

# CITY OF BURLESON



## WATER & WASTEWATER MASTER PLAN UPDATE



### Volume I: Executive Summary

Prepared By:

Freese and Nichols, Inc.  
801 Cherry Street, Suite 2800  
Fort Worth, Texas 76102  
817-735-7300





Innovative approaches  
Practical results  
Outstanding service

# **WATER & WASTEWATER MASTER PLAN UPDATE VOLUME I – EXECUTIVE SUMMARY**

Prepared for:

**City of Burleson**

THE CITY OF

**BURLESON**  
TEXAS

Prepared by:

**FREESE AND NICHOLS, INC.**

801 Cherry Street, Suite 2800

Fort Worth, Texas 76102

817-735-7300

# WATER & WASTEWATER MASTER PLAN UPDATE

## VOLUME I – EXECUTIVE SUMMARY

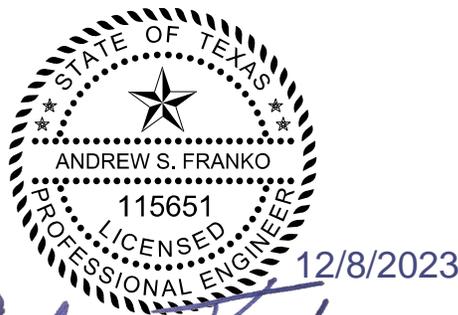
Prepared for:

**City of Burleson**



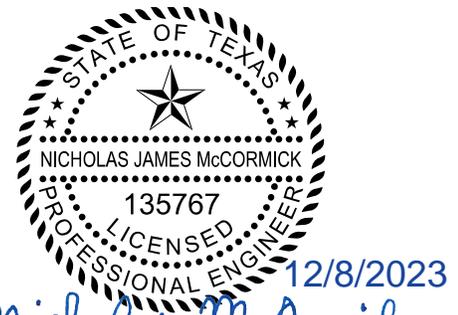
*Jessica Brown*

FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144



*Andrew Franko*

FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144



*Nicholas McCormick*

FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144

Prepared by:

**FREESE AND NICHOLS, INC.**  
801 Cherry Street, Suite 2800  
Fort Worth, Texas 76102  
817-735-7300

BUR20424

**TABLE OF CONTENTS**

1.0 Introduction ..... 1  
2.0 Land Use Assumptions Update ..... 1  
3.0 Water Demand Projections..... 2  
4.0 Water Distribution System Analysis..... 3  
5.0 Water Distribution Capital Improvement Plan ..... 3  
6.0 Wastewater Flow Projections..... 8  
7.0 Wastewater Collection System Analysis ..... 10  
8.0 Wastewater Distribution Capital Improvement Plan ..... 10

**LIST OF TABLES**

Table 2-1: Water Served Population and Non-Residential Acreage Projections..... 1  
Table 2-2: Wastewater Served Population and Non-Residential Acreage Projections ..... 1  
Table 2-3: People Per Connection Summary ..... 2  
Table 3-1: Water Demand Projection Criteria ..... 2  
Table 3-2: Water Demand Projections..... 2  
Table 5-1: Water System Capital Improvements Projects Summary ..... 4  
Table 6-1: Wastewater Flow Projection Criteria..... 8  
Table 6-2: Wastewater Flow Projections ..... 8  
Table 8-1: Wastewater System Capital Improvements Plan Summary ..... 11

**LIST OF FIGURES**

Figure 1: Proposed Water System Improvements ..... 7  
Figure 2: Proposed Wastewater 20-Year Improvements ..... 13  
Figure 3: Proposed Wastewater Buildout Improvements ..... 14

**APPENDICES**

Appendix A Existing Water System Analysis Mapping  
Appendix B Estimated Water CIP Opinion of Probable Construction Costs  
Appendix C Existing Wastewater System Analysis Mapping  
Appendix D Estimated Wastewater CIP Opinion of Probable Construction Costs

## 1.0 INTRODUCTION

- The City of Burleson contracted with Freese and Nichols, Inc. (FNI) to prepare an update of the City’s Water and Wastewater Master Plan. This report presents an executive summary of the approach, findings, and results of that study.
- Please refer to **Volume II – Master Plan Report** for additional information for the Water and Wastewater Master Plan.

## 2.0 LAND USE ASSUMPTIONS UPDATE

- FNI updated the Projections Database Tool, that was originally developed in 2017, to revise planning years, known development densities, and updated water demand and wastewater flow design criteria. The database determines a projected water demand and wastewater flow for each parcel in the water and wastewater service areas.
- **Table 1** summarizes the updated population and non-residential acreage land use assumptions for 5-year, 10-year, and Buildout conditions served by the water system. **Table 2** summarizes the updated population and non-residential acreage land use assumptions served by the wastewater system. **Table 3** presents the updated people per connection summaries. [**Volume II – Master Plan Report (Section 2.0)**].

**Table 2-1: Water Served Population and Non-Residential Acreage Projections**

Planning Period	Population	Population Growth Rate	Non-Residential Acreage (Acres)
Existing	46,724	--	1,215
5-Year	52,860	2.5%	1,465
10-Year	60,548	2.8%	1,717
Buildout	72,146	1.8%	2,000

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

Year	Population	Population Growth Rate	Non-Residential Acreage (Acres)
Existing	49,760	--	1,795
5-Year	62,548	4.7%	2,383
10-Year	76,822	4.2%	2,730
20-Year	103,799	3.1%	4,397
Buildout	120,821	0.8%	6,523

**Table 2-3: People Per Connection Summary**

Land Use	Units Per Acre	People Per Connection
Rural Residential Neighborhood	1.00	3.00
Urban Residential Neighborhood	4.25	3.00
Medium Density Residential	6.00	3.00
Multi-Family	24.00	2.20
Two-Family (Duplex)	--*	3.50
Manufactured Home	--*	3.00
Assisted Living	--*	1.00
<b>Overall (Residential + Non-Residential)<sup>1</sup></b>		<b>2.86</b>

\*Assumes one unit per parcel, not based on acreage.

<sup>1</sup>Source: Existing water served population of 46,724 and the TCEQ Drinking Water Watch Database active water meter connections of 16,363.

### 3.0 WATER DEMAND PROJECTIONS

- Tables 4 and 5 present the water demand projection criteria and water demand projections.

[Volume II – Master Plan Report (Section 3.0)].

**Table 3-1: Water Demand Projection Criteria**

Criteria	Factor
Residential Average Day Per Capita Usage (gpcd)	115
Non-Residential Average Day Per Acre Usage (gpad)	650
Max Day to Average Day Peaking Factor	2.20
Peak Hour to Max Day Peaking Factor	1.85

**Table 3-2: Water Demand Projections**

Pressure Plane	Population	Non-Residential Acreage (acres)	Average Day Demand (MGD)	Max Day Demand (MGD)	Peak Hour Demand (MGD)
<b>Existing Water Demands</b>					
Lower	35,571	1,070	4.79	10.53	19.48
Upper	11,153	145	1.38	3.03	5.60
<b>Total</b>	<b>46,724</b>	<b>1,215</b>	<b>6.17</b>	<b>13.56</b>	<b>25.08</b>
<b>Short-Term Water Demands (5-Year)</b>					
Lower	39,670	1,256	5.38	11.83	21.89
Upper	13,190	209	1.63	3.59	6.65
<b>Total</b>	<b>52,860</b>	<b>1,465</b>	<b>7.01</b>	<b>15.42</b>	<b>28.54</b>
<b>Intermediate-Term Water Demands (10-Year)</b>					
Lower	39,741	1,459	5.52	12.14	22.46
Upper	20,807	258	2.54	5.59	10.34
<b>Total</b>	<b>60,548</b>	<b>1,717</b>	<b>8.06</b>	<b>17.73</b>	<b>32.80</b>
<b>Long-Term (Buildout) Water Demands</b>					
Lower	44,277	1,590	6.13	13.48	24.93
Upper	27,869	410	3.45	7.59	14.05
<b>Total</b>	<b>72,146</b>	<b>2,000</b>	<b>9.58</b>	<b>21.07</b>	<b>38.98</b>

#### 4.0 WATER DISTRIBUTION SYSTEM ANALYSIS

- FNI reviewed the City of Burleson’s existing water distribution system and updated the hydraulic model utilizing the latest GIS information available and as-built information on recently completed improvements. Field pressure testing was conducted from March 1, 2021, to April 9, 2021 to monitor pressure simultaneously at 12 locations across the City. FNI calibrated the hydraulic model to simulate the recorded field pressures and available SCADA data of tank levels for March 21, 2021. [**Volume II – Master Plan Report (Section 4.2)**]
- The existing and future water distribution system was evaluated under average day, maximum day, and peak hour demand conditions to determine where pressure issues occur, if storage tanks are operating properly, and if pumping facilities are adequate to meet the required demand. **Appendix A** includes mapping of the existing system hydraulic analyses for minimum pressures, maximum velocities and headloss gradients, and available fire flow. The design criteria utilized for developing the water system improvements are listed below. [**Volume II – Master Plan Report (Section 4.0 and Section 5.0)**]
  - Elevated Storage – 200 gallons per connection
  - Ground Storage – Maximum day demands for 10 hours
  - Total Storage – 200 gallons per connection
  - Pumping Capacity – 0.6 gpm per connection and 60% of peak hour demands
  - Water Supply – 0.6 gpm per connection and 110% of maximum day demands
  - Pressure – minimum of 35 psi
  - Velocity – 5 fps (12-inch and greater), 7 fps (10-inch and smaller)
  - Headloss Gradient - 5 feet per 1,000 feet (12-inch and greater), 7 feet per 1,000 feet (10-inch and smaller)
  - Available Fire Flow – 1,500 gpm (20 psi residual pressure)

#### 5.0 WATER DISTRIBUTION CAPITAL IMPROVEMENT PLAN

- **Table 6** provides a cost summary of each water system capital improvement project.
- **Figure 1** illustrates the proposed water system capital improvement projects.
- **Appendix B** contains an estimated cost summary and description for each individual project.

For the purposes of this report, the proposed CIP is based upon relying solely on the City of Fort Worth for water supply. FNI recommends the City explore alternative water supply sources for resiliency and reliability. [**Volume II – Master Plan Report (Section 6.0)**].

**Table 5-1: Water System Capital Improvements Projects Summary**

Project Number	Project Name	Project Driver	Project Purpose	Estimated Cost
H-A	16-inch County Road 920 Lower Pressure Plane Transmission Water Line	Hydraulic Restriction	<ul style="list-style-type: none"> <li>This project provides transmission capacity to the LPP from the Hulen Low Pump Station.</li> <li>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.</li> </ul>	\$3,058,800
H-B	16-inch Wilshire Boulevard Upper Pressure Plane Transmission Water Line	Hydraulic Restriction	<ul style="list-style-type: none"> <li>This project provides transmission capacity to the Mountain Valley portion of the Upper Pressure Plane from the Hulen High Pump Station.</li> <li>This area experiences high velocity/headloss under buildout demands.</li> <li>This project enables the existing 12-inch water line along Wilshire Boulevard to be converted to a LPP water Line.</li> </ul>	\$1,826,900
H-C	Small Diameter Replacement Initiative	Hydraulic Restriction	<ul style="list-style-type: none"> <li>This project provides additional transmission capacity for areas served via small diameter water lines.</li> <li>This project increases the available fire flow and minimum pressures observed throughout the distribution system.</li> </ul>	\$6,646,800
G-A	12-inch County Road 714 Lower Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow near-term future developments to be served in the Lower Pressure Plane.</li> </ul>	\$3,022,900
G-B	12-inch County Road 802 Upper Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow near-term future developments to be served in the Upper Pressure Plane.</li> <li>This project will also provide improved looping and fire flow in the Mountain Valley area.</li> </ul>	\$2,146,900
G-C	12-inch FM 731 Lower Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow future developments (The Lakes) to be served in the LPP.</li> <li>This project will improve looping and available fire flow in the LPP.</li> </ul>	\$1,157,200
G-D	12-inch I-35 W Lower Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow future developments to be served in the Lower Pressure Plane.</li> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> </ul>	\$2,972,100

**Table 5-1: Water System Capital Improvements Projects Summary Continued**

Project Number	Project Name	Project Driver	Project Purpose	Estimated Cost
G-E	12-inch Wilshire Boulevard Upper Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow future developments (Bear Ridge) to be served in the Upper Pressure Plane.</li> <li>The primary trigger for project G-A 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.</li> </ul>	\$1,288,700
G-F	12/16-inch Hyder Ranch Distribution Line Phase 1	Growth/Development	<ul style="list-style-type: none"> <li>This project facilitates the transmission capacity to serve the Hyder Ranch Development</li> </ul>	\$5,857,500
G-G	12-inch Village Creek Lower Pressure Plane Water Line Phase 1	Growth/Development	<ul style="list-style-type: none"> <li>The development area near the Mountain Valley Pump Station (offline), is recommended to be served from the LPP.</li> <li>This project facilitates the transmission capacity to serve the developments through the LPP.</li> <li>This project will eliminate a 12-inch dead-end line.</li> </ul>	\$1,823,900
G-H	12-inch Wicker Hill Road Upper Pressure Plane Water Line	Growth/Development	<ul style="list-style-type: none"> <li>This project will allow future developments (Bear Ridge) to be served in the Upper Pressure Plane.</li> <li>This project will eliminate a 12-inch dead-end line.</li> </ul>	\$846,200
G-I	12-inch Village Creek Lower Pressure Plane Water Line Phase 2	Growth/Development	<ul style="list-style-type: none"> <li>The development area near the Mountain Valley Pump Station (offline), is recommended to be served from the LPP.</li> <li>This project facilitates the transmission capacity to serve the developments through the LPP.</li> </ul>	\$1,127,300
G-J	12-inch Hyder Ranch Distribution Line Phase 2	Growth/Development	<ul style="list-style-type: none"> <li>This project facilitates the transmission capacity to serve the Hyder Ranch Development</li> </ul>	\$4,419,300
F-A	8-inch Village Creek Lower Pressure Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> <li>This project will eliminate two 8-inch dead-end lines.</li> </ul>	\$633,900
F-B	12-inch Shoreline Drive Upper Pressure Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> <li>This project will eliminate a 12-inch dead-end line.</li> </ul>	\$965,800

**Table 5-1: Water System Capital Improvements Projects Summary Continued**

Project Number	Project Name	Project Driver	Project Purpose	Estimated Cost
F-C	12-inch Willow Creek Lower Upper Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Upper Pressure Plane.</li> <li>This project will eliminate a 12-inch dead-end line.</li> <li>This project will add system resiliency by eliminating a single 12-inch feed to the Mountain Valley portion of the Upper Pressure Plane.</li> </ul>	\$765,500
F-D	8-inch County Road 715 Lower Pressure Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> <li>This project will allow near-term future developments to be served in the Lower Pressure Plane.</li> </ul>	\$457,500
F-E	10-inch FM 1187 Lower Pressure Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> </ul>	\$314,000
F-F	8-inch Dobson Road Lower Pressure Plane Water Line	Fire Flow/Looping	<ul style="list-style-type: none"> <li>This project will improve looping and available fire flow in the Lower Pressure Plane.</li> </ul>	\$891,100
R-A	8.50 MGD Industrial Pump Station Expansion	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide pumping capacity to meet TCEQ and FNI planning criteria.</li> <li>This will also allow the system to provide pumping capacity for 60% of peak hour demand through buildout.</li> </ul>	\$20,948,000
R-B	Fort Worth Water Supply Offsite Improvements	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide additional water supply to meet projected growth and development.</li> </ul>	\$5,501,000
R-C	0.50 MG Hyder Ranch EST	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.</li> </ul>	\$1,868,800
R-D	NEW 0.75 MG Mountain Valley EST	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.</li> </ul>	\$3,333,700
R-E	1.50 MG FM 731 EST	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.</li> </ul>	\$5,606,300
R-F	2.56 MGD Hulen High Pump Station Expansion	Regulatory/Operational	<ul style="list-style-type: none"> <li>This project will provide system resiliency/redundancy should the Turkey Peak PS go out of service for any significant period of time.</li> </ul>	\$373,800
<b>Grand Total</b>				<b>\$77,853,900</b>

**FIGURE 1**  
**CITY OF BURLESON**  
**WATER SYSTEM**  
**RECOMMENDED IMPROVEMENTS**  
**LEGEND**

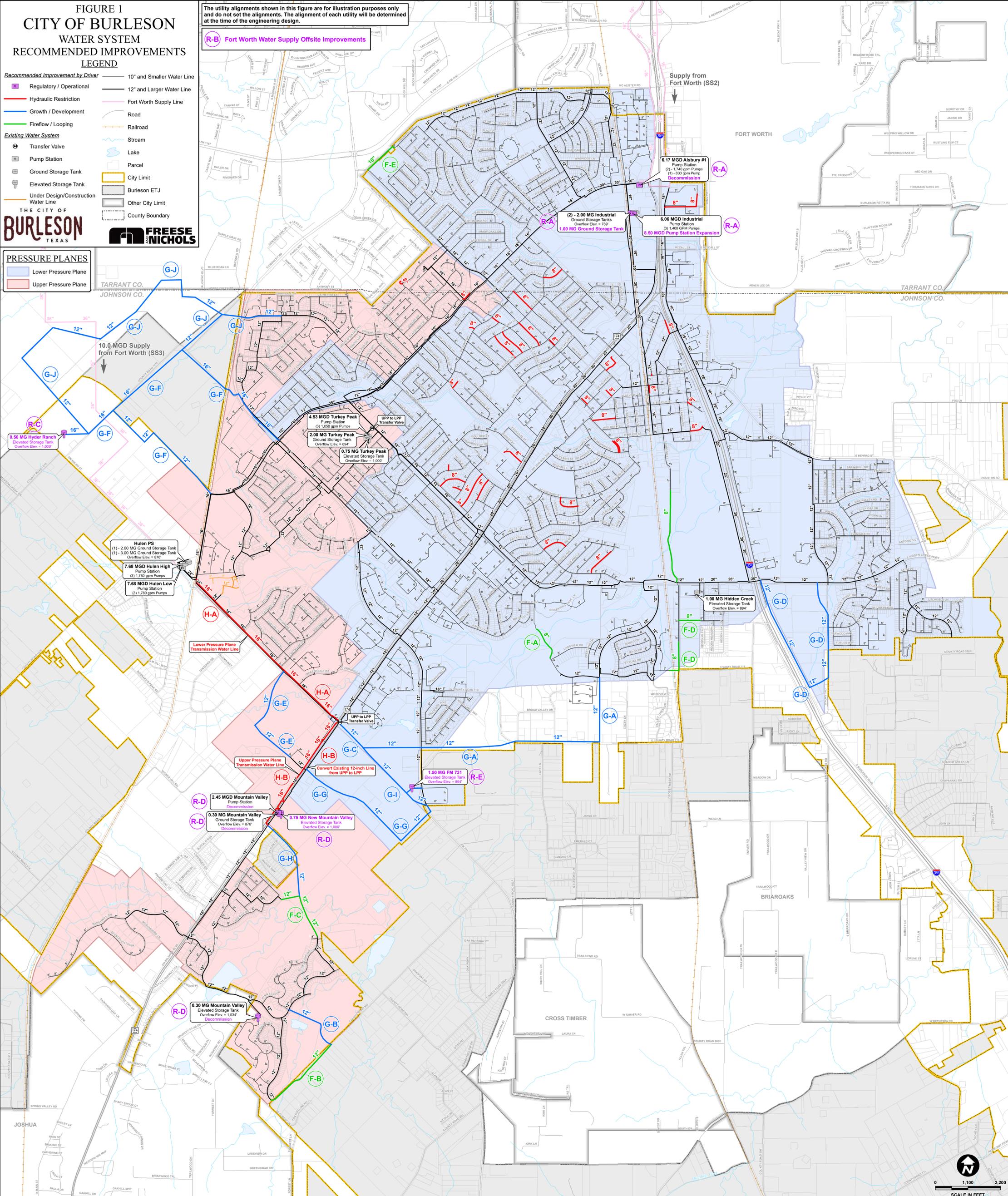
- Recommended Improvement by Driver**
- Regulatory / Operational
  - Hydraulic Restriction
  - Growth / Development
  - Fireflow / Looping
- Existing Water System**
- Transfer Valve
  - Pump Station
  - Ground Storage Tank
  - Elevated Storage Tank
  - Under Design/Construction Water Line
- 10" and Smaller Water Line**
- 12" and Larger Water Line**
- Fort Worth Supply Line**
- Road**
- Railroad**
- Stream**
- Lake**
- Parcel**
- City Limit**
- Burleson ETJ**
- Other City Limit**
- 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.

**(R-B) Fort Worth Water Supply Offsite Improvements**



## 6.0 WASTEWATER FLOW PROJECTIONS

- Tables 7 and 8 present the wastewater flow projection criteria and wastewater flow projections.

[Volume II – Master Plan Report (Section 7.0)]

**Table 6-1: Wastewater Flow Projection Criteria**

Criteria	Factor
Residential Average Day Per Capita Flow (gpcd)	80
Non-Residential Average Day Per Acre Flow (gpad)	450
Future Peak Wet Weather to Average Day Peaking Factor	3.40
Existing PWW:ADF Peaking Factor	2.92

**Table 6-2: Wastewater Flow Projections**

Sewer Basin	Population	Non-Residential Acreage (Acres)	Average Day Flow (MGD)	Peak Wet Weather Flow (MGD)
<b>Existing Wastewater Flows</b>				
Burleson Main	3,684	140	0.36	1.04
Burleson West	0	0	0.00	0.00
North Creek	9,214	296	0.87	2.54
Quil Miller Creek	4,851	484	0.65	1.89
Shannon Creek	7,764	277	0.75	2.18
Town Creek	15,851	425	1.46	4.26
Village Creek	4,718	87	0.42	1.22
Willow Creek	3,678	86	0.33	0.97
<b>Total</b>	<b>49,760</b>	<b>1,795</b>	<b>4.84</b>	<b>14.10</b>
<b>Short-Term Wastewater Flows (5-Year)</b>				
Burleson Main	3,773	156	0.37	1.09
Burleson West	4,171	91	0.56	2.02
North Creek	9,378	379	0.92	2.71
Quil Miller Creek	5,183	634	0.74	2.21
Shannon Creek	8,907	304	0.85	2.53
Town Creek	16,340	575	1.57	4.62
Village Creek	5,883	125	0.53	1.59
Willow Creek	8,913	119	0.75	2.40
<b>Total</b>	<b>62,548</b>	<b>2,383</b>	<b>6.29</b>	<b>19.17</b>

**Table 6-2: Wastewater Flow Projections (Continued)**

Sewer Basin	Population	Non-Residential Acreage (Acres)	Average Day Flow (MGD)	Peak Wet Weather Flow (MGD)
<b>Intermediate-Term Wastewater Flows (10-Year)</b>				
Burleson Main	3,773	156	0.37	1.09
Burleson West	8,704	131	0.94	3.31
North Creek	9,378	447	0.95	2.82
Quil Miller Creek	6,457	764	0.90	2.75
Shannon Creek	12,431	353	1.15	3.56
Town Creek	20,491	591	1.90	5.75
Village Creek	5,896	126	0.53	1.60
Willow Creek	9,692	162	0.83	2.68
<b>Total</b>	<b>76,822</b>	<b>2,730</b>	<b>7.57</b>	<b>23.56</b>
<b>Long-Term Wastewater Flows (20-Year)</b>				
Burleson Main	4,182	156	0.40	1.20
Burleson West	14,139	143	1.38	4.81
North Creek	9,379	458	0.96	2.83
Quil Miller Creek	11,481	2,136	1.92	6.22
Shannon Creek	20,059	453	1.81	5.79
Town Creek	21,213	621	1.97	5.99
Village Creek	6,684	152	0.60	1.85
Willow Creek	16,662	278	1.44	4.75
<b>Total</b>	<b>103,799</b>	<b>4,397</b>	<b>10.48</b>	<b>33.44</b>
<b>Buildout Wastewater Flows</b>				
Burleson Main	4,182	156	0.40	1.20
Burleson West	14,655	195	1.44	5.03
North Creek	9,379	458	0.96	2.83
Quil Miller Creek	12,862	4,160	2.94	9.69
Shannon Creek	31,137	482	2.71	8.85
Town Creek	21,226	621	1.97	6.00
Village Creek	6,684	173	0.61	1.88
Willow Creek	20,696	278	1.77	5.85
<b>Total</b>	<b>120,821</b>	<b>6,523</b>	<b>12.80</b>	<b>41.33</b>

## 7.0 WASTEWATER COLLECTION SYSTEM ANALYSIS

- FNI reviewed the City of Burleson’s existing wastewater collection system and updated the hydraulic model utilizing the latest GIS information available. Field flow monitoring testing was conducted from October 10, 2020, to January 7, 2021 with two rain gauges and 12 flow monitors. FNI validated the hydraulic model to simulate the recorded peak wet weather flows. The existing and future wastewater system was evaluated under peak wet weather loads to identify surcharging and overflow locations and other capacity/restriction issues. **Appendix C** includes mapping of the existing system hydraulic analyses for the temporary flow monitoring, model validation, RDII results, and pipe surcharging evaluation. *[Volume II – Master Plan Report (Section 8.0 and Section 9.0)]*

## 8.0 WASTEWATER DISTRIBUTION CAPITAL IMPROVEMENT PLAN

- FNI analyzed the impacts of the 20-year and Buildout flow projections on the wastewater system.
- **Table 10** and **11** summarize the recommendations based on the hydraulic analyses for both the 20-year and Buildout CIP.
- **Figure 2** and **3** illustrate the proposed wastewater system capital improvement projects under 20-year and Buildout flows, respectively.
- **Appendix D** contains an estimated cost summary and description for each individual project.
- For the purposes of this report, the proposed CIP is based upon relying solely on the City of Fort Worth for wastewater treatment. FNI recommends the City explore alternative wastewater services for resiliency and reliability. *[Volume II – Master Plan Report (Section 10.0)]*.

**Table 8-1: Wastewater System Capital Improvements Plan Summary**

Project ID	Project Driver	Project Size		Project Cost	
		20-Year	Buildout	20-Year	Buildout
C-A	Existing Capacity Restriction	Gravity 36/42-inch	Gravity 42/48-inch	\$6,758,900	\$7,795,000
C-B	Existing Capacity Restriction	Gravity 36-inch		\$4,659,300	
C-E	Existing Capacity Restriction	Gravity 10-inch		\$829,800	
SSES-A	Existing Capacity Restriction	Gravity 36/42-inch		\$1,707,100	
SSES-B	Existing Capacity Restriction	Gravity 30-inch		\$707,800	
C-C	Future Capacity Restriction	Gravity 30/36-inch		\$9,529,200	
C-D	Future Capacity Restriction	Gravity 12-inch		\$1,022,600	
C-F	Future Capacity Restriction	Gravity 24-inch		\$7,071,400	
C-G	Future Capacity Restriction	Gravity 24-inch		\$6,297,000	
C-H	Future Capacity Restriction	Gravity 18-inch		\$3,191,900	
C-I	Future Capacity Restriction	Gravity 15-inch		\$2,445,900	
C-J	Future Capacity Restriction	N/A	Gravity 24-inch	--	\$10,369,400
C-K	Future Capacity Restriction	N/A	Gravity 15-inch	--	\$3,014,000
G-A	Growth / Development	Gravity 10-inch		\$1,517,500	
G-B	Growth / Development	Gravity 15-inch		\$1,528,700	
G-C	Growth / Development	Gravity 12-inch		\$1,372,500	
G-D	Growth / Development	Gravity 12-inch	Gravity 15-inch	\$1,746,200	\$2,156,600
G-E	Growth / Development	Gravity 10-inch		\$1,181,100	
G-F	Growth / Development	N/A	Gravity 12-inch	--	\$1,734,200

**Table 8-1: Wastewater System Capital Improvements Plan Summary Continued**

Project ID	Project Driver	Project Size		Project Cost	
		20-Year	Buildout	20-Year	Buildout
G-G	Growth / Development	Gravity 12-inch		\$876,100	
G-H	Growth / Development	Force Main 16-inch Lift Station 3.25 MGD		\$8,013,200	
G-I	Growth / Development	Gravity 12-inch Force Main 12-inch Lift Station 2.50 MGD		\$9,659,200	
G-J	Growth / Development	N/A	Gravity 8-inch	--	\$1,426,300
G-K	Growth / Development	Gravity 8/12-inch	Gravity 15/21-inch	\$4,309,400	\$5,779,000
G-L	Growth / Development	Gravity 8-inch Force Main 8-inch Lift Station 0.5 MGD	Gravity 8-inch Force Main 8-inch Lift Station 0.6 MGD	\$3,588,000	\$3,737,500
G-M	Growth / Development	N/A	Gravity 8/12/15-inch	--	\$3,620,200
G-N	Growth / Development	Gravity 8/15-inch Force Main 10-inch Lift Station 1.88 MGD	Gravity 8/12/15-inch Force Main 16-inch Lift Station 3.3 MGD	\$7,705,300	\$12,604,400
G-O	Growth / Development	Gravity 8/12-inch Force Main 8-inch Lift Station 1.0 MGD	Gravity 8/12/15-inch Force Main 12-inch Lift Station 2.5 MGD	\$8,742,800	\$12,457,900
<b>Grand Total</b>				<b>\$94,460,900</b>	<b>\$126,304,800</b>

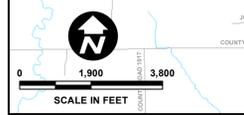
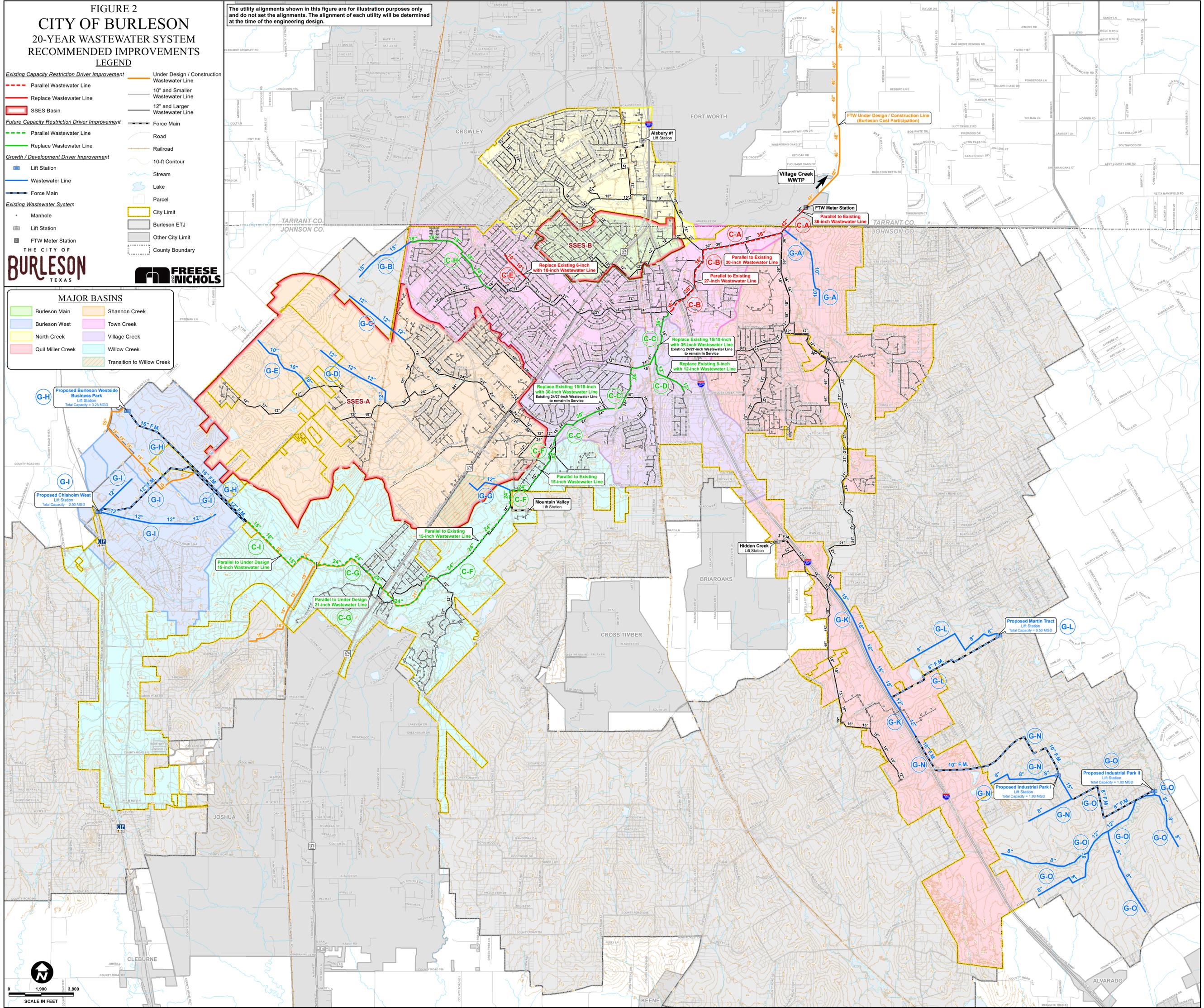
**FIGURE 2**  
**CITY OF BURLESON**  
**20-YEAR WASTEWATER SYSTEM**  
**RECOMMENDED IMPROVEMENTS**  
**LEGEND**

- Existing Capacity Restriction Driver Improvement**
- Parallel Wastewater Line
  - Replace Wastewater Line
  - SSES Basin
- Future Capacity Restriction Driver Improvement**
- Parallel Wastewater Line
  - Replace Wastewater Line
- Growth / Development Driver Improvement**
- Lift Station
  - Wastewater Line
  - Force Main
- Existing Wastewater System**
- Manhole
  - Lift Station
  - FTW Meter Station
- Under Design / Construction Wastewater Line**
- 10" and Smaller Wastewater Line
  - 12" and Larger Wastewater Line
- Force Main**
- Road
  - Railroad
  - 10-ft Contour
  - Stream
  - Lake
  - Parcel
- City Limit**
- Burleson ETJ
  - Other City Limit
  - County Boundary

**MAJOR BASINS**

Burleson Main	Shannon Creek
Burleson West	Town Creek
North Creek	Village Creek
Quil Miller Creek	Willow Creek
	Transition to Willow Creek

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.





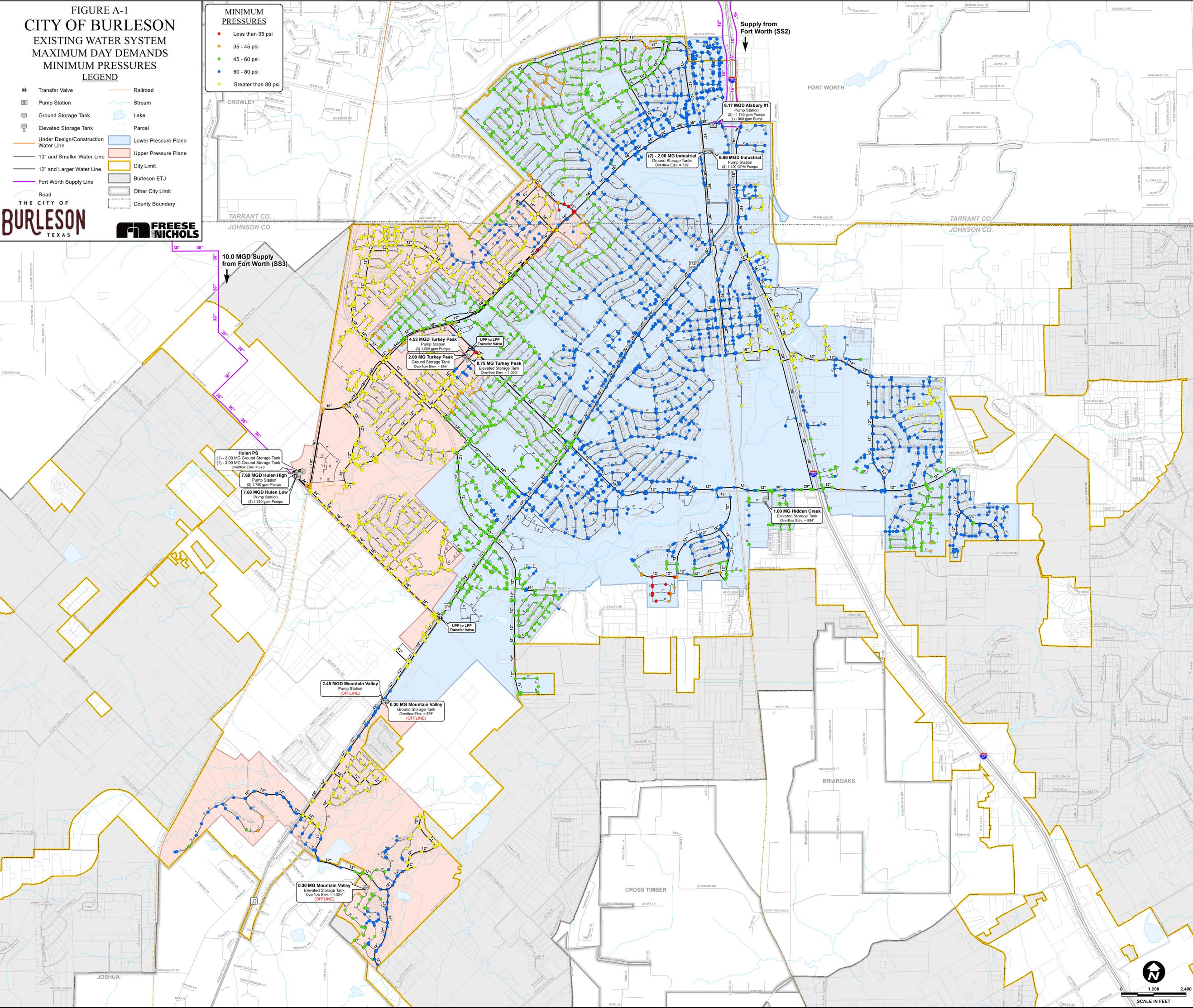
## **APPENDIX A**

# **EXISTING WATER SYSTEM ANALYSIS MAPPING**

**FIGURE A-1**  
**CITY OF BURLESON**  
**EXISTING WATER SYSTEM**  
**MAXIMUM DAY DEMANDS**  
**MINIMUM PRESSURES**  
**LEGEND**

- MINIMUM PRESSURES**
- Less than 35 psi
  - 35 - 45 psi
  - 45 - 60 psi
  - 60 - 80 psi
  - Greater than 80 psi

- ⊕ Transfer Valve
- ⊞ Pump Station
- ⊞ Ground Storage Tank
- ⊞ Elevated Storage Tank
- Under Design/Construction Water Line
- 10" and Smaller Water Line
- 12" and Larger Water Line
- Fort Worth Supply Line
- Railroad
- Stream
- Lake
- Parcel
- Lower Pressure Plane
- Upper Pressure Plane
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

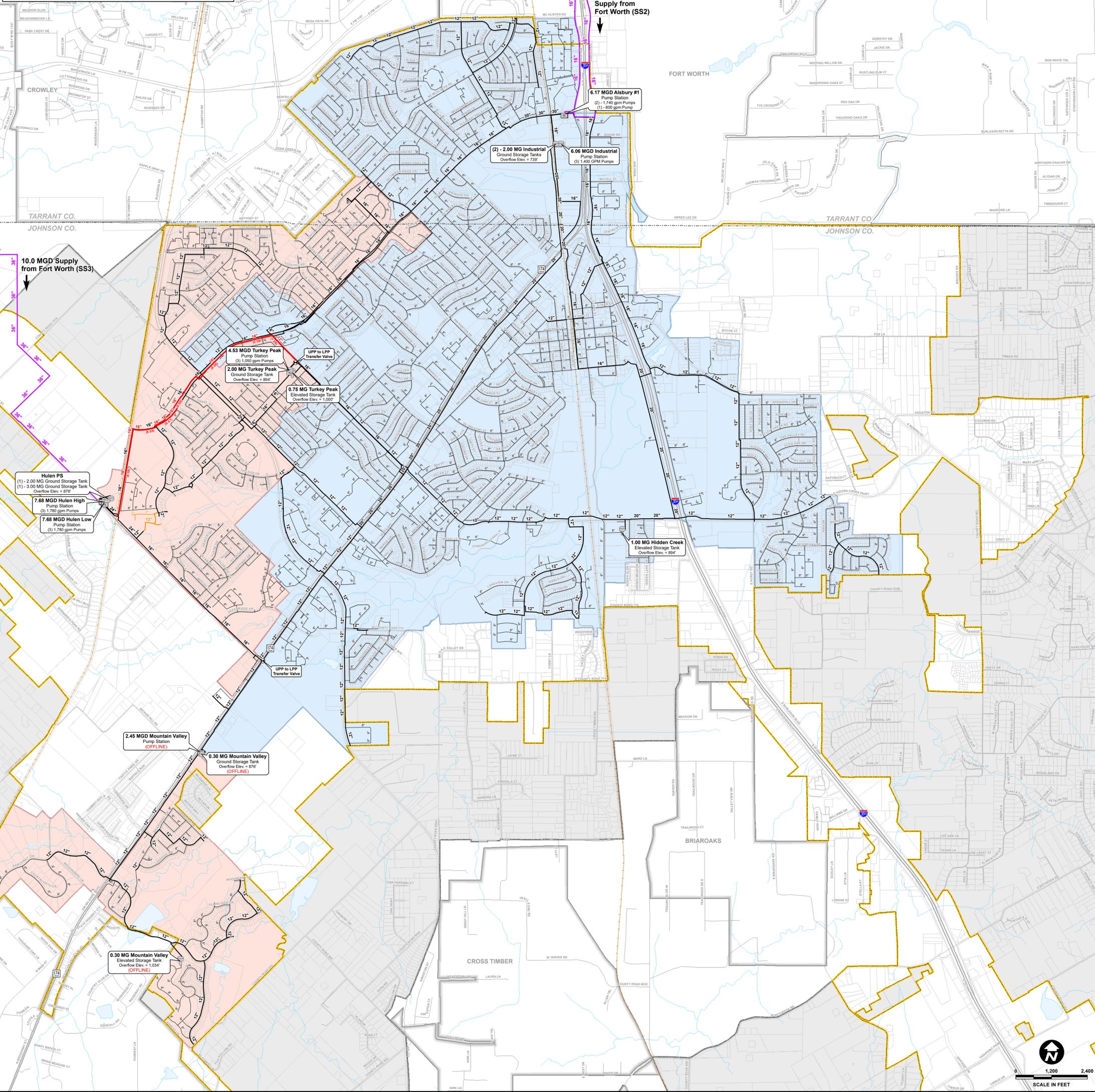


**FIGURE A-2**  
**CITY OF BURLESON**  
**EXISTING WATER SYSTEM**  
**MAXIMUM DAY DEMANDS**  
**MAXIMUM VELOCITY**  
**LEGEND**

- Lines 12" and Larger**
- Less than 5 ft/s
  - Greater than 5 ft/s
  - 12" and Larger Water Line
  - Fort Worth Supply Line
- Lines Smaller than 12"**
- Less than 7 ft/s
  - Greater than 7 ft/s
- Other Symbols**
- ⊕ Transfer Valve
  - ⊕ Pump Station
  - ⊕ Ground Storage Tank
  - ⊕ Elevated Storage Tank
  - 10" and Smaller Water Line
  - Road
  - Railroad
  - Stream
  - Lake
  - Parcel
  - Lower Pressure Plane
  - Upper Pressure Plane
  - City Limit
  - Burleson ETJ
  - Other City Limit
  - County Boundary

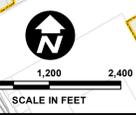
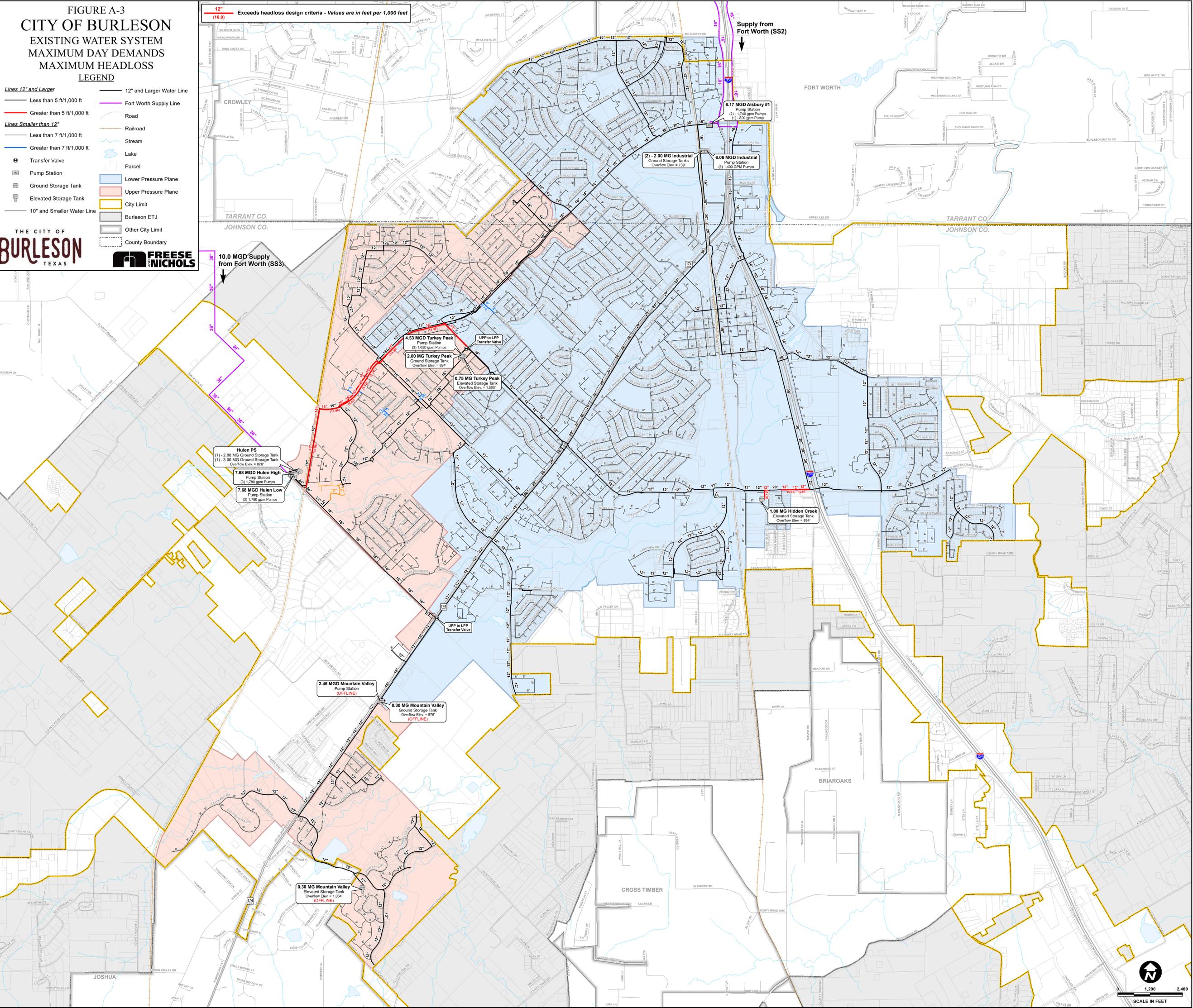


**12" (10.0)** Exceeds velocity design criteria - Values are in feet per second



**FIGURE A-3**  
**CITY OF BURLESON**  
**EXISTING WATER SYSTEM**  
**MAXIMUM DAY DEMANDS**  
**MAXIMUM HEADLOSS**  
**LEGEND**

- Lines 12" and Larger**
- Less than 5 ft/1,000 ft
  - Greater than 5 ft/1,000 ft
- Lines Smaller than 12"**
- Less than 7 ft/1,000 ft
  - Greater than 7 ft/1,000 ft
- Other Symbols**
- Transfer Valve
  - Pump Station
  - Ground Storage Tank
  - Elevated Storage Tank
  - 10" and Smaller Water Line
  - 12" and Larger Water Line
  - Fort Worth Supply Line
  - Road
  - Railroad
  - Stream
  - Lake
  - Parcel
  - Lower Pressure Plane
  - Upper Pressure Plane
  - City Limit
  - Burleson ETJ
  - Other City Limit
  - County Boundary



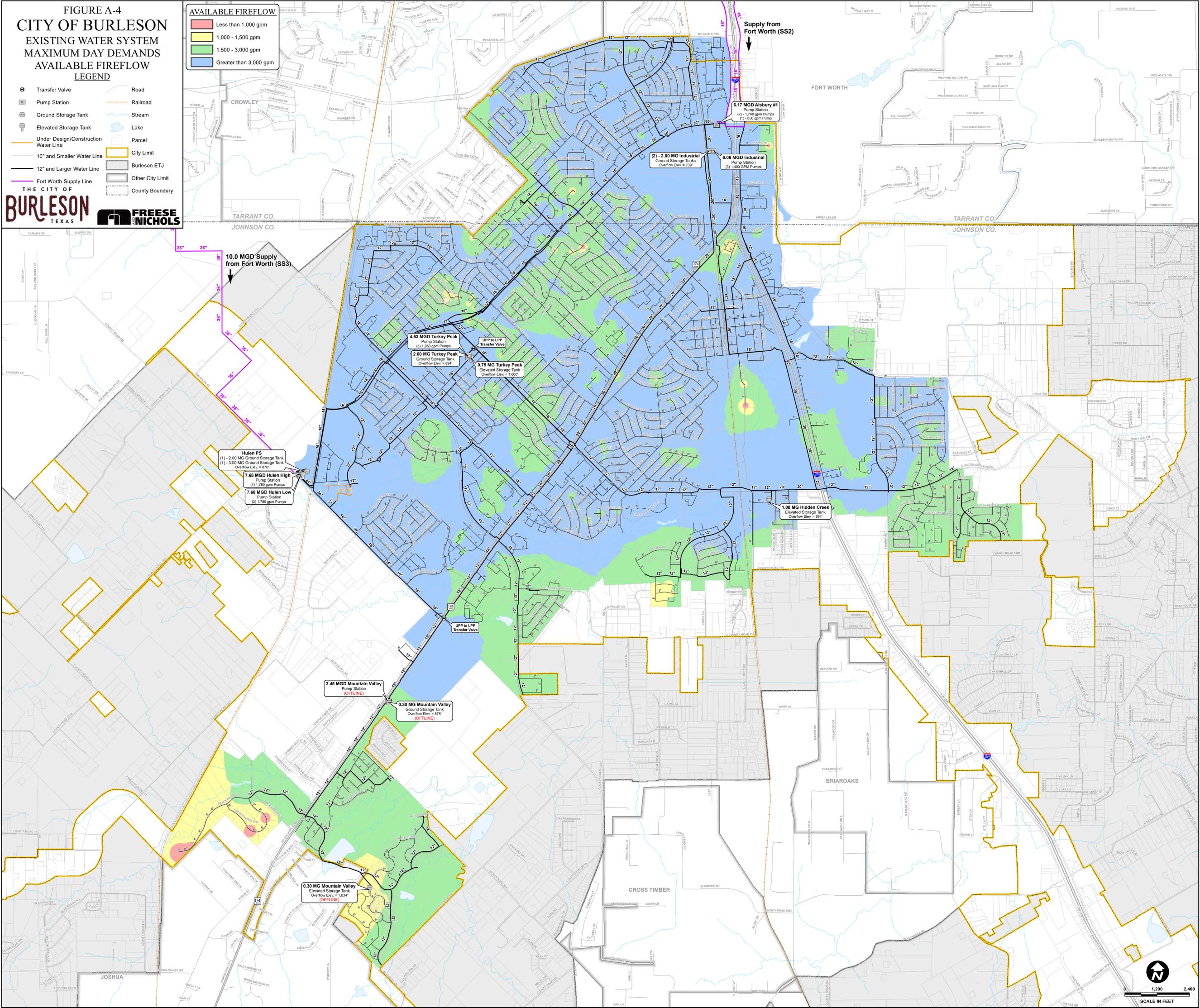
DATE: 08/14/2018 10:58:00 AM  
 PROJECT: BURLESON WATER SYSTEM  
 DRAWING: EXISTING WATER SYSTEM  
 SHEET: FIGURE A-3  
 SCALE: AS SHOWN  
 AUTHOR: J. B. BROWN  
 CHECKED: J. B. BROWN  
 APPROVED: J. B. BROWN  
 DATE: 08/14/2018 10:58:00 AM

**FIGURE A-4**  
**CITY OF BURLESON**  
 EXISTING WATER SYSTEM  
 MAXIMUM DAY DEMANDS  
 AVAILABLE FIREFLOW  
 LEGEND

**AVAILABLE FIREFLOW**

<span style="color: red;">■</span>	Less than 1,000 gpm
<span style="color: yellow;">■</span>	1,000 - 1,500 gpm
<span style="color: green;">■</span>	1,500 - 3,000 gpm
<span style="color: blue;">■</span>	Greater than 3,000 gpm

- Transfer Valve
- Pump Station
- Ground Storage Tank
- Elevated Storage Tank
- Under Design/Construction Water Line
- 
- 
- Fort Worth Supply Line
- Road
- Railroad
- Stream
- Lake
- Parcel
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary



**APPENDIX B**  
**ESTIMATED WATER CIP OPINION OF PROBABLE**  
**CONSTRUCTION COSTS**

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: H-A

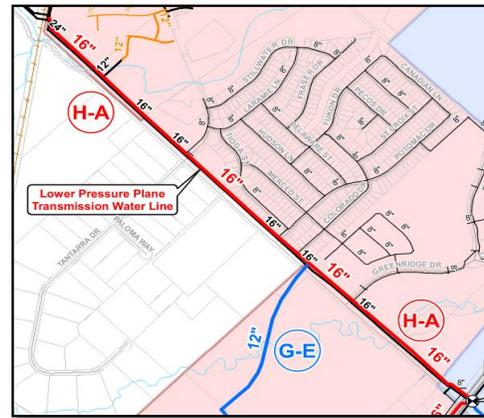
Phase: Hydraulic Restriction

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 in the LPP parallel to the existing UPP 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
				<b>SUBTOTAL:</b>	<b>\$ 2,046,000</b>
				CONTINGENCY 30%	\$ 613,800
				<b>SUBTOTAL:</b>	<b>\$ 2,659,800</b>
				ENG/SURVEY 15%	\$ 399,000
				<b>SUBTOTAL:</b>	<b>\$ 3,058,800</b>
<b>Estimated Project Total:</b>					<b>\$ 3,058,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: H-B

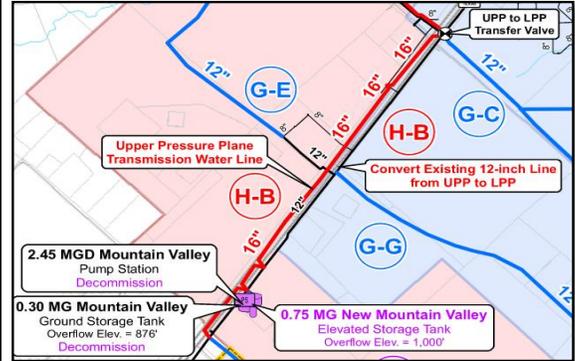
Phase: Hydraulic Restriction

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 LPP 12-inch water line on Wilshire Boulevard 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
<b>SUBTOTAL:</b>					<b>\$ 1,222,000</b>
CONTINGENCY				30%	\$ 366,600
<b>SUBTOTAL:</b>					<b>\$ 1,588,600</b>
ENG/SURVEY				15%	\$ 238,300
<b>SUBTOTAL:</b>					<b>\$ 1,826,900</b>
<b>Estimated Project Total:</b>					<b>\$ 1,826,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** H-C **Phase:** Hydraulic Restriction

**Project Name:** **Small Diameter Replacement Initiative**

**Project Description:** **Vicinity Map**

This project consists of the replacement of 4-inch and smaller diameter water lines in the City's distribution system with 8-inch water lines.



**Project Drivers:**

- This project provides additional transmission capacity for areas served via small diameter water lines.
- This project increases the available fire flow and minimum pressures observed throughout the distribution system.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" WL & Appurtenances	20,800	LF	\$ 120	\$ 2,496,000
2	Concrete Pavement Repair	19,500	LF	\$ 100	\$ 1,950,000
<b>SUBTOTAL:</b>					<b>\$ 4,446,000</b>
CONTINGENCY				30%	\$ 1,333,800
<b>SUBTOTAL:</b>					<b>\$ 5,779,800</b>
ENG/SURVEY				15%	\$ 867,000
<b>SUBTOTAL:</b>					<b>\$ 6,646,800</b>
<b>Estimated Project Total:</b>					<b>\$ 6,646,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-A

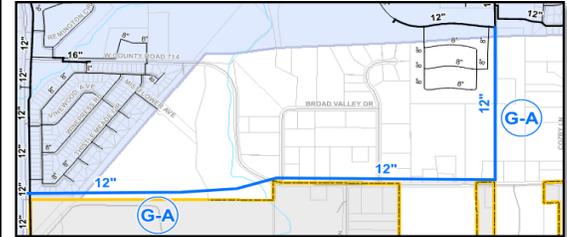
Phase: Growth / Development

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.

**Vicinity Map**



**Project Drivers:**

- 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	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
<b>SUBTOTAL:</b>					<b>\$ 2,022,000</b>
				CONTINGENCY	30%
					\$ 606,600
<b>SUBTOTAL:</b>					<b>\$ 2,628,600</b>
				ENG/SURVEY	15%
					\$ 394,300
<b>SUBTOTAL:</b>					<b>\$ 3,022,900</b>
<b>Estimated Project Total:</b>					<b>\$ 3,022,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson

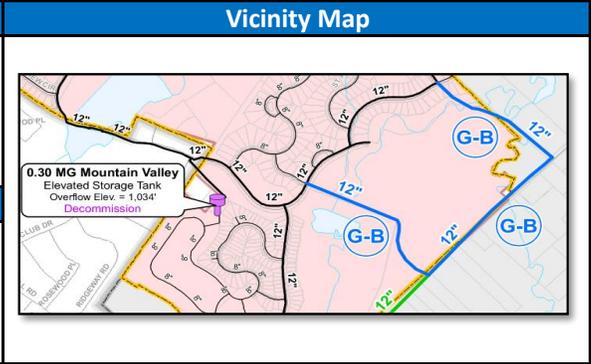


**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** G-B **Phase: 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 looping from the existing 12-inch water line on Red Cedar Way up along County Road 802 and back to the existing 12-inch water line on Morningside Drive.



**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	6,500	LF	\$ 180	\$ 1,170,000
2	20" Boring and Casing	600	LF	\$ 400	\$ 240,000
3	Asphalt Pavement Repair	200	LF	\$ 80	\$ 16,000
4	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
<b>SUBTOTAL:</b>					<b>\$ 1,436,000</b>
CONTINGENCY				30%	\$ 430,800
<b>SUBTOTAL:</b>					<b>\$ 1,866,800</b>
ENG/SURVEY				15%	\$ 280,100
<b>SUBTOTAL:</b>					<b>\$ 2,146,900</b>
<b>Estimated Project Total:</b>					<b>\$ 2,146,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-C

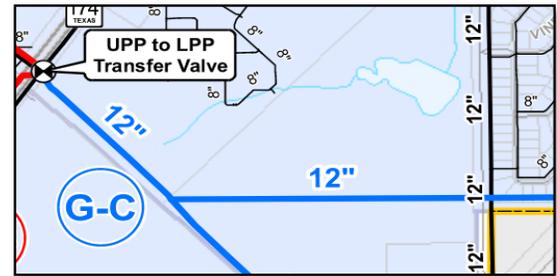
Phase: Growth / Development

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

**Project Description:**

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.

**Vicinity Map**



**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
<b>SUBTOTAL:</b>					<b>\$ 774,000</b>
CONTINGENCY				30%	\$ 232,200
<b>SUBTOTAL:</b>					<b>\$ 1,006,200</b>
ENG/SURVEY				15%	\$ 151,000
<b>SUBTOTAL:</b>					<b>\$ 1,157,200</b>
<b>Estimated Project Total:</b>					<b>\$ 1,157,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-D

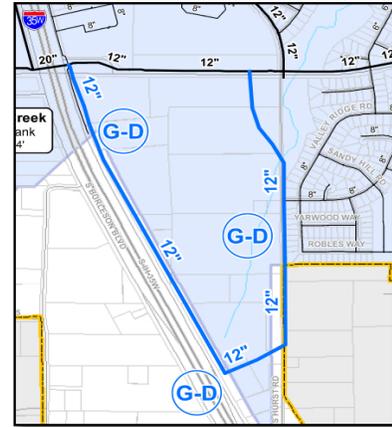
Phase: Growth / Development

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
<b>SUBTOTAL:</b>					<b>\$ 1,988,000</b>
CONTINGENCY				30%	\$ 596,400
<b>SUBTOTAL:</b>					<b>\$ 2,584,400</b>
ENG/SURVEY				15%	\$ 387,700
<b>SUBTOTAL:</b>					<b>\$ 2,972,100</b>
<b>Estimated Project Total:</b>					<b>\$ 2,972,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-E

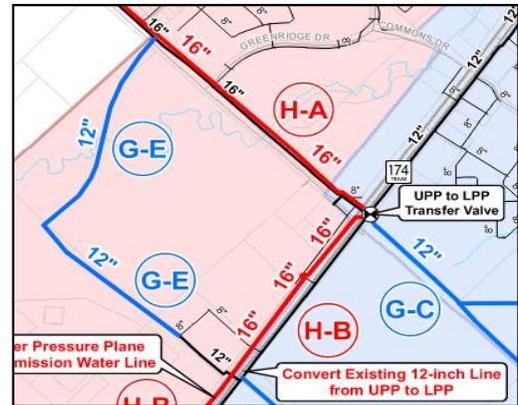
Phase: Growth / Development

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 G-A 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
<b>SUBTOTAL:</b>					<b>\$ 862,000</b>
CONTINGENCY				30%	\$ 258,600
<b>SUBTOTAL:</b>					<b>\$ 1,120,600</b>
ENG/SURVEY				15%	\$ 168,100
<b>SUBTOTAL:</b>					<b>\$ 1,288,700</b>
<b>Estimated Project Total:</b>					<b>\$ 1,288,700</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** G-F **Phase: Growth / Development**

**Project Name:** 12/16-inch Hyder Ranch Distribution Line Phase 1

**Project Description:**

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

**Vicinity Map**



**Project Drivers:**

- This project facilitates the transmission capacity to serve 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	20" Boring and Casing	25	LF	\$ 400	\$ 10,000
4	30" Boring and Casing	270	LF	\$ 600	\$ 162,000
5	Concrete Pavement Repair	2,000	LF	\$ 100	\$ 200,000
				<b>SUBTOTAL:</b>	<b>\$ 3,918,000</b>
				CONTINGENCY 30%	\$ 1,175,400
				<b>SUBTOTAL:</b>	<b>\$ 5,093,400</b>
				ENG/SURVEY 15%	\$ 764,100
				<b>SUBTOTAL:</b>	<b>\$ 5,857,500</b>
				<b>Estimated Project Total:</b>	<b>\$ 5,857,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** G-G **Phase: Growth / Development**

**Project Name:** 12-inch Village Creek Lower Pressure Plane Water Line Phase 1

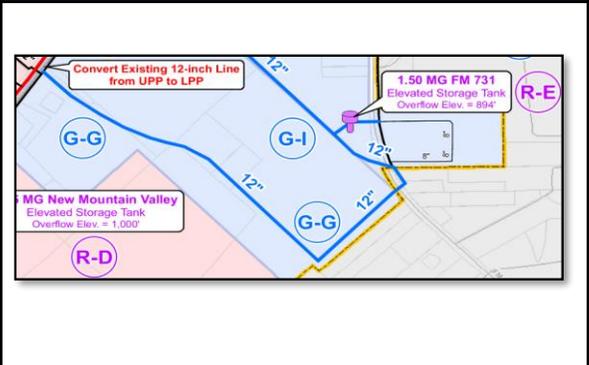
**Project Description:**

This project consists of the construction of a 12-inch water line from the existing 12-inch water line on Wilshire Boulevard to the existing 12-inch water line on FM 731. This project consists of extending water service to the area roughly defined as Wilshire Boulevard to the northwest, FM 731 to the northeast, the City Limit to the southeast, and Wicker Hill Road to the southwest.

**Project Drivers:**

- The development area near the Mountain Valley Pump Station (offline), is recommended to be served from the LPP.
- This project facilitates the transmission capacity to serve the developments through the LPP.

**Vicinity Map**



**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	6,400	LF	\$ 180	\$ 1,152,000
2	Asphalt Pavement Repair	100	LF	\$ 80	\$ 8,000
3	Concrete Pavement Repair	600	LF	\$ 100	\$ 60,000
<b>SUBTOTAL:</b>					<b>\$ 1,220,000</b>
				CONTINGENCY	30%
					\$ 366,000
<b>SUBTOTAL:</b>					<b>\$ 1,586,000</b>
				ENG/SURVEY	15%
					\$ 237,900
<b>SUBTOTAL:</b>					<b>\$ 1,823,900</b>
<b>Estimated Project Total:</b>					<b>\$ 1,823,900</b>

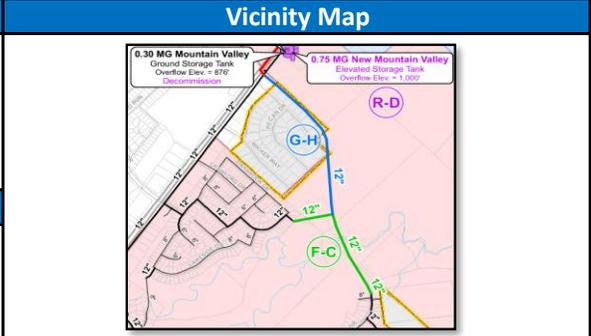
**Comments:** The Engineer has no control over the cost and labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and 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. Right-of-way and easement costs are not included.

**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** G-H **Phase: Growth / Development**

**Project Name:** 12-inch Wicker Hill Road 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 near the Mountain Valley Pump Station to the proposed 12-inch water line on Fairway View Drive.



**Project Drivers:**

- This project will allow future developments (Bear Ridge) to be served in the Upper 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	Asphalt Pavement Repair	100	LF	\$ 80	\$ 8,000
				<b>SUBTOTAL:</b>	<b>\$ 566,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 735,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 846,200</b>
<b>Estimated Project Total:</b>					<b>\$ 846,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate 2023 Dollars

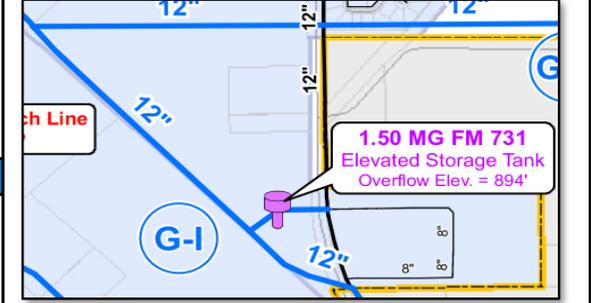
Construction Project Number: **G-I** Phase: Growth / Development

Project Name: **12-inch Village Creek Lower Pressure Plane Water Line Phase 2**

**Project Description:**

This project consists of the construction of a 12-inch water line from the proposed 12-inch water line near Wilshire Boulevard to the existing 12-inch water line on FM 731. This project enables the construction of the proposed FM 731 Elevated Storage Tank.

**Vicinity Map**



**Project Drivers:**

- The development area near the Mountain Valley Pump Station (offline), is recommended to be served from the LPP.
- This project facilitates the transmission capacity to serve the developments through the LPP.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	3,900	LF	\$ 180	\$ 702,000
2	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
3	Concrete Pavement Repair	200	LF	\$ 100	\$ 20,000
<b>SUBTOTAL:</b>					<b>\$ 754,000</b>
CONTINGENCY				30%	\$ 226,200
<b>SUBTOTAL:</b>					<b>\$ 980,200</b>
ENG/SURVEY				15%	\$ 147,100
<b>SUBTOTAL:</b>					<b>\$ 1,127,300</b>
<b>Estimated Project Total:</b>					<b>\$ 1,127,300</b>

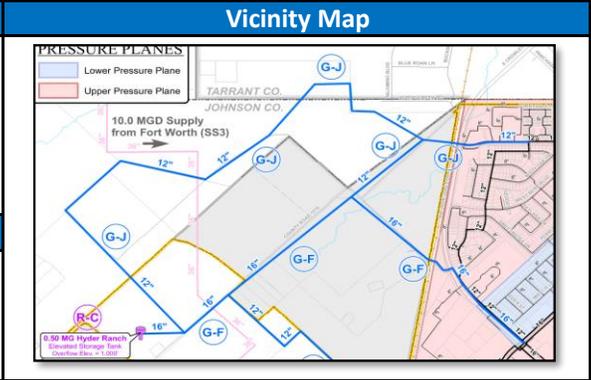
**Comments:** The Engineer has no control over the cost and labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and 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. Right-of-way and easement costs are not included.

**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number: G-J** **Phase: Growth / Development**

**Project Name: 12-inch Hyder Ranch Distribution Line Phase 2**

**Project Description:**  
This project consists of the construction of a 12-inch water line from the proposed 16-inch water line on County Road 1016, looping around the Hyder Ranch Development, to the proposed 12-inch water line on County Road 1016. It also consists of a 12-inch water line from the proposed 12-inch line on Country Road 1016 to the existing 12-inch line on Summercrest Boulevard.



**Project Drivers:**

- This project facilitates the transmission capacity to serve the Hyder Ranch Development.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	15,700	LF	\$ 180	\$ 2,826,000
2	20" Boring and Casing	200	LF	\$ 400	\$ 80,000
3	Concrete Pavement Repair	500	LF	\$ 100	\$ 50,000
<b>SUBTOTAL:</b>					<b>\$ 2,956,000</b>
CONTINGENCY				30%	\$ 886,800
<b>SUBTOTAL:</b>					<b>\$ 3,842,800</b>
ENG/SURVEY				15%	\$ 576,500
<b>SUBTOTAL:</b>					<b>\$ 4,419,300</b>
<b>Estimated Project Total:</b>					<b>\$ 4,419,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **F-A** Phase: Fireflow / Looping

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

**Project Description:**

**Vicinity Map**

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.



**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
<b>SUBTOTAL:</b>					<b>\$ 424,000</b>
CONTINGENCY				30%	\$ 127,200
<b>SUBTOTAL:</b>					<b>\$ 551,200</b>
ENG/SURVEY				15%	\$ 82,700
<b>SUBTOTAL:</b>					<b>\$ 633,900</b>
<b>Estimated Project Total:</b>					<b>\$ 633,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson

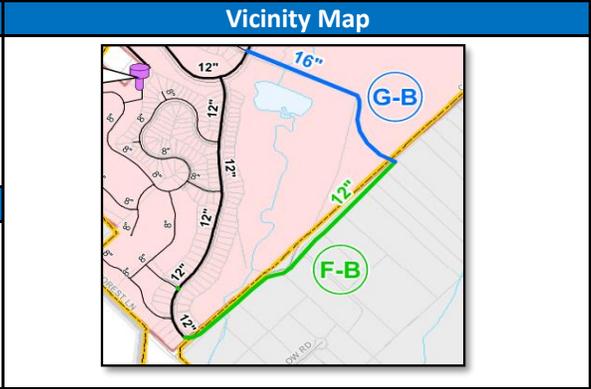


**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** F-B **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.



- 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
<b>SUBTOTAL:</b>					<b>\$ 646,000</b>
				CONTINGENCY	30%
					\$ 193,800
<b>SUBTOTAL:</b>					<b>\$ 839,800</b>
				ENG/SURVEY	15%
					\$ 126,000
<b>SUBTOTAL:</b>					<b>\$ 965,800</b>
<b>Estimated Project Total:</b>					<b>\$ 965,800</b>

**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 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. Right-of-way and easement costs are not included.

Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: F-C

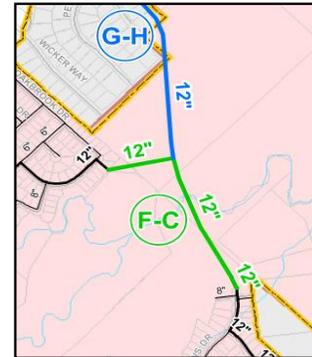
Phase: Fireflow / Looping

Project Name: 12-inch Willow Creek Lower Upper 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 Fairway View Drive to the existing 12-inch water line on St Andrews Drive.

**Vicinity Map**



**Project Drivers:**

- This project will improve looping and available fireflow in the Upper Pressure Plane.
- This project will eliminate a 12-inch dead-end line.
- This project will add system resiliency by eliminating a single 12-inch feed to the Mountain Valley portion of the Upper Pressure Plane.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" WL & Appurtenances	2,400	LF	\$ 180	\$ 432,000
2	20" Boring and Casing	200	LF	\$ 400	\$ 80,000
<b>SUBTOTAL:</b>					<b>\$ 512,000</b>
CONTINGENCY				30%	\$ 153,600
<b>SUBTOTAL:</b>					<b>\$ 665,600</b>
ENG/SURVEY				15%	\$ 99,900
<b>SUBTOTAL:</b>					<b>\$ 765,500</b>
<b>Estimated Project Total:</b>					<b>\$ 765,500</b>

**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 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. Right-of-way and easement costs are not included.

**Capital Improvement Cost Estimate**

**2023 Dollars**

**Construction Project Number: F-D**

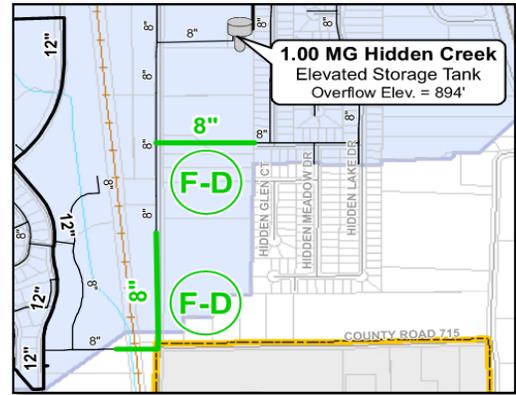
**Phase: Fireflow / Looping**

**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
<b>SUBTOTAL:</b>					<b>\$ 306,000</b>
CONTINGENCY				30%	\$ 91,800
<b>SUBTOTAL:</b>					<b>\$ 397,800</b>
ENG/SURVEY				15%	\$ 59,700
<b>SUBTOTAL:</b>					<b>\$ 457,500</b>
<b>Estimated Project Total:</b>					<b>\$ 457,500</b>

**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 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. Right-of-way and easement costs are not included.

Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **F-E** Phase: Fireflow / Looping

Project Name: **10-inch FM 1187 Lower Pressure Plane Water Line**

Project Description:	Vicinity Map
<p>This project consists of the construction of a 10-inch water line from the existing 10-inch on Renfro Street to the existing 8-inch water line on Queen Annes Drive.</p>	
Project Drivers:	
<ul style="list-style-type: none"> <li>This project will improve looping and available fireflow in the Lower Pressure Plane.</li> </ul>	

Opinion of Probable Construction Cost					
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	10" WL & Appurtenances	1,400	LF	\$ 150	\$ 210,000
<b>SUBTOTAL:</b>					<b>\$ 210,000</b>
				CONTINGENCY	30%
					\$ 63,000
<b>SUBTOTAL:</b>					<b>\$ 273,000</b>
				ENG/SURVEY	15%
					\$ 41,000
<b>SUBTOTAL:</b>					<b>\$ 314,000</b>
<b>Estimated Project Total:</b>					<b>\$ 314,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: F-F

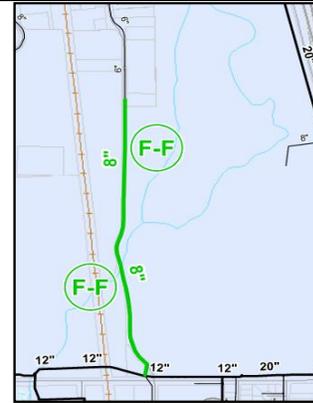
Phase: Fireflow / Looping

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

**Project Description:**

This project consists of the construction of an 8-inch water line from the existing 6-inch on Dobson Road to the existing 12-inch water line on Hidden Creek Drive.

**Vicinity Map**



**Project Drivers:**

- 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	8" WL & Appurtenances	3,600	LF	\$ 120	\$ 432,000
2	16" Boring and Casing	200	LF	\$ 320	\$ 64,000
3	Concrete Pavement Repair	1,000	LF	\$ 100	\$ 100,000
<b>SUBTOTAL:</b>					<b>\$ 596,000</b>
CONTINGENCY				30%	\$ 178,800
<b>SUBTOTAL:</b>					<b>\$ 774,800</b>
ENG/SURVEY				15%	\$ 116,300
<b>SUBTOTAL:</b>					<b>\$ 891,100</b>
<b>Estimated Project Total:</b>					<b>\$ 891,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** **2023 Dollars**

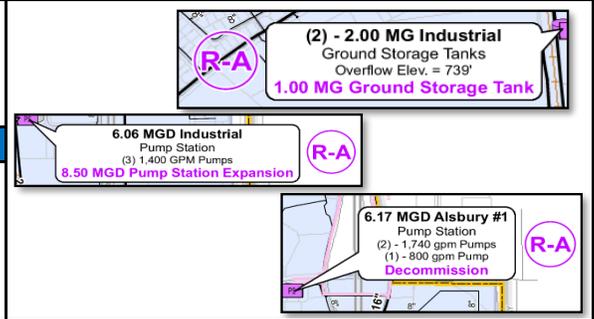
**Construction Project Number:** R-A **Phase: Regulatory / Operational**

**Project Name:** 8.50 MGD Industrial Pump Station Expansion

**Project Description:**

This project consists of the construction of a 8.50 MGD pump station expansion and a 1.00 MG ground storage tank at the Industrial Pump Station to serve the LPP.

**Vicinity Map**



**Project Drivers:**

- This project will provide pumping capacity to meet TCEQ and FNI planning criteria.
- This will also allow the system to provide pumping capacity for 60% of peak hour demand through buildout.

**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
3	Decommission Pump Station	1	LS	\$ 262,000	\$ 262,000
<b>SUBTOTAL:</b>					<b>\$ 14,012,000</b>
				CONTINGENCY	30%
					\$ 4,203,600
<b>SUBTOTAL:</b>					<b>\$ 18,215,600</b>
				ENG/SURVEY	15%
					\$ 2,732,400
<b>SUBTOTAL:</b>					<b>\$ 20,948,000</b>
<b>Estimated Project Total:</b>					<b>\$ 20,948,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** R-B **Phase:** Regulatory / Operational

**Project Name:** Fort Worth Water Supply Offsite Improvements

Project Description:	Vicinity Map
<p>This project consists of cost participating with the City of Fort Worth to construct offsite water supply improvements.</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <span style="border: 1px solid purple; border-radius: 50%; padding: 2px;">R-B</span> Fort Worth Water Supply Offsite Improvements                 </div>
Project Drivers:	
<ul style="list-style-type: none"> <li>This project will provide additional water supply to meet projected growth and development.</li> </ul>	

**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
		1			
<b>SUBTOTAL:</b>					<b>\$ 5,501,000</b>
	CONTINGENCY			--	--
<b>SUBTOTAL:</b>					<b>\$ 5,501,000</b>
	ENG/SURVEY			--	--
<b>SUBTOTAL:</b>					<b>\$ 5,501,000</b>
<b>Estimated Project Total:</b>					<b>\$ 5,501,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** R-C **Phase:** Regulatory / Operational

**Project Name:** 0.50 MG Hyder Ranch EST

Project Description:	Vicinity Map
<p>This project consists of the construction of a 0.50 MG elevated storage tank in the Hyder Ranch Development.</p>	
<p><b>Project Drivers:</b></p> <ul style="list-style-type: none"> <li>This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.</li> </ul>	

### 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
<b>SUBTOTAL:</b>					<b>\$ 1,250,000</b>
				CONTINGENCY	30%
					\$ 375,000
<b>SUBTOTAL:</b>					<b>\$ 1,625,000</b>
				ENG/SURVEY	15%
					\$ 243,800
<b>SUBTOTAL:</b>					<b>\$ 1,868,800</b>
<b>Estimated Project Total:</b>					<b>\$ 1,868,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: R-D Phase: Regulatory / Operational

Project Name: **NEW 0.75 MG Mountain Valley EST**

**Project Description:**  
This project consists of the construction of a 0.75 MG elevated storage tank near the Mountain Valley Pump Station.

**Vicinity Map**

**Project Drivers:**

- This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	0.75 MG Elevated Storage Tank	1	LS	\$ 1,875,000	\$ 1,875,000
2	Decommission Pump Station	1	LS	\$ 262,000	\$ 262,000
3	Decommission Ground Storage Tank	1	LS	\$ 32,750	\$ 32,750
4	Decommission Elevated Storage Tank	1	LS	\$ 60,000	\$ 60,000
<b>SUBTOTAL:</b>					<b>\$ 2,229,800</b>
CONTINGENCY				30%	\$ 669,000
<b>SUBTOTAL:</b>					<b>\$ 2,898,800</b>
ENG/SURVEY				15%	\$ 434,900
<b>SUBTOTAL:</b>					<b>\$ 3,333,700</b>
<b>Estimated Project Total:</b>					<b>\$ 3,333,700</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



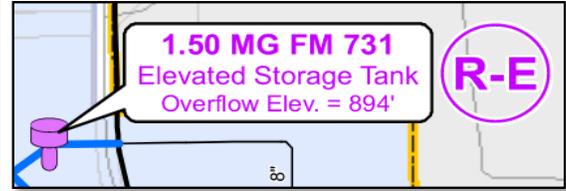
**Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** R-E **Phase:** Regulatory / Operational

**Project Name:** 1.50 MG FM 731 EST

**Project Description:** **Vicinity Map**

This project consists of the construction of 1.50 MG elevated storage tank along FM 731



**Project Drivers:**

- This project will provide storage capacity to meet TCEQ requirements of 200 gallons per connection.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	1.5 MG Elevated Storage Tank	1	LS	\$ 3,750,000	\$ 3,750,000
				<b>SUBTOTAL:</b>	<b>\$ 3,750,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 4,875,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 5,606,300</b>
<b>Estimated Project Total:</b>					<b>\$ 5,606,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



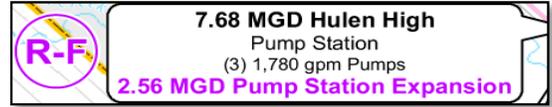
**Capital Improvement Cost Estimate** **2023 Dollars**

**Construction Project Number:** R-F **Phase: Regulatory / Operational**

**Project Name:** 2.56 MGD Hulen High Pump Station Expansion

**Project Description:** **Vicinity Map**

This project consists of the construction of a 2.56 MGD pump station expansion at the Hulen High Pump Station to serve the Upper Pressure Plane.



**Project Drivers:**

- This project will provide system resiliency/redundancy should the Turkey Peak PS go out of service for any significant period of time.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Pump Station - Expansion 2.56 MGD	1	LS	\$ 250,000	\$ 250,000
				<b>SUBTOTAL:</b>	<b>\$ 250,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 325,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 373,800</b>
<b>Estimated Project Total:</b>					<b>\$ 373,800</b>

**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 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. Right-of-way and easement costs are not included.

## **APPENDIX C**

# **EXISTING WASTEWATER SYSTEM ANALYSIS MAPPING**

**FIGURE C-1**  
**CITY OF BURLESON**  
**WASTEWATER SYSTEM**  
**FLOW METER LOCATIONS**  
**LEGEND**

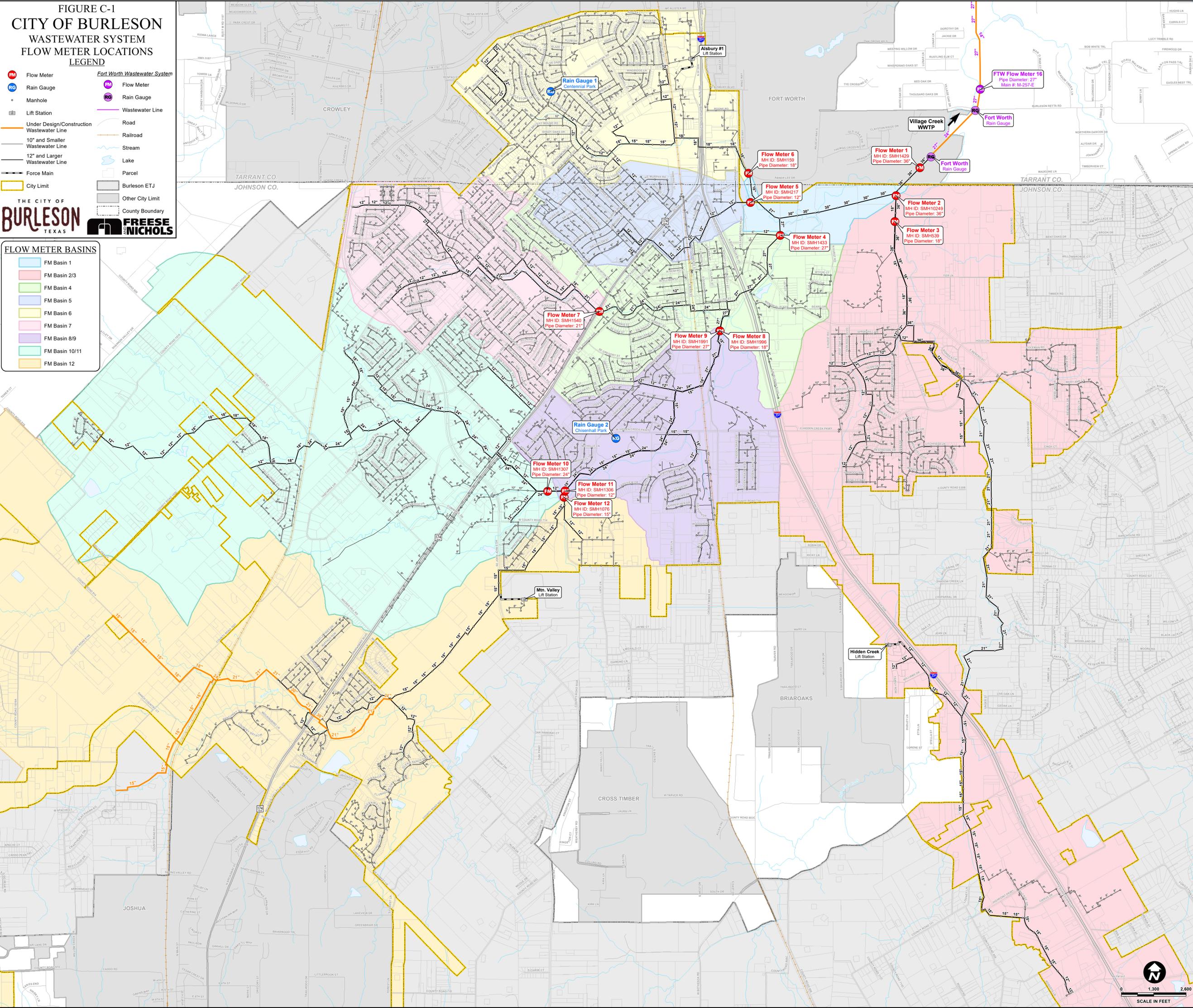
**Fort Worth Wastewater System**

- Flow Meter
- Rain Gauge
- Manhole
- Lift Station
- Under Design/Construction Wastewater Line
- 10" and Smaller Wastewater Line
- 12" and Larger Wastewater Line
- Force Main
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

**THE CITY OF BURLESON TEXAS**  
**FREESE & NICHOLS**

**FLOW METER BASINS**

- FM Basin 1
- FM Basin 2/3
- FM Basin 4
- FM Basin 5
- FM Basin 6
- FM Basin 7
- FM Basin 8/9
- FM Basin 10/11
- FM Basin 12



**FIGURE C-2**  
**CITY OF BURLESON**  
**WASTEWATER SYSTEM**  
**MODEL VALIDATION RESULTS**  
**LEGEND**

**Fort Worth Wastewater System**

- Flow Meter
- Rain Gauge
- Manhole
- Lift Station
- Under Design/Construction Wastewater Line
- 10" and Smaller Wastewater Line
- 12" and Larger Wastewater Line
- Force Main
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

**Flow Meter**

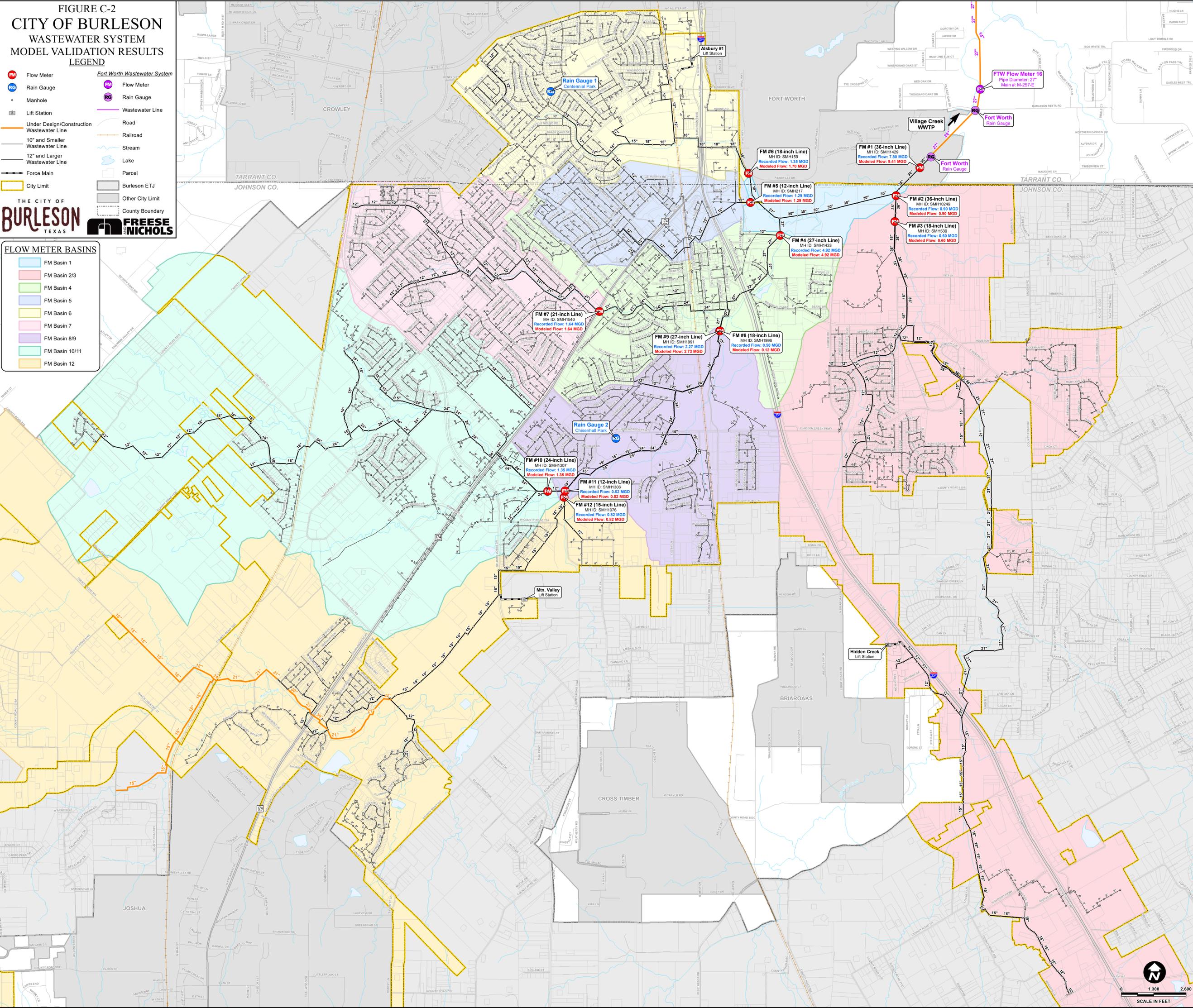
- Flow Meter
- Rain Gauge
- Wastewater Line
- Road
- Railroad
- Stream
- Lake
- Parcel

**THE CITY OF BURLESON TEXAS**

**FREESE & NICHOLS**

**FLOW METER BASINS**

- FM Basin 1
- FM Basin 2/3
- FM Basin 4
- FM Basin 5
- FM Basin 6
- FM Basin 7
- FM Basin 8/9
- FM Basin 10/11
- FM Basin 12



**FIGURE C-3  
CITY OF BURLESON  
WASTEWATER SYSTEM  
RDII RANKING**

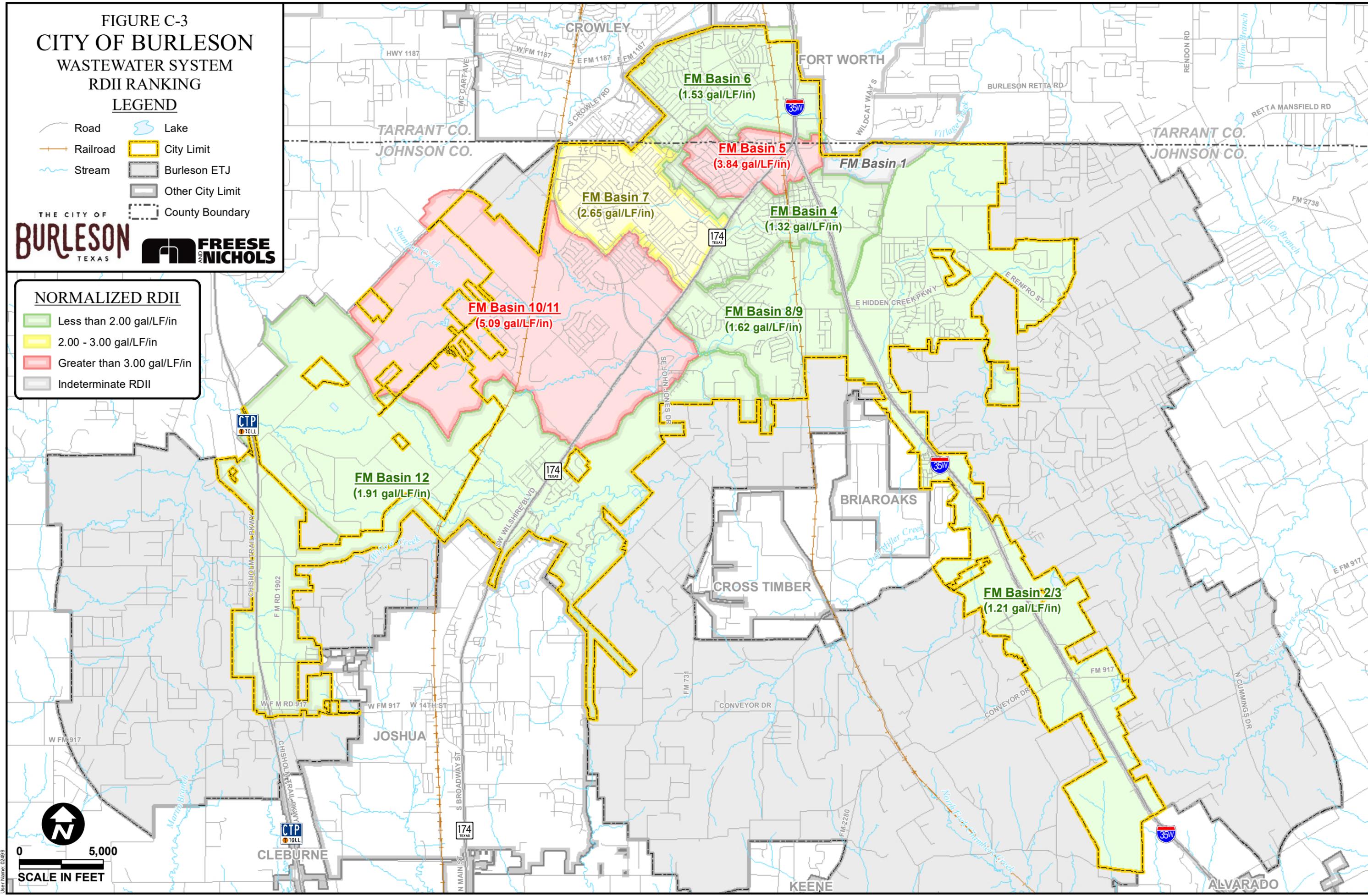
**LEGEND**

-  Road
-  Railroad
-  Stream
-  Lake
-  City Limit
-  Burleson ETJ
-  Other City Limit
-  County Boundary

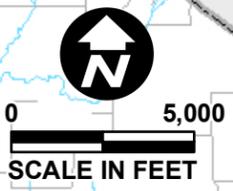


**NORMALIZED RDII**

-  Less than 2.00 gal/LF/in
-  2.00 - 3.00 gal/LF/in
-  Greater than 3.00 gal/LF/in
-  Indeterminate RDII



Created by Freese and Nichols, Inc.  
 Job No.: BUR20242  
 Location: H:\W\PLANNING\01\_DELIVERABLES\00\_FINAL\_REPORT\FINAL\_MP\_REPORT\APPENDICES\Appendix C\_Vol\_1\Figure\_C-3\WW\_RDII\_11x17.mxd  
 Updated: Tuesday, November 21, 2023 7:41:00 AM  
 User Name: 02499



**FIGURE C-4**  
**CITY OF BURLESON**  
**WASTEWATER SYSTEM**  
**EXISTING PEAK WET WEATHER**  
**q/Q ANALYSIS WITH OVERFLOWS**

**LEGEND**

- Manhole
- Lift Station
- Under Design/Construction Wastewater Line
- 10" and Smaller Wastewater Line
- 12" and Larger Wastewater Line
- Force Main
- Fort Worth Wastewater Line
- Road
- Railroad
- Stream
- Lake
- Parcel
- City Limit
- Burleson ETJ
- Other City Limit
- County Boundary

**MAJOR BASINS**

- Burleson Main
- Burleson West
- North Creek
- Quil Miller Creek
- Shannon Creek
- Town Creek
- Village Creek
- Willow Creek

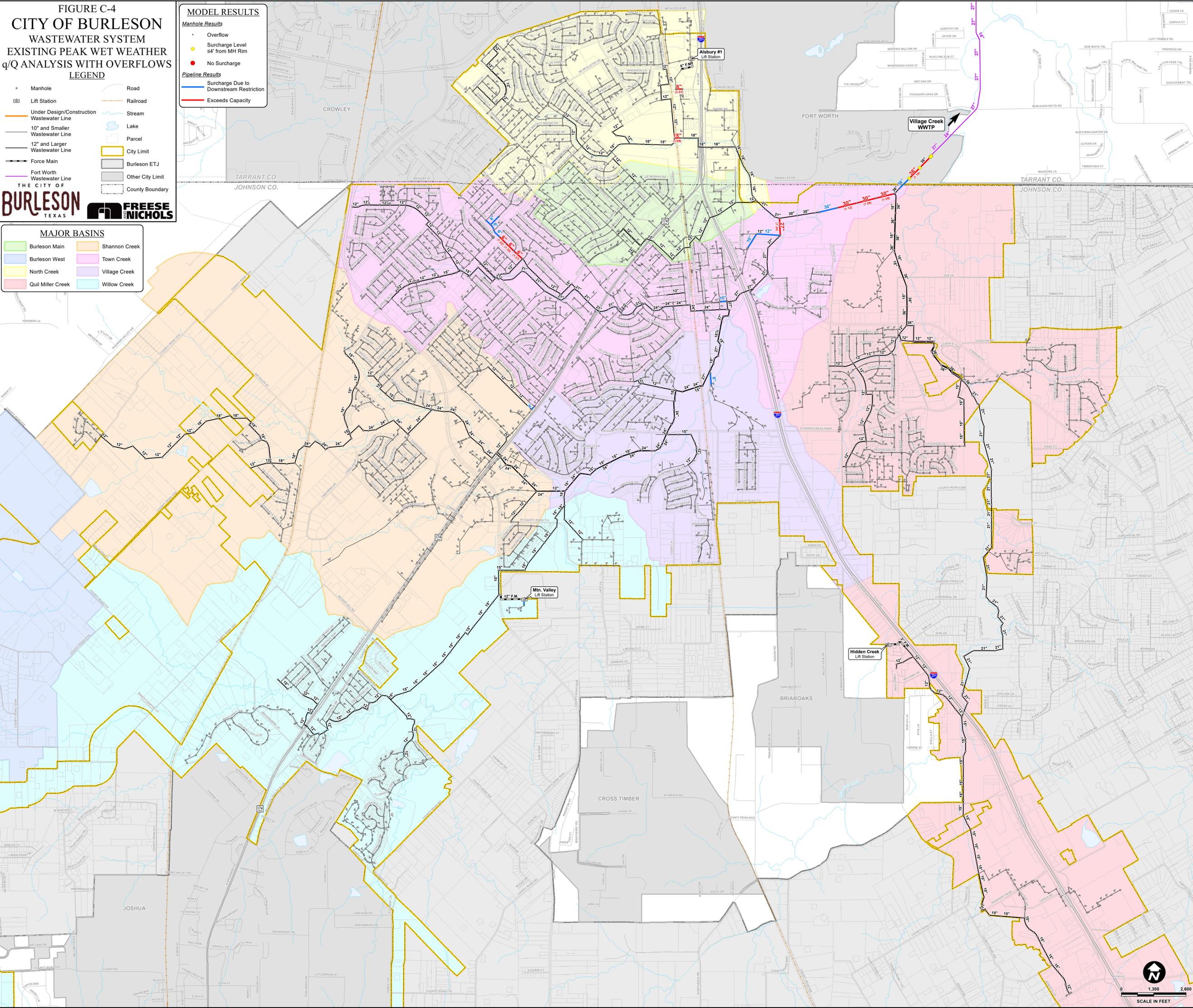
**MODEL RESULTS**

**Manhole Results**

- Overflow
- Surcharge Level  $\leq 4'$  from MH Rim
- No Surcharge

**Pipeline Results**

- Surcharge Due to Downstream Restriction
- Exceeds Capacity



DATE: 08/20/2024  
 PROJECT: BURLESON WASTEWATER SYSTEM  
 DRAWING: EXISTING PEAK WET WEATHER q/Q ANALYSIS WITH OVERFLOWS  
 SCALE: AS SHOWN  
 SHEET: C-4

**APPENDIX D**  
**ESTIMATED WASTEWATER CIP OPINION OF PROBABLE**  
**CONSTRUCTION COSTS**

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-A

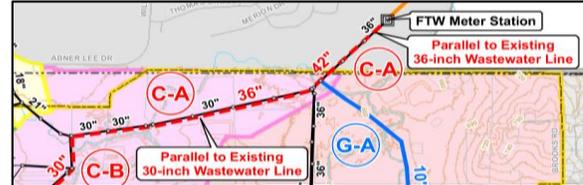
Project Driver: Existing Capacity Restriction

Project Name: **Town Creek Basin 36/42-inch Parallel Interceptor**

**Project Description:**

This project consists of the construction of a 36/42-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	42" Gravity Main	2,300	LF	\$ 630	\$ 1,449,000
2	36" Gravity Main	5,200	LF	\$ 540	\$ 2,808,000
3	72" Diameter Manhole	8	EA	\$ 7,500	\$ 60,000
4	50" Boring and Casing	150	LF	\$ 1,000	\$ 150,000
5	54" Boring and Casing	50	LF	\$ 1,080	\$ 54,000
				<b>SUBTOTAL:</b>	<b>\$ 4,521,000</b>
				CONTINGENCY 30%	\$ 1,356,300
				<b>SUBTOTAL:</b>	<b>\$ 5,877,300</b>
				ENG/SURVEY 15%	\$ 881,600
				<b>SUBTOTAL:</b>	<b>\$ 6,758,900</b>
				<b>Estimated Project Total:</b>	<b>\$ 6,758,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-B

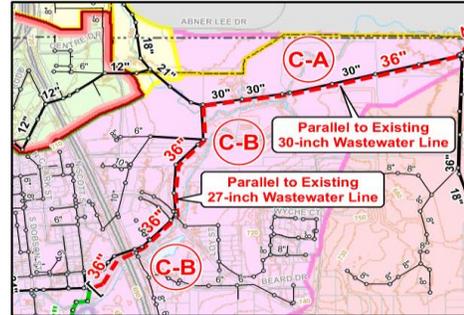
Project Driver: Existing Capacity Restriction

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 27-inch wastewater line along Village Creek from the existing 18-inch wastewater line on Scott Street to the proposed 30-inch parallel wastewater 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
				<b>SUBTOTAL:</b>	<b>\$ 3,116,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 4,051,500</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 4,659,300</b>
<b>Estimated Project Total:</b>					<b>\$ 4,659,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-C

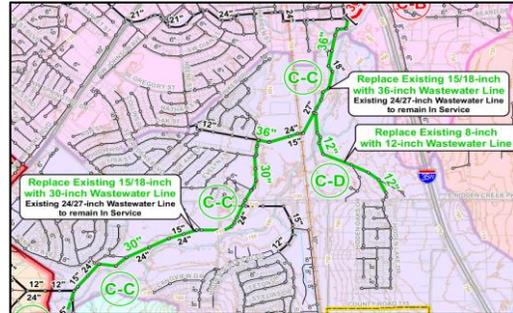
Project Driver: Future Capacity Restriction

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 replacing the existing 15/18-inch wastewater line from the existing 12/15-inch wastewater line near Steven Street to the proposed 30-inch wastewater line 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
				<b>SUBTOTAL:</b>	<b>\$ 6,374,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 8,286,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 9,529,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 9,529,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **C-D** Project Driver: 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.

**Vicinity Map**

**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
<b>SUBTOTAL:</b>					<b>\$ 684,000</b>
				CONTINGENCY	30%
					\$ 205,200
<b>SUBTOTAL:</b>					<b>\$ 889,200</b>
				ENG/SURVEY	15%
					\$ 133,400
<b>SUBTOTAL:</b>					<b>\$ 1,022,600</b>
<b>Estimated Project Total:</b>					<b>\$ 1,022,600</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-E

Project Driver: 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.

**Vicinity Map**



**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
				<b>SUBTOTAL:</b>	<b>\$ 555,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 721,500</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 829,800</b>
<b>Estimated Project Total:</b>					<b>\$ 829,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

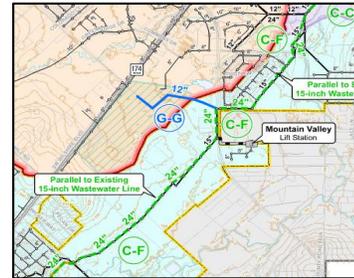
Construction Project Number: C-F Project Driver: Future Capacity Restriction

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
				<b>SUBTOTAL:</b>	<b>\$ 4,730,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 6,149,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 922,400</b>
				<b>Estimated Project Total:</b>	<b>\$ 7,071,400</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

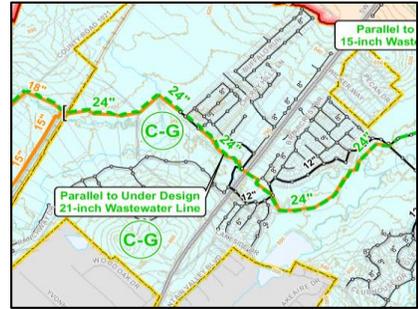
Construction Project Number: **C-G** Project Driver: Future Capacity Restriction

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 under construction 21-inch wastewater line near Wilshire Boulevard from the BNSF Railroad to the proposed 24-inch parallel interceptor near Wicker Way.

**Vicinity Map**



**Project Drivers:**

Model results indicate that the under-construction 21-inch line experiences surcharging and overflows under projected 20-year 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	11,100	LF	\$ 360	\$ 3,996,000
2	60" Diameter Manhole	14	EA	\$ 7,000	\$ 98,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	36" Boring and Casing	150	LF	\$ 720	\$ 108,000
				<b>SUBTOTAL:</b>	<b>\$ 4,212,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 5,475,600</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 6,297,000</b>
				<b>Estimated Project Total:</b>	<b>\$ 6,297,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

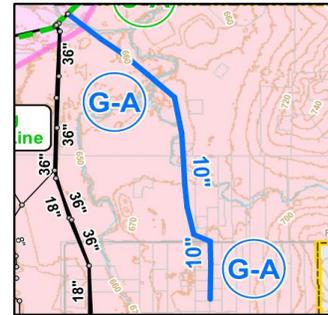
Construction Project Number: **G-A** Project Driver: Growth / Development

Project Name: **Quil Miller Creek Basin North 10-inch Collector Line**

**Project Description:**

This project consists of the construction of a 10-inch wastewater line going northwest from Mockingbird Meadows Rd to the proposed 36-inch parallel line near the Southern Oaks Golf Course.

**Vicinity Map**



**Project Drivers:**

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

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	10" Gravity Main	5,900	LF	\$ 150	\$ 885,000
2	48" Diameter Manhole	12	EA	\$ 6,000	\$ 72,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	16" Boring and Casing	150	LF	\$ 320	\$ 48,000
				<b>SUBTOTAL:</b>	<b>\$ 1,015,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,319,500</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,517,500</b>
<b>Estimated Project Total:</b>					<b>\$ 1,517,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-B

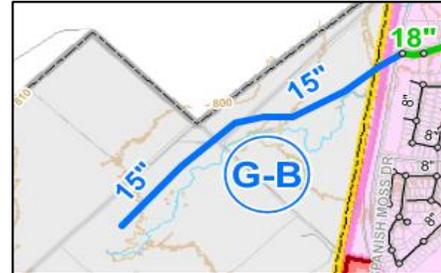
Project Driver: Growth / Development

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
				<b>SUBTOTAL:</b>	<b>\$ 1,022,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,329,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,528,700</b>
<b>Estimated Project Total:</b>					<b>\$ 1,528,700</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-C

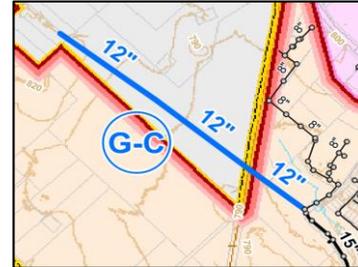
Project Driver: Growth / Development

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
<b>SUBTOTAL:</b>					<b>\$ 918,000</b>
				CONTINGENCY 30%	\$ 275,400
<b>SUBTOTAL:</b>					<b>\$ 1,193,400</b>
				ENG/SURVEY 15%	\$ 179,100
<b>SUBTOTAL:</b>					<b>\$ 1,372,500</b>
<b>Estimated Project Total:</b>					<b>\$ 1,372,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-D

Project Driver: Growth / Development

Project Name: Shannon Creek Basin SW Hulen Street 12-inch Collector Line

**Project Description:**

This project consists of the construction of a 12-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	12" Gravity Main	5,700	LF	\$ 180	\$ 1,026,000
2	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
3	20" Boring and Casing	150	LF	\$ 400	\$ 60,000
4	48" Diameter Manhole	12	EA	\$ 6,000	\$ 72,000
				<b>SUBTOTAL:</b>	<b>\$ 1,168,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,518,400</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,746,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 1,746,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-E

Project Driver: Growth / Development

Project Name: Shannon Creek Basin 10-inch Collector Line

**Project Description:**

This project consists of the construction of a 10-inch wastewater line going southeast from Shannon Valley Drive to the existing 12-inch wastewater line near County Road 1020.

**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	10" Gravity Main	4,800	LF	\$ 150	\$ 720,000
2	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
3	48" Diameter Manhole	10	EA	\$ 6,000	\$ 60,000
				<b>SUBTOTAL:</b>	<b>\$ 790,000</b>
				CONTINGENCY	30%
					\$ 237,000
				<b>SUBTOTAL:</b>	<b>\$ 1,027,000</b>
				ENG/SURVEY	15%
					\$ 154,100
				<b>SUBTOTAL:</b>	<b>\$ 1,181,100</b>
				<b>Estimated Project Total:</b>	<b>\$ 1,181,100</b>

**Comments:** The Engineer has no control over the cost and labor, materials, equipment, or over the Contractor's methods of determining

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **G-G** Project Driver: Growth / Development

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

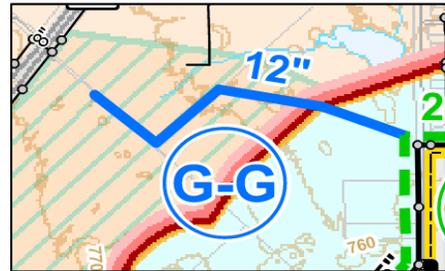
**Project Description:**

This project consists of the construction of a 12-inch wastewater line going east along County Road 920 from Wilshire Boulevard to the proposed 24-inch parallel line near John Jones Drive.

**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.

**Vicinity Map**



**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
				<b>SUBTOTAL:</b>	<b>\$ 586,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 761,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 876,100</b>
				<b>Estimated Project Total:</b>	<b>\$ 876,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-H

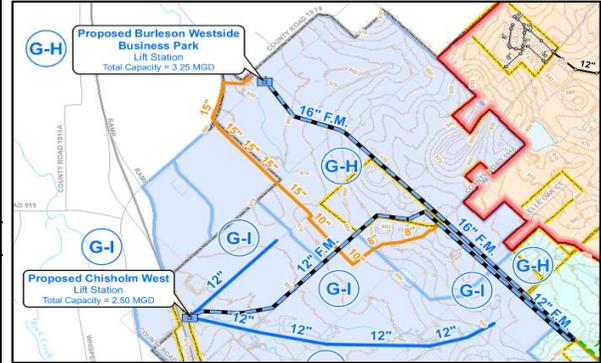
Project Driver: Growth / Development

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 Chisholm Summit/Burleson West Business Park developments near Chisholm 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 (Chisholm 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
				<b>SUBTOTAL:</b>	<b>\$ 5,360,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 6,968,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 8,013,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 8,013,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-1

Project Driver: 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 12-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 Chisholm West Lift Station.

**Vicinity Map**



**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
				<b>SUBTOTAL:</b>	<b>\$ 6,461,000</b>
				CONTINGENCY 30%	\$ 1,938,300
				<b>SUBTOTAL:</b>	<b>\$ 8,399,300</b>
				ENG/SURVEY 15%	\$ 1,259,900
				<b>SUBTOTAL:</b>	<b>\$ 9,659,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 9,659,200</b>

**Comments:** The Engineer has no control over the cost and labor, materials, equipment, or over the Contractor's methods of determining

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-K

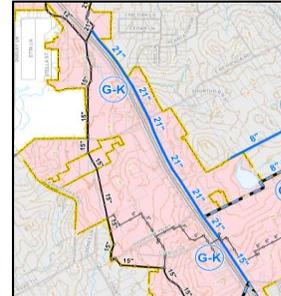
Project Driver: Growth / Development

Project Name: Quil Miller Creek I-35W 12/15-inch Interceptor

**Project Description:**

This project consists of the construction of a 12/15-inch wastewater line along I-35W going northeast from Cirrus Drive to the existing 21-inch wastewater line near Cedar Lane.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Business Park/ Industrial Park/Martin Tract) and the proposed lines will serve new development in the Quil Miller Basin.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	15" Gravity Main	8,300	LF	\$ 225	\$ 1,867,500
2	12" Gravity Main	3,000	LF	\$ 180	\$ 540,000
3	60" Diameter Manhole	23	EA	\$ 7,000	\$ 161,000
4	24" Boring and Casing	50	LF	\$ 480	\$ 24,000
5	Concrete Pavement Repair	2,900	LF	\$ 100	\$ 290,000
				<b>SUBTOTAL:</b>	<b>\$ 2,882,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 3,747,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 4,309,400</b>
				<b>Estimated Project Total:</b>	<b>\$ 4,309,400</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

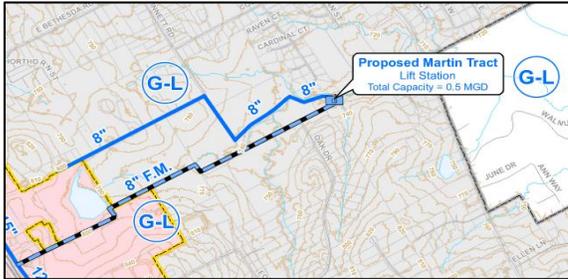
Construction Project Number: G-L Project Driver: Growth / Development

Project Name: **Martin Tract Lift Station Force Main / Collector**

**Project Description:**

This project consists of the construction of the Martin Tract Lift Station with a 0.5 MGD firm capacity near the Martin Tract development and I-35W. It also consists of the construction of an 8-inch force main from the proposed Martin Tract Lift Station going west to the proposed 15/21-inch wastewater line along I-35W. This project also consists of an 8-inch collector along County Road 518 going east to the proposed Martin Tract Lift Station.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Martin Tract) and the proposed lines will serve development in the Quil Miller Creek 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 0.5 MGD	1	LS	\$ 500,000	\$ 500,000
2	8" Force Main	8,400	LF	\$ 100	\$ 840,000
3	8" Gravity Main	7,600	LF	\$ 120	\$ 912,000
4	48" Diameter Manhole	16	EA	\$ 6,000	\$ 96,000
5	Concrete Pavement Repair	200	LF	\$ 100	\$ 20,000
6	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
				<b>SUBTOTAL:</b>	<b>\$ 2,400,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 3,120,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 3,588,000</b>
<b>Estimated Project Total:</b>					<b>\$ 3,588,000</b>

**Comments:** The Engineer has no control over the cost and labor, materials, equipment, or over the Contractor's methods of determining

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-N

Project Driver: Growth / Development

Project Name: Industrial Park I Lift Station Force Main / Collector

**Project Description:**

This project consists of the construction of the Industrial Park I Lift Station with a 1.88 MGD firm capacity near Woodwind Drive and Walnut Creek. It also consists of the construction of a 10-inch force main along FM 917 from the proposed Industrial Park I Lift Station going northwest to the proposed 12-inch wastewater line along I-35W. This project also consists of an 8-inch collector along Walnut Creek going east from FM 917 to the proposed Industrial Park I Lift Station. It also consists of an 8/15-inch collector along County Road 517 going northeast from the Walnut Creek branch to the proposed Industrial Park I Lift Station.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Industrial Park) and the proposed lines will serve development in the Quil Miller 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 1.88 MGD	1	LS	\$ 1,880,000	\$ 1,880,000
2	10" Force Main < 8 feet deep	13,000	LF	\$ 125	\$ 1,625,000
3	8" Gravity Main	7,900	LF	\$ 120	\$ 948,000
4	15" Gravity Main	1,800	LF	\$ 225	\$ 405,000
5	48" Diameter Manhole	16	EA	\$ 6,000	\$ 96,000
6	60" Diameter Manhole	4	EA	\$ 7,000	\$ 28,000
7	Concrete Pavement Repair	600	LF	\$ 100	\$ 60,000
8	20" Boring and Casing	200	LF	\$ 400	\$ 80,000
9	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
				<b>SUBTOTAL:</b>	<b>\$ 5,154,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 6,700,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 7,705,300</b>
				<b>Estimated Project Total:</b>	<b>\$ 7,705,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-O

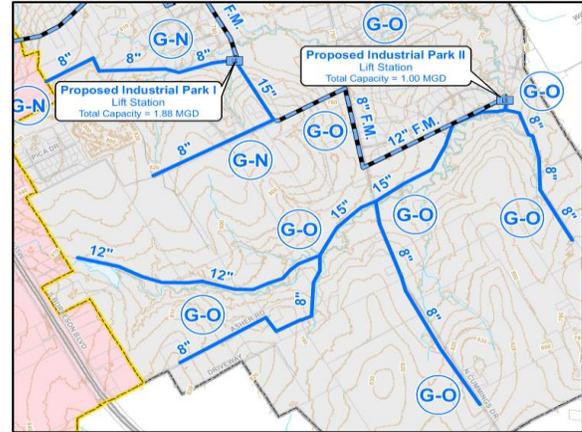
Project Driver: Growth / Development

Project Name: Industrial Park II Lift Station Force Main / Collector

**Project Description:**

This project consists of the construction of the Industrial Park II Lift Station with a 1.00 MGD firm capacity near Country Manor Lane and the Walnut Creek branch. It also consists of the construction of an 8-inch force main along Country Manor Lane, Cummings Drive, and County Road 517 going northwest to the proposed 15-inch wastewater line on County Road 517. This project also consists of an 8/12-inch collector along Walnut Creek from Burleson Boulevard going east to the proposed Industrial Park II Lift Station. It also consists of an 8-inch collector along Asher Road going east to the proposed 8/12-inch collector along the Walnut Creek branch. It also consists of an 8-inch collector along Cummings drive going north to the proposed 12-inch collector along the Walnut Creek branch.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Industrial Park) and the proposed lines will serve development in the Quil Miller 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 1.00 MGD	1	LS	\$ 1,000,000	\$ 1,000,000
2	8" Force Main	7,500	LF	\$ 100	\$ 750,000
3	12" Gravity Main	6,300	LF	\$ 180	\$ 1,134,000
4	8" Gravity Main	20,800	LF	\$ 120	\$ 2,496,000
5	48" Diameter Manhole	55	EA	\$ 6,000	\$ 330,000
6	Concrete Pavement Repair	300	LF	\$ 100	\$ 30,000
7	20" Boring and Casing	150	LF	\$ 400	\$ 60,000
8	16" Boring and Casing	150	LF	\$ 320	\$ 48,000
				<b>SUBTOTAL:</b>	<b>\$ 5,848,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 7,602,400</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 8,742,800</b>
				<b>Estimated Project Total:</b>	<b>\$ 8,742,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: SSES-A

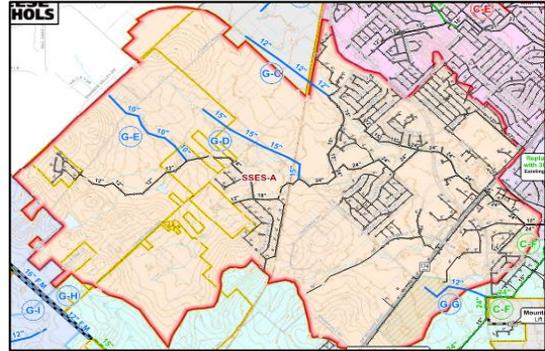
Project Driver: Existing Capacity Restriction

Project Name: Shannon Creek (FM Basin 10/11) SSES

**Project Description:**

This project consists of SSES work in the Shannon Creek Basin (FM Basin 10/11). SSES budgetary costs include consulting services to program-manage the pre-inspection engineering, field coordination, post-inspection engineering analysis, and renewal CIP development. This project consists of condition assessment activities including manhole inspections, CCTV inspections, and smoke testing performed to identify sources of inflow and infiltration into the basin.

**Vicinity Map**



**Project Drivers:**

This project will identify sources of I/I and develop rehabilitation recommendations.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Manhole Inspection	627	EA	\$ 250	\$ 156,750
2	Smoke Testing	183,543	LF	\$ 1	\$ 146,834
3	CCTV Inspection	183,543	LF	\$ 4	\$ 734,172
4	Program Management	183,543	LF	\$ 2	\$ 275,315
				<b>SUBTOTAL:</b>	<b>\$ 1,313,100</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,707,100</b>
				ENG/SURVEY	0%
				<b>SUBTOTAL:</b>	<b>\$ 1,707,100</b>
				<b>Estimated Project Total:</b>	<b>\$ 1,707,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **SSES-B** Project Driver: Existing Capacity Restriction

Project Name: **Burleson Main (FM Basin 5) SSES**

**Project Description:**

This project consists of SSES work in the Burleson Main Basin (FM Basin 5). SSES budgetary costs include consulting services to program-manage the pre-inspection engineering, field coordination, post-inspection engineering analysis, and renewal CIP development. This project consists of condition assessment activities including manhole inspections, CCTV inspections, and smoke testing performed to identify sources of inflow and infiltration into the basin.

**Vicinity Map**



**Project Drivers:**

This project will identify sources of I/I and develop rehabilitation recommendations.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Manhole Inspection	209	EA	\$ 250	\$ 52,250
2	Smoke Testing	78,118	LF	\$ 1	\$ 62,494
3	CCTV Inspection	78,118	LF	\$ 4	\$ 312,472
4	Program Management	78,118	LF	\$ 2	\$ 117,177
				<b>SUBTOTAL:</b>	<b>\$ 544,400</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 707,800</b>
				ENG/SURVEY	0%
				<b>SUBTOTAL:</b>	<b>\$ -</b>
				<b>Estimated Project Total:</b>	<b>\$ 707,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-I

Project Driver: Future Capacity Restriction

Project Name: Willow Creek Basin Country Road 914 15-inch Parallel Interceptor

**Project Description:**

This project consists of the construction of a 15-inch wastewater line parallel to the under construction 15-inch wastewater line going south along Country Road 1021 and west on Country Road 914.

**Project Drivers:**

Model results indicate that the under-construction 15-inch line experiences surcharging and overflows under projected 20-year peak wet weather flows. The parallel line will increase the capacity of the wastewater system to convey projected peak wet weather flows.

**Vicinity Map**



**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	15" Gravity Main	6,600	LF	\$ 225	\$ 1,485,000
2	60" Diameter Manhole	14	EA	\$ 7,000	\$ 98,000
3	Concrete Pavement Repair	50	LF	\$ 100	\$ 5,000
4	24" Boring and Casing	100	LF	\$ 480	\$ 48,000
				<b>SUBTOTAL:</b>	<b>\$ 1,636,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 2,126,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 2,445,900</b>
<b>Estimated Project Total:</b>					<b>\$ 2,445,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



20-Year Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **C-H** Project Driver: 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.

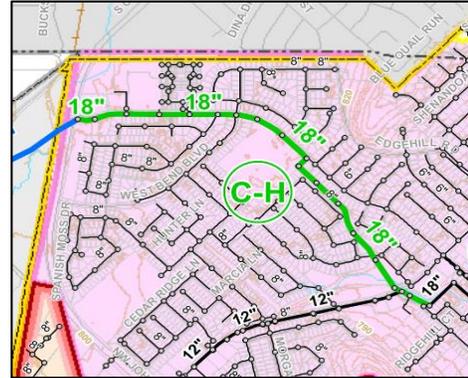
**Project Drivers:**

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.

Existing Hydraulic Information	2040 Hydraulic Information
#N/A	#N/A

**Downstream Projects Needed:**  
#N/A

**Vicinity Map**



**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	
<b>SUBTOTAL:</b>					<b>\$ 2,445,900</b>	
				CONTINGENCY	30%	\$ 733,800
<b>SUBTOTAL:</b>					<b>\$ 3,179,700</b>	
				ENG/SURVEY	15%	\$ 477,000
<b>SUBTOTAL:</b>					<b>\$ 3,656,700</b>	
<b>Estimated Project Total:</b>					<b>\$ 3,656,700</b>	

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

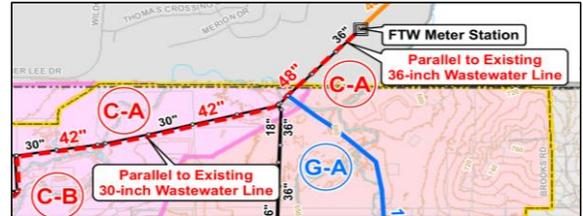
Construction Project Number: C-A

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
				<b>SUBTOTAL:</b>	<b>\$ 5,214,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 6,778,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 7,795,000</b>
<b>Estimated Project Total:</b>					<b>\$ 7,795,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

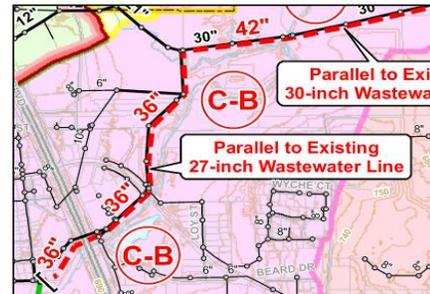
Construction Project Number: C-B

Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 3,116,500</b>
				CONTINGENCY	30% \$ 935,000
				<b>SUBTOTAL:</b>	<b>\$ 4,051,500</b>
				ENG/SURVEY	15% \$ 607,800
				<b>SUBTOTAL:</b>	<b>\$ 4,659,300</b>
				<b>Estimated Project Total:</b>	<b>\$ 4,659,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

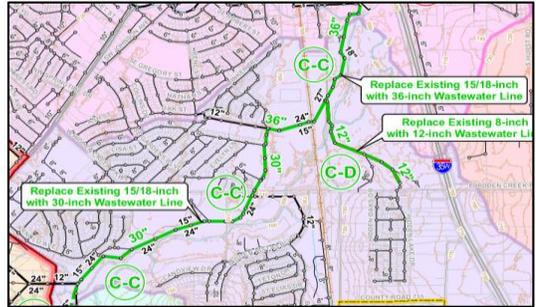
Construction Project Number: C-C

Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 6,374,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 8,286,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 9,529,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 9,529,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: **C-D** Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 684,000</b>
				CONTINGENCY 30%	\$ 205,200
				<b>SUBTOTAL:</b>	<b>\$ 889,200</b>
				ENG/SURVEY 15%	\$ 133,400
				<b>SUBTOTAL:</b>	<b>\$ 1,022,600</b>
<b>Estimated Project Total:</b>					<b>\$ 1,022,600</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** C-E **Project Driver:** 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.

**Vicinity Map**



**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
				<b>SUBTOTAL:</b>	<b>\$ 555,000</b>
				CONTINGENCY 30%	\$ 166,500
				<b>SUBTOTAL:</b>	<b>\$ 721,500</b>
				ENG/SURVEY 15%	\$ 108,300
				<b>SUBTOTAL:</b>	<b>\$ 829,800</b>
<b>Estimated Project Total:</b>					<b>\$ 829,800</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



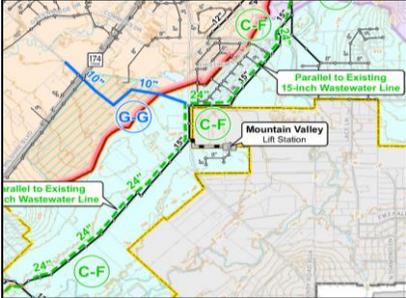
Buildout Capital Improvement Cost Estimate 2023 Dollars

Construction Project Number: C-F Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 4,730,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 6,149,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 7,071,400</b>
<b>Estimated Project Total:</b>					<b>\$ 7,071,400</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

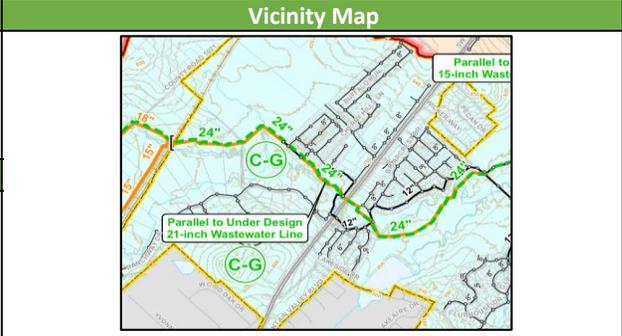
2023 Dollars

Construction Project Number: C-G

Project Driver: 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 under construction 21-inch wastewater line near Wilshire Boulevard from the under construction 18-inch wastewater line to the proposed 24-inch parallel interceptor near Wicker Way.



**Project Drivers:**  
Model results indicate that the under-design 21-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	11,100	LF	\$ 360	\$ 3,996,000
2	60" Diameter Manhole	14	EA	\$ 7,000	\$ 98,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	36" Boring and Casing	150	LF	\$ 720	\$ 108,000
				<b>SUBTOTAL:</b>	<b>\$ 4,212,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 5,475,600</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 6,297,000</b>
<b>Estimated Project Total:</b>					<b>\$ 6,297,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

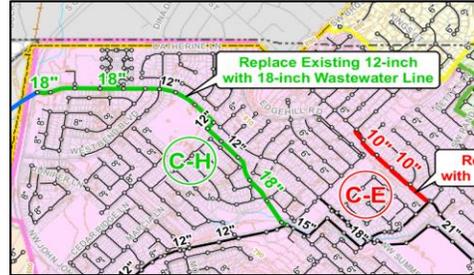
**Construction Project Number:** C-H **Project Driver:** Future Capacity Restriction

**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.

**Vicinity Map**



**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
				<b>SUBTOTAL:</b>	<b>\$ 2,135,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 2,775,500</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 3,191,900</b>
				<b>Estimated Project Total:</b>	<b>\$ 3,191,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-I

Project Driver: Future Capacity Restriction

Project Name: Willow Creek Basin Country Road 914 15-inch Parallel Interceptor

**Project Description:**  
This project consists of the construction of a 15-inch wastewater line parallel to the under construction 15-inch wastewater line going south along Country Road 1021 and west along Country Road 914.

**Vicinity Map**



**Project Drivers:**  
Model results indicate that the under-construction 15-inch line experiences surcharging and overflows under projected 20-year 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	15" Gravity Main	6,600	LF	\$ 225	\$ 1,485,000
2	60" Diameter Manhole	14	EA	\$ 7,000	\$ 98,000
3	Concrete Pavement Repair	50	LF	\$ 100	\$ 5,000
4	24" Boring and Casing	100	LF	\$ 480	\$ 48,000
				<b>SUBTOTAL:</b>	<b>\$ 1,636,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 2,126,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 2,445,900</b>
<b>Estimated Project Total:</b>					<b>\$ 2,445,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** C-J **Project Driver:** Future Capacity Restriction

**Project Name:** Quil Miller Creek Basin Southeast 24-inch Parallel Interceptor

**Project Description:**

This project consists of the construction of a 24-inch wastewater line parallel to the existing 21-inch wastewater line near Interstate 35W from the existing 15-inch wastewater line near Cedar Lane to the existing 36-inch parallel west of South Fox Lane.

**Project Drivers:**

Model results indicate that the existing 21-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.

**Vicinity Map**



**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	24" Gravity Main	18,500	LF	\$ 360	\$ 6,660,000
2	60" Diameter Manhole	24	EA	\$ 7,000	\$ 168,000
3	36" Boring and Casing	150	LF	\$ 720	\$ 108,000
				<b>SUBTOTAL:</b>	<b>\$ 6,936,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 9,016,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 10,369,400</b>
<b>Estimated Project Total:</b>					<b>\$ 10,369,400</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: C-K

Project Driver: Future Capacity Restriction

Project Name: Quil Miller Creek Basin Southeast 15-inch Parallel Interceptor

**Project Description:**

This project consists of the construction of a 15-inch wastewater line parallel to the existing 15-inch wastewater line near Interstate 35W from the existing 15-inch wastewater line near Looney Lane to the proposed 30-inch parallel west of Cedar Lane.

**Vicinity Map**



**Project Drivers:**

Model results indicate that the existing 15-inch line is over capacity under projected existing 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	15" Gravity Main	8,200	LF	\$ 225	\$ 1,845,000
2	60" Diameter Manhole	17	EA	\$ 7,000	\$ 119,000
3	26" Boring and Casing	100	LF	\$ 520	\$ 52,000
				<b>SUBTOTAL:</b>	<b>\$ 2,016,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 2,620,800</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 3,014,000</b>
<b>Estimated Project Total:</b>					<b>\$ 3,014,000</b>

**Comments:** FNI OPCC does not include any factors to account for the ongoing COVID-19 government enforced closures worldwide which could potentially impact material, equipment, and/or labor costs on the project. In addition, the impact on construction schedules due to the COVID-19 pandemic is unknown.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** G-A **Project Driver:** Growth / Development

**Project Name:** Quil Miller Creek Basin North 10-inch Collector Line

**Project Description:**

This project consists of the construction of a 10-inch wastewater line going northwest from Mockingbird Meadows Rd to the proposed 36-inch parallel line near the Southern Oaks Golf Course.

**Vicinity Map**



**Project Drivers:**

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

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	10" Gravity Main	5,900	LF	\$ 150	\$ 885,000
2	48" Diameter Manhole	12	EA	\$ 6,000	\$ 72,000
3	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
4	16" Boring and Casing	150	LF	\$ 320	\$ 48,000
				<b>SUBTOTAL:</b>	<b>\$ 1,015,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,319,500</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,517,500</b>
<b>Estimated Project Total:</b>					<b>\$ 1,517,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-B

Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 1,022,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,329,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,528,700</b>
<b>Estimated Project Total:</b>					<b>\$ 1,528,700</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

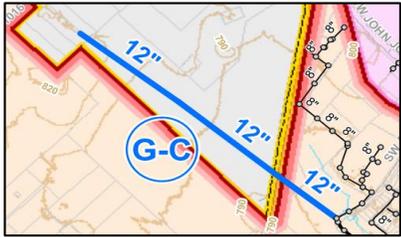
**Construction Project Number:** G-C **Project Driver:** Growth / Development

**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
				<b>SUBTOTAL:</b>	<b>\$ 918,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,193,400</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,372,500</b>
<b>Estimated Project Total:</b>					<b>\$ 1,372,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

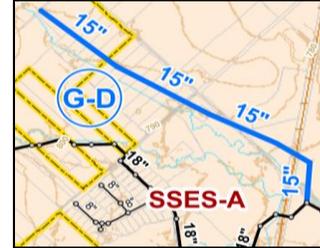
Construction Project Number: G-D

Project Driver: 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
				<b>SUBTOTAL:</b>	<b>\$ 1,442,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,875,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 2,156,600</b>
<b>Estimated Project Total:</b>					<b>\$ 2,156,600</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

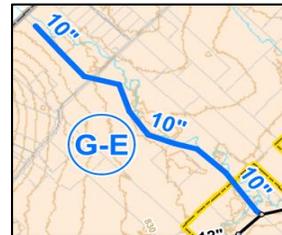
Construction Project Number: G-E

Project Driver: Growth / Development

Project Name: Shannon Creek Basin 10-inch Collector Line

**Project Description:**  
This project consists of the construction of a 10-inch wastewater line going southeast from Shannon Valley Drive to the existing 12-inch wastewater line near County Road 1020.

**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	10" Gravity Main	4,800	LF	\$ 150	\$ 720,000
2	Concrete Pavement Repair	100	LF	\$ 100	\$ 10,000
3	48" Diameter Manhole	10	EA	\$ 6,000	\$ 60,000
				<b>SUBTOTAL:</b>	<b>\$ 790,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,027,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,181,100</b>
<b>Estimated Project Total:</b>					<b>\$ 1,181,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** G-F **Project Driver:** Growth / Development

**Project Name:** Shannon Creek Basin County Road 1020 12-inch Collector Line

**Project Description:**

This project consists of the construction of a 12-inch wastewater line going northeast along Shannon Creek from County Road 1020 to the existing 12-inch wastewater line on Falls Creek Court.

**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	12" Gravity Main	5,600	LF	\$ 180	\$ 1,008,000
2	20" Boring and Casing	200	LF	\$ 400	\$ 80,000
3	48" Diameter Manhole	12	EA	\$ 6,000	\$ 72,000
				<b>SUBTOTAL:</b>	<b>\$ 1,160,000</b>
				CONTINGENCY	30%
					\$ 348,000
				<b>SUBTOTAL:</b>	<b>\$ 1,508,000</b>
				ENG/SURVEY	15%
					\$ 226,200
				<b>SUBTOTAL:</b>	<b>\$ 1,734,200</b>
<b>Estimated Project Total:</b>					<b>\$ 1,734,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

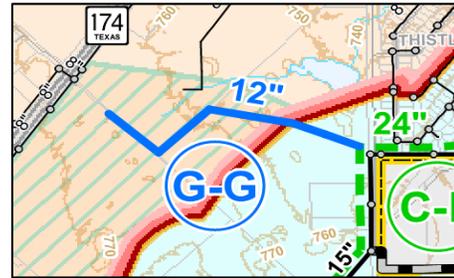
Construction Project Number: G-G

Project Driver: 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
<b>SUBTOTAL:</b>					<b>\$ 586,000</b>
				CONTINGENCY	30%
					\$ 175,800
<b>SUBTOTAL:</b>					<b>\$ 761,800</b>
				ENG/SURVEY	15%
					\$ 114,300
<b>SUBTOTAL:</b>					<b>\$ 876,100</b>
<b>Estimated Project Total:</b>					<b>\$ 876,100</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

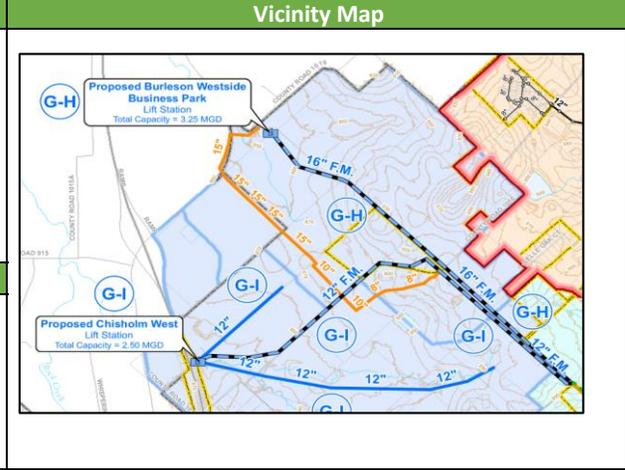
2023 Dollars

Construction Project Number: G-H

Project Driver: 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 Chisholm Summit/Burleson West Business Park developments near Chisholm 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.



**Project Drivers:**  
Future projections show growth of sewer customers in this area (Chisholm 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
				<b>SUBTOTAL:</b>	<b>\$ 5,360,000</b>
				CONTINGENCY	30%
					\$ 1,608,000
				<b>SUBTOTAL:</b>	<b>\$ 6,968,000</b>
				ENG/SURVEY	15%
					\$ 1,045,200
				<b>SUBTOTAL:</b>	<b>\$ 8,013,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 8,013,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

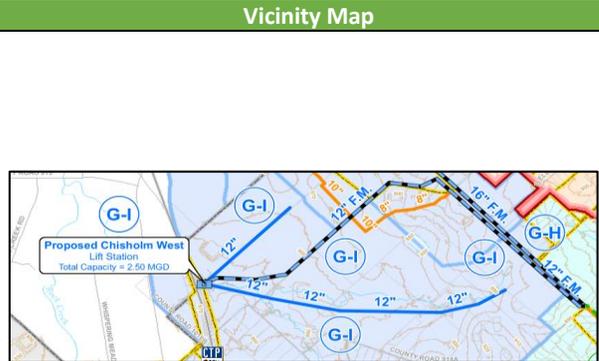
Construction Project Number: G-I

Project Driver: 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 2.50 MGD firm capacity near the Chisholm Summit development and the Chisholm Trail Parkway Toll Road. It also consists of the construction of a 12-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 Chisholm 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
				<b>SUBTOTAL:</b>	<b>\$ 6,461,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 8,399,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 9,659,200</b>
				<b>Estimated Project Total:</b>	<b>\$ 9,659,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



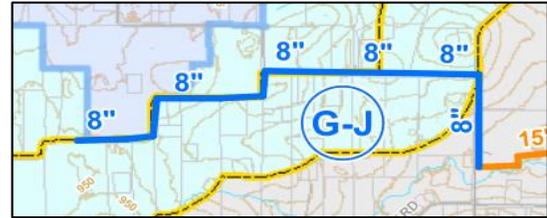
**Buildout Capital Improvement Cost Estimate** 2023 Dollars

**Construction Project Number:** G-J **Project Driver:** Growth / Development

**Project Name:** 8-inch Wastewater Line in Southwest

**Project Description:**  
This project consists of an 8-inch collector along County Road 913 going east to the under construction 15-inch wastewater line along Willow Creek.

**Vicinity Map**



**Project Drivers:**  
Future projections show growth of sewer customers in this area and the proposed lines will serve new development in the Willow Creek Basin.

**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Gravity Main	7,200	LF	\$ 120	\$ 864,000
2	48" Diameter Manhole	15	EA	\$ 6,000	\$ 90,000
				<b>SUBTOTAL:</b>	<b>\$ 954,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,240,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 1,426,300</b>
<b>Estimated Project Total:</b>					<b>\$ 1,426,300</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-K

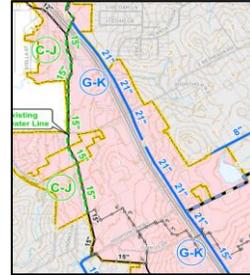
Project Driver: Growth / Development

Project Name: Quil Miller Creek I-35W 15/21-inch Interceptor

**Project Description:**  
This project consists of the construction of a 15/21-inch wastewater line along I-35W going northeast from Cirrus Drive to the existing 15-inch wastewater line near Cedar Lane.

**Project Drivers:**  
Future projections show growth of sewer customers in this area (Business Park/ Industrial Park/Martin Tract) and the proposed lines will serve new development in the Quil Miller Basin.

**Vicinity Map**



**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	15" Gravity Main	1,900	LF	\$ 225	\$ 427,500
2	21" Gravity Main	9,400	LF	\$ 315	\$ 2,961,000
3	60" Diameter Manhole	23	EA	\$ 7,000	\$ 161,000
4	26" Boring and Casing	50	LF	\$ 520	\$ 26,000
5	Concrete Pavement Repair	2,900	LF	\$ 100	\$ 290,000
				<b>SUBTOTAL:</b>	<b>\$ 3,865,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 5,025,200</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 5,779,000</b>
				<b>Estimated Project Total:</b>	<b>\$ 5,779,000</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-L

Project Driver: Growth / Development

Project Name: **Martin Tract Lift Station Force Main / Collector**

**Project Description:**  
 This project consists of the construction of the Martin Tract Lift Station with a 0.6 MGD firm capacity near the Martin Tract development and I-35W. It also consists of the construction of an 8-inch force main from the proposed Martin Tract LS going west to the proposed 15/21-inch wastewater line along I-35W. This project also consists of an 8-inch collector along County Road 518 going east to the proposed Martin Tract LS.

**Vicinity Map**



**Project Drivers:**  
 Future projections show growth of sewer customers in this area (Martin Tract) and the proposed lines will serve development in the Quil Miller Creek 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 0.6 MGD	1	LS	\$ 600,000	\$ 600,000
2	8" Force Main	8,400	LF	\$ 100	\$ 840,000
3	8" Gravity Main	7,600	LF	\$ 120	\$ 912,000
4	48" Diameter Manhole	16	EA	\$ 6,000	\$ 96,000
5	Concrete Pavement Repair	200	LF	\$ 100	\$ 20,000
6	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
				<b>SUBTOTAL:</b>	<b>\$ 2,500,000</b>
				CONTINGENCY	30% \$ 750,000
				<b>SUBTOTAL:</b>	<b>\$ 3,250,000</b>
				ENG/SURVEY	15% \$ 487,500
				<b>SUBTOTAL:</b>	<b>\$ 3,737,500</b>
				<b>Estimated Project Total:</b>	<b>\$ 3,737,500</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate 2023 Dollars

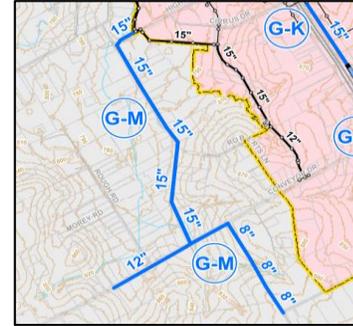
Construction Project Number: **G-M** Project Driver: Growth / Development

Project Name: **I-35 West Lift Station Force Main / Collector**

Project Description:

Vicinity Map

This project consists of an 8/12/15-inch collector along Briar Oaks Road going northwest to the 15-inch wastewater line at Highpoint Parkway.



Project Drivers:

Future projections show growth of sewer customers in this area and the proposed lines will serve future development in the Quil Miller 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	8" Gravity Main	3,600	LF	\$ 120	\$ 432,000
2	12" Gravity Main	1,900	LF	\$ 180	\$ 342,000
3	15" Gravity Main	6,100	LF	\$ 225	\$ 1,372,500
4	48" Diameter Manhole	11	EA	\$ 6,000	\$ 66,000
5	60" Diameter Manhole	13	EA	\$ 7,000	\$ 91,000
6	Concrete Pavement Repair	600	LF	\$ 100	\$ 60,000
7	26" Boring and Casing	50	LF	\$ 520	\$ 26,000
8	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
				<b>SUBTOTAL:</b>	<b>\$ 2,421,500</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 3,148,000</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 3,620,200</b>
<b>Estimated Project Total:</b>					<b>\$ 3,620,200</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



**Buildout Capital Improvement Cost Estimate** 2023 Dollars

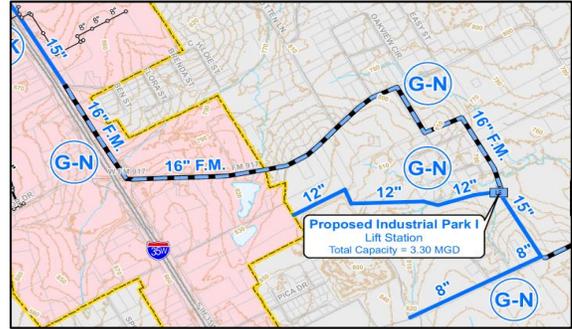
**Construction Project Number:** G-N **Project Driver:** Growth / Development

**Project Name:** Industrial Park I Lift Station Force Main / Collector

**Project Description:**

This project consists of the construction of the Industrial Park I Lift Station with a 3.30 MGD firm capacity near Woodwind Drive and Walnut Creek. It also consists of the construction of a 16-inch force main along FM 917 from the proposed Industrial Park I Lift Station going northwest to the proposed 15-inch wastewater line along I-35W. This project also consists of an 12-inch collector along Walnut Creek going east from FM 917 to the proposed Industrial Park I Lift Station. It also consists of an 8/15-inch collector along County Road 517 going northeast from the Walnut Creek branch to the proposed Industrial Park I Lift Station.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Industrial Park) and the proposed lines will serve development in the Quil Miller 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 3.30 MGD	1	LS	\$ 3,300,000	\$ 3,300,000
2	16" Force Main < 8 feet deep	13,000	LF	\$ 200	\$ 2,600,000
3	8" Gravity Main	3,100	LF	\$ 120	\$ 372,000
4	12" Gravity Main	7,900	LF	\$ 180	\$ 1,422,000
5	15" Gravity Main	1,800	LF	\$ 225	\$ 405,000
6	48" Diameter Manhole	22	EA	\$ 6,000	\$ 132,000
7	60" Diameter Manhole	4	EA	\$ 7,000	\$ 28,000
8	20" Boring and Casing	200	LF	\$ 400	\$ 80,000
9	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
10	Concrete Pavement Repair	600	LF	\$ 100	\$ 60,000
				<b>SUBTOTAL:</b>	<b>\$ 8,431,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 10,960,300</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 12,604,400</b>
				<b>Estimated Project Total:</b>	<b>\$ 12,604,400</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: G-O

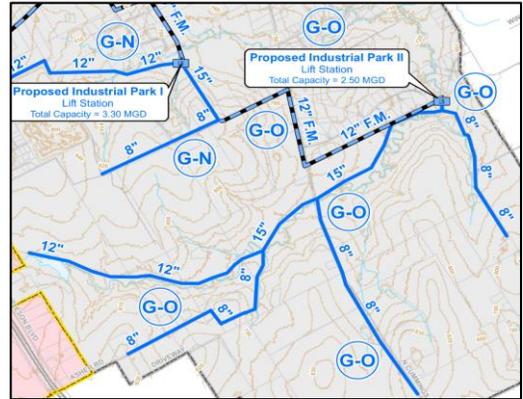
Project Driver: Growth / Development

Project Name: Industrial Park II Lift Station Force Main / Collector

**Project Description:**

This project consists of the construction of the Industrial Park II Lift Station with a 2.50 MGD firm capacity near Country Manor Lane and the Walnut Creek branch. It also consists of the construction of an 8-inch force main along Country Manor Lane, Cummings Drive, and County Road 517 going northwest to the proposed 8/15-inch wastewater line on County Road 517. This project also consists of a 12/15-inch collector along Walnut Creek from Burleson Boulevard going east to the proposed Industrial Park II Lift Station. It also consists of an 8-inch collector along Asher Road going east to the proposed 12/15-inch collector along the Walnut Creek branch. It also consists of an 8-inch collector along Cummings drive going north to the proposed 12-inch collector along the Walnut Creek branch.

**Vicinity Map**



**Project Drivers:**

Future projections show growth of sewer customers in this area (Industrial Park) and the proposed lines will serve development in the Quil Miller 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	7,500	LF	\$ 150	\$ 1,125,000
3	8" Gravity Main	14,800	LF	\$ 120	\$ 1,776,000
4	12" Gravity Main	6,000	LF	\$ 180	\$ 1,080,000
5	15" Gravity Main	6,000	LF	\$ 225	\$ 1,350,000
6	48" Diameter Manhole	42	EA	\$ 6,000	\$ 252,000
7	Concrete Pavement Repair	300	LF	\$ 100	\$ 30,000
8	26" Boring and Casing	200	LF	\$ 520	\$ 104,000
9	16" Boring and Casing	100	LF	\$ 320	\$ 32,000
10	60" Diameter Manhole	12	EA	\$ 7,000	\$ 84,000
				<b>SUBTOTAL:</b>	<b>\$ 8,333,000</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 10,832,900</b>
				ENG/SURVEY	15%
				<b>SUBTOTAL:</b>	<b>\$ 12,457,900</b>
				<b>Estimated Project Total:</b>	<b>\$ 12,457,900</b>

**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 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. Right-of-way and easement costs are not included.

# City of Burleson



Buildout Capital Improvement Cost Estimate

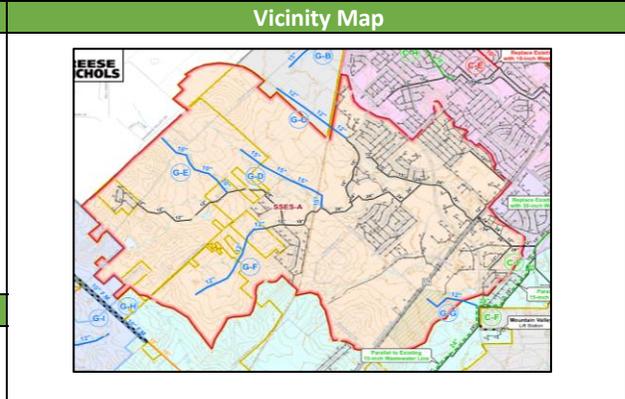
2023 Dollars

Construction Project Number: SSES-A

Project Driver: Existing Capacity Restriction

Project Name: Shannon Creek (FM Basin 10/11) SSES

**Project Description:**  
This project consists of SSES work in the Shannon Creek Basin (FM Basin 10/11). SSES budgetary costs include consulting services to program-manage the pre-inspection engineering, field coordination, post-inspection engineering analysis, and renewal CIP development. This project consists of condition assessment activities including manhole inspections, CCTV inspections, and smoke testing performed to identify sources of inflow and infiltration into the basin.



**Project Drivers:**  
This project will identify sources of I/I and develop rehabilitation recommendations.

### Opinion of Probable Construction Cost

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Manhole Inspection	627	EA	\$ 250	\$ 156,750
2	Smoke Testing	183,543	LF	\$ 1	\$ 146,834
3	CCTV Inspection	183,543	LF	\$ 4	\$ 734,172
4	Program Management	183,543	LF	\$ 2	\$ 275,315
				<b>SUBTOTAL:</b>	<b>\$ 1,313,100</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 1,707,100</b>
				ENG/SURVEY	0%
				<b>SUBTOTAL:</b>	<b>\$ -</b>
				<b>SUBTOTAL:</b>	<b>\$ 1,707,100</b>
				<b>Estimated Project Total:</b>	<b>\$ 1,707,100</b>

**Comments:** FNI OPCC does not include any factors to account for the ongoing COVID-19 government enforced closures worldwide which could potentially impact material, equipment, and/or labor costs on the project. In addition, the impact on construction schedules due to the COVID-19 pandemic is unknown.

# City of Burleson



Buildout Capital Improvement Cost Estimate

2023 Dollars

Construction Project Number: SSES-B

Project Driver: Existing Capacity Restriction

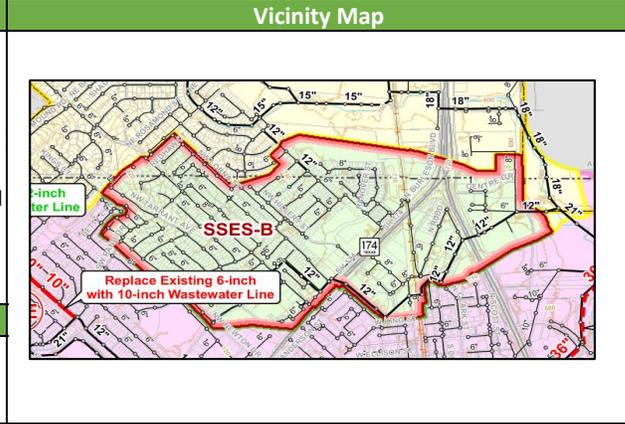
Project Name: Burleson Main (FM Basin 5) SSES

**Project Description:**

This project consists of SSES work in the Burleson Main Basin (FM Basin 5). SSES budgetary costs include consulting services to program-manage the pre-inspection engineering, field coordination, post-inspection engineering analysis, and renewal CIP development. This project consists of condition assessment activities including manhole inspections, CCTV inspections, and smoke testing performed to identify sources of inflow and infiltration into the basin.

**Project Drivers:**

This project will identify sources of I/I and develop rehabilitation recommendations.



**Opinion of Probable Construction Cost**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Manhole Inspection	209	EA	\$ 250	\$ 52,250
2	Smoke Testing	78,118	LF	\$ 1	\$ 62,494
3	CCTV Inspection	78,118	LF	\$ 4	\$ 312,472
4	Program Management	78,118	LF	\$ 2	\$ 117,177
				<b>SUBTOTAL:</b>	<b>\$ 544,400</b>
				CONTINGENCY	30%
				<b>SUBTOTAL:</b>	<b>\$ 707,800</b>
				ENG/SURVEY	0%
				<b>SUBTOTAL:</b>	<b>\$ 707,800</b>
				<b>Estimated Project Total:</b>	<b>\$ 707,800</b>

**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 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. Right-of-way and easement costs are not included.