

PREPARED FOR:



CITY OF CEDAR HILL

# WATER AND WASTEWATER IMPACT FEE REPORT

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04/25/2024

APRIL 2024



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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  $\frac{3}{4}$ " 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  $\frac{3}{4}$ " 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

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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 City'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
<b>10-Year Growth</b>	<b>27,900</b>	<b>36,775,236</b>	<b>17,533,601</b>	<b>52,546,011</b>	<b>106,854,848</b>

### ***B. IMPACT FEE CAPITAL IMPROVEMENTS PLAN (CIP)***

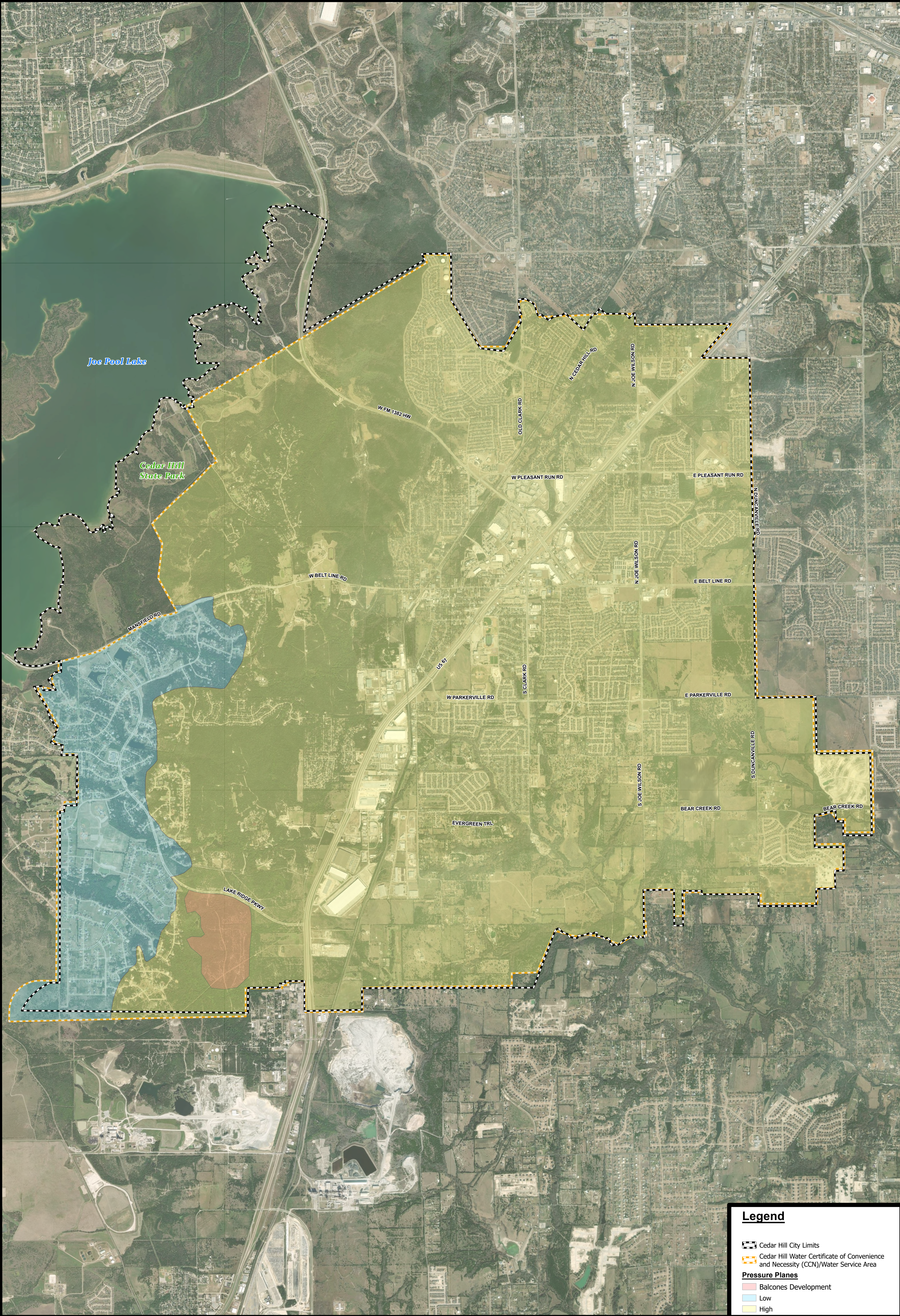
This task included assessment of the water and wastewater capital improvements plan defined in the master plan to identify projects within the proposed 10-year planning window which meet the Chapter 395 criteria to be impact fee eligible. Impact fee eligible projects are defined as those necessary to 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.











## 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
<b>Supply &amp; Production</b>	Overall capacity to meet Maximum Day Demand (MDD)	Overall capacity to meet 0.60 gpm per connection
<b>Minimum Pressure</b>	Normal conditions = 40 psi Extreme conditions = 20 psi	Normal conditions = 35 psi Extreme conditions = 20 psi
<b>Maximum Velocity</b>	3 – 5 ft/s preferable 7 ft/s maximum	N/A
<b>Pumping Facilities</b>	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.
<b>Ground Storage</b>	50% of MDD	N/A
<b>Elevated Storage</b>	Sufficient storage to satisfy required ISO Fire rating <sup>1</sup> 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.
<b>Total Storage</b>	N/A	Equal to 200 gallons per connection

<sup>1</sup>City must supply 3,500 gpm for 3 hours to maintain ISO Fire Rating

**TABLE 5 – WASTEWATER DESIGN CRITERIA SUMMARY**

	City Criteria	TCEQ Criteria
<b>Gravity Main</b>	<ul style="list-style-type: none"> <li>▶ Minimum Diameter allowed for a gravity pipe is eight inches</li> </ul>	<ul style="list-style-type: none"> <li>▶ Wastewater collection system must handle the transport of the peak dry weather flow plus inflow and infiltration (TCEQ Section §217.53(a))</li> <li>▶ Minimum Diameter allowed for a gravity pipe is six inches (TCEQ Section §217.53(j))</li> <li>▶ 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))</li> </ul>
<b>Force Main</b>		<ul style="list-style-type: none"> <li>▶ 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.</li> </ul>
<b>Lift Station</b>	<ul style="list-style-type: none"> <li>▶ Minimum of 3 pumps for new lift stations</li> </ul>	<ul style="list-style-type: none"> <li>▶ 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))</li> <li>▶ For a lift station with two pumps: <ul style="list-style-type: none"> <li>○ A minimum velocity of 3.0 feet per second.</li> </ul> </li> <li>▶ For a lift station with three or more pumps: <ul style="list-style-type: none"> <li>○ 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))</li> </ul> </li> </ul>

## 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 <sup>1</sup>
Employment Center	290
Historic Downtown	900
Neighborhood Center	900
Open Space Public Ownership	140
Regional Center	900
Residential Mixed Density	750
Residential Multifamily	0 <sup>1</sup>
Residential Single Family	0 <sup>1</sup>
Retail Center Retrofit	900
Rural Open Space	0 <sup>1</sup>
Suburban Institutional Area	120
Suburban Non-Residential	900
Uptown	590

<sup>1</sup> 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 <sup>1</sup>
Employment Center	232
Historic Downtown	720
Neighborhood Center	720
Open Space Public Ownership	112
Regional Center	720
Residential Mixed Density	600
Residential Multifamily	0 <sup>1</sup>
Residential Single Family	0 <sup>1</sup>
Retail Center Retrofit	720
Rural Open Space	0 <sup>1</sup>
Suburban Institutional Area	96
Suburban Non-Residential	720
Uptown/Midtown	472

<sup>1</sup>100% Residential Land Use, flow calculated utilizing values in Table 8.



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

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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
<b>Total</b>					<b>\$ 93,677,917</b>	<b>\$ 124,544,001</b>



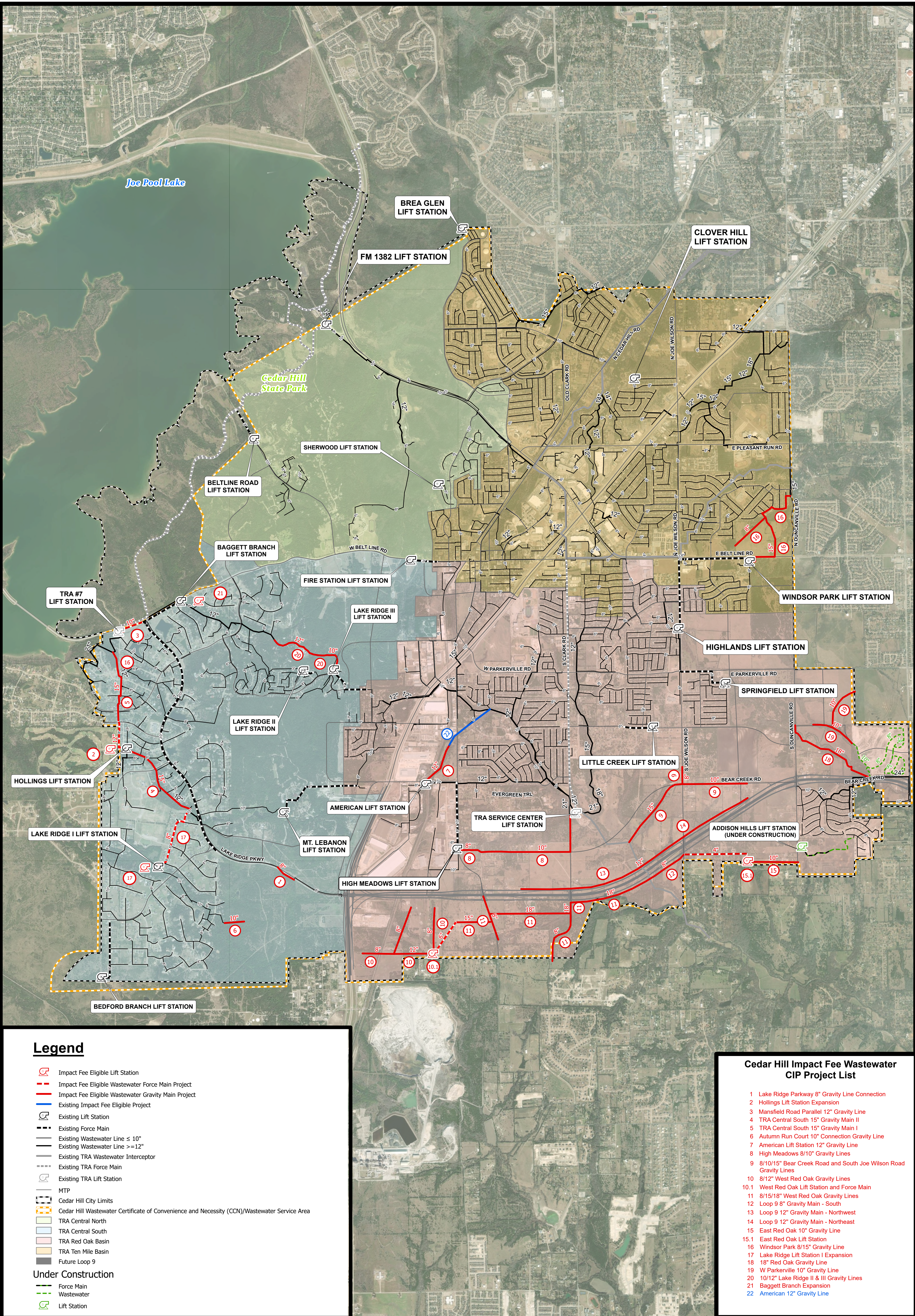




**TABLE 11 – WASTEWATER IMPACT FEE CAPITAL IMPROVEMENTS PROJECT COST AND 10-YEAR RECOVERABLE COST**

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
<b>Total</b>					<b>\$ 35,439,446</b>	<b>\$ 66,310,690</b>



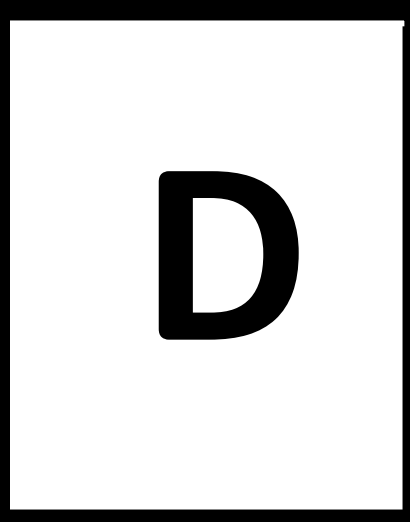


Cedar Hill, Texas  
Impact Fee Report  
Wastewater Impact Fee CIP



**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.





## 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
<b>Pre-Credit Total</b>	<b>\$133,022,642</b>
<b>Credit for Utility Revenues (50% credit)</b>	<b>\$66,511,321</b>
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$66,511,321</b>

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

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

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

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
<b>Pre-Credit Total</b>	<b>\$50,283,275</b>
<b>Credit for Utility Revenues (50% credit)</b>	<b>\$25,141,637</b>
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$25,141,637</b>

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

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

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

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
<b>Impact Fees Eligible Projects</b>		
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
		<b>Projects Total: \$109,142,000</b>

**Basis for Cost Projection:**

☒ 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 490,425
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 294,255
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 717,000
<b>*Total:</b>					<b>\$ 3,464,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 793,175
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 475,905
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>*Total:</b>			<b>\$ 4,442,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 273,450
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 164,070
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>*Total:</b>			<b>\$ 1,532,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 291,400
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 174,840
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 963,000
		<b>*Total:</b>			<b>\$ 2,595,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 939,875
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 563,925
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 2,823,000
		<b>*Total:</b>			<b>\$ 8,087,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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	
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-)			25%	\$ 83,775
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-)			15%	\$ 50,265
<input type="checkbox"/>	Final Design	Easement Acquisition				\$ -
		<b>*Total:</b>			<b>\$ 470,000</b>	
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>						

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-) 25%			\$ 403,575
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-) 15%			\$ 242,145
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,408,500
<b>*Total:</b>					<b>\$ 3,669,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-) 25%			\$ 775,475
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-) 15%			\$ 465,285
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,677,000
<b>*Total:</b>					<b>\$ 6,020,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 705,000
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 423,000
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,455,000
		<b>*Total:</b>			<b>\$ 5,403,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 436,850
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 262,110
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
<b>*Total:</b>					<b>\$ 2,447,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 536,700
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 322,020
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,288,500
<b>*Total:</b>					<b>\$ 4,295,000</b>
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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 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 130,925
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 78,555
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 54,000
<b>*Total:</b>					<b>\$ 788,000</b>
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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 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 141,250
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 84,750
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 67,500
<b>*Total:</b>					<b>\$ 859,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 322,975
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 193,785
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 588,000
<b>*Total:</b>					<b>\$ 2,397,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 622,175
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 373,305
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 574,500
<b>*Total:</b>					<b>\$ 4,059,000</b>
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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 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 504,225
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 302,535
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,272,000
<b>*Total:</b>					<b>\$ 4,096,000</b>
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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 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 336,325
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 201,795
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 618,000
		<b>*Total:</b>			<b>\$ 2,502,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 509,475
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 305,685
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,749,000
		<b>*Total:</b>			<b>\$ 4,603,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 209,600
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 125,760
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 811,500
<b>*Total:</b>					<b>\$ 1,986,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 596,650
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 357,990
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,572,000
<b>*Total:</b>					<b>\$ 4,914,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 475,075
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 285,045
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,126,500
<b>*Total:</b>					<b>\$ 3,787,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 371,375
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 222,825
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,255,500
		<b>*Total:</b>			<b>\$ 3,336,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 299,250
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 179,550
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 955,500
<b>*Total:</b>					<b>\$ 2,632,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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 BOTOE 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-)			25% \$ 534,675
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-)			15% \$ 320,805
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,768,500
		<b>*Total:</b>			<b>\$ 4,763,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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 BOTOE 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 558,800
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 335,280
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,756,500
<b>*Total:</b>					<b>\$ 4,886,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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 BOTOE 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 664,725
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 398,835
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,882,500
<b>*Total:</b>					<b>\$ 5,605,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 617,300
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 370,380
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,896,000
<b>*Total:</b>					<b>\$ 5,353,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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 BOTO C 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 1,859,375
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 1,115,625
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 2,863,500
<b>*Total:</b>					<b>\$ 13,276,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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 BOTOE 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-)			25% \$ 120,325
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-)			15% \$ 72,195
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 174,000
		<b>*Total:</b>			<b>\$ 848,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

**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/JDI
Item No.	Item Description	Item Cost	
<b><u>Impact Fee Eligible Projects</u></b>			
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
<b>Basis for Cost Projection:</b> <input checked="" type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary Design <input type="checkbox"/> Final Design			
<p>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 described 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.</p> <p>*Projects Total does not include existing impact fee eligible projects</p>			



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:		Subtotal:			\$ 508,890
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 127,223
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 76,334
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 220,500
		<b>Total:</b>			<b>\$ 933,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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:		Subtotal:			\$ 2,199,580
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 549,895
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 329,937
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 394,500
		<b>Total:</b>			<b>\$ 3,079,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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:		Subtotal:			\$ 417,800
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 104,450
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 62,670
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 309,000
		<b>Total:</b>			<b>\$ 585,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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:		Subtotal:			\$ 1,866,200
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-)			25% \$ 466,550
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-)			15% \$ 279,930
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 585,000
		<b>Total:</b>			<b>\$ 3,198,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-) 25%			\$ 689,875
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-) 15%			\$ 413,925
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,500,000
		Total:			\$ 5,363,000
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 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:		Subtotal:			\$ 515,380
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-)			25% \$ 128,845
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-)			15% \$ 77,307
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 300,000
		<b>Total:</b>			<b>\$ 1,022,000</b>
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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 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:		Subtotal:			\$ 1,131,170
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 282,793
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 169,676
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 1,584,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					



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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-) 25%			\$ 570,175
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-) 15%			\$ 342,105
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 3,193,000</b>
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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 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:		Subtotal:			\$ 2,623,510
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% , +/-) 25%			\$ 655,878
<input type="checkbox"/>	Preliminary Design	Professional Services (% , +/-) 15%			\$ 393,527
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 3,673,000</b>
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a						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:		Subtotal:				\$ 1,911,300	
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%				\$ 477,825	
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%				\$ 286,695	
<input type="checkbox"/>	Final Design	Easement Acquisition				\$ 1,744,500	
		<b>Total:</b>				<b>\$ 2,676,000</b>	
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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 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:		Subtotal:			\$ 1,399,660
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 349,915
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 209,949
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 486,000
		Total:			\$ 1,960,000
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 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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 1,214,125
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 728,475
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 3,888,000
		<b>Total:</b>			<b>\$ 6,799,000</b>
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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 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:		Subtotal:			\$ 481,500
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 120,375
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 72,225
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 674,000</b>
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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 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:		Subtotal:			\$ 2,076,380
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 519,095
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 311,457
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 2,907,000</b>
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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 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:		Subtotal:			\$ 2,076,380
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 519,095
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 311,457
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 2,907,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% , +/-) 25%			\$ 140,720
<input type="checkbox"/>	Preliminary Design	Professional Services (% , +/-) 15%			\$ 84,432
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 788,000</b>
<p>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.</p> <p>*Total is rounded up to the nearest \$1,000.</p>					

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:		Subtotal:			\$ 583,120
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 145,780
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 87,468
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 816,000</b>
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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 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:		Subtotal:			\$ 3,210,400
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-)			25% \$ 802,600
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-)			15% \$ 481,560
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,701,000
		<b>Total:</b>			<b>\$ 6,196,000</b>
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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 Impact Fees			Prepared By:	KJF
KHA No.:	061075049			Checked By:	LMW/JD
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:		Subtotal:			\$ 2,860,350
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 715,088
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 429,053
<input type="checkbox"/>	Final Design	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:		Subtotal:			\$ 2,912,600
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% , +/-) 25%			\$ 728,150
<input type="checkbox"/>	Preliminary Design	Professional Services (% , +/-) 15%			\$ 436,890
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,293,000
		<b>Total:</b>			<b>\$ 5,371,000</b>
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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 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:		Subtotal:			\$ 2,034,500
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% , +/-) 25%			\$ 508,625
<input type="checkbox"/>	Preliminary Design	Professional Services (% , +/-) 15%			\$ 305,175
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 1,213,500
		<b>Total:</b>			<b>\$ 2,848,000</b>
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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:		Subtotal:			\$ 1,241,400
<input checked="" type="checkbox"/>	No Design Completed	Conting. (%,+/-) 25%			\$ 310,350
<input type="checkbox"/>	Preliminary Design	Professional Services (%,+/-) 15%			\$ 186,210
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ 880,500
		<b>Total:</b>			<b>\$ 2,618,000</b>
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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			
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:		Subtotal:			\$ 1,103,800
<input checked="" type="checkbox"/>	No Design Completed	Conting. (% ,+/-) 25%			\$ 275,950
<input type="checkbox"/>	Preliminary Design	Professional Services (% ,+/-) 15%			\$ 165,570
<input type="checkbox"/>	Final Design	Easement Acquisition			\$ -
		<b>Total:</b>			<b>\$ 1,545,000</b>
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