,600
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 1,777,942
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	88,897
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	53,338
✓	Roadway Drainage	Standard Internal System	15%	\$	266,691
✓	Illumination		6%	\$	106,677
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	88,897
✓	Sewer	Minor Adjustments	2%	\$	35,559
✓	Basic Landscaping and Irrigation		4%	\$	71,118
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	711,177
Paving and Allowance Subtotal:				\$	2,489,119
Construction Contingency:				15%	\$ 373,368
Mobilization				6%	\$ 149,347
Prep ROW				5%	\$ 124,456
Construction Cost TOTAL:				\$	3,137,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,137,000
Engineering/Survey/Testing:		20%	\$ 627,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 313,700
Project Subtotal:			\$ 4,079,000
Impact Fee Project Cost TOTAL			\$ 4,079,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-3
Name:	Walnut St (2)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 to Baer Creek Trail			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	4215			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	29,037	cy	\$ 15.00	\$ 435,550
202	4" Type D Asphalt	26,695	ton	\$ 30.00	\$ 800,850
302	15" Crushed Limestone Flexible Base Material	28,568	sy	\$ 70.00	\$ 1,999,783
402	6" Lime Stabilization (with Lime @ 27#/sy)	28,568	sy	\$ 5.00	\$ 142,842
502	4" Topsoil	5,152	sy	\$ 4.00	\$ 20,607
602	5' Concrete Sidewalk	42,150	sf	\$ 8.00	\$ 337,200
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 3,736,832
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	186,842
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	112,105
✓	Roadway Drainage	Standard Internal System	15%	\$	560,525
✓	Illumination		6%	\$	224,210
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	186,842
✓	Sewer	Minor Adjustments	2%	\$	74,737
✓	Basic Landscaping and Irrigation		4%	\$	149,473
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 1,494,733	
Paving and Allowance Subtotal:				\$	5,231,564
Construction Contingency:				15%	\$ 784,735
Mobilization				6%	\$ 313,894
Prep ROW				5%	\$ 261,578
Construction Cost TOTAL:				\$	6,592,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,592,000
Engineering/Survey/Testing:		20%	\$ 1,318,400
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 659,200
Project Subtotal:			\$ 8,570,000
Impact Fee Project Cost TOTAL			\$ 8,570,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-4
Name:	Meadow Lake Dr	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	Stockdale Highway to SH 123 Bypass			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	3420			
Service Area(s):	D			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	15,200	cy	\$ 15.00	\$ 228,000
201	3" Type D Asphalt	13,300	ton	\$ 22.50	\$ 299,250
301	12" Crushed Limestone Flexible Base Material	14,820	sy	\$ 56.00	\$ 829,920
401	6" Lime Stabilization (with Lime @ 27#/sy)	14,820	sy	\$ 5.00	\$ 74,100
501	4" Topsoil	3,040	sy	\$ 4.00	\$ 12,160
601	5' Concrete Sidewalk + 10' Shared Use Path	51,300	sf	\$ 8.00	\$ 410,400
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -

Paving Construction Cost Subtotal: \$ 1,853,830

Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Traffic Control	Construction Phase Traffic Control	5%	\$ 92,692
✓ Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$ 55,615
✓ Roadway Drainage	Standard Internal System	15%	\$ 278,075
✓ Illumination		6%	\$ 111,230
Special Drainage Structures	None Anticipated	0%	\$ -
✓ Water	Minor Adjustments	5%	\$ 92,692
✓ Sewer	Minor Adjustments	2%	\$ 37,077
✓ Basic Landscaping and Irrigation		4%	\$ 74,153
Miscellaneous:		0%	\$ -

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 741,532

Paving and Allowance Subtotal: \$ 2,595,362

Construction Contingency: 15% \$ 389,304

Mobilization 6% \$ 155,722

Prep ROW 5% \$ 129,768

Construction Cost TOTAL: \$ 3,271,000

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,271,000
Engineering/Survey/Testing:		20%	\$ 654,200
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 327,100

Project Subtotal: \$ 4,253,000

Impact Fee Project Cost TOTAL \$ 4,253,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-5
Name:	Heideke Street (2)	This project consists of the reconstruction of the existing pavement to a three lane undivided collector.		
Limits:	Kingsbury Street to IH 10			
Impact Fee Class:	3U_(60)			
Ultimate Class:	COL			
Length (lf):	6505			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	28,911	cy	\$ 15.00	\$ 433,667
201	3" Type D Asphalt	25,297	ton	\$ 22.50	\$ 569,188
301	12" Crushed Limestone Flexible Base Material	28,188	sy	\$ 56.00	\$ 1,578,547
401	6" Lime Stabilization (with Lime @ 27#/sy)	28,188	sy	\$ 5.00	\$ 140,942
501	4" Topsoil	5,782	sy	\$ 4.00	\$ 23,129
601	5' Concrete Sidewalk + 10' Shared Use Path	97,575	sf	\$ 8.00	\$ 780,600
701	Turn Lanes and Median Openings	0	sy	\$ 83.50	\$ -
Paving Construction Cost Subtotal:					\$ 3,526,071
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	176,304
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	105,782
✓	Roadway Drainage	Standard Internal System	15%	\$	528,911
✓	Illumination		6%	\$	211,564
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	176,304
✓	Sewer	Minor Adjustments	2%	\$	70,521
✓	Basic Landscaping and Irrigation		4%	\$	141,043
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,410,429
Paving and Allowance Subtotal:				\$	4,936,500
Construction Contingency:				15%	\$ 740,475
Mobilization				6%	\$ 296,190
Prep ROW				5%	\$ 246,825
Construction Cost TOTAL:				\$	6,220,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,220,000
Engineering/Survey/Testing:		20%	\$ 1,244,000
ROW/Easement Acquisition:	Existing Alignment (1/2 ROW)	10%	\$ 622,000
Project Subtotal:			\$ 8,086,000
Impact Fee Project Cost TOTAL			\$ 8,086,000

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-6
Name:	FM 466 (1)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	SH 123 Bypass to 950' S of Joe Carillo Blvd			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	5345			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	36,821	cy	\$ 15.00	\$ 552,317
202	4" Type D Asphalt	33,852	ton	\$ 30.00	\$ 1,015,550
302	15" Crushed Limestone Flexible Base Material	36,227	sy	\$ 70.00	\$ 2,535,906
402	6" Lime Stabilization (with Lime @ 27#/sy)	36,227	sy	\$ 5.00	\$ 181,136
502	4" Topsoil	6,533	sy	\$ 4.00	\$ 26,131
602	5' Concrete Sidewalk	53,450	sf	\$ 8.00	\$ 427,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 4,738,639
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	236,932
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	142,159
✓	Roadway Drainage	Standard Internal System	15%	\$	710,796
✓	Illumination		6%	\$	284,318
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	236,932
✓	Sewer	Minor Adjustments	2%	\$	94,773
✓	Basic Landscaping and Irrigation		4%	\$	189,546
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	1,895,456
Paving and Allowance Subtotal:				\$	6,634,095
Construction Contingency:				15%	\$ 995,114
Mobilization				6%	\$ 398,046
Prep ROW				5%	\$ 331,705
Construction Cost TOTAL:				\$	8,359,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,359,000
Engineering/Survey/Testing:		20%	\$ 1,671,800
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 10,031,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 2,006,200

NOTE: The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Seguin
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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-7
Name:	FM 466 (2)	This project consists of the reconstruction of the existing pavement to a four lane undivided major collector.		
Limits:	950' S of Joe Carillo Blvd to 330' S of Mueller Lane			
Impact Fee Class:	4U_(80)			
Ultimate Class:	MAJC			
Length (lf):	1570			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	10,816	cy	\$ 15.00	\$ 162,233
202	4" Type D Asphalt	9,943	ton	\$ 30.00	\$ 298,300
302	15" Crushed Limestone Flexible Base Material	10,641	sy	\$ 70.00	\$ 744,878
402	6" Lime Stabilization (with Lime @ 27#/sy)	10,641	sy	\$ 5.00	\$ 53,206
502	4" Topsoil	1,919	sy	\$ 4.00	\$ 7,676
602	5' Concrete Sidewalk	15,700	sf	\$ 8.00	\$ 125,600
702	Turn Lanes and Median Openings	0	sy	\$ 105.00	\$ -
Paving Construction Cost Subtotal:					\$ 1,391,892
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	69,595
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	41,757
✓	Roadway Drainage	Standard Internal System	15%	\$	208,784
✓	Illumination		6%	\$	83,514
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	69,595
✓	Sewer	Minor Adjustments	2%	\$	27,838
✓	Basic Landscaping and Irrigation		4%	\$	55,676
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$	556,757
Paving and Allowance Subtotal:				\$	1,948,649
Construction Contingency:				15%	\$ 292,297
Mobilization				6%	\$ 116,919
Prep ROW				5%	\$ 97,432
Construction Cost TOTAL:				\$	2,456,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,456,000
Engineering/Survey/Testing:		20%	\$ 491,200
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 2,948,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 589,600

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City of Seguin
2022 Roadway Impact Fee Study Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 9/22/2022

Project Information:		Description:	Project No.	D-8
Name:	FM 466 (3)	This project consists of the reconstruction of the existing pavement to a six lane divided parkway.		
Limits:	100' S of Kimbrough Road to Hollub Lane			
Impact Fee Class:	6D_(180)			
Ultimate Class:	PKWY			
Length (lf):	830			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	7,747	cy	\$ 15.00	\$ 116,200
207	4" Type D Asphalt	6,824	ton	\$ 30.00	\$ 204,733
307	15" Crushed Limestone Flexible Base Material	7,562	sy	\$ 70.00	\$ 529,356
407	6" Lime Stabilization (with Lime @ 27#/sy)	7,562	sy	\$ 5.00	\$ 37,811
507	4" Topsoil	7,378	sy	\$ 4.00	\$ 29,511
607	12' Shared Use Path	19,920	sf	\$ 8.00	\$ 159,360
707	Turn Lanes and Median Openings	872	sy	\$ 105.00	\$ 91,552
Paving Construction Cost Subtotal:					\$ 1,168,523
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
✓	Traffic Control	Construction Phase Traffic Control	5%	\$	58,426
✓	Pavement Markings/Signs/Posts	Includes Striping/Signs for Bicycle Facilities	3%	\$	35,056
✓	Roadway Drainage	Standard Internal System	15%	\$	175,278
✓	Illumination		6%	\$	70,111
	Special Drainage Structures	None Anticipated	0%	\$	-
✓	Water	Minor Adjustments	5%	\$	58,426
✓	Sewer	Minor Adjustments	2%	\$	23,370
✓	Basic Landscaping and Irrigation		4%	\$	46,741
	Miscellaneous:		0%	\$	-
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	\$ 467,409	
Paving and Allowance Subtotal:				\$	1,635,932
Construction Contingency:				15%	\$ 245,390
Mobilization				6%	\$ 98,156
Prep ROW				5%	\$ 81,797
Construction Cost TOTAL:				\$	2,062,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,062,000
Engineering/Survey/Testing:		20%	\$ 412,400
ROW/Easement Acquisition:	NO ROW ACQUISITION	0%	\$ -
Project Subtotal:			\$ 2,475,000
Impact Fee Project Cost TOTAL (TxDOT 20%)			\$ 495,000

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B. CIP Service Units of Supply

City of Seguin - 2022 Roadway Impact Fee Study Update
CIP Service Units of Supply

Service Area A

9/22/2022

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST
A-1	Cordova Road	1,150' E of SH 46 to SH 123	3.23	4	ARTE	474	100%	750	9676	1,529	8,147	\$ 41,220,000.00
A-2	Outer Loop (1)	FM 1620 to SH 46	1.06	6	PKWY	0	100%	925	5886	0	5886	\$ 3,695,600.00
A-3	Outer Loop (2)	SH 46 to Rudeloff Road	0.71	6	PKWY	0	100%	925	3958	0	3958	\$ 13,477,000.00
A-4	Pecan Parkway (1)	Rudeloff Road to City Limits	0.63	6	PKWY	0	100%	925	3469	0	3,469	\$ 9,334,000.00
A-5	Rudeloff Road (1)	Ridge Crest Drive to 1,320' N of FM 78	0.70	4	MAJC	300	50%	575	1612	210	1,402	\$ 3,762,000.00
A-6	Rudeloff Road (2)	1,320' N of FM 78 to FM 78	0.23	4	MAJC	30	50%	575	531	7	524	\$ 1,240,500.00
A-7	Rudeloff Road (3)	Ridge Crest Drive to SH 46	0.69	4	MAJC	298	100%	575	1583	205	1,378	\$ 7,391,000.00
A-8	Rudeloff Road (4)	SH 46 to Huber Road	1.52	4	ARTE	198	100%	700	4258	301	3,957	\$ 19,502,000.00
A-9	Rudeloff Road (5)	Huber Road to 4156' E of Huber Road	0.96	4	ARTE	0	100%	700	2691	0	2,691	\$ 12,596,000.00
A-10	Rudeloff Road (6)	6126' E of Huber Road to SH 123	0.27	4	ARTE	0	100%	700	769	0	769	\$ 3,600,000.00
A-11	Stempel Road (1)	Rudeloff Road to SH 123	0.84	4	ARTE	0	100%	750	2526	0	2,526	\$ 10,384,000.00
A-12	Huber Road (1)	IH 10 to Rudeloff Road	1.30	4	ARTE	178	100%	750	3895	231	3,664	\$ 15,669,000.00
A-13	Future Collector I	SH 46 to 775' E of Coral Way	0.82	3	COL	178	100%	525	1296	146	1,150	\$ 5,521,000.00
A-14	Pecan Parkway (2)	Cordova Road to 1,750' N of Cordova Road	0.33	3	COL	0	100%	525	522	0	522	\$ 2,177,000.00
A-15	Huber Road (2)	Rudeloff Road to City Limits	0.74	3	COL	0	100%	525	1165	0	1,165	\$ 4,962,000.00
A-16	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	4	ARTE	994	50%	750	3852	1,276	2,576	\$ 1,430,600.00
A-17	Link Road	SH 123 to City Limits	0.73	4	MAJC	122	50%	575	1673	89	1,584	\$ 3,904,000.00
SUBTOTAL									49,362	3,994	45,368	\$ 159,865,700.00
A-S1	Outer Loop & SH 46	Future Grade Separated	INTERSECTION IMPROVEMENTS					100%	-	-	-	\$ 3,000,000
A-S2	SH 123 & Cordova Road	Turn Lane Installation						50%	-	-	-	\$ 300,000
A-S3	Huber Road & Rudeloff Road	Intersection Improvements						100%	-	-	-	\$ 750,000
A-S4	Rudeloff Road & Pecan Parkway	Signal Installation						100%	-	-	-	\$ 500,000
SUBTOTAL												\$ 4,550,000

2022 Roadway Impact Fee Study Update Cost Per Service Area \$ 10,750

TOTAL COST IN SERVICE AREA A \$ 164,426,450

City of Seguin - 2022 Roadway Impact Fee Study Update
CIP Service Units of Supply

Service Area B

9/22/2022

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST
B-1	FM 20 (1)	SH 123 to 1067' E of SH 123	0.41	4	MAJC	156	100%	575	947	64	883	\$ 816,600.00
B-2	FM 20 (2)	1067' E of SH 123 to City Limits	1.18	4	MAJC	156	50%	575	2705	183	2522	\$ 1,165,500.00
B-3	SH 123 Bypass	SH 123 to IH 10	1.65	6	PKWY	1,100	100%	925	9145	1813	7332	\$ 5,185,800.00
B-4	Strempel Road (2)	SH 123 to SH 123 Bypass	0.47	4	ARTE	50	100%	750	1401	23	1,378	\$ 5,635,000.00
B-5	Strempel Road (3)	SH 123 Bypass to 825' E of SH 123 Bypass	0.16	4	MAJC	50	100%	575	357	8	349	\$ 1,668,000.00
B-6	Martindale Rd (1)	825' E of SH 123 Bypass to 170' W of Parkwood Rd	0.17	4	MAJC	0	100%	575	386	0	386	\$ 1,840,000.00
B-7	Martindale Rd (2)	170' W of Parkwood Rd to 160' E of Almond Crk	0.18	4	MAJC	50	100%	575	425	9	416	\$ 1,830,000.00
B-8	Martindale Rd (3)	160' E of Almond Crk to Martindale Rd	0.07	4	MAJC	0	100%	575	150	0	150	\$ 719,000.00
B-9	Martindale Rd (4)	156' NE of Twin Oak Road to 1300' NE of Twin Oak Road	0.23	4	MAJC	120	50%	575	529	28	501	\$ 1,236,000.00
B-10	Future Major Collector C	1300' NE of Twin Oak Road to FM 20	0.60	4	MAJC	0	100%	575	1370	0	1,370	\$ 6,536,000.00
B-11	Heideke Street (1)	SH 123 to IH 10 Frontage Road	0.33	4	MAJC	120	100%	575	769	40	729	\$ 3,590,000.00
B-12	Glenewinkel Road	SH 123 to 2,970' E of SH 123	0.56	4	MAJC	122	100%	575	1292	69	1,223	\$ 6,029,000.00
B-13	Laubach Road	SH 123 to 2,000' E of SH 123	0.38	4	ARTE	60	100%	700	1061	23	1,038	\$ 4,859,000.00
B-14	Austin Street / BUS SH 123	IH 10 Frontage Road to SH 123 Bypass	1.28	4	ARTE	994	50%	750	3852	1,276	2,576	\$ 1,430,600.00
B-15	Outer Loop (3)	1,300' W of Heinemeyer Road to Boenig Road	0.64	6	PKWY	82	100%	925	3548	52	3,496	\$ 2,347,000.00
SUBTOTAL									27,937	3,588	24,349	\$ 44,887,500.00
B-S1	SH 123 & Cordova Road	Turn Lane Installation	INTERSECTION IMPROVEMENTS				50%	-	-	-	-	\$ 300,000
SUBTOTAL												\$ 300,000

2022 Roadway Impact Fee Study Update Cost Per Service Area \$ 10,750

TOTAL COST IN SERVICE AREA B \$ 45,198,250

City of Seguin - 2022 Roadway Impact Fee Study Update
CIP Service Units of Supply

Service Area C

9/22/2022

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST
C-1	Austin Street	Kingsbury Street to IH 10 Frontage Road	1.27	4	ARTE	292	50%	750	3813	371	3,442	\$ 1,415,800.00
C-2	Fleming Drive	FM 78 to Kingsbury Street	0.67	4	ARTE	136	100%	750	2017	91	1926	\$ 8,115,000.00
C-3	Vaughn Ave, Hidalgo St	US 90 ALTE to FM 78	1.08	3	COL	168	100%	525	1702	182	1520	\$ 7,748,000.00
C-4	C H Matthies Jr	IH 10 Frontage Road to Lawson Street	0.78	3	COL	136	100%	525	1229	106	1123	\$ 5,122,000.00
C-5	Lawson Street	C H Matthies Jr to Kingsbury Street	0.16	3	COL	136	100%	525	246	21	225	\$ 1,026,000.00
C-6	B and B Road (1)	Inner Loop to 930' S of MI Mountain	0.36	3	COL	14	100%	525	570	5	565	\$ 2,376,000.00
C-7	Rodeo Run	3,615' W of SH 46 to SH 46	0.68	3	COL	0	100%	525	1077	0	1,077	\$ 4,587,000.00
C-8	Huber Road (3)	IH 10 Frontage Road to FM 78	0.13	4	ARTE	136	100%	750	386	18	368	\$ 1,555,000.00
C-9	B and B Road (2)	930' S of MI Mountain to Volunteer Street	0.34	3	COL	0	100%	525	538	0	538	\$ 2,294,000.00
SUBTOTAL									11,578	794	10,784	\$ 34,238,800.00
C-S1	Stockdale Highway & Tor Drive	Intersection Improvements	INTERSECTION IMPROVEMENTS				50%	-	-	-	-	\$ 375,000
C-S2	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements					50%	-	-	-	-	\$ 375,000
SUBTOTAL												\$ 750,000

2022 Roadway Impact Fee Study Update Cost Per Service Area \$ 10,750

TOTAL COST IN SERVICE AREA C \$ 34,999,550

City of Seguin - 2022 Roadway Impact Fee Study Update
CIP Service Units of Supply

Service Area D

9/22/2022

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST
D-1	Austin Street	Kingsbury Street to IH 10	1.27	4	ARTE	292	50%	750	3813	371	3,442	\$ 1,415,800.00
D-2	Walnut St (1)	King Street to SH 123	0.62	3	COL	394	100%	525	978	245	733	\$ 4,079,000.00
D-3	Walnut St (2)	SH 123 to Baer Creek Trail	0.80	4	MAJC	394	100%	575	1836	315	1521	\$ 8,570,000.00
D-4	Meadow Lake Dr	Stockdale Highway to SH 123 Bypass	0.65	3	COL	186	100%	525	1020	120	900	\$ 4,253,000.00
D-5	Heideke Street (2)	Kingsbury Street to IH 10	1.23	3	COL	288	100%	525	1940	355	1585	\$ 8,086,000.00
D-6	FM 466 (1)	SH 123 Bypass to 950' S of Joe Carrillo Blvd	1.01	4	MAJC	652	100%	575	2328	660	1668	\$ 2,006,200.00
D-7	FM 466 (2)	950' S of Joe Carrillo Blvd to 330' S of Mueller Lane	0.30	4	MAJC	652	50%	575	684	194	490	\$ 294,800.00
D-8	FM 466 (3)	100' S of Kimbrough Road to Hollub Lane	0.16	6	PKWY	652	50%	925	872	102	770	\$ 247,500.00
SUBTOTAL									13,471	2,362	11,109	\$ 28,952,300.00
D-S1	Eastwood Drive & Preston Drive	Realignment	INTERSECTION IMPROVEMENTS				100%	-	-	-	-	\$ 1,000,000
D-S2	King Street & Gloria Drive	Turn Lane Installation					100%	-	-	-	-	\$ 600,000
D-S3	Stockdale Highway & Tor Drive	Intersection Improvements					50%	-	-	-	-	\$ 375,000
D-S4	SH 123 & Nelda Street / Guadalupe Street	Intersection Improvements					50%	-	-	-	-	\$ 375,000
SUBTOTAL												\$ 2,350,000

2022 Roadway Impact Fee Study Update Cost Per Service Area \$ 10,750

TOTAL COST IN SERVICE AREA D \$ 31,313,050