ORDINANCE NO. 2024-812

AN ORDINANCE OF THE CITY OF CEDAR HILL, TEXAS, AMENDING CITY CODE OF ORDINANCES SECTIONS. 18-64 THROUGH 18-66.2, CONCERNING IMPACT FEES; ADOPTING UPDATED LAND USE ASSUMPTIONS; ADOPTING UPDATED CAPITAL IMPROVEMENTS PLANS FOR WATER, WASTEWATER AND ROADWAY FACILITIES; ADOPTING A REVISED LAND USE EQUIVALENCY TABLE; ADOPTING REVISED SCHEDULES 1 AND 2; AMENDING ADMINISTRATIVE PROVISIONS FOR THE IMPACT FEE PROGRAM; PROVIDING FOR CONFLICTS; PROVIDING A SEVERABILITY CLAUSE AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 395, Tex. Loc. Gov't Code, provides procedures for updating land use assumptions, capital improvements plans and impact fees, including procedures for determining that no update is required; and

WHEREAS, the City of Cedar Hill adopted revised impact fees for water and wastewater facilities in accordance with the statutory procedures for updating such fees, and adopted initial impact fees for roadway facilities, now termed the Cedar Hill Impact Fee Regulations, by Ordinance No. 95-199, as subsequently amended by Ord. Nos. 95-203, 95-211, Ord. No. 98-392, Ord. No. 2002-123, and Ord. No. 2007-338 and further completed its last update of land use assumptions, capital improvements plans and impact fees through adoption of Ord. No. 2012-478; and

WHEREAS, the City of Cedar Hill has appointed a Capital Improvements Advisory Committee to advise the City Council concerning 2024 amendments to the land use assumptions, impact fee capital improvements plans and impact fees for water and wastewater facilities and for roadway facilities; and

WHEREAS, the City has retained consultants to prepare land use assumptions, impact fee capital improvements plans, impact fees and ordinance provisions in order to meet 2024 update requirements; and

WHEREAS, notice has been published, public hearings held and the written recommendations of the Advisory Committee received concerning revised land use assumptions and impact fee capital improvements plans for water and wastewater facilities and for roadway facilities, as prepared by a qualified professional engineer; and

WHEREAS, the City Council finds that it is in the best interest of the citizens of the City to adopt revised land use assumptions, impact fee capital improvements plans, and impact fees for water, wastewater and roadway facilities; and

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CEDAR HILL:

SECTION 1. UPDATED LAND USE ASSUMPTIONS AND UPDATED CAPITAL IMPROVEMENTS PLANS

a. The land use assumptions for the City of Cedar Hill hereby are updated, as provided for in Section 18-65 of the Cedar Hill Code of Ordinances, by replacing Exhibit 1 of Ord. No. 2012-478 with Exhibit 1 of this amendatory ordinance, which updates the land use assumptions and roadway capital improvements plan for the City, and which is attached hereto and incorporated herein by reference as if fully set forth.

b. Section 18-66 of the Cedar Hill Code of Ordinances, subsection (b), hereby is amended by replacing Exhibit 2 of Ord. No. 2012-478, being in part the water and wastewater capital improvements plan, with Exhibit 2 of this amendatory ordinance, in part, which updates the water and wastewater capital improvements plan for the City, and which is attached hereto and incorporated herein by reference as if fully set forth.

SECTION 3. REVISED LAND USE EQUIVALENCY TABLE.

Section 18-64(g)(1) of the Cedar Hill Code of Ordinances hereby is amended by replacing Exhibit 4 of Ord. No. 2012-478 with Exhibit 3 of this amendatory ordinance, which updates the land use equivalency table for impact fees, and which is attached hereto and incorporated herein by reference as if fully set forth.

SECTION 4. UPDATED SCHEDULES 1 AND 2.

a. Sections 18-64, 18-66, 18-66.1 and 18-66.2 of the Cedar Hill Code of Ordinances hereby are amended by replacing Exhibit 5 of Ord. No. 2012-478, being Schedule 1, with Exhibit 4 of this amendatory ordinance, which updates Schedule 1, setting forth the maximum impact fees per service unit to be assessed against new development for water, wastewater and roadway facilities, and which is attached hereto and incorporated herein by reference as if fully set forth.

b. Sections 18-64, 18-66, 18-66.1 and 18-66.2 of the Cedar Hill Code of Ordinances hereby are amended by replacing Exhibit 6 of Ord. No. 2012-478, being Schedule 2, with Exhibit 5 of this amendatory ordinance, which updates Schedule 2, setting forth the impact fees per service unit to be collected from new development for water, wastewater and roadway facilities, and which is attached hereto and incorporated herein by reference as if fully set forth.

SECTION 5. AMENDMENT TO SECTION 18-64

Section 18-64 of the Cedar Hill Code of Ordinances, subsection (g), entitled "Service unit determination," is hereby amended by adding subsection (2)(g), to read:

(2)(g) For purposes of calculating the number of service units for water or wastewater impact fees attributable to a single-family dwelling, 1" water meters shall be deemed to be one (1) service unit equivalent, with a reduction of 40% for single family and townhouse uses."

SECTION 6. SEVERABILITY

The terms and provisions of this ordinance shall be deemed to be severable and if the validity of any section, subsection, sentence, clause or phrase of this ordinance should be declared to be invalid, the same shall not affect the validity of any other section, subsection, sentence, clause or phrase of this ordinance.

SECTION 7. CONFLICTS

This ordinance shall be cumulative of all provisions of ordinances and of the Code of Ordinances for the City of Cedar Hill, Texas, as amended, except where the provisions of this ordinance are in direct conflict with the provisions of such ordinances and such Code, in which event conflicting provisions of such ordinances and Code hereby are superseded.

SECTION 8. EFFECTIVE DATE.

This ordinance shall take effect on September 1, 2024.

PASSED AND APPROVED by the City Council, the City of Cedar Hill, on this the 23rd day of July 2024.

Stephen Mason, Mayor

ATTEST:

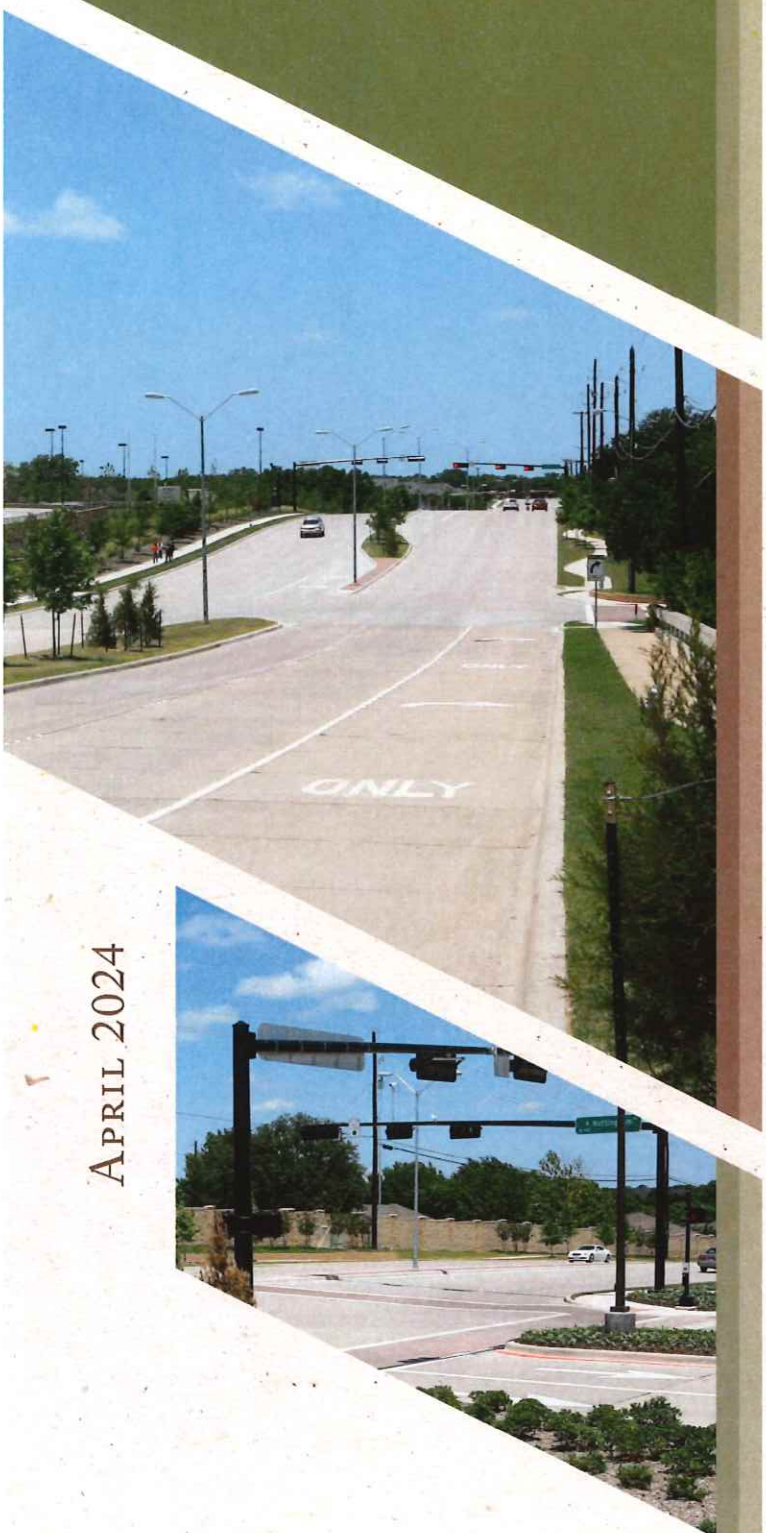
Belinda Berg, City Secretary

APPROVED AS TO FORM:

Ron G. MacFarlane, Jr., City Attorney

PREPARED FOR:

CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY



APRIL 2024

CITY OF CEDAR HILL

ROADWAY IMPACT FEE REPORT

Brandon Forsythe
STATE OF TEXAS
BRANDON R. FORSYTHE
135242
LICENSED
PROFESSIONAL ENGINEER
5/7/24

PREPARED BY:

Kimley»Horn

Kimley-Horn and Associates, Inc.
801 Cherry St Suite 1300, Unit 11,
Fort Worth, TX 76102
TBPE Firm Registration Number: F-928

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1.0 EXECUTIVE SUMMARY

A. 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. Historically, they have been used to fund both public water, wastewater, and roadway improvements in the City of Cedar Hill.

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 2024 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.

B. IMPACT FEE BASICS

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

Impact Fee Study

The primary purpose of the 2024 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 assessed is at the discretion of the Cedar Hill 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 6 miles. In Cedar Hill, this restriction necessitated the creation of four (4) separate Service Areas. A map of the Service Areas can be found on Page 8.

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.

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 2024-2034.

To project future development in the 10-year window, growth assumptions were made based on input from City staff, parcel data, and the Comprehensive Plan. Acknowledging that development is ongoing and changing constantly, this study is based on conditions as they were on February 23, 2023.

In order to arrive at a reasonable projection of growth, existing residential and employment estimates were obtained using Cedar Hill parcel data and an aerial survey of existing development. City staff provided anticipated developments over the next five years and total residential units at buildout of the City. If no development assumption was known at the time for a specific parcel, the assumed land use based on the Conservation and Growth Map in the Comprehensive Plan was used to project the 10-year growth window.

Roadway Impact Fee Capital Improvement Program (CIP)

The Roadway Impact Fee CIP is distinct and separate from the City's traditional Capital Improvement Program. 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 Thoroughfare 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.

The cost of the CIP is one of the fundamental factors in the calculation of the per-unit maximum impact fee. The CIP's cost was calculated through systematic evaluation of each eligible project. The presence of any special conditions (such as the need for significant drainage improvements or railroad crossings) and whether various additional construction costs were applicable (such as construction phase traffic control) were considered. In determining project limits, the team identified roadway segments with uniform need. The team utilized a standard methodology for estimating construction costs. Referencing multiple roadway projects within Cedar Hill, uniform costs were determined for the major items of work, additional construction items, and project delivery costs. Section 4 provides a listing of the 10-Year Capital Improvement Program by service area in Tables 2 – 5 and maps of the CIP by service area in Exhibits B – E. Finally, detailed cost projections by project can be found in Appendix A. It should be noted that these cost projections are based on conceptual level planning and are subject to refinement upon final design.

Only the projects listed in the Roadway Impact Fee CIP are 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 Total Roadway Impact Fee CIP Attributable to New Growth with Financing Between 2024-2034 (i.e. recoverable portion of the Roadway Impact Fee CIP):

Service Areas	1	2	3	4
Total Cost of Capacity Attributable to New Growth Between 2024-2034	$23,752,140	$111,657,994	$289,007,609	$56,200,375

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 2024 Roadway Impact Fee Study defines vehicle-miles as the service unit. 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 Areas	1	2	3	4
2024-2034 Vehicle-Miles of New Demand Based on Future Land Use Plan	3,925	18,682	73,823	26,523

C. IMPACT FEE CALCULATION

The maximum impact fee allowable in each of the four service areas is then calculated by dividing the Roadway Impact Fee CIP Attributable to New Growth with Financing by the number of vehicle-miles in the corresponding Service Area in the above table. The resulting value is multiplied by 50% to account for ad valorem credits. 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 2024 Roadway Impact Fee Study's Maximum Assessable Impact Fees Per Service Unit (Vehicle-Mile):

Service Areas	1	2	3	4
Maximum Assessable Impact Fees Per Service Unit (Vehicle-Mile)	$3,025	$2,988	$1,957	$1,059

D. 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 Impact Fee Advisory Committee (CIFAC) 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 CIFAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIFAC 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 CIFAC 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 CIFAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

E. 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.

2.0 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 2024 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 Improvement Program, and the Land Use / Vehicle-Mile Equivalency Table.

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

1. **Land Use Assumptions** (Pg. 6)
2. **Roadway Impact Fee Capital Improvement Program (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 two components:

1. **Computation Method for Roadway Impact Fees** (Pg. 16)
2. **Roadway Impact Fee Calculation** (Pg. 26)

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

- Service Areas (Pg. 16)
- Service Units (Pg. 16)
- Cost Per Service Unit (Pg. 17)
- Roadway Impact Fee CIP Costing Methodology (Pg. 17)
- Summary of Roadway Impact Fee CIP Costs (Pg. 20)
- Service Unit Calculation (Pg. 23)

The **Roadway Impact Fee Calculation** then incorporates:

- Maximum Assessable Impact Fee Per Service Unit (Pg. 26)
- Service Unit Demand Per Unit of Development (Pg. 29)

This report also includes a section concerning the **Plan for Awarding the Transportation Impact Fee Credit**. In the case of the City of Cedar Hill, the credit calculation was based on awarding a 50 percent credit.

The final section of the report is the **Conclusions**, which presents the findings of the update analysis and summarizes the report.

3.0 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 non-residential 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:

- Cedar Hill Comprehensive Plan
- Dallas Central Appraisal District (DCAD)
- Ellis County Appraisal District (ECAD)
- Known planned developments
- City of Cedar Hill staff

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 Cedar Hill into service areas for transportation facilities.
- **Residential and Non-residential** – Data on residential and employment growth within the service area over the next ten years (2024 – 2034).
- **Land Use Assumptions Summary** – A synopsis of the land use assumptions.

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

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

Non-Residential: Square feet of building area based on retail, service, and basic land uses. 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.

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. 30).

B. LAND USE ASSUMPTIONS METHODOLOGY

The residential and non-residential 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;
- Conservation and Growth Map;
- Growth trends;
- Location of vacant land;
- Physical restrictions (i.e. flood plains, railroads); and
- Physical development capacity of Cedar Hill.

Existing residential and employment estimates were obtained using Cedar Hill parcel data and an aerial survey of existing development. City staff provided anticipated developments over the next five years and total residential units at buildout of the City. If no development assumption was known at the time for a specific parcel, the assumed land use based on the Conservation and Growth Map in the Comprehensive Plan was used to project the 10-year growth window.

C. ROADWAY IMPACT FEE SERVICE AREAS

The geographic boundary of the proposed impact fee service areas for transportation facilities is shown in Exhibit A. The City of Cedar Hill is currently divided into four (4) service areas. The service areas reflect those from the 2012 Roadway Impact Fee Study. For roadway facilities, the service areas as required by state law are limited to areas within the current corporate limits.

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.

City of Cedar Hill Roadway Impact Fee Service Areas

CEDAR HILL

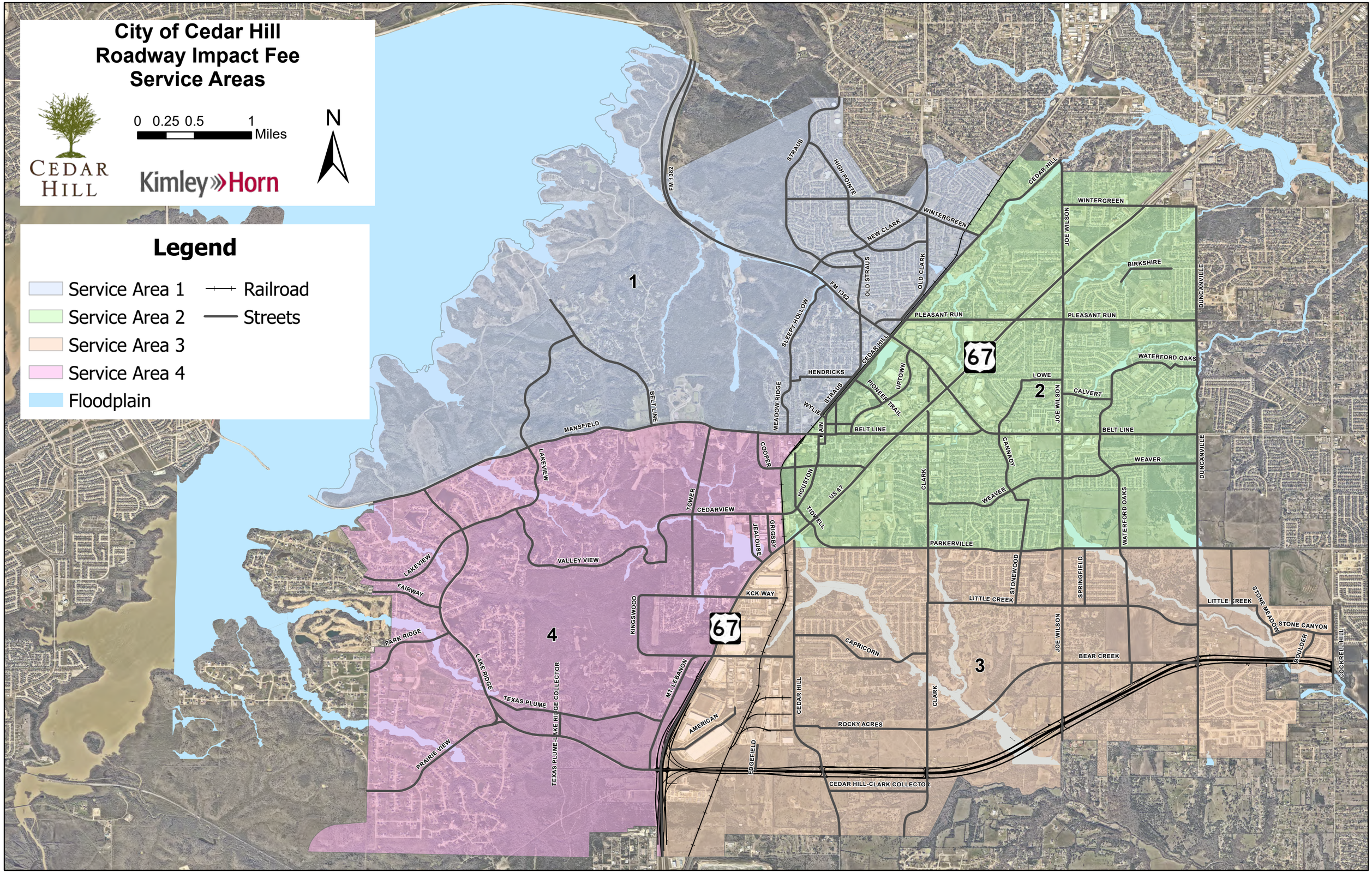
Kimley»Horn

0 0.25 0.5 1 Miles

N

Legend

- Service Area 1
- Service Area 2
- Service Area 3
- Service Area 4
- Floodplain
- Railroad
- Streets



D. RESIDENTIAL AND NON-RESIDENTIAL SUMMARY

Exhibit A presents the existing City limits and the proposed service areas. Table 1 summarizes the residential and non-residential projections within the City of Cedar Hill for 2024-2034 within each service area.

TABLE 1 – RESIDENTIAL AND NON-RESIDENTIAL 10-YEAR GROWTH PROJECTIONS

Service Area	Residential (Units)		Non-Residential (Square Feet)		
	Single-Family	Multi-Family	Basic	Service	Retail
1	386	44	45,367	0	274,960
2	1,348	2,778	223,586	412,338	605,629
3	2,231	830	5,736,373	2,122,850	4,441,488
4	1,504	500	315,943	1,019,133	1,596,748
Subtotal	**5,469**	**4,152**	**6,321,269**	**3,554,321**	**6,918,825**
Total	**9,621**		**16,794,415**		

4.0 ROADWAY IMPACT FEE CAPITAL IMPROVEMENT PROGRAM

Development of a 10-year Roadway Impact Fee Capital Improvement Program is required per Chapter 395 of the Texas local Government Code. The Cedar Hill Thoroughfare Plan was used 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 of the facilities identified are included in the current thoroughfare plan map.

The proposed Roadway Impact Fee CIP is listed in Tables 2 – 5 and mapped in Exhibits B – E**.** The tables show the length of each project as well as the facility's thoroughfare plan classification. The Roadway Impact Fee CIP was developed in conjunction with input from City of Cedar Hill staff and represents those projects that will be needed to accommodate the growth projected in the Land Use Assumptions section of this report. Note that the 10-Year Roadway Impact Fee CIP lists are not in prioritized order.

TABLE 2 – ROADWAY IMPACT FEE CAPITAL IMPROVEMENT PROGRAM – SERVICE AREA 1

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
1-A	M4D-Greenway	Wintergreen (1)	Old Clark to Railroad	0.31	100%
1-B, 2-A	M4D	Wintergreen (2)	Railroad to Cedar Hill	0.11	50%
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	West City Limits to Belt Line	2.21	50%
1-D	C2U	Lakeview (1)	Mansfield to Belt Line	1.18	100%
1-E	C3U	Belt Line (1)	1,880' NW of Lakeview to Mansfield	1.43	100%
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	FM 1382 to Main	0.88	50%
Intersection Improvements					
I-1		Modification	Mansfield Rd & Lakeview Dr		50%
I-2		Signal	Mansfield Rd & Cooper St		50%
I-19		ITS Master Plan	Service Area 1		25%

TABLE 3 – ROADWAY IMPACT FEE CAPITAL IMPROVEMENT PROGRAM – SERVICE AREA 2

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
1-B, 2-A	M4D	Wintergreen (2)	Railroad to Cedar Hill	0.11	50%
2-B	P6D	Wintergreen (3)	Joe Wilson to US 67 SBFR	0.57	100%
2-C	C2U	Birkshire (1)	Milestone to Birkshire	0.44	100%
2-D	C2U	Main-Uptown Collector (1)	Main to Uptown	0.20	100%
2-E	C2U-Greenway	Cooper (2)	Railroad to Houston	0.27	100%
2-F	C4U	Cedarview (2)	Railroad to Tidwell	0.13	100%
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	50%
2-H, 3-B	M4D-Greenway	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	50%
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	FM 1382 to Main	0.88	50%
2-J	C2U	Cedar Hill-Belt Line Collector (1)	Cedar Hill to Belt Line	0.28	100%
2-K	C4U	Main (1)	130' S of Belt Line to Cedar	0.06	100%
2-L	C2U	Tidwell (1)	635' N of Cooper to Houston	0.48	100%
2-M	M4D-Greenway	Tidwell (2)	Houston to US 67	0.17	100%
2-N	M4D(1/2)-Greenway	Tidwell (3)	US 67 to 790' SE of US 67	0.15	100%
2-O	C3U	Joe Wilson (1)	Cedar Hill to Clover Hill	0.86	100%
2-P	M4D-Greenway	Duncanville (1)	580' S of Wintergreen to Parkerville	2.89	100%
Intersection Improvements					
I-3		Interchange	US 67 & Wintergreen Rd		50%
I-4		Modification	Duncanville Rd & Pleasant Run Rd		50%
I-5		Signal	Cooper St & Tidwell St		100%
I-6		Signal	Houston St & Tidwell St		100%
I-7		Interchange	US 67 & Tidwell St		100%
I-8		Signal	Parkerville Rd & Joe Wilson Rd		50%
I-9		Signal	Duncanville Rd & Parkerville Rd		25%
I-18		Signal	Joe Wilson Rd & Calvert Dr		100%
I-19		ITS Master Plan	Service Area 2		25%

TABLE 4 – ROADWAY IMPACT FEE CAPITAL IMPROVEMENT PROGRAM – SERVICE AREA 3

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	50%
2-H, 3-B	M4D-Greenway	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	50%
3-C	M4D	Parkerville (3)	Duncanville to 2,800' E of Duncanville	0.53	50%
3-D	C2U	Little Creek (1)	Joe Wilson to Springfield	0.16	100%
3-E	C2U	Little Creek (2)	Duncanville to 2,315' E of Duncanville	0.44	100%
3-F	C3U	Mt. Lebanon (3)	800' E of American to Cedar Hill	0.29	100%
3-G	C2U	Rocky Acres (1)	Tar to 150' E of Tar	0.03	100%
3-H	C2U	Rocky Acres (2)	1,930' W of Clark to Clark	0.37	100%
3-I	C2U	Bear Creek (1)	Clark to Joe Wilson	1.22	100%
3-J	C2U	Cedar Hill-Clark Collector (1)	Cedar Hill to Clark	0.73	100%
3-K	C2U	Edgefield (1)	Edgefield to Future Loop 9	0.22	100%
3-L	C4U-Greenway	Cedar Hill (2)	US 67 NBFR to Mt. Lebanon	1.01	100%
3-M	P6D-Greenway	Cedar Hill (3)	Mt. Lebanon to Rocky Acres	0.57	100%
3-N	P6D-Greenway	Cedar Hill (4)	Rocky Acres to 1,470' N of New Shiloh	0.98	100%
3-O	P6D-Greenway	Cedar Hill (5)	1,470' N of New Shiloh to 880' N of New Shiloh	0.11	100%
3-P	C4U-Greenway	Clark (1)	Little Creek to 580' S of Saturn	0.61	100%
3-Q	C4U-Greenway	Clark (2)	580' S of Saturn to Future Loop 9	0.88	100%
3-R	C4U	Clark (3)	Future Loop 9 to 3,365' S of Future Loop 9	0.64	100%
3-S	P6D-Greenway	Joe Wilson (2)	Parkerville to Bear Creek	1.00	100%
3-T	P6D	Joe Wilson (3)	Bear Creek to South City Limits	0.68	100%
3-U	C2U	Waterford Oaks (1)	Parkerville to Little Creek	0.52	100%
3-V	C2U	Waterford Oaks (2)	Bear Creek to Future Loop 9	0.18	100%
3-W	M4D-Greenway	Duncanville (2)	Parkerville to Future Loop 9	1.00	100%
3-X	M4D	Duncanville (3)	Future Loop 9 to 1,900' S of Spring Hill	0.84	100%
3-Y	M4D	Cockrell Hill (1)	300' S of Fanny May to South City Limits	0.68	50%
3-Z	M4D	Mt. Lebanon (4)	US 67 NBFR to 800' E of American	0.32	100%
Intersection Improvements					
I-8		Signal	Parkerville Rd & Joe Wilson Rd		50%
I-9		Signal	Duncanville Rd & Parkerville Rd		50%
I-10		Interchange	Future Loop 9 & Duncanville Rd		100%
I-11		Interchange	Future Loop 9 & Cockrell Hill Rd		50%
I-12		Signal	Joe Wilson Rd & Bear Creek Rd		100%
I-13		Interchange	Future Loop 9 & Joe Wilson Rd		100%
I-14		Signal	Clark Rd & Rocky Acres Rd/Bear Creek Rd		100%
I-15		Interchange	Future Loop 9 & Clark Rd		100%
I-16		Interchange	Future Loop 9 & Cedar Hill Rd		100%
I-19		ITS Master Plan	Service Area 3		25%

TABLE 5 – ROADWAY IMPACT FEE CAPITAL IMPROVEMENT PROGRAM – SERVICE AREA 4

Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	West City Limits to Belt Line	2.21	50%
4-B	C2U-Greenway	Cooper (1)	Belt Line to Railroad	0.45	100%
4-C	C2U	Cedarview (1)	Plateau to Railroad	0.39	100%
4-D	C4U-Greenway	Texas Plume (1)	Lake Ridge to Mt. Lebanon	1.35	100%
4-E	C2U	Texas Plume-Lake Ridge Collector (1)	Texas Plume to Lake Ridge	0.20	100%
4-F	C4U-Greenway	Mt. Lebanon (1)	US 67 to Texas Plume	0.75	100%
4-G	C2U	Mt. Lebanon (2)	Texas Plume to Lake Ridge	0.43	100%
Intersection Improvements					
I-1		Modification	Mansfield Rd & Lakeview Dr		50%
I-2		Signal	Mansfield Rd & Cooper St		50%
I-17		Signal	Prairie View Blvd & Lake Ridge Pkwy		100%
I-19		ITS Master Plan	Service Area 4		25%

City of Cedar Hill
Roadway Impact Fee
Capital Improvement Program
Service Area 1

CEDAR HILL

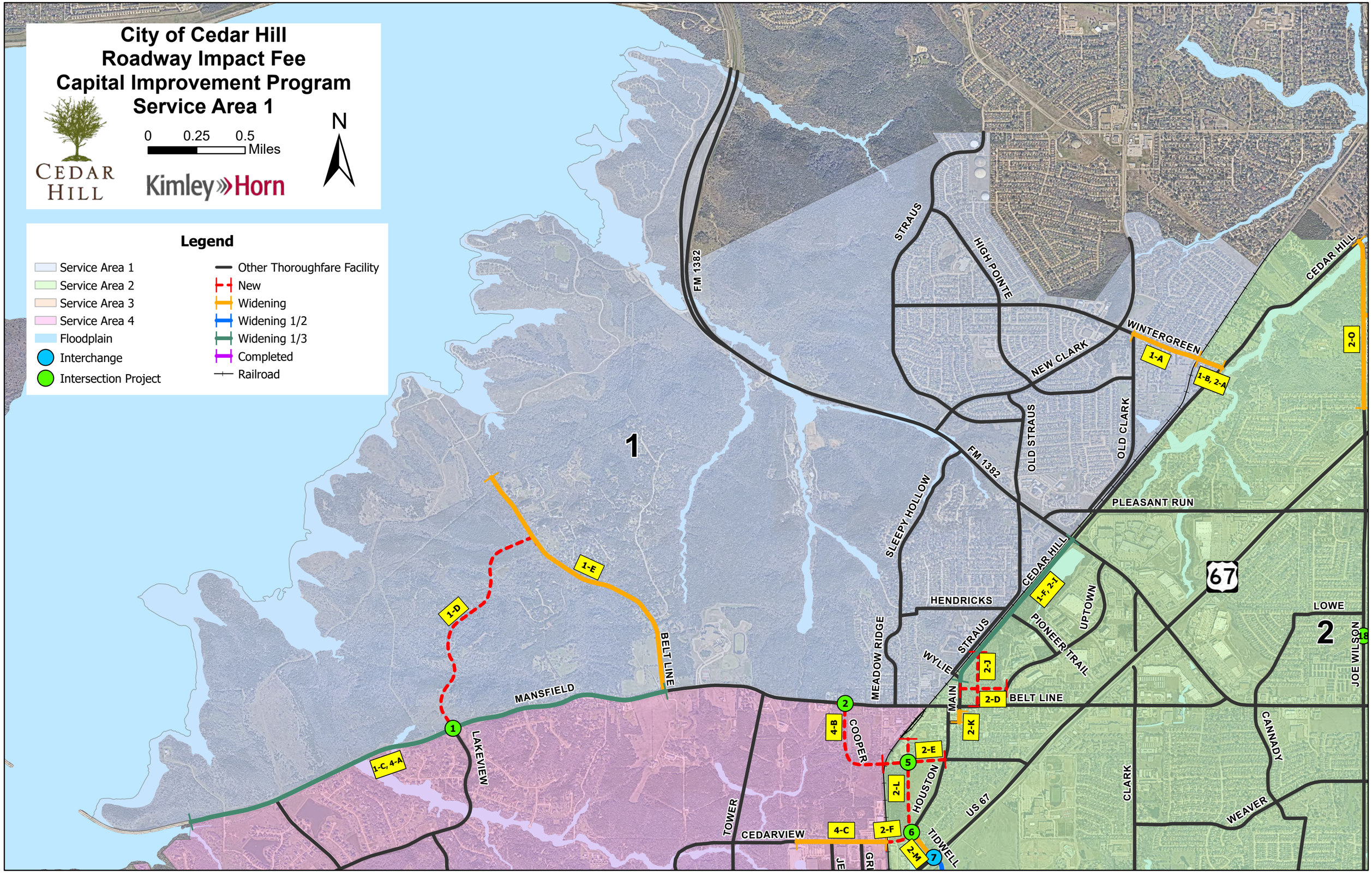
Kimley»Horn

0 0.25 0.5 Miles

N

Legend

- Service Area 1
- Service Area 2
- Service Area 3
- Service Area 4
- Floodplain
- Interchange
- Intersection Project
- Other Thoroughfare Facility
- New
- Widening
- Widening 1/2
- Widening 1/3
- Completed
- Railroad



City of Cedar Hill Roadway Impact Fee Capital Improvement Program Service Area 2

CEDAR HILL

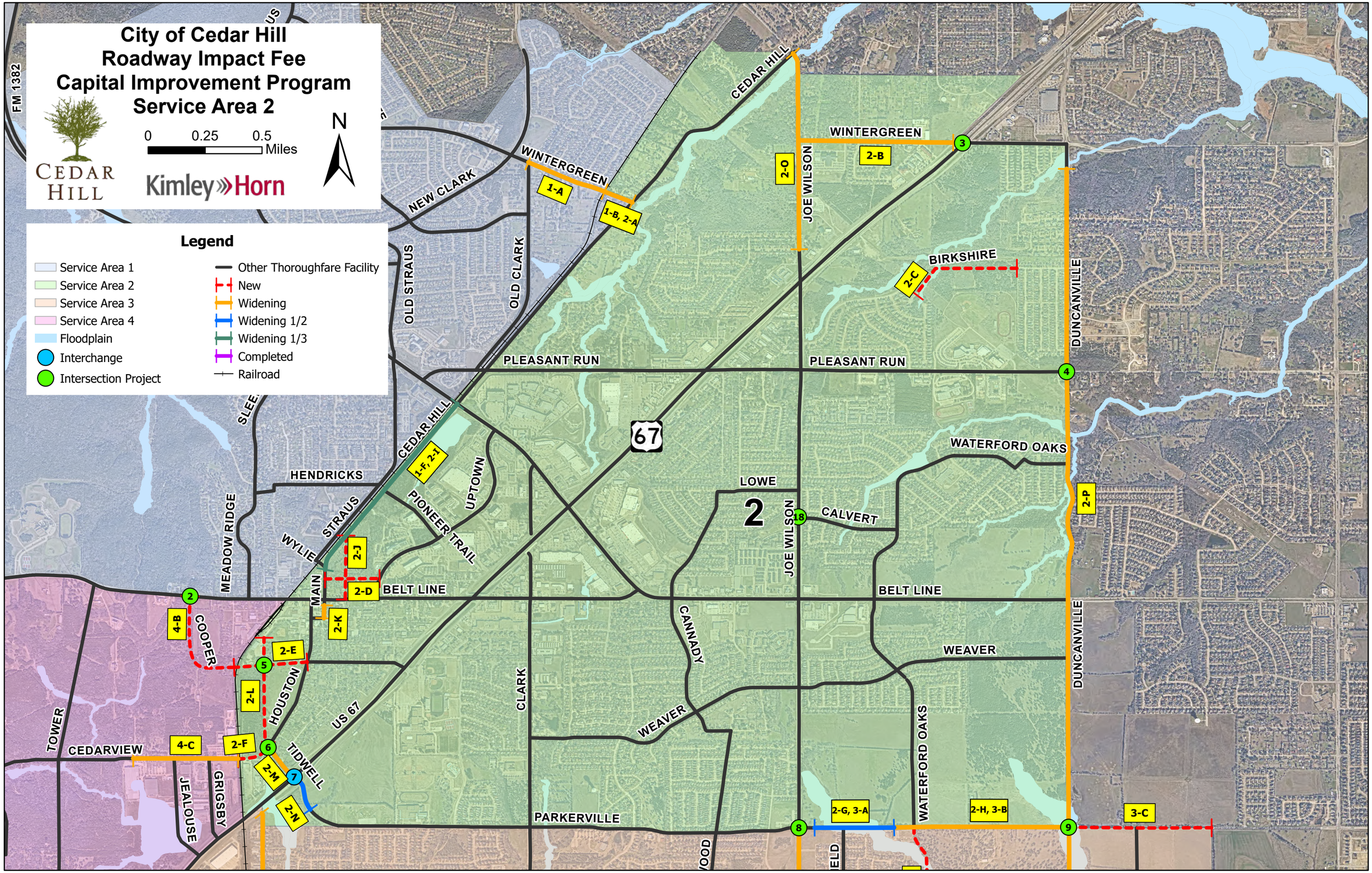
Kimley»Horn

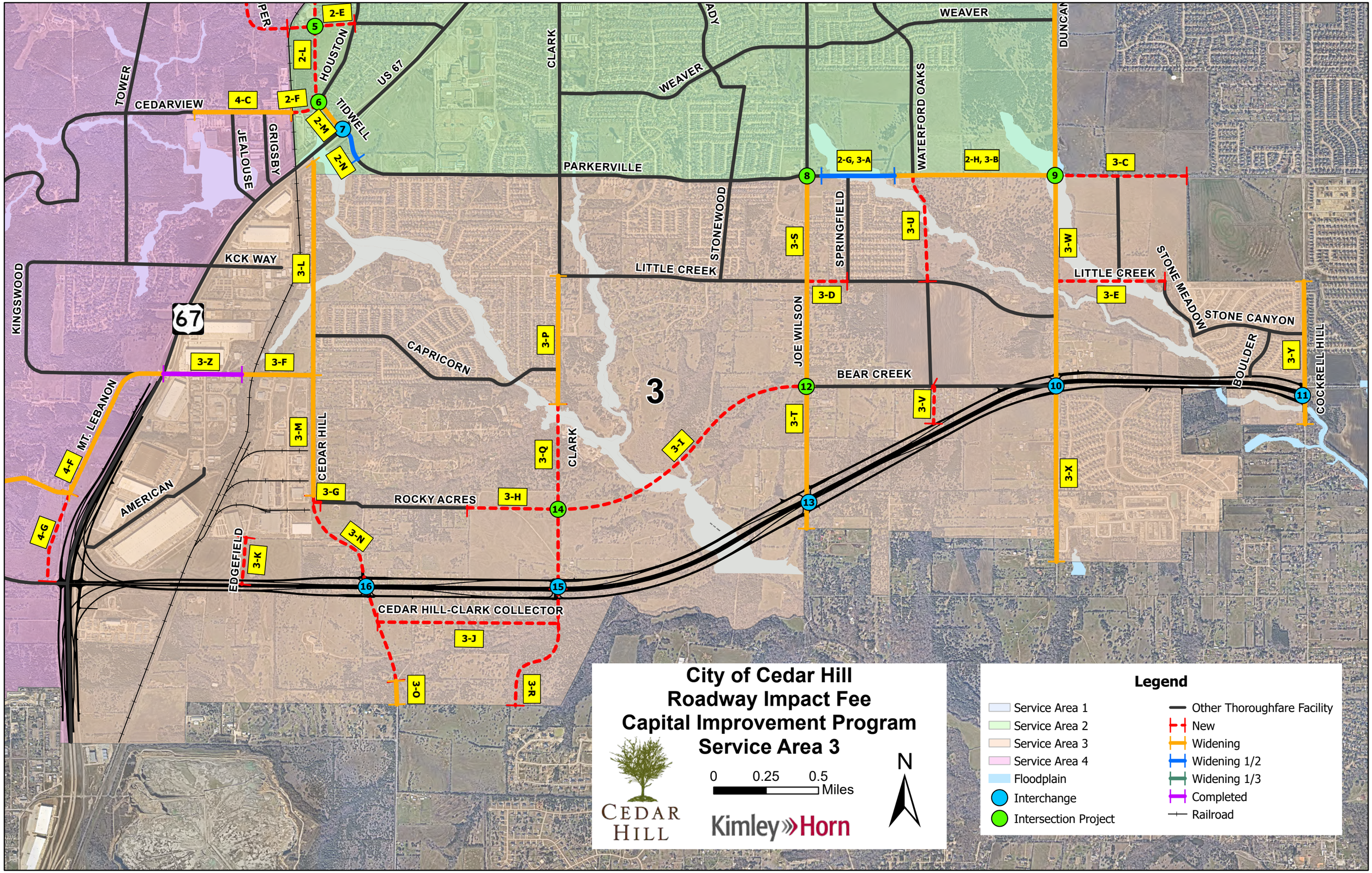
0 0.25 0.5 Miles

N

Legend

- Service Area 1
- Service Area 2
- Service Area 3
- Service Area 4
- Floodplain
- Interchange
- Intersection Project
- Other Thoroughfare Facility
- New
- Widening
- Widening 1/2
- Widening 1/3
- Completed
- Railroad




City of Cedar Hill
Roadway Impact Fee
Capital Improvement Program
Service Area 3
0 0.25 0.5 Miles
N
CEDAR HILL
Kimley»Horn
Legend
Service Area 1
Service Area 2
Service Area 3
Service Area 4
Floodplain
Interchange
Intersection Project
Other Thoroughfare Facility
New
Widening
Widening 1/2
Widening 1/3
Completed
Railroad
3
TOWER
CEDARVIEW
JEALOUSE
GRIGSBY
HOUSTON
TIDWELL
US 67
CLARK
WEAVER
PARKERVILLE
STONEWOOD
WATERFORD OAKS
SPRINGFIELD
DUNCAN
LITTLE CREEK
STONE MEADOW
STONE CANYON
BOULDER
COCKRELL HILL
JOE WILSON
BEAR CREEK
KCK WAY
KINGSWOOD
67
CAPRICORN
MT. LEBANON
AMERICAN
CEDAR HILL
ROCKY ACRES
EDGEFIELD
CEDAR HILL-CLARK COLLECTOR
2-E
2-L
2-F
4-C
2-M
2-N
2-G, 3-A
2-H, 3-B
3-C
3-S
3-U
3-W
3-D
3-E
3-L
3-Z
3-F
3-P
3-M
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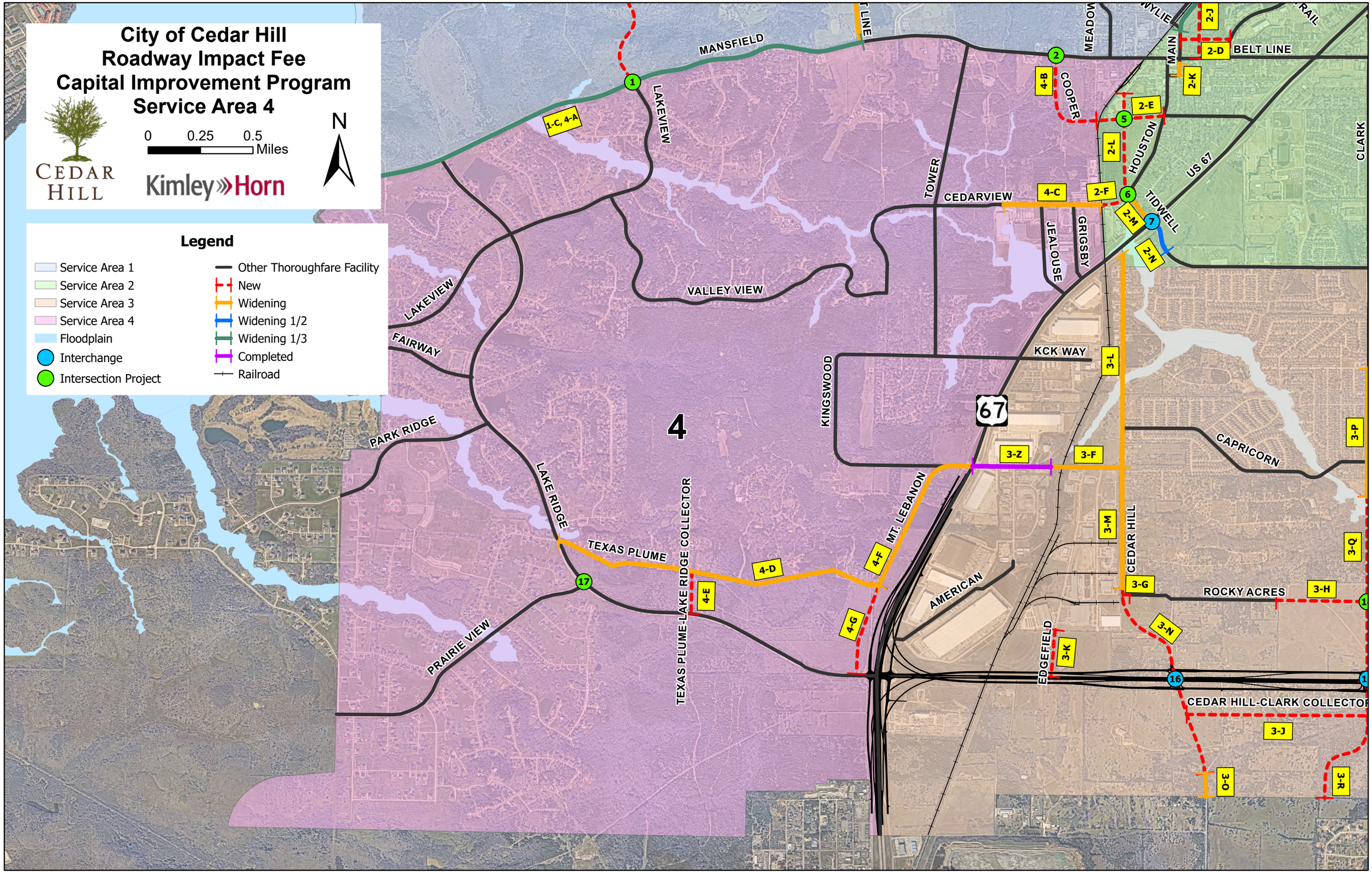
City of Cedar Hill
Roadway Impact Fee
Capital Improvement Program
Service Area 4

CEDAR HILL

Kimley»Horn

0 0.25 0.5 Miles

N



5.0 COMPUTATION METHOD FOR ROADWAY IMPACT FEES

A. SERVICE AREAS

The four (4) service areas used in the 2024 Roadway Impact Fee Study are shown in Exhibit A. These service areas cover the entire corporate area of the City of Cedar Hill. 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." An inspection of the service areas utilized in the previous roadway impact fee study indicates the number of service areas of four (4) is reasonable because they are approximately four (4) miles in diameter.

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 2024 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 Cedar Hill Thoroughfare Plan (see Appendix B).

Total Vehicle-Miles of Demand: Based on the 10-year growth projections (Pg. 25). The demand is equal to PM Trip Rate (trips) * Trip Length (miles).

The capacity values used in the 2024 Roadway Impact Fee Study are based upon thoroughfare capacity criteria published by the North Central Texas Council of Governments (NCTCOG). Tables 6 – 7 show the service volumes as a function of the facility classification and type.

TABLE 6 – SERVICE VOLUMES FOR PROPOSED FACILITIES

Facility Classification	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
Principal Arterial (P6D)	Divided	700
Minor Arterial (M4D)	Divided	650
Major Collector (C4U)	Undivided	500
Major Collector (C3U)	Undivided	550
Minor Collector (C2U)	Undivided	450

TABLE 7 – SERVICE VOLUMES FOR EXISTING FACILITIES

Roadway Type	Description	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
2U	Two-lane undivided	450
3U	Three-lane undivided (two-way, left-turn lane)	550
4U	Four-lane undivided	500
5U	Five-lane undivided	700
4D	Four-lane divided	650
6D	Six-lane divided	700

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 10-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 Improvement Program. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are "*…including and limited to the:*

> *(1) Construction contract price;*
>
> *(2) Surveying and engineering fees;*
>
> *(3) Land acquisition costs, including land purchases, court awards and costs, attorney's fees, and expert witness fees; and*
>
> *(4) Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the Capital Improvement Program 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, railroad crossings, drainage structures, and any other special components are added to each project, as appropriate. The following is a detailed description of the costing worksheet/methodology for the Roadway Impact Fee CIP.

Overview of Roadway Impact Fee CIP Costing Worksheets

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

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

City of Cedar Hill
2024 Roadway Impact Fee Update
Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.
updated: 3/29/2024

Project Information

Project Information:		Description:	Project No. 1-A
Name:	Wintergreen (1)	This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.	
Limits:	Old Clark to Railroad		
Impact Fee Class:	M4D-Greenway		
Ultimate Class:	Greenway Minor Arterial		
Length (lf):	1,639		
Service Area(s):	1		

Construction Pay Items

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	5,099	cy	$ 35.00	$ 178,467
208	6" Lime Stabilization (with Lime @ 27#/sy)	10,198	sy	$ 7.50	$ 76,486
308	8" Concrete Pavement w/ 6" Curb	9,105	sy	$ 90.00	$ 819,492
408	4" Topsoil	5,099	sy	$ 10.50	$ 53,540
508	Concrete Sidewalk / Sidepath	29,502	sf	$ 11.11	$ 327,797
608	Turn Lanes and Median Openings	965	sy	$ 132.50	$ 127,822
				Paving Construction Cost Subtotal:	$ 1,583,603

Construction Component Allowances

Major Construction Component Allowances**:				
	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 95,016
√	Traffic Control	Construction Phase Traffic Control	5%	$ 79,180
√	Pavement Markings/Markers		3%	$ 47,508
√	Roadway Drainage	Standard Internal System	35%	$ 554,261
√	Illumination		5%	$ 79,180
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 190,032
√	Sewer	Minor Adjustments	8%	$ 126,688
√	Establish Turf / Erosion Control		3%	$ 47,508
√	Basic Landscaping/Irrigation		5%	$ 79,180
√	Other:	50% of Railroad Crossing		$ 375,000
**Allowances based on % of Paving Construction Cost Subtotal			Allowance Subtotal:	$ 1,673,555
			Paving and Allowance Subtotal:	$ 3,257,158
			Construction Contingency: 25%	$ 814,290
			Construction Cost TOTAL:	$ 4,072,000

Summary of Costs and Allowances

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	$ 4,072,000
Engineering/Survey/Testing:		15%	$ 610,800
Mobilization		6%	$ 244,320
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 407,200
		Impact Fee Project Cost TOTAL:	$ 5,334,000

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

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

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 letter. The corresponding letter does not represent any prioritizations and is used only to identify projects. For example, Project 1-D is in Service Area 1 and is the 4th project on the list.
- Name – A unique identifier for each project. In some cases, future unnamed roads are assigned genetic name for purposes of the impact fee CIP. For example, Main-Uptown Collector (1) is a future east-west collector planned to span from Main Street to Uptown Boulevard.
- Limits – Represents the beginning and ending location for each project.
- Impact Fee Class – The costing class to be used in the analysis. The impact fee class provides the width for the various elements in the roadway. The construction costs are variable, based on the proposed Thoroughfare Plan classification of the roadway. For example, P6D stands for Primary Arterial. A P6D 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 lanes are needed, or future three-lane major collector facilities where one additional lane is needed, to complete the ultimate section.
- Ultimate Class – The functional classification on Cedar Hill's Thoroughfare Plan.
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Service Area(s) – Represents the service area(s) where the project is located.
- Description – Used to describe the project type assumed in the costing such as a widening or new.

Construction Pay Items

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, 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 for City roads are shown in Table 8.

TABLE 8 – CONSTRUCTION COST PAY ITEMS

City Pay Items
• Unclassified Street Excavation • Lime Stabilization • Concrete Pavement with Curb • Top Soil • Sidewalk / Sidepath • Turn Lanes and Median Openings

Construction Component Allowances

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

In addition, lump sum dollar allowances are provided for special drainage structures, railroad crossings, and intersection improvements where needs are anticipated.

The paving construction allowance subtotal is given a twenty-five percent (25%) contingency to determine the construction cost total.

Summary of Cost and Allowances

To determine the total Impact Fee Project Cost, fifteen percent (15%) of the construction cost total is added for engineering, surveying, and testing. A six percent (6%) mobilization allowance was also accounted for each project.

Percentages are also allotted ROW/easement acquisition. ROW/easement acquisition was based on whether the project was an existing or future alignment. For an existing alignment, the ROW/easement acquisition cost was provided an allowance equal to 10% of the construction cost total. For a new alignment, the ROW/easement acquisition cost was equal to 20% of the construction cost total. The value for ROW/easement acquisition is an estimated contribution allocation and does not represent actual ROW/easement acquisition needs.

The Impact Fee Project Cost Total is then the Construction Cost Total plus the allowances for engineering, surveying, testing, and inspection, mobilization, and ROW/easement acquisition.

E. SUMMARY OF ROADWAY IMPACT FEE CIP COSTS

Tables 9 – 12 show the 10-Year Roadway Impact Fee CIP project lists for each service area with planning level project costs. Individual project cost worksheets can be seen in Appendix A**,** Conceptual Level Project Cost Projections. 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 9 – ROADWAY IMPACT FEE CIP WITH CONCEPTUAL LEVEL COST PROJECTIONS – SERVICE AREA 1

Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
1-A	M4D-Greenway	Wintergreen (1)	Old Clark to Railroad	0.31	100%	$ 5,334,000	$ 5,334,000
1-B, 2-A	M4D	Wintergreen (2)	Railroad to Cedar Hill	0.11	50%	$ 2,139,000	$ 1,069,500
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	West City Limits to Belt Line	2.21	50%	$ 8,666,000	$ 4,333,000
1-D	C2U	Lakeview (1)	Mansfield to Belt Line	1.18	100%	$ 11,644,000	$ 11,644,000
1-E	C3U	Belt Line (1)	1,880' NW of Lakeview to Mansfield	1.43	100%	$ 13,213,000	$ 13,213,000
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	FM 1382 to Main	0.88	50%	$ 2,786,000	$ 1,393,000
Intersection Improvements							
I-1		Modification	Mansfield Rd & Lakeview Dr		50%	$ 250,000	$ 125,000
I-2		Signal	Mansfield Rd & Cooper St		50%	$ 600,000	$ 300,000
I-19		ITS Master Plan	Service Area 1		25%	$ 3,000,000	$ 750,000
Service Area Project Cost Subtotal							**$ 38,161,500**
2024 Roadway Impact Fee Update Cost Per Service Area							**$ 34,500**
Total Cost in SERVICE AREA 1							**$ 38,196,000**

TABLE 10 – ROADWAY IMPACT FEE CIP WITH CONCEPTUAL LEVEL COST PROJECTIONS – SERVICE AREA 2

Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
1-B, 2-A	M4D	Wintergreen (2)	Railroad to Cedar Hill	0.11	50%	$ 2,139,000	$ 1,069,500
2-B	P6D	Wintergreen (3)	Joe Wilson to US 67 SBFR	0.57	100%	$ 10,240,000	$ 10,240,000
2-C	C2U	Birkshire (1)	Milestone to Birkshire	0.44	100%	$ 8,798,000	$ 8,798,000
2-D	C2U	Main-Uptown Collector (1)	Main to Uptown	0.20	100%	$ 1,988,000	$ 1,988,000
2-E	C2U-Greenway	Cooper (2)	Railroad to Houston	0.27	100%	$ 3,440,000	$ 3,440,000
2-F	C4U	Cedarview (2)	Railroad to Tidwell	0.13	100%	$ 2,153,000	$ 2,153,000
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	50%	$ 2,789,000	$ 1,394,500
2-H, 3-B	M4D-Greenway	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	50%	$ 9,830,000	$ 4,915,000
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	FM 1382 to Main	0.88	50%	$ 2,786,000	$ 1,393,000
2-J	C2U	Cedar Hill-Belt Line Collector (1)	Cedar Hill to Belt Line	0.28	100%	$ 2,755,000	$ 2,755,000
2-K	C4U	Main (1)	130' S of Belt Line to Cedar	0.06	100%	$ 626,000	$ 626,000
2-L	C2U	Tidwell (1)	635' N of Cooper to Houston	0.48	100%	$ 4,759,000	$ 4,759,000
2-M	M4D-Greenway	Tidwell (2)	Houston to US 67	0.17	100%	$ 2,606,000	$ 2,606,000
2-N	M4D(1/2)-Greenway	Tidwell (3)	US 67 to 790' SE of US 67	0.15	100%	$ 895,000	$ 895,000
2-O	C3U	Joe Wilson (1)	Cedar Hill to Clover Hill	0.86	100%	$ 8,743,000	$ 8,743,000
2-P	M4D-Greenway	Duncanville (1)	580' S of Wintergreen to Parkerville	2.89	100%	$ 46,666,000	$ 46,666,000
Intersection Improvements							
I-3		Interchange	US 67 & Wintergreen Rd		50%	$ 1,000,000	$ 500,000
I-4		Modification	Duncanville Rd & Pleasant Run Rd		50%	$ 250,000	$ 125,000
I-5		Signal	Cooper St & Tidwell St		100%	$ 600,000	$ 600,000
I-6		Signal	Houston St & Tidwell St		100%	$ 600,000	$ 600,000
I-7		Interchange	US 67 & Tidwell St		100%	$ 1,000,000	$ 1,000,000
I-8		Signal	Parkerville Rd & Joe Wilson Rd		50%	$ 600,000	$ 300,000
I-9		Signal	Duncanville Rd & Parkerville Rd		25%	$ 600,000	$ 150,000
I-18		Signal	Joe Wilson Rd & Calvert Dr		100%	$ 600,000	$ 600,000
I-19		ITS Master Plan	Service Area 2		25%	$ 3,000,000	$ 750,000
Service Area Project Cost Subtotal							**$107,066,000**
2024 Roadway Impact Fee Update Cost Per Service Area							**$ 34,500**
Total Cost in SERVICE AREA 2							**$107,100,500**

TABLE 11 – ROADWAY IMPACT FEE CIP WITH CONCEPTUAL LEVEL COST PROJECTIONS – SERVICE AREA 3

Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	50%	$ 2,789,000	$ 1,394,500
2-H, 3-B	M4D-Greenway	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	50%	$ 9,830,000	$ 4,915,000
3-C	M4D	Parkerville (3)	Duncanville to 2,800' E of Duncanville	0.53	50%	$ 8,258,000	$ 4,129,000
3-D	C2U	Little Creek (1)	Joe Wilson to Springfield	0.16	100%	$ 1,585,000	$ 1,585,000
3-E	C2U	Little Creek (2)	Duncanville to 2,315' E of Duncanville	0.44	100%	$ 10,328,000	$ 10,328,000
3-F	C3U	Mt. Lebanon (3)	800' E of American to Cedar Hill	0.29	100%	$ 4,200,000	$ 4,200,000
3-G	C2U	Rocky Acres (1)	Tar to 150' E of Tar	0.03	100%	$ 279,000	$ 279,000
3-H	C2U	Rocky Acres (2)	1,930' W of Clark to Clark	0.37	100%	$ 3,598,000	$ 3,598,000
3-I	C2U	Bear Creek (1)	Clark to Joe Wilson	1.22	100%	$ 14,609,000	$ 14,609,000
3-J	C2U	Cedar Hill-Clark Collector (1)	Cedar Hill to Clark	0.73	100%	$ 7,150,000	$ 7,150,000
3-K	C2U	Edgefield (1)	Edgefield to Future Loop 9	0.22	100%	$ 2,201,000	$ 2,201,000
3-L	C4U-Greenway	Cedar Hill (2)	US 67 NBFR to Mt. Lebanon	1.01	100%	$ 13,490,000	$ 13,490,000
3-M	P6D-Greenway	Cedar Hill (3)	Mt. Lebanon to Rocky Acres	0.57	100%	$ 11,394,000	$ 11,394,000
3-N	P6D-Greenway	Cedar Hill (4)	Rocky Acres to 1,470' N of New Shiloh	0.98	100%	$ 20,466,000	$ 20,466,000
3-O	P6D-Greenway	Cedar Hill (5)	1,470' N of New Shiloh to 880' N of New Shiloh	0.11	100%	$ 2,220,000	$ 2,220,000
3-P	C4U-Greenway	Clark (1)	Little Creek to 580' S of Saturn	0.61	100%	$ 7,818,000	$ 7,818,000
3-Q	C4U-Greenway	Clark (2)	580' S of Saturn to Future Loop 9	0.88	100%	$ 16,627,000	$ 16,627,000
3-R	C4U	Clark (3)	Future Loop 9 to 3,365' S of Future Loop 9	0.64	100%	$ 7,411,000	$ 7,411,000
3-S	P6D-Greenway	Joe Wilson (2)	Parkerville to Bear Creek	1.00	100%	$ 19,843,000	$ 19,843,000
3-T	P6D	Joe Wilson (3)	Bear Creek to South City Limits	0.68	100%	$ 12,503,000	$ 12,503,000
3-U	C2U	Waterford Oaks (1)	Parkerville to Little Creek	0.52	100%	$ 6,275,000	$ 6,275,000
3-V	C2U	Waterford Oaks (2)	Bear Creek to Future Loop 9	0.18	100%	$ 1,785,000	$ 1,785,000
3-W	M4D-Greenway	Duncanville (2)	Parkerville to Future Loop 9	1.00	100%	$ 19,945,000	$ 19,945,000
3-X	M4D	Duncanville (3)	Future Loop 9 to 1,900' S of Spring Hill	0.84	100%	$ 11,307,000	$ 11,307,000
3-Y	M4D	Cockrell Hill (1)	300' S of Fanny May to South City Limits	0.68	50%	$ 10,526,000	$ 5,263,000
3-Z	M4D	Mt. Lebanon (4)	US 67 NBFR to 800' E of American	0.32	100%	$ 1,800,000	$ 1,800,000
Intersection Improvements							
I-8		Signal	Parkerville Rd & Joe Wilson Rd		50%	$ 600,000	$ 300,000
I-9		Signal	Duncanville Rd & Parkerville Rd		50%	$ 600,000	$ 300,000
I-10		Interchange	Future Loop 9 & Duncanville Rd		100%	$ 1,000,000	$ 1,000,000
I-11		Interchange	Future Loop 9 & Cockrell Hill Rd		50%	$ 1,000,000	$ 500,000
I-12		Signal	Joe Wilson Rd & Bear Creek Rd		100%	$ 600,000	$ 600,000
I-13		Interchange	Future Loop 9 & Joe Wilson Rd		100%	$ 1,000,000	$ 1,000,000
I-14		Signal	Clark Rd & Rocky Acres Rd/Bear Creek Rd		100%	$ 600,000	$ 600,000
I-15		Interchange	Future Loop 9 & Clark Rd		100%	$ 1,000,000	$ 1,000,000
I-16		Interchange	Future Loop 9 & Cedar Hill Rd		100%	$ 1,000,000	$ 1,000,000
I-19		ITS Master Plan	Service Area 3		25%	$ 3,000,000	$ 750,000
Service Area Project Cost Subtotal							**$219,585,500**
2024 Roadway Impact Fee Update Cost Per Service Area							**$ 34,500**
Total Cost in SERVICE AREA 3							**$219,620,000**

TABLE 12 – ROADWAY IMPACT FEE CIP WITH CONCEPTUAL LEVEL COST PROJECTIONS – SERVICE AREA 4

Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	West City Limits to Belt Line	2.21	50%	$ 8,666,000	$ 4,333,000
4-B	C2U-Greenway	Cooper (1)	Belt Line to Railroad	0.45	100%	$ 5,223,000	$ 5,223,000
4-C	C2U	Cedarview (1)	Plateau to Railroad	0.39	100%	$ 4,247,000	$ 4,247,000
4-D	C4U-Greenway	Texas Plume (1)	Lake Ridge to Mt. Lebanon	1.35	100%	$ 17,373,000	$ 17,373,000
4-E	C2U	Texas Plume-Lake Ridge Collector (1)	Texas Plume to Lake Ridge	0.20	100%	$ 1,991,000	$ 1,991,000
4-F	C4U-Greenway	Mt. Lebanon (1)	US 67 to Texas Plume	0.75	100%	$ 9,563,000	$ 9,563,000
4-G	C2U	Mt. Lebanon (2)	Texas Plume to Lake Ridge	0.43	100%	$ 4,238,000	$ 4,238,000
Intersection Improvements							
I-1		Modification	Mansfield Rd & Lakeview Dr		50%	$ 250,000	$ 125,000
I-2		Signal	Mansfield Rd & Cooper St		50%	$ 600,000	$ 300,000
I-17		Signal	Prairie View Blvd & Lake Ridge Pkwy		100%	$ 600,000	$ 600,000
I-19		ITS Master Plan	Service Area 4		25%	$ 3,000,000	$ 750,000
Service Area Project Cost Subtotal							**$ 48,743,000**
2024 Roadway Impact Fee Update Cost Per Service Area							**$ 34,500**
Total Cost in SERVICE AREA 4							**$ 48,777,500**

F. SERVICE UNIT CALCULATION

The basic service unit for the computation of Cedar Hill's Roadway Impact Fees is the vehicle-mile of travel during the afternoon peak-hour (as explained on Pg.16). 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 10-year period.

The growth in vehicle-miles from 2024 to 2034 is based upon projected changes in residential and non-residential units for the period. 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 non-residential. For residential land uses, the 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 non-residential land uses, the process is similar. The Land Use Assumptions section of this report provides the projected number of building square footages for three (3) categories of non-residential land use – 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 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 four sources – the ITE Trip Generation Manual, 11th Edition, the National Household Travel Survey (NHTS) performed by the FHWA, NCTCOG, and open-source data specific to Cedar Hill. 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 region-wide travel characteristic surveys conducted by the NCTCOG and NHTS and open-source data specific to Cedar Hill.

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

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

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

Variables:

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

The maximum trip length was limited to four (4) 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, however, the service areas within Cedar Hill are more closely approximated with a four (4) 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 Cedar Hill 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.

Table 13 shows the derivation of the *Transportation Demand Factor* for the residential and 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 13 – TRANSPORTATION DEMAND FACTOR CALCULATIONS

Variable	Single-Family	Multi-Family	Basic	Service	Retail
T	0.94	0.51	0.65	1.44	3.40
P_b	0%	0%	0%	0%	29%
L	11.64	11.64	12.73	14.11	6.83
L_{max} *	4.00	4.00	4.00	4.00	3.42
TDF	3.76	2.04	2.60	5.76	8.24

***** L_{max} is less than 4 miles for the retail land use; therefore, this lower trip length is used for calculating the TDF for these land uses.

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in Table 14. This table shows the total vehicle-miles by service area for the 10-year planning window.

TABLE 14 – 10-YEAR GROWTH PROJECTIONS

2024 - 2034 Growth Projections[1]

SERVICE AREA	RESIDENTIAL VEHICLE-MILES					NON-RESIDENTIAL SQUARE FEET[5]			TRANS. DEMAND FACTOR[6]			NON-RESIDENTIAL VEHICLE-MILES[10]				TOTAL VEHICLE MILES[11]
	Single-Family Units	Trip Rate TDF[2]	Multi-Family Units	Trip Rate TDF[3]	VEHICLE MILES[4]	BASIC	SERVICE	RETAIL	BASIC[7]	SERVICE[8]	RETAIL[9]	BASIC	SERVICE	RETAIL	TOTAL	
		0.94		*0.51*					*0.65*	*1.44*	*3.40*					
1	386	3.76	44	2.04	1,541	45,367	0	274,960	2.60	5.76	8.24	118	0	2,266	2,384	3,925
2	1,348		2,778		10,736	223,586	412,338	605,629				581	2,375	4,990	7,946	18,682
3	2,231		830		10,082	5,736,373	2,122,850	4,441,488				14,915	12,228	36,598	63,741	73,823
4	1,504		500		6,675	315,943	1,019,133	1,596,748				821	5,870	13,157	19,848	26,523
Totals	**5,469**		**4,152**		**29,034**	**6,321,269**	**3,554,321**	**6,918,825**				**16,435**	**20,473**	**57,011**	**93,919**	**122,953**

VEHICLE-MILES OF INCREASE (2024 - 2034)

SERVICE AREA	VEH-MILES
1	3,925
2	18,682
3	73,823
4	26,523

Notes:

[1] From City of Cedar Hill 2024 Land Use Assumptions for Roadway Impact Fees
[2] Transportation Demand Factor for each Service Area (from LUVMET) using Single-Family Detached Housing land use and trip generation rate
[3] Transportation Demand Factor for each Service Area (from LUVMET) using Apartment / Multi-family land use and trip generation rate
[4] Calculated by multiplying TDF by the number of dwelling units
[5] From City of Cedar Hill 2024 Land Use Assumptions for Roadway Impact Fees
[6] Trip generation rate and Transportation Demand Factors from LUVMET for each land use
[7] 'Basic' corresponds to General Light Industrial land use and trip generation rate
[8] 'Service' corresponds to General Office Building land use and trip generation rate
[9] 'Retail' corresponds to Shopping Center (>150k SF) land use and trip generation rate
[10] Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
[11] Residential plus non-residential vehicle-mile totals for each Service Area

6.0 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 15 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 16.

TABLE 15 – MAXIMUM ASSESSABLE ROADWAY IMPACT FEE COMPUTATION

Line	Title	Description
1	*Total Vehicle-Miles of Capacity Added by the CIP*	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 – Roadway Impact Fee CIP Service Units of Supply)

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

2	*Total Vehicle-Miles of Existing Demand*	A measure of the amount of traffic currently using the roadway facilities upon which capacity is being added (from Appendix B – Roadway Impact Fee CIP Service Units of Supply)

A number of facilities identified in the Impact Fee CIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently be used by existing traffic.

3	*Total Vehicle-Miles of Existing Deficiencies*	Number of vehicle-miles of travel that are not accommodated by the existing roadway system (from Appendix C – Existing Roadway Facilities Inventory)

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 Impact Fee CIP – will have these additional trips removed from the calculation.

4	*Net Amount of Vehicle-Miles of Capacity Added*	A measurement of the amount of vehicle-miles added by the CIP that will not be utilized by existing demand **(Line 1 – Line 2 – Line 3**)

This calculation identifies the portion of the Impact Fee CIP (in vehicle-miles) that may be recoverable through the collection of impact fees.

5	*Total Cost of the CIP within the Service Area*	The total cost of the projects within each service area (from Tables 9 – 12: Roadway Impact Fee CIP with Conceptual Level Cost Projections)

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

6	*Cost of Net Capacity Supplied*	The total CIP cost (**Line 5**) prorated by the ratio of Net Capacity Added (**Line 4**) to Total Capacity Added (**Line 1**). [(**Line 4 / Line 1**) * (**Line 5**)]

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

7	*Cost to Meet Existing Needs and Usage*	The difference between the Total Cost of the CIP (**Line 5**) and the Cost of the Net Capacity supplied (**Line 6**). (**Line 5 – Line 6**)

This line is provided for information purposes only – it is to present the portion of the total cost of the Impact Fee CIP that is required to meet existing demand.

8	*Total Vehicle-Miles of New Demand over Ten Years*	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 14)

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

9	*Percent of Capacity Added Attributable to New Growth*	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	*Chapter 395 Check*	

In order to ensure that the vehicle-miles added by the Impact Fee CIP do not exceed the amount needed to accommodate growth beyond the 10-year window, a comparison of the two values is performed. If the amount of vehicle-miles added by the Impact Fee CIP exceeds the growth projected to occur in the next ten years, the Impact Fee CIP cost is reduced accordingly.

11	*Cost of Capacity Added Attributable to New Growth*	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 10**).

The value of 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.

12	*Cost of Capacity Added Attributable to New Growth with Financing*	The result of multiplying the Cost of Capacity Added Attributable to New Growth (**Line 11**) by financing.

Financing costs shown were determined using a 4% interest rate (provided by the City) and an assumed 20-year finance window.

B. PLAN FOR AWARDING THE TRANSPORTATION IMPACT FEE CREDIT

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

> *(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 Improvement Program; or*
>
> *(B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the Capital Improvement Program…"*

The following table summarizes the portions of Table 15 that utilize this credit calculation, based on awarding a 50 percent credit.

Line	Title	Description
13	*Credit*	A credit equal to 50% of the total projected cost, as per section 395.014 of the Texas Local Government Code.
14	*Maximum Assessable Fee Per Service Unit*	Found by dividing the Recoverable Cost of the CIP attributable to growth (**Line 13**) by the Total Vehicle-Miles of New Demand Over Ten Years (**Line 8**). (**Line 13 / Line 8**)

TABLE 16 – MAXIMUM ASSESSABLE ROADWAY IMPACT FEE

	SERVICE AREA:	1	2	3	4
1	TOTAL VEH-MI OF CAPACITY ADDED BY THE CIP (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, **APPENDIX B)**	8,959	15,673	32,465	10,164
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY, **APPENDIX B**)	2,088	3,863	2,379	1,917
3	TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING ROADWAY FACILITIES INVENTORY, **APPENDIX C**)	0	303	0	0
4	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	6,871	11,507	30,086	8,247
5	TOTAL COST OF THE CIP WITHIN SERVICE AREA (FROM **TABLES 9 - 12**)	$ 38,196,000	$ 107,100,500	$ 219,620,000	$ 48,777,500
6	COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	$ 29,293,974	$ 78,632,390	$ 203,526,485	$ 39,577,729
7	COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	$ 8,902,026	$ 28,468,110	$ 16,093,515	$ 9,199,771
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM **TABLE 14** and **LAND USE ASSUMPTIONS**)	3,925	18,682	73,823	26,523
9	PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	57.1%	162.3%	245.3%	321.6%
10	IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANGE	57.1%	100.0%	100.0%	100.0%
11	COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	$ 16,726,859	$ 78,632,390	$ 203,526,485	$ 39,577,729
12	COST OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH WITH FINANCING	$ 23,752,140	$ 111,657,994	$ 289,007,609	$ 56,200,375
13	CREDIT (50% OF LINE 12)	$ 11,876,069	$ 55,828,996	$ 144,503,804	$ 28,100,187
14	MAX ASSESSABLE FEE PER SERVICE UNIT ($ PER VEH-MI) (LINE 13 / LINE 8)	$ 3,025	$ 2,988	$ 1,957	$ 1,059

C. SERVICE UNIT DEMAND PER UNIT OF DEVELOPMENT

The Roadway Impact Fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City will utilize the Land Use / Vehicle-Mile Equivalency Table (LUVMET), presented in Table 17. This table lists the predominant land uses that may occur within the City of Cedar Hill. 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 18. 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 17, 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*. 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 a region-wide travel characteristic surveys conducted by the NCTCOG and NHTS and open-source data specific to Cedar Hill. 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 four (4) miles, the maximum trip length used for calculation is reduced to four (4) 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 17 – 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											
Truck Terminal*	030	Acres	6.55			6.55	12.73	50%	6.36	4.00	**26.20**
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.65			0.65	12.73	50%	6.37	4.00	**2.60**
Industrial Park	130	1,000 SF GFA	0.34			0.34	12.73	50%	6.37	4.00	**1.36**
Warehousing	150	1,000 SF GFA	0.18			0.18	12.73	50%	6.37	4.00	**0.72**
Mini-Warehouse	151	1,000 SF GFA	0.15			0.15	12.73	50%	6.37	4.00	**0.60**
Fulfillment / Distribution Center	156	1,000 SF GFA	0.64			0.64	12.73	50%	6.37	4.00	**2.56**
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.94			0.94	11.64	50%	5.82	4.00	**3.76**
Townhome	215	Dwelling Unit	0.57			0.57	11.64	50%	5.82	4.00	**2.28**
Apartment / Multi-family	220	Dwelling Unit	0.51			0.51	11.64	50%	5.82	4.00	**2.04**
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.58			0.58	11.64	50%	5.82	4.00	**2.32**
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	11.64	50%	5.82	4.00	**1.20**
Senior Adult Housing-Attached	252	Dwelling Unit	0.25			0.25	11.64	50%	5.82	4.00	**1.00**
Assisted Living	254	Beds	0.24			0.24	11.64	50%	5.82	4.00	**0.96**
LODGING											
Hotel	310	Room	0.59			0.59	5.80	50%	2.90	2.90	**1.71**
Motel / Other Lodging Facilities	320	Room	0.36			0.36	5.80	50%	2.90	2.90	**1.04**
RECREATIONAL											
Golf Course	430	Acres	0.28			0.28	9.85	50%	4.93	4.00	**1.12**
Miniature Golf Course	431	Hole	0.33			0.33	9.85	50%	4.93	4.00	**1.32**
Golf Driving Range	432	Tee	1.25			1.25	9.85	50%	4.93	4.00	**5.00**
Multiplex Movie Theater	445	Screens	13.96			13.96	9.85	50%	4.93	4.00	**55.84**
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	9.85	50%	4.93	4.00	**5.32**
Racquet / Tennis Club	491	Court	3.82			3.82	9.85	50%	4.93	4.00	**15.28**
Recreational Community Center	495	1,000 SF GFA	2.50			2.50	9.85	50%	4.93	4.00	**10.00**
INSTITUTIONAL											
Elementary School	520	Students	0.16			0.16	4.53	50%	2.27	2.27	**0.36**
Middle / Junior High School	522	Students	0.15			0.15	4.53	50%	2.27	2.27	**0.34**
High School	525	Students	0.14			0.14	4.53	50%	2.27	2.27	**0.32**
Junior / Community College	540	Students	0.11			0.11	4.53	50%	2.27	2.27	**0.25**
University / College	550	Students	0.15			0.15	4.53	50%	2.27	2.27	**0.34**
Church	560	1,000 SF GFA	0.49			0.49	4.53	50%	2.27	2.27	**1.11**
Day Care Center	565	1,000 SF GFA	11.12	44%	C	6.23	4.53	50%	2.27	2.27	**14.14**
MEDICAL											
Hospital	610	Beds	1.69			1.69	10.94	50%	5.47	4.00	**6.76**
Nursing Home	620	Beds	0.14			0.14	10.94	50%	5.47	4.00	**0.56**
Clinic	630	1,000 SF GFA	3.69			3.69	10.94	50%	5.47	4.00	**14.76**
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	10.94	50%	5.47	4.00	**9.88**
OFFICE											
General Office Building	710	1,000 SF GFA	1.44			1.44	14.11	50%	7.06	4.00	**5.76**
Corporate Headquarters Building	714	1,000 SF GFA	1.30			1.30	14.11	50%	7.06	4.00	**5.20**
Single Tenant Office Building	715	1,000 SF GFA	1.76			1.76	14.11	50%	7.06	4.00	**7.04**
Medical-Dental Office Building	720	1,000 SF GFA	3.93			3.93	14.11	50%	7.06	4.00	**15.72**
Office Park	750	1,000 SF GFA	1.30			1.30	14.11	50%	7.06	4.00	**5.20**

Notes:

*Uses data from ITE Trip Generation Manual 8th Edition

Key to Sources of Pass-by Rates:

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

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

C: 2021 Pass-By Tables for ITETripGen Appendices

TABLE 17 (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											
New Car Sales	840	1,000 SF GFA	2.42	20%	B	1.94	8.60	50%	4.30	4.00	**7.76**
Automobile Parts Sales	843	1,000 SF GFA	4.90	43%	C	2.79	8.60	50%	4.30	4.00	**11.16**
Tire Store	848	1,000 SF GFA	3.75	25%	C	2.81	8.60	50%	4.30	4.00	**11.24**
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	8.60	50%	4.30	4.00	**11.64**
Automobile Care Center	942	1,000 SF Occ. GLA	3.11	40%	B	1.87	8.60	50%	4.30	4.00	**7.48**
Gasoline/Service Station	944	Vehicle Fueling Position	13.91	57%	C	5.98	1.20	50%	0.60	0.60	**3.59**
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	18.42	56%	C	8.10	1.20	50%	0.60	0.60	**4.86**
Self-Service Car Wash	947	Stall	5.54	40%	B	3.32	1.20	50%	0.60	0.60	**1.99**
Automated Car Wash	948	Car Wash Tunnels	77.50	40%	B	46.50	1.20	50%	0.60	0.60	**27.90**
Dining											
Fine Dining Restaurant	931	1,000 SF GFA	7.80	44%	C	4.37	7.39	50%	3.70	3.70	**16.17**
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.05	43%	C	5.16	7.39	50%	3.70	3.70	**19.09**
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	33.21	55%	B	14.94	7.39	50%	3.70	3.70	**55.28**
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	33.03	55%	C	14.86	7.39	50%	3.70	3.70	**54.98**
Fast Food Restaurant with Drive-Thru Window (No Indoor Seating)	935	Drive-Through Lanes	59.50	31%	C	41.06	7.39	50%	3.70	3.70	**151.92**
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	38.99	70%	B	11.70	7.39	50%	3.70	3.70	**43.29**
Other Retail											
Construction Equipment Rental Store	811	1,000 SF GFA	0.99	26%	B	0.73	6.83	50%	3.42	3.42	**2.50**
Free-Standing Discount Store	815	1,000 SF GFA	4.86	20%	C	3.89	6.83	50%	3.42	3.42	**13.30**
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	6.83	50%	3.42	3.42	**16.62**
Shopping Center (>150k)	820	1,000 SF GLA	3.40	29%	C	2.41	6.83	50%	3.42	3.42	**8.24**
Shopping Center (40-150k)	821	1,000 SF GLA	5.19	40%	C	3.11	6.83	50%	3.42	3.42	**10.64**
Shopping Center (<40k)	822	1,000 SF GLA	6.59	40%	B	3.95	6.83	50%	3.42	3.42	**13.51**
Supermarket	850	1,000 SF GFA	8.95	24%	C	6.80	6.83	50%	3.42	3.42	**23.26**
Convenience Store	851	1,000 SF GFA	49.11	51%	A	24.06	6.83	50%	3.42	3.42	**82.29**
Home Improvement Superstore	862	1,000 SF GFA	2.29	42%	C	1.33	6.83	50%	3.42	3.42	**4.55**
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	6.83	50%	3.42	3.42	**11.97**
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	6.83	50%	3.42	3.42	**4.69**
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	C	4.00	6.83	50%	3.42	3.42	**13.68**
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.25	49%	C	5.23	6.83	50%	3.42	3.42	**17.89**
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	3.39	50%	1.70	1.70	**12.38**
Drive-In Bank	912	Drive-in Lanes	27.07	35%	C	17.60	3.39	50%	1.70	1.70	**29.92**
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	3.39	50%	1.70	1.70	**1.73**
Tasting Room	970	1,000 SF GLA	7.31			7.31	3.39	50%	1.70	1.70	**12.43**

Key to Sources of Pass-by Rates:
A: ITE Trip Generation Handbook 3rd Edition (September 2017)
B: Estimated by Kimley-Horn based on ITE rates for similar categories
C: 2021 Pass-By Tables for ITETripGen Appendices

TABLE 18 – LAND USE DESCRIPTIONS

Land Use Category	ITE Land Use Code	Land Use Description
PORT AND TERMINAL		
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 included office and maintenance areas
Mini-Warehouse	151	Facilities with a number of units rented to others for the storage of goods
Fulfillment / Distribution Center	156	Facilities used primarily for the storage and/or consolidation of time sensitive shipments prior to their distribution
RESIDENTIAL		
Single-Family Detached Housing	210	Single-family detached homes on individual lots
Townhome	215	Single-family housing unit that shares a wall with an adjoining dwelling unit
Apartment / Multi-family	220	At least 3 rental dwelling units per building
Mobile Home Park / Manufactured Housing	240	Consist of manufactured homes that are sited and installed on permanent foundations
Senior Adult Housing-Detached	251	Consists of detached independent living developments that include amenities such as golf courses and swimming pools
Senior Adult Housing-Attached	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 / Other Lodging Facilities	320	Lodging facilities that may have small on-site restaurant or buffet area but little or no meeting space
RECREATIONAL		
Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet 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)
Golf Driving Range	432	Facilities with driving tees for practice; may provide individual or group lessons; may have pro shop and/or refreshment facilities
Multiplex Movie Theater	445	Movie theater with audience seating, lobby, and refreshment area.
Ice Skating Rink	465	Rinks for ice skating and related sports; may contain spectator areas and refreshment facilities
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
Recreational Community Center	495	Category includes athletic club, health/fitness clubs, and facilities such as YMCA's
INSTITUTIONAL		
Elementary School	520	Serves students attending kingergarten through fifth or sixth grade
Middle / Junior High School	522	Serves students who have completed elementary school and have not yet entered high school
High School	525	Serves students who have completed middle or junior high school
Junior / Community College	540	Two-year junior, community, or technical colleges
University / College	550	Four-year universities or colleges that may or may not offer graduate programs
Church	560	Churches and houses of worship
Day Care Center	565	Generally includes facilities for care of pre-school aged children
MEDICAL		
Hospital	610	Medical and surgical facilities with overnight accommodations
Nursing Home	620	Rest and convalescent homes with residents who do little or no driving
Clinic	630	Facilities with limited diagnostic and outpatient care
Animal Hospital / Veterinary Clinic	640	Facility that specializes in the medical care and treatment of animals
OFFICE		
General Office Building	710	Office buildings which house multiple tenants
Corporate Headquarters Building	714	Office building housing corporate headquarters of a single company or organization
Single Tenant Office Building	715	Single tenant office buildings other than corporate headquarters
Medical-Dental Office Building	720	Multi-tenant building with offices for physicians and/or dentists
Office Park	750	Office buildings (typically low-rise) in a campus setting and served by a common roadway system
COMMERCIAL		
Automobile Related		
New Car Sales	840	New car dealerships, typically with automobile servicing, part sales, and used car sales
Automobile Parts Sales	843	Retail sale of auto parts but no on-site vehicle repair
Tire Store	848	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
Quick Lubrication Vehicle Shop	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided
Automobile Care Center	942	Automobile repair and servicing including stereo installations and upholstering
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
Self-Service Car Wash	947	Has stalls for driver to park and wash the vehicle
Automated Car Wash	948	Facilities that allows for the mechanical cleaning of the exterior of vehicles
Dining		
Quality Restaurant	931	Restaurants with turnover rates of one hour or longer; typically require reservations
High Turnover (Sit-Down) Restaurant	932	Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants
Fast Food Restaurant without Drive-Thru Window	933	High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window
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 with Drive-Thru Window (No Indoor Seating)	935	High-turnover fast food restaurant for carry-out only customers with a drive-thru window
Coffee/Donut Shop with Drive-Thru Window	937	Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating
Other Retail		
Construction Equipment Rental Store	811	Business that specializes in the rental of construction equipment tools and supplies
Free-Standing Discount Store	815	Free-standing stores that typically offer a variety of products and services, but no full service grocery, 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
Shopping Center (>150k)	820	Integrated group of commercial establishments; planned, owned, and managed as a unit (>150k)
Shopping Plaza (40-150k)	821	Integrated group of commercial establishments; planned, owned, and managed as a unit (40-150k)
Strip Retail Plaza (<40k)	822	Integrated group of commercial establishments; planned, owned, and managed as a unit (<40k)
Supermarket	850	Free-standing retail store that sells a complete assortment of food, beverage, food preparation materials, and household products
Convenience Store	851	Small retail business that sells grocery and other everyday items that a person may need or want as a matter of convenience
Home Improvement Superstore	862	Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, among other items
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.
Pharmacy / Drugstore without Drive-Thru Window	880	Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Pharmacy / Drugstore with Drive-Thru Window	881	Facilities that primarily sell prescription and non-prescription drugs with a drive-through window
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; may also serve patrons who walk into the building
Hair Salon	918	Facilities that specialize in cosmetic and beauty services including hair cutting and styling
Tasting Room	970	Facilites where customers can try samples and purchase products

7.0 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 1

Roadway Impact Fee Calculation Steps – Example 1	
Step 1	**Determine Development Unit and Vehicle-Miles Per Development Unit**
	From Table 17 [Land Use / Vehicle-Mile Equivalency Table] Development Type: 1 Dwelling Unit of Single-Family Detached Housing (ITE #210) Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 3.76
Step 2	**Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)**
	From Table 16, Line 14 [Maximum Assessable Fee Per Service Unit] Service Area 1: $3,025
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 * 3.76 * $3,025 Maximum Assessable Impact Fee = $11,374

Example 2:

Development Type – 125,000 square foot Home Improvement Superstore in Service Area 3

Roadway Impact Fee Calculation Steps – Example 2	
Step 1	**Determine Development Unit and Vehicle-Miles Per Development Unit**
	From Table 17 [Land Use / Vehicle-Mile Equivalency Table] Development Type: 125,000 square feet of Home Improvement Superstore (ITE #862) Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 4.55
Step 2	**Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)**
	From Table 16, Line 14 [Maximum Assessable Fee Per Service Unit] Service Area 3: $1,957
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 * 4.55 * $1,957 Maximum Assessable Impact Fee = $1,113,043

8.0 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. The Capital Impact Fee Advisory Committee (CIFAC) 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 CIFAC also reviews the Roadway Impact Fee ordinance and provides its findings to the City Council. The composition of the CIFAC 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 CIFAC 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 CIFAC 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.

9.0 CONCLUSIONS

The City of Cedar Hill 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 Cedar Hill, as shown in the previously referenced Table 16.

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 Improvement Program are appropriately incorporated into the development of the maximum assessable Roadway Impact Fee.

Below are the listings of the 2024 Roadway Impact Fee Study's Maximum Assessable Impact Fees Per Service Unit (Vehicle-Mile):

Service Areas	1	2	3	4
Maximum Assessable Impact Fees Per Service Unit (Vehicle-Mile)	$3,025	$2,988	$1,957	$1,059

APPENDIX A – CONCEPTUAL LEVEL PROJECT COST PROJECTIONS

City of Cedar Hill - 2024 Roadway Impact Fee Update

Capital Improvement Plan for Roadway Impact Fees

Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area 1

#	IF Class	Project	Length (mi)	Limits	Status	% in Service Area	Total Project Cost	Cost in Service Area
1-A	M4D-Greenway	Wintergreen (1)	0.31	Old Clark to Railroad	Widening	100%	$ 5,334,000	$ 5,334,000
1-B, 2-A	M4D	Wintergreen (2)	0.11	Railroad to Cedar Hill	Widening	50%	$ 2,139,000	$ 1,069,500
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	2.21	West City Limits to Belt Line	Widening 1/3	50%	$ 8,666,000	$ 4,333,000
1-D	C2U	Lakeview (1)	1.18	Mansfield to Belt Line	New	100%	$ 11,644,000	$ 11,644,000
1-E	C3U	Belt Line (1)	1.43	1,880' NW of Lakeview to Mansfield	Widening	100%	$ 13,213,000	$ 13,213,000
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	0.88	FM 1382 to Main	Widening 1/3	50%	$ 2,786,000	$ 1,393,000
Intersection Improvements								
I-1		Modification		Mansfield Rd & Lakeview Dr		50%	$ 250,000	$ 125,000
I-2		Signal		Mansfield Rd & Cooper St		50%	$ 600,000	$ 300,000
I-19		ITS Master Plan		Service Area 1		25%	$ 3,000,000	$ 750,000
						TOTAL	**$ 47,632,000**	**$ 38,161,500**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	1-A
Name:	Wintergreen (1)	**This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.**		
Limits:	Old Clark to Railroad			
Impact Fee Class:	M4D-Greenway			
Ultimate Class:	Greenway Minor Arterial			
Length (lf):	1,639			
Service Area(s):	1			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	5,099	cy	$ 35.00	$ 178,467
208	6" Lime Stabilization (with Lime @ 27#/sy)	10,198	sy	$ 7.50	$ 76,486
308	8" Concrete Pavement w/ 6" Curb	9,105	sy	$ 90.00	$ 819,492
408	4" Topsoil	5,099	sy	$ 10.50	$ 53,540
508	Concrete Sidewalk / Sidepath	29,502	sf	$ 11.11	$ 327,797
608	Turn Lanes and Median Openings	965	sy	$ 132.50	$ 127,822
				Paving Construction Cost Subtotal:	**$ 1,583,603**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 95,016
√	Traffic Control	Construction Phase Traffic Control	5%	$ 79,180
√	Pavement Markings/Markers		3%	$ 47,508
√	Roadway Drainage	Standard Internal System	35%	$ 554,261
√	Illumination		5%	$ 79,180
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 190,032
√	Sewer	Minor Adjustments	8%	$ 126,688
√	Establish Turf / Erosion Control		3%	$ 47,508
√	Basic Landscaping/Irrigation		5%	$ 79,180
√	Other:	50% of Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,673,555**
			Paving and Allowance Subtotal:	**$ 3,257,158**
			Construction Contingency: 25%	$ 814,290
			Construction Cost TOTAL:	**$ 4,072,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 4,072,000**
Engineering/Survey/Testing:		15%	$ 610,800
Mobilization		6%	$ 244,320
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 407,200
		Impact Fee Project Cost TOTAL:	**$ 5,334,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **1-B, 2-A**

Name:	Wintergreen (2)
Limits:	Railroad to Cedar Hill
Impact Fee Class:	M4D
Ultimate Class:	Minor Arterial
Length (lf):	597
Service Area(s):	1, 2

This project consists of the reconstruction and widening of the existing section to a four-lane divided minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	1,858	cy	$ 35.00	$ 65,025
204	6" Lime Stabilization (with Lime @ 27#/sy)	3,716	sy	$ 7.50	$ 27,868
304	8" Concrete Pavement w/ 6" Curb	3,318	sy	$ 90.00	$ 298,585
404	4" Topsoil	1,858	sy	$ 10.50	$ 19,508
504	Concrete Sidewalk	7,166	sf	$ 8.33	$ 59,717
604	Turn Lanes and Median Openings	351	sy	$ 132.50	$ 46,572
				Paving Construction Cost Subtotal:	**$ 517,275**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 31,036
√	Traffic Control	Construction Phase Traffic Control	5%	$ 25,864
√	Pavement Markings/Markers		3%	$ 15,518
√	Roadway Drainage	Standard Internal System	35%	$ 181,046
√	Illumination		5%	$ 25,864
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 62,073
√	Sewer	Minor Adjustments	8%	$ 41,382
√	Establish Turf / Erosion Control		3%	$ 15,518
√	Basic Landscaping/Irrigation		3%	$ 15,518
√	Other:	50% of Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 788,820**

Paving and Allowance Subtotal:		**$ 1,306,095**
Construction Contingency:	25%	$ 326,524
Construction Cost TOTAL:		**$ 1,633,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,633,000**
Engineering/Survey/Testing:		15%	$ 244,950
Mobilization		6%	$ 97,980
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 163,300
		Impact Fee Project Cost TOTAL:	**$ 2,139,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **1-C, 4-A**

Name:	Mansfield (1)
Limits:	West City Limits to Belt Line
Impact Fee Class:	P6D(1/3)-Greenway
Ultimate Class:	Greenway Principal Arterial
Length (lf):	11,669
Service Area(s):	1, 4

This project consists of the construction of an additional two lanes to complete the six-lane divided greenway principal arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	18,152	cy	$ 35.00	$ 635,316
213	6" Lime Stabilization (with Lime @ 27#/sy)	36,304	sy	$ 7.50	$ 272,278
313	10" Concrete Pavement w/ 6" Curb	32,414	sy	$ 92.00	$ 2,982,095
413	4" Topsoil	0	sy	$ 10.50	$ -
513	Concrete Sidewalk / Sidepath	0	sf	$ 11.11	$ -
613	Turn Lanes and Median Openings	0	sy	$ 134.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,889,689**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 233,381
√	Traffic Control	Construction Phase Traffic Control	5%	$ 194,484
√	Pavement Markings/Markers		3%	$ 116,691
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
√	Special Drainage Structures	Floodplain Crossing	-	$ 546,000
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 116,691
√	Basic Landscaping/Irrigation		5%	$ 194,484
	Other:		$0	$ -
			Allowance Subtotal:	**$ 1,401,732**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 5,291,421**
Construction Contingency:	25%	$ 1,322,855
Construction Cost TOTAL:		**$ 6,615,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 6,615,000**
Engineering/Survey/Testing:		15%	$ 992,250
Mobilization		6%	$ 396,900
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 661,500
		Impact Fee Project Cost TOTAL:	**$ 8,666,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	1-D
Name:	Lakeview (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Mansfield to Belt Line			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	6,255			
Service Area(s):	1			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	14,942	cy	$ 35.00	$ 522,966
201	6" Lime Stabilization (with Lime @ 27#/sy)	29,884	sy	$ 7.50	$ 224,128
301	8" Concrete Pavement w/ 6" Curb	27,799	sy	$ 90.00	$ 2,501,896
401	4" Topsoil	8,340	sy	$ 10.50	$ 87,566
501	Concrete Sidewalk	50,038	sf	$ 8.33	$ 416,983
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,753,538**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 225,212
√	Traffic Control	Construction Phase Traffic Control	1%	$ 37,535
√	Pavement Markings/Markers		3%	$ 112,606
√	Roadway Drainage	Standard Internal System	35%	$ 1,313,738
√	Illumination		5%	$ 187,677
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 450,425
√	Sewer	Minor Adjustments	8%	$ 300,283
√	Establish Turf / Erosion Control		3%	$ 112,606
√	Basic Landscaping/Irrigation		3%	$ 112,606
	Other:		$0	$ -
			Allowance Subtotal:	**$ 2,852,689**
			Paving and Allowance Subtotal:	**$ 6,606,228**
			Construction Contingency: 25%	$ 1,651,557
			Construction Cost TOTAL:	**$ 8,258,000**

**Allowances based on % of Paving Construction Cost Subtotal

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 8,258,000**
Engineering/Survey/Testing:		15%	$ 1,238,700
Mobilization		6%	$ 495,480
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,651,600
		Impact Fee Project Cost TOTAL:	**$ 11,644,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	1-E
Name:	Belt Line (1)	**This project consists of the reconstruction and widening of the existing section to a three-lane undivided major collector.**		
Limits:	1,880' NW of Lakeview to Mansfield			
Impact Fee Class:	C3U			
Ultimate Class:	Major Collector			
Length (lf):	7,546			
Service Area(s):	1			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	15,930	cy	$ 35.00	$ 557,542
202	6" Lime Stabilization (with Lime @ 27#/sy)	31,860	sy	$ 7.50	$ 238,947
302	8" Concrete Pavement w/ 6" Curb	29,344	sy	$ 90.00	$ 2,640,990
402	4" Topsoil	27,668	sy	$ 10.50	$ 290,509
502	Concrete Sidewalk	90,548	sf	$ 8.33	$ 754,568
602	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 4,482,556**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 268,953
√	Traffic Control	Construction Phase Traffic Control	5%	$ 224,128
√	Pavement Markings/Markers		3%	$ 134,477
√	Roadway Drainage	Standard Internal System	35%	$ 1,568,895
√	Illumination		5%	$ 224,128
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 537,907
√	Sewer	Minor Adjustments	8%	$ 358,604
√	Establish Turf / Erosion Control		3%	$ 134,477
√	Basic Landscaping/Irrigation		3%	$ 134,477
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 3,586,045**
			Paving and Allowance Subtotal:	**$ 8,068,600**
			Construction Contingency: 25%	$ 2,017,150
			Construction Cost TOTAL:	**$ 10,086,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 10,086,000**
Engineering/Survey/Testing:		15%	$ 1,512,900
Mobilization		6%	$ 605,160
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 1,008,600
		Impact Fee Project Cost TOTAL:	**$ 13,213,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	1-F, 2-I
Name:	Cedar Hill (1)	**This project consists of the construction of an additional lane to complete the three-lane undivided greenway major collector.**		
Limits:	FM 1382 to Main			
Impact Fee Class:	C3U(1/3)-Greenway			
Ultimate Class:	Greenway Major Collector			
Length (lf):	4,645			
Service Area(s):	1, 2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	3,354	cy	$ 35.00	$ 117,404
210	6" Lime Stabilization (with Lime @ 27#/sy)	6,709	sy	$ 7.50	$ 50,316
310	8" Concrete Pavement w/ 6" Curb	5,935	sy	$ 90.00	$ 534,123
410	4" Topsoil	6,967	sy	$ 10.50	$ 73,152
510	Concrete Sidewalk / Sidepath	55,735	sf	$ 11.11	$ 619,274
610	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,394,269**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 83,656
√	Traffic Control	Construction Phase Traffic Control	5%	$ 69,713
√	Pavement Markings/Markers		3%	$ 41,828
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
	Special Drainage Structures	None Anticipated	0%	$ -
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 41,828
√	Basic Landscaping/Irrigation		5%	$ 69,713
	Other:		$0	$ -
			Allowance Subtotal:	**$ 306,739**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,701,008**
Construction Contingency:	25%	$ 425,252
Construction Cost TOTAL:		**$ 2,127,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,127,000**
Engineering/Survey/Testing:		15%	$ 319,050
Mobilization		6%	$ 127,620
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 212,700
		Impact Fee Project Cost TOTAL:	**$ 2,786,000**

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

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City of Cedar Hill - 2024 Roadway Impact Fee Update

Capital Improvement Plan for Roadway Impact Fees

Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area 2

#	Class	Project	Length (mi)	Limits	Status	% in Service Area	Total Project Cost	Cost in Service Area
1-B, 2-A	M4D	Wintergreen (2)	0.11	Railroad to Cedar Hill	Widening	50%	$ 2,139,000	$ 1,069,500
2-B	P6D	Wintergreen (3)	0.57	Joe Wilson to US 67 SBFR	Widening	100%	$ 10,240,000	$ 10,240,000
2-C	C2U	Birkshire (1)	0.44	Milestone to Birkshire	New	100%	$ 8,798,000	$ 8,798,000
2-D	C2U	Main-Uptown Collector (1)	0.20	Main to Uptown	New	100%	$ 1,988,000	$ 1,988,000
2-E	C2U-Greenway	Cooper (2)	0.27	Railroad to Houston	New	100%	$ 3,440,000	$ 3,440,000
2-F	C4U	Cedarview (2)	0.13	Railroad to Tidwell	New	100%	$ 2,153,000	$ 2,153,000
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	0.29	305' E of Joe Wilson to 420' W of Waterford Oaks	Widening 1/2	50%	$ 2,789,000	$ 1,394,500
2-H, 3-B	M4D-Greenway	Parkerville (2)	0.65	420' W of Waterford Oaks to Duncanville	Widening	50%	$ 9,830,000	$ 4,915,000
1-F, 2-I	C3U(1/3)-Greenway	Cedar Hill (1)	0.88	FM 1382 to Main	Widening 1/3	50%	$ 2,786,000	$ 1,393,000
2-J	C2U	Cedar Hill-Belt Line Collector (1)	0.28	Cedar Hill to Belt Line	New	100%	$ 2,755,000	$ 2,755,000
2-K	C4U	Main (1)	0.06	130' S of Belt Line to Cedar	Widening	100%	$ 626,000	$ 626,000
2-L	C2U	Tidwell (1)	0.48	635' N of Cooper to Houston	New	100%	$ 4,759,000	$ 4,759,000
2-M	M4D-Greenway	Tidwell (2)	0.17	Houston to US 67	Widening	100%	$ 2,606,000	$ 2,606,000
2-N	M4D(1/2)-Greenway	Tidwell (3)	0.15	US 67 to 790' SE of US 67	Widening 1/2	100%	$ 895,000	$ 895,000
2-O	C3U	Joe Wilson (1)	0.86	Cedar Hill to Clover Hill	Widening	100%	$ 8,743,000	$ 8,743,000
2-P	M4D-Greenway	Duncanville (1)	2.89	580' S of Wintergreen to Parkerville	Widening	100%	$ 46,666,000	$ 46,666,000
Intersection Improvements								
I-3		Interchange		US 67 & Wintergreen Rd		50%	$ 1,000,000	$ 500,000
I-4		Modification		Duncanville Rd & Pleasant Run Rd		50%	$ 250,000	$ 125,000
I-5		Signal		Cooper St & Tidwell St		100%	$ 600,000	$ 600,000
I-6		Signal		Houston St & Tidwell St		100%	$ 600,000	$ 600,000
I-7		Interchange		US 67 & Tidwell St		100%	$ 1,000,000	$ 1,000,000
I-8		Signal		Parkerville Rd & Joe Wilson Rd		50%	$ 600,000	$ 300,000
I-9		Signal		Duncanville Rd & Parkerville Rd		25%	$ 600,000	$ 150,000
I-18		Signal		Joe Wilson Rd & Calvert Dr		100%	$ 600,000	$ 600,000
I-19		ITS Master Plan		Service Area 2		25%	$ 3,000,000	$ 750,000
						TOTAL	**$ 119,463,000**	**$ 107,066,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **1-B, 2-A**

Name:	Wintergreen (2)
Limits:	Railroad to Cedar Hill
Impact Fee Class:	M4D
Ultimate Class:	Minor Arterial
Length (lf):	597
Service Area(s):	1, 2

This project consists of the reconstruction and widening of the existing section to a four-lane divided minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	1,858	cy	$ 35.00	$ 65,025
204	6" Lime Stabilization (with Lime @ 27#/sy)	3,716	sy	$ 7.50	$ 27,868
304	8" Concrete Pavement w/ 6" Curb	3,318	sy	$ 90.00	$ 298,585
404	4" Topsoil	1,858	sy	$ 10.50	$ 19,508
504	Concrete Sidewalk	7,166	sf	$ 8.33	$ 59,717
604	Turn Lanes and Median Openings	351	sy	$ 132.50	$ 46,572
				Paving Construction Cost Subtotal:	**$ 517,275**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 31,036
√	Traffic Control	Construction Phase Traffic Control	5%	$ 25,864
√	Pavement Markings/Markers		3%	$ 15,518
√	Roadway Drainage	Standard Internal System	35%	$ 181,046
√	Illumination		5%	$ 25,864
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 62,073
√	Sewer	Minor Adjustments	8%	$ 41,382
√	Establish Turf / Erosion Control		3%	$ 15,518
√	Basic Landscaping/Irrigation		3%	$ 15,518
√	Other:	50% of Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 788,820**

Paving and Allowance Subtotal:		**$ 1,306,095**
Construction Contingency:	25%	$ 326,524
Construction Cost TOTAL:		**$ 1,633,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,633,000**
Engineering/Survey/Testing:		15%	$ 244,950
Mobilization		6%	$ 97,980
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 163,300
		Impact Fee Project Cost TOTAL:	**$ 2,139,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-B
Name:	Wintergreen (3)	**This project consists of the reconstruction and widening of the existing section to a six-lane divided principal arterial.**		
Limits:	Joe Wilson to US 67 SBFR			
Impact Fee Class:	P6D			
Ultimate Class:	Principal Arterial			
Length (lf):	3,028			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	13,121	cy	$ 35.00	$ 459,218
205	6" Lime Stabilization (with Lime @ 27#/sy)	26,241	sy	$ 7.50	$ 196,808
305	8" Concrete Pavement w/ 6" Curb	24,223	sy	$ 90.00	$ 2,180,025
405	4" Topsoil	9,420	sy	$ 10.50	$ 98,909
505	Concrete Sidewalk	36,334	sf	$ 8.33	$ 302,781
605	Turn Lanes and Median Openings	1,782	sy	$ 132.50	$ 236,135
				Paving Construction Cost Subtotal:	**$ 3,473,876**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 208,433
√	Traffic Control	Construction Phase Traffic Control	5%	$ 173,694
√	Pavement Markings/Markers		3%	$ 104,216
√	Roadway Drainage	Standard Internal System	35%	$ 1,215,857
√	Illumination		5%	$ 173,694
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 416,865
√	Sewer	Minor Adjustments	8%	$ 277,910
√	Establish Turf / Erosion Control		3%	$ 104,216
√	Basic Landscaping/Irrigation		3%	$ 104,216
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,779,101**
			Paving and Allowance Subtotal:	**$ 6,252,978**
			Construction Contingency: 25%	$ 1,563,244
			Construction Cost TOTAL:	**$ 7,817,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 7,817,000**
Engineering/Survey/Testing:		15%	$ 1,172,550
Mobilization		6%	$ 469,020
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 781,700
		Impact Fee Project Cost TOTAL:	**$ 10,240,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-C
Name:	Birkshire (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Milestone to Birkshire			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	2,303			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	5,501	cy	$ 35.00	$ 192,547
201	6" Lime Stabilization (with Lime @ 27#/sy)	11,003	sy	$ 7.50	$ 82,520
301	8" Concrete Pavement w/ 6" Curb	10,235	sy	$ 90.00	$ 921,157
401	4" Topsoil	3,071	sy	$ 10.50	$ 32,240
501	Concrete Sidewalk	18,423	sf	$ 8.33	$ 153,526
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,381,991**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 82,919
√	Traffic Control	Construction Phase Traffic Control	1%	$ 13,820
√	Pavement Markings/Markers		3%	$ 41,460
√	Roadway Drainage	Standard Internal System	35%	$ 483,697
√	Illumination		5%	$ 69,100
√	Special Drainage Structures	Floodplain Crossing	-	$ 2,559,375
√	Water	Minor Adjustments	12%	$ 165,839
√	Sewer	Minor Adjustments	8%	$ 110,559
√	Establish Turf / Erosion Control		3%	$ 41,460
√	Basic Landscaping/Irrigation		3%	$ 41,460
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 3,609,688**
			Paving and Allowance Subtotal:	**$ 4,991,679**
			Construction Contingency: 25%	$ 1,247,920
			Construction Cost TOTAL:	**$ 6,240,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 6,240,000**
Engineering/Survey/Testing:		15%	$ 936,000
Mobilization		6%	$ 374,400
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,248,000
		Impact Fee Project Cost TOTAL:	**$ 8,798,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-D
Name:	Main-Uptown Collector (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Main to Uptown			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	1,068			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	2,551	cy	$ 35.00	$ 89,274
201	6" Lime Stabilization (with Lime @ 27#/sy)	5,101	sy	$ 7.50	$ 38,260
301	8" Concrete Pavement w/ 6" Curb	4,745	sy	$ 90.00	$ 427,094
401	4" Topsoil	1,424	sy	$ 10.50	$ 14,948
501	Concrete Sidewalk	8,542	sf	$ 8.33	$ 71,182
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 640,759**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 38,446
√	Traffic Control	Construction Phase Traffic Control	1%	$ 6,408
√	Pavement Markings/Markers		3%	$ 19,223
√	Roadway Drainage	Standard Internal System	35%	$ 224,266
√	Illumination		5%	$ 32,038
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 76,891
√	Sewer	Minor Adjustments	8%	$ 51,261
√	Establish Turf / Erosion Control		3%	$ 19,223
√	Basic Landscaping/Irrigation		3%	$ 19,223
	Other:		$0	$ -
			Allowance Subtotal:	**$ 486,977**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,127,736**
Construction Contingency:	25%	$ 281,934
Construction Cost TOTAL:		**$ 1,410,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,410,000**
Engineering/Survey/Testing:		15%	$ 211,500
Mobilization		6%	$ 84,600
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 282,000
		Impact Fee Project Cost TOTAL:	**$ 1,988,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-E
Name:	Cooper (2)	**This project consists of the construction of a new two-lane undivided greenway minor collector.**		
Limits:	Railroad to Houston			
Impact Fee Class:	C2U-Greenway			
Ultimate Class:	Greenway Minor Collector			
Length (lf):	1,435			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	2,711	cy	$ 35.00	$ 94,885
206	6" Lime Stabilization (with Lime @ 27#/sy)	5,422	sy	$ 7.50	$ 40,665
306	8" Concrete Pavement w/ 6" Curb	4,944	sy	$ 90.00	$ 444,925
406	4" Topsoil	1,754	sy	$ 10.50	$ 18,419
506	Concrete Sidewalk / Sidepath	25,834	sf	$ 11.11	$ 287,048
606	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 885,943**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 53,157
√	Traffic Control	Construction Phase Traffic Control	1%	$ 8,859
√	Pavement Markings/Markers		3%	$ 26,578
√	Roadway Drainage	Standard Internal System	35%	$ 310,080
√	Illumination		5%	$ 44,297
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 106,313
√	Sewer	Minor Adjustments	8%	$ 70,875
√	Establish Turf / Erosion Control		3%	$ 26,578
√	Basic Landscaping/Irrigation		5%	$ 44,297
√	Other:	50% Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,066,036**
			Paving and Allowance Subtotal:	**$ 1,951,979**
			Construction Contingency: 25%	$ 487,995
			Construction Cost TOTAL:	**$ 2,440,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,440,000**
Engineering/Survey/Testing:		15%	$ 366,000
Mobilization		6%	$ 146,400
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 488,000
		Impact Fee Project Cost TOTAL:	**$ 3,440,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-F
Name:	Cedarview (2)	**This project consists of the construction of a new four-lane undivided major collector.**		
Limits:	Railroad to Tidwell			
Impact Fee Class:	C4U			
Ultimate Class:	Major Collector			
Length (lf):	677			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	1,805	cy	$ 35.00	$ 63,188
203	6" Lime Stabilization (with Lime @ 27#/sy)	3,611	sy	$ 7.50	$ 27,080
303	8" Concrete Pavement w/ 6" Curb	3,385	sy	$ 90.00	$ 304,655
403	4" Topsoil	1,730	sy	$ 10.50	$ 18,166
503	Concrete Sidewalk	8,124	sf	$ 8.33	$ 67,701
603	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 480,790**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 28,847
√	Traffic Control	Construction Phase Traffic Control	1%	$ 4,808
√	Pavement Markings/Markers		3%	$ 14,424
√	Roadway Drainage	Standard Internal System	35%	$ 168,277
√	Illumination		5%	$ 24,040
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 57,695
√	Sewer	Minor Adjustments	8%	$ 38,463
√	Establish Turf / Erosion Control		3%	$ 14,424
√	Basic Landscaping/Irrigation		3%	$ 14,424
√	Other:	50% Railroad Crossing		$ 375,000
			Allowance Subtotal:	**$ 740,401**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,221,191**
Construction Contingency:	25%	$ 305,298
Construction Cost TOTAL:		**$ 1,527,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,527,000**
Engineering/Survey/Testing:		15%	$ 229,050
Mobilization		6%	$ 91,620
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 305,400
		Impact Fee Project Cost TOTAL:	**$ 2,153,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-G, 3-A**

Name:	Parkerville (1)
Limits:	305' E of Joe Wilson to 420' W of Waterford Oaks
Impact Fee Class:	M4D(1/2)-Greenway
Ultimate Class:	Greenway Minor Arterial
Length (lf):	1,554
Service Area(s):	2, 3

This project consists of the construction of the remaining two lanes to complete the four-lane divided greenway minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	2,417	cy	$ 35.00	$ 84,589
212	6" Lime Stabilization (with Lime @ 27#/sy)	4,834	sy	$ 7.50	$ 36,252
312	8" Concrete Pavement w/ 6" Curb	4,316	sy	$ 90.00	$ 388,418
412	4" Topsoil	3,970	sy	$ 10.50	$ 41,690
512	Concrete Sidewalk / Sidepath	18,644	sf	$ 11.11	$ 207,156
612	Turn Lanes and Median Openings	914	sy	$ 132.50	$ 121,169
				Paving Construction Cost Subtotal:	**$ 879,276**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 52,757
√	Traffic Control	Construction Phase Traffic Control	5%	$ 43,964
√	Pavement Markings/Markers		3%	$ 26,378
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
√	Special Drainage Structures	Floodplain Crossing	-	$ 630,000
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 26,378
√	Basic Landscaping/Irrigation		5%	$ 43,964
	Other:		$0	$ -
			Allowance Subtotal:	**$ 823,441**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,702,716**
Construction Contingency:	25%	$ 425,679
Construction Cost TOTAL:		**$ 2,129,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,129,000**
Engineering/Survey/Testing:		15%	$ 319,350
Mobilization		6%	$ 127,740
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 212,900
		Impact Fee Project Cost TOTAL:	**$ 2,789,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-H, 3-B**

Name:	Parkerville (2)
Limits:	420' W of Waterford Oaks to Duncanville
Impact Fee Class:	M4D-Greenway
Ultimate Class:	Greenway Minor Arterial
Length (lf):	3,414
Service Area(s):	2, 3

This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	10,620	cy	$ 35.00	$ 371,703
208	6" Lime Stabilization (with Lime @ 27#/sy)	21,240	sy	$ 7.50	$ 159,301
308	8" Concrete Pavement w/ 6" Curb	18,964	sy	$ 90.00	$ 1,706,798
408	4" Topsoil	10,620	sy	$ 10.50	$ 111,511
508	Concrete Sidewalk / Sidepath	61,445	sf	$ 11.11	$ 682,719
608	Turn Lanes and Median Openings	2,009	sy	$ 132.50	$ 266,222
				Paving Construction Cost Subtotal:	**$ 3,298,255**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 197,895
√	Traffic Control	Construction Phase Traffic Control	5%	$ 164,913
√	Pavement Markings/Markers		3%	$ 98,948
√	Roadway Drainage	Standard Internal System	35%	$ 1,154,389
√	Illumination		5%	$ 164,913
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 395,791
√	Sewer	Minor Adjustments	8%	$ 263,860
√	Establish Turf / Erosion Control		3%	$ 98,948
√	Basic Landscaping/Irrigation		5%	$ 164,913
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,704,569**

Paving and Allowance Subtotal:		**$ 6,002,823**
Construction Contingency:	25%	$ 1,500,706
Construction Cost TOTAL:		**$ 7,504,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 7,504,000**
Engineering/Survey/Testing:		15%	$ 1,125,600
Mobilization		6%	$ 450,240
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 750,400
		Impact Fee Project Cost TOTAL:	**$ 9,830,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	1-F, 2-I
Name:	Cedar Hill (1)	**This project consists of the construction of an additional lane to complete the three-lane undivided greenway major collector.**		
Limits:	FM 1382 to Main			
Impact Fee Class:	C3U(1/3)-Greenway			
Ultimate Class:	Greenway Major Collector			
Length (lf):	4,645			
Service Area(s):	1, 2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	3,354	cy	$ 35.00	$ 117,404
210	6" Lime Stabilization (with Lime @ 27#/sy)	6,709	sy	$ 7.50	$ 50,316
310	8" Concrete Pavement w/ 6" Curb	5,935	sy	$ 90.00	$ 534,123
410	4" Topsoil	6,967	sy	$ 10.50	$ 73,152
510	Concrete Sidewalk / Sidepath	55,735	sf	$ 11.11	$ 619,274
610	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,394,269**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 83,656
√	Traffic Control	Construction Phase Traffic Control	5%	$ 69,713
√	Pavement Markings/Markers		3%	$ 41,828
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
	Special Drainage Structures	None Anticipated	0%	$ -
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 41,828
√	Basic Landscaping/Irrigation		5%	$ 69,713
	Other:		$0	$ -
			Allowance Subtotal:	**$ 306,739**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,701,008**
Construction Contingency:	25%	$ 425,252
Construction Cost TOTAL:		**$ 2,127,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,127,000**
Engineering/Survey/Testing:		15%	$ 319,050
Mobilization		6%	$ 127,620
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 212,700
		Impact Fee Project Cost TOTAL:	**$ 2,786,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-J
Name:	Cedar Hill-Belt Line Collector (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Cedar Hill to Belt Line			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	1,479			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	3,534	cy	$ 35.00	$ 123,701
201	6" Lime Stabilization (with Lime @ 27#/sy)	7,069	sy	$ 7.50	$ 53,015
301	8" Concrete Pavement w/ 6" Curb	6,575	sy	$ 90.00	$ 591,794
401	4" Topsoil	1,973	sy	$ 10.50	$ 20,713
501	Concrete Sidewalk	11,836	sf	$ 8.33	$ 98,632
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 887,855**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 53,271
√	Traffic Control	Construction Phase Traffic Control	1%	$ 8,879
√	Pavement Markings/Markers		3%	$ 26,636
√	Roadway Drainage	Standard Internal System	35%	$ 310,749
√	Illumination		5%	$ 44,393
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 106,543
√	Sewer	Minor Adjustments	8%	$ 71,028
√	Establish Turf / Erosion Control		3%	$ 26,636
√	Basic Landscaping/Irrigation		3%	$ 26,636
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 674,770**

Paving and Allowance Subtotal:		**$ 1,562,625**
Construction Contingency:	25%	$ 390,656
Construction Cost TOTAL:		**$ 1,954,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,954,000**
Engineering/Survey/Testing:		15%	$ 293,100
Mobilization		6%	$ 117,240
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 390,800
		Impact Fee Project Cost TOTAL:	**$ 2,755,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-K**

Name:	Main (1)
Limits:	130' S of Belt Line to Cedar
Impact Fee Class:	C4U
Ultimate Class:	Major Collector
Length (lf):	299
Service Area(s):	2

This project consists of the reconstruction and widening of a the existing section to four-lane undivided major collector.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	798	cy	$ 35.00	$ 27,917
203	6" Lime Stabilization (with Lime @ 27#/sy)	1,595	sy	$ 7.50	$ 11,964
303	8" Concrete Pavement w/ 6" Curb	1,496	sy	$ 90.00	$ 134,598
403	4" Topsoil	764	sy	$ 10.50	$ 8,026
503	Concrete Sidewalk	3,589	sf	$ 8.33	$ 29,911
603	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 212,416**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 12,745
√	Traffic Control	Construction Phase Traffic Control	5%	$ 10,621
√	Pavement Markings/Markers		3%	$ 6,372
√	Roadway Drainage	Standard Internal System	35%	$ 74,346
√	Illumination		5%	$ 10,621
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 25,490
√	Sewer	Minor Adjustments	8%	$ 16,993
√	Establish Turf / Erosion Control		3%	$ 6,372
√	Basic Landscaping/Irrigation		3%	$ 6,372
	Other:		$0	$ -
			Allowance Subtotal:	**$ 169,933**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 382,348**
Construction Contingency:	25%	$ 95,587
Construction Cost TOTAL:		**$ 478,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 478,000**
Engineering/Survey/Testing:		15%	$ 71,700
Mobilization		6%	$ 28,680
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 47,800
		Impact Fee Project Cost TOTAL:	**$ 626,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-L**

Name:	Tidwell (1)
Limits:	635' N of Cooper to Houston
Impact Fee Class:	C2U
Ultimate Class:	Minor Collector
Length (lf):	2,556
Service Area(s):	2

This project consists of the construction of a new two-lane undivided minor collector.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	6,105	cy	$ 35.00	$ 213,681
201	6" Lime Stabilization (with Lime @ 27#/sy)	12,210	sy	$ 7.50	$ 91,578
301	8" Concrete Pavement w/ 6" Curb	11,358	sy	$ 90.00	$ 1,022,262
401	4" Topsoil	3,408	sy	$ 10.50	$ 35,779
501	Concrete Sidewalk	20,445	sf	$ 8.33	$ 170,377
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,533,676**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 92,021
√	Traffic Control	Construction Phase Traffic Control	1%	$ 15,337
√	Pavement Markings/Markers		3%	$ 46,010
√	Roadway Drainage	Standard Internal System	35%	$ 536,787
√	Illumination		5%	$ 76,684
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 184,041
√	Sewer	Minor Adjustments	8%	$ 122,694
√	Establish Turf / Erosion Control		3%	$ 46,010
√	Basic Landscaping/Irrigation		3%	$ 46,010
	Other:		$0	$ -
			Allowance Subtotal:	**$ 1,165,594**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 2,699,270**
Construction Contingency:	25%	$ 674,818
Construction Cost TOTAL:		**$ 3,375,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 3,375,000**
Engineering/Survey/Testing:		15%	$ 506,250
Mobilization		6%	$ 202,500
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 675,000
		Impact Fee Project Cost TOTAL:	**$ 4,759,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-M
Name:	Tidwell (2)	**This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.**		
Limits:	Houston to US 67			
Impact Fee Class:	M4D-Greenway			
Ultimate Class:	Greenway Minor Arterial			
Length (lf):	905			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	2,815	cy	$ 35.00	$ 98,523
208	6" Lime Stabilization (with Lime @ 27#/sy)	5,630	sy	$ 7.50	$ 42,224
308	8" Concrete Pavement w/ 6" Curb	5,027	sy	$ 90.00	$ 452,399
408	4" Topsoil	2,815	sy	$ 10.50	$ 29,557
508	Concrete Sidewalk / Sidepath	16,286	sf	$ 11.11	$ 180,960
608	Turn Lanes and Median Openings	533	sy	$ 132.50	$ 70,564
				Paving Construction Cost Subtotal:	**$ 874,227**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 52,454
√	Traffic Control	Construction Phase Traffic Control	5%	$ 43,711
√	Pavement Markings/Markers		3%	$ 26,227
√	Roadway Drainage	Standard Internal System	35%	$ 305,979
√	Illumination		5%	$ 43,711
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 104,907
√	Sewer	Minor Adjustments	8%	$ 69,938
√	Establish Turf / Erosion Control		3%	$ 26,227
√	Basic Landscaping/Irrigation		5%	$ 43,711
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 716,866**
			Paving and Allowance Subtotal:	**$ 1,591,093**
			Construction Contingency: 25%	$ 397,773
			Construction Cost TOTAL:	**$ 1,989,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,989,000**
Engineering/Survey/Testing:		15%	$ 298,350
Mobilization		6%	$ 119,340
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 198,900
		Impact Fee Project Cost TOTAL:	**$ 2,606,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-N
Name:	Tidwell (3)	**While the ultimate classification is a greenway principal arterial, this project consists of the construction of the remaining two lanes to complete the four-lane divided greenway minor arterial, consistent with the section to the east.**		
Limits:	US 67 to 790' SE of US 67			
Impact Fee Class:	M4D(1/2)-Greenway			
Ultimate Class:	Greenway Minor Arterial			
Length (lf):	790			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	1,230	cy	$ 35.00	$ 43,034
212	6" Lime Stabilization (with Lime @ 27#/sy)	2,459	sy	$ 7.50	$ 18,443
312	8" Concrete Pavement w/ 6" Curb	2,196	sy	$ 90.00	$ 197,605
412	4" Topsoil	2,020	sy	$ 10.50	$ 21,210
512	Concrete Sidewalk / Sidepath	9,485	sf	$ 11.11	$ 105,389
612	Turn Lanes and Median Openings	465	sy	$ 132.50	$ 61,644
				Paving Construction Cost Subtotal:	**$ 447,325**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 26,840
√	Traffic Control	Construction Phase Traffic Control	5%	$ 22,366
√	Pavement Markings/Markers		3%	$ 13,420
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
	Special Drainage Structures	None Anticipated	0%	$ -
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 13,420
√	Basic Landscaping/Irrigation		5%	$ 22,366
	Other:		$0	$ -
			Allowance Subtotal:	**$ 98,412**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 545,737**
Construction Contingency:	25%	$ 136,434
Construction Cost TOTAL:		**$ 683,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 683,000**
Engineering/Survey/Testing:		15%	$ 102,450
Mobilization		6%	$ 40,980
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 68,300
		Impact Fee Project Cost TOTAL:	**$ 895,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-O
Name:	Joe Wilson (1)	**This project consists of the reconstruction and widening of the existing section to a three-lane undivided major collector.**		
Limits:	Cedar Hill to Clover Hill			
Impact Fee Class:	C3U			
Ultimate Class:	Major Collector			
Length (lf):	4,548			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	9,601	cy	$ 35.00	$ 336,022
202	6" Lime Stabilization (with Lime @ 27#/sy)	19,201	sy	$ 7.50	$ 144,009
302	8" Concrete Pavement w/ 6" Curb	17,685	sy	$ 90.00	$ 1,591,682
402	4" Topsoil	16,675	sy	$ 10.50	$ 175,085
502	Concrete Sidewalk	54,572	sf	$ 8.33	$ 454,766
602	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 2,701,565**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 162,094
√	Traffic Control	Construction Phase Traffic Control	5%	$ 135,078
√	Pavement Markings/Markers		3%	$ 81,047
√	Roadway Drainage	Standard Internal System	35%	$ 945,548
√	Illumination		5%	$ 135,078
√	Special Drainage Structures	Floodplain Crossing	-	$ 476,000
√	Water	Minor Adjustments	12%	$ 324,188
√	Sewer	Minor Adjustments	8%	$ 216,125
√	Establish Turf / Erosion Control		3%	$ 81,047
√	Basic Landscaping/Irrigation		3%	$ 81,047
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,637,252**
			Paving and Allowance Subtotal:	**$ 5,338,817**
			Construction Contingency: 25%	$ 1,334,704
			Construction Cost TOTAL:	**$ 6,674,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 6,674,000**
Engineering/Survey/Testing:		15%	$ 1,001,100
Mobilization		6%	$ 400,440
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 667,400
		Impact Fee Project Cost TOTAL:	**$ 8,743,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	2-P
Name:	Duncanville (1)	**This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.**		
Limits:	580' S of Wintergreen to Parkerville			
Impact Fee Class:	M4D-Greenway			
Ultimate Class:	Greenway Minor Arterial			
Length (lf):	15,251			
Service Area(s):	2			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	47,446	cy	$ 35.00	$ 1,660,622
208	6" Lime Stabilization (with Lime @ 27#/sy)	94,893	sy	$ 7.50	$ 711,695
308	8" Concrete Pavement w/ 6" Curb	84,726	sy	$ 90.00	$ 7,625,306
408	4" Topsoil	47,446	sy	$ 10.50	$ 498,187
508	Concrete Sidewalk / Sidepath	274,511	sf	$ 11.11	$ 3,050,122
608	Turn Lanes and Median Openings	8,976	sy	$ 132.50	$ 1,189,376
				Paving Construction Cost Subtotal:	**$ 14,735,308**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 884,118
√	Traffic Control	Construction Phase Traffic Control	5%	$ 736,765
√	Pavement Markings/Markers		3%	$ 442,059
√	Roadway Drainage	Standard Internal System	35%	$ 5,157,358
√	Illumination		5%	$ 736,765
√	Special Drainage Structures	Floodplain Crossing	-	$ 1,680,000
√	Water	Minor Adjustments	12%	$ 1,768,237
√	Sewer	Minor Adjustments	8%	$ 1,178,825
√	Establish Turf / Erosion Control		3%	$ 442,059
√	Basic Landscaping/Irrigation		5%	$ 736,765
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 13,762,953**

Paving and Allowance Subtotal:		**$ 28,498,261**
Construction Contingency:	25%	$ 7,124,565
Construction Cost TOTAL:		**$ 35,623,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 35,623,000**
Engineering/Survey/Testing:		15%	$ 5,343,450
Mobilization		6%	$ 2,137,380
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 3,562,300
		Impact Fee Project Cost TOTAL:	**$ 46,666,000**

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

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City of Cedar Hill - 2024 Roadway Impact Fee Update

Capital Improvement Plan for Roadway Impact Fees

Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area 3

#	Class	Project	Length (mi)	Limits	Status	% in Service Area	Total Project Cost	Cost in Service Area
2-G, 3-A	M4D(1/2)-Greenway	Parkerville (1)	0.29	305' E of Joe Wilson to 420' W of Waterford Oaks	Widening 1/2	50%	$ 2,789,000	$ 1,394,500
2-H, 3-B	M4D-Greenway	Parkerville (2)	0.65	420' W of Waterford Oaks to Duncanville	Widening	50%	$ 9,830,000	$ 4,915,000
3-C	M4D	Parkerville (3)	0.53	Duncanville to 2,800' E of Duncanville	New	50%	$ 8,258,000	$ 4,129,000
3-D	C2U	Little Creek (1)	0.16	Joe Wilson to Springfield	New	100%	$ 1,585,000	$ 1,585,000
3-E	C2U	Little Creek (2)	0.44	Duncanville to 2,315' E of Duncanville	New	100%	$ 10,328,000	$ 10,328,000
3-F	C3U	Mt. Lebanon (3)	0.29	800' E of American to Cedar Hill	Widening	100%	$ 4,200,000	$ 4,200,000
3-G	C2U	Rocky Acres (1)	0.03	Tar to 150' E of Tar	New	100%	$ 279,000	$ 279,000
3-H	C2U	Rocky Acres (2)	0.37	1,930' W of Clark to Clark	New	100%	$ 3,598,000	$ 3,598,000
3-I	C2U	Bear Creek (1)	1.22	Clark to Joe Wilson	New	100%	$ 14,609,000	$ 14,609,000
3-J	C2U	Cedar Hill-Clark Collector (1)	0.73	Cedar Hill to Clark	New	100%	$ 7,150,000	$ 7,150,000
3-K	C2U	Edgefield (1)	0.22	Edgefield to Future Loop 9	New	100%	$ 2,201,000	$ 2,201,000
3-L	C4U-Greenway	Cedar Hill (2)	1.01	US 67 NBFR to Mt. Lebanon	Widening	100%	$ 13,490,000	$ 13,490,000
3-M	P6D-Greenway	Cedar Hill (3)	0.57	Mt. Lebanon to Rocky Acres	Widening	100%	$ 11,394,000	$ 11,394,000
3-N	P6D-Greenway	Cedar Hill (4)	0.98	Rocky Acres to 1,470' N of New Shiloh	New	100%	$ 20,466,000	$ 20,466,000
3-O	P6D-Greenway	Cedar Hill (5)	0.11	1,470' N of New Shiloh to 880' N of New Shiloh	Widening	100%	$ 2,220,000	$ 2,220,000
3-P	C4U-Greenway	Clark (1)	0.61	Little Creek to 580' S of Saturn	Widening	100%	$ 7,818,000	$ 7,818,000
3-Q	C4U-Greenway	Clark (2)	0.88	580' S of Saturn to Future Loop 9	New	100%	$ 16,627,000	$ 16,627,000
3-R	C4U	Clark (3)	0.64	Future Loop 9 to 3,365' S of Future Loop 9	New	100%	$ 7,411,000	$ 7,411,000
3-S	P6D-Greenway	Joe Wilson (2)	1.00	Parkerville to Bear Creek	Widening	100%	$ 19,843,000	$ 19,843,000
3-T	P6D	Joe Wilson (3)	0.68	Bear Creek to South City Limits	Widening	100%	$ 12,503,000	$ 12,503,000
3-U	C2U	Waterford Oaks (1)	0.52	Parkerville to Little Creek	New	100%	$ 6,275,000	$ 6,275,000
3-V	C2U	Waterford Oaks (2)	0.18	Bear Creek to Future Loop 9	New	100%	$ 1,785,000	$ 1,785,000
3-W	M4D-Greenway	Duncanville (2)	1.00	Parkerville to Future Loop 9	Widening	100%	$ 19,945,000	$ 19,945,000
3-X	M4D	Duncanville (3)	0.84	Future Loop 9 to 1,900' S of Spring Hill	Widening	100%	$ 11,307,000	$ 11,307,000
3-Y	M4D	Cockrell Hill (1)	0.68	300' S of Fanny May to South City Limits	Widening	50%	$ 10,526,000	$ 5,263,000
3-Z	M4D	Mt. Lebanon (4)	0.32	US 67 NBFR to 800' E of American	Completed	100%	$ 1,800,000	$ 1,800,000
Intersection Improvements								
I-8		Signal		Parkerville Rd & Joe Wilson Rd		50%	$ 600,000	$ 300,000
I-9		Signal		Duncanville Rd & Parkerville Rd		50%	$ 600,000	$ 300,000
I-10		Interchange		Future Loop 9 & Duncanville Rd		100%	$ 1,000,000	$ 1,000,000
I-11		Interchange		Future Loop 9 & Cockrell Hill Rd		50%	$ 1,000,000	$ 500,000
I-12		Signal		Joe Wilson Rd & Bear Creek Rd		100%	$ 600,000	$ 600,000
I-13		Interchange		Future Loop 9 & Joe Wilson Rd		100%	$ 1,000,000	$ 1,000,000
I-14		Signal		Clark Rd & Rocky Acres Rd/Bear Creek Rd		100%	$ 600,000	$ 600,000
I-15		Interchange		Future Loop 9 & Clark Rd		100%	$ 1,000,000	$ 1,000,000
I-16		Interchange		Future Loop 9 & Cedar Hill Rd		100%	$ 1,000,000	$ 1,000,000
I-19		ITS Master Plan		Service Area 3		25%	$ 3,000,000	$ 750,000
						TOTAL	**$ 238,637,000**	**$ 219,585,500**

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-G, 3-A**

Name:	Parkerville (1)
Limits:	305' E of Joe Wilson to 420' W of Waterford Oaks
Impact Fee Class:	M4D(1/2)-Greenway
Ultimate Class:	Greenway Minor Arterial
Length (lf):	1,554
Service Area(s):	2, 3

This project consists of the construction of the remaining two lanes to complete the four-lane divided greenway minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	2,417	cy	$ 35.00	$ 84,589
212	6" Lime Stabilization (with Lime @ 27#/sy)	4,834	sy	$ 7.50	$ 36,252
312	8" Concrete Pavement w/ 6" Curb	4,316	sy	$ 90.00	$ 388,418
412	4" Topsoil	3,970	sy	$ 10.50	$ 41,690
512	Concrete Sidewalk / Sidepath	18,644	sf	$ 11.11	$ 207,156
612	Turn Lanes and Median Openings	914	sy	$ 132.50	$ 121,169
				Paving Construction Cost Subtotal:	**$ 879,276**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 52,757
√	Traffic Control	Construction Phase Traffic Control	5%	$ 43,964
√	Pavement Markings/Markers		3%	$ 26,378
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
√	Special Drainage Structures	Floodplain Crossing	-	$ 630,000
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 26,378
√	Basic Landscaping/Irrigation		5%	$ 43,964
	Other:		$0	$ -
			Allowance Subtotal:	**$ 823,441**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 1,702,716**
Construction Contingency:	25%	$ 425,679
Construction Cost TOTAL:		**$ 2,129,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,129,000**
Engineering/Survey/Testing:		15%	$ 319,350
Mobilization		6%	$ 127,740
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 212,900
		Impact Fee Project Cost TOTAL:	**$ 2,789,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **2-H, 3-B**

Name:	Parkerville (2)
Limits:	420' W of Waterford Oaks to Duncanville
Impact Fee Class:	M4D-Greenway
Ultimate Class:	Greenway Minor Arterial
Length (lf):	3,414
Service Area(s):	2, 3

This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	10,620	cy	$ 35.00	$ 371,703
208	6" Lime Stabilization (with Lime @ 27#/sy)	21,240	sy	$ 7.50	$ 159,301
308	8" Concrete Pavement w/ 6" Curb	18,964	sy	$ 90.00	$ 1,706,798
408	4" Topsoil	10,620	sy	$ 10.50	$ 111,511
508	Concrete Sidewalk / Sidepath	61,445	sf	$ 11.11	$ 682,719
608	Turn Lanes and Median Openings	2,009	sy	$ 132.50	$ 266,222
				Paving Construction Cost Subtotal:	**$ 3,298,255**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 197,895
√	Traffic Control	Construction Phase Traffic Control	5%	$ 164,913
√	Pavement Markings/Markers		3%	$ 98,948
√	Roadway Drainage	Standard Internal System	35%	$ 1,154,389
√	Illumination		5%	$ 164,913
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 395,791
√	Sewer	Minor Adjustments	8%	$ 263,860
√	Establish Turf / Erosion Control		3%	$ 98,948
√	Basic Landscaping/Irrigation		5%	$ 164,913
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,704,569**

Paving and Allowance Subtotal:		**$ 6,002,823**
Construction Contingency:	25%	$ 1,500,706
Construction Cost TOTAL:		**$ 7,504,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 7,504,000**
Engineering/Survey/Testing:		15%	$ 1,125,600
Mobilization		6%	$ 450,240
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 750,400
		Impact Fee Project Cost TOTAL:	**$ 9,830,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:		**Description:**	**Project No.**	**3-C**
Name:	Parkerville (3)	**This project consists of the construction of a new four-lane divided minor arterial.**		
Limits:	Duncanville to 2,800' E of Duncanville			
Impact Fee Class:	M4D			
Ultimate Class:	Minor Arterial			
Length (lf):	2,798			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	8,703	cy	$ 35.00	$ 304,619
204	6" Lime Stabilization (with Lime @ 27#/sy)	17,407	sy	$ 7.50	$ 130,551
304	8" Concrete Pavement w/ 6" Curb	15,542	sy	$ 90.00	$ 1,398,759
404	4" Topsoil	8,703	sy	$ 10.50	$ 91,386
504	Concrete Sidewalk	33,570	sf	$ 8.33	$ 279,752
604	Turn Lanes and Median Openings	1,647	sy	$ 132.50	$ 218,175
				Paving Construction Cost Subtotal:	**$ 2,423,240**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 145,394
√	Traffic Control	Construction Phase Traffic Control	1%	$ 24,232
√	Pavement Markings/Markers		3%	$ 72,697
√	Roadway Drainage	Standard Internal System	35%	$ 848,134
√	Illumination		5%	$ 121,162
√	Special Drainage Structures	Floodplain Crossing	-	$ 420,000
√	Water	Minor Adjustments	12%	$ 290,789
√	Sewer	Minor Adjustments	8%	$ 193,859
√	Establish Turf / Erosion Control		3%	$ 72,697
√	Basic Landscaping/Irrigation		3%	$ 72,697
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,261,662**

Paving and Allowance Subtotal:		**$ 4,684,903**
Construction Contingency:	25%	$ 1,171,226
Construction Cost TOTAL:		**$ 5,857,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 5,857,000**
Engineering/Survey/Testing:		15%	$ 878,550
Mobilization		6%	$ 351,420
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,171,400
		Impact Fee Project Cost TOTAL:	**$ 8,258,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-D
Name:	Little Creek (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Joe Wilson to Springfield			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	851			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	2,034	cy	$ 35.00	$ 71,174
201	6" Lime Stabilization (with Lime @ 27#/sy)	4,067	sy	$ 7.50	$ 30,503
301	8" Concrete Pavement w/ 6" Curb	3,783	sy	$ 90.00	$ 340,500
401	4" Topsoil	1,135	sy	$ 10.50	$ 11,917
501	Concrete Sidewalk	6,810	sf	$ 8.33	$ 56,750
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 510,844**

Major Construction Component Allowances**:

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 30,651
√	Traffic Control	Construction Phase Traffic Control	1%	$ 5,108
√	Pavement Markings/Markers		3%	$ 15,325
√	Roadway Drainage	Standard Internal System	35%	$ 178,795
√	Illumination		5%	$ 25,542
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 61,301
√	Sewer	Minor Adjustments	8%	$ 40,868
√	Establish Turf / Erosion Control		3%	$ 15,325
√	Basic Landscaping/Irrigation		3%	$ 15,325
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 388,241**
			Paving and Allowance Subtotal:	**$ 899,085**
			Construction Contingency: 25%	$ 224,771
			Construction Cost TOTAL:	**$ 1,124,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,124,000**
Engineering/Survey/Testing:		15%	$ 168,600
Mobilization		6%	$ 67,440
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 224,800
		Impact Fee Project Cost TOTAL:	**$ 1,585,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-E
Name:	Little Creek (2)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Duncanville to 2,315' E of Duncanville			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	2,317			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	5,536	cy	$ 35.00	$ 193,745
201	6" Lime Stabilization (with Lime @ 27#/sy)	11,071	sy	$ 7.50	$ 83,034
301	8" Concrete Pavement w/ 6" Curb	10,299	sy	$ 90.00	$ 926,887
401	4" Topsoil	3,090	sy	$ 10.50	$ 32,441
501	Concrete Sidewalk	18,538	sf	$ 8.33	$ 154,481
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,390,588**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 83,435
√	Traffic Control	Construction Phase Traffic Control	1%	$ 13,906
√	Pavement Markings/Markers		3%	$ 41,718
√	Roadway Drainage	Standard Internal System	35%	$ 486,706
√	Illumination		5%	$ 69,529
√	Special Drainage Structures	Floodplain Crossing	-	$ 3,412,500
√	Water	Minor Adjustments	12%	$ 166,871
√	Sewer	Minor Adjustments	8%	$ 111,247
√	Establish Turf / Erosion Control		3%	$ 41,718
√	Basic Landscaping/Irrigation		3%	$ 41,718
	Other:		$0	$ -
			Allowance Subtotal:	**$ 4,469,347**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 5,859,936**
Construction Contingency:	25%	$ 1,464,984
Construction Cost TOTAL:		**$ 7,325,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 7,325,000**
Engineering/Survey/Testing:		15%	$ 1,098,750
Mobilization		6%	$ 439,500
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,465,000
		Impact Fee Project Cost TOTAL:	**$ 10,328,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:		**Description:**	**Project No.**	**3-F**
Name:	Mt. Lebanon (3)	**This project consists of the reconstruction and widening of the existing section to a three-lane undivided major collector. The City provided a cost estimate for the widening.**		
Limits:	800' E of American to Cedar Hill			
Impact Fee Class:	C3U			
Ultimate Class:	Major Collector			
Length (lf):	1,518			
Service Area(s):	3			

Impact Fee Project Cost Summary			
Item Description	**Notes:**	**Allowance**	**Item Cost**
Construction:		-	**$ 4,200,000**
		Impact Fee Project Cost TOTAL:	**$ 4,200,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-G
Name:	Rocky Acres (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Tar to 150' E of Tar			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	150			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	358	cy	$ 35.00	$ 12,521
201	6" Lime Stabilization (with Lime @ 27#/sy)	715	sy	$ 7.50	$ 5,366
301	8" Concrete Pavement w/ 6" Curb	666	sy	$ 90.00	$ 59,902
401	4" Topsoil	200	sy	$ 10.50	$ 2,097
501	Concrete Sidewalk	1,198	sf	$ 8.33	$ 9,984
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 89,870**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 5,392
√	Traffic Control	Construction Phase Traffic Control	1%	$ 899
√	Pavement Markings/Markers		3%	$ 2,696
√	Roadway Drainage	Standard Internal System	35%	$ 31,455
√	Illumination		5%	$ 4,494
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 10,784
√	Sewer	Minor Adjustments	8%	$ 7,190
√	Establish Turf / Erosion Control		3%	$ 2,696
√	Basic Landscaping/Irrigation		3%	$ 2,696
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 68,301**
			Paving and Allowance Subtotal:	**$ 158,171**
			Construction Contingency: 25%	$ 39,543
			Construction Cost TOTAL:	**$ 198,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 198,000**
Engineering/Survey/Testing:		15%	$ 29,700
Mobilization		6%	$ 11,880
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 39,600
		Impact Fee Project Cost TOTAL:	**$ 279,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-H
Name:	Rocky Acres (2)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	1,930' W of Clark to Clark			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	1,932			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	4,616	cy	$ 35.00	$ 161,556
201	6" Lime Stabilization (with Lime @ 27#/sy)	9,232	sy	$ 7.50	$ 69,238
301	8" Concrete Pavement w/ 6" Curb	8,588	sy	$ 90.00	$ 772,895
401	4" Topsoil	2,576	sy	$ 10.50	$ 27,051
501	Concrete Sidewalk	15,458	sf	$ 8.33	$ 128,816
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,159,557**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 69,573
√	Traffic Control	Construction Phase Traffic Control	1%	$ 11,596
√	Pavement Markings/Markers		3%	$ 34,787
√	Roadway Drainage	Standard Internal System	35%	$ 405,845
√	Illumination		5%	$ 57,978
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 139,147
√	Sewer	Minor Adjustments	8%	$ 92,765
√	Establish Turf / Erosion Control		3%	$ 34,787
√	Basic Landscaping/Irrigation		3%	$ 34,787
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 881,263**
			Paving and Allowance Subtotal:	**$ 2,040,820**
			Construction Contingency: 25%	$ 510,205
			Construction Cost TOTAL:	**$ 2,552,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 2,552,000**
Engineering/Survey/Testing:		15%	$ 382,800
Mobilization		6%	$ 153,120
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 510,400
		Impact Fee Project Cost TOTAL:	**$ 3,598,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-I
Name:	Bear Creek (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Clark to Joe Wilson			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	6,425			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	15,350	cy	$ 35.00	$ 537,239
201	6" Lime Stabilization (with Lime @ 27#/sy)	30,699	sy	$ 7.50	$ 230,245
301	8" Concrete Pavement w/ 6" Curb	28,558	sy	$ 90.00	$ 2,570,180
401	4" Topsoil	8,567	sy	$ 10.50	$ 89,956
501	Concrete Sidewalk	51,404	sf	$ 8.33	$ 428,363
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,855,984**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 231,359
√	Traffic Control	Construction Phase Traffic Control	1%	$ 38,560
√	Pavement Markings/Markers		3%	$ 115,680
√	Roadway Drainage	Standard Internal System	35%	$ 1,349,594
√	Illumination		5%	$ 192,799
√	Special Drainage Structures	Floodplain Crossing	-	$ 1,501,500
√	Water	Minor Adjustments	12%	$ 462,718
√	Sewer	Minor Adjustments	8%	$ 308,479
√	Establish Turf / Erosion Control		3%	$ 115,680
√	Basic Landscaping/Irrigation		3%	$ 115,680
	Other:		$0	$ -
			Allowance Subtotal:	**$ 4,432,047**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 8,288,031**
Construction Contingency:	25%	$ 2,072,008
Construction Cost TOTAL:		**$ 10,361,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 10,361,000**
Engineering/Survey/Testing:		15%	$ 1,554,150
Mobilization		6%	$ 621,660
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 2,072,200
		Impact Fee Project Cost TOTAL:	**$ 14,609,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-J
Name:	Cedar Hill-Clark Collector (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Cedar Hill to Clark			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	3,841			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	9,175	cy	$ 35.00	$ 321,120
201	6" Lime Stabilization (with Lime @ 27#/sy)	18,350	sy	$ 7.50	$ 137,623
301	8" Concrete Pavement w/ 6" Curb	17,069	sy	$ 90.00	$ 1,536,254
401	4" Topsoil	5,121	sy	$ 10.50	$ 53,769
501	Concrete Sidewalk	30,725	sf	$ 8.33	$ 256,042
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 2,304,808**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 138,288
√	Traffic Control	Construction Phase Traffic Control	1%	$ 23,048
√	Pavement Markings/Markers		3%	$ 69,144
√	Roadway Drainage	Standard Internal System	35%	$ 806,683
√	Illumination		5%	$ 115,240
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 276,577
√	Sewer	Minor Adjustments	8%	$ 184,385
√	Establish Turf / Erosion Control		3%	$ 69,144
√	Basic Landscaping/Irrigation		3%	$ 69,144
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,751,654**

Paving and Allowance Subtotal:		**$ 4,056,462**
Construction Contingency:	25%	$ 1,014,115
Construction Cost TOTAL:		**$ 5,071,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 5,071,000**
Engineering/Survey/Testing:		15%	$ 760,650
Mobilization		6%	$ 304,260
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,014,200
		Impact Fee Project Cost TOTAL:	**$ 7,150,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description:		**Project No.**	**3-K**
Name:	Edgefield (1)	**This project consists of the construction of a new two-lane undivided minor collector.**	
Limits:	Edgefield to Future Loop 9		
Impact Fee Class:	C2U		
Ultimate Class:	Minor Collector		
Length (lf):	1,182		
Service Area(s):	3		

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	2,824	cy	$ 35.00	$ 98,825
201	6" Lime Stabilization (with Lime @ 27#/sy)	5,647	sy	$ 7.50	$ 42,354
301	8" Concrete Pavement w/ 6" Curb	5,253	sy	$ 90.00	$ 472,786
401	4" Topsoil	1,576	sy	$ 10.50	$ 16,547
501	Concrete Sidewalk	9,456	sf	$ 8.33	$ 78,798
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 709,310**

Major Construction Component Allowances**:

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 42,559
√	Traffic Control	Construction Phase Traffic Control	1%	$ 7,093
√	Pavement Markings/Markers		3%	$ 21,279
√	Roadway Drainage	Standard Internal System	35%	$ 248,258
√	Illumination		5%	$ 35,465
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 85,117
√	Sewer	Minor Adjustments	8%	$ 56,745
√	Establish Turf / Erosion Control		3%	$ 21,279
√	Basic Landscaping/Irrigation		3%	$ 21,279
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 539,075**

Paving and Allowance Subtotal:		**$ 1,248,385**
Construction Contingency:	25%	$ 312,096
Construction Cost TOTAL:		**$ 1,561,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,561,000**
Engineering/Survey/Testing:		15%	$ 234,150
Mobilization		6%	$ 93,660
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 312,200
		Impact Fee Project Cost TOTAL:	**$ 2,201,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Name:	Cedar Hill (2)	**Description:**	**Project No.** **3-L**
Limits:	US 67 NBFR to Mt. Lebanon	**This project consists of the reconstruction and widening of the existing section to a four-lane undivided greenway major collector.**	
Impact Fee Class:	C4U-Greenway		
Ultimate Class:	Greenway Major Collector		
Length (lf):	5,347		
Service Area(s):	3		

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	14,259	cy	$ 35.00	$ 499,080
207	6" Lime Stabilization (with Lime @ 27#/sy)	28,519	sy	$ 7.50	$ 213,891
307	8" Concrete Pavement w/ 6" Curb	26,736	sy	$ 90.00	$ 2,406,278
407	4" Topsoil	16,042	sy	$ 10.50	$ 168,439
507	Concrete Sidewalk / Sidepath	96,251	sf	$ 11.11	$ 1,069,457
607	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 4,357,145**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 261,429
√	Traffic Control	Construction Phase Traffic Control	5%	$ 217,857
√	Pavement Markings/Markers		3%	$ 130,714
√	Roadway Drainage	Standard Internal System	35%	$ 1,525,001
√	Illumination		5%	$ 217,857
√	Special Drainage Structures	Floodplain Crossing	-	$ 308,000
√	Water	Minor Adjustments	12%	$ 522,857
√	Sewer	Minor Adjustments	8%	$ 348,572
√	Establish Turf / Erosion Control		3%	$ 130,714
√	Basic Landscaping/Irrigation		5%	$ 217,857
	Other:		$0	$ -
			Allowance Subtotal:	**$ 3,880,859**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 8,238,004**
Construction Contingency:	25%	$ 2,059,501
Construction Cost TOTAL:		**$ 10,298,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 10,298,000**
Engineering/Survey/Testing:		15%	$ 1,544,700
Mobilization		6%	$ 617,880
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 1,029,800
		Impact Fee Project Cost TOTAL:	**$ 13,490,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-M
Name:	Cedar Hill (3)	**This project consists of the reconstruction and widening of the existing section to a six-lane divided greenway principal arterial.**		
Limits:	Mt. Lebanon to Rocky Acres			
Impact Fee Class:	P6D-Greenway			
Ultimate Class:	Greenway Principal Arterial			
Length (lf):	3,023			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	13,101	cy	$ 35.00	$ 458,527
209	6" Lime Stabilization (with Lime @ 27#/sy)	26,202	sy	$ 7.50	$ 196,511
309	10" Concrete Pavement w/ 6" Curb	24,186	sy	$ 92.00	$ 2,225,115
409	4" Topsoil	9,406	sy	$ 10.50	$ 98,760
509	Concrete Sidewalk / Sidepath	54,419	sf	$ 11.11	$ 604,651
609	Turn Lanes and Median Openings	1,779	sy	$ 134.50	$ 239,339
				Paving Construction Cost Subtotal:	**$ 3,822,902**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 229,374
√	Traffic Control	Construction Phase Traffic Control	5%	$ 191,145
√	Pavement Markings/Markers		3%	$ 114,687
√	Roadway Drainage	Standard Internal System	35%	$ 1,338,016
√	Illumination		5%	$ 191,145
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 458,748
√	Sewer	Minor Adjustments	8%	$ 305,832
√	Establish Turf / Erosion Control		3%	$ 114,687
√	Basic Landscaping/Irrigation		5%	$ 191,145
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 3,134,779**
			Paving and Allowance Subtotal:	**$ 6,957,681**
			Construction Contingency: 25%	$ 1,739,420
			Construction Cost TOTAL:	**$ 8,698,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 8,698,000**
Engineering/Survey/Testing:		15%	$ 1,304,700
Mobilization		6%	$ 521,880
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 869,800
		Impact Fee Project Cost TOTAL:	**$ 11,394,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description:		**Project No.**	**3-N**
Name:	Cedar Hill (4)	**This project consists of the construction of a new six-lane divided greenway principal arterial.**	
Limits:	Rocky Acres to 1,470' N of New Shiloh		
Impact Fee Class:	P6D-Greenway		
Ultimate Class:	Greenway Principal Arterial		
Length (lf):	5,159		
Service Area(s):	3		

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	22,356	cy	$ 35.00	$ 782,450
209	6" Lime Stabilization (with Lime @ 27#/sy)	44,711	sy	$ 7.50	$ 335,336
309	10" Concrete Pavement w/ 6" Curb	41,272	sy	$ 92.00	$ 3,797,033
409	4" Topsoil	16,050	sy	$ 10.50	$ 168,528
509	Concrete Sidewalk / Sidepath	92,862	sf	$ 11.11	$ 1,031,802
609	Turn Lanes and Median Openings	3,037	sy	$ 134.50	$ 408,418
				Paving Construction Cost Subtotal:	**$ 6,523,567**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 391,414
√	Traffic Control	Construction Phase Traffic Control	1%	$ 65,236
√	Pavement Markings/Markers		3%	$ 195,707
√	Roadway Drainage	Standard Internal System	35%	$ 2,283,248
√	Illumination		5%	$ 326,178
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 782,828
√	Sewer	Minor Adjustments	8%	$ 521,885
√	Establish Turf / Erosion Control		3%	$ 195,707
√	Basic Landscaping/Irrigation		5%	$ 326,178
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 5,088,382**
			Paving and Allowance Subtotal:	**$ 11,611,949**
			Construction Contingency: 25%	$ 2,902,987
			Construction Cost TOTAL:	**$ 14,515,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 14,515,000**
Engineering/Survey/Testing:		15%	$ 2,177,250
Mobilization		6%	$ 870,900
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 2,903,000
		Impact Fee Project Cost TOTAL:	**$ 20,466,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **3-O**

Name:	Cedar Hill (5)
Limits:	1,470' N of New Shiloh to 880' N of New Shiloh
Impact Fee Class:	P6D-Greenway
Ultimate Class:	Greenway Principal Arterial
Length (lf):	589
Service Area(s):	3

This project consists of the reconstruction and widening of the existing section to a six-lane divided greenway principal arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	2,553	cy	$ 35.00	$ 89,349
209	6" Lime Stabilization (with Lime @ 27#/sy)	5,106	sy	$ 7.50	$ 38,292
309	10" Concrete Pavement w/ 6" Curb	4,713	sy	$ 92.00	$ 433,586
409	4" Topsoil	1,833	sy	$ 10.50	$ 19,244
509	Concrete Sidewalk / Sidepath	10,604	sf	$ 11.11	$ 117,822
609	Turn Lanes and Median Openings	347	sy	$ 134.50	$ 46,638
				Paving Construction Cost Subtotal:	**$ 744,931**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 44,696
√	Traffic Control	Construction Phase Traffic Control	5%	$ 37,247
√	Pavement Markings/Markers		3%	$ 22,348
√	Roadway Drainage	Standard Internal System	35%	$ 260,726
√	Illumination		5%	$ 37,247
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 89,392
√	Sewer	Minor Adjustments	8%	$ 59,594
√	Establish Turf / Erosion Control		3%	$ 22,348
√	Basic Landscaping/Irrigation		5%	$ 37,247
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 610,843**

Paving and Allowance Subtotal:		**$ 1,355,774**
Construction Contingency:	25%	$ 338,944
Construction Cost TOTAL:		**$ 1,695,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,695,000**
Engineering/Survey/Testing:		15%	$ 254,250
Mobilization		6%	$ 101,700
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 169,500
		Impact Fee Project Cost TOTAL:	**$ 2,220,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-P
Name:	Clark (1)	**This project consists of the reconstruction and widening of the existing section to a four-lane undivided greenway major collector.**		
Limits:	Little Creek to 580' S of Saturn			
Impact Fee Class:	C4U-Greenway			
Ultimate Class:	Greenway Major Collector			
Length (lf):	3,219			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	8,584	cy	$ 35.00	$ 300,431
207	6" Lime Stabilization (with Lime @ 27#/sy)	17,167	sy	$ 7.50	$ 128,756
307	8" Concrete Pavement w/ 6" Curb	16,095	sy	$ 90.00	$ 1,448,506
407	4" Topsoil	9,657	sy	$ 10.50	$ 101,395
507	Concrete Sidewalk / Sidepath	57,940	sf	$ 11.11	$ 643,780
607	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 2,622,869**

Major Construction Component Allowances**:

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 157,372
√	Traffic Control	Construction Phase Traffic Control	5%	$ 131,143
√	Pavement Markings/Markers		3%	$ 78,686
√	Roadway Drainage	Standard Internal System	35%	$ 918,004
√	Illumination		5%	$ 131,143
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 314,744
√	Sewer	Minor Adjustments	8%	$ 209,829
√	Establish Turf / Erosion Control		3%	$ 78,686
√	Basic Landscaping/Irrigation		5%	$ 131,143
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,150,752**
			Paving and Allowance Subtotal:	**$ 4,773,621**
			Construction Contingency: 25%	$ 1,193,405
			Construction Cost TOTAL:	**$ 5,968,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 5,968,000**
Engineering/Survey/Testing:		15%	$ 895,200
Mobilization		6%	$ 358,080
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 596,800
		Impact Fee Project Cost TOTAL:	**$ 7,818,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description:		**Project No.**	**3-Q**
Name:	Clark (2)	**This project consists of the construction of a new four-lane undivided greenway major collector.**	
Limits:	580' S of Saturn to Future Loop 9		
Impact Fee Class:	C4U-Greenway		
Ultimate Class:	Greenway Major Collector		
Length (lf):	4,646		
Service Area(s):	3		

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	12,389	cy	$ 35.00	$ 433,626
207	6" Lime Stabilization (with Lime @ 27#/sy)	24,779	sy	$ 7.50	$ 185,840
307	8" Concrete Pavement w/ 6" Curb	23,230	sy	$ 90.00	$ 2,090,699
407	4" Topsoil	13,938	sy	$ 10.50	$ 146,349
507	Concrete Sidewalk / Sidepath	83,628	sf	$ 11.11	$ 929,199
607	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,785,713**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 227,143
√	Traffic Control	Construction Phase Traffic Control	1%	$ 37,857
√	Pavement Markings/Markers		3%	$ 113,571
√	Roadway Drainage	Standard Internal System	35%	$ 1,325,000
√	Illumination		5%	$ 189,286
√	Special Drainage Structures	Floodplain Crossing	-	$ 2,695,000
√	Water	Minor Adjustments	12%	$ 454,286
√	Sewer	Minor Adjustments	8%	$ 302,857
√	Establish Turf / Erosion Control		3%	$ 113,571
√	Basic Landscaping/Irrigation		5%	$ 189,286
	Other:		$0	$ -
			Allowance Subtotal:	**$ 5,647,857**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 9,433,570**
Construction Contingency:	25%	$ 2,358,393
Construction Cost TOTAL:		**$ 11,792,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 11,792,000**
Engineering/Survey/Testing:		15%	$ 1,768,800
Mobilization		6%	$ 707,520
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 2,358,400
		Impact Fee Project Cost TOTAL:	**$ 16,627,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **3-R**

Name:	Clark (3)
Limits:	Future Loop 9 to 3,365' S of Future Loop 9
Impact Fee Class:	C4U
Ultimate Class:	Major Collector
Length (lf):	3,364
Service Area(s):	3

This project consists of the construction of a new four-lane undivided major collector.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	8,970	cy	$ 35.00	$ 313,963
203	6" Lime Stabilization (with Lime @ 27#/sy)	17,941	sy	$ 7.50	$ 134,556
303	8" Concrete Pavement w/ 6" Curb	16,819	sy	$ 90.00	$ 1,513,751
403	4" Topsoil	8,597	sy	$ 10.50	$ 90,264
503	Concrete Sidewalk	40,367	sf	$ 8.33	$ 336,389
603	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 2,388,923**

Major Construction Component Allowances**:

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 143,335
√	Traffic Control	Construction Phase Traffic Control	1%	$ 23,889
√	Pavement Markings/Markers		3%	$ 71,668
√	Roadway Drainage	Standard Internal System	35%	$ 836,123
√	Illumination		5%	$ 119,446
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 286,671
√	Sewer	Minor Adjustments	8%	$ 191,114
√	Establish Turf / Erosion Control		3%	$ 71,668
√	Basic Landscaping/Irrigation		3%	$ 71,668
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,815,582**

Paving and Allowance Subtotal:		**$ 4,204,505**
Construction Contingency:	25%	$ 1,051,126
Construction Cost TOTAL:		**$ 5,256,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 5,256,000**
Engineering/Survey/Testing:		15%	$ 788,400
Mobilization		6%	$ 315,360
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 1,051,200
		Impact Fee Project Cost TOTAL:	**$ 7,411,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-S
Name:	Joe Wilson (2)	**This project consists of the reconstruction and widening of the existing section to a six-lane divided greenway principal arterial.**		
Limits:	Parkerville to Bear Creek			
Impact Fee Class:	P6D-Greenway			
Ultimate Class:	Greenway Principal Arterial			
Length (lf):	5,265			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	22,815	cy	$ 35.00	$ 798,528
209	6" Lime Stabilization (with Lime @ 27#/sy)	45,630	sy	$ 7.50	$ 342,226
309	10" Concrete Pavement w/ 6" Curb	42,120	sy	$ 92.00	$ 3,875,052
409	4" Topsoil	16,380	sy	$ 10.50	$ 171,991
509	Concrete Sidewalk / Sidepath	94,770	sf	$ 11.11	$ 1,053,003
609	Turn Lanes and Median Openings	3,099	sy	$ 134.50	$ 416,810
				Paving Construction Cost Subtotal:	**$ 6,657,610**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 399,457
√	Traffic Control	Construction Phase Traffic Control	5%	$ 332,880
√	Pavement Markings/Markers		3%	$ 199,728
√	Roadway Drainage	Standard Internal System	35%	$ 2,330,163
√	Illumination		5%	$ 332,880
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 798,913
√	Sewer	Minor Adjustments	8%	$ 532,609
√	Establish Turf / Erosion Control		3%	$ 199,728
√	Basic Landscaping/Irrigation		5%	$ 332,880
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 5,459,240**
			Paving and Allowance Subtotal:	**$ 12,116,849**
			Construction Contingency: 25%	$ 3,029,212
			Construction Cost TOTAL:	**$ 15,147,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 15,147,000**
Engineering/Survey/Testing:		15%	$ 2,272,050
Mobilization		6%	$ 908,820
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 1,514,700
		Impact Fee Project Cost TOTAL:	**$ 19,843,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-T
Name:	Joe Wilson (3)	**This project consists of the reconstruction and widening of the existing section to a six-lane divided principal arterial.**		
Limits:	Bear Creek to South City Limits			
Impact Fee Class:	P6D			
Ultimate Class:	Principal Arterial			
Length (lf):	3,578			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	15,505	cy	$ 35.00	$ 542,688
205	6" Lime Stabilization (with Lime @ 27#/sy)	31,011	sy	$ 7.50	$ 232,581
305	8" Concrete Pavement w/ 6" Curb	28,625	sy	$ 90.00	$ 2,576,277
405	4" Topsoil	11,132	sy	$ 10.50	$ 116,887
505	Concrete Sidewalk	42,938	sf	$ 8.33	$ 357,816
605	Turn Lanes and Median Openings	2,106	sy	$ 132.50	$ 279,056
				Paving Construction Cost Subtotal:	**$ 4,105,304**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 246,318
√	Traffic Control	Construction Phase Traffic Control	5%	$ 205,265
√	Pavement Markings/Markers		3%	$ 123,159
√	Roadway Drainage	Standard Internal System	35%	$ 1,436,856
√	Illumination		5%	$ 205,265
√	Special Drainage Structures	Floodplain Crossing	0%	$ 245,000
√	Water	Minor Adjustments	12%	$ 492,636
√	Sewer	Minor Adjustments	8%	$ 328,424
√	Establish Turf / Erosion Control		3%	$ 123,159
√	Basic Landscaping/Irrigation		3%	$ 123,159
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 3,529,243**
			Paving and Allowance Subtotal:	**$ 7,634,547**
			Construction Contingency: 25%	$ 1,908,637
			Construction Cost TOTAL:	**$ 9,544,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 9,544,000**
Engineering/Survey/Testing:		15%	$ 1,431,600
Mobilization		6%	$ 572,640
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 954,400
		Impact Fee Project Cost TOTAL:	**$ 12,503,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-U
Name:	Waterford Oaks (1)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Parkerville to Little Creek			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	2,724			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	6,507	cy	$ 35.00	$ 227,735
201	6" Lime Stabilization (with Lime @ 27#/sy)	13,013	sy	$ 7.50	$ 97,601
301	8" Concrete Pavement w/ 6" Curb	12,106	sy	$ 90.00	$ 1,089,498
401	4" Topsoil	3,632	sy	$ 10.50	$ 38,132
501	Concrete Sidewalk	21,790	sf	$ 8.33	$ 181,583
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,634,549**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 98,073
√	Traffic Control	Construction Phase Traffic Control	1%	$ 16,345
√	Pavement Markings/Markers		3%	$ 49,036
√	Roadway Drainage	Standard Internal System	35%	$ 572,092
√	Illumination		5%	$ 81,727
√	Special Drainage Structures	Floodplain Crossing	-	$ 682,500
√	Water	Minor Adjustments	12%	$ 196,146
√	Sewer	Minor Adjustments	8%	$ 130,764
√	Establish Turf / Erosion Control		3%	$ 49,036
√	Basic Landscaping/Irrigation		3%	$ 49,036
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,924,757**
			Paving and Allowance Subtotal:	**$ 3,559,306**
			Construction Contingency: 25%	$ 889,827
			Construction Cost TOTAL:	**$ 4,450,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 4,450,000**
Engineering/Survey/Testing:		15%	$ 667,500
Mobilization		6%	$ 267,000
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 890,000
		Impact Fee Project Cost TOTAL:	**$ 6,275,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-V
Name:	Waterford Oaks (2)	**This project consists of the construction of a new two-lane undivided minor collector.**		
Limits:	Bear Creek to Future Loop 9			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	959			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	2,290	cy	$ 35.00	$ 80,160
201	6" Lime Stabilization (with Lime @ 27#/sy)	4,581	sy	$ 7.50	$ 34,354
301	8" Concrete Pavement w/ 6" Curb	4,261	sy	$ 90.00	$ 383,489
401	4" Topsoil	1,278	sy	$ 10.50	$ 13,422
501	Concrete Sidewalk	7,670	sf	$ 8.33	$ 63,915
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 575,341**

Major Construction Component Allowances**:

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 34,520
√	Traffic Control	Construction Phase Traffic Control	1%	$ 5,753
√	Pavement Markings/Markers		3%	$ 17,260
√	Roadway Drainage	Standard Internal System	35%	$ 201,369
√	Illumination		5%	$ 28,767
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 69,041
√	Sewer	Minor Adjustments	8%	$ 46,027
√	Establish Turf / Erosion Control		3%	$ 17,260
√	Basic Landscaping/Irrigation		3%	$ 17,260
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 437,259**
			Paving and Allowance Subtotal:	**$ 1,012,600**
			Construction Contingency: 25%	$ 253,150
			Construction Cost TOTAL:	**$ 1,266,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,266,000**
Engineering/Survey/Testing:		15%	$ 189,900
Mobilization		6%	$ 75,960
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 253,200
		Impact Fee Project Cost TOTAL:	**$ 1,785,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	3-W
Name:	Duncanville (2)	**This project consists of the reconstruction and widening of the existing section to a four-lane divided greenway minor arterial.**		
Limits:	Parkerville to Future Loop 9			
Impact Fee Class:	M4D-Greenway			
Ultimate Class:	Greenway Minor Arterial			
Length (lf):	5,254			
Service Area(s):	3			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	16,346	cy	$ 35.00	$ 572,114
208	6" Lime Stabilization (with Lime @ 27#/sy)	32,692	sy	$ 7.50	$ 245,192
308	8" Concrete Pavement w/ 6" Curb	29,189	sy	$ 90.00	$ 2,627,053
408	4" Topsoil	16,346	sy	$ 10.50	$ 171,634
508	Concrete Sidewalk / Sidepath	94,574	sf	$ 11.11	$ 1,050,821
608	Turn Lanes and Median Openings	3,093	sy	$ 132.50	$ 409,761
				Paving Construction Cost Subtotal:	**$ 5,076,574**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 304,594
√	Traffic Control	Construction Phase Traffic Control	5%	$ 253,829
√	Pavement Markings/Markers		3%	$ 152,297
√	Roadway Drainage	Standard Internal System	35%	$ 1,776,801
√	Illumination		5%	$ 253,829
√	Special Drainage Structures	Floodplain Crossing	-	$ 2,940,000
√	Water	Minor Adjustments	12%	$ 609,189
√	Sewer	Minor Adjustments	8%	$ 406,126
√	Establish Turf / Erosion Control		3%	$ 152,297
√	Basic Landscaping/Irrigation		5%	$ 253,829
	Other:		$0	$ -
			Allowance Subtotal:	**$ 7,102,791**

Paving and Allowance Subtotal:		**$ 12,179,365**
Construction Contingency:	25%	$ 3,044,841
Construction Cost TOTAL:		**$ 15,225,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 15,225,000**
Engineering/Survey/Testing:		15%	$ 2,283,750
Mobilization		6%	$ 913,500
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 1,522,500
		Impact Fee Project Cost TOTAL:	**$ 19,945,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **3-X**

Name:	Duncanville (3)
Limits:	Future Loop 9 to 1,900' S of Spring Hill
Impact Fee Class:	M4D
Ultimate Class:	Minor Arterial
Length (lf):	4,428
Service Area(s):	3

This project consists of the reconstruction and widening of the existing section to a four-lane divided minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	13,777	cy	$ 35.00	$ 482,179
204	6" Lime Stabilization (with Lime @ 27#/sy)	27,553	sy	$ 7.50	$ 206,648
304	8" Concrete Pavement w/ 6" Curb	24,601	sy	$ 90.00	$ 2,214,086
404	4" Topsoil	13,777	sy	$ 10.50	$ 144,654
504	Concrete Sidewalk	53,138	sf	$ 8.33	$ 442,817
604	Turn Lanes and Median Openings	2,606	sy	$ 132.50	$ 345,348
				Paving Construction Cost Subtotal:	**$ 3,835,731**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 230,144
√	Traffic Control	Construction Phase Traffic Control	5%	$ 191,787
√	Pavement Markings/Markers		3%	$ 115,072
√	Roadway Drainage	Standard Internal System	35%	$ 1,342,506
√	Illumination		5%	$ 191,787
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 460,288
√	Sewer	Minor Adjustments	8%	$ 306,858
√	Establish Turf / Erosion Control		3%	$ 115,072
√	Basic Landscaping/Irrigation		3%	$ 115,072
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 3,068,585**

Paving and Allowance Subtotal:		**$ 6,904,316**
Construction Contingency:	25%	$ 1,726,079
Construction Cost TOTAL:		**$ 8,631,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 8,631,000**
Engineering/Survey/Testing:		15%	$ 1,294,650
Mobilization		6%	$ 517,860
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 863,100
		Impact Fee Project Cost TOTAL:	**$ 11,307,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **3-Y**

Name:	Cockrell Hill (1)
Limits:	300' S of Fanny May to South City Limits
Impact Fee Class:	M4D
Ultimate Class:	Minor Arterial
Length (lf):	3,584
Service Area(s):	3

This project consists of the reconstruction and widening of the existing section to a four-lane divided minor arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	11,149	cy	$ 35.00	$ 390,227
204	6" Lime Stabilization (with Lime @ 27#/sy)	22,299	sy	$ 7.50	$ 167,240
304	8" Concrete Pavement w/ 6" Curb	19,910	sy	$ 90.00	$ 1,791,861
404	4" Topsoil	11,149	sy	$ 10.50	$ 117,068
504	Concrete Sidewalk	43,005	sf	$ 8.33	$ 358,372
604	Turn Lanes and Median Openings	2,109	sy	$ 132.50	$ 279,490
				Paving Construction Cost Subtotal:	**$ 3,104,259**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 186,256
√	Traffic Control	Construction Phase Traffic Control	5%	$ 155,213
√	Pavement Markings/Markers		3%	$ 93,128
√	Roadway Drainage	Standard Internal System	35%	$ 1,086,491
√	Illumination		5%	$ 155,213
√	Special Drainage Structures	Floodplain Crossing	-	$ 840,000
√	Water	Minor Adjustments	12%	$ 372,511
√	Sewer	Minor Adjustments	8%	$ 248,341
√	Establish Turf / Erosion Control		3%	$ 93,128
√	Basic Landscaping/Irrigation		3%	$ 93,128
	Other:		$0	$ -
			Allowance Subtotal:	**$ 3,323,407**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 6,427,666**
Construction Contingency:	25%	$ 1,606,917
Construction Cost TOTAL:		**$ 8,035,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 8,035,000**
Engineering/Survey/Testing:		15%	$ 1,205,250
Mobilization		6%	$ 482,100
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 803,500
		Impact Fee Project Cost TOTAL:	**$ 10,526,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:		**Description:**	**Project No.**	**3-Z**
Name:	Mt. Lebanon (4)	**This project consisted of the reconstruction and widening of the existing section to a three-lane undivided major collector. The City provided the cost for the widening.**		
Limits:	US 67 NBFR to 800' E of American			
Impact Fee Class:	M4D			
Ultimate Class:	Minor Arterial			
Length (lf):	1,669			
Service Area(s):	3			

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,800,000**
		Impact Fee Project Cost TOTAL:	**$ 1,800,000**

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City of Cedar Hill - 2024 Roadway Impact Fee Update

Capital Improvement Plan for Roadway Impact Fees

Summary of Conceptual Level Project Cost Projections

Roadway Improvements - Service Area 4

#	Class	Project	Length (mi)	Limits	Status	% in Service Area	Total Project Cost	Cost in Service Area
1-C, 4-A	P6D(1/3)-Greenway	Mansfield (1)	2.21	West City Limits to Belt Line	Widening 1/3	50%	$ 8,666,000	$ 4,333,000
4-B	C2U-Greenway	Cooper (1)	0.45	Belt Line to Railroad	New	100%	$ 5,223,000	$ 5,223,000
4-C	C2U	Cedarview (1)	0.39	Plateau to Railroad	Widening	100%	$ 4,247,000	$ 4,247,000
4-D	C4U-Greenway	Texas Plume (1)	1.35	Lake Ridge to Mt. Lebanon	Widening	100%	$ 17,373,000	$ 17,373,000
4-E	C2U	Texas Plume-Lake Ridge Collector (1)	0.20	Texas Plume to Lake Ridge	New	100%	$ 1,991,000	$ 1,991,000
4-F	C4U-Greenway	Mt. Lebanon (1)	0.75	US 67 to Texas Plume	Widening	100%	$ 9,563,000	$ 9,563,000
4-G	C2U	Mt. Lebanon (2)	0.43	Texas Plume to Lake Ridge	New	100%	$ 4,238,000	$ 4,238,000
Intersection Improvements								
I-1		Modification		Mansfield Rd & Lakeview Dr		50%	$ 250,000	$ 125,000
I-2		Signal		Mansfield Rd & Cooper St		50%	$ 600,000	$ 300,000
I-17		Signal		Prairie View Blvd & Lake Ridge Pkwy		100%	$ 600,000	$ 600,000
I-19		ITS Master Plan		Service Area 4		25%	$ 3,000,000	$ 750,000
						TOTAL	**$ 55,751,000**	**$ 48,743,000**

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

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **1-C, 4-A**

Name:	Mansfield (1)
Limits:	West City Limits to Belt Line
Impact Fee Class:	P6D(1/3)-Greenway
Ultimate Class:	Greenway Principal Arterial
Length (lf):	11,669
Service Area(s):	1, 4

This project consists of the construction of an additional two lanes to complete the six-lane divided greenway principal arterial.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	18,152	cy	$ 35.00	$ 635,316
213	6" Lime Stabilization (with Lime @ 27#/sy)	36,304	sy	$ 7.50	$ 272,278
313	10" Concrete Pavement w/ 6" Curb	32,414	sy	$ 92.00	$ 2,982,095
413	4" Topsoil	0	sy	$ 10.50	$ -
513	Concrete Sidewalk / Sidepath	0	sf	$ 11.11	$ -
613	Turn Lanes and Median Openings	0	sy	$ 134.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,889,689**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 233,381
√	Traffic Control	Construction Phase Traffic Control	5%	$ 194,484
√	Pavement Markings/Markers		3%	$ 116,691
	Roadway Drainage	None Anticipated	0%	$ -
	Illumination		0%	$ -
√	Special Drainage Structures	Floodplain Crossing	-	$ 546,000
	Water	None Anticipated	0%	$ -
	Sewer	None Anticipated	0%	$ -
√	Establish Turf / Erosion Control		3%	$ 116,691
√	Basic Landscaping/Irrigation		5%	$ 194,484
	Other:		$0	$ -
			Allowance Subtotal:	**$ 1,401,732**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 5,291,421**
Construction Contingency:	25%	$ 1,322,855
Construction Cost TOTAL:		**$ 6,615,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 6,615,000**
Engineering/Survey/Testing:		15%	$ 992,250
Mobilization		6%	$ 396,900
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 661,500
		Impact Fee Project Cost TOTAL:	**$ 8,666,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Name:	Cooper (1)	**Description:**	**Project No. 4-B**
Limits:	Belt Line to Railroad	**This project consists of the construction of a new two-lane undivided greenway minor collector.**	
Impact Fee Class:	C2U-Greenway		
Ultimate Class:	Greenway Minor Collector		
Length (lf):	2,355		
Service Area(s):	4		

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	4,449	cy	$ 35.00	$ 155,708
206	6" Lime Stabilization (with Lime @ 27#/sy)	8,898	sy	$ 7.50	$ 66,732
306	8" Concrete Pavement w/ 6" Curb	8,113	sy	$ 90.00	$ 730,125
406	4" Topsoil	2,879	sy	$ 10.50	$ 30,226
506	Concrete Sidewalk / Sidepath	42,394	sf	$ 11.11	$ 471,049
606	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,453,839**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 87,230
√	Traffic Control	Construction Phase Traffic Control	1%	$ 14,538
√	Pavement Markings/Markers		3%	$ 43,615
√	Roadway Drainage	Standard Internal System	35%	$ 508,844
√	Illumination		5%	$ 72,692
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 174,461
√	Sewer	Minor Adjustments	8%	$ 116,307
√	Establish Turf / Erosion Control		3%	$ 43,615
√	Basic Landscaping/Irrigation		5%	$ 72,692
√	Other:	50% of Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,508,995**
			Paving and Allowance Subtotal:	**$ 2,962,834**
			Construction Contingency: 25%	$ 740,708
			Construction Cost TOTAL:	**$ 3,704,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 3,704,000**
Engineering/Survey/Testing:		15%	$ 555,600
Mobilization		6%	$ 222,240
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 740,800
		Impact Fee Project Cost TOTAL:	**$ 5,223,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	4-C
Name:	Cedarview (1)	**This project consists of the reconstruction and widening of the existing section to a two-lane undivided minor collector.**		
Limits:	Plateau to Railroad			
Impact Fee Class:	C2U			
Ultimate Class:	Minor Collector			
Length (lf):	2,053			
Service Area(s):	4			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	4,905	cy	$ 35.00	$ 171,677
201	6" Lime Stabilization (with Lime @ 27#/sy)	9,810	sy	$ 7.50	$ 73,576
301	8" Concrete Pavement w/ 6" Curb	9,126	sy	$ 90.00	$ 821,312
401	4" Topsoil	2,738	sy	$ 10.50	$ 28,746
501	Concrete Sidewalk	16,426	sf	$ 8.33	$ 136,885
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,232,196**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 73,932
√	Traffic Control	Construction Phase Traffic Control	5%	$ 61,610
√	Pavement Markings/Markers		3%	$ 36,966
√	Roadway Drainage	Standard Internal System	35%	$ 431,269
√	Illumination		5%	$ 61,610
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 147,864
√	Sewer	Minor Adjustments	8%	$ 98,576
√	Establish Turf / Erosion Control		3%	$ 36,966
√	Basic Landscaping/Irrigation		3%	$ 36,966
√	Other:	50% of Railroad Crossing		$ 375,000
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 1,360,757**
			Paving and Allowance Subtotal:	**$ 2,592,953**
			Construction Contingency: 25%	$ 648,238
			Construction Cost TOTAL:	**$ 3,242,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 3,242,000**
Engineering/Survey/Testing:		15%	$ 486,300
Mobilization		6%	$ 194,520
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 324,200
		Impact Fee Project Cost TOTAL:	**$ 4,247,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	4-D
Name:	Texas Plume (1)	**This project consists of the reconstruction and widening of the existing section to a four-lane undivided greenway major collector.**		
Limits:	Lake Ridge to Mt. Lebanon			
Impact Fee Class:	C4U-Greenway			
Ultimate Class:	Greenway Major Collector			
Length (lf):	7,154			
Service Area(s):	4			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	19,077	cy	$ 35.00	$ 667,689
207	6" Lime Stabilization (with Lime @ 27#/sy)	38,154	sy	$ 7.50	$ 286,152
307	8" Concrete Pavement w/ 6" Curb	35,769	sy	$ 90.00	$ 3,219,213
407	4" Topsoil	21,461	sy	$ 10.50	$ 225,345
507	Concrete Sidewalk / Sidepath	128,769	sf	$ 11.11	$ 1,430,761
607	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 5,829,160**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 349,750
√	Traffic Control	Construction Phase Traffic Control	5%	$ 291,458
√	Pavement Markings/Markers		3%	$ 174,875
√	Roadway Drainage	Standard Internal System	35%	$ 2,040,206
√	Illumination		5%	$ 291,458
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 699,499
√	Sewer	Minor Adjustments	8%	$ 466,333
√	Establish Turf / Erosion Control		3%	$ 174,875
√	Basic Landscaping/Irrigation		5%	$ 291,458
	Other:		$0	$ -
			Allowance Subtotal:	**$ 4,779,911**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 10,609,072**
Construction Contingency:	25%	$ 2,652,268
Construction Cost TOTAL:		**$ 13,262,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 13,262,000**
Engineering/Survey/Testing:		15%	$ 1,989,300
Mobilization		6%	$ 795,720
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 1,326,200
		Impact Fee Project Cost TOTAL:	**$ 17,373,000**

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City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **4-E**

Name:	Texas Plume-Lake Ridge Collector (1)
Limits:	Texas Plume to Lake Ridge
Impact Fee Class:	C2U
Ultimate Class:	Minor Collector
Length (lf):	1,069
Service Area(s):	4

This project consists of the construction of a new two-lane undivided minor collector.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	2,554	cy	$ 35.00	$ 89,387
201	6" Lime Stabilization (with Lime @ 27#/sy)	5,108	sy	$ 7.50	$ 38,309
301	8" Concrete Pavement w/ 6" Curb	4,751	sy	$ 90.00	$ 427,634
401	4" Topsoil	1,425	sy	$ 10.50	$ 14,967
501	Concrete Sidewalk	8,553	sf	$ 8.33	$ 71,272
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 641,569**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 38,494
√	Traffic Control	Construction Phase Traffic Control	1%	$ 6,416
√	Pavement Markings/Markers		3%	$ 19,247
√	Roadway Drainage	Standard Internal System	35%	$ 224,549
√	Illumination		5%	$ 32,078
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 76,988
√	Sewer	Minor Adjustments	8%	$ 51,326
√	Establish Turf / Erosion Control		3%	$ 19,247
√	Basic Landscaping/Irrigation		3%	$ 19,247
	Other:		$0	$ -
			Allowance Subtotal:	**$ 487,593**

Paving and Allowance Subtotal:		**$ 1,129,162**
Construction Contingency:	25%	$ 282,291
Construction Cost TOTAL:		**$ 1,412,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 1,412,000**
Engineering/Survey/Testing:		15%	$ 211,800
Mobilization		6%	$ 84,720
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 282,400
		Impact Fee Project Cost TOTAL:	**$ 1,991,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

		Description:	Project No.	4-F
Name:	Mt. Lebanon (1)	**This project consists of the reconstruction and widening of the existing section to a four-lane undivided greenway major collector.**		
Limits:	US 67 to Texas Plume			
Impact Fee Class:	C4U-Greenway			
Ultimate Class:	Greenway Major Collector			
Length (lf):	3,938			
Service Area(s):	4			

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	10,500	cy	$ 35.00	$ 367,500
207	6" Lime Stabilization (with Lime @ 27#/sy)	21,000	sy	$ 7.50	$ 157,500
307	8" Concrete Pavement w/ 6" Curb	19,688	sy	$ 90.00	$ 1,771,875
407	4" Topsoil	11,813	sy	$ 10.50	$ 124,031
507	Concrete Sidewalk / Sidepath	70,875	sf	$ 11.11	$ 787,500
607	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 3,208,407**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 192,504
√	Traffic Control	Construction Phase Traffic Control	5%	$ 160,420
√	Pavement Markings/Markers		3%	$ 96,252
√	Roadway Drainage	Standard Internal System	35%	$ 1,122,942
√	Illumination		5%	$ 160,420
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 385,009
√	Sewer	Minor Adjustments	8%	$ 256,673
√	Establish Turf / Erosion Control		3%	$ 96,252
√	Basic Landscaping/Irrigation		5%	$ 160,420
	Other:		$0	$ -
	**Allowances based on % of Paving Construction Cost Subtotal		**Allowance Subtotal:**	**$ 2,630,893**
			Paving and Allowance Subtotal:	**$ 5,839,300**
			Construction Contingency: 25%	$ 1,459,825
			Construction Cost TOTAL:	**$ 7,300,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 7,300,000**
Engineering/Survey/Testing:		15%	$ 1,095,000
Mobilization		6%	$ 438,000
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	Existing Alignment	10%	$ 730,000
		Impact Fee Project Cost TOTAL:	**$ 9,563,000**

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

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

City of Cedar Hill

2024 Roadway Impact Fee Update

Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 3/29/2024

Project Information:

Description: **Project No.** **4-G**

Name:	Mt. Lebanon (2)
Limits:	Texas Plume to Lake Ridge
Impact Fee Class:	C2U
Ultimate Class:	Minor Collector
Length (lf):	2,277
Service Area(s):	4

This project consists of the construction of a new two-lane undivided minor collector.

Roadway Construction Cost Projection

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	5,439	cy	$ 35.00	$ 190,348
201	6" Lime Stabilization (with Lime @ 27#/sy)	10,877	sy	$ 7.50	$ 81,578
301	8" Concrete Pavement w/ 6" Curb	10,118	sy	$ 90.00	$ 910,634
401	4" Topsoil	3,035	sy	$ 10.50	$ 31,872
501	Concrete Sidewalk	18,213	sf	$ 8.33	$ 151,772
601	Turn Lanes and Median Openings	0	sy	$ 132.50	$ -
				Paving Construction Cost Subtotal:	**$ 1,366,205**

Major Construction Component Allowances:**

	Item Description	Notes	Allowance	Item Cost
√	Prep ROW		6%	$ 81,972
√	Traffic Control	Construction Phase Traffic Control	1%	$ 13,662
√	Pavement Markings/Markers		3%	$ 40,986
√	Roadway Drainage	Standard Internal System	35%	$ 478,172
√	Illumination		5%	$ 68,310
	Special Drainage Structures	None Anticipated	0%	$ -
√	Water	Minor Adjustments	12%	$ 163,945
√	Sewer	Minor Adjustments	8%	$ 109,296
√	Establish Turf / Erosion Control		3%	$ 40,986
√	Basic Landscaping/Irrigation		3%	$ 40,986
	Other:		$0	$ -
			Allowance Subtotal:	**$ 1,038,316**

**Allowances based on % of Paving Construction Cost Subtotal

Paving and Allowance Subtotal:		**$ 2,404,520**
Construction Contingency:	25%	$ 601,130
Construction Cost TOTAL:		**$ 3,006,000**

Impact Fee Project Cost Summary

Item Description	Notes:	Allowance	Item Cost
Construction:		-	**$ 3,006,000**
Engineering/Survey/Testing:		15%	$ 450,900
Mobilization		6%	$ 180,360
Previous City contribution			$ -
Other			$ -
ROW/Easement Acquisition	New Roadway Alignment	20%	$ 601,200
		Impact Fee Project Cost TOTAL:	**$ 4,238,000**

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

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

APPENDIX B – ROADWAY IMPACT FEE CIP SERVICE UNITS OF SUPPLY

City of Cedar Hill - 2024 Roadway Impact Fee Update

CIP Service Units of Supply

Service Area 1

3/29/2024

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
1-A	Wintergreen (1)	Old Clark to Railroad	0.31	4	M4D-Greenway	609	100%	650	807	189	618	$ 5,334,000	$ 5,334,000
1-B, 2-A	Wintergreen (2)	Railroad to Cedar Hill	0.11	4	M4D	609	50%	650	147	34	113	$ 2,139,000	$ 1,069,500
1-C, 4-A	Mansfield (1)	West City Limits to Belt Line	2.21	6	P6D(1/3)-Greenway	1,324	50%	700	4,641	1,463	3,178	$ 8,666,000	$ 4,333,000
1-D	Lakeview (1)	Mansfield to Belt Line	1.18	2	C2U	New	100%	450	1,066	0	1,066	$ 11,644,000	$ 11,644,000
1-E	Belt Line (1)	1,880' NW of Lakeview to Mansfield	1.43	2	C3U	104	100%	550	1,572	149	1,423	$ 13,213,000	$ 13,213,000
1-F, 2-I	Cedar Hill (1)	FM 1382 to Main	0.88	3	C3U(1/3)-Greenway	576	50%	550	726	253	473	$ 2,786,000	$ 1,393,000
I-1	Modification	Mansfield Rd & Lakeview Dr					50%					$ 250,000	$ 125,000
I-2	Signal	Mansfield Rd & Cooper St					50%					$ 600,000	$ 300,000
I-19	ITS Master Plan	Service Area 1					25%					$ 3,000,000	$ 750,000
SUBTOTAL									**8,959**	**2,088**	**6,871**	**$ 47,632,000**	**$ 38,161,500**

2024 Roadway Impact Fee Update Cost Per Service Area $ 34,500

TOTAL COST IN SERVICE AREA 1 $ 38,196,000

City of Cedar Hill - 2024 Roadway Impact Fee Update

CIP Service Units of Supply

Service Area 2

3/29/2024

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
1-B, 2-A	Wintergreen (2)	Railroad to Cedar Hill	0.11	4	M4D	609	50%	650	147	34	113	$ 2,139,000	$ 1,069,500
2-B	Wintergreen (3)	Joe Wilson to US 67 SBFR	0.57	6	P6D	413	100%	700	2,408	237	2,171	$ 10,240,000	$ 10,240,000
2-C	Birkshire (1)	Milestone to Birkshire	0.44	2	C2U	New	100%	450	393	0	393	$ 8,798,000	$ 8,798,000
2-D	Main-Uptown Collector (1)	Main to Uptown	0.20	2	C2U	New	100%	450	182	0	182	$ 1,988,000	$ 1,988,000
2-E	Cooper (2)	Railroad to Houston	0.27	2	C2U-Greenway	New	100%	450	245	0	245	$ 3,440,000	$ 3,440,000
2-F	Cedarview (2)	Railroad to Tidwell	0.13	4	C4U	New	100%	500	256	0	256	$ 2,153,000	$ 2,153,000
2-G, 3-A	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	4	M4D(1/2)-Greenway	128	50%	650	383	19	364	$ 2,789,000	$ 1,394,500
2-H, 3-B	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	4	M4D-Greenway	128	50%	650	840	41	799	$ 9,830,000	$ 4,915,000
1-F, 2-I	Cedar Hill (1)	FM 1382 to Main	0.88	3	C3U(1/3)-Greenway	576	50%	550	726	253	473	$ 2,786,000	$ 1,393,000
2-J	Cedar Hill-Belt Line Collector (1)	Cedar Hill to Belt Line	0.28	2	C2U	New	100%	450	252	0	252	$ 2,755,000	$ 2,755,000
2-K	Main (1)	130' S of Belt Line to Cedar	0.06	4	C4U	439	100%	500	113	25	88	$ 626,000	$ 626,000
2-L	Tidwell (1)	635' N of Cooper to Houston	0.48	2	C2U	New	100%	450	436	0	436	$ 4,759,000	$ 4,759,000
2-M	Tidwell (2)	Houston to US 67	0.17	4	M4D-Greenway	380	100%	650	446	65	381	$ 2,606,000	$ 2,606,000
2-N	Tidwell (3)	US 67 to 790' SE of US 67	0.15	4	M4D(1/2)-Greenway	380	100%	650	389	57	332	$ 895,000	$ 895,000
2-O	Joe Wilson (1)	Cedar Hill to Clover Hill	0.86	2	C3U	789	100%	550	947	680	267	$ 8,743,000	$ 8,743,000
2-P	Duncanville (1)	580' S of Wintergreen to Parkerville	2.89	4	M4D-Greenway	849	100%	650	7,510	2,452	5,058	$ 46,666,000	$ 46,666,000
I-3	Interchange	US 67 & Wintergreen Rd					50%					$ 1,000,000	$ 500,000
I-4	Modification	Duncanville Rd & Pleasant Run Rd					50%					$ 250,000	$ 125,000
I-5	Signal	Cooper St & Tidwell St					100%					$ 600,000	$ 600,000
I-6	Signal	Houston St & Tidwell St					100%					$ 600,000	$ 600,000
I-7	Interchange	US 67 & Tidwell St					100%					$ 1,000,000	$ 1,000,000
I-8	Signal	Parkerville Rd & Joe Wilson Rd					50%					$ 600,000	$ 300,000
I-9	Signal	Duncanville Rd & Parkerville Rd					25%					$ 600,000	$ 150,000
I-18	Signal	Joe Wilson Rd & Calvert Dr					100%					$ 600,000	$ 600,000
I-19	ITS Master Plan	Service Area 2					25%					$ 3,000,000	$ 750,000
SUBTOTAL									**15,673**	**3,863**	**11,810**	**$ 119,463,000**	**$ 107,066,000**

2024 Roadway Impact Fee Update Cost Per Service Area $ 34,500

TOTAL COST IN SERVICE AREA 2 $ 107,100,500

City of Cedar Hill - 2024 Roadway Impact Fee Update

CIP Service Units of Supply

Service Area 3

3/29/2024

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
2-G, 3-A	Parkerville (1)	305' E of Joe Wilson to 420' W of Waterford Oaks	0.29	4	M4D(1/2)-Greenway	128	50%	650	383	19	364	$ 2,789,000	$ 1,394,500
2-H, 3-B	Parkerville (2)	420' W of Waterford Oaks to Duncanville	0.65	4	M4D-Greenway	128	50%	650	840	41	799	$ 9,830,000	$ 4,915,000
3-C	Parkerville (3)	Duncanville to 2,800' E of Duncanville	0.53	4	M4D	New	50%	650	689	0	689	$ 8,258,000	$ 4,129,000
3-D	Little Creek (1)	Joe Wilson to Springfield	0.16	2	C2U	New	100%	450	145	0	145	$ 1,585,000	$ 1,585,000
3-E	Little Creek (2)	Duncanville to 2,315' E of Duncanville	0.44	2	C2U	New	100%	450	395	0	395	$ 10,328,000	$ 10,328,000
3-F	Mt. Lebanon (3)	800' E of American to Cedar Hill	0.29	2	C3U	355	100%	550	316	102	214	$ 4,200,000	$ 4,200,000
3-G	Rocky Acres (1)	Tar to 150' E of Tar	0.03	2	C2U	New	100%	450	26	0	26	$ 279,000	$ 279,000
3-H	Rocky Acres (2)	1,930' W of Clark to Clark	0.37	2	C2U	New	100%	450	329	0	329	$ 3,598,000	$ 3,598,000
3-I	Bear Creek (1)	Clark to Joe Wilson	1.22	2	C2U	New	100%	450	1,095	0	1,095	$ 14,609,000	$ 14,609,000
3-J	Cedar Hill-Clark Collector (1)	Cedar Hill to Clark	0.73	2	C2U	New	100%	450	655	0	655	$ 7,150,000	$ 7,150,000
3-K	Edgefield (1)	Edgefield to Future Loop 9	0.22	2	C2U	New	100%	450	201	0	201	$ 2,201,000	$ 2,201,000
3-L	Cedar Hill (2)	US 67 NBFR to Mt. Lebanon	1.01	4	C4U-Greenway	286	100%	500	2,025	290	1,735	$ 13,490,000	$ 13,490,000
3-M	Cedar Hill (3)	Mt. Lebanon to Rocky Acres	0.57	6	P6D-Greenway	286	100%	700	2,405	164	2,241	$ 11,394,000	$ 11,394,000
3-N	Cedar Hill (4)	Rocky Acres to 1,470' N of New Shiloh	0.98	6	P6D-Greenway	New	100%	700	4,104	0	4,104	$ 20,466,000	$ 20,466,000
3-O	Cedar Hill (5)	1,470' N of New Shiloh to 880' N of New Shiloh	0.11	6	P6D-Greenway	96	100%	700	469	11	458	$ 2,220,000	$ 2,220,000
3-P	Clark (1)	Little Creek to 580' S of Saturn	0.61	4	C4U-Greenway	322	100%	500	1,219	196	1,023	$ 7,818,000	$ 7,818,000
3-Q	Clark (2)	580' S of Saturn to Future Loop 9	0.88	4	C4U-Greenway	New	100%	500	1,760	0	1,760	$ 16,627,000	$ 16,627,000
3-R	Clark (3)	Future Loop 9 to 3,365' S of Future Loop 9	0.64	4	C4U	New	100%	500	1,274	0	1,274	$ 7,411,000	$ 7,411,000
3-S	Joe Wilson (2)	Parkerville to Bear Creek	1.00	6	P6D-Greenway	632	100%	700	4,188	630	3,558	$ 19,843,000	$ 19,843,000
3-T	Joe Wilson (3)	Bear Creek to South City Limits	0.68	6	P6D	632	100%	700	2,846	428	2,418	$ 12,503,000	$ 12,503,000
3-U	Waterford Oaks (1)	Parkerville to Little Creek	0.52	2	C2U	New	100%	450	464	0	464	$ 6,275,000	$ 6,275,000
3-V	Waterford Oaks (2)	Bear Creek to Future Loop 9	0.18	2	C2U	New	100%	450	163	0	163	$ 1,785,000	$ 1,785,000
3-W	Duncanville (2)	Parkerville to Future Loop 9	1.00	4	M4D-Greenway	200	100%	650	2,587	199	2,388	$ 19,945,000	$ 19,945,000
3-X	Duncanville (3)	Future Loop 9 to 1,900' S of Spring Hill	0.84	4	M4D	60	100%	650	2,181	50	2,131	$ 11,307,000	$ 11,307,000
3-Y	Cockrell Hill (1)	300' S of Fanny May to South City Limits	0.68	4	M4D	404	50%	650	882	137	745	$ 10,526,000	$ 5,263,000
3-Z	Mt. Lebanon (4)	US 67 NBFR to 800' E of American	0.32	4	M4D	355	100%	650	822	112	710	$ 1,800,000	$ 1,800,000
I-8	Signal	Parkerville Rd & Joe Wilson Rd					50%					$ 600,000	$ 300,000
I-9	Signal	Duncanville Rd & Parkerville Rd					50%					$ 600,000	$ 300,000
I-10	Interchange	Future Loop 9 & Duncanville Rd					100%					$ 1,000,000	$ 1,000,000
I-11	Interchange	Future Loop 9 & Cockrell Hill Rd					50%					$ 1,000,000	$ 500,000
I-12	Signal	Joe Wilson Rd & Bear Creek Rd					100%					$ 600,000	$ 600,000
I-13	Interchange	Future Loop 9 & Joe Wilson Rd					100%					$ 1,000,000	$ 1,000,000
I-14	Signal	Clark Rd & Rocky Acres Rd/Bear Creek Rd					100%					$ 600,000	$ 600,000
I-15	Interchange	Future Loop 9 & Clark Rd					100%					$ 1,000,000	$ 1,000,000
I-16	Interchange	Future Loop 9 & Cedar Hill Rd					100%					$ 1,000,000	$ 1,000,000
I-19	ITS Master Plan	Service Area 3					25%					$ 3,000,000	$ 750,000
SUBTOTAL									**32,465**	**2,379**	**30,086**	**$ 238,637,000**	**$ 219,585,500**

2024 Roadway Impact Fee Update Cost Per Service Area $ 34,500

TOTAL COST IN SERVICE AREA 3 $ 219,620,000

City of Cedar Hill - 2024 Roadway Impact Fee Update

CIP Service Units of Supply

Service Area 4

3/29/2024

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
1-C, 4-A	Mansfield (1)	West City Limits to Belt Line	2.21	6	P6D(1/3)-Greenway	1,324	50%	700	4,641	1,463	3,178	$ 8,666,000	$ 4,333,000
4-B	Cooper (1)	Belt Line to Railroad	0.45	2	C2U-Greenway	New	100%	450	401	0	401	$ 5,223,000	$ 5,223,000
4-C	Cedarview (1)	Plateau to Railroad	0.39	2	C2U	380	100%	450	350	148	202	$ 4,247,000	$ 4,247,000
4-D	Texas Plume (1)	Lake Ridge to Mt. Lebanon	1.35	4	C4U-Greenway	140	100%	500	2,710	190	2,520	$ 17,373,000	$ 17,373,000
4-E	Texas Plume-Lake Ridge Collector (1)	Texas Plume to Lake Ridge	0.20	2	C2U	New	100%	450	182	0	182	$ 1,991,000	$ 1,991,000
4-F	Mt. Lebanon (1)	US 67 to Texas Plume	0.75	4	C4U-Greenway	156	100%	500	1,491	116	1,375	$ 9,563,000	$ 9,563,000
4-G	Mt. Lebanon (2)	Texas Plume to Lake Ridge	0.43	2	C2U	New	100%	450	388	0	388	$ 4,238,000	$ 4,238,000
I-1	Modification	Mansfield Rd & Lakeview Dr					50%					$ 250,000	$ 125,000
I-2	Signal	Mansfield Rd & Cooper St					50%					$ 600,000	$ 300,000
I-17	Signal	Prairie View Blvd & Lake Ridge Pkwy					100%					$ 600,000	$ 600,000
I-19	ITS Master Plan	Service Area 4					25%					$ 3,000,000	$ 750,000
SUBTOTAL									**10,164**	**1,917**	**8,247**	**$ 55,751,000**	**$ 48,743,000**

2024 Roadway Impact Fee Update Cost Per Service Area $ 34,500

TOTAL COST IN SERVICE AREA 4 $ 48,777,500

APPENDIX C – EXISTING ROADWAY FACILITIES INVENTORY

City of Cedar Hill - 2024 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area 1

3/29/2024

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	FUTURE LANES	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
Belt Line	1,880' NW of Lakeview	Mansfield	7,546	1.43	1	1	2U	4U	52	52	100%	450	450	643	643	74	74	569	569		
Belt Line	Meadow Ridge	Railroad	745	0.14	2	2	4U	4D	742	742	50%	500	500	71	71	52	52	18	18		
Belt Line	Belt Line	1,600' W of Ramsey	4,206	0.80	2	2	4D	4D	742	742	50%	650	650	518	518	296	296	222	222		
Belt Line	1,600' W of Ramsey	Meadow Ridge	1,880	0.36	2	2	5U	4D	742	742	50%	700	700	249	249	132	132	117	117		
Cedar Hill	Wintergreen	Pleasant Run	4,821	0.91	1	1	2U	4U	234	294	50%	450	450	205	205	107	134	99	71		
Cedar Hill	FM 1382	Main	4,645	0.88	1	1	2U	4U	321	255	50%	450	450	198	198	141	112	57	86		
Clark	160' N of Rocky Creek	Couch	752	0.14	3	3	6D	6D	1,120	1,057	100%	700	700	299	299	160	151	140	149		
FM 1382	North City Limits	New Clark	21,428	4.06	2	2	4D	6D	910	910	100%	650	650	5,276	5,276	3,693	3,693	1,583	1,583		
FM 1382	New Clark	Sleepy Hollow	797	0.15	3	3	6D	6D	1,053	1,053	100%	700	700	317	317	159	159	158	158		
FM 1382	Sleepy Hollow	Straus	2,058	0.39	3	3	6D	6D	1,053	1,053	100%	700	700	819	819	410	410	408	408		
FM 1382	Straus	Cedar Hill	1,366	0.26	3	3	6D	6D	1,077	1,077	100%	700	700	543	543	279	279	265	265		
Hendricks	Sleepy Hollow	Straus	2,571	0.49	1	1	2U	2U	25	25	100%	450	450	219	219	12	12	207	207		
High Pointe	New Clark	Old Clark	2,518	0.48	1	1	2U	2U	100	100	100%	450	450	215	215	48	48	167	167		
High Pointe	Straus	Wintergreen	3,125	0.59	1	1	2U	2U	100	100	100%	450	450	266	266	59	59	207	207		
High Pointe	Wintergreen	New Clark	2,413	0.46	1	1	2U	2U	100	100	100%	450	450	206	206	46	46	160	160		
Mansfield	West City Limits	Belt Line	11,669	2.21	2	2	4D	6D	662	662	50%	650	650	1,437	1,437	732	732	705	705		
Meadow Ridge	Jorgenson	Belt Line	2,635	0.50	1	1	2U	2U	98	98	100%	450	450	225	225	49	49	176	176		
New Clark	Couch	FM 1382	6,978	1.32	2	2	4D	6D	1,120	1,057	100%	650	650	1,718	1,718	1,480	1,397	238	321		
Old Clark	High Pointe	Pleasant Run	3,910	0.74	1	1	2U	2U	268	268	100%	450	450	333	333	198	198	135	135		
Old Clark	Wintergreen	High Pointe	1,189	0.23	1	1	2U	2U	268	268	100%	450	450	101	101	60	60	41	41		
Old Straus	FM 1382	Hendricks	2,996	0.57	1	1	2U	2U	260	260	100%	450	450	255	255	148	148	108	108		
Old Straus	Straus	Old Straus	2,232	0.42	1	1	2U	2U	312	312	100%	450	450	190	190	132	132	58	58		
Old Straus	New Clark	Straus	868	0.16	1	1	2U	2U	312	312	100%	450	450	74	74	51	51	23	23		
Pleasant Run	FM 1382	Railroad	1,204	0.23	2	2	5U	4D	888	888	100%	700	700	319	319	202	202	117	117		
Pleasant Run	Railroad	Cedar Hill	100	0.02	2	2	5U	4D	888	888	50%	700	700	13	13	8	8	5	5		
Sleepy Hollow	FM 1382	Cherlyne	2,048	0.39	1	1	2U	2U	98	98	100%	450	450	175	175	38	38	137	137		
Sleepy Hollow	Cherlyne	Jorgenson	2,863	0.54	1	1	2U	2U	98	98	100%	450	450	244	244	53	53	191	191		
Straus	Sorcey	High Pointe	2,834	0.54	1	1	2U	2U	100	100	100%	450	450	242	242	54	54	188	188		
Straus	High Pointe	Wintergreen	2,834	0.54	1	1	2U	2U	100	100	100%	450	450	242	242	54	54	188	188		
Straus	Wintergreen	New Clark	3,448	0.65	2	2	4U	4U	175	175	100%	500	500	653	653	114	114	539	539		
Straus	New Clark	Old Straus	1,715	0.32	2	2	4U	4U	175	175	100%	500	500	325	325	57	57	268	268		
Straus	Hendricks	Wylie	2,146	0.41	1	1	2U	2U	260	260	100%	450	450	183	183	106	106	77	77		
Wintergreen	Straus	High Pointe	2,433	0.46	2	2	4D	4D	222	222	100%	650	650	599	599	102	102	497	497		
Wintergreen	High Pointe	New Clark	2,859	0.54	2	2	4D	4D	222	222	100%	650	650	704	704	120	120	584	584		
Wintergreen	Clark	Old Clark	381	0.07	2	2	4D	4D	252	357	100%	650	650	94	94	18	26	76	68		
Wintergreen	Railroad	Cedar Hill	597	0.11	1	1	2U	4D	252	357	50%	450	450	25	25	14	20	11	5		
Wintergreen	Old Clark	Railroad	1,639	0.31	1	1	2U	4D	252	357	100%	450	450	140	140	78	111	61	29		
Wylie	Straus	Railroad	68	0.01	1	1	2U	2U	260	260	100%	450	450	6	6	3	3	2	2		
SUBTOTAL			**120,514**	**22.82**										**18,339**	**18,339**	**9,540**	**9,493**	**8,799**	**8,847**	**0**	**0**
														36,678		**19,033**		**17,645**		**0**	

City of Cedar Hill - 2024 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area 2

3/29/2024

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	FUTURE LANES	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
Belt Line	US 67	FM 1382	3,319	0.63	2	2	4D	6D	800	800	100%	650	650	817	817	503	503	314	314		
Belt Line	US 67 SBFR	US 67	273	0.05	2	2	4U	4D	800	800	100%	500	500	52	52	41	41	10	10		
Belt Line	780' E of Main	US 67 SBFR	1,831	0.35	2	2	5U	4D	949	765	100%	700	700	486	486	329	265	156	220		
Belt Line	Houston	Main	259	0.05	2	2	4D	4D	949	765	100%	650	650	64	64	47	37	17	26		
Belt Line	Main	780' E of Main	779	0.15	2	2	4D	4D	949	765	100%	650	650	192	192	140	113	52	79		
Belt Line	Railroad	Houston	476	0.09	2	2	4D	4D	949	765	100%	650	650	117	117	86	69	32	48		
Belt Line	Joe Wilson	Duncanville	5,284	1.00	2	2	4D	6D	1,088	1,088	100%	650	650	1,301	1,301	1,089	1,089	212	212		
Belt Line	430'E of Cannady	Joe Wilson	2,051	0.39	2	3	5D	6D	1,088	1,088	100%	700	700	544	816	423	423	121	393		
Belt Line	Cannady	430' E of Cannady	428	0.08	3	3	6D	6D	1,088	1,088	100%	700	700	170	170	88	88	82	82		
Belt Line	Belt Line	Cannady	709	0.13	3	3	6D	6D	1,266	1,267	100%	700	700	282	282	170	170	112	112		
Calvert	Joe Wilson	Waterford Oaks	1,965	0.37	1	1	2U	2U	50	50	100%	450	450	167	167	19	19	149	149		
Cannady	Weaver	Stonewood	967	0.18	1	1	2U	2U	35	35	100%	450	450	82	82	6	6	76	76		
Cannady	Aldridge	Belt Line	2,678	0.51	1	1	2U	2U	35	35	100%	450	450	228	228	18	18	210	210		
Cannady	Belt Line	Weaver	2,740	0.52	1	1	2U	2U	35	35	100%	450	450	234	234	18	18	215	215		
Cedar	Houston	Main	253	0.05	1	1	2U	2U	125	125	100%	450	450	22	22	6	6	16	16		
Cedar Hill	Joe Wilson	Wintergreen	4,771	0.90	1	1	2U	4D	234	294	100%	450	450	407	407	211	266	195	141		
Cedar Hill	Joe Wilson	60' N of Joe Wilson	63	0.01	1	1	2U	4D	290	499	100%	450	450	5	5	3	6	2	-1		1
Cedar Hill	FM 1382	Pleasant Run	957	0.18	2	2	4D	4U	321	255	100%	650	650	236	236	58	46	177	189		
Cedar Hill	Wintergreen	Pleasant Run	4,821	0.91	1	1	2U	4U	234	294	50%	450	450	205	205	107	134	99	71		
Cedar Hill	FM 1382	Main	4,645	0.88	1	1	2U	4U	321	255	50%	450	450	198	198	141	112	57	86		
Clark	FM 1382	US 67 SBFR	1,615	0.31	2	2	4U	4U	158	158	100%	500	500	306	306	48	48	258	258		
Clark	US 67 NBFR	Belt Line	1,049	0.20	2	2	4D	4U	207	207	100%	650	650	258	258	41	41	217	217		
Clark	Belt Line	Weaver	3,223	0.61	2	2	4D	4U	616	616	100%	650	650	793	793	376	376	417	417		
Clark	Weaver	Parkerville	2,044	0.39	2	2	4D	4U	616	616	100%	650	650	503	503	238	238	265	265		
Cooper	Tidwell	US 67	1,935	0.37	1	1	2U	2U	175	175	100%	450	450	165	165	64	64	101	101		
Duncanville	580' S of Wintergreen	Parkerville	15,251	2.89	1	1	2U	6D	325	524	100%	450	450	1,300	1,300	939	1,514	361	-214		214
Duncanville	Wintergreen	580' S of Wintergreen	573	0.11	1	1	2U	6D	325	524	50%	450	450	24	24	18	28	7	-4		4
FM 1382	Cedar Hill	Clark	2,075	0.39	3	3	6D	6D	1,077	1,077	100%	700	700	825	825	423	423	402	402		
FM 1382	Railroad	Cedar Hill	105	0.02	3	3	6D	6D	1,077	1,077	100%	700	700	42	42	21	21	20	20		
FM 1382	Clark	US 67	1,177	0.22	3	3	6D	6D	1,077	1,077	100%	700	700	468	468	240	240	228	228		
FM 1382	US 67	Belt Line	2,350	0.45	3	3	6D	6D	1,253	1,253	100%	700	700	935	935	558	558	377	377		
Houston	Belt Line	Texas	682	0.13	1	1	2U	2U	222	144	100%	450	450	58	58	29	19	29	39		
Houston	Texas	Cooper	772	0.15	1	1	2U	2U	222	144	100%	450	450	66	66	32	21	33	45		
Houston	Cooper	Tidwell	2,134	0.40	1	1	2U	2U	222	144	100%	450	450	182	182	90	58	92	124		
Joe Wilson	Cedar Hill	Clover Hill	4,548	0.86	1	1	2U	3U	290	499	100%	450	450	388	388	250	430	138	-42		42
Joe Wilson	Shady Brook	US 67 SBFR	503	0.10	1	1	3U	4U	290	499	100%	550	550	52	52	28	48	25	5		
Joe Wilson	US 67 SBFR	US 67	239	0.05	2	2	4U	4D	290	499	100%	500	500	45	45	13	23	32	23		
Joe Wilson	US 67	Parkerville	12,621	2.39	2	2	4D	6D	628	628	100%	650	650	3,107	3,107	1,501	1,501	1,606	1,606		
Lowe	Cannady	Joe Wilson	1,594	0.30	1	1	2U	2U	35	35	100%	450	450	136	136	11	11	125	125		
Main	130' S of Belt Line	Cedar	299	0.06	1	1	2U	4U	118	321	100%	450	450	25	25	7	18	19	7		
Main	Belt Line	130' S of Belt Line	130	0.02	2	2	4U	4U	118	321	100%	500	500	25	25	3	8	22	17		
Main	Wylie	Belt Line	694	0.13	2	2	4U	4U	321	255	100%	500	500	131	131	42	33	89	98		
Parkerville	420' W of Waterford Oaks	Duncanville	3,414	0.65	1	1	2U	4D	64	64	50%	450	450	145	145	21	21	125	125		
Parkerville	305' E of Joe Wilson	420' W of Waterford Oaks	1,554	0.29	1	1	2U	4D	64	64	50%	450	450	66	66	9	9	57	57		
Parkerville	Joe Wilson	305' E of Joe Wilson	307	0.06	2	2	4D	4D	64	64	50%	650	650	38	38	2	2	36	36		
Parkerville	Stonewood	Joe Wilson	1,647	0.31	2	2	4D	4D	290	290	50%	650	650	203	203	45	45	158	158		
Parkerville	Clark	Stonewood	3,637	0.69	2	2	4D	4D	290	290	50%	650	650	448	448	100	100	348	348		
Parkerville	380' W of Parkerville	Clark	4,048	0.77	2	2	4D	6D	741	741	50%	650	650	498	498	284	284	214	214		
Pioneer Trail	Cedar Hill	Uptown	1,551	0.29	2	2	4U	4D	100	100	100%	500	500	294	294	29	29	264	264		
Pleasant Run	Joe Wilson	Duncanville	5,197	0.98	2	2	4D	6D	442	694	100%	650	650	1,280	1,280	435	683	845	596		
Pleasant Run	US 67	Joe Wilson	1,869	0.35	3	3	6D	6D	659	659	100%	700	700	743	743	233	233	510	510		
Pleasant Run	Railroad	Cedar Hill	100	0.02	2	2	5U	4D	888	888	50%	700	700	13	13	8	8	5	5		
Pleasant Run	Cedar Hill	US 67	4,293	0.81	3	3	6D	6D	888	888	100%	700	700	1,707	1,707	722	722	985	985		
S. Santa Fe Trail	Cedar Hill	32' NW of Cedar Hill	33	0.01	1	1	2U	4D	234	294	100%	450	450	3	3	1	2	1	1		
Stonewood	Cannady	Parkerville	2,376	0.45	1	1	2U	2U	35	35	100%	450	450	203	203	16	16	187	187		
Tidwell	Houston	US 67	905	0.17	1	1	2U	4D	132	248	100%	450	450	77	77	23	42	54	35		
Tidwell	US 67	790' SE of US 67	790	0.15	1	1	2U	4D	132	248	100%	450	450	67	67	20	37	48	30		
Tidwell	US 67	380' W of Parkerville	380	0.07	1	1	2U	4D	741	741	100%	450	450	32	32	53	53	-21	-21	21	21
Uptown	Belt Line	FM 1382	5,118	0.97	2	2	4D	4D	382	382	100%	650	650	1,260	1,260	370	370	890	890		
Waterford Oaks	Redding	Calvert	2,406	0.46	1	1	2U	2U	125	125	100%	450	450	205	205	57	57	148	148		
Waterford Oaks	Calvert	Germany	955	0.18	1	1	2U	2U	125	125	100%	450	450	81	81	23	23	59	59		
Waterford Oaks	Germany	Belt Line	823	0.16	2	2	4D	2U	125	125	100%	650	650	203	203	19	19	183	183		
Waterford Oaks	Duncanville	Redding	2,459	0.47	1	1	2U	2U	125	125	100%	450	450	210	210	58	58	151	151		
Waterford Oaks	Weaver	120' S of Shadywood	1,013	0.19	1	1	2U	2U	165	165	100%	450	450	86	86	32	32	55	55		
Waterford Oaks	Belt Line	Weaver	1,813	0.34	1	1	2U	2U	165	165	100%	450	450	154	154	57	57	98	98		
Weaver	Cannady	Joe Wilson	2,164	0.41	1	1	2U	2U	67	67	100%	450	450	184	184	27	27	157	157		
Weaver	Waterford Oaks	460' E of Lakeside	1,425	0.27	1	1	2U	2U	67	67	100%	450	450	121	121	18	18	103	103		
Weaver	Joe Wilson	Waterford Oaks	2,011	0.38	1	1	2U	2U	67	67	100%	450	450	171	171	26	26	146	146		
Weaver	Clark	Cannady	3,531	0.67	1	1	2U	2U	67	67	100%	450	450	301	301	45	45	256	256		
Wintergreen	Joe Wilson	US 67 SBFR	3,028	0.57	1	1	2U	6D	231	182	100%	450	450	258	258	132	104	126	154		
Wintergreen	US 67 SBFR	Duncanville	2,222	0.42	3	3	6D	6D	479	272	50%	700	700	442	442	101	57	341	385		
Wintergreen	Railroad	Cedar Hill	597	0.11	1	1	2U	4D	252	357	50%	450	450	25	25	14	20	11	5		
Wylie	Main	Railroad	227	0.04	1	1	2U	2U	260	260	100%	450	450	19	19	11	11	8	8		
SUBTOTAL			**156,772**	**29.69**										**25,184**	**25,456**	**11,467**	**12,364**	**13,717**	**13,093**	**21**	**282**
														50,641		**23,831**		**26,809**		**303**	

City of Cedar Hill - 2024 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area 3

3/29/2024

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	FUTURE LANES	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
American	US 67 NBFR	615' S of Freedom	3,311	0.63	1	1	2U	4D	100	100	100%	450	450	282	282	63	63	219	219		
Bear Creek	Joe Wilson	Duncanville	5,309	1.01	1	1	2U	2U	150	150	100%	450	450	452	452	151	151	302	302		
Boulder	Stone Cyn	Future Loop 9	1,258	0.24	1	1	2U	2U	15	15	100%	450	450	107	107	4	4	104	104		
Capricorn	Cedar Hill	Clark	5,818	1.10	1	1	2U	2U	50	50	100%	450	450	496	496	55	55	441	441		
Cedar Hill	1,470' N of New Shiloh	880' N of New Shiloh	589	0.11	1	1	2U	6D	48	48	100%	450	450	50	50	5	5	45	45		
Cedar Hill	US 67 NBFR	Mt. Lebanon	5,347	1.01	1	1	2U	4U	144	142	100%	450	450	456	456	146	144	310	312		
Cedar Hill	Mt. Lebanon	Rocky Acres	3,023	0.57	1	1	2U	6D	144	142	100%	450	450	258	258	82	81	175	176		
Clark	Little Creek	580' S of Saturn	3,219	0.61	1	1	2U	4U	161	161	100%	450	450	274	274	98	98	176	176		
Clark	Parkerville	Little Creek	2,528	0.48	2	2	4D	4U	336	336	100%	650	650	623	623	161	161	462	462		
Cockrell Hill	300' S of Fanny May	South City Limits	3,584	0.68	1	1	2U	4D	202	202	50%	450	450	153	153	69	69	84	84		
Duncanville	Future Loop 9	1,900' S of Spring Hill	4,428	0.84	1	1	2U	6D	19	41	100%	450	450	377	377	16	34	361	343		
Duncanville	Parkerville	Future Loop 9	5,254	1.00	1	1	2U	6D	100	100	100%	450	450	448	448	100	100	348	348		
Joe Wilson	Parkerville	Bear Creek	5,265	1.00	1	1	2U	6D	316	316	100%	450	450	449	449	315	315	134	134		
Joe Wilson	Bear Creek	South City Limits	3,578	0.68	1	1	2U	6D	316	316	100%	450	450	305	305	214	214	91	91		
KCK Way	US 67	1,520' E of US 67	1,521	0.29	1	1	2U	2U	25	25	100%	450	450	130	130	7	7	122	122		
Little Creek	Clark	Joe Wilson	5,269	1.00	1	1	2U	4U	148	148	100%	450	450	449	449	148	148	301	301		
Mt. Lebanon	US 67 NBFR	Cedar Hill	1,669	0.32	1	1	2U	4U	127	228	100%	450	450	142	142	40	72	102	70		
Mt. Lebanon	800' E of American	Cedar Hill	1,518	0.29	1	1	2U	4U	127	228	100%	450	450	129	129	37	66	93	64		
Parkerville	420' W of Waterford Oaks	Duncanville	3,414	0.65	1	1	2U	4D	64	64	50%	450	450	145	145	21	21	125	125		
Parkerville	305' E of Joe Wilson	420' W of Waterford Oaks	1,554	0.29	1	1	2U	4D	64	64	50%	450	450	66	66	9	9	57	57		
Parkerville	Joe Wilson	305' E of Joe Wilson	307	0.06	2	2	4D	4D	64	64	50%	650	650	38	38	2	2	36	36		
Parkerville	Stonewood	Joe Wilson	1,647	0.31	2	2	4D	4D	290	290	50%	650	650	203	203	45	45	158	158		
Parkerville	Clark	Stonewood	3,637	0.69	2	2	4D	4D	290	290	50%	650	650	448	448	100	100	348	348		
Parkerville	380' W of Parkerville	Clark	4,048	0.77	2	2	4D	6D	741	741	50%	650	650	498	498	284	284	214	214		
Rocky Acres	145' E of Tar	1,900' W of Clark	3,153	0.60	1	1	2U	2U	35	35	100%	450	450	269	269	21	21	248	248		
Springfield	Parkerville	100' S of Brooks	2,626	0.50	1	1	2U	2U	65	65	100%	450	450	224	224	32	32	192	192		
Stone Cyn	1,515' W of Cockrell Hill	Cockrell Hill	1,517	0.29	1	1	2U	2U	15	15	100%	450	450	129	129	4	4	125	125		
Stonewood	Parkerville	Little Creek	2,527	0.48	1	1	2U	2U	35	35	100%	450	450	215	215	17	17	199	199		
SUBTOTAL			**86,919**	**16.46**										**7,816**	**7,816**	**2,245**	**2,321**	**5,571**	**5,494**	**0**	**0**
														15,631		**4,567**		**11,065**		**0**	

City of Cedar Hill - 2024 Roadway Impact Fee Update
Existing Roadway Facilities Inventory

Service Area 4

3/29/2024

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES		EXIST LANES	FUTURE LANES	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
Belt Line	Meadow Ridge	Railroad	745	0.14	2	2	4U	4D	742	742	50%	500	500	71	71	52	52	18	18		
Belt Line	Belt Line	1,600' W of Ramsey	4,206	0.80	2	2	4D	4D	742	742	50%	650	650	518	518	296	296	222	222		
Belt Line	1,600' W of Ramsey	Meadow Ridge	1,880	0.36	2	2	5U	4D	742	742	50%	700	700	249	249	132	132	117	117		
Cedarview	Plateau	Railroad	2,053	0.39	1	1	2U	4U	132	248	100%	450	450	175	175	51	96	124	79		
Fairway	2,825' W of Lake Ridge	Lake Ridge	2,826	0.54	1	1	2U	2U	114	114	100%	450	450	241	241	61	61	180	180		
Grigsby	Cedarview	US 67	1,875	0.36	2	2	2U	2U	50	50	100%	450	450	320	320	18	18	302	302		
Jealouse	Cedarview	US 67	2,383	0.45	2	2	2U	2U	50	50	100%	450	450	406	406	23	23	384	384		
Kingswood	Crestview	US 67	2,860	0.54	2	2	2U	2U	106	106	100%	450	450	488	488	57	57	430	430		
Lake Ridge	Mansfield	US 67	18,934	3.59	2	2	4D	6D	308	308	100%	650	650	4,662	4,662	1,104	1,104	3,557	3,557		
Lakeview	Lake Ridge	Mansfield	5,820	1.10	2	2	4D	2U	82	82	100%	650	650	1,433	1,433	90	90	1,343	1,343		
Lakeview	City Limits	Lake Ridge	4,929	0.93	2	2	2U	2U	82	82	100%	450	450	840	840	77	77	764	764		
Mansfield	West City Limits	Belt Line	11,669	2.21	2	2	4D	6D	662	662	50%	650	650	1,437	1,437	732	732	705	705		
Mt. Lebanon	US 67	Texas Plume	3,938	0.75	2	2	2U	4U	78	78	100%	450	450	671	671	58	58	613	613		
Park Ridge	Belt Line	Lake Ridge	3,933	0.74	1	1	2U	2U	114	114	100%	450	450	335	335	85	85	250	250		
Prairie View	Koscher	Lake Ridge	6,642	1.26	1	1	4D	6D	156	156	100%	650	650	818	818	196	196	621	621		
Texas Plume	Lake Ridge	Mt. Lebanon	7,154	1.35	1	1	2U	4U	70	70	100%	450	450	610	610	95	95	515	515		
Valley View	Lakeview	Future Cedarview	9,031	1.71	2	2	2U	2U	40	40	100%	450	450	1,539	1,539	68	68	1,471	1,471		
SUBTOTAL			**90,878**	**17.21**										**14,811**	**14,811**	**3,196**	**3,241**	**11,616**	**11,571**	**0**	**0**
														29,622		**6,436**		**23,186**		**0**	

Prepared For:

Cedar Hill
Where Opportunities Grow Naturally

April 2024

City of Cedar Hill

WATER AND WASTEWATER IMPACT FEE REPORT

Lisa M Wang

STATE OF TEXAS
LISA M. WANG
131335
LICENSED
PROFESSIONAL ENGINEER

04/25/2024

Prepared By:

Kimley»Horn

Kimley-Horn and Associates, Inc.
13455 Noel Road, Two Galleria Office Tower,
Suite 700
Dallas, Texas 75240
TBPE Firm Registration Number: F-928

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1.0 EXECUTIVE SUMMARY

This study was performed to update the City of Cedar Hill's (City) Water and Wastewater Impact Fees. The implementation of impact fees is a method for developments to contribute to costs of required water and wastewater facilities.

Components of the water system, such as pumping facilities, storage facilities, and the distribution network, were assessed against industry standards as described in the water design criteria section of this report. In the same way, gravity pipes, force mains, and lift station facilities were compared to wastewater industry standards as outlined in the wastewater design criteria section. Information related to the growth of the City was developed through evaluation of historical growth rates, discussions with City Staff, and review of the *City's 2022 Comprehensive Plan***,** as described in *2024 Water and Wastewater Master Plan***.**

Water and wastewater system improvements necessary to serve 10-year (2034) and buildout system needs were evaluated. Typically, infrastructure improvements are designed beyond the 10-year requirements; however, Texas' impact fee law (Chapter 395 of the Local Government Code) only allows recovery of costs to serve the 10-year planning period. A portion of the remaining costs past the 10-year window may be recovered as a result of impact fee updates in the future.

The impact fee law defines a service unit as "*a standardized measure of consumption, use, generation, or discharge 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*". For this report, the City defines a service unit as a unit of development that consumes the amount of water and wastewater requiring a standard 1" meter. The previous Impact Fee Report used a ¾" meter. The base meter size was updated to match the City's current minimum meter size of 1". For developments that require a larger meter, a service unit equivalent has been determined as a multiplier of the 1" meter based on its required operating capacity. These service unit equivalency factors and associated maximum assessable impact fees for water and wastewater are shown in Table 1 and Table 2.

Based on the City's 10-year growth projections and the associated water demand (consumption) values, 14,815 additional water service units will be needed by the year 2034. Utilizing the additional water service units and the recoverable water capital improvements plans, it was determined that the City may assess a maximum of $4,489 per service unit for water impact fees. Upon evaluating the City's 10-year growth projections and the associated wastewater flows, 14,907 additional wastewater service units will be needed by the year 2034. Based on the additional wastewater service units and the recoverable wastewater capital improvements plans, the City may assess a maximum of $1,686 per service unit for wastewater impact fees. Due to inflation, additional projects anticipated in the 10-year planning window, and higher financing costs due to assumed duration period, the water and wastewater maximum assessable fees have increased in comparison to previous years. However, since the base meter has been changed from ¾" to 1", the equivalent 1" meter fee from previous reports is less than the current maximum assessable fee for the same 1" meter. Support and calculations for both water and wastewater results are included in the following report.

TABLE 1 – WATER MAXIMUM ASSESSABLE IMPACT FEE FOR COMMONLY USED METERS

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee ($)
1" PD	25	1	4,489
2" PD	80	3.2	14,365
3" Compound	175	7	31,423
4" Compound	300	12	53,868
6" Compound	675	27	121,203
8" Compound	900	36	161,604

* PD = Positive Displacement Meter (Typical residential meter)
** Operating capacities obtained from American Water Works Associate (AWWA) C700-20 and C702-19. Compound meter flows are based on Class II (in-line) meters.

TABLE 2 – WASTEWATER MAXIMUM ASSESSABLE IMPACT FEE FOR COMMONLY USED METERS

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee ($)
1" PD	25	1	1,686
2" PD	80	3.2	5,395
3" Compound	175	7	11,802
4" Compound	300	12	20,232
6" Compound	675	27	45,522
8" Compound	900	36	60,696

* PD = Positive Displacement Meter (Typical residential meter)
** Operating capacities obtained from American Water Works Associate (AWWA) C700-20 and C702-19. Compound meter flows are based on Class II (in-line) meters.

2.0 INTRODUCTION

The City of Cedar Hill requested the services of Kimley-Horn to update the existing water and wastewater impact fees. The impact fees were last updated in 2012. The intent of this report is to satisfy the requirements of Chapter 395 of the Local Government Code (Chapter 395) and provide the City with an updated impact fee capital improvements plan (CIP) and associated impact fees.

Understanding and planning for projected future growth is vital to be able to provide adequate infrastructure to support and promote economic development. Implementing impact fees is a method for developments to contribute to water and wastewater facilities.

For convenience and reference, the following is excerpted from Chapter 395, "Financing Capital Improvements required by New Development in Municipalities, Counties, and certain other Local Governments."

(a) The political subdivision shall use qualified professionals to prepare the capital improvements plan and to calculate the impact fee. The capital improvements plan must contain specific enumeration of the following items:

> *(1) a description of the existing capital improvements within the service area and the costs to upgrade, update, improve, expand, or replace the improvements to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
>
> *(2) an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of the existing capital improvements, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
>
> *(3) a description of all or the parts of the capital improvements or facility expansions and their costs necessitated by and attributable to new development in the service area based on the approved land use assumptions, which shall be prepared by a qualified professional engineer licensed to perform such professional engineering services in this state;*
>
> *(4) a definitive table establishing the specific level or quantity of use, consumption, generation, or discharge of a service unit for each category of capital improvements or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including but not limited to residential, commercial, and industrial;*
>
> *(5) the total number of projected service units necessitated by and attributable to new development within the service area based on the approved land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;*
>
> *(6) the projected demand for capital improvements or facility expansions required by new service units projected over a reasonable period of time, not to exceed 10 years; and*
>
> *(7) a plan for awarding:*

(A) a credit for the portion of ad valorem tax and utility service revenues generated by new service unit 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 project cost of implementing the capital improvements plan.

The impact fee study includes information from the *2024 Water and Wastewater Master Plan Report*. The impact fees are based on recommended capital improvements and the population growth projections outlined in the *2024 Water and Wastewater Master Plan Report* as well as the C*ity's 2022 Comprehensive Master Plan.*

The study process was comprised of three (3) tasks:

A. LAND USE ASSUMPTIONS

To assess an impact fee, Land Use Assumptions must be developed to provide the basis for population and employment growth projections within a political subdivision. As defined by Chapter 395, these assumptions include a description of changes in land uses, densities, and population in the service area. In addition, these assumptions are useful in assisting the City in determining the need and timing of capital improvements to serve future development.

In accordance with Chapter 395, information for the development of the land use assumptions was determined through evaluation of historical growth rates, discussions with City Staff, and review of the City's *2022 Comprehensive Master Plan*.

The residential and non-residential estimates and projections were all compiled in accordance with the following categories:

Population: Number of people, based on person per dwelling unit factors.

Employment: Acreages based on retail, service, and basic land uses. Each classification has unique demand characteristics.

Retail: Land use activities which provide for the retail sale of goods that 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 administrative offices.

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

Table 3 summarizes the residential and non-residential 10-year growth projections within the City.

TABLE 3 – RESIDENTIAL AND NON-RESIDENTIAL GROWTH PROJECTIONS

Year	Population	Employment (sq. Ft.) Growth			
		Basic	Service	Retail	Total
2024	55,100	128,371,320	68,868,360	17,511,120	214,750,800
2034	83,000	165,146,556	86,401,961	70,057,131	321,605,648
10-Year Growth	**27,900**	**36,775,236**	**17,533,601**	**52,546,011**	**106,854,848**

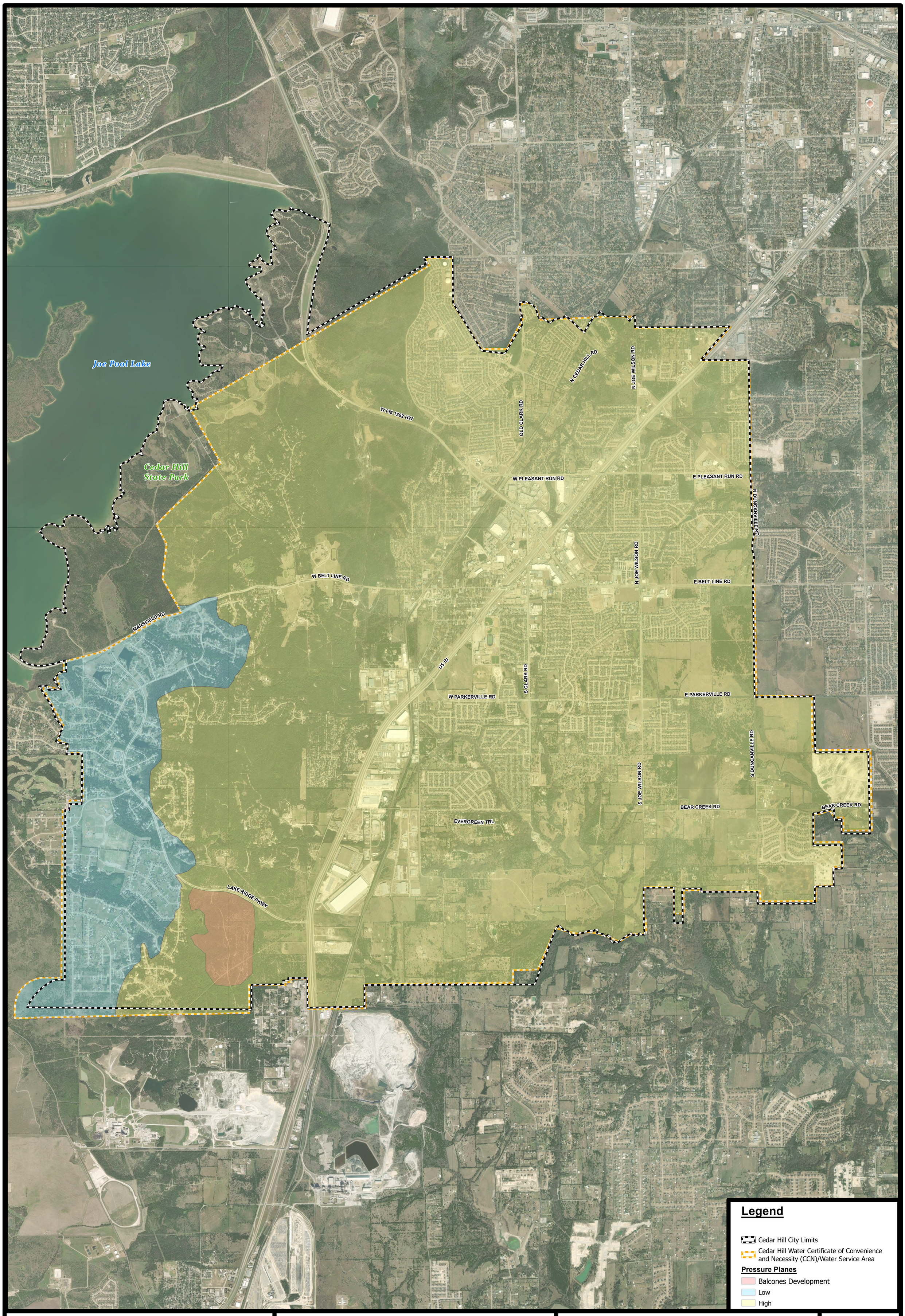
B. IMPACT FEE CAPITAL IMPROVEMENTS PLAN (CIP)

This task included assessment of the water and wastewater capital improvements plan defined in the master plan to identify projects within the proposed 10-year planning window which meet the Chapter 395 criteria to be impact fee eligible. Impact fee eligible projects are defined as those necessary to serve future growth within the City's service area. This task also consisted of evaluating the utilized capacity of the eligible capital improvement projects to determine their proportionate 10-year recoverable costs.

C. IMPACT FEE ANALYSIS AND REPORT

This task involved estimating the additional service units, service unit equivalents, and credit reduction. These values were used to determine the impact fee per service unit and the maximum assessable impact fee by meter size.

The following Exhibits A and B depict the water and wastewater service areas for the City. The City's water and wastewater service areas encompass its entire CCN (Convenience and Necessity), as shown.



CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY

Cedar Hill, Texas
Impact Fee Report
Water Service Area Boundary

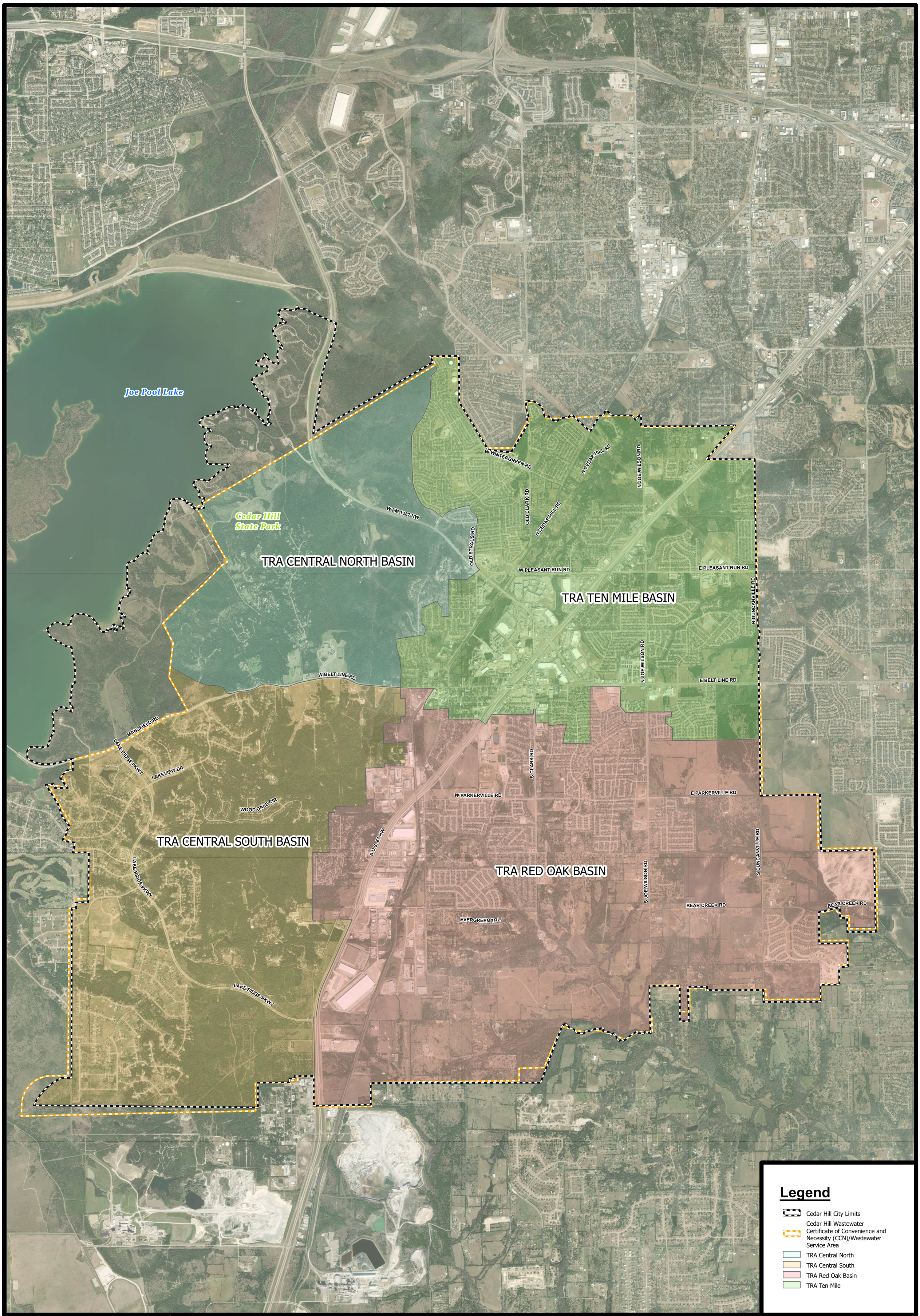
2,000 0 2,000
Feet

April 2024

Kimley»Horn

This map product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

A



CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY

Cedar Hill, Texas
Impact Fee Report
Wastewater Service Area Boundary

Kimley»Horn

2,000 0 2,000
Feet

April 2024

This map product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

B

3.0 WATER AND WASTEWATER DESIGN CRITERIA

Kimley-Horn partnered with City staff to determine design criteria for each major infrastructure component of the water and wastewater system. Criteria established by the Texas Commission on Environmental Quality (TCEQ) must also be satisfied. City and TCEQ criteria are summarized below.

TABLE 4 – WATER DESIGN CRITERIA SUMMARY

	City Criteria	TCEQ Criteria
Supply & Production	Overall capacity to meet Maximum Day Demand (MDD)	Overall capacity to meet 0.60 gpm per connection
Minimum Pressure	Normal conditions = 40 psi Extreme conditions = 20 psi	Normal conditions = 35 psi Extreme conditions = 20 psi
Maximum Velocity	3 – 5 ft/s preferable 7 ft/s maximum	N/A
Pumping Facilities	Firm capacity to meet MDD	Total capacity of at least 2.0 gpm per connection or 1,000 gpm and the ability to meet peak hourly demands with the largest pump out of service at each pressure plane, whichever is less. Or total capacity of at least 0.60 gpm per connection if 200 gallons of elevated storage per connection is met.
Ground Storage	50% of MDD	N/A
Elevated Storage	Sufficient storage to satisfy required ISO Fire rating[1] plus MDD in conjunction with pump firm capacity	Equal to 100 gallons per connection or equal to 200 gallons per connection for pumping requirement discount.
Total Storage	N/A	Equal to 200 gallons per connection

[1]City must supply 3,500 gpm for 3 hours to maintain ISO Fire Rating

TABLE 5 – WASTEWATER DESIGN CRITERIA SUMMARY

	City Criteria	TCEQ Criteria
Gravity Main	▶ Minimum Diameter allowed for a gravity pipe is eight inches	▶ Wastewater collection system must handle the transport of the peak dry weather flow plus inflow and infiltration (TCEQ Section §217.53(a)) ▶ Minimum Diameter allowed for a gravity pipe is six inches (TCEQ Section §217.53(j)) ▶ All wastewater collection systems must contain slopes sufficient to allow a velocity when flowing full of not less than 2.0 feet per second (TCEQ Section §217.53(l))
Force Main		▶ Force mains shall be a minimum of four inches in diameter unless it is used in conjunction with a grinder pump station. The executive director may approve pipes with a diameter less than 4.0 inches where grinder pumps are used, on a case-by-case basis in writing.
Lift Station	▶ Minimum of 3 pumps for new lift stations	▶ A lift station must have at least two pumps. The firm pumping capacity of a lift station must handle the peak flow. (TCEQ Section §217.61(c)) ▶ For a lift station with two pumps: o A minimum velocity of 3.0 feet per second. ▶ For a lift station with three or more pumps: o A maximum velocity of 6.0 feet per second. For pipelines higher than 6.0 feet per second, a report must certify that the pipeline can withstand high and low negative surge pressures in the event of sudden pump failure. (TCEQ Section §217.67(a))

DEMAND AND FLOW PROJECTIONS

The criteria used for projecting the water demands and wastewater flows for their respective systems were derived from the *2024 Water and Wastewater Master Plan Report*. Tables 6 & 7 show the projected average day water demand by residential land use type and non-residential land use types, respectively. Similarly, Tables 8 and 9 show the projected average day wastewater flows for these uses.

TABLE 6 – RESIDENTIAL WATER DEMAND PER UNIT

Residential Category	Average Demand per Unit (GPD/unit)
Single-Family	270
Multi-Family	210

TABLE 7 – NON-RESIDENTIAL WATER LOADING FACTORS

Future Land Use Category	Non-residential Loading Factor (gal/acre)
Conservation Opportunity Area – Institutional	120
Conservation Opportunity Area – Mixed Use	900
Conservation Opportunity Area – Residential Single Family	0[1]
Employment Center	290
Historic Downtown	900
Neighborhood Center	900
Open Space Public Ownership	140
Regional Center	900
Residential Mixed Density	750
Residential Multifamily	0[1]
Residential Single Family	0[1]
Retail Center Retrofit	900
Rural Open Space	0[1]
Suburban Institutional Area	120
Suburban Non-Residential	900
Uptown	590

[1]100% Residential Land Use, demand calculated utilizing values in Table 6.

TABLE 8 – RESIDENTIAL WASTEWATER FLOW PER UNIT

Residential Category	Average Flow per Unit (GPD/unit)
Single-Family	216
Multi-Family	168

TABLE 9 – WASTEWATER RESIDENTIAL FLOW PER UNIT

Future Land Use Category	Non-residential Loading Factor (gal/acre)
Conservation Opportunity Area – Institutional	96
Conservation Opportunity Area – Mixed Use	720
Conservation Opportunity Area – Residential Single Family	0[1]
Employment Center	232
Historic Downtown	720
Neighborhood Center	720
Open Space Public Ownership	112
Regional Center	720
Residential Mixed Density	600
Residential Multifamily	0[1]
Residential Single Family	0[1]
Retail Center Retrofit	720
Rural Open Space	0[1]
Suburban Institutional Area	96
Suburban Non-Residential	720
Uptown/Midtown	472

[1]100% Residential Land Use, flow calculated utilizing values in Table 8.

4.0 WATER AND WASTEWATER IMPACT FEE CAPITAL IMPROVEMENTS PLAN (CIP)

The City commissioned Kimley-Horn to update their current Water and Wastewater Master Plan prior to the development of these impact fees. The purpose of the water and wastewater master plan was to provide the City with a logical strategy for upgrading and expanding its water distribution and wastewater collection systems. As part of the master planning process, a capital improvements plan (CIP) was developed for the City. This CIP included projects needed through buildout to accommodate future growth and address known existing system deficiencies.

Utilizing the CIP list developed for the master plan, an impact fee CIP was determined which narrowed the scope of projects to those that are impact fee eligible. According to Texas law, impact fee eligible projects must be needed to serve future growth anticipated within the 10-year planning window. Projects addressing existing deficiencies or beyond the 10-year window were excluded from the CIP. State law also allows existing projects to be added to the impact fee CIP if they are determined to have additional capacity to serve future growth.

WATER CIP

Thirty-eight (38) water projects are determined eligible for recoverable cost through impact fees over the next 10 years. The total cost of these projects is $124,544,001. The projected total CIP recoverable cost through water impact fees is $93,677,917. The recoverable percentage represents the projected utilization and capacity of each project over the next 10 years. These values were determined by utilizing the hydraulic model prepared for the Water Master Plan Update. Impact fee capital improvements projects are listed in Table 10 and illustrated in Exhibit C.

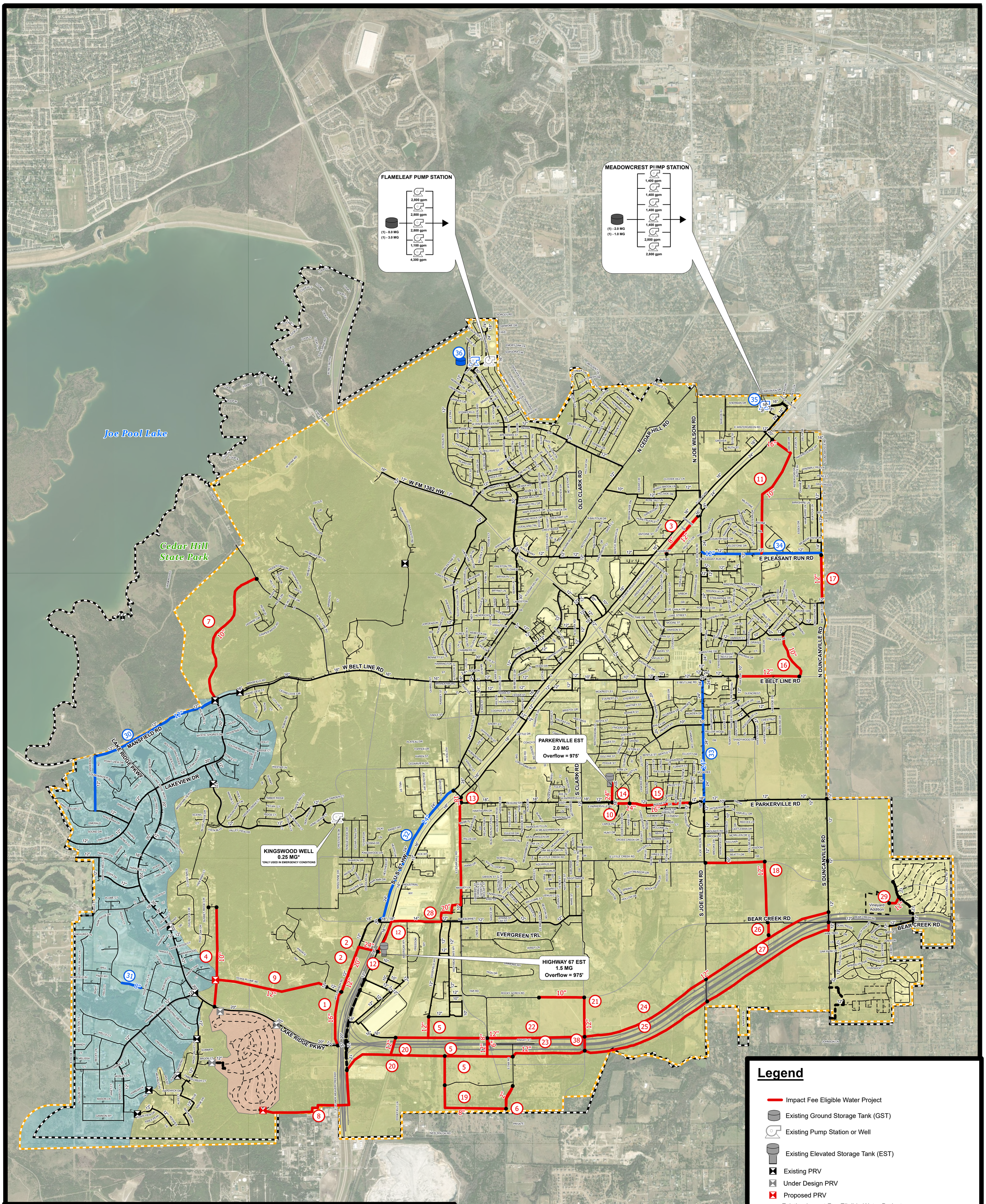
WASTEWATER CIP

Twenty-four (24) wastewater projects were determined eligible for recoverable cost through impact fees over the next 10 years. The total cost of these projects is $66,310,690. The projected total CIP recoverable cost through wastewater impact fees is $35,439,446. The recoverable percentage represents the projected utilization attributable to future growth of each project over the next 10 years. These values were determined by utilizing the hydraulic model prepared for the Wastewater Master Plan Update. The identified impact fee eligible capital improvement projects are shown in Table 11 and illustrated in Exhibit D.

TABLE 10 – WATER IMPACT FEE CAPITAL IMPROVEMENTS PROJECT COST AND 10-YEAR RECOVERABLE COSTS

Proj. #	Description	2024 Capacity (% Utilized)	2034 Capacity (% Utilized)	2024-2034 Capacity (% Utilized)	2034 Projected Recoverable Cost	Total Project Cost
1	Mount Lebanon Rd 16" Water Line	0%	100%	100%	$ 3,464,000	$ 3,464,000
2	Mount Lebanon Rd 20" Water Line	0%	5%	5%	$ 222,100	$ 4,442,000
3	Stonehill/Vineyard 12" Water Line Connection	0%	40%	40%	$ 339,200	$ 848,000
4	Lorch Park 10" Water Line	0%	75%	75%	$ 1,949,834	$ 2,595,000
5	Loop 9 12" Water Line Phase 1 - North	0%	75%	75%	$ 6,047,036	$ 8,087,000
6	S Tar Rd 8" Water Line Replacement	0%	100%	100%	$ 470,000	$ 470,000
7	Cedar Hill State Park 10" Water Line	0%	100%	100%	$ 3,669,000	$ 3,669,000
8	Southwest Cedar Hill 12" Water Line	0%	98%	98%	$ 5,907,477	$ 6,020,000
9	Texas Plume Rd 12" Water Line	0%	67%	67%	$ 3,617,661	$ 5,403,000
10	E Parkerville Rd 16/18/24" Water Line Replacement Phase 1	0%	51%	51%	$ 1,255,621	$ 2,447,000
11	Northeast Cedar Hill 10" Water Line	0%	82%	82%	$ 3,539,835	$ 4,295,000
12	Highway 67 EST 24" Water Line Parallel	0%	84%	84%	$ 658,701	$ 788,000
13	S Cedar Hill Rd 18" Water Line	0%	64%	64%	$ 553,815	$ 859,000
14	Parkerville EST 24" Water Line Parallel	0%	79%	79%	$ 1,893,443	$ 2,397,000
15	E Parkerville Rd 16/18/24" Water Line Replacement Phase 2	0%	74%	74%	$ 2,998,470	$ 4,059,000
16	E FM 1382 10/12" Water Line	0%	100%	100%	$ 4,096,000	$ 4,096,000
17	N Duncanville Rd 12" Water Line	0%	91%	91%	$ 2,274,545	$ 2,502,000
18	East Little Creek 12" Water Line Phase 1	0%	64%	64%	$ 2,936,248	$ 4,603,000
19	Pecan Trails Golf Course 8" Water Line	0%	70%	70%	$ 1,395,568	$ 1,986,000
20	Loop 9 12" Water Line Phase 1 - South	0%	76%	76%	$ 3,710,830	$ 4,914,000
21	Rocky Acres Rd 10/12" Water Line	0%	88%	88%	$ 3,321,930	$ 3,787,000
22	Loop 9 12" Water Line Phase 2 - North	0%	83%	83%	$ 2,756,890	$ 3,336,000
23	Loop 9 12" Water Line Phase 2 - South	0%	83%	83%	$ 2,186,585	$ 2,632,000
24	Loop 9 12" Water Line Phase 3 - North	0%	96%	96%	$ 4,579,219	$ 4,763,000
25	Loop 9 12" Water Line Phase 3 - South	0%	80%	80%	$ 3,927,653	$ 4,886,000
26	Loop 9 12" Water Line Phase 4 - North	0%	100%	100%	$ 5,605,000	$ 5,605,000
27	Loop 9 12" Water Line Phase 4 - South	0%	100%	100%	$ 5,353,000	$ 5,353,000
28	Cedar Hill Rd 20" Water Line	0%	84%	84%	$ 11,115,544	$ 13,276,000

29	Stonehill/Vineyard 12" Water Line Connection	0%	100%	100%	$ 848,000	$ 848,000
30	Mansfield Road 12" Water Line*	81%	82%	1%	$ 7,117	$ 1,202,761
31	Lakeridge 8" Water Line*	94%	100%	6%	$ 119,533	$1,912,528
32	US 67 24" Water Line*	92%	93%	1%	$ 6,779	$ 1,143,404
33	Joe Wilson Phase 3 Water Line*	33%	62%	29%	$ 308,398	$ 1,053,908
34	Pleasant Run Water Line, East of US 67*	68%	100%	32%	$ 45,824	$ 145,108
35	Meadowcrest Pumping Improvements*	55%	89%	34%	$ 1,137,719	$ 3,250,626
36	Flameleaf Ground Storage and Pump Improvements*	55%	89%	34%	$ 2,306,022	$ 5,013,092
37	Water Master Plan*	0%	100%	100%	$231,150	$231,150
38	Water Impact Fee Report*	0%	100%	100%	$ 55,600	$ 55,600
				Total	**$ 93,677,917**	**$ 124,544,001**



Legend

- Impact Fee Eligible Water Project
- Existing Ground Storage Tank (GST)
- Existing Pump Station or Well
- Existing Elevated Storage Tank (EST)
- Existing PRV
- Under Design PRV
- Proposed PRV
- Existing Impact Fee Eligible Water Project
- Existing Impact Fee Eligible Pump
- Existing Impact Fee Eligible Ground Storage (GST)
- Existing Water Line ≤ 8"
- Existing Water Line ≥ 10"
- Under Design or Construction Water Line ≤ 8"
- Under Design or Construction Water Line ≥ 10"
- Cedar Hill City Limits
- Cedar Hill Water Certificate of Convenience and Necessity (CCN)/ Water Service Area
- Future Loop 9
- MTP

Pressure Planes

- Low
- High
- Balcones Development

Cedar Hill Impact Fee Water CIP Project List

1 Mount Lebanon Rd 16" Water Line
2 Mount Lebanon Rd 20" Water Line
3 Highway 67 10" Water Line (Pleasant Run to Joe Wilson)
4 Lorch Park 10" Water Line
5 Loop 9 12" Water Line Phase 1 - North
6 S Tar Rd 8" Water Line Replacement
7 Cedar Hill State Park 10" Water Line
8 Southwest Cedar Hill 12" Water Line
9 Texas Plume Rd 12" Water Line
10 E Parkerville Rd 16/18/24" Water Line Replacement Phase 1
11 Northeast Cedar Hill 10" Water Line
12 Highway 67 EST 24" Water Line Parallel
13 S Cedar Hill Rd 18" Water Line
14 Parkerville EST 24" Water Line Parallel
15 E Parkerville Rd 16/18/24" Water Line Replacement Phase 2
16 E FM 1382 10/12" Water Line
17 N Duncanville Rd 12" Water Line
18 East Little Creek 12" Water Line Phase 1
19 Pecan Trails Golf Course 8" Water Line
20 Loop 9 12" Water Line Phase 1 - South
21 Rocky Acres Rd 10/12" Water Line
22 Loop 9 12" Water Line Phase 2 - North
23 Loop 9 12" Water Line Phase 2 - South
24 Loop 9 12" Water Line Phase 3 - North
25 Loop 9 12" Water Line Phase 3 - South
26 Loop 9 12" Water Line Phase 4 - North
27 Loop 9 12" Water Line Phase 4 - South
28 Cedar Hill Rd 20" Water Line
29 Stonehill/Vineyard 12" Water Line Connection
30 Mansfield Road 12" Water Line
31 Lakeridge 8" Water Line
32 US 67 24" Water Line
33 Joe Wilson Phase 3 Water Line
34 Pleasant Run Water Line, East of US 67
35 Meadowcrest Pumping Improvements
36 Flameleaf Ground Storage and Pump Improvements

CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY

Cedar Hill, Texas
Impact Fee Report
Water Impact Fee CIP

2,000 0 2,000
Feet
April 2024

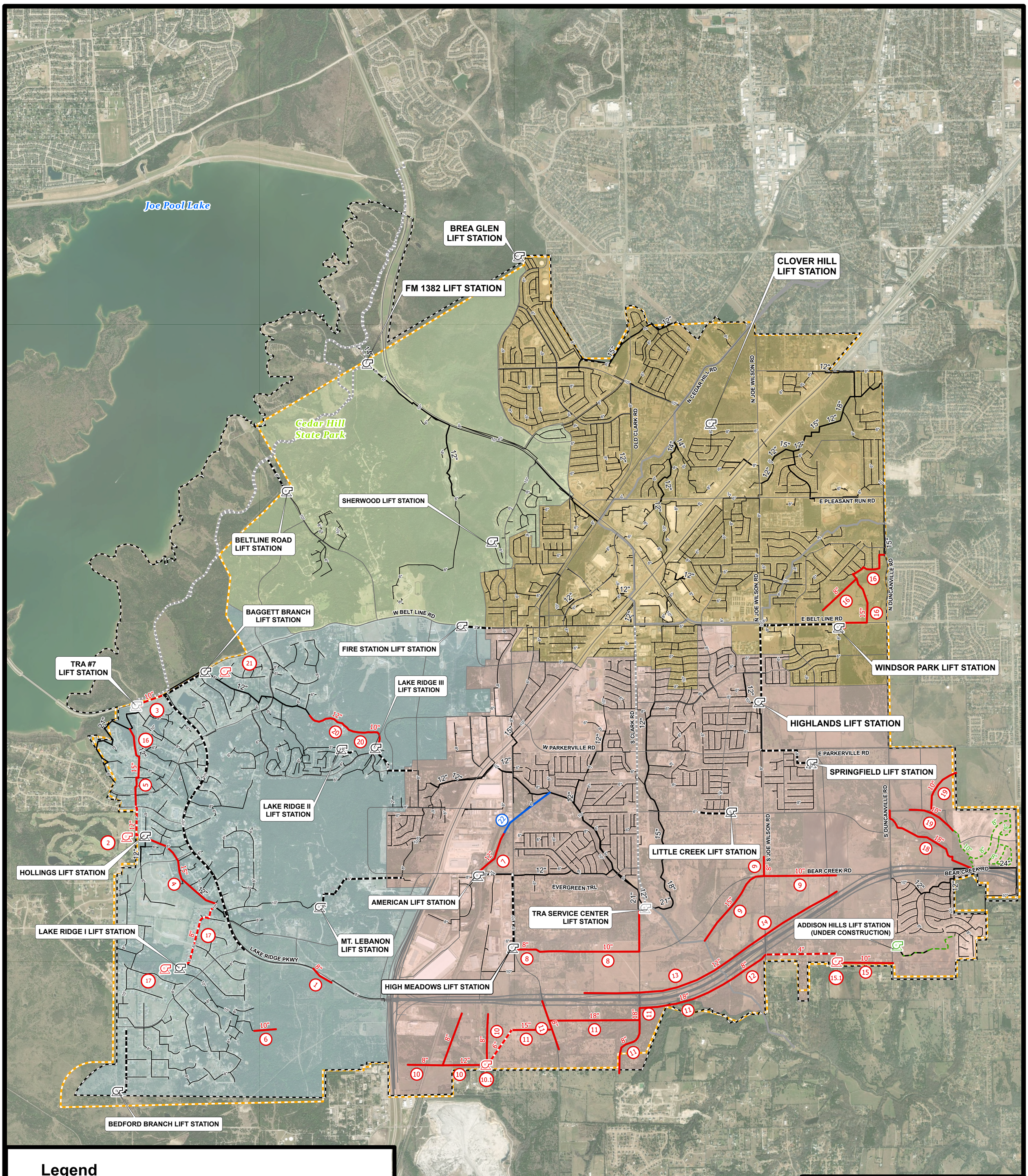
Kimley»Horn

This map product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

C

TABLE 11 – WASTEWATER IMPACT FEE CAPITAL IMPROVEMENTS PROJECT COST AND 10-YEAR RECOVERABLE COST

Proj. #	Description	2024 Capacity (% Utilized)	2034 Capacity (% Utilized)	2024-2034 Capacity (% Utilized)	2034 Projected Recoverable Cost	Total Project Cost
1	Lake Ridge Parkway 8" Gravity Line Connection	0%	100%	100%	$ 933,000	$ 933,000
2	Hollings Lift Station Expansion	0%	61%	61%	$ 1,874,629	$ 3,079,000
3	Mansfield Road Parallel 12" Gravity Line	0%	100%	100%	$ 585,000	$ 585,000
4	TRA Central South 15" Gravity II	0%	67%	67%	$ 2,129,923	$ 3,189,000
5	TRA Central South 15" Gravity I	0%	61%	61%	$ 3,265,228	$ 5,363,000
6	Autumn Run Court 10" Connection Gravity Line	0%	100%	100%	$ 1,017,614	$ 1,022,000
7	American Lift Station 12" Gravity Line	46%	85%	39%	$ 619,809	$ 1,584,000
8	High Meadows 8/10" Gravity Lines	27%	28%	1%	$ 34,386	$ 3,193,000
9	8/10/15" Bear Creek Road and South Joe Wilson Road Gravity Lines	0%	85%	85%	$ 3,127,789	$ 3,673,000
10	8/12" West Red Oak Gravity Lines	0%	43%	43%	$ 1,144,955	$ 2,676,000
10.1	West Red Oak Lift Station and Force Main	0%	43%	43%	$ 838,607	$ 1,960,000
11	8/15/18" West Red Oak Gravity Lines	0%	69%	69%	$ 4,723,981	$ 6,799,000
12	Loop 9 8" Gravity Main - South	0%	76%	76%	$ 515,412	$ 674,000
13	Loop 9 12" Gravity Main - North	0%	98%	98%	$ 2,855,089	$ 2,907,000
14	Loop 9 12" Gravity Main - North	0%	90%	90%	$ 2,620,394	$ 2,907,000
15	East Red Oak 10" Gravity Line	0%	76%	76%	$ 602,588	$ 788,000
15.1	East Red Oak Lift Station	0%	76%	76%	$ 624,000	$ 816,000
16	Windsor Park 8/15" Gravity Line	31%	73%	42%	$ 2,611,036	$ 6,196,000
17	Lakeridge Lift Station I Expansion	0%	93%	93%	$ 1,761,760	$ 4,004,000
18	18" Red Oak Gravity Line	0%	9%	9%	$ 467,968	$ 5,371,000
19	W Parkerville 10" Gravity Line	0%	5%	5%	$ 142,400	$ 2,848,000
20	10/12" Lake Ridge II and III Gravity Lines	0%	5%	5%	$ 130,900	$ 2,618,000
21	Baggett Branch Expansion	0%	5%	5%	$ 77,250	$ 1,545,000
22	American 12" Gravity Line*	46%	85%	39%	$ 514,156	$ 1,313,990
23	Wastewater Master Plan	0%	100%	100%	$ 183,550	$ 183,550
24	Wastewater Impact Fee Report	0%	100%	100%	$ 83,150	$ 83,150
				Total	**$ 35,439,446**	**$ 66,310,690**



Legend

- Impact Fee Eligible Lift Station
- Impact Fee Eligible Wastewater Force Main Project
- Impact Fee Eligible Wastewater Gravity Main Project
- Existing Impact Fee Eligible Project
- Existing Lift Station
- Existing Force Main
- Existing Wastewater Line ≤ 10"
- Existing Wastewater Line >=12"
- Existing TRA Wastewater Interceptor
- Existing TRA Force Main
- Existing TRA Lift Station
- MTP
- Cedar Hill City Limits
- Cedar Hill Wastewater Certificate of Convenience and Necessity (CCN)/Wastewater Service Area
- TRA Central North
- TRA Central South
- TRA Red Oak Basin
- TRA Ten Mile Basin
- Future Loop 9

Under Construction

- Force Main
- Wastewater
- Lift Station

Cedar Hill Impact Fee Wastewater CIP Project List

1 Lake Ridge Parkway 8" Gravity Line Connection
2 Hollings Lift Station Expansion
3 Mansfield Road Parallel 12" Gravity Line
4 TRA Central South 15" Gravity Main II
5 TRA Central South 15" Gravity Main I
6 Autumn Run Court 10" Connection Gravity Line
7 American Lift Station 12" Gravity Line
8 High Meadows 8/10" Gravity Lines
9 8/10/15" Bear Creek Road and South Joe Wilson Road Gravity Lines
10 8/12" West Red Oak Gravity Lines
10.1 West Red Oak Lift Station and Force Main
11 8/15/18" West Red Oak Gravity Lines
12 Loop 9 8" Gravity Main - South
13 Loop 9 12" Gravity Main - Northwest
14 Loop 9 12" Gravity Main - Northeast
15 East Red Oak 10" Gravity Line
15.1 East Red Oak Lift Station
16 Windsor Park 8/15" Gravity Line
17 Lake Ridge Lift Station I Expansion
18 18" Red Oak Gravity Line
19 W Parkerville 10" Gravity Line
20 10/12" Lake Ridge II & III Gravity Lines
21 Baggett Branch Expansion
22 American 12" Gravity Line

CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY

Cedar Hill, Texas
Impact Fee Report
Wastewater Impact Fee CIP

2,000 0 2,000
Feet
April 2024

Kimley»Horn

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5.0 WATER AND WASTEWATER IMPACT FEE CALCULATION

In accordance with Chapter 395, the City defines a service unit based on historical water and wastewater usage over the last 10 years as compared to the estimated residential units. The residential unit is the development type that typically uses a 1" meter. The measure of the consumption per service units based on a 1" meter and the data shown in Tables 12 and 13**.**

TABLE 12 – WATER SERVICE UNIT CONSUMPTION CALCULATION

Year	Population	Residential Units (3.2 persons/unit)	Water Demand Average Day (MGD)	Demand Per Service Unit (GPD)
2014	46,676	15,559	5.71	367
2015	47,088	15,696	5.97	380
2016	47,500	15,833	5.65	357
2017	47,912	15,971	5.65	354
2018	48,324	16,108	5.86	364
2019	48,736	16,245	5.49	338
2020	49,148	16,383	5.72	349
2021	49,927	16,642	5.55	333
2022	50,705	16,902	6.40	379
2023	48,968	16,323	6.40	392
Average Water Demand per Service Unit				**361**

TABLE 13 – WASTEWATER SERVICE UNIT CONSUMPTION CALCULATION

Year	Population	Residential Units (3.2 persons/unit)	Wastewater Flow Average Day (MGD)	Flow Per Service Unit (GPD)
2014	46,676	15,559	3.91	251
2015	47,088	15,696	5.64	359
2016	47,500	15,833	4.56	288
2017	47,912	15,971	3.79	238
2018	48,324	16,108	4.98	309
2019	48,736	16,245	4.61	284
2020	49,148	16,383	4.51	275
2021	49,927	16,642	4.65	279
2022	50,705	16,902	3.86	229
2023	48,968	16,323	4.25	260
Average Wastewater Flow per Service Unit				**277**

ADDITIONAL WATER SERVICES UNITS

The City's historic water usage of 361 gallons per service unit is more than the usage projected for a single-family residential unit in the City's Water Master Plan. The master plan projects a usage of 270 gallons per day per single family residential unit based on a detailed analysis of historic water meter data broken down by usage. The Master Plan demand projections were based upon residential customer meter data and was deemed more accurate in comparison to the City's overall historic usage as shown above. Based on this information, it was decided to use the Master Plan demand projection for a single-family residential unit of 270 gallons per day.

Based on the City's 10-year growth projections and the resulting water demand projections, water service will be required for an additional 14,815 service units. The calculation is as follows: Average Day Demand/ Service Unit Demand = Projected Service Units. These values are shown in the following table.

TABLE 14 – 10-YEAR ADDITIONAL WATER SERVICE UNITS CALCULATION

Year	Average Day Demand (MGD)	Demand Per Service Unit (GPD)	Service Units
2024	6.4	270	23,704
2034	10.4	270	38,519
		10-year Additional Service Units	**14,815**

ADDITIONAL WASTEWATER SERVICES UNITS

Similarly, the City's historic wastewater usage of 277 gallons per service unit is more than the usage projected in the City's Wastewater Master Plan. The master plan projects a flow of 216 gallons per day per single family residential unit based on a detailed analysis of historic water meter data broken down by usage. Again, the Master Plan projections were deemed more accurate in comparison to the City's overall historic usage, and it was decided to use the Master Plan flow projection for a single-family residential unit of 216 gallons per day.

Based on the City's 10-year growth projections and the resulting wastewater flow projections, wastewater service will be required for an additional 14,907 service units. The calculation is as follows: Average Daily Flow/ Flow Per Service Unit = Projected Service Units. These values are shown in the following table.

TABLE 15 – 10-YEAR ADDITIONAL WASTEWATER SERVICE UNITS CALCULATION

Year	Average Daily Flow (MGD)	Flow Per Service Unit (GPD)	Service Units
2024	4.17	216	19,306
2034	7.39	216	34,213
		10-year Additional Service Units	**14,907**

WATER AND WASTEWATER IMPACT FEE CALCULATION

Impact fee law allows for a credit calculation to credit back the development community based on the utility revenues or ad valorem taxes that are allocated for paying a portion of future capital improvements. The intent of this credit is to prevent the City from double charging development for future capital improvements via impact fees and utility rates. If the City elects not to do a financial analysis to determine the credit value, they are required by law to reduce the recoverable cost by 50 percent. The City has chosen the latter; therefore, the maximum recoverable cost for impact fee shown below is 50 percent of the Pre-Credit Recoverable Cost. This report calculates the maximum assessable impact fees as allowed by state law. The City can elect to adopt any impact fee amount they choose from $0 up to the maximum assessable fee shown but cannot exceed the maximum fees shown below.

WATER CALCULATIONS

A breakdown of the 10-year recoverable costs and the associated impact fee per service unit is as follows. Financing costs shown were determined using a 4% interest rate (provided by the City) and an assumed 20-yr financing window.

TABLE 16 – 10-YEAR WATER RECOVERABLE COST BREAKDOWN

Pre-Credit CIP Recoverable Cost for Impact Fee	$93,677,917
Financing Costs (4% Provided by City)	$39,344,725
Pre-Credit Total	$133,022,642
Credit for Utility Revenues (50% credit)	$66,511,321
Maximum Recoverable Cost for Impact Fee	**$66,511,321**

$$\text{Water impact fee per service unit} = \frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$$

$$\text{Water impact fee per service unit} = \frac{\$66{,}511{,}321}{14{,}815}$$

$$\text{Water impact fee per service unit} = \$4{,}489$$

Therefore, the maximum assessable impact fee per service unit is **$4,489**.

For a development that requires a larger meter, a service unit equivalent is established at a multiplier based on its capacity with respect to the 1” meter. The maximum impact fee that could be assessed for other meter sizes is based on the values shown in Table 17**,** Water Service Unit Equivalency Table for Commonly Used Meters.

TABLE 17 – WATER SERVICE UNIT EQUIVALENCY TABLE FOR COMMONLY USED METERS

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee ($)
1" PD	25	1	4,489
2" PD	80	3.2	14,365
3" Compound	175	7	31,423
4" Compound	300	12	53,868
6" Compound	675	27	121,203
8" Compound	900	36	161,604

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-20 and C702-19. Compound meter flows are based on Class II (in-line) meters.

WASTEWATER CALCULATIONS

A breakdown of the 10-year recoverable costs and the associated impact fee per service unit is as follows. Financing costs shown were determined using a 4% interest rate (provided by the City) and an assumed 20-yr financing window.

TABLE 18 – 10-YEAR RECOVERABLE COST BREAKDOWN

Pre-Credit CIP Recoverable Cost for Impact Fee	$35,439,446
Financing Costs (4% Provided by City)	$14,843,828
Pre-Credit Total	$50,283,275
Credit for Utility Revenues (50% credit)	$25,141,637
Maximum Recoverable Cost for Impact Fee	**$25,141,637**

$$\text{Wastewater impact fee per service unit} = \frac{\text{10-year recoverable costs}}{\text{10-year additional service units}}$$

$$\text{Wastewater impact fee per service unit} = \frac{\$25{,}141{,}637}{14{,}907}$$

$$\text{Wastewater impact fee per service unit} = \$1{,}686$$

Therefore, the maximum assessable impact fee per service unit is **$1,686.**

For a development that requires a larger meter, a service unit equivalent is established at a multiplier based on its capacity with respect to the 1" meter. The maximum impact fee for other meter sizes is based on the values shown in Table 19.

TABLE 19 – WASTEWATER SERVICE UNIT EQUIVALENCY TABLE FOR COMMONLY USED METERS

Meter Size*	Maximum Continuous Operating Capacity (GPM)**	Service Unit Equivalent	Maximum Assessable Fee ($)
1" PD	25	1	1,686
2" PD	80	3.2	5,395
3" Compound	175	7	11,802
4" Compound	300	12	20,232
6" Compound	675	27	45,522
8" Compound	900	36	60,696

* PD = Positive Displacement Meter (Typical residential meter)

** Operating capacities obtained from American Water Works Associate (AWWA) C700-20 and C702-19. Compound meter flows are based on Class II (in-line) meters.

APPENDIX A – OPINION OF PROBABLE CONSTRUCTION COSTS (WATER)

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ

Item No.	Item Description	Item Cost
Impact Fees Eligible Projects		
1	Mount Lebanon Rd 16" Water Line	$3,464,000
2	Mount Lebanon Rd 20" Water Line	$470,000
3	Highway 67 10" Water Line (Pleasant Run to Joe Wilson)	$1,532,000
4	Lorch Park 10" Water Line	$2,595,000
5	Loop 9 12" Water Line Phase 1 - North	$8,087,000
6	S Tar Rd 8" Water Line Replacement	$470,000
7	Cedar Hill State Park 10" Water Line	$3,669,000
8	Southwest Cedar Hill 12" Water Line	$6,020,000
9	Texas Plume Rd 12" Water Line	$5,403,000
10	E Parkerville Rd 16/18/24" Water Line Replacement Phase 1	$2,447,000
11	Northeast Cedar Hill 10" Water Line	$4,295,000
12	Highway 67 EST 24" Water Line Parallel	$788,000
13	S Cedar Hill Rd 18" Water Line	$859,000
14	Parkerville EST 24" Water Line Parallel	$2,397,000
15	E Parkerville Rd 16/18/24" Water Line Replacement Phase 2	$4,059,000
16	E FM 1382 10/12" Water Line	$4,096,000
17	N Duncanville Rd 12" Water Line	$2,502,000
18	East Little Creek 12" Water Line Phase 1	$4,603,000
19	Pecan Trails Golf Course 8" Water Line	$1,986,000
20	Loop 9 12" Water Line Phase 1 - South	$4,914,000
21	Rocky Acres Rd 10/12" Water Line	$3,787,000
22	Loop 9 12" Water Line Phase 2 - North	$3,336,000
23	Loop 9 12" Water Line Phase 2 - South	$2,632,000
24	Loop 9 12" Water Line Phase 3 - North	$4,763,000
25	Loop 9 12" Water Line Phase 3 - South	$4,886,000
26	Loop 9 12" Water Line Phase 4 - North	$5,605,000
27	Loop 9 12" Water Line Phase 4 - South	$5,353,000
28	Cedar Hill Rd 20" Water Line	$13,276,000
29	Stonehill/Vineyard 12" Water Line Connection	$848,000
	Projects Total:	**$109,142,000**

Basis for Cost Projection:

- [x] No Design Completed
- [ ] Preliminary Design
- [ ] Final Design

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment 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.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
1	Mount Lebanon Rd 16" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 225,000	$ 225,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.45	MI	$ 10,000	$ 9,500
5	16" Water Pipe	2,400	LF	$ 300	$ 720,000
6	16" Resilient Seated Gate Valve	5	EA	$ 15,000	$ 75,000
7	Air Release Valve	2	EA	$ 30,000	$ 60,000
8	Blow Off Valve	2	EA	$ 30,000	$ 60,000
9	Fire Hydrant Assembly	5	EA	$ 5,000	$ 25,000
10	Connect to Existing Water Line (12-16")	3	EA	$ 30,000	$ 90,000
11	Water Line Trench Safety	2,400	LF	$ 3	$ 7,200
12	Pavement Repair	3,200	SY	$ 150	$ 480,000

	Subtotal:		$ 1,961,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 490,425
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 294,255
☐ Final Design	Easement Acquisition		$ 717,000
	***Total:**		**$ 3,464,000**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment 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.

*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
2	Mount Lebanon Rd 20" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 270,000	$ 270,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.49	MI	$ 10,000	$ 9,900
5	20" Water Pipe	2,100	LF	$ 350	$ 735,000
6	24" Water Pipe	500	LF	$ 400	$ 200,000
7	42" Casing BOTOC w/24" Carrier Pipe	400	LF	$ 1,800	$ 720,000
8	20" Resilient Seated Gate Valve	3	EA	$ 25,000	$ 75,000
9	24" Resilient Seated Gate Valve & Vault	3	EA	$ 50,000	$ 150,000
10	Air Release Valve	2	EA	$ 30,000	$ 60,000
11	Blow Off Valve	2	EA	$ 30,000	$ 60,000
12	Connect to Existing Water Line (>16")	3	EA	$ 50,000	$ 150,000
13	Water Line Trench Safety	2,600	LF	$ 3	$ 7,800
14	Pavement Repair	3,500	SY	$ 150	$ 525,000

	Subtotal:		$ 3,172,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 793,175
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 475,905
☐ Final Design	Easement Acquisition		$ -
	***Total:**		**$ 4,442,000**

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment 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.

*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
3	Highway 67 10" Water Line (Pleasant Run to Joe Wilson)		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 88,000	$ 88,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	0.42	MI	$ 10,000	$ 9,200
5	10" Water Pipe	2,200	LF	$ 150	$ 330,000
6	10" Resilient Seated Gate Valve	5	EA	$ 6,000	$ 30,000
7	Fire Hydrant Assembly	5	EA	$ 5,000	$ 25,000
8	Connect to Existing Water Line (<12")	2	EA	$ 10,000	$ 20,000
9	Water Line Trench Safety	2,200	LF	$ 3	$ 6,600
10	Pavement Repair	3,000	SY	$ 150	$ 450,000

	Subtotal:		$ 1,093,800
☑ No Design Completed	Conting. (%,+/-)	25%	$ 273,450
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 164,070
☐ Final Design	Easement Acquisition		$ -
	***Total:**		**$ 1,532,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
4	Lorch Park 10" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 176,000	$ 176,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.81	MI	$ 10,000	$ 13,100
5	10" Water Pipe	4,300	LF	$ 150	$ 645,000
6	10" Resilient Seated Gate Valve	7	EA	$ 6,000	$ 42,000
7	Fire Hydrant Assembly	9	EA	$ 5,000	$ 45,000
8	Connect to Existing Water Line (<12")	1	EA	$ 10,000	$ 10,000
9	Water Line Trench Safety	4,300	LF	$ 3	$ 12,900
10	Hydromulch Repair	7,200	SY	$ 3	$ 21,600

	Subtotal:		$ 1,165,600
☑ No Design Completed	Conting. (%,+/-)	25%	$ 291,400
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 174,840
☐ Final Design	Easement Acquisition		$ 963,000
	***Total:**		**$ 2,595,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
5	Loop 9 12" Water Line Phase 1 - North		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 574,000	$ 574,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.72	MI	$ 10,000	$ 22,200
5	8" Water Pipe	1,300	LF	$ 100	$ 130,000
6	12" Water Pipe	7,800	LF	$ 200	$ 1,560,000
7	24" Casing BOTOC w/12" Carrier Pipe	700	LF	$ 1,100	$ 770,000
8	8" Resilient Seated Gate Valve	3	EA	$ 5,000	$ 15,000
9	12" Resilient Seated Gate Valve	14	EA	$ 7,000	$ 98,000
10	Fire Hydrant Assembly	19	EA	$ 5,000	$ 95,000
11	Connect to Existing Water Line (<12")	1	EA	$ 10,000	$ 10,000
12	Connect to Existing Water Line (12-16")	4	EA	$ 30,000	$ 120,000
13	Water Line Trench Safety	9,100	LF	$ 3	$ 27,300
14	Hydromulch Repair	21,000	SY	$ 3	$ 63,000

	Subtotal:		$ 3,759,500
☑ No Design Completed	Conting. (%,+/-)	25%	$ 939,875
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 563,925
☐ Final Design	Easement Acquisition		$ 2,823,000
	***Total:**		**$ 8,087,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc. | Opinion of Probable Construction Cost

Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ

6 S Tar Rd 8" Water Line Replacement

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 20,000	$ 20,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	0.21	MI	$ 10,000	$ 7,100
5	8" Water Pipe	1,100	LF	$ 100	$ 110,000
6	8" Resilient Seated Gate Valve	4	EA	$ 5,000	$ 20,000
7	Fire Hydrant Assembly	3	EA	$ 5,000	$ 15,000
8	Connect to Existing Water Line (<12")	2	EA	$ 10,000	$ 20,000
9	Water Line Trench Safety	1,100	LF	$ 3	$ 3,300
10	Hydromulch Repair	4,900	SY	$ 3	$ 14,700

	Subtotal:		$ 335,100
☑ No Design Completed	Conting. (%,+/-)	25%	$ 83,775
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 50,265
☐ Final Design	Easement Acquisition		$ -
	***Total:**		**$ 470,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
7	Cedar Hill State Park 10" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 257,000	$ 257,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1.19	MI	$ 10,000	$ 16,900
5	10" Water Pipe	6,300	LF	$ 150	$ 945,000
6	10" Resilient Seated Gate Valve	10	EA	$ 6,000	$ 60,000
7	Fire Hydrant Assembly	13	EA	$ 5,000	$ 65,000
8	Connect to Existing Water Line (<12")	2	EA	$ 10,000	$ 20,000
9	Water Line Trench Safety	6,300	LF	$ 3	$ 18,900
10	Hydromulch Repair	10,500	SY	$ 3	$ 31,500

	Subtotal:		$ 1,614,300
☑ No Design Completed	Conting. (%,+/-)	25%	$ 403,575
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 242,145
☐ Final Design	Easement Acquisition		$ 1,408,500
	***Total:**		**$ 3,669,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
8	Southwest Cedar Hill 12" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 410,000	$ 410,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	0.97	MI	$ 10,000	$ 14,700
5	12" Water Pipe	5,100	LF	$ 200	$ 1,020,000
6	24" Casing BOTOC w/12" Carrier Pipe	600	LF	$ 1,100	$ 660,000
7	12" Resilient Seated Gate Valve	9	EA	$ 7,000	$ 63,000
8	Fire Hydrant Assembly	11	EA	$ 5,000	$ 55,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	5,100	LF	$ 3	$ 15,300
11	Hydromulch Repair	6,300	SY	$ 3	$ 18,900
12	Pavement Repair	3,400	SY	$ 150	$ 510,000

	Subtotal:		$ 3,101,900
☑ No Design Completed	Conting. (%,+/-)	25%	$ 775,475
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 465,285
☐ Final Design	Easement Acquisition		$ 1,677,000
	***Total:**		**$ 6,020,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
9	Texas Plume Rd 12" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 363,000	$ 363,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	0.93	MI	$ 10,000	$ 14,300
5	12" Water Pipe	4,900	LF	$ 200	$ 980,000
6	12" Resilient Seated Gate Valve	9	EA	$ 7,000	$ 63,000
7	Fire Hydrant Assembly	10	EA	$ 5,000	$ 50,000
8	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
9	Water Line Trench Safety	4,900	LF	$ 3	$ 14,700
10	Pavement Repair	6,600	SY	$ 150	$ 990,000

	Subtotal:		$ 2,820,000
☑ No Design Completed	Conting. (%,+/-)	25%	$ 705,000
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 423,000
☐ Final Design	Easement Acquisition		$ 1,455,000
	***Total:**		**$ 5,403,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
10	E Parkerville Rd 16/18/24" Water Line Replacement Phase 1		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 140,000	$ 140,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.19	MI	$ 10,000	$ 6,900
5	24" Water Pipe	900	LF	$ 400	$ 360,000
6	30" Water Pipe	100	LF	$ 475	$ 47,500
7	24" Resilient Seated Gate Valve & Vault	6	EA	$ 50,000	$ 300,000
8	30" Resilient Seated Gate Valve & Vault	2	EA	$ 55,000	$ 110,000
9	Air Release Valve	1	EA	$ 30,000	$ 30,000
10	Blow Off Valve	1	EA	$ 30,000	$ 30,000
11	Connect to Existing Water Line (>16")	6	EA	$ 50,000	$ 300,000
12	Water Line Trench Safety	1,000	LF	$ 3	$ 3,000
13	Pavement Repair	1,400	SY	$ 150	$ 210,000

	Subtotal:		$ 1,747,400
☑ No Design Completed	Conting. (%,+/-)	25%	$ 436,850
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 262,110
☐ Final Design	Easement Acquisition		$ -
	***Total:**		**$ 2,447,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
11	Northeast Cedar Hill 10" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 294,000	$ 294,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1.10	MI	$ 10,000	$ 16,000
5	10" Water Pipe	5,800	LF	$ 150	$ 870,000
6	10" Resilient Seated Gate Valve	10	EA	$ 6,000	$ 60,000
7	Fire Hydrant Assembly	12	EA	$ 5,000	$ 60,000
8	Connect to Existing Water Line (<12")	2	EA	$ 10,000	$ 20,000
9	Water Line Trench Safety	5,800	LF	$ 3	$ 17,400
10	Hydromulch Repair	4,800	SY	$ 3	$ 14,400
11	Pavement Repair	3,900	SY	$ 150	$ 585,000

	Subtotal:		$ 2,146,800
☑ No Design Completed	Conting. (%,+/-)	25%	$ 536,700
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 322,020
☐ Final Design	Easement Acquisition		$ 1,288,500
	***Total:**		**$ 4,295,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
12	Highway 67 EST 24" Water Line Parallel		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 42,000	$ 42,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	0.02	MI	$ 10,000	$ 5,200
5	24" Water Pipe	100	LF	$ 400	$ 40,000
6	24" Resilient Seated Gate Valve & Vault	3	EA	$ 50,000	$ 150,000
7	Air Release Valve	1	EA	$ 30,000	$ 30,000
8	Blow Off Valve	1	EA	$ 30,000	$ 30,000
9	Connect to Existing Water Line (>16")	2	EA	$ 50,000	$ 100,000
10	Water Line Trench Safety	100	LF	$ 3	$ 300
11	Hydromulch Repair	400	SY	$ 3	$ 1,200

	Subtotal:		$ 523,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 130,925
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 78,555
☐ Final Design	Easement Acquisition		$ 54,000
	***Total:**		**$ 788,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
13	S Cedar Hill Rd 18" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 46,000	$ 46,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	0.06	MI	$ 10,000	$ 5,600
5	18" Water Pipe	300	LF	$ 325	$ 97,500
6	18" Resilient Seated Gate Valve	3	EA	$ 20,000	$ 60,000
7	Air Release Valve	1	EA	$ 30,000	$ 30,000
8	Blow Off Valve	1	EA	$ 30,000	$ 30,000
9	Connect to Existing Water Line (>16")	2	EA	$ 50,000	$ 100,000
10	Water Line Trench Safety	300	LF	$ 3	$ 900
11	Pavement Repair	400	SY	$ 150	$ 60,000

	Subtotal:		$ 565,000
☑ No Design Completed	Conting. (%,+/-)	25%	$ 141,250
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 84,750
☐ Final Design	Easement Acquisition		$ 67,500
	***Total:**		**$ 859,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
14	Parkerville EST 24" Water Line Parallel		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 152,000	$ 152,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.19	MI	$ 10,000	$ 6,900
5	24" Water Pipe	1,000	LF	$ 400	$ 400,000
6	24" Resilient Seated Gate Valve & Vault	3	EA	$ 50,000	$ 150,000
7	Air Release Valve	1	EA	$ 30,000	$ 30,000
8	Blow Off Valve	1	EA	$ 30,000	$ 30,000
9	Connect to Existing Water Line (>16")	2	EA	$ 50,000	$ 100,000
10	Water Line Trench Safety	1,000	LF	$ 3	$ 3,000
11	Pavement Repair	1,400	SY	$ 150	$ 210,000

	Subtotal:		$ 1,291,900
☑ No Design Completed	Conting. (%,+/-)	25%	$ 322,975
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 193,785
☐ Final Design	Easement Acquisition		$ 588,000
	***Total:**		**$ 2,397,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
15	E Parkerville Rd 16/18/24" Water Line Replacement Phase 2		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 260,000	$ 260,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.53	MI	$ 10,000	$ 10,300
5	16" Water Pipe	2,000	LF	$ 300	$ 600,000
6	24" Water Pipe	800	LF	$ 400	$ 320,000
7	16" Resilient Seated Gate Valve	4	EA	$ 15,000	$ 60,000
8	24" Resilient Seated Gate Valve & Vault	3	EA	$ 50,000	$ 150,000
9	Air Release Valve	2	EA	$ 30,000	$ 60,000
10	Blow Off Valve	2	EA	$ 30,000	$ 60,000
11	Fire Hydrant Assembly	4	EA	$ 5,000	$ 20,000
12	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
13	Connect to Existing Water Line (>16")	2	EA	$ 50,000	$ 100,000
14	Water Line Trench Safety	2,800	LF	$ 3	$ 8,400
15	Pavement Repair	3,800	SY	$ 150	$ 570,000

	Subtotal:		$ 2,488,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 622,175
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 373,305
☐ Final Design	Easement Acquisition		$ 574,500
	***Total:**		**$ 4,059,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
16	E FM 1382 10/12" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 280,000	$ 280,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.91	MI	$ 10,000	$ 14,100
5	10" Water Pipe	2,100	LF	$ 150	$ 315,000
6	12" Water Pipe	2,700	LF	$ 200	$ 540,000
7	10" Resilient Seated Gate Valve	4	EA	$ 6,000	$ 24,000
8	12" Resilient Seated Gate Valve	5	EA	$ 7,000	$ 35,000
9	Fire Hydrant Assembly	10	EA	$ 5,000	$ 50,000
10	Connect to Existing Water Line (<12")	1	EA	$ 10,000	$ 10,000
11	Connect to Existing Water Line (12-16")	1	EA	$ 30,000	$ 30,000
12	Water Line Trench Safety	4,800	LF	$ 3	$ 14,400
13	Hydromulch Repair	4,800	SY	$ 3	$ 14,400
14	Pavement Repair	3,200	SY	$ 150	$ 480,000

	Subtotal:		$ 2,016,900
☑ No Design Completed	Conting. (%,+/-)	25%	$ 504,225
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 302,535
☐ Final Design	Easement Acquisition		$ 1,272,000
	***Total:**		**$ 4,096,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
17	N Duncanville Rd 12" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 160,000	$ 160,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.40	MI	$ 10,000	$ 9,000
5	12" Water Pipe	2,100	LF	$ 200	$ 420,000
6	12" Resilient Seated Gate Valve	5	EA	$ 7,000	$ 35,000
7	Fire Hydrant Assembly	5	EA	$ 5,000	$ 25,000
8	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
9	Water Line Trench Safety	2,100	LF	$ 3	$ 6,300
10	Pavement Repair	2,800	SY	$ 150	$ 420,000
		Subtotal:			$ 1,345,300
☑	No Design Completed	Conting. (%,+/-)		25%	$ 336,325
☐	Preliminary Design	Professional Services (%,+/-)		15%	$ 201,795
☐	Final Design	Easement Acquisition			$ 618,000
		***Total:**			**$ 2,502,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
18	East Little Creek 12" Water Line Phase 1		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 320,000	$ 320,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.12	MI	$ 10,000	$ 16,200
5	12" Water Pipe	5,900	LF	$ 200	$ 1,180,000
6	12" Resilient Seated Gate Valve	10	EA	$ 7,000	$ 70,000
7	Fire Hydrant Assembly	12	EA	$ 5,000	$ 60,000
8	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
9	Water Line Trench Safety	5,900	LF	$ 3	$ 17,700
10	Hydromulch Repair	13,000	SY	$ 3	$ 39,000
		Subtotal:			$ 2,037,900
		Conting. (%,+/-)		25%	$ 509,475
		Professional Services (%,+/-)		15%	$ 305,685
		Easement Acquisition			$ 1,749,000
		***Total:**			**$ 4,603,000**

- [x] No Design Completed
- [ ] Preliminary Design
- [ ] Final Design

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
19	Pecan Trails Golf Course 8" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 132,000	$ 132,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.70	MI	$ 10,000	$ 12,000
5	8" Water Pipe	3,700	LF	$ 100	$ 370,000
6	8" Resilient Seated Gate Valve	7	EA	$ 5,000	$ 35,000
7	Fire Hydrant Assembly	8	EA	$ 5,000	$ 40,000
8	Connect to Existing Water Line (<12")	2	EA	$ 10,000	$ 20,000
9	Water Line Trench Safety	3,700	LF	$ 3	$ 11,100
10	Hydromulch Repair	6,100	SY	$ 3	$ 18,300

	Subtotal:		$ 838,400
☑ No Design Completed	Conting. (%,+/-)	25%	$ 209,600
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 125,760
☐ Final Design	Easement Acquisition		$ 811,500
	***Total:**		**$ 1,986,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
20	Loop 9 12" Water Line Phase 1 - South		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 335,000	$ 335,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	0.91	MI	$ 10,000	$ 14,100
5	12" Water Pipe	4,800	LF	$ 200	$ 960,000
6	24" Casing BOTOC w/12" Carrier Pipe	500	LF	$ 1,100	$ 550,000
7	12" Resilient Seated Gate Valve	9	EA	$ 7,000	$ 63,000
8	Fire Hydrant Assembly	10	EA	$ 5,000	$ 50,000
9	Connect to Existing Water Line (12-16")	3	EA	$ 30,000	$ 90,000
10	Water Line Trench Safety	4,800	LF	$ 3	$ 14,400
11	Hydromulch Repair	11,700	SY	$ 3	$ 35,100

	Subtotal:		$ 2,386,600
☑ No Design Completed	Conting. (%,+/-)	25%	$ 596,650
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 357,990
☐ Final Design	Easement Acquisition		$ 1,572,000
	***Total:**		**$ 4,914,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
21	Rocky Acres Rd 10/12" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 257,000	$ 257,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.70	MI	$ 10,000	$ 12,000
5	10" Water Pipe	2,000	LF	$ 150	$ 300,000
6	12" Water Pipe	1,700	LF	$ 200	$ 340,000
7	24" Casing BOTOC w/12" Carrier Pipe	600	LF	$ 1,100	$ 660,000
8	10" Resilient Seated Gate Valve	4	EA	$ 6,000	$ 24,000
9	12" Resilient Seated Gate Valve	3	EA	$ 7,000	$ 21,000
10	Fire Hydrant Assembly	8	EA	$ 5,000	$ 40,000
11	Connect to Existing Water Line (<12")	1	EA	$ 10,000	$ 10,000
12	Water Line Trench Safety	3,700	LF	$ 3	$ 11,100
13	Hydromulch Repair	8,400	SY	$ 3	$ 25,200

	Subtotal:		$ 1,900,300
☑ No Design Completed	Conting. (%,+/-)	25%	$ 475,075
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 285,045
☐ Final Design	Easement Acquisition		$ 1,126,500
	***Total:**		**$ 3,787,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
22	Loop 9 12" Water Line Phase 2 - North		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 231,000	$ 231,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.80	MI	$ 10,000	$ 13,000
5	12" Water Pipe	4,200	LF	$ 200	$ 840,000
6	12" Resilient Seated Gate Valve	8	EA	$ 7,000	$ 56,000
7	Fire Hydrant Assembly	9	EA	$ 5,000	$ 45,000
8	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
9	Water Line Trench Safety	4,200	LF	$ 3	$ 12,600
10	Hydromulch Repair	9,300	SY	$ 3	$ 27,900

	Subtotal:		$ 1,485,500
☑ No Design Completed	Conting. (%,+/-)	25%	$ 371,375
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 222,825
☐ Final Design	Easement Acquisition		$ 1,255,500
	***Total:**		**$ 3,336,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
23	Loop 9 12" Water Line Phase 2 - South		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 178,000	$ 178,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	0.61	MI	$ 10,000	$ 11,100
5	12" Water Pipe	3,200	LF	$ 200	$ 640,000
6	12" Resilient Seated Gate Valve	6	EA	$ 7,000	$ 42,000
7	Fire Hydrant Assembly	7	EA	$ 5,000	$ 35,000
8	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
9	Water Line Trench Safety	3,200	LF	$ 3	$ 9,600
10	Hydromulch Repair	7,100	SY	$ 3	$ 21,300

	Subtotal:		$ 1,197,000
☑ No Design Completed	Conting. (%,+/-)	25%	$ 299,250
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 179,550
☐ Final Design	Easement Acquisition		$ 955,500
	***Total:**		**$ 2,632,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
24	Loop 9 12" Water Line Phase 3 - North		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 331,000	$ 331,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.10	MI	$ 10,000	$ 16,000
5	12" Water Pipe	5,800	LF	$ 200	$ 1,160,000
6	24" Casing BOTOC w/12" Carrier Pipe	100	LF	$ 1,100	$ 110,000
7	12" Resilient Seated Gate Valve	10	EA	$ 7,000	$ 70,000
8	Fire Hydrant Assembly	12	EA	$ 5,000	$ 60,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	5,800	LF	$ 3	$ 17,400
11	Hydromulch Repair	13,100	SY	$ 3	$ 39,300

	Subtotal:		$ 2,138,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 534,675
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 320,805
☐ Final Design	Easement Acquisition		$ 1,768,500
	***Total:**		**$ 4,763,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
25	Loop 9 12" Water Line Phase 3 - South		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 338,000	$ 338,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.08	MI	$ 10,000	$ 15,800
5	12" Water Pipe	5,700	LF	$ 200	$ 1,140,000
6	24" Casing BOTOC w/12" Carrier Pipe	200	LF	$ 1,100	$ 220,000
7	12" Resilient Seated Gate Valve	10	EA	$ 7,000	$ 70,000
8	Fire Hydrant Assembly	12	EA	$ 5,000	$ 60,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	5,700	LF	$ 3	$ 17,100
11	Hydromulch Repair	13,100	SY	$ 3	$ 39,300

	Subtotal:		$ 2,235,200
☑ No Design Completed	Conting. (%,+/-)	25%	$ 558,800
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 335,280
☐ Final Design	Easement Acquisition		$ 1,756,500
	***Total:**		**$ 4,886,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
26	Loop 9 12" Water Line Phase 4 - North		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 388,000	$ 388,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.12	MI	$ 10,000	$ 16,200
5	12" Water Pipe	5,900	LF	$ 200	$ 1,180,000
6	24" Casing BOTOC w/12" Carrier Pipe	500	LF	$ 1,100	$ 550,000
7	12" Resilient Seated Gate Valve	10	EA	$ 7,000	$ 70,000
8	Fire Hydrant Assembly	12	EA	$ 5,000	$ 60,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	5,900	LF	$ 3	$ 17,700
11	Hydromulch Repair	14,000	SY	$ 3	$ 42,000

	Subtotal:		$ 2,658,900
☑ No Design Completed	Conting. (%,+/-)	25%	$ 664,725
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 398,835
☐ Final Design	Easement Acquisition		$ 1,882,500
	***Total:**		**$ 5,605,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
27	Loop 9 12" Water Line Phase 4 - South		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 372,000	$ 372,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.16	MI	$ 10,000	$ 16,600
5	12" Water Pipe	6,100	LF	$ 200	$ 1,220,000
6	24" Casing BOTOC w/12" Carrier Pipe	300	LF	$ 1,100	$ 330,000
7	12" Resilient Seated Gate Valve	10	EA	$ 7,000	$ 70,000
8	Fire Hydrant Assembly	13	EA	$ 5,000	$ 65,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	6,100	LF	$ 3	$ 18,300
11	Hydromulch Repair	14,100	SY	$ 3	$ 42,300

	Subtotal:		$ 2,469,200
☑ No Design Completed	Conting. (%,+/-)	25%	$ 617,300
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 370,380
☐ Final Design	Easement Acquisition		$ 1,896,000
	***Total:**		**$ 5,353,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc. | Opinion of Probable Construction Cost

Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
28	Cedar Hill Rd 20" Water Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 911,000	$ 911,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1.80	MI	$ 10,000	$ 23,000
5	20" Water Pipe	9,500	LF	$ 350	$ 3,325,000
6	36" Casing BOTOC w/20" Carrier Pipe	100	LF	$ 1,600	$ 160,000
7	20" Resilient Seated Gate Valve	12	EA	$ 25,000	$ 300,000
8	Air Release Valve	5	EA	$ 30,000	$ 150,000
9	Blow Off Valve	5	EA	$ 30,000	$ 150,000
10	Connect to Existing Water Line (>16")	4	EA	$ 50,000	$ 200,000
11	Water Line Trench Safety	9,500	LF	$ 3	$ 28,500
12	Pavement Repair	12,700	SY	$ 150	$ 1,905,000

	Subtotal:		$ 7,437,500
☑ No Design Completed	Conting. (%,+/-)	25%	$ 1,859,375
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 1,115,625
☐ Final Design	Easement Acquisition		$ 2,863,500
	***Total:**		**$ 13,276,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Water Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
29	Stonehill/Vineyard 12" Water Line Connection		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 49,000	$ 49,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	0.09	MI	$ 10,000	$ 5,900
5	12" Water Pipe	500	LF	$ 200	$ 100,000
6	24" Casing BOTOC w/12" Carrier Pipe	100	LF	$ 1,100	$ 110,000
7	12" Resilient Seated Gate Valve	3	EA	$ 7,000	$ 21,000
8	Fire Hydrant Assembly	1	EA	$ 5,000	$ 5,000
9	Connect to Existing Water Line (12-16")	2	EA	$ 30,000	$ 60,000
10	Water Line Trench Safety	500	LF	$ 3	$ 1,500
11	Hydromulch Repair	1,300	SY	$ 3	$ 3,900

	Subtotal:		$ 481,300
☑ No Design Completed	Conting. (%,+/-)	25%	$ 120,325
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 72,195
☐ Final Design	Easement Acquisition		$ 174,000
	***Total:**		**$ 848,000**

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*Total is rounded up to the nearest $1,000.

APPENDIX B – OPINION OF PROBABLE CONSTRUCTION COSTS (WASTEWATER)

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ

Item No.	Item Description	Item Cost
Impact Fee Eligible Projects		
1	Lake Ridge Parkway 8" Gravity Line Connection	$933,000
2	Hollings Lift Station Expansion	$3,079,000
3	Mansfield Road 10" Force Main	$585,000
4	TRA Central South 15" Gravity Main II	$3,198,000
5	TRA Central South 15" Gravity Main I	$5,363,000
6	Autumn Run Court 10" Gravity Line Connection	$1,022,000
7	American Lift Station 12" Gravity Line	$1,584,000
8	High Meadows Lift Station 8/10" Gravity Line	$3,193,000
9	8/10/15" Bear Creek Road and South Joe Wilson Road Gravity Lines	$3,673,000
10	8/12" West Red Oak Gravity Lines	$2,676,000
10.1	West Red Oak Lift Station and Force Main	$1,960,000
11	8/15/18" West Red Oak Gravity Lines	$6,799,000
12	Loop 9 8" Gravity Main - South	$674,000
13	Loop 9 12" Gravity Main - North	$2,907,000
14	Loop 9 12" Gravity Main - North	$2,907,000
15	East Red Oak 10-inch Gravity Line	$788,000
15.1	East Red Oak Lift Station	$816,000
16	Windsor Park 8/15-inch Gravity Line	$6,196,000
17	Lake Ridge Lift Station I Expansion	$4,004,000
18	18" Red Oak Gravity Line	$5,371,000
19	W Parkerville 10" Gravity Line	$2,848,000
20	10/12" Lake Ridge II and III Gravity Lines	$2,749,000
21	Baggett Branch Lift Station	$1,545,000
	*Projects Total:	$60,576,000

Basis for Cost Projection:

- [x] No Design Completed
- [ ] Preliminary Design
- [ ] Final Design

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*Projects Total does not include exisiting impact fee eligibile projects

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
1	Lake Ridge Parkway 8'' Gravity Line Connection		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 33,990	$ 33,990
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 6,900	$ 6,900
5	8" Sanitary Sewer	1,000	LF	$ 100	$ 100,000
6	Sewer Line Trench Safety	1,000	LF	$ 3	$ 3,000
7	Pavement Repair	1,400	SY	$ 150	$ 210,000
8	4' Manhole	2	EA	$ 10,000	$ 20,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 508,890
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 127,223
☐ Final Design	Professional Services (%,+/-)	15%	$ 76,334
	Easement Acquisition		**$ 220,500**
	Total:		**$ 933,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
2	Hollings Lift Station Expansion		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 196,780	$ 196,780
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 8,400	$ 8,400
5	12" Force Main	1,800	LF	$ 150	$ 270,000
6	Sewer Line Trench Safety	1,800	LF	$ 3	$ 5,400
7	Hydromulch Repair	3,000	SY	$ 3	$ 9,000
8	1.5 MGD Lift Station Expansion	1	LS	$ 1,500,000	$ 1,500,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,199,580
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 549,895
☐ Final Design	Professional Services (%,+/-)	15%	$ 329,937
	Easement Acquisition		$ 394,500
	Total:		**$ 3,079,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
3	Mansfield Road 10" Force Main		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 75,000	$ 75,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 7,700	$ 7,700
5	10" Force Main	1,400	LF	$ 135	$ 189,000
6	Sewer Line Trench Safety	1,400	LF	$ 3	$ 4,200
7	Hydromulch Repair	2,300	SY	$ 3	$ 6,900

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 417,800
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 104,450
☐ Final Design	Professional Services (%,+/-)	15%	$ 62,670
	Easement Acquisition		$ 309,000
	Total:		**$ 585,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
4	TRA Central South 15" Gravity Main II		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 9,900	$ 9,900
5	15" Sanitary Sewer	2,600	LF	$ 265	$ 689,000
6	Sewer Line Trench Safety	2,600	LF	$ 3	$ 7,800
7	Hydromulch Repair	500	SY	$ 3	$ 1,500
8	Pavement Repair	3,200	SY	$ 150	$ 480,000
9	5' Manhole	5	EA	$ 15,000	$ 78,000
10	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,866,200
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 466,550
☐ Final Design	Professional Services (%,+/-)	15%	$ 279,930
	Easement Acquisition		$ 585,000
	Total:		**$ 3,198,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
5	TRA Central South 15" Gravity Main I		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 14,500	$ 14,500
3	15" Sanitary Sewer	5,000	LF	$ 265	$ 1,325,000
4	Sewer Line Trench Safety	5,000	LF	$ 3	$ 15,000
5	Hydromulch Repair	5,000	SY	$ 3	$ 15,000
6	Pavement Repair	3,700	SY	$ 150	$ 555,000
7	5' Manhole	10	EA	$ 15,000	$ 150,000
8	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
	Subtotal:		$ 2,759,500
☑ No Design Completed	Conting. (%,+/-)	25%	$ 689,875
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 413,925
☐ Final Design	Easement Acquisition		$ 1,500,000
	Total:		**$ 5,363,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
6	Autumn Run Court 10" Gravity Line Connection		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 34,580	$ 34,580
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 6,900	$ 6,900
5	10" Sanitary Sewer	1,000	LF	$ 135	$ 135,000
6	Sewer Line Trench Safety	1,000	LF	$ 3	$ 3,000
7	Hydromulch Repair	300	SY	$ 3	$ 900
8	Pavement Repair	1,200	SY	$ 150	$ 180,000
9	4' Manhole	2	EA	$ 10,000	$ 20,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 515,380
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 128,845
☐ Final Design	Professional Services (%,+/-)	15%	$ 77,307
	Easement Acquisition		**$ 300,000**
	Total:		**$ 1,022,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
7	American Lift Station 12" Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 91,470	$ 91,470
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 9,500	$ 9,500
5	12" Sanitary Sewer	2,400	LF	$ 250	$ 600,000
6	Sewer Line Trench Safety	2,400	LF	$ 3	$ 7,200
7	4' Manhole	5	EA	$ 10,000	$ 48,000
8	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,131,170
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 282,793
☐ Final Design	Professional Services (%,+/-)	15%	$ 169,676
	Easement Acquisition		$ -
	Total:		**$ 1,584,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
8	High Meadows Lift Station 8/10'' Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 18,800	$ 18,800
5	8" Sanitary Sewer	700	LF	$ 100	$ 70,000
6	10" Sanitary Sewer	6,700	LF	$ 135	$ 904,500
7	16" Bore and Steel Casing	600	LF	$ 700	$ 420,000
8	Sewer Line Trench Safety	7,300	LF	$ 3	$ 21,900
9	Hydromulch Repair	32,500	SY	$ 3	$ 97,500
10	4' Manhole	15	EA	$ 10,000	$ 148,000
11	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
	Subtotal:		$ 2,280,700
☑ No Design Completed	Conting. (%,+/-)	25%	$ 570,175
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 342,105
☐ Final Design	Easement Acquisition		$ -
	Total:		**$ 3,193,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
9	8/10/15'' Bear Creek Road and South Joe Wilson Road Gravity Lines		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 219,410	$ 219,410
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 19,600	$ 19,600
5	8" Sanitary Sewer	900	LF	$ 100	$ 90,000
6	10" Sanitary Sewer	3,100	LF	$ 135	$ 418,500
7	15" Sanitary Sewer	3,900	LF	$ 265	$ 1,033,500
9	16" Bore and Steel Casing	100	LF	$ 700	$ 70,000
10	Sewer Line Trench Safety	7,700	LF	$ 3	$ 23,100
11	Hydromulch Repair	30,800	SY	$ 3	$ 92,400
12	4' Manhole	8	EA	$ 10,000	$ 80,000
13	5' Manhole	8	EA	$ 15,000	$ 117,000
14	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,623,510
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 655,878
☐ Final Design	Professional Services (%,+/-)	15%	$ 393,527
	Easement Acquisition		$ -
	Total:		**$ 3,673,000**

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*Total is rounded up to the nearest $1,000.

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Opinion of Probable Construction Cost

Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
10	8/12'' West Red Oak Gravity Lines		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 19,800	$ 19,800
5	8" Sanitary Sewer	6,000	LF	$ 100	$ 600,000
6	12" Sanitary Sewer	1,900	LF	$ 250	$ 475,000
7	Sewer Line Trench Safety	7,800	LF	$ 3	$ 23,400
8	Hydromulch Repair	11,700	SY	$ 3	$ 35,100
9	Pavement Repair	1,100	SY	$ 150	$ 165,000
10	4' Manhole	16	EA	$ 10,000	$ 158,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,911,300
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 477,825
☐ Final Design	Professional Services (%,+/-)	15%	$ 286,695
	Easement Acquisition		$ 1,744,500
	Total:		**$ 2,676,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
10.1	West Red Oak Lift Station and Force Main		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 109,060	$ 109,060
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 9,200	$ 9,200
5	6" Force Main	2,200	LF	$ 100	$ 220,000
6	Sewer Line Trench Safety	2,200	LF	$ 3	$ 6,600
7	Hydromulch Repair	3,600	SY	$ 3	$ 10,800
8	0.75 MGD Lift Station Upgrade	1	LS	$ 800,000	$ 800,000
9	4' Manhole	4	EA	$ 10,000	$ 44,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,399,660
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 349,915
☐ Final Design	Professional Services (%,+/-)	15%	$ 209,949
	Easement Acquisition		$ 486,000
	Total:		**$ 1,960,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
11	8/15/18'' West Red Oak Gravity Lines		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 416,500	$ 416,500
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 32,700	$ 32,700
5	8" Sanitary Sewer	4,900	LF	$ 100	$ 490,000
6	15" Sanitary Sewer	1,700	LF	$ 265	$ 450,500
7	18" Sanitary Sewer	8,200	LF	$ 290	$ 2,378,000
8	Sewer Line Trench Safety	14,600	LF	$ 3	$ 43,800
9	Hydromulch Repair	26,000	SY	$ 3	$ 78,000
10	5' Manhole	20	EA	$ 15,000	$ 297,000
11	4' Manhole	10	EA	$ 10,000	$ 98,000

Basis for Cost Projection:			
	Subtotal:		$ 4,856,500
☑ No Design Completed	Conting. (%,+/-)	25%	$ 1,214,125
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 728,475
☐ Final Design	Easement Acquisition		$ 3,888,000
	Total:		**$ 6,799,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
12	Loop 9 8" Gravity Main - South		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 75,000	$ 75,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 8,800	$ 8,800
5	8" Sanitary Sewer	2,000	LF	$ 100	$ 200,000
6	Sewer Line Trench Safety	2,000	LF	$ 3	$ 6,000
7	Hydromulch Repair	8,900	SY	$ 3	$ 26,700
8	4' Manhole	4	EA	$ 10,000	$ 40,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 481,500
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 120,375
☐ Final Design	Professional Services (%,+/-)	15%	$ 72,225
	Easement Acquisition		$ -
	Total:		**$ 674,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
13	Loop 9 12" Gravity Main - Northwest		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 170,580	$ 170,580
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 16,200	$ 16,200
5	12" Sanitary Sewer	5,900	LF	$ 250	$ 1,475,000
6	Sewer Line Trench Safety	5,900	LF	$ 3	$ 17,700
7	Hydromulch Repair	26,300	SY	$ 3	$ 78,900
8	4' Manhole	12	EA	$ 10,000	$ 118,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,076,380
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 519,095
☐ Final Design	Professional Services (%,+/-)	15%	$ 311,457
	Easement Acquisition		$ -
	Total:		**$ 2,907,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
14	Loop 9 12" Gravity Main - Northeast		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 170,580	$ 170,580
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 16,200	$ 16,200
5	12" Sanitary Sewer	5,900	LF	$ 250	$ 1,475,000
6	Sewer Line Trench Safety	5,900	LF	$ 3	$ 17,700
7	Hydromulch Repair	26,300	SY	$ 3	$ 78,900
8	4' Manhole	12	EA	$ 10,000	$ 118,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,076,380
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 519,095
☐ Final Design	Professional Services (%,+/-)	15%	$ 311,457
	Easement Acquisition		$ -
	Total:		**$ 2,907,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
15	East Red Oak 10'' Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 42,080	$ 42,080
2	Miscellaneous	1	LS	$ 100,000	$ 100,000
3	Erosion Control	1	LS	$ 9,500	$ 9,500
4	10" Sanitary Sewer	2,400	LF	$ 135	$ 324,000
5	Sewer Line Trench Safety	2,400	LF	$ 3	$ 7,200
6	Hydromulch Repair	10,700	SY	$ 3	$ 32,100
7	4' Manhole	5	EA	$ 10,000	$ 48,000

Basis for Cost Projection:			
	Subtotal:		$ 562,880
☑ No Design Completed	Conting. (%,+/-)	25%	$ 140,720
☐ Preliminary Design	Professional Services (%,+/-)	15%	$ 84,432
☐ Final Design	Easement Acquisition		$ -
	Total:		**$ 788,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
15.1	East Red Oak Lift Station		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 43,920	$ 43,920
2	Miscellaneous	1	LS	$ 100,000	$ 100,000
3	Erosion Control	1	LS	$ 5,600	$ 5,600
4	4" Force Main	300	LF	$ 75	$ 22,500
5	Sewer Line Trench Safety	300	LF	$ 3	$ 900
6	Hydromulch Repair	1,400	SY	$ 3	$ 4,200
7	0.20 MGD	1	LS	$ 400,000	$ 400,000
8	4' Manhole	1	EA	$ 10,000	$ 6,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 583,120
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 145,780
☐ Final Design	Professional Services (%,+/-)	15%	$ 87,468
	Easement Acquisition		$ -
	Total:		**$ 816,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
16	Windsor Park 8/15'' Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 19,400	$ 19,400
5	8" Sanitary Sewer	2,000	LS	$ 100	$ 200,000
6	15" Sanitary Sewer	5,700	LF	$ 265	$ 1,510,500
7	16" Bore and Steel Casing	100	LF	$ 700	$ 70,000
8	Sewer Line Trench Safety	7,600	LF	$ 3	$ 22,800
9	Hydromulch Repair	8,900	SY	$ 3	$ 26,700
10	Pavement Repair	3,100	SY	$ 150	$ 465,000
11	4' Manhole	4	EA	$ 10,000	$ 40,000
12	5' Manhole	11	EA	$ 15,000	$ 171,000
13	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 3,210,400
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 802,600
☐ Final Design	Professional Services (%,+/-)	15%	$ 481,560
	Easement Acquisition		$ 1,701,000
	Total:		**$ 6,196,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
17	Lake Ridge Lift Station I Expansion		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 256,850	$ 256,850
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 11,300	$ 11,300
5	10" Force Main	3,300	LF	$ 135	$ 445,500
6	Sewer Line Trench Safety	3,300	LF	$ 3	$ 9,900
7	Hydromulch Repair	600	SY	$ 3	$ 1,800
8	Pavement Repair	4,000	SY	$ 150	$ 600,000
9	1.5 MGD Lift Station Expansion	1	LS	$ 1,000,000	$ 1,000,000
10	Bypass Pumping	1	EA	$ 250,000	$ 250,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,860,350
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 715,088
☐ Final Design	Professional Services (%,+/-)	15%	$ 429,053
	Easement Acquisition		$ 729,000
	Total:		**$ 4,004,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
18	18" Red Oak Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 250,000	$ 250,000
4	Erosion Control	1	LS	$ 13,300	$ 13,300
5	18" Sanitary Sewer	4,400	LF	$ 290	$ 1,276,000
6	24" Bore and Steel Casing	1,000	LF	$ 850	$ 850,000
7	Sewer Line Trench Safety	4,400	LF	$ 3	$ 13,200
8	Hydromulch Repair	7,700	SY	$ 3	$ 23,100
9	Pavement Repair	1,200	SY	$ 150	$ 180,000
10	5' Manhole	9	EA	$ 15,000	$ 132,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,912,600
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 728,150
☐ Final Design	Professional Services (%,+/-)	15%	$ 436,890
	Easement Acquisition		$ 1,293,000
	Total:		**$ 5,371,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Impact Fees	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
19	W Parkerville 10" Gravity Line		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 150,000	$ 150,000
2	Traffic Control	1	LS	$ 25,000	$ 25,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 12,800	$ 12,800
5	10" Sanitary Sewer	4,100	LF	$ 135	$ 553,500
6	16" Bore and Steel Casing	1,000	LF	$ 700	$ 700,000
7	Sewer Line Trench Safety	4,100	LF	$ 3	$ 12,300
8	Hydromulch Repair	6,300	SY	$ 3	$ 18,900
9	Pavement Repair	1,700	SY	$ 150	$ 255,000
10	4' Manhole	8	EA	$ 10,000	$ 82,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 2,034,500
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 508,625
☐ Final Design	Professional Services (%,+/-)	15%	$ 305,175
	Easement Acquisition		$ 1,213,500
	Total:		**$ 2,848,000**

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Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Master Plan	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
20	10/12" Lake Ridge II and III Gravity Lines		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 158,100	$ 158,100
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 175,000	$ 175,000
4	Erosion Control	1	LS	$ 12,600	$ 12,600
5	10" Sanitary Sewer	1,900	LF	$ 135	$ 256,500
6	12" Sanitary Sewer	2,100	LF	$ 250	$ 525,000
7	Sewer Line Trench Safety	4,000	LF	$ 3	$ 12,000
8	Hydromulch Repair	8,400	SY	$ 3	$ 25,200
9	4' Manhole	4	EA	$ 10,000	$ 42,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,241,400
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 310,350
☐ Final Design	Professional Services (%,+/-)	15%	$ 186,210
	Easement Acquisition		$ 880,500
	Total:		**$ 2,618,000**

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*Total is rounded up to the nearest $1,000.

Kimley-Horn & Associates, Inc.			Opinion of Probable Construction Cost
Client:	City of Cedar Hill	Date:	4/25/2024
Project:	Cedar Hill Wastewater Master Plan	Prepared By:	KJF
KHA No.:	061075049	Checked By:	LMW/JDJ
21	Baggett Branch Lift Station		

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 75,000	$ 75,000
2	Traffic Control	1	LS	$ 35,000	$ 35,000
3	Miscellaneous	1	LS	$ 100,000	$ 100,000
4	Erosion Control	1	LS	$ 8,400	$ 8,400
5	12" Force Main	1,800	LF	$ 150	$ 270,000
6	Sewer Line Trench Safety	1,800	LF	$ 3	$ 5,400
7	Pavement Repair	2,400	SY	$ 150	$ 360,000
8	Bypass Pumping	1	EA	$ 250,000	$ 250,000
9	0.6 MGD Lift Station Upgrade	1	EA	$ 400,000	$ 400,000

Basis for Cost Projection:			
☑ No Design Completed	Subtotal:		$ 1,103,800
☐ Preliminary Design	Conting. (%,+/-)	25%	$ 275,950
☐ Final Design	Professional Services (%,+/-)	15%	$ 165,570
	Easement Acquisition		$ -
	Total:		**$ 1,545,000**

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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											
Truck Terminal*	030	Acres	6.55			6.55	12.73	50%	6.36	4.00	**26.20**
INDUSTRIAL											
General Light Industrial	110	1,000 SF GFA	0.65			0.65	12.73	50%	6.37	4.00	**2.60**
Industrial Park	130	1,000 SF GFA	0.34			0.34	12.73	50%	6.37	4.00	**1.36**
Warehousing	150	1,000 SF GFA	0.18			0.18	12.73	50%	6.37	4.00	**0.72**
Mini-Warehouse	151	1,000 SF GFA	0.15			0.15	12.73	50%	6.37	4.00	**0.60**
Fulfillment / Distribution Center	156	1,000 SF GFA	0.64			0.64	12.73	50%	6.37	4.00	**2.56**
RESIDENTIAL											
Single-Family Detached Housing	210	Dwelling Unit	0.94			0.94	11.64	50%	5.82	4.00	**3.76**
Townhome	215	Dwelling Unit	0.57			0.57	11.64	50%	5.82	4.00	**2.28**
Apartment / Multi-family	220	Dwelling Unit	0.51			0.51	11.64	50%	5.82	4.00	**2.04**
Mobile Home Park / Manufactured Housing	240	Dwelling Unit	0.58			0.58	11.64	50%	5.82	4.00	**2.32**
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	11.64	50%	5.82	4.00	**1.20**
Senior Adult Housing-Attached	252	Dwelling Unit	0.25			0.25	11.64	50%	5.82	4.00	**1.00**
Assisted Living	254	Beds	0.24			0.24	11.64	50%	5.82	4.00	**0.96**
LODGING											
Hotel	310	Room	0.59			0.59	5.80	50%	2.90	2.90	**1.71**
Motel / Other Lodging Facilities	320	Room	0.36			0.36	5.80	50%	2.90	2.90	**1.04**
RECREATIONAL											
Golf Course	430	Acres	0.28			0.28	9.85	50%	4.93	4.00	**1.12**
Miniature Golf Course	431	Hole	0.33			0.33	9.85	50%	4.93	4.00	**1.32**
Golf Driving Range	432	Tee	1.25			1.25	9.85	50%	4.93	4.00	**5.00**
Multiplex Movie Theater	445	Screens	13.96			13.96	9.85	50%	4.93	4.00	**55.84**
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	9.85	50%	4.93	4.00	**5.32**
Racquet / Tennis Club	491	Court	3.82			3.82	9.85	50%	4.93	4.00	**15.28**
Recreational Community Center	495	1,000 SF GFA	2.50			2.50	9.85	50%	4.93	4.00	**10.00**
INSTITUTIONAL											
Elementary School	520	Students	0.16			0.16	4.53	50%	2.27	2.27	**0.36**
Middle / Junior High School	522	Students	0.15			0.15	4.53	50%	2.27	2.27	**0.34**
High School	525	Students	0.14			0.14	4.53	50%	2.27	2.27	**0.32**
Junior / Community College	540	Students	0.11			0.11	4.53	50%	2.27	2.27	**0.25**
University / College	550	Students	0.15			0.15	4.53	50%	2.27	2.27	**0.34**
Church	560	1,000 SF GFA	0.49			0.49	4.53	50%	2.27	2.27	**1.11**
Day Care Center	565	1,000 SF GFA	11.12	44%	C	6.23	4.53	50%	2.27	2.27	**14.14**
MEDICAL											
Hospital	610	Beds	1.69			1.69	10.94	50%	5.47	4.00	**6.76**
Nursing Home	620	Beds	0.14			0.14	10.94	50%	5.47	4.00	**0.56**
Clinic	630	1,000 SF GFA	3.69			3.69	10.94	50%	5.47	4.00	**14.76**
Animal Hospital / Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	10.94	50%	5.47	4.00	**9.88**
OFFICE											
General Office Building	710	1,000 SF GFA	1.44			1.44	14.11	50%	7.06	4.00	**5.76**
Corporate Headquarters Building	714	1,000 SF GFA	1.30			1.30	14.11	50%	7.06	4.00	**5.20**
Single Tenant Office Building	715	1,000 SF GFA	1.76			1.76	14.11	50%	7.06	4.00	**7.04**
Medical-Dental Office Building	720	1,000 SF GFA	3.93			3.93	14.11	50%	7.06	4.00	**15.72**
Office Park	750	1,000 SF GFA	1.30			1.30	14.11	50%	7.06	4.00	**5.20**
COMMERCIAL											
Automobile Related											
New Car Sales	840	1,000 SF GFA	2.42	20%	B	1.94	8.60	50%	4.30	4.00	**7.76**
Automobile Parts Sales	843	1,000 SF GFA	4.90	43%	C	2.79	8.60	50%	4.30	4.00	**11.16**
Tire Store	848	1,000 SF GFA	3.75	25%	C	2.81	8.60	50%	4.30	4.00	**11.24**
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	8.60	50%	4.30	4.00	**11.64**
Automobile Care Center	942	1,000 SF Occ. GLA	3.11	40%	B	1.87	8.60	50%	4.30	4.00	**7.48**
Gasoline/Service Station	944	Vehicle Fueling Position	13.91	57%	C	5.98	1.20	50%	0.60	0.60	**3.59**
Gasoline/Service Station w/ Conv Market	945	Vehicle Fueling Position	18.42	56%	C	8.10	1.20	50%	0.60	0.60	**4.86**
Self-Service Car Wash	947	Stall	5.54	40%	B	3.32	1.20	50%	0.60	0.60	**1.99**
Automated Car Wash	948	Car Wash Tunnels	77.50	40%	B	46.50	1.20	50%	0.60	0.60	**27.90**
Dining											
Fine Dining Restaurant	931	1,000 SF GFA	7.80	44%	C	4.37	7.39	50%	3.70	3.70	**16.17**
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.05	43%	C	5.16	7.39	50%	3.70	3.70	**19.09**
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	33.21	55%	B	14.94	7.39	50%	3.70	3.70	**55.28**
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	33.03	55%	C	14.86	7.39	50%	3.70	3.70	**54.98**
Fast Food Restaurant with Drive-Thru Window (No Indoor Seating)	935	Drive-Through Lanes	59.50	31%	C	41.06	7.39	50%	3.70	3.70	**151.92**
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	38.99	70%	B	11.70	7.39	50%	3.70	3.70	**43.29**
Other Retail											
Construction Equipment Rental Store	811	1,000 SF GFA	0.99	26%	B	0.73	6.83	50%	3.42	3.42	**2.50**
Free-Standing Discount Store	815	1,000 SF GFA	4.86	20%	C	3.89	6.83	50%	3.42	3.42	**13.30**
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	6.83	50%	3.42	3.42	**16.62**
Shopping Center (>150k)	820	1,000 SF GLA	3.40	29%	C	2.41	6.83	50%	3.42	3.42	**8.24**
Shopping Center (40-150k)	821	1,000 SF GLA	5.19	40%	C	3.11	6.83	50%	3.42	3.42	**10.64**
Shopping Center (<40k)	822	1,000 SF GLA	6.59	40%	B	3.95	6.83	50%	3.42	3.42	**13.51**
Supermarket	850	1,000 SF GFA	8.95	24%	C	6.80	6.83	50%	3.42	3.42	**23.26**
Convenience Store	851	1,000 SF GFA	49.11	51%	A	24.06	6.83	50%	3.42	3.42	**82.29**
Home Improvement Superstore	862	1,000 SF GFA	2.29	42%	C	1.33	6.83	50%	3.42	3.42	**4.55**
Toy / Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	6.83	50%	3.42	3.42	**11.97**
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	6.83	50%	3.42	3.42	**4.69**
Pharmacy / Drugstore without Drive-Thru Window	880	1,000 SF GFA	8.51	53%	C	4.00	6.83	50%	3.42	3.42	**13.68**
Pharmacy / Drugstore with Drive-Thru Window	881	1,000 SF GFA	10.25	49%	C	5.23	6.83	50%	3.42	3.42	**17.89**
SERVICES											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	3.39	50%	1.70	1.70	**12.38**
Drive-In Bank	912	Drive-in Lanes	27.07	35%	C	17.60	3.39	50%	1.70	1.70	**29.92**
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	3.39	50%	1.70	1.70	**1.73**
Tasting Room	970	1,000 SF GLA	7.31			7.31	3.39	50%	1.70	1.70	**12.43**

Notes:

*Uses data from ITE Trip Generation Manual 8th Edition

Key to Sources of Pass-by Rates:

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

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

C: 2021 Pass-By Tables for ITETripGen Appendices

EQUIVALENCY TABLES

Exhibit 3

WATER AND WASTEWATER

TABLE 4-1 – SERVICE UNIT EQUIVALENCIES

Meter Size	Meter Type	Maximum Continuous Operating Capacity (gpm*)	Service Unit Equivalent
1”	Displacement	25	1
2”	Displacement	80	3.2
3”	Compound	175	7
4”	Compound	300	12
6”	Compound	675	27
8”	Compound	900	36

* Operating capacities obtained from American Water Works Associate (AWWA) C700-20 and C702-19.

Compound meter flows are based on Class II (in-line) meters.

**Water and wastewater fees for single family detached and townhouses shall be reduced by 40%.

EXHIBIT 4

Maximum Impact Fee per Servcie Unit

City of Cedar Hill

SCHEDULE 1

MAXIMUM JUSTIFIED

IMPACT FEES PER SERVICE UNIT FOR

WATER, WASTEWATER AND ROADWAY FACILITIES

	LAND PLATTED PRIOR TO 6/20/87	LAND PLATTED OR REPLATTED BETWEEN 6/21/87 AND 5/22/90	LAND PLATTED OR REPLATTED BETWEEN 5/23/90 AND 2/1/95	LAND PLATTED OR REPLATTED BETWEEN 2/2/95 AND 10/13/98	LAND PLATTED OR REPLATTED BETWEEN 10/13/98 AND 9/24/02	LAND PLATTED OR REPLATTED BETWEEN 9/24/02 AND 9/25/07	LAND PLATTED OR REPLATTED BETWEEN 9/25/07 AND 8/28/12	LAND PLATTED OR REPLATTED AFTER 8/28/12	LAND PLATTED OR REPLATTED AFTER 9/1/2024
WATER per SFLUE	$ 3,574	$ 675	$ 1,053	$ 3,574	$ 3,574	$ 4,102	$ 2,916	$ 3,519	$ 4,489
WASTEWATER per SFLUE	$ 2,553	$ 843	$ 447	$ 2,553	$ 2,553	$ 3,086	$ 1,258	$ 1,289	$ 1,686
ROADWAY per VEHICLE-MILE									
SVC AREA 1	$ 1,204	$ 1,204	$ 1,204	$ 1,204	$ 1,204	$ 2,366	$ 1,016	$ 1,291	$ 3,025
SVC AREA 2	$ 943	$ 943	$ 943	$ 943	$ 943	$ 2,151	$ 984	$ 915	$ 2,852
SVC AREA 3	$ 914	$ 914	$ 914	$ 914	$ 914	$ 2,170	$ 1,037	$ 1,188	$ 1,822
SVC AREA 4	$ 992	$ 992	$ 992	$ 992	$ 992	$ 1,670	$ 814	$ 1,316	$ 1,059
SVC AREA 5	$ 830	$ 830	$ 830	$ 830	$ 830				
SVC AREA 6	$ 946	$ 946	$ 946	$ 946	$ 946				
SVC AREA 7	$ 888	$ 888	$ 888	$ 888	$ 888				
SVC AREA 8	$ 830	$ 830	$ 830	$ 830	$ 830				
SVC AREA 9	NA	NA	NA	NA	$ 830				

EXHIBIT 5

Maximum Impact Fee per Servcie Unit to be Collected

City of Cedar Hill

SCHEDULE 2

IMPACT FEE COLLECTION SCHEDULE PER SERVICE UNIT FOR WATER, WASTEWATER AND ROADWAY FACILITIES

	Impact Fee Rate per Service Unit
WATER	
per LUE	**$ 4,489**
WASTEWATER	
per LUE	**$ 1,686**
ROADWAY	
per Vehicle-Mile	
SVC AREA 1	**$ 1,059**
SVC AREA 2	**$ 1,059**
SVC AREA 3	**$ 1,059**
SVC AREA 4	**$ 1,059**

**Water and wastewater fees for single family detached and townhouses shall be reduced by 40%