

2023 Water and Wastewater Impact Fee Update

Prepared for:

City of Burleson

December 2023



Prepared by:

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2023 Water and Wastewater Impact Fee Update

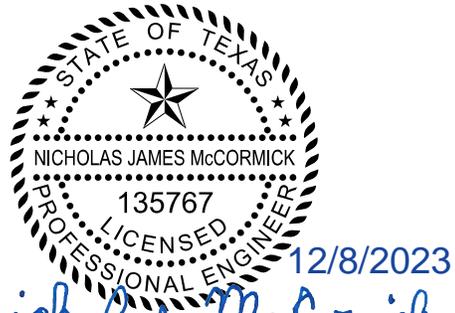
Prepared for:

City of Burleson



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EXECUTIVE SUMMARY

1.0 Background

Chapter 395 of the Texas Local Government Code (TLGC) requires an impact fee analysis be performed before impact fees can be created and assessed. Chapter 395 defines an impact fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.” In September 2001, Senate Bill 243 amended Chapter 395, thus creating the current procedure for implementing impact fees. The City’s impact fees have most recently been updated in 2019.

2.0 Land Use Assumptions

To assist the City of Burleson in determining the need and timing of capital improvements to serve future development, a reasonable estimation of future growth is required. Growth and development projections were formulated based on assumptions pertaining to the type, location, quantity, and timing of various future land uses within the community. The City has separate service populations for water and wastewater systems due to different service areas. Projections were developed for both the Water Service Area and Wastewater Service Area. The existing (2023) water served population is estimated to be approximately 48,954. The projected 2033 water served population is approximately 62,334. The existing wastewater served population is estimated to be approximately 55,981. The projected 2033 wastewater served population is approximately 83,221.

3.0 Capital Improvements Plan

An impact fee capital improvements plan (CIP) was developed for the City to ensure high quality water and wastewater service that promotes residential and non-residential development. The recommended improvements will provide the required capacity and reliability to meet projected water demands and wastewater flows through 2033. The total impact fee eligible cost for the water system improvements is \$24,968,810. The total impact fee eligible cost for the wastewater system improvements is \$35,041,539.

3.0 Impact Fee Analysis

The water and wastewater impact fee analysis involves determining the utilization of existing and proposed projects required, as defined by the CIP, to serve new development over the next 10 years. The total projected costs include the projected 10-year capital costs, the projected financing costs for the capital improvements, and the consultant costs for preparing and updating the Impact Fee Study. The financing costs are based on the interest paid over the first 10-year of a 20-year bond. The interest rate assumed for the impact fee calculations was 4.0%. The calculated maximum allowable impact fees are as follows:

- Maximum allowable water impact fee for a 5/8" meter with 50% credit = \$2,492
- Maximum allowable wastewater impact fee for a 5/8" with 50% credit = \$1,731
- Total combined maximum allowable impact fee for a 5/8" with 50% credit = \$4,223

In addition to the maximum allowable impact fees calculated above, as a wholesale customer, the City of Burleson must also include Fort Worth's water and wastewater impact fees where applicable.

1.0 BACKGROUND

Chapter 395 of the Texas Local Government Code (TLGC) requires an impact fee analysis before impact fees can be created and assessed. Chapter 395 defines an impact fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.” In September 2001, Senate Bill 243 amended Chapter 395 thus creating the current procedure for implementing impact fees. Chapter 395 identifies the following items as impact fee eligible costs:

- Construction contract price
- Surveying and engineering fees
- Land acquisition costs
- Fees paid to the consultant preparing or updating the capital improvements plan (CIP)
- Projected interest charges and other financing costs for projects identified in the CIP

Chapter 395 also identifies items that impact fees cannot be used to pay for, such as:

- Construction, acquisition, or expansion of public facilities or assets other than those identified in the impact fee CIP
- Repair, operation, or maintenance of existing or new capital improvements
- Upgrading, updating, expanding, or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards
- Upgrading, updating, expanding, or replacing existing capital improvements to provide better service to existing development
- Administrative and operating costs of the political subdivision
- Principal payments and interest or other finance charges on bonds or other indebtedness, except as allowed above

The City of Burleson, Texas authorized Freese and Nichols, Inc. (FNI) to perform an impact fee analysis update on the City’s water and wastewater systems. The City’s impact fees have most recently been updated in 2019. The purpose of this report is to address the methodology used in the development and calculation of water and wastewater impact fees for the City. The methodology used herein satisfies the requirements of the TLGC Section 395 for the establishment of impact fees.

2.0 LAND USE ASSUMPTIONS

To assist the City of Burleson in determining the need and timing of capital improvements to serve future development, a reasonable estimation of future growth is required. Growth and future development projections were formulated based on assumptions pertaining to the type, location, quantity, and timing of various future land uses within the community. These land use assumptions, which include population and non-residential acreage projections, will become the basis for the preparation of impact fee CIP for water and wastewater infrastructure.

2.1 SERVICE AREAS

Chapter 395 requires that service areas be defined for impact fees to ensure that facility improvements are located in close proximity to areas generating needs. Legislative requirements stipulate that water and wastewater service areas can extend to the entire City Limits and Extraterritorial Jurisdiction District (ETJ). An analysis including the ETJ was conducted in order to consider provision of water and wastewater service areas.

Figures 2-1 and **2-2** illustrate the water and wastewater service area, respectively, for the Burleson Impact Fee study. The water service area is generally bounded by the City's water Certificate of Convenience and Necessity (CCN) and City limits. The wastewater service area is generally bounded by the City's wastewater CCN, City Limit, and the ETJ. Because other utilities have CCNs and provide service inside portions of Burleson's city limits and in the surrounding areas, there are pockets of development that do not receive water and/or wastewater service from the City of Burleson. Both Johnson County Special Utility District's (JCSUD) and Bethesda Water Supply Corporation's (WSC) water CCNs include portions of Burleson's city limits and ETJ. On the sewer side, there are also some residents who have their own septic systems and are not provided wastewater service by the City.

**FIGURE 2-1
CITY OF BURLESON
IMPACT FEE
WATER SERVICE AREA
LEGEND**

- IF Water Service Area
- Lake
- Road
- Parcel
- Railroad
- Burleson City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

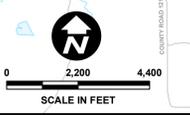
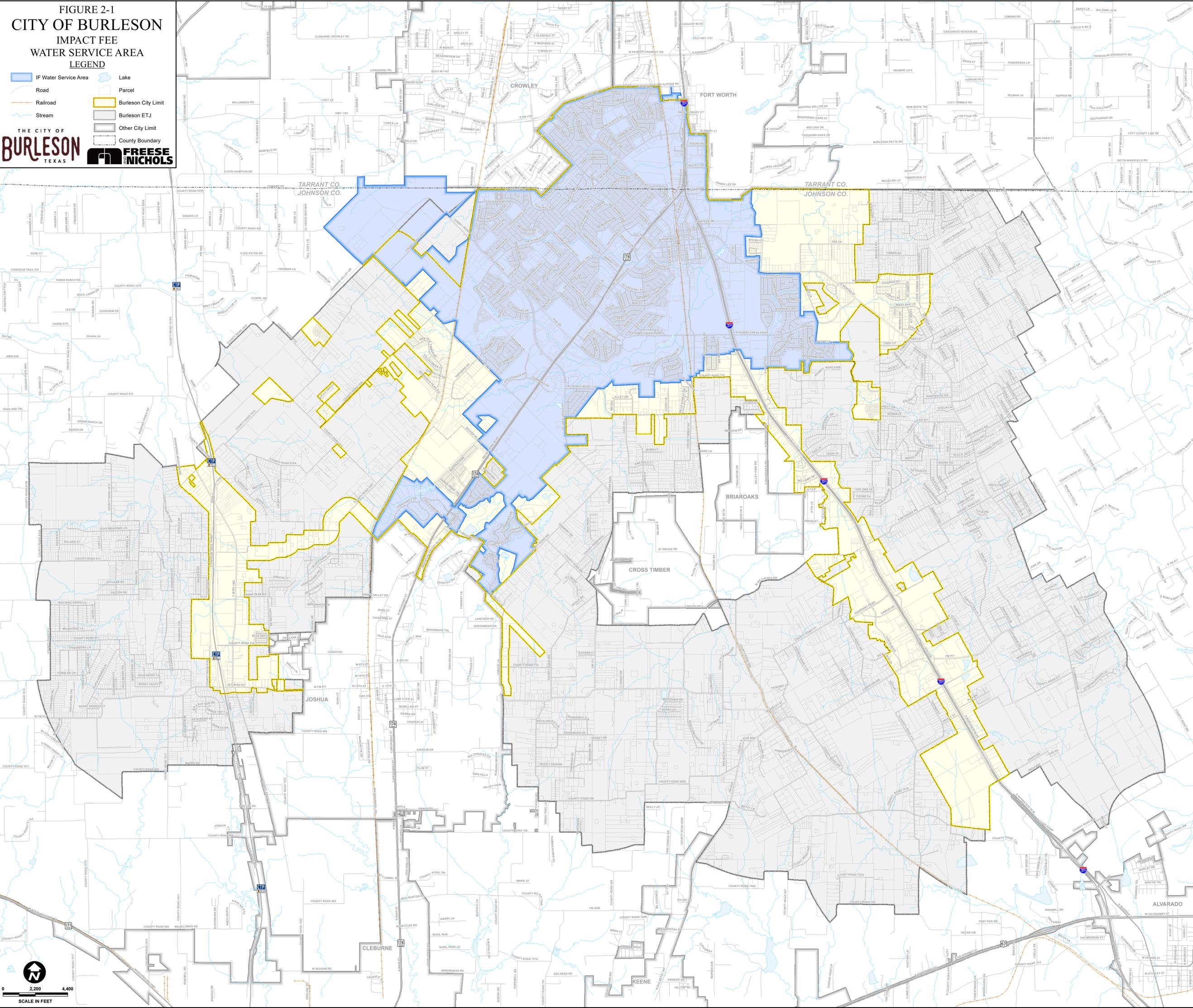
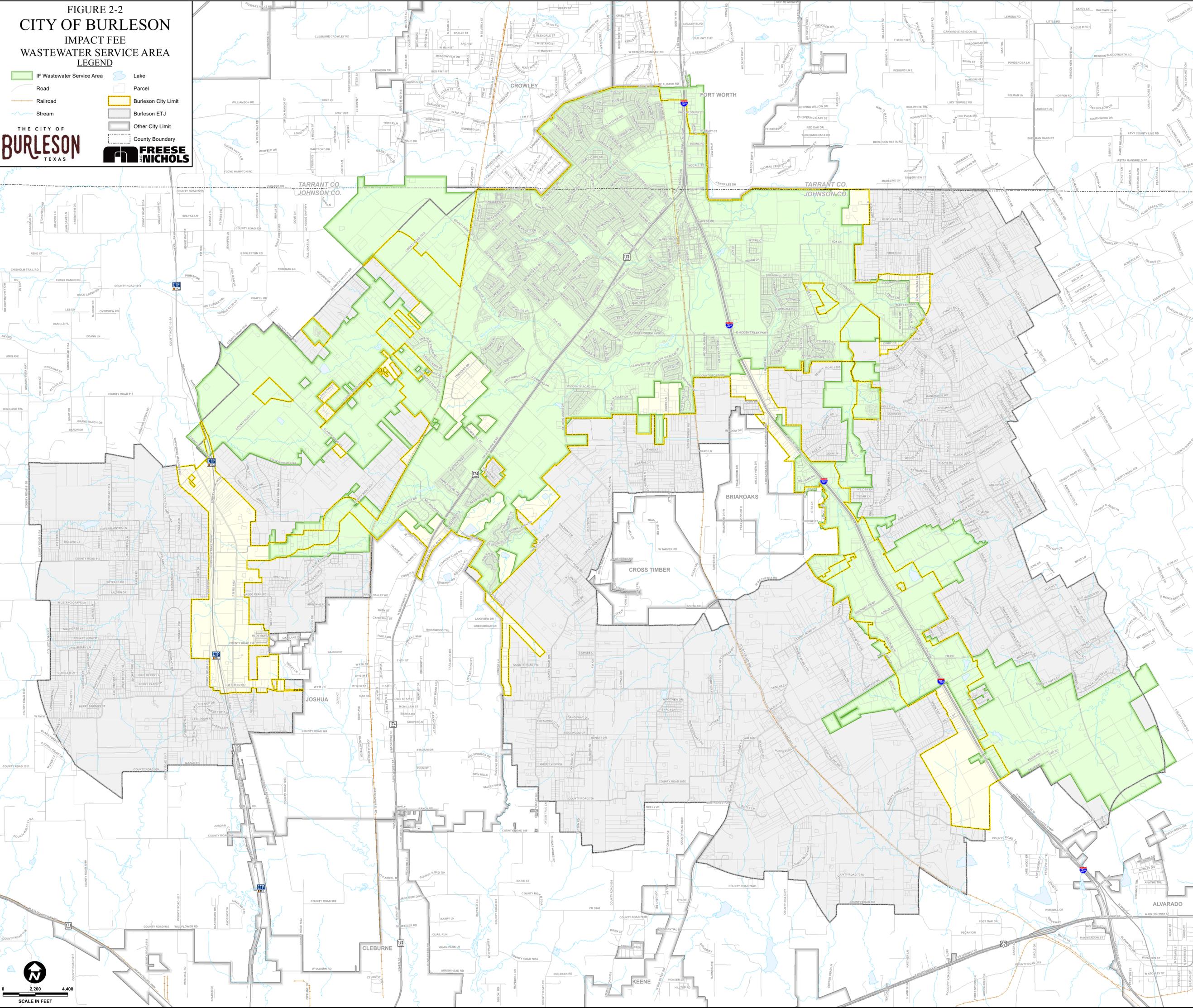


FIGURE 2-2
CITY OF BURLESON
IMPACT FEE
WASTEWATER SERVICE AREA
LEGEND

IF Wastewater Service Area
 Lake
 Road
 Railroad
 Stream
 Parcel
 Burleson City Limit
 Burleson ETJ
 Other City Limit
 County Boundary



0 2,200 4,400
 SCALE IN FEET

2.2 POPULATION AND NON-RESIDENTIAL ACREAGE

FNI reviewed the City’s historical population data collected from the North Central Texas Council of Governments (NCTCOG) and the U.S. Census Bureau. Based on the NCTCOG data, the City has maintained a growth rate of approximately 2.68% since 2010. **Table 2-1** includes the historical population and associated growth rates.

Table 2-1: Historical Population

Year	NCTCOG		U.S. Census Bureau	
	City Population ¹	Compound Annual Population Growth Rate	City Population ²	Compound Annual Population Growth Rate
2010	36,690	--	36,690	--
2011	36,990	0.82%	38,464	4.84%
2012	38,130	3.08%	39,026	1.46%
2013	39,010	2.31%	40,521	3.83%
2014	39,920	2.33%	41,574	2.60%
2015	41,280	3.41%	43,279	4.10%
2016	42,560	3.10%	44,674	3.22%
2017	43,960	3.29%	46,001	2.97%
2018	44,860	2.05%	47,113	2.42%
2019	45,620	1.69%	48,225	2.36%
2020	47,641	4.43%	47,641	-1.21%
2021	48,540	1.89%	51,493	8.09%
2022	50,206	3.43%	53,381	3.67%
2023	51,715	3.01%	--	--
Average		2.68%	--	3.20%

¹Source: North Central Texas Council of Governments

²Source: U.S. Census Bureau

The City does not provide water and wastewater service to every resident in the city limits, because some residents use private wells and septic systems, and others are provided service mainly by Bethesda Water Supply Corporation (WSC) or Johnson County Special Utility District (JCSUD). The population that is served by private wells and septic systems is estimated to have increased but is difficult to quantify with the information that is currently available. The historical population refers to the total population within Burleson’s City Limits.

In the Fall of 2017, as part of a separate contract, FNI developed the Projections Database Tool to calculate a projected population, non-residential acreage, water demand, and wastewater flow for every parcel within the City Limits and ETJ. The Projections Database Tool utilizes available information in the City’s Geographic Information Systems (GIS) such as acreage, flood plain, existing zoning, and future zoning to determine a projected population and non-residential acreage for each parcel. The planning years utilized for the Projections Database Tool included 2020, 2025, 2030, 2040, and Buildout. FNI interpolated between the planning years to project a 2023 and 2033 population and non-residential acreage.

The projected served population and non-residential acreage for the water and wastewater systems are shown in **Tables 2-2** and **2-3**, respectively. The population growth and non-residential acreage projections applied to census block group boundaries is illustrated in **Figures 2-3** for water and **Figure 2-4** for wastewater. The growth shown for each block group only includes projections within the water and wastewater service area.

Table 2-2: Water Served Population and Non-Residential Acreage Projections

Year	Served Population	Served Non-Residential Acreage (Acres)
2023	48,954	1,347
2033	62,334	1,781

Table 2-3: Wastewater Served Population and Non-Residential Acreage Projections

Year	Served Population	Served Non-Residential Acreage (Acres)
2023	55,981	2,131
2033	83,221	3,209

FIGURE 2-3
CITY OF BURLESON
 WATER SERVICE AREA
 POPULATION/NON-RESIDENTIAL
 ACREAGE PROJECTIONS
LEGEND

THE CITY OF BURLESON TEXAS
FREESE AND NICHOLS

Population/Non-Residential Acreage Totals
 Total 2023 Pop (2023 Non-Res Ac.): 48,954 (1,347)
 Total 2033 Pop (2033 Non-Res Ac.): 62,334 (1,781)

CBG ID
 2023 Population (2023 Non-Res Acreage)
 2033 Population (2033 Non-Res Acreage)

POPULATION GROWTH BY CENSUS BLOCK GROUP

- Less than 1,000 People
- 1,000 - 3,000 People
- 3,000 - 5,000 People
- Greater than 5,000 People

LEGEND

- Census Block Group
- Road
- Railroad
- Stream
- Lake
- Parcel
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

0 2,200 4,400
 SCALE IN FEET

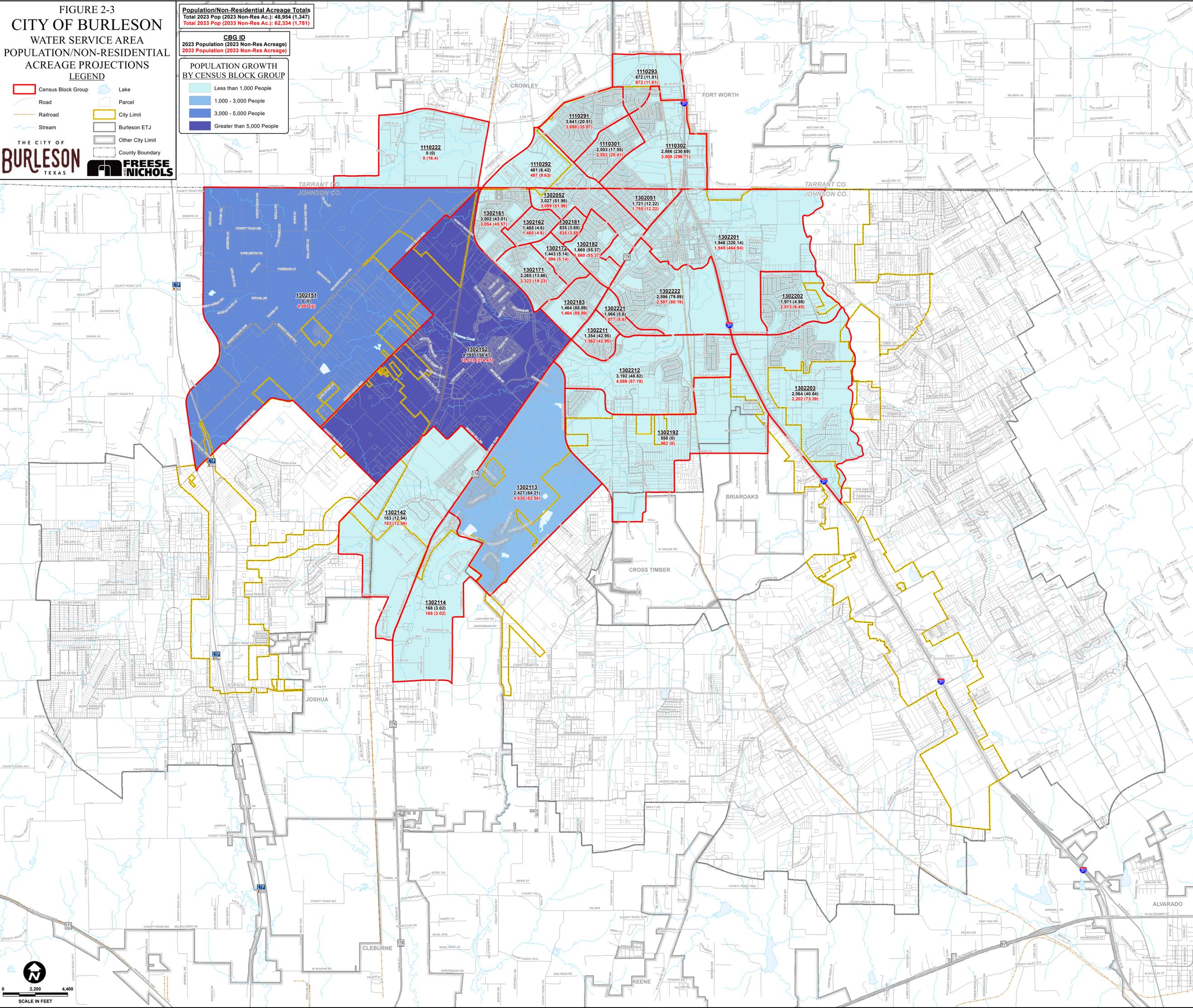


FIGURE 2-4
CITY OF BURLESON
WASTEWATER SERVICE AREA
POPULATION/NON-RESIDENTIAL
ACREAGE PROJECTIONS
LEGEND

THE CITY OF
BURLESON
 TEXAS

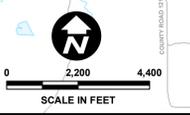
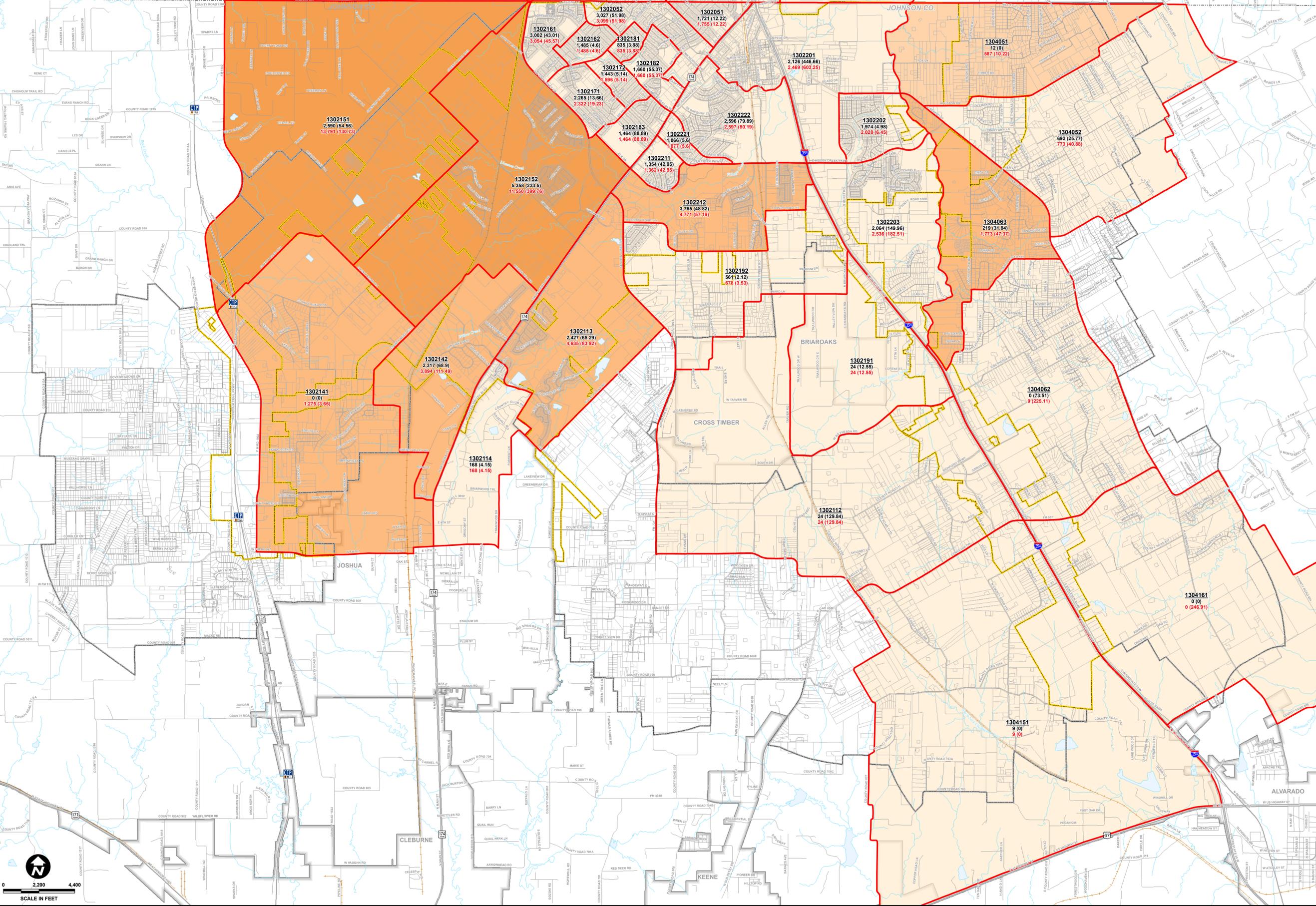


- Census Block Group
- Lake
- Parcel
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary
- Road
- Railroad
- Stream

Population/Non-Residential Acreage Totals
 Total 2023 Pop (2023 Non-Res Ac.): 55,981 (2,131)
 Total 2033 Pop (2033 Non-Res Ac.): 83,221 (3,209)

CBG ID
 2023 Population (2023 Non-Res Acreage)
 2033 Population (2033 Non-Res Acreage)

- POPULATION GROWTH BY CENSUS BLOCK GROUP**
- Less than 500 People
 - 500 - 1,000 People
 - 1,000 - 2,500 People
 - Greater than 2,500 People



DATE: 11/15/23
 DRAWN BY: J. HARRIS
 CHECKED BY: J. HARRIS
 PROJECT: WASTEWATER SERVICE AREA POPULATION/NON-RESIDENTIAL ACREAGE PROJECTIONS
 SHEET: 2 OF 2

3.0 CAPITAL IMPROVEMENTS PLAN

An impact fee CIP was developed for the City to ensure high quality water and wastewater service that promotes residential and non-residential development. The recommended improvements will provide the required capacity and reliability to meet projected water demands and wastewater flows through 2033.

3.1 WATER DEMAND AND WASTEWATER FLOW PROJECTIONS

The population and non-residential acreage projections were used to develop future water demands and wastewater flows based on the design criteria developed as part of the Water/Wastewater Master Plan Update. **Table 3-1** presents the projected water demands, and **Table 3-2** presents the projected wastewater flows for the City of Burleson.

Table 3-1: Projected Water Demands

Year	Pressure Plane	Served Population	Non-Residential Acres (Acres)	Average Day Demand (MGD)	Max Day Demand (MGD)	Peak Hour Demand (MGD)
2023	Lower	36,939	1,183	5.02	11.04	20.42
	Upper	12,015	164	1.49	3.27	6.06
City Total		48,954	1,347	6.51	14.31	26.48
2033	Lower	39,827	1,500	5.56	12.22	22.61
	Upper	22,507	281	2.76	6.08	11.25
City Total		62,334	1,781	8.32	18.30	33.86

Table 3-2: Projected Wastewater Flows

Year	Sewer Basin	Served Population	Non-Residential Acres (Acres)	Average Day Flow (MGD)	Peak Wet Weather Flow (MGD)
2023	Burleson Main	3,738	150	0.37	1.07
	Burleson West	2,503	55	0.33	1.21
	North Creek	9,312	346	0.90	2.64
	Quil Miller Creek	5,050	574	0.70	2.08
	Shannon Creek	8,450	293	0.81	2.39
	Town Creek	16,144	515	1.52	4.48
	Village Creek	5,417	110	0.48	1.44
	Willow Creek	5,367	88	0.47	1.43
Total		55,981	2,130	5.59	16.75
2033	Burleson Main	3,896	156	0.38	1.13
	Burleson West	10,334	134	1.07	3.76
	North Creek	9,378	450	0.95	2.82
	Quil Miller Creek	7,964	1,176	1.21	3.79
	Shannon Creek	14,720	383	1.35	4.23
	Town Creek	20,708	600	1.92	5.82
	Village Creek	6,132	134	0.55	1.67
	Willow Creek	10,089	176	0.88	2.84
Total		83,221	3,209	8.31	26.07

3.2 WATER AND WASTEWATER SYSTEM IMPROVEMENTS

Proposed water distribution and wastewater collection systems projects were developed utilizing the City’s updated water and wastewater hydraulic models and the growth patterns developed for the land use assumptions. A summary of the costs for each of the projects required for the 10-year period used in the impact fee analysis for both the water and wastewater systems are shown in **Tables 3-3** and **3-4**, respectively.

The 2023 percent utilization is the portion of a project’s capacity required to serve existing development. It is not included in the impact fee eligible analysis and cost calculation. The 2033 percent utilization is the portion of the project’s capacity that will be required to serve the projected growth in the City’s service area by 2033. The 2023-2033 percent utilization is the portion of the project’s capacity required to serve development from 2023 to 2033. The portion of a project’s total cost that is used to serve development projected to occur from 2023 through 2033 is calculated as the total actual cost multiplied by the 2023-2033 percent utilization. Only this portion of the cost is used in the impact fee analysis. A high percentage

of the water improvement projects are near complete utilization in 2033 because the buildout population for the water service area is projected to be outside the 10-year window but not much further out. The wastewater service area has more growth potential in the long term.

The 10-year water system impact fee eligible projects are shown on **Figure 3-1**. The 10-year wastewater system impact fee eligible projects are shown on **Figure 3-1**. Detailed cost estimates for the water and wastewater projects are included in **Appendices A** and **B**, respectively.

Table 3-3: Cost Allocation for Water Impact Fee Eligible CIP

Proj. No.	Description of Project	Percent Utilization			Capital Cost	Current Development	10-Year 2023-2033	Beyond 2033
		2023	2033*	10-Year 2023-2033				
EXISTING								
A	24-inch I-35W Transmission Line (Industrial PS to Hidden Creek Parkway)	55%	90%	35%	\$3,759,961	\$2,067,979	\$1,315,986	\$375,996
B	12-inch Water Line along FM 731 (SH 174 to CR 714)	60%	100%	40%	\$681,968	\$409,181	\$272,787	\$0
C	LPP Hulen Pump Station Expansion	60%	100%	40%	\$2,020,034	\$1,212,020	\$808,014	\$0
D	16-inch Water Line along Hulen Street; 12-inch Water Line along Hillside Drive	80%	100%	20%	\$2,742,887	\$2,194,310	\$548,577	\$0
E	12-inch Water Line Along Hidden Creek Parkway (Dobson Street to Hurst Blvd)	65%	90%	25%	\$1,285,980	\$835,887	\$321,495	\$128,598
F	16-inch UPP Water Line Along FM 731 and Alsbury Boulevard	75%	100%	25%	\$688,516	\$516,387	\$172,129	\$0
G	16-inch LPP Water Line Along Alsbury Boulevard (Hulen Street to Flagstone Drive)	50%	90%	40%	\$3,860,170	\$1,930,085	\$1,544,068	\$386,017
H	Hidden Creek 1.0 MG Elevated Storage Tank	60%	90%	30%	\$2,541,459	\$1,524,875	\$762,438	\$254,146
I	12-inch Water Line Along Silverthorne Drive	95%	100%	5%	\$209,620	\$199,139	\$10,481	\$0
J	Water Impact Fee Study	0%	100%	100%	\$33,375	\$0	\$33,375	\$0
PROPOSED								
1	16-inch County Road 920 Lower Pressure Plane Transmission Water Line	45%	80%	35%	\$3,058,800	\$1,376,460	\$1,070,580	\$611,760
2	16-inch Wilshire Boulevard Upper Pressure Plane Transmission Water Line	50%	75%	25%	\$1,826,900	\$913,450	\$456,725	\$456,725
3	12-inch County Road 714 Lower Pressure Plane Water Line	25%	75%	50%	\$3,022,900	\$755,725	\$1,511,450	\$755,725
4	12-inch County Road 802 Upper Pressure Plane Water Line	0%	65%	65%	\$1,004,700	\$0	\$653,055	\$351,645
5	12-inch FM 731 Lower Pressure Plane Water Line	0%	75%	75%	\$1,157,200	\$0	\$867,900	\$289,300
6	12-inch I-35 W Lower Pressure Plane Water Line	5%	65%	60%	\$2,972,100	\$148,605	\$1,783,260	\$1,040,235
7	12-inch Wilshire Boulevard Upper Pressure Plane Water Line	0%	50%	50%	\$1,288,700	\$0	\$644,350	\$644,350
8	8.5 MGD Industrial Pump Station Expansion and 1.0 MG Ground Storage Tank	50%	80%	30%	\$20,556,300	\$10,278,150	\$6,166,890	\$4,111,260
9	12/16-inch Hyder Ranch Development Water Lines	0%	45%	45%	\$5,857,500	\$0	\$2,635,875	\$3,221,625
10	0.5 MG Hyder Ranch Elevated Storage Tank	0%	60%	60%	\$1,868,800	\$0	\$1,121,280	\$747,520
11	Fort Worth Offsite Water Supply Improvements	50%	75%	25%	\$5,501,000	\$2,750,500	\$1,375,250	\$1,375,250
12	8-inch Village Creek Lower Pressure Plane Water Line	55%	90%	35%	\$633,900	\$348,645	\$221,865	\$63,390
13	12-inch Shoreline Drive Upper Pressure Plane Water Line	0%	60%	60%	\$965,800	\$0	\$579,480	\$386,320
14	8-inch County Road 715 Lower Pressure Plane Water Line	50%	70%	20%	\$457,500	\$228,750	\$91,500	\$137,250
Total Water Capital Improvements Cost					\$67,996,070	\$27,690,148	\$24,968,810	\$15,337,112

* Utilization in 2023 on proposed projects indicates a portion of the project that will be used to address deficiencies within the existing system, and therefore are not eligible for impact fee cost recovery for future growth.

Table 3-4: Cost Allocation for Wastewater Impact Fee Eligible CIP

Proj. No.	Description of Project	Percent Utilization			Capital Cost	Current Development	10-Year 2023-2033	Beyond 2033
		2023	2033*	10-Year 2023-2033				
EXISTING								
A	Village Creek Relief Line (IH35W to City Limits)	90%	100%	10%	\$1,522,849	\$1,370,564	\$152,285	\$0
B	North Creek Relief Line	75%	95%	20%	\$2,386,114	\$1,789,586	\$477,223	\$119,306
C	Town Creek Relief Line	65%	85%	20%	\$1,525,270	\$991,426	\$305,054	\$228,791
D	Shannon Creek Trunk Line	35%	75%	40%	\$1,329,850	\$465,448	\$531,940	\$332,463
E	Village Creek Relief Line (Town Creek to SH174)	65%	100%	35%	\$1,892,341	\$1,230,022	\$662,319	\$0
F	Quil Miller Trunk (Hurst Creek to Hidden Creek Parkway)	30%	65%	35%	\$1,641,508	\$492,452	\$574,528	\$574,528
G	Quil Miller Trunk (Hidden Creek Parkway to IH35W)	25%	65%	40%	\$2,327,148	\$581,787	\$930,859	\$814,502
H	Quil Miller Trunk (I-35W to Highpoint Business Park)	25%	65%	40%	\$742,377	\$185,594	\$296,951	\$259,832
I	Sewer Extension to Decommission Mockingbird FM and Lift Station	85%	100%	15%	\$2,194,471	\$1,865,301	\$329,171	\$0
J	CR 915 Sanitary Sewer Line Phase 1	20%	75%	55%	\$785,570	\$157,114	\$432,064	\$196,393
K	CR 915 Sanitary Sewer Line Phase 2	10%	55%	45%	\$1,170,915	\$117,092	\$526,912	\$526,912
L	Fort Worth Offsite Wastewater Capacity Improvements Line B	0%	60%	60%	\$8,895,789	\$0	\$5,337,473	\$3,558,316
M	Fort Worth Offsite Wastewater Capacity Improvements Line A	0%	45%	45%	\$5,374,120	\$0	\$2,418,354	\$2,955,766
N	Wastewater Impact Fee Study	0%	100%	100%	\$33,375	\$0	\$33,375	\$0
PROPOSED								
1	Town Creek Basin 42/48-inch Parallel Interceptor	25%	60%	35%	\$7,795,000	\$1,948,750	\$2,728,250	\$3,118,000
2	Town Creek Basin I-35W 36-inch Parallel Interceptor	20%	55%	35%	\$4,659,300	\$931,860	\$1,630,755	\$2,096,685
3	Village Creek Basin 30/36-inch Wastewater Replacement	15%	55%	40%	\$9,529,200	\$1,429,380	\$3,811,680	\$4,288,140
4	Village Creek Basin 12-inch Wastewater Replacement	75%	95%	40%	\$1,022,600	\$766,950	\$409,040	-\$153,390
5	Town Creek Parkview Drive 10-inch Wastewater Replacement	90%	100%	10%	\$829,800	\$746,820	\$82,980	\$0
6	Willow Creek Basin Wilshire Boulevard 24-inch Parallel Interceptor	20%	65%	45%	\$7,071,400	\$1,414,280	\$3,182,130	\$2,474,990
7	Town Creek Basin East Hyder Ranch 18-inch Wastewater Replacement	40%	80%	40%	\$3,191,900	\$1,276,760	\$1,276,760	\$638,380
8	Town Creek Basin East Hyder Ranch 15-inch Collector Line	0%	60%	60%	\$1,528,700	\$0	\$917,220	\$611,480
9	Shannon Creek Basin West Hyder Ranch 12-inch Collector Line	0%	60%	60%	\$1,372,500	\$0	\$823,500	\$549,000
10	Shannon Creek Basin SW Hulen Street 15-inch Collector Line	0%	60%	60%	\$2,156,600	\$0	\$1,293,960	\$862,640
11	The Lakes 12-inch Collector Line	0%	70%	70%	\$876,100	\$0	\$613,270	\$262,830
12	Burleson Westside Business Park Lift Station Force Main / Collector	0%	70%	70%	\$8,013,200	\$0	\$5,609,240	\$2,403,960
13	Chisholm West Lift Station Force Main / Collector	0%	45%	45%	\$9,659,200	\$0	\$4,346,640	\$5,312,560
Total Wastewater Capital Improvements Cost					\$73,179,699	\$8,631,892	\$35,041,539	\$29,506,268

* Utilization in 2023 on Proposed Projects indicates a portion of the project that will be used to address deficiencies within the existing system, and therefore are not eligible for impact fee cost recovery for future growth.

FIGURE 3-1
CITY OF BURLESON
WATER SYSTEM
IMPACT FEE ELIGIBLE
RECOMMENDED IMPROVEMENTS
LEGEND

- Existing Impact Fee Eligible Improvements**
- Elevated Storage Tank
 - Pump Station
 - Existing Impact Fee Eligible Water Line Improvement
- Proposed Impact Fee Eligible Improvements**
- Pump Station
 - Ground Storage Tank
 - Elevated Storage Tank
 - Water Line
- Existing Water System**
- Transfer Valve
 - Pump Station
- Ground Storage Tank**
- Ground Storage Tank
 - Elevated Storage Tank
- 10" and Smaller Water Line**
- 10" and Smaller Water Line
 - 12" and Larger Water Line
- Fort Worth Supply Line**
- Fort Worth Supply Line
- Road**
- Road
- Railroad**
- Railroad
- Stream**
- Stream
- Lake**
- Lake
- Parcel**
- Parcel
- City Limit**
- City Limit
- Burleson ETJ**
- Burleson ETJ
- Other City Limit**
- Other City Limit
- County Boundary**
- County Boundary

- PRESSURE PLANES**
- Lower Pressure Plane
 - Upper Pressure Plane

The utility alignments shown in this figure are for illustration purposes only and do not set the alignments. The alignment of each utility will be determined at the time of the engineering design.

- Water Impact Fee Study
- Fort Worth Offsite Water Supply Improvements

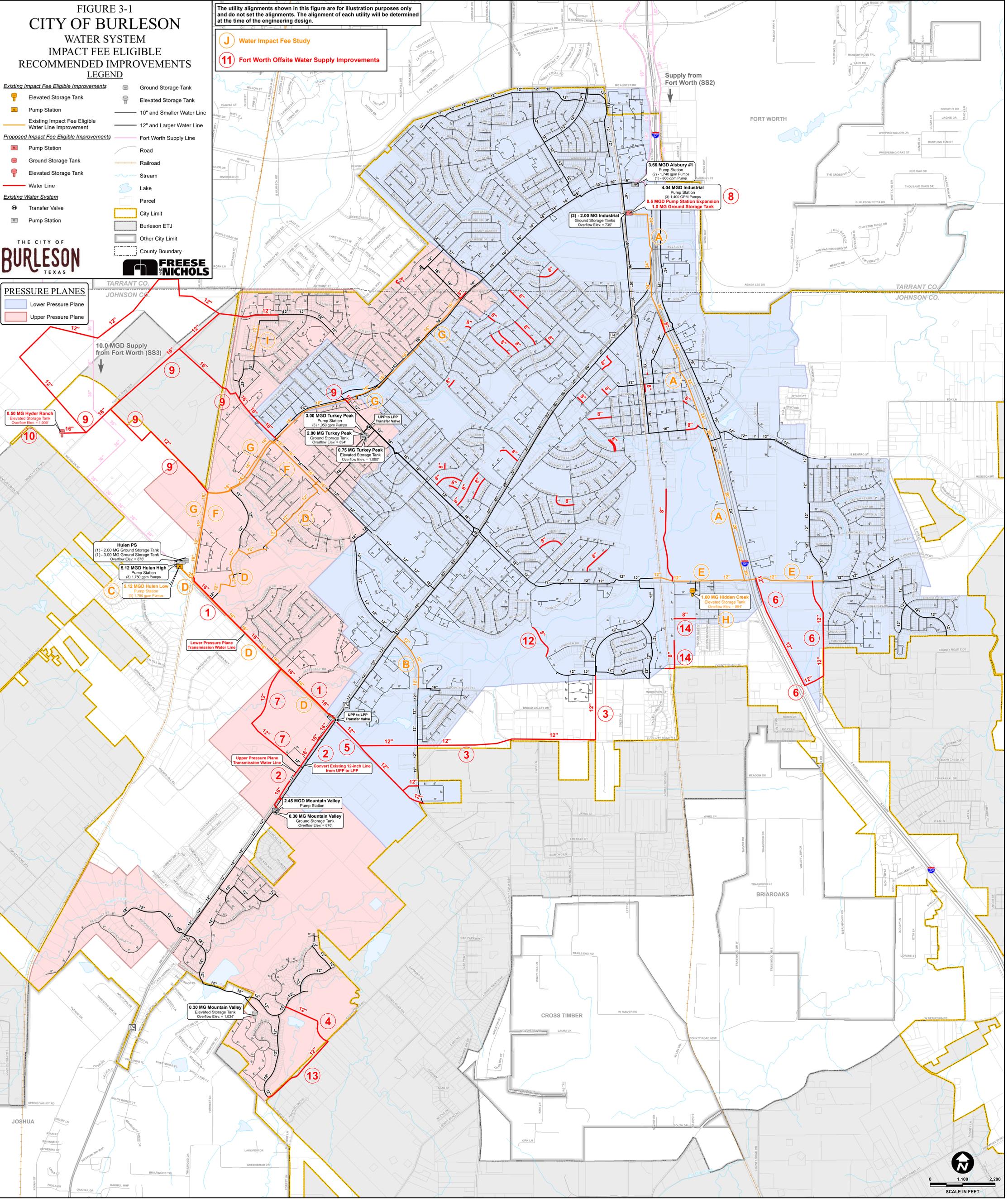
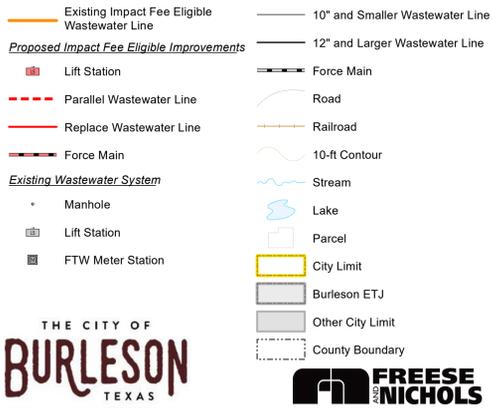
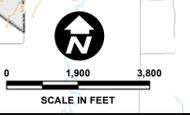
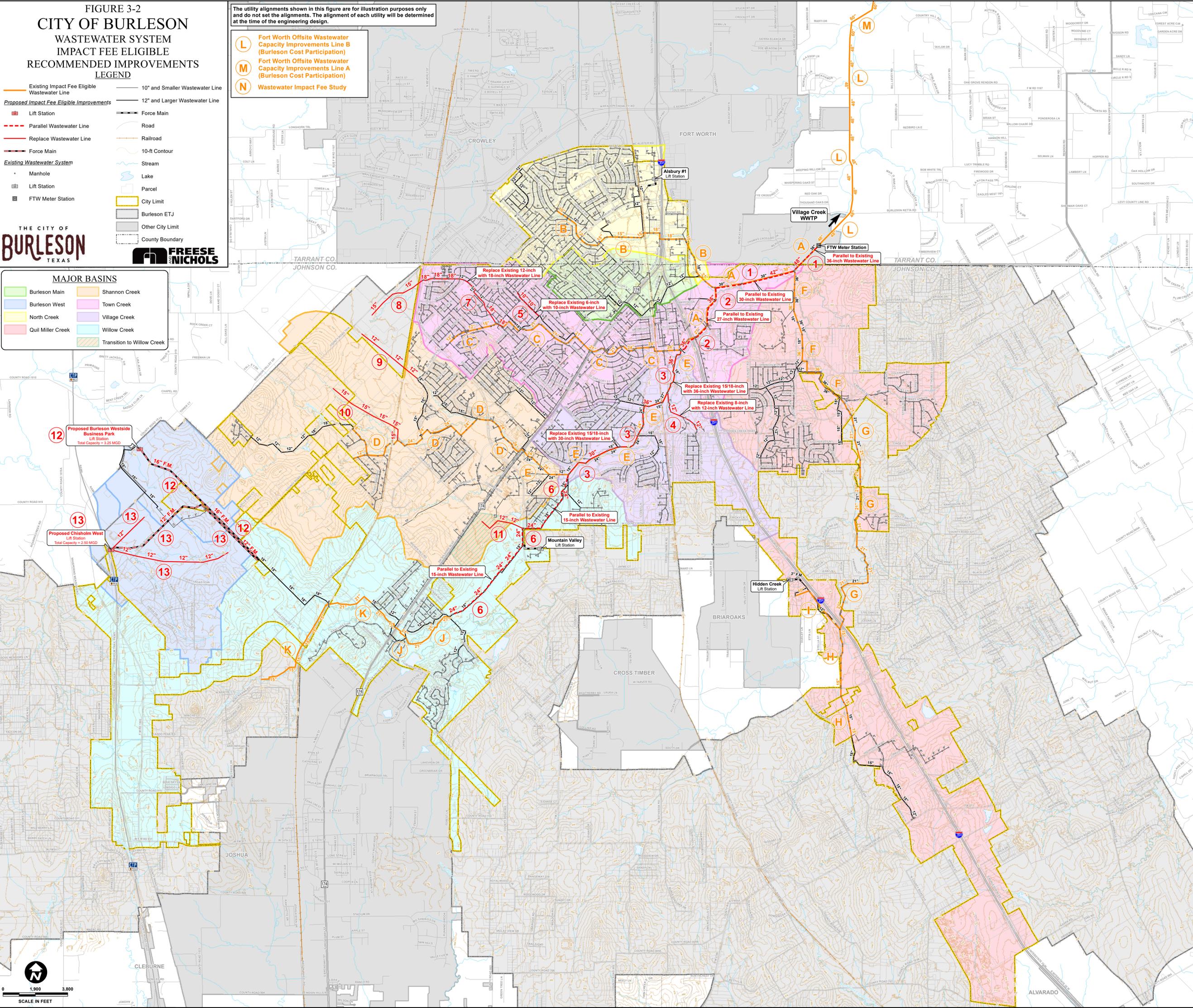
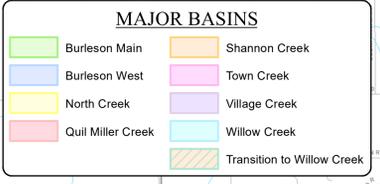


FIGURE 3-2
CITY OF BURLESON
WASTEWATER SYSTEM
IMPACT FEE ELIGIBLE
RECOMMENDED IMPROVEMENTS
LEGEND



The utility alignments shown in this figure are for illustration purposes only and do not set the alignments. The alignment of each utility will be determined at the time of the engineering design.

- L** Fort Worth Offsite Wastewater Capacity Improvements Line B (Burleson Cost Participation)
- M** Fort Worth Offsite Wastewater Capacity Improvements Line A (Burleson Cost Participation)
- N** Wastewater Impact Fee Study



DATE: 08/20/2024
 PROJECT: BURLESON WASTEWATER IMPACT FEE STUDY
 DRAWING: WWS IMPROVEMENTS
 SHEET: 3-2

4.0 IMPACT FEE ANALYSIS

The water and wastewater impact fee analysis involves determining the eligible proportion of total projected costs to serve new development and the projected number of service units attributed to new development over the next 10 years. The total projected costs include the projected 10-year capital costs, the projected financing cost for the capital improvements, and the consultant cost for preparing and updating the Impact Fee Study.

4.1 SERVICE UNITS

The maximum allowable impact fee is calculated by dividing the eligible CIP costs (minus a credit) by the total number of service units attributed to new development during the impact fee eligibility period. A water service unit is defined as the service unit equivalent (SUE) to a water connection for a single-family residence. The City does not directly meter wastewater flows and bills for wastewater services are based on the customer’s water consumption. Therefore, a wastewater service unit is defined as the wastewater service provided to a customer with a water connection for a single-family residence.

The service equivalent associated with multi-family residential, public, commercial, and industrial connections is converted to service units based upon the capacity of the meter used to provide service. The number of service units required to represent each meter size is based on the maximum rated capacity of the meters as shown from American Water Works Association (AWWA) Standards C700, C701, C702, and C703. The service unit equivalent for each meter size is listed in **Table 4-1**.

Table 4-1: Service Unit Equivalency Table

Meter Size	Safe Maximum Operating Flow* (gpm)	Service Unit Equivalents
5/8"	10	1.0
3/4"	15	1.5
1"	25	2.5
1 1/2"	50	5.0
2"	80	8.0
3"	160	16.0
4"	250	25.0
6"	500	50.0
8"	800	80.0
10"	1,150	115.0

*Safe maximum operating capacity is based on AWWA standards C700 and C702.

Tables 4-2 and 4-3 show the water and wastewater service units for 2023 and the projected service units for 2033, respectively. The base meter size for single family homes in Burleson is assumed to be a 5/8-inch water meter. Larger meters represent public, commercial, and industrial water use. The City provided current meter data that included the meter size and type of each active water meter. The growth in water and wastewater meters was projected using the land use assumptions from **Section 2.0**. The growth in service units was determined by subtracting the existing service units from the projected 2033 service units and results in a growth of 6,093 water service units and 12,294 wastewater service units over the 10-year impact fee eligible period.

Table 4-2: Projected Water Service Units for 2023-2033

Meter Size	2023		2033		Growth in Service Unit Equivalents
	Number of Meters	Service Unit Equivalents	Number of Meters	Service Unit Equivalents	
5/8"	17,368	17,368	22,115	22,115	4,747
3/4"	6	9	8	12	3
1"	216	540	275	688	148
1 1/2"	126	630	161	805	175
2"	257	2,056	328	2,624	568
3"	78	1,248	100	1,600	352
4"	5	125	7	175	50
6"	2	100	3	150	50
8"	0	0	0	0	0
10"	0	0	0	0	0
Total	18,058	22,076	22,997	28,169	6,093

Table 4-3: Projected Wastewater Service Units for 2023-2033

Meter Size	2023		2033		Growth in Service Unit Equivalents
	Number of Meters	Service Unit Equivalents	Number of Meters	Service Unit Equivalents	
5/8"	19,861	19,861	29,525	29,525	9,664
3/4"	6	9	9	14	5
1"	247	618	368	920	303
1 1/2"	144	720	214	1,070	350
2"	294	2,352	437	3,496	1,144
3"	89	1,424	133	2,128	704
4"	5	125	8	200	75
6"	2	100	3	150	50
8"	0	0	0	0	0
10"	0	0	0	0	0
Total	20,648	25,209	30,697	37,503	12,294

4.2 MAXIMUM IMPACT FEE CALCULATION

Chapter 395 of the TLGC states that the maximum allowable impact fee may not exceed the amount determined by dividing the cost of capital improvements required by the total number of service units attributed to new development during the impact fee eligibility period less a credit to account for water and wastewater revenues used to finance capital improvement plans. The credit can either be determined through a detailed financial credit analysis process or by assuming 50% of the impact fee eligible cost. The City chose to assume 50% of the impact fee eligible cost for this study.

The total projected costs include the projected capital improvement costs to serve 10-year development, financing costs and the consultant cost for preparing and updating the capital improvements plan. The financing costs are based on the compound interest paid over a 20-year bond for future projects only. The interest rate assumed for the impact fee calculations is 4.0%.

Maximum Allowable Water Impact Fee:

Capital Improvement Costs:	\$ 24,968,810
Financing Costs (4.0%):	\$ 5,396,647
Total Eligible Costs:	\$ 30,365,457
Total Water Impact Fee Credit (50%):	\$ 15,182,728

The total eligible cost associated with the existing and proposed water system improvements to meet projected growth over the next ten years is \$30,365,457. The increase in the number of service units due to growth over the next ten years is projected as 6,093 SUEs.

$$\begin{aligned}
 \text{Maximum Allowable Water Impact Fee with 50\% Credit} &= \frac{\text{Total Eligible Cost} - \text{Credit}}{\text{10-year growth in SUEs}} \\
 &= \frac{\$ 30,365,457 - \$ 15,182,728}{6,093 \text{ SUE}} \\
 &= \mathbf{\$ 2,492 / SUE}
 \end{aligned}$$

Maximum Allowable Wastewater Impact Fee:

Capital Improvement Costs:	\$ 35,041,539
Financing Costs (4.0%):	\$ 7,519,903
Total Eligible Costs:	\$ 42,561,442
Total Wastewater Impact Fee Credit (50%):	\$ 21,280,721

The total eligible cost associated with the existing and proposed wastewater system improvements to meet projected growth over the next ten years is \$42,561,442. The increase in the number of service units due to growth over the next ten years is projected as 12,294 SUEs.

$$\begin{aligned}
 \text{Maximum Allowable Wastewater Impact Fee with 50\% Credit} &= \frac{\text{Total Eligible Costs} - \text{Credit}}{\text{10-year growth in SUEs}} \\
 &= \frac{\$42,561,442 - \$21,280,721}{12,294 \text{ SUE}} \\
 &= \mathbf{\$ 1,731 / SUE}
 \end{aligned}$$

The combined maximum allowable water and wastewater impact fee is \$4,223 for a 5/8-inch meter.

In addition to the maximum allowable impact fees calculated above, as a wholesale customer, the City of Burleson must also include Fort Worth’s water and wastewater impact fees where applicable. The inclusion of a portion of Fort Worth’s current water and wastewater impact fee of \$3,777 for a 5/8-inch meter is required as part of the water and wastewater wholesale agreement between Burleson and Fort Worth. The City of Burleson’s maximum allowable water and wastewater impact fees for each water meter size plus Fort Worth’s water and wastewater impact fee are summarized in **Table 4-4**. A comparison graph showing impact fees in other benchmark cities throughout the Metroplex is included on **Figure 4-1**. A comparison graph including Fort Worth pass through rates is included in **Figure 4-2**.

Table 4-4: Maximum Allowable Impact Fee Summary

Meter Size	Service Unit Equivalent	Water Impact Fee			Wastewater Impact Fee			Combined Total
		City of Burleson - Maximum Allowable	City of Fort Worth ¹	Water Total	City of Burleson - Maximum Allowable	City of Fort Worth ¹	Wastewater Total	
5/8"	1.0	\$2,492	\$1,981	\$4,473	\$1,731	\$1,796	\$3,527	\$8,000
3/4"	1.5	\$3,738	\$2,972	\$6,710	\$2,597	\$2,694	\$5,291	\$12,001
1"	2.5	\$6,230	\$4,953	\$11,183	\$4,328	\$4,490	\$8,818	\$20,001
1 1/2"	5.0	\$12,460	\$9,905	\$22,365	\$8,655	\$8,980	\$17,635	\$40,000
2"	8.0	\$19,936	\$15,848	\$35,784	\$13,848	\$14,368	\$28,216	\$64,000
3"	16.0	\$39,872	\$43,087	\$82,959	\$27,696	\$39,063	\$66,759	\$149,718
4"	25.0	\$62,300	\$74,288	\$136,588	\$43,275	\$67,350	\$110,625	\$247,213
6"	50.0	\$124,600	\$158,480	\$283,080	\$86,550	\$143,680	\$230,230	\$513,310
8"	80.0	\$199,360	\$277,340	\$476,700	\$138,480	\$251,440	\$389,920	\$866,620
10"	115.0	\$286,580	\$416,010	\$702,590	\$199,065	\$377,160	\$576,225	\$1,278,815

¹Source: City of Fort Worth Water and Wastewater Impact Fees effective January 1, 2023

Figure 4-1: Water and Wastewater Impact Fee per SUE Comparison

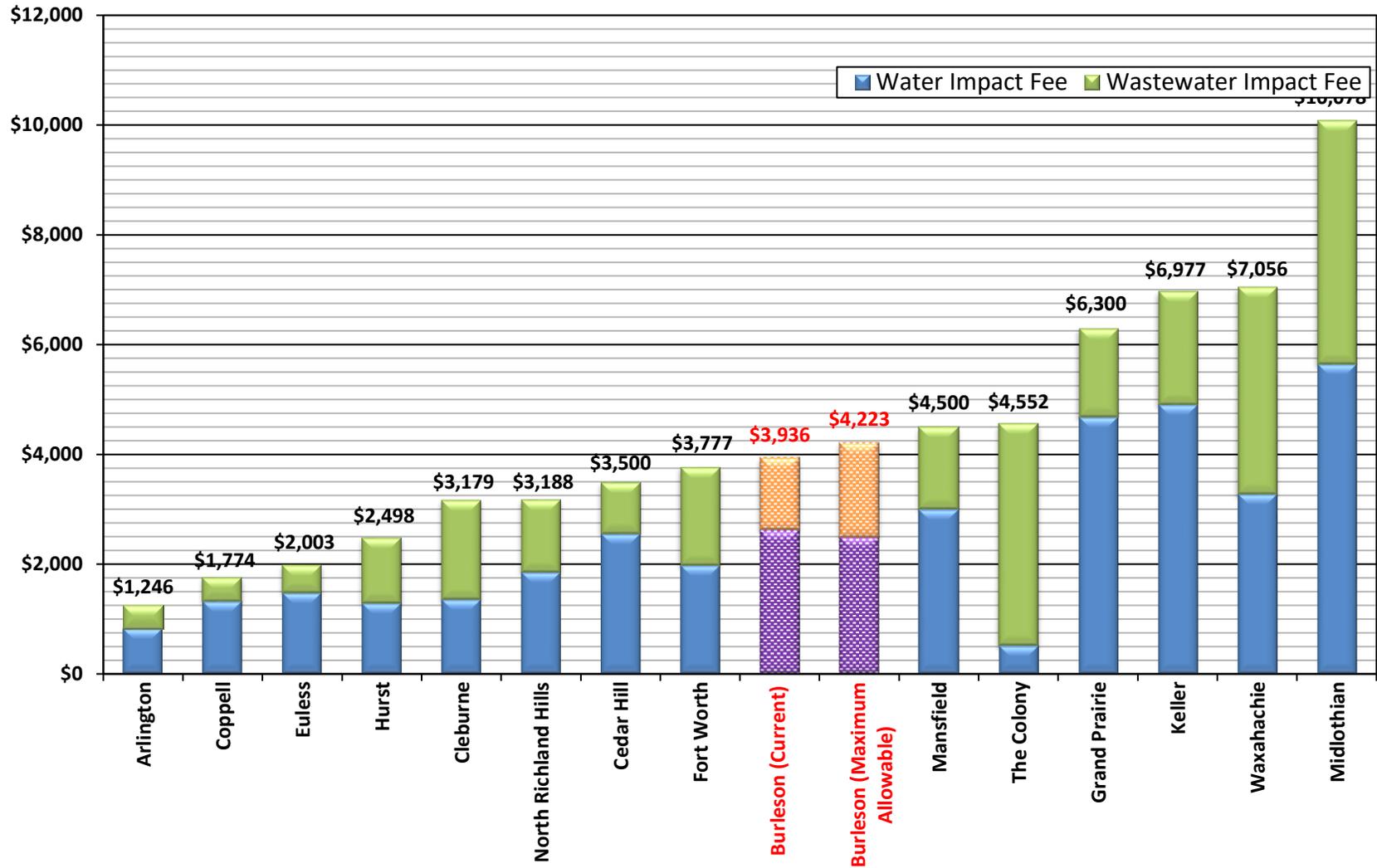
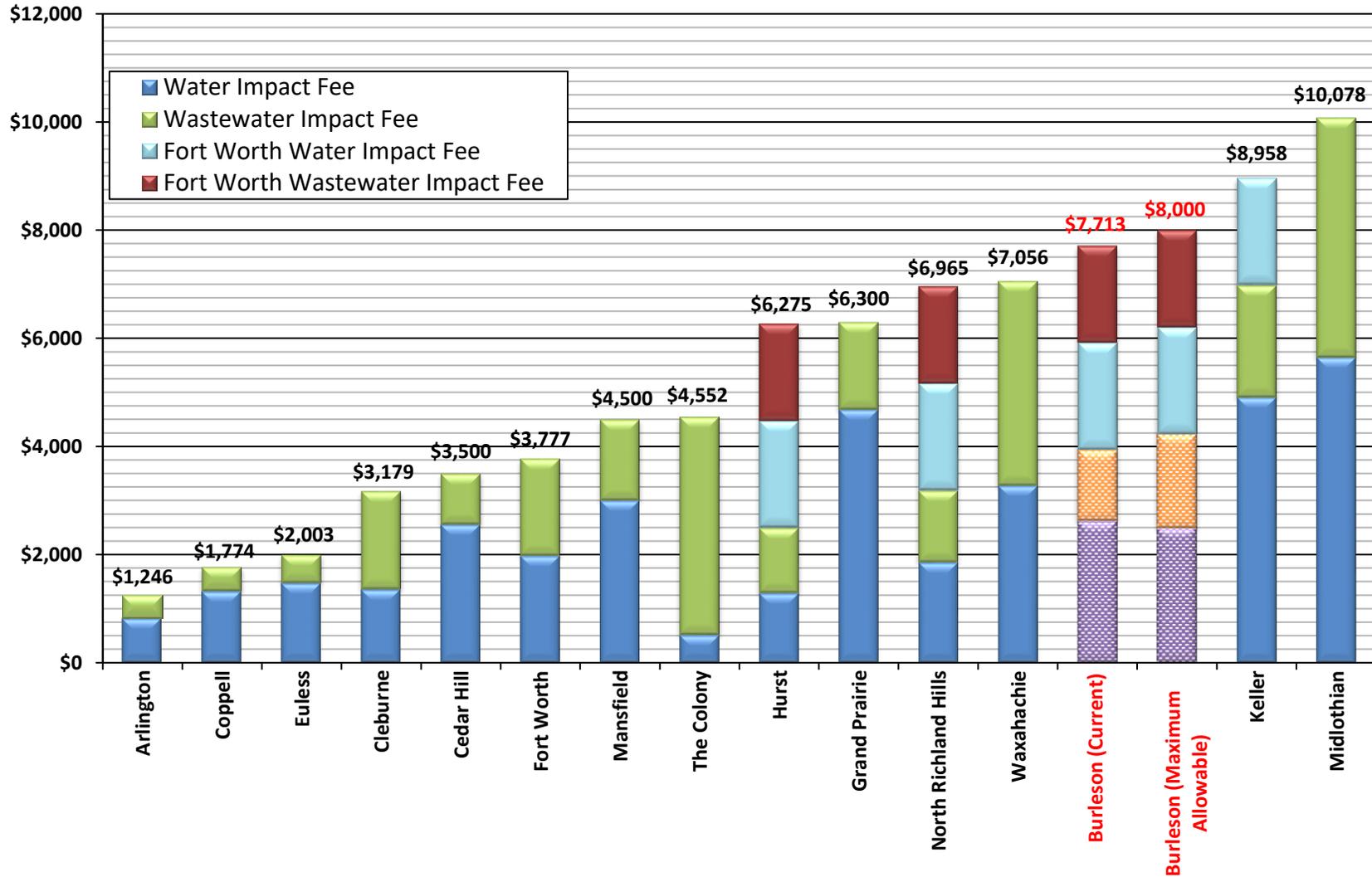


Figure 4-2: Water and Wastewater Impact Fee per SUE Comparison with Fort Worth Pass-Through



APPENDIX A

Water Impact Fee Eligible CIP Opinion of Probable Construction Cost

City of Burleson



Impact Fee Capital Improvement Cost Estimate 2023 Dollars

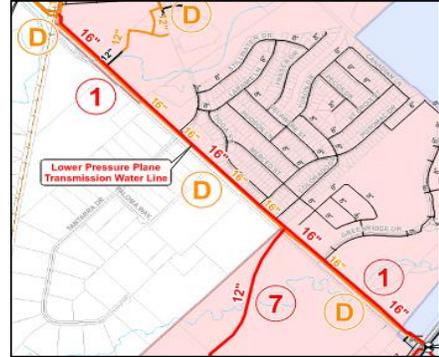
Construction Project Number: 1 **Project Driver: Hydraulic Restriction**

Project Name: 16-inch County Road 920 Lower Pressure Plane Transmission Water Line

Project Description:

This project consists of the construction of a 16-inch transmission water line along the existing 16-inch water line along County Road 920 from the existing 16-inch near the railroad to the existing 12-inch water line near Wilshire Boulevard.

Vicinity Map



Project Drivers:

- This project provides transmission capacity to the LPP from the Hulen Low Pump Station.
- The existing 16-inch transmission line from the Hulen Low Pump Station to the LPP experiences high velocity/headloss under existing system max day demand projections.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	16" WL & Appurtenances	7,600	LF	\$ 240	\$ 1,824,000
2	30" Boring and Casing	290	LF	\$ 600	\$ 174,000
3	Asphalt Pavement Repair	600	LF	\$ 80	\$ 48,000
SUBTOTAL:					\$ 2,046,000
CONTINGENCY				30%	\$ 613,800
SUBTOTAL:					\$ 2,659,800
ENG/SURVEY				15%	\$ 399,000
SUBTOTAL:					\$ 3,058,800
Estimated Project Total:					\$ 3,058,800

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

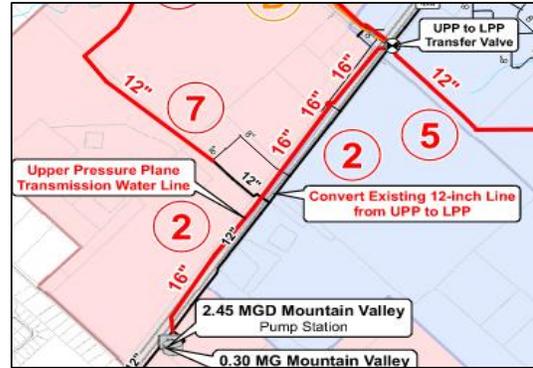
Construction Project Number: 2 **Project Driver: Hydraulic Restriction**

Project Name: 16-inch Wilshire Boulevard Upper Pressure Plane transmission Water Line

Project Description:

This project consists of the construction of a 16-inch transmission water line along Wilshire Boulevard from the existing transfer valve on County Road 920 to the proposed 12-inch water line near the Mountain Valley Pump Station

Vicinity Map



Project Drivers:

- This project provides transmission capacity to the Mountain Valley portion of the Upper Pressure Plane from the Hulen High Pump Station.
- This area experiences high velocity/headloss under buildout demands.
- This project enables the existing 12-inch water line along Wilshire Boulevard to be converted to a LPP water Line.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	16" WL & Appurtenances	4,800	LF	\$ 240	\$ 1,152,000
2	Asphalt Pavement Repair	500	LF	\$ 80	\$ 40,000
3	Concrete Pavement Repair	300	LF	\$ 100	\$ 30,000
SUBTOTAL:					\$ 1,222,000
CONTINGENCY				30%	\$ 366,600
SUBTOTAL:					\$ 1,588,600
ENG/SURVEY				15%	\$ 238,300
SUBTOTAL:					\$ 1,826,900
Estimated Project Total:					\$ 1,826,900

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 3 **Project Driver: Growth / Development**

Project Name: 12-inch County Road 714 Lower Pressure Plane Water Line

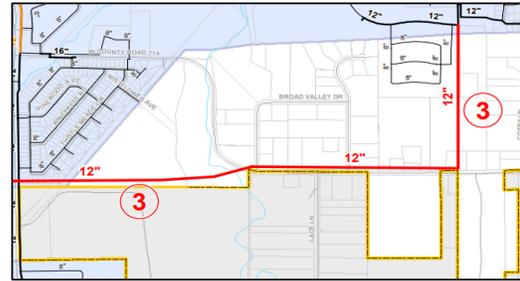
Project Description:

This project consists of the construction of a 12-inch water line along Country Road 714 from the existing 12-inch water line on FM 731 to the existing 12-inch water line near Landmark Boulevard.

Project Drivers:

- This project will allow near-term future developments to be served in the Lower Pressure Plane.

Vicinity Map



Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	9,100	LF	\$ 180	\$ 1,638,000
2	Asphalt Pavement Repair	300	LF	\$ 80	\$ 24,000
3	20" Boring and Casing	900	LF	\$ 400	\$ 360,000
SUBTOTAL:					\$ 2,022,000
CONTINGENCY				30%	\$ 606,600
SUBTOTAL:					\$ 2,628,600
ENG/SURVEY				15%	\$ 394,300
SUBTOTAL:					\$ 3,022,900
Estimated Project Total:					\$ 3,022,900

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 4 **Project Driver: Growth / Development**

Project Name: 12-inch County Road 802 Upper Pressure Plane Water Line

Project Description:

This project consists of the construction of a 12-inch water line from the existing 12-inch water line on Red Cedar Way to the proposed 12-inch water line along County Road 802.

Vicinity Map



Project Drivers:

- This project will allow near-term future developments to be served in the Upper Pressure Plane.
- This project will also provide improved looping and fireflow in the Mountain Valley area.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	2,300	LF	\$ 180	\$ 414,000
2	20" Boring and Casing	600	LF	\$ 400	\$ 240,000
3	Asphalt Pavement Repair	100	LF	\$ 80	\$ 8,000
4	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
SUBTOTAL:					\$ 672,000
CONTINGENCY				30%	\$ 201,600
SUBTOTAL:					\$ 873,600
ENG/SURVEY				15%	\$ 131,100
SUBTOTAL:					\$ 1,004,700
Estimated Project Total:					\$ 1,004,700

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

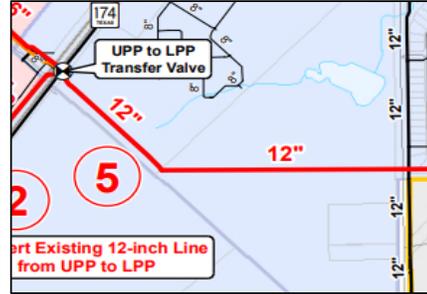
Impact Fee Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: 5 **Project Driver:** Growth / Development

Project Name: 12-inch FM 731 Lower Pressure Plane Water Line

Project Description: **Vicinity Map**

This project consists of the construction of a 12-inch water line from the proposed 16-inch water line on Wilshire Boulevard to the existing 12-inch water line on FM 731.



Project Drivers:

- This project will allow future developments (The Lakes) to be served in the LPP.
- This project will improve looping and available fireflow in the LPP.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	4,200	LF	\$ 180	\$ 756,000
2	Asphalt Pavement Repair	100	LF	\$ 80	\$ 8,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
SUBTOTAL:					\$ 774,000
	CONTINGENCY			30%	\$ 232,200
SUBTOTAL:					\$ 1,006,200
	ENG/SURVEY			15%	\$ 151,000
SUBTOTAL:					\$ 1,157,200
Estimated Project Total:					\$ 1,157,200

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 6 **Phase: Growth / Development**

Project Name: 12-inch I-35 W Lower Pressure Plane Water Line

Project Description:

This project consists of the construction of a 12-inch water line looping from the existing 12-inch water line on Hidden Creek Parkway down along Country Road 601 and back along I-35 W to the existing 12-inch water line on Hidden Creek Parkway.

Vicinity Map



Project Drivers:

- This project will allow future developments to be served in the Lower Pressure Plane.
- This project will improve looping and available fireflow in the Lower Pressure Plane.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	8,900	LF	\$ 180	\$ 1,602,000
2	20" Boring and Casing	500	LF	\$ 400	\$ 200,000
3	Asphalt Pavement Repair	200	LF	\$ 80	\$ 16,000
4	Concrete Pavement Repair	1,700	LF	\$ 100	\$ 170,000
SUBTOTAL:					\$ 1,988,000
CONTINGENCY				30%	\$ 596,400
SUBTOTAL:					\$ 2,584,400
ENG/SURVEY				15%	\$ 387,700
SUBTOTAL:					\$ 2,972,100
Estimated Project Total:					\$ 2,972,100

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

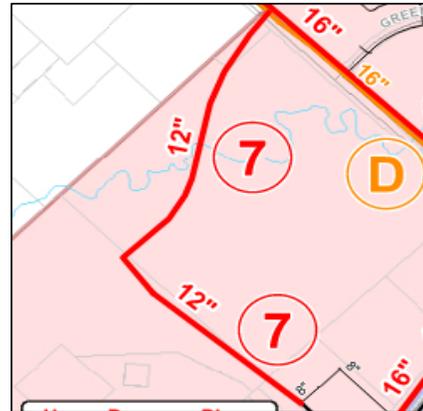
Construction Project Number: 7 **Phase: Growth / Development**

Project Name: 12-inch Wilshire Boulevard Upper Pressure Plane Water Line

Project Description:

This project consists of the construction of a 12-inch water line looping from the existing 16-inch water line on County Road 920 across Village Creek to the existing 12-inch water line on Wilshire Boulevard.

Vicinity Map



Project Drivers:

- This project will allow future developments (Bear Ridge) to be served in the Upper Pressure Plane.
- The primary trigger for project 2 is the implementation of the proposed UPP to LPP pressure plane transition of the area generally bounded by Wilshire Boulevard and FM 731. This project will provide resiliency and alternate feed to these development areas.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	4,100	LF	\$ 180	\$ 738,000
2	20" Boring and Casing	250	LF	\$ 400	\$ 100,000
3	Asphalt Pavement Repair	300	LF	\$ 80	\$ 24,000
SUBTOTAL:					\$ 862,000
				CONTINGENCY	30%
					\$ 258,600
SUBTOTAL:					\$ 1,120,600
				ENG/SURVEY	15%
					\$ 168,100
SUBTOTAL:					\$ 1,288,700
Estimated Project Total:					\$ 1,288,700

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 8 **Phase: Regulatory / Operational**

Project Name: 8.5 MGD Industrial Pump Station Expansion/ 1.0 MG Industrial Ground Storage Tank

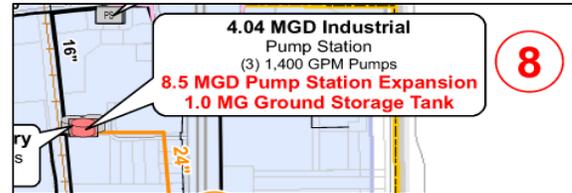
Project Description:

This project consists of the construction of a 8.5 MGD pump station expansion at the Industrial Pump Station to serve growth and development in the Lower Pressure Plane and the Hyder Ranch Development.

Project Drivers:

This project will provide pumping capacity to meet TCEQ requirements of 0.6 gpm per connection (MGD). This will also allow the system to provide pumping capacity for 60% of peak hour demand through buildout.

Vicinity Map



Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Pump Station - Expansion 8.5 MGD	1	LS	\$ 12,750,000	\$ 12,750,000
2	1.0 MG Ground Storage Tank	1	LS	\$ 1,000,000	\$ 1,000,000
				SUBTOTAL:	\$ 13,750,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 17,875,000
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 20,556,300
Estimated Project Total:					\$ 20,556,300

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



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Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 9

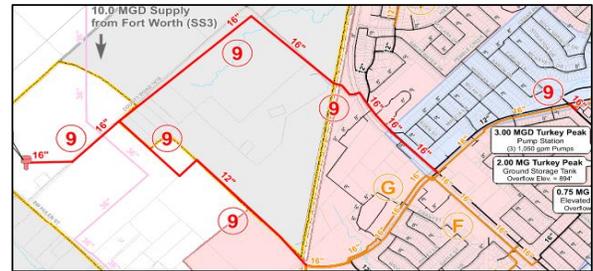
Phase: Growth / Development

Project Name: 12/16-inch Hyder Ranch Distribution Line

Project Description:

This project consists of the construction of a 12/16-inch water line from the 16-inch water line on Alsbury Boulevard, looping around the Hyder Ranch Development to the existing 12-inch on Summercrest Boulevard.

Vicinity Map



Project Drivers:

This project will provide distribution capacity to the Hyder Ranch development.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	5,300	LF	\$ 180	\$ 954,000
2	16" WL & Appurtenances	10,800	LF	\$ 240	\$ 2,592,000
3	30" Boring and Casing	270	LF	\$ 600	\$ 162,000
4	20" Boring and Casing	25	LF	\$ 400	\$ 10,000
5	Concrete Pavement Repair	2,000	LF	\$ 100	\$ 200,000
				SUBTOTAL:	\$ 3,918,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 5,093,400
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 5,857,500
Estimated Project Total:					\$ 5,857,500

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

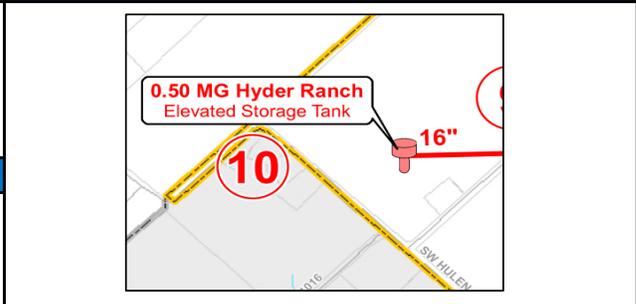
Construction Project Number: 10 **Phase: Growth / Development**

Project Name: 0.50 MG Hyder Ranch EST

Project Description:

This project consists of the construction of a 0.5 MG elevated storage tank at the Hyder Ranch Development.

Vicinity Map



Project Drivers:

This project will provide storage capacity to meet TCEQ requirements of 100 gallons per connection and 40% of peak hour demand for 4 hours.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	0.50 MG Elevated Storage Tank	1	LS	\$ 1,250,000	\$ 1,250,000
SUBTOTAL:					\$ 1,250,000
				CONTINGENCY	30%
					\$ 375,000
SUBTOTAL:					\$ 1,625,000
				ENG/SURVEY	15%
					\$ 243,800
SUBTOTAL:					\$ 1,868,800
Estimated Project Total:					\$ 1,868,800

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 11 **Phase: Growth / Development**

Project Name: Fort Worth Offsite Water Supply Improvements

Project Description: **Vicinity Map**

This project consists of cost participating with the City of Fort Worth to construct offsite water supply improvements.



Project Drivers:

This project will provide additional water supply to meet projected growth and development.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Fort Worth Offsite Water Supply Improvements	1	LS	\$ 5,501,000	\$ 5,501,000
SUBTOTAL:					\$ 5,501,000
				CONTINGENCY	--
SUBTOTAL:					\$ 5,501,000
				ENG/SURVEY	--
SUBTOTAL:					\$ 5,501,000
Estimated Project Total:					\$ 5,501,000

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

Construction Project Number: 12 **Phase: Fireflow / Looping**

Project Name: 8-inch Village Creek Lower Pressure Plane Water Line

Project Description:

This project consists of the construction of an 8-inch water line across Chisenhall Park from the existing 8-inch water line on Chisenhall Park Lane to the existing 8-inch water line on Landview Drive.

Vicinity Map



Project Drivers:

- This project will improve looping and available fireflow in the Lower Pressure Plane.
- This project will eliminate two 8-inch dead-end lines.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" WL & Appurtenances	1,400	LF	\$ 120	\$ 168,000
2	16" Boring and Casing	800	LF	\$ 320	\$ 256,000
SUBTOTAL:					\$ 424,000
				CONTINGENCY	30%
					\$ 127,200
SUBTOTAL:					\$ 551,200
				ENG/SURVEY	15%
					\$ 82,700
SUBTOTAL:					\$ 633,900
Estimated Project Total:					\$ 633,900

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

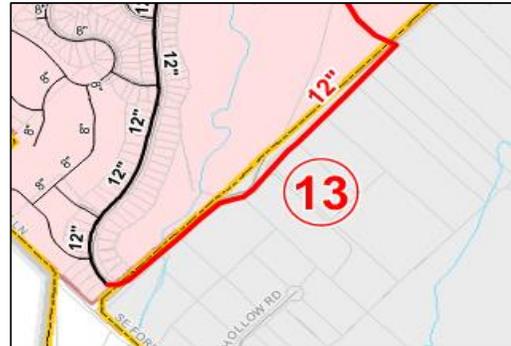
Construction Project Number: 13 **Phase: Fireflow / Looping**

Project Name: 12-inch Shoreline Drive Upper Pressure Plane Water Line

Project Description:

This project consists of the construction of a 12-inch water line along Country Road 802 from the proposed 12-inch water line to the existing 12-inch water line on Shoreline Drive.

Vicinity Map



Project Drivers:

- This project will improve looping and available fireflow in the Lower Pressure Plane.
- This project will eliminate a 12-inch dead-end line.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	3,100	LF	\$ 180	\$ 558,000
2	20" Boring and Casing	100	LF	\$ 400	\$ 40,000
3	Asphalt Pavement Repair	600	LF	\$ 80	\$ 48,000
SUBTOTAL:					\$ 646,000
CONTINGENCY				30%	\$ 193,800
SUBTOTAL:					\$ 839,800
ENG/SURVEY				15%	\$ 126,000
SUBTOTAL:					\$ 965,800
Estimated Project Total:					\$ 965,800

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Impact Fee Capital Improvement Cost Estimate **2023 Dollars**

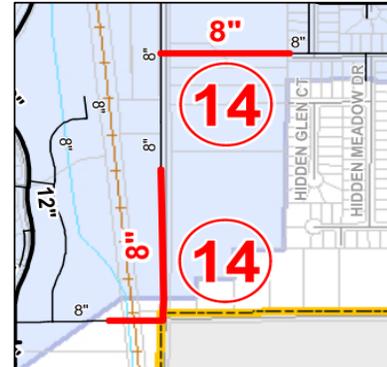
Construction Project Number: 14 **Phase: Fireflow / Looping**

Project Name: 8-inch County Road 715 Lower Pressure Plane Water Line

Project Description:

This project consists of the construction of a 12-inch water line from the existing 8-inch water line on Everest Court to the existing 8-inch water line along Dobson Street. This project also includes the construction of an 8-inch water line from the existing 8-inch on Dobson Street to the existing 8-inch water line on Hidden Ridge Drive.

Vicinity Map



Project Drivers:

- This project will improve looping and available fireflow in the Lower Pressure Plane.
- This project will allow near-term future developments to be served in the Lower Pressure Plane.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" WL & Appurtenances	2,200	LF	\$ 120	\$ 264,000
2	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
SUBTOTAL:					\$ 306,000
				CONTINGENCY	30%
					\$ 91,800
SUBTOTAL:					\$ 397,800
				ENG/SURVEY	15%
					\$ 59,700
SUBTOTAL:					\$ 457,500
Estimated Project Total:					\$ 457,500

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

APPENDIX B

Wastewater Impact Fee Eligible CIP Opinion of Probable Construction Cost

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

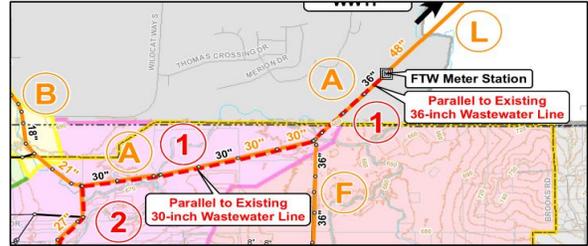
Construction Project Number: 1

Project Driver: Existing Capacity Restriction

Project Name: **Town Creek Basin 42/48-inch Parallel Interceptor**

Project Description:
This project consists of the construction of a 42/48-inch wastewater line parallel to the existing 30/36-inch wastewater line along Village Creek from the existing 21/27/30-inch wastewater line intersection to the Fort Worth Meter Station near Southern Oaks Drive.

Vicinity Map



Project Drivers:
Model results indicate that the existing 30/36-inch wastewater line experiences surcharging and overflows under projected peak wet weather flows. The parallel line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	48" Gravity Main	2,300	LF	\$ 720	\$ 1,656,000
2	42" Gravity Main	5,200	LF	\$ 630	\$ 3,276,000
3	72" Diameter Manhole	8	EA	\$ 7,500	\$ 60,000
4	54" Boring and Casing	150	LF	\$ 1,080	\$ 162,000
5	60" Boring and Casing	50	LF	\$ 1,200	\$ 60,000
				SUBTOTAL:	\$ 5,214,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 6,778,200
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 7,795,000
Estimated Project Total:					\$ 7,795,000

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 2

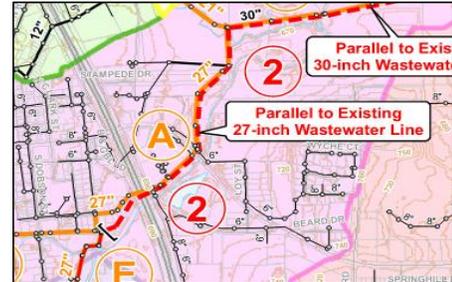
Phase: Existing Capacity Restriction

Project Name: Town Creek Basin I-35W 36-inch Parallel Interceptor

Project Description:

This project consists of the construction of a 36-inch wastewater line parallel to the existing 18/27-inch wastewater lines along Village Creek from the existing 18/27-inch wastewater lines on Scott Street to the proposed 27-inch parallel line.

Vicinity Map



Project Drivers:

Model results indicate that the existing 27-inch wastewater line experiences surcharging and overflows under projected peak wet weather flows. The parallel line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	36" Gravity Main	5,100	LF	\$ 540	\$ 2,754,000
2	72" Diameter Manhole	7	EA	\$ 7,500	\$ 52,500
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	50" Boring and Casing	300	LF	\$ 1,000	\$ 300,000
				SUBTOTAL:	\$ 3,116,500
				CONTINGENCY	30% \$ 935,000
				SUBTOTAL:	\$ 4,051,500
				ENG/SURVEY	15% \$ 607,800
				SUBTOTAL:	\$ 4,659,300
Estimated Project Total:					\$ 4,659,300

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 3

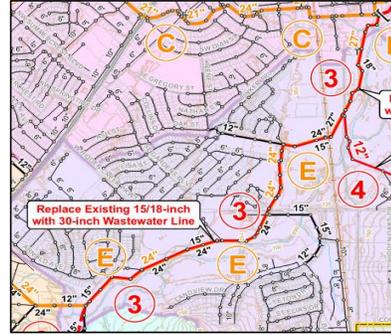
Phase: Future Capacity Restriction

Project Name: Village Creek Basin 30/36-inch Wastewater Replacement

Project Description:

This project consists of the construction of a 30/36-inch wastewater line going northeast along Village Creek from the existing 12/15-inch wastewater line near Steven Street to the proposed 30-inch interceptor near Scott Street.

Vicinity Map



Project Drivers:

Model results indicate that the existing 15/18-inch wastewater line experiences surcharging and overflows under projected peak wet weather flows. The replacement line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	30" Gravity Main	7,600	LF	\$ 450	\$ 3,420,000
2	36" Gravity Main	5,100	LF	\$ 540	\$ 2,754,000
3	72" Diameter Manhole	16	EA	\$ 7,500	\$ 120,000
4	Concrete Pavement Repair	300	LF	\$ 100	\$ 30,000
5	50" Boring and Casing	50	LF	\$ 1,000	\$ 50,000
				SUBTOTAL:	\$ 6,374,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 8,286,200
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 9,529,200
				Estimated Project Total:	\$ 9,529,200

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

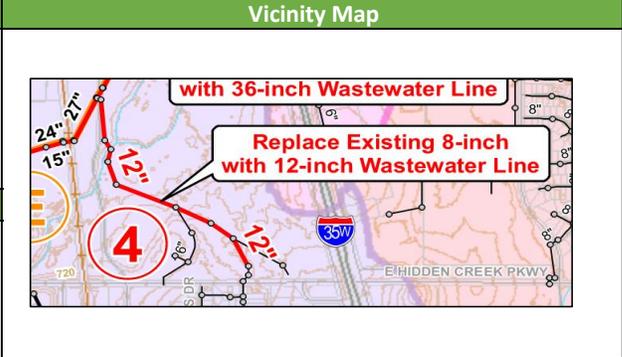
Construction Project Number: 4

Phase: Future Capacity Restriction

Project Name: Village Creek Basin 12-inch Wastewater Replacement

Project Description:

This project consists of the construction of a 12-inch wastewater line replacing the existing 6-inch wastewater line on Hidden Creek Parkway to the proposed 30-inch wastewater line on Dobson Street.



Project Drivers:

Model results indicate that the existing 8-inch wastewater line experiences surcharging under projected peak wet weather flows. The replacement line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Gravity Main	3,400	LF	\$ 180	\$ 612,000
2	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
3	20" Boring and Casing	50	LF	\$ 400	\$ 20,000
4	48" Diameter Manhole	7	EA	\$ 6,000	\$ 42,000
				SUBTOTAL:	\$ 684,000
				CONTINGENCY 30%	\$ 205,200
				SUBTOTAL:	\$ 889,200
				ENG/SURVEY 15%	\$ 133,400
				SUBTOTAL:	\$ 1,022,600
Estimated Project Total:					\$ 1,022,600

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 5

Phase: Existing Capacity Restriction

Project Name: **Town Creek Parkview Drive 10-inch Wastewater Replacement**

Project Description:
This project consists of the construction of a 10-inch wastewater line replacing the existing 6-inch wastewater line along Parkview Drive from the existing 6-inch wastewater line on Flagstone Drive to the existing 12-inch wastewater line near Rand Drive.

Project Drivers:
Model results indicate that the existing 6-inch line is over capacity under projected existing peak wet weather flows.



Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	10" Gravity Main	2,100	LF	\$ 150	\$ 315,000
2	48" Diameter Manhole	5	EA	\$ 6,000	\$ 30,000
3	Concrete Pavement Repair	2,100	LF	\$ 100	\$ 210,000
				SUBTOTAL:	\$ 555,000
				CONTINGENCY 30%	\$ 166,500
				SUBTOTAL:	\$ 721,500
				ENG/SURVEY 15%	\$ 108,300
				SUBTOTAL:	\$ 829,800
Estimated Project Total:					\$ 829,800

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 6

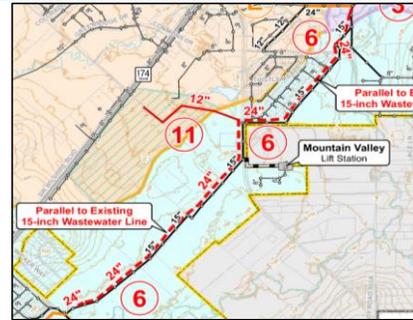
Phase: Future Capacity Restriction

Project Name: Willow Creek Basin Wilshire Boulevard 24-inch Parallel Interceptor

Project Description:

This project consists of the construction of a 24-inch wastewater line parallel to the existing 15-inch wastewater line near Wilshire Boulevard from the existing 15-inch wastewater line to the proposed 27-inch wastewater line near Country Road 714.

Vicinity Map



Project Drivers:

Model results indicate that the existing 15-inch line experiences surcharging and overflows under projected peak wet weather flows. The parallel line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	24" Gravity Main	12,700	LF	\$ 360	\$ 4,572,000
2	60" Diameter Manhole	16	EA	\$ 7,000	\$ 112,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	36" Boring and Casing	50	LF	\$ 720	\$ 36,000
				SUBTOTAL:	\$ 4,730,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 6,149,000
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 7,071,400
Estimated Project Total:					\$ 7,071,400

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

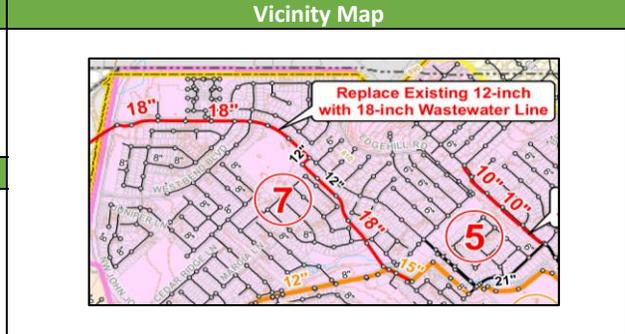
2023 Dollars

Construction Project Number: 7

Phase: Future Capacity Restriction

Project Name: **Town Creek Basin East Hyder Ranch 18-inch Wastewater Replacement**

Project Description:
This project consists of the construction of an 18-inch wastewater line going southeast from the proposed 15-inch wastewater line east of Hyder Ranch to the existing 15-inch wastewater line along Summercrest.



Project Drivers:
Model results indicate that the existing 12-inch wastewater line experiences surcharging and overflows under projected peak wet weather flows. The replacement line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	18" Gravity Main	7,500	LF	\$ 270	\$ 2,025,000
2	60" Diameter Manhole	10	EA	\$ 7,000	\$ 70,000
3	Concrete Pavement Repair	400	LF	\$ 100	\$ 40,000
				SUBTOTAL:	\$ 2,135,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 2,775,500
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 3,191,900
Estimated Project Total:					\$ 3,191,900

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

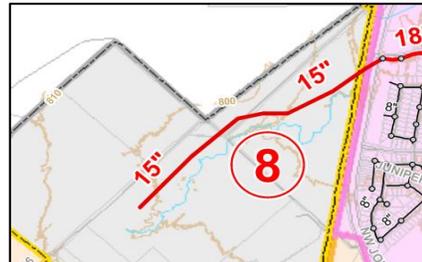
Construction Project Number: 8

Phase: Growth / Development

Project Name: Town Creek Basin East Hyder Ranch 15-inch Collector Line

Project Description:
This project consists of the construction of a 15-inch wastewater line going east along Deer Creek from County Road 1016 to the proposed 18-inch wastewater line replacement on Summercrest Boulevard.

Vicinity Map



Project Drivers:
Future projections show growth of sewer customers in this area (Hyder Ranch) and the proposed line will serve new development in the Town Creek Basin.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	15" Gravity Main	4,100	LF	\$ 225	\$ 922,500
2	48" Diameter Manhole	9	EA	\$ 6,000	\$ 54,000
3	Concrete Pavement Repair	200	LF	\$ 100	\$ 20,000
4	26" Boring and Casing	50	LF	\$ 520	\$ 26,000
				SUBTOTAL:	\$ 1,022,500
				CONTINGENCY	30%
				SUBTOTAL:	\$ 1,329,300
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 1,528,700
				Estimated Project Total:	\$ 1,528,700

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 9

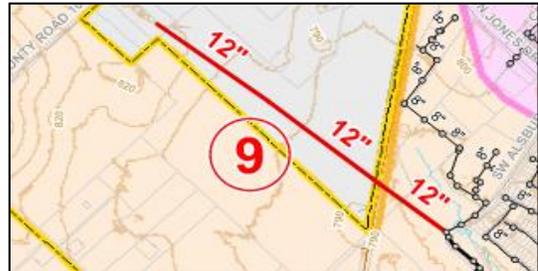
Phase: Growth / Development

Project Name: Shannon Creek Basin West Hyder Ranch 12-inch Collector Line

Project Description:

This project consists of the construction of a 12-inch wastewater line going southeast from County Road 1016 to the existing 15-inch wastewater line on Alsbury Boulevard.

Vicinity Map



Project Drivers:

Future projections show growth of sewer customers in this area (Hyder Ranch) and the proposed line will serve new development in the Shannon Creek Basin.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Gravity Main	4,600	LF	\$ 180	\$ 828,000
2	48" Diameter Manhole	10	EA	\$ 6,000	\$ 60,000
3	Concrete Pavement Repair	300	LF	\$ 100	\$ 30,000
				SUBTOTAL:	\$ 918,000
				CONTINGENCY	30% \$ 275,400
				SUBTOTAL:	\$ 1,193,400
				ENG/SURVEY	15% \$ 179,100
				SUBTOTAL:	\$ 1,372,500
Estimated Project Total:					\$ 1,372,500

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 10

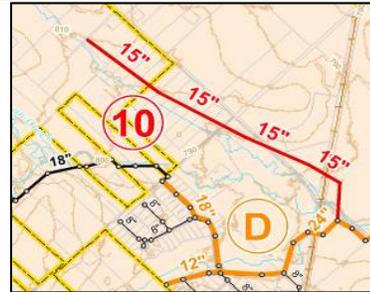
Phase: Growth / Development

Project Name: Shannon Creek Basin SW Hulen Street 15-inch Collector Line

Project Description:

This project consists of the construction of a 15-inch collector going southeast along Hulen Street from Shannon Creek to the existing 12-inch wastewater line.

Vicinity Map



Project Drivers:

Future projections show growth of sewer customers in this area and the proposed line will serve new development in the Shannon Creek Basin.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	15" Gravity Main	5,700	LF	\$ 225	\$ 1,282,500
2	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
3	26" Boring and Casing	150	LF	\$ 520	\$ 78,000
4	48" Diameter Manhole	12	EA	\$ 6,000	\$ 72,000
				SUBTOTAL:	\$ 1,442,500
				CONTINGENCY	30%
				SUBTOTAL:	\$ 1,875,300
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 2,156,600
Estimated Project Total:					\$ 2,156,600

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 11

Phase: Growth / Development

Project Name: **The Lakes 12-inch Collector Line**

Project Description:

This project consists of the construction of a 12-inch wastewater line going east along Hulen Street from Wilshire Boulevard to the proposed 24-inch parallel line near John Jones Drive.

Vicinity Map



Project Drivers:

Future projections show growth of sewer customers in this area (The Lakes) and the proposed line will serve new development in the Shannon Creek and Willow Creek Basins. This development will require a transition of a portion of the Shannon Creek Basin to the Willow Creek Basin.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Gravity Main	3,000	LF	\$ 180	\$ 540,000
2	48" Diameter Manhole	6	EA	\$ 6,000	\$ 36,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
				SUBTOTAL:	\$ 586,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 761,800
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 876,100
Estimated Project Total:					\$ 876,100

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: 12

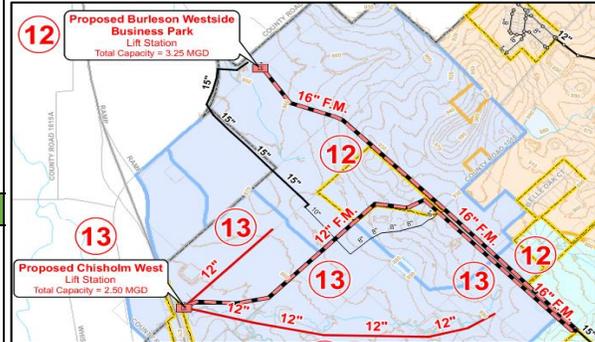
Phase: Growth / Development

Project Name: **Burleson Westside Business Park Lift Station Force Main / Collector**

Project Description:

This project consists of the construction of the Westside Business Park Lift Station with a 3.25 MGD firm capacity near the Chisolm Summit/Burleson West Business Park developments near Chisolm Trail Parkway Toll Road. It also consists of the construction of a 16-inch force main from the proposed Burleson Westside Lift Station going southeast to the under construction 15-inch wastewater line along FM 914.

Vicinity Map



Project Drivers:

Future projections show growth of sewer customers in this area (Chisolm Summit/Burleson West Business Park) and the proposed improvements will serve the Burleson West Basin. A lift station and force main is required to provide wastewater service due to local topology.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Lift Station - New 3.25 MGD	1	LS	\$ 3,250,000	\$ 3,250,000
2	16" Force Main < 8 feet deep	10,500	LF	\$ 200	\$ 2,100,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
				SUBTOTAL:	\$ 5,360,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 6,968,000
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 8,013,200
Estimated Project Total:					\$ 8,013,200

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

City of Burleson



Impact Fee Capital Improvement Cost Estimate

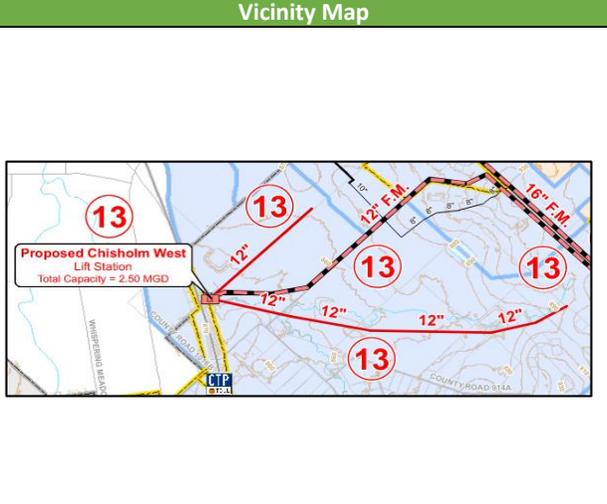
2023 Dollars

Construction Project Number: 13

Phase: Growth / Development

Project Name: Chisholm West Lift Station Force Main / Collector

Project Description:
 This project consists of the construction of the Chisholm West Lift Station with a 2.5 MGD firm capacity near the Chisolm Summit development and the Chisholm Trail Parkway Toll Road. It also consists of the construction of a 10-inch force main from the proposed Chisholm West Lift Station going west to the under construction 15-inch wastewater line along FM 914. This project also consists of an 12-inch collector approximately 800 feet northeast of the Chisholm West Lift Station. This project also consists of a 12-inch collector along Rock Creek from County Road 914 to the proposed Chisolm West Lift Station.



Project Drivers:
 Future projections show growth of sewer customers in this area (Chisholm Summit) and the proposed improvements will serve the Burleson West Basin. A lift station and force main is required to provide wastewater service due to local topology.

Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Lift Station - New 2.50 MGD	1	LS	\$ 2,500,000	\$ 2,500,000
2	12" Force Main	12,100	LF	\$ 150	\$ 1,815,000
3	12" Gravity Main	10,800	LF	\$ 180	\$ 1,944,000
4	48" Diameter Manhole	22	EA	\$ 6,000	\$ 132,000
5	20" Boring and Casing	150	LF	\$ 400	\$ 60,000
6	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
				SUBTOTAL:	\$ 6,461,000
				CONTINGENCY	30%
				SUBTOTAL:	\$ 8,399,300
				ENG/SURVEY	15%
				SUBTOTAL:	\$ 9,659,200
				Estimated Project Total:	\$ 9,659,200

Comments: The Engineer has no control over the cost and 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 the Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.