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SEGUIN ROADWAY IMPACT FEE STUDY

Kimley»Horn

FINAL DRAFT

March 2017

City of Seguin, Texas
2016 Roadway Impact Fee Study
FINAL DRAFT | March 2017



It's real.

Prepared for:
City of Seguin

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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 the 2016 development of their Roadway Impact Fees. 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. 10)
4. Roadway Impact Fee Calculation (Pg. 19)

The components of the Methodology for Roadway Impact Fee includes 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

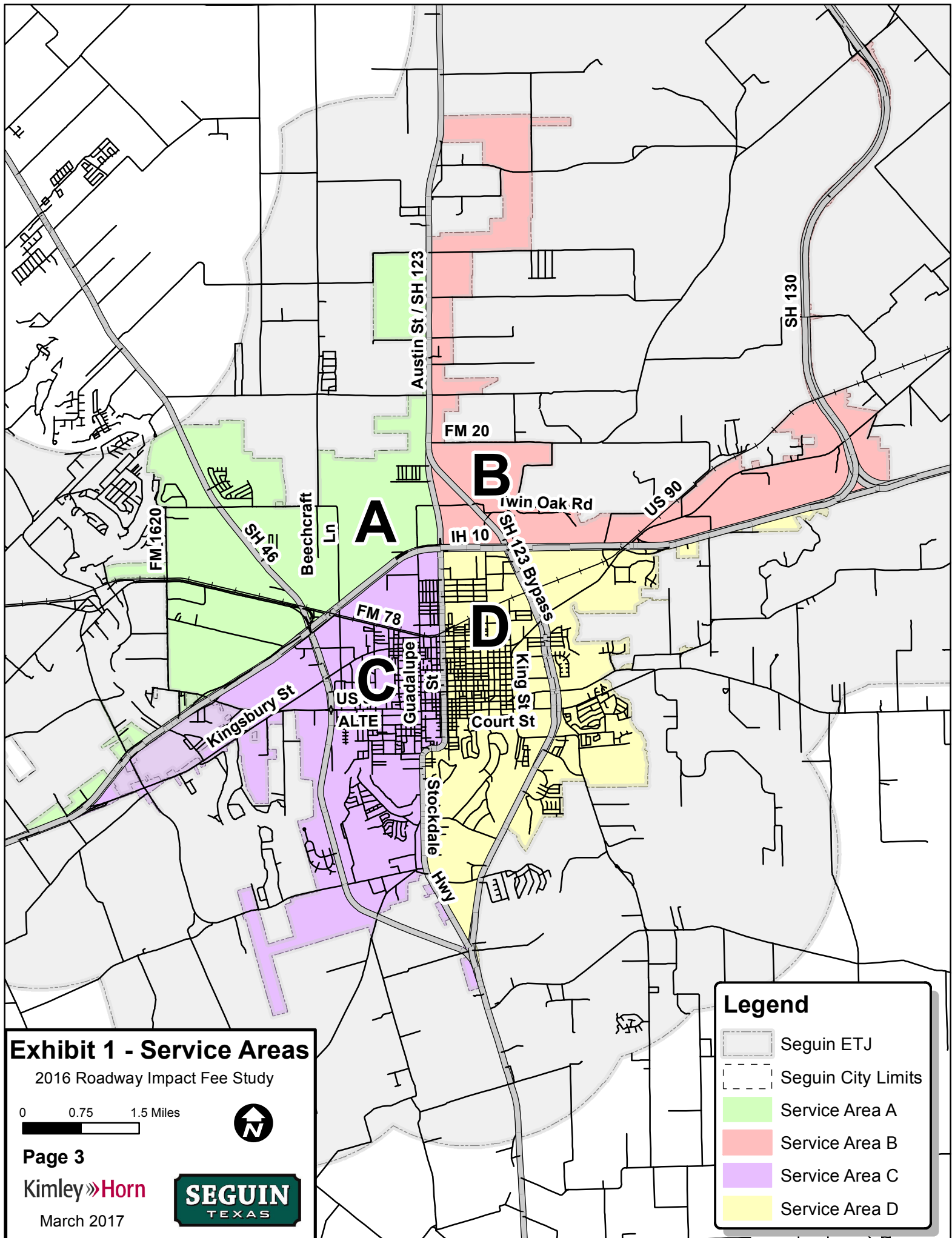
In order to assess an impact fee, land use assumptions must be developed to provide the basis for population and employment growth projections within a political subdivision. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses,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

The geographic boundaries of the impact fee service areas for roadway facilities are shown in Exhibit 1. The City of Seguin is divided into four (4) service areas, each based on a six (6) mile limit as required in Chapter 395.

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 (Med) (i.e. Office) | Retail (High) |
| | Dwelling Units | Sq. Ft. | Sq. Ft. | Sq. Ft. |
| A | 1,000 | 544,500 | 174,240 | 1,110,780 |
| B | 203 | 359,370 | 174,240 | 326,700 |
| C | 540 | 544,500 | 174,240 | 653,400 |
| D | 500 | 544,500 | 174,240 | 849,420 |
| Sub-Total | 2,243 | 1,992,870 | 696,960 | 2,940,300 |
| Total | 2,243 | 5,630,130 | | |





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 Roadway Impact Fees is made up of the following:

- Recently completed projects with excess capacity available to serve new growth;
- 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 draft Master Thoroughfare Plan or Regional Transportation Plan.

The CIP for the Roadway Impact Fees 2016 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 2016 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 | A-1 | ARTE | Cordova Rd (1) | 1470' W of SH 123 / City Limits to 447' W of SH 123 | 0.20 | 50% |
| | A-2 | ARTE | Cordova Rd (2) | 447' W of SH 123 to SH 123 | 0.08 | 100% |
| | A-3 | PKWY | Outer Loop (1) | FM 1620 to 2345' E of FM 1620 | 0.44 | 100% |
| | A-4 | PKWY | Outer Loop (2) | 2345' E of FM 1620 to SH 46 | 0.62 | 100% |
| | A-5 | PKWY | Outer Loop (3) | SH 46 to Rudeloff Rd | 0.71 | 100% |
| | A-6 | PKWY | Outer Loop (4) | Rudeloff Rd to City Limits | 0.63 | 50% |
| | A-7 | ARTE | Rudeloff Rd (1) | SH 46 to 4432' E of FM 46 | 0.84 | 100% |
| | A-8 | ARTE | Rudeloff Rd (2) | 4432' E of FM 46 to Beechcraft Ln | 0.44 | 50% |
| | A-9 | ARTE | Rudeloff Rd (3) | Beechcraft Ln to Huber Rd | 0.24 | 100% |
| | A-10 | ARTE | Rudeloff Rd / FM 20 (1) | Huber Rd to 3765' E of Huber Rd | 0.84 | 100% |
| | A-11 | ARTE | Rudeloff Rd / FM 20 (2) | 3883' E of Huber Rd to 4156' E of Huber Rd | 0.09 | 100% |
| | A-12 | ARTE | Rudeloff Rd / FM 20 (3) | 6126' E of Huber Rd to SH 123 | 0.27 | 100% |
| | A-13 | ARTE | Rudeloff Rd / Stempel Rd | Rudeloff Rd / FM 20 to SH 123 | 1.07 | 100% |
| | A-14 | ARTE | Huber Rd | IH 10 to Rudeloff Rd | 1.30 | 100% |
| | A-S1 | - | Future Grade Separated | Outer Loop & SH 46 | - | 100% |
| | A-S2 | - | Signal Installation | SH 123 & FM 20 | - | 50% |
| | A-S3 | - | Turn Lane Installation | SH 123 & Cordova Rd | - | 50% |

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 | B-1 | MAJC | FM 20 (1) | SH 123 to 1067' E of SH 123 | 0.20 | 100% |
| | B-2 | MAJC | FM 20 (2) | 1067' E of SH 123 to City Limits | 1.39 | 50% |
| | B-3 | PKWY | SH 123 Bypass | SH 123 to IH 10 | 1.65 | 100% |
| | B-4 | ARTE | Stempel Rd | SH 123 to SH 123 Bypass | 0.47 | 100% |
| | B-5 | MAJC | Heideke St / Martindale Rd | SH 123 Bypass to 156' NE of Twin Oak Rd | 0.46 | 100% |
| | B-6 | MAJC | Martindale Rd | 156' NE of Twin Oak Rd to 1300' NE of Twin Oak Rd | 0.23 | 50% |
| | B-7 | MAJC | Future Major Collector C | 1300' NE of Twin Oak Rd to FM 20 | 0.60 | 100% |
| | B-8 | MAJC | Heideke St | IH 10 to SH 123 Bypass | 0.33 | 100% |
| | B-S1 | - | Signal Installation | SH 123 & FM 20 | - | 50% |
| | B-S2 | - | Turn Lane Installation | SH 123 & Cordova Rd | - | 50% |

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

| Service Area | Proj. # | Class | Project | Limits | Length (mi) | % In Service Area |
|--------------|---------|-------|-----------------------------|-------------------------------------|-------------|-------------------|
| C | C-1 | ARTE | SH 123 / Austin St | Kingsbury St to IH 10 | 1.26 | 50% |
| | C-2 | ARTE | Fleming Dr | Kingsbury St to IH 10 | 0.80 | 100% |
| | C-3 | FR | IH 10 Frontage Road | C H Matthies to SH 123 | 2.30 | 100% |
| | C-4 | COL | Hidalgo St / Vaughan Ave | US 90 ALTE to FM 78 | 1.08 | 100% |
| | C-5 | COL | Jefferson Ave | SH 46 to Guadalupe St | 1.16 | 100% |
| | C-6 | COL | C H Matthies Jr / Lawson St | IH 10 Frontage Road to Kingsbury St | 0.94 | 100% |

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

| Service Area | Proj. # | Class | Project | Limits | Length (mi) | % In Service Area |
|--------------|---------|-------|-----------------------|--------------------------------|-------------|-------------------|
| D | D-1 | ARTE | SH 123 / Austin St | US 90 to IH 10 | 1.26 | 50% |
| | D-2 | COL | Walnut St | King St to SH 123 Bypass | 0.62 | 100% |
| | D-3 | COL | Meadow Lake Dr | Stockdale Hwy to SH 123 Bypass | 0.65 | 100% |
| | D-4 | COL | Heideke St | Kingsbury St to IH 10 | 1.23 | 100% |
| | D-5 | COL | Tor Dr | Stockdale Hwy to SH 123 Bypass | 1.03 | 100% |
| | D-S1 | - | Realignment | Eastwood Dr & Preston Dr | - | 100% |
| | D-S2 | - | Signal and Turn Lanes | King St & Gloria Dr | - | 100% |

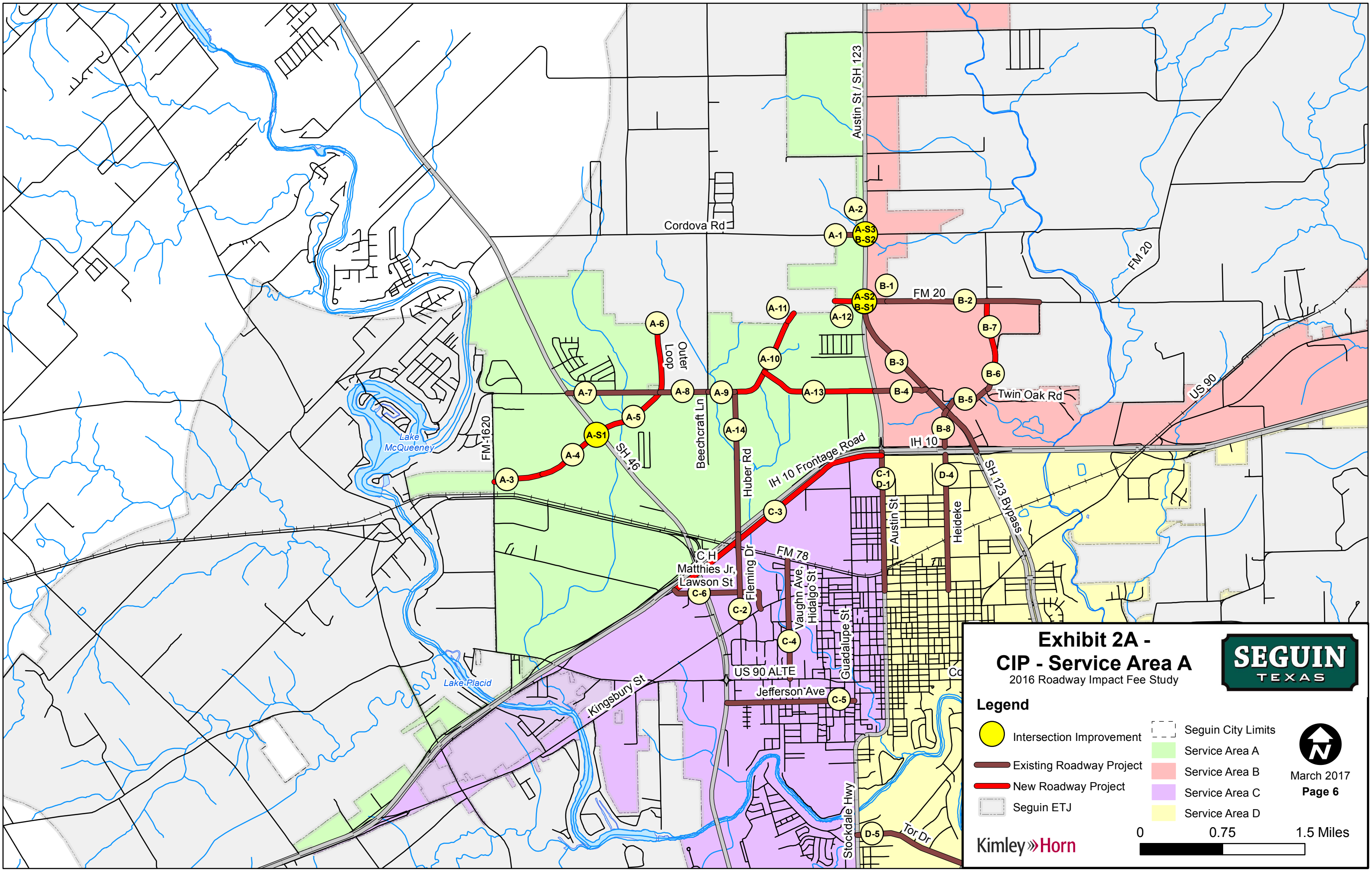


Exhibit 2A -
CIP - Service Area A
2016 Roadway Impact Fee Study



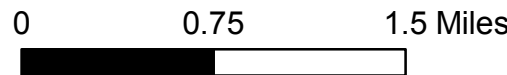
Legend

- Intersection Improvement
- Existing Roadway Project
- New Roadway Project
- Seguin ETJ
- Seguin City Limits
- Service Area A
- Service Area B
- Service Area C
- Service Area D

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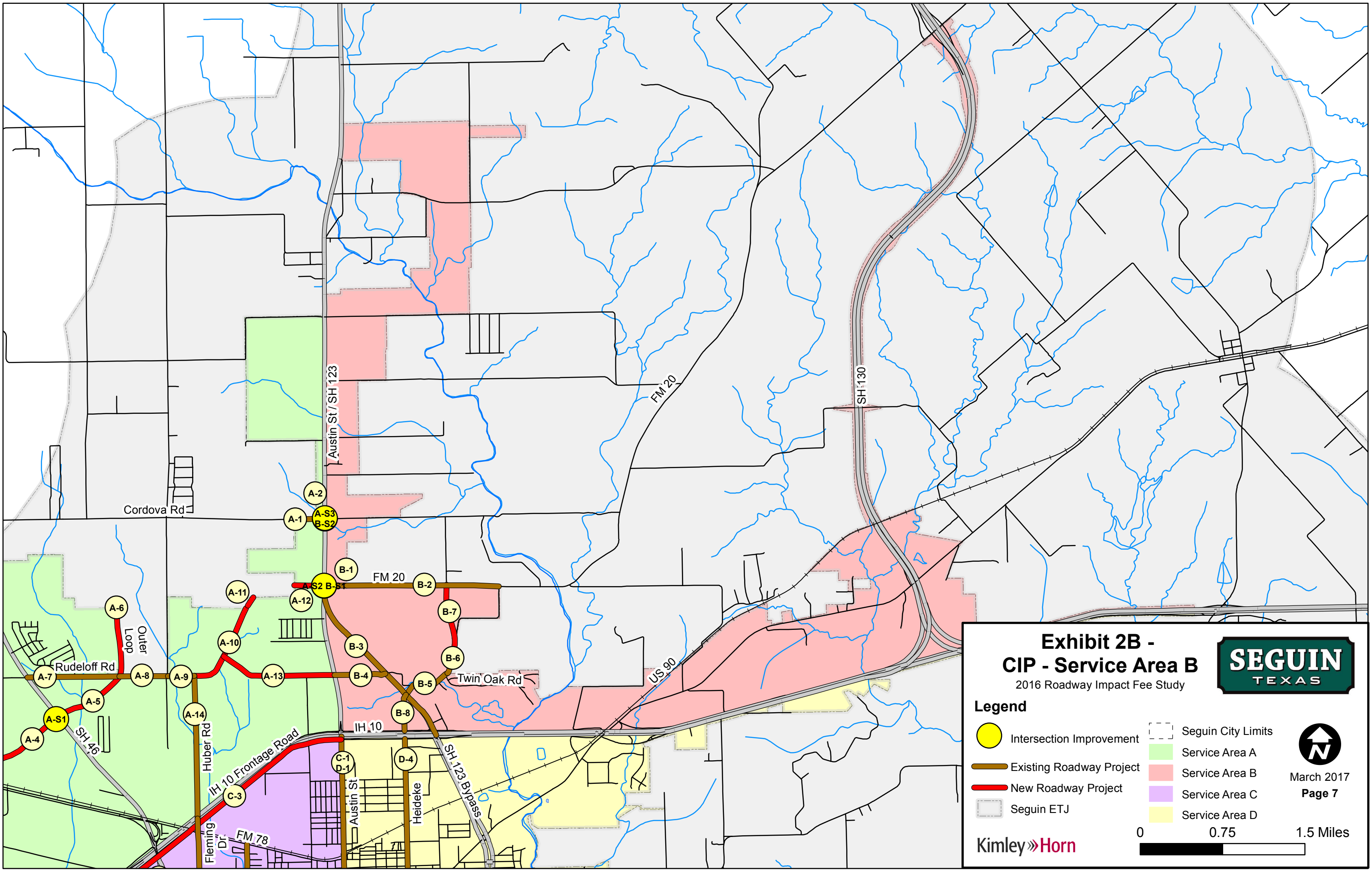


Exhibit 2B -
CIP - Service Area B
2016 Roadway Impact Fee Study



Legend

| | |
|--------------------------|--------------------|
| Intersection Improvement | Seguin City Limits |
| Existing Roadway Project | Service Area A |
| New Roadway Project | Service Area B |
| Seguin ETJ | Service Area C |
| | Service Area D |

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0 0.75 1.5 Miles

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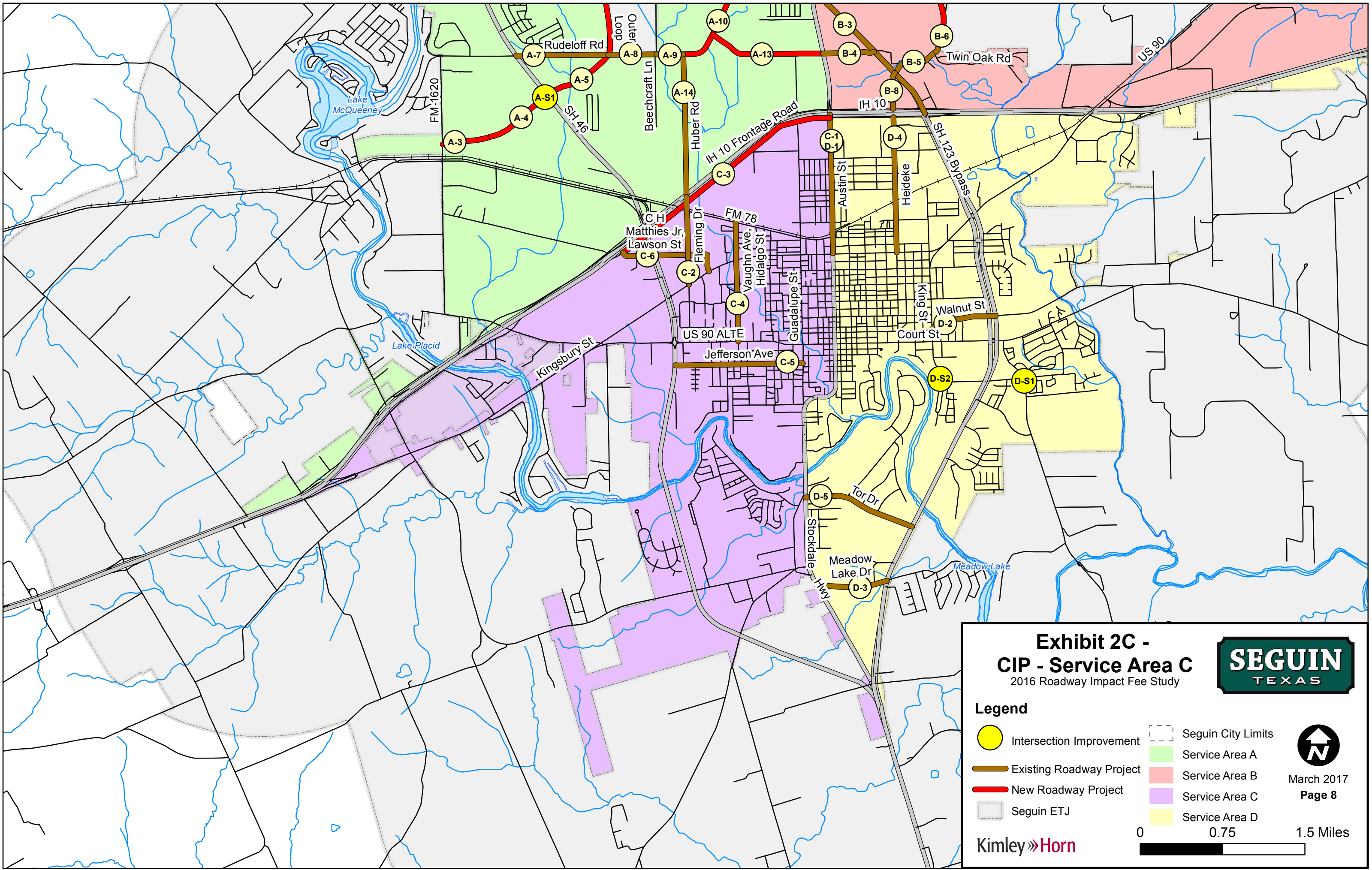


Exhibit 2C -
CIP - Service Area C
2016 Roadway Impact Fee Study



Legend

- Intersection Improvement
- Existing Roadway Project
- New Roadway Project
- Seguin ETJ
- Seguin City Limits
- Service Area A
- Service Area B
- Service Area C
- Service Area D

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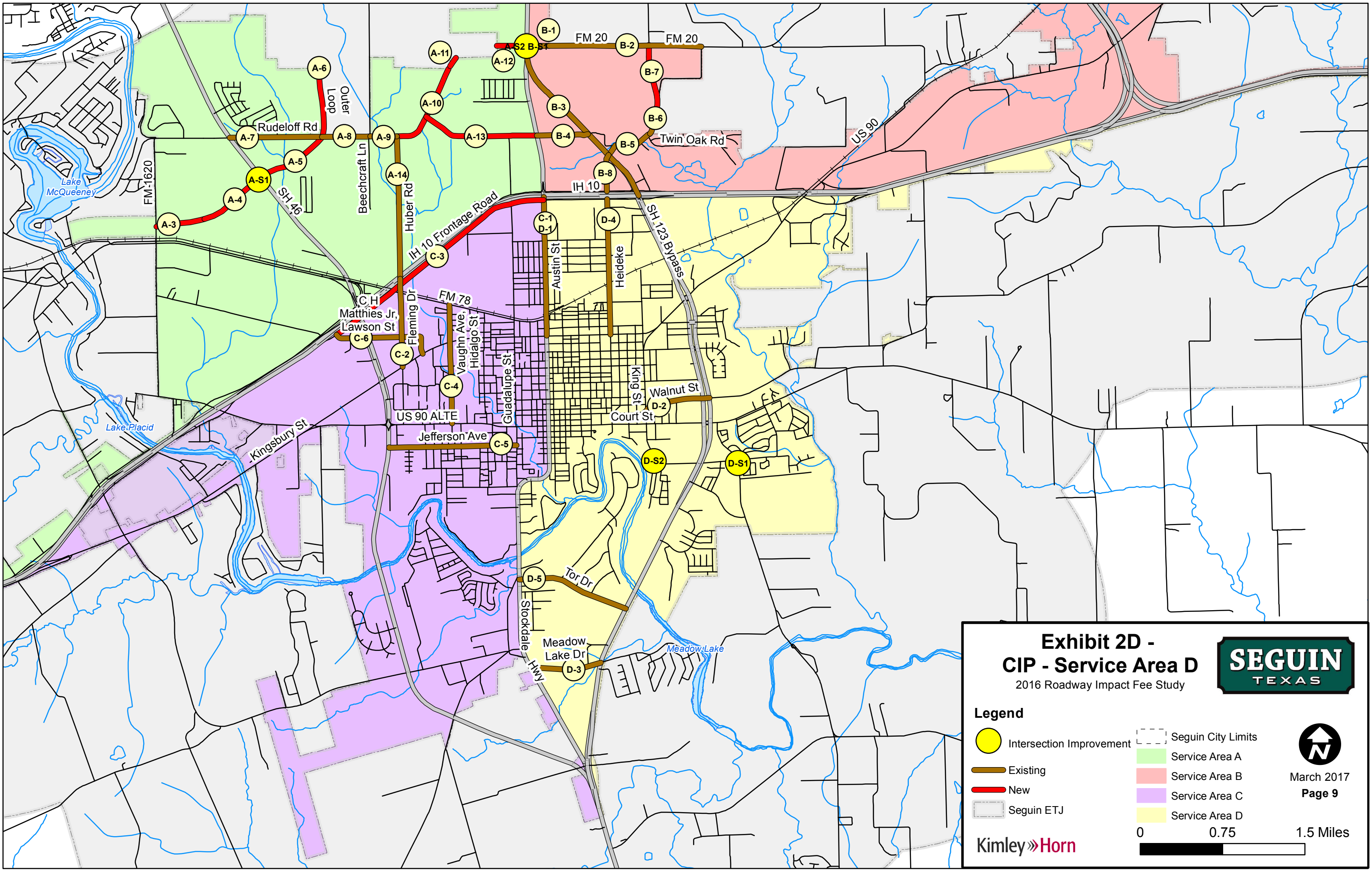


Exhibit 2D -
CIP - Service Area D
2016 Roadway Impact Fee Study



Legend

- Intersection Improvement
- Existing
- New
- Seguin ETJ
- Seguin City Limits
- Service Area A
- Service Area B
- Service Area C
- Service Area D

0 0.75 1.5 Miles

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3. Methodology for Roadway Impact Fees

A. Service Areas

The four (4) service areas used in the 2016 Roadway Impact Fee 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.”

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 draft 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 |
| 5U_(80) – Town Core Approach | Undivided | 450 |
| 4U_(90) – Major Collector | Undivided | 575 |
| 3U_(60) - Collector | Undivided | 525 |
| FR_(60) – Frontage Road | 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.

City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/5/2016

Project Information

| Project Information: | Description: | Project No. | A-1 |
|--------------------------|---|---|-----|
| Name: | Cordova Rd (1) | This project consists of the reconstruction of the existing pavement to an arterial. | |
| Limits: | 1470' W of SH 123 / City Limits to 447' W of SH 123 | | |
| Impact Fee Class: | 5U_(120) | | |
| Ultimate Class: | ARTE | | |
| Length (lf): | 1030 | | |
| Service Area(s): | A, ETJ | | |

Construction Pay Items

| Roadway Construction Cost Projection | | | | |
|---|--|----------|------|---------------------|
| No. | Item Description | Quantity | Unit | Item Cost |
| 104 | Unclassified Street Excavation | 8,469 | cy | \$ 13.50 \$ 114,330 |
| 204 | 4" Type D Asphalt | 7,782 | sy | \$ 25.50 \$ 198,447 |
| 304 | 15" Crushed Limestone Flexible Base Material | 8,354 | sy | \$ 19.50 \$ 162,912 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 8,354 | sy | \$ 3.00 \$ 25,063 |
| 504 | 4" Topsoil | 4,578 | sy | \$ 4.00 \$ 18,311 |
| 604 | 5' Concrete Sidewalk | 10,300 | sf | \$ 4.50 \$ 46,350 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 \$ - |
| Paving Construction Cost Subtotal: | | | | \$ 565,413 |

Construction Component Allowances

| Major Construction Component Allowances**: | | | | |
|---|--|-----------|----------------------------|-------------------|
| Item Description | Notes | Allowance | Item Cost | |
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ | 28,271 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ | 16,962 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ | 84,812 |
| ✓ Illumination | | 6% | \$ | 33,925 |
| Special Drainage Structures | None Anticipated | 0% | \$ | - |
| ✓ Water | Minor Adjustments | 5% | \$ | 28,271 |
| ✓ Sewer | Minor Adjustments | 2% | \$ | 11,308 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ | 22,617 |
| Miscellaneous: | | 0% | \$ | - |
| **Allowances based on % of Paving Construction Cost Subtotal | | | Allowance Subtotal: | \$ 226,165 |
| Paving and Allowance Subtotal: | | | \$ | 791,578 |
| Construction Contingency: | | | 15% | \$ 118,737 |
| Mobilization | | | 6% | \$ 47,495 |
| Prep ROW | | | 5% | \$ 39,579 |
| Construction Cost TOTAL: | | | \$ | 998,000 |

Summary of Costs and Allowances

| Impact Fee Project Cost Summary | | | |
|--------------------------------------|------------------------------|-----------|---------------------|
| Item Description | Notes: | Allowance | Item Cost |
| Construction: | | - | \$ 998,000 |
| Engineering/Survey/Testing: | | 20% | \$ 199,600 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 99,800 |
| Project Subtotal: | | | \$ 1,298,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,298,000 |

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 draft 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 draft 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. # | Class | Roadway | Limits | Length (mi) | % in Service Area | Project Cost in Service Area |
|--|---------|-------|---------------------------|---|-------------|-------------------|------------------------------|
| A | A-1 | ARTE | Cordova Rd (1) | 1470' W of SH 123 / City Limits to 447' W of SH 123 | 0.20 | 50% | \$ 649,000 |
| | A-2 | ARTE | Cordova Rd (2) | 447' W of SH 123 to SH 123 | 0.08 | 100% | \$ 561,000 |
| | A-3 | PKWY | Outer Loop (1) | FM 1620 to 2345' E of FM 1620 | 0.44 | 100% | \$ 4,038,000 |
| | A-4 | PKWY | Outer Loop (2) | 2345' E of FM 1620 to SH 46 | 0.62 | 100% | \$ 5,605,000 |
| | A-5 | PKWY | Outer Loop (3) | SH 46 to Rudeloff Rd | 0.71 | 100% | \$ 7,339,000 |
| | A-6 | PKWY | Outer Loop (4) | Rudeloff Rd to City Limits | 0.63 | 50% | \$ 2,858,500 |
| | A-7 | ARTE | Rudeloff Rd (1) | SH 46 to 4432' E of FM 46 | 0.84 | 100% | \$ 7,260,000 |
| | A-8 | ARTE | Rudeloff Rd (2) | 4432' E of FM 46 to Beechcraft Ln | 0.44 | 50% | \$ 1,464,000 |
| | A-9 | ARTE | Rudeloff Rd (3) | Beechcraft Ln to Huber Rd | 0.24 | 100% | \$ 1,945,000 |
| | A-10 | ARTE | Rudeloff Rd / FM 20 (1) | Huber Rd to 3765' E of Huber Rd | 0.84 | 100% | \$ 5,719,000 |
| | A-11 | ARTE | Rudeloff Rd / FM 20 (2) | 3883' E of Huber Rd to 4156' E of Huber Rd | 0.09 | 100% | \$ 612,000 |
| | A-12 | ARTE | Rudeloff Rd / FM 20 (3) | 6126' E of Huber Rd to SH 123 | 0.27 | 100% | \$ 1,867,000 |
| | A-13 | ARTE | Rudeloff Rd / Stremmel Rd | Rudeloff Rd / FM 20 to SH 123 | 1.07 | 100% | \$ 6,687,000 |
| | A-14 | ARTE | Huber Rd | IH 10 to Rudeloff Rd | 1.30 | 100% | \$ 8,569,000 |
| | A-S1 | - | Future Grade Separated | Outer Loop & SH 46 | - | 100% | \$ 3,000,000 |
| | A-S2 | - | Signal Installation | SH 123 & FM 20 | - | 50% | \$ 25,000 |
| | A-S3 | - | Turn Lane Installation | SH 123 & Cordova Rd | - | 50% | \$ 300,000 |
| Service Area Project Cost Subtotal | | | | | | | \$ 58,498,500 |
| 2016 Impact Fee Study and MTP Update Cost Per Service Area | | | | | | | \$ 37,500 |
| Total Cost in SERVICE AREA A | | | | | | | \$ 58,536,000 |

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

| Service Area | Proj. # | Class | Roadway | Limits | Length (mi) | % in Service Area | Project Cost in Service Area |
|--|---------|-------|----------------------------|---|-------------|-------------------|------------------------------|
| B | B-1 | MAJC | FM 20 (1) | SH 123 to 1067' E of SH 123 | 0.20 | 100% | \$ 205,000 |
| | B-2 | MAJC | FM 20 (2) | 1067' E of SH 123 to City Limits | 1.39 | 50% | \$ 703,600 |
| | B-3 | PKWY | SH 123 Bypass | SH 123 to IH 10 | 1.65 | 100% | \$ 2,706,000 |
| | B-4 | ARTE | Stremmel Rd | SH 123 to SH 123 Bypass | 0.47 | 100% | \$ 2,868,000 |
| | B-5 | MAJC | Heideke St / Martindale Rd | SH 123 Bypass to 156' NE of Twin Oak Rd | 0.46 | 100% | \$ 2,537,000 |
| | B-6 | MAJC | Martindale Rd | 156' NE of Twin Oak Rd to 1300' NE of Twin Oak Rd | 0.23 | 50% | \$ 936,000 |
| | B-7 | MAJC | Future Major Collector C | 1300' NE of Twin Oak Rd to FM 20 | 0.60 | 100% | \$ 3,348,000 |
| | B-8 | MAJC | Heideke St | IH 10 to SH 123 Bypass | 0.33 | 100% | \$ 1,839,000 |
| | B-S1 | - | Signal Installation | SH 123 & FM 20 | - | 50% | \$ 25,000 |
| | B-S2 | - | Turn Lane Installation | SH 123 & Cordova Rd | - | 50% | \$ 300,000 |
| Service Area Project Cost Subtotal | | | | | | | \$ 15,467,600 |
| 2016 Impact Fee Study and MTP Update Cost Per Service Area | | | | | | | \$ 37,500 |
| Total Cost in SERVICE AREA B | | | | | | | \$ 15,505,100 |



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

| Service Area | Proj. # | Class | Roadway | Limits | Length (mi) | % in Service Area | Project Cost in Service Area |
|---|---------|-------|----------------------------|-------------------------------------|-------------|-------------------|------------------------------|
| C | C-1 | ARTE | SH 123 / Austin St | Kingsbury St to IH 10 | 1.26 | 50% | \$ 753,400 |
| | C-2 | ARTE | Fleming Dr | Kingsbury St to IH 10 | 0.80 | 100% | \$ 5,330,000 |
| | C-3 | FR | IH 10 Frontage Road | C H Matthes to SH 123 | 2.30 | 100% | \$ 1,265,200 |
| | C-4 | COL | Hidalgo St / Vaughan Ave | US 90 ALTE to FM 78 | 1.08 | 100% | \$ 4,302,000 |
| | C-5 | COL | Jefferson Ave | SH 46 to Guadalupe St | 1.16 | 100% | \$ 4,004,000 |
| | C-6 | COL | C H Matthes Jr / Lawson St | IH 10 Frontage Road to Kingsbury St | 0.94 | 100% | \$ 3,221,000 |
| Service Area Project Cost Subtotal | | | | | | | \$ 18,875,600 |
| 2016 Impact Fee Study and MTP Update Cost Per Service Area | | | | | | | \$ 37,500 |
| Total Cost in SERVICE AREA C | | | | | | | \$ 18,913,100 |

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

| Service Area | Proj. # | Class | Roadway | Limits | Length (mi) | % in Service Area | Project Cost in Service Area |
|--|------------------------------------|-------|-----------------------|--------------------------------|-------------|-------------------|------------------------------|
| D | D-1 | ARTE | SH 123 / Austin St | US 90 to IH 10 | 1.26 | 50% | \$ 753,400 |
| | D-2 | COL | Walnut St | King St to SH 123 Bypass | 0.62 | 100% | \$ 2,143,000 |
| | D-3 | COL | Meadow Lake Dr | Stockdale Hwy to SH 123 Bypass | 0.65 | 100% | \$ 2,227,000 |
| | D-4 | COL | Heideke St | Kingsbury St to IH 10 | 1.23 | 100% | \$ 4,645,000 |
| | D-5 | COL | Tor Dr | Stockdale Hwy to SH 123 Bypass | 1.03 | 100% | \$ 3,546,000 |
| | D-S1 | - | Realignment | Eastwood Dr & Preston Dr | - | 100% | \$ 1,000,000 |
| | D-S2 | - | Signal and Turn Lanes | King St & Gloria Dr | - | 100% | \$ 750,000 |
| | Service Area Project Cost Subtotal | | | | | | \$ 15,064,400 |
| 2016 Impact Fee Study and MTP Update Cost Per Service Area | | | | | | \$ 37,500 | |
| Total Cost in SERVICE AREA D | | | | | | \$ 15,101,900 | |

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 2016 to 2026 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 2016 were made by the City, along with projections for each of these demographic statistics through 2026. 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 (2016) and projected (2026) 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, 9th 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, 9th Edition and National Household Travel Survey (NHTS). ITE's Trip Generation Manual, 9th 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 found in the most recent National Household Travel Survey (NHTS).

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)



The maximum trip length was limited to 6.0 miles for all Service Areas A - D. Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles, and the service areas within Seguin are approximately 6.0 miles in distance each.

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 National Household Travel Survey.

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 820) |
|-------------|--------------------------|--------------------|----------------------|---------------------|
| T | 1.00 | 0.97 | 1.49 | 3.71 |
| Pb | 0% | 0% | 0% | 34% |
| L | 9.32 | 12.93 | 12.93 | 5.28 |
| Lmax | 4.66 | 6.00 | 6.00 | 2.64 |
| TDF | 4.66 | 5.82 | 8.94 | 6.47 |

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 2016 and 2026. These estimates and projections lead to the Vehicle-Miles of Travel for both 2016 and 2026



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 | |
| | | 1.00 | | | | | 0.97 | 1.49 | 3.71 | | | | | |
| A | 1,000 | 4.66 | 4,660 | 544,500 | 174,240 | 1,110,780 | 5.82 | 8.94 | 6.47 | 3,169 | 1,558 | 7,187 | 11,914 | 16,574 |
| B | 203 | 4.66 | 946 | 359,370 | 174,240 | 326,700 | 5.82 | 8.94 | 6.47 | 2,092 | 1,558 | 2,114 | 5,764 | 6,710 |
| C | 540 | 4.66 | 2,516 | 544,500 | 174,240 | 653,400 | 5.82 | 8.94 | 6.47 | 3,169 | 1,558 | 4,227 | 8,954 | 11,470 |
| D | 500 | 4.66 | 2,330 | 544,500 | 174,240 | 849,420 | 5.82 | 8.94 | 6.47 | 3,169 | 1,558 | 5,496 | 10,223 | 12,553 |
| Totals | 2,243 | | 10,452 | 1,992,870 | 696,960 | 2,940,300 | | | | 11,599 | 6,232 | 19,024 | 36,855 | 47,307 |

VEHICLE-MILES OF INCREASE (2016 - 2026)

| SERVICE AREA | VEH-MILES |
|--------------|-----------|
| A | 16,574 |
| B | 6,710 |
| C | 11,470 |
| D | 12,553 |

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 land use and *trip generation rate*

⁸ 'Retail' corresponds to Shopping Center 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 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) |
|---|---|---|

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) |
|---|--|--|

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 Cost of the CIP within the Service Area</i> | The total cost of the projects within each service area (from Table 4: 10-Year Capital Improvement Plan with Conceptual Level Cost Opinions) |
|---|--|--|

This line simply identifies the total cost of all of the projects identified in each service area.

| | | |
|---|--------------------------------------|--|
| 5 | <i>Cost of Net Capacity Supplied</i> | The total CIP cost (Line 4) prorated by the ratio of Net Capacity Added (Line 3) to Total Capacity Added (Line 1). $[(\text{Line 3} / \text{Line 1}) * (\text{Line 4})]$ |
|---|--------------------------------------|--|

Using the ratio of vehicle-miles added by the Roadway Impact Fee CIP available to serve future growth to the total vehicle-miles added, the total cost of the CIP is reduced to the amount available for future growth (i.e. excluding existing usage and deficiencies).

| | | |
|---|--|---|
| 6 | <i>Cost to Meet Existing Needs and Usage</i> | The difference between the Total Cost of the CIP (Line 4) and the Cost of the Net Capacity supplied (Line 5). (Line 4 – Line 5) |
|---|--|---|

This line is provided for informational 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.

| | | |
|---|---|---|
| 7 | <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) |
|---|---|---|

This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

| | | |
|---|---|---|
| 8 | <i>Percent of Capacity Added Attributable to New Growth</i> | The result of dividing Total Vehicle-Miles of New Demand (Line 7) by the Net Amount of Capacity Added (Line 3), limited to 100% (Line 9). This calculation is required by Chapter 395 to ensure capacity added is attributable to new growth. |
| 9 | <i>Chapter 395 Check</i> | |

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.

| | | |
|----|--|--|
| 10 | <i>Cost of Capacity Added Attributable to New Growth</i> | The result of multiplying the Cost of Net Capacity Added (Line 5) by the Percent of Capacity Added Attributable to New Growth, limited to 100% (Line 9). |
|----|--|--|

This value is the total 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.



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 |
|------|---|---|
| 11 | <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. |
| 12 | <i>Maximum Assessable Fee Per Service Unit</i> | Found by dividing the Recoverable Cost of the CIP attributable to growth (Line 11) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 7). (Line 11 / Line 7) |

Table 8. Maximum Assessable Transportation Impact Fee

| SERVICE AREA: | | A | B | C | D |
|---------------|---|---------------|---------------|---------------|---------------|
| 1 | TOTAL VEH-MI OF CAPACITY ADDED BY THE CIP (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B) | 29,443 | 17,928 | 14,826 | 9,352 |
| 2 | TOTAL VEH-MI OF EXISTING DEMAND (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B) | 711 | 2,074 | 5,010 | 2,496 |
| 3 | NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2) | 28,732 | 15,854 | 9,816 | 6,856 |
| 4 | TOTAL COST OF THE CIP WITHIN SERVICE AREA (FROM TABLE 4) | \$ 58,536,000 | \$ 15,505,100 | \$ 18,913,100 | \$ 15,101,900 |
| 5 | COST OF NET CAPACITY SUPPLIED (LINE 3 / LINE 1) * (LINE 4) | \$ 57,122,452 | \$ 13,711,393 | \$ 12,521,988 | \$ 11,071,282 |
| 6 | COST TO MEET EXISTING NEEDS AND USAGE (LINE 4 - LINE 5) | \$ 1,413,548 | \$ 1,793,707 | \$ 6,391,112 | \$ 4,030,618 |
| 7 | TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 6 and <i>Land Use Assumptions</i>) | 16,574 | 6,710 | 11,470 | 12,553 |
| 8 | PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 7 / LINE 3) | 57.6% | 42.3% | 116.8% | 183.0% |
| 9 | IF LINE 7 > LINE 3, REDUCE LINE 8 TO 100%, OTHERWISE NO CHANGE | 57.6% | 42.3% | 100.0% | 100.0% |
| 10 | COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 5 * LINE 9) | \$ 32,902,532 | \$ 5,799,919 | \$ 12,521,988 | \$ 11,071,282 |
| 11 | CREDIT FOR AD VALOREM TAXES (50% OF LINE 10) | \$ 16,451,266 | \$ 2,899,960 | \$ 6,260,994 | \$ 5,535,641 |
| 12 | MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 11 / LINE 7) | \$ 993 | \$ 432 | \$ 546 | \$ 441 |



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, 9th 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 found in the most recent National Household Travel Survey (NHTS). 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 – 6.0 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 | Average Trip Length (mi) | Adj. For O-D | Adj. Trip Length (mi) | Max Trip Length (mi) | Veh-Mi Per Dev-Unit |
|-----------------------------------|-------------------|------------------|--------------------|--------------|----------------|-----------|--------------------------|--------------|-----------------------|----------------------|---------------------|
| PORT AND TERMINAL | | | | | | | | | | | |
| Truck Terminal | 030 | Acre | 6.55 | | | 6.55 | 12.93 | 50% | 6.46 | 6.00 | 39.30 |
| INDUSTRIAL | | | | | | | | | | | |
| General Light Industrial | 110 | 1,000 SF GFA | 0.97 | | | 0.97 | 12.93 | 50% | 6.47 | 6.00 | 5.82 |
| General Heavy Industrial | 120 | 1,000 SF GFA | 0.68 | | | 0.68 | 12.93 | 50% | 6.47 | 6.00 | 4.08 |
| Industrial Park | 130 | 1,000 SF GFA | 0.85 | | | 0.85 | 12.93 | 50% | 6.47 | 6.00 | 5.10 |
| Warehousing | 150 | 1,000 SF GFA | 0.32 | | | 0.32 | 12.93 | 50% | 6.47 | 6.00 | 1.92 |
| Mini-Warehouse | 151 | 1,000 SF GFA | 0.26 | | | 0.26 | 12.93 | 50% | 6.47 | 6.00 | 1.56 |
| RESIDENTIAL | | | | | | | | | | | |
| Single-Family Detached Housing | 210 | Dwelling Unit | 1.00 | | | 1.00 | 9.32 | 50% | 4.66 | 4.66 | 4.66 |
| Apartment/Multi-family | 220 | Dwelling Unit | 0.62 | | | 0.62 | 9.32 | 50% | 4.66 | 4.66 | 2.89 |
| Residential Condominium/Townhome | 230 | Dwelling Unit | 0.52 | | | 0.52 | 9.32 | 50% | 4.66 | 4.66 | 2.42 |
| Senior Adult Housing-Detached | 251 | Dwelling Unit | 0.27 | | | 0.27 | 9.32 | 50% | 4.66 | 4.66 | 1.26 |
| Senior Adult Housing-Attached | 252 | Dwelling Unit | 0.25 | | | 0.25 | 9.32 | 50% | 4.66 | 4.66 | 1.17 |
| Assisted Living | 254 | Beds | 0.22 | | | 0.22 | 9.32 | 50% | 4.66 | 4.66 | 1.03 |
| LODGING | | | | | | | | | | | |
| Hotel | 310 | Room | 0.60 | | | 0.60 | 7.19 | 50% | 3.60 | 3.60 | 2.16 |
| Motel / Other Lodging Facilities | 320 | Room | 0.47 | | | 0.47 | 7.19 | 50% | 3.60 | 3.60 | 1.69 |
| RECREATIONAL | | | | | | | | | | | |
| Golf Driving Range | 432 | Tee | 1.25 | | | 1.25 | 7.19 | 50% | 3.60 | 3.60 | 4.50 |
| Golf Course | 430 | Acre | 0.30 | | | 0.30 | 7.19 | 50% | 3.60 | 3.60 | 1.08 |
| Recreational Community Center | 495 | 1,000 SF GFA | 2.74 | | | 2.74 | 7.19 | 50% | 3.60 | 3.60 | 9.86 |
| Ice Skating Rink | 465 | 1,000 SF GFA | 2.36 | | | 2.36 | 7.19 | 50% | 3.60 | 3.60 | 8.50 |
| Miniature Golf Course | 431 | Hole | 0.33 | | | 0.33 | 7.19 | 50% | 3.60 | 3.60 | 1.19 |
| Multiplex Movie Theater | 445 | Screens | 13.64 | | | 13.64 | 7.19 | 50% | 3.60 | 3.60 | 49.10 |
| Racquet / Tennis Club | 491 | Court | 3.35 | | | 3.35 | 7.19 | 50% | 3.60 | 3.60 | 12.06 |
| INSTITUTIONAL | | | | | | | | | | | |
| Church | 560 | 1,000 SF GFA | 0.55 | | | 0.55 | 7.66 | 50% | 3.83 | 3.83 | 2.11 |
| Day Care Center | 565 | 1,000 SF GFA | 12.34 | 44% | B | 6.91 | 3.17 | 50% | 1.59 | 1.59 | 10.99 |
| Primary/Middle School (1-8) | 522 | Students | 0.16 | | | 0.16 | 3.17 | 50% | 1.59 | 1.59 | 0.25 |
| High School (9-12) | 530 | Students | 0.13 | | | 0.13 | 3.17 | 50% | 1.59 | 1.59 | 0.21 |
| Junior / Community College | 540 | Students | 0.12 | | | 0.12 | 11.56 | 50% | 5.78 | 5.78 | 0.69 |
| University / College | 550 | Students | 0.17 | | | 0.17 | 11.56 | 50% | 5.78 | 5.78 | 0.98 |
| MEDICAL | | | | | | | | | | | |
| Clinic | 630 | 1,000 SF GFA | 5.18 | | | 5.18 | 10.00 | 50% | 5.00 | 5.00 | 25.90 |
| Hospital | 610 | 1,000 SF GFA | 0.93 | | | 0.93 | 10.00 | 50% | 5.00 | 5.00 | 4.65 |
| Nursing Home | 620 | Beds | 0.22 | | | 0.22 | 10.00 | 50% | 5.00 | 5.00 | 1.10 |
| Animal Hospital/Veterinary Clinic | 640 | 1,000 SF GFA | 4.72 | 30% | B | 3.30 | 10.00 | 50% | 5.00 | 5.00 | 16.50 |
| OFFICE | | | | | | | | | | | |
| Corporate Headquarters Building | 714 | 1,000 SF GFA | 1.41 | | | 1.41 | 12.93 | 50% | 6.47 | 6.00 | 8.46 |
| General Office Building | 710 | 1,000 SF GFA | 1.49 | | | 1.49 | 12.93 | 50% | 6.47 | 6.00 | 8.94 |
| Medical-Dental Office Building | 720 | 1,000 SF GFA | 3.57 | | | 3.57 | 10.00 | 50% | 5.00 | 5.00 | 17.85 |
| Single Tenant Office Building | 715 | 1,000 SF GFA | 1.74 | | | 1.74 | 12.93 | 50% | 6.47 | 6.00 | 10.44 |
| Office Park | 750 | 1,000 SF GFA | 1.48 | | | 1.48 | 12.93 | 50% | 6.47 | 6.00 | 8.88 |

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (Aug 2014)

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

C: ITE rate adjusted upward by KHA based on logical relationship to other categories



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 | Average Trip Length (mi) | Adj. For O-D | Adj. Trip Length (mi) | Max Trip Length (mi) | Veh-Mi Per Dev-Unit |
|--|-------------------|--------------------------|--------------------|--------------|----------------|-----------|--------------------------|--------------|-----------------------|----------------------|---------------------|
| COMMERCIAL | | | | | | | | | | | |
| Automobile Related | | | | | | | | | | | |
| Automobile Care Center | 942 | 1,000 SF Occ. GLA | 3.11 | 40% | B | 1.87 | 5.46 | 50% | 2.73 | 2.73 | 5.11 |
| Automobile Parts Sales | 843 | 1,000 SF GFA | 5.98 | 43% | A | 3.41 | 5.46 | 50% | 2.73 | 2.73 | 9.31 |
| Casoline/Service Station | 944 | Vehicle Fueling Position | 13.87 | 42% | A | 8.04 | 1.20 | 50% | 0.60 | 0.60 | 4.82 |
| Casoline/Service Station w/ Conv Market | 945 | Vehicle Fueling Position | 13.51 | 56% | B | 5.94 | 1.20 | 50% | 0.60 | 0.60 | 3.56 |
| Casoline/Service Station w/ Conv Market and Car Wash | 946 | Vehicle Fueling Position | 13.86 | 56% | A | 6.10 | 1.20 | 50% | 0.60 | 0.60 | 3.66 |
| New and Used Car Sales | 841 | 1,000 SF GFA | 2.62 | 20% | B | 2.10 | 5.46 | 50% | 2.73 | 2.73 | 5.73 |
| Quick Lubrication Vehicle Shop | 941 | Servicing Positions | 5.19 | 40% | B | 3.11 | 5.46 | 50% | 2.73 | 2.73 | 8.49 |
| Self-Service Car Wash | 947 | Stall | 5.54 | 40% | B | 3.32 | 1.20 | 50% | 0.60 | 0.60 | 1.99 |
| Tire Store | 848 | 1,000 SF GFA | 4.15 | 28% | A | 2.99 | 5.46 | 50% | 2.73 | 2.73 | 8.16 |
| Dining | | | | | | | | | | | |
| Fast Food Restaurant with Drive-Thru Window | 934 | 1,000 SF GFA | 32.65 | 50% | A | 16.33 | 8.05 | 50% | 4.03 | 4.03 | 65.81 |
| Fast Food Restaurant without Drive-Thru Window | 933 | 1,000 SF GFA | 26.15 | 50% | B | 13.08 | 8.05 | 50% | 4.03 | 4.03 | 52.71 |
| High Turnover (Sit-Down) Restaurant | 932 | 1,000 SF GFA | 9.85 | 43% | A | 5.61 | 6.83 | 50% | 3.42 | 3.42 | 19.19 |
| Sit Down Restaurant | 931 | 1,000 SF GFA | 7.49 | 44% | A | 4.19 | 6.83 | 50% | 3.42 | 3.42 | 14.33 |
| Coffee/Donut Shop with Drive-Thru Window | 937 | 1,000 SF GFA | 42.80 | 70% | A | 12.84 | 4.66 | 50% | 2.33 | 2.33 | 29.92 |
| Other Retail | | | | | | | | | | | |
| Free-Standing Discount Superstore | 813 | 1,000 SF GFA | 4.35 | 30% | C | 3.05 | 5.28 | 50% | 2.64 | 2.64 | 8.05 |
| Free-Standing Retail Store | 815 | 1,000 SF GFA | 4.98 | 30% | C | 3.49 | 5.28 | 50% | 2.64 | 2.64 | 9.21 |
| Nursery (Garden Center) | 817 | 1,000 SF GFA | 6.94 | 30% | B | 4.86 | 5.28 | 50% | 2.64 | 2.64 | 12.83 |
| Home Improvement Superstore | 862 | 1,000 SF GFA | 2.33 | 48% | A | 1.21 | 5.28 | 50% | 2.64 | 2.64 | 3.19 |
| Pharmacy/Drugstore | 881 | 1,000 SF GFA | 9.91 | 49% | A | 5.05 | 5.28 | 50% | 2.64 | 2.64 | 13.33 |
| Shopping Center | 820 | 1,000 SF GLA | 3.71 | 34% | A | 2.45 | 5.28 | 50% | 2.64 | 2.64 | 6.47 |
| Supermarket | 850 | 1,000 SF GFA | 9.48 | 36% | A | 6.07 | 5.28 | 50% | 2.64 | 2.64 | 16.02 |
| Toy/Children's Superstore | 864 | 1,000 SF GFA | 4.99 | 30% | B | 3.49 | 5.28 | 50% | 2.64 | 2.64 | 9.21 |
| Department Store | 875 | 1,000 SF GFA | 1.87 | 30% | B | 1.31 | 5.28 | 50% | 2.64 | 2.64 | 3.46 |
| SERVICES | | | | | | | | | | | |
| Walk-In Bank | 911 | 1,000 SF GFA | 12.13 | 40% | B | 7.28 | 5.46 | 50% | 2.73 | 2.73 | 19.87 |
| Drive-In Bank | 912 | Drive-in Lanes | 33.24 | 47% | A | 17.62 | 5.46 | 50% | 2.73 | 2.73 | 48.10 |
| Hair Salon | 918 | 1,000 SF GLA | 1.45 | 30% | B | 1.02 | 5.46 | 50% | 2.73 | 2.73 | 2.78 |

Key to Sources of Pass-by Rates:

A: ITE Trip Generation Handbook 3rd Edition (Aug 2014)

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

C: ITE rate adjusted upward by KHA based on logical relationship to other categories



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 |
| | From Table 9 [Land Use – Vehicle-mile Equivalency Table] Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 4.66 |
| Step 2 | Determine Maximum Assessable Impact Fee Per Service Unit |
| | From Table 8, Line 12 [Maximum Assessable Fee Per Service Unit] Service Area A: \$993 |
| 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 * 4.66 * \$993 Maximum Assessable Impact Fee = \$4,627.38 |

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 |
| | From Table 9 [Land Use – Vehicle-mile Equivalency Table] 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: 3.19 |
| Step 2 | Determine Maximum Assessable Impact Fee Per Service Unit |
| | From Table 8, Line 12 [Maximum Assessable Fee Per Service Unit] Service Area 2: \$432 |
| 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 * 3.19 * \$432 Maximum Assessable Impact Fee = \$172,260 |



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 |
|--|--------|--------|--------|--------|
| 2016 Roadway Impact Fee Study Maximum Assessable Fee Per Vehicle-Mile | \$ 993 | \$ 432 | \$ 546 | \$ 441 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-1 |
|----------------------|---|--------------|-------------|---|
| Name: | Cordova Rd (1) | | | This project consists of the reconstruction of the existing pavement to an arterial. |
| Limits: | 1470' W of SH 123 / City Limits to 447' W of SH 123 | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 1030 | | | |
| Service Area(s): | A, ETJ | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 104 | Unclassified Street Excavation | 8,469 | cy | \$ 13.50 | \$ 114,330 |
| 204 | 4" Type D Asphalt | 7,782 | sy | \$ 25.50 | \$ 198,447 |
| 304 | 15" Crushed Limestone Flexible Base Material | 8,354 | sy | \$ 19.50 | \$ 162,912 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 8,354 | sy | \$ 3.00 | \$ 25,063 |
| 504 | 4" Topsoil | 4,578 | sy | \$ 4.00 | \$ 18,311 |
| 604 | 5' Concrete Sidewalk | 10,300 | sf | \$ 4.50 | \$ 46,350 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 565,413 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|-----------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 28,271 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 16,962 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 84,812 |
| ✓ Illumination | | 6% | \$ 33,925 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 28,271 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 11,308 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 22,617 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 226,165

Paving and Allowance Subtotal: \$ 791,578

Construction Contingency: 15% \$ 118,737

Mobilization 6% \$ 47,495

Prep ROW 5% \$ 39,579

Construction Cost TOTAL: \$ 998,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 998,000 |
| Engineering/Survey/Testing: | | 20% | \$ 199,600 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 99,800 |
| Project Subtotal: | | | \$ 1,298,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,298,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-2 |
|----------------------|----------------------------|---|-------------|-----|
| Name: | Cordova Rd (2) | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | 447' W of SH 123 to SH 123 | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 445 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 104 | Unclassified Street Excavation | 3,659 | cy | \$ 13.50 | \$ 49,395 |
| 204 | 4" Type D Asphalt | 3,362 | sy | \$ 25.50 | \$ 85,737 |
| 304 | 15" Crushed Limestone Flexible Base Material | 3,609 | sy | \$ 19.50 | \$ 70,384 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 3,609 | sy | \$ 3.00 | \$ 10,828 |
| 504 | 4" Topsoil | 1,978 | sy | \$ 4.00 | \$ 7,911 |
| 604 | 5' Concrete Sidewalk | 4,450 | sf | \$ 4.50 | \$ 20,025 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 244,280 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|-----------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 12,214 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 7,328 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 36,642 |
| ✓ Illumination | | 6% | \$ 14,657 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 12,214 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 4,886 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 9,771 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 97,712

| | |
|---------------------------------------|----------------------|
| Paving and Allowance Subtotal: | \$ 341,992 |
| Construction Contingency: | 15% \$ 51,299 |
| Mobilization | 6% \$ 20,520 |
| Prep ROW | 5% \$ 17,100 |
| Construction Cost TOTAL: | \$ 431,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|-------------------|
| Construction: | | - | \$ 431,000 |
| Engineering/Survey/Testing: | | 20% | \$ 86,200 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 43,100 |
| Project Subtotal: | | | \$ 561,000 |
| Impact Fee Project Cost TOTAL | | | \$ 561,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-3 |
|----------------------|-------------------------------|--|-------------|-----|
| Name: | Outer Loop (1) | This project consists of the construction of a new parkway. | | |
| Limits: | FM 1620 to 2345' E of FM 1620 | | | |
| Impact Fee Class: | 6D_(180) | | | |
| Ultimate Class: | PKWY | | | |
| Length (lf): | 2345 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 107 | Unclassified Street Excavation | 21,887 | cy | \$ 13.50 | \$ 295,470 |
| 207 | 4" Type D Asphalt | 19,281 | sy | \$ 25.50 | \$ 491,668 |
| 307 | 15" Crushed Limestone Flexible Base Material | 21,366 | sy | \$ 19.50 | \$ 416,628 |
| 407 | 6" Lime Stabilization (with Lime @ 27#/sy) | 21,366 | sy | \$ 3.00 | \$ 64,097 |
| 507 | 4" Topsoil | 20,844 | sy | \$ 4.00 | \$ 83,378 |
| 607 | 5' Concrete Sidewalk | 56,280 | sf | \$ 4.50 | \$ 253,260 |
| 707 | Turn Lanes and Median Openings | 2,463 | sy | \$ 48.00 | \$ 118,245 |
| Paving Construction Cost Subtotal: | | | | | \$ 1,722,746 |

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% | \$ 51,682 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 258,412 |
| ✓ Illumination | | 6% | \$ 103,365 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 86,137 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 34,455 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 68,910 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

| | | |
|---------------------------------------|-----|---------------------|
| Paving and Allowance Subtotal: | | \$ 2,325,707 |
| Construction Contingency: | 15% | \$ 348,856 |
| Mobilization | 6% | \$ 139,542 |
| Prep ROW | 3% | \$ 69,771 |
| Construction Cost TOTAL: | | \$ 2,884,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 2,884,000 |
| Engineering/Survey/Testing: | | 20% | \$ 576,800 |
| ROW/Easement Acquisition: | | 20% | \$ 576,800 |
| Project Subtotal: | | | \$ 4,038,000 |
| Impact Fee Project Cost TOTAL | | | \$ 4,038,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-4 |
|----------------------|-----------------------------|--|-------------|-----|
| Name: | Outer Loop (2) | This project consists of the construction of a new parkway. | | |
| Limits: | 2345' E of FM 1620 to SH 46 | | | |
| Impact Fee Class: | 6D_(180) | | | |
| Ultimate Class: | PKWY | | | |
| Length (lf): | 3255 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 107 | Unclassified Street Excavation | 30,380 | cy | \$ 13.50 | \$ 410,130 |
| 207 | 4" Type D Asphalt | 26,763 | sy | \$ 25.50 | \$ 682,465 |
| 307 | 15" Crushed Limestone Flexible Base Material | 29,657 | sy | \$ 19.50 | \$ 578,305 |
| 407 | 6" Lime Stabilization (with Lime @ 27#/sy) | 29,657 | sy | \$ 3.00 | \$ 88,970 |
| 507 | 4" Topsoil | 28,933 | sy | \$ 4.00 | \$ 115,733 |
| 607 | 5' Concrete Sidewalk | 78,120 | sf | \$ 4.50 | \$ 351,540 |
| 707 | Turn Lanes and Median Openings | 3,419 | sy | \$ 48.00 | \$ 164,131 |
| Paving Construction Cost Subtotal: | | | | | \$ 2,391,274 |

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% | \$ 71,738 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 358,691 |
| ✓ Illumination | | 6% | \$ 143,476 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 119,564 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 47,825 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 95,651 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 836,946

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 3,228,220 |
| Construction Contingency: | 15% \$ 484,233 |
| Mobilization | 6% \$ 193,693 |
| Prep ROW | 3% \$ 96,847 |
| Construction Cost TOTAL: | \$ 4,003,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 4,003,000 |
| Engineering/Survey/Testing: | | 20% | \$ 800,600 |
| ROW/Easement Acquisition: | | 20% | \$ 800,600 |
| Project Subtotal: | | | \$ 5,605,000 |
| Impact Fee Project Cost TOTAL | | | \$ 5,605,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-5 |
|----------------------|----------------------|--|-------------|-----|
| Name: | Outer Loop (3) | This project consists of the construction of a new parkway. | | |
| Limits: | SH 46 to Rudeloff Rd | | | |
| 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 | \$ 13.50 | \$ 474,390 |
| 207 | 4" Type D Asphalt | 30,957 | sy | \$ 25.50 | \$ 789,395 |
| 307 | 15" Crushed Limestone Flexible Base Material | 34,303 | sy | \$ 19.50 | \$ 668,915 |
| 407 | 6" Lime Stabilization (with Lime @ 27#/sy) | 34,303 | sy | \$ 3.00 | \$ 102,910 |
| 507 | 4" Topsoil | 33,467 | sy | \$ 4.00 | \$ 133,867 |
| 607 | 5' Concrete Sidewalk | 90,360 | sf | \$ 4.50 | \$ 406,620 |
| 707 | Turn Lanes and Median Openings | 3,955 | sy | \$ 48.00 | \$ 189,847 |
| Paving Construction Cost Subtotal: | | | | | \$ 2,765,944 |

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% | \$ 82,978 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 414,892 |
| ✓ Illumination | | 6% | \$ 165,957 |
| ✓ Special Drainage Structures | Major Stream Crossing | 0% | \$ 493,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 138,297 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 55,319 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 110,638 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

| | | |
|---------------------------------------|-----|---------------------|
| Allowance Subtotal: | | \$ 1,461,080 |
| Paving and Allowance Subtotal: | | \$ 4,227,024 |
| Construction Contingency: | 15% | \$ 634,054 |
| Mobilization | 6% | \$ 253,621 |
| Prep ROW | 3% | \$ 126,811 |
| Construction Cost TOTAL: | | \$ 5,242,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 5,242,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,048,400 |
| ROW/Easement Acquisition: | | 20% | \$ 1,048,400 |
| Project Subtotal: | | | \$ 7,339,000 |
| Impact Fee Project Cost TOTAL | | | \$ 7,339,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-6 |
|----------------------|----------------------------|--|-------------|-----|
| Name: | Outer Loop (4) | This project consists of the construction of a new parkway. | | |
| Limits: | Rudeloff Rd to City Limits | | | |
| Impact Fee Class: | 6D_(180) | | | |
| Ultimate Class: | PKWY | | | |
| Length (lf): | 3320 | | | |
| Service Area(s): | A, ETJ | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 107 | Unclassified Street Excavation | 30,987 | cy | \$ 13.50 | \$ 418,320 |
| 207 | 4" Type D Asphalt | 27,298 | sy | \$ 25.50 | \$ 696,093 |
| 307 | 15" Crushed Limestone Flexible Base Material | 30,249 | sy | \$ 19.50 | \$ 589,853 |
| 407 | 6" Lime Stabilization (with Lime @ 27#/sy) | 30,249 | sy | \$ 3.00 | \$ 90,747 |
| 507 | 4" Topsoil | 29,511 | sy | \$ 4.00 | \$ 118,044 |
| 607 | 5' Concrete Sidewalk | 79,680 | sf | \$ 4.50 | \$ 358,560 |
| 707 | Turn Lanes and Median Openings | 3,488 | sy | \$ 48.00 | \$ 167,408 |
| Paving Construction Cost Subtotal: | | | | | \$ 2,439,026 |

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% | \$ 73,171 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 365,854 |
| ✓ Illumination | | 6% | \$ 146,342 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 121,951 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 48,781 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 97,561 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 853,659

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 3,292,685 |
| Construction Contingency: | 15% \$ 493,903 |
| Mobilization | 6% \$ 197,561 |
| Prep ROW | 3% \$ 98,781 |
| Construction Cost TOTAL: | \$ 4,083,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 4,083,000 |
| Engineering/Survey/Testing: | | 20% | \$ 816,600 |
| ROW/Easement Acquisition: | | 20% | \$ 816,600 |
| Project Subtotal: | | | \$ 5,717,000 |
| Impact Fee Project Cost TOTAL | | | \$ 5,717,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-7 |
|----------------------|---------------------------|---|-------------|-----|
| Name: | Rudeloff Rd (1) | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | SH 46 to 4432' E of FM 46 | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 4430 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 104 | Unclassified Street Excavation | 36,424 | cy | \$ 13.50 | \$ 491,730 |
| 204 | 4" Type D Asphalt | 33,471 | sy | \$ 25.50 | \$ 853,513 |
| 304 | 15" Crushed Limestone Flexible Base Material | 35,932 | sy | \$ 19.50 | \$ 700,678 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 35,932 | sy | \$ 3.00 | \$ 107,797 |
| 504 | 4" Topsoil | 19,689 | sy | \$ 4.00 | \$ 78,756 |
| 604 | 5' Concrete Sidewalk | 44,300 | sf | \$ 4.50 | \$ 199,350 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 2,431,824 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|--------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 121,591 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 72,955 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 364,774 |
| ✓ Illumination | | 6% | \$ 145,909 |
| ✓ Special Drainage Structures | 2 Stream Crossings | 0% | \$ 1,027,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 121,591 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 48,636 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 97,273 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,999,730

Paving and Allowance Subtotal: \$ 4,431,553

Construction Contingency: 15% \$ 664,733

Mobilization 6% \$ 265,893

Prep ROW 5% \$ 221,578

Construction Cost TOTAL: \$ 5,584,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 5,584,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,116,800 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 558,400 |
| Project Subtotal: | | | \$ 7,260,000 |
| Impact Fee Project Cost TOTAL | | | \$ 7,260,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-8 |
|----------------------|-----------------------------------|---|-------------|-----|
| Name: | Rudeloff Rd (2) | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | 4432' E of FM 46 to Beechcraft Ln | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 2325 | | | |
| Service Area(s): | A, ETJ | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 104 | Unclassified Street Excavation | 19,117 | cy | \$ 13.50 | \$ 258,075 |
| 204 | 4" Type D Asphalt | 17,567 | sy | \$ 25.50 | \$ 447,950 |
| 304 | 15" Crushed Limestone Flexible Base Material | 18,858 | sy | \$ 19.50 | \$ 367,738 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 18,858 | sy | \$ 3.00 | \$ 56,575 |
| 504 | 4" Topsoil | 10,333 | sy | \$ 4.00 | \$ 41,333 |
| 604 | 5' Concrete Sidewalk | 23,250 | sf | \$ 4.50 | \$ 104,625 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,276,296 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 63,815 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 38,289 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 191,444 |
| ✓ Illumination | | 6% | \$ 76,578 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 63,815 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 25,526 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 51,052 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 510,518

Paving and Allowance Subtotal: \$ 1,786,814

Construction Contingency: 15% \$ 268,022

Mobilization 6% \$ 107,209

Prep ROW 5% \$ 89,341

Construction Cost TOTAL: \$ 2,252,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 2,252,000 |
| Engineering/Survey/Testing: | | 20% | \$ 450,400 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 225,200 |
| Project Subtotal: | | | \$ 2,928,000 |
| Impact Fee Project Cost TOTAL | | | \$ 2,928,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-9 |
|----------------------|---------------------------|---|-------------|-----|
| Name: | Rudeloff Rd (3) | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | Beechcraft Ln to Huber Rd | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 1270 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 104 | Unclassified Street Excavation | 10,442 | cy | \$ 13.50 | \$ 140,970 |
| 204 | 4" Type D Asphalt | 9,596 | sy | \$ 25.50 | \$ 244,687 |
| 304 | 15" Crushed Limestone Flexible Base Material | 10,301 | sy | \$ 19.50 | \$ 200,872 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 10,301 | sy | \$ 3.00 | \$ 30,903 |
| 504 | 4" Topsoil | 5,644 | sy | \$ 4.00 | \$ 22,578 |
| 604 | 5' Concrete Sidewalk | 12,700 | sf | \$ 4.50 | \$ 57,150 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 697,159 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 34,858 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 20,915 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 104,574 |
| ✓ Illumination | | 6% | \$ 41,830 |
| ✓ Special Drainage Structures | Minor Stream Crossing | 0% | \$ 211,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 34,858 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 13,943 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 27,886 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 489,864

Paving and Allowance Subtotal: \$ 1,187,023

Construction Contingency: 15% \$ 178,053

Mobilization 6% \$ 71,221

Prep ROW 5% \$ 59,351

Construction Cost TOTAL: \$ 1,496,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,496,000 |
| Engineering/Survey/Testing: | | 20% | \$ 299,200 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 149,600 |
| Project Subtotal: | | | \$ 1,945,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,945,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-10 |
|----------------------|---------------------------------|---|-------------|------|
| Name: | Rudeloff Rd / FM 20 (1) | This project consists of the construction of a new arterial. | | |
| Limits: | Huber Rd to 3765' E of Huber Rd | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 4445 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 104 | Unclassified Street Excavation | 36,548 | cy | \$ 13.50 | \$ 493,395 |
| 204 | 4" Type D Asphalt | 33,584 | sy | \$ 25.50 | \$ 856,403 |
| 304 | 15" Crushed Limestone Flexible Base Material | 36,054 | sy | \$ 19.50 | \$ 703,051 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 36,054 | sy | \$ 3.00 | \$ 108,162 |
| 504 | 4" Topsoil | 19,756 | sy | \$ 4.00 | \$ 79,022 |
| 604 | 5' Concrete Sidewalk | 44,450 | sf | \$ 4.50 | \$ 200,025 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 2,440,058 |

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% | \$ 73,202 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 366,009 |
| ✓ Illumination | | 6% | \$ 146,403 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 122,003 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 48,801 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 97,602 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 854,020

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 3,294,078 |
| Construction Contingency: | 15% \$ 494,112 |
| Mobilization | 6% \$ 197,645 |
| Prep ROW | 3% \$ 98,822 |
| Construction Cost TOTAL: | \$ 4,085,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 4,085,000 |
| Engineering/Survey/Testing: | | 20% | \$ 817,000 |
| ROW/Easement Acquisition: | | 20% | \$ 817,000 |
| Project Subtotal: | | | \$ 5,719,000 |
| Impact Fee Project Cost TOTAL | | | \$ 5,719,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-11 |
|----------------------|--|---|-------------|------|
| Name: | Rudeloff Rd / FM 20 (2) | This project consists of the construction of a new arterial. | | |
| Limits: | 3883' E of Huber Rd to 4156' E of Huber Rd | | | |
| Impact Fee Class: | 5U_(120) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 475 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 104 | Unclassified Street Excavation | 3,906 | cy | \$ 13.50 | \$ 52,725 |
| 204 | 4" Type D Asphalt | 3,589 | sy | \$ 25.50 | \$ 91,517 |
| 304 | 15" Crushed Limestone Flexible Base Material | 3,853 | sy | \$ 19.50 | \$ 75,129 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 3,853 | sy | \$ 3.00 | \$ 11,558 |
| 504 | 4" Topsoil | 2,111 | sy | \$ 4.00 | \$ 8,444 |
| 604 | 5' Concrete Sidewalk | 4,750 | sf | \$ 4.50 | \$ 21,375 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 260,749 |

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% | \$ 7,822 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 39,112 |
| ✓ Illumination | | 6% | \$ 15,645 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 13,037 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 5,215 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 10,430 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 91,262

| | |
|---------------------------------------|----------------------|
| Paving and Allowance Subtotal: | \$ 352,011 |
| Construction Contingency: | 15% \$ 52,802 |
| Mobilization | 6% \$ 21,121 |
| Prep ROW | 3% \$ 10,560 |
| Construction Cost TOTAL: | \$ 437,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|-------------------|
| Construction: | | - | \$ 437,000 |
| Engineering/Survey/Testing: | | 20% | \$ 87,400 |
| ROW/Easement Acquisition: | | 20% | \$ 87,400 |
| Project Subtotal: | | | \$ 612,000 |
| Impact Fee Project Cost TOTAL | | | \$ 612,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-12 |
|----------------------|-------------------------------|---|-------------|------|
| Name: | Rudeloff Rd / FM 20 (3) | This project consists of the construction of a new arterial. | | |
| Limits: | 6126' E of Huber Rd 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 | \$ 13.50 | \$ 160,950 |
| 204 | 4" Type D Asphalt | 10,956 | sy | \$ 25.50 | \$ 279,367 |
| 304 | 15" Crushed Limestone Flexible Base Material | 11,761 | sy | \$ 19.50 | \$ 229,342 |
| 404 | 6" Lime Stabilization (with Lime @ 27#/sy) | 11,761 | sy | \$ 3.00 | \$ 35,283 |
| 504 | 4" Topsoil | 6,444 | sy | \$ 4.00 | \$ 25,778 |
| 604 | 5' Concrete Sidewalk | 14,500 | sf | \$ 4.50 | \$ 65,250 |
| 704 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 795,969 |

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% | \$ 23,879 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 119,395 |
| ✓ Illumination | | 6% | \$ 47,758 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 39,798 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 15,919 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 31,839 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 278,589

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,074,559 |
| Construction Contingency: | 15% \$ 161,184 |
| Mobilization | 6% \$ 64,474 |
| Prep ROW | 3% \$ 32,237 |
| Construction Cost TOTAL: | \$ 1,333,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 1,333,000 |
| Engineering/Survey/Testing: | | 20% | \$ 266,600 |
| ROW/Easement Acquisition: | | 20% | \$ 266,600 |
| Project Subtotal: | | | \$ 1,867,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,867,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | A-13 |
|----------------------|-------------------------------|---|-------------|------|
| Name: | Rudeloff Rd / Strempe Rd | This project consists of the construction of a new arterial. | | |
| Limits: | Rudeloff Rd / FM 20 to SH 123 | | | |
| Impact Fee Class: | 4D_(90) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 5625 | | | |
| Service Area(s): | A | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 105 | Unclassified Street Excavation | 41,250 | cy | \$ 13.50 | \$ 556,875 |
| 205 | 4" Type D Asphalt | 35,000 | sy | \$ 25.50 | \$ 892,500 |
| 305 | 15" Crushed Limestone Flexible Base Material | 40,000 | sy | \$ 19.50 | \$ 780,000 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 40,000 | sy | \$ 3.00 | \$ 120,000 |
| 505 | 4" Topsoil | 12,500 | sy | \$ 4.00 | \$ 50,000 |
| 605 | 5' Concrete Sidewalk | 56,250 | sf | \$ 4.50 | \$ 253,125 |
| 705 | Turn Lanes and Median Openings | 4,169 | sy | \$ 48.00 | \$ 200,114 |
| Paving Construction Cost Subtotal: | | | | | \$ 2,852,614 |

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% | \$ 85,578 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 427,892 |
| ✓ Illumination | | 6% | \$ 171,157 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 142,631 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 57,052 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 114,105 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 998,415

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 3,851,028 |
| Construction Contingency: | 15% \$ 577,654 |
| Mobilization | 6% \$ 231,062 |
| Prep ROW | 3% \$ 115,531 |
| Construction Cost TOTAL: | \$ 4,776,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 4,776,000 |
| Engineering/Survey/Testing: | | 20% | \$ 955,200 |
| ROW/Easement Acquisition: | | 20% | \$ 955,200 |
| Project Subtotal: | | | \$ 6,687,000 |
| Impact Fee Project Cost TOTAL | | | \$ 6,687,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | A-14 |
|----------------------|----------------------|---|-------------|------|
| Name: | Huber Rd | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | IH 10 to Rudeloff Rd | | | |
| 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 | \$ 13.50 | \$ 678,645 |
| 205 | 4" Type D Asphalt | 42,653 | sy | \$ 25.50 | \$ 1,087,660 |
| 305 | 15" Crushed Limestone Flexible Base Material | 48,747 | sy | \$ 19.50 | \$ 950,560 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 48,747 | sy | \$ 3.00 | \$ 146,240 |
| 505 | 4" Topsoil | 15,233 | sy | \$ 4.00 | \$ 60,933 |
| 605 | 5' Concrete Sidewalk | 68,550 | sf | \$ 4.50 | \$ 308,475 |
| 705 | Turn Lanes and Median Openings | 5,081 | sy | \$ 48.00 | \$ 243,872 |
| Paving Construction Cost Subtotal: | | | | | \$ 3,476,385 |
| Major Construction Component Allowances**: | | | | | |
| Item Description | | Notes | Allowance | Item Cost | |
| ✓ | Traffic Control | Construction Phase Traffic Control | 5% | \$ | 173,819 |
| ✓ | Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ | 104,292 |
| ✓ | Roadway Drainage | Standard Internal System | 15% | \$ | 521,458 |
| ✓ | Illumination | | 6% | \$ | 208,583 |
| ✓ | Special Drainage Structures | Minor Stream Crossing | 0% | \$ | 364,000 |
| ✓ | Water | Minor Adjustments | 5% | \$ | 173,819 |
| ✓ | Sewer | Minor Adjustments | 2% | \$ | 69,528 |
| ✓ | Basic Landscaping and Irrigation | | 4% | \$ | 139,055 |
| | Miscellaneous: | | 0% | \$ | - |
| **Allowances based on % of Paving Construction Cost Subtotal | | | Allowance Subtotal: | \$ | 1,754,554 |
| Paving and Allowance Subtotal: | | | | \$ | 5,230,939 |
| Construction Contingency: | | | | 15% | \$ 784,641 |
| Mobilization | | | | 6% | \$ 313,856 |
| Prep ROW | | | | 5% | \$ 261,547 |
| Construction Cost TOTAL: | | | | \$ | 6,591,000 |

| Impact Fee Project Cost Summary | | | |
|---------------------------------|------------------------------|-----------|--------------|
| Item Description | Notes: | Allowance | Item Cost |
| Construction: | | - | \$ 6,591,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,318,200 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 659,100 |
| Project Subtotal: | | | \$ 8,569,000 |
| Impact Fee Project Cost TOTAL | | | \$ 8,569,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-1 |
|----------------------|-----------------------------|---|-------------|-----|
| Name: | FM 20 (1) | This project consists of the reconstruction of the existing pavement to a major collector. | | |
| Limits: | SH 123 to 1067' E of SH 123 | | | |
| Impact Fee Class: | 4U_(80) | | | |
| Ultimate Class: | MAJC | | | |
| Length (lf): | 1065 | | | |
| Service Area(s): | B | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 102 | Unclassified Street Excavation | 7,337 | cy | \$ 13.50 | \$ 99,045 |
| 202 | 4" Type D Asphalt | 6,627 | sy | \$ 25.50 | \$ 168,980 |
| 302 | 15" Crushed Limestone Flexible Base Material | 7,218 | sy | \$ 19.50 | \$ 140,758 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 7,218 | sy | \$ 3.00 | \$ 21,655 |
| 502 | 4" Topsoil | 1,302 | sy | \$ 4.00 | \$ 5,207 |
| 602 | 5' Concrete Sidewalk | 10,650 | sf | \$ 4.50 | \$ 47,925 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 483,569 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|-----------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 24,178 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 14,507 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 72,535 |
| ✓ Illumination | | 6% | \$ 29,014 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 24,178 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 9,671 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 19,343 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 193,428

Paving and Allowance Subtotal: \$ 676,997

Construction Contingency: 15% \$ 101,550

Mobilization 6% \$ 40,620

Prep ROW 5% \$ 33,850

Construction Cost TOTAL: \$ 854,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|---------------------|
| Construction: | | - | \$ 854,000 |
| Engineering/Survey/Testing: | | 20% | \$ 170,800 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 1,025,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 205,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-2 |
|----------------------|----------------------------------|---|-------------|-----|
| Name: | FM 20 (2) | This project consists of the reconstruction of the existing pavement to a major collector. | | |
| Limits: | 1067' E of SH 123 to City Limits | | | |
| Impact Fee Class: | 4U_(80) | | | |
| Ultimate Class: | MAJC | | | |
| Length (lf): | 7320 | | | |
| Service Area(s): | B, ETJ | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 102 | Unclassified Street Excavation | 50,427 | cy | \$ 13.50 | \$ 680,760 |
| 202 | 4" Type D Asphalt | 45,547 | sy | \$ 25.50 | \$ 1,161,440 |
| 302 | 15" Crushed Limestone Flexible Base Material | 49,613 | sy | \$ 19.50 | \$ 967,460 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 49,613 | sy | \$ 3.00 | \$ 148,840 |
| 502 | 4" Topsoil | 8,947 | sy | \$ 4.00 | \$ 35,787 |
| 602 | 5' Concrete Sidewalk | 73,200 | sf | \$ 4.50 | \$ 329,400 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 3,323,687 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 166,184 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 99,711 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 498,553 |
| ✓ Illumination | | 6% | \$ 199,421 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 166,184 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 66,474 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 132,947 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,329,475

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 4,653,161 |
| Construction Contingency: | 15% \$ 697,974 |
| Mobilization | 6% \$ 279,190 |
| Prep ROW | 5% \$ 232,658 |
| Construction Cost TOTAL: | \$ 5,863,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|---------------------|
| Construction: | | - | \$ 5,863,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,172,600 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 7,036,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 1,407,200 |

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

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-3 |
|----------------------|-----------------|---|-------------|-----|
| Name: | SH 123 Bypass | This project consists of the reconstruction of the existing pavement to a 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 | \$ 13.50 | \$ 1,096,200 |
| 207 | 4" Type D Asphalt | 71,533 | sy | \$ 25.50 | \$ 1,824,100 |
| 307 | 15" Crushed Limestone Flexible Base Material | 79,267 | sy | \$ 19.50 | \$ 1,545,700 |
| 407 | 6" Lime Stabilization (with Lime @ 27#/sy) | 79,267 | sy | \$ 3.00 | \$ 237,800 |
| 507 | 4" Topsoil | 77,333 | sy | \$ 4.00 | \$ 309,333 |
| 607 | 5' Concrete Sidewalk | 208,800 | sf | \$ 4.50 | \$ 939,600 |
| 707 | Turn Lanes and Median Openings | 9,139 | sy | \$ 48.00 | \$ 438,691 |
| Paving Construction Cost Subtotal: | | | | | \$ 6,391,424 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 319,571 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 191,743 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 958,714 |
| ✓ Illumination | | 6% | \$ 383,485 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 319,571 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 127,828 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 255,657 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

| | | | |
|---------------------------------------|-----|----|----------------------|
| Allowance Subtotal: | | | \$ 2,556,570 |
| Paving and Allowance Subtotal: | | | \$ 8,947,994 |
| Construction Contingency: | 15% | \$ | 1,342,199 |
| Mobilization | 6% | \$ | 536,880 |
| Prep ROW | 5% | \$ | 447,400 |
| Construction Cost TOTAL: | | | \$ 11,275,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|----------------------|
| Construction: | | - | \$ 11,275,000 |
| Engineering/Survey/Testing: | | 20% | \$ 2,255,000 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 13,530,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 2,706,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-4 |
|----------------------|-------------------------|---|-------------|-----|
| Name: | Strempe Rd | This project consists of the reconstruction of the existing pavement to an 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 | \$ 13.50 | \$ 244,035 |
| 205 | 4" Type D Asphalt | 15,338 | sy | \$ 25.50 | \$ 391,113 |
| 305 | 15" Crushed Limestone Flexible Base Material | 17,529 | sy | \$ 19.50 | \$ 341,813 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 17,529 | sy | \$ 3.00 | \$ 52,587 |
| 505 | 4" Topsoil | 5,478 | sy | \$ 4.00 | \$ 21,911 |
| 605 | 5' Concrete Sidewalk | 24,650 | sf | \$ 4.50 | \$ 110,925 |
| 705 | Turn Lanes and Median Openings | 1,827 | sy | \$ 48.00 | \$ 87,694 |
| Paving Construction Cost Subtotal: | | | | | \$ 1,250,079 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 62,504 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 37,502 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 187,512 |
| ✓ Illumination | | 6% | \$ 75,005 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 62,504 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 25,002 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 50,003 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 500,031

Paving and Allowance Subtotal: \$ 1,750,110

Construction Contingency: 15% \$ 262,517

Mobilization 6% \$ 105,007

Prep ROW 5% \$ 87,506

Construction Cost TOTAL: \$ 2,206,000

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 2,206,000 |
| Engineering/Survey/Testing: | | 20% | \$ 441,200 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 220,600 |
| Project Subtotal: | | | \$ 2,868,000 |
| Impact Fee Project Cost TOTAL | | | \$ 2,868,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-5 |
|----------------------|---|---|-------------|-----|
| Name: | Heideke St / Martindale Rd | This project consists of the reconstruction of the existing pavement to a major collector. | | |
| Limits: | SH 123 Bypass to 156' NE of Twin Oak Rd | | | |
| Impact Fee Class: | 4U_(80) | | | |
| Ultimate Class: | MAJC | | | |
| Length (lf): | 2435 | | | |
| Service Area(s): | B | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 102 | Unclassified Street Excavation | 16,774 | cy | \$ 13.50 | \$ 226,455 |
| 202 | 4" Type D Asphalt | 15,151 | sy | \$ 25.50 | \$ 386,353 |
| 302 | 15" Crushed Limestone Flexible Base Material | 16,504 | sy | \$ 19.50 | \$ 321,826 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 16,504 | sy | \$ 3.00 | \$ 49,512 |
| 502 | 4" Topsoil | 2,976 | sy | \$ 4.00 | \$ 11,904 |
| 602 | 5' Concrete Sidewalk | 24,350 | sf | \$ 4.50 | \$ 109,575 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,105,625 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 55,281 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 33,169 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 165,844 |
| ✓ Illumination | | 6% | \$ 66,338 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 55,281 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 22,113 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 44,225 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 442,250

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,547,875 |
| Construction Contingency: | 15% \$ 232,181 |
| Mobilization | 6% \$ 92,873 |
| Prep ROW | 5% \$ 77,394 |
| Construction Cost TOTAL: | \$ 1,951,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,951,000 |
| Engineering/Survey/Testing: | | 20% | \$ 390,200 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 195,100 |
| Project Subtotal: | | | \$ 2,537,000 |
| Impact Fee Project Cost TOTAL | | | \$ 2,537,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-6 |
|----------------------|---|--------------|-------------|---|
| Name: | Martindale Rd | | | This project consists of the reconstruction of the existing pavement to a major collector. |
| Limits: | 156' NE of Twin Oak Rd to 1300' NE of Twin Oak Rd | | | |
| Impact Fee Class: | 4U_(80) | | | |
| Ultimate Class: | MAJC | | | |
| Length (lf): | 1215 | | | |
| Service Area(s): | B, ETJ | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 102 | Unclassified Street Excavation | 8,370 | cy | \$ 13.50 | \$ 112,995 |
| 202 | 4" Type D Asphalt | 7,560 | sy | \$ 25.50 | \$ 192,780 |
| 302 | 15" Crushed Limestone Flexible Base Material | 8,235 | sy | \$ 19.50 | \$ 160,583 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 8,235 | sy | \$ 3.00 | \$ 24,705 |
| 502 | 4" Topsoil | 1,485 | sy | \$ 4.00 | \$ 5,940 |
| 602 | 5' Concrete Sidewalk | 12,150 | sf | \$ 4.50 | \$ 54,675 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 551,678 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 27,584 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 16,550 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 82,752 |
| ✓ Illumination | | 6% | \$ 33,101 |
| ✓ Special Drainage Structures | Minor Stream Crossing | 0% | \$ 370,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 27,584 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 11,034 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 22,067 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 590,671

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,142,349 |
| Construction Contingency: | 15% \$ 171,352 |
| Mobilization | 6% \$ 68,541 |
| Prep ROW | 5% \$ 57,117 |
| Construction Cost TOTAL: | \$ 1,440,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,440,000 |
| Engineering/Survey/Testing: | | 20% | \$ 288,000 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 144,000 |
| Project Subtotal: | | | \$ 1,872,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,872,000 |

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

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City of Seguin
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-7 |
|----------------------|----------------------------------|--|-------------|-----|
| 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 Rd 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 | \$ 13.50 | \$ 292,485 |
| 202 | 4" Type D Asphalt | 19,569 | sy | \$ 25.50 | \$ 499,007 |
| 302 | 15" Crushed Limestone Flexible Base Material | 21,316 | sy | \$ 19.50 | \$ 415,664 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 21,316 | sy | \$ 3.00 | \$ 63,948 |
| 502 | 4" Topsoil | 3,844 | sy | \$ 4.00 | \$ 15,376 |
| 602 | 5' Concrete Sidewalk | 31,450 | sf | \$ 4.50 | \$ 141,525 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,428,005 |

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% | \$ 42,840 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 214,201 |
| ✓ Illumination | | 6% | \$ 85,680 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 71,400 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 28,560 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 57,120 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 499,802

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,927,806 |
| Construction Contingency: | 15% \$ 289,171 |
| Mobilization | 6% \$ 115,668 |
| Prep ROW | 3% \$ 57,834 |
| Construction Cost TOTAL: | \$ 2,391,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|--------|-----------|---------------------|
| Construction: | | - | \$ 2,391,000 |
| Engineering/Survey/Testing: | | 20% | \$ 478,200 |
| ROW/Easement Acquisition: | | 20% | \$ 478,200 |
| Project Subtotal: | | | \$ 3,348,000 |
| Impact Fee Project Cost TOTAL | | | \$ 3,348,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | B-8 |
|----------------------|------------------------|---|-------------|-----|
| Name: | Heideke St | This project consists of the reconstruction of the existing pavement to a major collector. | | |
| Limits: | IH 10 to SH 123 Bypass | | | |
| 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 | \$ 13.50 | \$ 164,145 |
| 202 | 4" Type D Asphalt | 10,982 | sy | \$ 25.50 | \$ 280,047 |
| 302 | 15" Crushed Limestone Flexible Base Material | 11,963 | sy | \$ 19.50 | \$ 233,274 |
| 402 | 6" Lime Stabilization (with Lime @ 27#/sy) | 11,963 | sy | \$ 3.00 | \$ 35,888 |
| 502 | 4" Topsoil | 2,157 | sy | \$ 4.00 | \$ 8,629 |
| 602 | 5' Concrete Sidewalk | 17,650 | sf | \$ 4.50 | \$ 79,425 |
| 702 | Turn Lanes and Median Openings | 0 | sy | \$ 48.00 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 801,408 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 40,070 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 24,042 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 120,211 |
| ✓ Illumination | | 6% | \$ 48,084 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 40,070 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 16,028 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 32,056 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 320,563

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,121,971 |
| Construction Contingency: | 15% \$ 168,296 |
| Mobilization | 6% \$ 67,318 |
| Prep ROW | 5% \$ 56,099 |
| Construction Cost TOTAL: | \$ 1,414,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,414,000 |
| Engineering/Survey/Testing: | | 20% | \$ 282,800 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 141,400 |
| Project Subtotal: | | | \$ 1,839,000 |
| Impact Fee Project Cost TOTAL | | | \$ 1,839,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | C-1 |
|----------------------|-----------------------|--|-------------|-----|
| Name: | SH 123 / Austin St | This project consists of the reconstruction of the existing pavement to a major arterial. | | |
| Limits: | Kingsbury St to IH 10 | | | |
| Impact Fee Class: | 4D_(90) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 6665 | | | |
| Service Area(s): | C, D | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 105 | Unclassified Street Excavation | 48,877 | cy | \$ 13.50 | \$ 659,835 |
| 205 | 4" Type D Asphalt | 41,471 | sy | \$ 25.50 | \$ 1,057,513 |
| 305 | 15" Crushed Limestone Flexible Base Material | 47,396 | sy | \$ 19.50 | \$ 924,213 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 47,396 | sy | \$ 3.00 | \$ 142,187 |
| 505 | 4" Topsoil | 14,811 | sy | \$ 4.00 | \$ 59,244 |
| 605 | 5' Concrete Sidewalk | 66,650 | sf | \$ 4.50 | \$ 299,925 |
| 705 | Turn Lanes and Median Openings | 4,940 | sy | \$ 48.00 | \$ 237,112 |
| Paving Construction Cost Subtotal: | | | | | \$ 3,380,030 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 169,002 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 101,401 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 507,005 |
| ✓ Illumination | | 6% | \$ 202,802 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 169,002 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 67,601 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 135,201 |
| ✓ Miscellaneous: | Railroad Crossing | 0% | \$ 250,000 |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,602,012

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 4,982,042 |
| Construction Contingency: | 15% \$ 747,306 |
| Mobilization | 6% \$ 298,923 |
| Prep ROW | 5% \$ 249,102 |
| Construction Cost TOTAL: | \$ 6,278,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|---------------------|
| Construction: | | - | \$ 6,278,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,255,600 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 7,534,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 1,506,800 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | C-2 |
|----------------------|-----------------------|---|-------------|-----|
| Name: | Fleming Dr | This project consists of the reconstruction of the existing pavement to an arterial. | | |
| Limits: | Kingsbury St to IH 10 | | | |
| Impact Fee Class: | 4D_(90) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 4230 | | | |
| Service Area(s): | C | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 105 | Unclassified Street Excavation | 31,020 | cy | \$ 13.50 | \$ 418,770 |
| 205 | 4" Type D Asphalt | 26,320 | sy | \$ 25.50 | \$ 671,160 |
| 305 | 15" Crushed Limestone Flexible Base Material | 30,080 | sy | \$ 19.50 | \$ 586,560 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 30,080 | sy | \$ 3.00 | \$ 90,240 |
| 505 | 4" Topsoil | 9,400 | sy | \$ 4.00 | \$ 37,600 |
| 605 | 5' Concrete Sidewalk | 42,300 | sf | \$ 4.50 | \$ 190,350 |
| 705 | Turn Lanes and Median Openings | 3,135 | sy | \$ 48.00 | \$ 150,485 |
| Paving Construction Cost Subtotal: | | | | | \$ 2,145,165 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 107,258 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 64,355 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 321,775 |
| ✓ Illumination | | 6% | \$ 128,710 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 107,258 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 42,903 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 85,807 |
| ✓ Miscellaneous: | Railroad Crossing | 0% | \$ 250,000 |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,108,066

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 3,253,232 |
| Construction Contingency: | 15% \$ 487,985 |
| Mobilization | 6% \$ 195,194 |
| Prep ROW | 5% \$ 162,662 |
| Construction Cost TOTAL: | \$ 4,100,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 4,100,000 |
| Engineering/Survey/Testing: | | 20% | \$ 820,000 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 410,000 |
| Project Subtotal: | | | \$ 5,330,000 |
| Impact Fee Project Cost TOTAL | | | \$ 5,330,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | C-3 |
|----------------------|------------------------|--|-------------|-----|
| Name: | IH 10 Frontage Road | This project consists of the construction of a new frontage road. | | |
| Limits: | C H Matthies to SH 123 | | | |
| Impact Fee Class: | FR_(60) | | | |
| Ultimate Class: | FR | | | |
| Length (lf): | 12150 | | | |
| Service Area(s): | C | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 108 | Unclassified Street Excavation | 54,000 | cy | \$ 13.50 | \$ 729,000 |
| 208 | 3" Type D Asphalt | 45,900 | sy | \$ 10.13 | \$ 464,738 |
| 308 | 12" Crushed Limestone Flexible Base Material | 52,650 | sy | \$ 20.40 | \$ 1,074,060 |
| 408 | 6" Lime Stabilization (with Lime @ 27#/sy) | 52,650 | sy | \$ 3.00 | \$ 157,950 |
| 508 | 4" Topsoil | 24,300 | sy | \$ 4.00 | \$ 97,200 |
| 608 | 5' Concrete Sidewalk | 60,750 | sf | \$ 4.50 | \$ 273,375 |
| 708 | Turn Lanes and Median Openings | 0 | sy | \$ 33.53 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 2,796,323 |

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% | \$ 83,890 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 419,448 |
| ✓ Illumination | | 6% | \$ 167,779 |
| ✓ Special Drainage Structures | Minor Stream Crossing | 0% | \$ 225,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 139,816 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 55,926 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 111,853 |
| ✓ Miscellaneous: | Railroad Crossing | 0% | \$ 250,000 |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,453,713

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 4,250,035 |
| Construction Contingency: | 15% \$ 637,505 |
| Mobilization | 6% \$ 255,002 |
| Prep ROW | 3% \$ 127,501 |
| Construction Cost TOTAL: | \$ 5,271,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|---------------------|
| Construction: | | - | \$ 5,271,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,054,200 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 6,326,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 1,265,200 |

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

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | C-4 |
|----------------------|--------------------------|---|-------------|-----|
| Name: | Hidalgo St / Vaughan Ave | This project consists of the reconstruction of the existing pavement to a 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 | \$ 13.50 | \$ 342,300 |
| 201 | 3" Type D Asphalt | 21,552 | sy | \$ 19.13 | \$ 412,186 |
| 301 | 12" Crushed Limestone Flexible Base Material | 24,722 | sy | \$ 15.60 | \$ 385,658 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 24,722 | sy | \$ 3.00 | \$ 74,165 |
| 501 | 4" Topsoil | 5,071 | sy | \$ 4.00 | \$ 20,284 |
| 601 | 5' Concrete Sidewalk | 85,575 | sf | \$ 4.50 | \$ 385,088 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,619,681 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 80,984 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 48,590 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 242,952 |
| ✓ Illumination | | 6% | \$ 97,181 |
| ✓ Special Drainage Structures | Minor Stream Crossing | 0% | \$ 358,000 |
| ✓ Water | Minor Adjustments | 5% | \$ 80,984 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 32,394 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 64,787 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

| | | | |
|---------------------------------------|-----|----|---------------------|
| Allowance Subtotal: | | | \$ 1,005,872 |
| Paving and Allowance Subtotal: | | | \$ 2,625,554 |
| Construction Contingency: | 15% | \$ | 393,833 |
| Mobilization | 6% | \$ | 157,533 |
| Prep ROW | 5% | \$ | 131,278 |
| Construction Cost TOTAL: | | | \$ 3,309,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 3,309,000 |
| Engineering/Survey/Testing: | | 20% | \$ 661,800 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 330,900 |
| Project Subtotal: | | | \$ 4,302,000 |
| Impact Fee Project Cost TOTAL | | | \$ 4,302,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | C-5 |
|----------------------|-----------------------|---|-------------|-----|
| Name: | Jefferson Ave | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | SH 46 to Guadalupe St | | | |
| Impact Fee Class: | 3U_(60) | | | |
| Ultimate Class: | COL | | | |
| Length (lf): | 6150 | | | |
| Service Area(s): | C | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 101 | Unclassified Street Excavation | 27,333 | cy | \$ 13.50 | \$ 369,000 |
| 201 | 3" Type D Asphalt | 23,233 | sy | \$ 19.13 | \$ 444,338 |
| 301 | 12" Crushed Limestone Flexible Base Material | 26,650 | sy | \$ 15.60 | \$ 415,740 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 26,650 | sy | \$ 3.00 | \$ 79,950 |
| 501 | 4" Topsoil | 5,467 | sy | \$ 4.00 | \$ 21,867 |
| 601 | 5' Concrete Sidewalk | 92,250 | sf | \$ 4.50 | \$ 415,125 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,746,019 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 87,301 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 52,381 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 261,903 |
| ✓ Illumination | | 6% | \$ 104,761 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 87,301 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 34,920 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 69,841 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 698,408

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 2,444,427 |
| Construction Contingency: | 15% \$ 366,664 |
| Mobilization | 6% \$ 146,666 |
| Prep ROW | 5% \$ 122,221 |
| Construction Cost TOTAL: | \$ 3,080,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 3,080,000 |
| Engineering/Survey/Testing: | | 20% | \$ 616,000 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 308,000 |
| Project Subtotal: | | | \$ 4,004,000 |
| Impact Fee Project Cost TOTAL | | | \$ 4,004,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | C-6 |
|----------------------|-------------------------------------|---|-------------|-----|
| Name: | C H Matthies Jr / Lawson St | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | IH 10 Frontage Road to Kingsbury St | | | |
| Impact Fee Class: | 3U_(60) | | | |
| Ultimate Class: | COL | | | |
| Length (lf): | 4945 | | | |
| Service Area(s): | C | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 101 | Unclassified Street Excavation | 21,978 | cy | \$ 13.50 | \$ 296,700 |
| 201 | 3" Type D Asphalt | 18,681 | sy | \$ 19.13 | \$ 357,276 |
| 301 | 12" Crushed Limestone Flexible Base Material | 21,428 | sy | \$ 15.60 | \$ 334,282 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 21,428 | sy | \$ 3.00 | \$ 64,285 |
| 501 | 4" Topsoil | 4,396 | sy | \$ 4.00 | \$ 17,582 |
| 601 | 5' Concrete Sidewalk | 74,175 | sf | \$ 4.50 | \$ 333,788 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,403,913 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 70,196 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 42,117 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 210,587 |
| ✓ Illumination | | 6% | \$ 84,235 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 70,196 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 28,078 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 56,157 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 561,565

| | | |
|---------------------------------------|-----|---------------------|
| Paving and Allowance Subtotal: | | \$ 1,965,478 |
| Construction Contingency: | 15% | \$ 294,822 |
| Mobilization | 6% | \$ 117,929 |
| Prep ROW | 5% | \$ 98,274 |
| Construction Cost TOTAL: | | \$ 2,477,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 2,477,000 |
| Engineering/Survey/Testing: | | 20% | \$ 495,400 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 247,700 |
| Project Subtotal: | | | \$ 3,221,000 |
| Impact Fee Project Cost TOTAL | | | \$ 3,221,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | D-1 |
|----------------------|--------------------|--|-------------|-----|
| Name: | SH 123 / Austin St | This project consists of the reconstruction of the existing pavement to a major arterial. | | |
| Limits: | US 90 to IH 10 | | | |
| Impact Fee Class: | 4D_(90) | | | |
| Ultimate Class: | ARTE | | | |
| Length (lf): | 6665 | | | |
| Service Area(s): | C. D | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 105 | Unclassified Street Excavation | 48,877 | cy | \$ 13.50 | \$ 659,835 |
| 205 | 4" Type D Asphalt | 41,471 | sy | \$ 25.50 | \$ 1,057,513 |
| 305 | 15" Crushed Limestone Flexible Base Material | 47,396 | sy | \$ 19.50 | \$ 924,213 |
| 405 | 6" Lime Stabilization (with Lime @ 27#/sy) | 47,396 | sy | \$ 3.00 | \$ 142,187 |
| 505 | 4" Topsoil | 14,811 | sy | \$ 4.00 | \$ 59,244 |
| 605 | 5' Concrete Sidewalk | 66,650 | sf | \$ 4.50 | \$ 299,925 |
| 705 | Turn Lanes and Median Openings | 4,940 | sy | \$ 48.00 | \$ 237,112 |
| Paving Construction Cost Subtotal: | | | | | \$ 3,380,030 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 169,002 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 101,401 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 507,005 |
| ✓ Illumination | | 6% | \$ 202,802 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 169,002 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 67,601 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 135,201 |
| ✓ Miscellaneous: | Railroad Crossing | 0% | \$ 250,000 |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 1,602,012

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 4,982,042 |
| Construction Contingency: | 15% \$ 747,306 |
| Mobilization | 6% \$ 298,923 |
| Prep ROW | 5% \$ 249,102 |
| Construction Cost TOTAL: | \$ 6,278,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--|--------------------|-----------|---------------------|
| Construction: | | - | \$ 6,278,000 |
| Engineering/Survey/Testing: | | 20% | \$ 1,255,600 |
| ROW/Easement Acquisition: | NO ROW ACQUISITION | | \$ - |
| Project Subtotal: | | | \$ 7,534,000 |
| Impact Fee Project Cost TOTAL (TxDOT 20%) | | | \$ 1,506,800 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | D-2 |
|----------------------|--------------------------|---|-------------|-----|
| Name: | Walnut St | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | King St to SH 123 Bypass | | | |
| Impact Fee Class: | 3U_(60) | | | |
| Ultimate Class: | COL | | | |
| Length (lf): | 3290 | | | |
| Service Area(s): | D | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|-------------------|
| 101 | Unclassified Street Excavation | 14,622 | cy | \$ 13.50 | \$ 197,400 |
| 201 | 3" Type D Asphalt | 12,429 | sy | \$ 19.13 | \$ 237,703 |
| 301 | 12" Crushed Limestone Flexible Base Material | 14,257 | sy | \$ 15.60 | \$ 222,404 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 14,257 | sy | \$ 3.00 | \$ 42,770 |
| 501 | 4" Topsoil | 2,924 | sy | \$ 4.00 | \$ 11,698 |
| 601 | 5' Concrete Sidewalk | 49,350 | sf | \$ 4.50 | \$ 222,075 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 934,049 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 46,702 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 28,021 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 140,107 |
| ✓ Illumination | | 6% | \$ 56,043 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 46,702 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 18,681 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 37,362 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

| | | | |
|---------------------------------------|-----|----|---------------------|
| Allowance Subtotal: | | | \$ 373,620 |
| Paving and Allowance Subtotal: | | | \$ 1,307,669 |
| Construction Contingency: | 15% | \$ | 196,150 |
| Mobilization | 6% | \$ | 78,460 |
| Prep ROW | 5% | \$ | 65,383 |
| Construction Cost TOTAL: | | | \$ 1,648,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,648,000 |
| Engineering/Survey/Testing: | | 20% | \$ 329,600 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 164,800 |
| Project Subtotal: | | | \$ 2,143,000 |
| Impact Fee Project Cost TOTAL | | | \$ 2,143,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

3/6/2017

| Project Information: | | Description: | Project No. | D-3 |
|----------------------|--------------------------------|---|-------------|-----|
| Name: | Meadow Lake Dr | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | Stockdale Hwy 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 | \$ 13.50 | \$ 205,200 |
| 201 | 3" Type D Asphalt | 12,920 | sy | \$ 19.13 | \$ 247,095 |
| 301 | 12" Crushed Limestone Flexible Base Material | 14,820 | sy | \$ 15.60 | \$ 231,192 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 14,820 | sy | \$ 3.00 | \$ 44,460 |
| 501 | 4" Topsoil | 3,040 | sy | \$ 4.00 | \$ 12,160 |
| 601 | 5' Concrete Sidewalk | 51,300 | sf | \$ 4.50 | \$ 230,850 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 970,957 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 48,548 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 29,129 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 145,644 |
| ✓ Illumination | | 6% | \$ 58,257 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 48,548 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 19,419 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 38,838 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 388,383

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 1,359,340 |
| Construction Contingency: | 15% \$ 203,901 |
| Mobilization | 6% \$ 81,560 |
| Prep ROW | 5% \$ 67,967 |
| Construction Cost TOTAL: | \$ 1,713,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 1,713,000 |
| Engineering/Survey/Testing: | | 20% | \$ 342,600 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 171,300 |
| Project Subtotal: | | | \$ 2,227,000 |
| Impact Fee Project Cost TOTAL | | | \$ 2,227,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | D-4 |
|----------------------|-----------------------|---|-------------|-----|
| Name: | Heideke St | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | Kingsbury St 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 | \$ 13.50 | \$ 390,300 |
| 201 | 3" Type D Asphalt | 24,574 | sy | \$ 19.13 | \$ 469,986 |
| 301 | 12" Crushed Limestone Flexible Base Material | 28,188 | sy | \$ 15.60 | \$ 439,738 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 28,188 | sy | \$ 3.00 | \$ 84,565 |
| 501 | 4" Topsoil | 5,782 | sy | \$ 4.00 | \$ 23,129 |
| 601 | 5' Concrete Sidewalk | 97,575 | sf | \$ 4.50 | \$ 439,088 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,846,806 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 92,340 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 55,404 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 277,021 |
| ✓ Illumination | | 6% | \$ 110,808 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 92,340 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 36,936 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 73,872 |
| ✓ Miscellaneous: | Railroad Crossing | 0% | \$ 250,000 |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 988,722

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 2,835,528 |
| Construction Contingency: | 15% \$ 425,329 |
| Mobilization | 6% \$ 170,132 |
| Prep ROW | 5% \$ 141,776 |
| Construction Cost TOTAL: | \$ 3,573,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 3,573,000 |
| Engineering/Survey/Testing: | | 20% | \$ 714,600 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 357,300 |
| Project Subtotal: | | | \$ 4,645,000 |
| Impact Fee Project Cost TOTAL | | | \$ 4,645,000 |

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
2016 Roadway Impact Fee Study
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/6/2017

| Project Information: | | Description: | Project No. | D-5 |
|----------------------|--------------------------------|---|-------------|-----|
| Name: | Tor Dr | This project consists of the reconstruction of the existing pavement to a collector. | | |
| Limits: | Stockdale Hwy to SH 123 Bypass | | | |
| Impact Fee Class: | 3U_(60) | | | |
| Ultimate Class: | COL | | | |
| Length (lf): | 5445 | | | |
| Service Area(s): | D | | | |

Roadway Construction Cost Projection

| No. | Item Description | Quantity | Unit | Unit Price | Item Cost |
|---|--|----------|------|------------|---------------------|
| 101 | Unclassified Street Excavation | 24,200 | cy | \$ 13.50 | \$ 326,700 |
| 201 | 3" Type D Asphalt | 20,570 | sy | \$ 19.13 | \$ 393,401 |
| 301 | 12" Crushed Limestone Flexible Base Material | 23,595 | sy | \$ 15.60 | \$ 368,082 |
| 401 | 6" Lime Stabilization (with Lime @ 27#/sy) | 23,595 | sy | \$ 3.00 | \$ 70,785 |
| 501 | 4" Topsoil | 4,840 | sy | \$ 4.00 | \$ 19,360 |
| 601 | 5' Concrete Sidewalk | 81,675 | sf | \$ 4.50 | \$ 367,538 |
| 701 | Turn Lanes and Median Openings | 0 | sy | \$ 37.73 | \$ - |
| Paving Construction Cost Subtotal: | | | | | \$ 1,545,866 |

Major Construction Component Allowances:**

| Item Description | Notes | Allowance | Item Cost |
|------------------------------------|--|-----------|------------|
| ✓ Traffic Control | Construction Phase Traffic Control | 5% | \$ 77,293 |
| ✓ Pavement Markings/Signs/Posts | Includes Striping/Signs for Bicycle Facilities | 3% | \$ 46,376 |
| ✓ Roadway Drainage | Standard Internal System | 15% | \$ 231,880 |
| ✓ Illumination | | 6% | \$ 92,752 |
| Special Drainage Structures | None Anticipated | 0% | \$ - |
| ✓ Water | Minor Adjustments | 5% | \$ 77,293 |
| ✓ Sewer | Minor Adjustments | 2% | \$ 30,917 |
| ✓ Basic Landscaping and Irrigation | | 4% | \$ 61,835 |
| Miscellaneous: | | 0% | \$ - |

**Allowances based on % of Paving Construction Cost Subtotal

Allowance Subtotal: \$ 618,346

| | |
|---------------------------------------|-----------------------|
| Paving and Allowance Subtotal: | \$ 2,164,212 |
| Construction Contingency: | 15% \$ 324,632 |
| Mobilization | 6% \$ 129,853 |
| Prep ROW | 5% \$ 108,211 |
| Construction Cost TOTAL: | \$ 2,727,000 |

Impact Fee Project Cost Summary

| Item Description | Notes: | Allowance | Item Cost |
|--------------------------------------|------------------------------|-----------|---------------------|
| Construction: | | - | \$ 2,727,000 |
| Engineering/Survey/Testing: | | 20% | \$ 545,400 |
| ROW/Easement Acquisition: | Existing Alignment (1/2 ROW) | 10% | \$ 272,700 |
| Project Subtotal: | | | \$ 3,546,000 |
| Impact Fee Project Cost TOTAL | | | \$ 3,546,000 |

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.



B. CIP Service Units of Supply

City of Seguin - 2016 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area A

3/6/2017

| Project ID # | ROADWAY | LIMITS | LENGTH (MI) | LANES | IMPACT FEE CLASSIFICATION | PEAK HOUR VOLUME | 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 Rd (1) | 1470' W of SH 123 / City Limits to 447' W of SH 123 | 0.20 | 4 | ARTE | 489 | 750 | 585 | 95 | 490 | \$ 649,000 |
| A-2 | Cordova Rd (2) | 447' W of SH 123 to SH 123 | 0.08 | 4 | ARTE | 489 | 750 | 253 | 41 | 212 | \$ 561,000 |
| A-3 | Outer Loop (1) | FM 1620 to 2345' E of FM 1620 | 0.44 | 6 | PKWY | New | 925 | 2465 | 0 | 2465 | \$ 4,038,000 |
| A-4 | Outer Loop (2) | 2345' E of FM 1620 to SH 46 | 0.62 | 6 | PKWY | New | 925 | 3421 | 0 | 3,421 | \$ 5,605,000 |
| A-5 | Outer Loop (3) | SH 46 to Rudeloff Rd | 0.71 | 6 | PKWY | New | 925 | 3958 | 0 | 3,958 | \$ 7,339,000 |
| A-6 | Outer Loop (4) | Rudeloff Rd to City Limits | 0.63 | 6 | PKWY | New | 925 | 3490 | 0 | 3,490 | \$ 2,858,500 |
| A-7 | Rudeloff Rd (1) | SH 46 to 4432' E of FM 46 | 0.84 | 4 | ARTE | 283 | 750 | 2517 | 237 | 2,280 | \$ 7,260,000 |
| A-8 | Rudeloff Rd (2) | 4432' E of FM 46 to Beechcraft Ln | 0.44 | 4 | ARTE | 283 | 750 | 1321 | 125 | 1,196 | \$ 1,464,000 |
| A-9 | Rudeloff Rd (3) | Beechcraft Ln to Huber Rd | 0.24 | 4 | ARTE | 283 | 750 | 722 | 68 | 654 | \$ 1,945,000 |
| A-10 | Rudeloff Rd / FM 20 (1) | Huber Rd to 3765' E of Huber Rd | 0.84 | 4 | ARTE | New | 750 | 2526 | 0 | 2,526 | \$ 5,719,000 |
| A-11 | Rudeloff Rd / FM 20 (2) | 3883' E of Huber Rd to 4156' E of Huber Rd | 0.09 | 4 | ARTE | New | 750 | 270 | 0 | 270 | \$ 612,000 |
| A-12 | Rudeloff Rd / FM 20 (3) | 6126' E of Huber Rd to SH 123 | 0.27 | 4 | ARTE | New | 750 | 824 | 0 | 824 | \$ 1,867,000 |
| A-13 | Rudeloff Rd / Strempe Rd | Rudeloff Rd / FM 20 to SH 123 | 1.07 | 4 | ARTE | New | 750 | 3196 | 0 | 3,196 | \$ 6,687,000 |
| A-14 | Huber Rd | IH 10 to Rudeloff Rd | 1.30 | 4 | ARTE | 112 | 750 | 3895 | 145 | 3,750 | \$ 8,569,000 |
| A-S1 | Future Grade Separated | Outer Loop & SH 46 | - | - | - | | | | | | \$ 3,000,000 |
| A-S2 | Signal Installation | SH 123 & FM 20 | - | - | - | | | | | | \$ 25,000 |
| A-S3 | Turn Lane Installation | SH 123 & Cordova Rd | - | - | - | | | | | | \$ 300,000 |
| SUBTOTAL | | | | | | | | 29,443 | 711 | 28,732 | \$ 58,498,500 |

2016 Impact Fee Study and MTP Update Cost Per Service Area \$ 37,500
TOTAL COST IN SERVICE AREA A \$58,536,000

City of Seguin - 2016 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area B

3/6/2017

| Project ID # | ROADWAY | LIMITS | LENGTH (MI) | LANES | IMPACT FEE CLASSIFICATION | PEAK HOUR VOLUME | 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 | 0.20 | 4 | MAJC | 110 | 575 | 464 | 22 | 442 | \$ 205,000 |
| B-2 | FM 20 (2) | 1067' E of SH 123 to City Limits | 1.39 | 4 | MAJC | 110 | 575 | 3189 | 153 | 3036 | \$ 703,600 |
| B-3 | SH 123 Bypass | SH 123 to IH 10 | 1.65 | 6 | PKWY | 1,130 | 925 | 9145 | 1862 | 7283 | \$ 2,706,000 |
| B-4 | Strempe Rd | SH 123 to SH 123 Bypass | 0.47 | 4 | ARTE | 32 | 750 | 1401 | 15 | 1,386 | \$ 2,868,000 |
| B-5 | Heideke St / Martindale Rd | SH 123 Bypass to 156' NE of Twin Oak Rd | 0.46 | 4 | MAJC | 21 | 575 | 1061 | 10 | 1,051 | \$ 2,537,000 |
| B-6 | Martindale Rd | 156' NE of Twin Oak Rd to 1300' NE of Twin Oak Rd | 0.23 | 4 | MAJC | 21 | 575 | 529 | 5 | 524 | \$ 936,000 |
| B-7 | Future Major Collector C | 1300' NE of Twin Oak Rd to FM 20 | 0.60 | 4 | MAJC | New | 575 | 1370 | 0 | 1,370 | \$ 3,348,000 |
| B-8 | Heideke St | IH 10 to SH 123 Bypass | 0.33 | 4 | MAJC | 21 | 575 | 769 | 7 | 762 | \$ 1,839,000 |
| B-S1 | Signal Installation | SH 123 & FM 20 | - | - | - | - | - | - | - | - | \$ 25,000 |
| B-S2 | Turn Lane Installation | SH 123 & Cordova Rd | - | - | - | - | - | - | - | - | \$ 300,000 |
| SUBTOTAL | | | | | | | | 17,928 | 2,074 | 15,854 | \$ 15,467,600 |

2016 Impact Fee Study and MTP Update Cost Per Service Area \$ 37,500

TOTAL COST IN SERVICE AREA B \$15,505,100

City of Seguin - 2016 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area C

3/6/2017

| Project ID # | ROADWAY | LIMITS | LENGTH (MI) | LANES | IMPACT FEE CLASSIFICATION | PEAK HOUR VOLUME | 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 | SH 123 / Austin St | Kingsbury St to IH 10 | 1.26 | 4 | ARTE | 1,340 | 750 | 3787 | 1,691 | 2,096 | \$ 753,400 |
| C-2 | Fleming Dr | Kingsbury St to IH 10 | 0.80 | 4 | ARTE | 100 | 750 | 2403 | 80 | 2,323 | \$ 5,330,000 |
| C-3 | IH 10 Frontage Road | C H Matthies to SH 123 | 2.30 | 3 | FR | 1,180 | 525 | 3624 | 2,715 | 909 | \$ 1,265,200 |
| C-4 | Hidalgo St / Vaughan Ave | US 90 ALTE to FM 78 | 1.08 | 3 | COL | 163 | 525 | 1702 | 176 | 1,526 | \$ 4,302,000 |
| C-5 | Jefferson Ave | SH 46 to Guadalupe St | 1.16 | 3 | COL | 218 | 525 | 1835 | 254 | 1581 | \$ 4,004,000 |
| C-6 | C H Matthies Jr / Lawson St | IH 10 Frontage Road to Kingsbury St | 0.94 | 3 | COL | 100 | 525 | 1475 | 94 | 1381 | \$ 3,221,000 |
| SUBTOTAL | | | | | | | | 14,826 | 5,010 | 9,816 | \$ 18,875,600 |

2016 Impact Fee Study and MTP Update Cost Per Service Area \$ 37,500

TOTAL COST IN SERVICE AREA C \$ 18,913,100

City of Seguin - 2016 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area D

3/6/2017

| Project ID # | ROADWAY | LIMITS | LENGTH (MI) | LANES | IMPACT FEE CLASSIFICATION | PEAK HOUR VOLUME | 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 | SH 123 / Austin St | US 90 to IH 10 | 1.26 | 4 | ARTE | 1,170 | 750 | 3787 | 1,477 | 2,310 | \$ 753,400 |
| D-2 | Walnut St | King St to SH 123 Bypass | 0.62 | 3 | COL | 447 | 525 | 981 | 279 | 702 | \$ 2,143,000 |
| D-3 | Meadow Lake Dr | Stockdale Hwy to SH 123 Bypass | 0.65 | 3 | COL | 273 | 525 | 1020 | 177 | 843 | \$ 2,227,000 |
| D-4 | Heideke St | Kingsbury St to IH 10 | 1.23 | 3 | COL | 99 | 525 | 1940 | 122 | 1818 | \$ 4,645,000 |
| D-5 | Tor Dr | Stockdale Hwy to SH 123 Bypass | 1.03 | 3 | COL | 428 | 525 | 1624 | 441 | 1183 | \$ 3,546,000 |
| D-S1 | Realignment | Eastwood Dr & Preston Dr | - | - | - | - | - | - | - | - | \$ 1,000,000 |
| D-S2 | Signal and Turn Lanes | King St & Gloria Dr | - | - | - | - | - | - | - | - | \$ 750,000 |
| SUBTOTAL | | | | | | | | 9,352 | 2,496 | 6,856 | \$ 15,064,400 |

2016 Impact Fee Study and MTP Update Cost Per Service Area \$ 37,500

TOTAL COST IN SERVICE AREA D \$15,101,900