

**I. Project Segment Description**

- A. Location: This project segment is located on Whirlaway Road from Salisbury Drive to Cromwell Drive and on Cromwell Drive from Webb Garden Drive to Walnut Hill Lane.

Location Information	
Description	Data
Water ID	231
MAPSCO	23M
DWU W/S Map	20-18
Council District	13

- B. Existing Conditions

Description	Water Main	Wastewater Main
DWU As-built	685W750 Sh. 173	Q1749 Sh. 198-199
Length (ft)	1,900	1,800
Diameter (in)	6", 8"	6"
Year Built	Unknown, 1985	1966
Material	C.I.	Conc.

**II. Field Observations**

- A. Easements and Right-of-Way

The water main is within the dedicated street R.O.W. No additional easements are required.

- B. Surface/Pavement

All streets within the project limits are concrete pavement with curb and gutter. The pavement is in good condition.

- C. Trees and Landscaping

There are existing trees and landscaping in the parkway, but these should not be adversely affected because the water line is under the existing street.

- D. Adjacent Structures

There are existing overhead electrical lines and street lighting and storm and sanitary sewers located within the street R.O.W.

### **III. Recommendation**

#### **A. Water Main Improvement**

Based on the results of field observations, the concrete pavement and water line in Whirlaway Road from Cromwell Drive to approximately 600 feet west has been recently replaced. Additionally, based on the available city data, the water lines in Whirlaway Drive, as described previously, and Cromwell Drive were replaced in 1985 and appear to have 9-feet of separation from the adjacent wastewater mains. It is therefore recommended that the 8" water lines remain in-place as they exist today. However, should the field survey data indicate that the distance between the adjacent wastewater mains is insufficient to meet TNRCC minimum requirements, it will be necessary to relocate the water mains at those locations.

Further, it is recommended that the existing 400 feet of 6" water main that was built prior to 1985 in Whirlaway Road to Salisbury Drive be replaced with 8" PVC Class 200 water pipe.

#### **B. Wastewater Improvement**

There are existing 6" wastewater mains parallel to the proposed water mains. However, there should be adequate distance to maintain a 9-foot separation as required by TNRCC standards. Therefore, no associated wastewater main replacement is included in this project.

#### **C. Construction/Surface Improvement**

Based on initial investigations, no construction improvements will be completed with this project. Should the field survey indicate that the water lines require relocation or the City requests that these lines to be replaced, a construction improvement assessment will be performed.

#### **D. Traffic Control**

Based on initial investigations, no traffic control will be required for this project. Should the field survey indicate that the water lines require relocation or the City requests that these lines to be replaced, a traffic control assessment will be performed.

IV. Opinion of Probable Cost

Opinion of Probable Cost				
Qty	Unit	Description	Unit Cost \$	Total \$
400	LF	8" PVC Class 200 Water Pipe	60.00	24,000.00
1	EA	8" Gate Valve	800.00	800.00
8	EA	Water Service Connection	600.00	4,800.00
400	LF	Trench Safety System	1.50	600.00
30	CY	Reinforced Concrete Pavement	165.00	4,950.00
20	TN	Asphalt Pavement	80.00	1,600.00
10	CY	Temp Paving Flex Base	30.00	300.00
20	TN	Temp Asphalt Paving	55.00	1,100.00
0.1	TN	Cast Iron Fittings	1,500.00	150.00
		<b>TOTAL</b>		<b>38,300.00</b>