

## **COMMERCIAL RETAIL**

5075 Seminole Pratt Whitney Road

Westlake, FL

Parcel ID: 77-40-43-01-00-000-1010

## **STORMWATER REPORT**

January 12, 2026

Report Prepared By:



1125 Bartow Road Ste 100

Lakeland, FL 33801

## **PROJECT SUMMARY:**

The subject parcel, 77-40-43-01-00-000-1010 is located northwest of the intersection of Seminole Pratt Whitney Road & Town Center Parkway South and is part of the Westlake TTD project. The project is located within the bounds of Seminole Improvement District and South Florida Water Management District, Southern Florida Basin, Florida Southeast Coast sub-basin, Watershed C-51 West, sub-watershed 8. The parcel is approximately 24.29 acres in size and is currently vacant and part of a Traditional Marketplace Development.

Proposed site development consists of construction of a 188,779 S.F. commercial retail building with 8,000 S.F. of online pick-up and delivery space as well as a 4,912 S.F. liquor box. This project also includes a 1,618 S.F. building for a gas station and convenience store with 20 fuel pumps. Associated parking, landscaping, potable water, wastewater, reclaim water, electric utilities, and stormwater management are included with the development. The project will outfall to stub-outs provided by MINTO PBLH LLC which discharge to the dry retention system, both east to Dry Detention #3 and west to Dry Detention #1 into SID M2 Canal, of the development which will provide water quality and attenuation prior to discharge into the master Seminole Improvement District (SID) drainage system.

## **STORMWATER CONVEYANCE SYSTEM**

Initial sizing of the storm piping system for the development was performed utilizing the SCS curve number method to determine the peak inflow and minimum pipe sizes. Storm and sanitary sewer analysis software then used to simulate the 10-year storm event and to verify the hydraulic grade lines do not exceed the inlet top elevations. Refer to Appendix A for the modeling results.

**APPENDIX A**

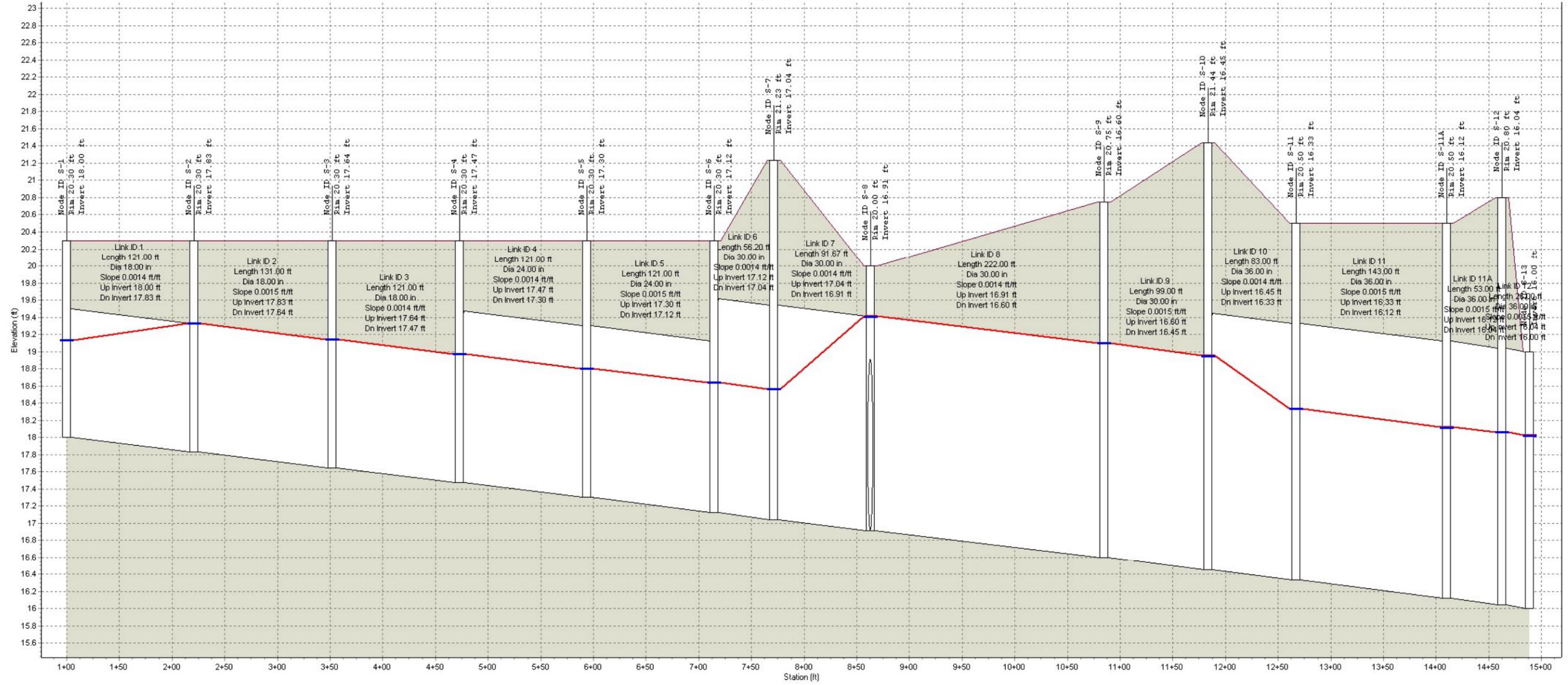
**STORM AND SANITARY SEWER**

**ANALYSIS RESULTS**

**Pipe Report - 10 Yr. Storm Event**

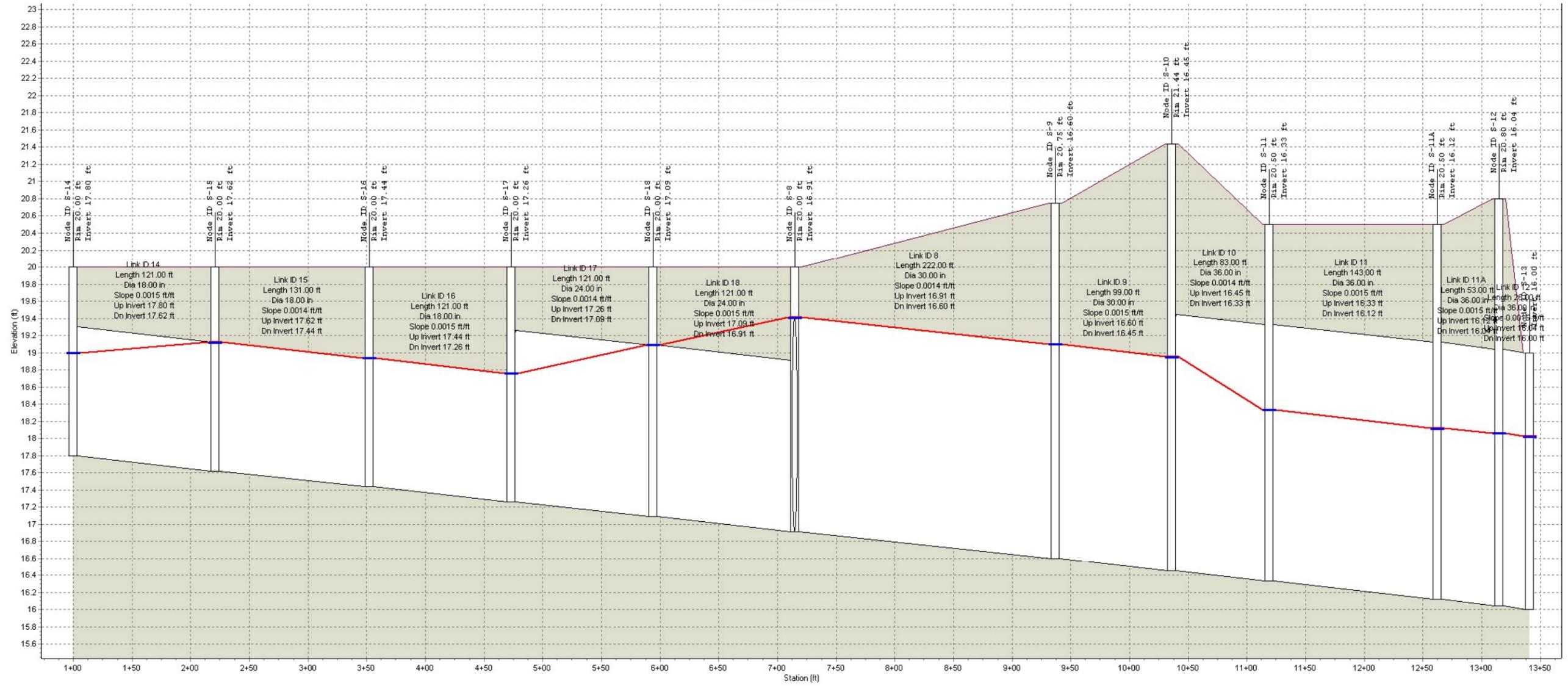
Element	From (Inlet)	To (Outlet)	Length	Inlet	Outlet	Total	Average	Pipe	Pipe	Manning's	Peak	Max	Travel	Design	Max Flow /	Max	Max
ID	Node	Node		Invert	Invert	Drop	Slope	Shape	Diameter	Roughness	Flow	Flow	Time	Flow	Design Flow	Flow Depth /	Flow
				Elevation	Elevation				or Height			Velocity		Capacity	Ratio	Total Depth	Depth
			(ft)	(ft)	(ft)	(ft)	(%)		(inches)		(cfs)	(ft/sec)	(min)	(cfs)			(ft)
1	S-1	S-2	121.00	18.00	17.83	0.17	0.1400	CIRCULAR	18.000	0.0150	3.11	2.20	0.92	3.41	0.91	0.75	1.12
2	S-2	S-3	131.00	17.83	17.64	0.19	0.1500	CIRCULAR	18.000	0.0150	3.75	2.33	0.94	3.47	1.08	1.00	1.50
3	S-3	S-4	121.00	17.64	17.47	0.17	0.1400	CIRCULAR	18.000	0.0150	3.64	2.29	0.88	3.41	1.07	1.00	1.50
4	S-4	S-5	121.00	17.47	17.30	0.17	0.1400	CIRCULAR	24.000	0.0150	5.16	2.54	0.79	7.35	0.70	0.62	1.24
5	S-5	S-6	121.00	17.30	17.12	0.18	0.1500	CIRCULAR	24.000	0.0150	6.89	2.73	0.74	7.56	0.91	0.75	1.50
6	S-6	S-7	56.20	17.12	17.04	0.08	0.1400	CIRCULAR	30.000	0.0150	9.20	2.95	0.32	13.41	0.69	0.61	1.52
7	S-7	S-8	91.67	17.04	16.91	0.13	0.1400	CIRCULAR	30.000	0.0150	9.20	2.94	0.52	13.39	0.69	0.61	1.52
8	S-8	S-9	222.00	16.91	16.60	0.31	0.1400	CIRCULAR	30.000	0.0150	14.35	3.19	1.16	13.28	1.08	1.00	2.50
9	S-9	S-10	99.00	16.60	16.45	0.15	0.1500	CIRCULAR	30.000	0.0150	14.83	3.30	0.50	13.84	1.07	1.00	2.50
10	S-10	S-11	83.00	16.45	16.33	0.12	0.1400	CIRCULAR	36.000	0.0150	14.76	3.36	0.41	21.98	0.67	0.60	1.78
11	S-11	S-11A	143.00	16.33	16.12	0.21	0.1500	CIRCULAR	36.000	0.0150	17.31	3.47	0.69	22.15	0.78	0.67	2.00
11A	S-11A	S-12	53.00	16.12	16.04	0.08	0.1500	CIRCULAR	36.000	0.0150	17.30	3.51	0.25	22.46	0.77	0.66	1.97
12	S-12	S-13	26.00	16.04	16.00	0.04	0.1500	CIRCULAR	36.000	0.0150	18.08	3.56	0.12	22.67	0.80	0.68	2.02
14	S-14	S-15	121.00	17.80	17.62	0.18	0.1500	CIRCULAR	18.000	0.0150	3.41	2.28	0.88	3.51	0.97	0.80	1.19
15	S-15	S-16	131.00	17.62	17.44	0.18	0.1400	CIRCULAR	18.000	0.0150	3.65	2.26	0.97	3.37	1.08	1.00	1.50
16	S-16	S-17	121.00	17.44	17.26	0.18	0.1500	CIRCULAR	18.000	0.0150	3.75	2.34	0.86	3.51	1.07	1.00	1.50
17	S-17	S-18	121.00	17.26	17.09	0.17	0.1400	CIRCULAR	24.000	0.0150	6.49	2.66	0.76	7.35	0.88	0.73	1.45
18	S-18	S-8	121.00	17.09	16.91	0.18	0.1500	CIRCULAR	24.000	0.0150	8.11	2.81	0.72	7.56	1.07	1.00	2.00
19	S-19	S-20	99.00	17.91	17.40	0.51	0.5200	CIRCULAR	15.000	0.0150	1.23	2.89	0.57	4.02	0.31	0.38	0.47
20	S-20	S-21	95.00	17.40	16.90	0.50	0.5300	CIRCULAR	15.000	0.0150	2.21	3.39	0.47	4.06	0.54	0.53	0.66
21	S-21	S-22	155.00	16.90	16.34	0.56	0.3600	CIRCULAR	15.000	0.0150	3.20	3.13	0.83	3.37	0.95	0.78	0.97
22	S-22	S-23	65.00	16.34	16.00	0.34	0.5200	CIRCULAR	15.000	0.0150	3.20	3.66	0.30	4.05	0.79	0.67	0.83
24	S-24	S-25	33.00	16.18	16.00	0.18	0.5500	CIRCULAR	15.000	0.0150	1.46	3.08	0.18	4.13	0.35	0.41	0.51
26	S-26	S-27	33.00	16.10	16.00	0.10	0.3000	CIRCULAR	15.000	0.0150	1.26	2.38	0.23	3.08	0.41	0.44	0.56
28	S-28	S-29	76.00	16.90	16.49	0.41	0.5400	CIRCULAR	15.000	0.0150	1.14	2.87	0.44	4.11	0.28	0.36	0.45
28A	S-28A	S-28	85.00	17.35	16.90	0.45	0.5300	CIRCULAR	15.000	0.0150	0.37	2.06	0.69	4.07	0.09	0.20	0.25
29	S-29	S-29A	94.00	16.49	16.00	0.49	0.5200	CIRCULAR	15.000	0.0150	1.84	3.22	0.49	4.04	0.46	0.47	0.59
30	S-30	S-31	115.00	16.53	16.23	0.30	0.2600	CIRCULAR	15.000	0.0150	1.30	2.29	0.84	2.86	0.46	0.47	0.59
31	S-31	S-32	88.00	16.23	16.00	0.23	0.2600	CIRCULAR	15.000	0.0150	1.90	2.50	0.59	2.86	0.66	0.60	0.74
LD1	LD-1	S-24	44.00	18.35	16.18	2.17	4.9300	CIRCULAR	10.000	0.0150	0.47	5.11	0.14	4.22	0.11	0.23	0.19
LD2	LD-2	S-26	131.00	18.35	16.10	2.25	1.7200	CIRCULAR	10.000	0.0150	0.47	3.52	0.62	2.49	0.19	0.30	0.25

Profile Plot  
Main Street Storm Sewer



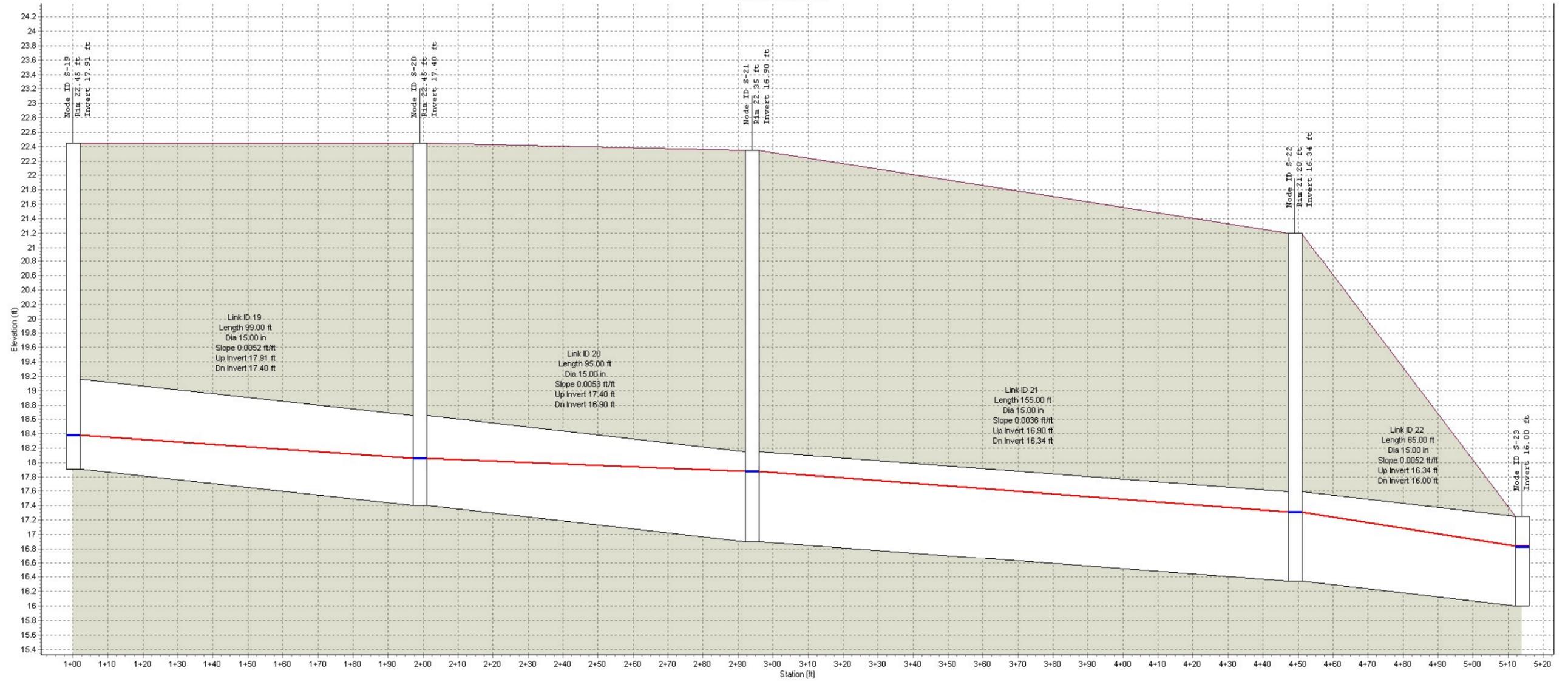
Node ID:	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-11A	S-12	S-13
Rim (ft):	20.30	20.30	20.30	20.30	20.30	20.30	21.23	20.00	20.75	21.44	20.50	20.50	20.80	
Invert (ft):	18.00	17.83	17.64	17.47	17.30	17.12	17.04	16.91	16.60	16.45	16.33	16.12	16.04	16.00
Min Pipe Cover (ft):							1.69			1.99		1.38		
Max HGL (ft):	19.13	19.33	19.14	18.97	18.80	18.64	18.56	19.41		19.10	18.95	18.33	18.12	18.03
Link ID:	1	2	3	4	5	6	7		8	9	10	11	11A	12
Length (ft):	121.00	131.00	121.00	121.00	121.00	56.20	91.67		222.00	99.00	83.00	143.00	53.00	26.00
Dia (in):	18.00	18.00	18.00	24.00	24.00	30.00	30.00		30.00	30.00	36.00	36.00	36.00	36.00
Slope (ft/ft):	0.0014	0.0015	0.0014	0.0014	0.0015	0.0014	0.0014		0.0014	0.0015	0.0014	0.0015	0.0015	0.0015
Up Invert (ft):	18.00	17.83	17.64	17.47	17.30	17.12	17.04		16.91	16.60	16.45	16.33	16.12	16.04
Dn Invert (ft):	17.83	17.64	17.47	17.30	17.12	17.04	16.91		16.60	16.45	16.33	16.12	16.04	16.00
Max Q (cfs):	3.11	3.75	3.64	5.16	6.89	9.20	9.20		14.35	14.83	14.76	17.31	17.30	18.08
Max Vel (ft/s):	2.20	2.33	2.29	2.54	2.73	2.95	2.94		3.19	3.30	3.36	3.47	3.51	3.56
Max Depth (ft):	1.12	1.50	1.50	1.24	1.50	1.52	1.52		2.50	2.50	1.78	2.00	1.97	2.02

Profile Plot  
Main Street Storm Sewer



Node ID:	S-14	S-15	S-16	S-17	S-18	S-8	S-9	S-10	S-11	S-11A	S-12	S-13
Rim (ft):	20.00	20.00	20.00	20.00	20.00	20.00	20.75	21.44	20.50	20.50	20.80	
Invert (ft):	17.80	17.62	17.44	17.26	17.09	16.91	16.60	16.45	16.33	16.12	16.04	16.00
Min Pipe Cover (ft):								1.99		1.38		
Max HGL (ft):	19.00	19.12	18.94	18.76	19.09	19.41	19.10	18.95	18.33	18.12	18.06	18.03
Link ID:	14	15	16	17	18	8	9	10	11	11A	12	
Length (ft):	121.00	131.00	121.00	121.00	121.00	222.00	99.00	83.00	143.00	53.00	26.00	
Dia (in):	18.00	18.00	18.00	24.00	24.00	30.00	30.00	36.00	36.00	36.00	36.00	
Slope (ft/ft):	0.0015	0.0014	0.0015	0.0014	0.0015	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	
Up Invert (ft):	17.80	17.62	17.44	17.26	17.09	16.91	16.60	16.45	16.33	16.12	16.04	
Dn Invert (ft):	17.62	17.44	17.26	17.09	16.91	16.60	16.45	16.33	16.12	16.04	16.00	
Max Q (cfs):	3.41	3.65	3.75	6.49	8.11	14.35	8.11	14.83	14.76	17.31	17.30	18.08
Max Vel (ft/s):	2.28	2.26	2.34	2.66	2.81	3.19	3.30	3.36	3.47	3.51	3.56	
Max Depth (ft):	1.19	1.50	1.50	1.45	2.00	2.50	2.50	1.78	2.00	1.97	2.02	

Profile Plot  
Main Street Storm Sewer



Node ID:	S-19	S-20	S-21	S-22	S-23
Rim (ft):	22.45	22.45	22.35	21.20	
Invert (ft):	17.91	17.40	16.90	16.34	16.00
Min Pipe Cover (ft):				3.61	
Max HGL (ft):	18.38	18.06	17.88	17.31	16.84
Link ID:	19	20	21	22	
Length (ft):	99.00	95.00	155.00	65.00	
Dia (in):	15.00	15.00	15.00	15.00	
Slope (ft/ft):	0.0052	0.0053	0.0036	0.0052	
Up Invert (ft):	17.91	17.40	16.90	16.34	
Dn Invert (ft):	17.40	16.90	16.34	16.00	
Max Q (cfs):	1.23	2.21	3.20	3.20	
Max Vel (ft/s):	2.89	3.39	3.13	3.66	
Max Depth (ft):	0.47	0.66	0.97	0.83	

Profile Plot  
Main Street Storm Sewer



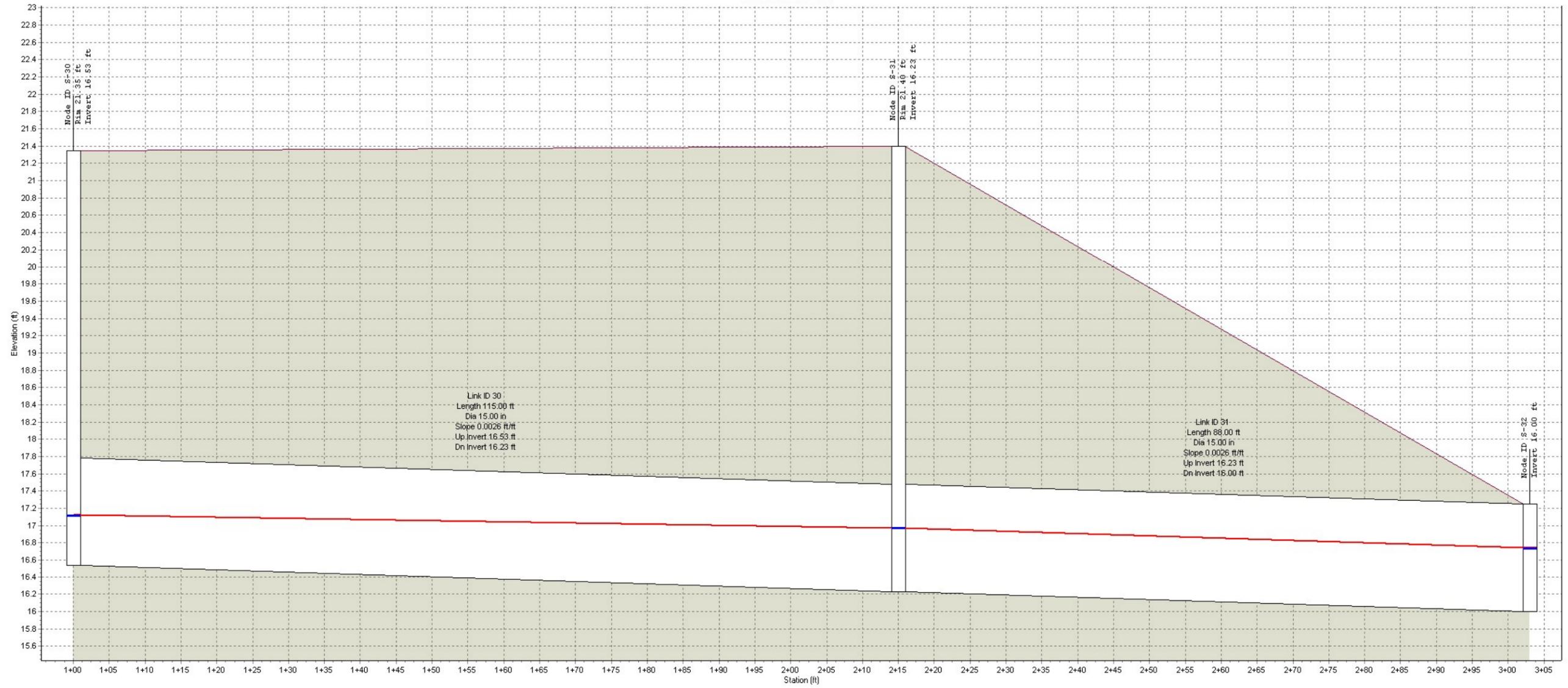
Node ID:	LD-1		S-24		S-25
Rim (ft):	23.00		22.10		
Invert (ft):	18.35		16.18		16.00
Min Pipe Cover (ft):	3.82				
Max HGL (ft):	18.54		16.69		16.51
Link ID:		LD1		24	
Length (ft):		44.00		33.00	
Dia (in):		10.00		15.00	
Slope (ft/ft):		0.0493		0.0055	
Up Invert (ft):		18.35		16.18	
Dn Invert (ft):		16.18		16.00	
Max Q (cfs):		0.47		1.46	
Max Vel (ft/s):		5.11		3.08	
Max Depth (ft):		0.19		0.51	

Profile Plot  
Main Street Storm Sewer



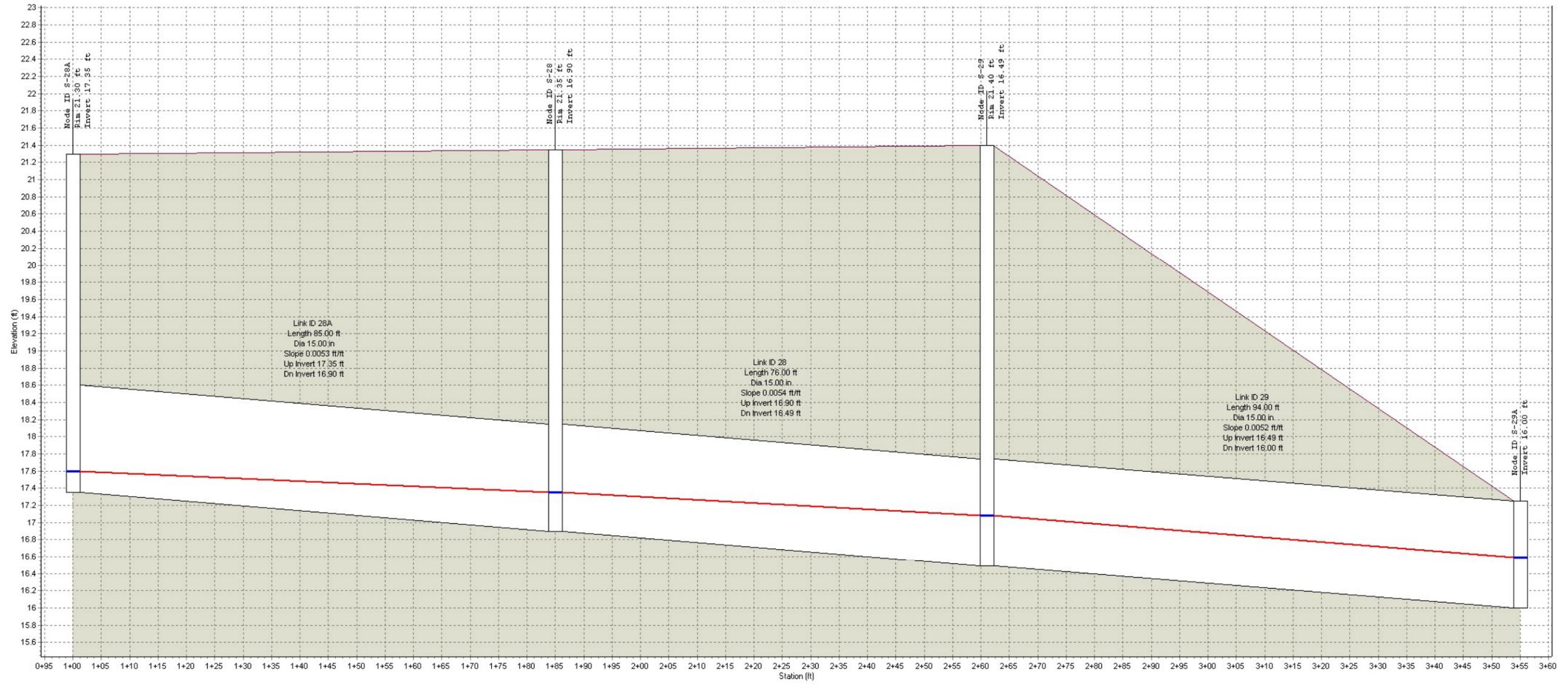
Node ID:	LD-2		S-26	S-27
Rim (ft):	23.00		21.80	
Invert (ft):	18.35		16.10	16.00
Min Pipe Cover (ft):	3.82			
Max HGL (ft):	18.60		16.66	16.56
Link ID:		LD2		26
Length (ft):		131.00		33.00
Dia (in):		10.00		15.00
Slope (ft/ft):		0.0172		0.0030
Up Invert (ft):		18.35		16.10
Dn Invert (ft):		16.10		16.00
Max Q (cfs):		0.47		1.26
Max Vel (ft/s):		3.52		2.38
Max Depth (ft):		0.25		0.56

Profile Plot  
Main Street Storm Sewer



Node ID:	S-30	S-31	S-32
Rim (ft):	21.35	21.40	
Invert (ft):	16.53	16.23	16.00
Min Pipe Cover (ft):			
Max HGL (ft):	17.12	16.97	16.74
Link ID:	30	31	
Length (ft):	115.00	88.00	
Dia (in):	15.00	15.00	
Slope (ft/ft):	0.0026	0.0026	
Up Invert (ft):	16.53	16.23	
Dn Invert (ft):	16.23	16.00	
Max Q (cfs):	1.30	1.90	
Max Vel (ft/s):	2.29	2.50	
Max Depth (ft):	0.59	0.74	

Profile Plot  
Main Street Storm Sewer



Node ID:	S-28A	S-28	S-29	S-29A
Rim (ft):	21.30	21.35	21.40	
Invert (ft):	17.35	16.90	16.49	16.00
Min Pipe Cover (ft):				
Max HGL (ft):	17.60	17.35	17.08	16.59
Link ID:	28A	28	29	
Length (ft):	85.00	76.00	94.00	
Dia (in):	15.00	15.00	15.00	
Slope (ft/ft):	0.0053	0.0054	0.0052	
Up Invert (ft):	17.35	16.90	16.49	
Dn Invert (ft):	16.90	16.49	16.00	
Max Q (cfs):	0.37	1.14	1.84	
Max Vel (ft/s):	2.06	2.87	3.22	
Max Depth (ft):	0.25	0.45	0.59	

### Catchment Report - 10 Yr. Storm Event

Element	Area	Drainage	Weighted	Total	Total	Peak	Time
ID		Node ID	Curve	precipitation	Runoff	Runoff	of
			Number				Concentration
	(acres)			(inches)	(inches)	(cfs)	hh:mm:ss)
1	0.76	S-1	89.00	8.00	6.69	3.12	0 00:10:00
2	0.52	S-2	89.00	8.00	6.69	2.12	0 00:10:00
3	0.47	S-3	89.00	8.00	6.69	1.91	0 00:10:00
4	0.43	S-4	89.00	8.00	6.69	1.76	0 00:10:00
5	0.43	S-5	89.00	8.00	6.69	1.76	0 00:10:00
6	0.57	S-6	89.00	8.00	6.69	2.33	0 00:10:00
8	0.84	S-8	89.00	8.00	6.69	3.43	0 00:10:00
9	0.50	S-9	89.00	8.00	6.69	2.04	0 00:10:00
11	0.85	S-11	89.00	8.00	6.69	3.49	0 00:10:00
12	0.19	S-12	89.00	8.00	6.69	0.79	0 00:10:00
14	0.84	S-14	89.00	8.00	6.69	3.43	0 00:10:00
15	0.73	S-15	89.00	8.00	6.69	2.99	0 00:10:00
16	0.79	S-16	89.00	8.00	6.69	3.22	0 00:10:00
17	0.72	S-17	89.00	8.00	6.69	2.96	0 00:10:00
18	0.75	S-18	89.00	8.00	6.69	3.07	0 00:10:00
19	0.30	S-19	89.00	8.00	6.69	1.23	0 00:10:00
20	0.24	S-20	89.00	8.00	6.69	1.00	0 00:10:00
21	0.24	S-21	89.00	8.00	6.69	1.00	0 00:10:00
24	0.24	S-24	89.00	8.00	6.69	1.00	0 00:10:00
26	0.19	S-26	89.00	8.00	6.69	0.79	0 00:10:00
28	0.19	S-28	89.00	8.00	6.69	0.79	0 00:10:00
28A	0.09	S-28A	89.00	8.00	6.68	0.37	0 00:10:00
29	0.17	S-29	89.00	8.00	6.69	0.71	0 00:10:00
30	0.32	S-30	89.00	8.00	6.69	1.31	0 00:10:00
31	0.15	S-31	89.00	8.00	6.69	0.60	0 00:10:00
LD1	0.11	LD-1	98.00	8.00	7.76	0.48	0 00:10:00
LD2	0.11	LD-2	98.00	8.00	7.76	0.48	0 00:10:00

### Inlet Report - 10 Yr. Storm Event

Element	Inlet	Catchbasin	Max	Peak	Max Gutter	Max Gutter	Max Gutter
ID	Location	Invert	(Rim)	Flow	Spread	Water Elev.	Water Depth
		Elevation	Elevation		during	during	during
					Peak Flow	Peak Flow	Peak Flow
		(ft)	(ft)	(cfs)	(ft)	(ft)	(ft)
S-1	On Sag	18.00	20.30	3.11	12.88	20.66	0.36
S-2	On Sag	17.83	20.30	2.12	9.72	20.60	0.30
S-3	On Sag	17.64	20.30	1.91	9.00	20.59	0.29
S-4	On Sag	17.47	20.30	1.75	8.43	20.57	0.27
S-5	On Sag	17.30	20.30	1.75	8.43	20.57	0.27
S-6	On Sag	17.12	20.30	2.32	10.42	20.61	0.31
S-8	On Sag	16.91	20.00	3.42	13.81	20.38	0.38
S-9	On Sag	16.60	20.75	2.04	9.45	21.04	0.29
S-11	On Sag	16.33	20.50	3.47	13.96	20.88	0.38
S-12	On Sag	16.04	20.80	0.78	2.80	20.96	0.16
S-14	On Sag	17.80	20.00	3.42	13.81	20.38	0.38
S-15	On Sag	17.62	20.00	2.98	12.48	20.36	0.36
S-16	On Sag	17.44	20.00	3.21	13.19	20.37	0.37
S-17	On Sag	17.26	20.00	2.95	12.40	20.35	0.35
S-18	On Sag	17.09	20.00	3.06	12.72	20.36	0.36
S-19	On Sag	17.91	22.45	1.23	6.43	22.68	0.23
S-20	On Sag	17.40	22.45	0.99	5.43	22.66	0.21
S-21	On Sag	16.90	22.35	0.99	5.43	22.56	0.21
S-24	On Sag	16.18	22.10	0.99	5.43	22.31	0.21
S-26	On Sag	16.10	21.80	0.78	2.80	21.96	0.16
S-28	On Sag	16.90	21.35	0.78	2.80	21.51	0.16
S-28A	On Sag	17.35	21.30	0.37	2.08	21.45	0.15
S-29	On Sag	16.49	21.40	0.71	2.68	21.56	0.16
S-30	On Sag	16.53	21.35	1.31	6.74	21.59	0.24
S-31	On Sag	16.23	21.40	0.60	2.51	21.56	0.16

### Outfall Report - 10 Yr. Storm Event

Element	Invert	Peak	Maximum	Maximum
ID	Elevation	Inflow	HGL Depth	HGL Elevation
			Attained	Attained
	(ft)	(cfs)	(ft)	(ft)
S-13	16.00	18.08	2.03	18.03
S-23	16.00	3.20	0.84	16.84
S-25	16.00	1.46	0.51	16.51
S-27	16.00	1.26	0.56	16.56
S-29A	16.00	1.84	0.59	16.59
S-32	16.00	1.90	0.74	16.74