

**Amended
Land Use Assumptions
and
Wastewater Capital Improvements Plan**

for

**County Line
Special Utility District**

**8870 Camino Real
Uhland, Texas 78640**



Revised September 2023



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I. Introduction

The County Line Special Utility District's (CLSUD) mission as a retail wastewater service provider is to provide customers with an adequate means of wastewater collection and treatment consistent with the objectives listed below:

1. Provide that wastewater from all customers is collected and treated in accordance with all local, state, and federal requirements.
2. Be responsive to and address customers' needs quickly and effectively.
3. Prepare and plan for future growth.
4. Provide wastewater service for new customers.
5. Provide a pleasant workplace environment for employees:
 - a. safe and free of any health hazards;
 - b. free of any kind of harassment; and
 - c. encourages career development.
6. Provide wastewater service to customers at the lowest possible cost, compatible with the above objectives.

In connection with new service, the CLSUD will strive to provide wastewater service to all requestors, consistent with the above stated mission. With these objectives in mind, CLSUD has authorized Southwest Engineers, Inc. (SWE) to amend the previously approved Wastewater Capital Improvement Plan (CIP), which identifies system improvements and facility expansions that are necessary for the next 10 years. The previous Capital Improvement Plan and Land Use Assumptions were approved in February 2021. At that time, no changes were made to the previously approved wastewater impact fee of \$1,250/LUE that went into effect in May 2020. The need has since arisen to amend this Capital Improvement Plan to:

1. Revise the Impact Fee Service Area
2. Amend the list of capital improvement projects
3. Amend the list of anticipated developments
4. Adjust the cost estimates for the capital improvement projects based on more recent data and project information

This amended Capital Improvement Plan will replace the previously approved version.

II. Methodology

The term "capital improvements" refers to the improvements made to wastewater collection and treatment facilities (including facility expansions) with a life expectancy of three or more years, whether or not located within the service area. These improvements are deemed necessary due to the projected increase in the number of connections over a developmental period not to exceed ten years.

In order to adequately complete the CIP, SWE will analyze the existing facilities and their capacities, the level of current usage, the reserve capacity commitments, any unallocated excess capacity, and determine the projected land uses and growth within CLSUD's service area. These calculations will be based on the number of existing and proposed Living Unit Equivalents (LUEs) connected to the infrastructure. An LUE is defined as the typical flow

that would be produced by a single-family residence located in a typical subdivision, and one (1) LUE is assumed to represent 150 gallons per day (gpd) of wastewater flow. The following LUE conversions in Table 1 will be used to estimate flows for the various land uses and development types.

Table 1 – LUE Conversions

<u>Land Use</u>	<u>Type of Development</u>	<u>LUE Conversion</u>		
Residential - Single Family	Single Family Home, Townhome, or Mobile Home	1	LUE per	home
Residential - Other	Duplex	2	LUEs per	structure
	Condo or Apartment (<24 units/acre)	0.7	LUE per	unit
	Condo or Apartment (24+ units/acre)	0.5	LUE per	unit

<u>Land Use</u>	<u>Type of Development</u>	<u>LUE Conversion</u>		
Commercial - Business	Hotel or Motel	2	rooms	per LUE
	RV Park	5	spaces	per LUE
	Office Building	3,000	square feet	per LUE
	Retail/Shopping Center	1,660	square feet	per LUE
	Restaurant/Cafeteria	200	square feet	per LUE
	Hospital	1	bed	per LUE
	Rest Home	2	beds	per LUE
Commercial - School	High School	13	students	per LUE
	Elementary School	15	students	per LUE
	Industrial	Warehouse	4,000	square feet

III. Current Customer Base

The CLSUD currently serves 596 active wastewater connections. The four commercial connections include the Umland Elementary School, HCISD Transportation Facility, St. John’s Lutheran Church, and El Camino RV Resort, and the remaining 592 connections are single-family residential homes, as illustrated in Table 2 below.

Table 2 – Active Connections

	Active Connections	Percentage	LUEs	Percentage
Residential - Single Family	592	99.3%	592	88.2%
Residential - Other	0	0.0%	0	0.0%
Commercial - Business	2	0.3%	38	5.7%
Commercial - School	2	0.3%	41	6.1%
Industrial	0	0.0%	0	0.0%
Total	596	100%	671	100%

In addition to the current active connections, CLSUD is committed to serve residential connections within the following subdivisions: Las Estancias 2 Subdivision (71 LUEs remaining), Creeks Crossing Subdivision (359 LUEs remaining), Marigold Subdivision Phase 1 (156 LUEs), Watermill Subdivision Phases 1 & 2 (152 LUEs remaining), and Camino East Subdivision Phase 1 (134 LUEs remaining). The term “committed” means that there is an executed Non-Standard Service Agreement, and the Developer has paid the corresponding connection fees.

CLSUD’s existing infrastructure has sufficient capacity to serve all active and committed connections, with the exception of Creeks Crossing Subdivision Phases 3 & 4, which will be served by the Porter Creek Lift Station & Force Main project discussed later in the report.

IV. Existing Infrastructure

CLSUD currently owns a 12” and 15” gravity main along Plum Creek Road from High Road to Plum Creek. The 15” gravity main terminates at a lift station owned by Plum Creek Utility Company (PCU) – CLSUD’s wholesale wastewater treatment provider – that pumps the wastewater thru an 8” force main to the PCU Water Resource Recovery Facility (WRRF 1). These gravity mains currently serve the Umland Elementary School (25 active LUEs) and Phase 1 of the Camino East Subdivision (29 active LUEs plus 134 committed LUEs). The Downtown Umland Force Main (described below) also connects to near the end of this 15” gravity main. These gravity mains will also serve numerous future developments.

CLSUD owns a 12” gravity main that begins at the property boundary of the existing Millcreek Subdivision and terminates at PCU WRRF 1. This Gristmill Gravity Main currently serves the 213 existing homes in the Millcreek Subdivision, as well as PCU’s 238 retail customers in the adjacent Gristmill Highlands Subdivision. This gravity main can also serve adjacent properties in the future.

CLSUD owns a 6” force main that begins at a PCU-owned lift station in the Las Estancias 2 Subdivision and terminates near the end of the SH 21 Gravity Main (described below). This force main currently serves the Las Estancias 2 Subdivision (149 active LUEs plus 71 committed LUEs). This force main can also serve adjacent properties in the future.

CLSUD currently owns 12” and 15” gravity mains that generally parallel SH 21 from just north of High Road to the Downtown Umland Lift Station (described below) on Cotton Gin Road. The above-mentioned Las Estancias Force Main connects to the very upstream end of this gravity main. These gravity mains also serve the HCISD Transportation Facility (16 active LUEs), Marigold Subdivision (156 committed LUEs plus 294 future LUEs), St. John Lutheran Church (1 active LUE), and Phases 2 & 3 of the Camino East Subdivision (331 future LUEs). These gravity mains will also serve numerous future developments.

CLSUD also owns the Downtown Umland Lift Station on Cotton Gin Road near SH 21, as well as two parallel 10” force mains (only one is currently active) that convey wastewater from this lift station to the above-mentioned 15” gravity main on Plum Creek Road. This lift station currently accepts wastewater flows from the above-mentioned SH 21 Gravity Main and can also accommodate flows from future developments on the south side of SH 21.

CLSUD owns a 15” and 18” gravity main that begins at the property boundary of the existing Watermill Subdivision and terminates at PCU WRRF 1. This Gristmill South Gravity Main currently serves the Watermill Subdivision (38 active LUEs plus 152 committed LUEs plus 137 future LUEs) and the El Camino RV Resort (37 active LUEs). This gravity main can also serve numerous future developments.

An overview of the maximum pipe capacity, current pipe capacity, and committed pipe capacity for this existing wastewater infrastructure is contained in Table 3 below. All existing infrastructure has sufficient capacity for CLSUD’s active and committed connections.

Table 3 – Existing Capacity Analysis

	Max. Capacity	Active Connections		% Capacity	Active + Committed Connections		% Capacity
	(gpm)	(LUEs)	(gpm)*		(LUEs)	(gpm)*	
Plum Creek 12" Gravity Main	1,444	54	74	5.1%	188	129	9.0%
Plum Creek 15" Gravity Main	2,476	220	249	10.1%	581	399	16.1%
Gristmill 12" Gravity Main**	1,118	451	233	20.8%	451	233	20.8%
Las Estancias Force Main	368	149	144	39.2%	220	174	47.1%
SH 21 12" Gravity Main	1,250	165	174	13.9%	392	278	22.2%
SH 21 15" Gravity Main	1,356	166	176	13.0%	393	280	20.6%
Downtown Uhland Lift Station	725	166	176	24.3%	393	280	38.6%
Downtown Uhland Force Main	1,966	166	176	9.0%	393	280	14.2%
Gristmill South 15" Gravity Main	1,566	75	55	3.5%	227	134	8.5%
Gristmill South 18" Gravity Main	2,000	75	55	2.8%	227	134	6.7%

* peak wet-weather flow

**active and committed connections on Gristmill 12” Gravity Main also include Plum Creek Utility retail customers in adjacent Gristmill Highlands Subdivision

V. Land Use Assumptions and Projected Growth

County Line SUD’s amended Wastewater Impact Fee Service Area, attached hereto as Exhibit A, encompasses approximately 15 square miles or 9,825 acres. It is projected that the majority of the growth will occur due to development in the form of residential subdivisions, with some retail/commercial developments and schools to serve the growing population, as well as some large industrial facilities. The growth within the next ten years is expected in areas near the existing and proposed wastewater infrastructure and where large tracts of land have been purchased by potential developers. Table 4 below contains the projected growth in CLSUD’s committed wastewater connections within this Impact Fee Service Area over the next 10 years based on the service request applications that CLSUD has received and feedback from potential developers in the area. The ID given below is cross-referenced to the Land Use Assumptions in Exhibit A. Table 5 below compares CLSUD’s gravity main capacities from Table 3 to the projected growth in Table 4.

Table 4 – Projected Growth

ID	Development	Total LUEs	Anticipated LUE Commitments									
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	CR 153 Gas Station	6	6									
2	Gristmill Retail Center	6	6									
3	Cotton Gin RV Park	19		19								
4	Marigold Subdivision, Ph 2-4	294	64	111	98	11	10					
5	Caldwell Ranch Subd.	439			111	100	128	100				
6	Uhland Plaza	165		50	50	50	15					
7	Camino Crest 2 Subd.	150		92	15	15	15	13				
8	Haney Tract	1,577	95	150	150	150	157	175	175	175	175	175
9	Watermill Subd, Ph 3	137	137									
10	SH 21 Gas Station	6			6							
11	GTL Uhland RV Park	43				23	20					
12	Camino East Subd, Ph 2 - 3	331	189		142							
13	Rowan Ranch Subd.	218				109		109				
14	Westside at Cotton Gin Subd	284	147		137							
15	Watermill Village	235			70	81	84					
16	Spanish Trail Gas Station	3		3								
17	Westside at Plum Creek	274				145		129				
18	129 Cotton Gin	192		100		92						
19	Voyles Tracts	8		8								
20	High Road Retail Plaza	25		25								
21	Poco Loco Supermercado	8	8									
22	CLSUD Office	1		1								
23	Bon Ton Meat Market	4		4								
24	Spanish Retail Center	21		6	15							
25	5 Star Concrete	2		2								
26	JRB Woodworks	5		5								
27	S&P Uhland	20		10	10							
28	Real Tejas RV Resort	92					32		30		30	
29	Kyle 98	610		160	50	100	100	100	100			
30	JD Supermarket Kyle	65		65								
31	Paloma Farms	180		100		80						
32	Bobwhite Ranch	150				150						
33	Neiman Ranch	300		200			100					
34	Walton Mega-Industrial Site	1,500			500		500		500			
35	Bollinger Subd.	985	148	100	100	100	100	100	100	100	100	37
36	Lockhart 150	490				150	100	150	90			
	Other (12%)	1,155		50	50	50	50	150	150	200	200	255
	Totals:	10,000	800	1,261	1,504	1,406	1,411	1,026	1,145	475	505	467

Table 5 – Gravity Main Capacities versus Projected Growth

	Max. Capacity	Projected Connections in next 10 Years		% Capacity
	(gpm)	(LUEs)	(gpm)*	
Plum Creek 12" Gravity Main	1,444	1,147	587	40.7%
Plum Creek 15" Gravity Main	2,476	2,365	1,182	47.8%
Gristmill 12" Gravity Main**	1,118	457	236	21.1%
Las Estancias Force Main	368	226	178	48.3%
SH 21 12" Gravity Main	1,250	867	496	39.7%
SH 21 15" Gravity Main	1,356	1,210	657	48.4%
Downtown Uhland Lift Station	725	1,218	660	91.1%
Downtown Uhland Force Main	1,966	1,218	660	33.6%
Gristmill South 15" Gravity Main	1,566	1,351	669	42.7%
Gristmill South 18" Gravity Main	2,000	1,351	669	33.5%

* peak wet-weather flow

**active and committed connections on Gristmill 12" Gravity Main also include Plum Creek Utility retail customers in adjacent Gristmill Highlands Subdivision

All existing infrastructure has sufficient capacity for CLSUD's projected growth in the next 10 years. However, additional infrastructure will be necessary to connect some of these proposed developments to the existing infrastructure and new WRRF sites. These necessary capital improvements are summarized in the following section.

VI. Capital Improvements

CLSUD will need to make several improvements to their wastewater system to be able to serve the projected growth of their service area over the next ten years. While the existing infrastructure has sufficient capacity, several additional gravity mains, lift stations, and force mains will be necessary to serve areas not immediately adjacent to the existing infrastructure. A 10-year Capital Improvements Plan was developed to identify the projects that will need to be completed to accommodate the proposed growth. The subsequent paragraphs provide the details of each of these projects, followed by a summary of this list and the associated costs in Table 6.

The first capital improvement project – the Porter Creek Gravity Main – includes ±5,575 linear feet of 12" and 18" gravity main beginning at the Porter Creek Lift Station (described below) and generally following Porter Creek up to Dairy Lane, with another branch up to Cotton Gin Road. This will help serve Developments #8, #13, and #14 in Table 4, as well as the surrounding properties.

The next capital improvement project will be the Porter Creek Lift Station & Force Main, which will accept the wastewater flows from the above-mentioned Porter Creek Gravity Main, Creeks Crossing Subd. Phases 3 & 4, and Development #18, and pump them to PCU WRRF 1. This project will consist of a duplex lift station and ±2,880 linear feet of 12" force main pipe.

The next capital improvement project will be the Commercial Area Wastewater Improvements, which includes $\pm 1,700$ linear feet of 8" gravity main, a grinder lift station, and ± 1200 linear feet of 3" force main, to be able to serve several existing and future commercial properties near the intersection of SH 21 and FM 2720, including Developments #22 - #27. This project will connect to existing wastewater collection lines within the El Camino RV Resort and Watermill Subdivision, which discharge to the existing Gristmill South Gravity Main.

The next capital improvement project will be the FM 150 Gravity Main, which includes ± 6700 linear feet of 12" and 18" gravity main from PCU WRRF 2, up to and across SH 21, and over to and along FM 150. This is needed to serve Developments #28, #29, and #30, as well as the surrounding area.

The next capital improvement project will be the Clear Fork Creek Gravity Main, which includes ± 5500 linear feet of 12" gravity main beginning where the above-mentioned FM 150 Gravity Main crosses SH 21 and continuing north along Clear Fork Creek. This is needed to serve several large, developable properties in the surrounding area.

The next capital improvement project will be the Misty Lane Wastewater Oversizing. A planned subdivision on Misty Lane has already committed to building an onsite lift station, $\pm 4,700$ linear feet of 6" force main, and $\pm 3,050$ linear feet of 8" gravity main to connect that development to PCU WRRF 2. However, CLSUD plans to oversize this infrastructure to be able to serve several other large, developable tracts in this area, including Development #31. This would increase the size of the wet well, pumps, and piping at the lift station, as well as increase the force main size to 8" and the gravity main size to 15", 18", and 21".

The final capital improvement project will be the FM 2720 Gravity Main, which includes $\pm 15,000$ linear feet of 18", 21", and 24" gravity main from PCU WRRF 3 up to FM 2720 and along FM 2720 to the north. This is needed to serve Developments #32 - #36, as well as the surrounding area.

Furthermore, many of the upcoming developments listed in Table 4 will be utilizing the recently completed capital improvement projects from the previously approved February 2021 report, including the Las Estancias Force Main, SH 21 Gravity Main, Downtown Umland Lift Station & Force Main, and the Gristmill South Gravity Main. As shown in Tables 3 and 5, this infrastructure has adequate capacity for these anticipated developments. Therefore, a portion of the cost of these previous projects has been included in the impact fee analysis below based on the percentage of capacity remaining in each pipeline or lift station.

Detailed cost estimates for the capital improvement projects mentioned above, as well as the recently completed projects from the previous report, may be found within Exhibit B, and Exhibit C contains a location map of these improvements. The following table summarizes the estimated cost for the capital improvements and expected project dates.

Table 6 – List of Capital Improvements

Capital Improvements (Completed)		Cost		Capacity Remaining*	Cost Remaining
		Construction	Total		
1C	Las Estancias Force Main	\$323,177.50	\$546,547.50	52.9%	\$288,917.11
2C	State Highway 21 Gravity Main - 12"	\$1,176,656.95	\$1,473,106.95	62.8%	\$482,096.68
2C	State Highway 21 Gravity Main - 15"			64.4%	\$454,161.86
3C	Downtown Uhland Lift Station	\$1,251,345.00	\$1,357,170.00	61.4%	\$833,800.03
4C	Downtown Uhland Force Main	\$511,640.44	\$638,465.44	85.8%	\$547,650.61
5C	Gristmill South Gravity Main - 15"	\$1,052,738.00	\$1,193,788.00	76.5%	\$693,155.34
5C	Gristmill South Gravity Main - 18"			78.3%	\$225,092.23
TOTAL:			\$5,209,077.89		\$3,524,873.87

*max. capacity of gravity main is 85%

Capital Improvements (Future)		Preliminary Cost Estimate			Construction Commencement
		Construction	Total	w/ Financing	
1F	Porter Creek Gravity Main	\$1,342,657.00	\$1,516,157.00	\$2,503,068.38	2023
2F	Porter Creek Lift Station & Force Main	\$1,916,850.00	\$2,104,350.00	\$3,474,133.58	2023
3F	Commercial Area Wastewater	\$1,075,025.00	\$1,272,525.00	\$2,100,849.11	2024
4F	FM 150 Gravity Main	\$1,337,350.00	\$1,634,850.00	\$2,699,022.16	2025
5F	Clear Fork Creek Gravity Main	\$721,000.00	\$1,013,000.00	\$1,672,391.62	2026
6F	Misty Lane Wastewater Oversizing	\$642,750.00	\$695,250.00	\$1,147,808.76	2024
7F	FM 2720 Gravity Main	\$4,102,500.00	\$4,777,500.00	\$7,887,315.87	2024
TOTAL:			\$13,013,632	\$21,484,589	

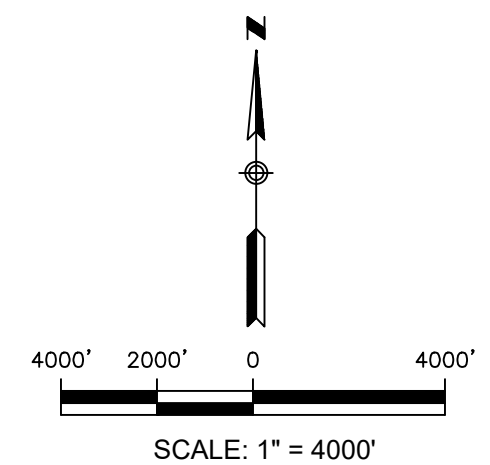
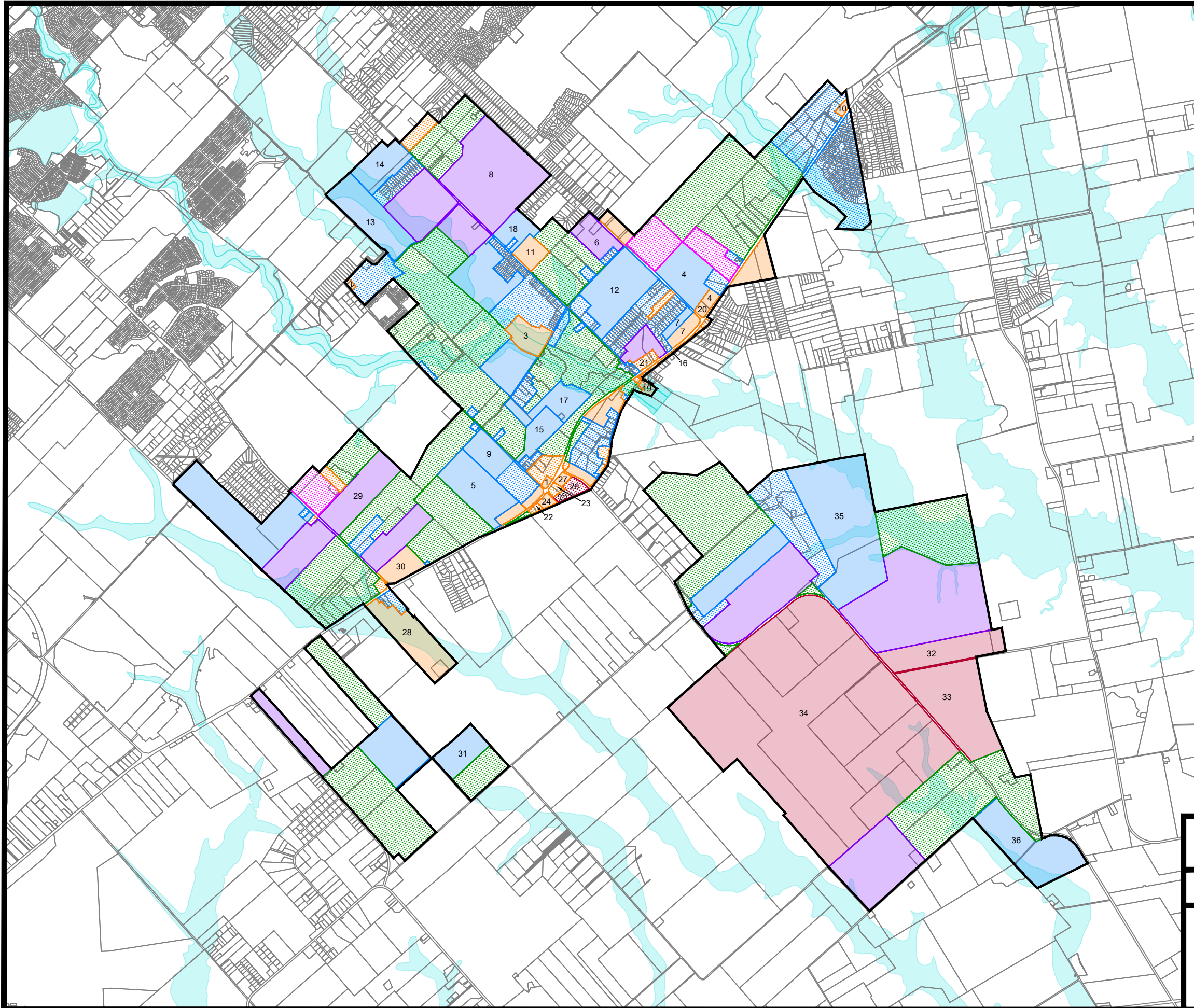
Based on the projected growth over the next 10 years (Table 4) and the anticipated expenditures for associated capital improvements (Table 6), CLSUD would need to collect approximately \$2,500/LUE from all new developments. As CLSUD does not collect an ad valorem tax nor plan to use service fee revenues to pay for these capital improvements, an Impact Fee in the above amount would need to be assessed on all new developments. Since most of these capital improvements will need to be designed and constructed before many of the future subdivisions pay their Impact Fees, County Line SUD will likely need to acquire loans and/or issue debt to initially pay for some of these improvements; therefore, financing costs have been included in the cost estimates and Impact Fee calculations indicated above. County Line SUD may also elect to pay cash for some of the improvements if they have sufficient cash on hand.

Exhibit A

County Line SUD

Wastewater Impact Fee Service Area

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LEGEND

EX.	PROP.	
		RESIDENTIAL - SINGLE FAMILY
		RESIDENTIAL - OTHER
		COMMERCIAL - BUSINESS
		COMMERCIAL - SCHOOL
		INDUSTRIAL
		MIXED USE
		AGRICULTURAL

IMPACT FEE SERVICE AREA
AUGUST 2023

COUNTY LINE SUD



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Exhibit B
Cost Estimates

Las Estancias 2 Force Main
Project Cost
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	6" PVC C900 DR 18 Force Main Pipe	11,414	LF	\$19.50	\$222,573.00
2	6" PVC C900RJ DR 18 Certa-Lok Pipe	125	LF	\$40.00	\$5,000.00
3	12" Bored Steel Casing	110	LF	\$145.00	\$15,950.00
4	6" HDPE Directional Bore	225	LF	\$75.00	\$16,875.00
5	6" Slick Bore	245	LF	\$60.00	\$14,700.00
6	Air Release Valve Assembly	4	EA	\$5,000.00	\$20,000.00
7	6" Gate Valve	7	EA	\$1,100.00	\$7,700.00
8	Misc DI Fittings	0.62	TON	\$11,000.00	\$6,820.00
9	Trench Safety	11,169	LF	\$0.50	\$5,584.50
10	Base Repair	45	LF	\$15.00	\$675.00
11	Connect to Ex Manhole	1	LS	\$4,000.00	\$4,000.00
12	Erosion Control	1	LS	\$3,300.00	\$3,300.00
TOTAL CONSTRUCTION COST					\$323,177.50
Non-Construction Cost					
Engineering/Surveying					Cost
1	Survey - Easement Exhibits				\$2,270.00
2	Survey - Site Topo				\$9,200.00
3	Engineering Design				\$28,400.00
4	Permitting				\$500.00
5	Bidding/Contract Assistance				\$1,500.00
6	Construction Phase Assistance				\$10,250.00
7	Storm Water Pollution Prevention Plan				\$1,250.00
Subtotal Engineering/Surveying Cost					\$53,370.00
Non-Engineering/Surveying					Cost
1	Easement Acquisition Services				\$25,000.00
2	Easement Acquisition Compensation				\$5,000.00
3	Legal Expenses				\$15,000.00
4	Project Management & Administrative Fees				\$125,000.00
Subtotal Non-Engineering/Surveying Cost					\$170,000.00
Subtotal Non-Construction Costs					\$223,370.00
TOTAL COSTS					\$546,547.50

SH 21 Gravity Main
Project Cost
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8" PVC SDR-26 Wastewater Pipe, 8'-12'	193	L.F.	\$45.65	\$8,810.45
2	12" PVC SDR-26 Wastewater Pipe 0'-8'	852	L.F.	\$58.18	\$49,569.36
3	12" PVC SDR-26 Wastewater Pipe 8'-12'	1,261	L.F.	\$61.24	\$77,223.64
4	12" PVC SDR-26 Wastewater Pipe 12'-16'	1,666	L.F.	\$66.71	\$111,138.86
5	12" PVC SDR-26 Wastewater Pipe 16'+	311	L.F.	\$76.40	\$23,760.40
6	15" PVC SDR-26 Wastewater Pipe 0'-8'	1,535	L.F.	\$75.66	\$116,138.10
7	15" PVC SDR-26 Wastewater Pipe 8'-12'	471	L.F.	\$78.71	\$37,072.41
8	15" PVC SDR-26 Wastewater Pipe 12'-16'	837	L.F.	\$82.99	\$69,462.63
9	15" PVC SDR-26 Wastewater Pipe 16'+	915	L.F.	\$89.41	\$81,806.10
10	20" Bored Steel Casing	98	L.F.	\$525.00	\$51,450.00
11	24" Bored Steel Casing	335	L.F.	\$585.00	\$195,975.00
12	Concrete Manhole	28	EA.	\$4,766.00	\$133,448.00
13	Extra Depth Manhole	145	V.F.	\$410.00	\$59,450.00
14	Concrete Repair	150	L.F.	\$50.00	\$7,500.00
15	Asphalt Repair	20	L.F.	\$225.00	\$4,500.00
16	Base Repair	45	L.F.	\$45.00	\$2,025.00
17	Trench Safety	7,608	L.F.	\$1.50	\$11,412.00
18	Wastewater Services	3	EA.	\$2,350.00	\$7,050.00
19	Force Main Connection	1	L.S.	\$12,265.00	\$12,265.00
20	Wet Well Connection	1	L.S.	\$4,600.00	\$4,600.00
21	Traffic Control	1	L.S.	\$7,000.00	\$7,000.00
22	Erosion Control	1	L.S.	\$105,000.00	\$105,000.00
TOTAL CONSTRUCTION COST					\$1,176,656.95
Non-Construction Cost					
Engineering/Surveying					Cost
1	Survey - Easement Exhibits				\$16,250.00
2	Survey - Site Topo				\$8,500.00
3	Engineering Design				\$42,500.00
4	Permitting				\$2,200.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$12,000.00
7	Storm Water Pollution Prevention Plan				\$1,000.00
Subtotal Engineering/Surveying Cost					\$87,450.00
Non-Engineering/Surveying					Cost
1	Easement Acquisition Services				\$95,000.00
2	Easement Acquisition Compensation				\$100,000.00
3	Construction Inspection				\$14,000.00
Subtotal Non-Engineering/Surveying Cost					\$209,000.00
Subtotal Non-Construction Costs					\$296,450.00
TOTAL COSTS					\$1,473,106.95

Downtown Uhland Lift Station
Project Costs
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	Site Clearing & Demo	1	LS	\$37,780.00	\$37,780.00
2	10' Diameter Concrete Wet Well	1	LS	\$440,076.00	\$440,076.00
3	Submersible WW Pump & Accessories	1	LS	\$200,004.00	\$200,004.00
4	15" PVC Influent Gravity Wastewater Main	1	LS	\$29,208.00	\$29,208.00
5	10" DI Discharge Pipe, Valves, & Fittings	1	LS	\$105,729.00	\$105,729.00
6	6" PVC Wet Well Vent Pipe	1	LS	\$13,965.00	\$13,965.00
7	6" PVC Drain Pipe	1	LS	\$10,925.00	\$10,925.00
8	Electrical Improvements & Controls	1	LS	\$294,731.00	\$294,731.00
9	Compacted Limestone Base and Site Grading	1	LS	\$51,275.00	\$51,275.00
10	Concrete Equipment Pads	1	LS	\$21,776.00	\$21,776.00
11	6' Chain Link Security Fence	1	LS	\$18,168.00	\$18,168.00
12	3/4" Water Service	1	LS	\$13,592.00	\$13,592.00
13	Erosion Control	1	LS	\$14,116.00	\$14,116.00
Construction Cost					\$1,251,345.00
Non-Construction Cost					
Engineering/Surveying					Cost
1	Survey - Easement Exhibits				\$2,000.00
2	Survey - Site Topo				\$2,000.00
3	Geotech Report				\$2,625.00
4	Engineering Design				\$40,500.00
5	Permitting				\$2,200.00
6	Bidding/Contract Assistance				\$5,000.00
7	Construction Phase Assistance				\$12,000.00
8	Storm Water Pollution Prevention Plan				\$1,000.00
Subtotal Engineering/Surveying Cost					\$67,325.00
Non-Engineering/Surveying					Cost
1	Easement Acquisition Services				\$12,000.00
2	Easement Acquisition Compensation				\$20,000.00
3	Construction Inspection				\$6,500.00
Subtotal Non-Engineering/Surveying Cost					\$38,500.00
Subtotal Non-Construction Costs					\$105,825.00
TOTAL COSTS					\$1,357,170.00

Downtown Uhland Force Main
Project Costs
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	10" PVC C-900, DR-18 Force Main Pipe	7,360	LF	\$43.60	\$320,896.00
2	15" PVC SDR 26 Gravity Main Pipe	178	LF	\$85.44	\$15,208.32
3	Concrete Manhole	1	EA	\$6,287.00	\$6,287.00
4	10" Gate Valves	6	EA	\$2,451.00	\$14,706.00
5	DI Fittings	1.62	TON	\$10,021.00	\$16,234.02
6	Air Release Valve Assembly	4	EA	\$6,452.00	\$25,808.00
7	Sand Embedment	7,360	LF	\$5.90	\$43,424.00
8	Trench Safety	3,858	LF	\$0.95	\$3,665.10
9	Connect to Ex. Manhole	1	LS	\$4,500.00	\$4,500.00
10	Erosion Control	1	LS	\$60,912.00	\$60,912.00
Construction Cost					\$511,640.44
Non-Construction Cost					
Engineering/Surveying					Cost
1	Survey - Easement Exhibits				\$6,125.00
2	Survey - Site Topo				\$5,000.00
3	Engineering Design				\$14,000.00
4	Permitting				\$2,200.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$7,000.00
7	Storm Water Pollution Prevention Plan				\$500.00
Subtotal Engineering/Surveying Cost					\$39,825.00
Non-Engineering/Surveying					Cost
1	Easement Acquisition Services				\$35,500.00
2	Easement Acquisition Compensation				\$47,500.00
3	Construction Inspection				\$4,000.00
Subtotal Non-Engineering/Surveying Cost					\$87,000.00
Subtotal Non-Construction Costs					\$126,825.00
TOTAL COSTS					\$638,465.44

Gristmill South Gravity Main
Project Cost
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	18" PVC PS115 Gravity Main 8'-12' cut	736	L.F.	\$265.00	\$195,040.00
2	18" PVC PS115 Gravity Main 12'-16' cut	414	L.F.	\$275.00	\$113,850.00
3	15" PVC SDR-26 Gravity Main 0'-8' cut	787	L.F.	\$98.00	\$77,126.00
4	15" PVC SDR-26 Gravity Main 8'-12' cut	2,073	L.F.	\$112.00	\$232,176.00
5	15" PVC SDR-26 Gravity Main 12'-16' cut	577	L.F.	\$105.00	\$60,585.00
6	15" PVC SDR-26 Gravity Main 16'+ cut	190	L.F.	\$124.00	\$23,560.00
7	28" Bored Steel Casing	85	L.F.	\$540.00	\$45,900.00
8	24" Bored Steel Casing	225	L.F.	\$320.00	\$72,000.00
9	Concrete Manholes	16	EA.	\$8,700.00	\$139,200.00
10	Extra Depth Manholes	65	V.F.	\$560.00	\$36,400.00
11	Trench Safety	4,467	L.F.	\$3.00	\$13,401.00
12	Livestock Gates	3	EA.	\$4,500.00	\$13,500.00
13	Erosion Control	1	L.S.	\$30,000.00	\$30,000.00
Construction Cost					\$1,052,738.00
Non-Construction Cost					
Engineering					Cost
1	Survey - Easement Exhibits				\$2,500.00
2	Survey - Alignment Topo				\$5,000.00
3	Engineering Design				\$32,500.00
4	ROW Permitting				\$750.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$15,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering Cost					\$63,250.00
Non-Engineering					Cost
1	Easement Acquisition Services				\$19,000.00
2	Easement Acquisition Compensation				\$50,800.00
3	Construction Inspection				\$8,000.00
Subtotal Non-Engineering Cost					\$77,800.00
Subtotal Non-Construction Costs					\$141,050.00
Total Project Cost					\$1,193,788.00

Porter Creek Gravity Main
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	12" PVC SDR-26 WW Pipe (8' - 12')	1268	LF	\$105.00	\$133,140.00
2	12" PVC SDR-26 WW Pipe (12' - 16')	851	LF	\$125.00	\$106,375.00
3	18" PVC PS115 WW Pipe (8' - 12')	1478	LF	\$175.00	\$258,650.00
4	18" PVC PS115 WW Pipe (12' - 16')	1465	LF	\$200.00	\$293,000.00
5	18" PVC PS115 WW Pipe (16'+)	512	LF	\$225.00	\$115,200.00
6	28" Bored Steel Casing	120	LF	\$750.00	\$90,000.00
7	20" Bored Steel Casing	190	LF	\$500.00	\$95,000.00
8	Concrete Manhole	17	EA	\$8,500.00	\$144,500.00
9	Extra Depth Manhole	87	VF	\$500.00	\$43,500.00
10	Trench Safety	5,264	LF	\$3.00	\$15,792.00
11	Connect to Ex. Pipe	1	LS	\$7,500.00	\$7,500.00
12	Traffic Control	1	LS	\$15,000.00	\$15,000.00
13	Erosion Control	1	LS	\$25,000.00	\$25,000.00
Preliminary Construction Cost					\$1,342,657.00
Non-Construction Cost					
Engineering					Cost
1	Survey - Easement Exhibits				\$3,000.00
2	Survey - Alignment Topo				\$11,000.00
3	Engineering Design				\$47,500.00
4	ROW Permitting				\$5,000.00
5	Bidding/Contract Assistance				\$7,500.00
6	Construction Phase Assistance				\$22,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering Cost					\$98,500.00
Non-Engineering					Cost
1	Easement Acquisition Services				\$15,000.00
2	Easement Acquisition Compensation				\$50,000.00
3	Construction Inspection				\$10,000.00
Subtotal Non-Engineering Cost					\$75,000.00
Subtotal Non-Construction Costs					\$173,500.00
Total Project Preliminary Cost Estimate					\$1,516,157.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

Financing Expenses:

Interest Rate = 5.50%
Loan Term (years) = 20
Monthly Payments = \$10,429.45
Total Amount Paid = \$2,503,068.38

Porter Creek Lift Station & Force Main
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
Lift Station					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	10' Diameter, 30.5' Deep Concrete Wet Well	1	LS	\$500,000.00	\$500,000.00
2	74 hp Submersible WW Pump & Accessories	1	LS	\$175,000.00	\$175,000.00
3	18" PVC Influent Gravity Wastewater Main	1	LS	\$50,000.00	\$50,000.00
4	Precast Concrete Manhole	1	EA	\$25,000.00	\$25,000.00
5	10" & 12" DI Discharge Pipe, Valves, & Fittings	1	LS	\$150,000.00	\$150,000.00
6	12" PVC C900, DR-18 Force Main & Fittings	1	LS	\$25,000.00	\$25,000.00
7	6" PVC Wet Well Vent Pipe	1	LS	\$10,000.00	\$10,000.00
8	Electrical Improvements & Controls	1	LS	\$450,000.00	\$450,000.00
9	Compacted Limestone Base and Site Grading	1	LS	\$40,000.00	\$40,000.00
10	Crushed Limestone Overlay	1	LS	\$12,500.00	\$12,500.00
11	Concrete Driveway	1	LS	\$7,500.00	\$7,500.00
12	Concrete Equipment Pads	1	LS	\$50,000.00	\$50,000.00
13	Bollards	1	LS	\$2,500.00	\$2,500.00
14	6' Chain Link Security Fence	1	LS	\$20,000.00	\$20,000.00
15	3/4" Water Service	1	LS	\$7,500.00	\$7,500.00
16	Erosion Control	1	LS	\$10,000.00	\$10,000.00
Preliminary Construction Cost					\$1,535,000.00
Force Main					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	12" PVC C-900, DR-18 Force Main Pipe	2,650	LF	\$95.00	\$251,750.00
2	14" HDPE DR 9 DIPS Directional Bore	230	LF	\$200.00	\$46,000.00
3	12" Gate Valves	2	EA	\$3,500.00	\$7,000.00
4	DI Fittings	0.20	TON	\$15,000.00	\$3,000.00
5	12" MJ Restraints	12	EA	\$300.00	\$3,600.00
6	Sand Embedment	2,650	LF	\$7.00	\$18,550.00
7	Trench Safety	2,650	LF	\$3.00	\$7,950.00
8	Connect to Ex. Manhole	1	LS	\$5,000.00	\$5,000.00
9	Erosion Control	1	LS	\$15,000.00	\$15,000.00
10	Revegetate Disturbed Areas	12,000	SY	\$2.00	\$24,000.00
Preliminary Construction Cost					\$381,850.00
TOTAL PRELIMINARY CONSTRUCTION COST					\$1,916,850.00

Non-Construction Cost		
Engineering/Surveying		Cost
1	Survey - Easement Exhibits	\$2,000.00
2	Survey - Site Topo	\$5,000.00
3	Engineering Design	\$80,000.00
4	Permitting	\$5,000.00
5	Bidding/Contract Assistance	\$10,000.00
6	Construction Phase Assistance	\$28,000.00
7	Storm Water Pollution Prevention Plan	\$5,000.00
Subtotal Engineering/Surveying Cost		\$135,000.00
Non-Engineering/Surveying		Cost
1	Easement Acquisition Services	\$15,000.00
2	Easement Acquisition Compensation	\$25,000.00
3	Construction Inspection	\$12,500.00
Subtotal Non-Engineering/Surveying Cost		\$52,500.00
Subtotal Non-Construction Costs		\$187,500.00
TOTAL PRELIMINARY COSTS		\$2,104,350.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

Financing Expenses:

Interest Rate = 5.50%
Loan Term (years) = 20
Monthly Payments = \$14,475.56
Total Amount Paid = \$3,474,133.58

Commerical Area Wastewater
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
Gravity Main					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8" PVC SDR-26 WW Pipe	1700	LF	\$80.00	\$136,000.00
2	16" Bored Steel Casing	275	LF	\$450.00	\$123,750.00
3	Concrete Manhole	7	EA	\$8,500.00	\$59,500.00
4	Trench Safety	1425	LF	\$3.00	\$4,275.00
5	Connect to Ex. Manhole	1	LS	\$5,000.00	\$5,000.00
6	Traffic Control	1	LS	\$10,000.00	\$10,000.00
7	Erosion Control	1	LS	\$15,000.00	\$15,000.00
Preliminary Construction Cost					\$353,525.00
Lift Station					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	7'Ø, 20' Deep Concrete Wet Well	1	LS	\$115,000.00	\$115,000.00
2	3 hp Submersible Grinder Pumps	1	LS	\$60,000.00	\$60,000.00
3	3" DI Discharge Pipe/Valves/Fittings	1	LS	\$50,000.00	\$50,000.00
4	Electrical Improvements	1	LS	\$300,000.00	\$300,000.00
5	Limestone Base & Site Grading	1	LS	\$25,000.00	\$25,000.00
6	Concrete Equipment Pads	1	LS	\$40,000.00	\$40,000.00
7	3/4" Water Service	1	LS	\$5,000.00	\$5,000.00
8	Erosion Control	1	LS	\$5,000.00	\$5,000.00
Preliminary Construction Cost					\$600,000.00
Force Main					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	3" PVC D2241 WW Pipe	1200	LF	\$25.00	\$30,000.00
2	8" Bored Steel Casing	175	LF	\$250.00	\$43,750.00
3	3" Slick Bore	60	LF	\$75.00	\$4,500.00
4	Air Release Valve Assembly	1	EA	\$7,500.00	\$7,500.00
5	DI Fittings	0.1	TON	\$15,000.00	\$1,500.00
6	MJ Restraints	14	EA	\$150.00	\$2,100.00
7	Sand Embedment	965	LF	\$7.00	\$6,755.00
8	Trench Safety	965	LF	\$3.00	\$2,895.00
9	Connect to Manhole	1	LS	\$2,500.00	\$2,500.00
10	Traffic Control	1	LS	\$10,000.00	\$10,000.00
11	Erosion Control	1	LS	\$10,000.00	\$10,000.00
Preliminary Construction Cost					\$121,500.00
TOTAL PRELIMINARY CONSTRUCTION COST					\$1,075,025.00

Non-Construction Cost		
Engineering/Surveying		Cost
1	Survey - Easement Exhibits	\$1,500.00
2	Survey - Site Topo	\$8,500.00
3	Engineering Design	\$65,000.00
4	Permitting	\$7,500.00
5	Bidding/Contract Assistance	\$15,000.00
6	Construction Phase Assistance	\$25,000.00
7	Storm Water Pollution Prevention Plan	\$2,500.00
Subtotal Engineering/Surveying Cost		\$125,000.00
Non-Engineering/Surveying		Cost
1	Easement Acquisition Services	\$25,000.00
2	Easement Acquisition Compensation	\$35,000.00
3	Construction Inspection	\$12,500.00
Subtotal Non-Engineering/Surveying Cost		\$72,500.00
Subtotal Non-Construction Costs		\$197,500.00
TOTAL PRELIMINARY COSTS		\$1,272,525.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

	<u>Financing Expenses:</u>
Interest Rate =	5.50%
Loan Term (years) =	20
Monthly Payments =	\$8,753.54
Total Amount Paid =	\$2,100,849.11

FM 150 Gravity Main
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	12" PVC SDR 26 WW Pipe	3400	LF	\$105.00	\$357,000.00
2	18" PVC PS115 WW Pipe	3300	LF	\$175.00	\$577,500.00
3	20" Bored Steel Casing	100	LF	\$500.00	\$50,000.00
4	30" Bored Steel Casing	150	LF	\$750.00	\$112,500.00
5	Concrete Manhole	18	EA	\$8,500.00	\$153,000.00
6	Base Repair	30	LF	\$100.00	\$3,000.00
7	Trench Safety	6,450	LF	\$3.00	\$19,350.00
8	Traffic Control	1	LS	\$25,000.00	\$25,000.00
9	Erosion Control	1	LS	\$40,000.00	\$40,000.00
Preliminary Construction Cost					\$1,337,350.00
Non-Construction Cost					
Engineering					Cost
1	Survey - Easement Exhibits				\$5,000.00
2	Survey - Alignment Topo				\$12,500.00
3	Engineering Design				\$75,000.00
4	ROW Permitting				\$7,500.00
5	Bidding/Contract Assistance				\$10,000.00
6	Construction Phase Assistance				\$25,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering Cost					\$137,500.00
Non-Engineering					Cost
1	Easement Acquisition Services				\$50,000.00
2	Easement Acquisition Compensation				\$100,000.00
3	Construction Inspection				\$10,000.00
Subtotal Non-Engineering Cost					\$160,000.00
Subtotal Non-Construction Costs					\$297,500.00
Total Project Preliminary Cost Estimate					\$1,634,850.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

Financing Expenses:

Interest Rate = 5.50%
 Loan Term (years) = 20
 Monthly Payments = \$11,245.93
 Total Amount Paid = \$2,699,022.16

Clear Fork Creek Gravity Main
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	12" PVC SDR 26 WW Pipe	5500	LF	\$105.00	\$577,500.00
2	Concrete Manhole	12	EA	\$8,500.00	\$102,000.00
3	Trench Safety	5,500	LF	\$3.00	\$16,500.00
4	Erosion Control	1	LS	\$25,000.00	\$25,000.00
Preliminary Construction Cost					\$721,000.00
Non-Construction Cost					
Engineering					Cost
1	Survey - Easement Exhibits				\$8,500.00
2	Survey - Alignment Topo				\$10,000.00
3	Engineering Design				\$36,000.00
4	ROW Permitting				\$0.00
5	Bidding/Contract Assistance				\$10,000.00
6	Construction Phase Assistance				\$15,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering Cost					\$82,000.00
Non-Engineering					Cost
1	Easement Acquisition Services				\$75,000.00
2	Easement Acquisition Compensation				\$125,000.00
3	Construction Inspection				\$10,000.00
Subtotal Non-Engineering Cost					\$210,000.00
Subtotal Non-Construction Costs					\$292,000.00
Total Project Preliminary Cost Estimate					\$1,013,000.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

Financing Expenses:

Interest Rate = 5.50%
Loan Term (years) = 20
Monthly Payments = \$6,968.30
Total Amount Paid = \$1,672,391.62

Misty Lane Wastewater Oversizing
Preliminary Cost Estimate
August 11, 2023

Construction Cost					
Lift Station					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8' Diameter Concrete Wet Well	1	LS	\$250,000.00	\$250,000.00
2	Submersible WW Pump & Accessories	1	LS	\$125,000.00	\$125,000.00
3	8" DI Discharge Pipe, Valves, & Fittings	1	LS	\$100,000.00	\$100,000.00
4	Electrical Improvements & Controls	1	LS	\$350,000.00	\$350,000.00
5	Compacted Limestone Base and Site Grading	1	LS	\$40,000.00	\$40,000.00
6	Concrete Equipment Pads	1	LS	\$40,000.00	\$40,000.00
7	6' Chain Link Security Fence	1	LS	\$20,000.00	\$20,000.00
8	3/4" Water Service	1	LS	\$10,000.00	\$10,000.00
9	Erosion Control	1	LS	\$15,000.00	\$15,000.00
Preliminary Construction Cost					\$950,000.00
Force Main					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8" PVC C-900, DR-18 Force Main	4,700	LF	\$70.00	\$329,000.00
2	16" Bored Steel Casing	70	LF	\$400.00	\$28,000.00
3	8" Gate Valves	3	EA	\$3,000.00	\$9,000.00
4	8" MJ Fittings	10	EA	\$200.00	\$2,000.00
5	DI Fittings	0.25	TON	\$15,000.00	\$3,750.00
6	Air Release Valve Assembly	1	EA	\$7,500.00	\$7,500.00
7	Sand Embedment	4,630	LF	\$7.00	\$32,410.00
8	Trench Safety	4,630	LF	\$3.00	\$13,890.00
9	Connect to Manhole	1	LS	\$5,000.00	\$5,000.00
10	Erosion Control	1	LS	\$15,000.00	\$15,000.00
Preliminary Construction Cost					\$445,550.00
Gravity Main					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	15" PVC SDR 26 WW Pipe	1000	LF	\$140.00	\$140,000.00
2	18" PVC PS115 WW Pipe	2720	LF	\$175.00	\$476,000.00
3	21" PVC PS115 WW Pipe	605	LF	\$200.00	\$121,000.00
4	Concrete Manhole	15	EA	\$8,500.00	\$127,500.00
5	Trench Safety	4,325	LF	\$3.00	\$12,975.00
6	Connect to Ex. Manhole	1	EA	\$5,000.00	\$5,000.00
7	Erosion Control	1	LS	\$15,000.00	\$15,000.00
Preliminary Construction Cost					\$897,475.00
TOTAL PRELIMINARY CONSTRUCTION COST					\$2,293,025.00

Non-Construction Cost		
Engineering/Surveying		Cost
1	Survey - Easement Exhibits	\$2,500.00
2	Survey - Site Topo	\$7,500.00
3	Engineering Design	\$100,000.00
4	Permitting	\$5,000.00
5	Bidding/Contract Assistance	\$15,000.00
6	Construction Phase Assistance	\$45,000.00
7	Storm Water Pollution Prevention Plan	\$2,500.00
Subtotal Engineering/Surveying Cost		\$177,500.00
Non-Engineering/Surveying		Cost
1	Easement Acquisition Services	\$20,000.00
2	Easement Acquisition Compensation	\$75,000.00
3	Construction Inspection	\$17,500.00
Subtotal Non-Engineering/Surveying Cost		\$112,500.00
Subtotal Non-Construction Costs		\$290,000.00
TOTAL COSTS		\$2,583,025.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

Estimated Developer Contribution: \$1,887,775.00

CLSUD Remaining Cost: \$695,250.00

Financing Expenses:

Interest Rate = 5.50%
 Loan Term (years) = 20
 Monthly Payments = \$4,782.54
 Total Amount Paid = \$1,147,808.76

FM 2720 Gravity Main
Preliminary Cost Estimate
September 7, 2023

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	18" PVC PS115 WW Pipe	3500	LF	\$175.00	\$612,500.00
2	21" PVC PS115 WW Pipe	4300	LF	\$200.00	\$860,000.00
3	24" PVC PS115 WW Pipe	7200	LF	\$275.00	\$1,980,000.00
4	30" Open-Cut Steel Casing	100	LF	\$350.00	\$35,000.00
5	Concrete Manhole	35	EA	\$14,000.00	\$490,000.00
6	Base Repair	50	LF	\$100.00	\$5,000.00
7	Trench Safety	15,000	LF	\$3.00	\$45,000.00
8	Traffic Control	1	LS	\$25,000.00	\$25,000.00
9	Erosion Control	1	LS	\$50,000.00	\$50,000.00
Preliminary Construction Cost					\$4,102,500.00
Non-Construction Cost					
Engineering/Surveying					Cost
1	Survey - Easement Exhibits				\$12,500.00
2	Survey - Site Topo				\$20,000.00
3	Engineering Design				\$120,000.00
4	Permitting				\$10,000.00
5	Bidding/Contract Assistance				\$10,000.00
6	Construction Phase Assistance				\$25,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering/Surveying Cost					\$200,000.00
Non-Engineering/Surveying					Cost
1	Legal Expenses				\$25,000.00
2	Easement Acquisition Services				\$25,000.00
3	Easement Acquisition Compensation				\$400,000.00
4	Construction Inspection				\$25,000.00
Subtotal Non-Engineering/Surveying Cost					\$475,000.00
Subtotal Non-Construction Costs					\$675,000.00
Total Costs					\$4,777,500.00

This opinion of probable cost represents best judgment as a design professional familiar with the engineering and construction industry and based on opinions and evaluations of current market rates for labor, materials and equipment. It is based on the understanding of the project at the time of its creation only. There is no warranty that any bid will not vary from this opinion.

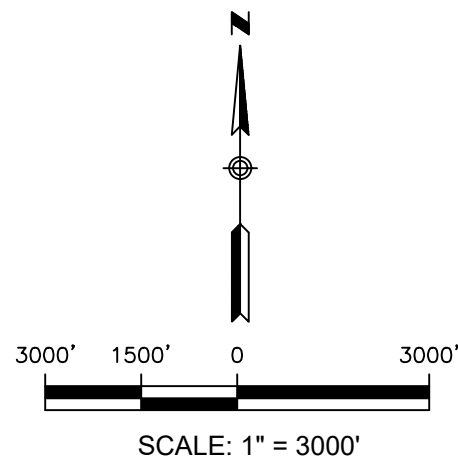
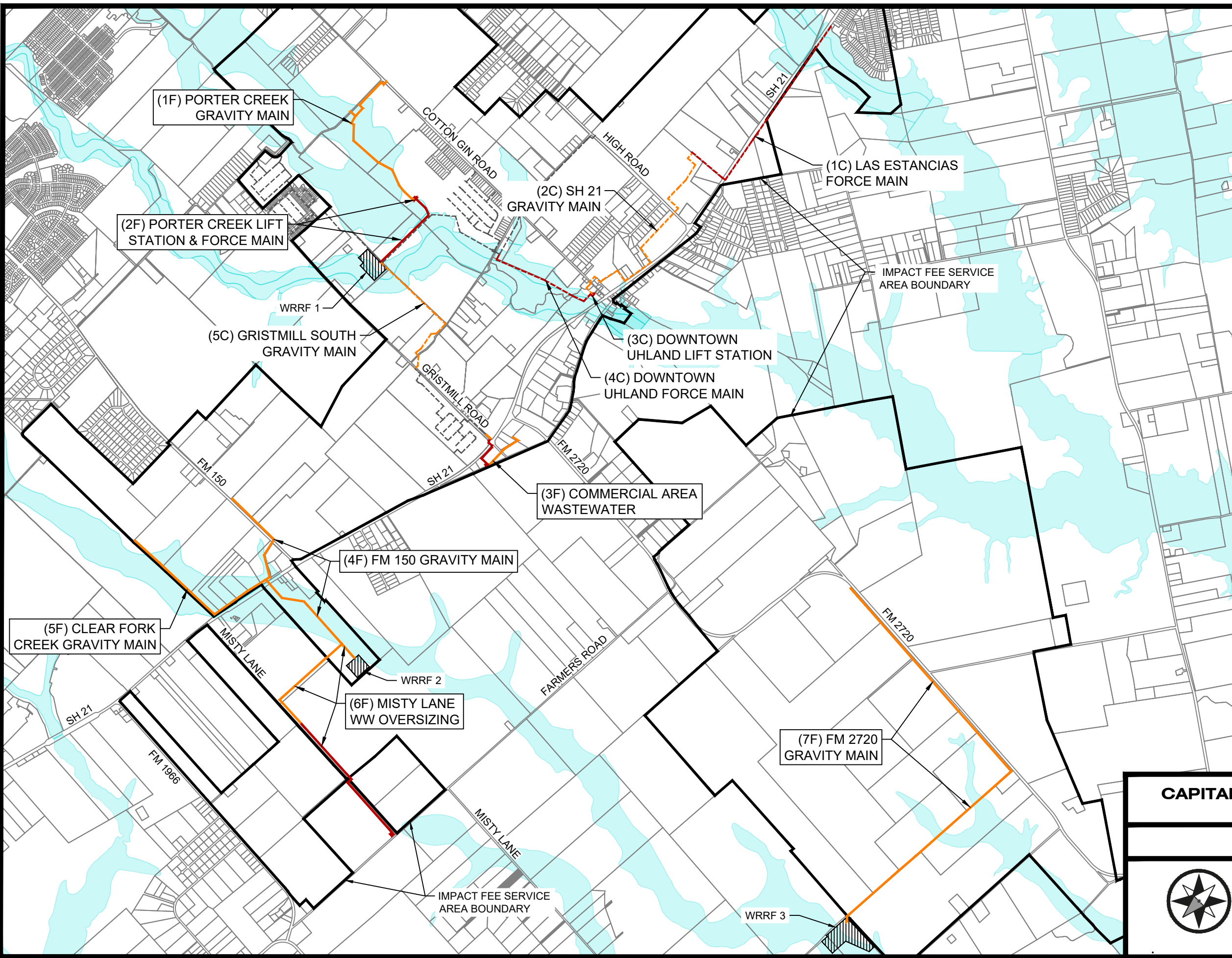
Financing Expenses:

Interest Rate = 5.50%
Loan Term (years) = 20
Monthly Payments = \$32,863.82
Total Amount Paid = \$7,887,315.87







Exhibit C

Capital Improvements Location Map

C:\Company\Drawings\Clients\0017 - County Line SUD\0017-000-00 - Misc Tasks\Task 83 - 2023 WW CIP Update\Exhibits_2023.dwg




LEGEND

-  COMPLETED CIP GRAVITY MAINS
-  COMPLETED CIP LIFT STATION & FORCE MAIN
-  PROPOSED CIP GRAVITY MAINS
-  PROPOSED CIP LIFT STATION & FORCE MAIN
-  OTHER EX. WW INFRASTRUCTURE
-  PCU WRRF SITES

CAPITAL IMPROVEMENT PROJECTS
SEPTEMBER 2023

COUNTY LINE SUD



**Southwest
Engineers**

TBPE NO. F-1909
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