



Certificates of Obligation Proposal for Water, Wastewater and Drainage Projects

June 20, 2024



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Projects Under Consideration



Drainage

- 11 Projects
- \$1.9 million



Roadways

- 4 projects
- \$16 million



Buildings/Other

- 2 projects
- \$3 million



Water/Wastewater

- 11 Projects
- \$20.8 million



CIP Assumptions and Methodology

- Uses Council-adopted CIP priorities
- Combination of cash and debt financing
- 20-year debt financing
- Phase-in of projects over five-year period
- Projects with design completed or underway prioritized over new starts



Available Funding Sources

- Utility Capital Reserve Fee
- Utility Impact Fee
- Debt Issuance
 - Certificates of Obligation (CO) – No election required, but voters retain the right of referendum

Water CIP Projects



	2023	2024	2025	2026	2027	2028	2029	Total
Willow Wind Dr./Red Bud Hill Waterline (29R)	\$35,836	\$34,869	\$879,807	\$-	\$-	\$-	\$-	\$950,512
Elevated Storage Tank (2W)	335,117	161,833	-	4,367,901	3,914,527	-	-	8,779,378
Rolling Acres Tr. Waterline Rehabilitation (28R)	30,011	36,783	610,941	-	-	-	-	677,735
Expand Plant No. 5 (5W)	5,856	223,643	1,320,800	-	-	-	-	1,550,299
Old Fredericksburg Rd. Waterline (21W)	25,857	266,063	270,400	-	-	-	-	562,320
Upgrade Electrical at Plant No. 3 Pump Station (5R)	-	-	74,419	318,519	-	-	-	392,939
SAWS Emergency Interconnect	-	-	30,000	170,000	-	-	-	200,000
Ground Storage Tank at Plant No. 4	-	-	-	-	400,000	-	-	400,000
Water Total	\$432,677	\$723,191	\$3,186,637	\$4,856,420	\$4,314,527	\$-	\$-	\$13,513,182

SAWS Emergency Interconnect



- Project constructs an emergency interconnect with SAWS to provide a backup water source for Zone C
- Improves resiliency in the event of extended power outage or other event where FORU is unable to provide adequate flow or pressure
- Planned location is near intersection of Fair Oaks Parkway and IH-10 Access Rd.
- **Total Estimated Cost = \$200,000**

Prioritization Score: New project
“Must Do” Project [Resiliency, Regulatory (SB3)]



Plant No. 4 Ground Storage Tank



- Project constructs a new 50,000-60,000 gallon tank to replace existing tank in poor condition (nearly 40 years old)
- Existing tank is undersized causing wells to frequently cycle on/off
- Increased storage capacity and standby generator (currently in construction) will improve resiliency and take advantage of high-producing wells
- **Total Estimated Cost = \$400,000**

Prioritization Score: New project
“Should Do” Project (Resiliency, Potential Regulatory Deficiencies)



Wastewater CIP Projects



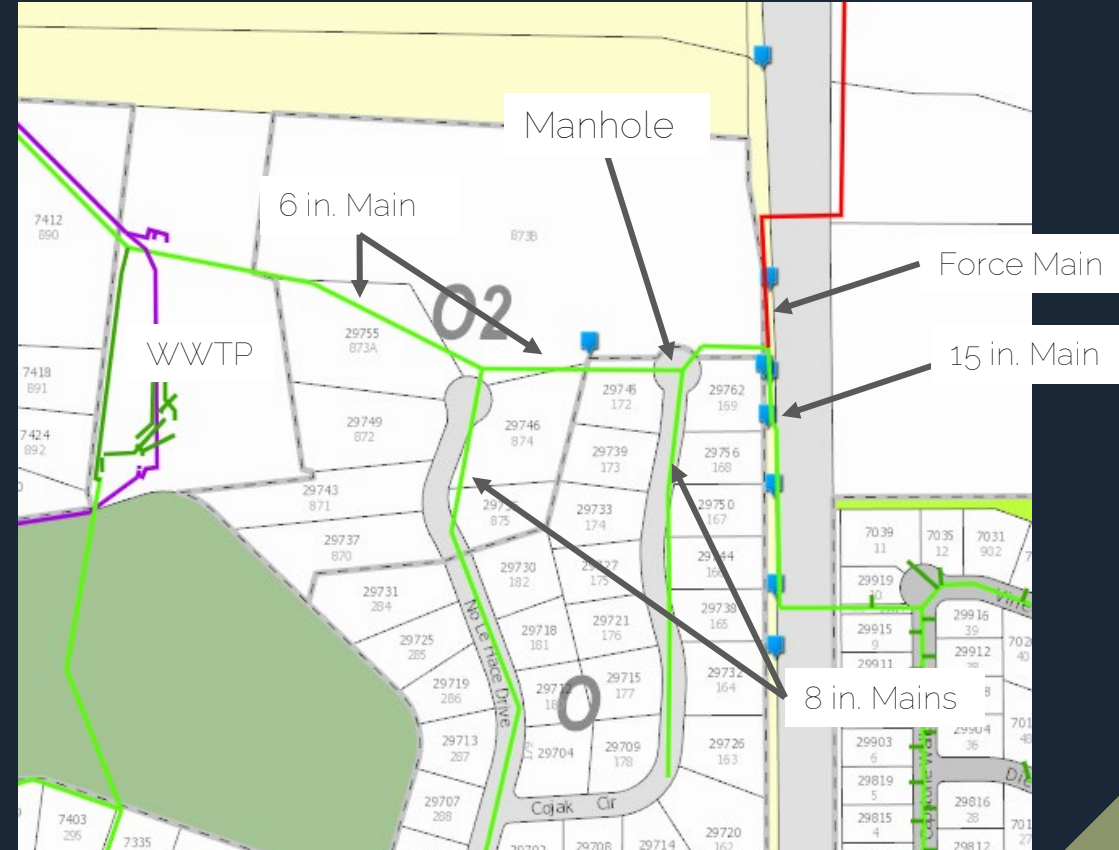
	2023	2024	2025	2026	2027	2028	2029	Total
Wastewater Treatment Plant Phase 1 Expansion (2S)	\$293,996	\$917,253	-	\$1,714,987	\$2,737,530	-	-	\$5,663,766
Install Sewer Line and Decommission Falls Lift Station (1S)	-	-	-	113,521	811,763	-	-	925,284
Cojak Circle Manhole and Sewer Upgrade	-	-	650,000	-	-	-	-	650,000
Wastewater Total	\$293,996	\$917,253	\$650,000	\$1,828,508	\$3,549,293	\$-	\$-	\$7,239,050

Cojak Circle Manhole and Sewer Upgrade



- Project upgrades Cojak Circle manhole and 1,200 linear feet of 6-inch sewer line which is undersized.
- Flow from Arbors, Setterfeld, No Le Hace and Cojak Circle cause backups and high levels in manhole.
- Ongoing construction in the Arbors will exacerbate the issue, may result in spills during peak flow events.
- **Total Estimated Cost = \$650,000**

Prioritization Score: New project
“Must Do” Project (Resiliency, Health and Safety)



Funding Options for Remaining CIP Projects



- **Fund Through Operational Budget**
 - Well K6 Electrical (11R) - \$60,000
 - Well CR1 Electrical (16R) - \$60,000
 - Improvements at School Lift Station (8R) - \$303,470
 - Improvements at Deer Meadow Lift Station No. 1 (10R) - \$179,487
 - Improvements at Deer Meadow Lift Station No. 2 (10R) - \$179,487
- **Fund Through Long-Term Tank Maintenance Plan**
 - Elmo Davis GST #1 & #2 Rehab (1R, 2R) - \$400,400
- **Not Needed At This Time Due to Other Recent Upgrades**
 - Expand Elmo Davis Water Plant Zone C (6W) - \$1,588,363
 - Upgrade Electrical at Elmo Davis Pump Station(3R) - \$482,620

Utilities – Debt Service Fees



Water Debt Service

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Connections	3,197	3,213	3,229	3,245	3,261	3,278	3,294
Water Debt Service	\$285,386	\$282,671	\$936,148	\$943,503	\$944,412	\$945,354	\$960,379
Water Debt Service Fee	\$7.44	\$7.33	\$24.16	\$24.23	\$24.13	\$24.03	\$24.30

Wastewater Debt Service

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Wastewater Connections	1,977	1,989	1,999	2,009	2,019	2,029	2,039
Wastewater Debt Service	\$54,359	\$53,842	\$415,721	\$416,571	\$418,017	\$415,829	\$415,854
Wastewater Debt Service Fee	\$2.29	\$2.26	\$17.33	\$17.28	\$17.25	\$17.08	\$16.99

Drainage CIP Projects



	2023	2024	2025	2026	2027	2028	2029	Total
28907 Chartwell Lane (35)	\$-	\$64,829	\$-	\$-	\$-	\$-	\$-	\$64,289
8472 Rolling Acres Tr (2)	-	-	67,600	162,240	-	-	-	229,840
8040 Rolling Acres Tr (4)	-	-	67,600	162,240	-	-	-	229,840
Vestal Park Culvert (42)	-	-	113,844	-	-	-	-	113,844
8426 Triple Crown (41)	-	-	-	-	253,094	-	-	253,094
8312 Triple Crown (43)	-	-	-	-	269,967	-	-	269,967
32030 Scarteen (53)	-	-	-	-	-	72,331	193,853	266,184
31988 Scarteen (44)	-	-	-	-	-	100,000	-	100,000
7644 Pimlico Lane (46)	-	-	-	-	-	100,000	-	100,000
8045 Flagstone Hill (63)	-	-	-	-	-	-	100,000	100,000
8402 Battle Intense LWC (23)	-	-	-	-	-	-	200,000	200,000
Drainage Total	\$-	\$64,829	\$294,044	\$324,480	\$523,062	\$272,331	\$493,853	\$1,927,599



Summary

- Certificates of Obligation for FY 2024-25
 - Water CIP Projects (6) - \$3,081,947
 - Wastewater CIP Projects (1) - \$650,000
 - Drainage CIP Projects (3) - \$249,044
 - Combined Debt Issuance (in increments of \$5,000) - \$3,985,000
 - See CO Debt Schedule and Pro Forma for details
- Bond Advisory Committee Recommendations
 - Includes all Drainage CIP Projects listed on previous slide
 - Includes all Water and Wastewater CIP Projects listed on previous slides
- Publication of Notice of Intent
- Subject to Petition by Registered Voters (5% threshold)



Questions?



Backup

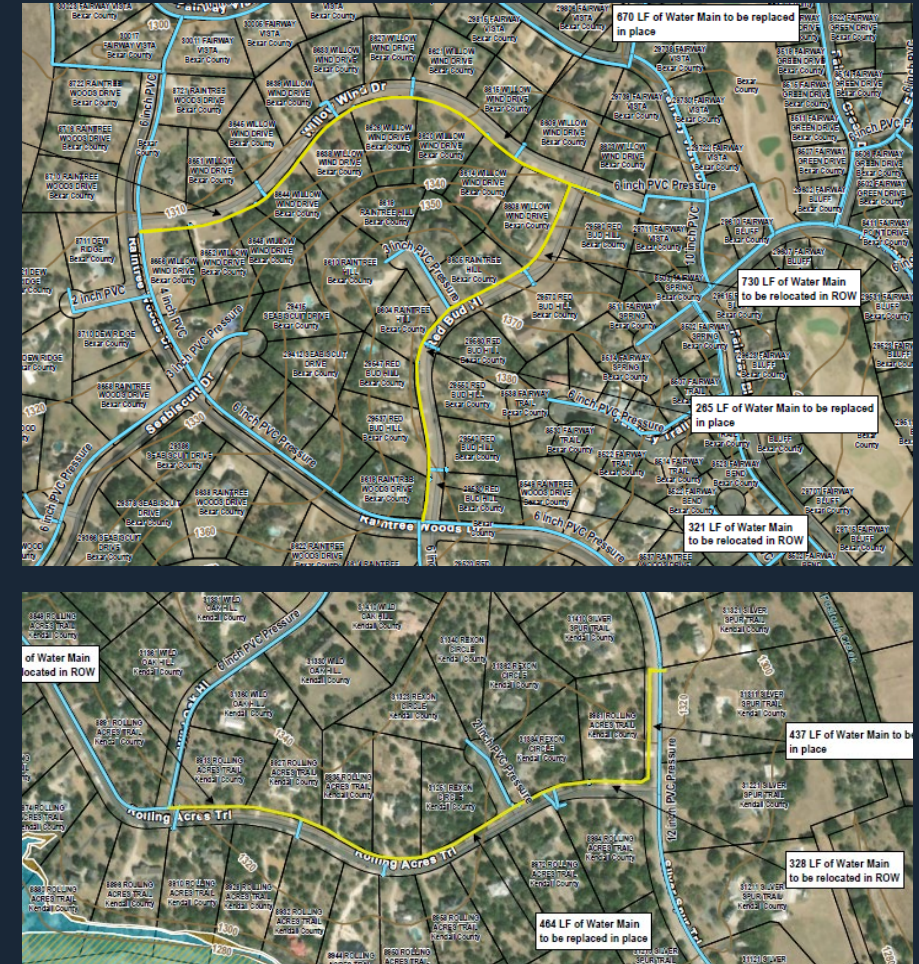
Willow Wind/Red Bud Hill Water Line Replacement (29R) Rolling Acres Trail Water Line Replacement (28R)



- Project replaces approximately 3,300 feet of waterline on Willow Wind Drive/Red Bud Hill and approximately 2,300 feet of waterline on Rolling Acres Trail.
- Main breaks (3-4 per year) are becoming more frequent
- Reduces O&M costs, service disruption to customers, and water loss
- **Total Estimated Cost = \$1,628,247**

Prioritization Score: 48

“Must Do” Project (Resiliency, high O&M costs)



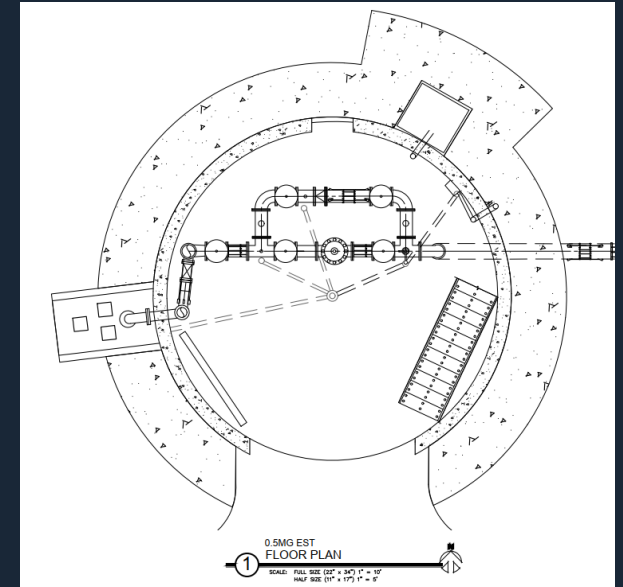
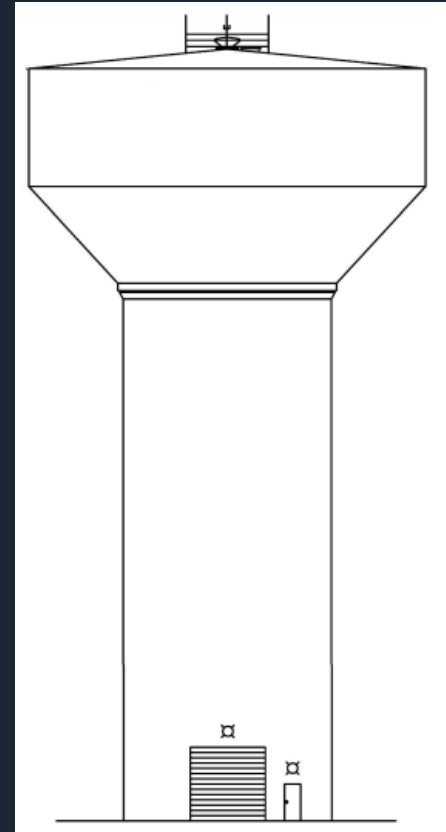
Elevated Storage Tank (2W)



- Constructs a 500,000 gallon EST to improve water supply and pressure during peak demand, provide adequate fire protection, and reserve storage during extended power outage
- Large parts of the City fall below the NFPA minimum requirement to combat a house fire (1000 gallons per minute for 1 hour).
- In 2017, TCEQ cited the City for exceeding Zone A & C hydrotank capacity. The City responded that it plans to construct an EST to serve Zone A.
- **Total Estimated Cost = \$8,779,378**

Prioritization Score: 33

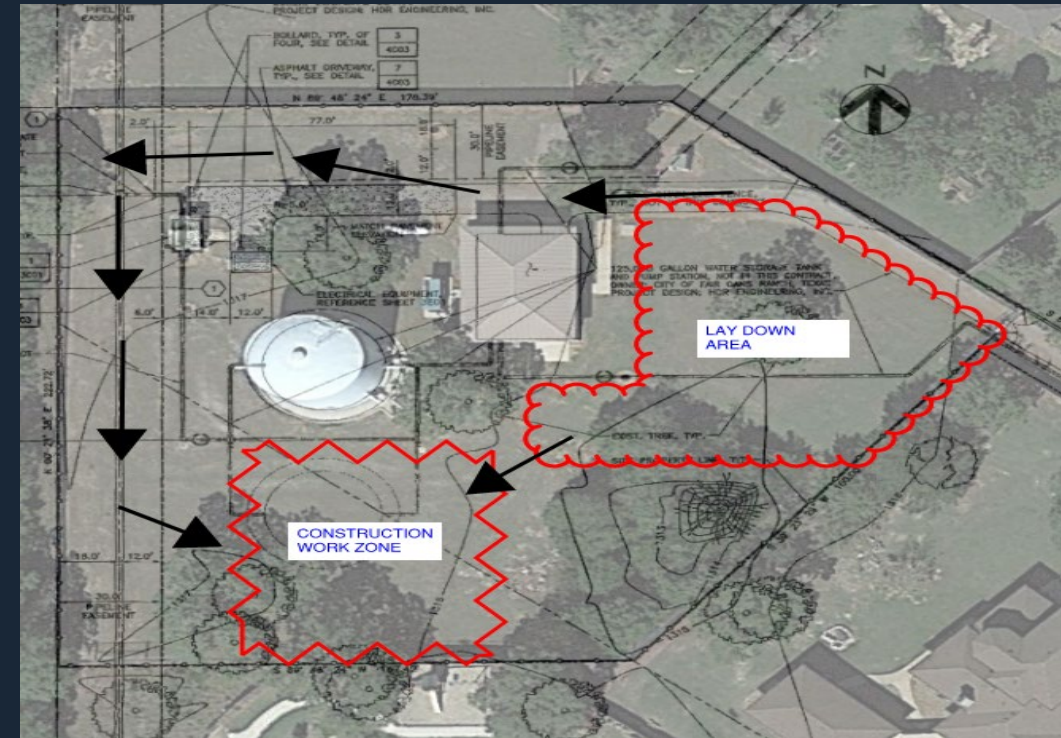
“Must Do” Project (Resiliency, Regulatory)



Expand Plant No. 5 (5W)



- Constructs a new 500,000 gallon Ground Storage Tank (GST) at Plant 5 to improve utility operations and resiliency during periods of high demand and extended power outages.
- The existing 125,000 gallon tank turns over multiple times a day. It is not capable of meeting peak demand each summer.
- Plant 5 supplies GBRA water directly to Plant 3 (Zone A) and Plant 1 (Zones B and C). The GST storage will enable utility staff to pump water to where it is needed most.
- **Total Estimated Cost = \$1,550,299**



Prioritization Score: 34

“Must Do” Project (Resiliency, Regulatory)

Old Fredericksburg Water Line Replacement (21W)



- Project replaces approximately 2700 linear feet of water main along and under Old Fredericksburg Rd.
- Main breaks (2 per year) are becoming more frequent and expensive due to traffic control requirements.
- Planned in conjunction with Bexar County road reconstruction project to gain efficiencies and reduce closure impact.
- **Total Estimated Cost = \$562,320**

Prioritization Score: 26

“Should Do” Project (Reduced O&M, City Priority)



Elmo Davis GST #1 & #2 Rehab (1R, 2R)



- Elmo Davis GSTs were last coated in 2004 and 2010. Due to the harsh Texas climate, tanks are normally coated every 10 years (exterior) and 15 years (interior) to prevent deterioration.
- As an alternative to CIP projects, staff recommends a long-term tank maintenance plan since all GSTs require regular inspection, cleaning, recoating and rehab to meet TCEQ requirements.
- **Total Estimated Cost = \$400,400**



Prioritization Score: 33

“Should Do” Project (Reduced O&M, Regulatory)

Upgrade Electrical at Plant No. 3 (5R)



- Project installs Variable Frequency Drives (VFDs), modern electrical panels and other components to reduce wear and tear on equipment (motors, pumps, check valves, etc.) and improve utility operations.
- Plant 3 is the only major plant without VFDs.
- Existing electrical equipment is beyond its expected service life and requires replacement.
- **Total Estimated Cost = \$392,939**



Prioritization Score: 24

“Should Do” Project (Resiliency, Reduced O&M)

Upgrade Electrical Elmo Davis Pump Station (3R) Expand Elmo Davis Zone C (6W)



- Project installs a VFD, electrical panel and other components for Pump 3 (backup) at the Elmo Davis Pump Station. Upgrades for Pumps 1 and 2 have already been completed.
- Recent pump upgrades at Plant No. 2 and planned upgrades at Plant No. 4 (both serve Zone C) have alleviated the need for Elmo Davis Zone C expansion at this time.
- **Total Estimated Cost = \$2,070,983**



Prioritization Score: 20 (3R) / 34 (6W)
“Nice To Do” Project (Minor Resiliency Improvement)

Well K6 Electrical (11R) Well CR1 Electrical (16R)



- Project replaces electrical service head, panels, conductors and associated components. Existing equipment is beyond expected service life.
- As an alternative to debt financing, staff recommends addressing these repairs as part of the regular budget process (i.e. cash funding).
- **Total Estimated Cost = \$60,000 each**



Prioritization Score: 20 (11R), 16 (16R)

“Nice To Do” Project (Minor Resiliency Improvement)

WWTP Phase 1 Expansion



Phase 1 (Immediate Needs): \$5.4 million

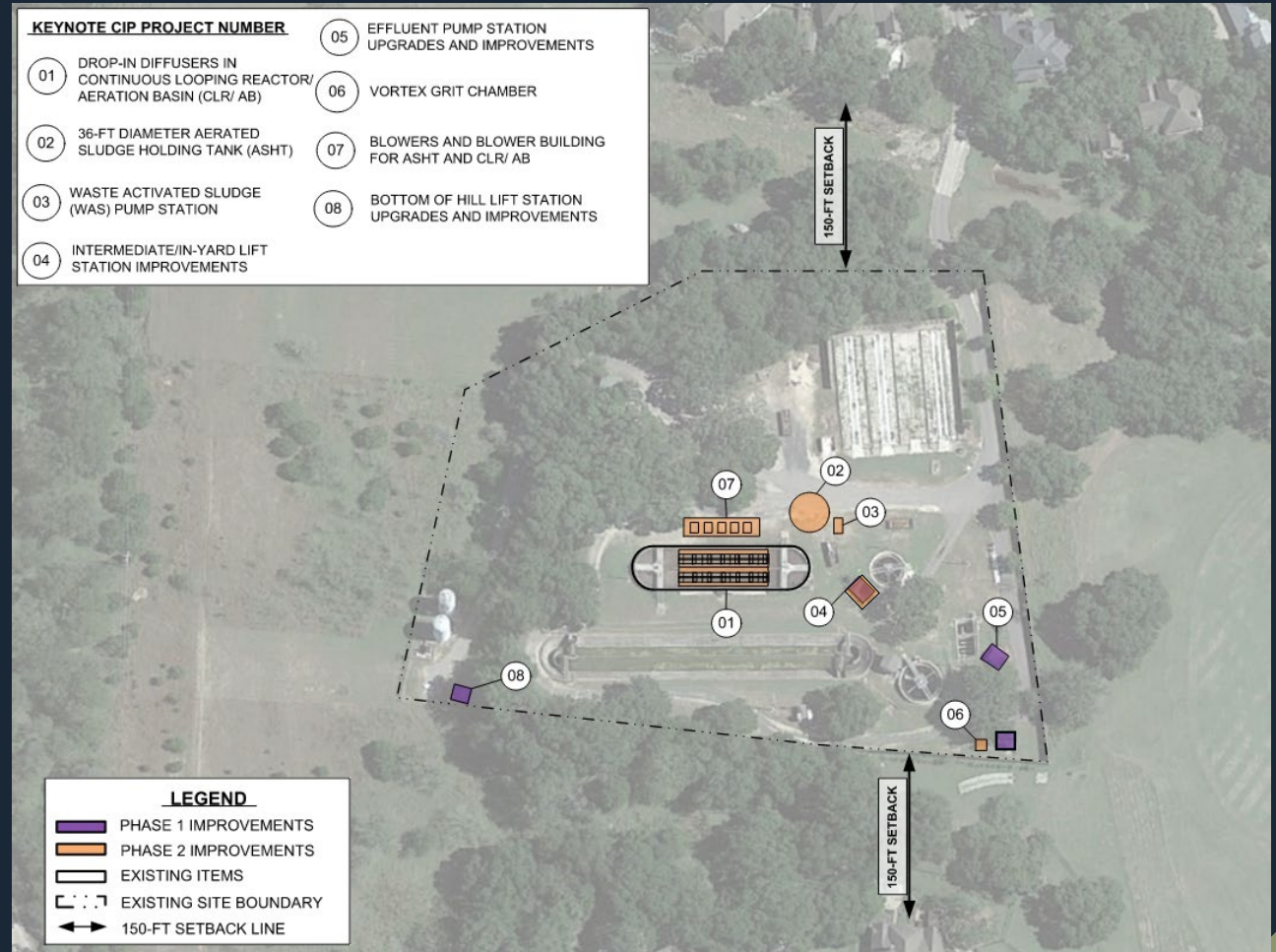
- Effluent Pump Station and Conveyance Upgrade
- Bottom of the Hill LS Improvements
- Headworks Odor Control Improvements

Phase 2 (Future Needs): \$11.2 million

- Oxidation Ditch to Aeration Basin Retrofit
- Aerated Sludge Holding Tank
- Headworks Grit Removal
- Intermediate/In-Yard LS Improvements

Prioritization Score: 33

“Must Do” Project (Regulatory)



Install Sewer Line and Decommission Falls Lift Station



- The Falls Lift Station (LS) is in poor condition and frequently requires e-pump deployment when pumps/pipes fail.
- Electrical components have been damaged during storm events since LS located in a floodplain.
- Project installs 1,730 linear ft. of gravity main to replace the LS.
- **Total Estimated Cost = \$925,284**

Prioritization Score: 33

“Should Do” Project (Resiliency and O&M reduction)



Improvements at School Lift Station



- Original project adds SCADA to receive alarm notifications, control pumps remotely, and constructs e-pump access port
- Ongoing repairs and incremental improvements will largely accomplish this.
- **Total Estimated Cost = \$303,470**



Prioritization Score: 19
“Nice to Do” Project (Resiliency)

Improvements at Deer Meadows Lift Station No. 1 and 2



- Original project adds SCADA to receive alarm notifications, control pumps remotely, and constructs e-pump access port
- Ongoing repairs and incremental improvements will largely accomplish this.
- **Total Estimated Cost = \$179,487 each**



Prioritization Score: 19
“Nice to Do” Project (Resiliency)



Project 2 – 8472 Rolling Acres Trail

- Undersized driveway culverts and silted-in bar ditches cause runoff to flow over driveways and across property toward Cibolo Creek
- Criticality Score: 29
- “Must-Do” Project (homes impacted)
- Total Project Cost: \$225,750



Project 2	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	3
Erosion Issue	2.5
Green Infrastructure Applicable	2.5
City Priority	0
Total Score	29



Project 4 – 8040 Rolling Acres Trail

- Drainage does not have positive flow and backs up onto private property. Significant earthwork and channel construction needed to convey stormwater towards low water crossing.
- Criticality Score: 28
- “Must-Do” Project (home impacted)
- Total Project Cost: \$225,750



Project 4	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	6
Number of Houses Impacted	1
Erosion Issue	0
Green Infrastructure Applicable	0
City Priority	0
Total Score	28



Project 42 – Vestal Park Culvert

- Existing culvert is showing signs of degradation and requires repair or replacement. This location conveys a large amount of stormwater under Pimlico towards Vestal Park.
- Criticality Score: 27.5
- “Must-Do” Project (public infrastructure at risk)
- Total Project Cost: \$114,938



Project 42	
Item	Score
Estimated Cost	10
Source/Destination	9
Public Infrastructure at Risk	6
Number of Houses Impacted	0
Erosion Issue	0
Green Infrastructure Applicable	2.5
City Priority	0
Total Score	27.5



Project 41 – 8426 Triple Crown

- Large amount of runoff flows down right-of-way and through a platted easement. Existing culvert is undersized and becomes obstructed and eventually backs up.
- Criticality Score: 22
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$236,250



Project 41	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	1
Erosion Issue	0
Green Infrastructure Applicable	0
City Priority	0
Total Score	22



Project 43 – 8312 Triple Crown

- Large amount of runoff moves down Rocking Horse Lane towards the south of the city. There is no channel or culvert to catch and convey stormwater before it enters private property.
- Criticality Score: 22
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$252,000



Project 43	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	1
Erosion Issue	0
Green Infrastructure Applicable	0
City Priority	0
Total Score	22



Project 53 – 32030 Scarteen

- Undersized driveway culverts and silted-in bar ditches cause stormwater to back up and flow over driveways and across private property and has come close to entering the home.
- Criticality Score: 24.5
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$232,220

Project 53	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	1
Erosion Issue	2.5
Green Infrastructure Applicable	0
City Priority	0
Total Score	24.5





Project 44 – 31988 Scarteen

- Runoff from Sky Blue Ridge runs down road and heads in direction of home. Channel improvements and regrading needed.
- Criticality Score: 28.5
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$100,000



Project 44	
Item	Score
Estimated Cost	10
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	1
Erosion Issue	0
Green Infrastructure Applicable	2.5
City Priority	0
Total Score	28.5



Project 46 – 7644 Pimlico Lane

- Large amount of runoff flows over the road and through private property towards Salado Creek.
- Criticality Score: 28.5
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$100,000



Project 46	
Item	Score
Estimated Cost	10
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	1
Erosion Issue	0
Green Infrastructure Applicable	2.5
City Priority	0
Total Score	28.5



Project 63 – 8045 Flagstone Hill

- Water does not have a clear flow path along the street and makes it way through nearby yard. Regrading and culvert installation needed.
- Criticality Score: 21
- “Should-Do” Project (overtops roadway, impacts private property)
- Total Project Cost: \$100,000



Project 63	
Item	Score
Estimated Cost	6
Source/Destination	15
Public Infrastructure at Risk	0
Number of Houses Impacted	0
Erosion Issue	0
Green Infrastructure Applicable	0
City Priority	0
Total Score	21



Project 23 – 8402 Battle Intense

- Battle Intense is often overtopped and shut down during large rain events. Debris collects and blocks the culverts which contributes to flooding. A HALT system is recommended to provide public notification, advance warning and automated gate closure.
- Criticality Score: 17
- “Must-Do” Project (LWC impacts emergency response)
- Total Project Cost: \$200,000

Project 23	
Item	Score
Estimated Cost	2
Source/Destination	15
Public Infrastructure at Risk	15
Number of Houses Impacted	0
Erosion Issue	0
Green Infrastructure Applicable	0
City Priority	-15
Total Score	17

