



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Meeting Agenda

Planning and Zoning Commission

Wednesday, March 20, 2024

5:00 PM

Council Work Session Room

Capital Improvement Advisory Committee

WORK SESSION BEGINS AT 5:00 P.M. IN THE COUNCIL WORK SESSION ROOM

After determining that a quorum is present, the Planning and Zoning Commission of the City of Denton, Texas will convene as the Capital Improvement Advisory Committee in a Work Session on Wednesday, March 20, 2024, at 5:00 p.m. in Council Chamber at City Hall, 215 E. McKinney Street, Denton, Texas at which the following items will be considered:

WORK SESSION

1. Work Session Reports

- A. [PZ24-040](#) Receive a report, hold a discussion, and give staff direction regarding the updates to Roadway Impact Fees.

Attachments: [Exhibit 1 - Agenda Information Sheet](#)
 [Exhibit 2 - Draft Roadway Impact Fee Study](#)
 [Exhibit 3 - Presentation](#)

2. CONCLUDING ITEMS

A. Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Planning & Zoning Commission, acting as the Capital Improvement Advisory Committee, or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

NOTE: The Planning and Zoning Commission convened as the Capital Improvement Committee reserves the right to adjourn into a Closed Meeting on any item on its Work Session or Regular Session agenda consistent with Chapter 551 of the Texas Government Code, as amended, including without limitation, Sections 551.071-551.086 of the Texas Open Meetings Act.

CERTIFICATE

I certify that the above notice of meeting was posted on the official website (<https://tx-denton.civicplus.com/242/Public-Meetings-Agendas>) and bulletin board at City Hall, 215 E. McKinney Street, Denton, Texas, on March 14, 2024, in advance of the 72-hour posting deadline, as applicable, and in accordance with Chapter 551 of the Texas Government Code.

OFFICE OF THE CITY SECRETARY

NOTE: THE CITY OF DENTON'S DESIGNATED PUBLIC MEETING FACILITIES ARE ACCESSIBLE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY WILL PROVIDE ACCOMMODATION, SUCH AS SIGN LANGUAGE INTERPRETERS FOR THE HEARING IMPAIRED, IF REQUESTED AT LEAST 48 HOURS IN ADVANCE OF THE SCHEDULED MEETING. PLEASE CALL THE CITY SECRETARY'S OFFICE AT 940-349-8309 OR USE TELECOMMUNICATIONS DEVICES FOR THE DEAF (TDD) BY CALLING 1-800-RELAY-TX SO THAT REASONABLE ACCOMMODATION CAN BE ARRANGED.



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
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Legislation Text

File #: PZ24-040, **Version:** 1

AGENDA CAPTION

Receive a report, hold a discussion, and give staff direction regarding the updates to Roadway Impact Fees.



AGENDA INFORMATION SHEET

DEPARTMENT: Capital Projects/Engineering/Public Works

ACM: Cassandra Ogden

DATE: March 20, 2024

SUBJECT

Receive a report, hold a discussion, and give staff direction regarding the updates to Roadway Impact Fees.

BACKGROUND

The City of Denton has been in the process of updating the Roadway Impact Fees as the next step after the adopted 2022 Mobility Plan.

The purpose of the presentation and discussion is to include:

- A review on what impact fees are
- Why cities have impact fees
- Discussion on Service Areas developed and Land Use assumptions
- Development Impact Fee Capital Improvement Plan
- Service Units Examples and Redevelopment
- Impact Fee Methodology and Maximum Impact Fee Calculation
- Financial purpose of Roadway Impact Fees and Collection Free Options

The City of Denton retained Kimley-Horn to complete the Roadway Impact Fee update as the final step of the 2022 Mobility Plan and Roadway Impact Fee Updates. The City of Denton has presented to the Capital Improvement Advisory Committee (CIAC) on Oct. 26, 2022; Nov. 14, 2022; and Dec. 14, 2022; at a Developer Town Hall on Oct. 27, 2022; and Sept. 14, 2023; and at City Council on Nov. 15, 2022, Dec. 6, 2022; and Dec. 12, 2023. The final 2022 Roadway Impact Fee study, included as Exhibit 3, sets the maximum assessable impact fee per service unit that can be charged in each impact fee service area. Detailed information about how the fee is calculated, along with a list of all projects, is included in the study. In December 2023, Staff posted the Roadway Impact Fee Study to the City website and provided the information to the development community via email to receive feedback. A public hearing on the 2022 Roadway Impact Fee Study is anticipated to be held in Apr. 2024.

PRIOR ACTION/REVIEW (Council, Boards, Commissions)

Capital Improvement Advisory Committee (CIAC) – Oct. 26, 2022 – Received Direction

Capital Improvement Advisory Committee (CIAC) – Nov. 14, 2022 – Received Direction

City Council – Nov. 15, 2022 – Received Direction

City Council – Dec. 6, 2022 – Received Direction

Capital Improvement Advisory Committee (CIAC) – Dec. 14, 2022 – Received Direction

City Council – Dec. 12, 2023 – Received Direction

ESTIMATED SCHEDULE OF PROJECT

Anticipated opening of Public Hearing on Apr. 2, 2024

Anticipated adoption of Land Use Assumptions and Fee on May 7, 2024

EXHIBITS

Exhibit 1 – Agenda Information Sheet

Exhibit 2 – Draft Roadway Impact Fee Study

Exhibit 3 – Presentation

Respectfully submitted:

Brett Bourgeois, PE

Deputy City Engineer

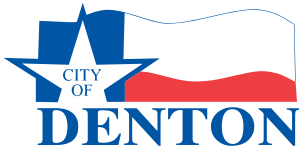
Legal point of contact: Benjamin Samples at 940-349-8312.

CITY OF DENTON, TEXAS

ROADWAY IMPACT FEE STUDY

December 2023

Prepared for



Prepared by:
Kimley-Horn and Associates, Inc.
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Phone 817.335.6511

TBPE Firm Registration
Number: F-928
Project Number: 067390001

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CITY OF DENTON, TEXAS ROADWAY IMPACT FEE STUDY



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EXECUTIVE SUMMARY

Introduction

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. Across the country, they are used to fund police and fire facilities, parks, schools, roads and utilities. In Texas, the legislature has allowed their use for water, wastewater, roadway and drainage facilities. They have been used to fund public water and wastewater improvements since 1998 and transportation improvements since 2016 in the City of Denton.

In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development creating new infrastructure needs. In the case of roadway impact fees, the infrastructure need is the increased capacity on arterial and collector roadways that serve the overall transportation system. The purpose of the 2022 Roadway Impact Fee Study is to identify the fee per unit of new development necessary to fund these improvements in accordance with the enabling legislation, Chapter 395 of the Texas Local Government Code.

Impact Fee Basics

Transportation Impact Fees are determined by several key variables, each described below in greater detail.

Impact Fee Study

The primary purpose of the 2022 Roadway Impact Fee Study is to determine the maximum impact fee per unit of new development chargeable as allowed by the state law. This determination is not a recommendation; the actual fee amount ultimately collected is at the discretion of the Denton City Council, so long as it does not exceed the maximum assessable allowed by law. The study looks at a period of 10 years to project new growth and corresponding capacity needs, as required by state law. The study and corresponding maximum fees must be restudied at least every five years. However, the study can be updated at any time to accommodate significant changes in any of the key variables of the impact fee equation.

Service Areas

A Service Area is a geographic area within which a unique maximum impact fee is determined. All fees collected within the Service Area must be spent on eligible improvements within the same Service Area. For Roadway Impact Fees, the Service Area may not exceed six miles. In Denton, this restriction necessitated the creation of five separate Service Areas. A map of the Service Areas can be found on Page 6.

In defining the Service Area boundaries, the project team considered the corporate boundary, required size limit, adjacent land uses, and topography. Since each Service Area has a unique maximum impact fee, the per-unit maximum fee for an identical land use will vary from one Service Area to the next. For this reason, the team contained areas of uniform land use within the same Service Area boundary where possible.

Land Use Assumptions

The maximum Roadway Impact Fee determination is required to be based on the projected growth and corresponding capacity needs in a 10-year window. This study considers the years 2022-2032.

In order to arrive at a reasonable projection of growth, all vacant parcels were inventoried. It was assumed that vacant parcels would develop according to the Future Land Use Plan specified in the Comprehensive Plan (Pg. 8). To project future development in the ten-year window, the known developing areas within the city were assumed to be fully developed by the year 2032. Research of historical building permits was performed to compare the projected growth of these known development areas against historical data.

Roadway Impact Fee Capital Improvement Plan (CIP)

The Roadway Impact Fee CIP is distinct and separate from the City's traditional Capital Improvements Plan. The Roadway Impact Fee CIP is simply the list of projects eligible for funding through impact fees. Only those capacity improvements included in the City's adopted Mobility Plan are included in the Roadway Impact Fee CIP. Capacity improvements may include the addition of lanes, intersection improvements, or the extension of a new road. Resurfacing or other maintenance activities do not qualify as capacity improvements under impact fee law in Texas.

Only the projects listed in the Roadway Impact Fee CIP are eligible to utilize impact fee funds. In order to optimize future flexibility, all capacity improvement projects included in the Mobility Plan are included in the Roadway Impact Fee CIP and will be eligible to utilize impact fee funds. Only the costs associated with providing the additional capacity necessitated by 10-years of growth can be used to calculate the maximum impact fee.

In order to calculate the maximum impact fee, the total cost of the Roadway Impact Fee CIP at build-out was reduced to account for:

- The portion of new capacity that will address existing needs, and
- The portion of new capacity that will not be necessitated until beyond the 10-year growth window.

A ratio that compares 10 years' demand for capacity to the net supply of capacity (total new capacity in the Roadway Impact Fee CIP minus existing needs) can be calculated. This ratio, which may not exceed 100%, is then applied to the cost of the net capacity supplied. The result is a determination of the costs attributable to the next 10 years' growth, which is then used to calculate the maximum impact fee in accordance with state law. The result is known as the cost of the Roadway Impact Fee CIP Attributable to Growth (i.e. recoverable portion of the Roadway Impact Fee CIP):

SERVICE AREA:	A	B	C	D	E
Recoverable Cost of Roadway Impact Fee CIP and Financing	\$191,401,529	\$66,577,513	\$147,114,364	\$61,257,141	\$89,881,134

Service Units

The impact fee law defines a service unit as follows: "Service Unit means a standardized measure of consumption attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years."

The 2022 Roadway Impact Fee Study defines a *service unit* as the number of vehicle-miles. Based on the City's 10-year growth projections the associated demand (consumption) values for each service area are as follows in terms of vehicle-miles:

SERVICE AREA:	A	B	C	D	E
Total Veh-Mi Demand Over Ten Years	39,968	16,374	31,332	11,634	24,148

Impact Fee Calculation

The maximum impact fee allowable in each of the five service areas is then calculated by dividing the Roadway Impact Fee CIP Attributable to Growth by the number of vehicle-miles in the corresponding Service Area in the above table. This calculation is performed for each service area individually; each service area has a stand-alone Roadway Impact Fee CIP and 10-year growth projection.

Below is the listing of the 2022 Roadway Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

SERVICE AREA:	A	B	C	D	E
2022 Roadway Impact Fee Study Maximum Assessable Fee Per Vehicle-Mile	\$4,789	\$4,066	\$4,695	\$5,265	\$3,722

Chapter 395 Required Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Roadway Impact Fees. A Capital Improvement Advisory Committee (CIAC) is required to review the Land Use Assumptions and Roadway Impact Fees CIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. This CIAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIAC is required to adequately represent the building and development communities. The City Council then conducts a first public hearing on the Land Use Assumptions and Roadway Impact Fee CIP and a second public hearing on the Roadway Impact Fee Ordinance.

Following policy adoption, the CIAC is tasked with advising the City Council of the need to update the Land Use Assumptions or the Roadway Impact Fees CIP at any time within five years of adoption. Finally, the CIAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

Collection and Use of Transportation Impact Fees

Roadway Impact fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. Roadway Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection, or must be refunded with interest.

I. INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure political subdivisions must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in 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 retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for the 2022 Roadway Impact Fee Study. This report includes details of the Roadway Impact Fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the Roadway Impact Fee Capital Improvements Plan, and the Land Use Equivalency Table.

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

- 1) **Land Use Assumptions** (Pg. 3)
- 2) **Roadway Impact Fee Capital Improvements Plan (CIP)** (Pg. 9)

Information from these Land Use Assumptions and Roadway Impact Fee CIP is used extensively throughout the remainder of the report.

There is a detailed discussion of the methodology for the computation of impact fees. This discussion is broken into three components:

- 1) **Methodology for Roadway Impact Fees** (Pg. 20)
- 2) **Roadway Impact Fee Calculation** (Pg. 36)
- 3) **Plan for Financing and the Ad Valorem Tax Credit** (Pg. 38)

The components of the **Computation Method for Roadway Impact Fee** include development of:

- Service Areas (Pg. 20)
- Service Units (Pg. 20)
- Cost Per Service Unit (Pg. 22)
- Roadway Impact Fee CIP Costing Methodology (Pg. 22)
- Summary of Roadway Impact Fee CIP Costs (Pg. 25)
- Service Unit Calculation (Pg. 31)

The Roadway Impact Fee is then calculated as:

- Maximum Assessable Impact Fee Per Service Unit (Pg. 36)
- Service Unit Demand Per Unit of Development (Pg. 43)

The report also includes a section concerning the **Plan for Financing and the Ad Valorem Tax Credit**. This involves the calculation of the applicable credit required by law to offset the City's use of ad valorem taxes to help fund the Roadway Impact Fee CIP. This plan, prepared by NewGen Strategies, and upon which we relied, details the maximum assessable impact fee per service unit the City of Denton may apply under Chapter 395 of the Texas Local Government Code.

II. LAND USE ASSUMPTIONS

A. Purpose and Overview

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for residential 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 development in the service area. The land use assumptions are then used in determining the need and timing of transportation improvements to serve future development.

Information from the following sources was compiled to complete the land use assumptions:

- Denton Plan 2040 (City of Denton Comprehensive Plan)
- Denton County Appraisal District (DCAD)
- North Central Texas Council of Governments (NCTCOG)
- City of Denton staff
- Denton 2022 Mobility Plan

The Land Use Assumptions include the following components:

- **Land Use Assumptions Methodology** – An overview of the general methodology used to generate the land use assumptions.
- **Roadway Impact Fee Service Areas** – Explanation of the division of Denton into service areas for transportation facilities.
- **Residential and Employment**– Data on residential and employment growth within the service area over the next ten years (2022 – 2032).
- **Land Use Assumptions Summary** – A synopsis of the land use assumptions.

The residential and employment estimates and projections were compiled in accordance with the following categories:

Residential: Number of residential dwelling units, both single and multi-family.

Employment: Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

Retail: Land use activities which provide for the retail sale of goods which primarily serve households and whose location choice is oriented toward the household sector, such as grocery stores and restaurants.

Service: Land use activities which provide personal and professional services, such as government and other professional offices.

Basic: Land use activities that produce goods and services such as those which are exported outside of the local economy, such as manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses.

The above categories in the Land Use Assumptions match those used to develop the travel demand model for the City of Denton. These broader categories are used in the development of the assumptions for impact fees; however, expanded classifications used in the assessment of impact fees are found in the Land Use / Vehicle-Mile Equivalency Table (Pg. 45).

B. Land Use Assumptions Methodology

The residential and employment growth projections formulated in this report were performed using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Character, type, density, and quantity of existing development;
- Current zoning plans;
- Future Land Use Plan (based on Denton 2040 Comprehensive Plan);
- Growth trends;
- Location of vacant land;

- Physical restrictions (i.e. flood plains, railroads); and
- Physical development capacity of Denton.

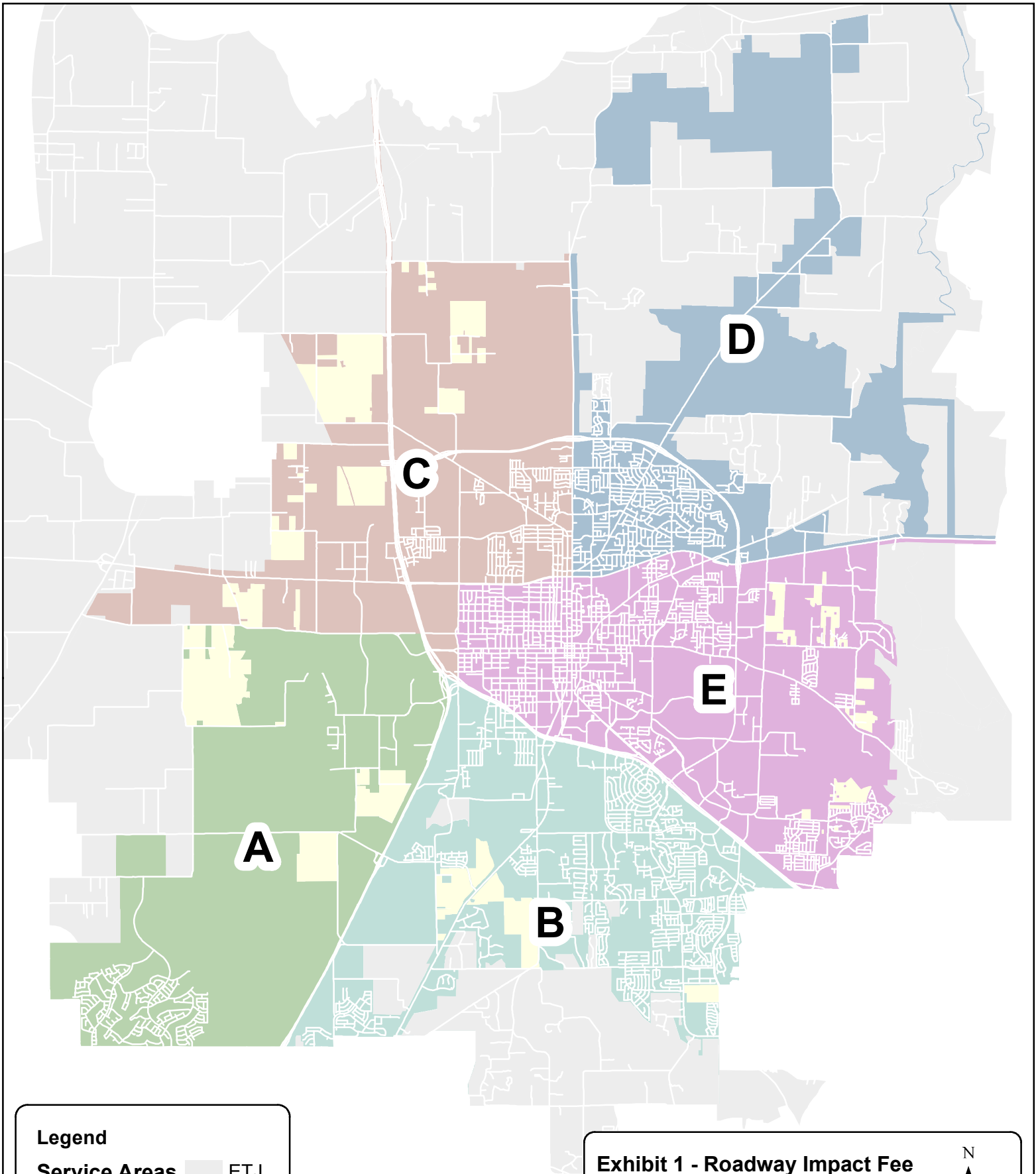
Existing residential and employment estimates were obtained using Denton Central Appraisal District (DCAD) parcel data and an aerial survey of existing development.

For the remaining undeveloped areas, assumptions based upon the City's Future Land Use Plan were used to estimate the ultimate buildout of residential and employment development. To project future development in the ten-year window, the known developing areas within the city were assumed to be fully developed by the year 2032.

C. Roadway Impact Fee Service Areas

The geographic boundary of the proposed impact fee service areas for transportation facilities is shown in **Exhibit 1**. The City of Denton is currently divided into five (5) service areas, each based upon the six (6) mile limit, as required in Chapter 395 (explained on Pg. 20). For roadway facilities, the service areas as required by state law are limited to areas within the current corporate limits. Therefore, areas within the extraterritorial jurisdiction (ETJ) and non-annexation areas (NAAs) are excluded from this study.

It should be noted that at locations where service area boundaries follow a City thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway, unless otherwise noted. In cases where a service area boundary follows the City Limits, only those portions of the transportation facility within the City Limits are included in the service area.



Legend

Service Areas

- | | | | |
|--|---|---|-----|
|  | A |  | ETJ |
|  | B |  | NAA |
|  | C | | |
|  | D | | |
|  | E | | |

Exhibit 1 - Roadway Impact Fee Service Areas

2022 Roadway Impact Fee Study

0 0.5 1
Miles

Kimley»Horn



D. Residential and Employment

Residential and Employment estimates for the base year (2022) were performed based upon a survey of the existing land uses on DCAD parcel data, and aerial verification. Build-out projections were prepared by combining the existing land uses within the service area with reasonable density assumptions for undeveloped land based upon the Denton 2040 Comprehensive Plan - Future Land Use Plan. Ten-year growth projections were prepared based upon historic growth trends, location of recent and known development within the City, and consultation with City staff. **Exhibit 2** presents the existing City limits and the proposed service areas, combined with the Future Land Use Plan.

E. Land Use Assumptions Summary

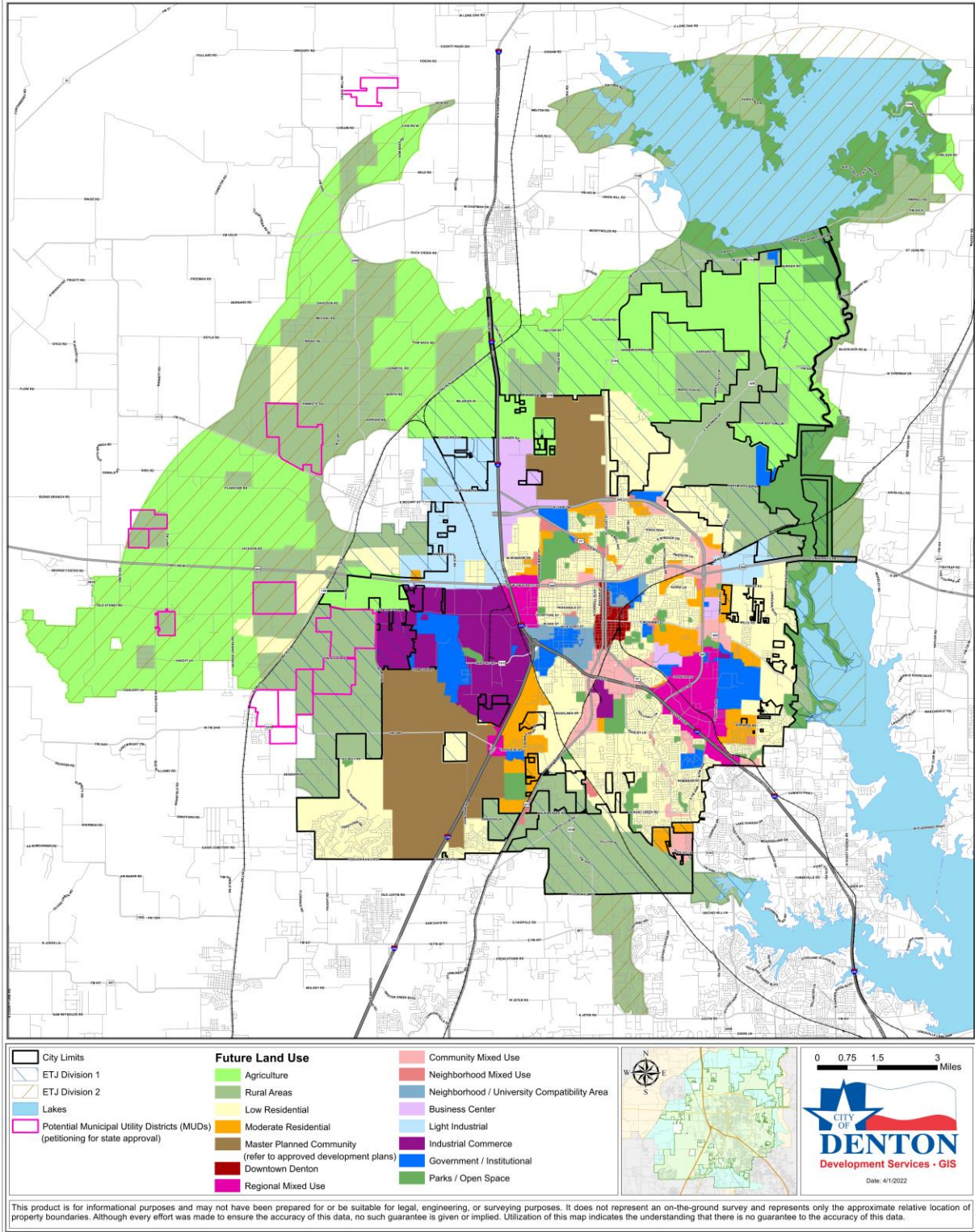
Table 1 summarizes the residential and employment 10-year growth projections. The projected growth over the next ten years is reasonable compared to the historical growth over the previous ten years, as described in the Land Use Assumptions Methodology (page 4).

Table 1. Residential and Employment 10-Year Projections

Service Area	Residential		Employment		
	Single Family	Multi-Family	Basic	Service	Retail
	Dwelling Units		Sq. Ft.	Sq. Ft.	Sq. Ft.
A	3,212	970	2,843,000	591,000	871,000
B	2,009	387	415,000	238,000	285,000
C	1,538	1,015	3,518,000	689,000	446,000
D	847	215	815,000	206,000	287,000
E	1,219	1,291	1,831,000	519,000	505,000
Sub-Total	8,825	3,878	9,422,000	2,243,000	2,394,000
Total	12,703		14,059,000		

Exhibit 2– Citywide Future Land Use Map

**Denton 2040 Comprehensive Plan
Future Land Use Map**



III. ROADWAY IMPACT FEE CAPITAL IMPROVEMENTS PLAN

Development of a 10-year Roadway Impact Fee Capital Improvement Plan is required per Chapter 395 of the Texas local Government Code. To accomplish this, the current Denton Mobility Plan has been updated using a Denton-specific Travel Demand Model. The Travel Demand Model was developed using the existing roadway network and residential and employment data to develop a baseline scenario. This scenario was calibrated using existing vehicle counts. Several build-out scenarios were run using the build-out residential and employment data to assist in completing the updated mobility plan map. This updated mobility plan map serves as the basis for this Roadway Impact Fee CIP. The Roadway Impact Fee CIP includes arterial and collector class roadway facilities that serve the overall transportation system, as well as major intersection improvements. All the facilities identified are included in the proposed mobility plan map.

The proposed Roadway Impact Fee CIP is listed in **Tables 2.A – 2.E** and mapped in **Exhibits 3.A – 3.E**. The tables show the length of each project as well as the facility's Mobility Plan classification. The Roadway Impact Fee CIP was developed in conjunction with input from City of Denton staff and represents those projects that will be needed to accommodate the growth projected in the Land Use Assumptions section of this report.

Table 2.A. 10-Year Roadway Impact Fee Capital Improvements Plan – Service Area A

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
A-1	SA	CORBIN	IH-35W TO CORBIN	0.58	100%
A-2	SA	CORBIN	500' S OF SPRINGSIDE TO CORBIN	0.27	100%
A-3	PA	FM 1515	IH 35W TO CORBIN	1.13	100%
A-4	PA	FM 1515	CORBIN TO WESTERN	0.22	100%
A-5	PA	FM 1515	WESTERN TO WESTCOURT	0.29	100%
A-6	PA	FM 1515	WESTCOURT TO MASCH BRANCH	0.12	100%
A-7	PA	FM 1515	TOM COLE TO 3435' W OF TOM COLE	0.65	100%
A-8	PA	FM 1515	3435' W OF TOM COLE TO 530' E OF C WOLFE	0.71	100%
A-9	PA	H LIVELY	C WOLFE TO 2145' W OF H LIVELY	0.41	50%
A-10	PA	H LIVELY	2145' W OF H LIVELY TO 2150' W OF ED ROBSON	0.74	100%
A-11	C	IH-35-CORBIN	IH-35 TO CORBIN	0.84	100%
A-12	SA	JIM CHRISTAL	IH 35 TO OLD SH 24	0.59	100%
A-13,C-10	SA	JIM CHRISTAL	OLD SH 24 TO WESTERN	0.55	50%
A-14,C-11	SA	JIM CHRISTAL	WESTERN TO MASCH BRANCH	0.66	50%
A-15,C-12	SA	JIM CHRISTAL	MASCH BRANCH TO THOMAS J EGAN	1.13	50%
A-16,C-13	SA	JIM CHRISTAL	THOMAS J EGAN TO 515' E OF C WOLFE	0.75	50%
A-17	C	PRECISION-WESTERN	PRECISION TO WESTERN	0.65	100%
A-18	PA	ROBSON RANCH	IH 35W TO ED ROBSON	1.65	50%
A-19	PA	ROBSON RANCH	ED ROBSON TO YARBROUGH	1.35	50%
A-20	SA	SPRINGSIDE	CORBIN TO UNDERWOOD	0.35	100%
A-21	SA	SPRINGSIDE	UNDERWOOD TO WESTCOURT	0.16	100%
A-22	C	TJ EGAN-LOOP 288	LOOP 288 TO 2440' W OF LOOP 288	0.46	100%
A-23	PA	C WOLFE	1140' S OF TOM COLE TO FM 2449	1.38	100%
A-24	PA	C WOLFE	FM 2449 TO H LIVELY	0.63	50%
A-25	C	CORBIN	IH-35-CORBIN TO SPRINGSIDE	0.39	100%
A-26	C	J CHRISTAL-H LIVELY	FM 2449 TO H LIVELY	0.63	100%
A-27	C	PRECISION	JIM CHRISTAL TO 1635' N OF FM 1515	0.45	100%
A-28	SA	THOMAS J EGAN	JIM CHRISTAL TO 2915' S OF JIM CRISTAL	0.55	100%
A-29	SA	THOMAS J EGAN	1830' N OF FM 1515 TO FM 1515	0.35	50%
A-30	PA	UNDERWOOD	SPRINGSIDE TO UNDERWOOD CONNECTOR	0.76	100%
A-31	SA (1/2)	WESTCOURT	FM 1515 TO SPRINGSIDE	0.79	100%
A-32	PA (1/3)	WESTERN	JIM CHRISTAL TO AIRPORT	1.23	100%
A-33	PA	WESTERN	FM 1515 TO SPRINGSIDE	0.79	100%

Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

Table 2.B. 10-Year Roadway Impact Fee Capital Improvements Plan – Service Area B

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
B-1	C	ALLRED	BONNIE BRAE TO BRUSH CREEK	0.81	50%
B-2	PA	ALLRED	BRUSH CREEK TO JOHN PAINE	0.30	50%
B-3	PA	BRUSH CREEK	815' E OF COUNTRY CLUB TO COUNTRY CLUB	0.15	100%
B-4	PA	BRUSH CREEK	COUNTRY CLUB TO 1935' W OF COUNTRY CLUB	0.37	100%
B-5	PA	BRUSH CREEK	2180' E OF FORT WORTH TO FORT WORTH	0.41	100%
B-6	PA	BRUSH CREEK	FORT WORTH TO 590' E OF ALLRED	0.68	100%
B-7	SA	CORBIN	BONNIE BRAE TO IH-35W	0.66	100%
B-8	C	CREEKDALE	PIMLICO TO RIVERCHASE	0.61	100%
B-9	C	CREEKDALE	THISTLE WAY TO OAKBLUFF	0.39	100%
B-10	C	EL PASEO	BELMONT TO COUNTRY CLUB	0.36	100%
B-11	PA	FM 1515	BONNIE BRAE TO IH 35W	0.15	100%
B-12	PA (1/3)	HICKORY CREEK	FM 2499 TO NAUTICA	0.22	100%
B-13	PA (1/3)	HICKORY CREEK	NAUTICA TO TEASLEY	0.25	100%
B-14	PA (1/3)	HICKORY CREEK	TEASLEY TO MONTECITO	0.85	100%
B-15	PA (1/3)	HICKORY CREEK	MONTECITO TO 1435' W OF BIDDY BYE	0.42	50%
B-16	PA	HICKORY CREEK	1435' W OF BIDDY BYE TO 815' E OF COUNTRY CLUB	0.38	100%
B-17	SA	HOBSON LANE	TEASLEY TO MONTECITO	0.13	100%
B-18	SA	HOBSON LANE	MONTECITO TO FORRESTRIDGE	0.28	100%
B-19	SA	HOBSON LANE	FORRESTRIDGE TO COUNTRY CLUB	0.72	100%
B-20	C	PARVIN	MCCORMICK TO HIGHLAND PARK	0.50	100%
B-21	SA	ROBINSON	230' E OF WHEELER RIDGE TO TEASLEY	0.52	100%
B-22	SA	RYAN	TEASLEY TO MONTECITO	0.76	100%
B-23	SA	RYAN	MONTECITO TO FORRESTRIDGE	0.63	100%
B-24	SA	RYAN	FORRESTRIDGE TO COUNTRY CLUB	0.66	100%
B-25	PA (1/3)	VINTAGE	FORT WORTH TO BONNIE BRAE	0.87	100%
B-26	PA (1/3)	VINTAGE	BONNIE BRAE TO NAPA VALLEY	0.14	100%
B-27	PA (1/3)	VINTAGE	NAPA VALLEY TO IH 35W	0.65	100%
B-28	C	WILLOWWOOD	1250' W OF HIGHLAND PARK TO BONNIE BRAE	0.24	100%
B-29	SA	BONNIE BRAE	IH 35E TO FM 1515	0.14	100%
B-30	SA	BONNIE BRAE	FM 1515 TO WILLOWWOOD	1.09	100%
B-31	SA	BONNIE BRAE	HIGHLAND PARK TO ROSELAWN	0.48	50%
B-32	SA	COUNTRY CLUB	FORT WORTH TO HOBSON	0.08	100%
B-33	SA	COUNTRY CLUB	HOBSON TO RYAN	1.00	100%
B-34	SA	COUNTRY CLUB	RYAN TO HICKORY CREEK	0.66	50%
B-35	PA	FORT WORTH	COUNTRY CLUB TO VINTAGE	1.32	100%
B-36	PA	FORT WORTH	VINTAGE TO BONNIE BRAE	1.07	100%
B-37	PA	FORT WORTH	BONNIE BRAE TO BRUSH CREEK	0.24	100%
B-38	PA	FORT WORTH	BRUSH CREEK TO CRAWFORD	1.11	100%
B-39	Completed	JOHN PAINE	JOHNSON TO ATHENS	0.42	100%
B-40	SA	JOHN PAINE	VINTAGE TO 1045' S OF VINTAGE	0.20	100%
B-41	C	PARVIN-ROSELAWN	PARVIN TO ROSELAWN	0.52	100%
B-42	PA (1/3)	TEASLEY	IH 35E TO LONDONDERRY	0.25	100%
B-43	PA (1/3)	TEASLEY	LONDONDERRY TO HOBSON	0.97	100%
B-44	PA (1/3)	TEASLEY	LILLIAN B MILLER TO PENNSYLVANIA	0.36	100%
B-45	PA (1/3)	TEASLEY	PENNSYLVANIA TO HOBSON	0.21	100%

Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

Table 2.C. 10-Year Roadway Impact Fee Capital Improvements Plan – Service Area C

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
C-1	PA	BARTHOLD	MASCH BRANCH TO 5200' W OF IH 35	0.98	50%
C-2	SA	BOBCAT	FM 2164 TO IH-35	2.75	100%
C-3	SA	FM 1173	IH 35 TO 4605' W OF IH 35	0.87	100%
C-4	SA	FM 1173	4605' W OF IH 35 TO LOVERS	0.41	50%
C-5	SA	FM 2164-IH 35	FM 2164 TO IH 35	2.73	100%
C-6	PA	GANZER	FM 2164 TO GANZER	2.40	100%
C-7	PA	GANZER	2900' E OF IH 35 TO IH 35	0.55	100%
C-8	PA	GANZER	1620' E OF BARTHOLD TO BARTHOLD	0.31	50%
C-9	PA	GANZER	BARTHOLD TO RECTOR	0.49	50%
A-13,C-10	SA	JIM CHRISTAL	OLD SH 24 TO WESTERN	0.55	50%
A-14,C-11	SA	JIM CHRISTAL	WESTERN TO MASCH BRANCH	0.66	50%
A-15,C-12	SA	JIM CHRISTAL	MASCH BRANCH TO THOMAS J EGAN	1.13	50%
A-16,C-13	SA	JIM CHRISTAL	THOMAS J EGAN TO 515' E OF C WOLFE	0.75	50%
C-14	SA	JIM CHRISTAL	945' W OF C WOLFE TO NAIL	0.59	50%
C-15	SA	JIM CHRISTAL	NAIL TO 2045' W of Nail	0.39	50%
C-16	C	MARSHALL	2845' N OF HAMPTON TO HAMPTON	0.54	100%
C-17	C	MARSHALL	HAMPTON TO US 380	0.59	100%
C-18	SA	MASCH BRANCH	MASCH BRANCH TO DARBY SMITH	0.65	100%
C-19	C	WESTWARD	NORTHWAY TO BONNIE BRAE	0.22	100%
C-20	SA (1/2)	RINEY	US 77 TO 2460' W OF US 77	0.47	100%
C-21	SA (1/2)	RINEY	2460' W OF US 77 TO BONNIE BRAE	0.19	100%
C-22	PA (1/3)	US 77	WINDSOR TO FM 2164	0.22	100%
C-23	PA (1/3)	US 77	RINEY TO WINDSOR	0.46	100%
C-24	PA (1/3)	US 77	RINEY TO RINEY	0.40	100%
C-25	PA (1/3)	US 77	BONNIE BRAE TO RINEY	0.75	100%
C-26	PA (1/3)	US 77	LOOP 288 TO BONNIE BRAE	0.33	100%
C-27	PA (1/3)	US 77	IH 35 TO LOOP 288	0.87	100%
C-28	C	MASCH BRANCH-NAIL	MASCH BRANCH TO 1295' W OF MASCH BRANCH	0.25	100%
C-29	C	MASCH BRANCH-NAIL	1050' E OF LOOP 288 TO 1550' W OF LOOP 288	0.49	100%
C-30	C	MASCH BRANCH-NAIL	1335' W OF THOMAS J EGAN TO 775' E OF C WOLFE	0.48	100%
C-31	C	MASCH BRANCH-NAIL	775' E OF C WOLFE TO 690' W OF C WOLFE	0.28	50%
C-32	C	MASCH BRANCH-NAIL	690' W OF C WOLFE TO NAIL	0.58	100%
C-33	SA	WESTGATE	WESTGATE TO 1460' E OF IH-35	0.18	100%
C-34	SA	WINDSOR	US 77 TO HINKLE	0.46	100%
C-35	SA (1/2)	WINDSOR	HINKLE TO BONNIE BRAE	0.99	100%
C-36	SA (1/2)	WINDSOR	WESTGATE TO 145' W OF CLARENDON	0.10	100%
C-37	SA (1/2)	WINDSOR	220' W OF WINDSOR FARMS TO IH 35	0.17	100%
C-38	SA	WINDSOR	IH 35 TO MASCH BRANCH	1.24	100%
C-39	SA	BARTHOLD	GANZER TO 2600' S OF GANZER	0.49	100%
C-40	PA	BONNIE BRAE	MILAM TO LOOP 288	3.13	100%
C-41	SA	BONNIE BRAE	LOOP 288 TO US 77	0.24	100%
C-42	SA	BONNIE BRAE	US 77 TO RINEY	0.38	100%
C-43	SA	BONNIE BRAE	RINEY TO WINDSOR	0.66	100%
C-44	SA	BONNIE BRAE	WINDSOR TO US 380	0.68	100%
C-45,E-29	SA	BONNIE BRAE	US 380 TO PANHANDLE	0.55	50%
C-46,E-30	SA	BONNIE BRAE	PANHANDLE TO SCRIPTURE	0.20	50%
C-47,E-31	SA	BONNIE BRAE	SCRIPTURE TO OAK	0.22	50%
C-48,E-32	SA	BONNIE BRAE	OAK TO HICKORY	0.07	50%
C-49,E-33	SA	BONNIE BRAE	HICKORY TO PRAIRIE	0.27	50%
C-50,E-34	SA	BONNIE BRAE	PRAIRIE TO IH 35E	0.16	50%
C-51	PA	C WOLFE	US 380 TO WESTERN-NAIL	0.51	100%
C-52	C	FALLMEADOW	MEADOWLEDGE TO GARDENVIEW	0.17	100%
C-53,D-22	PA	FM 2164	MILAM TO LOOP 288	2.62	50%
C-54,D-28	SA	LOCUST	LOOP 288 TO HERCULES	0.43	50%
C-55,D-29	SA	LOCUST	HERCULES TO BELL	0.45	50%
C-56,D-30	SA	LOCUST	BELL TO WINDSOR	0.24	50%
C-57,D-31	SA	LOCUST	WINDSOR TO FM 2164	0.25	50%
C-58	SA	LOVERS	FM 1173 TO MASCH BRANCH	0.78	100%
C-59	SA	LOVERS	1085' N OF MASCH BRANCH TO MASCH BRANCH	0.21	100%
C-60	SA	LOVERS LN CONNECTOR	LOVERS TO LOOP 288	0.06	100%
C-61	SA	LOVERS LN CONNECTOR	LOOP 288 TO 1085' N OF MASCH BRANCH	0.08	100%
C-62	SA	MASCH BRANCH	1295' S OF FM 1173 TO JACKSON	0.79	50%
C-63	SA	MASCH BRANCH	LOVERS TO US 380	0.72	100%
C-64	SA	MASCH BRANCH	US 380 TO JIM CHRISTAL	0.78	100%
C-65	SA	MILAM-LOOP 288	MILAM TO LOOP 288	2.71	100%
C-66	SA	MILAM-US 77	MILAM TO GANZER	1.51	100%
C-67	SA	MILAM-US 77	GANZER TO LONG	0.73	100%
C-68	SA	MILAM-US 77	LONG TO US 77	0.53	100%
C-69	C	NICOSIA	LOOP 288 TO BEALL	0.12	100%
C-70	SA	THOMAS J EGAN	US 380 TO JIM CHRISTAL	0.76	100%
C-71	PA	WESTERN	US 380 TO JIM CHRISTAL	0.80	100%

Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

Table 2.D. 10-Year Roadway Impact Fee Capital Improvements Plan – Service Area D

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
D-1	SA	BOBCAT	560' W OF FM 2164 TO FM 2164	0.11	50%
D-2	C	FISHTRAP	MINGO TO GEESLING	0.36	50%
D-3	PA	GANZER	15,500' E OF SHERMAN TO 4600' W OF SHERMAN	3.41	100%
D-4	SA	GRIBBLE SPRINGS	INDIAN WELLS TO 3015' W OF INDIAN WELLS	0.57	50%
D-5	SA	HARTLEE FIELD	4220' E OF COOPER CREEK TO COOPER CREEK	0.80	50%
D-6	SA	HARTLEE FIELD	COOPER CREEK TO 5170' W OF COOPER CREEK	0.98	50%
D-7	C	HARTLEE FIELD	600' E OF SHERMAN TO SHERMAN	0.11	50%
D-8	SA	HARTLEE FLD-FM 2164	HARTLEE FIELD TO SHERMAN	0.43	100%
D-9	SA	HARTLEE FLD-FM 2164	SHERMAN TO 3500' W OF SHERMAN	0.66	100%
D-10	SA	HARTLEE FLD-FM 2164	STUART TO 1485' W OF STUART	0.28	50%
D-11	SA	HARTLEE FLD-FM 2164	475' W OF FM 2164 TO FM 2164	0.09	100%
D-12	C	LONG	510' W OF FM 2164 TO FM 2164	0.10	100%
D-13	SA	MINGO	E CITY LIMITS TO COOPER CREEK	0.09	100%
D-14	SA	MINGO	COOPER CREEK TO LOOP 288	0.44	100%
D-15	SA	MINGO	LOOP 288 TO US 380	0.43	100%
D-16	C	KINGS ROW	SILVER DOME TO LOOP 288	0.50	100%
D-17	C	SILVER DOME	COOPER CREEK TO FARRIS RD	0.41	50%
D-18	C	COLLINS	HARTLEE FIELD TO 2730' S OF HARTLEE FIELD	0.84	50%
D-19	SA	COOPER CREEK	SHERMAN TO HARTLEE FIELD	1.91	100%
D-20	SA	COOPER CREEK	SILVER DOME TO MINGO	0.83	50%
D-21	PA	COOPER CREEK	MINGO TO US 380	0.32	100%
C-53,D-22	PA	FM 2164	MILAM TO LOOP 288	2.62	50%
D-23	PA	GREEN VALLEY	2395' S OF FM 2153 TO 2935' N OF SHEPARD	1.47	100%
D-24	SA	GREEN VALLEY	WARSCHUN TO SHERMAN	0.40	100%
D-25	SA	INDIAN WELLS	1615' S OF FM 2153 TO 4930' N OF GRIBBLE SPRINGS	0.73	100%
D-26	SA	INDIAN WELLS	4930' N OF GRIBBLE SPRINGS TO 2905' N OF GRIBBLE	0.38	50%
D-27	SA	INDIAN WELLS	2905' N OF GRIBBLE SPRINGS TO GRIBBLE SPRINGS	0.55	50%
C-54,D-28	SA	LOCUST	LOOP 288 TO HERCULES	0.43	50%
C-55,D-29	SA	LOCUST	HERCULES TO BELL	0.45	50%
C-56,D-30	SA	LOCUST	BELL TO WINDSOR	0.24	50%
C-57,D-31	SA	LOCUST	WINDSOR TO FM 2164	0.25	50%
D-32	SA	SHERMAN	LOOP 288 TO HERCULES	0.31	100%
D-33	SA	SHERMAN	HERCULES TO KINGS	0.36	100%
D-34	SA	SHERMAN	KINGS TO WINDSOR	0.38	100%
D-35	SA	SHERMAN	WINDSOR TO WILSONWOOD	0.19	100%
D-36	SA	SHERMAN	WILSONWOOD TO CORONADO	0.22	100%
D-37	SA	SHERMAN	CORONADO TO GREENWOOD	0.31	100%
D-38	SA	SHERMAN	GREENWOOD TO BELL	0.16	100%
D-39	SA	SHERMAN	BELL TO LOCUST	0.32	100%
D-40	C	WINDSOR	LOOP 288 TO DOMINION	0.16	100%

Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

Table 2.E. 10-Year Roadway Impact Fee Capital Improvements Plan – Service Area E

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
E-1	C	AUDRA	LOOP 288 TO 1185' W OF LOOP 288	0.22	100%
E-2	SA	BLAGG	LAKEVIEW TO GEESLING	0.71	100%
E-3	SA	BLAGG	GEESLING TO 2175' W OF GEESLING	0.41	100%
E-4	SA	BLAGG	235' E OF MAYHILL TO MAYHILL	0.04	50%
E-5	PA (1/3)	DALLAS	TEASLEY TO IH 35E	0.87	100%
E-6	C	DUCHESS	TRAILHEAD TO WOODROW	0.76	100%
E-7	SA	FM 426	LANEY TO GRISSOM	0.57	100%
E-8	Completed	MCKINNEY	GRISSOM TO LOOP 288	1.65	100%
E-9	SA	MCKINNEY	LOOP 288 TO CARDINAL	0.13	100%
E-10	SA	MCKINNEY	CARDINAL TO MOCKINGBIRD	0.22	100%
E-11	SA	MCKINNEY	MOCKINGBIRD TO MACK	0.61	100%
E-12	SA	MCKINNEY	MACK TO AUDRA	0.29	100%
E-13	SA	MILLS	TRINITY TO MAYHILL	1.40	100%
E-14	SA	MILLS	LAKEVIEW TO MAYHILL	0.41	100%
E-15	SA	MINGO	US 380 TO OLD NORTH	0.14	100%
E-16	SA	MINGO	OLD NORTH TO NOTTINGHAM	0.48	100%
E-17	SA	MINGO	NOTTINGHAM TO PERTAIN	0.56	100%
E-18	SA	MINGO	PERTAIN TO RUDELL	0.18	100%
E-19	SA	MINGO	RUDELL TO WILLIS	0.11	100%
E-20	SA	MINGO	WILLIS TO WITHERS	0.44	100%
E-21	SA	MINGO	WITHERS TO PAISLEY	0.04	100%
E-22	SA	MINGO	PAISLEY TO BELL	0.19	100%
E-23	SA (1/2)	MORSE	MAYHILL TO KIMBERLY	0.22	100%
E-24	SA	SHADY OAKS	WOODROW TO TEASLEY	0.58	100%
E-25	SA	SPENCER	MAYHILL TO LOOP 288	0.44	100%
E-26	C	TREATMENT PLANT	MCKINNEY TO POST OAK	0.63	100%
E-27	SA	TREATMENT PLANT	POST OAK TO 1325' W OF POST OAK	0.25	100%
E-28	SA	TREATMENT PLANT	1325' W OF POST OAK TO MAYHILL	0.75	100%
C-45,E-29	SA	BONNIE BRAE	US 380 TO PANHANDLE	0.55	50%
C-46,E-30	SA	BONNIE BRAE	PANHANDLE TO SCRIPTURE	0.20	50%
C-47,E-31	SA	BONNIE BRAE	SCRIPTURE TO OAK	0.22	50%
C-48,E-32	SA	BONNIE BRAE	OAK TO HICKORY	0.07	50%
C-49,E-33	SA	BONNIE BRAE	HICKORY TO PRAIRIE	0.27	50%
C-50,E-34	SA	BONNIE BRAE	PRAIRIE TO IH 35E	0.16	50%
E-35	C	CARDINAL	ORIOLE TO MCKINNEY	0.42	100%
E-36	PA	GEESLING	US 380 TO BLAGG	0.46	100%
E-37	PA	GEESLING	US 380 TO BLAGG	1.02	100%
E-38	PA (1/3)	LAKEVIEW	POST OAK TO SHADY SHORES	0.26	100%
E-39	PA (1/3)	MAYHILL	US 380 TO PROMINENCE	0.44	100%
E-40	PA (1/3)	MAYHILL	PROMINENCE TO 770' N OF RUSSELL NEWMAN	0.39	100%
E-41	PA (1/3)	MAYHILL	770' N OF RUSSELL NEWMAN TO RUSSELL NEWMAN	0.15	50%
E-42	PA (1/3)	MAYHILL	RUSSELL NEWMAN TO 460' S OF RUSSELL NEWMAN	0.09	50%
E-43	PA (1/3)	MAYHILL	460' S OF RUSSELL NEWMAN TO MILLS	0.20	100%
E-44	PA (1/3)	MAYHILL	MILLS TO MCKINNEY	0.37	100%
E-45	PA (1/3)	MAYHILL	MCKINNEY TO MORSE	0.39	100%
E-46	PA (1/3)	MAYHILL	MORSE TO SPENCER	0.67	100%
E-47	PA (1/3)	MAYHILL	SPENCER TO EDWARDS	0.60	100%
E-48	PA (1/3)	MAYHILL	2725' N OF COLORADO TO COLORADO	0.52	100%
E-49	PA (1/3)	MAYHILL	COLORADO TO IH 35E	0.44	100%
E-50	PA	MAYHILL CONNECTOR	MAYHILL TO QUAILCREEK	0.13	100%
E-51	C	MOCKINGBIRD	MCKINNEY TO 625' N OF DUCHESS	0.16	100%
E-52	SA	MOCKINGBIRD	DUCHESS TO SHADY OAKS	0.41	100%
E-53	SA	MOCKINGBIRD	SHADY OAKS TO SPENCER	0.53	100%
E-54	PA	POST OAK	MILLS TO SPENCER	1.30	100%
E-55	PA	POST OAK	TREATMENT PLANT TO EDWARDS	1.27	100%
E-56	PA	POST OAK	EDWARDS TO POCKRUS PAGE	0.51	100%
E-57	C	SWISHER	EDWARDS TO POCKRUS PAGE	0.50	100%
E-58	PA (1/3)	TEASLEY	DALLAS TO IH 35E	0.35	100%
E-59	C	N STAR	SPENCER TO ROY	0.32	100%
E-60	C	ROY	MAYHILL TO N STAR	0.21	100%

Note: The 10-Year Roadway Impact Fee CIP is not in a prioritized order.

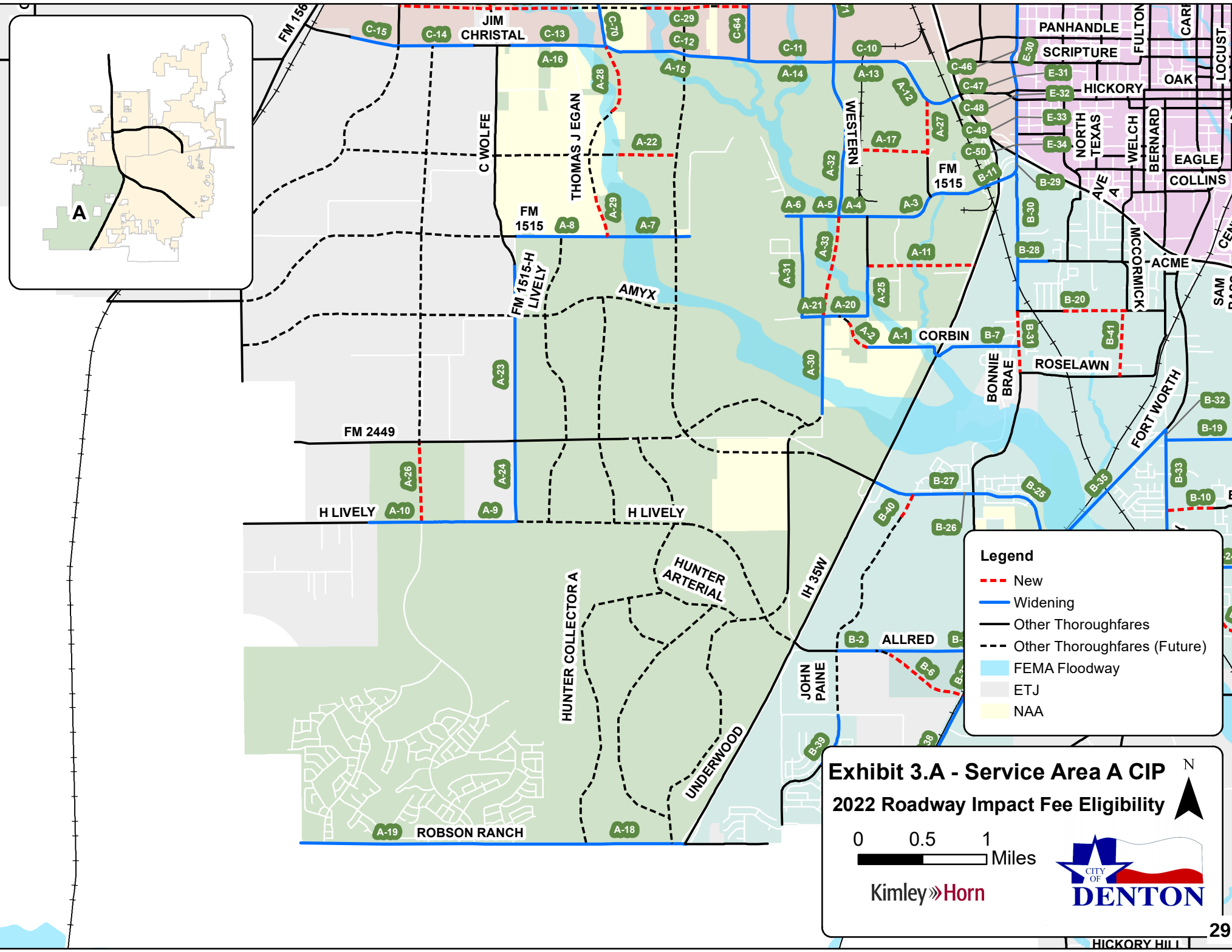


Exhibit 3.A - Service Area A CIP
2022 Roadway Impact Fee Eligibility

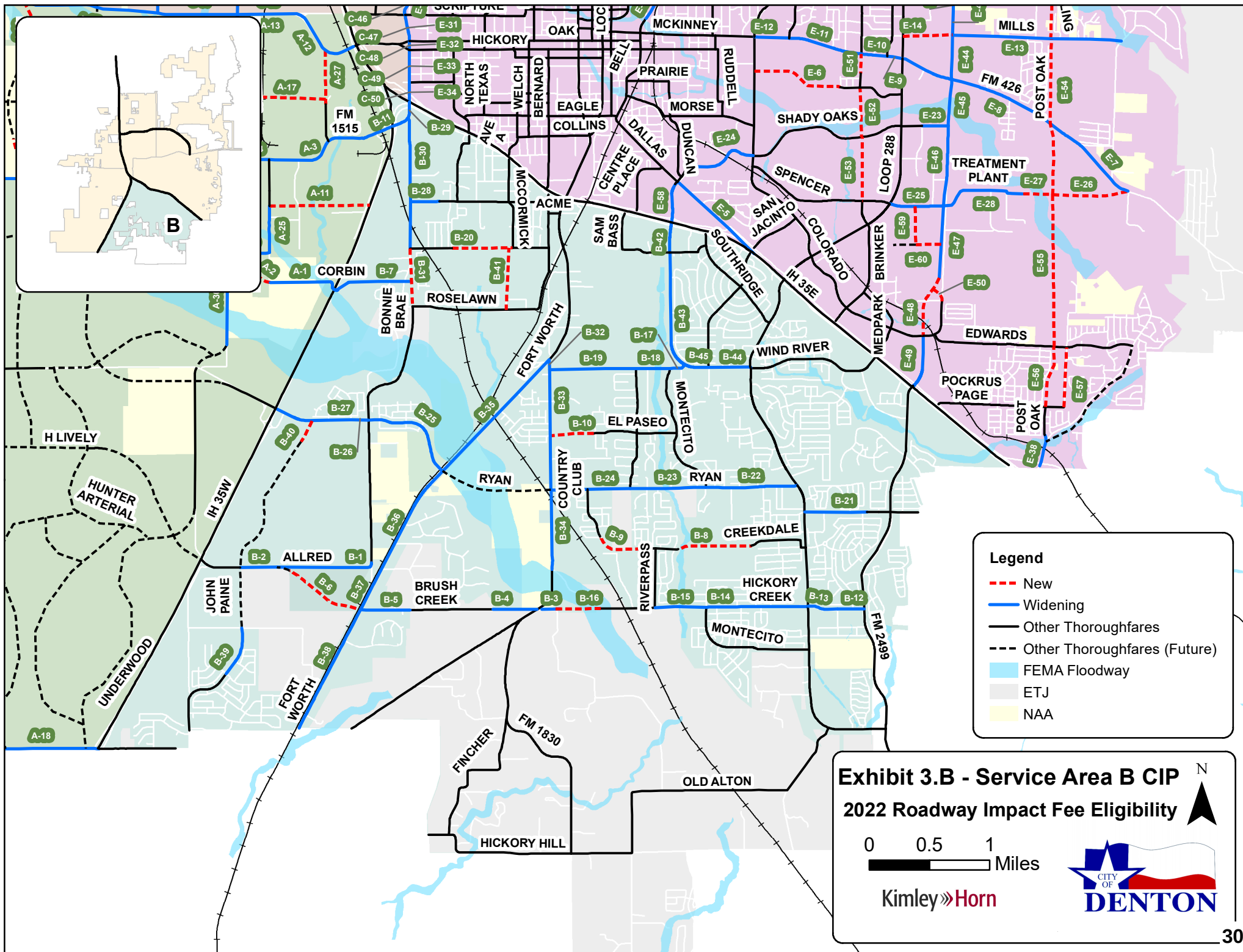
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Kimley»Horn

CITY OF DENTON

HICKORY HILL

29



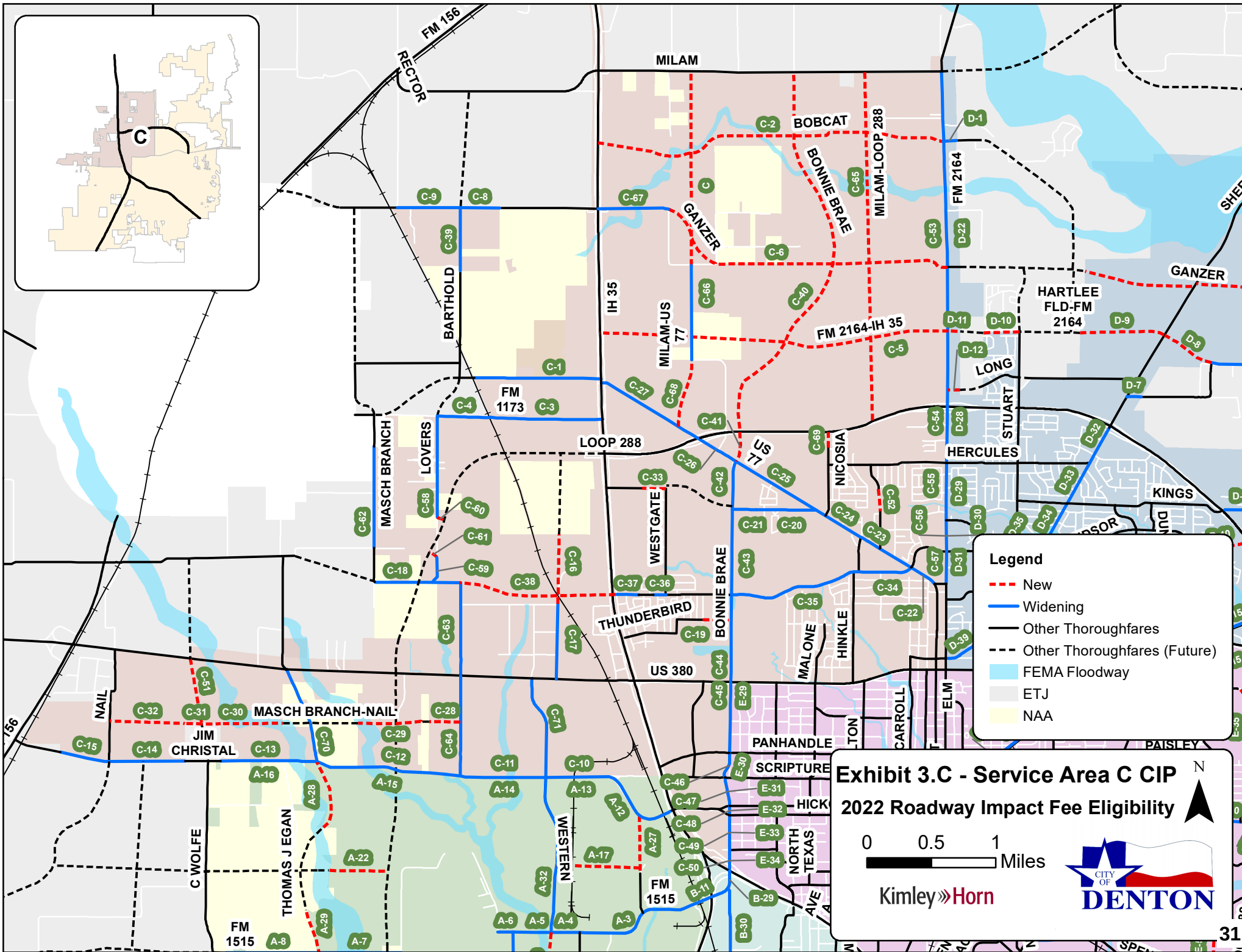


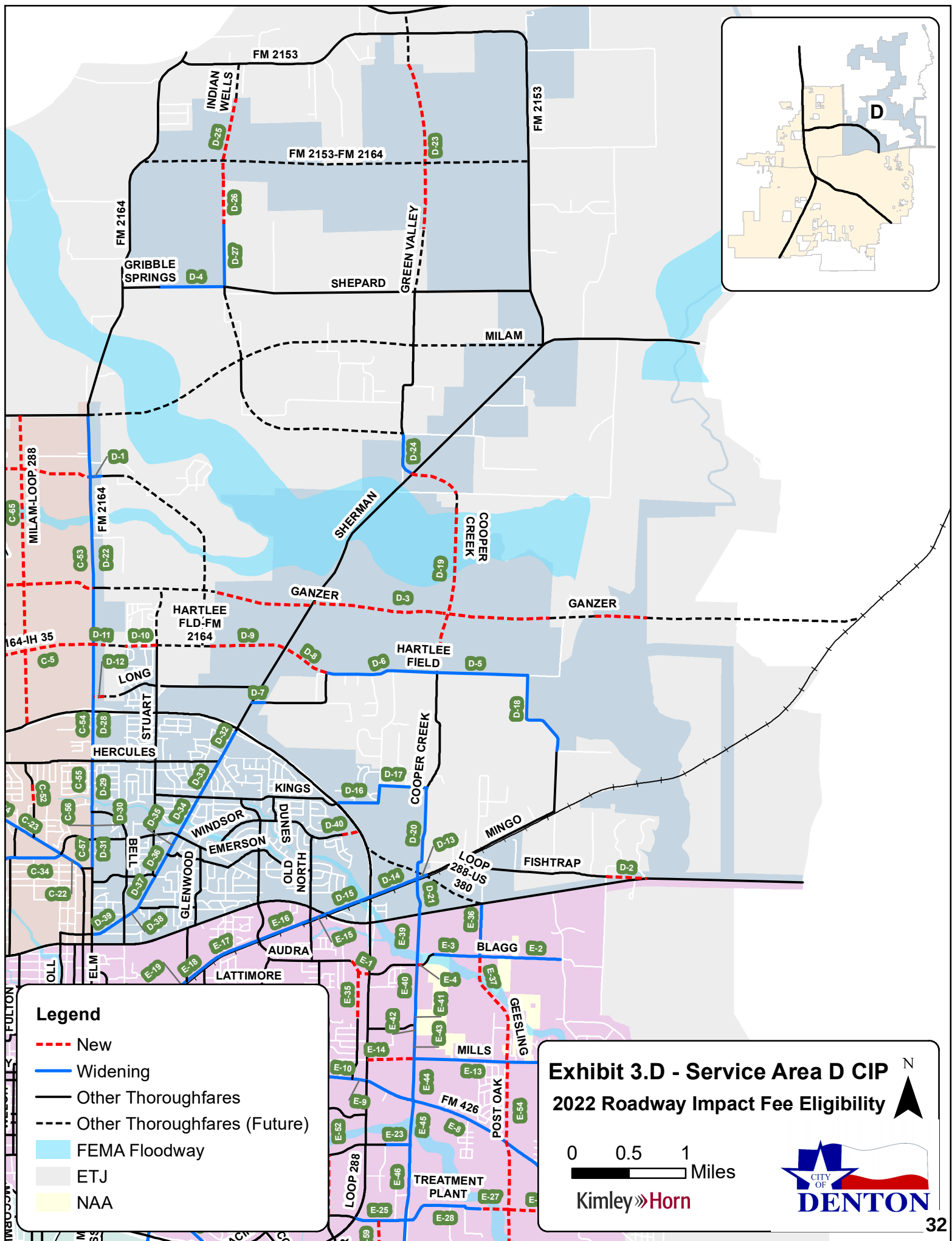
Exhibit 3.C - Service Area C CIP
2022 Roadway Impact Fee Eligibility

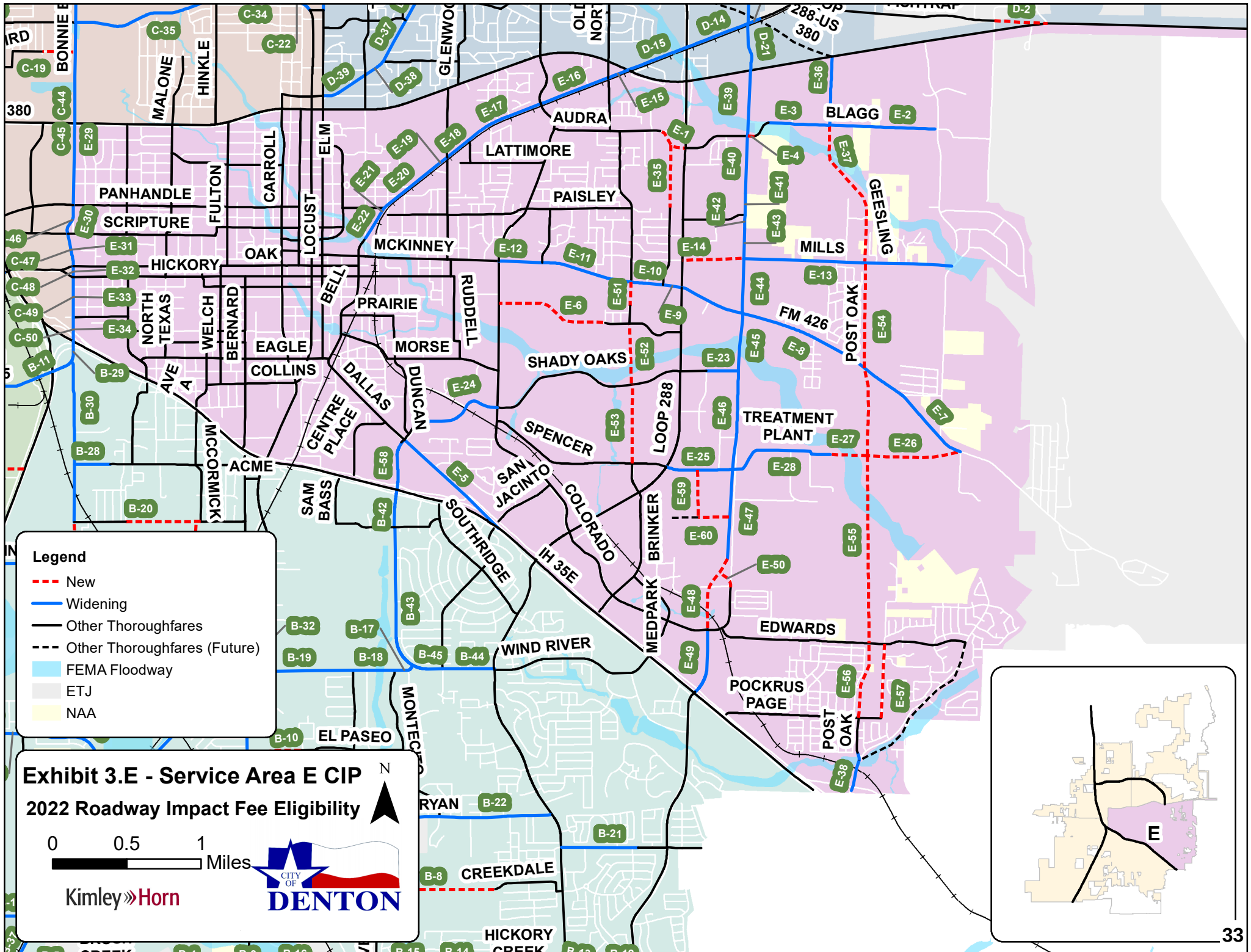
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CITY OF DENTON

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Legend

- New
- Widening
- Other Thoroughfares
- Other Thoroughfares (Future)
- Light Blue FEMA Floodway
- Light Grey ETJ
- Yellow NAA

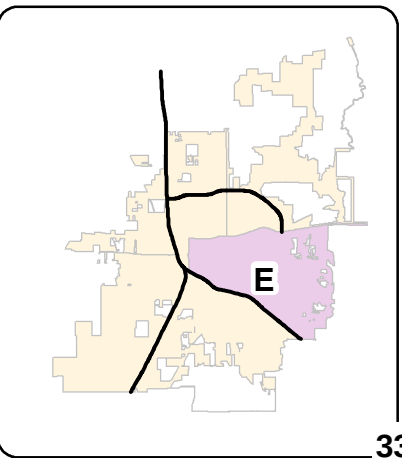
Exhibit 3.E - Service Area E CIP

2022 Roadway Impact Fee Eligibility

0 0.5 1 Miles

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CITY OF DENTON



IV.COMPUTATION METHOD FOR ROADWAY IMPACT FEES

A. Service Areas

The five (5) service areas used in the 2022 Roadway Impact Fee Study are shown in **Exhibit 1**. These service areas cover the entire corporate area of the City of Denton. 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 capital facilities by new development. In other words, it is the unit of measure used in the 2022 Roadway Impact Fee Study to quantify the supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. 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 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 the Denton Mobility Plan (see **Appendix B**).

Total Vehicle-Miles of Demand: Based on the 10-year growth projections (Pg. 35). The demand is equal to PM Trip Rate (trips) * Trip Length (miles).

The capacity values used in the 2022 Roadway Impact Fee Study are based upon Thoroughfare Capacity Criteria published by the North Central Texas Council of Governments (NCTCOG) and applied to City of Denton thoroughfare standards. **Tables 3A** and **3B** show the service volumes as a function of the facility classification and type.

Table 3A. Service Volumes for Proposed Facilities
(used in Appendix B – Roadway Impact Fee CIP Service Units of Supply)

Facility Classification	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
Primary Arterial (PA)	Divided	850
Secondary Arterial (SA)	Divided	750
Collector (C)	Undivided	550

Table 3B. Service Volumes for Existing Facilities
(used in Appendix C – Existing Roadway Facilities Inventory)

Roadway Type	Description	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
2U-R	Rural Cross-Section (i.e., gravel, dirt, etc.)	150
2U-H	Two lane undivided – Arterial Type	725
2-1W	Two lane – one way couplet	650
2U	Two lane undivided	425
3-1W	Three lane - one way couplet	700
3U	Three lane undivided (two-way, left-turn lane)	550
4U	Four lane undivided	550
4D	Four lane divided	750
6D	Six lane divided	850

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. Thus, it is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel. The cost per service unit is calculated for each service area based on the roadway projects within that service area.

The second component of the cost per service unit is the determination of 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.

D. Roadway Impact Fee CIP Costing Methodology

All of the project costs for an arterial or collector facility which serves the overall transportation system are eligible to be included in the Roadway Impact Fee Capital Improvements 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 improvements plan who is not an employee of the political subdivision."

The engineer's opinion of the probable costs of the projects in the Roadway Impact Fee 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 cost for location specific items such as bridges, highway ramps, drainage structures, and any other

special components are added to each project, as appropriate. The detailed costing components are provided in the costing sheets in **Appendix A**. The following is a detailed description of the costing methodology for the Roadway Impact Fee CIP.

1. 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.
- Roadway Name – A unique identifier for each project. In some cases abbreviations are used for the project name. In cases where roadway names are unknown the connecting limits may be used such as FM 1515 – H Lively represents a roadway link that connects FM 1515 to H Lively.
- Limits – Represents the beginning and ending location for each project.
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Roadway Classification – 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 Mobility Plan classification of the roadway. For example, PA stands for Primary Arterial. A PA Impact Fee Class means the entire roadway is to be constructed. Additional classifications are utilized in cases where a portion of the facility currently exists and the road is only to be widened. The following notations are used for these projects:
 - “(1/2)” for facilities where half the facility still needs to be constructed;
 - “(1/3)” for future six-lane principal arterials facilities where two additional median lanes are needed
 - “(2/3)” for future six-lane principal arterials facilities where four additional lanes are needed

2. Construction Cost

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, and 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. The pay items used to estimate construction costs are shown in **Table 4.**

Table 4. Construction Cost Pay Items

Pay Items
• Unclassified Street Earthwork • Lime Stabilization • Concrete pavement and curb • Sidewalk (and Trail when applicable) • Topsoil • Block Sodding • Turn lanes

3. Allowances

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

In addition, allowances are provided for streams and channel crossings, railroad crossings, and intersection improvements where needs are anticipated. The construction cost subtotal is given a fifteen percent (15%) allowance for contingency and ROW costs, sixteen percent (16%) for engineering, surveying, and SUE, and three and a half percent (3.5%) of the construction cost total is added for inspection and materials testing. In addition, if City funds

were previously spent or are currently allocated to a project, those amounts are also included in the total cost.

The Impact Fee Project Cost Total is then the Construction Cost Total plus engineering, surveying, testing, and inspection; plus ROW/contingency.

E. Summary of Roadway Impact Fee CIP Costs

Tables 5.A – 5.E are the 10-Year Roadway Impact Fee CIP project lists for each service area with planning level project costs. Overall project costs can be seen in the summary tables in **Appendix A**, Conceptual Level Project Cost Projections. These costs are based on the example project costing sheets, also provided in **Appendix A**. It should be noted that these tables reflect only conceptual-level opinions or assumptions regarding the portions of future project costs that are recoverable through impact fees. Actual project costs are likely to change with time and are dependent on market and economic conditions that cannot be predicted.

The Roadway Impact Fee CIP establishes the list of projects for which Impact Fees may be utilized. Projects not included in the Roadway Impact Fee CIP are not eligible to receive impact fee funding. The cost projections utilized in this study should not be utilized for the City's construction CIP.

**Table 5.A – 10-Year Roadway Impact Fee CIP
with Conceptual Level Cost Projections – Service Area A**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA A	A-1	SA	CORBIN	IH-35W TO CORBIN	0.58	100%	\$ 10,164,000	\$ 10,164,000
	A-2	SA	CORBIN	500' S OF SPRINGSIDE TO CORBIN	0.27	100%	\$ 3,378,000	\$ 3,378,000
	A-3	PA	FM 1515	IH 35W TO CORBIN	1.13	100%	\$ 23,533,000	\$ 23,533,000
	A-4	PA	FM 1515	CORBIN TO WESTERN	0.22	100%	\$ 3,959,000	\$ 3,959,000
	A-5	PA	FM 1515	WESTERN TO WESTCOURT	0.29	100%	\$ 7,495,000	\$ 7,495,000
	A-6	PA	FM 1515	WESTCOURT TO MASCH BRANCH	0.12	100%	\$ 2,089,000	\$ 2,089,000
	A-7	PA	FM 1515	TOM COLE TO 3435' W OF TOM COLE	0.65	100%	\$ 13,827,000	\$ 13,827,000
	A-8	PA	FM 1515	3435' W OF TOM COLE TO 530' E OF C WOLFE	0.71	100%	\$ 13,132,000	\$ 13,132,000
	A-9	PA	H LIVELY	C WOLFE TO 2145' W OF H LIVELY	0.41	50%	\$ 7,226,000	\$ 3,613,000
	A-10	PA	H LIVELY	2145' W OF H LIVELY TO 2150' W OF ED ROBSON	0.74	100%	\$ 13,188,000	\$ 13,188,000
	A-11	C	IH-35-CORBIN	IH-35 TO CORBIN	0.84	100%	\$ 7,040,000	\$ 7,040,000
	A-12	SA	JIM CHRISTAL	IH 35 TO OLD SH 24	0.59	100%	\$ 10,332,000	\$ 10,332,000
	A-13,C-10	SA	JIM CHRISTAL	OLD SH 24 TO WESTERN	0.55	50%	\$ 9,746,000	\$ 4,873,000
	A-14,C-11	SA	JIM CHRISTAL	WESTERN TO MASCH BRANCH	0.66	50%	\$ 11,964,000	\$ 5,982,000
	A-15,C-12	SA	JIM CHRISTAL	MASCH BRANCH TO THOMAS J EGAN	1.13	50%	\$ 18,502,000	\$ 9,251,000
	A-16,C-13	SA	JIM CHRISTAL	THOMAS J EGAN TO 515' E OF C WOLFE	0.75	50%	\$ 12,707,000	\$ 6,353,500
	A-17	C	PRECISION-WESTERN	PRECISION TO WESTERN	0.65	100%	\$ 6,566,000	\$ 6,566,000
	A-18	PA	ROBSON RANCH	IH 35W TO ED ROBSON	1.65	50%	\$ 30,974,000	\$ 15,487,000
	A-19	PA	ROBSON RANCH	ED ROBSON TO YARBROUGH	1.35	50%	\$ 25,335,000	\$ 12,667,500
	A-20	SA	SPRINGSIDE	CORBIN TO UNDERWOOD	0.35	100%	\$ 6,141,000	\$ 6,141,000
	A-21	SA	SPRINGSIDE	UNDERWOOD TO WESTCOURT	0.16	100%	\$ 2,971,000	\$ 2,971,000
	A-22	C	TJ EGAN-LOOP 288	LOOP 288 TO 2440' W OF LOOP 288	0.46	100%	\$ 3,722,000	\$ 3,722,000
	A-23	PA	C WOLFE	1140' S OF TOM COLE TO FM 2449	1.38	100%	\$ 26,240,000	\$ 26,240,000
	A-24	PA	C WOLFE	FM 2449 TO H LIVELY	0.63	50%	\$ 12,018,000	\$ 6,009,000
	A-25	C	CORBIN	IH-35-CORBIN TO SPRINGSIDE	0.39	100%	\$ 3,667,000	\$ 3,667,000
	A-26	C	J CHRISTAL-H LIVELY	FM 2449 TO H LIVELY	0.63	100%	\$ 5,353,000	\$ 5,353,000
	A-27	C	PRECISION	JIM CHRISTAL TO 1635' N OF FM 1515	0.45	100%	\$ 3,694,000	\$ 3,694,000
	A-28	SA	THOMAS J EGAN	JIM CHRISTAL TO 2915' S OF JIM CRISTAL	0.55	100%	\$ 6,984,000	\$ 6,984,000
	A-29	SA	THOMAS J EGAN	1830' N OF FM 1515 TO FM 1515	0.35	50%	\$ 4,635,000	\$ 2,317,500
	A-30	PA	UNDERWOOD	SPRINGSIDE TO UNDERWOOD CONNECTOR	0.76	100%	\$ 15,229,000	\$ 15,229,000
	A-31	SA (1/2)	WESTCOURT	FM 1515 TO SPRINGSIDE	0.79	100%	\$ 5,343,000	\$ 5,343,000
	A-32	PA (1/3)	WESTERN	JIM CHRISTAL TO AIRPORT	1.23	100%	\$ 6,619,000	\$ 6,619,000
	A-33	PA	WESTERN	FM 1515 TO SPRINGSIDE	0.79	100%	\$ 14,102,000	\$ 14,102,000
							Service Area Project Cost Subtotal	\$ 281,321,500
							2022 Roadway Impact Fee Study Cost Per Service Area	\$ 37,660
							Total Cost in SERVICE AREA A	\$ 281,359,160

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of Denton.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 5.B – 10-Year Roadway Impact Fee CIP
with Conceptual Level Cost Projections – Service Area B**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA B	B-1	C	ALLRED	BONNIE BRAE TO BRUSH CREEK	0.81	50%	\$ 6,097,000	\$ 3,048,500
	B-2	PA	ALLRED	BRUSH CREEK TO JOHN PAINE	0.30	50%	\$ 5,424,000	\$ 2,712,000
	B-3	PA	BRUSH CREEK	815' E OF COUNTRY CLUB TO COUNTRY CLUB	0.15	100%	\$ 2,747,000	\$ 2,747,000
	B-4	PA	BRUSH CREEK	COUNTRY CLUB TO 1935' W OF COUNTRY CLUB	0.37	100%	\$ 6,769,000	\$ 6,769,000
	B-5	PA	BRUSH CREEK	2180' E OF FORT WORTH TO FORT WORTH	0.41	100%	\$ 7,344,000	\$ 7,344,000
	B-6	PA	BRUSH CREEK	FORT WORTH TO 590' E OF ALLRED	0.68	100%	\$ 10,698,000	\$ 10,698,000
	B-7	SA	CORBIN	BONNIE BRAE TO IH-35W	0.66	100%	\$ 10,760,000	\$ 10,760,000
	B-8	C	CREEKDALE	PIMLICO TO RIVERCHASE	0.61	100%	\$ 5,346,000	\$ 5,346,000
	B-9	C	CREEKDALE	THISTLE WAY TO OAKBLUFF	0.39	100%	\$ 3,461,000	\$ 3,461,000
	B-10	C	EL PASEO	BELMONT TO COUNTRY CLUB	0.36	100%	\$ 3,369,000	\$ 3,369,000
	B-11	PA	FM 1515	BONNIE BRAE TO IH 35W	0.15	100%	\$ 2,595,000	\$ 2,595,000
	B-12	PA (1/3)	HICKORY CREEK	FM 2499 TO NAUTICA	0.22	100%	\$ 1,605,000	\$ 1,605,000
	B-13	PA (1/3)	HICKORY CREEK	NAUTICA TO TEASLEY	0.25	100%	\$ 1,789,000	\$ 1,789,000
	B-14	PA (1/3)	HICKORY CREEK	TEASLEY TO MONTECITO	0.85	100%	\$ 8,638,000	\$ 8,638,000
	B-15	PA (1/3)	HICKORY CREEK	MONTECITO TO 1435' W OF BIDDY BYE	0.42	50%	\$ 4,006,000	\$ 2,003,000
	B-16	PA	HICKORY CREEK	1435' W OF BIDDY BYE TO 815' E OF COUNTRY CLUB	0.38	100%	\$ 7,612,000	\$ 7,612,000
	B-17	SA	HOBSON LANE	TEASLEY TO MONTECITO	0.13	100%	\$ 1,914,000	\$ 1,914,000
	B-18	SA	HOBSON LANE	MONTECITO TO FORRESTRIDGE	0.28	100%	\$ 5,710,000	\$ 5,710,000
	B-19	SA	HOBSON LANE	FORRESTRIDGE TO COUNTRY CLUB	0.72	100%	\$ 11,559,000	\$ 11,559,000
	B-20	C	PARVIN	MCCORMICK TO HIGHLAND PARK	0.50	100%	\$ 2,150,000	\$ 2,150,000
	B-21	SA	ROBINSON	230' E OF WHEELER RIDGE TO TEASLEY	0.52	100%	\$ 8,061,000	\$ 8,061,000
	B-22	SA	RYAN	TEASLEY TO MONTECITO	0.76	100%	\$ 11,980,000	\$ 11,980,000
	B-23	SA	RYAN	MONTECITO TO FORRESTRIDGE	0.63	100%	\$ 10,878,000	\$ 10,878,000
	B-24	SA	RYAN	FORRESTRIDGE TO COUNTRY CLUB	0.66	100%	\$ 10,824,000	\$ 10,824,000
	B-25	PA (1/3)	VINTAGE	FORT WORTH TO BONNIE BRAE	0.87	100%	\$ 11,721,000	\$ 11,721,000
	B-26	PA (1/3)	VINTAGE	BONNIE BRAE TO NAPA VALLEY	0.14	100%	\$ 1,665,000	\$ 1,665,000
	B-27	PA (1/3)	VINTAGE	NAPA VALLEY TO IH 35W	0.65	100%	\$ 7,975,000	\$ 7,975,000
	B-28	C	WILLOWWOOD	1250' W OF HIGHLAND PARK TO BONNIE BRAE	0.24	100%	\$ 2,079,000	\$ 2,079,000
	B-29	SA	BONNIE BRAE	IH 35E TO FM 1515	0.14	100%	\$ 1,285,000	\$ 1,285,000
	B-30	SA	BONNIE BRAE	FM 1515 TO WILLOWWOOD	1.09	100%	\$ 11,351,000	\$ 11,351,000
	B-31	SA	BONNIE BRAE	HIGHLAND PARK TO ROSELAWN	0.48	50%	\$ 4,521,000	\$ 2,260,500
	B-32	SA	COUNTRY CLUB	FORT WORTH TO HOBSON	0.08	100%	\$ 1,229,000	\$ 1,229,000
	B-33	SA	COUNTRY CLUB	HOBSON TO RYAN	1.00	100%	\$ 15,093,000	\$ 15,093,000
	B-34	SA	COUNTRY CLUB	RYAN TO HICKORY CREEK	0.66	50%	\$ 11,902,000	\$ 5,951,000
	B-35	PA	FORT WORTH	COUNTRY CLUB TO VINTAGE	1.32	100%	\$ 26,417,000	\$ 26,417,000
	B-36	PA	FORT WORTH	VINTAGE TO BONNIE BRAE	1.07	100%	\$ 19,299,000	\$ 19,299,000
	B-37	PA	FORT WORTH	BONNIE BRAE TO BRUSH CREEK	0.24	100%	\$ 4,811,000	\$ 4,811,000
	B-38	PA	FORT WORTH	BRUSH CREEK TO CRAWFORD	1.11	100%	\$ 20,190,000	\$ 20,190,000
	B-39	Completed	JOHN PAINE	JOHNSON TO ATHENS	0.42	100%	\$ 238,000	\$ 238,000
	B-40	SA	JOHN PAINE	VINTAGE TO 1045' S OF VINTAGE	0.20	100%	\$ 3,254,000	\$ 3,254,000
	B-41	C	PARVIN-ROSELAWN	PARVIN TO ROSELAWN	0.52	100%	\$ 3,878,000	\$ 3,878,000
	B-42	PA (1/3)	TEASLEY	IH 35E TO LONDONDERRY	0.25	100%	\$ 1,039,000	\$ 1,039,000
	B-43	PA (1/3)	TEASLEY	LONDONDERRY TO HOBSON	0.97	100%	\$ 4,558,000	\$ 4,558,000
	B-44	PA (1/3)	TEASLEY	LILLIAN B MILLER TO PENNSYLVANIA	0.36	100%	\$ 1,493,000	\$ 1,493,000
	B-45	PA (1/3)	TEASLEY	PENNSYLVANIA TO HOBSON	0.21	100%	\$ 857,000	\$ 857,000
Service Area Project Cost Subtotal							\$ 290,216,000	
2022 Roadway Impact Fee Study Cost Per Service Area							\$ 37,660	
Total Cost in SERVICE AREA B							\$ 290,253,660	

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Projects within the City of Denton.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 5.C – 10-Year Roadway Impact Fee CIP
with Conceptual Level Cost Projections – Service Area C**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA C	C-1	PA	BARTHOLD	MASCH BRANCH TO 5200' W OF IH 35	0.98	50%	\$ 17,750,000	\$ 8,875,000
	C-2	SA	BOBCAT	FM 2164 TO IH-35	2.75	100%	\$ 37,762,000	\$ 37,762,000
	C-3	SA	FM 1173	IH 35 TO 4605' W OF IH 35	0.87	100%	\$ 13,401,000	\$ 13,401,000
	C-4	SA	FM 1173	4605' W OF IH 35 TO LOVERS	0.41	50%	\$ 7,704,000	\$ 3,852,000
	C-5	SA	FM 2164-IH 35	FM 2164 TO IH 35	2.73	100%	\$ 37,057,000	\$ 37,057,000
	C-6	PA	GANZER	FM 2164 TO GANZER	2.40	100%	\$ 39,748,000	\$ 39,748,000
	C-7	PA	GANZER	2900' E OF IH 35 TO IH 35	0.55	100%	\$ 11,525,000	\$ 11,525,000
	C-8	PA	GANZER	1620' E OF BARTHOLD TO BARTHOLD	0.31	50%	\$ 5,708,000	\$ 2,854,000
	C-9	PA	GANZER	BARTHOLD TO RECTOR	0.49	50%	\$ 9,208,000	\$ 4,604,000
	A-13,C-10	SA	JIM CHRISTAL	OLD SH 24 TO WESTERN	0.55	50%	\$ 9,746,000	\$ 4,873,000
	A-14,C-11	SA	JIM CHRISTAL	WESTERN TO MASCH BRANCH	0.66	50%	\$ 11,964,000	\$ 5,982,000
	A-15,C-12	SA	JIM CHRISTAL	MASCH BRANCH TO THOMAS J EGAN	1.13	50%	\$ 18,502,000	\$ 9,251,000
	A-16,C-13	SA	JIM CHRISTAL	THOMAS J EGAN TO 515' E OF C WOLFE	0.75	50%	\$ 12,707,000	\$ 6,353,500
	C-14	SA	JIM CHRISTAL	945' W OF C WOLFE TO NAIL	0.59	50%	\$ 9,547,000	\$ 4,773,500
	C-15	SA	JIM CHRISTAL	NAIL TO 2045' W of Nail	0.39	50%	\$ 5,841,000	\$ 2,920,500
	C-16	C	MARSHALL	2845' N OF HAMPTON TO HAMPTON	0.54	100%	\$ 5,249,000	\$ 5,249,000
	C-17	C	MARSHALL	HAMPTON TO US 380	0.59	100%	\$ 4,397,000	\$ 4,397,000
	C-18	SA	MASCH BRANCH	MASCH BRANCH TO DARBY SMITH	0.65	100%	\$ 10,602,000	\$ 10,602,000
	C-19	C	WESTWARD	NORTHWAY TO BONNIE BRAE	0.22	100%	\$ 1,672,000	\$ 1,672,000
	C-20	SA (1/2)	RINEY	US 77 TO 2460' W OF US 77	0.47	100%	\$ 3,156,000	\$ 3,156,000
	C-21	SA (1/2)	RINEY	2460' W OF US 77 TO BONNIE BRAE	0.19	100%	\$ 1,258,000	\$ 1,258,000
	C-22	PA (1/3)	US 77	WINDSOR TO FM 2164	0.22	100%	\$ 1,432,000	\$ 1,432,000
	C-23	PA (1/3)	US 77	RINEY TO WINDSOR	0.46	100%	\$ 2,819,000	\$ 2,819,000
	C-24	PA (1/3)	US 77	RINEY TO RINEY	0.40	100%	\$ 2,075,000	\$ 2,075,000
	C-25	PA (1/3)	US 77	BONNIE BRAE TO RINEY	0.75	100%	\$ 3,126,000	\$ 3,126,000
	C-26	PA (1/3)	US 77	LOOP 288 TO BONNIE BRAE	0.33	100%	\$ 1,859,000	\$ 1,859,000
	C-27	PA (1/3)	US 77	IH 35 TO LOOP 288	0.87	100%	\$ 4,738,000	\$ 4,738,000
	C-28	C	MASCH BRANCH-NAIL	MASCH BRANCH TO 1295' W OF MASCH BRANCH	0.25	100%	\$ 2,094,000	\$ 2,094,000
	C-29	C	MASCH BRANCH-NAIL	1050' E OF LOOP 288 TO 1550' W OF LOOP 288	0.49	100%	\$ 4,450,000	\$ 4,450,000
	C-30	C	MASCH BRANCH-NAIL	1335' W OF THOMAS J EGAN TO 775' E OF C WOLFE	0.48	100%	\$ 4,379,000	\$ 4,379,000
	C-31	C	MASCH BRANCH-NAIL	775' E OF C WOLFE TO 690' W OF C WOLFE	0.28	50%	\$ 2,092,000	\$ 1,046,000
	C-32	C	MASCH BRANCH-NAIL	690' W OF C WOLFE TO NAIL	0.58	100%	\$ 4,376,000	\$ 4,376,000
	C-33	SA	WESTGATE	WESTGATE TO 1460' E OF IH-35	0.18	100%	\$ 2,336,000	\$ 2,336,000
	C-34	SA	WINDSOR	US 77 TO HINKLE	0.46	100%	\$ 6,912,000	\$ 6,912,000
	C-35	SA (1/2)	WINDSOR	HINKLE TO BONNIE BRAE	0.99	100%	\$ 6,972,000	\$ 6,972,000
	C-36	SA (1/2)	WINDSOR	WESTGATE TO 145' W OF CLARENDON	0.10	100%	\$ 649,000	\$ 649,000
	C-37	SA (1/2)	WINDSOR	220' W OF WINDSOR FARMS TO IH 35	0.17	100%	\$ 1,162,000	\$ 1,162,000
	C-38	SA	WINDSOR	IH 35 TO MASCH BRANCH	1.24	100%	\$ 17,606,000	\$ 17,606,000
	C-39	SA	BARTHOLD	GANZER TO 2600' S OF GANZER	0.49	100%	\$ 7,425,000	\$ 7,425,000
	C-40	PA	BONNIE BRAE	MILAM TO LOOP 288	3.13	100%	\$ 52,065,000	\$ 52,065,000
	C-41	SA	BONNIE BRAE	LOOP 288 TO US 77	0.24	100%	\$ 3,008,000	\$ 3,008,000
	C-42	SA	BONNIE BRAE	US 77 TO RINEY	0.38	100%	\$ 6,587,000	\$ 6,587,000
	C-43	SA	BONNIE BRAE	RINEY TO WINDSOR	0.66	100%	\$ 10,320,000	\$ 10,320,000
	C-44	SA	BONNIE BRAE	WINDSOR TO US 380	0.68	100%	\$ 11,981,000	\$ 11,981,000
	C-45,E-29	SA	BONNIE BRAE	US 380 TO PANHANDLE	0.55	50%	\$ 8,310,000	\$ 4,155,000
	C-46,E-30	SA	BONNIE BRAE	PANHANDLE TO SCRIPTURE	0.20	50%	\$ 3,056,000	\$ 1,528,000
	C-47,E-31	SA	BONNIE BRAE	SCRIPTURE TO OAK	0.22	50%	\$ 3,370,000	\$ 1,685,000
	C-48,E-32	SA	BONNIE BRAE	OAK TO HICKORY	0.07	50%	\$ 1,087,000	\$ 543,500
	C-49,E-33	SA	BONNIE BRAE	HICKORY TO PRAIRIE	0.27	50%	\$ 4,070,000	\$ 2,035,000
	C-50,E-34	SA	BONNIE BRAE	PRAIRIE TO IH 35E	0.16	50%	\$ 2,457,000	\$ 1,228,500
	C-51	PA	C WOLFE	US 380 TO WESTERN-NAIL	0.51	100%	\$ 8,901,000	\$ 8,901,000
	C-52	C	FALLMEADOW	MEADOWLEDGE TO GARDENVIEW	0.17	100%	\$ 1,303,000	\$ 1,303,000
	C-53,D-22	PA	FM 2164	MILAM TO LOOP 288	2.62	50%	\$ 49,925,000	\$ 24,962,500
	C-54,D-28	SA	LOCUST	LOOP 288 TO HERCULES	0.43	50%	\$ 6,954,000	\$ 3,477,000
	C-55,D-29	SA	LOCUST	HERCULES TO BELL	0.45	50%	\$ 7,433,000	\$ 3,716,500
	C-56,D-30	SA	LOCUST	BELL TO WINDSOR	0.24	50%	\$ 3,628,000	\$ 1,814,000
	C-57,D-31	SA	LOCUST	WINDSOR TO FM 2164	0.25	50%	\$ 3,841,000	\$ 1,920,500
	C-58	SA	LOVERS	FM 1173 TO MASCH BRANCH	0.78	100%	\$ 12,266,000	\$ 12,266,000
	C-59	SA	LOVERS	1085' N OF MASCH BRANCH TO MASCH BRANCH	0.21	100%	\$ 3,349,000	\$ 3,349,000
	C-60	SA	LOVERS LN CONNECTOR	LOVERS TO LOOP 288	0.06	100%	\$ 756,000	\$ 756,000
	C-61	SA	LOVERS LN CONNECTOR	LOOP 288 TO 1085' N OF MASCH BRANCH	0.08	100%	\$ 972,000	\$ 972,000
	C-62	SA	MASCH BRANCH	1295' S OF FM 1173 TO JACKSON	0.79	50%	\$ 11,908,000	\$ 5,954,000
	C-63	SA	MASCH BRANCH	LOVERS TO US 380	0.72	100%	\$ 11,352,000	\$ 11,352,000
	C-64	SA	MASCH BRANCH	US 380 TO JIM CHRISTAL	0.78	100%	\$ 12,137,000	\$ 12,137,000
	C-65	SA	MILAM-LOOP 288	MILAM TO LOOP 288	2.71	100%	\$ 36,182,000	\$ 36,182,000
	C-66	SA	MILAM-US 77	MILAM TO GANZER	1.51	100%	\$ 20,546,000	\$ 20,546,000
	C-67	SA	MILAM-US 77	GANZER TO LONG	0.73	100%	\$ 11,567,000	\$ 11,567,000
	C-68	SA	MILAM-US 77	LONG TO US 77	0.53	100%	\$ 7,359,000	\$ 7,359,000
	C-69	C	NICOSIA	LOOP 288 TO BEALL	0.12	100%	\$ 1,169,000	\$ 1,169,000
	C-70	SA	THOMAS J EGAN	US 380 TO JIM CHRISTAL	0.76	100%	\$ 12,353,000	\$ 12,353,000
	C-71	PA	WESTERN	US 380 TO JIM CHRISTAL	0.80	100%	\$ 14,699,000	\$ 14,699,000
							Service Area Project Cost Subtotal	\$ 587,514,000
							2022 Roadway Impact Fee Study Cost Per Service Area	\$ 37,660
							Total Cost in SERVICE AREA C	\$ 587,551,660

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

**Table 5.D – 10-Year Roadway Impact Fee CIP
with Conceptual Level Cost Projections – Service Area D**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SAD	D-1	SA	BOBCAT	560' W OF FM 2164 TO FM 2164	0.11	50%	\$ 1,601,000	\$ 800,500
	D-2	C	FISHTRAP	MINGO TO GEESLING	0.36	50%	\$ 2,939,000	\$ 1,469,500
	D-3	PA	GANZER	15,500' E OF SHERMAN TO 4600' W OF SHERMAN	3.41	100%	\$ 53,936,000	\$ 53,936,000
	D-4	SA	GRIBBLE SPRINGS	INDIAN WELLS TO 3015' W OF INDIAN WELLS	0.57	50%	\$ 8,861,000	\$ 4,430,500
	D-5	SA	HARTLEE FIELD	4220' E OF COOPER CREEK TO COOPER CREEK	0.80	50%	\$ 12,051,000	\$ 6,025,500
	D-6	SA	HARTLEE FIELD	COOPER CREEK TO 5170' W OF COOPER CREEK	0.98	50%	\$ 14,764,000	\$ 7,382,000
	D-7	C	HARTLEE FIELD	600' E OF SHERMAN TO SHERMAN	0.11	50%	\$ 855,000	\$ 427,500
	D-8	SA	HARTLEE FLD-FM 2164	HARTLEE FIELD TO SHERMAN	0.43	100%	\$ 5,392,000	\$ 5,392,000
	D-9	SA	HARTLEE FLD-FM 2164	SHERMAN TO 3500' W OF SHERMAN	0.66	100%	\$ 8,386,000	\$ 8,386,000
	D-10	SA	HARTLEE FLD-FM 2164	STUART TO 1485' W OF STUART	0.28	50%	\$ 3,809,000	\$ 1,904,500
	D-11	SA	HARTLEE FLD-FM 2164	475' W OF FM 2164 TO FM 2164	0.09	100%	\$ 1,139,000	\$ 1,139,000
	D-12	C	LONG	510' W OF FM 2164 TO FM 2164	0.10	100%	\$ 726,000	\$ 726,000
	D-13	SA	MINGO	E CITY LIMITS TO COOPER CREEK	0.09	100%	\$ 1,315,000	\$ 1,315,000
	D-14	SA	MINGO	COOPER CREEK TO LOOP 288	0.44	100%	\$ 6,583,000	\$ 6,583,000
	D-15	SA	MINGO	LOOP 288 TO US 380	0.43	100%	\$ 7,937,000	\$ 7,937,000
	D-16	C	KINGS ROW	SILVER DOME TO LOOP 288	0.50	100%	\$ 3,779,000	\$ 3,779,000
	D-17	C	SILVER DOME	COOPER CREEK TO FARRIS RD	0.41	50%	\$ 3,117,000	\$ 1,558,500
	D-18	C	COLLINS	HARTLEE FIELD TO 2730' S OF HARTLEE FIELD	0.84	50%	\$ 6,818,000	\$ 3,409,000
	D-19	SA	COOPER CREEK	SHERMAN TO HARTLEE FIELD	1.91	100%	\$ 25,554,000	\$ 25,554,000
	D-20	SA	COOPER CREEK	SILVER DOME TO MINGO	0.83	50%	\$ 12,452,000	\$ 6,226,000
	D-21	PA	COOPER CREEK	MINGO TO US 380	0.32	100%	\$ 7,361,000	\$ 7,361,000
	C-53,D-22	PA	FM 2164	MILAM TO LOOP 288	2.62	50%	\$ 49,925,000	\$ 24,962,500
	D-23	PA	GREEN VALLEY	2395' S OF FM 2153 TO 2935' N OF SHEPARD	1.47	100%	\$ 24,463,000	\$ 24,463,000
	D-24	SA	GREEN VALLEY	WARSCHUN TO SHERMAN	0.40	100%	\$ 6,234,000	\$ 6,234,000
	D-25	SA	INDIAN WELLS	1615' S OF FM 2153 TO 4930' N OF GRIBBLE SPRINGS	0.73	100%	\$ 10,021,000	\$ 10,021,000
	D-26	SA	INDIAN WELLS	4930' N OF GRIBBLE SPRINGS TO 2905' N OF GRIBBLE SPRINGS	0.38	50%	\$ 4,853,000	\$ 2,426,500
	D-27	SA	INDIAN WELLS	2905' N OF GRIBBLE SPRINGS TO GRIBBLE SPRINGS	0.55	50%	\$ 8,296,000	\$ 4,148,000
	C-54,D-28	SA	LOCUST	LOOP 288 TO HERCULES	0.43	50%	\$ 6,954,000	\$ 3,477,000
	C-55,D-29	SA	LOCUST	HERCULES TO BELL	0.45	50%	\$ 7,433,000	\$ 3,716,500
	C-56,D-30	SA	LOCUST	BELL TO WINDSOR	0.24	50%	\$ 3,628,000	\$ 1,814,000
	C-57,D-31	SA	LOCUST	WINDSOR TO FM 2164	0.25	50%	\$ 3,841,000	\$ 1,920,500
	D-32	SA	SHERMAN	LOOP 288 TO HERCULES	0.31	100%	\$ 4,713,000	\$ 4,713,000
	D-33	SA	SHERMAN	HERCULES TO KINGS	0.36	100%	\$ 5,455,000	\$ 5,455,000
	D-34	SA	SHERMAN	KINGS TO WINDSOR	0.38	100%	\$ 7,223,000	\$ 7,223,000
	D-35	SA	SHERMAN	WINDSOR TO WILSONWOOD	0.19	100%	\$ 2,856,000	\$ 2,856,000
	D-36	SA	SHERMAN	WILSONWOOD TO CORONADO	0.22	100%	\$ 3,328,000	\$ 3,328,000
	D-37	SA	SHERMAN	CORONADO TO GREENWOOD	0.31	100%	\$ 4,685,000	\$ 4,685,000
	D-38	SA	SHERMAN	GREENWOOD TO BELL	0.16	100%	\$ 2,357,000	\$ 2,357,000
	D-39	SA	SHERMAN	BELL TO LOCUST	0.32	100%	\$ 4,899,000	\$ 4,899,000
	D-40	C	WINDSOR	LOOP 288 TO DOMINION	0.16	100%	\$ 1,225,000	\$ 1,225,000
							Service Area Project Cost Subtotal	\$ 275,665,500
							2022 Roadway Impact Fee Study Cost Per Service Area	\$ 37,660
							Total Cost in SERVICE AREA D	\$ 275,703,160

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**Table 5.E – 10-Year Roadway Impact Fee CIP
with Conceptual Level Cost Projections – Service Area E**

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA E	E-1	C	AUDRA	LOOP 288 TO 1185' W OF LOOP 288	0.22	100%	\$ 1,687,000	\$ 1,687,000
	E-2	SA	BLAGG	LAKEVIEW TO GEESLING	0.71	100%	\$ 11,181,000	\$ 11,181,000
	E-3	SA	BLAGG	GEESLING TO 2175' W OF GEESLING	0.41	100%	\$ 7,651,000	\$ 7,651,000
	E-4	SA	BLAGG	235' E OF MAYHILL TO MAYHILL	0.04	50%	\$ 563,000	\$ 281,500
	E-5	PA (1/3)	DALLAS	TEASLEY TO IH 35E	0.87	100%	\$ 3,624,000	\$ 3,624,000
	E-6	C	DUCHESS	TRAILHEAD TO WOODROW	0.76	100%	\$ 5,949,000	\$ 5,949,000
	E-7	SA	FM 426	LANEY TO GRISSOM	0.57	100%	\$ 9,953,000	\$ 9,953,000
	E-8	Completed	MCKINNEY	GRISSOM TO LOOP 288	1.65	100%	\$ 1,551,000	\$ 1,551,000
	E-9	SA	MCKINNEY	LOOP 288 TO CARDINAL	0.13	100%	\$ 1,914,000	\$ 1,914,000
	E-10	SA	MCKINNEY	CARDINAL TO MOCKINGBIRD	0.22	100%	\$ 3,270,000	\$ 3,270,000
	E-11	SA	MCKINNEY	MOCKINGBIRD TO MACK	0.61	100%	\$ 9,268,000	\$ 9,268,000
	E-12	SA	MCKINNEY	MACK TO AUDRA	0.29	100%	\$ 4,399,000	\$ 4,399,000
	E-13	SA	MILLS	TRINITY TO MAYHILL	1.40	100%	\$ 23,115,000	\$ 23,115,000
	E-14	SA	MILLS	LAKEVIEW TO MAYHILL	0.41	100%	\$ 5,235,000	\$ 5,235,000
	E-15	SA	MINGO	US 380 TO OLD NORTH	0.14	100%	\$ 2,172,000	\$ 2,172,000
	E-16	SA	MINGO	OLD NORTH TO NOTTINGHAM	0.48	100%	\$ 7,268,000	\$ 7,268,000
	E-17	SA	MINGO	NOTTINGHAM TO PERTAIN	0.56	100%	\$ 8,381,000	\$ 8,381,000
	E-18	SA	MINGO	PERTAIN TO RUDDLELL	0.18	100%	\$ 2,700,000	\$ 2,700,000
	E-19	SA	MINGO	RUDDLELL TO WILLIS	0.11	100%	\$ 1,714,000	\$ 1,714,000
	E-20	SA	MINGO	WILLIS TO WITHERS	0.44	100%	\$ 6,583,000	\$ 6,583,000
	E-21	SA	MINGO	WITHERS TO PAISLEY	0.04	100%	\$ 671,000	\$ 671,000
	E-22	SA	MINGO	PAISLEY TO BELL	0.19	100%	\$ 2,813,000	\$ 2,813,000
	E-23	SA (1/2)	MORSE	MAYHILL TO KIMBERLY	0.22	100%	\$ 1,969,000	\$ 1,969,000
	E-24	SA	SHADY OAKS	WOODROW TO TEASLEY	0.58	100%	\$ 9,967,000	\$ 9,967,000
	E-25	SA	SPENCER	MAYHILL TO LOOP 288	0.44	100%	\$ 6,862,000	\$ 6,862,000
	E-26	C	TREATMENT PLANT	MCKINNEY TO POST OAK	0.63	100%	\$ 4,731,000	\$ 4,731,000
	E-27	SA	TREATMENT PLANT	POST OAK TO 1325' W OF POST OAK	0.25	100%	\$ 5,015,000	\$ 5,015,000
	E-28	SA	TREATMENT PLANT	1325' W OF POST OAK TO MAYHILL	0.75	100%	\$ 11,310,000	\$ 11,310,000
	C-45,E-29	SA	BONNIE BRAE	US 380 TO PANHANDLE	0.55	50%	\$ 8,310,000	\$ 4,155,000
	C-46,E-30	SA	BONNIE BRAE	PANHANDLE TO SCRIPTURE	0.20	50%	\$ 3,056,000	\$ 1,528,000
	C-47,E-31	SA	BONNIE BRAE	SCRIPTURE TO OAK	0.22	50%	\$ 3,370,000	\$ 1,685,000
	C-48,E-32	SA	BONNIE BRAE	OAK TO HICKORY	0.07	50%	\$ 1,087,000	\$ 543,500
	C-49,E-33	SA	BONNIE BRAE	HICKORY TO PRAIRIE	0.27	50%	\$ 4,070,000	\$ 2,035,000
	C-50,E-34	SA	BONNIE BRAE	PRAIRIE TO IH 35E	0.16	50%	\$ 2,457,000	\$ 1,228,500
	E-35	C	CARDINAL	ORIOLE TO MCKINNEY	0.42	100%	\$ 3,167,000	\$ 3,167,000
	E-36	PA	GEESLING	US 380 TO BLAGG	0.46	100%	\$ 8,237,000	\$ 8,237,000
	E-37	PA	GEESLING	US 380 TO BLAGG	1.02	100%	\$ 18,210,000	\$ 18,210,000
	E-38	PA (1/3)	LAKEVIEW	POST OAK TO SHADY SHORES	0.26	100%	\$ 2,294,000	\$ 2,294,000
	E-39	PA (1/3)	MAYHILL	US 380 TO PROMINENCE	0.44	100%	\$ 2,467,000	\$ 2,467,000
	E-40	PA (1/3)	MAYHILL	PROMINENCE TO 770' N OF RUSSELL NEWMAN	0.39	100%	\$ 2,155,000	\$ 2,155,000
	E-41	PA (1/3)	MAYHILL	770' N OF RUSSELL NEWMAN TO RUSSELL NEWMAN	0.15	50%	\$ 819,000	\$ 409,500
	E-42	PA (1/3)	MAYHILL	RUSSELL NEWMAN TO 460' S OF RUSSELL NEWMAN	0.09	50%	\$ 487,000	\$ 243,500
	E-43	PA (1/3)	MAYHILL	460' S OF RUSSELL NEWMAN TO MILLS	0.20	100%	\$ 1,142,000	\$ 1,142,000
	E-44	PA (1/3)	MAYHILL	MILLS TO MCKINNEY	0.37	100%	\$ 2,066,000	\$ 2,066,000
	E-45	PA (1/3)	MAYHILL	MCKINNEY TO MORSE	0.39	100%	\$ 2,161,000	\$ 2,161,000
	E-46	PA (1/3)	MAYHILL	MORSE TO SPENCER	0.67	100%	\$ 3,717,000	\$ 3,717,000
	E-47	PA (1/3)	MAYHILL	SPENCER TO EDWARDS	0.60	100%	\$ 3,864,000	\$ 3,864,000
	E-48	PA (1/3)	MAYHILL	2725' N OF COLORADO TO COLORADO	0.52	100%	\$ 4,477,000	\$ 4,477,000
	E-49	PA (1/3)	MAYHILL	COLORADO TO IH 35E	0.44	100%	\$ 1,840,000	\$ 1,840,000
	E-50	PA	MAYHILL CONNECTOR	MAYHILL TO QUAILCREEK	0.13	100%	\$ 2,071,000	\$ 2,071,000
	E-51	C	MOCKINGBIRD	MCKINNEY TO 625' N OF DUCHESS	0.16	100%	\$ 1,217,000	\$ 1,217,000
	E-52	SA	MOCKINGBIRD	DUCHESS TO SHADY OAKS	0.41	100%	\$ 7,039,000	\$ 7,039,000
	E-53	SA	MOCKINGBIRD	SHADY OAKS TO SPENCER	0.53	100%	\$ 6,721,000	\$ 6,721,000
	E-54	PA	POST OAK	MILLS TO SPENCER	1.30	100%	\$ 20,228,000	\$ 20,228,000
	E-55	PA	POST OAK	TREATMENT PLANT TO EDWARDS	1.27	100%	\$ 21,525,000	\$ 21,525,000
	E-56	PA	POST OAK	EDWARDS TO POCKRUS PAGE	0.51	100%	\$ 8,015,000	\$ 8,015,000
	E-57	C	SWISHER	EDWARDS TO POCKRUS PAGE	0.50	100%	\$ 3,750,000	\$ 3,750,000
	E-58	PA (1/3)	TEASLEY	DALLAS TO IH 35E	0.35	100%	\$ 2,077,000	\$ 2,077,000
	E-59	C	N STAR	SPENCER TO ROY	0.32	100%	\$ 2,427,000	\$ 2,427,000
	E-60	C	ROY	MAYHILL TO N STAR	0.21	100%	\$ 1,594,000	\$ 1,594,000
	Service Area Project Cost Subtotal							\$ 305,523,500
	2022 Roadway Impact Fee Study Cost Per Service Area							\$ 37,660
	Total Cost in SERVICE AREA E							\$ 305,561,160

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F. Service Unit Calculation

The basic service unit for the computation of Denton's Roadway Impact Fees is the vehicle-mile of travel during the afternoon peak-hour (as explained on Pg. 20). To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service area for the ten-year period.

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

For the purposes of impact fees, all developed and developable land is categorized as either residential or employment. For residential land uses, the existing and projected number of dwelling units are estimated. The number of dwelling units in each service area is multiplied by a *transportation demand factor* (discussed in more detail below) to compute the vehicle-miles of travel that occur during the afternoon peak hour. This factor indicates the average amount of demand created by the residential land uses in the service area.

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

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

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

The *transportation demand factors* are aggregate rates derived from two sources – the *ITE Trip Generation Manual, 11th Edition* and the National Household Travel Survey performed by the FHWA. The *ITE Trip Generation Manual, 11th Edition* provides the number of trips that are produced or attracted to the land use for each dwelling unit, square foot of building, or other corresponding unit. For the retail category of land uses, the rate is adjusted to account for the fact that a percentage of retail trips are made by people who would otherwise be traveling past that particular establishment anyway, such as a trip between work and home. For example, a stop at a nearby supermarket on the way home from work does not create a new trip onto the roadway network. 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 trip generation rates 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 National Household Travel Survey conducted by the Federal Highway Administration (FHWA).

The computation of the *transportation demand factor* is based on the following equation:

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

where... $L_{\max} = \min(L * OD \text{ or } 6)$

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), and
- OD = Origin-Destination Reduction (50%)

The maximum trip length was limited to six (6) miles based on the maximum trip length within each service area. Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles, and the service areas within Denton are closely approximated with a six (6) mile distance.

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 Denton to both residential and non-residential land uses. To avoid counting these trips twice 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, and the total trip is only counted once. This methodology is consistent with that used in the National Household Travel Survey.

Table 6 shows the derivation of the *Transportation Demand Factor* for the residential land uses and the three (3) non-residential land use categories. The values utilized for all variables shown in the *transportation demand factor* equation are also shown in the table.

Table 6. Transportation Demand Factor Calculations

Variable	Single Family	Multi-Family	Basic	Service	Retail
T	0.94	0.51	0.65	1.44	5.19
P_b	0%	0%	0%	0%	34%
L	9.79	9.79	10.02	14.65	5.60
L_{max} *	4.90	4.90	5.01	6.00	2.80
TDF	4.61	2.50	3.26	8.64	9.60
* L _{max} is less than 6 miles for residential and retail land uses; therefore this lower trip length is used for calculating the TDF for these land uses.					

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), and
- OD = Origin-Destination Reduction (50%)

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in **Table 7**. This table shows the total vehicle-miles by service area for the years 2022 and 2032. These estimates and projections lead to the Vehicle-Miles of Travel for both 2022 and 2032.

Table 7. 10-Year Growth Projections

2022 - 2032 Growth Projections¹

SERVICE AREA	RESIDENTIAL VEHICLE-MILES			EMPLOYMENT SQUARE FEET ⁴			TRANS. DEMAND FACTOR ⁵			EMPLOYMENT VEHICLE-MILES ⁹			TOTAL VEHICLE MILES ¹⁰
	Single Family Units	Trip Rate TDF ²	VEHICLE MILES ³	Multi-Family Units	Trip Rate TDF ²	VEHICLE MILES ³	BASIC	SERVICE	RETAIL	BASIC	SERVICE	RETAIL	
A	3,212	0.94	14,807	970		2,425	2,843,000	591,000	871,000	0.65	1.44	5.19	39,968
B	2,009		9,261	387		968	415,000	238,000	285,000				16,374
C	1,538	4.61	7,090	1,015	2.50	2,538	3,518,000	689,000	446,000	3.26	8.64	9.60	31,332
D	847		3,905	215		538	815,000	206,000	287,000				11,634
E	1,219		5,620	1,291		3,228	1,831,000	519,000	505,000				24,148
Totals	8,825		40,683	3,878		9,695	9,422,000	2,243,000	2,394,000	30,716	19,379	22,983	123,456

VEHICLE-MILES OF INCREASE (2022 - 2032)

SERVICE AREA	VEH-MILES
A	39,968
B	16,374
C	31,332
D	11,634
E	24,148

Notes:

- 1 From City of Denton 2022 Land Use Assumptions for Roadway Impact Fees
- 2 Transportation Demand Factor for each Service Area (from LUVNET) using Single Family Detached Housing land use and trip generation rate
- 3 Calculated by multiplying TDF by the number of dwelling units
- 4 From City of Denton 2022 Land Use Assumptions for Roadway Impact Fees
- 5 Trip generation rate and Transportation Demand Factors from LUVNET 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 Plaza (40-150k) land use and trip generation rate
- 9 Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- 10 Residential plus Employment vehicle-mile totals for each Service Area

V. 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 8** 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. The calculation of the maximum assessable impact fee is shown in **Table 9**. Each row in the table is numbered to simplify explanation of the calculation.

Table 8. Maximum Assessable Roadway Impact Fee Computation

Line	Title	Description
1	<i>Total Vehicle-Miles of Capacity Added by the Roadway Impact Fee 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 Units of Supply)

Each project identified in the 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 Units of Supply)
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A number of facilities identified in the 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>Total Vehicle-Miles of Existing Deficiencies</i>	Number of vehicle-miles of travel that are not accommodated by the existing roadway system (from Appendix C – Existing Roadway Facilities Inventory)
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In order to ensure that existing deficiencies on the City's roadway network are not recoverable through impact fees, this line is based on the entire roadway network within the service area. Any roadway within the service area that is deficient – even those not identified on the Roadway Impact Fee CIP – will have these additional trips removed from the calculation.

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

5	<i>Total Cost of the Roadway Impact Fee CIP within the Service Area</i>	The total cost of the projects within each service area (from Table 5: 10-Year Roadway Impact Fee Capital Improvements Plan with Conceptual Level Cost Opinions)
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This line simply identifies the total cost of all of the projects identified in each service area.

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

7	<i>Cost to Meet Existing Needs and Usage</i>	The difference between the Total Cost of the Roadway Impact Fee CIP (Line 5) and the Cost of the Net Capacity supplied (Line 6). (Line 5 – Line 6)
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This line is provided for information purposes only – it is to present the portion of the total cost of the Roadway Impact Fee CIP that is required to meet existing demand.

8	<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 7)
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This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

9	<i>Percent of Capacity Added Attributable to New Growth</i>	The result of dividing Total Vehicle-Miles of New Demand (Line 8) by the Net Amount of Capacity Added (Line 4), limited to 100% (Line 10). This calculation is required by Chapter 395 to ensure capacity added is attributable to new growth.
10	<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.

11	<i>Cost of Roadway Impact Fee CIP Attributable to New Growth</i>	The result of multiplying the Cost of Net Capacity Added (Line 6) by the Percent of Capacity Added Attributable to New Growth, limited to 100% (Line 9).
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This value is the total Roadway Impact Fee CIP project costs (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

B. Plan for Financing and the Ad Valorem Tax Credit

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

- (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 plan is summarized, as prepared by NewGen Strategies in **Appendix D** and **Appendix E**, Plan for Awarding the Transportation Impact Fee Credit. The following table summarizes the portions of **Table 8** that utilize this credit calculation.

Line	Title	Description
12	<i>Financing Costs</i>	(from Appendix D – Plan for Awarding the Transportation Impact Fee Credit)
13	<i>Interest Earnings</i>	(from Appendix D – Plan for Awarding the Transportation Impact Fee Credit)
14	<i>Existing Impact Fee Fund Balance</i>	(from Appendix D – Plan for Awarding the Transportation Impact Fee Credit)
15	<i>Cost of the Roadway Impact Fee CIP and Financing Attributable to New Growth</i>	The sum of the Cost of Capacity Added Attributable to New Growth, Financing Costs, and Interest Earnings. (Line 11 + Line 12 + Line 13 – Line 14)
16	<i>Pre-Credit Maximum Fee Per Service Unit</i>	Found by dividing the Cost of the TIP and Financing Attributable to New Growth (Line 15) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 15 / Line 8)
17	<i>Credit for Ad Valorem Taxes</i>	A credit for the portion of ad valorem taxes projected to be generated by the new service units, as per Section 395.014 of the Local Government Code. (from Appendix D – Plan for Awarding the Transportation Impact Fee Credit)
18	<i>Recoverable Cost of the Roadway Impact Fee CIP and Financing</i>	The difference between the Cost of the TIP and Financing Attributable to New Growth (Line 15) and the Credit for Ad Valorem Taxes (Line 17). (Line 15 + Line 17)
19	<i>Maximum Assessable Fee Per Service Unit</i>	Found by dividing the Recoverable Cost of the TIP and Financing (Line 18) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 18 / Line 8)

C. Maximum Assessable Impact Fee Determination

The impact fee determination method employed by NewGen Strategies and Solutions, LLC is developed through a financial based model, which fully recognizes the requirements of Chapter 395, including the recognition of cash and/or debt financing, interest earnings, fund balances, and applicable credits associated with the use of ad valorem taxes. In developing the components of the financial model several assumptions must be made, including the following:

- Financing
 - Method of financing (i.e. cash or debt financing)
 - The level of financing (e.g. 80% debt / 20% cash)
 - Cost of financing
 - Debt repayment structure
- Timing and Level of Expenditures and Revenues
- Interest Earnings
- Annual Service Unit Growth
- Portion of Ad Valorem Tax Revenue Used to Fund Impact Fee Transportation Improvements

The assumptions employed in the maximum assessable impact fee determination provide a reasonable basis for forecasting, however, it must be emphasized that these assumptions may not necessarily reflect actual future conditions. To address this, Chapter 395 requires the monitoring of impact fees through the Capital Improvements Advisory Committee (CIAC) and allows for the option to update or revise impact fees to reflect the actual implementation of the impact fee program.

Once the cost of capacity added that is attributable to growth (**Table 8** - line 11) is determined, it must then be decided how the cost will be financed: cash and/or debt. For any previously funded projects, whether partially funded or in full, actual costs of capital have been included. Based on discussions with City staff, it is assumed that the City will debt finance 80% of the future project costs and cash finance 20%. For debt financing, the cost of financing is based on the City staff's estimates of future debt costs for bonds issued with 20-

year terms, as shown in **Appendix D**. Debt service payments for each future debt issue are assumed to remain constant over the issue's term.

Currently, the exact timing and annual level of capital expenditures over the 10-year forecast is indeterminate; therefore, it is assumed that capital expenditures will occur in equal amounts over the 10-year program period. It is also assumed that for debt financed capital projects, the City will expend debt proceeds over a 3-year timeframe. For the calculation of the maximum assessable impact fee, debt is assumed to be issued in equal amounts for each year. Because of the 10-year forecast limitation, and in order to recognize the full amount of debt to be issued for the cost of capacity added that is attributable to growth during the 10-year period, a portion of years 8, 9, and 10 are assumed to be spent in the final 3 years.

Because debt is issued over 20-year terms and impact fees developed herein are to be charged over a 10-year period, sufficient fund balance must be generated to meet the future debt service obligations. Because of the generation of the fund balance, excess monies will be available for interest earnings. Chapter 395 states that interest earnings are funds of the impact fee account and are to be held to the same restrictions as impact fee revenues. Therefore, in order to recognize that interest earnings are used to fund transportation improvements, interest earnings are credited against the costs recoverable through impact fees. It should be noted that Chapter 395 does not require the upfront recognition of interest earnings in the impact fee determination; however, in an effort to acknowledge the time value of the impact fee payers' monies, interest earnings have been credited. Interest is assumed to be earned at an annual rate of 2.00% based on discussions with City staff.

As with the timing and level of the capital expenditures over the 10-year forecast, the timing and annual level of service unit growth over the 10-year program period is indeterminate at the present time. As such, it is assumed that service unit growth will be consistent over the 10-year forecast.

Chapter 395 requires a plan for awarding either a credit for the portion of ad valorem tax and/or utility service revenues generated by new service units during the program period that are used for payment of improvements that are included in the Roadway Impact Fee CIP. As an alternative, a credit equal to 50% of the total cost of implementing the Roadway Impact Fee CIP may be used. The City has elected to pursue the determination of a credit for the portion of ad valorem tax revenues generated by new service units during the program

period that are used for payment of improvements that are included in the Roadway Impact Fee CIP. It should be noted that the credit is not a determination to recognize the total ad valorem tax revenue generated by new service units, but is only a credit for the portion of ad valorem tax revenue that is used for payment of improvements that are included in the Roadway Impact Fee CIP. Theoretically, the credit determination could be zero (0) if the City does not utilize any of the new service unit ad valorem tax revenue to fund improvements that are included in the Roadway Impact Fee CIP. However, to be conservative and recognize potential cash flow issues that can occur with the funding of major capital improvement projects, it is assumed that the cash funded projects (50% of the improvement costs included in the Roadway Impact Fee CIP) could potentially be funded by ad valorem tax revenue.

Since payments made through ad valorem tax revenue will consist of not only the revenue generated by new service units in the defined service area, but also existing property owners throughout the City, the portion attributable to the new service units in the defined service area must be isolated, as illustrated in the credit calculation in **Appendix D**.

The following summarizes the financial model's determination of the maximum assessable impact fee:

- Recoverable Impact Fee Transportation Improvements Costs (**Table 8**, line 11)
- Plus: Financing Costs (**Table 8**, line 12)
- Less: Interest Earnings (**Table 8**, line 13)
- Pre-Credit Recoverable Costs for Impact Fee (**Table 8**, line 15)
- Less: Credit for Ad Valorem Revenues (**Table 8**, line 17)
- Maximum Recoverable Costs for Impact Fee (**Table 8**, line 18)

Table 9. Maximum Assessable Roadway Impact Fee

SERVICE AREA:		A	B	C	D	E
1	TOTAL VEH-MI OF CAPACITY ADDED BY THE ROADWAY IMPACT FEE CIP (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	67,482	83,059	145,092	61,918	92,971
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, APPENDIX B)	7,427	29,090	11,526	11,586	23,997
3	TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING ROADWAY FACILITIES INVENTORY, APPENDIX C)	1,348	22,182	2,406	8,418	7,367
4	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	58,707	31,787	131,160	41,914	61,607
5	TOTAL COST OF THE ROADWAY IMPACT FEE CIP AND STUDY WITHIN SERVICE AREA (FROM TABLES 5A TO 5E)	\$ 281,359,160	\$ 290,253,660	\$ 587,551,660	\$ 275,703,160	\$ 305,561,160
6	COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 244,772,713	\$ 111,081,196	\$ 531,133,872	\$ 186,631,064	\$ 202,479,336
7	COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ 36,586,447	\$ 179,172,464	\$ 56,417,788	\$ 89,072,096	\$ 103,081,824
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 7 AND LAND USE ASSUMPTIONS)	39,968	16,374	31,332	11,634	24,148
9	PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	68.0%	51.5%	23.8%	27.7%	39.1%
10	IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE	68.0%	51.5%	23.8%	27.7%	39.1%
11	COST OF ROADWAY IMPACT FEE CIP ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	\$ 166,445,445	\$ 57,206,816	\$ 126,409,862	\$ 51,696,805	\$ 79,169,420
12	FINANCING COSTS (FROM APPENDIX D)	\$ 80,871,139	\$ 26,749,649	\$ 61,414,578	\$ 25,105,399	\$ 38,714,769
13	INTEREST EARNINGS (FROM APPENDIX D)	\$ (39,254,897)	\$ (13,661,722)	\$ (30,142,851)	\$ (12,702,369)	\$ (19,534,195)
14	EXISTING IMPACT FEE FUND BALANCE	\$ 4,394,807	\$ 2,004,188	\$ 3,170,473	\$ 1,685,562	\$ 4,840,794
15	COST OF THE ROADWAY IMPACT FEE CIP AND FINANCING ATTRIBUTABLE TO NEW GROWTH (LINE 11 + LINE 12 + LINE 13 - LINE 14)	\$ 203,666,880	\$ 68,290,555	\$ 154,511,115	\$ 62,414,273	\$ 93,509,199
16	PRE-CREDIT MAXIMUM FEE PER SERVICE UNIT (LINE 15 / LINE 8)	\$ 5,096	\$ 4,171	\$ 4,931	\$ 5,365	\$ 3,872
17	CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D)	\$ (12,265,351)	\$ (1,713,041)	\$ (7,396,751)	\$ (1,157,132)	\$ (3,628,065)
18	RECOVERABLE COST OF ROADWAY IMPACT FEE CIP AND FINANCING (LINE 15 + LINE 17)	\$ 191,401,529	\$ 66,577,513	\$ 147,114,364	\$ 61,257,141	\$ 89,881,134
19	MAXIMUM ASSESSABLE FEE PER SERVICE UNIT (LINE 18 / LINE 8)	\$ 4,789	\$ 4,066	\$ 4,695	\$ 5,265	\$ 3,722

D. 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 will utilize the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in **Table 10**. This table lists the predominant land uses that may occur within the City of Denton. 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 local uses are found in this table. The descriptions for each land use are presented in **Table 11**. 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 is 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 in **Table 10**, 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 definitive source of the trip generation and pass-by statistics is the *ITE Trip Generation Manual, 11th Edition*, the latest edition. 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. However, for land uses not contained within the 11th Edition of the *ITE Trip Generation Manual*, an alternative service unit demand could be calculated by completing a trip generation study based on the procedure identified in the *ITE Trip Generation Handbook*.

To convert vehicle trips to vehicle-miles, it is necessary to multiply trips by trip length. The trip length values are based on the *National Household Travel Survey* performed by the FHWA. 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 six (6) miles, the maximum trip length used for calculation is reduced to six (6) miles. This reduction, as

discussed previously, limits the maximum trip length to the approximate size of the service areas.

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 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.

Table 10 - Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
PORT AND TERMINAL											
Intermodal Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.65			0.65	10.02	50%	5.01	5.01	3.26
Industrial Park	130	1,000 SF GFA	0.34			0.34	10.02	50%	5.01	5.01	1.70
Warehousing	150	1,000 SF GFA	0.18			0.18	10.02	50%	5.01	5.01	0.90
Mini-Warehouse	151	1,000 SF GFA	0.15			0.15	10.02	50%	5.01	5.01	0.75
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.94			0.94	9.79	50%	4.90	4.90	4.61
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.51			0.51	9.79	50%	4.90	4.90	2.50
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.39			0.39	9.79	50%	4.90	4.90	1.91
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.32			0.32	9.79	50%	4.90	4.90	1.57
Residential Condominium/Townhome	230	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Senior Adult Housing-Single-Family	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Multifamily	252	Dwelling Unit	0.25			0.25	9.79	50%	4.90	4.90	1.23
Assisted Living	254	Beds	0.24			0.24	9.79	50%	4.90	4.90	1.18
LODGING											
Hotel	310	Room	0.59			0.59	6.43	50%	3.21	3.21	1.89
Motel	320	Room	0.36			0.36	6.43	50%	3.21	3.21	1.16
RECREATIONAL											
Golf Driving Range	432	Tees/Driving Positions	1.25			1.25	7.86	50%	3.93	3.93	4.91
Golf Course	430	Acre	0.28			0.28	7.86	50%	3.93	3.93	1.10
Recreational Community Center	495	1,000 SF GFA	2.50			2.50	7.86	50%	3.93	3.93	9.83
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Miniature Golf Course	431	Holes	0.33			0.33	7.86	50%	3.93	3.93	1.30
Multiplex Movie Theater	445	Movie Screens	13.96			13.96	15.77	50%	7.88	6.00	83.76
Racquet / Tennis Club	491	Tennis Court	3.82			3.82	7.86	50%	3.93	3.93	15.01
INSTITUTIONAL											
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.15	4.15	2.03
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.74	1.74	10.84
Elementary School	520	Students	0.16			0.16	3.49	50%	1.74	1.74	0.28
Middle School/Junior High School	522	Students	0.15			0.15	3.49	50%	1.74	1.74	0.26
High School	530	Students	0.14			0.14	3.49	50%	1.74	1.74	0.24
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students	0.15			0.15	10.44	50%	5.22	5.22	0.78
MEDICAL											
Clinic	630	1,000 SF GFA	3.69			3.69	9.85	50%	4.92	4.92	18.15
Hospital	610	1,000 SF GFA	0.86			0.86	9.85	50%	4.92	4.92	4.23
Nursing Home	620	Beds	0.14			0.14	9.85	50%	4.92	4.92	0.69
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	9.85	50%	4.92	4.92	12.15
OFFICE											
Corporate Headquarters Building	714	1,000 SF GFA	1.30			1.30	14.65	50%	7.32	6.00	7.80
General Office Building	710	1,000 SF GFA	1.44			1.44	14.65	50%	7.32	6.00	8.64
Medical-Dental Office Building	720	1,000 SF GFA	3.93			3.93	9.85	50%	4.92	4.92	19.34
Single Tenant Office Building	715	1,000 SF GFA	1.76			1.76	14.65	50%	7.32	6.00	10.56
Office Park	750	1,000 SF GFA	1.30			1.30	14.65	50%	7.32	6.00	7.80

Key to Sources of Pass-by Rates:

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

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

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

Table 10 (Cont'd). Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
COMMERCIAL											
Automobile Related											
Automobile Care Center	942	1,000 SF GFA	3.11	40%	B	1.87	4.45	50%	2.22	2.22	4.15
Automobile Parts Sales	843	1,000 SF GFA	4.90	43%	A	2.79	4.45	50%	2.22	2.22	6.19
Gasoline/Service Station	944	Vehicle Fueling Position	13.91	42%	A	8.07	1.20	50%	0.60	0.60	4.84
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	18.42	56%	B	8.10	1.20	50%	0.60	0.60	4.86
New Car Sales	841	1,000 SF GFA	2.42	20%	B	1.94	5.60	50%	2.80	2.80	5.43
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.22	2.22	6.46
Self-Service Car Wash	947	Wash Stalls	5.54	40%	B	3.32	1.20	50%	0.60	0.60	1.99
Tire Store	848	1,000 SF GFA	3.75	28%	A	2.70	4.45	50%	2.22	2.22	5.99
Dining											
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	33.03	50%	A	16.52	5.64	50%	2.82	2.82	46.59
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	33.21	50%	B	16.61	5.64	50%	2.82	2.82	46.84
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.05	43%	A	5.16	5.64	50%	2.82	2.82	14.55
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	5.64	50%	2.82	2.82	12.32
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	38.99	70%	A	11.70	5.64	50%	2.82	2.82	32.99
Other Retail											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	5.60	50%	2.80	2.80	13.61
Home Improvement Superstore	862	1,000 SF GFA	2.33	48%	A	1.21	5.60	50%	2.80	2.80	3.39
Pharmacy/Drugstore w/o Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy/Drugstore w/ Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
Shopping Center (>150k)	820	1,000 SF GLA	3.40	34%	A	2.24	5.60	50%	2.80	2.80	6.27
Shopping Plaza (40-150k)	821	1,000 SF GLA	5.19	34%	A	3.43	5.60	50%	2.80	2.80	9.60
Strip Retail Plaza (<40k)	822	1,000 SF GLA	6.59	34%	A	4.35	5.60	50%	2.80	2.80	12.18
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Toy/Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	5.60	50%	2.80	2.80	3.84
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.22	2.22	16.16
Drive-In Bank	912	Drive-in Lanes	27.07	47%	A	14.35	4.45	50%	2.22	2.22	31.86
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	6.41	50%	3.20	3.20	3.26

Key to Sources of Pass-by Rates:

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

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

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

Table 11 - Land Use Descriptions

Land Use Category	ITE Land Use Code	Land Use Description
PORT AND TERMINAL		
Intermodal Truck Terminal	030	Point of good transfer between trucks or between trucks and rail
INDUSTRIAL		
General Light Industrial	110	Emphasis on activities other than manufacturing; typically employing fewer than 500 workers
Industrial Park	130	Area containing a number of industries or related facilities
Warehousing	150	Devoted to storage of materials but may have included office and maintenance areas
Mini-Warehouse	151	Facilities with a number of units rented to others for the storage of goods
RESIDENTIAL		
Single-Family Detached Housing	210	Single-family detached homes on individual lots
Multifamily Housing (Low-Rise)	220	At least 3 rental dwelling units and one or two levels (floors) per building
Multifamily Housing (Mid-Rise)	221	At least 3 rental dwelling units and between three and ten levels (floors) per building
Multifamily Housing (High-Rise)	222	At least 3 rental dwelling units and more than ten levels (floors) per building
Residential Condominium/Townhome	230	Single-family ownership units that have at least one other single-family owned unit within the same building
Senior Adult Housing-Single-Family	251	Consists of detached independent living developments that include amenities such as golf courses and swimming pools
Senior Adult Housing-Multifamily	252	Consists of attached independent living developments that include limited social or recreation services
Assisted Living	254	Residential settings that provide either routine general protective oversight or assistance with activities.
LODGING		
Hotel	310	Lodging facilities that typically have on-site restaurants, lounges, meeting and/or banquet rooms, or other retail shops and services
Motel	320	Lodging facilities that may have small on-site restaurant or buffet area but little or no meeting space
RECREATIONAL		
Golf Driving Range	432	Facilities with driving tees for practice; may provide individual or group lessons; may have prop shop and/or refreshment facilities
Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet facilities
Recreational Community Center	495	Category includes racquet clubs, health/fitness clubs, can include facilities such as YMCA's
Ice Skating Rink	465	Rinks for ice skating and related sports; may contain spectator areas and refreshment facilities
Miniature Golf Course	431	One or more individual putting courses; category should not be used when part of a larger entertainment center(with batting cages, video game centers, etc)
Multiplex Movie Theater	445	Movie theater with audience seating, minimum of ten screens, lobby, and refreshment area.
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
INSTITUTIONAL		
Church	560	Churches and houses of worship
Day Care Center	565	Generally includes facilities for care of pre-school aged children, generally includes classrooms, offices, eating areas, and playgrounds
Elementary School	520	Serves students who have not yet entered middle or junior high school
Middle School/Junior High School	522	Serves students who have completed elementary school but have not yet entered high school
High School	530	Serves students who have completed middle or junior high school
Junior / Community College	540	Higher education campus providing undergraduate degrees, often focused on local students
University / College	550	Higher education campus providing undergraduate and graduate degrees
MEDICAL		
Clinic	630	Facilities with limited diagnostic and outpatient care
Hospital	610	Medical and surgical facilities with overnight accommodations
Nursing Home	620	Rest and convalescent homes with residents who do little or no driving
Animal Hospital/Veterinary Clinic	640	Rest and convalescent homes with residents who do little or no driving
OFFICE		
Corporate Headquarters Building	714	Office building housing corporate headquarters of a single company or organization
General Office Building	710	Office buildings which house multiple tenants
Medical-Dental Office Building	720	Multi-tenant building with offices for physicians and/or dentists
Single Tenant Office Building	715	Single tenant office buildings other than corporate headquarters
Office Park	750	Office buildings (typically low-rise) in a campus setting and served by a common roadway system

Table 1 (Cont'd). Land Use Descriptions

Land Use Category	ITE Land Use Code	Land Use Description
COMMERCIAL		
Automobile Related		
Automobile Care Center	942	Automobile repair and servicing including stereo installations and upholstery
Automobile Parts Sales	843	Retail sale of auto parts but no on-site vehicle repair
Gasoline/Service Station	944	Gasoline sales without convenience store or car wash; may include repair
Gasoline/Service Station w/ Conv Market	945	Gasoline sales with convenience store where the primary business is gasoline sales
New Car Sales	841	New car dealerships, typically with automobile servicing, part sales, and used car sales
Quick Lubrication Vehicle Shop	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided
Self-Service Car Wash	947	Has stalls for driver to park and wash the vehicle
Tire Store	848	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
Dining		
Fast Food Restaurant with Drive-Thru Window	934	High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window
Fast Food Restaurant without Drive-Thru Window	933	High-turnover fast food restaurant for carry-out and eat-in customers without a drive-thru window
High Turnover (Sit-Down) Restaurant	932	High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window
Quality Restaurant	931	Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants
Coffee/Donut Shop with Drive-Thru Window	937	Restaurants that specialize in Coffee and/or Donuts with a drive-thru window
Other Retail		
Free-Standing Discount Store	815	Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours
Nursery (Garden Center)	817	Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities
Home Improvement Superstore	862	Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items.
Pharmacy/Drugstore w/o Drive-Thru Window	880	Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Pharmacy/Drugstore w/ Drive-Thru Window	881	Facilities that primarily sell prescription and non-prescription drugs with a drive-through window
Shopping Center (>150k)	820	Integrated group of commercial establishments; planning, owned, and managed as a unit. >150k sq. ft.
Shopping Plaza (40-150k)	821	Integrated group of commercial establishments; planning, owned, and managed as a unit. 40-150k sq. ft.
Strip Retail Plaza (<40k)	822	Integrated group of commercial establishments; planning, owned, and managed as a unit. <40k sq. ft.
Supermarket	850	Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM
Toy/Children's Superstore	864	Businesses specializing in child-oriented merchandise
Department Store	875	Free-standing stores that specialize in the sale of apparel, footwear, bedding, home products, jewelry, etc.
SERVICES		
Walk-In Bank	911	Banks with their own parking lots, no drive-in lanes but contain non-drive-through ATMs
Drive-In Bank	912	Banking facilities to conduct financial transactions from the vehicle; also usually a part of a walk-in bank
Hair Salon	918	Facilities that specialize in cosmetic and beauty services including hair cutting and styling

VI. SAMPLE CALCULATIONS

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

Example 1:

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

Roadway Impact Fee Calculation Steps – Example 1	
Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	<i>From Table 10 [Land Use – Vehicle-Mile Equivalency Table]</i> Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 4.61
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
	<i>From Table 9, Line 14 [Maximum Assessable Fee Per Service Unit]</i> Service Area A: \$4,733
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 * 4.61 * \$4,789 Maximum Assessable Impact Fee = \$22,077

Example 2:

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

Roadway Impact Fee Calculation Steps – Example 2	
Step 1	Determine Development Unit and Vehicle-Miles Per Development Unit
	<i>From Table 10 [Land Use – Vehicle-Mile Equivalency Table]</i> Development Type: 125,000 square feet of Home Improvement Superstore Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 3.39
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)
	<i>From Table 9, Line 14 [Maximum Assessable Fee Per Service Unit]</i> Service Area D: \$5,265
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 * 3.39 * \$5,265 Maximum Assessable Impact Fee = \$2,231,044

VII. ADOPTION AND ADMINISTRATION OF ROADWAY IMPACT FEES

A. Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Roadway Impact Fees. A Capital Improvement Advisory Committee (CIAC) is required to review the Land Use Assumptions and Roadway Impact Fees CIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. This CIAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIAC is required to adequately represent the building and development communities. The City Council then conducts a first public hearing on the Land Use Assumptions and Roadway Impact Fee CIP and a second public hearing on the Roadway Impact Fee Ordinance.

Following policy adoption, the CIAC is tasked with advising the City Council of the need to update the Land Use Assumptions or the Roadway Impact Fees CIP at any time within five years of adoption. Finally, the CIAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

B. Collection and Use of Transportation Impact Fees

Roadway Impact fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. Roadway Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection, or must be refunded with interest.

VIII. CONCLUSIONS

The City of Denton 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 Denton, as shown in the previously referenced **Table 9**.

This document serves as a guide to the assessment of Roadway Impact Fees pertaining to future development, and the City's need for transportation improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be collected, up to the calculated maximum and establish the Roadway Impact Fee Ordinance accordingly.

In conclusion, it is our opinion that the data and methodology used in this analysis are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Roadway Impact Fee Capital Improvements Plan are appropriately incorporated into the development of the maximum assessable Roadway Impact Fee.

Below is the listing of the 2022 Roadway Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

SERVICE AREA:	A	B	C	D	E
2022 Roadway Impact Fee Study Maximum Assessable Fee Per Vehicle-Mile	\$4,789	\$4,066	\$4,695	\$5,265	\$3,722

APPENDICES

A. Conceptual Level Project Cost Projections

SERVICE AREA A
SERVICE AREA B
SERVICE AREA C
SERVICE AREA D
SERVICE AREA E
FUNCTIONAL CLASSIFICATION EXAMPLE COSTING SHEETS

B. Roadway Impact Fee CIP Service Units of Supply

C. Existing Roadway Facilities Inventory

D. Plan for Awarding the Transportation Impact Fee Credit Summary

E. Plan for Awarding the Transportation Impact Fee Credit Supporting Exhibits

F. Consideration for the Hunter Ranch and Cole Ranch Operating Agreements

Appendix A – Conceptual Level Project Cost Projections

City of Denton - 2022 Roadway Impact Fee Study
Service Area A Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Costing Classification	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Channel Crossings	Inspection/ Materials Testing	Percent in Service Area	Total Cost	Cost in Service Area	
		From	To					Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%				
A-1	CORBIN	IH-35W	CORBIN	3,055	SA Recon	SA	Widening	\$ 6,485,996	\$ 973,000	\$ 1,038,000	\$ -	\$ -	\$ 1,440,000	\$ 227,010	100%	\$ 10,164,000	\$ 10,164,000	
A-2	CORBIN	500' S OF SPRINGSIDE	CORBIN	1,410	SA New	SA	New	\$ 2,511,393	\$ 377,000	\$ 402,000	\$ -	\$ -	\$ -	\$ 87,899	100%	\$ 3,378,000	\$ 3,378,000	
A-3	FM 1515	IH 35W	CORBIN	5,990	PA Recon	PA	Widening	\$ 15,001,383	\$ 2,251,000	\$ 2,401,000	\$ 1,200,000	\$ 400,000	\$ 1,755,000	\$ 525,048	100%	\$ 23,533,000	\$ 23,533,000	
A-4	FM 1515	CORBIN	WESTERN	1,175	PA Recon	PA	Widening	\$ 2,942,675	\$ 442,000	\$ 471,000	\$ -	\$ -	\$ -	\$ 102,994	100%	\$ 3,959,000	\$ 3,959,000	
A-5	FM 1515	WESTERN	WESTCOURT	1,555	PA Recon	PA	Widening	\$ 3,894,349	\$ 585,000	\$ 624,000	\$ -	\$ 500,000	\$ 1,755,000	\$ 136,302	100%	\$ 7,495,000	\$ 7,495,000	
A-6	FM 1515	WESTCOURT	MASCH BRANCH	620	PA Recon	PA	Widening	\$ 1,552,731	\$ 233,000	\$ 249,000	\$ -	\$ -	\$ -	\$ 54,346	100%	\$ 2,089,000	\$ 2,089,000	
A-7	FM 1515	TOM COLE	3435' W OF TOM COLE	3,435	PA Recon	PA	Widening	\$ 8,602,629	\$ 1,291,000	\$ 1,377,000	\$ -	\$ 500,000	\$ 1,755,000	\$ 301,092	100%	\$ 13,827,000	\$ 13,827,000	
A-8	FM 1515	3435' W OF TOM COLE	530' E OF C WOLFE	3,750	PA Recon	PA	Widening	\$ 9,391,517	\$ 1,409,000	\$ 1,503,000	\$ -	\$ 500,000	\$ -	\$ 328,703	100%	\$ 13,132,000	\$ 13,132,000	
A-9	H LIVELY	C WOLFE	2145' W OF H LIVELY	2,145	PA Recon	PA	Widening	\$ 5,371,948	\$ 806,000	\$ 860,000	\$ -	\$ -	\$ -	\$ 188,018	50%	\$ 7,226,000	\$ 3,613,000	
A-10	H LIVELY	2145' W OF H LIVELY	2150' W OF ED ROBSON	3,915	PA Recon	PA	Widening	\$ 9,804,743	\$ 1,471,000	\$ 1,569,000	\$ -	\$ -	\$ -	\$ 343,166	100%	\$ 13,188,000	\$ 13,188,000	
A-11	IH-35-CORBIN	IH-35	CORBIN	4,420	C New	C	New	\$ 4,675,377	\$ 702,000	\$ 749,000	\$ -	\$ -	\$ 750,000	\$ 163,638	100%	\$ 7,040,000	\$ 7,040,000	
A-12	JIM CHRISTAL	IH 35	OLD SH 24	3,110	SA Recon	SA	Widening	\$ 6,602,765	\$ 991,000	\$ 1,057,000	\$ 1,200,000	\$ -	\$ 250,000	\$ 231,097	100%	\$ 10,332,000	\$ 10,332,000	
A-13,C-10	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	SA Recon	SA	Widening	\$ 6,167,534	\$ 926,000	\$ 987,000	\$ 1,200,000	\$ -	\$ 250,000	\$ 215,864	50%	\$ 9,746,000	\$ 4,873,000	
A-14,C-11	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	SA Recon	SA	Widening	\$ 7,451,995	\$ 1,118,000	\$ 1,193,000	\$ -	\$ 500,000	\$ 1,440,000	\$ 260,820	50%	\$ 11,964,000	\$ 5,982,000	
A-15,C-12	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	SA Recon	SA	Widening	\$ 12,685,376	\$ 1,903,000	\$ 2,030,000	\$ -	\$ -	\$ 1,440,000	\$ 443,988	50%	\$ 18,502,000	\$ 9,251,000	
A-16,C-13	JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	SA Recon	SA	Widening	\$ 8,375,533	\$ 1,257,000	\$ 1,341,000	\$ -	\$ -	\$ 1,440,000	\$ 293,144	50%	\$ 12,707,000	\$ 6,353,500	
A-17	PRECISION-WESTERN	PRECISION	WESTERN	3,420	C New	C	New	\$ 3,617,599	\$ 543,000	\$ 579,000	\$ 1,200,000	\$ -	\$ 500,000	\$ 126,616	100%	\$ 6,566,000	\$ 6,566,000	
A-18	ROBSON RANCH	IH 35W	ED ROBSON	8,720	PA Recon	PA	Widening	\$ 21,838,407	\$ 3,276,000	\$ 3,495,000	\$ -	\$ 1,600,000	\$ -	\$ 764,344	50%	\$ 30,974,000	\$ 15,487,000	
A-19	ROBSON RANCH	ED ROBSON	YARBROUGH	7,150	PA Recon	PA	Widening	\$ 17,906,492	\$ 2,686,000	\$ 2,866,000	\$ -	\$ -	\$ 1,250,000	\$ 626,727	50%	\$ 25,335,000	\$ 12,667,500	
A-20	SPRINGSIDE	CORBIN	UNDERWOOD	1,835	SA Recon	SA	Widening	\$ 3,895,844	\$ 585,000	\$ 624,000	\$ -	\$ 900,000	\$ -	\$ 136,355	100%	\$ 6,141,000	\$ 6,141,000	
A-21	SPRINGSIDE	UNDERWOOD	WESTCOURT	865	SA Recon	SA	Widening	\$ 1,836,460	\$ 276,000	\$ 294,000	\$ -	\$ 500,000	\$ -	\$ 64,276	100%	\$ 2,971,000	\$ 2,971,000	
A-22	TJ EGAN-LOOP 288	LOOP 288	2440' W OF LOOP 288	2,440	C New	C	New	\$ 2,580,977	\$ 388,000	\$ 413,000	\$ -	\$ -	\$ 250,000	\$ 90,334	100%	\$ 3,722,000	\$ 3,722,000	
A-23	C WOLFE	1140' S OF TOM COLE	FM 2449	7,270	PA Recon	PA	Widening	\$ 18,207,020	\$ 2,732,000	\$ 2,914,000	\$ -	\$ 1,000,000	\$ 750,000	\$ 637,246	100%	\$ 26,240,000	\$ 26,240,000	
A-24	C WOLFE	FM 2449	H LIVELY	3,315	PA Recon	PA	Widening	\$ 8,302,101	\$ 1,246,000	\$ 1,329,000	\$ -	\$ 600,000	\$ 250,000	\$ 290,574	50%	\$ 12,018,000	\$ 6,009,000	
A-25	CORBIN	IH-35-CORBIN	SPRINGSIDE	2,050	C New	C	Widening	\$ 2,168,444	\$ 326,000	\$ 347,000	\$ -	\$ -	\$ 750,000	\$ 75,896	100%	\$ 3,667,000	\$ 3,667,000	
A-26	J CHRISTAL-H LIVELY	FM 2449	H LIVELY	3,305	C New	C	New	\$ 3,495,955	\$ 525,000	\$ 560,000	\$ -	\$ 400,000	\$ 250,000	\$ 122,358	100%	\$ 5,353,000	\$ 5,353,000	
A-27	PRECISION	JIM CHRISTAL	1635' N OF FM 1515	2,385	C New	C	New	\$ 2,522,799	\$ 379,000	\$ 404,000	\$ -	\$ 300,000	\$ -	\$ 88,298	100%	\$ 3,694,000	\$ 3,694,000	
A-28	THOMAS J EGAN	JIM CHRISTAL	2915' S OF JIM CRISTAL	2,915	SA New	SA	New	\$ 5,191,993	\$ 779,000	\$ 831,000	\$ -	\$ -	\$ -	\$ 181,720	100%	\$ 6,984,000	\$ 6,984,000	
A-29	THOMAS J EGAN	1830' N OF FM 1515	FM 1515	1,830	SA New	SA	New	\$ 3,259,467	\$ 489,000	\$ 522,000	\$ -	\$ -	\$ 250,000	\$ 114,081	50%	\$ 4,635,000	\$ 2,317,500	
A-30	UNDERWOOD	SPRINGSIDE	UNDERWOOD CONNECTOR	4,000	PA Recon	PA	Widening	\$ 10,017,618	\$ 1,503,000	\$ 1,603,000	\$ -	\$ -	\$ 1,755,000	\$ 350,617	100%	\$ 15,229,000	\$ 15,229,000	
A-31	WESTCOURT	FM 1515	SPRINGSIDE	4,165	SA (1/2)	SA (1/2)	Widening	\$ 3,971,565	\$ 596,000	\$ 636,000	\$ -	\$ -	\$ -	\$ 139,005	100%	\$ 5,343,000	\$ 5,343,000	
A-32	WESTERN	JIM CHRISTAL	AIRPORT	6,485	PA (1/3)	PA (1/3)	Widening	\$ 3,805,620	\$ 571,000	\$ 609,000	\$ -	\$ 1,500,000	\$ -	\$ 133,197	100%	\$ 6,619,000	\$ 6,619,000	
A-33	WESTERN	FM 1515	SPRINGSIDE	4,175	PA New	PA	New	\$ 9,179,489	\$ 1,377,000	\$ 1,469,000	\$ -	\$ -	\$ 1,755,000	\$ 321,282	100%	\$ 14,102,000	\$ 14,102,000	
TOTAL																	\$ 347,875,000	\$ 281,321,500

City of Denton - 2022 Roadway Impact Fee Study
Service Area B Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Channe l Crossings	Inspection/ Materials Testing	Previous City Contribution	Percent in Service Area	Total Cost	Cost in Service Area
		From	To				Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%				
B-1	ALLRED	BONNIE BRAE	BRUSH CREEK	4,285	C	Widening	\$ 4,532,577	\$ 680,000	\$ 726,000	\$ -	\$ -	\$ -	\$ 158,640	\$ -	50%	\$ 6,097,000	\$ 3,048,500
B-2	ALLRED	BRUSH CREEK	JOHN PAINE	1,610	PA	Widening	\$ 4,032,091	\$ 605,000	\$ 646,000	\$ -	\$ -	\$ -	\$ 141,123	\$ -	50%	\$ 5,424,000	\$ 2,712,000
B-3	BRUSH CREEK	815' E OF COUNTRY CLUB	COUNTRY CLUB	815	PA	Widening	\$ 2,041,090	\$ 307,000	\$ 327,000	\$ -	\$ -	\$ -	\$ 71,438	\$ -	100%	\$ 2,747,000	\$ 2,747,000
B-4	BRUSH CREEK	COUNTRY CLUB	1935' W OF COUNTRY CLUB	1,935	PA	Widening	\$ 4,846,023	\$ 727,000	\$ 776,000	\$ -	\$ -	\$ 250,000	\$ 169,611	\$ -	100%	\$ 6,769,000	\$ 6,769,000
B-5	BRUSH CREEK	2180' E OF FORT WORTH	FORT WORTH	2,180	PA	Widening	\$ 5,459,602	\$ 819,000	\$ 874,000	\$ -	\$ -	\$ -	\$ 191,086	\$ -	100%	\$ 7,344,000	\$ 7,344,000
B-6	BRUSH CREEK	FORT WORTH	590' E OF ALLRED	3,615	PA	New	\$ 7,948,228	\$ -	\$ 1,272,000	\$ 1,200,000	\$ -	\$ -	\$ 278,188	\$ -	100%	\$ 10,698,000	\$ 10,698,000
B-7	CORBIN	BONNIE BRAE	IH-35W	3,505	SA	Widening	\$ 7,441,380	\$ 1,117,000	\$ 1,191,000	\$ -	\$ 500,000.00	\$ 250,000	\$ 260,448	\$ -	100%	\$ 10,760,000	\$ 10,760,000
B-8	CREEKDALE	PIMLICO	RIVERCHASE	3,230	C	New	\$ 3,416,621	\$ 513,000	\$ 547,000	\$ -	\$ -	\$ 750,000	\$ 119,582	\$ -	100%	\$ 5,346,000	\$ 5,346,000
B-9	CREEKDALE	THISTLE WAY	OAKBLUFF	2,080	C	New	\$ 2,200,177	\$ 331,000	\$ 353,000	\$ -	\$ -	\$ 500,000	\$ 77,006	\$ -	100%	\$ 3,461,000	\$ 3,461,000
B-10	EL PASEO	BELMONT	COUNTRY CLUB	1,910	C	New	\$ 2,020,355	\$ 304,000	\$ 324,000	\$ -	\$ 400,000.00	\$ 250,000	\$ 70,712	\$ -	100%	\$ 3,369,000	\$ 3,369,000
B-11	FM 1515	BONNIE BRAE	IH 35W	770	PA	Widening	\$ 1,928,391	\$ 290,000	\$ 309,000	\$ -	\$ -	\$ -	\$ 67,494	\$ -	100%	\$ 2,595,000	\$ 2,595,000
B-12	HICKORY CREEK	FM 2499	NAUTICA	1,175	PA (1/3)	Widening	\$ 689,530	\$ 104,000	\$ 111,000	\$ -	\$ -	\$ -	\$ 24,134	\$ 676,116.28	100%	\$ 1,605,000	\$ 1,605,000
B-13	HICKORY CREEK	NAUTICA	TEASLEY	1,310	PA (1/3)	Widening	\$ 768,753	\$ 116,000	\$ 124,000	\$ -	\$ -	\$ -	\$ 26,906	\$ 753,797.72	100%	\$ 1,789,000	\$ 1,789,000
B-14	HICKORY CREEK	TEASLEY	MONTECITO	4,475	PA (1/3)	Widening	\$ 2,626,083	\$ 394,000	\$ 421,000	\$ -	\$ 600,000.00	\$ -	\$ 91,913	\$ 4,505,033.56	100%	\$ 8,638,000	\$ 8,638,000
B-15	HICKORY CREEK	MONTECITO	1435' W OF BIDDY BYE	2,230	PA (1/3)	Widening	\$ 1,308,640	\$ 197,000	\$ 210,000	\$ -	\$ -	\$ -	\$ 45,802	\$ 2,244,966.44	50%	\$ 4,006,000	\$ 2,003,000
B-16	HICKORY CREEK	1435' W OF BIDDY BYE	815' E OF COUNTRY CLUB	1,980	PA	New	\$ 4,353,386	\$ 654,000	\$ 697,000	\$ -	\$ -	\$ 1,755,000	\$ 152,369	\$ -	100%	\$ 7,612,000	\$ 7,612,000
B-17	HOBSON LANE	TEASLEY	MONTECITO	670	SA	Widening	\$ 1,422,461	\$ 214,000	\$ 228,000	\$ -	\$ -	\$ -	\$ 49,786	\$ -	100%	\$ 1,914,000	\$ 1,914,000
B-18	HOBSON LANE	MONTECITO	FORRESTRIDGE	1,495	SA	Widening	\$ 3,173,998	\$ 477,000	\$ 508,000	\$ -	\$ -	\$ 1,440,000	\$ 111,090	\$ -	100%	\$ 5,710,000	\$ 5,710,000
B-19	HOBSON LANE	FORRESTRIDGE	COUNTRY CLUB	3,785	SA	Widening	\$ 8,035,841	\$ 1,206,000	\$ 1,286,000	\$ -	\$ 500,000.00	\$ 250,000	\$ 281,254	\$ -	100%	\$ 11,559,000	\$ 11,559,000
B-20	PARVIN	MCCORMICK	HIGHLAND PARK	2,665	C	New	\$ 1,374,924	\$ 207,000	\$ 220,000	\$ -	\$ 300,000.00	\$ -	\$ 48,122	\$ -	100%	\$ 2,150,000	\$ 2,150,000
B-21	ROBINSON	230' E OF WHEELER RIDGE	TEASLEY	2,735	SA	Widening	\$ 5,806,612	\$ 871,000	\$ 930,000	\$ -	\$ -	\$ 250,000	\$ 203,231	\$ -	100%	\$ 8,061,000	\$ 8,061,000
B-22	RYAN	TEASLEY	MONTECITO	4,020	SA	Widening	\$ 8,534,764	\$ 1,281,000	\$ 1,366,000	\$ -	\$ -	\$ 500,000	\$ 298,717	\$ -	100%	\$ 11,980,000	\$ 11,980,000
B-23	RYAN	MONTECITO	FORRESTRIDGE	3,305	SA	Widening	\$ 7,016,765	\$ 1,053,000	\$ 1,123,000	\$ -	\$ -	\$ 1,440,000	\$ 245,587	\$ -	100%	\$ 10,878,000	\$ 10,878,000
B-24	RYAN	FORRESTRIDGE	COUNTRY CLUB	3,475	SA	Widening	\$ 7,377,688	\$ 1,107,000	\$ 1,181,000	\$ -	\$ 400,000.00	\$ 500,000	\$ 258,219	\$ -	100%	\$ 10,824,000	\$ 10,824,000
B-25	VINTAGE	FORT WORTH	BONNIE BRAE	4,605	PA (1/3)	Widening	\$ 2,702,371	\$ 406,000	\$ 433,000	\$ 1,200,000	\$ 500,000.00	\$ -	\$ 94,583	\$ 6,385,003.13	100%	\$ 11,721,000	\$ 11,721,000
B-26	VINTAGE	BONNIE BRAE	NAPA VALLEY	765	PA (1/3)	Widening	\$ 448,928	\$ 68,000	\$ 72,000	\$ -	\$ -	\$ -	\$ 15,712	\$ 1,060,700.85	100%	\$ 1,665,000	\$ 1,665,000
B-27	VINTAGE	NAPA VALLEY	IH 35W	3,435	PA (1/3)	Widening	\$ 2,015,775	\$ 303,000	\$ 323,000	\$ -	\$ 500,000.00	\$ -	\$ 70,552	\$ 4,762,754.78	100%	\$ 7,975,000	\$ 7,975,000
B-28	WILLOWWOOD	1250' W OF HIGHLAND PARK	BONNIE BRAE	1,285	C	Widening	\$ 1,359,244	\$ 204,000	\$ 218,000	\$ -	\$ -	\$ 250,000	\$ 47,574	\$ -	100%	\$ 2,079,000	\$ 2,079,000
B-29	BONNIE BRAE	IH 35E	FM 1515	725	SA	Widening	\$ 1,285,335	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100%	\$ 1,285,000	\$ 1,285,000
B-30	BONNIE BRAE	FM 1515	WILLOWWOOD	5,740	SA	Widening	\$ 10,176,311	\$ -	\$ -	\$ 1,175,000	\$ -	\$ -	\$ -	\$ -	100%	\$ 11,351,000	\$ 11,351,000
B-31	BONNIE BRAE	HIGHLAND PARK	ROSELAWN	2,550	SA	New	\$ 4,520,835	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50%	\$ 4,521,000	\$ 2,260,500
B-32	COUNTRY CLUB	FORT WORTH	HOBSON	430	SA	Widening	\$ 912,922	\$ 137,000	\$ 147,000	\$ -	\$ -	\$ -	\$ 31,952	\$ -	100%	\$ 1,229,000	\$ 1,229,000
B-33	COUNTRY CLUB	HOBSON	RYAN	5,285	SA	Widening	\$ 11,220,454	\$ 1,684,000	\$ 1,796,000	\$ -	\$ -	\$ -	\$ 392,716	\$ -	100%	\$ 15,093,000	\$ 15,093,000
B-34	COUNTRY CLUB	RYAN	HICKORY CREEK	3,485	SA	Widening	\$ 7,398,918	\$ 1,110,000	\$ 1,184,000	\$ 1,200,000	\$ 500,000.00	\$ 250,000	\$ 258,962	\$ -	50%	\$ 11,902,000	\$ 5,951,000
B-35	FORT WORTH	COUNTRY CLUB	VINTAGE	6,965	PA	Widening	\$ 17,443,177	\$ 2,617,000	\$ 2,791,000	\$ 1,200,000	\$ -	\$ 1,755,000	\$ 610,511	\$ -	100%	\$ 26,417,000	\$ 26,417,000
B-36	FORT WORTH	VINTAGE	BONNIE BRAE	5,655	PA	Widening	\$ 14,162,407	\$ 2,125,000	\$ 2,266,000	\$ -	\$ -	\$ 250,000	\$ 495,684	\$ -	100%	\$ 19,299,000	\$ 19,299,000
B-37	FORT WORTH	BONNIE BRAE	BRUSH CREEK	1,250	PA	Widening	\$ 3,130,506	\$ 470,000	\$ 501,000	\$ -	\$ 600,000.00	\$ -	\$ 109,568	\$ -	100%	\$ 4,811,000	\$ 4,811,000
B-38	FORT WORTH	BRUSH CREEK	CRAWFORD	5,845	PA	Widening	\$ 14,638,244	\$ 2,196,000	\$ 2,343,000	\$ -	\$ -	\$ 500,000	\$ 512,339	\$ -	100%	\$ 20,190,000	\$ 20,190,000
B-39	JOHN PAINE	JOHNSON	ATHENS	2,210	Completed	Widening	\$ 176,276	\$ 27,000	\$ 29,000	\$ -	\$ -	\$ -	\$ 6,170	\$ -	100%	\$ 238,000	\$ 238,000
B-40	JOHN PAINE	VINTAGE	1045' S OF VINTAGE	1,045	SA	New	\$ 1,861,281	\$ 280,000	\$ 298,000	\$ -	\$ 500,000.00	\$ 250,000	\$ 65,145	\$ -	100%	\$ 3,254,000	\$ 3,254,000
B-41	PARVIN-ROSELAWN	PARVIN	ROSELAWN	2,725	C	New	\$ 2,882,444	\$ 433,000	\$ 462,000	\$ -	\$ -	\$ -	\$ 100,886	\$ -	100%	\$ 3,878,000	\$ 3,878,000
B-42	TEASLEY	IH 35E	LONDONDERRY	1,315	PA (1/3)	Widening	\$ 771,687	\$ 116,000	\$ 124,000	\$ -	\$ -	\$ -	\$ 27,009	\$ -	100%	\$ 1,039,000	\$ 1,039,000
B-43	TEASLEY	LONDONDERRY	HOBSON	5,140	PA (1/3)	Widening	\$ 3,016,328	\$ 453,000	\$ 483,000	\$ -	\$ 500,000.00	\$ -	\$ 105,571	\$ -	100%	\$ 4,558,000	\$ 4,558,000
B-44	TEASLEY	LILLIAN B MILLER	PENNSYLVANIA	1,890	PA (1/3)	Widening	\$ 1,109,117	\$ 167,000	\$ 178,000	\$ -	\$ -	\$ -	\$ 38,819	\$ -	100%	\$ 1,493,000	\$ 1,493,000
B-45	TEASLEY	PENNSYLVANIA	HOBSON	1,085	PA (1/3)	Widening	\$ 636,715	\$ 96,000	\$ 102,000	\$ -	\$ -	\$ -	\$ 22,285	\$ -	100%	\$ 857,000	\$ 857,000
TOTAL																\$ 306,191,000	\$ 290,216,000

City of Denton - 2022 Roadway Impact Fee Study
Service Area C Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Chann el Crossings	Inspection/ Materials Testing	Percent in Service Area	Total Cost	Cost in Service Area
		From	To				Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%			
C-1	BARTHOLD	MASCH BRANCH	5200' W OF IHH 35	5,195	PA	Widening	\$ 13,010,381	\$ 1,952,000	\$ 2,082,000	\$ -	\$ -	\$ 250,000.00	\$ 455,363	50%	\$ 17,750,000	\$ 8,875,000
C-2	BOBCAT	FM 2164	IH-35	14,535	SA	New	\$ 25,888,720	\$ 3,884,000	\$ 4,143,000	\$ -	\$1,500,000.00	\$ 1,440,000.00	\$ 906,105	100%	\$ 37,762,000	\$ 37,762,000
C-3	FM 1173	IH 35	4605' W OF IH 35	4,605	SA	Widening	\$ 9,776,763	\$ 1,467,000	\$ 1,565,000	\$ -	\$ -	\$ 250,000.00	\$ 342,187	100%	\$ 13,401,000	\$ 13,401,000
C-4	FM 1173	4605' W OF IH 35	LOVERS	2,190	SA	Widening	\$ 4,649,535	\$ 698,000	\$ 744,000	\$ 1,200,000	\$ -	\$ 250,000.00	\$ 162,734	50%	\$ 7,704,000	\$ 3,852,000
C-5	FM 2164-IH 35	FM 2164	IH 35	14,425	SA	New	\$ 25,692,796	\$ 3,854,000	\$ 4,111,000	\$ -	\$1,000,000.00	\$ 1,500,000.00	\$ 899,248	100%	\$ 37,057,000	\$ 37,057,000
C-6	GANZER	FM 2164	GANZER	12,680	PA	New	\$ 27,879,262	\$ 4,182,000	\$ 4,461,000	\$ -	\$1,000,000.00	\$ 1,250,000.00	\$ 975,774	100%	\$ 39,748,000	\$ 39,748,000
C-7	GANZER	2900' E OF IH 35	IH 35	2,900	PA	Widening	\$ 7,262,773	\$ 1,090,000	\$ 1,163,000	\$ -	\$ -	\$ 1,755,000.00	\$ 254,197	100%	\$ 11,525,000	\$ 11,525,000
C-8	GANZER	1620' E OF BARTHOLD	BARTHOLD	1,620	PA	Widening	\$ 4,057,135	\$ 609,000	\$ 650,000	\$ -	\$ -	\$ 250,000.00	\$ 142,000	50%	\$ 5,708,000	\$ 2,854,000
C-9	GANZER	BARTHOLD	RECTOR	2,585	PA	Widening	\$ 6,473,885	\$ 972,000	\$ 1,036,000	\$ -	\$ 500,000.00	\$ -	\$ 226,586	50%	\$ 9,208,000	\$ 4,604,000
A-13,C-10	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	SA	Widening	\$ 6,167,534	\$ 926,000	\$ 987,000	\$ 1,200,000	\$ -	\$ 250,000.00	\$ 215,864	50%	\$ 9,746,000	\$ 4,873,000
A-14,C-11	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	SA	Widening	\$ 7,451,995	\$ 1,118,000	\$ 1,193,000	\$ -	\$ 500,000.00	\$ 1,440,000.00	\$ 260,820	50%	\$ 11,964,000	\$ 5,982,000
A-15,C-12	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	SA	Widening	\$ 12,685,376	\$ 1,903,000	\$ 2,030,000	\$ -	\$ -	\$ 1,440,000.00	\$ 443,988	50%	\$ 18,502,000	\$ 9,251,000
A-16,C-13	JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	SA	Widening	\$ 8,375,533	\$ 1,257,000	\$ 1,341,000	\$ -	\$ -	\$ 1,440,000.00	\$ 293,144	50%	\$ 12,707,000	\$ 6,353,500
C-14	JIM CHRISTAL	945' W OF C WOLFE	NAIL	3,115	SA	Widening	\$ 6,613,380	\$ 993,000	\$ 1,059,000	\$ -	\$ 400,000.00	\$ 250,000.00	\$ 231,468	50%	\$ 9,547,000	\$ 4,773,500
C-15	JIM CHRISTAL	NAIL	2045' W of Nail	2,045	SA	Widening	\$ 4,341,690	\$ 652,000	\$ 695,000	\$ -	\$ -	\$ -	\$ 151,959	50%	\$ 5,841,000	\$ 2,920,500
C-16	MARSHALL	2845' N OF HAMPTON	HAMPTON	2,845	C	New	\$ 3,009,377	\$ 452,000	\$ 482,000	\$ 1,200,000	\$ -	\$ -	\$ 105,328	100%	\$ 5,249,000	\$ 5,249,000
C-17	MARSHALL	HAMPTON	US 380	3,090	C	Widening	\$ 3,268,532	\$ 491,000	\$ 523,000	\$ -	\$ -	\$ -	\$ 114,399	100%	\$ 4,397,000	\$ 4,397,000
C-18	MASCH BRANCH	MASCH BRANCH	DARBY SMITH	3,450	SA	Widening	\$ 7,324,611	\$ 1,099,000	\$ 1,172,000	\$ -	\$ 500,000.00	\$ 250,000.00	\$ 256,361	100%	\$ 10,602,000	\$ 10,602,000
C-19	WESTWARD	NORTHWAY	BONNIE BRAE	1,175	C	New	\$ 1,242,889	\$ 187,000	\$ 199,000	\$ -	\$ -	\$ -	\$ 43,501	100%	\$ 1,672,000	\$ 1,672,000
C-20	RINEY	US 77	2460' W OF US 77	2,460	SA (1/2)	Widening	\$ 2,345,750	\$ 352,000	\$ 376,000	\$ -	\$ -	\$ -	\$ 82,101	100%	\$ 3,156,000	\$ 3,156,000
C-21	RINEY	2460' W OF US 77	BONNIE BRAE	980	SA (1/2)	Widening	\$ 934,486	\$ 141,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 32,707	100%	\$ 1,258,000	\$ 1,258,000
C-22	US 77	WINDSOR	FM 2164	1,180	PA (1/3)	Widening	\$ 692,464	\$ 104,000	\$ 111,000	\$ -	\$ 500,000.00	\$ -	\$ 24,236	100%	\$ 1,432,000	\$ 1,432,000
C-23	US 77	RINEY	WINDSOR	2,430	PA (1/3)	Widening	\$ 1,426,007	\$ 214,000	\$ 229,000	\$ -	\$ 900,000.00	\$ -	\$ 49,910	100%	\$ 2,819,000	\$ 2,819,000
C-24	US 77	RINEY	RINEY	2,120	PA (1/3)	Widening	\$ 1,244,088	\$ 187,000	\$ 200,000	\$ -	\$ 400,000.00	\$ -	\$ 43,543	100%	\$ 2,075,000	\$ 2,075,000
C-25	US 77	BONNIE BRAE	RINEY	3,960	PA (1/3)	Widening	\$ 2,323,863	\$ 349,000	\$ 372,000	\$ -	\$ -	\$ -	\$ 81,335	100%	\$ 3,126,000	\$ 3,126,000
C-26	US 77	LOOP 288	BONNIE BRAE	1,720	PA (1/3)	Widening	\$ 1,009,355	\$ 152,000	\$ 162,000	\$ -	\$ 500,000.00	\$ -	\$ 35,327	100%	\$ 1,859,000	\$ 1,859,000
C-27	US 77	IH 35	LOOP 288	4,610	PA (1/3)	Widening	\$ 2,705,306	\$ 406,000	\$ 433,000	\$ -	\$1,100,000.00	\$ -	\$ 94,686	100%	\$ 4,739,000	\$ 4,739,000
C-28	MASCH BRANCH-NAIL	MASCH BRANCH	1295' W OF MASCH BRANCH	1,295	C	New	\$ 1,369,822	\$ 206,000	\$ 220,000	\$ -	\$ -	\$ 250,000.00	\$ 47,944	100%	\$ 2,094,000	\$ 2,094,000
C-29	MASCH BRANCH-NAIL	1050' E OF LOOP 288	1550' W OF LOOP 288	2,600	C	New	\$ 2,750,222	\$ 413,000	\$ 441,000	\$ -	\$ -	\$ 750,000.00	\$ 96,258	100%	\$ 4,450,000	\$ 4,450,000
C-30	MASCH BRANCH-NAIL	1335' W OF THOMAS J EGAN	775' E OF C WOLFE	2,550	C	New	\$ 2,697,333	\$ 405,000	\$ 432,000	\$ -	\$ -	\$ 750,000.00	\$ 94,407	100%	\$ 4,379,000	\$ 4,379,000
C-31	MASCH BRANCH-NAIL	775' E OF C WOLFE	690' W OF C WOLFE	1,470	C	New	\$ 1,554,933	\$ 234,000	\$ 249,000	\$ -	\$ -	\$ -	\$ 54,423	50%	\$ 2,092,000	\$ 1,046,000
C-32	MASCH BRANCH-NAIL	690' W OF C WOLFE	NAIL	3,075	C	New	\$ 3,252,666	\$ 488,000	\$ 521,000	\$ -	\$ -	\$ -	\$ 113,843	100%	\$ 4,376,000	\$ 4,376,000
C-33	WESTGATE	WESTGATE	1460' E OF IH-35	975	SA	New	\$ 1,736,601	\$ 261,000	\$ 278,000	\$ -	\$ -	\$ -	\$ 60,781	100%	\$ 2,336,000	\$ 2,336,000
C-34	WINDSOR	US 77	HINKLE	2,420	SA	Widening	\$ 5,137,843	\$ 771,000	\$ 823,000	\$ -	\$ -	\$ -	\$ 179,824	100%	\$ 6,912,000	\$ 6,912,000
C-35	WINDSOR	HINKLE	BONNIE BRAE	5,240	SA (1/2)	Widening	\$ 4,996,639	\$ 750,000	\$ 800,000	\$ -	\$ -	\$ 250,000.00	\$ 174,882	100%	\$ 6,972,000	\$ 6,972,000
C-36	WINDSOR	WESTGATE	145' W OF CLARENDON	505	SA (1/2)	Widening	\$ 481,546	\$ 73,000	\$ 78,000	\$ -	\$ -	\$ -	\$ 16,854	100%	\$ 649,000	\$ 649,000
C-37	WINDSOR	220' W OF WINDSOR FARMS	IH 35	905	SA (1/2)	Widening	\$ 862,969	\$ 130,000	\$ 139,000	\$ -	\$ -	\$ -	\$ 30,204	100%	\$ 1,162,000	\$ 1,162,000
C-38	WINDSOR	IH 35	MASCH BRANCH	6,535	SA	New	\$ 11,639,683	\$ 1,746,000	\$ 1,863,000	\$ 1,200,000	\$ -	\$ 750,000.00	\$ 407,389	100%	\$ 17,606,000	\$ 17,606,000
C-39	BARTHOLD	GANZER	2600' S OF GANZER	2,600	SA	Widening	\$ 5,519,996	\$ 828,000	\$ 884,000	\$ -	\$ -	\$ -	\$ 193,200	100%	\$ 7,425,000	\$ 7,425,000
C-40	BONNIE BRAE	MILAM	LOOP 288	16,505	PA	New	\$ 36,289,213	\$ 5,444,000	\$ 5,807,000	\$ -	\$1,500,000.00	\$ 1,755,000.00	\$ 1,270,122	100%	\$ 52,065,000	\$ 52,065,000
C-41	BONNIE BRAE	LOOP 288	US 77	1,255	SA	New	\$ 2,235,318	\$ 336,000	\$ 358,000	\$ -	\$ -	\$ -	\$ 78,236	100%	\$ 3,008,000	\$ 3,008,000
C-42	BONNIE BRAE	US 77	RINEY	1,985	SA	Widening	\$ 4,339,124	\$ 651,000	\$ 695,000	\$ -	\$ 500,000.00	\$ 250,000.00	\$ 151,869	100%	\$ 6,587,000	\$ 6,587,000
C-43	BONNIE BRAE	RINEY	WINDSOR	3,510	SA	Widening	\$ 7,672,708	\$ 1,151,000	\$ 1,228,000	\$ -	\$ -	\$ -	\$ 268,545	100%	\$ 10,320,000	\$ 10,320,000
C-44	BONNIE BRAE	WINDSOR	US 380	3,585	SA	Widening	\$ 7,836,655	\$ 1,176,000	\$ 1,254,000	\$ -	\$ -	\$ 1,440,000.00	\$ 274,283	100%	\$ 11,981,000	\$ 11,981,000
C-45,E-29	BONNIE BRAE	US 380	PANHANDLE	2,910	SA	Widening	\$ 6,178,150	\$ 927,000	\$ 989,000	\$ -	\$ -	\$ -	\$ 216,235	50%	\$ 8,310,000	\$ 4,155,000
C-46,E-30	BONNIE BRAE	PANHANDLE	SCRIPTURE	1,070	SA	Widening	\$ 2,271,691	\$ 341,000	\$ 364,000	\$ -	\$ -	\$ -	\$ 79,509	50%	\$ 3,056,000	\$ 1,528,000
C-47,E-31	BONNIE BRAE	SCRIPTURE	OAK	1,180	SA	Widening	\$ 2,505,229	\$ 376,000	\$ 401,000	\$ -	\$ -	\$ -	\$ 87,683	50%	\$ 3,370,000	\$ 1,685,000
C-48,E-32	BONNIE BRAE	OAK	HICKORY	380	SA	Widening	\$ 806,769	\$ 122,000	\$ 130,000	\$ -	\$ -	\$ -	\$ 28,237	50%	\$ 1,087,000	\$ 543,500
C-49,E-33	BONNIE BRAE	HICKORY	PRAIRIE	1,425	SA	Widening	\$ 3,025,383	\$ 454,000	\$ 485,000	\$ -	\$ -	\$ -	\$ 105,888	50%	\$ 4,070,000	\$ 2,035,000
C-50,E-34	BONNIE BRAE	PRAIRIE	IH 35E	860	SA	Widening	\$ 1,825,845	\$ 274,000	\$ 293,000	\$ -	\$ -	\$ -	\$ 63,905	50%	\$ 2,457,000	\$ 1,228,500
C-51	C WOLFE	US 380	WESTERN-NAIL	2,705	PA	New	\$ 5,947,429	\$ 893,000	\$ 952,000	\$ -	\$ 400,000.00	\$ 500,000.00	\$ 208,160	100%	\$ 8,901,000	\$ 8,901,000
C-52	FALLMEADOW	MEADOWLEDGE	GARDENVIEW	915	C	New	\$ 967,866	\$ 146,000	\$ 155,000	\$ -	\$ -	\$ -	\$ 33,875	100%	\$ 1,303,000	\$ 1,303,000
C-53,D-22	FM 2164	MILAM	LOOP 288	13,855	PA	Widening	\$ 34,698,524	\$ 5,205,000	\$ 5,552,000	\$ -	\$1,500,000.00	\$ 1,755,000.00	\$ 1,214,448	50%	\$ 49,925,000	\$ 24,962,500
C-54,D-28	LOCUST	LOOP 288	HERCULES	2,260	SA	Widening	\$ 4,798,151	\$ 720,000	\$ 768,000	\$ -	\$ -	\$ 500,000.00	\$ 167,935	50%	\$ 6,954,000	\$ 3,477,000
C-55,D-29	LOCUST	HERCULES	BELL	2,375	SA	Widening	\$ 5,042,304	\$ 757,000	\$ 807,000	\$ -	\$ 400,000.00	\$ 250,000.00	\$ 176,481	50%	\$ 7,743,000	\$ 3,716,500
C-56,D-30	LOCUST	BELL	WINDSOR	1,270	SA	Widening	\$ 2,696,306	\$ 405,000	\$ 432,000	\$ -	\$ -	\$ -	\$ 94,371	50%	\$ 3,628,000	\$ 1,814,000
C-57,D-31	LOCUST	WINDSOR	FM 2164	1,345	SA	Widening	\$ 2,855,537	\$ 429,000	\$ 457,000	\$ -	\$ -	\$ -	\$ 99,944	50%	\$ 3,841,000	\$ 1,920,500
C-58	LOVERS	FM 1173	MASCH BRANCH	4,120	SA	Widening	\$ 8,747,071	\$ 1,313,000	\$ 1,400,000	\$ -	\$ 500,000.00	\$ -	\$ 306,147	100%	\$ 12,266,000	\$ 12,266,000
C-59	LOVERS	1085' N OF MASCH BRANCH	MASCH BRANCH	1,085	SA	Widening	\$ 2,303,537	\$ 346,000	\$ 369,000	\$ -	\$ -	\$ 250,000.00	\$ 80,624	100%	\$ 3,349,000	\$ 3,349,000
C-60	LOVERS LN CONNECTOR	LOVERS	LOOP 288	315	SA	New	\$ 561,056	\$ 85,000	\$ 90,000	\$ -	\$ -	\$ -	\$ 19,637	100%	\$ 756,000	\$ 756,000
C-61	LOVERS LN CONNECTOR	LOOP 288	1085' N OF MASCH BRANCH	405	SA	New	\$ 721,358	\$ 109,000	\$ 116,000	\$ -	\$ -	\$ -	\$ 25,248	100%	\$ 972,000	\$ 972,000
C-62	MASCH BRANCH	1295' S OF FM 1173	JACKSON	4,170	SA	Widening	\$ 8,853,225	\$ 1,328,000	\$ 1,417,000	\$ -	\$ -	\$ -	\$ 309,863	50%	\$ 11,908,000	\$ 5,954,000
C-63	MASCH BRANCH	US 380	LOVERS	3,800	SA	Widening	\$ 8,067,687	\$ 1,211,000	\$ 1,291,000	\$ -	\$ 500,000.00	\$ -	\$ 282,369	100%	\$ 11,352,000	\$ 11,352,000
C-64	MASCH BRANCH	US 380	JIM CHRISTAL	4,110	SA	Widening	\$ 8,725,841	\$ 1,309,000	\$ 1,397,000	\$ -	\$ 400,000.00	\$ -	\$ 305,404	100%	\$ 12,137,000	\$ 12,137,000
C-65	MILAM-LOOP 288	MILAM	LOOP 288	14,335	SA	New	\$ 25,532,494	\$ 3,830,000	\$ 4,086,000	\$ -	\$ 400,000.00	\$ 1,440				

City of Denton - 2022 Roadway Impact Fee Study
Service Area C Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Chann el Crossings	Inspection/ Materials Testing	Percent in Service Area	Total Cost	Cost in Service Area
		From	To				Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%			
C-66	MILAM-US 77	MILAM	GANZER	7,975	SA	New	\$ 14,204,509	\$ 2,131,000	\$ 2,273,000	\$ -	\$ -	\$ 1,440,000.00	\$ 497,158	100%	\$ 20,546,000	\$ 20,546,000
C-67	MILAM-US 77	GANZER	LONG	3,875	SA	Widening	\$ 8,226,918	\$ 1,235,000	\$ 1,317,000	\$ -	\$ 500,000.00	\$ -	\$ 287,942	100%	\$ 11,567,000	\$ 11,567,000
C-68	MILAM-US 77	LONG	US 77	2,800	SA	New	\$ 4,987,163	\$ 749,000	\$ 798,000	\$ -	\$ 400,000.00	\$ 250,000.00	\$ 174,551	100%	\$ 7,359,000	\$ 7,359,000
C-69	NICOSIA	LOOP 288	BEALL	645	C	New	\$ 682,266	\$ 103,000	\$ 110,000	\$ -	\$ -	\$ 250,000.00	\$ 23,879	100%	\$ 1,169,000	\$ 1,169,000
C-70	THOMAS J EGAN	US 380	JIM CHRISTAL	4,010	SA	Widening	\$ 8,513,533	\$ 1,278,000	\$ 1,363,000	\$ -	\$ 900,000.00	\$ -	\$ 297,974	100%	\$ 12,353,000	\$ 12,353,000
C-71	WESTERN	US 380	JIM CHRISTAL	4,245	PA	Widening	\$ 10,631,197	\$ 1,595,000	\$ 1,701,000	\$ -	\$ 400,000.00	\$ -	\$ 372,092	100%	\$ 14,699,000	\$ 14,699,000
TOTAL															\$ 695,918,000	\$ 587,514,000

City of Denton - 2022 Roadway Impact Fee Study
Service Area D Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Chann el Crossings	Inspection/ Materials Testing	Percent in Service Area	Total Cost	Cost in Service Area
		From	To				Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%			
D-1	BOBCAT	560' W OF FM 2164	FM 2164	560	SA	Widening	\$ 1,188,922	\$ 179,000	\$ 191,000	\$ -	\$ -	\$ -	\$ 41,612	50%	\$ 1,601,000	\$ 800,500
D-2	FISHTRAP	MINGO	GEESLING	1,890	C	New	\$ 1,999,199	\$ 300,000	\$ 320,000	\$ -	\$ -	\$ 250,000.00	\$ 69,972	50%	\$ 2,939,000	\$ 1,469,500
D-3	GANZER	15,500' E OF SHERMAN	4600' W OF SHERMAN	17,985	PA	New	\$ 39,543,260	\$ 5,932,000	\$ 6,327,000	\$ -	\$ -	\$ 750,000.00	\$ 1,384,014	100%	\$ 53,936,000	\$ 53,936,000
D-4	GRIBBLE SPRINGS	INDIAN WELLS	3015' W OF INDIAN WELLS	3,015	SA	Widening	\$ 6,401,073	\$ 961,000	\$ 1,025,000	\$ -	\$ -	\$ 250,000.00	\$ 224,038	50%	\$ 8,861,000	\$ 4,430,500
D-5	HARTLEE FIELD	4220' E OF COOPER CREEK	COOPER CREEK	4,220	SA	Widening	\$ 8,959,379	\$ 1,344,000	\$ 1,434,000	\$ -	\$ -	\$ -	\$ 313,578	50%	\$ 12,051,000	\$ 6,025,500
D-6	HARTLEE FIELD	COOPER CREEK	5170' W OF COOPER CREEK	5,170	SA	Widening	\$ 10,976,301	\$ 1,647,000	\$ 1,757,000	\$ -	\$ -	\$ -	\$ 384,171	50%	\$ 14,764,000	\$ 7,382,000
D-7	HARTLEE FIELD	600' E OF SHERMAN	SHERMAN	600	C	Widening	\$ 634,667	\$ 96,000	\$ 102,000	\$ -	\$ -	\$ -	\$ 22,213	50%	\$ 855,000	\$ 427,500
D-8	HARTLEE FLD-FM 2164	HARTLEE FIELD	SHERMAN	2,250	SA	New	\$ 4,007,542	\$ 602,000	\$ 642,000	\$ -	\$ -	\$ -	\$ 140,264	100%	\$ 5,392,000	\$ 5,392,000
D-9	HARTLEE FLD-FM 2164	SHERMAN	3500' W OF SHERMAN	3,500	SA	New	\$ 6,233,954	\$ 936,000	\$ 998,000	\$ -	\$ -	\$ -	\$ 218,188	100%	\$ 8,386,000	\$ 8,386,000
D-10	HARTLEE FLD-FM 2164	STUART	1485' W OF STUART	1,485	SA	New	\$ 2,644,978	\$ 397,000	\$ 424,000	\$ -	\$ -	\$ 250,000.00	\$ 92,574	50%	\$ 3,809,000	\$ 1,904,500
D-11	HARTLEE FLD-FM 2164	475' W OF FM 2164	FM 2164	475	SA	New	\$ 846,037	\$ 127,000	\$ 136,000	\$ -	\$ -	\$ -	\$ 29,611	100%	\$ 1,139,000	\$ 1,139,000
D-12	LONG	510' W OF FM 2164	FM 2164	510	C	New	\$ 539,467	\$ 81,000	\$ 87,000	\$ -	\$ -	\$ -	\$ 8,000	100%	\$ 726,000	\$ 726,000
D-13	MINGO	E CITY LIMITS	COOPER CREEK	460	SA	Widening	\$ 976,615	\$ 147,000	\$ 157,000	\$ -	\$ -	\$ -	\$ 34,182	100%	\$ 1,315,000	\$ 1,315,000
D-14	MINGO	COOPER CREEK	LOOP 288	2,305	SA	Widening	\$ 4,893,689	\$ 735,000	\$ 783,000	\$ -	\$ -	\$ -	\$ 171,279	100%	\$ 6,583,000	\$ 6,583,000
D-15	MINGO	LOOP 288	US 380	2,275	SA	Widening	\$ 4,829,997	\$ 725,000	\$ 773,000	\$ -	\$ -	\$ 1,440,000.00	\$ 169,050	100%	\$ 7,937,000	\$ 7,937,000
D-16	KINGS ROW	SILVER DOME	LOOP 288	2,655	C	Widening	\$ 2,808,399	\$ 422,000	\$ 450,000	\$ -	\$ -	\$ -	\$ 98,294	100%	\$ 3,779,000	\$ 3,779,000
D-17	SILVER DOME	COOPER CREEK	FARRIS RD	2,190	C	Widening	\$ 2,316,533	\$ 348,000	\$ 371,000	\$ -	\$ -	\$ -	\$ 81,079	50%	\$ 3,117,000	\$ 1,558,500
D-18	COLLINS	HARTLEE FIELD	2730' S OF HARTLEE FIELD	4,440	C	Widening	\$ 4,696,532	\$ 705,000	\$ 752,000	\$ -	\$ -	\$ 500,000.00	\$ 164,379	50%	\$ 6,818,000	\$ 3,409,000
D-19	COOPER CREEK	SHERMAN	HARTLEE FIELD	10,065	SA	New	\$ 17,927,070	\$ 2,690,000	\$ 2,869,000	\$ -	\$ -	\$ 1,440,000.00	\$ 627,447	100%	\$ 25,554,000	\$ 25,554,000
D-20	COOPER CREEK	SILVER DOME	MINGO	4,360	SA	Widening	\$ 9,256,609	\$ 1,389,000	\$ 1,482,000	\$ -	\$ -	\$ -	\$ 323,981	50%	\$ 12,452,000	\$ 6,226,000
D-21	COOPER CREEK	MINGO	US 380	1,680	PA	Widening	\$ 4,207,399	\$ 632,000	\$ 674,000	\$ 1,200,000	\$ 500,000.00	\$ -	\$ 147,259	100%	\$ 7,361,000	\$ 7,361,000
C-53,D-22	FM 2164	MILAM	LOOP 288	13,855	PA	Widening	\$ 34,698,524	\$ 5,205,000	\$ 5,552,000	\$ -	\$ 1,500,000.00	\$ 1,755,000.00	\$ 1,214,448	50%	\$ 49,925,000	\$ 24,962,500
D-23	GREEN VALLEY	2395' S OF FM 2153	2935' N OF SHEPARD	7,765	PA	New	\$ 17,072,750	\$ 2,561,000	\$ 2,732,000	\$ -	\$ 500,000.00	\$ 1,000,000.00	\$ 597,546	100%	\$ 24,463,000	\$ 24,463,000
D-24	GREEN VALLEY	WARSCHUN	SHERMAN	2,095	SA	Widening	\$ 4,447,843	\$ 668,000	\$ 712,000	\$ -	\$ -	\$ 250,000.00	\$ 155,675	100%	\$ 6,234,000	\$ 6,234,000
D-25	INDIAN WELLS	1615' S OF FM 2153	4930' N OF GRIBBLE SPRINGS	3,870	SA	New	\$ 6,892,972	\$ 1,034,000	\$ 1,103,000	\$ -	\$ 500,000.00	\$ 250,000.00	\$ 241,254	100%	\$ 10,021,000	\$ 10,021,000
D-26	INDIAN WELLS	4930' N OF GRIBBLE SPRINGS	2905' N OF GRIBBLE SPRINGS	2,025	SA	New	\$ 3,606,788	\$ 542,000	\$ 578,000	\$ -	\$ -	\$ -	\$ 126,238	50%	\$ 4,853,000	\$ 2,426,500
D-27	INDIAN WELLS	2905' N OF GRIBBLE SPRINGS	GRIBBLE SPRINGS	2,905	SA	Widening	\$ 6,167,534	\$ 926,000	\$ 987,000	\$ -	\$ -	\$ -	\$ 215,864	50%	\$ 8,296,000	\$ 4,148,000
C-54,D-28	LOCUST	LOOP 288	HERCULES	2,260	SA	Widening	\$ 4,798,151	\$ 720,000	\$ 768,000	\$ -	\$ -	\$ 500,000.00	\$ 167,935	50%	\$ 6,954,000	\$ 3,477,000
C-55,D-29	LOCUST	HERCULES	BELL	2,375	SA	Widening	\$ 5,042,304	\$ 757,000	\$ 807,000	\$ -	\$ 400,000.00	\$ 250,000.00	\$ 176,481	50%	\$ 7,433,000	\$ 3,716,500
C-56,D-30	LOCUST	BELL	WINDSOR	1,270	SA	Widening	\$ 2,696,306	\$ 405,000	\$ 432,000	\$ -	\$ -	\$ -	\$ 94,371	50%	\$ 3,628,000	\$ 1,814,000
C-57,D-31	LOCUST	WINDSOR	FM 2164	1,345	SA	Widening	\$ 2,855,537	\$ 429,000	\$ 457,000	\$ -	\$ -	\$ -	\$ 99,944	50%	\$ 3,841,000	\$ 1,920,500
D-32	SHERMAN	LOOP 288	HERCULES	1,650	SA	Widening	\$ 3,503,075	\$ 526,000	\$ 561,000	\$ -	\$ -	\$ -	\$ 122,608	100%	\$ 4,713,000	\$ 4,713,000
D-33	SHERMAN	HERCULES	KINGS	1,910	SA	Widening	\$ 4,055,074	\$ 609,000	\$ 649,000	\$ -	\$ -	\$ -	\$ 141,928	100%	\$ 5,455,000	\$ 5,455,000
D-34	SHERMAN	KINGS	WINDSOR	2,025	SA	Widening	\$ 4,299,228	\$ 645,000	\$ 688,000	\$ -	\$ -	\$ 1,440,000.00	\$ 150,473	100%	\$ 7,223,000	\$ 7,223,000
D-35	SHERMAN	WINDSOR	WILSONWOOD	1,000	SA	Widening	\$ 2,123,076	\$ 319,000	\$ 340,000	\$ -	\$ -	\$ -	\$ 74,308	100%	\$ 2,856,000	\$ 2,856,000
D-36	SHERMAN	WILSONWOOD	CORONADO	1,165	SA	Widening	\$ 2,473,383	\$ 372,000	\$ 396,000	\$ -	\$ -	\$ -	\$ 86,568	100%	\$ 3,328,000	\$ 3,328,000
D-37	SHERMAN	CORONADO	GREENWOOD	1,640	SA	Widening	\$ 3,481,844	\$ 523,000	\$ 558,000	\$ -	\$ -	\$ -	\$ 121,865	100%	\$ 4,685,000	\$ 4,685,000
D-38	SHERMAN	GREENWOOD	BELL	825	SA	Widening	\$ 1,751,537	\$ 263,000	\$ 281,000	\$ -	\$ -	\$ -	\$ 61,304	100%	\$ 2,357,000	\$ 2,357,000
D-39	SHERMAN	BELL	LOCUST	1,715	SA	Widening	\$ 3,641,075	\$ 547,000	\$ 583,000	\$ -	\$ -	\$ -	\$ 127,438	100%	\$ 4,899,000	\$ 4,899,000
D-40	WINDSOR	LOOP 288	DOMINION	860	C	New	\$ 909,689	\$ 137,000	\$ 146,000	\$ -	\$ -	\$ -	\$ 31,839	100%	\$ 1,225,000	\$ 1,225,000
TOTAL															\$ 351,764,000	\$ 275,665,500

City of Denton - 2022 Roadway Impact Fee Study
Service Area E Impact Fee CIP

#	Roadway Name	Limits		Length (FT)	Roadway Classification	Roadway Status	Construction Cost	Contingency/ ROW	Engineering/ Survey/SUE	Railroad Crossings	Intersections	Streams/Channel Crossings	Inspection/ Materials Testing	Previous City Contribution	Percent in Service Area	Total Cost	Cost in Service Area
		From	To				Pavement and Allowances	15%	16%	Cost	Cost	Total Drainage Cost	3.5%				
E-1	AUDRA	LOOP 288	1185' W OF LOOP 288	1,185	C	New	\$ 1,253,466	\$ 189,000	\$ 201,000	\$ -	\$ -	\$ -	\$ 43,871	\$ -	100%	\$ 1,687,000	\$ 1,687,000
E-2	BLAGG	LAKEVIEW	GEESLING	3,740	SA	Widening	\$ 7,940,303	\$ 1,192,000	\$ 1,271,000	\$ -	\$ 500,000.00	\$ -	\$ 277,911	\$ -	100%	\$ 11,181,000	\$ 11,181,000
E-3	BLAGG	GEESLING	2175' W OF GEESLING	2,175	SA	Widening	\$ 4,617,689	\$ 693,000	\$ 739,000	\$ -	\$ -	\$ 1,440,000.00	\$ 161,619	\$ -	100%	\$ 7,651,000	\$ 7,651,000
E-4	BLAGG	235' E OF MAYHILL	MAYHILL	235	SA	New	\$ 418,565	\$ 63,000	\$ 67,000	\$ -	\$ -	\$ -	\$ 14,650	\$ -	50%	\$ 563,000	\$ 281,500
E-5	DALLAS	TEASLEY	IH 35E	4,590	PA (1/3)	Widening	\$ 2,693,569	\$ 405,000	\$ 431,000	\$ -	\$ -	\$ -	\$ 94,275	\$ -	100%	\$ 3,624,000	\$ 3,624,000
E-6	DUCHESS	TRAILHEAD	WOODROW	4,005	C	New	\$ 4,236,399	\$ 636,000	\$ 678,000	\$ -	\$ -	\$ 250,000.00	\$ 148,274	\$ -	100%	\$ 5,949,000	\$ 5,949,000
E-7	FM 426	LANEY	GRISSOM	2,995	SA	Widening	\$ 6,358,611	\$ 954,000	\$ 1,018,000	\$ -	\$ 1,400,000.00	\$ -	\$ 222,551	\$ -	100%	\$ 9,953,000	\$ 9,953,000
E-8	MCKINNEY	GRISSOM	LOOP 288	8,735	Completed	Widening	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,550,811.44	100%	\$ 1,551,000	\$ 1,551,000
E-9	MCKINNEY	LOOP 288	CARDINAL	670	SA	Widening	\$ 1,422,461	\$ 214,000	\$ 228,000	\$ -	\$ -	\$ -	\$ 49,786	\$ -	100%	\$ 1,914,000	\$ 1,914,000
E-10	MCKINNEY	CARDINAL	MOCKINGBIRD	1,145	SA	Widening	\$ 2,430,922	\$ 365,000	\$ 389,000	\$ -	\$ -	\$ -	\$ 85,082	\$ -	100%	\$ 3,270,000	\$ 3,270,000
E-11	MCKINNEY	MOCKINGBIRD	MACK	3,245	SA	Widening	\$ 6,889,380	\$ 1,034,000	\$ 1,103,000	\$ -	\$ -	\$ -	\$ 241,128	\$ -	100%	\$ 9,268,000	\$ 9,268,000
E-12	MCKINNEY	MACK	AUDRA	1,540	SA	Widening	\$ 3,269,536	\$ 491,000	\$ 524,000	\$ -	\$ -	\$ -	\$ 114,434	\$ -	100%	\$ 4,399,000	\$ 4,399,000
E-13	MILLS	TRINITY	MAYHILL	7,415	SA	Widening	\$ 15,742,605	\$ 2,362,000	\$ 2,519,000	\$ -	\$ 500,000.00	\$ 1,440,000.00	\$ 550,991	\$ -	100%	\$ 23,115,000	\$ 23,115,000
E-14	MILLS	LAKEVIEW	MAYHILL	2,185	SA	New	\$ 3,891,768	\$ 584,000	\$ 623,000	\$ -	\$ -	\$ -	\$ 136,212	\$ -	100%	\$ 5,235,000	\$ 5,235,000
E-15	MINGO	US 380	OLD NORTH	760	SA	Widening	\$ 1,613,537	\$ 243,000	\$ 259,000	\$ -	\$ -	\$ -	\$ 56,474	\$ -	100%	\$ 2,172,000	\$ 2,172,000
E-16	MINGO	OLD NORTH	NOTTINGHAM	2,545	SA	Widening	\$ 5,403,227	\$ 811,000	\$ 865,000	\$ -	\$ -	\$ -	\$ 189,113	\$ -	100%	\$ 7,268,000	\$ 7,268,000
E-17	MINGO	NOTTINGHAM	PERTAIN	2,935	SA	Widening	\$ 6,231,227	\$ 935,000	\$ 997,000	\$ -	\$ -	\$ -	\$ 218,093	\$ -	100%	\$ 8,381,000	\$ 8,381,000
E-18	MINGO	PERTAIN	RUDDELL	945	SA	Widening	\$ 2,006,306	\$ 301,000	\$ 322,000	\$ -	\$ -	\$ -	\$ 70,221	\$ -	100%	\$ 2,700,000	\$ 2,700,000
E-19	MINGO	RUDDELL	WILLIS	600	SA	Widening	\$ 1,273,845	\$ 192,000	\$ 204,000	\$ -	\$ -	\$ -	\$ 44,585	\$ -	100%	\$ 1,714,000	\$ 1,714,000
E-20	MINGO	WILLIS	WITHERS	2,305	SA	Widening	\$ 4,893,689	\$ 735,000	\$ 783,000	\$ -	\$ -	\$ -	\$ 171,279	\$ -	100%	\$ 6,583,000	\$ 6,583,000
E-21	MINGO	WITHERS	PAISLEY	235	SA	Widening	\$ 498,923	\$ 75,000	\$ 80,000	\$ -	\$ -	\$ -	\$ 17,462	\$ -	100%	\$ 671,000	\$ 671,000
E-22	MINGO	PAISLEY	BELL	985	SA	Widening	\$ 2,091,229	\$ 314,000	\$ 335,000	\$ -	\$ -	\$ -	\$ 73,193	\$ -	100%	\$ 2,813,000	\$ 2,813,000
E-23	MORSE	MAYHILL	KIMBERLY	1,145	SA (1/2)	Widening	\$ 1,091,823	\$ 164,000	\$ 175,000	\$ -	\$ 500,000.00	\$ -	\$ 38,214	\$ -	100%	\$ 1,969,000	\$ 1,969,000
E-24	SHADY OAKS	WOODROW	TEASLEY	3,070	SA	Widening	\$ 6,517,842	\$ 978,000	\$ 1,043,000	\$ 1,200,000	\$ -	\$ -	\$ 228,124	\$ -	100%	\$ 9,967,000	\$ 9,967,000
E-25	SPENCER	MAYHILL	LOOP 288	2,315	SA	Widening	\$ 4,914,920	\$ 738,000	\$ 787,000	\$ -	\$ -	\$ 250,000.00	\$ 172,022	\$ -	100%	\$ 6,862,000	\$ 6,862,000
E-26	TREATMENT PLANT	MCKINNEY	POST OAK	3,325	C	New	\$ 3,517,110	\$ 528,000	\$ 563,000	\$ -	\$ -	\$ -	\$ 123,099	\$ -	100%	\$ 4,731,000	\$ 4,731,000
E-27	TREATMENT PLANT	POST OAK	1325' W OF POST OAK	1,325	SA	New	\$ 2,359,997	\$ 354,000	\$ 378,000	\$ -	\$ 400,000.00	\$ 1,440,000.00	\$ 82,600	\$ -	100%	\$ 5,015,000	\$ 5,015,000
E-28	TREATMENT PLANT	1325' W OF POST OAK	MAYHILL	3,960	SA	Widening	\$ 8,407,379	\$ 1,262,000	\$ 1,346,000	\$ -	\$ -	\$ -	\$ 294,258	\$ -	100%	\$ 11,310,000	\$ 11,310,000
C-45,E-29	BONNIE BRAE	US 380	PANHANDLE	2,910	SA	Widening	\$ 6,178,150	\$ 927,000	\$ 989,000	\$ -	\$ -	\$ -	\$ 216,235	\$ -	50%	\$ 8,310,000	\$ 4,155,000
C-46,E-30	BONNIE BRAE	PANHANDLE	SCRIPTURE	1,070	SA	Widening	\$ 2,271,691	\$ 341,000	\$ 364,000	\$ -	\$ -	\$ -	\$ 79,509	\$ -	50%	\$ 3,056,000	\$ 1,528,000
C-47,E-31	BONNIE BRAE	SCRIPTURE	OAK	1,180	SA	Widening	\$ 2,505,229	\$ 376,000	\$ 401,000	\$ -	\$ -	\$ -	\$ 87,683	\$ -	50%	\$ 3,370,000	\$ 1,685,000
C-48,E-32	BONNIE BRAE	OAK	HICKORY	380	SA	Widening	\$ 806,769	\$ 122,000	\$ 130,000	\$ -	\$ -	\$ -	\$ 28,237	\$ -	50%	\$ 1,087,000	\$ 543,500
C-49,E-33	BONNIE BRAE	HICKORY	PRAIRIE	1,425	SA	Widening	\$ 3,025,383	\$ 454,000	\$ 485,000	\$ -	\$ -	\$ -	\$ 105,888	\$ -	50%	\$ 4,070,000	\$ 2,035,000
C-50,E-34	BONNIE BRAE	PRAIRIE	IH 35E	860	SA	Widening	\$ 1,825,845	\$ 274,000	\$ 293,000	\$ -	\$ -	\$ -	\$ 63,905	\$ -	50%	\$ 2,457,000	\$ 1,228,500
E-35	CARDINAL	ORIOLE	MCKINNEY	2,225	C	New	\$ 2,353,555	\$ 354,000	\$ 377,000	\$ -	\$ -	\$ -	\$ 82,374	\$ -	100%	\$ 3,167,000	\$ 3,167,000
E-36	GEESLING	US 380	BLAGG	2,445	PA	Widening	\$ 6,123,269	\$ 919,000	\$ 980,000	\$ -	\$ -	\$ -	\$ 214,314	\$ -	100%	\$ 8,237,000	\$ 8,237,000
E-37	GEESLING	US 380	BLAGG	5,395	PA	New	\$ 11,861,879	\$ 1,780,000	\$ 1,898,000	\$ -	\$ 500,000.00	\$ 1,755,000.00	\$ 415,166	\$ -	100%	\$ 18,210,000	\$ 18,210,000
E-38	LAKEVIEW	POST OAK	SHADY SHORES	1,385	PA (1/3)	Widening	\$ 812,765	\$ 122,000	\$ 131,000	\$ 1,200,000	\$ -	\$ -	\$ 28,447	\$ -	100%	\$ 2,294,000	\$ 2,294,000
E-39	MAYHILL	US 380	PROMINENCE	2,335	PA (1/3)	Widening	\$ 1,370,258	\$ 206,000	\$ 220,000	\$ -	\$ -	\$ -	\$ 47,959	\$ 622,429.41	100%	\$ 2,467,000	\$ 2,467,000
E-40	MAYHILL	PROMINENCE	770' N OF RUSSELL NEWMAN	2,040	PA (1/3)	Widening	\$ 1,197,142	\$ 180,000	\$ 192,000	\$ -	\$ -	\$ -	\$ 41,900	\$ 543,792.72	100%	\$ 2,155,000	\$ 2,155,000
E-41	MAYHILL	770' N OF RUSSELL NEWMAN	RUSSELL NEWMAN	775	PA (1/3)	Widening	\$ 454,796	\$ 69,000	\$ 73,000	\$ -	\$ -	\$ -	\$ 15,918	\$ 206,587.92	50%	\$ 819,000	\$ 409,500
E-42	MAYHILL	RUSSELL NEWMAN	460' S OF RUSSELL NEWMAN	460	PA (1/3)	Widening	\$ 269,944	\$ 41,000	\$ 44,000	\$ -	\$ -	\$ -	\$ 9,448	\$ 122,619.93	50%	\$ 487,000	\$ 243,500
E-43	MAYHILL	460' S OF RUSSELL NEWMAN	MILLS	1,080	PA (1/3)	Widening	\$ 633,781	\$ 96,000	\$ 102,000	\$ -	\$ -	\$ -	\$ 22,182	\$ 287,890.26	100%	\$ 1,142,000	\$ 1,142,000
E-44	MAYHILL	MILLS	MCKINNEY	1,955	PA (1/3)	Widening	\$ 1,147,261	\$ 173,000	\$ 184,000	\$ -	\$ -	\$ -	\$ 40,154	\$ 521,134.69	100%	\$ 2,066,000	\$ 2,066,000
E-45	MAYHILL	MCKINNEY	MORSE	2,045	PA (1/3)	Widening	\$ 1,200,076	\$ 181,000	\$ 193,000	\$ -	\$ -	\$ -	\$ 42,003	\$ 545,125.55	100%	\$ 2,161,000	\$ 2,161,000
E-46	MAYHILL	MORSE	SPENCER	3,520	PA (1/3)	Widening	\$ 2,065,656	\$ 310,000	\$ 331,000	\$ -	\$ -	\$ -	\$ 72,298	\$ 938,309.01	100%	\$ 3,717,000	\$ 3,717,000
E-47	MAYHILL	SPENCER	EDWARDS	3,185	PA (1/3)	Widening	\$ 1,869,067	\$ 281,000	\$ 300,000	\$ -	\$ 500,000.00	\$ -	\$ 65,417	\$ 849,009.71	100%	\$ 3,864,000	\$ 3,864,000
E-48	MAYHILL	2725' N OF COLORADO	COLORADO	2,725	PA (1/3)	New	\$ 1,599,123	\$ 240,000	\$ 256,000								

City of Denton

Kimley-Horn

2022 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Primary Arterial (New) Limits: Classification: PA ROW Width (feet): 135 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	24,700	CY	\$ 18.00	\$ 444,600
2	12" Lime Stabilization (with Lime @ 46#/sy)	47,000	SY	\$ 20.75	\$ 975,250
3	11" Concrete Pavement and Curb	44,600	SY	\$ 80.00	\$ 3,568,000
4	8' Concrete Sidewalk and 10' Concrete Trail (6" Depth)	95,100	SF	\$ 7.50	\$ 713,250
5	4" Topsoil	2,700	CY	\$ 45.00	\$ 121,500
6	Block Sodding	24,100	SY	\$ 12.00	\$ 289,200
7	12' Wide Turn Lane (300 LF Long)	8,600	SY	\$ 80.00	\$ 688,000
Paving Subtotal:					\$ 6,799,800

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 339,500.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	2%	\$ 135,800.00
✓ Traffic Control	Maintain Existing Traffic	2%	\$ 135,800.00
✓ Pavement Markings/Signs		2%	\$ 135,800.00
✓ Roadway Drainage	Standard Internal System	30%	\$ 2,036,700.00
Concrete Driveways	Driveways (Every 100')	\$ -	\$ -
✓ Irrigation	Basic	3%	\$ 203,700.00
✓ Illumination	Street Light Foundations and Conduit	7%	\$ 475,300.00
✓ Water	Minor Adjustments	10%	\$ 678,900.00
✓ Sewer	Minor Adjustments	10%	\$ 678,900.00
✓ SWPPP		2%	\$ 135,800.00
Other:			\$ -
Allowance Subtotal:			\$ 4,956,200

Paving and Allowance SUBTOTAL: \$ 11,756,000

Subtotal Price per Lane Mile \$ 1,960,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 11,756,000
Construction Contingency/Right-of-Way		15%	\$ 1,764,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 1,881,000
Inspections/Material Testing		3.5%	\$ 412,000

Roadway Cost TOTAL: \$ 15,813,000

Price per Linear Foot (PA): \$ 3,000

Price per Lane Mile \$ 2,636,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2022 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Primary Arterial (Widening) Limits: Classification: PA ROW Width (feet): 135 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	24,700	CY	\$ 18.00	\$ 444,600
2	12" Lime Stabilization (with Lime @ 46#/sy)	47,000	SY	\$ 20.75	\$ 975,250
3	11" Concrete Pavement and Curb	44,600	SY	\$ 80.00	\$ 3,568,000
4	8' Concrete Sidewalk and 10' Concrete Trail (6" Depth)	95,100	SF	\$ 7.50	\$ 713,250
5	4" Topsoil	2,700	CY	\$ 45.00	\$ 121,500
6	Block Sodding	24,100	SY	\$ 12.00	\$ 289,200
7	12' Wide Turn Lane (300 LF Long)	8,600	SY	\$ 80.00	\$ 688,000
Paving Subtotal:					\$ 6,799,800

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 339,500.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	10%	\$ 678,900.00
✓ Traffic Control	Maintain Existing Traffic	10%	\$ 678,900.00
✓ Pavement Markings/Signs		2%	\$ 135,800.00
✓ Roadway Drainage	Standard Internal System	30%	\$ 2,036,700.00
✓ Concrete Driveways	Driveways (Every 100')	\$ 5,000.00	\$ 528,000.00
✓ Irrigation	Basic	3%	\$ 203,700.00
✓ Illumination	Street Light Foundations and Conduit	7%	\$ 475,300.00
✓ Water	Minor Adjustments	10%	\$ 678,900.00
✓ Sewer	Minor Adjustments	10%	\$ 678,900.00
✓ SWPPP		4%	\$ 271,600.00
Other:			\$ -
Allowance Subtotal:			\$ 6,706,200
Paving and Allowance SUBTOTAL:			\$ 13,506,000
Subtotal Price per Lane Mile			\$ 2,251,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 13,506,000
Construction Contingency/Right-of-Way		15%	\$ 2,026,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 2,161,000
Inspections/Material Testing		3.5%	\$ 473,000
Roadway Cost TOTAL:			\$ 18,166,000
Price per Linear Foot (PA):			\$ 3,500
Price per Lane Mile			\$ 3,028,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2020 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Primary Arterial (Half Roadway) Limits: Classification: PA (4/6) ROW Width (feet): 135 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	16,600	CY	\$ 18.00	\$ 298,800
2	12" Lime Stabilization (with Lime @ 46#/sy)	31,400	SY	\$ 20.75	\$ 651,550
3	11" Concrete Pavement and Curb	29,700	SY	\$ 80.00	\$ 2,376,000
4	10' Concrete Trail (6" Depth)	52,800	SF	\$ 7.50	\$ 396,000
5	4" Topsoil	2,200	CY	\$ 45.00	\$ 99,000
6	Block Sodding	19,400	SY	\$ 12.00	\$ 232,800
7	12' Wide Turn Lane (300 LF Long)	8,600	SY	\$ 80.00	\$ 688,000
Paving Subtotal:					\$ 4,742,150

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 236,400.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	5%	\$ 236,400.00
✓ Traffic Control	Maintain Existing Traffic	5%	\$ 236,400.00
✓ Pavement Markings/Signs		2%	\$ 94,600.00
✓ Roadway Drainage	Standard Internal System	20%	\$ 945,600.00
✓ Concrete Driveways	Driveways (Every 100')	\$ 5,000.00	\$ 264,000.00
✓ Irrigation	Basic	3%	\$ 141,900.00
✓ Illumination	Street Light Foundations and Conduit	3%	\$ 141,900.00
✓ Water	Minor Adjustments	3%	\$ 141,900.00
✓ Sewer	Minor Adjustments	3%	\$ 141,900.00
✓ SWPPP		4%	\$ 189,200.00
Other:			\$ -
Allowance Subtotal:			\$ 2,770,200
Paving and Allowance SUBTOTAL:			\$ 7,513,000
Subtotal Price per Lane Mile			\$ 1,879,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 7,513,000
Construction Contingency/Right-of-Way		15%	\$ 1,127,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 1,203,000
Inspections/Material Testing		3.5%	\$ 263,000
Roadway Cost TOTAL:			\$ 10,106,000
Price per Linear Foot (PA):			\$ 2,000
Price per Lane Mile			\$ 2,527,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton					Kimley-Horn
2020 Denton Mobility Plan - Roadway Costing					
Planning Level Opinion of Probable Construction Cost					
Project Information					
Street Name: Primary Arterial (Median Lanes) Limits: Classification: PA (1/3) ROW Width (feet): 135 Length (feet): 5,280				Notes:	
Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	7,400	CY	\$ 18.00	\$ 133,200
2	12" Lime Stabilization (with Lime @ 46#/sy)	5,300	SY	\$ 20.75	\$ 109,975
3	11" Concrete Pavement and Curb	14,700	SY	\$ 80.00	\$ 1,176,000
4	No Sidewalk - Median Widening	0	SF	\$ 7.50	\$ -
5	4" Topsoil	700	CY	\$ 45.00	\$ 31,500
6	Block Sodding	5,900	SY	\$ 12.00	\$ 70,800
7	12' Wide Turn Lane (300 LF Long)	8,600	SY	\$ 80.00	\$ 688,000
Paving Subtotal:					\$ 2,209,475
Major Construction Component Allowances:					
Item Description		Notes:		Allowance	Item Cost
√ Mobilization				5%	\$ 109,900.00
√ Removals/Prepare Right-of-Way		Only for Reconstruction		2%	\$ 44,000.00
√ Traffic Control		Maintain Existing Traffic		10%	\$ 219,800.00
√ Pavement Markings/Signs				2%	\$ 44,000.00
√ Roadway Drainage		Standard Internal System		10%	\$ 219,800.00
Concrete Driveways		Driveways (Every 100')		\$ -	\$ -
√ Irrigation		Basic		3%	\$ 66,000.00
√ Illumination		Street Light Foundations and Conduit		3%	\$ 66,000.00
√ Water		Minor Adjustments		3%	\$ 66,000.00
√ Sewer		Minor Adjustments		3%	\$ 66,000.00
√ SWPPP				4%	\$ 88,000.00
Other:					\$ -
Allowance Subtotal:					\$ 989,500
Paving and Allowance SUBTOTAL:					\$ 3,199,000
Subtotal Price per Lane Mile					\$ 1,600,000
Denton Mobility Plan - Roadway Costing					
Item Description		Notes		Allowance	Item Cost
Construction					\$ 3,199,000
Construction Contingency/Right-of-Way				15%	\$ 480,000
Railroad Crossings		Priced Per Roadway Segment			
Intersections		Priced Per Roadway Segment			
Streams/Channel Crossings		Priced Per Roadway Segment			
Engineering/Survey/SUE				16%	\$ 512,000
Inspections/Material Testing				3.5%	\$ 112,000
Roadway Cost TOTAL:					\$ 4,303,000
Price per Linear Foot (PA):					\$ 900
Price per Lane Mile					\$ 2,152,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2022 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Secondary Arterial (New) Limits: Classification: SA ROW Width (feet): 110 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	22,300	CY	\$ 18.00	\$ 401,400
2	12" Lime Stabilization (with Lime @ 46#/sy)	42,300	SY	\$ 20.75	\$ 877,725
3	11" Concrete Pavement and Curb	39,900	SY	\$ 80.00	\$ 3,192,000
4	6' Concrete Sidewalk (4" Depth)	63,400	SF	\$ 6.50	\$ 412,100
5	4" Topsoil	2,100	CY	\$ 45.00	\$ 94,500
6	Block Sodding	18,800	SY	\$ 12.00	\$ 225,600
7	12' Wide Turn Lane (200 LF Long)	6,400	SY	\$ 80.00	\$ 512,000
Paving Subtotal:					\$ 5,715,325

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 260,100.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	2%	\$ 104,100.00
✓ Traffic Control	Maintain Existing Traffic	2%	\$ 104,100.00
✓ Pavement Markings/Signs		2%	\$ 104,100.00
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,560,100.00
Concrete Driveways	Driveways (Every 100')	\$ -	\$ -
✓ Irrigation	Basic	3%	\$ 156,100.00
✓ Illumination	Street Light Foundations and Conduit	7%	\$ 364,100.00
✓ Water	Minor Adjustments	10%	\$ 520,100.00
✓ Sewer	Minor Adjustments	10%	\$ 520,100.00
✓ SWPPP		2%	\$ 104,100.00
Other:			\$ -
Allowance Subtotal:			\$ 3,797,000
Paving and Allowance SUBTOTAL:			\$ 9,513,000
Subtotal Price per Lane Mile			\$ 2,379,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 9,513,000
Construction Contingency/Right-of-Way		15%	\$ 1,427,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 1,523,000
Inspections/Material Testing		3.5%	\$ 333,000
Roadway Cost TOTAL:			\$ 12,796,000
Price per Linear Foot (PA):			\$ 2,500
Price per Lane Mile			\$ 3,199,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2022 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Secondary Arterial (Widening) Limits: Classification: SA ROW Width (feet): 110 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	22,300	CY	\$ 18.00	\$ 401,400
2	12" Lime Stabilization (with Lime @ 46#/sy)	42,300	SY	\$ 20.75	\$ 877,725
3	11" Concrete Pavement and Curb	39,900	SY	\$ 80.00	\$ 3,192,000
4	6' Concrete Sidewalk (4" Depth)	63,400	SF	\$ 6.50	\$ 412,100
5	4" Topsoil	2,100	CY	\$ 45.00	\$ 94,500
6	Block Sodding	18,800	SY	\$ 12.00	\$ 225,600
7	12' Wide Turn Lane (200 LF Long)	6,400	SY	\$ 80.00	\$ 512,000
Paving Subtotal:					\$ 5,715,325

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 285,700.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	10%	\$ 571,300.00
✓ Traffic Control	Maintain Existing Traffic	10%	\$ 571,300.00
✓ Pavement Markings/Signs		2%	\$ 114,300.00
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,713,700.00
✓ Concrete Driveways	Driveways (Every 100')	\$ 5,000.00	\$ 528,000.00
✓ Irrigation	Basic	3%	\$ 171,400.00
✓ Illumination	Street Light Foundations and Conduit	7%	\$ 399,900.00
✓ Water	Minor Adjustments	10%	\$ 571,300.00
✓ Sewer	Minor Adjustments	10%	\$ 571,300.00
✓ SWPPP		4%	\$ 228,500.00
Other:			\$ -
Allowance Subtotal:			\$ 5,726,700

Paving and Allowance SUBTOTAL: \$ 11,443,000

Subtotal Price per Lane Mile \$ 2,861,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 11,443,000
Construction Contingency/Right-of-Way		15%	\$ 1,717,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 1,831,000
Inspections/Material Testing		3.5%	\$ 401,000
Roadway Cost TOTAL:			\$ 15,392,000
Price per Linear Foot (PA):			\$ 3,000
Price per Lane Mile			\$ 3,848,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2020 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Secondary Arterial (Half Roadway) Limits: Classification: SA (1/2) ROW Width (feet): 110 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	11,200	CY	\$ 18.00	\$ 201,600
2	12" Lime Stabilization (with Lime @ 46#/sy)	21,200	SY	\$ 20.75	\$ 439,900
3	11" Concrete Pavement and Curb	20,000	SY	\$ 80.00	\$ 1,600,000
4	6' Concrete Sidewalk (4" Depth)	31,700	SF	\$ 6.50	\$ 206,050
5	4" Topsoil	1,700	CY	\$ 45.00	\$ 76,500
6	Block Sodding	14,700	SY	\$ 12.00	\$ 176,400
7	12' Wide Turn Lane (200 LF Long)	6,400	SY	\$ 80.00	\$ 512,000
Paving Subtotal:					\$ 3,212,450

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 160,100.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	5%	\$ 160,100.00
✓ Traffic Control	Maintain Existing Traffic	5%	\$ 160,100.00
✓ Pavement Markings/Signs		2%	\$ 64,100.00
✓ Roadway Drainage	Standard Internal System	20%	\$ 640,400.00
✓ Concrete Driveways	Driveways (Every 100')	\$ 5,000.00	\$ 264,000.00
✓ Irrigation	Basic	3%	\$ 96,100.00
✓ Illumination	Street Light Foundations and Conduit	3%	\$ 96,100.00
✓ Water	Minor Adjustments	3%	\$ 96,100.00
✓ Sewer	Minor Adjustments	3%	\$ 96,100.00
✓ SWPPP		4%	\$ 128,100.00
Other:			\$ -
Allowance Subtotal:			\$ 1,961,300

Paving and Allowance SUBTOTAL: \$ 5,174,000
Subtotal Price per Lane Mile \$ 2,587,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 5,174,000
Construction Contingency/Right-of-Way		15%	\$ 777,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 828,000
Inspections/Material Testing		3.5%	\$ 182,000
Roadway Cost TOTAL:			\$ 6,961,000
Price per Linear Foot (PA):			\$ 1,400
Price per Lane Mile			\$ 3,481,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Denton

Kimley-Horn

2022 Denton Mobility Plan - Roadway Costing

Planning Level Opinion of Probable Construction Cost

Project Information

Street Name: Collector (New) Limits: Classification: C ROW Width (feet): 65 Length (feet): 5,280	Notes:
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Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Unclassified Street Earthwork	13,200	CY	\$ 18.00	\$ 237,600
2	8" Lime Stabilization (with Lime @ 46#/sy)	25,300	SY	\$ 20.75	\$ 524,975
3	8" Concrete Pavement and Curb	24,100	SY	\$ 70.00	\$ 1,687,000
4	5' Concrete Sidewalk (4" Depth)	52,800	SF	\$ 6.50	\$ 343,200
5	4" Topsoil	1,000	CY	\$ 45.00	\$ 45,000
6	Block Sodding	8,800	SY	\$ 12.00	\$ 105,600
7	Parking Lane	4,700	SY	\$ 70.00	\$ 329,000
Paving Subtotal:					\$ 3,272,375

Major Construction Component Allowances:

Item Description	Notes:	Allowance	Item Cost
✓ Mobilization		5%	\$ 163,400.00
✓ Removals/Prepare Right-of-Way	Only for Reconstruction	2%	\$ 65,400.00
✓ Traffic Control	Maintain Existing Traffic	2%	\$ 65,400.00
✓ Pavement Markings/Signs		2%	\$ 65,400.00
✓ Roadway Drainage	Standard Internal System	30%	\$ 979,900.00
Concrete Driveways	Driveways (Every 100')	\$ -	\$ -
✓ Irrigation	Basic	3%	\$ 98,000.00
✓ Illumination	Street Light Foundations and Conduit	7%	\$ 228,700.00
✓ Water	Minor Adjustments	10%	\$ 326,700.00
✓ Sewer	Minor Adjustments	10%	\$ 326,700.00
✓ SWPPP		2%	\$ 65,400.00
Other:			\$ -
Allowance Subtotal:			\$ 2,385,000
Paving and Allowance SUBTOTAL:			\$ 5,658,000
Subtotal Price per Lane Mile			\$ 2,829,000

Denton Mobility Plan - Roadway Costing

Item Description	Notes	Allowance	Item Cost
Construction			\$ 5,658,000
Construction Contingency/Right-of-Way		15%	\$ 849,000
Railroad Crossings	Priced Per Roadway Segment		
Intersections	Priced Per Roadway Segment		
Streams/Channel Crossings	Priced Per Roadway Segment		
Engineering/Survey/SUE		16%	\$ 906,000
Inspections/Material Testing		3.5%	\$ 199,000
Roadway Cost TOTAL:			\$ 7,612,000
Price per Linear Foot (PA):			\$ 1,500
Price per Lane Mile			\$ 3,806,000

NOTE: The planning level cost projections provided have been developed for the Denton Mobility Plan, and should not be used for any future Capital Improvement Planning within the City of Denton. No Engineering evaluation was used in the development of the costs. Generic costs and percentages were developed for paving unit prices, allowances, intersections, drainage crossings, and railroad crossings. Percentages have also been provided for contingencies/ROW, Engineering/Survey/SUE, Inspections/Material Testing, and Staff Time. The costs and percentages are based on the information known to the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Appendix B – Roadway Impact Fee CIP Service Units of Supply

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area A

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR VEH-MI ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
A-1	CORBIN	IH-35W	CORBIN	3,055	0.58	4	SECONDARY ARTERIAL	SA	Widening	9	100%	750	1740	5	1735	\$ 10,164,000	\$ 10,164,000.00
A-2	CORBIN	500' S OF SPRINGSIDE	CORBIN	1,410	0.27	4	SECONDARY ARTERIAL	SA	New	New	100%	750	810	0	810	\$ 3,378,000	\$ 3,378,000.00
A-3	FM 1515	IH 35W	CORBIN	5,990	1.13	6	PRIMARY ARTERIAL	PA	Widening	761	100%	850	5763	860	4,903	\$ 23,533,000	\$ 23,533,000
A-4	FM 1515	CORBIN	WESTERN	1,175	0.22	6	PRIMARY ARTERIAL	PA	Widening	460	100%	850	1122	101	1,021	\$ 3,959,000	\$ 3,959,000
A-5	FM 1515	WESTERN	WESTCOURT	1,555	0.29	6	PRIMARY ARTERIAL	PA	Widening	1,120	100%	850	1479	325	1,154	\$ 7,495,000	\$ 7,495,000
A-6	FM 1515	WESTCOURT	MASCH BRANCH	620	0.12	6	PRIMARY ARTERIAL	PA	Widening	552	100%	850	612	66	546	\$ 2,089,000	\$ 2,089,000
A-7	FM 1515	TOM COLE	3435' W OF TOM COLE	3,435	0.65	6	PRIMARY ARTERIAL	PA	Widening	663	100%	850	3315	431	2,884	\$ 13,827,000	\$ 13,827,000
A-8	FM 1515	3435' W OF TOM COLE	530' E OF C WOLFE	3,750	0.71	6	PRIMARY ARTERIAL	PA	Widening	619	100%	850	3621	439	3,182	\$ 13,132,000	\$ 13,132,000
A-9	H LIVELY	C WOLFE	2145' W OF H LIVELY	2,145	0.41	6	PRIMARY ARTERIAL	PA	Widening	48	50%	850	1046	10	1,036	\$ 7,226,000	\$ 3,613,000
A-10	H LIVELY	2145' W OF H LIVELY	2150' W OF ED ROBSON	3,915	0.74	2	PRIMARY ARTERIAL	PA	Widening	234	100%	850	1258	173	1,085	\$ 13,188,000	\$ 13,188,000
A-11	IH-35-CORBIN	IH-35	CORBIN	4,420	0.84	2	COLLECTOR	C	New	New	100%	550	924	0	924	\$ 7,040,000	\$ 7,040,000
A-12	JIM CHRISTAL	IH 35	OLD SH 24	3,110	0.59	4	SECONDARY ARTERIAL	SA	Widening	1,290	100%	750	1770	761	1,009	\$ 10,332,000	\$ 10,332,000
A-13,C-10	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,056	50%	750	825	290	535	\$ 9,746,000	\$ 4,873,000
A-14,C-11	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	4	SECONDARY ARTERIAL	SA	Widening	910	50%	750	990	300	690	\$ 11,964,000	\$ 5,982,000
A-15,C-12	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1695	135	1,560	\$ 18,502,000	\$ 9,251,000
A-16,C-13	JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	0.75	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1125	90	1,035	\$ 12,707,000	\$ 6,353,500
A-17	PRECISION-WESTERN	PRECISION	WESTERN	3,420	0.65	2	COLLECTOR	C	New	New	100%	550	715	0	715	\$ 6,566,000	\$ 6,566,000
A-18	ROBSON RANCH	IH 35W	ED ROBSON	8,720	1.65	6	PRIMARY ARTERIAL	PA	Widening	808	50%	850	4208	667	3,541	\$ 30,974,000	\$ 15,487,000
A-19	ROBSON RANCH	ED ROBSON	YARBROUGH	7,150	1.35	6	PRIMARY ARTERIAL	PA	Widening	627	50%	850	3443	423	3,020	\$ 25,335,000	\$ 12,667,500
A-20	SPRINGSIDE	CORBIN	UNDERWOOD	1,835	0.35	4	SECONDARY ARTERIAL	SA	Widening	620	100%	750	1050	217	833	\$ 6,141,000	\$ 6,141,000
A-21	SPRINGSIDE	UNDERWOOD	WESTCOURT	865	0.16	4	SECONDARY ARTERIAL	SA	Widening	31	100%	750	480	5	475	\$ 2,971,000	\$ 2,971,000
A-22	TJ EGAN-LOOP 288	LOOP 288	2440' W OF LOOP 288	2,440	0.46	2	COLLECTOR	C	New	New	100%	550	506	0	506	\$ 3,722,000	\$ 3,722,000
A-23	C WOLFE	1140' S OF TOM COLE	FM 2449	7,270	1.38	6	PRIMARY ARTERIAL	PA	Widening	225	100%	850	7038	310	6,728	\$ 26,240,000	\$ 26,240,000
A-24	C WOLFE	FM 2449	H LIVELY	3,315	0.63	6	PRIMARY ARTERIAL	PA	Widening	964	50%	850	1607	304	1,303	\$ 12,018,000	\$ 6,009,000
A-25	CORBIN	IH-35-CORBIN	SPRINGSIDE	2,050	0.39	2	COLLECTOR	C	Widening	620	100%	550	429	242	187	\$ 3,667,000	\$ 3,667,000
A-26	J CHRISTAL-H LIVELY	FM 2449	H LIVELY	3,305	0.63	2	COLLECTOR	C	New	New	100%	550	693	0	693	\$ 5,353,000	\$ 5,353,000
A-27	PRECISION	JIM CHRISTAL	1635' N OF FM 1515	2,385	0.45	2	COLLECTOR	C	New	New	100%	550	495	0	495	\$ 3,694,000	\$ 3,694,000
A-28	THOMAS J EGAN	JIM CHRISTAL	2915' S OF JIM CRISTAL	2,915	0.55	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1650	0	1,650	\$ 6,984,000	\$ 6,984,000
A-29	THOMAS J EGAN	1830' N OF FM 1515	FM 1515	1,830	0.35	4	SECONDARY ARTERIAL	SA	New	New	50%	750	525	0	525	\$ 4,635,000	\$ 2,317,500
A-30	UNDERWOOD	SPRINGSIDE	UNDERWOOD CONNECTOR	4,000	0.76	6	PRIMARY ARTERIAL	PA	Widening	692	100%	850	3876	526	3,350	\$ 15,229,000	\$ 15,229,000
A-31	WESTCOURT	FM 1515	SPRINGSIDE	4,165	0.79	4	SECONDARY ARTERIAL	SA (1/2)	Widening	552	100%	750	2370	436	1,934	\$ 5,343,000	\$ 5,343,000
A-32	WESTERN	JIM CHRISTAL	AIRPORT	6,485	1.23	6	PRIMARY ARTERIAL	PA (1/3)	Widening	253	100%	850	6273	311	5,962	\$ 6,619,000	\$ 6,619,000
A-33	WESTERN	FM 1515	SPRINGSIDE	4,175	0.79	6	PRIMARY ARTERIAL	PA	New	New	100%	850	4029	0	4,029	\$ 14,102,000	\$ 14,102,000
SUBTOTAL													67,482	7,427	60,055	\$ 347,875,000	\$ 281,321,500

2022 Roadway Impact Impact Fee Cost per Service Area \$ 37,660
TOTAL COST IN SERVICE AREA A \$ 281,359,160

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area B

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
B-1	ALLRED	BONNIE BRAE	BRUSH CREEK	4,285	0.81	2	COLLECTOR	C	Widening	13	50%	550	446	5	441	\$ 6,097,000	\$ 3,048,500
B-2	ALLRED	BRUSH CREEK	JOHN PAINE	1,610	0.30	6	PRIMARY ARTERIAL	PA	Widening	1,171	50%	850	765	176	589	\$ 5,424,000	\$ 2,712,000.00
B-3	BRUSH CREEK	815' E OF COUNTRY CLUB	COUNTRY CLUB	815	0.15	6	PRIMARY ARTERIAL	PA	Widening	2,261	100%	850	765	339	426	\$ 2,747,000	\$ 2,747,000
B-4	BRUSH CREEK	COUNTRY CLUB	1935' W OF COUNTRY CLUB	1,935	0.37	6	PRIMARY ARTERIAL	PA	Widening	299	100%	850	1887	111	1,776	\$ 6,769,000	\$ 6,769,000
B-5	BRUSH CREEK	2180' E OF FORT WORTH	FORT WORTH	2,180	0.41	6	PRIMARY ARTERIAL	PA	Widening	299	100%	850	2091	123	1,968	\$ 7,344,000	\$ 7,344,000
B-6	BRUSH CREEK	FORT WORTH	590' E OF ALLRED	3,615	0.68	6	PRIMARY ARTERIAL	PA	New	New	100%	850	3468	0	3,468	\$ 10,698,000	\$ 10,698,000
B-7	CORBIN	BONNIE BRAE	IH-35W	3,505	0.66	4	SECONDARY ARTERIAL	SA	Widening	9	100%	750	1980	6	1,974	\$ 10,760,000	\$ 10,760,000
B-8	CREEKDALE	PIMLICO	RIVERCHASE	3,230	0.61	2	COLLECTOR	C	New	New	100%	550	671	0	671	\$ 5,346,000	\$ 5,346,000
B-9	CREEKDALE	THISTLE WAY	OAKBLUFF	2,080	0.39	2	COLLECTOR	C	New	New	100%	550	429	0	429	\$ 3,461,000	\$ 3,461,000
B-10	EL PASEO	BELMONT	COUNTRY CLUB	1,910	0.36	2	COLLECTOR	C	New	New	100%	550	396	0	396	\$ 3,369,000	\$ 3,369,000
B-11	FM 1515	BONNIE BRAE	IH 35W	770	0.15	6	PRIMARY ARTERIAL	PA	Widening	1,974	100%	850	765	296	469	\$ 2,595,000	\$ 2,595,000
B-12	HICKORY CREEK	FM 2499	NAUTICA	1,175	0.22	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,942	100%	850	1122	647	475	\$ 1,605,000	\$ 1,605,000
B-13	HICKORY CREEK	NAUTICA	TEASLEY	1,310	0.25	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,942	100%	850	1275	735	540	\$ 1,789,000	\$ 1,789,000
B-14	HICKORY CREEK	TEASLEY	MONTECITO	4,475	0.85	6	PRIMARY ARTERIAL	PA (1/3)	Widening	436	100%	850	4335	371	3,964	\$ 8,638,000	\$ 8,638,000
B-15	HICKORY CREEK	MONTECITO	1435' W OF BIDDY BYE	2,230	0.42	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,261	50%	850	1071	475	596	\$ 4,006,000	\$ 2,003,000
B-16	HICKORY CREEK	1435' W OF BIDDY BYE	815' E OF COUNTRY CLUB	1,980	0.38	6	PRIMARY ARTERIAL	PA	New	New	100%	850	1938	0	1,938	\$ 7,612,000	\$ 7,612,000
B-17	HOBSON LANE	TEASLEY	MONTECITO	670	0.13	4	SECONDARY ARTERIAL	SA	Widening	555	100%	750	390	72	318	\$ 1,914,000	\$ 1,914,000
B-18	HOBSON LANE	MONTECITO	FORRESTRIDGE	1,495	0.28	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	840	155	685	\$ 5,710,000	\$ 5,710,000
B-19	HOBSON LANE	FORRESTRIDGE	COUNTRY CLUB	3,785	0.72	4	SECONDARY ARTERIAL	SA	Widening	249	100%	750	2160	179	1,981	\$ 11,559,000	\$ 11,559,000
B-20	PARVIN	MCCORMICK	HIGHLAND PARK	2,665	0.50	2	COLLECTOR	C	New	New	100%	550	550	0	550	\$ 2,150,000	\$ 2,150,000
B-21	ROBINSON	230' E OF WHEELER RIDGE	TEASLEY	2,735	0.52	4	SECONDARY ARTERIAL	SA	Widening	1,188	100%	750	1560	618	942	\$ 8,061,000	\$ 8,061,000
B-22	RYAN	TEASLEY	MONTECITO	4,020	0.76	4	SECONDARY ARTERIAL	SA	Widening	755	100%	750	2280	574	1,706	\$ 11,980,000	\$ 11,980,000
B-23	RYAN	MONTECITO	FORRESTRIDGE	3,305	0.63	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	1890	348	1,542	\$ 10,878,000	\$ 10,878,000
B-24	RYAN	FORRESTRIDGE	COUNTRY CLUB	3,475	0.66	4	SECONDARY ARTERIAL	SA	Widening	45	100%	750	1980	30	1,950	\$ 10,824,000	\$ 10,824,000
B-25	VINTAGE	FORT WORTH	BONNIE BRAE	4,605	0.87	6	PRIMARY ARTERIAL	PA (1/3)	Widening	423	100%	850	4437	368	4,069	\$ 11,721,000	\$ 11,721,000
B-26	VINTAGE	BONNIE BRAE	NAPA VALLEY	765	0.14	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	714	262	452	\$ 1,665,000	\$ 1,665,000
B-27	VINTAGE	NAPA VALLEY	IH 35W	3,435	0.65	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	3315	1218	2,097	\$ 7,975,000	\$ 7,975,000
B-28	WILLOWWOOD	1250' W OF HIGHLAND PARK	BONNIE BRAE	1,285	0.24	2	COLLECTOR	C	Widening	1,039	100%	550	264	249	15	\$ 2,079,000	\$ 2,079,000
B-29	BONNIE BRAE	IH 35E	FM 1515	725	0.14	4	SECONDARY ARTERIAL	SA	Widening	2,992	100%	750	420	419	1	\$ 1,285,000	\$ 1,285,000
B-30	BONNIE BRAE	FM 1515	WILLOWWOOD	5,740	1.09	4	SECONDARY ARTERIAL	SA	Widening	2,003	100%	750	3270	2183	1,087	\$ 11,351,000	\$ 11,351,000
B-31	BONNIE BRAE	HIGHLAND PARK	ROSELAWN	2,550	0.48	4	SECONDARY ARTERIAL	SA	New	New	50%	750	720	0	720	\$ 4,521,000	\$ 2,260,500
B-32	COUNTRY CLUB	FORT WORTH	HOBSON	430	0.08	4	SECONDARY ARTERIAL	SA	Widening	1,436	100%	750	240	115	125	\$ 1,229,000	\$ 1,229,000
B-33	COUNTRY CLUB	HOBSON	RYAN	5,285	1.00	4	SECONDARY ARTERIAL	SA	Widening	1,284	100%	750	3000	1284	1,716	\$ 15,093,000	\$ 15,093,000
B-34	COUNTRY CLUB	RYAN	HICKORY CREEK	3,485	0.66	4	SECONDARY ARTERIAL	SA	Widening	552	50%	750	990	182	808	\$ 11,902,000	\$ 5,951,000
B-35	FORT WORTH	COUNTRY CLUB	VINTAGE	6,965	1.32	6	PRIMARY ARTERIAL	PA	Widening	2,741	100%	850	6732	3618	3,114	\$ 26,417,000	\$ 26,417,000
B-36	FORT WORTH	VINTAGE	BONNIE BRAE	5,655	1.07	6	PRIMARY ARTERIAL	PA	Widening	2,398	100%	850	5457	2566	2,891	\$ 19,299,000	\$ 19,299,000
B-37	FORT WORTH	BONNIE BRAE	BRUSH CREEK	1,250	0.24	6	PRIMARY ARTERIAL	PA	Widening	4,723	100%	850	1224	1134	90	\$ 4,811,000	\$ 4,811,000
B-38	FORT WORTH	BRUSH CREEK	CRAWFORD	5,845	1.11	6	PRIMARY ARTERIAL	PA	Widening	3,590	100%	850	5661	3985	1,676	\$ 20,190,000	\$ 20,190,000
B-39	JOHN PAINE	JOHNSON	ATHENS	2,210	0.42	4	SECONDARY ARTERIAL	Completed	Widening	1,280	100%	750	1260	538	722	\$ 238,000	\$ 238,000
B-40	JOHN PAINE	VINTAGE	1045' S OF VINTAGE	1,045	0.20	4	SECONDARY ARTERIAL	SA	New	New	100%	750	600	0	600	\$ 3,254,000	\$ 3,254,000
B-41	PARVIN-ROSELAWN	PARVIN	ROSELAWN	2,725	0.52	2	COLLECTOR	C	New	New	100%	550	572	0	572	\$ 3,878,000	\$ 3,878,000
B-42	TEASLEY	IH 35E	LONDONDERRY	1,315	0.25	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,407	100%	850	1275	852	423	\$ 1,039,000	\$ 1,039,000
B-43	TEASLEY	LONDONDERRY	HOBSON	5,140	0.97	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,135	100%	850	4947	3041	1,906	\$ 4,558,000	\$ 4,558,000
B-44	TEASLEY	LILLIAN B MILLER	PENNSYLVANIA	1,890	0.36	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,217	100%	850	1836	1158	678	\$ 1,493,000	\$ 1,493,000
B-45	TEASLEY	PENNSYLVANIA	HOBSON	1,085	0	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,133	100%	850	1071	658	413	\$ 857,000	\$ 857,000
SUBTOTAL													83,059	29,090	53,969	\$ 306,191,000	\$ 290,216,000

2022 Roadway Impact Fee Cost per Service Area \$ 37,660
TOTAL COST IN SERVICE AREA B \$ 290,253,660

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% in Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area C

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
C-1	BARTHOLD	MASCH BRANCH	5200' W OF ITH 35	5,195	0.98	6	PRIMARY ARTERIAL	PA	Widening	250	50%	850	2499	123	2,376	\$ 17,750,000	\$ 8,875,000
C-2	BOBCAT	FM 2164	IH 35	14,535	2.75	4	SECONDARY ARTERIAL	SA	New	8250	100%	750	8250	0	8250	\$ 37,762,000	\$ 37,762,000
C-3	FM 1173	IH 35	4605' W OF ITH 35	4,605	0.87	4	SECONDARY ARTERIAL	SA	Widening	648	100%	750	2610	564	2046	\$ 13,401,000	\$ 13,401,000
C-4	FM 1173	4605' W OF ITH 35	LOVERS	2,190	0.41	4	SECONDARY ARTERIAL	SA	Widening	648	50%	750	615	133	482	\$ 7,704,000	\$ 3,852,000
C-5	FM 2164-IH 35	FM 2164	IH 35	14,425	2.73	4	SECONDARY ARTERIAL	SA	New	8250	100%	750	8190	0	8,190	\$ 37,057,000	\$ 37,057,000
C-6	GANZER	FM 2164	GANZER	12,680	2.40	6	PRIMARY ARTERIAL	PA	New	12240	100%	850	12240	0	12,240	\$ 39,748,000	\$ 39,748,000
C-7	GANZER	2900' E OF ITH 35	IH 35	2,900	0.55	6	PRIMARY ARTERIAL	PA	Widening	229	100%	850	2805	126	2,679	\$ 11,525,000	\$ 11,525,000
C-8	GANZER	1620' E OF BARTHOLD	BARTHOLD	1,620	0.31	6	PRIMARY ARTERIAL	PA	Widening	175	50%	850	791	27	764	\$ 5,708,000	\$ 2,854,000
C-9	GANZER	BARTHOLD	RECTOR	2,585	0.49	6	PRIMARY ARTERIAL	PA	Widening	74	50%	850	1250	18	1,232	\$ 9,208,000	\$ 4,604,000
A-13,C-10	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,056	50%	750	825	290	535	\$ 9,746,000	\$ 4,873,000
A-14,C-11	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	4	SECONDARY ARTERIAL	SA	Widening	910	50%	750	990	300	690	\$ 11,964,000	\$ 5,982,000
A-15,C-12	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1695	135	1,560	\$ 18,502,000	\$ 9,251,000
A-16,C-13	JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	0.75	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1125	90	1,035	\$ 12,707,000	\$ 6,353,500
C-14	JIM CHRISTAL	945' W OF C WOLFE	NAIL	3,115	0.59	4	SECONDARY ARTERIAL	SA	Widening	142	50%	750	885	42	843	\$ 9,547,000	\$ 4,773,500
C-15	JIM CHRISTAL	NAIL	2045' W of Nail	2,045	0.39	4	SECONDARY ARTERIAL	SA	Widening	119	50%	750	585	23	562	\$ 5,841,000	\$ 2,920,500
C-16	MARSHALL	2845' N OF HAMPTON	HAMPTON	2,845	0.54	2	COLLECTOR	C	New	552	100%	550	594	0	594	\$ 5,249,000	\$ 5,249,000
C-17	MARSHALL	HAMPTON	US 380	3,090	0.59	2	COLLECTOR	C	Widening	552	100%	550	649	326	323	\$ 4,397,000	\$ 4,397,000
C-18	MASCH BRANCH	MASCH BRANCH	DARBY SMITH	3,450	0.65	4	SECONDARY ARTERIAL	SA	Widening	405	100%	750	1950	263	1,687	\$ 10,602,000	\$ 10,602,000
C-19	WESTWARD	NORTHWAY	BONNIE BRAE	1,175	0.22	2	COLLECTOR	C	New	242	100%	550	242	0	242	\$ 1,672,000	\$ 1,672,000
C-20	RINEY	US 77	2460' W OF US 77	2,460	0.47	4	SECONDARY ARTERIAL	SA (1/2)	Widening	24	100%	750	1410	11	1,399	\$ 3,156,000	\$ 3,156,000
C-21	RINEY	2460' W OF US 77	BONNIE BRAE	980	0.19	4	SECONDARY ARTERIAL	SA (1/2)	Widening	24	100%	750	570	4	566	\$ 1,258,000	\$ 1,258,000
C-22	US 77	WINDSOR	FM 2164	1,180	0.22	6	PRIMARY ARTERIAL	PA (1/3)	Widening	706	100%	850	1122	155	967	\$ 1,432,000	\$ 1,432,000
C-23	US 77	RINEY	WINDSOR	2,430	0.46	6	PRIMARY ARTERIAL	PA (1/3)	Widening	374	100%	850	2346	172	2,174	\$ 2,819,000	\$ 2,819,000
C-24	US 77	RINEY	RINEY	2,120	0.40	6	PRIMARY ARTERIAL	PA (1/3)	Widening	374	100%	850	2040	149	1,891	\$ 2,075,000	\$ 2,075,000
C-25	US 77	BONNIE BRAE	RINEY	3,960	0.75	6	PRIMARY ARTERIAL	PA (1/3)	Widening	297	100%	850	3825	223	3,602	\$ 3,126,000	\$ 3,126,000
C-26	US 77	LOOP 288	BONNIE BRAE	1,720	0.33	6	PRIMARY ARTERIAL	PA (1/3)	Widening	490	100%	850	1683	162	1,521	\$ 1,859,000	\$ 1,859,000
C-27	US 77	IH 35	LOOP 288	4,610	0.87	6	PRIMARY ARTERIAL	PA (1/3)	Widening	461	100%	850	4437	401	4,036	\$ 4,739,000	\$ 4,739,000
C-28	MASCH BRANCH-NAIL	MASCH BRANCH	1295' W OF MASCH BRANCH	1,295	0.25	2	COLLECTOR	C	New	550	100%	550	275	0	275	\$ 2,094,000	\$ 2,094,000
C-29	MASCH BRANCH-NAIL	1050' E OF LOOP 288	1550' W OF LOOP 288	2,600	0.49	2	COLLECTOR	C	New	550	100%	550	539	0	539	\$ 4,450,000	\$ 4,450,000
C-30	MASCH BRANCH-NAIL	1335' W OF THOMAS J EGAN	775' E OF C WOLFE	2,550	0.48	2	COLLECTOR	C	New	550	100%	550	528	0	528	\$ 4,379,000	\$ 4,379,000
C-31	MASCH BRANCH-NAIL	775' E OF C WOLFE	690' W OF C WOLFE	1,470	0.28	2	COLLECTOR	C	New	550	100%	550	154	0	154	\$ 2,092,000	\$ 1,046,000
C-32	MASCH BRANCH-NAIL	690' W OF C WOLFE	NAIL	3,075	0.58	2	COLLECTOR	C	New	550	100%	550	638	0	638	\$ 4,376,000	\$ 4,376,000
C-33	WESTGATE	1460' E OF ITH 35	IH 35	975	0.18	4	SECONDARY ARTERIAL	SA	New	750	100%	750	540	0	540	\$ 2,336,000	\$ 2,336,000
C-34	WINDSOR	US 77	HINKLE	2,420	0.46	4	SECONDARY ARTERIAL	SA	Widening	383	100%	750	1380	176	1,204	\$ 6,912,000	\$ 6,912,000
C-35	WINDSOR	HINKLE	BONNIE BRAE	5,240	0.99	4	SECONDARY ARTERIAL	SA (1/2)	Widening	478	100%	750	2970	473	2,497	\$ 6,972,000	\$ 6,972,000
C-36	WINDSOR	WESTGATE	145' W OF CLARENDON	505	0.10	4	SECONDARY ARTERIAL	SA (1/2)	Widening	124	100%	750	300	12	288	\$ 649,000	\$ 649,000
C-37	WINDSOR	220' W OF WINDSOR FARMS	IH 35	905	0.17	4	SECONDARY ARTERIAL	SA (1/2)	Widening	124	100%	750	510	21	489	\$ 1,162,000	\$ 1,162,000
C-38	WINDSOR	IH 35	MASCH BRANCH	6,535	1.24	4	SECONDARY ARTERIAL	SA	New	750	100%	750	3720	0	3,720	\$ 17,606,000	\$ 17,606,000
C-39	BARTHOLD	GANZER	2600' S OF GANZER	2,600	0.49	4	SECONDARY ARTERIAL	SA	Widening	103	100%	750	1470	51	1,419	\$ 7,425,000	\$ 7,425,000
C-40	BONNIE BRAE	MILAM	LOOP 288	16,505	3.13	6	PRIMARY ARTERIAL	PA	New	15963	100%	850	15963	0	15,963	\$ 52,065,000	\$ 52,065,000
C-41	BONNIE BRAE	LOOP 288	US 77	1,255	0.24	4	SECONDARY ARTERIAL	SA	New	750	100%	750	720	0	720	\$ 3,008,000	\$ 3,008,000
C-42	BONNIE BRAE	US 77	RINEY	1,985	0.38	4	SECONDARY ARTERIAL	SA	Widening	341	100%	750	1140	130	1,010	\$ 6,587,000	\$ 6,587,000
C-43	BONNIE BRAE	RINEY	WINDSOR	3,510	0.66	4	SECONDARY ARTERIAL	SA	Widening	220	100%	750	1980	145	1,835	\$ 10,320,000	\$ 10,320,000
C-44	BONNIE BRAE	WINDSOR	US 380	3,585	0.68	4	SECONDARY ARTERIAL	SA	Widening	959	100%	750	2040	652	1,388	\$ 11,981,000	\$ 11,981,000
C-45,E-29	BONNIE BRAE	US 380	PANHANDLE	2,910	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	825	482	343	\$ 8,310,000	\$ 4,155,000
C-46,E-30	BONNIE BRAE	PANHANDLE	SCRIPTURE	1,070	0.20	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	300	175	125	\$ 3,056,000	\$ 1,528,000
C-47,E-31	BONNIE BRAE	SCRIPTURE	OAK	1,180	0.22	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	330	193	137	\$ 3,370,000	\$ 1,685,000
C-48,E-32	BONNIE BRAE	OAK	HICKORY	380	0.07	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	105	61	44	\$ 1,087,000	\$ 543,500
C-49,E-33	BONNIE BRAE	HICKORY	PRAIRIE	1,425	0.27	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	405	237	168	\$ 4,070,000	\$ 2,035,000
C-50,E-34	BONNIE BRAE	PRAIRIE	IH 35E	860	0.16	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	240	140	100	\$ 2,457,000	\$ 1,228,500
C-51	C WOLFE	US 380	WESTERN-NAIL	2,705	0.51	2	PRIMARY ARTERIAL	PA	New	850	100%	850	867	0	867	\$ 8,901,000	\$ 8,901,000
C-52	FALLMEADOW	MEADOWLEDGE	GARDENVIEW	915	0.17	2	COLLECTOR	C	New	550	100%	550	187	0	187	\$ 1,303,000	\$ 1,303,000
C-53,D-22	FM 2164	MILAM	LOOP 288	13,855	2.62	6	PRIMARY ARTERIAL	PA	Widening	2,098	50%	850	6681	2749	3,932	\$ 49,925,000	\$ 24,962,500
C-54,D-28	LOCUST	LOOP 288	HERCULES	2,260	0.43	4	SECONDARY ARTERIAL	SA	Widening	1,923	50%	750	645	413	232	\$ 6,954,000	\$ 3,477,000
C-55,D-29	LOCUST	HERCULES	BELL	2,375	0.45	4	SECONDARY ARTERIAL	SA	Widening	1,429	50%	750	675	322	353	\$ 7,433,000	\$ 3,716,500
C-56,D-30	LOCUST	BELL	WINDSOR	1,270	0.24	4	SECONDARY ARTERIAL	SA	Widening	999	50%	750	360	120	240	\$ 3,628,000	\$ 1,814,000
C-57,D-31	LOCUST	WINDSOR	FM 2164	1,345	0.25	4	SECONDARY ARTERIAL	SA	Widening	941	50%	750	375	118	257	\$ 3,841,000	\$ 1,920,500
C-58	LOVERS	FM 1173	MASCH BRANCH	4,120	0.78	4	SECONDARY ARTERIAL	SA	Widening	129	100%	750	2340	101	2,239	\$ 12,266,000	\$ 12,266,000
C-59	LOVERS	1085' N OF MASCH BRANCH	MASCH BRANCH	1,085	0.21	4	SECONDARY ARTERIAL	SA	Widening	160	100%	750	630	34	596	\$ 3,349,000	\$ 3,349,000
C-60	LOVERS LN CONNECTOR	LOVERS	LOOP 288	315	0.06	4	SECONDARY ARTERIAL	SA	New	750	100%	750	180	0	180	\$ 756,000	\$ 756,000
C-61	LOVERS LN CONNECTOR	LOOP 288	1085' N OF MASCH BRANCH	405	0.08	4	SECONDARY ARTERIAL	SA	New	750	100%	750	240	0	240	\$ 972,000	\$ 972,000
C-62	MASCH BRANCH	1295' S OF FM 1173	JACKSON	4,170	0.79	4	SECONDARY ARTERIAL	SA	Widening	444	50%	750	1185	176	1,009	\$ 11,908,000	\$ 5,954,000
C-63	MASCH BRANCH	LOVERS	US 380	3,800	0.72	4	SECONDARY ARTERIAL	SA	Widening	100	100%	750	2160	72	2,088	\$ 11,352,000	\$ 11,352,000
C-64	MASCH BRANCH	US 380	JIM CHRISTAL	4,110	0.78	4	SECONDARY ARTERIAL	SA	Widening	147	100%	750	2340	115	2,225	\$ 12,137,000	\$ 12,137,000
C-65	MILAM-LOOP 288	MILAM	LOOP 288	14,335	2.71	4	SECONDARY ARTERIAL	SA	New	8130	100%	750	8130	0	8,130	\$ 36,182,000	\$ 36,182,000

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area C

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
C-66	MILAM-US 77	MILAM	GANZER	7,975	1.51	4	SECONDARY ARTERIAL	SA	New	New	100%	750	4530	0	4,530	\$ 20,546,000	\$ 20,546,000
C-67	MILAM-US 77	GANZER	LONG	3,875	0.73	4	SECONDARY ARTERIAL	SA	Widening	95	100%	750	2190	69	2,121	\$ 11,567,000	\$ 11,567,000
C-68	MILAM-US 77	LONG	US 77	2,800	0.53	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1590	0	1,590	\$ 7,359,000	\$ 7,359,000
C-69	NICOSIA	LOOP 288	BEALL	645	0.12	2	COLLECTOR	C	New	New	100%	550	132	0	132	\$ 1,169,000	\$ 1,169,000
C-70	THOMAS J EGAN	US 380	JIM CRISTAL	4,010	0.76	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	2280	420	1,860	\$ 12,353,000	\$ 12,353,000
C-71	WESTERN	US 380	JIM CRISTAL	4,245	0.80	6	PRIMARY ARTERIAL	PA	Widening	164	100%	850	4080	132	3,948	\$ 14,699,000	\$ 14,699,000
SUBTOTAL													145,092	11,526	133,566	\$ 695,918,000	\$ 587,514,000

2022 Roadway Impact Fee Cost per Service Area \$ 37,660
TOTAL COST IN SERVICE AREA C \$ 587,551,660

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area D

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR VEH-MI ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
D-1	BOBCAT	560' W OF FM 2164	FM 2164	560	0.11	4	SECONDARY ARTERIAL	SA	Widening	38	50%	750	165	2	163	\$ 1,601,000	\$ 800,500
D-2	FISHTRAP	MINGO	GEESLING	1,890	0.36	2	COLLECTOR	C	New	New	50%	550	198	0	198	\$ 2,939,000	\$ 1,469,500.00
D-3	GANZER	15,500' E OF SHERMAN	4600' W OF SHERMAN	17,985	3.41	6	PRIMARY ARTERIAL	PA	New	New	100%	850	17391	0	17391	\$ 53,936,000	\$ 53,936,000.00
D-4	GRIBBLE SPRINGS	INDIAN WELLS	3015' W OF INDIAN WELLS	3,015	0.57	2	SECONDARY ARTERIAL	SA	Widening	624	50%	750	428	178	250	\$ 8,861,000	\$ 4,430,500
D-5	HARTLEE FIELD	4220' E OF COOPER CREEK	COOPER CREEK	4,220	0.80	4	SECONDARY ARTERIAL	SA	Widening	624	50%	750	1200	250	950	\$ 12,051,000	\$ 6,025,500
D-6	HARTLEE FIELD	COOPER CREEK	5170' W OF COOPER CREEK	5,170	0.98	4	SECONDARY ARTERIAL	SA	Widening	37	50%	750	1470	18	1,452	\$ 14,764,000	\$ 7,382,000
D-7	HARTLEE FIELD	600' E OF SHERMAN	SHERMAN	600	0.11	2	COLLECTOR	C	Widening	4	50%	550	61	0	61	\$ 855,000	\$ 427,500
D-8	HARTLEE FLD-FM 2164	HARTLEE FIELD	SHERMAN	2,250	0.43	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1290	0	1,290	\$ 5,392,000	\$ 5,392,000
D-9	HARTLEE FLD-FM 2164	SHERMAN	3500' W OF SHERMAN	3,500	0.66	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1980	0	1,980	\$ 8,386,000	\$ 8,386,000
D-10	HARTLEE FLD-FM 2164	STUART	1485' W OF STUART	1,485	0.28	4	SECONDARY ARTERIAL	SA	New	New	50%	750	420	0	420	\$ 3,809,000	\$ 1,904,500
D-11	HARTLEE FLD-FM 2164	475' W OF FM 2164	FM 2164	475	0.09	4	SECONDARY ARTERIAL	SA	New	New	100%	750	270	0	270	\$ 1,139,000	\$ 1,139,000
D-12	LONG	510' W OF FM 2164	FM 2164	510	0.10	2	COLLECTOR	C	New	New	100%	550	110	0	110	\$ 726,000	\$ 726,000
D-13	MINGO	E CITY LIMITS	COOPER CREEK	460	0.09	4	SECONDARY ARTERIAL	SA	Widening	260	100%	750	270	23	247	\$ 1,315,000	\$ 1,315,000
D-14	MINGO	COOPER CREEK	LOOP 288	2,305	0.44	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	1320	243	1,077	\$ 6,583,000	\$ 6,583,000
D-15	MINGO	LOOP 288	US 380	2,275	0.43	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	1290	237	1,053	\$ 7,937,000	\$ 7,937,000
D-16	KINGS ROW	SILVER DOME	LOOP 288	2,655	0.50	2	COLLECTOR	C	Widening	552	100%	550	550	276	274	\$ 3,779,000	\$ 3,779,000
D-17	SILVER DOME	COOPER CREEK	FARRIS RD	2,190	0.41	2	COLLECTOR	C	Widening	552	50%	550	226	113	113	\$ 3,117,000	\$ 1,558,500
D-18	COLLINS	HARTLEE FIELD	2730' S OF HARTLEE FIELD	4,440	0.84	4	COLLECTOR	C	Widening	218	50%	550	924	92	832	\$ 6,818,000	\$ 3,409,000
D-19	COOPER CREEK	SHERMAN	HARTLEE FIELD	10,065	1.91	6	SECONDARY ARTERIAL	SA	New	New	100%	750	8595	0	8,595	\$ 25,554,000	\$ 25,554,000
D-20	COOPER CREEK	SILVER DOME	MINGO	4,360	0.83	6	SECONDARY ARTERIAL	SA	Widening	1,822	50%	750	1868	756	1,112	\$ 12,452,000	\$ 6,226,000
D-21	COOPER CREEK	MINGO	US 380	1,680	0.32	6	PRIMARY ARTERIAL	PA	Widening	2,250	100%	850	1632	720	912	\$ 7,361,000	\$ 7,361,000
C-53,D-22	FM 2164	MILAM	LOOP 288	13,855	2.62	6	PRIMARY ARTERIAL	PA	Widening	2,098	50%	850	6681	2749	3,932	\$ 49,925,000	\$ 24,962,500
D-23	GREEN VALLEY	2395' S OF FM 2153	2935' N OF SHEPARD	7,765	1.47	2	SECONDARY ARTERIAL	PA	New	New	100%	750	2205	0	2,205	\$ 24,463,000	\$ 24,463,000
D-24	GREEN VALLEY	WARSCHUN	SHERMAN	2,095	0.40	2	SECONDARY ARTERIAL	SA	Widening	1,856	100%	750	600	742	-142	\$ 6,234,000	\$ 6,234,000
D-25	INDIAN WELLS	1615' S OF FM 2153	4930' N OF GRIBBLE SPRINGS	3,870	0.73	2	SECONDARY ARTERIAL	SA	New	New	100%	750	1095	0	1,095	\$ 10,021,000	\$ 10,021,000
D-26	INDIAN WELLS	4930' N OF GRIBBLE SPRINGS	2905' N OF GRIBBLE SPRINGS	2,025	0.38	2	SECONDARY ARTERIAL	SA	New	New	50%	750	285	0	285	\$ 4,853,000	\$ 2,426,500
D-27	INDIAN WELLS	2905' N OF GRIBBLE SPRINGS	GRIBBLE SPRINGS	2,905	0.55	2	SECONDARY ARTERIAL	SA	Widening	67	50%	750	413	18	395	\$ 8,296,000	\$ 4,148,000
C-54,D-28	LOCUST	LOOP 288	HERCULES	2,260	0.43	4	SECONDARY ARTERIAL	SA	Widening	1,923	50%	750	645	413	232	\$ 6,954,000	\$ 3,477,000
C-55,D-29	LOCUST	HERCULES	BELL	2,375	0.45	4	SECONDARY ARTERIAL	SA	Widening	1,429	50%	750	675	322	353	\$ 7,433,000	\$ 3,716,500
C-56,D-30	LOCUST	BELL	WINDSOR	1,270	0.24	4	SECONDARY ARTERIAL	SA	Widening	999	50%	750	360	120	240	\$ 3,628,000	\$ 1,814,000
C-57,D-31	LOCUST	WINDSOR	FM 2164	1,345	0.25	4	SECONDARY ARTERIAL	SA	Widening	941	50%	750	375	118	257	\$ 3,841,000	\$ 1,920,500
D-32	SHERMAN	LOOP 288	HERCULES	1,650	0.31	4	SECONDARY ARTERIAL	SA	Widening	2,214	100%	750	930	686	244	\$ 4,713,000	\$ 4,713,000
D-33	SHERMAN	HERCULES	KINGS	1,910	0.36	4	SECONDARY ARTERIAL	SA	Widening	1,923	100%	750	1080	692	388	\$ 5,455,000	\$ 5,455,000
D-34	SHERMAN	KINGS	WINDSOR	2,025	0.38	4	SECONDARY ARTERIAL	SA	Widening	1,781	100%	750	1140	677	463	\$ 7,223,000	\$ 7,223,000
D-35	SHERMAN	WINDSOR	WILSONWOOD	1,000	0.19	4	SECONDARY ARTERIAL	SA	Widening	1,651	100%	750	570	314	256	\$ 2,856,000	\$ 2,856,000
D-36	SHERMAN	WILSONWOOD	CORONADO	1,165	0.22	4	SECONDARY ARTERIAL	SA	Widening	1,646	100%	750	660	362	298	\$ 3,328,000	\$ 3,328,000
D-37	SHERMAN	CORONADO	GREENWOOD	1,640	0.31	4	SECONDARY ARTERIAL	SA	Widening	1,659	100%	750	930	514	416	\$ 4,685,000	\$ 4,685,000
D-38	SHERMAN	GREENWOOD	BELL	825	0.16	4	SECONDARY ARTERIAL	SA	Widening	2,075	100%	750	480	332	148	\$ 2,357,000	\$ 2,357,000
D-39	SHERMAN	BELL	LOCUST	1,715	0.32	4	SECONDARY ARTERIAL	SA	Widening	1,934	100%	750	960	619	341	\$ 4,899,000	\$ 4,899,000
D-40	WINDSOR	LOOP 288	DOMINION	860	0.16	2	COLLECTOR	C	New	New	100%	550	176	0	176	\$ 1,225,000	\$ 1,225,000
SUBTOTAL													61,918	11,586	50,332	\$ 351,764,000	\$ 275,665,500

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Denton - 2022 Roadway Impact Fee Study

CIP Service Units of Supply

Service Area E

12/7/2023

Project ID #	ROADWAY	LIMITS		LENGTH (FT)	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY VEH-MI ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
		FROM	TO														
E-1	AUDRA	LOOP 288	1185' W OF LOOP 288	1,185	0.22	2	COLLECTOR	C	New	New	100%	550	242	0	242	\$ 1,687,000	\$ 1,687,000
E-2	BLAGG	LAKEVIEW	GEESLING	3,740	0.71	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	2130	392	1738	\$ 11,181,000	\$ 11,181,000
E-3	BLAGG	GEESLING	2175' W OF GEESLING	2,175	0.41	4	SECONDARY ARTERIAL	SA	Widening	2	100%	750	1230	1	1229	\$ 7,651,000	\$ 7,651,000
E-4	BLAGG	235' E OF MAYHILL	MAYHILL	235	0.04	4	SECONDARY ARTERIAL	SA	New	New	50%	750	60	0	60	\$ 563,000	\$ 281,500
E-5	DALLAS	TEASLEY	IH 35E	4,590	0.87	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,394	100%	850	4437	2083	2,354	\$ 3,624,000	\$ 3,624,000
E-6	DUCHESS	TRAILHEAD	WOODROW	4,005	0.76	2	COLLECTOR	C	New	New	100%	550	836	0	836	\$ 5,949,000	\$ 5,949,000
E-7	FM 426	LANEY	GRISSOM	2,995	0.57	4	SECONDARY ARTERIAL	SA	Widening	458	100%	750	1710	261	1,449	\$ 9,953,000	\$ 9,953,000
E-8	MCKINNEY	GRISSOM	LOOP 288	8,735	1.65	4	SECONDARY ARTERIAL	Completed	Widening	458	100%	750	4950	755	4,195	\$ 1,551,000	\$ 1,551,000
E-9	MCKINNEY	LOOP 288	CARDINAL	670	0.13	4	SECONDARY ARTERIAL	SA	Widening	1,731	100%	750	390	225	165	\$ 1,914,000	\$ 1,914,000
E-10	MCKINNEY	CARDINAL	MOCKINGBIRD	1,145	0.22	4	SECONDARY ARTERIAL	SA	Widening	1,730	100%	750	660	381	279	\$ 3,270,000	\$ 3,270,000
E-11	MCKINNEY	MOCKINGBIRD	MACK	3,245	0.61	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	1830	337	1,493	\$ 9,268,000	\$ 9,268,000
E-12	MCKINNEY	MACK	AUDRA	1,540	0.29	4	SECONDARY ARTERIAL	SA	Widening	1,367	100%	750	870	396	474	\$ 4,399,000	\$ 4,399,000
E-13	MILLS	TRINITY	MAYHILL	7,415	1.40	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	4200	773	3,427	\$ 23,115,000	\$ 23,115,000
E-14	MILLS	LAKEVIEW	MAYHILL	2,185	0.41	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1230	0	1,230	\$ 5,235,000	\$ 5,235,000
E-15	MINGO	US 380	OLD NORTH	760	0.14	4	SECONDARY ARTERIAL	SA	Widening	552	100%	750	420	77	343	\$ 2,172,000	\$ 2,172,000
E-16	MINGO	OLD NORTH	NOTTINGHAM	2,545	0.48	4	SECONDARY ARTERIAL	SA	Widening	527	100%	750	1440	253	1,187	\$ 7,268,000	\$ 7,268,000
E-17	MINGO	NOTTINGHAM	PERTAIN	2,935	0.56	4	SECONDARY ARTERIAL	SA	Widening	92	100%	750	1680	51	1,629	\$ 8,381,000	\$ 8,381,000
E-18	MINGO	PERTAIN	RUDDELL	945	0.18	4	SECONDARY ARTERIAL	SA	Widening	201	100%	750	540	36	504	\$ 2,700,000	\$ 2,700,000
E-19	MINGO	RUDDELL	WILLIS	600	0.11	4	SECONDARY ARTERIAL	SA	Widening	327	100%	750	330	36	294	\$ 1,714,000	\$ 1,714,000
E-20	MINGO	WILLIS	WITHERS	2,305	0.44	4	SECONDARY ARTERIAL	SA	Widening	521	100%	750	1320	229	1,091	\$ 6,583,000	\$ 6,583,000
E-21	MINGO	WITHERS	PAISLEY	235	0.04	4	SECONDARY ARTERIAL	SA	Widening	534	100%	750	120	21	99	\$ 671,000	\$ 671,000
E-22	MINGO	PAISLEY	BELL	985	0.19	4	SECONDARY ARTERIAL	SA	Widening	599	100%	750	570	114	456	\$ 2,813,000	\$ 2,813,000
E-23	MORSE	MAYHILL	KIMBERLY	1,145	0.22	4	SECONDARY ARTERIAL	SA (1/2)	Widening	1,442	100%	750	660	317	343	\$ 1,969,000	\$ 1,969,000
E-24	SHADY OAKS	WOODROW	TEASLEY	3,070	0.58	4	SECONDARY ARTERIAL	SA	Widening	159	100%	750	1740	92	1,648	\$ 9,967,000	\$ 9,967,000
E-25	SPENCER	MAYHILL	LOOP 288	2,315	0.44	4	SECONDARY ARTERIAL	SA	Widening	1,240	100%	750	1320	546	774	\$ 6,862,000	\$ 6,862,000
E-26	TREATMENT PLANT	MCKINNEY	POST OAK	3,325	0.63	2	COLLECTOR	C	New	New	100%	550	693	0	693	\$ 4,731,000	\$ 4,731,000
E-27	TREATMENT PLANT	POST OAK	1325' W OF POST OAK	1,325	0.25	6	SECONDARY ARTERIAL	SA	New	New	100%	750	1125	0	1,125	\$ 5,015,000	\$ 5,015,000
E-28	TREATMENT PLANT	1325' W OF POST OAK	MAYHILL	3,960	0.75	6	SECONDARY ARTERIAL	SA	Widening	552	100%	750	3375	414	2,961	\$ 11,310,000	\$ 11,310,000
C-45,E-29	BONNIE BRAE	US 380	PANHANDLE	2,910	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	825	482	343	\$ 8,310,000	\$ 4,155,000
C-46,E-30	BONNIE BRAE	PANHANDLE	SCRIPTURE	1,070	0.20	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	300	175	125	\$ 3,056,000	\$ 1,528,000
C-47,E-31	BONNIE BRAE	SCRIPTURE	OAK	1,180	0.22	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	330	193	137	\$ 3,370,000	\$ 1,685,000
C-48,E-32	BONNIE BRAE	OAK	HICKORY	380	0.07	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	105	61	44	\$ 1,087,000	\$ 543,500
C-49,E-33	BONNIE BRAE	HICKORY	PRAIRIE	1,425	0.27	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	405	237	168	\$ 4,070,000	\$ 2,035,000
C-50,E-34	BONNIE BRAE	PRAIRIE	IH 35E	860	0.16	4	SECONDARY ARTERIAL	SA	Widening	1,754	50%	750	240	140	100	\$ 2,457,000	\$ 1,228,500
E-35	CARDINAL	MCKINNEY	ORIOLE	2,225	0.42	2	COLLECTOR	C	New	New	100%	550	462	0	462	\$ 3,167,000	\$ 3,167,000
E-36	GEESLING	US 380	BLAGG	2,445	0.46	6	PRIMARY ARTERIAL	PA	Widening	1,948	100%	850	2346	896	1,450	\$ 8,237,000	\$ 8,237,000
E-37	GEESLING	US 380	BLAGG	5,395	1.02	6	PRIMARY ARTERIAL	PA	New	New	100%	850	5202	0	5,202	\$ 18,210,000	\$ 18,210,000
E-38	LAKEVIEW	POST OAK	SHADY SHORES	1,385	0.26	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,520	100%	850	1326	395	931	\$ 2,294,000	\$ 2,294,000
E-39	MAYHILL	US 380	PROMINENCE	2,335	0.44	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,874	100%	850	2244	1265	979	\$ 2,467,000	\$ 2,467,000
E-40	MAYHILL	PROMINENCE	770' N OF RUSSELL NEWMAN	2,040	0.39	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,874	100%	850	1989	1121	868	\$ 2,155,000	\$ 2,155,000
E-41	MAYHILL	770' N OF RUSSELL NEWMAN	RUSSELL NEWMAN	775	0.15	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,874	50%	850	383	216	167	\$ 819,000	\$ 409,500
E-42	MAYHILL	RUSSELL NEWMAN	460' S OF RUSSELL NEWMAN	460	0.09	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,066	50%	850	230	138	92	\$ 487,000	\$ 243,500
E-43	MAYHILL	460' S OF RUSSELL NEWMAN	MILLS	1,080	0.20	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,066	100%	850	1020	613	407	\$ 1,142,000	\$ 1,142,000
E-44	MAYHILL	MILLS	MCKINNEY	1,955	0.37	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,215	100%	850	1887	1190	697	\$ 2,066,000	\$ 2,066,000
E-45	MAYHILL	MCKINNEY	MORSE	2,045	0.39	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,731	100%	850	1989	1455	534	\$ 2,161,000	\$ 2,161,000
E-46	MAYHILL	MORSE	SPENCER	3,520	0.67	6	PRIMARY ARTERIAL	PA (1/3)	Widening	3,002	100%	850	3417	2012	1,405	\$ 3,717,000	\$ 3,717,000
E-47	MAYHILL	SPENCER	EDWARDS	3,185	0.60	6	PRIMARY ARTERIAL	PA (1/3)	Widening	4,075	100%	850	3060	2445	615	\$ 3,864,000	\$ 3,864,000
E-48	MAYHILL	2725' N OF COLORADO	COLORADO	2,725	0.52	6	PRIMARY ARTERIAL	PA (1/3)	New	New	100%	850	2852	0	2,852	\$ 4,477,000	\$ 4,477,000
E-49	MAYHILL	COLORADO	IH 35E	2,330	0.44	6	PRIMARY ARTERIAL	PA (1/3)	Widening	5,548	100%	850	2244	2441	-197	\$ 1,840,000	\$ 1,840,000
E-50	MAYHILL CONNECTOR	MAYHILL	QUAILCREEK	700	0.13	2	COLLECTOR	PA	New	New	100%	550	143	0	143	\$ 2,071,000	\$ 2,071,000
E-51	MOCKINGBIRD	MCKINNEY	625' N OF DUCHESS	855	0.16	4	COLLECTOR	C	New	New	100%	550	352	0	352	\$ 1,217,000	\$ 1,217,000
E-52	MOCKINGBIRD	DUCHESS	SHADY OAKS	2,170	0.41	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1230	0	1,230	\$ 7,039,000	\$ 7,039,000
E-53	MOCKINGBIRD	SHADY OAKS	SPENCER	2,805	0.53	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1590	0	1,590	\$ 6,721,000	\$ 6,721,000
E-54	POST OAK	MILLS	SPENCER	6,840	1.30	6	PRIMARY ARTERIAL	PA	New	New	100%	850	6630	0	6,630	\$ 20,228,000	\$ 20,228,000
E-55	POST OAK	TREATMENT PLANT	EDWARDS	6,685	1.27	6	PRIMARY ARTERIAL	PA	New	New	100%	850	6477	0	6,477	\$ 21,525,000	\$ 21,525,000
E-56	POST OAK	EDWARDS	POCKRUS PAGE	2,710	0.51	2	PRIMARY ARTERIAL	PA	New	New	100%	850	867	0	867	\$ 8,015,000	\$ 8,015,000
E-57	SWISHER	EDWARDS	POCKRUS PAGE	2,635	0.50	2	COLLECTOR	C	New	New	100%	550	550	0	550	\$ 3,750,000	\$ 3,750,000
E-58	TEASLEY	DALLAS	IH 35E	1,870	0.35	6	PRIMARY ARTERIAL	PA (1/3)	Widening	2,090	100%	850	1785	732	1,053	\$ 2,077,000	\$ 2,077,000
E-59	N STAR	SPENCER	ROY	1,705	0.32	2	COLLECTOR	C	New	New	100%	550	352	0	352	\$ 2,427,000	\$ 2,427,000
E-60	ROY	MAYHILL	N STAR	1,120	0.21	2	COLLECTOR	C	New	New	100%	550	231	0	231	\$ 1,594,000	\$ 1,594,000
SUBTOTAL													92,971	23,997	68,974	\$ 317,633,000	\$ 305,523,500
													2022 Roadway Impact Fee Cost per Service Area			\$	37,660
													TOTAL COST IN SERVICE AREA E			\$	305,561,160

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% in Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

Appendix C – Existing Roadway Facilities Inventory

City of Denton - 2022 Roadway Impact Fee Study
Existing Roadway Facilities Inventory

Service Area A

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
CORBIN	IH-35W	CORBIN	3,055	0.58	1	1	2U-R	SA	5	5	100%	150	150	87	87	3	3	84	84		
FM 1515	IH 35W	CORBIN	5,990	1.13	1	1	2U-H	PA	381	381	100%	725	725	819	819	431	431	389	389		
FM 1515	CORBIN	WESTERN	1,175	0.22	1	1	2U-H	PA	230	230	100%	725	725	160	160	51	51	109	109		
FM 1515	WESTERN	WESTCOURT	1,555	0.29	1	1	2U-H	PA	560	560	100%	725	725	210	210	162	162	48	48		
FM 1515	WESTCOURT	MASCH BRANCH	620	0.12	1	1	2U	PA	276	276	100%	450	450	54	54	33	33	21	21		
FM 1515	TOM COLE	3435' W OF TOM COLE	3,435	0.65	1	1	2U-R	PA	332	332	100%	150	150	98	98	216	216	-118	-118	118	118
FM 1515	3435' W OF TOM COLE	530' E OF C WOLFE	3,750	0.71	1	1	2U-R	PA	309	309	100%	150	150	107	107	219	219	-113	-113	113	113
FM 2449	4380' E OF C WOLFE	C WOLFE	4,380	0.83	1	1	2U-H	PA	682	682	100%	725	725	602	602	566	566	36	36		
FM 2449	AMYX HILL RD	3830' W OF AMYX HILL RD	3,830	0.73	1	1	2U-H	PA	189	189	50%	725	725	265	265	69	69	196	196		
H LIVELY	C WOLFE	2145' W OF H LIVELY	2,145	0.41	1	1	2U-R	PA	24	24	50%	150	150	31	31	5	5	26	26		
H LIVELY	2145' W OF H LIVELY	2150' W OF ED ROBSON	3,915	0.74	1	1	2U-R	PA	117	117	100%	150	150	111	111	87	87	24	24		
JIM CHRISTAL	IH 35	OLD SH 24	3,110	0.59	1	1	2U-H	SA	645	645	100%	725	725	428	428	381	381	47	47		
JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	1	1	2U-H	SA	528	528	50%	725	725	199	199	145	145	54	54		
JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	1	1	2U-H	SA	455	455	50%	725	725	239	239	150	150	89	89		
JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	1	1	2U-H	SA	119	119	50%	725	725	410	410	67	67	342	342		
JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	0.75	1	1	2U-H	SA	119	119	50%	725	725	272	272	45	45	227	227		
ROBSON RANCH	IH 35W	ED ROBSON	8,720	1.65	2	2	4U	PA	404	404	50%	550	550	908	908	333	333	574	574		
ROBSON RANCH	ED ROBSON	YARBROUGH	7,150	1.35	2	2	4U	PA	314	314	50%	550	550	743	743	212	212	531	531		
SPRINGSIDE	CORBIN	UNDERWOOD	1,835	0.35	1	1	2U	SA	310	310	100%	450	450	158	158	109	109	49	49		
SPRINGSIDE	UNDERWOOD	WESTCOURT	865	0.16	1	1	2U	SA	15	15	100%	450	450	72	72	2	2	70	70		
C WOLFE	1140' S OF TOM COLE	FM 2449	7,270	1.38	1	1	2U-R	PA	112	112	100%	150	150	207	207	155	155	52	52		
CORBIN	AIRPORT	1335' S OF FM 1515	1,355	0.26	2	2	4U	C	310	310	100%	550	550	286	286	81	81	205	205		
CORBIN	1335' S OF FM 1515	IH-35-CORBIN	675	0.13	1	1	3U	C	310	310	100%	550	550	72	72	40	40	31	31		
CORBIN	IH-35-CORBIN	SPRINGSIDE	2,050	0.39	1	1	2U-R	C	310	310	100%	150	150	59	59	121	121	-62	-62	62	62
H LIVELY	FM 2449	H LIVELY	3,315	0.63	1	1	2U	PA	482	482	50%	450	450	142	142	152	152	-10	-10	10	10
LOOP 288	IH-35W	UNDERWOOD CONNECTOR	2,565	0.49	1	1	2U-H	FWY	1,483	1,483	100%	725	725	355	355	727	727	-371	-371	371	371
PRECISION	1635' N OF FM 1515	FM 1515	1,635	0.31	1	1	2U	C	222	222	100%	450	450	140	140	69	69	71	71		
UNDERWOOD	SPRINGSIDE	UNDERWOOD CONNECTOR	4,000	0.76	1	1	2U	PA	346	346	100%	450	450	342	342	263	263	79	79		
UNDERWOOD	LOOP 288	1610' N OF H LIVELY	5,910	1.12	1	1	2U-R	PA	30	30	100%	150	150	168	168	34	34	134	134		
UNDERWOOD CONNECTOR	UNDERWOOD	915' S OF UNDERWOOD	915	0.17	1	1	2U	SA	321	321	100%	450	450	77	77	55	55	22	22		
WESTCOURT	FM 1515	SPRINGSIDE	4,165	0.79	1	1	2U	SA	276	276	100%	450	450	356	356	218	218	137	137		
WESTERN	JIM CHRISTAL	AIRPORT	6,485	1.23	2	2	4D	PA	127	127	100%	750	750	1,845	1,845	156	156	1,689	1,689		
SUBTOTAL			112,205	21.26										10,016	10,016	5,354	5,354	4,662	4,662	674	674
														20,032		10,709		9,323		1,348	

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Service Area B

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
ACME	FORT WORTH	BERNARD	480	0.09			2U	C	485	485	100%	450	450	41	41	44	44	-3	-3	3	3
ALLRED	BONNIE BRAE	BRUSH CREEK	4,285	0.81	1	1	2U-R	C	6	6	50%	150	150	61	61	2	2	58	58		
ALLRED	BRUSH CREEK	JOHN PAINE	1,610	0.30	1	1	2U-R	PA	585	585	50%	150	150	23	23	88	88	-65	-65	65	65
ALLRED	JOHN PAINE	365' W OF IH-35W	1,480	0.28	1	1	2U-R	PA	654	654	100%	150	150	42	42	183	183	-141	-141	141	141
ALLRED	365' W OF IH-35W	IH-35W	365	0.07	1	1	2U-R	PA	719	719	100%	150	150	11	11	50	50	-40	-40	40	40
BRUSH CREEK	815' E OF COUNTRY CLUB	COUNTRY CLUB	815	0.15	1	1	2U-R	PA	1,131	1,131	100%	150	150	23	23	170	170	-147	-147	147	147
BRUSH CREEK	COUNTRY CLUB	1935' W OF COUNTRY CLUB	1,935	0.37	1	1	2U-R	PA	150	150	100%	150	150	56	56	56	56	0	0		
BRUSH CREEK	2180' E OF FORT WORTH	FORT WORTH	2,180	0.41	1	1	2U-R	PA	150	150	100%	150	150	62	62	62	62	0	0		
CORBIN	BONNIE BRAE	IH-35W	3,505	0.66	1	1	2U-R	SA	5	5	100%	150	150	99	99	3	3	96	96		
CRAWFORD	FORT WORTH	IH 35W	3,360	0.64	1	1	2U-R	SA	1,328	1,328	50%	150	150	48	48	425	425	-377	-377	377	377
CREEKDALE	TEASLEY	PIMLICO	2,750	0.52	1	1	2U	C	223	223	100%	450	450	234	234	116	116	118	118		
CREEKDALE	RIVERCHASE	THISTLE WAY	1,610	0.30	1	1	2U	C	495	495	100%	450	450	135	135	149	149	-14	-14	14	14
CREEKDALE	RED FOX	EAGLESTONE	1,425	0.27	1	1	2U	C	349	349	100%	450	450	122	122	94	94	27	27		
CREEKDALE	RYAN	RED FOX	825	0.16	1	1	3U	C	349	349	100%	550	550	88	88	56	56	32	32		
EL PASEO	MONTECITO	FORRESTRIDGE	1,760	0.33	1	1	2U	C	262	262	100%	450	450	149	149	86	86	62	62		
EL PASEO	FORRESTRIDGE	BELMONT	1,905	0.36	1	1	2U	C	131	131	100%	450	450	162	162	47	47	115	115		
FM 1515	BONNIE BRAE	IH 35W	770	0.15	1	1	2U	PA	987	987	100%	450	450	68	68	148	148	-81	-81	81	81
HICKORY CREEK	FM 2499	NAUTICA	1,175	0.22	1	1	2U	PA	1,471	1,471	100%	450	450	99	99	324	324	-225	-225	225	225
HICKORY CREEK	NAUTICA	TEASLEY	1,310	0.25	2	2	4D	PA	1,471	1,471	100%	750	750	375	375	368	368	7	7		
HICKORY CREEK	TEASLEY	MONTECITO	4,475	0.85	1	1	2U	PA	218	218	100%	450	450	383	383	185	185	197	197		
HICKORY CREEK	MONTECITO	1435' W OF BIDDY BYE	2,230	0.42	1	1	2U	PA	1,131	1,131	50%	450	450	95	95	238	238	-143	-143	143	143
HIGHLAND PARK	HIGHLAND PARK	BONNIE BRAE	1,840	0.35	1	1	2U	C	20	20	100%	450	450	158	158	7	7	151	151		
HOBSON LANE	TEASLEY	MONTECITO	670	0.13	1	1	2U	SA	278	278	100%	450	450	59	59	36	36	22	22		
HOBSON LANE	MONTECITO	FORRESTRIDGE	1,495	0.28	1	1	2U	SA	276	276	100%	450	450	126	126	77	77	49	49		
HOBSON LANE	FORRESTRIDGE	COUNTRY CLUB	3,785	0.72	1	1	2U	SA	125	125	100%	450	450	324	324	90	90	234	234		
LONDONDERRY	SOUTHRIDGE	TEASLEY	1,755	0.33	1	1	2U	C	7	7	100%	450	450	149	149	2	2	146	146		
LONDONDERRY	TEASLEY	SAM BASS	2,105	0.40	1	1	2U	C	4	4	100%	450	450	180	180	2	2	178	178		
MONTECITO	HICKORY CREEK	TEASLEY	5,875	1.11	2	2	4U	C	847	847	100%	550	550	1,221	1,221	940	940	281	281		
PARVIN	BERNARD	MCCORMICK	1,580	0.30	1	1	2U	C	47	47	100%	450	450	135	135	14	14	121	121		
ROBINSON	POST OAK	FM 2499	685	0.13	2	2	4D	SA	1,379	1,379	50%	750	750	98	98	90	90	8	8		
ROBINSON	HARVARD	BERKLEY	1,055	0.20	2	2	4D	SA	774	774	100%	750	750	300	300	155	155	145	145		
ROBINSON	BERKLEY	230' E OF WHEELER RIDGE	505	0.10	2	2	4D	SA	774	774	100%	750	750	150	150	77	77	73	73		
ROBINSON	230' E OF WHEELER RIDGE	TEASLEY	2,735	0.52	1	1	2U	SA	594	594	100%	450	450	234	234	309	309	-75	-75	75	75
ROSELAWN	BERNARD	BONNIE BRAE	8,310	1.57	1	1	2U	C	231	231	100%	450	450	707	707	363	363	344	344		
RYAN	TEASLEY	MONTECITO	4,020	0.76	1	1	2U	SA	378	378	100%	450	450	342	342	287	287	55	55		
RYAN	MONTECITO	FORRESTRIDGE	3,305	0.63	1	1	2U	SA	276	276	100%	450	450	284	284	174	174	110	110		
RYAN	FORRESTRIDGE	COUNTRY CLUB	3,475	0.66	1	1	2U	SA	23	23	100%	450	450	297	297	15	15	282	282		
VINTAGE	FORT WORTH	BONNIE BRAE	4,605	0.87	1	1	2D	PA	211	211	100%	550	550	479	479	184	184	295	295		
VINTAGE	BONNIE BRAE	NAPA VALLEY	765	0.14	1	1	2D	PA	937	937	100%	550	550	77	77	131	131	-54	-54	54	54
VINTAGE	NAPA VALLEY	IH 35W	3,435	0.65	1	1	2U	PA	937	937	100%	450	450	293	293	609	609	-317	-317	317	317
WILLOWWOOD	BERNARD	MCCORMICK	1,735	0.33	1	1	2U	C	58	58	100%	450	450	149	149	19	19	129	129		
WILLOWWOOD	MCCORMICK	HIGHLAND PARK	2,250	0.43	1	1	2U	C	132	132	100%	450	450	194	194	57	57	137	137		
WILLOWWOOD	HIGHLAND PARK	1250' W OF HIGHLAND PARK	775	0.15	1	1	2U	C	301	301	100%	450	450	68	68	45	45	22	22		
WILLOWWOOD	1250' W OF HIGHLAND PARK	BONNIE BRAE	1,285	0.24	1	1	2U-R	C	519	519	100%	150	150	36	36	125	125	-89	-89	89	89
WIND RIVER	IH 35E	TEASLEY	5,995	1.14	1	1	3U	C	58	58	100%	550	550	627	627	66	66	561	561		
MCCORMICK	IH 35E	WILLOWWOOD	1,875	0.36	1	1	2U	C	96	96	100%	450	450	162	162	35	35	127	127		
BERNARD	IH 35E	WILLOWWOOD	315	0.06	1	1	2U	C	100	100	100%	450	450	27	27	6	6	21	21		
BERNARD	WILLOWWOOD	ACME	505	0.10	1	1	2U	C	55	55	100%	450	450	45	45	6	6	40	40		
BERNARD	ACME	PARVIN	1,520	0.29	1	1	2U	C	527	527	100%	450	450	131	131	153	153	-22	-22	22	22
BONNIE BRAE	IH 35E	FM 1515	725	0.14	1	1	2U	SA	1,496	1,496	100%	450	450	63	63	209	209	-146	-146	146	146
BONNIE BRAE	FM 1515	WILLOWWOOD	5,740	1.09	1	1	2U	SA	1,001	1,001	100%	450	450	491	491	1,091	1,091	-601	-601	601	601
BONNIE BRAE	1010' N OF VINTAGE	VINTAGE	1,010	0.19	1	1	2U	SA	847	847	100%	450	450	86	86	161	161	-75	-75	75	75
BONNIE BRAE	VINTAGE	ALLRED	6,275	1.19	1	1	2U	C	1,154	1,154	50%	450	450	268	268	687	687	-419	-419	419	419
COUNTRY CLUB	FORT WORTH	HOBSON	430	0.08	1	1	2U	SA	718	718	100%	450	450	36	36	57	57	-21	-21	21	21
COUNTRY CLUB	HOBSON	RYAN	5,285	1.00	1	1	2U	SA	642	642	100%	450	450	450	450	642	642	-192	-192	192	192
COUNTRY CLUB	RYAN	HICKORY CREEK	3,485	0.66	1	1	2U	SA	276	276	50%	450	450	149	149	91	91	57	57		
FM 2499	IH 35E	ROBINSON	5,755	1.09	3	3	6D	PA	2,970	2,970	100%	850	850	2,780	2,780	3,237	3,237	-458	-458	458	458
FM 2499	ROBINSON	600' S OF OCEAN	5,940	1.13	3	3	6D	PA	2,412	2,412	100%	850	850	2,882	2,882	2,726	2,726	156	1		

City of Denton - 2022 Roadway Impact Fee Study
Existing Roadway Facilities Inventory

Service Area B

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
LILLIAN MILLER	SOUTHRIDGE	WIND RIVER	2,170	0.41	2	2	4D	PA	1,335	1,335	100%	750	750	615	615	547	547	68	68		
MCCORMICK	WILLOWWOOD	PARVIN	2,085	0.39	1	1	2U	C	4	4	100%	450	450	176	176	2	2	174	174		
MONTECITO	HOBSON	EL PASEO	2,960	0.56	1	1	2U	C	153	153	100%	450	450	252	252	86	86	166	166		
MONTECITO	EL PASEO	RYAN	3,060	0.58	1	1	2U	C	310	310	100%	450	450	261	261	180	180	81	81		
PENNSYLVANIA	IH 35E	SOUTHRIDGE	1,560	0.30	1	1	2U	C	32	32	100%	450	450	135	135	10	10	125	125		
PENNSYLVANIA	SOUTHRIDGE	TEASLEY	4,075	0.77	1	1	2U	C	1	1	100%	450	450	347	347	1	1	346	346		
RIVERPASS	CREEKDALE	HICKORY CREEK	2,595	0.49	1	1	2U	C	636	636	100%	450	450	221	221	312	312	-91	-91	91	91
SAM BASS	IH 35E	LONDONDERRY	1,600	0.30	1	1	2U	C	2	2	100%	450	450	135	135	1	1	134	134		
SOUTHRIDGE	IH 35E	LONDONDERRY	505	0.10	1	1	2U	C	4	4	100%	450	450	45	45	0	0	45	45		
SOUTHRIDGE	LONDONDERRY	PENNSYLVANIA	2,410	0.46	1	1	2U	C	3	3	100%	450	450	207	207	1	1	206	206		
SOUTHRIDGE	PENNSYLVANIA	LILLIAN B MILLER	2,045	0.39	1	1	2U	C	119	119	100%	450	450	176	176	46	46	129	129		
TEASLEY	IH 35E	LONDONDERRY	1,315	0.25	2	2	4D	PA	1,704	1,704	100%	750	750	375	375	426	426	-51	-51	51	51
TEASLEY	LONDONDERRY	HOBSON	5,140	0.97	2	2	4D	PA	1,568	1,568	100%	750	750	1,455	1,455	1,521	1,521	-66	-66	66	66
TEASLEY	LILLIAN B MILLER	PENNSYLVANIA	1,890	0.36	2	2	4D	PA	1,608	1,608	100%	750	750	540	540	579	579	-39	-39	39	39
TEASLEY	PENNSYLVANIA	HOBSON	1,085	0.21	2	2	4D	PA	1,567	1,567	100%	750	750	315	315	329	329	-14	-14	14	14
TEASLEY	WIND RIVER	BENT OAKS	1,230	0.23	2	2	4D	PA	2,542	2,542	100%	750	750	345	345	585	585	-240	-240	240	240
TEASLEY	BENT OAKS	RYAN	4,455	0.84	2	2	6D	PA	2,542	2,542	100%	850	850	1,428	1,428	2,135	2,135	-707	-707	707	707
TEASLEY	RYAN	ROBINSON	1,245	0.24	2	2	6D	PA	2,665	2,665	100%	850	850	408	408	640	640	-232	-232	232	232
TEASLEY	ROBINSON	HICKORY CREEK	4,145	0.79	2	2	6D	PA	2,888	2,888	100%	850	850	1,343	1,343	2,282	2,282	-939	-939	939	939
TEASLEY	HICKORY CREEK	MONTECITO	1,890	0.36	2	2	6D	PA	2,096	2,096	100%	850	850	612	612	755	755	-143	-143	143	143
TEASLEY	MONTECITO	OLD ALTON	3,760	0.71	2	2	6D	PA	2,638	2,638	100%	850	850	1,207	1,207	1,873	1,873	-666	-666	666	666
TEASLEY	OLD ALTON	635' W OF FM 2499	1,890	0.36	2	2	6D	PA	2,260	2,260	100%	850	850	612	612	814	814	-202	-202	202	202
SUBTOTAL			238,125	45.13										33,907	33,907	38,149	38,149	-4,242	-4,242	11,091	11,091
														67,813		76,298		-8,485		22,182	

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Existing Roadway Facilities Inventory

Service Area C

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI		
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB			
BARTHOLD	MASCH BRANCH	5200' W OF IH 35	5,195	0.98			1	1	2U-R	PA	125	125	50%	150	150	74	74	61	61	12	12	
FM 1173	IH 35	4605' W OF IH 35	4,605	0.87	1	1	1	1	2U-H	SA	324	324	100%	725	725	631	631	282	282	349	349	
FM 1173	4605' W OF IH 35	LOVERS	2,190	0.41	1	1	1	1	2U-H	SA	324	324	50%	725	725	149	149	66	66	82	82	
FM 2164	LOCUST	ELM	490	0.09	2	2	2	2	4D	SA	760	760	100%	750	750	135	135	68	68	67	67	
GANZER	2900' E OF IH 35	IH 35	2,900	0.55	1	1	1	1	2U-R	PA	115	115	100%	150	150	83	83	63	63	19	19	
GANZER	1620' E OF BARTHOLD	BARTHOLD	1,620	0.31	1	1	1	1	2U	PA	87	87	50%	450	450	70	70	13	13	56	56	
GANZER	BARTHOLD	RECTOR	2,585	0.49	1	1	1	1	2U	PA	37	37	50%	450	450	110	110	9	9	101	101	
HERCULES	LOCUST	TRISTAN	825	0.16	1	1	1	1	2U	C	276	276	100%	450	450	72	72	44	44	28	28	
HERCULES	TRISTAN	MEADOWTRAIL LN	770	0.15	1	1	1	1	2U	C	276	276	100%	450	450	68	68	41	41	26	26	
HERCULES	MEADOWTRAIL	NICOSIA	3,275	0.62	1	1	1	1	2U	C	42	42	100%	450	450	279	279	26	26	253	253	
HICKORY	BONNIE BRAE	OAK	530	0.10	2	2	2	2	4D	SA	628	628	100%	750	750	150	150	63	63	87	87	
JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	1	1	1	1	2U-H	SA	528	528	50%	725	725	199	199	145	145	54	54	
JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	1	1	1	1	2U-H	SA	455	455	50%	725	725	239	239	150	150	89	89	
JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	1	1	1	1	THOMAS J	EGAN	SA	119	119	50%	725	725	410	410	67	67	342	342
JIM CHRISTAL	THOMAS J EGAN	515' E OF C WOLFE	3,945	0.75	1	1	1	1	2U-H	SA	119	119	50%	725	725	272	272	45	45	227	227	
JIM CHRISTAL	945' W OF C WOLFE	NAIL	3,115	0.59	1	1	1	1	2U-H	SA	71	71	50%	725	725	214	214	21	21	193	193	
JIM CHRISTAL	NAIL	2045' W of Nail	2,045	0.39	1	1	1	1	2U-H	SA	60	60	50%	725	725	141	141	12	12	130	130	
LONG	N BONNIE BRAE	MILAM-US 77	1,255	0.24	1	1	1	1	2U-R	C	54	54	50%	150	150	18	18	6	6	12	12	
MASCH BRANCH	MASCH BRANCH	DARBY SMITH	3,450	0.65	1	1	1	1	2U	SA	202	202	100%	450	450	293	293	131	131	161	161	
MILAM	FM 2164	IH 35	14,085	2.67	1	1	1	1	2U-R	FWY	312	312	50%	150	150	200	200	417	417	-216	-216	
OAK	BONNIE BRAE	HICKORY	405	0.08	2	2	2	2	4D	SA	419	419	100%	750	750	120	120	34	34	86	86	
OAK	HICKORY	IH 35	2,090	0.40	2	2	2	2	4D	SA	1,151	1,151	100%	750	750	600	600	460	460	140	140	
PANHANDLE	BONNIE BRAE	IH 35	3,000	0.57	1	1	1	1	2U	C	131	131	100%	450	450	257	257	75	75	182	182	
RINEY	US 77	2460' W OF US 77	2,460	0.47	1	1	1	1	2U	SA	12	12	100%	450	450	212	212	6	6	206	206	
RINEY	2460' W OF US 77	BONNIE BRAE	980	0.19	1	1	1	1	2U-R	SA	12	12	100%	150	150	29	29	2	2	26	26	
SCRIPTURE	BONNIE BRAE	IH 35	2,455	0.46	1	1	1	1	2U	C	110	110	100%	450	450	207	207	51	51	156	156	
SHERMAN	LOCUST	ELM	405	0.08	2	2	2	2	4U	SA	854	854	100%	550	550	88	88	68	68	20	20	
SHERMAN	ELM	CARROLL	1,060	0.20	2	2	2	2	4U	SA	838	838	100%	550	550	220	220	168	168	52	52	
THUNDERBIRD	IH 35	NORTHWAY	3,775	0.71	1	1	1	1	2U	C	140	140	100%	450	450	320	320	99	99	220	220	
US 380	LOCUST	ELM	410	0.08	3	3	3	3	6D	PA	1,251	1,251	50%	850	850	102	102	50	50	52	52	
US 380	ELM	BOLIVAR	380	0.07	3	3	3	3	6D	PA	1,077	1,077	50%	850	850	89	89	38	38	52	52	
US 380	BOLIVAR	CARROLL	680	0.13	3	3	3	3	6D	PA	1,076	1,076	50%	850	850	166	166	70	70	96	96	
US 380	CARROLL	FULTON	1,955	0.37	3	3	3	3	6D	PA	1,017	1,017	50%	850	850	472	472	188	188	284	284	
US 380	FULTON	HINKLE	475	0.09	3	3	3	3	6D	PA	856	856	50%	850	850	115	115	39	39	76	76	
US 380	HINKLE	MALONE	1,545	0.29	3	3	3	3	6D	PA	856	856	50%	850	850	370	370	124	124	246	246	
US 380	MALONE	ECTOR	1,595	0.30	3	3	3	3	6D	PA	856	856	50%	850	850	383	383	128	128	254	254	
US 380	ECTOR	BONNIE BRAE	1,865	0.35	3	3	3	3	6D	PA	890	890	50%	850	850	446	446	156	156	291	291	
US 380	BONNIE BRAE	IH 35	3,985	0.75	3	3	3	3	6D	PA	1,330	1,330	100%	850	850	1,913	1,913	998	998	915	915	
US 380	WESTERN	IH 35	4,180	0.79	3	3	3	3	6D	PA	495	495	100%	850	850	2,015	2,015	391	391	1,623	1,623	
US 380	WESTERN	MASCH BRANCH	2,925	0.55	3	3	3	3	6D	PA	467	467	100%	850	850	1,403	1,403	257	257	1,146	1,146	
US 380	MASCH BRANCH	THOMAS J EGAN	2,665	0.50	3	3	3	3	6D	PA	487	487	100%	850	850	1,275	1,275	244	244	1,032	1,032	
US 380	LOOP 288	THOMAS J EGAN	4,595	0.87	3	3	3	3	6D	FWY	378	378	100%	850	850	2,219	2,219	329	329	1,890	1,890	
US 380	THOMAS J EGAN	C WOLFE	3,930	0.74	3	3	3	3	6D	FWY	378	378	100%	850	850	1,887	1,887	280	280	1,607	1,607	
US 380	C WOLFE	NAIL	3,115	0.59	3	3	3	3	6D	FWY	378	378	50%	850	850	752	752	112	112	641	641	
US 77	WINDSOR	FM 2164	1,180	0.22	2	2	2	2	4D	PA	353	353	100%	750	750	330	330	78	78	252	252	
US 77	RINEY	WINDSOR	2,430	0.46	2	2	2	2	4D	PA	187	187	100%	750	750	690	690	86	86	604	604	
US 77	RINEY	RINEY	2,120	0.40	2	2	2	2	4D	PA	187	187	100%	750	750	600	600	75	75	525	525	
US 77	BONNIE BRAE	RINEY	3,960	0.75	2	2	2	2	4D	PA	149	149	100%	750	750	1,125	1,125	112	112	1,013	1,013	
US 77	LOOP 288	BONNIE BRAE	1,720	0.33	2	2	2	2	4D	PA	245	245	100%	750	750	495	495	81	81	414	414	
US 77	IH 35	LOOP 288	4,610	0.87	2	2	2	2	4D	PA	231	231	100%	750	750	1,305	1,305	201	201	1,104	1,104	
WESTGATE	1460' E OF IH-35	IH-35	1,460	0.28	2	2	2	2	4D	SA	57	57	100%	750	750	420	420	16	16	404	404	
WINDSOR	LOCUST	US 77	2,010	0.38	1	1	1	1	3U	C	148	148	100%	550	550	209	209	56	56	153	153	
WINDSOR	US 77	HINKLE	2,420	0.46	1	1	1	1	3U	SA	192	192	100%	550	550	253	253	88	88	165	165	
WINDSOR	HINKLE	BONNIE BRAE	5,240	0.99	1	1	1	1	2U	SA	239	239	100%	450	450	446	446	237	237	209	209	
WINDSOR	BONNIE BRAE	WESTGATE	2,700	0.51	2	2	2	2	4D	SA	62	62	100%	750	750	765	765	32	32	733	733	
WINDSOR	WESTGATE	145' W OF CLARENDON	505	0.10	1	1	1	1	2U	SA	62	62	100%	450	450	45	45	6	6	39	39	
WINDSOR	145' W OF CLARENDON	220' W OF WINDSOR FARMS	610	0.12	2	2	2	2	4D	SA	62	62	100%	750	750	180	180	7	7	173	173	
WINDSOR	220' W OF WINDSOR FARMS W																					

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Service Area C

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
ELM	FM 2164	SHERMAN	3,090	0.59	0	2	6D	SA	0	1,106	100%	850	850	0	752	0	653	0	100		
ELM	SHERMAN	US 380	455	0.09	0	2	6D	SA	0	1,072	100%	850	850	0	115	0	96	0	18		
FALLMEADOW	HERCULES	MEADOWEDGE LN	1,095	0.21	1	1	2U	C	276	276	100%	450	450	95	95	58	58	37	37		
FALLMEADOW	GARDENVIEW	US 77	1,530	0.29	1	1	2U	C	276	276	100%	450	450	131	131	80	80	50	50		
FM 2164	KLEIN	MILAM	635	0.12	1	1	2U	PA	169	169	50%	450	450	27	27	10	10	17	17		
FM 2164	MILAM	LOOP 288	13,855	2.62	1	1	2U	PA	1,049	1,049	50%	450	450	590	590	1,374	1,374	-785	-785	785	785
HERITAGE TRAIL	US 380	SCRIPTURE	4,050	0.77	2	2	4D	SA	132	132	100%	750	750	1,155	1,155	102	102	1,053	1,053		
HINKLE	WINDSOR	US 380	4,555	0.86	1	1	2U	C	276	276	100%	450	450	387	387	237	237	150	150		
LOCUST	LOOP 288	HERCULES	2,260	0.43	1	1	2U	SA	962	962	50%	450	450	97	97	207	207	-110	-110	110	110
LOCUST	HERCULES	BELL	2,375	0.45	1	1	2U	SA	715	715	50%	450	450	101	101	161	161	-60	-60	60	60
LOCUST	BELL	WINDSOR	1,270	0.24	1	1	2U	SA	499	499	50%	450	450	54	54	60	60	-6	-6	6	6
LOCUST	WINDSOR	FM 2164	1,345	0.25	1	1	2U	SA	471	471	50%	450	450	56	56	59	59	-3	-3	3	3
LOCUST	FM 2164	CORONADO	630	0.12	2	0	4D	SA	870	0	100%	750	750	180	0	104	0	76	0		
LOCUST	CORONADO	SHERMAN	2,420	0.46	2	0	4D	SA	870	0	100%	750	750	690	0	400	0	290	0		
LOCUST	SHERMAN	US 380	475	0.09	2	0	4D	SA	1,025	513	100%	750	750	135	0	92	46	-46		46	
LOVERS	FM 1173	MASCH BRANCH	4,120	0.78	1	1	2U	SA	65	65	100%	450	450	351	351	51	51	300	300		
LOVERS	1085' N OF MASCH BRANCH	MASCH BRANCH	1,085	0.21	1	1	2U	SA	80	80	100%	450	450	95	95	17	17	78	78		
MALONE	AUBURN	US 380	2,545	0.48	1	1	2U	C	276	276	100%	450	450	216	216	132	132	84	84		
MASCH BRANCH	1295' S OF FM 1173	JACKSON	4,170	0.79	1	1	2U	SA	222	222	50%	450	450	178	178	88	88	90	90		
MASCH BRANCH	LOVERS	US 380	3,800	0.72	1	1	2U	SA	50	50	100%	450	450	324	324	36	36	288	288		
MASCH BRANCH	US 380	JIM CHRISTAL	4,110	0.78	1	1	2U	SA	74	74	100%	450	450	351	351	58	58	293	293		
MILAM-US 77	GANZER	LONG	3,875	0.73	1	1	2U-R	SA	48	48	100%	150	150	110	110	35	35	74	74		
NAIL	US 380	2255' S OF JIM CHRISTAL	2,255	0.43	1	1	2U	SA	30	30	50%	450	450	97	97	6	6	90	90		
NAIL	2255' S OF JIM CHRISTAL	JIM CHRISTAL	2,470	0.47	1	1	2U	SA	30	30	100%	450	450	212	212	14	14	197	197		
NICOSIA	BEALL	US 77	2,820	0.53	1	1	2U	C	62	62	100%	450	450	239	239	33	33	206	206		
NORTHWAY	WINDSOR	THUNDERBIRD	1,045	0.20	1	1	2U	C	5	5	100%	450	450	90	90	1	1	89	89		
RINEY	US 77	WINDSOR	1,420	0.27	1	1	2U	C	276	276	100%	450	450	122	122	75	75	47	47		
THOMAS J EGAN	550' N OF US 380	US 380	550	0.10	1	1	2U	SA	276	276	50%	450	450	23	23	14	14	9	9		
THOMAS J EGAN	US 380	JIM CHRISTAL	4,010	0.76	1	1	2U	SA	276	276	100%	450	450	342	342	210	210	132	132		
WESTERN	US 380	JIM CHRISTAL	4,245	0.80	1	1	2U	PA	82	82	100%	450	450	360	360	66	66	294	294		
WESTGATE	WESTGATE	WINDSOR	4,310	0.82	1	1	2U	C	1	1	100%	450	450	369	369	1	1	368	368		
SUBTOTAL			254,970	48.27										36,501	36,363	12,203	12,401	24,298	23,961	1,180	1,226
														72,863		24,604		48,259		2,406	

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Service Area D

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
BOBCAT	560' W OF FM 2164	FM 2164	560	0.11	1	1	2U-R	SA	19	19	50%	150	150	8	8	1	1	7	7		
CORONADO	SHERMAN	BELL	1,355	0.26	1	1	2U	C	276	276	100%	450	450	117	117	72	72	45	45		
CORONADO	BELL	LOCUST	1,735	0.33	1	1	2U	C	276	276	100%	450	450	149	149	91	91	57	57		
EMERSON	OLD NORTH	NOTTINGHAM	2,745	0.52	1	1	2U	C	7	7	100%	450	450	234	234	4	4	230	230		
EMERSON	NOTTINGHAM	GLENWOOD	3,010	0.57	1	1	2U	C	4	4	100%	450	450	257	257	2	2	254	254		
EMERSON	GLENWOOD	WILSONWOOD	1,140	0.22	1	1	2U	C	25	25	100%	450	450	99	99	6	6	94	94		
FISHTRAP	270' E OF GREEN LEAF	150' E OF MINGO	2,815	0.53	1	1	2U	C	203	203	100%	450	450	239	239	108	108	131	131		
FM 2153	2520' W OF CEMETERY	CEMETERY	2,525	0.48	1	1	2U-H	SA	86	86	50%	725	725	174	174	21	21	153	153		
GREENWOOD	GLENWOOD	SHERMAN	2,690	0.51	1	1	2U	C	5	5	100%	450	450	230	230	3	3	227	227		
GRIBBLE SPRINGS	INDIAN WELLS	3015' W OF INDIAN WELLS	3,015	0.57	1	1	2U-R	SA	312	312	50%	150	150	43	43	89	89	-46	-46	46	46
HARTLEE FIELD	3540' E OF COOPER CREEK	COOPER CREEK	3,540	0.67	1	1	2U-R	SA	312	312	50%	150	150	50	50	105	105	-54	-54	54	54
HARTLEE FIELD	COOPER CREEK	5170' W OF COOPER CREEK	5,170	0.98	1	1	2U-R	SA	18	18	50%	150	150	74	74	9	9	65	65		
HARTLEE FIELD	600' E OF SHERMAN	SHERMAN	600	0.11	1	1	2U-R	C	2	2	50%	150	150	8	8	0	0	8	8		
HERCULES	SHERMAN	STUART	2,960	0.56	1	1	2U	C	276	276	100%	450	450	252	252	155	155	97	97		
HERCULES	STUART	REDSTONE	1,385	0.26	2	2	4D	C	104	104	100%	750	750	390	390	27	27	363	363		
HERCULES	REDSTONE	MEADOW LANE	810	0.15	1	1	2U	C	104	104	100%	450	450	68	68	16	16	52	52		
HERCULES	MEADOW LANE	LOCUST	725	0.14	1	1	3U	C	104	104	100%	550	550	77	77	15	15	62	62		
KINGS	COOPER BRANCH	DUNES	3,035	0.57	1	1	2U	C	276	276	100%	450	450	257	257	157	157	99	99		
KINGS	DUNES	NOTTINGHAM	1,525	0.29	1	1	3U	C	148	148	100%	550	550	160	160	43	43	117	117		
KINGS	NOTTINGHAM	SHERMAN	1,970	0.37	1	1	3U	C	148	148	100%	550	550	204	204	55	55	149	149		
KINGS	SHERMAN	STUART	2,045	0.39	1	1	2U	C	276	276	100%	450	450	176	176	108	108	68	68		
LONG	SHERMAN	BOBCAT	2,965	0.56	1	1	3U	C	148	148	100%	550	550	308	308	83	83	225	225		
LONG	BOBCAT	1360' W OF BOBCAT	1,360	0.26	1	1	2U	C	276	276	50%	450	450	59	59	36	36	23	23		
LONG	STUART	1600' W OF STUART	1,600	0.30	1	1	2U	C	276	276	100%	450	450	135	135	83	83	52	52		
MINGO	E CITY LIMITS	COOPER CREEK	460	0.09	1	1	2U	SA	130	130	100%	450	450	41	41	12	12	29	29		
MINGO	COOPER CREEK	LOOP 288	2,305	0.44	1	1	2U	SA	276	276	100%	450	450	198	198	121	121	77	77		
MINGO	LOOP 288	US 380	2,275	0.43	1	1	2U	SA	276	276	100%	450	450	194	194	119	119	75	75		
SHEPARD	FM 2153	1490' W OF FM 2153	1,490	0.28	1	1	2U	SA	24	24	100%	450	450	126	126	7	7	119	119		
SHEPARD	1490' W OF FM 2153	4785' W OF FM 2153	3,295	0.62	1	1	2U	SA	24	24	50%	450	450	140	140	7	7	132	132		
SHERMAN	ZACKERY	FM 2153	1,715	0.32	1	1	2U-H	FWY	560	560	50%	725	725	116	116	90	90	26	26		
SHERMAN	FM 2153	GREEN VALLEY	9,105	1.72	1	1	2U-H	FWY	1,142	1,142	100%	725	725	1,247	1,247	1,964	1,964	-717	-717	717	717
US 380	LAKEVIEW	GEESLING	6,895	1.31	3	3	7U	FWY	2,268	2,268	100%	850	850	3,341	3,341	2,971	2,971	369	369		
US 380	GEESLING	MAYHILL	2,920	0.55	3	3	7U	PA	1,542	1,542	100%	850	850	1,403	1,403	848	848	554	554		
US 380	MAYHILL	LOOP 288	2,310	0.44	3	3	7U	PA	1,228	1,228	100%	850	850	1,122	1,122	540	540	582	582		
US 380	LOOP 288	MINGO	2,145	0.41	3	3	6D	PA	1,200	1,200	50%	850	850	523	523	246	246	277	277		
US 380	MINGO	OLD NORTH	790	0.15	3	3	6D	PA	1,317	1,317	50%	850	850	191	191	99	99	92	92		
US 380	OLD NORTH	NOTTINGHAM	2,465	0.47	3	3	6D	PA	1,187	1,187	50%	850	850	599	599	279	279	320	320		
US 380	NOTTINGHAM	GLENWOOD	3,090	0.59	3	3	6D	PA	1,089	1,089	50%	850	850	752	752	321	321	431	431		
US 380	GLENWOOD	RUDDLELL	390	0.07	3	3	6D	PA	984	984	50%	850	850	89	89	34	34	55	55		
US 380	RUDDLELL	BELL	3,065	0.58	3	3	6D	PA	1,042	1,042	50%	850	850	740	740	302	302	437	437		
US 380	BELL	LOCUST	1,495	0.28	3	3	6D	PA	1,138	1,138	50%	850	850	357	357	159	159	198	198		
WILSONWOOD	EMERSON	SHERMAN	530	0.10	1	1	2U	C	24	24	100%	450	450	45	45	2	2	43	43		
WINDSOR	DOMINION	OLD NORTH	1,390	0.26	1	1	2U	C	336	336	100%	450	450	117	117	87	87	30	30		
WINDSOR	OLD NORTH	DUNES	1,990	0.38	1	1	2U	C	358	358	100%	450	450	171	171	136	136	35	35		
WINDSOR	DUNES	NOTTINGHAM	700	0.13	1	1	2U	C	110	110	100%	450	450	59	59	14	14	44	44		
WINDSOR	NOTTINGHAME	GLENWOOD	3,375	0.64	1	1	2U	C	25	25	100%	450	450	288	288	16	16	272	272		
WINDSOR	GLENWOOD	SHERMAN	1,160	0.22	1	1	2U	C	276	276	100%	450	450	99	99	61	61	38	38		
WINDSOR	SHERMAN	STUART	1,150	0.22	1	1	3U	C	137	137	100%	550	550	121	121	30	30	91	91		
WINDSOR	STUART	BELL	1,270	0.24	1	1	3U	C	137	137	100%	550	550	132	132	33	33	99	99		
WINDSOR	BELL	LOCUST	1,605	0.30	2	2	3U	C	146	146	100%	550	550	330	330	44	44	286	286		
BELL	LOCUST	WINDSOR	2,325	0.44	1	1	2U	C	276	276	100%	450	450	198	198	121	121	77	77		
BELL	WINDSOR	CORONADO	1,740	0.33	1	1	2U	C	276	276	100%	450	450	149	149	91	91	57	57		
BELL	CORONADO	SHERMAN	1,960	0.37	1	1	2U	C	276	276	100%	450	450	167	167	102	102	64	64		
BELL	SHERMAN	US 380	1,230	0.23	1	1	2U	C	67	67	100%	450	450	104	104	15	15	88	88		
COLLINS	635' S OF HARTLEE FIELD	2000' S OF HARTLEE FIELD	1,375	0.26	1	1	2U-R	SA	109	109	50%	150	150	20	20	14	14	5	5		
COOPER CREEK	SILVER DOME	MINGO	4,360	0.83	1	1	2U-R	PA	911	911	50%	150	150	62	62	378	378	-316	-316	316	316
COOPER CREEK	MINGO	US 380	1,680	0.32	1	1	2U	PA	1,125	1,125	100%	450	450	144	144	360	360	-216	-216	216	216
DUNES	KINGS	WINDSOR	1,150	0.22	1	1	2U	C	276	276	100%	450	450	99	99	61	61	38	38		
FM 2153	COSNER	SHEPARD	2,780	0.53	1	1	2U-H	SA	86	86	100%	725	725	384	384	46	46	339	339		
FM 2153	COSNER	SHEPARD	8,905	1.69	1	1	2U-H	SA	86	86	50%	725	725	613	613	73	73	540	540		
FM 2153	SHEPARD	SHERMAN	2,635	0.50	1	1	2U-H	SA	86	86	50%	725	725	181	181	22	22	160	160		
FM 2164	320' S OF DOC HOLLIDAY	JOHN GEORGE	6,430	1.22	1	1	2U-H	PA	169	169	50%	725	725	442	442	103	103	339	339		
FM 2164	KLEIN	MILAM	635	0.12	1	1	2U	PA	169	169	50%	450	450	27	27	10	10	17	17		
FM 2164	MILAM	LOOP 288	13,855	2.62	1	1	2U	PA	1,049	1,049	50%	450	450	590	590	1,374	1,374	-785	-785	785	785
GLENWOOD	WINDSOR	EMERSON	580	0.11	1	1	2U	C	29	29	100%	450	450	50	50	3	3	46	46		
GLENWOOD	EMERSON	GREENWOOD	2,325	0.44	1	1	2U	C	7	7	100%	450	450	198	198	3	3	195	195		
GLENWOOD	GREENWOOD	US 380	830	0.16	1	1	2U	C	12	12	100%	450	450	72	72	2	2	70	70		
GREEN VALLEY	WARSCHUN	SHERMAN	2,305	0.44	1	1	2U-R	PA	928	928	100%	150	150	66	66	408	408	-342	-342	342	342
INDIAN WELLS	2905' N OF GRIBBLE SPRINGS	GRIBBLE SPRINGS	2,905	0.55	1	1	2U-R	SA	34	34	50%	150	150	41	41	9	9	32	32		

City of Denton - 2022 Roadway Impact Fee Study
Existing Roadway Facilities Inventory

Service Area D

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
LOCUST	LOOP 288	HERCULES	2,260	0.43	1	1	2U	SA	962	962	50%	450	450	97	97	207	207	-110	-110	110	110
LOCUST	HERCULES	BELL	2,375	0.45	1	1	2U	SA	715	715	50%	450	450	101	101	161	161	-60	-60	60	60
LOCUST	BELL	WINDSOR	1,270	0.24	1	1	2U	SA	499	499	50%	450	450	54	54	60	60	-6	-6	6	6
LOCUST	WINDSOR	FM 2164	1,345	0.25	1	1	2U	SA	471	471	50%	450	450	56	56	59	59	-3	-3	3	3
LOCUST	FM 2164	CORONADO	630	0.12	2	0	4D	SA	870	0	100%	750	750	180	0	104	0	76	0		
LOCUST	CORONADO	SHERMAN	2,420	0.46	2	0	4D	SA	870	0	100%	750	750	690	0	400	0	290	0		
LOCUST	SHERMAN	US 380	475	0.09	2	0	4D	SA	1,025	0	100%	750	750	135	0	92	0	43	0		
NOTTINGHAM	KINGS	WINDSOR	1,490	0.28	1	1	2U	C	2	2	100%	450	450	126	126	1	1	125	125		
NOTTINGHAM	WINDSOR	EMERSON	1,395	0.26	1	1	2U	C	276	276	100%	450	450	117	117	72	72	45	45		
NOTTINGHAM	EMERSON	US 380	2,445	0.46	1	1	2U	C	276	276	100%	450	450	207	207	127	127	80	80		
OLD NORTH	WINDSOR	EMERSON	1,585	0.30	1	1	2U	C	22	22	100%	450	450	135	135	7	7	128	128		
OLD NORTH	EMERSON	US 380	1,725	0.33	1	1	2U	C	8	8	100%	450	450	149	149	3	3	146	146		
SHERMAN	GREEN VALLEY	HARTLEE FIELD	12,485	2.36	1	1	2U-H	FWY	1,305	1,305	100%	725	725	1,711	1,711	3,080	3,080	-1,369	-1,369	1,369	1,369
SHERMAN	HARTLEE FIELD	LOOP 288	1,460	0.28	1	1	2U-H	FWY	1,377	1,377	100%	725	725	203	203	386	386	-183	-183	183	183
SHERMAN	LOOP 288	HERCULES	1,650	0.31	2	2	4U	SA	1,107	1,107	100%	550	550	341	341	343	343	-2	-2	2	2
SHERMAN	HERCULES	KINGS	1,910	0.36	2	2	4U	SA	962	962	100%	550	550	396	396	346	346	50	50		
SHERMAN	KINGS	WINDSOR	2,025	0.38	2	2	4U	SA	890	890	100%	550	550	418	418	338	338	80	80		
SHERMAN	WINDSOR	WILSONWOOD	1,000	0.19	2	2	4U	SA	826	826	100%	550	550	209	209	157	157	52	52		
SHERMAN	WILSONWOOD	CORONADO	1,165	0.22	2	2	4U	SA	823	823	100%	550	550	242	242	181	181	61	61		
SHERMAN	CORONADO	GREENWOOD	1,640	0.31	2	2	4U	SA	830	830	100%	550	550	341	341	257	257	84	84		
SHERMAN	GREENWOOD	BELL	825	0.16	2	2	4U	SA	1,038	1,038	100%	550	550	176	176	166	166	10	10		
SHERMAN	BELL	LOCUST	1,715	0.32	2	2	4U	SA	967	967	100%	550	550	352	352	309	309	43	43		
STUART	LAKEVIEW	LOOP 288	3,105	0.59	1	1	2U	C	276	276	50%	450	450	133	133	81	81	51	51		
STUART	LOOP 288	HERCULES	2,250	0.43	1	1	2U	C	276	276	100%	450	450	194	194	119	119	75	75		
STUART	HERCULES	KINGS	1,555	0.29	1	1	2U	C	276	276	100%	450	450	131	131	80	80	50	50		
STUART	KINGS	WINDSOR	1,875	0.36	1	1	2U	C	276	276	100%	450	450	162	162	99	99	63	63		
STUART	WINDSOR	CORONADO	1,840	0.35	1	1	2U	C	45	45	100%	450	450	158	158	16	16	142	142		
SUBTOTAL			226,580	42.91										27,118	26,113	20,275	19,678	6,843	6,435	4,209	4,209
														53,231	39,954			13,278		8,418	

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Service Area E

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
AUDRA	1185' W OF LOOP 288	MOCKINGBIRD	1,445	0.27	1	1	2U	C	276	276	100%	450	450	122	122	75	75	47	47		
AUDRA	MOCKINGBIRD	MOCKINGBIRD	340	0.06	1	1	2U	C	276	276	100%	450	450	27	27	17	17	10	10		
AUDRA	MOCKINGBIRD	NOTTINGHAM	1,995	0.38	1	1	2U	C	276	276	100%	450	450	171	171	105	105	66	66		
AVE A	WELCH	HICKORY	955	0.18	1	1	2U	C	38	38	100%	450	450	81	81	7	7	74	74		
BLAGG	LAKEVIEW	GEESLING	3,740	0.71	1	1	2U	SA	276	276	100%	450	450	320	320	196	196	124	124		
BLAGG	GEESLING	2175' W OF GEESLING	2,175	0.41	1	1	2U	SA	1	1	100%	450	450	185	185	0	0	184	184		
BRINKER	MEDPARK	COLORADO	1,015	0.19	2	2	4D	SA	756	756	100%	750	750	285	285	144	144	141	141		
COLLINS	FORT WORTH	BERNARD	1,760	0.33	1	1	2U	C	106	106	100%	450	450	149	149	35	35	114	114		
CONGRESS	OAKLAND	LOCUST	735	0.14	1	1	2U	C	14	14	100%	450	450	63	63	2	2	61	61		
CONGRESS	LOCUST	ELM	390	0.07	1	1	2U	C	109	109	100%	450	450	32	32	8	8	24	24		
CONGRESS	ELM	BOLIVAR	445	0.08	1	1	2U	C	24	24	100%	450	450	36	36	2	2	34	34		
CONGRESS	BOLIVAR	CARROLL	615	0.12	1	1	2U	C	19	19	100%	450	450	54	54	2	2	52	52		
CONGRESS	CARROLL	FULTON	1,950	0.37	1	1	2U	C	3	3	100%	450	450	167	167	1	1	165	165		
CRESCENT	CARROLL	FULTON	1,950	0.37	1	1	2U	C	43	43	100%	450	450	167	167	16	16	151	151		
CRESCENT	FULTON	MALONE	2,095	0.40	1	1	2U	C	45	45	100%	450	450	180	180	18	18	162	162		
DALLAS	IH 35E	TEASLEY	4,590	0.87	2	2	4D	PA	1,197	1,197	100%	750	750	1,305	1,305	1,041	1,041	264	264		
DALLAS	ALEGRE VISTA	TEASLEY	945	0.18	2	2	5U	PA	2,062	2,062	100%	725	725	261	261	371	371	-110	-110	110	110
DALLAS	EAGLE	ALEGRE VISTA	3,060	0.58	2	2	5U	PA	1,876	1,876	100%	725	725	841	841	1,088	1,088	-247	-247	247	247
DUCHESS	LOOP 288	TRAILHEAD	2,885	0.55	1	1	2U	C	276	276	100%	450	450	248	248	152	152	96	96		
EAGLE	BELL	LOCUST	235	0.04	2	2	4U	SA	1,742	1,742	100%	550	550	44	44	70	70	-26	-26	26	26
EAGLE	LOCUST	ELM	530	0.10	2	2	4U	SA	1,369	1,369	100%	550	550	110	110	137	137	-27	-27	27	27
EAGLE	ELM	CARROLL	695	0.13	2	2	4U	SA	443	443	100%	550	550	143	143	58	58	85	85		
EAGLE	CARROLL	BERNARD	1,525	0.29	1	1	3U	SA	148	148	100%	550	550	160	160	43	43	117	117		
EAGLE	BERNARD	WELCH	885	0.17	1	1	3U	SA	7	7	100%	550	550	94	94	1	1	92	92		
EAGLE	WELCH	AVE A	485	0.09	1	1	3U	SA	14	14	100%	550	550	50	50	1	1	48	48		
EAGLE	AVE A	AVE C	1,460	0.28	1	1	3U	SA	372	372	100%	550	550	154	154	104	104	50	50		
EAGLE	AVE C	NORTH TEXAS	915	0.17	1	1	3U	SA	148	148	100%	550	550	94	94	25	25	68	68		
EDWARDS	LAKEVIEW	SWISHER	2,940	0.56	1	1	2U	C	276	276	100%	450	450	252	252	155	155	97	97		
EDWARDS	SWISHER	MAYHILL	5,945	1.13	1	1	2U	C	22	22	100%	450	450	509	509	25	25	484	484		
FM 426	TRINITY	MAYHILL	9,365	1.77	1	1	2U	SA	229	229	100%	450	450	797	797	405	405	391	391		
HICKORY	RUDDLELL	BELL	3,280	0.62	2	0	2U	C	552	0	100%	450	450	558	0	342	0	216	0		
HICKORY	BELL	LOCUST	1,295	0.25	2	0	4D	C	1,520	0	100%	750	750	375	0	380	0	-5	0	5	
HICKORY	LOCUST	ELM	370	0.07	2	0	4D	SA	169	0	100%	750	750	105	0	12	0	93	0		
HICKORY	ELM	CARROLL	1,050	0.20	2	0	4D	SA	685	0	100%	750	750	300	0	137	0	163	0		
HICKORY	CARROLL	BERNARD	1,270	0.24	2	0	4D	SA	806	0	100%	750	750	360	0	193	0	167	0		
HICKORY	BERNARD	WELCH	865	0.16	2	0	4D	SA	815	0	100%	750	750	240	0	130	0	110	0		
HICKORY	WELCH	AVE A	665	0.13	2	0	4D	SA	834	0	100%	750	750	195	0	108	0	87	0		
HICKORY	AVE A	AVE C	1,300	0.25	2	0	4D	SA	324	0	100%	750	750	375	0	81	0	294	0		
HICKORY	AVE C	NORTH TEXAS	1,340	0.25	2	0	4D	SA	962	0	100%	750	750	375	0	241	0	135	0		
HICKORY	NORTH TEXAS	BONNIE BRAE	1,940	0.37	2	0	4D	SA	1,256	0	100%	750	750	555	0	465	0	90	0		
HIGHLAND	BERNARD	WELCH	875	0.17	1	1	2U	C	147	147	100%	450	450	77	77	25	25	52	52		
HIGHLAND	WELCH	AVE A	575	0.11	1	1	2U	C	62	62	100%	450	450	50	50	7	7	43	43		
HIGHLAND	AVE C	AVE D	660	0.13	1	1	2U	C	276	276	100%	450	450	59	59	36	36	23	23		
HIGHLAND	AVE D	NORTH TEXAS	660	0.13	1	1	2U	C	276	276	100%	450	450	59	59	36	36	23	23		
LATTIMORE	AUDRA	PERTAIN	2,980	0.56	1	1	2U	C	10	10	100%	450	450	252	252	6	6	246	246		
LOOP 288	SPENCER	BRINKER	1,335	0.25	3	3	6D	PA	1,577	1,577	100%	850	850	638	638	394	394	243	243		
LOOP 288	BRINKER	COLORADO	2,830	0.54	3	3	6D	PA	1,778	1,778	100%	850	850	1,377	1,377	960	960	417	417		
LOOP 288	COLORADO	IH 35E	1,570	0.30	3	3	6D	PA	1,827	1,827	100%	850	850	765	765	548	548	217	217		
MAPLE	BERNARD	WELCH	885	0.17	1	1	2U	C	120	120	100%	450	450	77	77	20	20	56	56		
MAPLE	WELCH	AVE A	555	0.11	1	1	2U	C	392	392	100%	450	450	50	50	43	43	6	6		
MAPLE	AVE A	AVE C	1,405	0.27	1	1	2U	C	418	418	100%	450	450	122	122	113	113	9	9		
MAPLE	AVE C	AVE D	660	0.13	1	1	2U	C	276	276	100%	450	450	59	59	36	36	23	23		
MCKINNEY	MAYHILL	LOOP 288	2,365	0.45	1	1	2U	SA	276	276	100%	450	450	203	203	124	124	78	78		
MCKINNEY	LOOP 288	CARDINAL	670	0.13	1	1	2U	SA	866	866	100%	450	450	59	59	113	113	-54	-54	54	54
MCKINNEY	CARDINAL	MOCKINGBIRD	1,145	0.22	1	1	2U	SA	865	865	100%	450	450	99	99	190	190	-91	-91	91	91
MCKINNEY	MOCKINGBIRD	MACK	3,245	0.61	1	1	2U	SA	276	276	100%	450	450	275	275	168	168	106	106		
MCKINNEY	MACK	AUDRA	1,540	0.29	1	1	2U	SA	684	684	100%	450	450	131	131	198	198	-68	-68	68	68
MCKINNEY	AUDRA	RUDDLELL	1,710	0.32	2	2	4U	SA	786	786	100%	550	550	352	352	252	252	100	100		
MCKINNEY	RUDDLELL	BELL	120	0.02	2	2	4U	SA	792	792	100%	550	550	22	22	16	16	6	6		
MCKINNEY	RUDDLELL	BELL	2,910	0.55	2	2	4U	SA	818	818	100%	550	550	605	605	450	450	155	155		
MCKINNEY	BELL	LOCUST	260	0.05	2	2	4U	SA	1,042	1,042	100%	550	550	55	55	52	52	3	3		
MCKINNEY	LOCUST	ELM	1,285	0.24	2	2	4U	SA	640	640	100%	550	550	264	264	154	154	110	110		
MCKINNEY	LOCUST	ELM	380	0.07	2	2	4U	SA	640	640	100%	550	550	77	77	45	45	32	32		
MCKINNEY	ELM	CARROLL	1,090	0.21	2	2	4U	SA	640	640	100%	550	550	231	231	134	134	97	97		
MILLS	TRINITY	MAYHILL	7,415	1.40	1	1	2U	SA	0	0	100%	450	450	630	630	0	0	630	630		
MINGO	US 380	OLD NORTH	760	0.14	1	1	2U	SA	276	276	100%	450	450	63	63	39	39	24	24		
MINGO	OLD NORTH	NOTTINGHAM	2,545	0.48	1	1	2U	SA	263	263	100%	450	450	216	216	126	126	90	90		
MINGO	NOTTINGHAM	PERTAIN	2,935	0.56	1	1	2U	SA	46	46	100%	450	450	252	252	26	26	226	226		
MINGO	PERTAIN	RUDDLELL	945	0.18	1	1	2U	SA	101	101	100%	450	450	81	81	18	18	63	63		

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
MINGO	RUDDELL	WILLIS	600	0.11	1	1	2U	SA	164	164	100%	450	450	50	50	18	18	31	31		
MINGO	WILLIS	WITHERS	2,305	0.44	1	1	2U	SA	261	261	100%	450	450	198	198	115	115	83	83		
MINGO	WITHERS	PAISLEY	235	0.04	1	1	2U	SA	267	267	100%	450	450	18	18	11	11	7	7		
MINGO	PAISLEY	BELL	985	0.19	1	1	2U	SA	299	299	100%	450	450	86	86	57	57	29	29		
MORSE	MAYHILL	KIMBERLY	1,145	0.22	1	1	2U	SA	721	721	100%	450	450	99	99	159	159	-60	-60	60	60
MORSE	KIMBERLY	LOOP 288	920	0.17	2	2	4D	SA	721	721	100%	750	P	255		123	123	132			
MORSE	WOODROW	NEWTON	1,460	0.28	1	1	2U	C	7	7	100%	450	450	126	126	2	2	124	124		
MORSE	NEWTON	LAKEY	2,305	0.44	1	1	2U	C	276	276	100%	450	450	198	198	121	121	77	77		
MULBERRY	ELM	CARROLL	1,045	0.20	1	1	2U	C	1	1	100%	450	450	90	90	0	0	90	90		
MULBERRY	CARROLL	BERNARD	1,315	0.25	1	1	2U	C	15	15	100%	450	450	113	113	4	4	109	109		
MULBERRY	BERNARD	WELCH	870	0.16	1	1	2U	C	3	3	100%	450	450	72	72	0	0	72	72		
OAK	BELL	LOCUST	1,290	0.24	0	2	4D	C	0	1,520	100%	750	750	0	360	0	365	0	-5		5
OAK	LOCUST	ELM	380	0.07	0	2	4D	SA	0	410	100%	750	750	0	105	0	29	0	76		
OAK	ELM	BOLIVAR	460	0.09	0	2	4D	SA	0	524	100%	750	750	0	135	0	47	0	88		
OAK	BOLIVAR	CARROLL	595	0.11	0	2	4D	SA	0	525	100%	750	750	0	165	0	58	0	107		
OAK	FULTON	WELCH	1,900	0.36	0	2	4D	SA	0	477	100%	750	750	0	540	0	172	0	368		
OAK	FULTON	WELCH	225	0.04	0	2	4D	SA	0	560	100%	750	750	0	60	0	22	0	38		
OAK	WELCH	FRY	675	0.13	0	2	4D	SA	0	560	100%	750	750	0	195	0	73	0	122		
OAK	FRY	AVE C	1,280	0.24	0	2	4D	SA	0	556	100%	750	750	0	360	0	133	0	227		
OAK	JAGOE	NORTH TEXAS	1,355	0.26	0	2	4D	SA	0	556	100%	750	750	0	390	0	145	0	245		
OAK	NORTH TEXAS	BONNIE BRAE	1,935	0.37	0	2	4D	SA	0	849	100%	750	750	0	555	0	314	0	241		
PAISLEY	MOCKINGBIRD	MACK	2,895	0.55	1	1	2U	C	276	276	100%	450	450	248	248	152	152	96	96		
PAISLEY	MACK	AUDRA	835	0.16	1	1	2U	C	205	205	100%	450	450	72	72	33	33	39	39		
PAISLEY	AUDRA	RUDDELL	2,840	0.54	1	1	2U	C	15	15	100%	450	450	243	243	8	8	235	235		
PAISLEY	RUDDELL	FRAME	2,135	0.40	1	1	2U	C	276	276	100%	450	450	180	180	110	110	70	70		
PARKWAY	LOCUST	ELM	390	0.07	2	2	4U	C	0	0	100%	550	550	77	77	0	0	77	77		
PARKWAY	ELM	BOLIVAR	450	0.09	2	2	4U	C	3	3	100%	550	550	99	99	0	0	99	99		
PARKWAY	BOLIVAR	CARROLL	615	0.12	2	2	4U	C	3	3	100%	550	550	132	132	0	0	132	132		
POCKRUS PAGE	POST OAK	IH 35E	5,535	1.05	1	1	2U	C	355	355	100%	450	450	473	473	373	373	100	100		
PRAIRIE	BELL	LAKEY	1,850	0.35	1	1	2U	C	0	0	100%	450	450	158	158	0	0	158	158		
PRAIRIE	NORTH TEXAS	BONNIE BRAE	1,945	0.37	1	1	2U	C	276	276	100%	450	450	167	167	102	102	64	64		
PROMINENCE	MAYHILL	1095' E OF LOOP 288	1,260	0.24	1	1	2U	C	1	1	100%	450	450	108	108	0	0	108	108		
PROMINENCE	1095' E OF LOOP 288	LOOP 288	1,095	0.21	1	1	3U	C	1	1	100%	550	550	116	116	0	0	115	115		
ROBERTSON	BELL	DUNCAN	2,215	0.42	1	1	2U	C	36	36	100%	450	450	189	189	15	15	174	174		
RUSSELL NEWMAN	MAYHILL	LOOP 288	2,230	0.42	1	1	3U	C	148	148	100%	550	550	231	231	62	62	169	169		
SAN JACINTO	COLORADO	DALLAS	2,275	0.43	2	2	4D	SA	168	168	100%	750	750	645	645	72	72	573	573		
SCRIPTURE	FULTON	MALONE	2,415	0.46	1	1	2U	C	51	51	100%	450	450	207	207	23	23	184	184		
SCRIPTURE	MALONE	ECTOR	1,405	0.27	1	1	2U	C	8	8	100%	450	450	122	122	2	2	119	119		
SCRIPTURE	ECTOR	BONNIE BRAE	2,095	0.40	1	1	2U	C	84	84	100%	450	450	180	180	34	34	146	146		
SHADY OAKS	LOOP 288	WOODROW	7,230	1.37	2	2	4D	SA	200	200	100%	750	750	2,055	2,055	274	274	1,781	1,781		
SHADY OAKS	WOODROW	TEASLEY	3,070	0.58	1	1	3U	SA	80	80	100%	550	550	319	319	46	46	273	273		
SPENCER	MAYHILL	LOOP 288	2,315	0.44	1	1	2U	SA	620	620	100%	450	450	198	198	273	273	-75	-75	75	75
SPENCER	LOOP 288	BRINKER	1,205	0.23	2	2	4U	SA	185	185	100%	550	550	253	253	43	43	210	210		
SPENCER	BRINKER	WOODROW	5,320	1.01	2	2	4U	SA	171	171	100%	550	550	1,111	1,111	173	173	938	938		
TREATMENT PLANT	1325' W OF POST OAK	MAYHILL	3,960	0.75	1	1	2U	SA	0	0	100%	450	450	338	338	0	0	338	338		
US 380	US 377	LAKEVIEW	8,120	1.54	3	3	7U	FWY	2,269	2,269	100%	850	850	3,927	3,927	3,494	3,494	433	433		
US 380	LOOP 288	MINGO	2,145	0.41	3	3	6D	PA	1,200	1,200	50%	850	850	523	523	246	246	277	277		
US 380	MINGO	OLD NORTH	790	0.15	3	3	6D	PA	1,317	1,317	50%	850	850	191	191	99	99	92	92		
US 380	OLD NORTH	NOTTINGHAM	2,465	0.47	3	3	6D	PA	1,187	1,187	50%	850	850	599	599	279	279	320	320		
US 380	NOTTINGHAM	GLENWOOD	3,090	0.59	3	3	6D	PA	1,089	1,089	50%	850	850	752	752	321	321	431	431		
US 380	GLENWOOD	RUDDELL	390	0.07	3	3	6D	PA	984	984	50%	850	850	89	89	34	34	55	55		
US 380	RUDDELL	BELL	3,065	0.58	3	3	6D	PA	1,042	1,042	50%	850	850	740	740	302	302	437	437		
US 380	BELL	LOCUST	1,495	0.28	3	3	6D	PA	1,138	1,138	50%	850	850	357	357	159	159	198	198		
US 380	LOCUST	ELM	410	0.08	3	3	6D	PA	1,251	1,251	50%	850	850	102	102	50	50	52	52		
US 380	ELM	BOLIVAR	380	0.07	3	3	6D	PA	1,077	1,077	50%	850	850	89	89	38	38	52	52		
US 380	BOLIVAR	CARROLL	680	0.13	3	3	6D	PA	1,076	1,076	50%	850	850	166	166	70	70	96	96		
US 380	CARROLL	FULTON	1,955	0.37	3	3	6D	PA	1,017	1,017	50%	850	850	472	472	188	188	284	284		
US 380	FULTON	HINKLE	475	0.09	3	3	6D	PA	856	856	50%	850	850	115	115	39	39	76	76		
US 380	HINKLE	MALONE	1,545	0.29	3	3	6D	PA	856	856	50%	850	850	370	370	124	124	246	246		
US 380	MALONE	ECTOR	1,595	0.30	3	3	6D	PA	856	856	50%	850	850	383	383	128	128	254	254		
US 380	ECTOR	BONNIE BRAE	1,865	0.35	3	3	6D	PA	890	890	50%	850	850	446	446	156	156	291	291		
WELCH	BERNARD	WELCH	1,380	0.26	1	1	2U	C	211	211	100%	450	450	117	117	55	55	62	62		
WILLIS	RUDDELL	MINGO	545	0.10	1	1	2U	C	276	276	100%	450	450	45	45	28	28	17	17		
WITHERS	MINGO	BELL	655	0.12	1	1	2U	C	27	27	100%	450	450	54	54	3	3	51	51		
WITHERS	BELL	OAKLAND	810	0.15	1	1	2U	C	43	43	100%	450	450	68	68	6	6	61	61		
BERNARD	COLLINS	IH 35E	2,275	0.43	1	1	2U	C	70	70	100%	450	450	194	194	30	30	163	163		
DUNCAN	MORSE	TEASLEY	2,865	0.54	1	1	2U	C	72	72	100%	450	450	243	243	39	39	204	204		

City of Denton - 2022 Roadway Impact Fee Study
Existing Roadway Facilities Inventory

Service Area E

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
AUDRA	NOTTINGHAM	LATTIMORE	1,260	0.24	2	2	4U	SA	263	263	100%	550	550	264	264	63	63	201	201		
AUDRA	LATTIMORE	PAISLEY	1,755	0.33	2	2	4U	SA	347	347	100%	550	550	363	363	115	115	248	248		
AUDRA	PAISLEY	1385' N OF MCKINNEY	805	0.15	2	2	4U	SA	640	640	100%	550	550	165	165	96	96	69	69		
AUDRA	1385' N OF MCKINNEY	MCKINNEY	1,385	0.26	2	2	4D	SA	760	760	100%	750	750	390	390	198	198	192	192		
AVE A	HIGHLAND	MAPLE	405	0.08	1	1	2U	C	61	61	100%	450	450	36	36	5	5	31	31		
AVE A	MAPLE	EAGLE	575	0.11	2	2	4U	C	70	70	100%	550	550	121	121	8	8	113	113		
AVE A	EAGLE	IH 35E	1,875	0.36	2	2	4U	SA	9	9	100%	550	550	396	396	3	3	393	393		
AVE C	HICKORY		395	0.07	2	2	4U	C	640	640	100%	550	550	77	77	45	45	32	32		
AVE C	HIGHLAND	MAPLE	400	0.08	1	1	2D	C	600	600	100%	550	550	44	44	48	48	-4	-4	4	4
AVE C	MAPLE	EAGLE	540	0.10	1	1	2D	C	600	600	100%	550	550	55	55	60	60	-5	-5	5	5
AVE D	HIGHLAND	MAPLE	395	0.07	1	1	2U	C	276	276	100%	450	450	32	32	19	19	12	12		
BELL	US 380	COLLEGE	2,255	0.43	1	1	2D	SA	600	600	100%	550	550	237	237	258	258	-22	-22	22	22
BELL	COLLEGE	WITHERS	1,250	0.24	1	1	3U	SA	148	148	100%	550	550	132	132	36	36	96	96		
BELL	WITHERS	PAISLEY	245	0.05	2	2	4U	SA	640	640	100%	550	550	55	55	32	32	23	23		
BELL	PAISLEY	MINGO	820	0.16	2	2	4U	SA	640	640	100%	550	550	176	176	102	102	74	74		
BELL	MINGO	MCKINNEY	705	0.13	2	2	4U	SA	640	640	100%	550	550	143	143	83	83	60	60		
BELL	MINGO	MCKINNEY	650	0.12	1	1	2U	C	299	299	100%	450	450	54	54	36	36	18	18		
BELL	MCKINNEY	OAK	340	0.06	2	2	4U	SA	1,042	1,042	100%	550	550	66	66	63	63	3	3		
BELL	OAK	HICKORY	380	0.07	2	2	4U	SA	1,042	1,042	100%	550	550	77	77	73	73	4	4		
BELL	HICKORY	PRAIRIE	1,635	0.31	2	2	4U	SA	1,113	1,113	100%	550	550	341	341	345	345	-4	-4	4	4
BELL	PRAIRIE	ROBERTSON	655	0.12	2	2	4U	SA	1,337	1,337	100%	550	550	132	132	160	160	-28	-28	28	28
BELL	ROBERTSON	EAGLE	990	0.19	2	2	4U	SA	1,273	1,273	100%	550	550	209	209	242	242	-33	-33	33	33
BERNARD	HICKORY	MULBERRY	390	0.07	1	1	2U	C	5	5	100%	450	450	32	32	0	0	31	31		
BERNARD	MULBERRY	HIGHLAND	1,555	0.29	1	1	2U	C	5	5	100%	450	450	131	131	1	1	129	129		
BERNARD	HIGHLAND	MAPLE	420	0.08	1	1	2U	C	156	156	100%	450	450	36	36	12	12	24	24		
BERNARD	MAPLE	EAGLE	580	0.11	1	1	2U	C	51	51	100%	450	450	50	50	6	6	44	44		
BERNARD	EAGLE	COLLINS	885	0.17	1	1	2U	C	0	0	100%	450	450	77	77	0	0	77	77		
BOLIVAR	US 380	PANHANDLE	3,475	0.66	1	1	2U	C	0	0	100%	450	450	297	297	0	0	297	297		
BOLIVAR	PANHANDLE	CONGRESS	740	0.14	1	1	2U	C	3	3	100%	450	450	63	63	0	0	63	63		
BOLIVAR	CONGRESS	PARKWAY	450	0.09	1	1	2U	C	1	1	100%	450	450	41	41	0	0	40	40		
BOLIVAR	PARKWAY	OAK	895	0.17	1	1	2U	C	1	1	100%	450	450	77	77	0	0	76	76		
BONNIE BRAE	US 380	PANHANDLE	2,910	0.55	2	2	4U	SA	877	877	50%	550	550	303	303	241	241	61	61		
BONNIE BRAE	PANHANDLE	SCRIPTURE	1,070	0.20	2	2	4U	SA	877	877	50%	550	550	110	110	88	88	22	22		
BONNIE BRAE	SCRIPTURE	OAK	1,180	0.22	2	2	4U	SA	877	877	50%	550	550	121	121	96	96	25	25		
BONNIE BRAE	OAK	HICKORY	380	0.07	2	2	4U	SA	877	877	50%	550	550	39	39	31	31	8	8		
BONNIE BRAE	HICKORY	PRAIRIE	1,425	0.27	2	2	4U	SA	877	877	50%	550	550	149	149	118	118	30	30		
BONNIE BRAE	PRAIRIE		860	0.16	2	2	4U	SA	877	877	50%	550	550	88	88	70	70	18	18		
BRINKER	SPENCER	LOOP 288	1,080	0.20	2	2	4D	SA	821	821	100%	750	750	300	300	164	164	136	136		
BRINKER	LOOP 288	MEDPARK	3,070	0.58	2	2	4D	SA	788	788	100%	750	750	870	870	457	457	413	413		
BRINKER	COLORADO	IH 35E	740	0.14	2	2	4D	SA	756	756	100%	750	750	210	210	106	106	104	104		
CARDINAL	995' N OF ORIOLE	ORIOLE	995	0.19	1	1	2U	C	260	260	100%	450	450	86	86	49	49	36	36		
CARDINAL	ORIOLE	MCKINNEY	1,815	0.34	1	1	2U	C	1	1	100%	450	450	153	153	0	0	153	153		
CARROLL	US 380	CRESCENT	2,015	0.38	3	3	6D	PA	1,439	1,439	100%	850	850	969	969	547	547	422	422		
CARROLL	CRESCENT	PANHANDLE	1,465	0.28	3	3	6D	PA	1,480	1,480	100%	850	850	714	714	414	414	300	300		
CARROLL	PANHANDLE	CONGRESS	760	0.14	3	3	6D	PA	1,480	1,480	100%	850	850	357	357	207	207	150	150		
CARROLL	CONGRESS	PARKWAY	390	0.07	3	3	6D	PA	1,701	1,701	100%	850	850	179	179	119	119	59	59		
CARROLL	PARKWAY	OAK	955	0.18	3	3	6D	PA	1,734	1,734	100%	850	850	459	459	312	312	147	147		
CARROLL	OAK	HICKORY	380	0.07	3	3	6D	PA	1,649	1,649	100%	850	850	179	179	115	115	63	63		
CARROLL	HICKORY	MULBERRY	380	0.07	3	3	6D	PA	1,508	1,508	100%	850	850	179	179	106	106	73	73		
CARROLL	MULBERRY	EAGLE	2,575	0.49	3	3	6D	PA	1,565	1,565	100%	850	850	1,250	1,250	767	767	483	483		
CARROLL	EAGLE	COLLINS	880	0.17	3	3	6D	PA	1,646	1,646	100%	850	850	434	434	280	280	154	154		
CENTRE PLACE	DALLAS	IH 35E	2,760	0.52	1	1	2U	C	3	3	100%	450	450	234	234	2	2	232	232		
COLORADO	SPENCER	SAN JACINTO	3,215	0.61	2	2	4U	SA	132	132	100%	550	550	671	671	81	81	590	590		
COLORADO	SAN JACINTO	LOOP 288	1,920	0.36	2	2	4D	SA	760	760	100%	750	750	540	540	274	274	266	266		
COLORADO	BRINKER	LOOP 288	2,840	0.54	2	2	4D	SA	760	760	100%	750	750	810	810	410	410	400	400		
COLORADO	MEDPARK		2,155	0.41	2	2	4D	SA	760	760	100%	750	750	615	615	312	312	303	303		
COLORADO	MAYHILL	MEDPARK	1,495	0.28	2	2	4D	SA	760	760	100%	750	750	420	420	213	213	207	207		
ECTOR	US 380	PANHANDLE	2,835	0.54	1	1	2U	C	35	35	100%	450	450	243	243	19	19	224	224		
ECTOR	PANHANDLE	SCRIPTURE	1,030	0.20	1	1	2U	C	276	276	100%	450	450	90	90	55	55	35	35		
ELM	US 380	CONGRESS	4,200	0.80	0	2	4D	SA	513	513	100%	750	750	0	1,200	410	410	-410	790	410	
ELM	CONGRESS	PARKWAY	445	0.08	0	2	6D	SA	532	532	100%	850	850	0	102	43	43	-43	59	43	

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Service Area E

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ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
ELM	PARKWAY	MCKINNEY	535	0.10	0	2	6D	SA	534	534	100%	850	850	0	128	53	53	-53	74	53	
ELM	MCKINNEY	OAK	375	0.07	0	2	4D	SA	534	534	100%	750	750	0	105	37	37	-37	68	37	
ELM	OAK	HICKORY	380	0.07	0	2	4D	SA	477	477	100%	750	750	0	105	33	33	-33	72	33	
ELM	HICKORY	MULBERRY	375	0.07	0	2	4D	SA	737	737	100%	750	750	0	105	52	52	-52	53	52	
ELM	MULBERRY	EAGLE	2,570	0.49	0	2	4D	SA	542	542	100%	750	750	0	735	266	266	-266	469	266	
FORT WORTH	EAGLE	CARROLL	965	0.18	2	2	4U	SA	393	393	100%	550	550	198	198	71	71	127	127		
FORT WORTH	COLLINS	IH 35E	3,035	0.57	3	3	6D	PA	1,661	1,661	100%	850	850	1,454	1,454	947	947	507	507		
FRY	OAK	HICKORY	380	0.07	1	1	2U	C	247	247	100%	450	450	32	32	17	17	14	14		
FULTON	US 380	CRESCENT	1,520	0.29	1	1	2U	C	265	265	100%	450	450	131	131	77	77	54	54		
FULTON	CRESCENT	PANHANDLE	1,500	0.28	1	1	2U	C	276	276	100%	450	450	126	126	77	77	49	49		
FULTON	PANHANDLE	CONGRESS	720	0.14	1	1	2U	C	143	143	100%	450	450	63	63	20	20	43	43		
FULTON	CONGRESS	OAK	1,370	0.26	1	1	2U	C	22	22	100%	450	450	117	117	6	6	111	111		
GEESLING	US 380	BLAGG	2,445	0.46	1	1	2U	PA	974	974	100%	450	450	207	207	448	448	-241	-241	241	241
JAGOE	SCRIPTURE	OAK	1,115	0.21	1	1	2U	C	276	276	100%	450	450	95	95	58	58	37	37		
LAKEVIEW	POST OAK	SHADY SHORES	1,385	0.26	2	2	4D	PA	760	760	100%	750	750	390	390	198	198	192	192		
LAKEY	PRAIRIE	MORSE	1,535	0.29	1	1	2U	C	12	12	100%	450	450	131	131	3	3	127	127		
LOCUST	US 380	OAKLAND	1,285	0.24	2	0	4D	SA	668	668	100%	750	750	360	0	160	160	200	-160		160
LOCUST	OAKLAND	CONGRESS	2,905	0.55	2	0	4D	SA	488	488	100%	750	750	825	0	268	268	557	-268		268
LOCUST	CONGRESS	PARKWAY	415	0.08	2	0	4D	SA	503	503	100%	750	750	120	0	40	40	80	-40		40
LOCUST	PARKWAY	MCKINNEY	565	0.11	2	0	4D	SA	503	503	100%	750	750	165	0	55	55	110	-55		55
LOCUST	MCKINNEY	OAK	390	0.07	2	0	4D	SA	503	503	100%	750	750	105	0	35	35	70	-35		35
LOCUST	OAK	HICKORY	375	0.07	2	0	4D	SA	708	708	100%	750	750	105	0	50	50	55	-50		50
LOCUST	HICKORY	EAGLE	2,920	0.55	2	0	4D	SA	479	479	100%	750	750	825	0	263	263	562	-263		263
LOOP 288	US 380	AUDRA	1,765	0.33	3	3	6D	PA	1,200	1,200	100%	850	850	842	842	396	396	446	446		
LOOP 288	AUDRA	PROMINENCE	600	0.11	3	3	6D	PA	1,726	1,726	100%	850	850	281	281	190	190	91	91		
LOOP 288	PROMINENCE	RUSSELL NEWMAN	2,560	0.48	3	3	6D	PA	1,679	1,679	100%	850	850	1,224	1,224	806	806	418	418		
LOOP 288	RUSSELL NEWMAN	ORIOLE	565	0.11	3	3	6D	PA	1,689	1,689	100%	850	850	281	281	186	186	95	95		
LOOP 288	ORIOLE	MCKINNEY	1,845	0.35	3	3	6D	PA	1,724	1,724	100%	850	850	893	893	603	603	289	289		
LOOP 288	MCKINNEY	MORSE	2,970	0.56	3	3	6D	PA	1,736	1,736	100%	850	850	1,428	1,428	972	972	456	456		
LOOP 288	MORSE	SPENCER	3,510	0.66	3	3	6D	PA	1,424	1,424	100%	850	850	1,683	1,683	940	940	743	743		
MACK	PAISLEY	MCKINNEY	1,970	0.37	1	1	2U	C	198	198	100%	450	450	167	167	73	73	93	93		
MALONE	US 380	CRESCENT	960	0.18	1	1	3U	C	148	148	100%	550	550	99	99	27	27	72	72		
MALONE	CRESCENT	PANHANDLE	1,875	0.36	1	1	3U	C	148	148	100%	550	550	198	198	53	53	145	145		
MALONE	PANHANDLE	SCRIPTURE	1,120	0.21	1	1	3U	C	148	148	100%	550	550	116	116	31	31	84	84		
MAYHILL	US 380	PROMINENCE	2,335	0.44	2	2	4D	PA	1,437	1,437	100%	750	750	660	660	632	632	28	28		
MAYHILL	PROMINENCE	770' N OF RUSSELL NEWMAN	2,040	0.39	2	2	4D	PA	1,437	1,437	100%	750	750	585	585	560	560	25	25		
MAYHILL	770' N OF RUSSELL NEWMAN	RUSSELL NEWMAN	775	0.15	2	2	4D	PA	1,437	1,437	50%	750	750	113	113	108	108	5	5		
MAYHILL	RUSSELL NEWMAN	460' S OF RUSSELL NEWMAN	460	0.09	2	2	4D	PA	1,533	1,533	50%	750	750	68	68	69	69	-1	-1	1	1
MAYHILL	460' S OF RUSSELL NEWMAN	MILLS	1,080	0.20	2	2	4D	PA	1,533	1,533	100%	750	750	300	300	307	307	-7	-7	7	7
MAYHILL	MILLS	MCKINNEY	1,955	0.37	2	2	4D	PA	1,608	1,608	100%	750	750	555	555	595	595	-40	-40	40	40
MAYHILL	MCKINNEY	MORSE	2,045	0.39	2	2	4D	PA	1,865	1,865	100%	750	750	585	585	727	727	-142	-142	142	142
MAYHILL	MORSE	SPENCER	3,520	0.67	2	2	4D	PA	1,501	1,501	100%	750	750	1,005	1,005	1,006	1,006	-1	-1	1	1
MAYHILL	SPENCER	EDWARDS	3,185	0.60	2	2	4D	PA	2,037	2,037	100%	750	750	900	900	1,222	1,222	-322	-322	322	322
MAYHILL	QUAILCREEK	EDWARDS	1,560	0.30	1	1	2U	C	1,116	1,116	100%	450	450	135	135	335	335	-200	-200	200	200
MAYHILL	EDWARDS	COLORADO	515	0.10	2	2	4U	C	1,138	1,138	100%	550	550	110	110	114	114	-4	-4	4	4
MAYHILL	COLORADO	IH 35E	2,330	0.44	2	2	4D	PA	2,774	2,774	100%	750	750	660	660	1,221	1,221	-561	-561	561	561
MEDPARK	BRINKER	COLORADO	2,140	0.41	1	1	3U	C	148	148	100%	550	550	226	226	61	61	165	165		
MEDPARK	COLORADO	IH 35E	1,360	0.26	1	1	3U	C	148	148	100%	550	550	143	143	38	38	105	105		
MOCKINGBIRD	MINGO	AUDRA	1,890	0.36	1	1	2U	C	276	276	100%	450	450	162	162	99	99	63	63		
MOCKINGBIRD	AUDRA	PAISLEY	2,895	0.55	1	1	2U	C	15	15	100%	450	450	248	248	8	8	239	239		
MOCKINGBIRD	PAISLEY	ORIOLE	940	0.18	1	1	2U	C	91	91	100%	450	450	81	81	16	16	65	65		
MOCKINGBIRD	ORIOLE	MCKINNEY	1,670	0.32	1	1	2U	C	91	91	100%	450	450	144	144	29	29	115	115		
MOCKINGBIRD	625' N OF DUCHESS	DUCHESS	625	0.12	1	1	2U	SA	137	137	100%	450	450	54	54	16	16	38	38		
NORTH TEXAS	OAK	HICKORY	360	0.07	1	1	2U	SA	216	216	100%	450	450	32	32	15	15	16	16		
NORTH TEXAS	HICKORY	PRAIRIE	1,425	0.27	2	2	4U	SA	640	640	100%	550	550	297	297	173	173	124	124		
NORTH TEXAS	PRAIRIE	HIGHLAND	520	0.10	2	2	4U	SA	640	640	100%	550	550	110	110	64	64	46	46		
NORTH TEXAS	HIGHLAND	EAGLE	1,265	0.24	2	2	4U	SA	640	640	100%	550	550	264	264	154	154	110	110		
NORTH TEXAS	IH 35E	EAGLE	750	0.14	2	2	4U	SA	640	640	100%	550	550	154	154	90	90	64	64		
NOTTINGHAM	US 380	MINGO	1,820	0.34	2	2	4U	SA	640	640	100%	550	550	374	374	218	218	156	156		
NOTTINGHAM	MINGO	AUDRA	1,060	0.20	2	2	4U	SA	263	263	100%	550	550	220	220	53	53	167	167		
OAKLAND	LOCUST	WITHERS	2,775	0.53	1	1	2U	C	1	1	100%	450	450	239	239	1	1	238	238		

City of Denton - 2022 Roadway Impact Fee Study
Existing Roadway Facilities Inventory

Service Area E

12/7/2023

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	CLASS	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN		VEH-MI SUPPLY PK-HR TOTAL		VEH-MI DEMAND PK-HR TOTAL		EXCESS CAPACITY PK-HR VEH-MI		EXISTING DEFICIENCIES PK-HR VEH-MI	
					NB/EB	SB/WB			NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
OAKLAND	WITHERS	CONGRESS	680	0.13	1	1	2U	C	15	15	100%	450	450	59	59	2	2	57	57		
OLD NORTH	US 380	MINGO	600	0.11	1	1	2U	C	263	263	100%	450	450	50	50	29	29	21	21		
PERTAIN	MINGO	LATTIMORE	805	0.15	1	1	2U	C	2	2	100%	450	450	68	68	0	0	67	67		
POST OAK	POCKRUS PAGE	LAKEVIEW	1,240	0.23	1	1	2U	PA	276	276	100%	450	450	104	104	63	63	40	40		
RUDELL	US 380	MINGO	2,460	0.47	1	1	2U	C	62	62	100%	450	450	212	212	29	29	182	182		
RUDELL	WILLIS	PAISLEY	1,455	0.28	1	1	2U	C	17	17	100%	450	450	126	126	5	5	121	121		
RUDELL	PAISLEY	MCKINNEY	1,580	0.30	1	1	2U	C	48	48	100%	450	450	135	135	14	14	121	121		
RUDELL	MCKINNEY	HICKORY	590	0.11	1	1	2U	C	0	0	100%	450	450	50	50	0	0	50	50		
RUDELL	HICKORY	MORSE	3,255	0.62	1	1	2U	C	8	8	100%	450	450	279	279	5	5	274	274		
TEASLEY	SHADY OAKS	DALLAS	860	0.16	2	2	4D	SA	760	760	100%	750	750	240	240	122	122	118	118		
TEASLEY	DALLAS	IH 35E	1,870	0.35	2	2	4D	PA	1,045	1,045	100%	750	750	525	525	366	366	159	159		
WELCH	OAK	HICKORY	380	0.07	2	2	4U	SA	640	640	100%	550	550	77	77	45	45	32	32		
WELCH	HICKORY	MULBERRY	350	0.07	2	2	4U	SA	277	277	100%	550	550	77	77	19	19	58	58		
WELCH	MULBERRY	HIGHLAND	1,570	0.30	2	2	4U	SA	187	187	100%	550	550	330	330	56	56	274	274		
WELCH	HIGHLAND	MAPLE	400	0.08	2	2	4U	SA	182	182	100%	550	550	88	88	15	15	73	73		
WELCH	MAPLE	EAGLE	575	0.11	2	2	4U	SA	640	640	100%	550	550	121	121	70	70	51	51		
WELCH	EAGLE	COLLINS	925	0.18	2	2	4U	C	640	640	100%	550	550	198	198	115	115	83	83		
WOODROW	MCKINNEY	MORSE	3,910	0.74	2	2	5U	SA	1,960	1,960	100%	725	725	1,073	1,073	1,450	1,450	-377	-377	377	377
WOODROW	MORSE	SHADY OAKS	1,305	0.25	2	2	4U	SA	640	640	100%	550	550	275	275	160	160	115	115		
WOODROW	SHADY OAKS	SPENCER	475	0.09	2	2	5U	SA	1,960	1,960	100%	725	725	131	131	176	176	-46	-46	46	46
SUBTOTAL			158,685	30.09										20,658	19,830	11,737	11,004	8,921	8,948	3,695	3,672
														40,488		22,741		17,870		7,367	

Appendix D – Plan for Awarding the Transportation Impact Fee Credit Summary

(as prepared by NewGen Strategies.)

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area A

Recoverable Impact Fee CIP Costs	\$ 166,445,445	Kimley-Horn Impact Fee Study
Financing Cost	80,871,139	See Detail Below
Existing Fund Balance	(4,394,807)	Roadway Appendices - page 1
Interest Earnings	(39,254,897)	Roadway Appendices - page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 203,666,880	Sum of Above
Credit for Ad Valorem Revenues	(12,265,351)	Roadway Appendices - page 7
Maximum Recoverable Cost for Impact Fee	\$ 191,401,529	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees. Reference is the Kimley-Horn Impact Fee Study.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 213,997,367	Roadway Appendices - page 2
Existing Annual Debt Service	-	Roadway Appendices - page 3
Principal Component (New and Existing Debt)	(133,126,228)	Roadway Appendices - page 1
Financing Costs	<u>\$ 80,871,139</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs.

Reference is page 1 of Roadway Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate.

The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs.

Reference is the sum of Accumulated Interest on page 4 of Roadway Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the LGC Chapter 395 was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund Impact fee eligible projects for which the new service units were charged an Impact fee. The intent of this amendment is to avoid double-charging the new service units for Impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed Impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 7 of Roadway Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through Impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area B

Recoverable Impact Fee CIP Costs	\$ 57,206,816	Kimley-Horn Impact Fee Study
Financing Cost	26,749,649	See Detail Below
Existing Fund Balance	(2,004,188)	Roadway Appendices - page 1
Interest Earnings	(13,661,722)	Roadway Appendices - page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 68,290,555	Sum of Above
Credit for Ad Valorem Revenues	(1,713,041)	Roadway Appendices - page 7
Maximum Recoverable Cost for Impact Fee	\$ 66,577,514	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees. Reference is the Kimley-Horn Impact Fee Study.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 70,081,910	Roadway Appendices - page 2
Existing Annual Debt Service	1,268,749	Roadway Appendices - page 3
Principal Component (New and Existing Debt)	(44,601,010)	Roadway Appendices - page 1
Financing Costs	<u>\$ 26,749,649</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Roadway Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate.

The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs.

Reference is the sum of Accumulated Interest on page 4 of Roadway Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the LGC Chapter 395 was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund Impact fee eligible projects for which the new service units were charged an Impact fee. The intent of this amendment is to avoid double-charging the new service units for Impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed Impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 7 of Roadway Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through Impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area C

Recoverable Impact Fee CIP Costs	\$ 126,409,861	Kimley-Horn Impact Fee Study
Financing Cost	61,414,578	See Detail Below
Existing Fund Balance	(3,170,473)	Roadway Appendices - page 1
Interest Earnings	(30,142,851)	Roadway Appendices - page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 154,511,114	Sum of Above
Credit for Ad Valorem Revenues	(7,396,751)	Roadway Appendices - page 7
Maximum Recoverable Cost for Impact Fee	\$ 147,114,363	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees. Reference is the Kimley-Horn Impact Fee Study.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 162,512,338	Roadway Appendices - page 2
Existing Annual Debt Service	-	Roadway Appendices - page 3
Principal Component (New and Existing Debt)	(101,097,761)	Roadway Appendices - page 1
Financing Costs	<u>\$ 61,414,578</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Roadway Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate.

The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs.

Reference is the sum of Accumulated Interest on page 4 of Roadway Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the LGC Chapter 395 was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund Impact fee eligible projects for which the new service units were charged an Impact fee. The intent of this amendment is to avoid double-charging the new service units for Impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed Impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 7 of Roadway Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through Impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area D

Recoverable Impact Fee CIP Costs	\$ 51,696,805	Kimley-Horn Impact Fee Study
Financing Cost	25,105,399	See Detail Below
Existing Fund Balance	(1,685,562)	Roadway Appendices - page 1
Interest Earnings	(12,702,369)	Roadway Appendices - page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 62,414,273	Sum of Above
Credit for Ad Valorem Revenues	(1,157,132)	Roadway Appendices - page 7
Maximum Recoverable Cost for Impact Fee	\$ 61,257,141	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees. Reference is the Kimley-Horn Impact Fee Study.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 66,432,715	Roadway Appendices - page 2
Existing Annual Debt Service	-	Roadway Appendices - page 3
Principal Component (New and Existing Debt)	(41,327,316)	Roadway Appendices - page 1
Financing Costs	<u>\$ 25,105,399</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Roadway Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate.

The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs.

Reference is the sum of Accumulated Interest on page 4 of Roadway Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the LGC Chapter 395 was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund Impact fee eligible projects for which the new service units were charged an Impact fee. The intent of this amendment is to avoid double-charging the new service units for Impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed Impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 7 of Roadway Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through Impact fees.

SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area E

Recoverable Impact Fee CIP Costs	\$ 79,169,421	Kimley-Horn Impact Fee Study
Financing Cost	38,714,769	See Detail Below
Existing Fund Balance	(4,840,794)	Roadway Appendices - page 1
Interest Earnings	(19,534,195)	Roadway Appendices - page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 93,509,200	Sum of Above
Credit for Ad Valorem Revenues	(3,628,065)	Roadway Appendices - page 7
Maximum Recoverable Cost for Impact Fee	\$ 89,881,135	

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees. Reference is the Kimley-Horn Impact Fee Study.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from existing debt issues and forecasted debt issues.

New Annual Debt Service	\$ 102,210,271	Roadway Appendices - page 2
Existing Annual Debt Service	388,356	Roadway Appendices - page 3
Principal Component (New and Existing Debt)	(63,883,858)	Roadway Appendices - page 1
Financing Costs	<u>\$ 38,714,769</u>	

Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e. fund balance) are credited against the recoverable costs. Reference is page 1 of Roadway Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 2.00% annual interest rate.

The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs.

Reference is the sum of Accumulated Interest on page 4 of Roadway Appendices.

Pre Credit Recoverable Cost for Impact Fee:

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Existing Fund Balance and Interest Earnings.

Credit for Ad Valorem Revenues:

In 2001, the LGC Chapter 395 was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund Impact fee eligible projects for which the new service units were charged an Impact fee. The intent of this amendment is to avoid double-charging the new service units for Impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed Impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 7 of Roadway Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.

This is the maximum cost that can be recovered through Impact fees.

Appendix E – Plan for Awarding the Transportation Impact Fee Credit Supporting Exhibits

(as prepared by NewGen Strategies.)

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Calculation Assumptions
Appendix E - Impact Fee Calculation Assumptions
Service Area A

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	3,997
Existing Fund Balance ⁽³⁾	4,394,807
Portion of Projects Funded by Existing Debt ⁽³⁾	\$ -
Non-debt Funded Project Cost ⁽⁴⁾	33,319,217
New Project Cost Funded Through New Debt ⁽⁵⁾	133,126,228
Total Recoverable Project Cost ⁽⁶⁾	\$ 166,445,445

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal ⁽⁷⁾</u>	<u>Interest ⁽⁸⁾</u>	<u>Term</u>
1	\$ 13,312,623	4.05%	20
2	13,312,623	4.30%	20
3	13,312,623	5.00%	20
4	13,312,623	5.00%	20
5	13,312,623	5.15%	20
6	13,312,623	5.15%	20
7	13,312,623	5.25%	20
8	13,312,623	5.25%	20
9	13,312,623	5.50%	20
10	13,312,623	5.50%	20
Total	\$ 133,126,228		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures ⁽⁹⁾</u>
1	\$ 3,331,922
2	7,769,463
3	12,207,004
4	16,644,545
5	16,644,545
6	16,644,545
7	16,644,545
8	16,644,545
9	16,644,545
10	16,644,545
11	13,312,623
12	8,875,082
13	4,437,541
Total	166,445,445

- (1) Per discussions with City Staff and City files
(2) Per Kimley-Horn Impact Fee Study
(3) Per discussions with City Staff and City files
(4) Per discussions with City Staff and City files
(5) This assumes 20% of new project costs funded through sources other than debt, unless specified otherwise
(6) This assumes 80% of new project costs funded through new debt issues, unless specified otherwise
(7) Per Kimley-Horn Impact Fee Study
(8) Assumes new debt issued in equal amounts every year
(9) Estimated interest on future debt from City's Financial Advisor October 2022
(10) Assumes new debt proceeds expended over a 3-year timeframe
Non-debt funded capital expenditures allocated per discussions with City Staff

City of Denton - 2022 Roadway Impact Fee Study
Appendix E - Impact Fee Calculation Assumptions
Debt Service and Expense Summary
Service Area A

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 983,908	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 983,908
2	983,908	1,005,764	-	-	-	-	-	-	-	-	1,989,672
3	983,908	1,005,764	1,068,239	-	-	-	-	-	-	-	3,057,911
4	983,908	1,005,764	1,068,239	1,068,239	-	-	-	-	-	-	4,126,151
5	983,908	1,005,764	1,068,239	1,068,239	1,081,868	-	-	-	-	-	5,208,018
6	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	-	-	-	-	6,289,886
7	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	-	-	-	7,380,886
8	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	-	-	8,471,886
9	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	-	9,585,877
10	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
11	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
12	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
13	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
14	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
15	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
16	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
17	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
18	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
19	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
20	983,908	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	10,699,868
21	-	1,005,764	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	9,715,960
22	-	-	1,068,239	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	8,710,196
23	-	-	-	1,068,239	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	7,641,957
24	-	-	-	-	1,081,868	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	6,573,718
25	-	-	-	-	-	1,081,868	1,091,000	1,091,000	1,113,991	1,113,991	5,491,850
26	-	-	-	-	-	-	1,091,000	1,091,000	1,113,991	1,113,991	4,409,982
27	-	-	-	-	-	-	-	1,091,000	1,113,991	1,113,991	3,318,983
28	-	-	-	-	-	-	-	-	1,113,991	1,113,991	2,227,983
29	-	-	-	-	-	-	-	-	-	1,113,991	1,113,991
	\$ 19,678,160	\$ 20,115,279	\$ 21,364,786	\$ 21,364,786	\$ 21,637,355	\$ 21,637,355	\$ 21,819,997	\$ 21,819,997	\$ 22,279,827	\$ 22,279,827	\$213,997,367

City of Denton - 2022 Roadway Impact Fee Study

Appendix E - Impact Fee Calculation Assumptions

Debt Service and Expense Summary

Service Area A

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 983,908	\$ 3,331,922	\$ (13,312,623)	\$ -	\$ (6,473)	\$ (9,003,266)
2	1,989,672	7,769,463	(13,312,623)	-	(26,010)	(3,579,498)
3	3,057,911	12,207,004	(13,312,623)	-	(59,572)	1,892,720
4	4,126,151	16,644,545	(13,312,623)	-	(106,485)	7,351,587
5	5,208,018	16,644,545	(13,312,623)	-	(166,929)	8,373,011
6	6,289,886	16,644,545	(13,312,623)	-	(240,386)	9,381,422
7	7,380,886	16,644,545	(13,312,623)	-	(327,012)	10,385,796
8	8,471,886	16,644,545	(13,312,623)	-	(426,272)	11,377,535
9	9,585,877	16,644,545	(13,312,623)	-	(539,223)	12,378,576
10	10,699,868	16,644,545	(13,312,623)	-	(664,609)	13,367,181
11	10,699,868	13,312,623	-	-	(664,609)	23,347,882
12	10,699,868	8,875,082	-	-	(664,609)	18,910,341
13	10,699,868	4,437,541	-	-	(664,609)	14,472,800
14	10,699,868	-	-	-	(664,609)	10,035,259
15	10,699,868	-	-	-	(664,609)	10,035,259
16	10,699,868	-	-	-	(664,609)	10,035,259
17	10,699,868	-	-	-	(664,609)	10,035,259
18	10,699,868	-	-	-	(664,609)	10,035,259
19	10,699,868	-	-	-	(664,609)	10,035,259
20	10,699,868	-	-	-	(664,609)	10,035,259
21	9,715,960	-	-	-	(603,495)	9,112,465
22	8,710,196	-	-	-	(541,023)	8,169,173
23	7,641,957	-	-	-	(474,671)	7,167,286
24	6,573,718	-	-	-	(408,319)	6,165,399
25	5,491,850	-	-	-	(341,120)	5,150,730
26	4,409,982	-	-	-	(273,921)	4,136,062
27	3,318,983	-	-	-	(206,155)	3,112,828
28	2,227,983	-	-	-	(138,388)	2,089,594
29	1,113,991	-	-	-	(69,194)	1,044,797
PTD	-	-	-	-	-	-
	\$ 213,997,367	\$ 166,445,445	#####	\$ -	\$ (12,265,351)	\$ 235,051,233

(1) Appendix D - Service Area A, Page 2

(2) Appendix D - Service Area A, Page 1

(3) Eligible outstanding debt funded projects as a percent of total principal times original annual debt service, including Paid-To-Date (PTD) amounts

(4) Appendix D - Service Area A, Page 7

City of Denton - 2022 Roadway Impact Fee Study

Revenue Test

Appendix E - Impact Fee Calculation Assumptions

Service Area A

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 4,394,807
1	\$ 4,789	3,997	\$ 19,140,153	\$ (9,003,266)	\$ 28,143,419	\$ 369,330	32,907,557
2	4,789	3,997	19,140,153	(3,579,498)	22,719,651	885,348	56,512,556
3	4,789	3,997	19,140,153	1,892,720	17,247,433	1,302,725	75,062,714
4	4,789	3,997	19,140,153	7,351,587	11,788,566	1,619,140	88,470,419
5	4,789	3,997	19,140,153	8,373,011	10,767,142	1,877,080	101,114,641
6	4,789	3,997	19,140,153	9,381,422	9,758,731	2,119,880	112,993,252
7	4,789	3,997	19,140,153	10,385,796	8,754,357	2,347,409	124,095,018
8	4,789	3,997	19,140,153	11,377,535	7,762,618	2,559,527	134,417,163
9	4,789	3,997	19,140,153	12,378,576	6,761,577	2,755,959	143,934,699
10	4,789	3,997	19,140,153	13,367,181	5,772,972	2,936,424	152,644,095
11	-	-	-	23,347,882	(23,347,882)	2,819,403	132,115,616
12	-	-	-	18,910,341	(18,910,341)	2,453,209	115,658,484
13	-	-	-	14,472,800	(14,472,800)	2,168,442	103,354,126
14	-	-	-	10,035,259	(10,035,259)	1,966,730	95,285,597
15	-	-	-	10,035,259	(10,035,259)	1,805,359	87,055,698
16	-	-	-	10,035,259	(10,035,259)	1,640,761	78,661,200
17	-	-	-	10,035,259	(10,035,259)	1,472,871	70,098,812
18	-	-	-	10,035,259	(10,035,259)	1,301,624	61,365,177
19	-	-	-	10,035,259	(10,035,259)	1,126,951	52,456,869
20	-	-	-	10,035,259	(10,035,259)	948,785	43,370,395
21	-	-	-	9,112,465	(9,112,465)	776,283	35,034,213
22	-	-	-	8,169,173	(8,169,173)	618,993	27,484,032
23	-	-	-	7,167,286	(7,167,286)	478,008	20,794,754
24	-	-	-	6,165,399	(6,165,399)	354,241	14,983,596
25	-	-	-	5,150,730	(5,150,730)	248,165	10,081,030
26	-	-	-	4,136,062	(4,136,062)	160,260	6,105,228
27	-	-	-	3,112,828	(3,112,828)	90,976	3,083,377
28	-	-	-	2,089,594	(2,089,594)	40,772	1,034,554
29	-	-	-	1,044,797	(1,044,797)	10,243	-
PTD	-	-	-	-	-	-	-
			\$ 191,401,529	\$ 235,051,233		\$ 39,254,897	

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Calculation

Appendix E - Impact Fee Calculation Assumptions

Service Area A

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	3,997	7,028	\$ (9,003,266)	\$ (15,831,654)
2	28	1.7240	1.0000	3,997	6,890	(3,579,498)	(6,170,895)
3	27	1.6902	1.0000	3,997	6,755	1,892,720	3,198,986
4	26	1.6570	1.0000	3,997	6,623	7,351,587	12,181,669
5	25	1.6245	1.0000	3,997	6,493	8,373,011	13,602,137
6	24	1.5927	1.0000	3,997	6,366	9,381,422	14,941,493
7	23	1.5614	1.0000	3,997	6,241	10,385,796	16,216,791
8	22	1.5308	1.0000	3,997	6,118	11,377,535	17,416,992
9	21	1.5008	1.0000	3,997	5,998	12,378,576	18,577,851
10	20	1.4714	1.0000	3,997	5,881	13,367,181	19,668,193
11	19	1.4425	1.0000	-	-	23,347,882	33,679,990
12	18	1.4142	1.0000	-	-	18,910,341	26,743,833
13	17	1.3865	1.0000	-	-	14,472,800	20,066,733
14	16	1.3593	1.0000	-	-	10,035,259	13,641,199
15	15	1.3327	1.0000	-	-	10,035,259	13,373,724
16	14	1.3065	1.0000	-	-	10,035,259	13,111,494
17	13	1.2809	1.0000	-	-	10,035,259	12,854,406
18	12	1.2558	1.0000	-	-	10,035,259	12,602,359
19	11	1.2312	1.0000	-	-	10,035,259	12,355,254
20	10	1.2070	1.0000	-	-	10,035,259	12,112,994
21	9	1.1834	1.0000	-	-	9,112,465	10,783,472
22	8	1.1602	1.0000	-	-	8,169,173	9,477,650
23	7	1.1374	1.0000	-	-	7,167,286	8,152,244
24	6	1.1151	1.0000	-	-	6,165,399	6,875,170
25	5	1.0933	1.0000	-	-	5,150,730	5,631,069
26	4	1.0718	1.0000	-	-	4,136,062	4,433,114
27	3	1.0508	1.0000	-	-	3,112,828	3,270,972
28	2	1.0302	1.0000	-	-	2,089,594	2,152,700
29	1	1.0100	1.0000	-	-	1,044,797	1,055,245
PTD		1.0000	1.0000	-	-	-	-
				64,394		\$ 316,175,187	

Annual Interest Rate: 2.00%

Total Escalated Expense for Entire Period	\$ 316,175,187
Less Future Value of Initial Impact Fee Fund Balance	7,804,495
Sub-Total	\$ 308,370,691

Total Escalated Vehicle Miles	64,394
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Maximum Assessable Impact Fee for Roadway Service Area A \$ 4,789

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Project Funding
Appendix E - Impact Fee Calculation Assumptions
Service Area A

<u>Street Name</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽²⁾</u>		<u>Non-Debt</u>		<u>Impact Fee</u>	
	<u>Service Area ⁽¹⁾</u>		<u>Recoverable Cost⁽¹⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽²⁾</u>		<u>Recoverable Cost</u>	
CORBIN	\$ 10,164,000	\$	6,012,227	\$	-	\$ 4,809,782	\$ 1,202,445	\$	6,012,227	
CORBIN	3,378,000		1,998,160		-	1,598,528	399,632		1,998,160	
FM 1515	23,533,000		13,920,281		-	11,136,225	2,784,056		13,920,281	
FM 1515	3,959,000		2,341,835		-	1,873,468	468,367		2,341,835	
FM 1515	7,495,000		4,433,455		-	3,546,764	886,691		4,433,455	
FM 1515	2,089,000		1,235,689		-	988,551	247,138		1,235,689	
FM 1515	13,827,000		8,178,971		-	6,543,177	1,635,794		8,178,971	
FM 1515	13,132,000		7,767,864		-	6,214,291	1,553,573		7,767,864	
H LIVELY	3,613,000		2,137,168		-	1,709,734	427,434		2,137,168	
H LIVELY	13,188,000		7,800,989		-	6,240,791	1,560,198		7,800,989	
IH-35-CORBIN	7,040,000		4,164,313		-	3,331,450	832,863		4,164,313	
JIM CHRISTAL	10,332,000		6,111,603		-	4,889,282	1,222,321		6,111,603	
JIM CHRISTAL	4,873,000		2,882,485		-	2,305,988	576,497		2,882,485	
JIM CHRISTAL	5,982,000		3,538,483		-	2,830,786	707,697		3,538,483	
JIM CHRISTAL	9,251,000		5,472,168		-	4,377,734	1,094,434		5,472,168	
JIM CHRISTAL	6,353,500		3,758,233		-	3,006,587	751,647		3,758,233	
PRECISION-WESTERN	6,566,000		3,883,932		-	3,107,145	776,786		3,883,932	
ROBSON RANCH	15,487,000		9,160,897		-	7,328,718	1,832,179		9,160,897	
ROBSON RANCH	12,667,500		7,493,102		-	5,994,481	1,498,620		7,493,102	
SPRINGSIDE	6,141,000		3,632,535		-	2,906,028	726,507		3,632,535	
SPRINGSIDE	2,971,000		1,757,411		-	1,405,929	351,482		1,757,411	
TJ EGAN-LOOP 288	3,722,000		2,201,644		-	1,761,315	440,329		2,201,644	
C WOLFE	26,240,000		15,521,531		-	12,417,225	3,104,306		15,521,531	
C WOLFE	6,009,000		3,554,454		-	2,843,563	710,891		3,554,454	
CORBIN	3,667,000		2,169,110		-	1,735,288	433,822		2,169,110	
J CHRISTAL-H LIVELY	5,353,000		3,166,416		-	2,533,133	633,283		3,166,416	
PRECISION	3,694,000		2,185,081		-	1,748,065	437,016		2,185,081	
THOMAS J EGAN	6,984,000		4,131,188		-	3,304,950	826,238		4,131,188	
THOMAS J EGAN	2,317,500		1,370,852		-	1,096,681	274,170		1,370,852	
UNDERWOOD	15,229,000		9,008,285		-	7,206,628	1,801,657		9,008,285	
WESTCOURT	5,343,000		3,160,501		-	2,528,401	632,100		3,160,501	
WESTERN	6,619,000		3,915,282		-	3,132,226	783,056		3,915,282	
WESTERN	14,102,000		8,341,640		-	6,673,312	1,668,328		8,341,640	
	37,660		37,660		-	-	37,660		37,660	
	\$ 281,359,160	\$	166,445,445	\$	-	\$ 133,126,228	\$ 33,319,217	\$	166,445,445	

(1) Per Kimley-Horn Impact Fee Study

(2) Per discussions with City staff and City files

City of Denton - 2022 Roadway Impact Fee Study

Credit Determination

Appendix E - Impact Fee Calculation Assumptions

Service Area A

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Rate Revenues</u>
1	\$ 983,908	607,498	\$ 1.62	3,997	\$ 6,473
2	1,989,672	611,495	3.25	7,994	26,010
3	3,057,911	615,491	4.97	11,990	59,572
4	4,126,151	619,488	6.66	15,987	106,485
5	5,208,018	623,485	8.35	19,984	166,929
6	6,289,886	627,482	10.02	23,981	240,386
7	7,380,886	631,479	11.69	27,978	327,012
8	8,471,886	635,476	13.33	31,975	426,272
9	9,585,877	639,472	14.99	35,971	539,223
10	10,699,868	643,469	16.63	39,968	664,609
11	10,699,868	643,469	16.63	39,968	664,609
12	10,699,868	643,469	16.63	39,968	664,609
13	10,699,868	643,469	16.63	39,968	664,609
14	10,699,868	643,469	16.63	39,968	664,609
15	10,699,868	643,469	16.63	39,968	664,609
16	10,699,868	643,469	16.63	39,968	664,609
17	10,699,868	643,469	16.63	39,968	664,609
18	10,699,868	643,469	16.63	39,968	664,609
19	10,699,868	643,469	16.63	39,968	664,609
20	10,699,868	643,469	16.63	39,968	664,609
21	9,715,960	643,469	15.10	39,968	603,495
22	8,710,196	643,469	13.54	39,968	541,023
23	7,641,957	643,469	11.88	39,968	474,671
24	6,573,718	643,469	10.22	39,968	408,319
25	5,491,850	643,469	8.53	39,968	341,120
26	4,409,982	643,469	6.85	39,968	273,921
27	3,318,983	643,469	5.16	39,968	206,155
28	2,227,983	643,469	3.46	39,968	138,388
29	1,113,991	643,469	1.73	39,968	69,194
Total	\$ 213,997,367				\$ 12,265,351

2022 Vehicle Miles (All Service Areas) ⁽²⁾ 603,501

Ten Year Growth in Vehicle Miles (Service Area A) ⁽²⁾ 39,968
 10 years

Annual Growth in Vehicle Miles 3,997

Credit Amount \$ 12,265,351

(1) Appendix D - Service Area A, Page 3

(2) Per Kimley-Horn Impact Fee Study

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Calculation Assumptions
Appendix E - Impact Fee Calculation Assumptions
Service Area B

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	1,637
Existing Fund Balance ⁽³⁾	2,004,188
Portion of Projects Funded by Existing Debt ⁽³⁾	\$ 1,003,556
Non-debt Funded Project Cost ⁽⁴⁾	12,605,806
New Project Cost Funded Through New Debt ⁽⁵⁾	43,597,454
Total Recoverable Project Cost ⁽⁶⁾	\$ 57,206,816

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal ⁽⁷⁾</u>	<u>Interest ⁽⁸⁾</u>	<u>Term</u>
1	\$ 4,359,745	4.05%	20
2	4,359,745	4.30%	20
3	4,359,745	5.00%	20
4	4,359,745	5.00%	20
5	4,359,745	5.15%	20
6	4,359,745	5.15%	20
7	4,359,745	5.25%	20
8	4,359,745	5.25%	20
9	4,359,745	5.50%	20
10	4,359,745	5.50%	20
Total	\$ 43,597,454		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures ⁽⁹⁾</u>
1	\$ 1,260,581
2	2,713,829
3	4,167,078
4	5,620,326
5	5,620,326
6	5,620,326
7	5,620,326
8	5,620,326
9	5,620,326
10	5,620,326
11	4,359,745
12	2,906,497
13	1,453,248
Total	56,203,260

- (1) Per discussions with City Staff and City files
(2) Per Kimley-Horn Impact Fee Study
(3) Per discussions with City Staff and City files
(4) Per discussions with City Staff and City files
(5) This assumes 20% of new project costs funded through sources other than debt, unless specified otherwise
(6) This assumes 80% of new project costs funded through new debt issues, unless specified otherwise
(7) Per Kimley-Horn Impact Fee Study
(8) Assumes new debt issued in equal amounts every year
(9) Estimated interest on future debt from City's Financial Advisor October 2022
(10) Assumes new debt proceeds expended over a 3-year timeframe
Non-debt funded capital expenditures allocated per discussions with City Staff

City of Denton - 2022 Roadway Impact Fee Study
Appendix E - Impact Fee Calculation Assumptions
Debt Service and Expense Summary
Service Area B

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 322,220	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 322,220
2	322,220	329,377	-	-	-	-	-	-	-	-	651,597
3	322,220	329,377	349,837	-	-	-	-	-	-	-	1,001,434
4	322,220	329,377	349,837	349,837	-	-	-	-	-	-	1,351,271
5	322,220	329,377	349,837	349,837	354,300	-	-	-	-	-	1,705,572
6	322,220	329,377	349,837	349,837	354,300	354,300	-	-	-	-	2,059,872
7	322,220	329,377	349,837	349,837	354,300	354,300	357,291	-	-	-	2,417,163
8	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	-	-	2,774,454
9	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	-	3,139,275
10	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
11	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
12	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
13	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
14	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
15	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
16	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
17	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
18	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
19	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
20	322,220	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,504,096
21	-	329,377	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	3,181,876
22	-	-	349,837	349,837	354,300	354,300	357,291	357,291	364,821	364,821	2,852,499
23	-	-	-	349,837	354,300	354,300	357,291	357,291	364,821	364,821	2,502,661
24	-	-	-	-	354,300	354,300	357,291	357,291	364,821	364,821	2,152,824
25	-	-	-	-	-	354,300	357,291	357,291	364,821	364,821	1,798,524
26	-	-	-	-	-	-	357,291	357,291	364,821	364,821	1,444,223
27	-	-	-	-	-	-	-	357,291	364,821	364,821	1,086,932
28	-	-	-	-	-	-	-	-	364,821	364,821	729,641
29	-	-	-	-	-	-	-	-	-	364,821	364,821
	\$ 6,444,392	\$ 6,587,544	\$ 6,996,745	\$ 6,996,745	\$ 7,086,008	\$ 7,086,008	\$ 7,145,822	\$ 7,145,822	\$ 7,296,411	\$ 7,296,411	\$ 70,081,910

City of Denton - 2022 Roadway Impact Fee Study

Appendix E - Impact Fee Calculation Assumptions

Debt Service and Expense Summary

Service Area B

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 322,220	\$ 1,260,581	\$ (4,359,745)	\$ 36,384	\$ (970)	\$ (2,741,532)
2	651,597	2,713,829	(4,359,745)	32,947	(3,695)	(965,067)
3	1,001,434	4,167,078	(4,359,745)	32,871	(8,351)	833,286
4	1,351,271	5,620,326	(4,359,745)	32,776	(14,859)	2,629,768
5	1,705,572	5,620,326	(4,359,745)	33,266	(23,273)	2,976,146
6	2,059,872	5,620,326	(4,359,745)	33,116	(33,526)	3,320,043
7	2,417,163	5,620,326	(4,359,745)	33,552	(45,677)	3,665,618
8	2,774,454	5,620,326	(4,359,745)	33,329	(59,649)	4,008,715
9	3,139,275	5,620,326	(4,359,745)	33,656	(75,631)	4,357,880
10	3,504,096	5,620,326	(4,359,745)	33,907	(93,456)	4,705,127
11	3,504,096	4,359,745	-	33,496	(93,445)	7,803,891
12	3,504,096	2,906,497	-	34,249	(93,465)	6,351,376
13	3,504,096	1,453,248	-	34,317	(93,467)	4,898,193
14	3,504,096	-	-	-	(92,561)	3,411,535
15	3,504,096	-	-	-	(92,561)	3,411,535
16	3,504,096	-	-	-	(92,561)	3,411,535
17	3,504,096	-	-	-	(92,561)	3,411,535
18	3,504,096	-	-	-	(92,561)	3,411,535
19	3,504,096	-	-	-	(92,561)	3,411,535
20	3,504,096	-	-	-	(92,561)	3,411,535
21	3,181,876	-	-	-	(84,049)	3,097,827
22	2,852,499	-	-	-	(75,349)	2,777,150
23	2,502,661	-	-	-	(66,108)	2,436,554
24	2,152,824	-	-	-	(56,867)	2,095,957
25	1,798,524	-	-	-	(47,508)	1,751,016
26	1,444,223	-	-	-	(38,149)	1,406,074
27	1,086,932	-	-	-	(28,711)	1,058,221
28	729,641	-	-	-	(19,273)	710,368
29	364,821	-	-	-	(9,637)	355,184
PTD	-	-	-	830,884	-	830,884
	\$ 70,081,910	\$ 56,203,260	\$ (43,597,454)	\$ 1,268,749	\$ (1,713,041)	\$ 82,243,423

(1) Appendix D - Service Area B, Page 2

(2) Appendix D - Service Area B, Page 1

(3) Eligible outstanding debt funded projects as a percent of total principal times original annual debt service, including Paid-To-Date (PTD) amounts

(4) Appendix D - Service Area B, Page 7

City of Denton - 2022 Roadway Impact Fee Study

Revenue Test

Appendix E - Impact Fee Calculation Assumptions

Service Area B

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,004,188
1	\$ 4,066	1,637	\$ 6,657,751	\$ (2,741,532)	\$ 9,399,283	\$ 134,077	11,537,548
2	4,066	1,637	6,657,751	(965,067)	7,622,818	306,979	19,467,345
3	4,066	1,637	6,657,751	833,286	5,824,465	447,592	25,739,402
4	4,066	1,637	6,657,751	2,629,768	4,027,983	555,068	30,322,453
5	4,066	1,637	6,657,751	2,976,146	3,681,606	643,265	34,647,323
6	4,066	1,637	6,657,751	3,320,043	3,337,708	726,324	38,711,355
7	4,066	1,637	6,657,751	3,665,618	2,992,133	804,148	42,507,637
8	4,066	1,637	6,657,751	4,008,715	2,649,037	876,643	46,033,317
9	4,066	1,637	6,657,751	4,357,880	2,299,871	943,665	49,276,853
10	4,066	1,637	6,657,751	4,705,127	1,952,625	1,005,063	52,234,541
11	-	-	-	7,803,891	(7,803,891)	966,652	45,397,302
12	-	-	-	6,351,376	(6,351,376)	844,432	39,890,358
13	-	-	-	4,898,193	(4,898,193)	748,825	35,740,990
14	-	-	-	3,411,535	(3,411,535)	680,704	33,010,159
15	-	-	-	3,411,535	(3,411,535)	626,088	30,224,712
16	-	-	-	3,411,535	(3,411,535)	570,379	27,383,556
17	-	-	-	3,411,535	(3,411,535)	513,556	24,485,577
18	-	-	-	3,411,535	(3,411,535)	455,596	21,529,639
19	-	-	-	3,411,535	(3,411,535)	396,477	18,514,581
20	-	-	-	3,411,535	(3,411,535)	336,176	15,439,223
21	-	-	-	3,097,827	(3,097,827)	277,806	12,619,202
22	-	-	-	2,777,150	(2,777,150)	224,613	10,066,665
23	-	-	-	2,436,554	(2,436,554)	176,968	7,807,079
24	-	-	-	2,095,957	(2,095,957)	135,182	5,846,304
25	-	-	-	1,751,016	(1,751,016)	99,416	4,194,704
26	-	-	-	1,406,074	(1,406,074)	69,833	2,858,463
27	-	-	-	1,058,221	(1,058,221)	46,587	1,846,829
28	-	-	-	710,368	(710,368)	29,833	1,166,294
29	-	-	-	355,184	(355,184)	19,774	830,884
PTD	-	-	-	830,884	(830,884)	-	-
			\$ 66,577,513	\$ 82,243,423		\$ 13,661,722	

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Calculation

Appendix E - Impact Fee Calculation Assumptions

Service Area B

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	1,637	2,879	\$ (2,741,532)	\$ (4,820,804)
2	28	1.7240	1.0000	1,637	2,823	(965,067)	(1,663,732)
3	27	1.6902	1.0000	1,637	2,767	833,286	1,408,381
4	26	1.6570	1.0000	1,637	2,713	2,629,768	4,357,558
5	25	1.6245	1.0000	1,637	2,660	2,976,146	4,834,813
6	24	1.5927	1.0000	1,637	2,608	3,320,043	5,287,727
7	23	1.5614	1.0000	1,637	2,557	3,665,618	5,723,641
8	22	1.5308	1.0000	1,637	2,507	4,008,715	6,136,632
9	21	1.5008	1.0000	1,637	2,457	4,357,880	6,540,336
10	20	1.4714	1.0000	1,637	2,409	4,705,127	6,923,026
11	19	1.4425	1.0000	-	-	7,803,891	11,257,337
12	18	1.4142	1.0000	-	-	6,351,376	8,982,395
13	17	1.3865	1.0000	-	-	4,898,193	6,791,412
14	16	1.3593	1.0000	-	-	3,411,535	4,637,392
15	15	1.3327	1.0000	-	-	3,411,535	4,546,462
16	14	1.3065	1.0000	-	-	3,411,535	4,457,316
17	13	1.2809	1.0000	-	-	3,411,535	4,369,918
18	12	1.2558	1.0000	-	-	3,411,535	4,284,233
19	11	1.2312	1.0000	-	-	3,411,535	4,200,228
20	10	1.2070	1.0000	-	-	3,411,535	4,117,871
21	9	1.1834	1.0000	-	-	3,097,827	3,665,894
22	8	1.1602	1.0000	-	-	2,777,150	3,221,973
23	7	1.1374	1.0000	-	-	2,436,554	2,771,395
24	6	1.1151	1.0000	-	-	2,095,957	2,337,247
25	5	1.0933	1.0000	-	-	1,751,016	1,914,309
26	4	1.0718	1.0000	-	-	1,406,074	1,507,059
27	3	1.0508	1.0000	-	-	1,058,221	1,111,983
28	2	1.0302	1.0000	-	-	710,368	731,821
29	1	1.0100	1.0000	-	-	355,184	358,736
PTD		1.0000	1.0000	-	-	830,884	830,884
				<u>26,380</u>			<u>\$ 110,823,442</u>

Annual Interest Rate: 2.00%

Total Escalated Expense for Entire Period	\$ 110,823,442
Less Future Value of Initial Impact Fee Fund Balance	<u>3,559,127</u>
Sub-Total	\$ 107,264,314

Total Escalated Vehicle Miles	<u>26,380</u>
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Maximum Assessable Impact Fee for Roadway Service Area B \$ 4,066

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Project Funding
Appendix E - Impact Fee Calculation Assumptions
Service Area B

<u>Street Name</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽²⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>	
	<u>Service Area ⁽¹⁾</u>		<u>Recoverable Cost⁽¹⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽²⁾</u>	<u>Recoverable Cost</u>	
ALLRED	\$ 3,048,500	\$	600,519	\$	-	\$ 480,415	\$ 120,104	\$	600,519
ALLRED	2,712,000		534,232		-	427,386	106,846		534,232
BRUSH CREEK	2,747,000		541,127		-	432,901	108,225		541,127
BRUSH CREEK	6,769,000		1,333,414		-	1,066,731	266,683		1,333,414
BRUSH CREEK	7,344,000		1,446,682		-	1,157,346	289,336		1,446,682
BRUSH CREEK	10,698,000		2,107,381		-	1,685,905	421,476		2,107,381
CORBIN	10,760,000		2,119,594		-	1,695,675	423,919		2,119,594
CREEKDALE	5,346,000		1,053,099		-	842,480	210,620		1,053,099
CREEKDALE	3,461,000		681,777		-	545,421	136,355		681,777
EL PASEO	3,369,000		663,654		-	530,923	132,731		663,654
FM 1515	2,595,000		511,185		-	408,948	102,237		511,185
HICKORY CREEK	1,605,000		316,166		96,155	182,960	37,052		316,166
HICKORY CREEK	1,789,000		352,412		107,239	203,864	41,309		352,412
HICKORY CREEK	8,638,000		1,701,585		640,559	814,146	246,880		1,701,585
HICKORY CREEK	2,003,000		394,568		159,603	173,451	61,513		394,568
HICKORY CREEK	7,612,000		1,499,475		-	1,462,423	37,052		1,499,475
HOBSON LANE	1,914,000		377,036		-	301,628	75,407		377,036
HOBSON LANE	5,710,000		1,124,803		-	899,843	224,961		1,124,803
HOBSON LANE	11,559,000		2,276,988		-	1,821,590	455,398		2,276,988
PARVIN	2,150,000		423,525		-	338,820	84,705		423,525
ROBINSON	8,061,000		1,587,923		-	1,270,338	317,585		1,587,923
RYAN	11,980,000		2,359,920		-	1,887,936	471,984		2,359,920
RYAN	10,878,000		2,142,839		-	1,714,271	428,568		2,142,839
RYAN	10,824,000		2,132,201		-	1,705,761	426,440		2,132,201
VINTAGE	11,721,000		2,308,900		-	1,051,129	1,257,771		2,308,900
VINTAGE	1,665,000		327,986		-	119,040	208,946		327,986
VINTAGE	7,975,000		1,570,982		-	632,775	938,207		1,570,982
WILLOWWOOD	2,079,000		409,539		-	327,631	81,908		409,539
BONNIE BRAE	1,285,000		253,130		-	202,504	50,626		253,130
BONNIE BRAE	11,351,000		2,236,014		-	1,788,811	447,203		2,236,014
BONNIE BRAE	2,260,500		445,292		-	356,234	89,058		445,292
COUNTRY CLUB	1,229,000		242,099		-	193,679	48,420		242,099
COUNTRY CLUB	15,093,000		2,973,144		-	2,378,516	594,629		2,973,144
COUNTRY CLUB	5,951,000		1,172,277		-	937,822	234,455		1,172,277
FORT WORTH	26,417,000		5,203,840		-	4,163,072	1,040,768		5,203,840
FORT WORTH	19,299,000		3,801,677		-	3,041,342	760,335		3,801,677
FORT WORTH	4,811,000		947,711		-	758,169	189,542		947,711
FORT WORTH	20,190,000		3,977,194		-	3,181,755	795,439		3,977,194
JOHN PAINE	238,000		46,883		-	37,507	9,377		46,883
JOHN PAINE	3,254,000		641,000		-	512,800	128,200		641,000
PARVIN-ROSELAWN	3,878,000		763,921		-	611,136	152,784		763,921
TEASLEY	1,039,000		204,671		-	163,737	40,934		204,671
TEASLEY	4,558,000		897,873		-	718,298	179,575		897,873
TEASLEY	1,493,000		294,104		-	235,283	58,821		294,104
TEASLEY	857,000		168,819		-	135,055	33,764		168,819
	37,660		37,660		-	-	37,660		37,660
	\$ 290,253,660	\$	57,206,816	\$	1,003,556	\$ 43,597,454	\$ 12,605,806	\$	57,206,816

(1) Per Kimley-Horn Impact Fee Study

(2) Per discussions with City staff and City files

City of Denton - 2022 Roadway Impact Fee Study

Credit Determination

Appendix E - Impact Fee Calculation Assumptions

Service Area B

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Rate Revenues</u>
1	\$ 358,603	605,138	\$ 0.59	1,637	\$ 970
2	684,544	606,776	1.13	3,275	3,695
3	1,034,305	608,413	1.70	4,912	8,351
4	1,384,047	610,051	2.27	6,550	14,859
5	1,738,838	611,688	2.84	8,187	23,273
6	2,092,988	613,325	3.41	9,824	33,526
7	2,450,715	614,963	3.99	11,462	45,677
8	2,807,783	616,600	4.55	13,099	59,649
9	3,172,931	618,238	5.13	14,737	75,631
10	3,538,002	619,875	5.71	16,374	93,456
11	3,537,591	619,875	5.71	16,374	93,445
12	3,538,345	619,875	5.71	16,374	93,465
13	3,538,412	619,875	5.71	16,374	93,467
14	3,504,096	619,875	5.65	16,374	92,561
15	3,504,096	619,875	5.65	16,374	92,561
16	3,504,096	619,875	5.65	16,374	92,561
17	3,504,096	619,875	5.65	16,374	92,561
18	3,504,096	619,875	5.65	16,374	92,561
19	3,504,096	619,875	5.65	16,374	92,561
20	3,504,096	619,875	5.65	16,374	92,561
21	3,181,876	619,875	5.13	16,374	84,049
22	2,852,499	619,875	4.60	16,374	75,349
23	2,502,661	619,875	4.04	16,374	66,108
24	2,152,824	619,875	3.47	16,374	56,867
25	1,798,524	619,875	2.90	16,374	47,508
26	1,444,223	619,875	2.33	16,374	38,149
27	1,086,932	619,875	1.75	16,374	28,711
28	729,641	619,875	1.18	16,374	19,273
29	364,821	619,875	0.59	16,374	9,637
Total	\$ 70,519,775				\$ 1,713,041

2022 Vehicle Miles (All Service Areas) ⁽²⁾ 603,501

Ten Year Growth in Vehicle Miles (Service Area B) ⁽²⁾ 16,374

Annual Growth in Vehicle Miles 10 years
1,637

Credit Amount \$ 1,713,041

(1) Appendix D - Service Area B, Page 3

(2) Per Kimley-Horn Impact Fee Study

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Calculation Assumptions
Appendix E - Impact Fee Calculation Assumptions
Service Area C

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	3,133
Existing Fund Balance ⁽³⁾	3,170,473
Portion of Projects Funded by Existing Debt ⁽³⁾	\$ -
Non-debt Funded Project Cost ⁽⁴⁾	25,312,100
New Project Cost Funded Through New Debt ⁽⁵⁾	101,097,761
Total Recoverable Project Cost ⁽⁶⁾	\$ 126,409,861

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal ⁽⁷⁾</u>	<u>Interest ⁽⁸⁾</u>	<u>Term</u>
1	\$ 10,109,776	4.05%	20
2	10,109,776	4.30%	20
3	10,109,776	5.00%	20
4	10,109,776	5.00%	20
5	10,109,776	5.15%	20
6	10,109,776	5.15%	20
7	10,109,776	5.25%	20
8	10,109,776	5.25%	20
9	10,109,776	5.50%	20
10	10,109,776	5.50%	20
Total	\$ 101,097,761		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures ⁽⁹⁾</u>
1	\$ 2,531,210
2	5,901,135
3	9,271,061
4	12,640,986
5	12,640,986
6	12,640,986
7	12,640,986
8	12,640,986
9	12,640,986
10	12,640,986
11	10,109,776
12	6,739,851
13	3,369,925
Total	126,409,861

- (1) Per discussions with City Staff and City files
(2) Per Kimley-Horn Impact Fee Study
(3) Per discussions with City Staff and City files
(4) Per discussions with City Staff and City files
(5) This assumes 20% of new project costs funded through sources other than debt, unless specified otherwise
(6) This assumes 80% of new project costs funded through new debt issues, unless specified otherwise
(7) Per Kimley-Horn Impact Fee Study
(8) Assumes new debt issued in equal amounts every year
(9) Estimated interest on future debt from City's Financial Advisor October 2022
(10) Assumes new debt proceeds expended over a 3-year timeframe
Non-debt funded capital expenditures allocated per discussions with City Staff

City of Denton - 2022 Roadway Impact Fee Study
Appendix E - Impact Fee Calculation Assumptions
Debt Service and Expense Summary
Service Area C

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 747,192	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 747,192
2	747,192	763,790	-	-	-	-	-	-	-	-	1,510,982
3	747,192	763,790	811,235	-	-	-	-	-	-	-	2,322,217
4	747,192	763,790	811,235	811,235	-	-	-	-	-	-	3,133,451
5	747,192	763,790	811,235	811,235	821,584	-	-	-	-	-	3,955,036
6	747,192	763,790	811,235	811,235	821,584	821,584	-	-	-	-	4,776,620
7	747,192	763,790	811,235	811,235	821,584	821,584	828,519	-	-	-	5,605,139
8	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	-	-	6,433,658
9	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	-	7,279,638
10	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
11	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
12	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
13	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
14	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
15	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
16	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
17	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
18	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
19	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
20	747,192	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	8,125,617
21	-	763,790	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	7,378,425
22	-	-	811,235	811,235	821,584	821,584	828,519	828,519	845,979	845,979	6,614,635
23	-	-	-	811,235	821,584	821,584	828,519	828,519	845,979	845,979	5,803,400
24	-	-	-	-	821,584	821,584	828,519	828,519	845,979	845,979	4,992,165
25	-	-	-	-	-	821,584	828,519	828,519	845,979	845,979	4,170,581
26	-	-	-	-	-	-	828,519	828,519	845,979	845,979	3,348,997
27	-	-	-	-	-	-	-	828,519	845,979	845,979	2,520,478
28	-	-	-	-	-	-	-	-	845,979	845,979	1,691,959
29	-	-	-	-	-	-	-	-	-	845,979	845,979
	\$ 14,943,846	\$ 15,275,800	\$ 16,224,692	\$ 16,224,692	\$ 16,431,684	\$ 16,431,684	\$ 16,570,385	\$ 16,570,385	\$ 16,919,586	\$ 16,919,586	\$ 162,512,338

City of Denton - 2022 Roadway Impact Fee Study

Appendix E - Impact Fee Calculation Assumptions

Debt Service and Expense Summary

Service Area C

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 747,192	\$ 2,531,210	\$ (10,109,776)	\$ -	\$ (3,859)	\$ (6,835,233)
2	1,510,982	5,901,135	(10,109,776)	-	(15,528)	(2,713,186)
3	2,322,217	9,271,061	(10,109,776)	-	(35,614)	1,447,888
4	3,133,451	12,640,986	(10,109,776)	-	(63,747)	5,600,914
5	3,955,036	12,640,986	(10,109,776)	-	(100,068)	6,386,177
6	4,776,620	12,640,986	(10,109,776)	-	(144,297)	7,163,533
7	5,605,139	12,640,986	(10,109,776)	-	(196,556)	7,939,793
8	6,433,658	12,640,986	(10,109,776)	-	(256,555)	8,708,313
9	7,279,638	12,640,986	(10,109,776)	-	(324,957)	9,485,891
10	8,125,617	12,640,986	(10,109,776)	-	(401,034)	10,255,793
11	8,125,617	10,109,776	-	-	(401,034)	17,834,359
12	8,125,617	6,739,851	-	-	(401,034)	14,464,434
13	8,125,617	3,369,925	-	-	(401,034)	11,094,509
14	8,125,617	-	-	-	(401,034)	7,724,583
15	8,125,617	-	-	-	(401,034)	7,724,583
16	8,125,617	-	-	-	(401,034)	7,724,583
17	8,125,617	-	-	-	(401,034)	7,724,583
18	8,125,617	-	-	-	(401,034)	7,724,583
19	8,125,617	-	-	-	(401,034)	7,724,583
20	8,125,617	-	-	-	(401,034)	7,724,583
21	7,378,425	-	-	-	(364,156)	7,014,268
22	6,614,635	-	-	-	(326,460)	6,288,174
23	5,803,400	-	-	-	(286,422)	5,516,978
24	4,992,165	-	-	-	(246,384)	4,745,781
25	4,170,581	-	-	-	(205,836)	3,964,745
26	3,348,997	-	-	-	(165,287)	3,183,710
27	2,520,478	-	-	-	(124,396)	2,396,082
28	1,691,959	-	-	-	(83,505)	1,608,453
29	845,979	-	-	-	(41,753)	804,227
PTD	-	-	-	-	-	-
	\$ 162,512,338	\$ 126,409,861	#####	\$ -	\$ (7,396,751)	\$ 180,427,687

(1) Appendix D - Service Area C, Page 2

(2) Appendix D - Service Area C, Page 1

(3) Eligible outstanding debt funded projects as a percent of total principal times original annual debt service, including Paid-To-Date (PTD) amounts

(4) Appendix D - Service Area C, Page 7

City of Denton - 2022 Roadway Impact Fee Study

Revenue Test

Appendix E - Impact Fee Calculation Assumptions

Service Area C

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 3,170,473
1	\$ 4,695	3,133	\$ 14,711,436	\$ (6,835,233)	\$ 21,546,669	\$ 278,876	24,996,019
2	4,695	3,133	14,711,436	(2,713,186)	17,424,622	674,167	43,094,808
3	4,695	3,133	14,711,436	1,447,888	13,263,548	994,532	57,352,888
4	4,695	3,133	14,711,436	5,600,914	9,110,522	1,238,163	67,701,573
5	4,695	3,133	14,711,436	6,386,177	8,325,259	1,437,284	77,464,116
6	4,695	3,133	14,711,436	7,163,533	7,547,903	1,624,761	86,636,780
7	4,695	3,133	14,711,436	7,939,793	6,771,644	1,800,452	95,208,876
8	4,695	3,133	14,711,436	8,708,313	6,003,123	1,964,209	103,176,208
9	4,695	3,133	14,711,436	9,485,891	5,225,545	2,115,780	110,517,533
10	4,695	3,133	14,711,436	10,255,793	4,455,643	2,254,907	117,228,083
11	-	-	-	17,834,359	(17,834,359)	2,166,218	101,559,941
12	-	-	-	14,464,434	(14,464,434)	1,886,554	88,982,062
13	-	-	-	11,094,509	(11,094,509)	1,668,696	79,556,249
14	-	-	-	7,724,583	(7,724,583)	1,513,879	73,345,545
15	-	-	-	7,724,583	(7,724,583)	1,389,665	67,010,627
16	-	-	-	7,724,583	(7,724,583)	1,262,967	60,549,010
17	-	-	-	7,724,583	(7,724,583)	1,133,734	53,958,161
18	-	-	-	7,724,583	(7,724,583)	1,001,917	47,235,495
19	-	-	-	7,724,583	(7,724,583)	867,464	40,378,376
20	-	-	-	7,724,583	(7,724,583)	730,322	33,384,114
21	-	-	-	7,014,268	(7,014,268)	597,540	26,967,386
22	-	-	-	6,288,174	(6,288,174)	476,466	21,155,677
23	-	-	-	5,516,978	(5,516,978)	367,944	16,006,643
24	-	-	-	4,745,781	(4,745,781)	272,675	11,533,537
25	-	-	-	3,964,745	(3,964,745)	191,023	7,759,815
26	-	-	-	3,183,710	(3,183,710)	123,359	4,699,465
27	-	-	-	2,396,082	(2,396,082)	70,028	2,373,412
28	-	-	-	1,608,453	(1,608,453)	31,384	796,342
29	-	-	-	804,227	(804,227)	7,885	-
PTD	-	-	-	-	-	-	-
			\$ 147,114,363	\$ 180,427,687		\$ 30,142,851	

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Calculation

Appendix E - Impact Fee Calculation Assumptions

Service Area C

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	3,133	5,509	\$ (6,835,233)	\$ (12,019,309)
2	28	1.7240	1.0000	3,133	5,401	(2,713,186)	(4,677,412)
3	27	1.6902	1.0000	3,133	5,296	1,447,888	2,447,151
4	26	1.6570	1.0000	3,133	5,192	5,600,914	9,280,782
5	25	1.6245	1.0000	3,133	5,090	6,386,177	10,374,483
6	24	1.5927	1.0000	3,133	4,990	7,163,533	11,409,132
7	23	1.5614	1.0000	3,133	4,892	7,939,793	12,397,506
8	22	1.5308	1.0000	3,133	4,796	8,708,313	13,330,886
9	21	1.5008	1.0000	3,133	4,702	9,485,891	14,236,490
10	20	1.4714	1.0000	3,133	4,610	10,255,793	15,090,162
11	19	1.4425	1.0000	-	-	17,834,359	25,726,575
12	18	1.4142	1.0000	-	-	14,464,434	20,456,237
13	17	1.3865	1.0000	-	-	11,094,509	15,382,687
14	16	1.3593	1.0000	-	-	7,724,583	10,500,235
15	15	1.3327	1.0000	-	-	7,724,583	10,294,348
16	14	1.3065	1.0000	-	-	7,724,583	10,092,498
17	13	1.2809	1.0000	-	-	7,724,583	9,894,606
18	12	1.2558	1.0000	-	-	7,724,583	9,700,594
19	11	1.2312	1.0000	-	-	7,724,583	9,510,386
20	10	1.2070	1.0000	-	-	7,724,583	9,323,908
21	9	1.1834	1.0000	-	-	7,014,268	8,300,516
22	8	1.1602	1.0000	-	-	6,288,174	7,295,367
23	7	1.1374	1.0000	-	-	5,516,978	6,275,143
24	6	1.1151	1.0000	-	-	4,745,781	5,292,123
25	5	1.0933	1.0000	-	-	3,964,745	4,334,484
26	4	1.0718	1.0000	-	-	3,183,710	3,412,364
27	3	1.0508	1.0000	-	-	2,396,082	2,517,812
28	2	1.0302	1.0000	-	-	1,608,453	1,657,029
29	1	1.0100	1.0000	-	-	804,227	812,269
PTD		1.0000	1.0000	-	-	-	-
				<u>50,479</u>		<u>\$ 242,649,053</u>	

Annual Interest Rate: 2.00%

Total Escalated Expense for Entire Period	\$ 242,649,053
Less Future Value of Initial Impact Fee Fund Balance	<u>5,630,268</u>
Sub-Total	\$ 237,018,784

Total Escalated Vehicle Miles	<u>50,479</u>
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Maximum Assessable Impact Fee for Roadway Service Area C \$ 4,695

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Project Funding
Appendix E - Impact Fee Calculation Assumptions
Service Area C

<u>Street Name</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽²⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>
	<u>Service Area ⁽¹⁾</u>	<u>Recoverable Cost⁽¹⁾</u>	<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽²⁾</u>	<u>Recoverable Cost</u>		
BARTHOLD	\$ 8,875,000	\$ 1,908,981	\$ -	\$ 1,527,185	\$ 381,796	\$ 1,908,981		
BOBCAT	37,762,000	8,122,474	-	6,497,979	1,624,495	8,122,474		
FM 1173	13,401,000	2,882,508	-	2,306,006	576,502	2,882,508		
FM 1173	3,852,000	828,552	-	662,841	165,710	828,552		
FM 2164-IH 35	37,057,000	7,970,831	-	6,376,665	1,594,166	7,970,831		
GANZER	39,748,000	8,549,655	-	6,839,724	1,709,931	8,549,655		
GANZER	11,525,000	2,478,987	-	1,983,190	495,797	2,478,987		
GANZER	2,854,000	613,885	-	491,108	122,777	613,885		
GANZER	4,604,000	990,304	-	792,243	198,061	990,304		
JIM CRISTAL	4,873,000	1,048,165	-	838,532	209,633	1,048,165		
JIM CRISTAL	5,982,000	1,286,707	-	1,029,366	257,341	1,286,707		
JIM CRISTAL	9,251,000	1,989,858	-	1,591,886	397,972	1,989,858		
JIM CRISTAL	6,353,500	1,366,616	-	1,093,292	273,323	1,366,616		
JIM CRISTAL	4,773,500	1,026,763	-	821,410	205,353	1,026,763		
JIM CRISTAL	2,920,500	628,189	-	502,551	125,638	628,189		
MARSHALL	5,249,000	1,129,041	-	903,233	225,808	1,129,041		
MARSHALL	4,397,000	945,779	-	756,623	189,156	945,779		
MASCH BRANCH	10,602,000	2,280,453	-	1,824,362	456,091	2,280,453		
WESTWARD	1,672,000	359,641	-	287,713	71,928	359,641		
RINEY	3,156,000	678,845	-	543,076	135,769	678,845		
RINEY	1,258,000	270,591	-	216,473	54,118	270,591		
US 77	1,432,000	308,018	-	246,415	61,604	308,018		
US 77	2,819,000	606,357	-	485,086	121,271	606,357		
US 77	2,075,000	446,325	-	357,060	89,265	446,325		
US 77	3,126,000	672,392	-	537,913	134,478	672,392		
US 77	1,859,000	399,864	-	319,892	79,973	399,864		
US 77	4,739,000	1,019,342	-	815,474	203,868	1,019,342		
MASCH BRANCH-NAIL	2,094,000	450,412	-	360,330	90,082	450,412		
MASCH BRANCH-NAIL	4,450,000	957,179	-	765,744	191,436	957,179		
MASCH BRANCH-NAIL	4,379,000	941,908	-	753,526	188,382	941,908		
MASCH BRANCH-NAIL	1,046,000	224,991	-	179,993	44,998	224,991		
MASCH BRANCH-NAIL	4,376,000	941,262	-	753,010	188,252	941,262		
WESTGATE	2,336,000	502,465	-	401,972	100,493	502,465		
WINDSOR	6,912,000	1,486,747	-	1,189,398	297,349	1,486,747		
WINDSOR	6,972,000	1,499,653	-	1,199,722	299,931	1,499,653		
WINDSOR	649,000	139,598	-	111,678	27,920	139,598		
WINDSOR	1,162,000	249,942	-	199,954	49,988	249,942		
WINDSOR	17,606,000	3,786,989	-	3,029,591	757,398	3,786,989		
BARTHOLD	7,425,000	1,597,091	-	1,277,673	319,418	1,597,091		
BONNIE BRAE	52,065,000	11,198,999	-	8,959,199	2,239,800	11,198,999		
BONNIE BRAE	3,008,000	647,010	-	517,608	129,402	647,010		
BONNIE BRAE	6,587,000	1,416,841	-	1,133,472	283,368	1,416,841		
BONNIE BRAE	10,320,000	2,219,796	-	1,775,837	443,959	2,219,796		
BONNIE BRAE	11,981,000	2,577,071	-	2,061,657	515,414	2,577,071		
BONNIE BRAE	4,155,000	893,726	-	714,981	178,745	893,726		
BONNIE BRAE	1,528,000	328,667	-	262,934	65,733	328,667		
BONNIE BRAE	1,685,000	362,438	-	289,950	72,488	362,438		
BONNIE BRAE	543,500	116,905	-	93,524	23,381	116,905		
BONNIE BRAE	2,035,000	437,721	-	350,177	87,544	437,721		
BONNIE BRAE	1,228,500	264,246	-	211,397	52,849	264,246		
C WOLFE	8,901,000	1,914,574	-	1,531,659	382,915	1,914,574		
FALLMEADOW	1,303,000	280,271	-	224,217	56,054	280,271		
FM 2164	24,962,500	5,369,346	-	4,295,477	1,073,869	5,369,346		
LOCUST	3,477,000	747,891	-	598,312	149,578	747,891		
LOCUST	3,716,500	799,406	-	639,525	159,881	799,406		
LOCUST	1,814,000	390,185	-	312,148	78,037	390,185		
LOCUST	1,920,500	413,093	-	330,474	82,619	413,093		
LOVERS	12,266,000	2,638,374	-	2,110,699	527,675	2,638,374		
LOVERS	3,349,000	720,358	-	576,287	144,072	720,358		
LOVERS LN CONNECTOR	756,000	162,613	-	130,090	32,523	162,613		
LOVERS LN CONNECTOR	972,000	209,074	-	167,259	41,815	209,074		
MASCH BRANCH	5,954,000	1,280,685	-	1,024,548	256,137	1,280,685		
MASCH BRANCH	11,352,000	2,441,775	-	1,953,420	488,355	2,441,775		
MASCH BRANCH	12,137,000	2,610,626	-	2,088,501	522,125	2,610,626		
MILAM-LOOP 288	36,182,000	7,782,621	-	6,226,097	1,556,524	7,782,621		
MILAM-US 77	20,546,000	4,419,373	-	3,535,498	883,875	4,419,373		
MILAM-US 77	11,567,000	2,488,021	-	1,990,417	497,604	2,488,021		
MILAM-US 77	7,359,000	1,582,895	-	1,266,316	316,579	1,582,895		
NICOSIA	1,169,000	251,448	-	201,158	50,290	251,448		
THOMAS J EGAN	12,353,000	2,657,087	-	2,125,670	531,417	2,657,087		
WESTERN	14,699,000	3,161,703	-	2,529,363	632,341	3,161,703		
	37,660	37,660	-	-	37,660	37,660		
	\$ 587,551,660	\$ 126,409,861	\$ -	\$ 101,097,761	\$ 25,312,100	\$ 126,409,861		

City of Denton - 2022 Roadway Impact Fee Study

Credit Determination

Appendix E - Impact Fee Calculation Assumptions

Service Area C

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Rate Revenues</u>
1	\$ 747,192	606,634	\$ 1.23	3,133	\$ 3,859
2	1,510,982	609,767	2.48	6,266	15,528
3	2,322,217	612,901	3.79	9,400	35,614
4	3,133,451	616,034	5.09	12,533	63,747
5	3,955,036	619,167	6.39	15,666	100,068
6	4,776,620	622,300	7.68	18,799	144,297
7	5,605,139	625,433	8.96	21,932	196,556
8	6,433,658	628,566	10.24	25,065	256,555
9	7,279,638	631,700	11.52	28,199	324,957
10	8,125,617	634,833	12.80	31,332	401,034
11	8,125,617	634,833	12.80	31,332	401,034
12	8,125,617	634,833	12.80	31,332	401,034
13	8,125,617	634,833	12.80	31,332	401,034
14	8,125,617	634,833	12.80	31,332	401,034
15	8,125,617	634,833	12.80	31,332	401,034
16	8,125,617	634,833	12.80	31,332	401,034
17	8,125,617	634,833	12.80	31,332	401,034
18	8,125,617	634,833	12.80	31,332	401,034
19	8,125,617	634,833	12.80	31,332	401,034
20	8,125,617	634,833	12.80	31,332	401,034
21	7,378,425	634,833	11.62	31,332	364,156
22	6,614,635	634,833	10.42	31,332	326,460
23	5,803,400	634,833	9.14	31,332	286,422
24	4,992,165	634,833	7.86	31,332	246,384
25	4,170,581	634,833	6.57	31,332	205,836
26	3,348,997	634,833	5.28	31,332	165,287
27	2,520,478	634,833	3.97	31,332	124,396
28	1,691,959	634,833	2.67	31,332	83,505
29	845,979	634,833	1.33	31,332	41,753
Total	\$ 162,512,338				\$ 7,396,751

2022 Vehicle Miles (All Service Areas) ⁽²⁾ 603,501

Ten Year Growth in Vehicle Miles (Service Area C) ⁽²⁾ 31,332

Annual Growth in Vehicle Miles 10 years
3,133

Credit Amount \$ **7,396,751**

(1) Appendix D - Service Area C, Page 3

(2) Per Kimley-Horn Impact Fee Study

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Calculation Assumptions
Appendix E - Impact Fee Calculation Assumptions
Service Area D

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	1,163
Existing Fund Balance ⁽³⁾	1,685,562
Portion of Projects Funded by Existing Debt ⁽³⁾	\$ -
Non-debt Funded Project Cost ⁽⁴⁾	10,369,489
New Project Cost Funded Through New Debt ⁽⁵⁾	41,327,316
Total Recoverable Project Cost ⁽⁶⁾	\$ 51,696,805

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal ⁽⁷⁾</u>	<u>Interest ⁽⁸⁾</u>	<u>Term</u>
1	\$ 4,132,732	4.05%	20
2	4,132,732	4.30%	20
3	4,132,732	5.00%	20
4	4,132,732	5.00%	20
5	4,132,732	5.15%	20
6	4,132,732	5.15%	20
7	4,132,732	5.25%	20
8	4,132,732	5.25%	20
9	4,132,732	5.50%	20
10	4,132,732	5.50%	20
Total	\$ 41,327,316		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures ⁽⁹⁾</u>
1	\$ 1,036,949
2	2,414,526
3	3,792,103
4	5,169,681
5	5,169,681
6	5,169,681
7	5,169,681
8	5,169,681
9	5,169,681
10	5,169,681
11	4,132,732
12	2,755,154
13	1,377,577
Total	51,696,805

- (1) Per discussions with City Staff and City files
(2) Per Kimley-Horn Impact Fee Study
(3) Per discussions with City Staff and City files
(4) Per discussions with City Staff and City files
(5) This assumes 20% of new project costs funded through sources other than debt, unless specified otherwise
(6) This assumes 80% of new project costs funded through new debt issues, unless specified otherwise
(7) Per Kimley-Horn Impact Fee Study
(8) Assumes new debt issued in equal amounts every year
(9) Estimated interest on future debt from City's Financial Advisor October 2022
(10) Assumes new debt proceeds expended over a 3-year timeframe
Non-debt funded capital expenditures allocated per discussions with City Staff

City of Denton - 2022 Roadway Impact Fee Study
Appendix E - Impact Fee Calculation Assumptions
Debt Service and Expense Summary
Service Area D

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 305,442	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 305,442
2	305,442	312,226	-	-	-	-	-	-	-	-	617,668
3	305,442	312,226	331,621	-	-	-	-	-	-	-	949,289
4	305,442	312,226	331,621	331,621	-	-	-	-	-	-	1,280,910
5	305,442	312,226	331,621	331,621	335,852	-	-	-	-	-	1,616,762
6	305,442	312,226	331,621	331,621	335,852	335,852	-	-	-	-	1,952,614
7	305,442	312,226	331,621	331,621	335,852	335,852	338,687	-	-	-	2,291,301
8	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	-	-	2,629,987
9	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	-	2,975,812
10	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
11	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
12	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
13	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
14	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
15	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
16	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
17	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
18	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
19	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
20	305,442	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,321,636
21	-	312,226	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	3,016,194
22	-	-	331,621	331,621	335,852	335,852	338,687	338,687	345,824	345,824	2,703,968
23	-	-	-	331,621	335,852	335,852	338,687	338,687	345,824	345,824	2,372,347
24	-	-	-	-	335,852	335,852	338,687	338,687	345,824	345,824	2,040,726
25	-	-	-	-	-	335,852	338,687	338,687	345,824	345,824	1,704,874
26	-	-	-	-	-	-	338,687	338,687	345,824	345,824	1,369,022
27	-	-	-	-	-	-	-	338,687	345,824	345,824	1,030,335
28	-	-	-	-	-	-	-	-	345,824	345,824	691,648
29	-	-	-	-	-	-	-	-	-	345,824	345,824
	\$ 6,108,830	\$ 6,244,528	\$ 6,632,422	\$ 6,632,422	\$ 6,717,037	\$ 6,717,037	\$ 6,773,736	\$ 6,773,736	\$ 6,916,484	\$ 6,916,484	\$ 66,432,715

City of Denton - 2022 Roadway Impact Fee Study

Appendix E - Impact Fee Calculation Assumptions

Debt Service and Expense Summary

Service Area D

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 305,442	\$ 1,036,949	\$ (4,132,732)	\$ -	\$ (588)	\$ (2,790,929)
2	617,668	2,414,526	(4,132,732)	-	(2,372)	(1,102,910)
3	949,289	3,792,103	(4,132,732)	-	(5,458)	603,202
4	1,280,910	5,169,681	(4,132,732)	-	(9,802)	2,308,057
5	1,616,762	5,169,681	(4,132,732)	-	(15,435)	2,638,276
6	1,952,614	5,169,681	(4,132,732)	-	(22,327)	2,967,236
7	2,291,301	5,169,681	(4,132,732)	-	(30,508)	3,297,741
8	2,629,987	5,169,681	(4,132,732)	-	(39,944)	3,626,992
9	2,975,812	5,169,681	(4,132,732)	-	(50,750)	3,962,011
10	3,321,636	5,169,681	(4,132,732)	-	(62,823)	4,295,762
11	3,321,636	4,132,732	-	-	(62,823)	7,391,545
12	3,321,636	2,755,154	-	-	(62,823)	6,013,967
13	3,321,636	1,377,577	-	-	(62,823)	4,636,390
14	3,321,636	-	-	-	(62,823)	3,258,813
15	3,321,636	-	-	-	(62,823)	3,258,813
16	3,321,636	-	-	-	(62,823)	3,258,813
17	3,321,636	-	-	-	(62,823)	3,258,813
18	3,321,636	-	-	-	(62,823)	3,258,813
19	3,321,636	-	-	-	(62,823)	3,258,813
20	3,321,636	-	-	-	(62,823)	3,258,813
21	3,016,194	-	-	-	(57,046)	2,959,148
22	2,703,968	-	-	-	(51,141)	2,652,827
23	2,372,347	-	-	-	(44,869)	2,327,478
24	2,040,726	-	-	-	(38,597)	2,002,129
25	1,704,874	-	-	-	(32,245)	1,672,629
26	1,369,022	-	-	-	(25,893)	1,343,129
27	1,030,335	-	-	-	(19,487)	1,010,848
28	691,648	-	-	-	(13,081)	678,567
29	345,824	-	-	-	(6,541)	339,284
PTD	-	-	-	-	-	-
	\$ 66,432,715	\$ 51,696,805	\$ (41,327,316)	\$ -	\$ (1,157,132)	\$ 75,645,072

(1) Appendix D - Service Area D, Page 2

(2) Appendix D - Service Area D, Page 1

(3) Eligible outstanding debt funded projects as a percent of total principal times original annual debt service, including Paid-To-Date (PTD) amounts

(4) Appendix D - Service Area D, Page 7

City of Denton - 2022 Roadway Impact Fee Study

Revenue Test

Appendix E - Impact Fee Calculation Assumptions

Service Area D

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 1,685,562
1	\$ 5,265	1,163	\$ 6,125,714	\$ (2,790,929)	\$ 8,916,643	\$ 122,878	10,725,083
2	5,265	1,163	6,125,714	(1,102,910)	7,228,624	286,788	18,240,495
3	5,265	1,163	6,125,714	603,202	5,522,512	420,035	24,183,041
4	5,265	1,163	6,125,714	2,308,057	3,817,657	521,837	28,522,536
5	5,265	1,163	6,125,714	2,638,276	3,487,438	605,325	32,615,299
6	5,265	1,163	6,125,714	2,967,236	3,158,478	683,891	36,457,668
7	5,265	1,163	6,125,714	3,297,741	2,827,973	757,433	40,043,074
8	5,265	1,163	6,125,714	3,626,992	2,498,722	825,849	43,367,645
9	5,265	1,163	6,125,714	3,962,011	2,163,703	888,990	46,420,338
10	5,265	1,163	6,125,714	4,295,762	1,829,952	946,706	49,196,997
11	-	-	-	7,391,545	(7,391,545)	910,024	42,715,476
12	-	-	-	6,013,967	(6,013,967)	794,170	37,495,679
13	-	-	-	4,636,390	(4,636,390)	703,550	33,562,838
14	-	-	-	3,258,813	(3,258,813)	638,669	30,942,694
15	-	-	-	3,258,813	(3,258,813)	586,266	28,270,147
16	-	-	-	3,258,813	(3,258,813)	532,815	25,544,148
17	-	-	-	3,258,813	(3,258,813)	478,295	22,763,630
18	-	-	-	3,258,813	(3,258,813)	422,684	19,927,502
19	-	-	-	3,258,813	(3,258,813)	365,962	17,034,650
20	-	-	-	3,258,813	(3,258,813)	308,105	14,083,942
21	-	-	-	2,959,148	(2,959,148)	252,087	11,376,881
22	-	-	-	2,652,827	(2,652,827)	201,009	8,925,063
23	-	-	-	2,327,478	(2,327,478)	155,226	6,752,812
24	-	-	-	2,002,129	(2,002,129)	115,035	4,865,718
25	-	-	-	1,672,629	(1,672,629)	80,588	3,273,677
26	-	-	-	1,343,129	(1,343,129)	52,042	1,982,589
27	-	-	-	1,010,848	(1,010,848)	29,543	1,001,284
28	-	-	-	678,567	(678,567)	13,240	335,957
29	-	-	-	339,284	(339,284)	3,326	-
PTD	-	-	-	-	-	-	-
			\$ 61,257,141	\$ 75,645,072		\$ 12,702,369	

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Calculation

Appendix E - Impact Fee Calculation Assumptions

Service Area D

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>				
1	29	1.7584	1.0000	1,163	2,046	\$ (2,790,929)	\$ (4,907,665)
2	28	1.7240	1.0000	1,163	2,006	(1,102,910)	(1,901,367)
3	27	1.6902	1.0000	1,163	1,966	603,202	1,019,504
4	26	1.6570	1.0000	1,163	1,928	2,308,057	3,824,479
5	25	1.6245	1.0000	1,163	1,890	2,638,276	4,285,936
6	24	1.5927	1.0000	1,163	1,853	2,967,236	4,725,822
7	23	1.5614	1.0000	1,163	1,817	3,297,741	5,149,223
8	22	1.5308	1.0000	1,163	1,781	3,626,992	5,552,283
9	21	1.5008	1.0000	1,163	1,746	3,962,011	5,946,213
10	20	1.4714	1.0000	1,163	1,712	4,295,762	6,320,695
11	19	1.4425	1.0000	-	-	7,391,545	10,662,515
12	18	1.4142	1.0000	-	-	6,013,967	8,505,216
13	17	1.3865	1.0000	-	-	4,636,390	6,428,418
14	16	1.3593	1.0000	-	-	3,258,813	4,429,793
15	15	1.3327	1.0000	-	-	3,258,813	4,342,934
16	14	1.3065	1.0000	-	-	3,258,813	4,257,778
17	13	1.2809	1.0000	-	-	3,258,813	4,174,293
18	12	1.2558	1.0000	-	-	3,258,813	4,092,444
19	11	1.2312	1.0000	-	-	3,258,813	4,012,200
20	10	1.2070	1.0000	-	-	3,258,813	3,933,529
21	9	1.1834	1.0000	-	-	2,959,148	3,501,785
22	8	1.1602	1.0000	-	-	2,652,827	3,077,737
23	7	1.1374	1.0000	-	-	2,327,478	2,647,330
24	6	1.1151	1.0000	-	-	2,002,129	2,232,617
25	5	1.0933	1.0000	-	-	1,672,629	1,828,613
26	4	1.0718	1.0000	-	-	1,343,129	1,439,593
27	3	1.0508	1.0000	-	-	1,010,848	1,062,203
28	2	1.0302	1.0000	-	-	678,567	699,060
29	1	1.0100	1.0000	-	-	339,284	342,676
PTD		1.0000	1.0000	-	-	-	-
				<u>18,744</u>		<u>\$ 101,685,856</u>	

Annual Interest Rate: 2.00%

Total Escalated Expense for Entire Period	\$ 101,685,856
Less Future Value of Initial Impact Fee Fund Balance	<u>2,993,297</u>
Sub-Total	\$ 98,692,559

Total Escalated Vehicle Miles	<u>18,744</u>
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Maximum Assessable Impact Fee for Roadway Service Area D \$ 5,265

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Project Funding
Appendix E - Impact Fee Calculation Assumptions
Service Area D

<u>Street Name</u>	<u>Cost In</u>		<u>Impact Fee</u>		<u>Debt Funded⁽²⁾</u>		<u>Non-Debt</u>	<u>Impact Fee</u>	
	<u>Service Area ⁽¹⁾</u>		<u>Recoverable Cost⁽¹⁾</u>		<u>Existing</u>	<u>Proposed</u>	<u>Funded⁽²⁾</u>	<u>Recoverable Cost</u>	
BOBCAT	\$ 800,500	\$	150,012	\$	-	\$ 120,010	\$ 30,002	\$	150,012
FISHTRAP	1,469,500		275,381		-	220,305	55,076		275,381
GANZER	53,936,000		10,107,495		-	8,085,996	2,021,499		10,107,495
GRIBBLE SPRINGS	4,430,500		830,267		-	664,213	166,053		830,267
HARTLEE FIELD	6,025,500		1,129,166		-	903,333	225,833		1,129,166
HARTLEE FIELD	7,382,000		1,383,372		-	1,106,697	276,674		1,383,372
HARTLEE FIELD	427,500		80,113		-	64,090	16,023		80,113
HARTLEE FLD-FM 2164	5,392,000		1,010,450		-	808,360	202,090		1,010,450
HARTLEE FLD-FM 2164	8,386,000		1,571,519		-	1,257,215	314,304		1,571,519
HARTLEE FLD-FM 2164	1,904,500		356,899		-	285,519	71,380		356,899
HARTLEE FLD-FM 2164	1,139,000		213,446		-	170,757	42,689		213,446
LONG	726,000		136,051		-	108,841	27,210		136,051
MINGO	1,315,000		246,428		-	197,143	49,286		246,428
MINGO	6,583,000		1,233,641		-	986,912	246,728		1,233,641
MINGO	7,937,000		1,487,377		-	1,189,902	297,475		1,487,377
KINGS ROW	3,779,000		708,177		-	566,541	141,635		708,177
SILVER DOME	1,558,500		292,060		-	233,648	58,412		292,060
COLLINS	3,409,000		638,840		-	511,072	127,768		638,840
COOPER CREEK	25,554,000		4,788,767		-	3,831,013	957,753		4,788,767
COOPER CREEK	6,226,000		1,166,740		-	933,392	233,348		1,166,740
COOPER CREEK	7,361,000		1,379,436		-	1,103,549	275,887		1,379,436
FM 2164	24,962,500		4,677,921		-	3,742,337	935,584		4,677,921
GREEN VALLEY	24,463,000		4,584,316		-	3,667,453	916,863		4,584,316
GREEN VALLEY	6,234,000		1,168,239		-	934,591	233,648		1,168,239
INDIAN WELLS	10,021,000		1,877,915		-	1,502,332	375,583		1,877,915
INDIAN WELLS	2,426,500		454,721		-	363,777	90,944		454,721
INDIAN WELLS	4,148,000		777,327		-	621,861	155,465		777,327
LOCUST	3,477,000		651,583		-	521,266	130,317		651,583
LOCUST	3,716,500		696,464		-	557,172	139,293		696,464
LOCUST	1,814,000		339,940		-	271,952	67,988		339,940
LOCUST	1,920,500		359,898		-	287,918	71,980		359,898
SHERMAN	4,713,000		883,206		-	706,565	176,641		883,206
SHERMAN	5,455,000		1,022,256		-	817,805	204,451		1,022,256
SHERMAN	7,223,000		1,353,575		-	1,082,860	270,715		1,353,575
SHERMAN	2,856,000		535,208		-	428,167	107,042		535,208
SHERMAN	3,328,000		623,660		-	498,928	124,732		623,660
SHERMAN	4,685,000		877,959		-	702,367	175,592		877,959
SHERMAN	2,357,000		441,697		-	353,358	88,339		441,697
SHERMAN	4,899,000		918,062		-	734,450	183,612		918,062
WINDSOR	1,225,000		229,562		-	183,650	45,912		229,562
	37,660		37,660		-	-	37,660		37,660
	\$ 275,703,160	\$	51,696,805	\$	-	\$ 41,327,316	\$ 10,369,489	\$	51,696,805

(1) Per Kimley-Horn Impact Fee Study

(2) Per discussions with City staff and City files

City of Denton - 2022 Roadway Impact Fee Study

Credit Determination

Appendix E - Impact Fee Calculation Assumptions

Service Area D

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Rate Revenues</u>
1	\$ 305,442	604,664	\$ 0.51	1,163	\$ 588
2	617,668	605,828	1.02	2,327	2,372
3	949,289	606,991	1.56	3,490	5,458
4	1,280,910	608,155	2.11	4,654	9,802
5	1,616,762	609,318	2.65	5,817	15,435
6	1,952,614	610,482	3.20	6,981	22,327
7	2,291,301	611,645	3.75	8,144	30,508
8	2,629,987	612,808	4.29	9,307	39,944
9	2,975,812	613,972	4.85	10,471	50,750
10	3,321,636	615,135	5.40	11,634	62,823
11	3,321,636	615,135	5.40	11,634	62,823
12	3,321,636	615,135	5.40	11,634	62,823
13	3,321,636	615,135	5.40	11,634	62,823
14	3,321,636	615,135	5.40	11,634	62,823
15	3,321,636	615,135	5.40	11,634	62,823
16	3,321,636	615,135	5.40	11,634	62,823
17	3,321,636	615,135	5.40	11,634	62,823
18	3,321,636	615,135	5.40	11,634	62,823
19	3,321,636	615,135	5.40	11,634	62,823
20	3,321,636	615,135	5.40	11,634	62,823
21	3,016,194	615,135	4.90	11,634	57,046
22	2,703,968	615,135	4.40	11,634	51,141
23	2,372,347	615,135	3.86	11,634	44,869
24	2,040,726	615,135	3.32	11,634	38,597
25	1,704,874	615,135	2.77	11,634	32,245
26	1,369,022	615,135	2.23	11,634	25,893
27	1,030,335	615,135	1.67	11,634	19,487
28	691,648	615,135	1.12	11,634	13,081
29	345,824	615,135	0.56	11,634	6,541
Total	\$ 66,432,715				\$ 1,157,132

2022 Vehicle Miles (All Service Areas) ⁽²⁾ 603,501

Ten Year Growth in Vehicle Miles (Service Area D) ⁽²⁾ 11,634

Annual Growth in Vehicle Miles 10 years
1,163

Credit Amount \$ 1,157,132

(1) Appendix D - Service Area D, Page 3

(2) Per Kimley-Horn Impact Fee Study

City of Denton - 2022 Roadway Impact Fee Study
Impact Fee Calculation Assumptions
Appendix E - Impact Fee Calculation Assumptions
Service Area E

I. General Assumptions

Annual Interest Rate on Deposits ⁽¹⁾	2.00%
Annual Vehicle Mile Growth ⁽²⁾	2,415
Existing Fund Balance ⁽³⁾	4,840,794
Portion of Projects Funded by Existing Debt ⁽³⁾	\$ 299,581
Non-debt Funded Project Cost ⁽⁴⁾	15,285,563
New Project Cost Funded Through New Debt ⁽⁵⁾	63,584,277
Total Recoverable Project Cost ⁽⁶⁾	\$ 79,169,421

II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal ⁽⁷⁾</u>	<u>Interest ⁽⁸⁾</u>	<u>Term</u>
1	\$ 6,358,428	4.05%	20
2	6,358,428	4.30%	20
3	6,358,428	5.00%	20
4	6,358,428	5.00%	20
5	6,358,428	5.15%	20
6	6,358,428	5.15%	20
7	6,358,428	5.25%	20
8	6,358,428	5.25%	20
9	6,358,428	5.50%	20
10	6,358,428	5.50%	20
Total	\$ 63,584,277		

III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures ⁽⁹⁾</u>
1	\$ 1,528,556
2	3,648,032
3	5,767,508
4	7,886,984
5	7,886,984
6	7,886,984
7	7,886,984
8	7,886,984
9	7,886,984
10	7,886,984
11	6,358,428
12	4,238,952
13	2,119,476
Total	78,869,840

- (1) Per discussions with City Staff and City files
(2) Per Kimley-Horn Impact Fee Study
(3) Per discussions with City Staff and City files
(4) Per discussions with City Staff and City files
(5) This assumes 20% of new project costs funded through sources other than debt, unless specified otherwise
(6) This assumes 80% of new project costs funded through new debt issues, unless specified otherwise
(7) Per Kimley-Horn Impact Fee Study
(8) Assumes new debt issued in equal amounts every year
(9) Estimated interest on future debt from City's Financial Advisor October 2022
(10) Assumes new debt proceeds expended over a 3-year timeframe
Non-debt funded capital expenditures allocated per discussions with City Staff

City of Denton - 2022 Roadway Impact Fee Study
Appendix E - Impact Fee Calculation Assumptions
Debt Service and Expense Summary
Service Area E

I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 469,938	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 469,938
2	469,938	480,377	-	-	-	-	-	-	-	-	950,315
3	469,938	480,377	510,217	-	-	-	-	-	-	-	1,460,532
4	469,938	480,377	510,217	510,217	-	-	-	-	-	-	1,970,748
5	469,938	480,377	510,217	510,217	516,726	-	-	-	-	-	2,487,474
6	469,938	480,377	510,217	510,217	516,726	516,726	-	-	-	-	3,004,200
7	469,938	480,377	510,217	510,217	516,726	516,726	521,088	-	-	-	3,525,288
8	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	-	-	4,046,376
9	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	-	4,578,445
10	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
11	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
12	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
13	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
14	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
15	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
16	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
17	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
18	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
19	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
20	469,938	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	5,110,514
21	-	480,377	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	4,640,576
22	-	-	510,217	510,217	516,726	516,726	521,088	521,088	532,069	532,069	4,160,199
23	-	-	-	510,217	516,726	516,726	521,088	521,088	532,069	532,069	3,649,982
24	-	-	-	-	516,726	516,726	521,088	521,088	532,069	532,069	3,139,765
25	-	-	-	-	-	516,726	521,088	521,088	532,069	532,069	2,623,039
26	-	-	-	-	-	-	521,088	521,088	532,069	532,069	2,106,313
27	-	-	-	-	-	-	-	521,088	532,069	532,069	1,585,226
28	-	-	-	-	-	-	-	-	532,069	532,069	1,064,138
29	-	-	-	-	-	-	-	-	-	532,069	532,069
	\$ 9,398,761	\$ 9,607,539	\$ 10,204,334	\$ 10,204,334	\$ 10,334,519	\$ 10,334,519	\$ 10,421,753	\$ 10,421,753	\$ 10,641,379	\$ 10,641,379	\$ 102,210,271

City of Denton - 2022 Roadway Impact Fee Study

Appendix E - Impact Fee Calculation Assumptions

Debt Service and Expense Summary

Service Area E

II. Summary of Annual Expenses

<u>Year</u>	<u>New Annual Debt Service⁽¹⁾</u>	<u>Annual Capital Expenditures⁽²⁾</u>	<u>Annual Bond Proceeds⁽²⁾</u>	<u>Existing Annual Debt Service⁽³⁾</u>	<u>Annual Credit⁽⁴⁾</u>	<u>Total Expense</u>
1	\$ 469,938	\$ 1,528,556	\$ (6,358,428)	\$ 12,533	\$ (1,923)	\$ (4,349,323)
2	950,315	3,648,032	(6,358,428)	12,532	(7,644)	(1,755,193)
3	1,460,532	5,767,508	(6,358,428)	12,212	(17,469)	864,355
4	1,970,748	7,886,984	(6,358,428)	12,165	(31,237)	3,480,232
5	2,487,474	7,886,984	(6,358,428)	9,845	(48,983)	3,976,893
6	3,004,200	7,886,984	(6,358,428)	9,792	(70,663)	4,471,885
7	3,525,288	7,886,984	(6,358,428)	9,859	(96,319)	4,967,384
8	4,046,376	7,886,984	(6,358,428)	9,806	(125,814)	5,458,924
9	4,578,445	7,886,984	(6,358,428)	9,896	(159,492)	5,957,406
10	5,110,514	7,886,984	(6,358,428)	9,965	(197,005)	6,452,030
11	5,110,514	6,358,428	-	9,839	(197,000)	11,281,780
12	5,110,514	4,238,952	-	10,053	(197,008)	9,162,510
13	5,110,514	2,119,476	-	9,093	(196,971)	7,042,111
14	5,110,514	-	-	52	(196,623)	4,913,942
15	5,110,514	-	-	-	(196,621)	4,913,892
16	5,110,514	-	-	-	(196,621)	4,913,892
17	5,110,514	-	-	-	(196,621)	4,913,892
18	5,110,514	-	-	-	(196,621)	4,913,892
19	5,110,514	-	-	-	(196,621)	4,913,892
20	5,110,514	-	-	-	(196,621)	4,913,892
21	4,640,576	-	-	-	(178,541)	4,462,035
22	4,160,199	-	-	-	(160,059)	4,000,140
23	3,649,982	-	-	-	(140,429)	3,509,553
24	3,139,765	-	-	-	(120,799)	3,018,966
25	2,623,039	-	-	-	(100,918)	2,522,121
26	2,106,313	-	-	-	(81,038)	2,025,275
27	1,585,226	-	-	-	(60,990)	1,524,236
28	1,064,138	-	-	-	(40,942)	1,023,196
29	532,069	-	-	-	(20,471)	511,598
PTD	-	-	-	250,714	-	250,714
	\$ 102,210,271	\$ 78,869,840	\$ (63,584,277)	\$ 388,356	\$ (3,628,065)	\$ 114,256,125

(1) Appendix D - Service Area E, Page 2

(2) Appendix D - Service Area E, Page 1

(3) Eligible outstanding debt funded projects as a percent of total principal times original annual debt service, including Paid-To-Date (PTD) amounts

(4) Appendix D - Service Area E, Page 7

City of Denton - 2022 Roadway Impact Fee Study

Revenue Test

Appendix E - Impact Fee Calculation Assumptions

Service Area E

<u>Year</u>	<u>Impact Fee</u>	<u>Vehicle Miles</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 4,840,794
1	\$ 3,722	2,415	\$ 8,988,114	\$ (4,349,323)	\$ 13,337,437	\$ 230,190	18,408,421
2	3,722	2,415	8,988,114	(1,755,193)	10,743,306	475,601	29,627,329
3	3,722	2,415	8,988,114	864,355	8,123,758	673,784	38,424,871
4	3,722	2,415	8,988,114	3,480,232	5,507,881	823,576	44,756,329
5	3,722	2,415	8,988,114	3,976,893	5,011,220	945,239	50,712,788
6	3,722	2,415	8,988,114	4,471,885	4,516,228	1,059,418	56,288,434
7	3,722	2,415	8,988,114	4,967,384	4,020,730	1,165,976	61,475,140
8	3,722	2,415	8,988,114	5,458,924	3,529,189	1,264,795	66,269,124
9	3,722	2,415	8,988,114	5,957,406	3,030,708	1,355,690	70,655,522
10	3,722	2,415	8,988,114	6,452,030	2,536,084	1,438,471	74,630,076
11	-	-	-	11,281,780	(11,281,780)	1,379,784	64,728,080
12	-	-	-	9,162,510	(9,162,510)	1,202,936	56,768,506
13	-	-	-	7,042,111	(7,042,111)	1,064,949	50,791,344
14	-	-	-	4,913,942	(4,913,942)	966,687	46,844,090
15	-	-	-	4,913,892	(4,913,892)	887,743	42,817,941
16	-	-	-	4,913,892	(4,913,892)	807,220	38,711,268
17	-	-	-	4,913,892	(4,913,892)	725,086	34,522,462
18	-	-	-	4,913,892	(4,913,892)	641,310	30,249,880
19	-	-	-	4,913,892	(4,913,892)	555,859	25,891,847
20	-	-	-	4,913,892	(4,913,892)	468,698	21,446,652
21	-	-	-	4,462,035	(4,462,035)	384,313	17,368,931
22	-	-	-	4,000,140	(4,000,140)	307,377	13,676,168
23	-	-	-	3,509,553	(3,509,553)	238,428	10,405,043
24	-	-	-	3,018,966	(3,018,966)	177,911	7,563,988
25	-	-	-	2,522,121	(2,522,121)	126,059	5,167,926
26	-	-	-	2,025,275	(2,025,275)	83,106	3,225,756
27	-	-	-	1,524,236	(1,524,236)	49,273	1,750,793
28	-	-	-	1,023,196	(1,023,196)	24,784	752,381
29	-	-	-	511,598	(511,598)	9,932	250,714
PTD	-	-	-	250,714	(250,714)	-	-
			\$ 89,881,135	\$ 114,256,125		\$ 19,534,195	

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Calculation

Appendix E - Impact Fee Calculation Assumptions

Service Area E

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Vehicle Miles</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.7584	1.0000	2,415	4,246	\$ (4,349,323)	\$ (7,648,000)
2	28	1.7240	1.0000	2,415	4,163	(1,755,193)	(3,025,874)
3	27	1.6902	1.0000	2,415	4,081	864,355	1,460,892
4	26	1.6570	1.0000	2,415	4,001	3,480,232	5,766,787
5	25	1.6245	1.0000	2,415	3,923	3,976,893	6,460,549
6	24	1.5927	1.0000	2,415	3,846	4,471,885	7,122,230
7	23	1.5614	1.0000	2,415	3,771	4,967,384	7,756,269
8	22	1.5308	1.0000	2,415	3,697	5,458,924	8,356,647
9	21	1.5008	1.0000	2,415	3,624	5,957,406	8,940,915
10	20	1.4714	1.0000	2,415	3,553	6,452,030	9,493,383
11	19	1.4425	1.0000	-	-	11,281,780	16,274,292
12	18	1.4142	1.0000	-	-	9,162,510	12,958,023
13	17	1.3865	1.0000	-	-	7,042,111	9,763,982
14	16	1.3593	1.0000	-	-	4,913,942	6,679,654
15	15	1.3327	1.0000	-	-	4,913,892	6,548,614
16	14	1.3065	1.0000	-	-	4,913,892	6,420,210
17	13	1.2809	1.0000	-	-	4,913,892	6,294,324
18	12	1.2558	1.0000	-	-	4,913,892	6,170,906
19	11	1.2312	1.0000	-	-	4,913,892	6,049,907
20	10	1.2070	1.0000	-	-	4,913,892	5,931,282
21	9	1.1834	1.0000	-	-	4,462,035	5,280,265
22	8	1.1602	1.0000	-	-	4,000,140	4,640,852
23	7	1.1374	1.0000	-	-	3,509,553	3,991,850
24	6	1.1151	1.0000	-	-	3,018,966	3,366,515
25	5	1.0933	1.0000	-	-	2,522,121	2,757,325
26	4	1.0718	1.0000	-	-	2,025,275	2,170,731
27	3	1.0508	1.0000	-	-	1,524,236	1,601,673
28	2	1.0302	1.0000	-	-	1,023,196	1,054,097
29	1	1.0100	1.0000	-	-	511,598	516,714
PTD		1.0000	1.0000	-	-	250,714	250,714
					38,905		\$ 153,405,728

Annual Interest Rate: 2.00%

Total Escalated Expense for Entire Period	\$ 153,405,728
Less Future Value of Initial Impact Fee Fund Balance	8,596,499
Sub-Total	\$ 144,809,229

Total Escalated Vehicle Miles	38,905
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Maximum Assessable Impact Fee for Roadway Service Area E \$ 3,722

City of Denton - 2022 Roadway Impact Fee Study

Impact Fee Project Funding

Appendix E - Impact Fee Calculation Assumptions

Service Area E

Street Name	Cost In		Impact Fee		Debt Funded ⁽²⁾		Non-Debt		Impact Fee			
	Service Area ⁽¹⁾		Recoverable Cost ⁽¹⁾		Existing	Proposed	Funded ⁽²⁾		Recoverable Cost			
AUDRA	\$	1,687,000	\$	436,939	\$	-	\$	349,552	\$	87,388	\$	436,939
BLAGG		11,181,000		2,895,922		-		2,316,738		579,184		2,895,922
BLAGG		7,651,000		1,981,638		-		1,585,311		396,328		1,981,638
BLAGG		281,500		72,910		-		58,328		14,582		72,910
DALLAS		3,624,000		938,630		-		750,904		187,726		938,630
DUCHESS		5,949,000		1,540,814		-		1,232,651		308,163		1,540,814
FM 426		9,953,000		2,577,865		-		2,062,292		515,573		2,577,865
MCKINNEY		1,551,000		401,715		-		-		401,715		401,715
MCKINNEY		1,914,000		495,733		-		396,587		99,147		495,733
MCKINNEY		3,270,000		846,943		-		677,554		169,389		846,943
MCKINNEY		9,268,000		2,400,448		-		1,920,358		480,090		2,400,448
MCKINNEY		4,399,000		1,139,358		-		911,486		227,872		1,139,358
MILLS		23,115,000		5,986,874		-		4,789,499		1,197,375		5,986,874
MILLS		5,235,000		1,355,885		-		1,084,708		271,177		1,355,885
MINGO		2,172,000		562,556		-		450,045		112,511		562,556
MINGO		7,268,000		1,882,440		-		1,505,952		376,488		1,882,440
MINGO		8,381,000		2,170,711		-		1,736,569		434,142		2,170,711
MINGO		2,700,000		699,310		-		559,448		139,862		699,310
MINGO		1,714,000		443,933		-		355,146		88,787		443,933
MINGO		6,583,000		1,705,022		-		1,364,018		341,004		1,705,022
MINGO		671,000		173,792		-		139,033		34,758		173,792
MINGO		2,813,000		728,578		-		582,862		145,716		728,578
MORSE		1,969,000		509,979		-		407,983		101,996		509,979
SHADY OAKS		9,967,000		2,581,491		-		2,065,193		516,298		2,581,491
SPENCER		6,862,000		1,777,284		-		1,421,828		355,457		1,777,284
TREATMENT PLANT		4,731,000		1,225,347		-		980,278		245,069		1,225,347
TREATMENT PLANT		5,015,000		1,298,904		-		1,039,123		259,781		1,298,904
TREATMENT PLANT		11,310,000		2,929,333		-		2,343,467		585,867		2,929,333
BONNIE BRAE		4,155,000		1,076,161		-		860,929		215,232		1,076,161
BONNIE BRAE		1,528,000		395,758		-		316,606		79,152		395,758
BONNIE BRAE		1,685,000		436,421		-		349,137		87,284		436,421
BONNIE BRAE		543,500		140,769		-		112,615		28,154		140,769
BONNIE BRAE		2,035,000		527,073		-		421,658		105,415		527,073
BONNIE BRAE		1,228,500		318,186		-		254,549		63,637		318,186
CARDINAL		3,167,000		820,265		-		656,212		164,053		820,265
GEESLING		8,237,000		2,133,415		-		1,706,732		426,683		2,133,415
GEESLING		18,210,000		4,716,460		-		3,773,168		943,292		4,716,460
LAKEVIEW		2,294,000		594,155		-		475,324		118,831		594,155
MAYHILL		2,467,000		638,962		35,868		570,030		33,064		638,962
MAYHILL		2,155,000		558,153		31,337		497,930		28,887		558,153
MAYHILL		409,500		106,062		5,952		94,623		5,487		106,062
MAYHILL		243,500		63,067		3,533		56,277		3,257		63,067
MAYHILL		1,142,000		295,782		16,590		263,899		15,293		295,782
MAYHILL		2,066,000		535,102		30,031		477,388		27,683		535,102
MAYHILL		2,161,000		559,707		31,414		499,336		28,958		559,707
MAYHILL		3,717,000		962,717		54,071		858,802		49,844		962,717
MAYHILL		3,864,000		1,000,791		48,925		906,765		45,100		1,000,791
MAYHILL		4,477,000		1,159,560		41,859		1,079,114		38,587		1,159,560
MAYHILL		1,840,000		476,567		-		381,254		95,313		476,567
MAYHILL CONNECTOR		2,071,000		536,397		-		429,118		107,279		536,397
MOCKINGBIRD		1,217,000		315,208		-		252,166		63,042		315,208
MOCKINGBIRD		7,039,000		1,823,128		-		1,458,502		364,626		1,823,128
MOCKINGBIRD		6,721,000		1,740,765		-		1,392,612		348,153		1,740,765
POST OAK		20,228,000		5,239,130		-		4,191,304		1,047,826		5,239,130
POST OAK		21,525,000		5,575,058		-		4,460,046		1,115,012		5,575,058
POST OAK		8,015,000		2,075,916		-		1,660,733		415,183		2,075,916
SWISHER		3,750,000		971,264		-		777,012		194,253		971,264
TEASLEY		2,077,000		537,951		-		430,361		107,590		537,951
N STAR		2,427,000		628,602		-		502,882		125,720		628,602
ROY		1,594,000		412,852		-		330,282		82,570		412,852
		37,660		37,660		-		-		37,660		37,660
	\$	305,561,160	\$	79,169,421	\$	299,581	\$	63,584,277	\$	15,285,563	\$	79,169,421

(1) Per Kimley-Horn Impact Fee Study

(2) Per discussions with City staff and City files

City of Denton - 2022 Roadway Impact Fee Study

Credit Determination

Appendix E - Impact Fee Calculation Assumptions

Service Area E

<u>Year</u>	<u>Eligible Debt Service⁽¹⁾</u>	<u>Annual Vehicle Miles</u>	<u>Eligible Debt Service per Vehicle Mile</u>	<u>Annual Growth in Vehicle Miles (Cumulative)</u>	<u>Credit for Annual Ad Valorem Rate Revenues</u>
1	\$ 482,471	605,916	\$ 0.80	2,415	\$ 1,923
2	962,847	608,331	1.58	4,830	7,644
3	1,472,744	610,745	2.41	7,244	17,469
4	1,982,913	613,160	3.23	9,659	31,237
5	2,497,320	615,575	4.06	12,074	48,983
6	3,013,992	617,990	4.88	14,489	70,663
7	3,535,147	620,405	5.70	16,904	96,319
8	4,056,182	622,819	6.51	19,318	125,814
9	4,588,341	625,234	7.34	21,733	159,492
10	5,120,478	627,649	8.16	24,148	197,005
11	5,120,353	627,649	8.16	24,148	197,000
12	5,120,566	627,649	8.16	24,148	197,008
13	5,119,606	627,649	8.16	24,148	196,971
14	5,110,565	627,649	8.14	24,148	196,623
15	5,110,514	627,649	8.14	24,148	196,621
16	5,110,514	627,649	8.14	24,148	196,621
17	5,110,514	627,649	8.14	24,148	196,621
18	5,110,514	627,649	8.14	24,148	196,621
19	5,110,514	627,649	8.14	24,148	196,621
20	5,110,514	627,649	8.14	24,148	196,621
21	4,640,576	627,649	7.39	24,148	178,541
22	4,160,199	627,649	6.63	24,148	160,059
23	3,649,982	627,649	5.82	24,148	140,429
24	3,139,765	627,649	5.00	24,148	120,799
25	2,623,039	627,649	4.18	24,148	100,918
26	2,106,313	627,649	3.36	24,148	81,038
27	1,585,226	627,649	2.53	24,148	60,990
28	1,064,138	627,649	1.70	24,148	40,942
29	532,069	627,649	0.85	24,148	20,471
Total	\$ 102,347,912				\$ 3,628,065

2022 Vehicle Miles (All Service Areas) ⁽²⁾ 603,501

Ten Year Growth in Vehicle Miles (Service Area E) ⁽²⁾ 24,148

Annual Growth in Vehicle Miles 10 years
2,415

Credit Amount \$ **3,628,065**

(1) Appendix D - Service Area E, Page 3

(2) Per Kimley-Horn Impact Fee Study

Appendix F – Consideration for the Hunter Ranch and Cole Ranch Operating Agreements

Consideration for Hunter Ranch and Cole Ranch Operating Agreement

The City of Denton has operating agreements with the Hunter Ranch District and the Cole Ranch District which stipulate certain calculations to be included in the Roadway Impact Fee Study. The purpose of this appendix is to explain what calculations are included as part of the operating agreements, how the calculations were performed, and how they will be used in the administration of both the Impact Fee Program and the operating agreements.

“City Offsites” Facilities

The operating agreements define City Offsites as specific roadways that are to be constructed by the City. City Offsites facilities are impact fee eligible roadways that are anticipated to be constructed with District financial participation in the form of impact fees and a District Tax assessed and paid from properties in the districts. As part of the operating agreements, the Roadway Impact Fee study is to include a capacity analysis which shows the portion of City Offsites facilities that the Hunter Ranch District and Cole Ranch District are responsible for. This analysis is provided in the tables included in this appendix. A map identifying the City Offsite facilities and development Improvement Projects as identified within the context of the 2022 Roadway Impact Fee CIP is provided in **Exhibit F.1**. The original map of the City Off-sites from the operating agreement is included in **Exhibit F.2**.

Administration of the Impact Fee Program

Included in the operating agreements is a stipulation that the revenue collected from the Districts for the construction of City Offsites facilities does not exceed the District Cost for the City Offsites as determined by the capacity analysis. The terms City Offsites, District Cost, District Area Revenue, and District Tax Revenue, are defined in Section 4.11 of the operating agreements.

As impact fee District Area Revenue and District Tax Revenue are collected, the City will keep an accounting of the total amount of revenue collected in addition to keeping an accounting of the District Area Revenue that is spent on the construction of the City Offsites. This is to ensure that the District Area Revenue collected and spent on the construction of City Offsites does not exceed the District Cost as determined by the capacity analysis. Impact fee revenue collected from the Districts and allocated to roadway projects within the same service area but not defined as City Offsites will not be designated as District Cost.

Updates to the Capacity Analysis

The capacity analysis considers only the District Cost attributable to the 10-year demand and not the total district cost beyond the 10-year window. Each time the study is updated, the capacity analysis will be updated to reflect the District Area Revenue and District Tax Revenue collected and spent on City Offsites, in addition to the new 10-year demand and the updated District Cost.

City of Denton - 2022 Roadway Impact Fee Study

Hunter Ranch District Capacity Analysis

Hunter Ranch

2/14/2024

Project ID #	Operating Agreement Project No. #	ROADWAY	LIMITS		LENGTH (FT) ¹	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN DISTRICT	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR VEH-MI ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA			
			FROM	TO																	
CITY OFF-SITES (INCLUDED IN IMPACT FEE CIP)																					
A-12	51039	JIM CHRISTAL	IH 35	OLD SH 24	3,110	0.59	4	SECONDARY ARTERIAL	SA	Widening	1,290	100%	750	1770	761	1,009	\$ 10,332,000	\$ 10,332,000			
A-13 C-10	51039	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,056	50%	750	825	290	535	\$ 9,746,000	\$ 4,873,000			
A-14 C-11	51039	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	4	SECONDARY ARTERIAL	SA	Widening	910	50%	750	990	300	690	\$ 11,964,000	\$ 5,982,000			
A-15 C-12	51039	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1695	135	1,560	\$ 18,502,000	\$ 9,251,000			
A-18	52758	ROBSON RANCH	IH 35W	5,745' W of IH-35W	5,745	1.09	6	PRIMARY ARTERIAL	PA	Widening	808	50%	850	2780	441	2,339	\$ 20,953,000	\$ 10,476,500			
A-28	52897	THOMAS J EGAN	JIM CHRISTAL	2915' S of JIM CRISTAL	2,915	0.55	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1650	0	1,650	\$ 6,984,000	\$ 6,984,000			
A-29	52897	THOMAS J EGAN	1830' N of FM 1515	FM 1515	1,830	0.35	4	SECONDARY ARTERIAL	SA	New	New	50%	750	525	0	525	\$ 4,635,000	\$ 2,317,500			
A-30	52808	UNDERWOOD	SPRINGSIDE	UNDERWOOD CONNECTOR	4,000	0.76	6	PRIMARY ARTERIAL	PA	Widening	692	100%	850	3876	526	3,350	\$ 15,229,000	\$ 15,229,000			
B-2	52776	ALLRED	BRUSH CREEK	JOHN PAINE	1,610	0.30	6	PRIMARY ARTERIAL	PA	Widening	1,171	50%	850	765	176	589	\$ 5,424,000	\$ 2,712,000			
B-6	52776	BRUSH CREEK	FORT WORTH	590' E of ALLRED	3,615	0.68	6	PRIMARY ARTERIAL	PA	New	New	100%	850	3468	0	3,468	\$ 10,698,000	\$ 10,698,000			
B-25	45891	VINTAGE	FORT WORTH	BONNIE BRAE	4,605	0.87	6	PRIMARY ARTERIAL	PA (1/3)	Widening	423	100%	850	4437	368	4069	\$ 11,721,000	\$ 11,721,000			
B-27	45891	VINTAGE	BONNIE BRAE	NAPA VALLEY	765	0.14	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	714	262	452	\$ 1,665,000	\$ 1,665,000			
B-28	45891	VINTAGE	NAPA VALLEY	IH 35W	3,435	0.65	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	3315	1218	2,097	\$ 7,975,000	\$ 7,975,000			
SUBTOTAL																					
DEVELOPMENT BUILT FACILITIES (NOT INCLUDED IN IMPACT FEE CIP)																					
A	52773	H LIVELY	I-35W	C WOLFE	14,275	2.70	6	PRIMARY ARTERIAL	PA	New	New	30%	850	4131	0	4,131	\$ -	-			
A	52828	HUNTER ARTERIAL	FM 2449	UNDERWOOD	10,451	1.98	4	SECONDARY ARTERIAL	SA	New	New	50%	750	2970	0	2,970	\$ -	\$ -			
A	52824	HUNTER COLLECTOR	HUNTER ARTERIAL	UNDERWOOD	11,391	2.16	2	COLLECTOR	C	New	New	100%	550	2376	0	2,376	\$ -	\$ -			
A	52756	HUNTER COLLECTOR A	HUNTER ARTERIAL	ROBSON RANCH	13,264	2.51	6	COLLECTOR	C	New	New	100%	550	8283	0	8,283	\$ -	\$ -			
A	52767	HUNTER COLLECTOR C	HUNTER COLLECTOR A	HUNTER COLLECTOR B	2,886	0.55	2	COLLECTOR	C	New	New	100%	550	605	0	605	\$ -	\$ -			
A	52953	UNDERWOOD	1610' N of H LIVELY	H LIVELY	1,608	0.30	6	PRIMARY ARTERIAL	PA	New	New	100%	850	1530	0	1,530	\$ -	\$ -			
A	52953	UNDERWOOD	H LIVELY	ROBSON RANCH	12,039	2.28	6	SECONDARY ARTERIAL	SA	New	New	100%	750	10260	0	10,260	\$ -	\$ -			
B	52771	ALLRED	JOHN PAINE	365' W of IH-35W	1,482	0.28	6	PRIMARY ARTERIAL	PA	Widening	1,308	100%	850	1428	366	1,062	\$ -	\$ -			
B	52771	ALLRED	365' W of IH-35W	IH-35W	365	0.07	6	PRIMARY ARTERIAL	PA	Widening	1,438	100%	850	357	101	256	\$ -	\$ -			
B	52853	JOHN PAINE	VINTAGE	ALLRED	6,370	1.21	4	SECONDARY ARTERIAL	SA	New	New	100%	750	3630	0	3,630	\$ -	\$ -			
B	52777	JOHN PAINE	ALLRED	TEXOMA	2,660	0.50	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1500	0	1,500	\$ -	\$ -			
SUBTOTAL																					
														37,070	467	36,603	\$ -	\$ -			

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% in Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

4. The length of Robson Ranch shown in operating agreement is less than the length of project A-18.

The reduced length has been shown in this table to align with the operating agreement.

TOTAL VEHICLE-MILES PROVIDED BY HUNTER-COLE RANCH	63,880
TOTAL VEH-MILES OF EXISTING DEMAND	4,944
NET AMOUNT OF CAPACITY ADDED	58,936
TOTAL COST OF OFF-SITE FACILITIES	\$ 100,216,000
COST OF NET CAPACITY SUPPLIED	\$ 92,459,771
HUNTER RANCH 10-YEAR VEHICLE-MILE DEMAND	9,220
PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH	15.6%
COST OF OFF-SITES ATTRIBUTABLE TO 10-YR GROWTH	\$ 14,464,488
ESTIMATED COST OF FINANCING (46%)	\$ 6,653,665
ESTIMATED INTEREST EARNINGS (24%)	\$ (3,471,477)
ESTIMATED CREDIT FOR AD VALOREM TAXES (5.4%)	\$ (781,082)
RECOVERABLE COST OF IMPACT FEE CIP AND FINANCING (ATTRIBUTABLE TO OFF-SITE FACILITIES)	\$ 16,865,593

City of Denton - 2022 Roadway Impact Fee Study

Cole Ranch District Capacity Analysis

Cole Ranch

2/14/2024

Project ID #	Operating Agreement Project No. #	ROADWAY	LIMITS		LENGTH (FT) ¹	LENGTH (MI)	LANES	MTP CLASSIFICATION	IMPACT FEE CLASSIFICATION	ROADWAY STATUS	PEAK HOUR VOLUME	% IN DISTRICT	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL ¹	VEH-MI TOTAL DEMAND PK-HR ²	EXCESS CAPACITY PK-HR ³	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA						
			FROM	TO																				
CITY OFF-SITES (INCLUDED IN IMPACT FEE CIP)																								
A-12	51039	JIM CHRISTAL	IH 35	OLD SH 24	3,110	0.59	4	SECONDARY ARTERIAL	SA	Widening	1,290	100%	750	1770	761	1,009	\$	10,332,000	\$	10,332,000				
A-13.C-10	51039	JIM CHRISTAL	OLD SH 24	WESTERN	2,905	0.55	4	SECONDARY ARTERIAL	SA	Widening	1,056	50%	750	825	290	535	\$	9,746,000	\$	4,873,000				
A-14.C-11	51039	JIM CHRISTAL	WESTERN	MASCH BRANCH	3,510	0.66	4	SECONDARY ARTERIAL	SA	Widening	910	50%	750	990	300	690	\$	11,964,000	\$	5,982,000				
A-15.C-12	51039	JIM CHRISTAL	MASCH BRANCH	THOMAS J EGAN	5,975	1.13	4	SECONDARY ARTERIAL	SA	Widening	239	50%	750	1695	135	1,560	\$	18,502,000	\$	9,251,000				
A-18	52758	ROBSON RANCH	IH 35W	5,745' W of IH-35W	5,745	1.09	6	PRIMARY ARTERIAL	PA	Widening	808	50%	850	2780	441	2,339	\$	20,953,000	\$	10,476,500				
A-28	52897	THOMAS J EGAN	JIM CHRISTAL	2915' S OF JIM CRISTAL	2,915	0.55	4	SECONDARY ARTERIAL	SA	New	New	100%	750	1650	0	1,650	\$	6,984,000	\$	6,984,000				
A-29	52897	THOMAS J EGAN	1830' N OF FM 1515	FM 1515	1,830	0.35	4	SECONDARY ARTERIAL	SA	New	New	50%	750	525	0	525	\$	4,635,000	\$	2,317,500				
A-30	52808	UNDERWOOD	SPRINGSIDE	UNDERWOOD CONNECTOR	4,000	0.76	6	PRIMARY ARTERIAL	PA	Widening	692	100%	850	3876	526	3,350	\$	15,229,000	\$	15,229,000				
B-2	52776	ALLRED	BRUSH CREEK	JOHN PAINE	1,610	0.30	6	PRIMARY ARTERIAL	PA	Widening	1,171	50%	850	765	176	589	\$	5,424,000	\$	2,712,000				
B-6	52776	BRUSH CREEK	FORT WORTH	590' E OF ALLRED	3,615	0.68	6	PRIMARY ARTERIAL	PA	New	New	100%	850	3468	0	3,468	\$	10,698,000	\$	10,698,000				
B-25	45891	VINTAGE	FORT WORTH	BONNIE BRAE	4,605	0.87	6	PRIMARY ARTERIAL	PA (1/3)	Widening	423	100%	850	4437	368	4069	\$	11,721,000	\$	11,721,000				
B-26	45891	VINTAGE	BONNIE BRAE	NAPA VALLEY	765	0.14	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	714	262	452	\$	1,665,000	\$	1,665,000				
B-27	45891	VINTAGE	NAPA VALLEY	IH 35W	3,435	0.65	6	PRIMARY ARTERIAL	PA (1/3)	Widening	1,874	100%	850	3315	1218	2,097	\$	7,975,000	\$	7,975,000				
SUBTOTAL																								
DEVELOPMENT BUILT FACILITIES (NOT INCLUDED IN IMPACT FEE CIP)																								
A	52866	AMXX	LOOP 288	C WOLFE	6,855	1.30	2	SECONDARY ARTERIAL	SA	New	New	100%	750	1950	0	1,950	\$	-	\$	-				
A	52790	FM 2449	LOOP 288	780' W OF LOOP 288	778	0.15	6	PRIMARY ARTERIAL	PA	New	New	100%	850	765	0	765	\$	-	\$	-				
A	52790	FM 2449	780' W OF LOOP 288	4380' E OF C WOLFE	1,904	0.36	6	PRIMARY ARTERIAL	PA	New	New	100%	850	1836	0	1,836	\$	-	\$	-				
A	52790	FM 2449	4380' E OF C WOLFE	C WOLFE	4,382	0.83	6	PRIMARY ARTERIAL	PA	Widening	1,364	100%	850	4233	1132	3,101	\$	-	\$	-				
A	52872	FM 2499	OUTER LOOP	UNDERWOOD	5,687	1.08	2	COLLECTOR	C	New	New	100%	550	1188	0	1,188	\$	-	\$	-				
A	52773	H LIVELY	I-35W	C WOLFE	14,275	2.70	6	PRIMARY ARTERIAL	PA	New	New	70%	850	9639	0	9,639	\$	-	\$	-				
A	52823	AMXX-H LIVELY	AMXX	H LIVELY	9,395	1.78	2	COLLECTOR	C	New	New	100%	550	1958	0	1,958	\$	-	\$	-				
A	52879	FM 1515-H LIVELY	FM 1515	H LIVELY	12,255	2.32	4	SECONDARY ARTERIAL	SA	New	New	100%	750	6960	0	6,960	\$	-	\$	-				
A	52828	HUNTER ARTERIAL	FM 2449	UNDERWOOD	10,451	1.98	4	SECONDARY ARTERIAL	SA	New	New	50%	750	2970	0	2,970	\$	-	\$	-				
A	52953	UNDERWOOD	UNDERWOOD CONNECTOR	FM 2449	2,026	0.38	6	PRIMARY ARTERIAL	PA	New	New	100%	850	1938	0	1,938	\$	-	\$	-				
A	52953	UNDERWOOD	LOOP 288	1610' N OF H LIVELY	5,909	1.12	6	PRIMARY ARTERIAL	PA	Widening	60	100%	850	5712	67	5,645	\$	-	\$	-				
SUBTOTAL																								
														39,149	1,199	37,950	\$	-	\$	-				

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] * [Exist Lanes] * [Veh-Mi Capacity Pk-Hr Per Ln] * [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] * [PM Peak Hour Vol] * [% in Service Area]

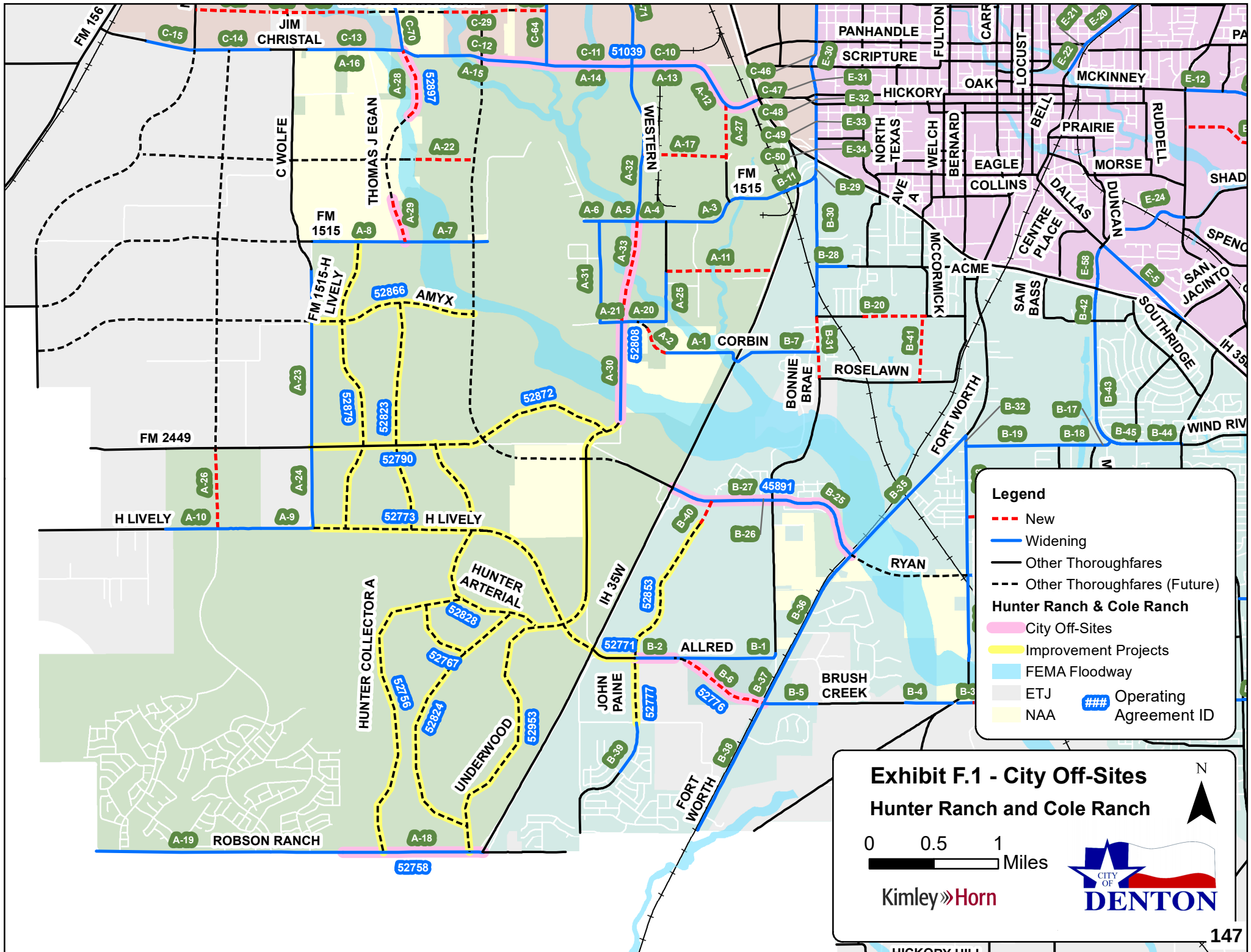
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

4. The length of Robson Ranch shown in operating agreement is less than the length of project A-18.

The reduced length has been shown in this table to align with the operating agreement.

TOTAL VEHICLE-MILES PROVIDED BY COLE RANCH	65,959
TOTAL VEH-MILES OF EXISTING DEMAND	5,676
NET AMOUNT OF CAPACITY ADDED	60,283
TOTAL COST OF OFF-SITE FACILITIES	\$ 100,216,000
COST OF NET CAPACITY SUPPLIED	\$ 91,592,067
COLE RANCH 10-YEAR VEHICLE-MILE DEMAND	5,993
PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH	9.9%
COST OF OFF-SITES ATTRIBUTABLE TO 10-YR GROWTH	\$ 9,105,573
ESTIMATED COST OF FINANCING (46%)	\$ 4,188,564
ESTIMATED INTEREST EARNINGS (24%)	\$ (2,185,338)
ESTIMATED CREDIT FOR AD VALOREM TAXES (5.4%)	\$ (491,701)
RECOVERABLE COST OF IMPACT FEE CIP AND FINANCING (ATTRIBUTABLE TO OFF-SITE FACILITIES)	\$ 9,617,098



Legend

- New
- Widening
- Other Thoroughfares
- - - Other Thoroughfares (Future)
- Hunter Ranch & Cole Ranch**
- City Off-Sites
- Improvement Projects
- FEMA Floodway
- ETJ
- NAA
- ### Operating Agreement ID

Exhibit F.1 - City Off-Sites
Hunter Ranch and Cole Ranch

0 0.5 1 Miles

Kimley»Horn

CITY OF DENTON

147

Planning Level Infrastructure Development Phasing Map – Off-site Roadways with Phase Boundaries

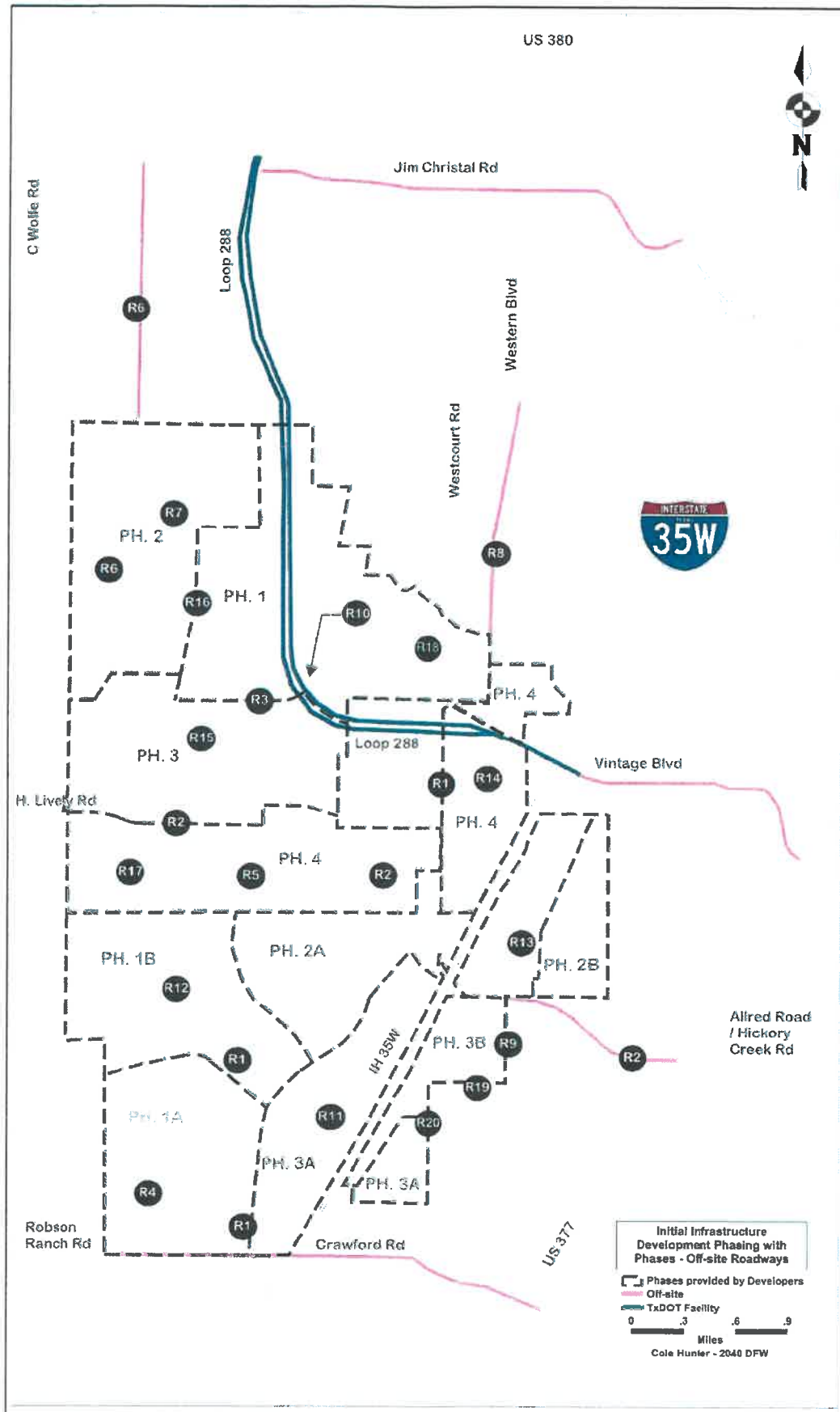
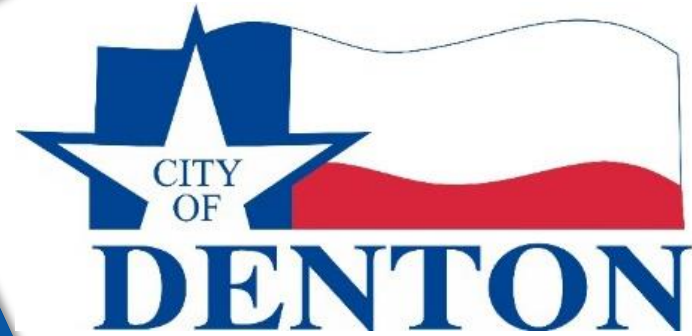


Exhibit F.2 - City Off-sites
Hunter Ranch and Cole Ranch Operating Agreement

Capital Improvements Advisory Committee Roadway Impact Fees

City of Denton

Pete Kelly, P.E.
Kimley-Horn
March 20, 2024
PZ 24-040



March 20, 2024

Kimley»Horn

Kimley»Horn

Outline

Impact Fee Basics

Impact Fee Results

Collection Rate Options

Role of Advisory Committee During Study

1. Advise and assist the City Council in adopting **land use assumptions**
2. Review the **capital improvements plans (CIP)** and file written comments
3. File written **comments** on the land use assumptions, capital improvements plan, and impact fee

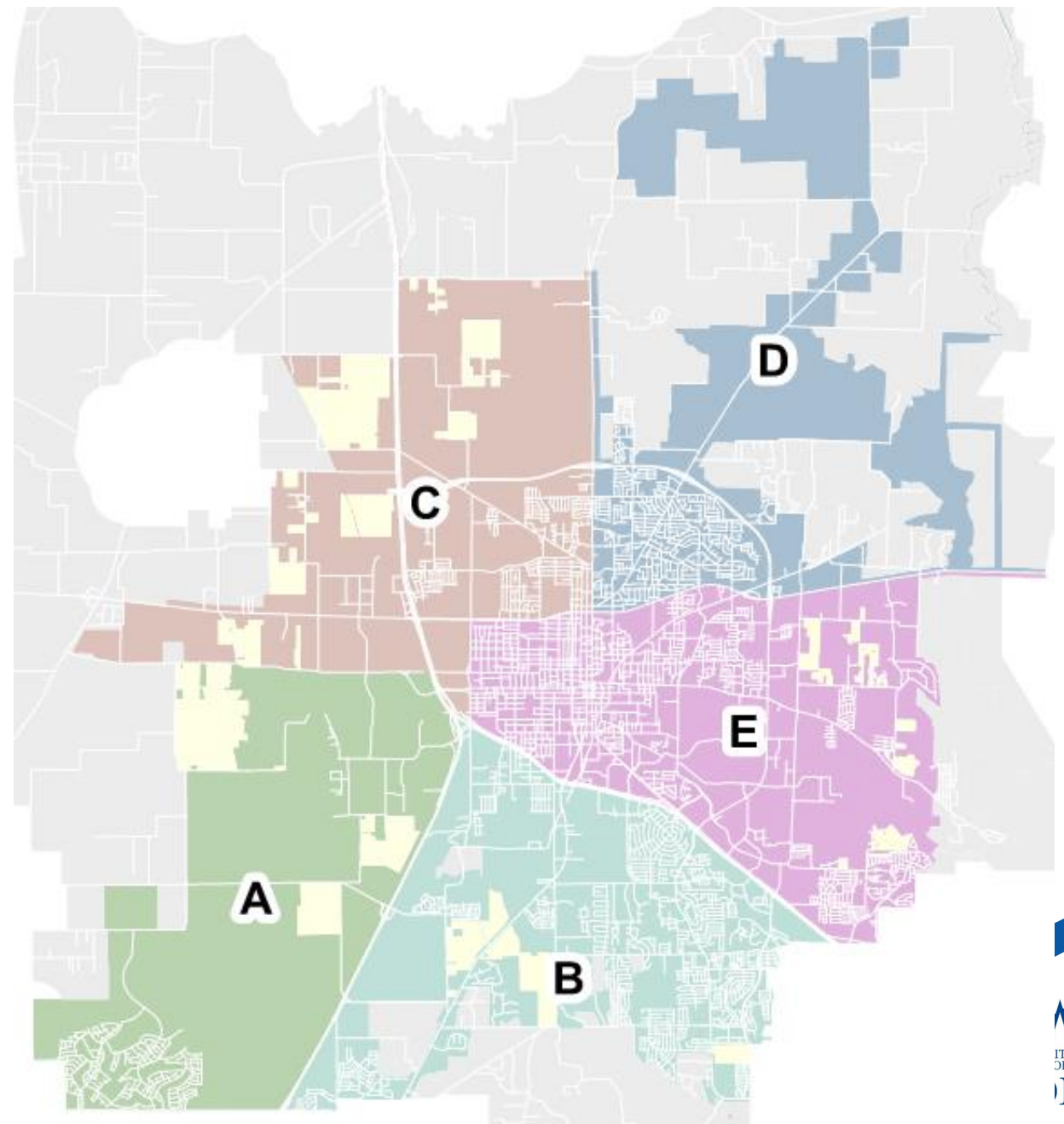
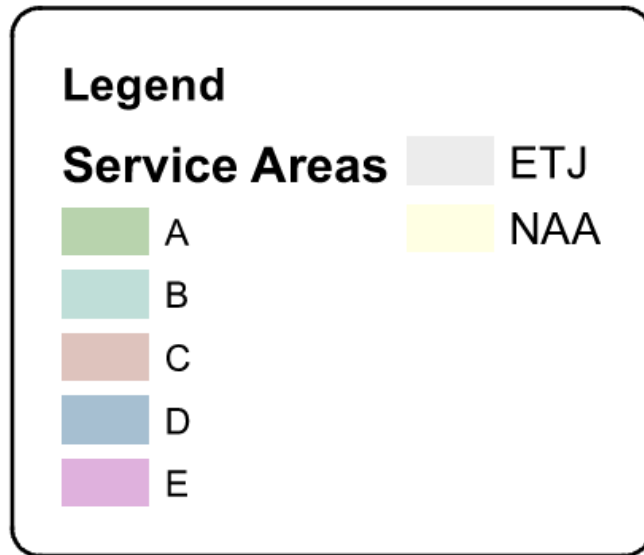
Impact Fee Basics: Overview

- What Are They?
 - **One-time** fee assessed to recover infrastructure costs required to serve new development
 - Governed by Chapter 395 of the Texas LGC
 - Updated every 5 years
- Why impact fees?
 - Provides an additional funding tool for infrastructure systems
 - Provides for the orderly growth of the community

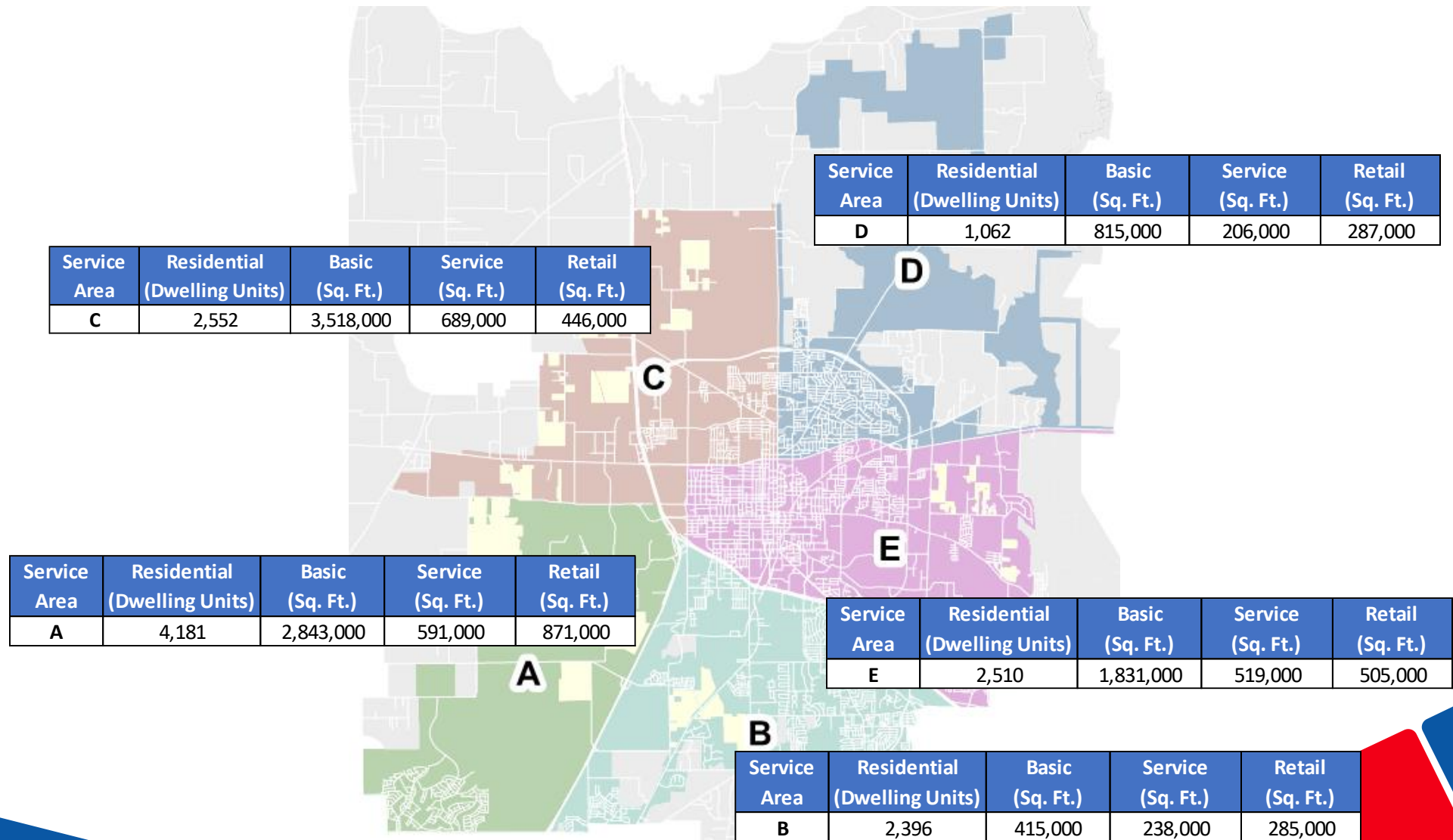
Impact Fee Basics: Components

- What Are The Components?
 - Service Areas
 - Land Use Assumptions (LUA)
 - Capital Improvements Plans (CIP)
 - Service Units
 - Maximum Fee Calculation

Service Areas

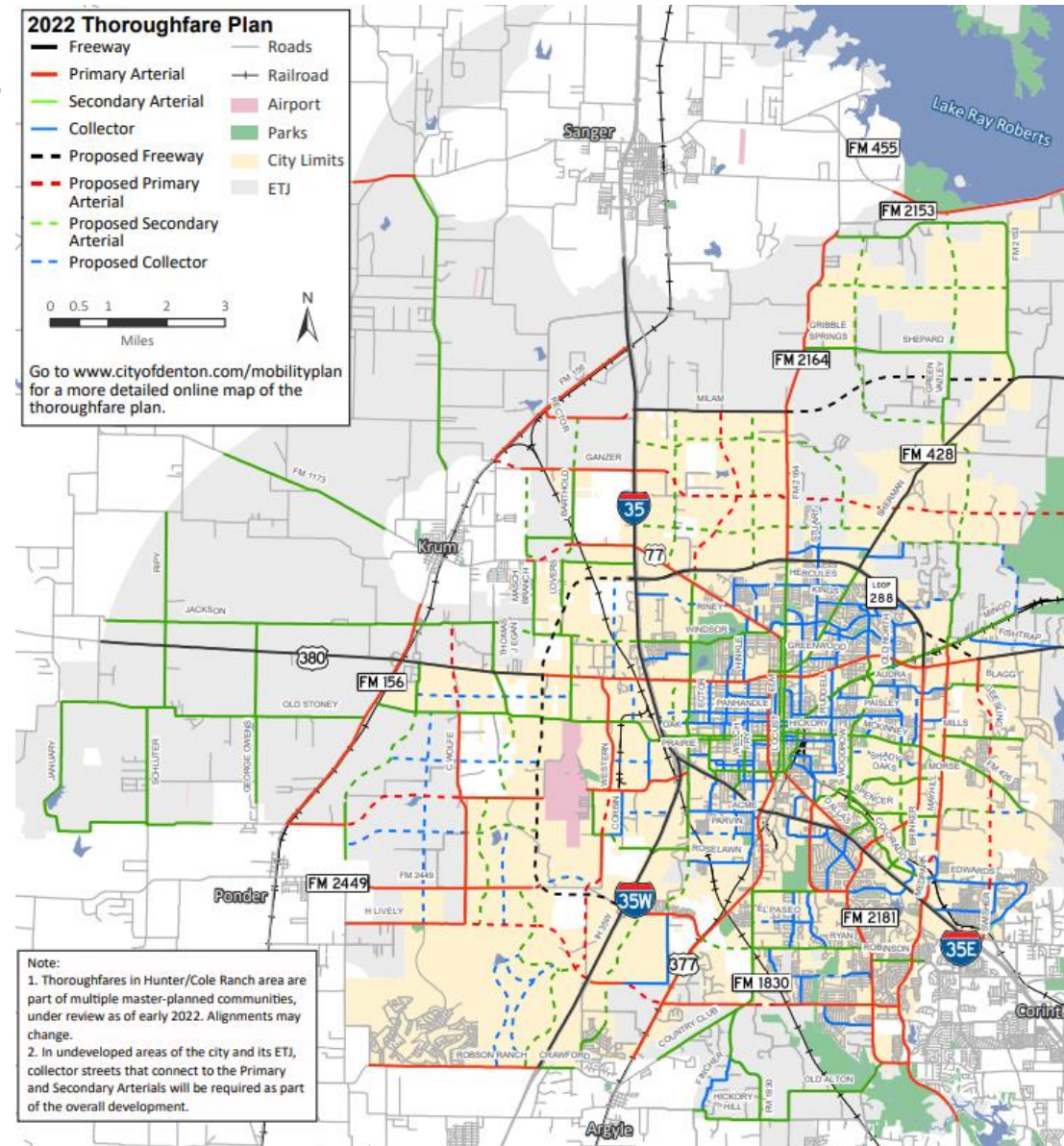


Land Use Assumptions: New Growth 2022-2032

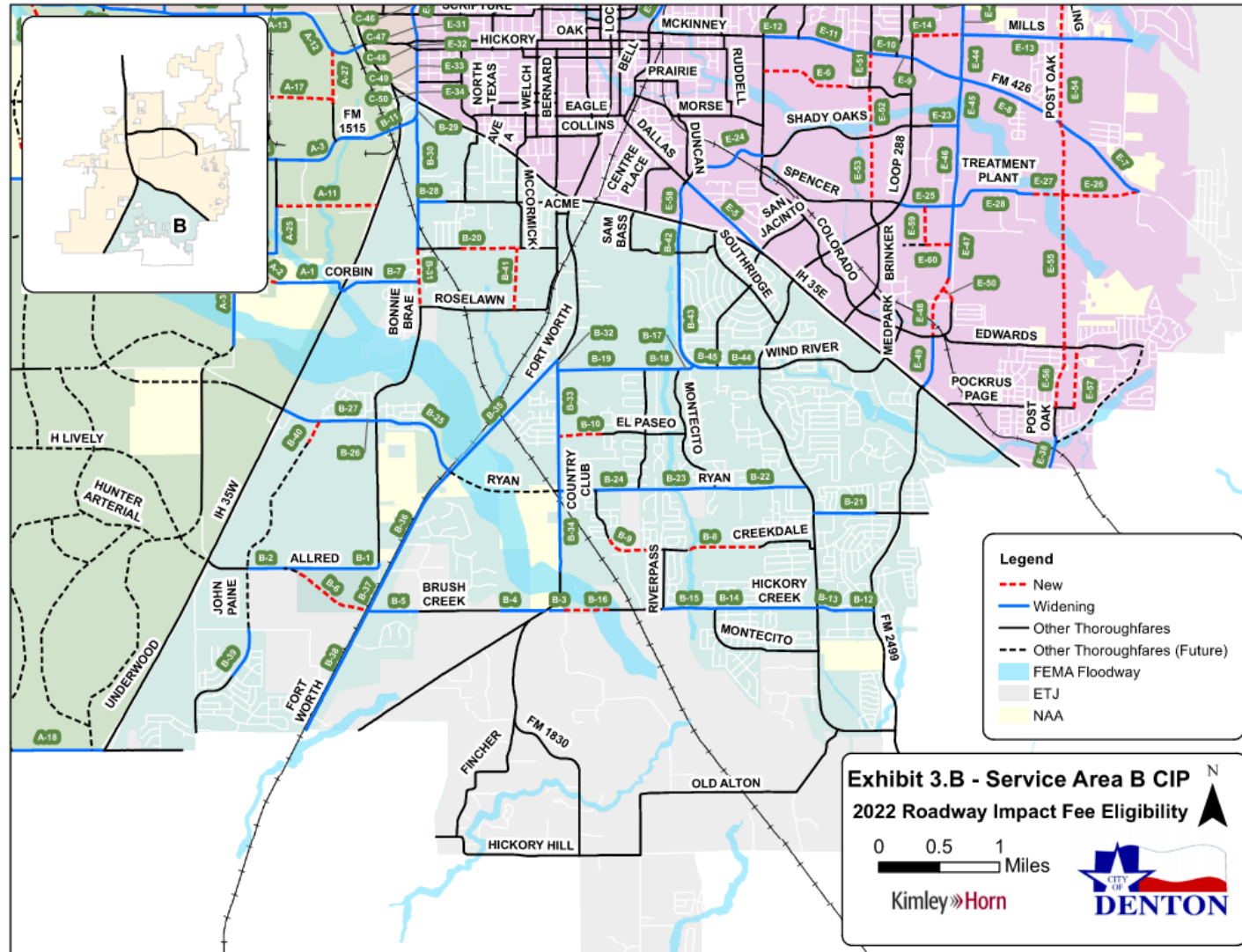


Capital Improvements Plan

- Based on adopted Mobility Plan



Capital Improvements Plan (Service Area B)



Impact Fee Methodology

- How are Impact Fees Calculated?
- Land Use and Population Projections
- Master Plan Infrastructure Requirements
- Develop 10-Year Impact Fee CIP
- Remove costs associated with existing development and growth at 10+ years
- Calculate Pre-Credit Max Assessable Impact Fee

$$\text{Impact Fee Per Service Unit} = \frac{\text{Recoverable Cost of the CIP (\$)}}{\text{New Service Units}}$$

- Credit Calculation

Impact Fee Results: Maximum Fees

Maximum Assessable Fee Per Service Unit	Service Area				
	A	B	C	D	E
	\$4,789	\$4,066	\$4,695	\$5,265	\$3,722

Collection Rate Options (City-Wide Average)

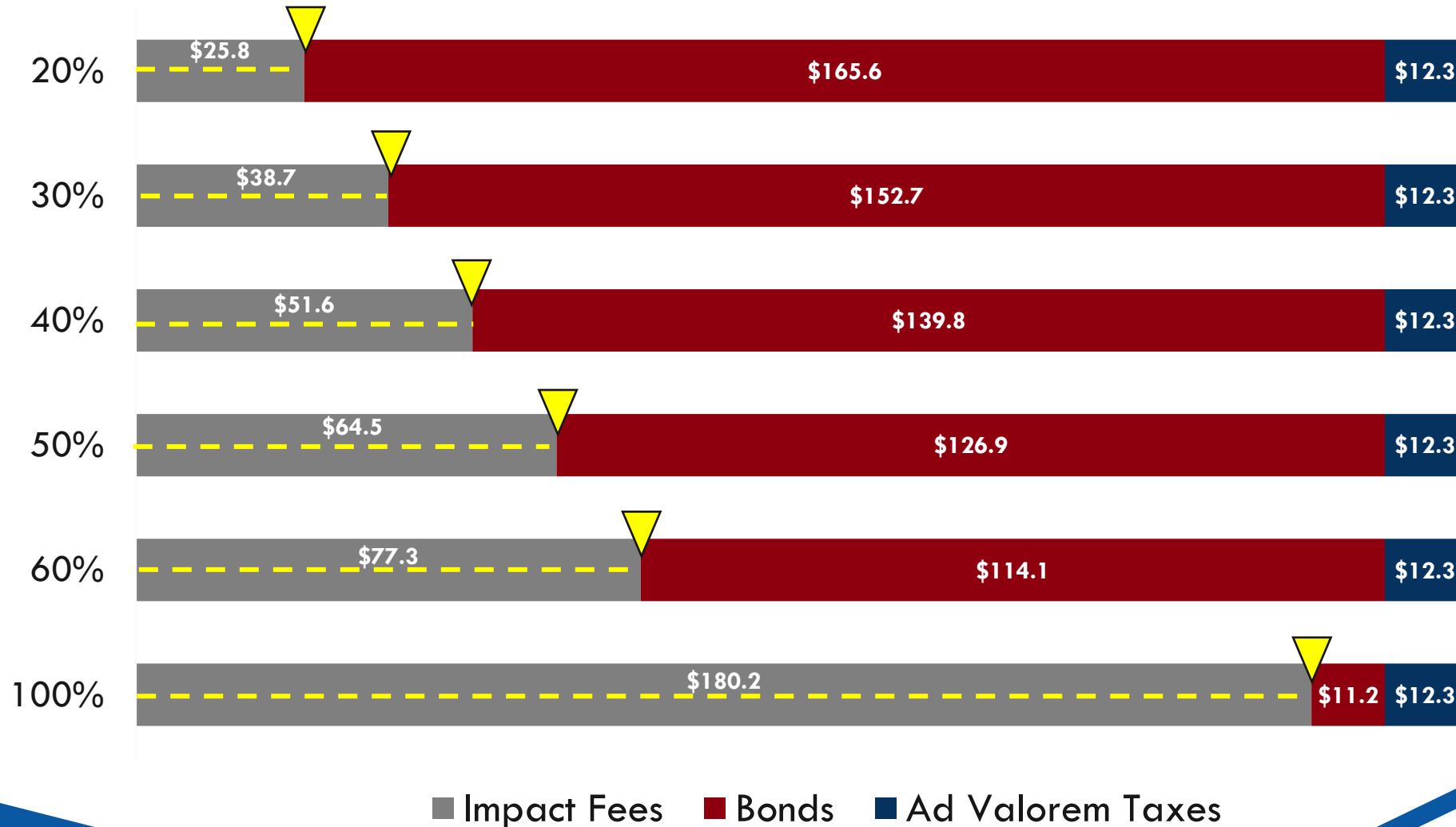
Amount Assessed	2016 Max	2016 Adopted ⁽¹⁾	2022 Proposed Collection Rate Options ⁽²⁾					2022 Max
	100%	20%	20%	30%	40%	50%	60%	100%
Single Family Home	\$9,808	\$2,000	\$4,156	\$6,234	\$8,312	\$10,390	\$12,467	\$20,779
Apartment Complex (250 Units)	\$1,521,520	\$310,202	\$281,713	\$422,569	\$563,425	\$704,281	\$845,138	\$2,817,125
Shopping Center (15,000 Sq. Ft.)	\$206,006	\$31,500	\$82,350	\$123,525	\$164,700	\$205,875	\$247,051	\$823,502
Office Building (5,000 Sq. Ft.)	\$89,489	\$13,684	\$19,472	\$29,208	\$38,944	\$48,680	\$58,416	\$194,720
Light Industrial ⁽³⁾ (100,000 Sq. Ft.)	\$384,384	\$58,775	\$146,941	\$220,412	\$293,882	\$367,353	\$440,824	\$1,469,412

(1) The adopted rate in 2016 included a 25% discount for non-residential uses

(2) The proposed rate in 2022 includes a 50% discount for non-residential uses

(3) All industrial rates in 2016 were capped at the Warehousing rate

Collection Rate Options: Service Area A 10 Year Roadway Funding (\$ Millions)



\$203 M Cost
Attributable to
10-Year Growth

Impact Fee Comparison Data

City	Roadway Impact Fees - Single Family Home				
	Service Areas	Last Updated	Max Fee (Average)	Percent of Max Fee Collected (Average)	Collected Fee (Average)
Lubbock	8	2021	\$2,559	50%	\$1,280
College Station	4	2021	\$6,899	24%	\$1,650
Frisco	4	2019	\$3,944	70%	\$2,761
Flower Mound (East)	3	2021	\$3,041	100%	\$3,041
Georgetown	9	2021	\$10,648	37%	\$3,943
McKinney	13	2020	\$7,329	61%	\$4,484
Keller	2	2022	\$7,042	75%	\$5,282
New Braunfels	6	2019	\$5,676	100%	\$5,676
Fort Worth	19	2022	\$11,670	50%	\$5,835
Fort Worth (South)	19	2022	\$28,126	50%	\$14,063
Flower Mound (West)	3	2021	\$17,974	100%	\$17,974
Denton (Current)	5	2016	\$9,808	20%	\$2,000
Denton (2022 - 20%)	5	2022	\$20,727	30%	\$4,146
Denton (2022 - 30%)	5	2022	\$20,727	30%	\$6,234
Denton (2022 - 40%)	5	2022	\$20,727	40%	\$8,312
Denton (2022 - 50%)	5	2022	\$20,727	50%	\$10,390
Denton (2022 - 60%)	5	2022	\$20,727	60%	\$12,467



Collection Rate Options: CIAC Recommendation

- Council expressed support for:
 - 20% of max for Residential
 - 10% of max for Non-Residential
 - Annual evaluation to determine percentage increases

Schedule

- March 20 - CIAC Review and Comment
- April 2 - Set Public Hearing (on consent no action)
- April 5 - Advertise for Public Hearing
- May 7 - Public Hearing

Contact

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- Pete Kelly, P.E.
Pete.Kelly@kimley-horn.com
817-339-2279