











# Legend

-  Proposed Storage Tank
-  Existing Storage Tank
-  12" Water Main
-  12"/16" Water Main
-  16" Water Main
-  ETJ
-  City Limits
-  Water Main
-  Creeks
-  10 Yr. Wastewater Service Area

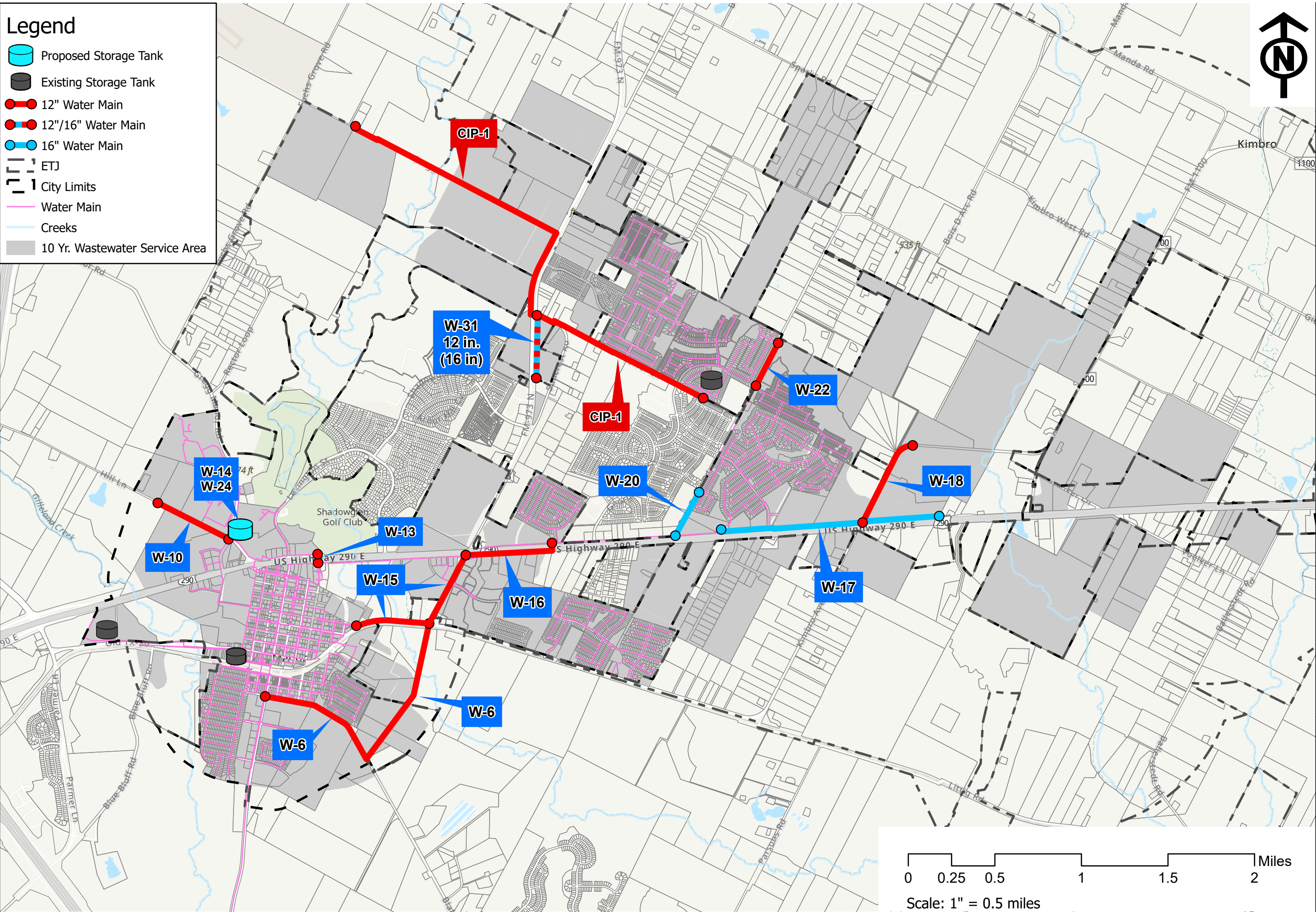




EXHIBIT A-2  
CITY OF MANOR WATER IMPROVEMENTS  
10-YEAR CAPITAL IMPROVEMENTS PLAN  
NOVEMBER 2021

The following projects have been identified as required to serve new growth within the service area, in accordance with approved land use assumptions and as part of the 10-year Capital Improvements Plan

Project No.	Year	Description	Size	Unit	Length (ft)	Construction Cost (2020 Dollars)	Annual Interest	Period (yr)	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs	Contingency (10% + 1% per annum)	Financing Cost (5% over 20 Years)	Total Project Costs	Detailed Description
W-6	2021	Blake Manor Road Water Line	12	inch	3,200	\$ 268,800.00	0.050	20	\$ 322,560.00	\$ 48,400.00	\$ 48,200.00	\$ 253,529.66	\$ 673,000.00	Transmission main from downtown along Blake Manor Road to future FM 973. Includes replacing 400 LF of 6" pipe in Downtown Plant
W-10	2020	Hill Lane Water Line	12	inch	3,450	\$ 289,800.00	0.050	20	\$ 333,270.00	\$ 50,000.00	\$ 46,000.00	\$ 259,644.71	\$ 689,000.00	Water Distribution main along Hill Lane to serve new growth
W-13	2023	US 290 Crossing at Golf Course	12	inch	250	\$ 100,000.00	0.050	20	\$ 130,000.00	\$ 19,500.00	\$ 22,400.00	\$ 103,974.01	\$ 276,000.00	Connect 12" water lines on north and south sides of US 290
W-14	2022	Gregg Manor Road Water Supply - Ground Storage Tank and Pumps	250,000	gallon		\$ 2,500,000.00	0.050	20	\$ 3,125,000.00	\$ 468,800.00	\$ 503,100.00	\$ 2,478,017.11	\$ 6,575,000.00	250,000 gal Ground Storage Tank and 1,400 gpm expandable pump station for wholesale water supply connection
W-15	2022	FM 973 Water Line	12	inch	4000	\$ 336,000.00	0.050	20	\$ 420,000.00	\$ 63,000.00	\$ 67,600.00	\$ 333,031.37	\$ 884,000.00	Transmission main from US 290 to serve new growth on the east and west sides of FM 973
W-16	2022	US 290 Water Line	12	inch	2900	\$ 275,000.00	0.050	20	\$ 343,750.00	\$ 51,600.00	\$ 55,300.00	\$ 272,576.44	\$ 723,000.00	Parallel 12" waterline to increase US 290 capacity
W-17	2020	US 290 Water Line	16	inch	4400	\$ 540,000.00	0.050	20	\$ 621,000.00	\$ 93,200.00	\$ 85,700.00	\$ 483,820.91	\$ 1,284,000.00	Extend transmission main from Presidential Glen to Old Kimbro Road
W-18	2020	Old Kimbro Road Water Line	12	inch	3000	\$ 474,000.00	0.050	20	\$ 545,100.00	\$ 81,800.00	\$ 75,200.00	\$ 424,666.41	\$ 1,127,000.00	Transmission main to serve new growth north of US 290
W-20	2023	Bois D'Arc Lane Water Line	16	inch	2700	\$ 302,400.00	0.050	20	\$ 393,120.00	\$ 59,000.00	\$ 67,800.00	\$ 314,474.52	\$ 834,000.00	Transmission main to improve delivery of water from East EST
W-22	2023	Bois D'Arc Lane Water Line	12	inch	2500	\$ 210,000.00	0.050	20	\$ 273,000.00	\$ 41,000.00	\$ 47,100.00	\$ 218,411.96	\$ 580,000.00	Transmission main to serve new growth north of Tower Rd
W-24	2025	Gregg Manor Road Pump Improvements	1200	gpm		\$ 200,000.00	0.050	20	\$ 280,000.00	\$ 42,000.00	\$ 54,700.00	\$ 227,847.65	\$ 605,000.00	Increase Pump Capacity (and contracted supply) at wholesale water connection
W-31	2022	FM 973 Water Line	12	inch	5200	\$ 436,800.00	0.050	20	\$ 546,000.00	\$ 81,900.00	\$ 87,900.00	\$ 432,952.88	\$ 1,149,000.00	Transmission main along FM 973 from Tower Road to Canopy Lane to serve new growth.
Water CIP-1	2020	Gregg Lane to Tower Road Waterline	12	inch	3400	\$ 1,560,000.00	0.050	20	\$ 1,794,000.00	\$ 269,100.00	\$ 247,600.00	\$ 1,397,630.92	\$ 3,708,000.00	Transmission main from Manville WSC Booster Station to East Elevated Storage Tank
Water CIP-2	2017	AMR Water Meters				\$ 300,000.00	0.05	20	\$ 300,000.00	\$ 45,000.00	\$ 31,100.00	\$ 227,484.74	\$ 604,000.00	1350 Meter bodies and AMR registers, 810 replacement meter box lids, software, two vehicle transmitter units, two laptops.
Water CIP-3	2018	AMR Water Meters				\$ 400,000.00	0.05	20	\$ 420,000.00	\$ 63,000.00	\$ 48,300.00	\$ 321,357.73	\$ 853,000.00	1350 Meter bodies and AMR registers, 810 replacement meter box lids, software, two vehicle transmitter units, two laptops.
<b>Total</b>												<b>\$ 20,564,000.00</b>		

Notes:  
Water LUEs are defined as requiring 451 gallons of water per day per single family residence as determined in the the City of Manor Water Master Plan.

EXHIBIT B-2  
CITY OF MANOR WATER IMPROVEMENTS  
10-YEAR CAPITAL IMPROVEMENTS PLAN  
PRO RATA CALCULATIONS  
NOVEMBER 2021

Project No.	Year	Description	Size	Total LUE Capacity	10-Year LUE Demand	Total Project Cost in 2020 Dollars	Pro Rata Share	Pro Rata Project Cost in 2020 Dollars
W-6	2021	Blake Manor Road Water Line	12"	1667	763	\$ 673,000.00	70%	\$ 471,100.00
W-10	2020	Hill Lane Water Line	12"	91	45	\$ 689,000.00	49%	\$ 340,714.29
W-13	2023	US 290 Crossing at Golf Course	12"	1667	1667	\$ 276,000.00	100%	\$ 276,000.00
W-14	2022	Gregg Manor Road Water Supply - Ground Storage Tank and Pumps	250000	2500	2500	\$ 6,575,000.00	100%	\$ 6,575,000.00
W-15	2022	FM 973 Water Line	12"	1667	625	\$ 884,000.00	60%	\$ 530,400.00
W-16	2022	US 290 Water Line	12"	1667	1667	\$ 723,000.00	100%	\$ 723,000.00
W-17	2020	US 290 Water Line	16"	2400	900	\$ 1,284,000.00	38%	\$ 481,500.00
W-18	2020	Old Kimbro Road Water Line	12"	1667	700	\$ 1,127,000.00	45%	\$ 507,150.00
W-20	2023	Bois D'Arc Lane Water Line	16"	2400	2400	\$ 834,000.00	100%	\$ 834,000.00
W-22	2023	Bois D'Arc Lane Water Line	12"	1667	1100	\$ 580,000.00	70%	\$ 406,000.00
W-24	2025	Gregg Manor Road Pump Improvements	1200	2000	2000	\$ 605,000.00	100%	\$ 605,000.00
W-31	2022	FM 973 Water Line	12	2400	725	\$ 1,149,000.00	45%	\$ 517,050.00
Water CIP-1	2020	Gregg Lane to Tower Road Waterline	12	2400	725	\$ 3,708,000.00	50%	\$ 1,854,000.00
Water CIP-3	2018	AMR Water Meters		2400	2400	\$ 853,000.00	100%	\$ 853,000.00
								<b>\$ 14,973,914.29</b>

**Previously Completed Projects**

Year	Total LUE Capacity	Name	Description	Project Cost	LUEs Used	10-Year LUE Demand	Pro Rata Share	Pro Rata Project Cost
2002	1667	Creekside Offsite Utilities	12"	\$ 175,000.00	405	300	18%	\$ 31,000.00
2005	1667	Greenbury Offsite Utilities	12"	\$ 407,816.64	308	1200	72%	\$ 294,000.00
2007	5,600	Water Supply Main From City of Austin to West Elevated Storage Tank and Downtown	16"	\$ 1,057,675.36	1550	2650	47%	\$ 501,000.00
2008	5,000	West Elevated Storage Tank	500,000	\$ 2,138,083.58	1550	2650	53%	\$ 1,133,000.00
2010	2,400	Presidential Glen Water Lines	16"	\$ 465,054.06	8	1300	54%	\$ 252,000.00
2009	5,000	East Manor Elevated Storage Tank	500,000	\$ 1,880,381.34	1550	2650	53%	\$ 997,000.00
<b>Totals</b>				<b>\$ 6,124,000.00</b>				<b>\$ 3,208,000.00</b>

**CIF Ineligible Projects**

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EXHIBIT B-3  
CITY OF MANOR WATER IMPROVEMENTS  
MISCELLANEOUS PROJECT COSTS  
NOVEMBER 2021

Description	Amount
CIF Studies	\$ 13,450.00
Study Cost for Water, Mapping, Modeling	\$ 40,000.00
<b>Total Water-Related Costs</b>	<b>\$ 53,450.00</b>



EXHIBIT B-8  
CITY OF MANOR WATER AND WASTEWATER IMPACT  
FEE FACTORS  
NOVEMBER 2021

**1. RESIDENTIAL DEVELOPMENT**

Community Impact Fees for residential development shall be assessed based upon the number of dwelling units proposed for development times the appropriate LUE Factor for water as shown below.

<b>Dwelling Type</b>	<b>Units</b>	<b>LUE Factor</b>
Single Family Residential	Per Housing Unit	1
Two-Family Residential	Per Residential Unit	0.7
Three-Family Residential	Per Residential Unit	0.7
Multi-Family Residential	Per Residential Unit	0.5

**2. NON-RESIDENTIAL DEVELOPMENT**

Community Impact Fees for all non-residential development shall be assessed based upon the water meter size and type installed to serve the proposed development water, as shown below.

<b>Meter Size (Inch)</b>	<b>Type</b>	<b>LUE Factor</b>
5/8	Positive	1
	Displacement	
3/4	Positive	1.5
	Displacement	
1	Positive	2.5
	Displacement	
1-1/2	Positive	5
	Displacement	
2	Positive	8
	Displacement	
2	Compound	8
2	Turbine	10
3	Compound	16
3	Turbine	24
4	Compound	25
4	Turbine	42
6	Compound	50
6	Turbine	92
8	Compound	80
8	Turbine	160
10	Compound	115
10	Turbine	250
12	Turbine	330



EXHIBIT B-4  
CITY OF MANOR WATER  
IMPACT FEE CALCULATION  
NOVEMBER 2021

<b>CATEGORY</b>	<b>AMOUNT</b>
Total CIP Eligible Project Cost :	\$ 18,235,364.29
Number of LUEs added:	\$ 5,782.00
<b>Maximum Water CIF:</b>	<b>\$ 3,154.00</b>
<b>50% Credit:</b>	<b>\$ (1,577.00)</b>
<b>MAXIMUM ASSESSABLE CIF:</b>	<b>\$ 1,577.00</b>

