Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
20	YI 212B	DropGrate	376.84	Rect	4.00	4.00	15	Cir	369.25	15	Cir	369.35
21	YI 212C	DropGrate	376.49	Rect	4.00	4.00	15	Cir	370.10	15	Cir	370.20
22	YI 212D	DropGrate	378.16	Rect	4.00	4.00	15	Cir	371.80	15	Cir	371.90
23	YI 212E	DropGrate	376.49	Rect	4.00	4.00	15	Cir	372.54			
24	CB 211A	Combination	375.23	Rect	4.00	4.00	15	Cir	367.39			
25	CB 226	Combination	365.30	Rect	4.00	4.00	30	Cir	357.93	24 18	Cir Cir	358.15 358.18
26	CB 227	Combination	365.58	Rect	4.00	4.00	24	Cir	358.38	24 18	Cir Cir	358.58 358.63
27	CB 228	Combination	365.35	Rect	4.00	4.00	24	Cir	359.02	18	Cir	359.20
28	YI 229	DropGrate	364.22	Rect	4.00	4.00	18	Cir	360.00	18	Cir	360.20
29	YI 230	DropGrate	371.55	Rect	4.00	4.00	18	Cir	365.30	18	Cir	365.40
30	YI 231	DropGrate	376.52	Rect	4.00	4.00	18	Cir	371.51			
31	Structure - (762)	Manhole	365.42	Rect	4.00	4.00	18	Cir	358.44	18	Cir	358.55
32	Structure - (761)	Manhole	365.62	Rect	4.00	4.00	18	Cir	358.82	15	Cir	359.07
33	Structure - (760)	OpenHeadwall	361.14	n/a	n/a	n/a	15	Cir	359.89			
34	CB 223	Combination	363.57	Rect	4.00	4.00	24	Cir	355.61	15 15	Cir Cir	356.36 356.36
35	CB 224	Combination	364.75	Rect	4.00	4.00	15	Cir	356.60	15 15	Cir Cir	356.80 356.80
36	CB 225	Combination	365.63	Rect	4.00	4.00	15	Cir	357.90	15	Cir	358.10
37	JB 225A	Manhole	366.43	Rect	4.00	4.00	15	Cir	358.60	15	Cir	358.70
38	YI 225B	DropGrate	365.00	Rect	4.00	4.00	15	Cir	361.35			
39	CB 227A	Combination	365.59	Rect	4.00	4.00	18	Cir	358.77			
40	CB 202A	Combination	362.65	Rect	4.00	4.00	30	Cir	355.94	24	Cir	356.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
41	JB 202B	Manhole	362.75	Rect	4.00	4.00	24	Cir	356.30	18	Cir	356.40
42	YI 202B	Manhole	362.27	Rect	4.00	4.00	18	Cir	357.00	15 15	Cir Cir	357.20 357.20
43	YI 210C	DropGrate	361.89	Rect	4.00	4.00	15	Cir	357.60	15	Cir	357.70
44	YI 210D	DropGrate	362.74	Rect	4.00	4.00	15	Cir	358.30	15	Cir	358.40
45	YI 210E	DropGrate	365.12	Rect	4.00	4.00	15	Cir	360.68			
46	YI 202D	DropGrate	361.93	Rect	4.00	4.00	15	Cir	357.40	15	Cir	357.50
47	YI 202E	DropGrate	363.59	Rect	4.00	4.00	15	Cir	358.25	15	Cir	358.35
48	YI 202F	DropGrate	364.84	Rect	4.00	4.00	15	Cir	359.93			
49	CB 224A	Combination	364.78	Rect	4.00	4.00	15	Cir	357.08			
50	CB 203A	Combination	363.49	Rect	4.00	4.00	15	Cir	356.69			
51	CB 223A	Combination	363.70	Rect	4.00	4.00	15	Cir	356.50			
52	CB 209A	Combination	365.65	Rect	4.00	4.00	15	Cir	358.45			
53	FES 240	OpenHeadwall	360.99	n/a	n/a	n/a	18	Cir	359.20			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (137)	35.90	36	Cir	55.641	351.50	354.00	4.493	356.74	356.88	0.21	357.09	End	DropGrate
2	Pipe - (135)	34.44	36	Cir	87.767	354.10	354.55	0.513	357.09	356.45	n/a	356.45	1	Combination
3	Pipe - (131)	24.38	36	Cir	112.122	354.75	355.31	0.499	356.45	356.90	n/a	356.90 j	2	Combination
4	Pipe - (172)	23.70	36	Cir	41.788	355.50	355.71	0.503	357.00	357.28	n/a	357.28	3	Combination
5	Pipe - (171)	22.19	36	Cir	28.013	355.81	355.95	0.500	357.28	357.46	n/a	357.46	4	Combination
6	Pipe - (123)	21.34	36	Cir	41.080	356.05	356.26	0.511	357.46	357.74	0.64	357.74	5	Combination
7	Pipe - (520)	21.26	36	Cir	46.931	356.36	356.59	0.490	357.78	358.07	1.03	358.07	6	Combination
8	Pipe - (521)	9.55	24	Cir	28.000	357.10	357.24	0.500	358.21	358.35	0.50	358.85	7	Combination
9	Pipe - (122)	9.41	24	Cir	43.841	357.34	357.56	0.502	358.85	358.89	0.47	359.36	8	Combination
10	Pipe - (157) (1)	8.42	18	Cir	93.175	358.06	361.40	3.585	359.36	362.52	n/a	362.52 j	9	Combination
11	Pipe - (157)	5.10	18	Cir	92.149	361.50	367.00	5.969	362.52	367.87	n/a	367.87 j	10	Combination
12	Pipe - (160)	3.98	18	Cir	45.242	367.20	368.80	3.536	367.87	369.56	0.32	369.56	11	Combination
13	Pipe - (162)	3.11	18	Cir	28.241	369.00	369.30	1.062	369.56	369.97	n/a	369.97	12	Combination
14	Pipe - (168)	2.15	18	Cir	45.687	369.40	372.20	6.129	369.97	372.75	n/a	372.75 j	13	Combination
15	Pipe - (156)	1.96	15	Cir	100.604	372.45	377.70	5.218	372.76	378.26	0.11	378.26	14	Combination
16	Pipe - (143)	1.85	15	Cir	82.671	377.80	381.00	3.871	378.26	381.54	0.31	381.54	15	Combination
17	Pipe - (138)	1.30	15	Cir	41.477	381.20	382.20	2.411	381.54	382.65	n/a	382.65	16	Combination
18	Pipe - (158)	0.78	15	Cir	28.000	382.30	382.58	1.000	382.65	382.92	n/a	382.92 j	17	Combination
19	Pipe - (167)	0.39	15	Cir	28.132	381.20	381.34	0.498	381.54	381.58	0.08	381.67	16	Combination
20	Pipe - (631)	2.89	15	Cir	84.227	361.65	369.25	9.023	362.52	369.93	n/a	369.93 j	10	DropGrate
21	Pipe - (630)	2.78	15	Cir	74.539	369.35	370.10	1.006	369.93	370.77	0.13	370.77	20	DropGrate
22	Pipe - (628)	1.69	15	Cir	166.311	370.20	371.80	0.962	370.77	372.32	n/a	372.32 j	21	DropGrate
23	Pipe - (706)	0.88	15	Cir	106.063	371.90	372.54	0.603	372.32	372.91	n/a	372.91	22	DropGrate
24	Pipe - (161)	0.99	15	Cir	28.251	367.25	367.39	0.496	367.87	367.88	0.08	367.96	11	Combination

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (524)	11.53	30	Cir	66.604	357.60	357.93	0.495	358.70	359.07	0.92	359.07	7	Combination
26	Pipe - (522)	7.86	24	Cir	45.065	358.15	358.38	0.510	359.13	359.38	0.48	359.38	25	Combination
27	Pipe - (238)	7.63	24	Cir	87.915	358.58	359.02	0.500	359.55	360.00	0.54	360.00	26	Combination
28	Pipe - (237)	7.56	18	Cir	82.566	359.20	360.00	0.969	360.15	361.06	n/a	361.06	27	DropGrate
29	Pipe - (216)	4.81	18	Cir	197.312	360.20	365.30	2.585	361.06	366.14	n/a	366.14 j	28	DropGrate
30	Pipe - (217)	2.89	18	Cir	203.129	365.40	371.51	3.008	366.14	372.16	n/a	372.16 j	29	DropGrate
31	Pipe - (696) (1)	3.42	18	Cir	51.995	358.18	358.44	0.500	359.07	359.15	0.13	359.28	25	Manhole
32	Pipe - (696)	3.44	18	Cir	52.903	358.55	358.82	0.510	359.28	359.53	n/a	359.79 j	31	Manhole
33	Pipe - (695)	3.52	15	Cir	164.382	359.07	359.89	0.499	359.90	360.71	0.26	360.98	32	OpenHeadwall
34	Pipe - (180)	3.12	24	Cir	111.705	355.05	355.61	0.501	356.45	356.23	n/a	356.23	2	Combination
35	Pipe - (178)	2.46	15	Cir	43.844	356.36	356.60	0.547	357.00	357.24	n/a	357.51 j	34	Combination
36	Pipe - (177)	0.87	15	Cir	57.443	356.80	357.90	1.915	357.51	358.27	n/a	358.27 j	35	Combination
37	Pipe - (658)	0.42	15	Cir	49.489	358.10	358.60	1.010	358.32	358.85	n/a	358.85	36	Manhole
38	Pipe - (657)	0.42	15	Cir	23.641	358.70	361.35	11.210	358.85	361.60	n/a	361.60	37	DropGrate
39	Pipe - (523)	0.18	18	Cir	28.058	358.63	358.77	0.499	359.38	359.38	0.00	359.38	26	Combination
40	Pipe - (132) (1)	6.95	30	Cir	28.538	355.80	355.94	0.491	356.64	356.81	n/a	356.81	2	Combination
41	Pipe - (132)	6.03	24	Cir	39.389	356.05	356.30	0.635	356.85	357.17	n/a	357.17	40	Manhole
42	Pipe - (682)	3.83	18	Cir	116.936	356.40	357.00	0.513	357.17	357.75	0.29	358.04	41	Manhole
43	Pipe - (683)	2.02	15	Cir	56.289	357.20	357.60	0.711	358.04	358.17	n/a	358.17 j	42	DropGrate
44	Pipe - (698)	1.20	15	Cir	101.921	357.70	358.30	0.589	358.17	358.73	n/a	358.73 j	43	DropGrate
45	Pipe - (697)	0.53	15	Cir	106.000	358.40	360.68	2.151	358.73	360.96	n/a	360.96 j	44	DropGrate
46	Pipe - (681)	1.10	15	Cir	19.124	357.20	357.40	1.046	358.04	357.81	n/a	357.81	42	DropGrate
47	Pipe - (680)	0.77	15	Cir	80.726	357.50	358.25	0.929	357.81	358.59	0.06	358.59	46	DropGrate
48	Pipe - (679)	0.32	15	Cir	45.513	358.35	359.93	3.472	358.59	360.15	n/a	360.15 j	47	DropGrate

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (556)	1.13	15	Cir	28.005	356.80	357.08	1.000	357.51	357.50	n/a	357.50 j	35	Combination
50	Pipe - (173)	0.60	15	Cir	28.141	356.55	356.69	0.498	356.90	356.99	0.10	357.10	3	Combination
51	Pipe - (179)	0.42	15	Cir	28.755	356.36	356.50	0.487	356.62	356.76	0.08	356.84	34	Combination
52	209A	0.88	15	Cir	28.020	358.31	358.45	0.500	359.36	359.36	0.01	359.38	9	Combination
53	Pipe - (581)	1.94	18	Cir	55.276	354.31	359.20	8.847	356.74	359.72	n/a	359.72 j	End	OpenHeadwall

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 201	1.94	0.00	1.94	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.60	0.15	17.60	0.0	Off
2	CB 202	0.78	0.02	0.80	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.18	0.16	4.18	0.0	Off
3	CB 203	0.25	0.43	0.65	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.57	0.04	0.73	0.0	2
4	CB 204	1.73	0.00	1.29	0.43	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.31	0.15	3.30	0.0	3
5	CB 205	1.02	0.00	1.02	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	5.10	0.18	5.10	0.0	Off
6	CB 206	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.09	1.54	0.00	0.00	0.0	5
7	CB 207	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	2.20	0.00	0.00	0.0	6
8	CB 208	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.65	0.00	0.00	0.0	50
9	CB 209	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.61	0.00	0.00	0.0	Off
10	CB 210	0.63	0.00	0.63	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.54	0.01	0.25	0.0	9
11	CB 211	0.21	0.09	0.30	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	10
12	CB 212	0.92	0.00	0.82	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.17	4.75	0.08	1.27	0.0	11
13	CB 213	1.02	0.00	1.02	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	5.10	0.18	5.10	0.0	Off
14	CB 214	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.08	1.39	0.00	0.00	0.0	13
15	CB 215	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.07	1.24	0.00	0.00	0.0	14
16	CB 216	0.18	0.01	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.09	1.44	0.00	0.00	0.0	15
17	CB 217	0.53	0.00	0.52	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.15	3.30	0.04	0.59	0.0	16
18	CB 217A	0.78	0.00	0.78	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.08	0.16	4.08	0.0	Off
19	CB 216A	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.11	1.88	0.00	0.00	0.0	24
20	YI 212B	0.14	0.00	0.14	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.03	5.13	0.03	5.13	0.0	Off
21	YI 212C	1.20	0.00	1.20	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.45	0.11	13.45	0.0	Off
22	YI 212D	0.85	0.00	0.85	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.18	0.09	11.18	0.0	Off
23	YI 212E	0.88	0.00	0.88	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.42	0.09	11.42	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 211A	0.99	0.00	0.96	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.15	3.35	0.04	0.65	0.0	52
25	CB 226	0.49	0.00	0.49	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.76	0.14	2.76	0.0	Off
26	CB 227	0.14	0.00	0.14	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.09	1.58	0.09	1.58	0.0	Off
27	CB 228	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.83	0.00	0.00	0.0	39
28	YI 229	3.03	2.11	5.14	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.29	31.43	0.29	31.43	0.0	Off
29	YI 230	2.08	1.57	1.54	2.11	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	28
30	YI 231	2.89	0.00	1.32	1.57	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.020	0.020	0.013	0.13	15.10	0.13	15.10	0.0	29
31	Structure - (762)	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
32	Structure - (761)	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
33	Structure - (760)	3.52	0.00	3.52	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
34	CB 223	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.77	0.00	0.00	0.0	2
35	CB 224	0.53	0.00	0.53	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.67	0.02	0.31	0.0	34
36	CB 225	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.12	2.12	0.00	0.00	0.0	35
37	JB 225A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
38	YI 225B	0.42	0.00	0.42	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.97	0.05	7.97	0.0	Off
39	CB 227A	0.18	0.07	0.25	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.12	2.19	0.12	2.19	0.0	Off
40	CB 202A	1.02	0.01	1.03	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	5.15	0.18	5.15	0.0	Off
41	JB 202B	2.43	0.00	0.00	2.43	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
42	YI 202B	0.81	0.00	0.00	0.81	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
43	YI 210C	0.88	0.00	0.88	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.42	0.09	11.42	0.0	Off
44	YI 210D	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
45	YI 210E	0.53	0.00	0.53	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.85	0.06	8.85	0.0	Off
46	YI 202D	0.35	0.00	0.35	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.34	0.05	7.34	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	YI 202E	0.46	0.00	0.46	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.27	0.06	8.27	0.0	Off
48	YI 202F	0.32	0.00	0.32	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.01	0.05	7.01	0.0	Off
49	CB 224A	1.13	0.00	1.13	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.52	0.19	5.52	0.0	Off
50	CB 203A	0.60	0.00	0.59	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.25	0.03	0.57	0.0	40
51	CB 223A	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	2.14	0.00	0.00	0.0	40
52	CB 209A	0.88	0.03	0.84	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.33	0.07	1.10	0.0	39
53	FES 240	1.94	0.00	1.94	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	35.90	351.50	356.74	3.00	7.07	5.08	0.40	357.14	0.290	55.641	354.00	356.88	2.88	6.97	5.15	0.41	357.29	0.252	0.271	0.151	0.50	0.21
2	36	34.44	354.10	357.09	2.99	4.73	4.87	0.82	357.91	0.000	87.767	354.55	356.45	1.90**	4.73	7.28	0.82	357.28	0.000	0.000	n/a	3.15	n/a
3	36	24.38	354.75	356.45	1.70	3.81	5.88	0.64	357.09	0.000	112.122	355.31	356.90 j	1.59**	3.81	6.41	0.64	357.54	0.000	0.000	n/a	1.50	0.96
4	36	23.70	355.50	357.00	1.50*	3.54	6.69	0.63	357.63	0.000	41.788	355.71	357.28	1.57**	3.74	6.35	0.63	357.90	0.000	0.000	n/a	1.11	n/a
5	36	22.19	355.81	357.28	1.47	3.44	6.46	0.60	357.88	0.000	28.013	355.95	357.46	1.51**	3.58	6.21	0.60	358.06	0.000	0.000	n/a	1.28	n/a
6	36	21.34	356.05	357.46	1.41	3.28	6.51	0.58	358.05	0.000	41.080	356.26	357.74	1.48**	3.48	6.13	0.58	358.33	0.000	0.000	n/a	1.09	0.64
7	36	21.26	356.36	357.78	1.42*	3.30	6.45	0.58	358.36	0.000	46.931	356.59	358.07	1.48**	3.48	6.12	0.58	358.65	0.000	0.000	n/a	1.77	1.03
8	24	9.55	357.10	358.21	1.11*	1.78	5.31	0.44	358.65	0.499	28.000	357.24	358.35	1.11**	1.80	5.31	0.44	358.79	0.499	0.499	0.140	1.13	0.50
9	24	9.41	357.34	358.85	1.51	2.54	3.70	0.21	359.06	0.205	43.841	357.56	358.89	1.33	2.22	4.24	0.28	359.17	0.284	0.245	0.107	1.69	0.47
10	18	8.42	358.06	359.36	1.30	1.42	5.17	0.55	359.91	0.000	93.175	361.40	362.52 j	1.12**	1.42	5.93	0.55	363.07	0.000	0.000	n/a	1.50	n/a
11	18	5.10	361.50	362.52	1.02	1.06	3.97	0.36	362.88	0.000	92.149	367.00	367.87 j	0.87**	1.06	4.81	0.36	368.23	0.000	0.000	n/a	1.49	0.54
12	18	3.98	367.20	367.87	0.67	0.76	5.23	0.30	368.17	0.000	45.242	368.80	369.56	0.76**	0.90	4.41	0.30	369.86	0.000	0.000	n/a	1.07	0.32
13	18	3.11	369.00	369.56	0.56	0.61	5.14	0.26	369.82	0.000	28.241	369.30	369.97	0.67**	0.76	4.07	0.26	370.23	0.000	0.000	n/a	1.19	n/a
14	18	2.15	369.40	369.97	0.57	0.59	3.48	0.20	370.18	0.000	45.687	372.20	372.75 j	0.55**	0.59	3.63	0.20	372.96	0.000	0.000	n/a	1.17	n/a
15	15	1.96	372.45	372.76	0.31*	0.24	8.34	0.21	372.97	0.000	100.604	377.70	378.26	0.56**	0.53	3.71	0.21	378.47	0.000	0.000	n/a	0.50	0.11
16	15	1.85	377.80	378.26	0.46	0.41	4.54	0.21	378.46	0.000	82.671	381.00	381.54	0.54**	0.51	3.64	0.21	381.75	0.000	0.000	n/a	1.50	0.31
17	15	1.30	381.20	381.54	0.34	0.27	4.80	0.17	381.71	0.000	41.477	382.20	382.65	0.45**	0.40	3.27	0.17	382.82	0.000	0.000	n/a	1.18	n/a
18	15	0.78	382.30	382.65	0.35	0.27	2.77	0.12	382.77	0.000	28.000	382.58	382.92 j	0.34**	0.27	2.82	0.12	383.05	0.000	0.000	n/a	1.00	0.12
19	15	0.39	381.20	381.54	0.34	0.17	1.44	0.03	381.57	0.138	28.132	381.34	381.58	0.24**	0.17	2.30	0.08	381.67	0.520	0.329	0.093	1.00	0.08
20	15	2.89	361.65	362.52	0.87	0.68	3.15	0.28	362.80	0.000	84.227	369.25	369.93 j	0.68**	0.68	4.21	0.28	370.21	0.000	0.000	n/a	0.50	0.14
21	15	2.78	369.35	369.93	0.58	0.56	4.96	0.27	370.20	0.000	74.539	370.10	370.77	0.67**	0.67	4.16	0.27	371.04	0.000	0.000	n/a	0.50	0.13
22	15	1.69	370.20	370.77	0.57	0.48	3.11	0.19	370.96	0.000	166.311	371.80	372.32 j	0.52**	0.48	3.54	0.19	372.51	0.000	0.000	n/a	0.50	0.10

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.88	371.90	372.32	0.42	0.30	2.47	0.13	372.45	0.000	106.063	372.54	372.91	0.37**	0.30	2.92	0.13	373.04	0.000	0.000	n/a	1.00	n/a
24	15	0.99	367.25	367.87	0.62	0.61	1.63	0.04	367.91	0.097	28.251	367.39	367.88	0.49	0.44	2.22	0.08	367.96	0.224	0.161	0.045	1.00	0.08
25	30	11.53	357.60	358.70	1.10*	2.08	5.55	0.44	359.14	0.000	66.604	357.93	359.07	1.14**	2.17	5.31	0.44	359.51	0.000	0.000	n/a	2.09	0.92
26	24	7.86	358.15	359.13	0.98*	1.54	5.10	0.39	359.53	0.000	45.065	358.38	359.38	1.00**	1.56	5.03	0.39	359.77	0.000	0.000	n/a	1.21	0.48
27	24	7.63	358.58	359.55	0.97*	1.52	5.03	0.38	359.94	0.000	87.915	359.02	360.00	0.98**	1.53	4.98	0.38	360.39	0.000	0.000	n/a	1.41	0.54
28	18	7.56	359.20	360.15	0.95*	1.18	6.39	0.49	360.65	0.000	82.566	360.00	361.06	1.06**	1.34	5.64	0.49	361.56	0.000	0.000	n/a	0.50	n/a
29	18	4.81	360.20	361.06	0.86	1.02	4.56	0.34	361.41	0.000	197.312	365.30	366.14 j	0.84**	1.02	4.71	0.34	366.49	0.000	0.000	n/a	0.50	n/a
30	18	2.89	365.40	366.14	0.74	0.73	3.31	0.25	366.39	0.000	203.129	371.51	372.16 j	0.65**	0.73	3.98	0.25	372.40	0.000	0.000	n/a	1.00	n/a
31	18	3.42	358.18	359.07	0.89	0.82	3.14	0.15	359.22	0.245	51.995	358.44	359.15	0.71**	0.82	4.16	0.27	359.42	0.516	0.380	0.198	0.48	0.13
32	18	3.44	358.55	359.28	0.73	0.82	4.05	0.26	359.53	0.477	52.903	358.82	359.53 j	0.71**	0.82	4.17	0.27	359.80	0.517	0.497	0.263	0.96	0.26
33	15	3.52	359.07	359.90	0.82*	0.86	4.10	0.26	360.16	0.499	164.382	359.89	360.71	0.82	0.86	4.11	0.26	360.98	0.502	0.500	0.822	1.00	0.26
34	24	3.12	355.05	356.45	1.40	0.82	1.32	0.22	356.68	0.000	111.705	355.61	356.23	0.62**	0.82	3.79	0.22	356.45	0.000	0.000	n/a	1.47	n/a
35	15	2.46	356.36	357.00	0.64*	0.62	3.92	0.24	357.24	0.547	43.844	356.60	357.24 j	0.64**	0.63	3.92	0.24	357.48	0.545	0.546	0.239	1.15	0.27
36	15	0.87	356.80	357.51	0.71	0.30	1.20	0.13	357.64	0.000	57.443	357.90	358.27 j	0.37**	0.30	2.91	0.13	358.40	0.000	0.000	n/a	0.94	n/a
37	15	0.42	358.10	358.32	0.22*	0.14	2.97	0.09	358.40	0.000	49.489	358.60	358.85	0.25**	0.18	2.39	0.09	358.94	0.000	0.000	n/a	0.85	n/a
38	15	0.42	358.70	358.85	0.15	0.08	4.98	0.09	358.94	0.000	23.641	361.35	361.60	0.25**	0.18	2.39	0.09	361.69	0.000	0.000	n/a	1.00	n/a
39	18	0.18	358.63	359.38	0.75	0.88	0.20	0.00	359.38	0.001	28.058	358.77	359.38	0.61	0.67	0.26	0.00	359.38	0.002	0.002	0.000	1.00	0.00
40	30	6.95	355.80	356.64	0.84*	1.44	4.82	0.32	356.96	0.000	28.538	355.94	356.81	0.87**	1.53	4.55	0.32	357.14	0.000	0.000	n/a	1.50	n/a
41	24	6.03	356.05	356.85	0.80*	1.17	5.16	0.33	357.18	0.000	39.389	356.30	357.17	0.87**	1.31	4.61	0.33	357.50	0.000	0.000	n/a	1.00	n/a
42	18	3.83	356.40	357.17	0.77	0.88	4.20	0.27	357.44	0.491	116.936	357.00	357.75	0.75**	0.89	4.32	0.29	358.04	0.529	0.510	0.596	1.00	0.29
43	15	2.02	357.20	358.04	0.84	0.54	2.30	0.22	358.26	0.000	56.289	357.60	358.17 j	0.57**	0.54	3.74	0.22	358.38	0.000	0.000	n/a	0.50	0.11
44	15	1.20	357.70	358.17	0.47	0.38	2.88	0.16	358.32	0.000	101.921	358.30	358.73 j	0.43**	0.38	3.20	0.16	358.89	0.000	0.000	n/a	0.50	0.08

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

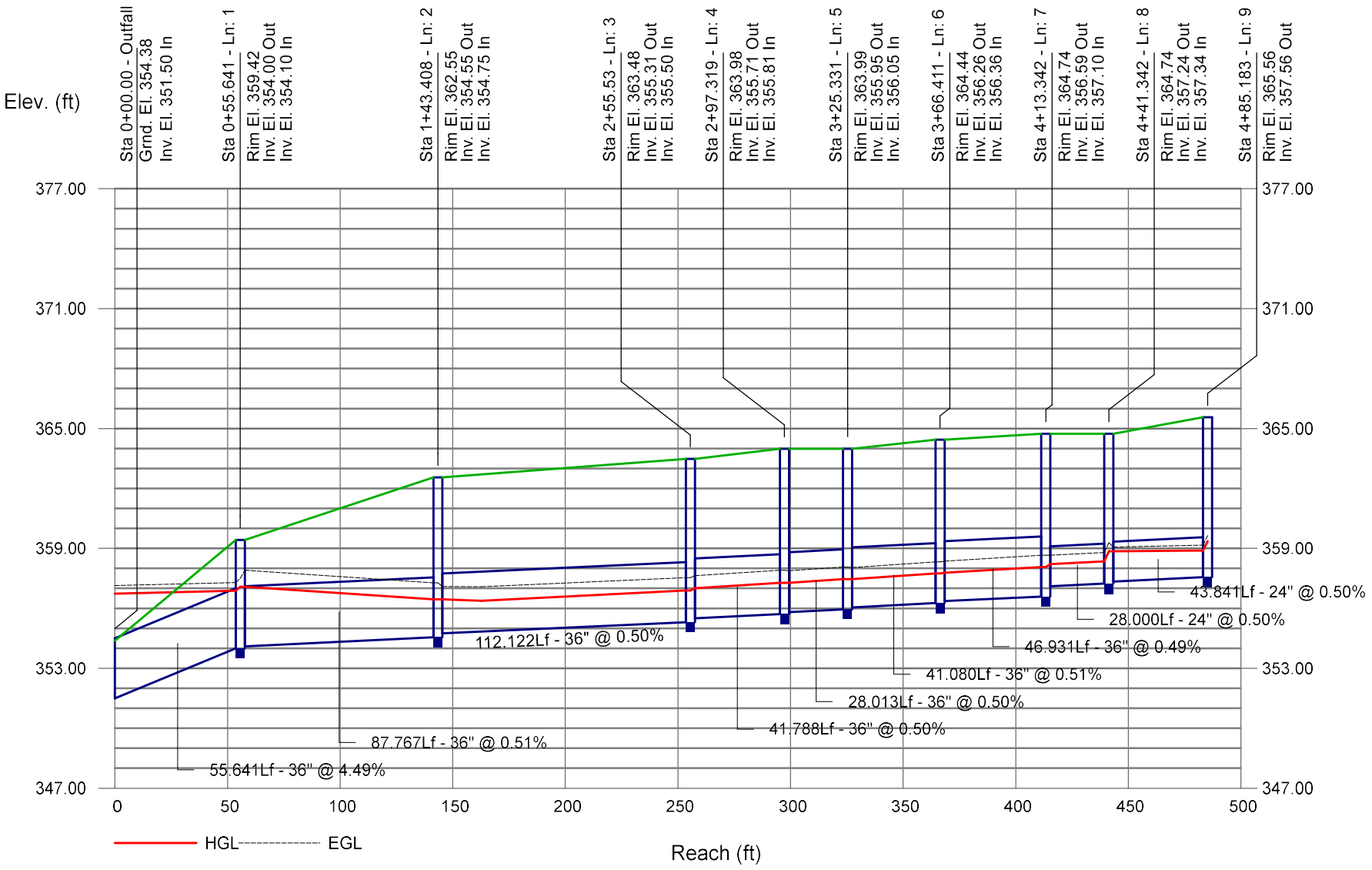
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.53	358.40	358.73	0.33	0.21	2.03	0.10	358.83	0.000	106.000	360.68	360.96 j	0.28**	0.21	2.54	0.10	361.06	0.000	0.000	n/a	1.00	0.10
46	15	1.10	357.20	358.04	0.84	0.35	1.25	0.15	358.19	0.000	19.124	357.40	357.81	0.41**	0.35	3.11	0.15	357.96	0.000	0.000	n/a	0.50	n/a
47	15	0.77	357.50	357.81	0.31	0.24	3.20	0.12	357.93	0.000	80.726	358.25	358.59	0.34**	0.27	2.81	0.12	358.71	0.000	0.000	n/a	0.50	0.06
48	15	0.32	358.35	358.59	0.24	0.14	1.90	0.08	358.67	0.000	45.513	359.93	360.15 j	0.22**	0.14	2.21	0.08	360.22	0.000	0.000	n/a	1.00	0.08
49	15	1.13	356.80	357.51	0.71	0.36	1.56	0.15	357.66	0.000	28.005	357.08	357.50 j	0.42**	0.36	3.14	0.15	357.65	0.000	0.000	n/a	1.00	0.15
50	15	0.60	356.55	356.90	0.35	0.23	2.12	0.07	356.97	0.290	28.141	356.69	356.99	0.30**	0.23	2.59	0.10	357.10	0.510	0.400	0.113	1.00	0.10
51	15	0.42	356.36	356.62	0.26*	0.18	2.30	0.08	356.70	0.486	28.755	356.50	356.76	0.26**	0.18	2.32	0.08	356.84	0.497	0.491	0.141	1.00	0.08
52	15	0.88	358.31	359.36	1.05	1.10	0.80	0.01	359.37	0.018	28.020	358.45	359.36	0.91	0.96	0.92	0.01	359.38	0.024	0.021	0.006	1.00	0.01
53	18	1.94	354.31	356.74	1.50	0.55	1.10	0.02	356.76	0.034	55.276	359.20	359.72 j	0.52**	0.55	3.52	0.19	359.92	0.496	0.265	n/a	1.00	n/a

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

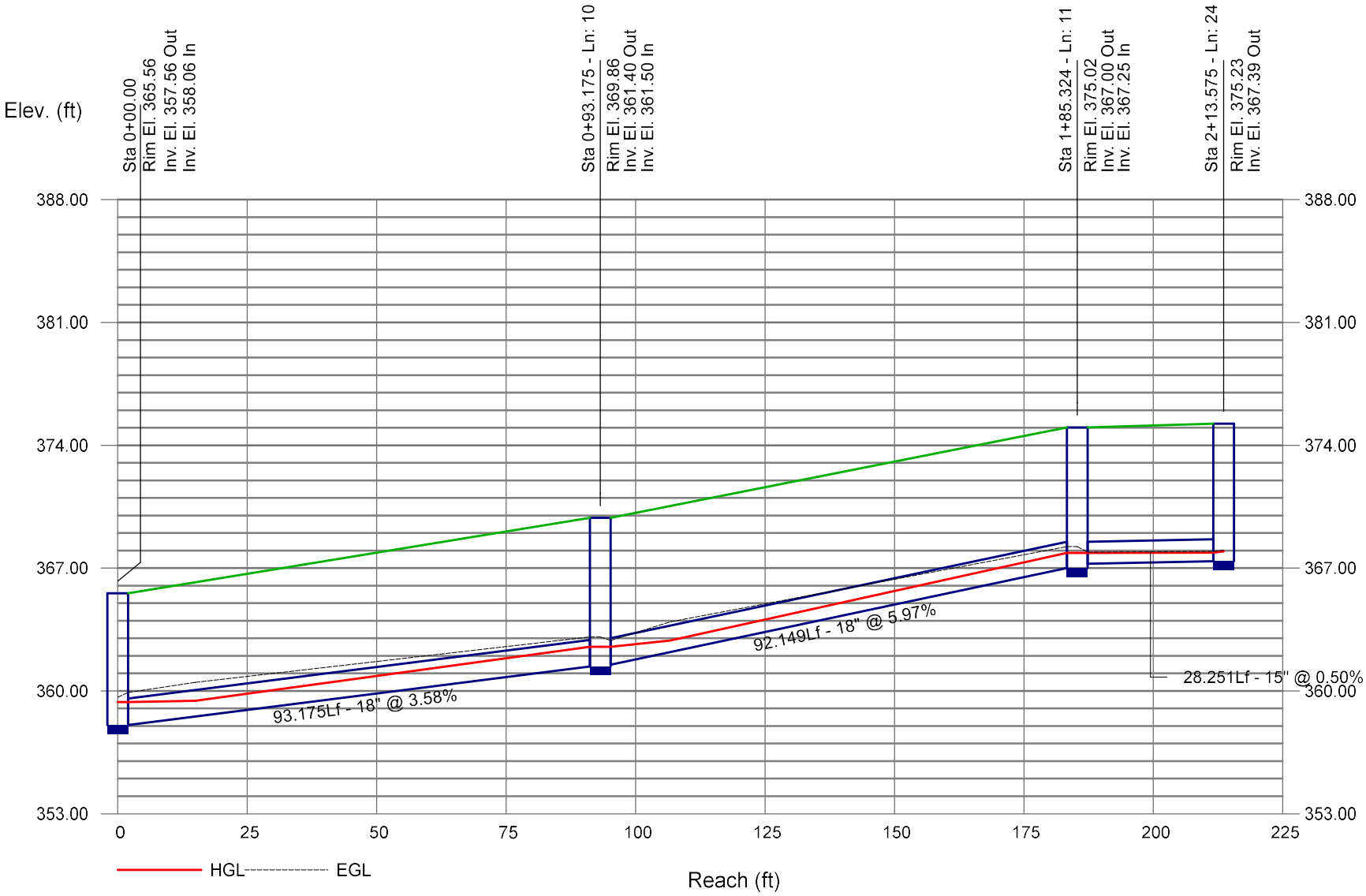
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



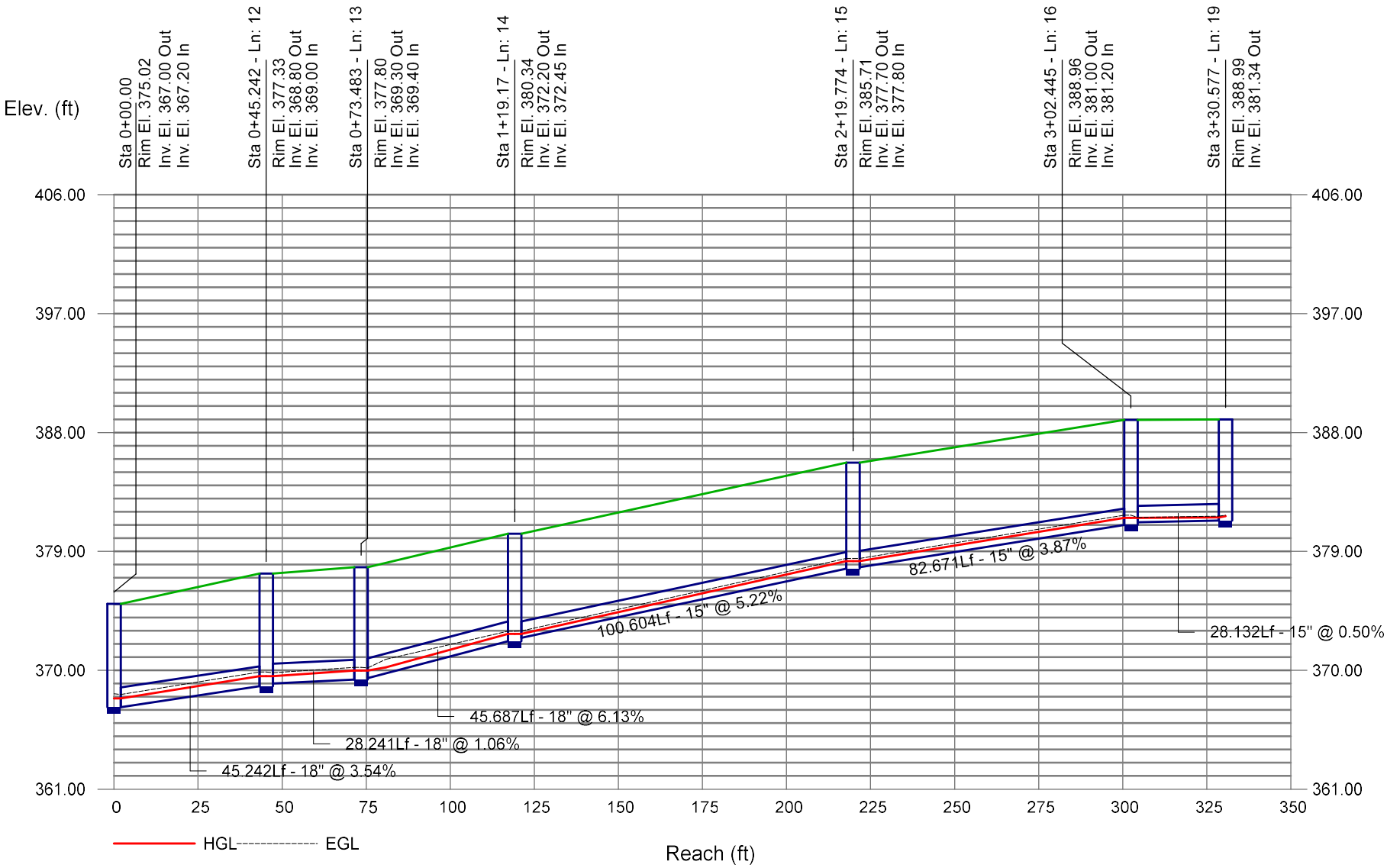
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



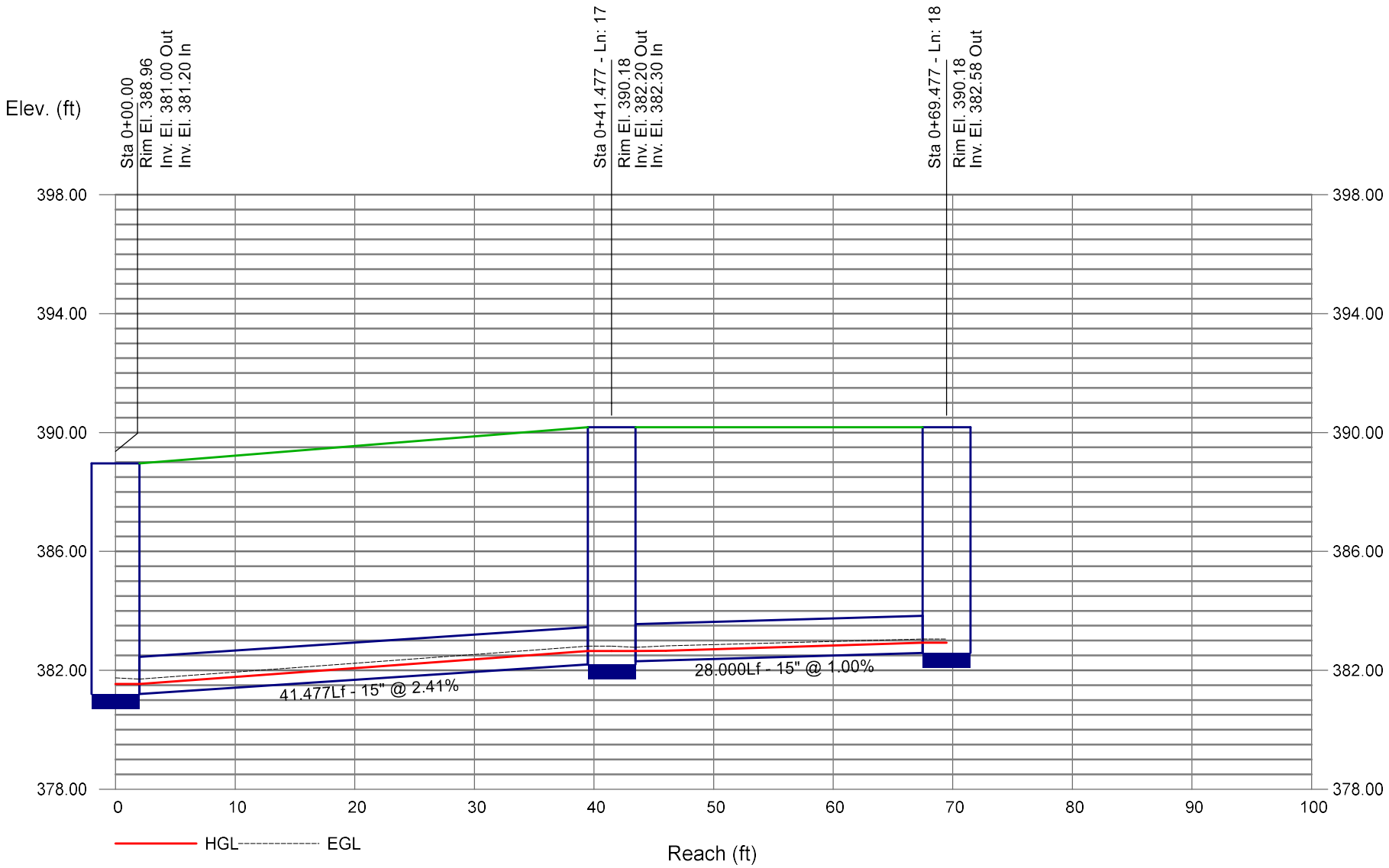
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



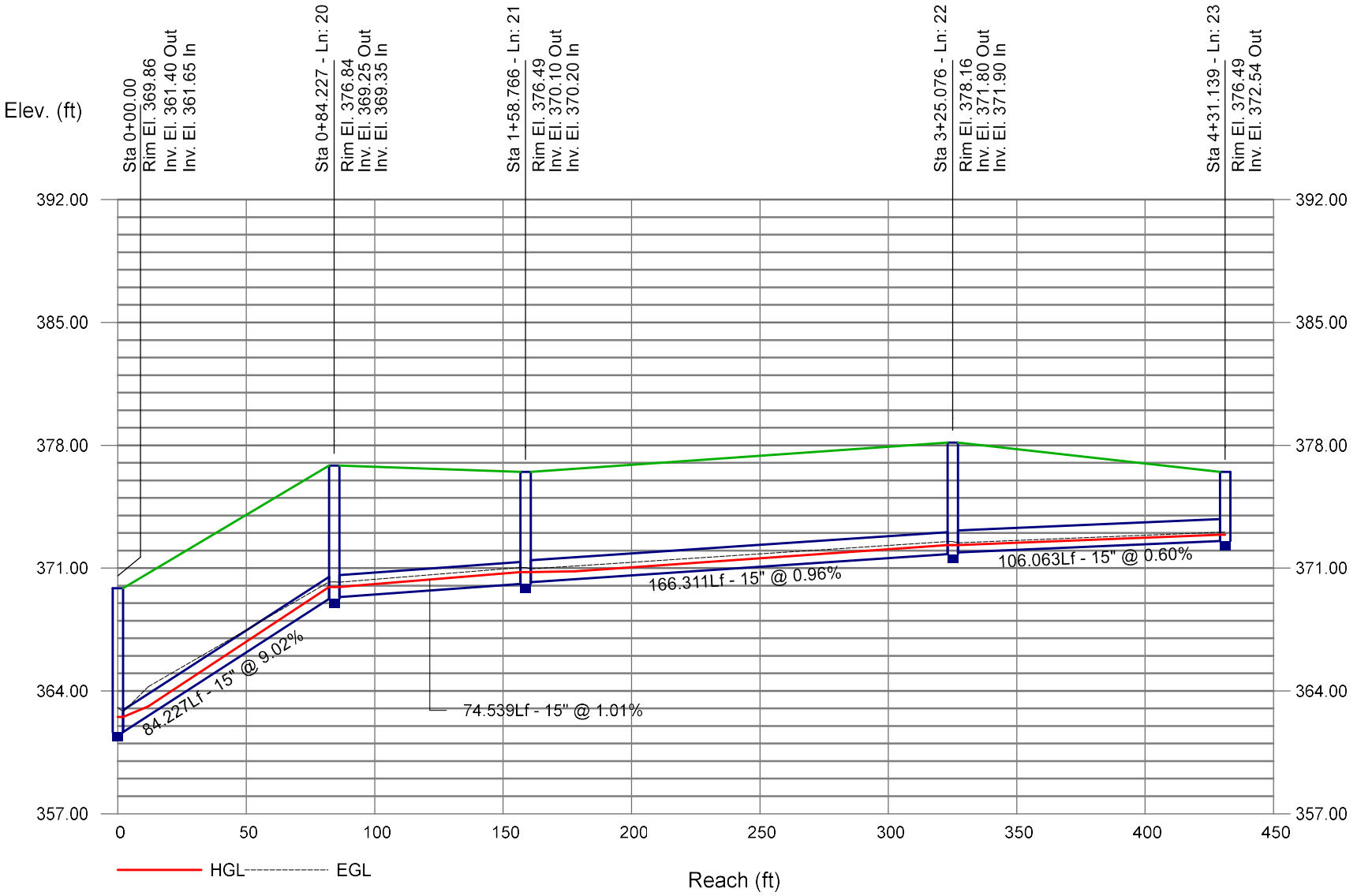
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



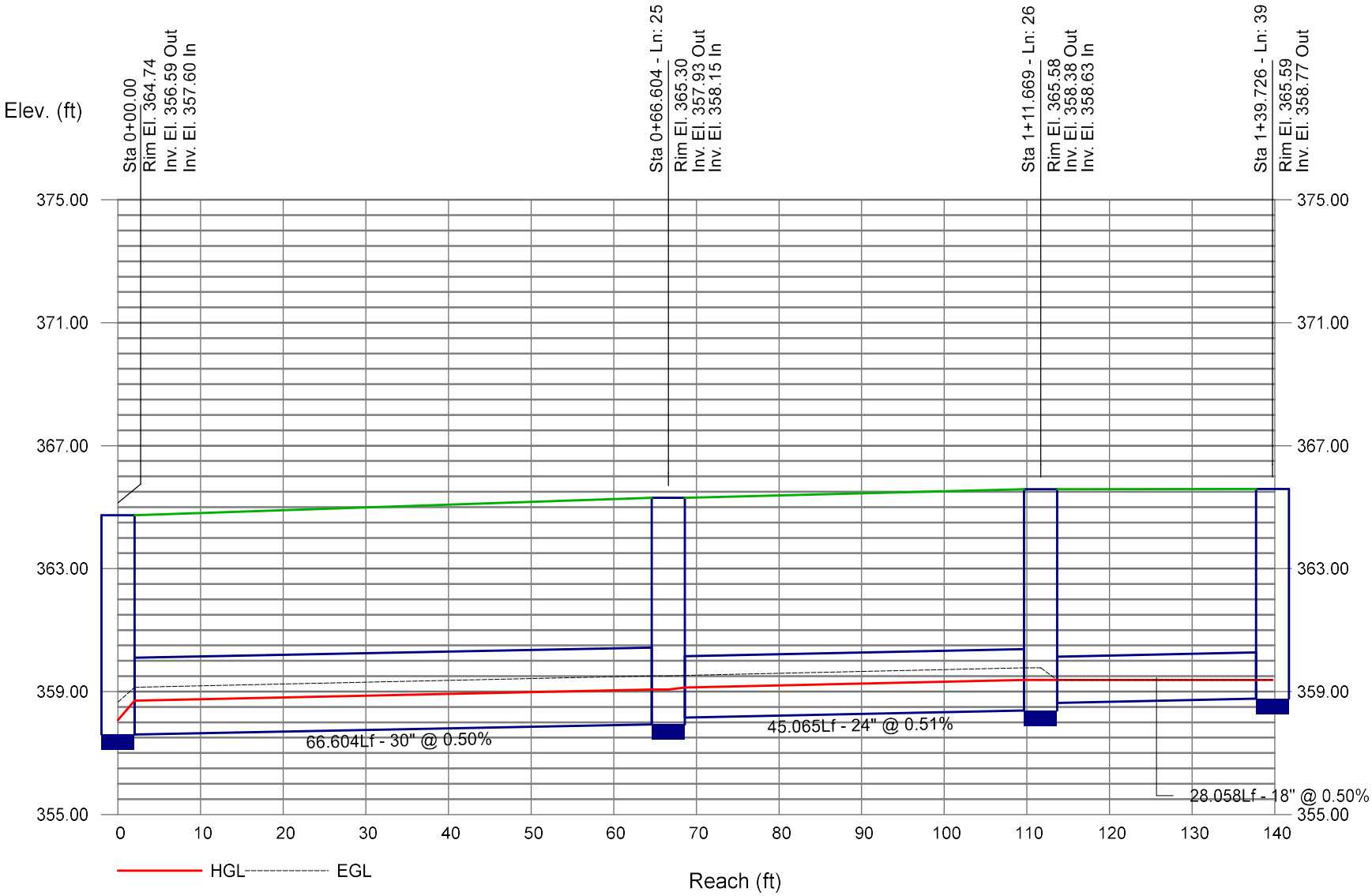
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



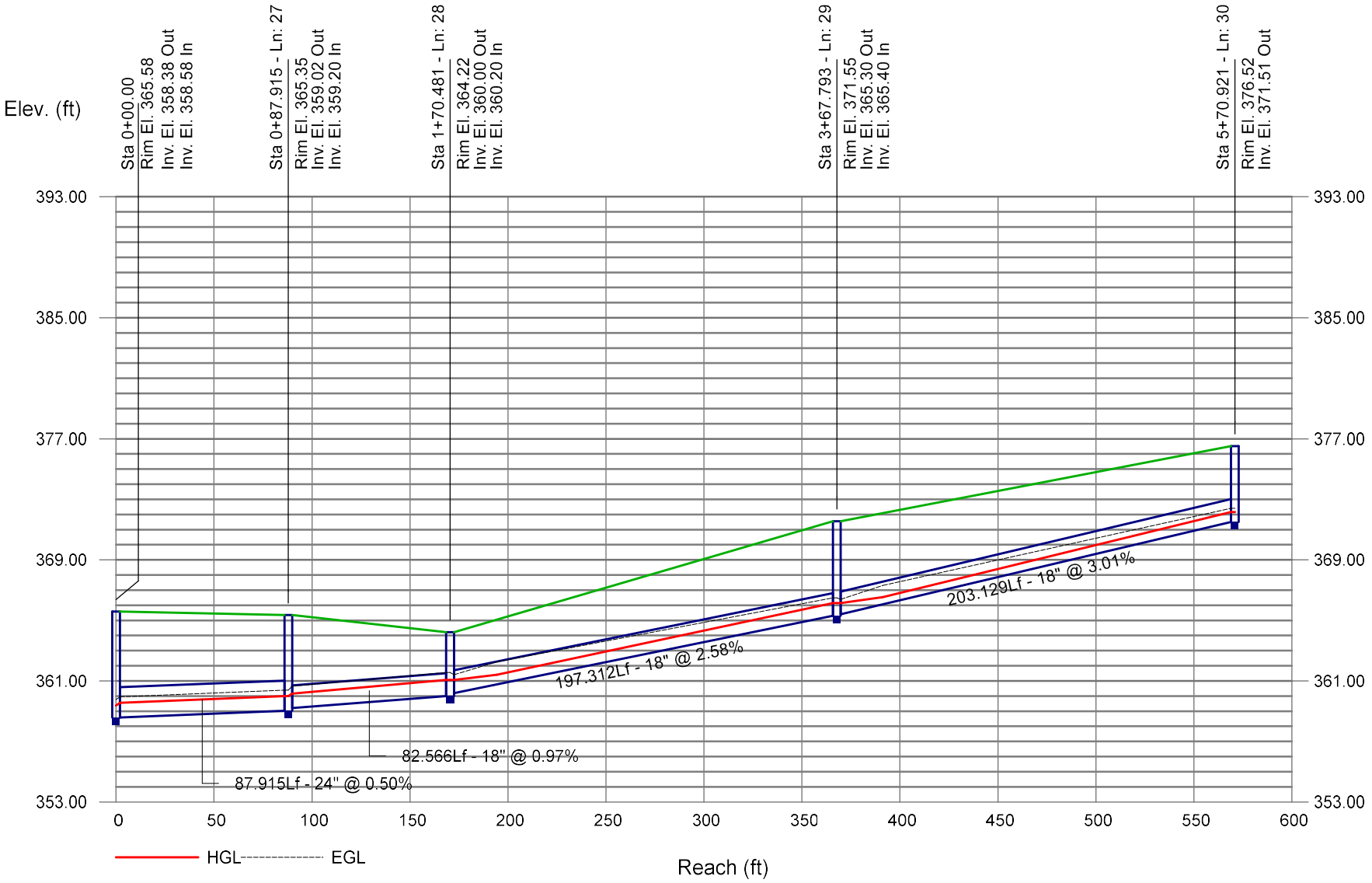
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



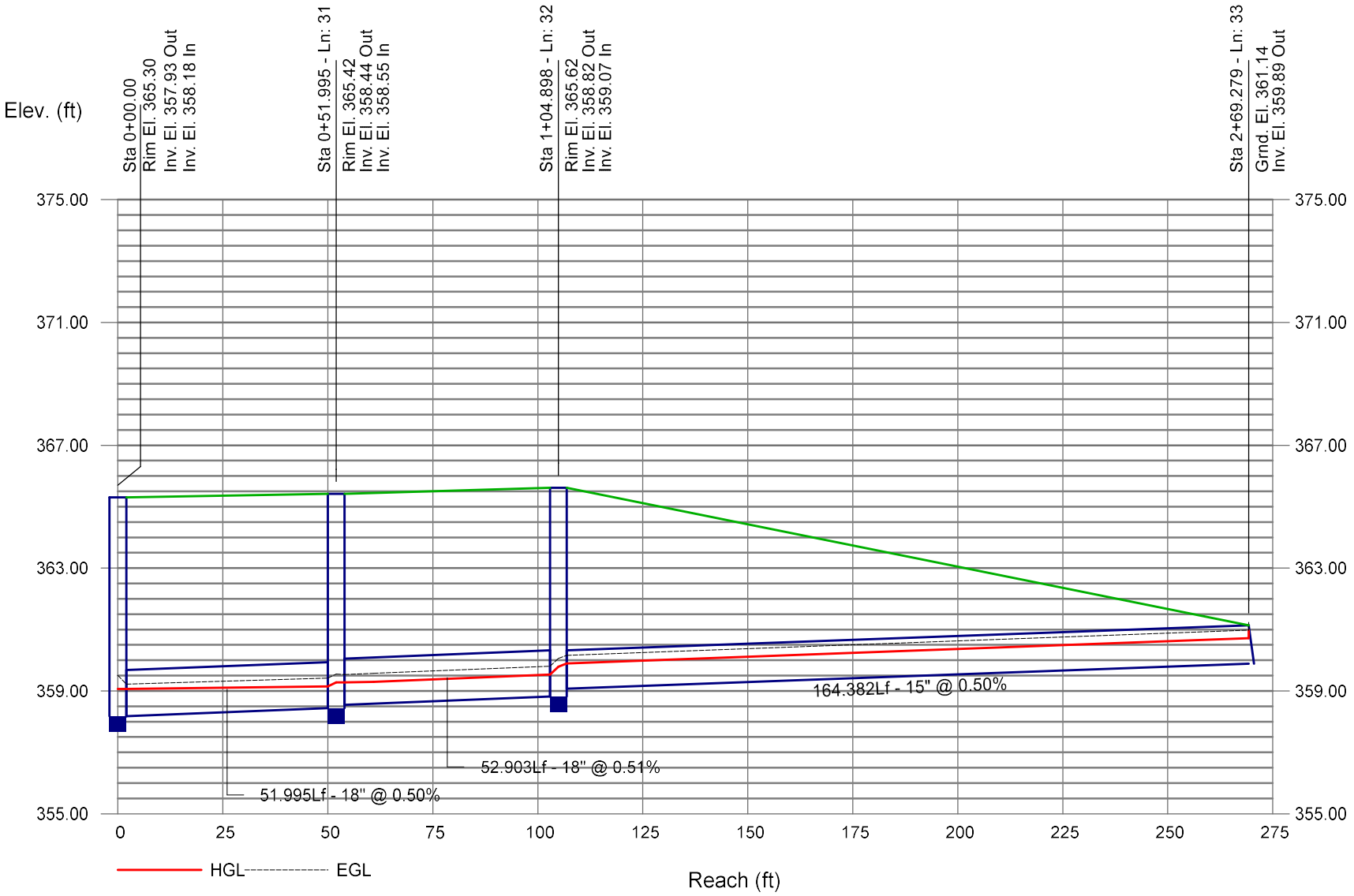
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



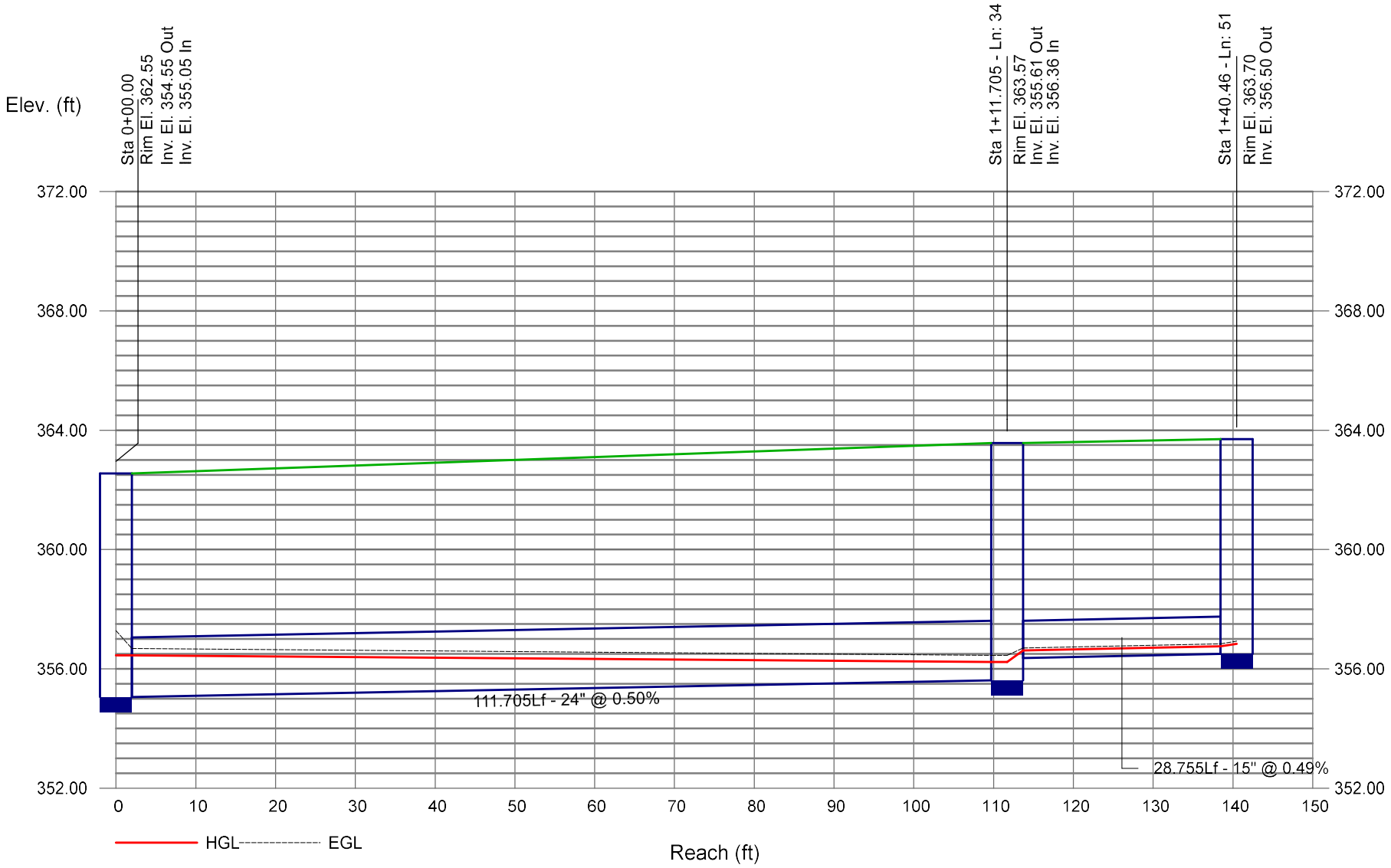
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



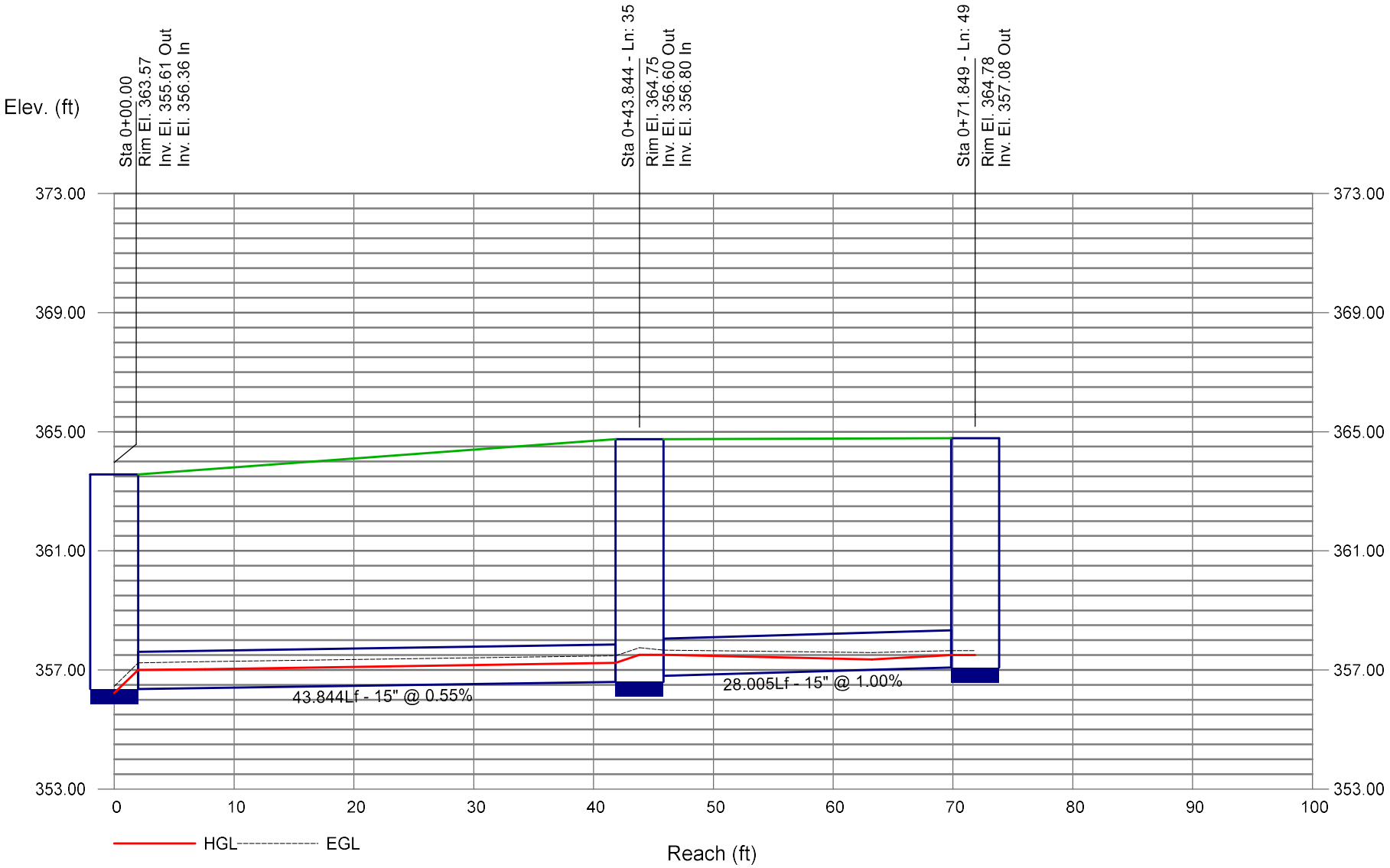
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



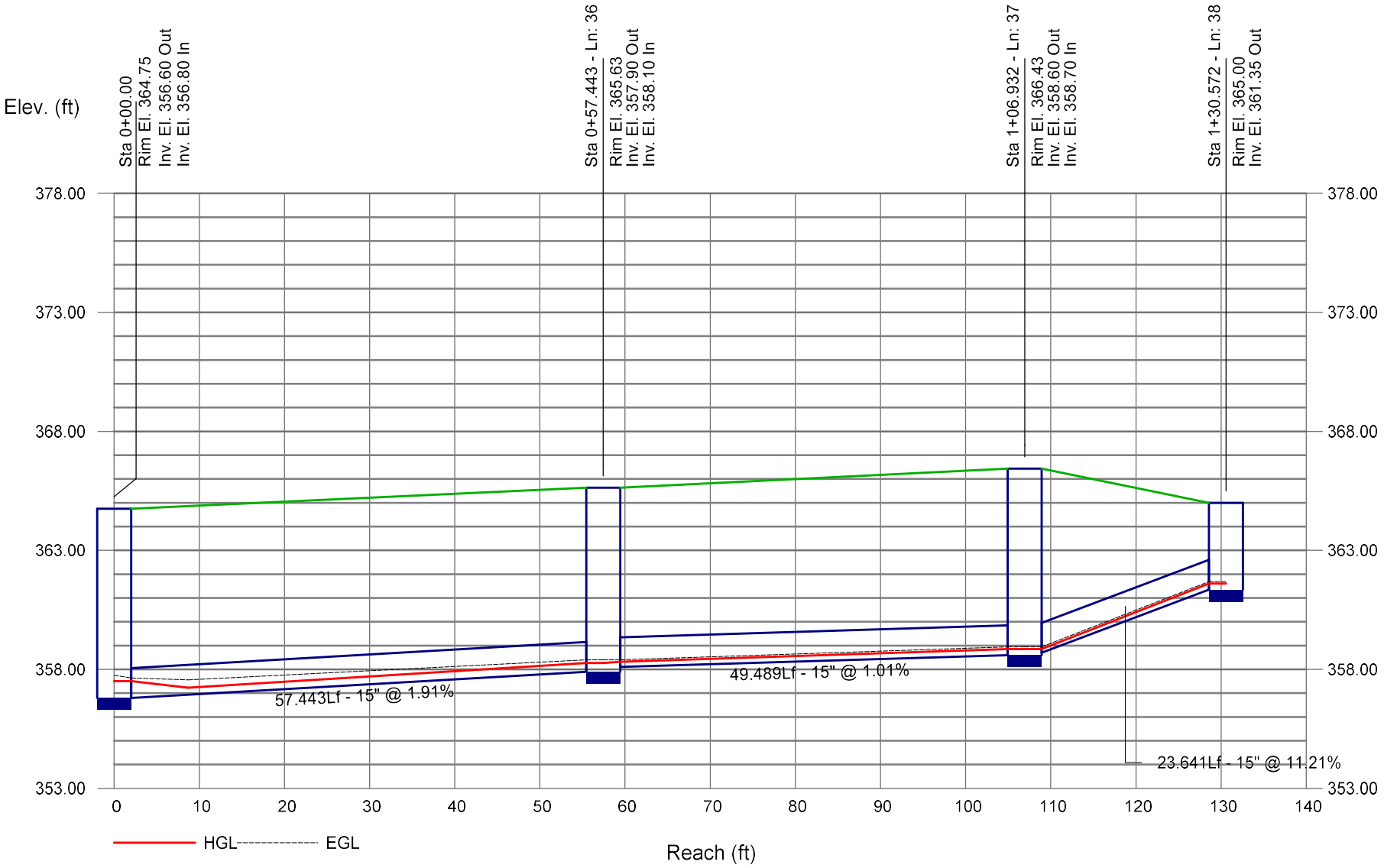
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



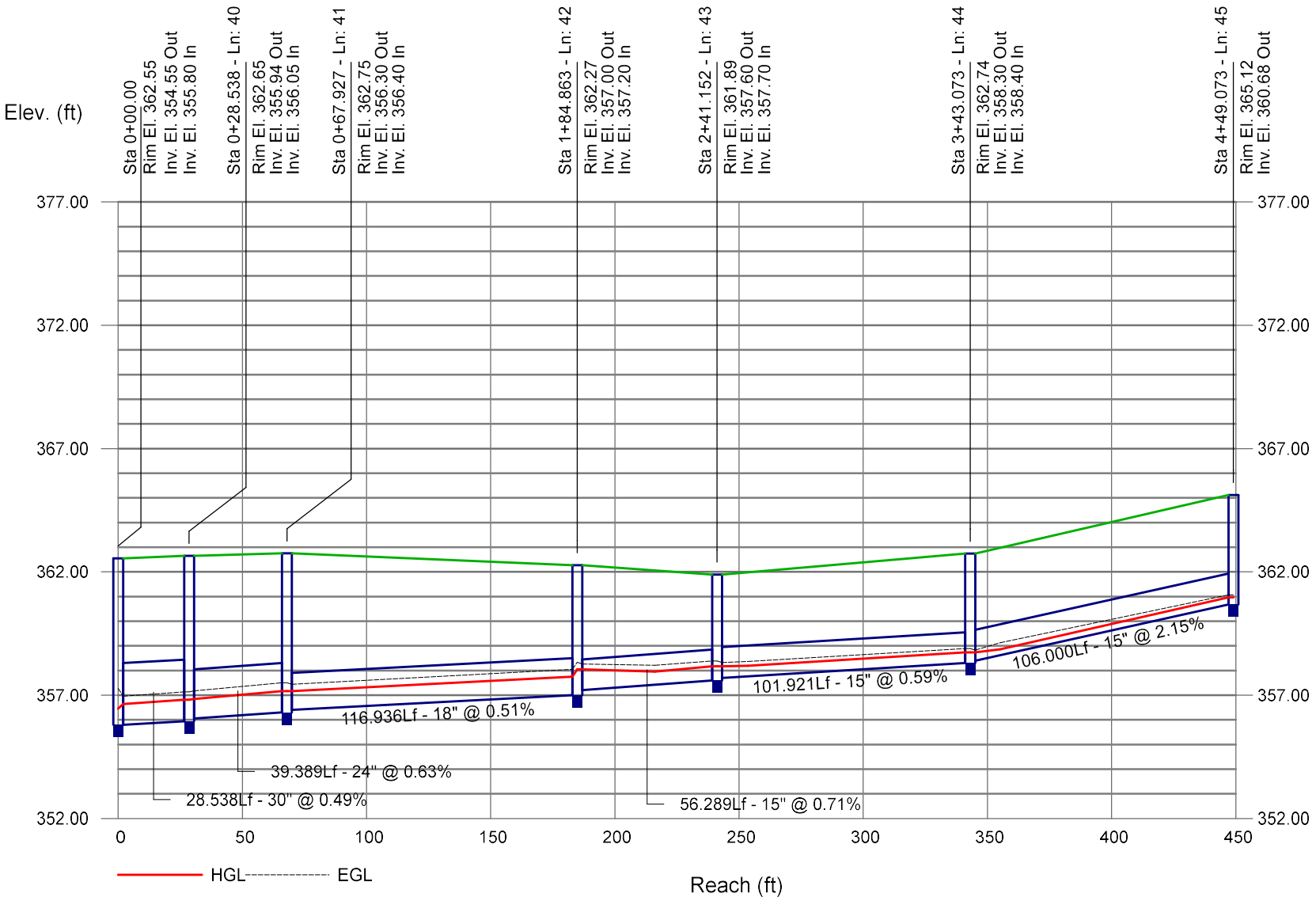
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



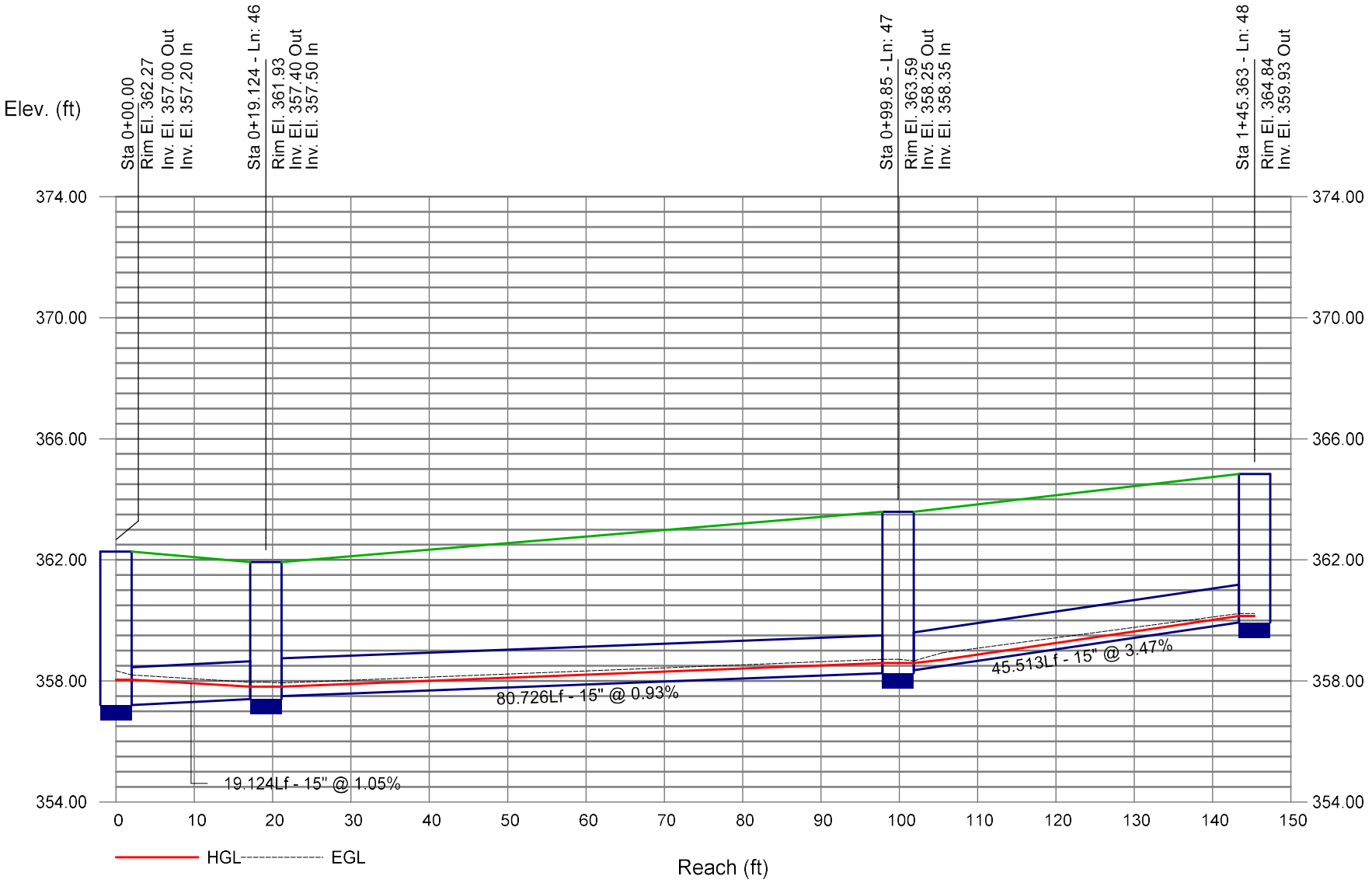
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



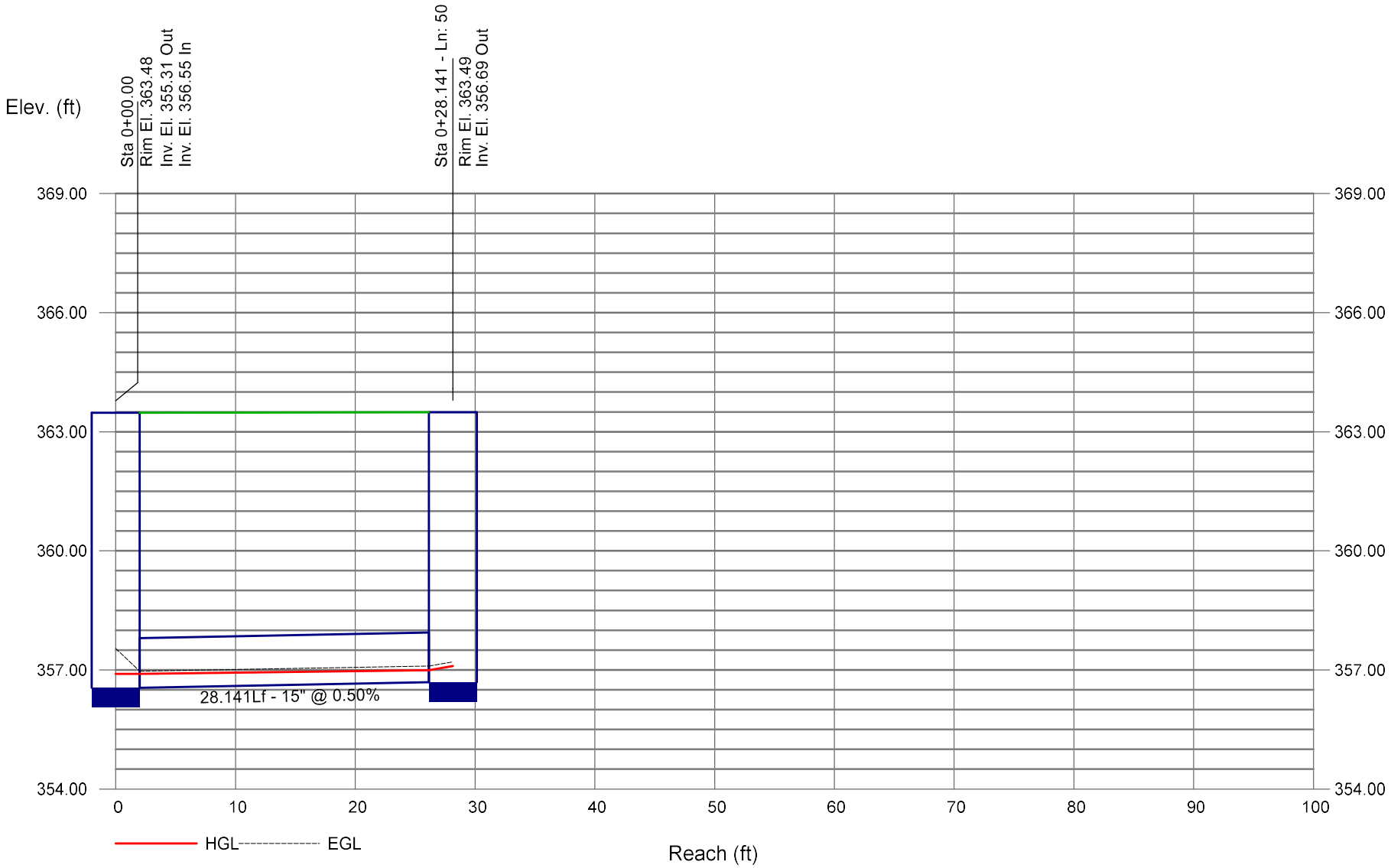
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



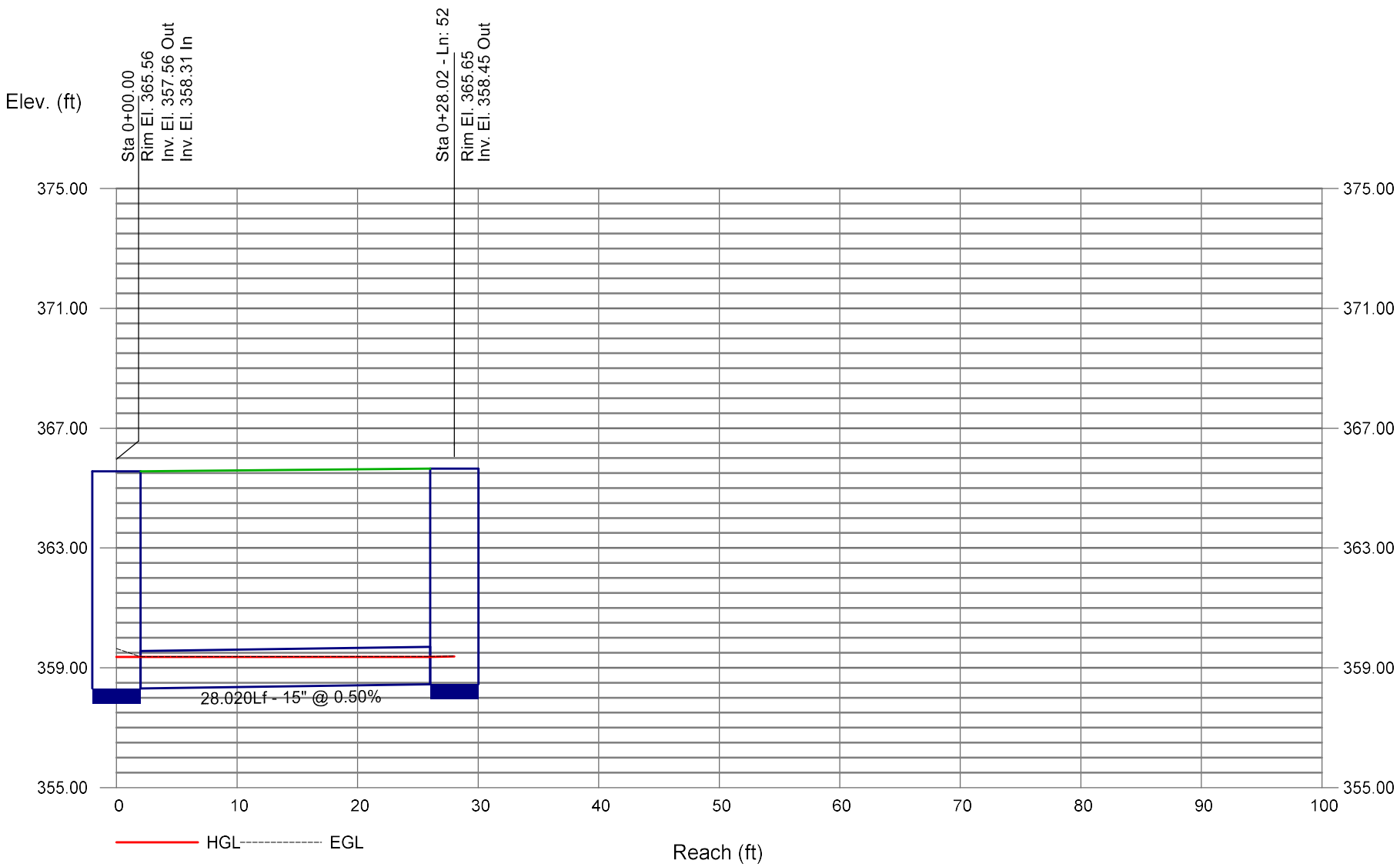
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



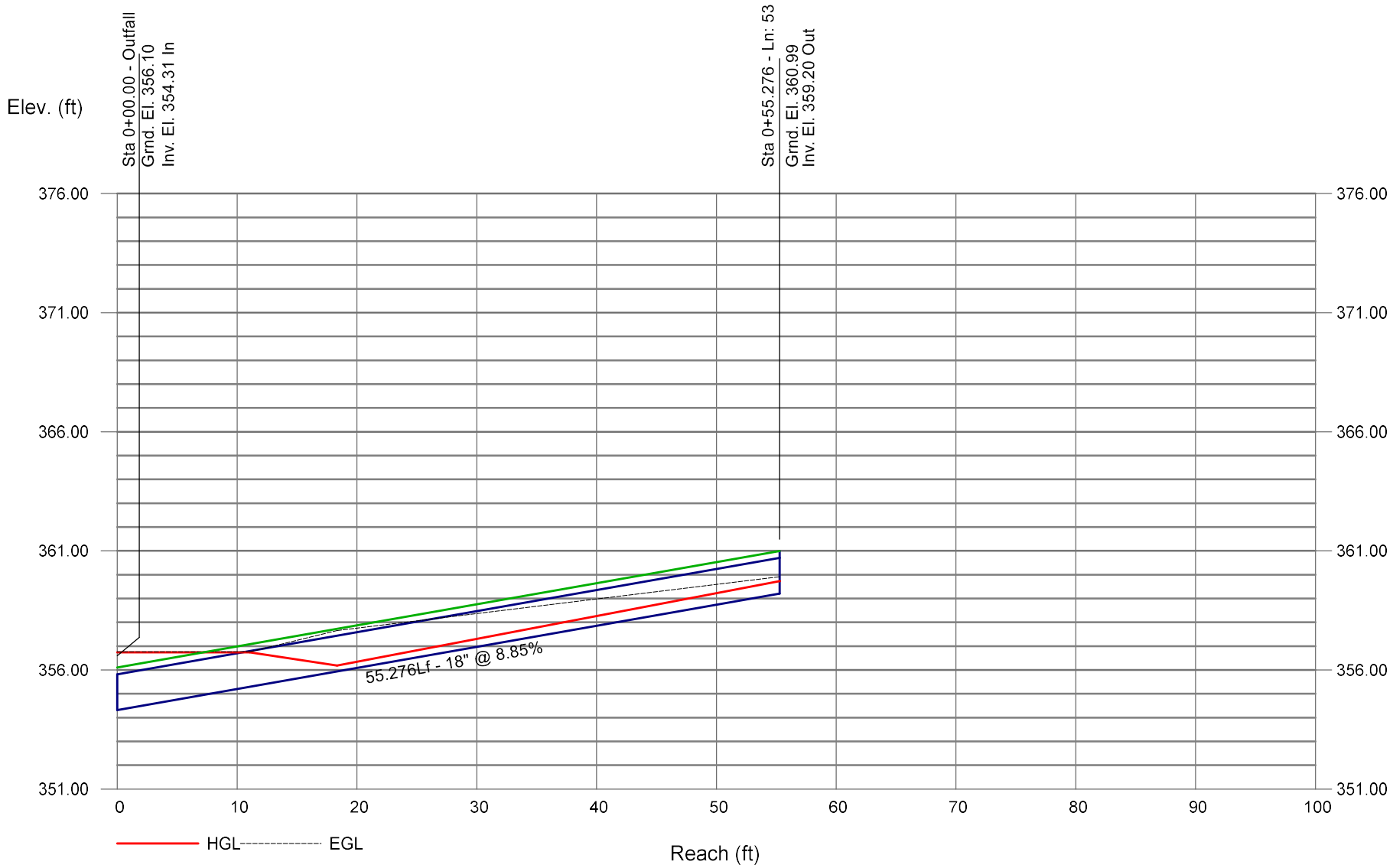
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm

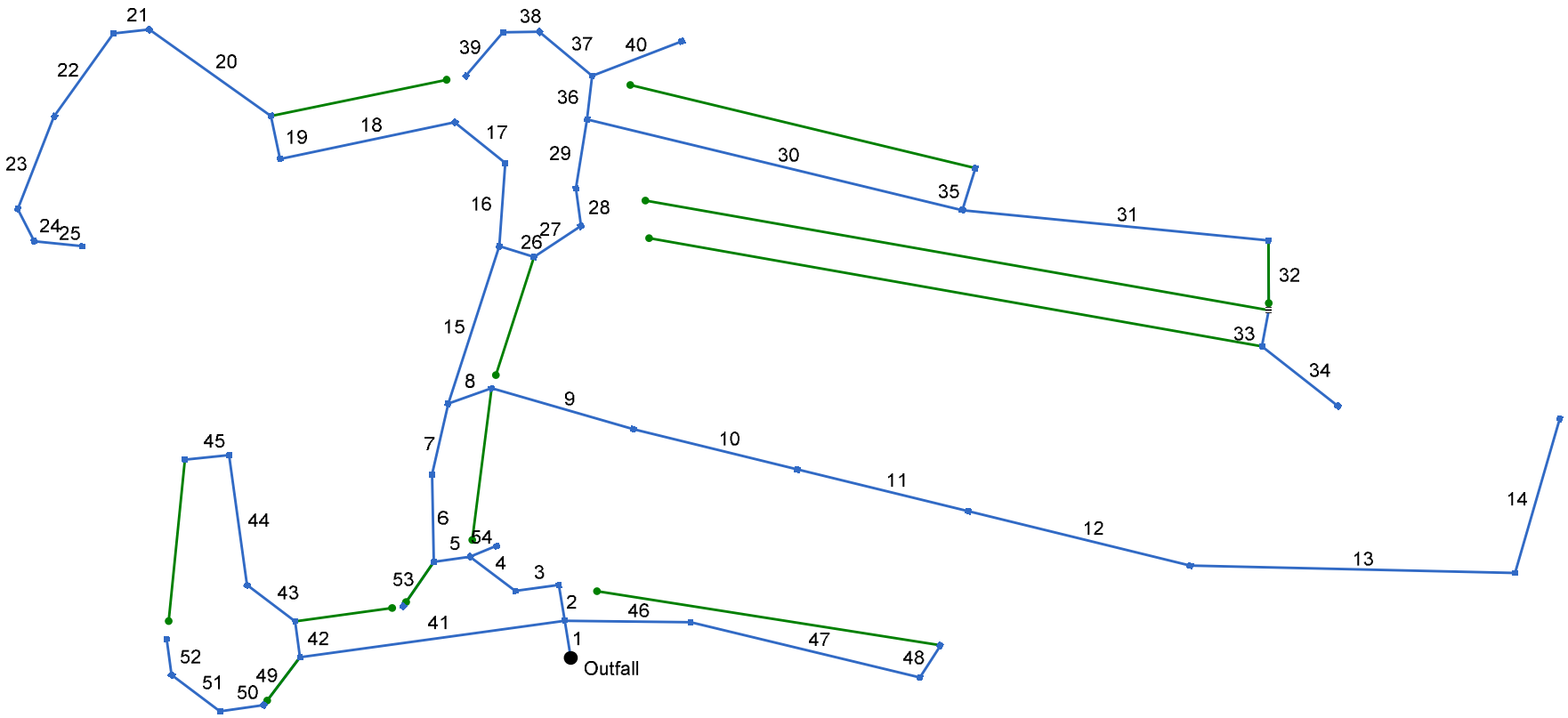


Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 4 Storm Network.stm	Number of lines: 54	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	29.195	-98.889	Comb	0.00	0.22	0.60	10.0	362.00	0.69	362.20	48	Cir	0.013	1.50	371.94	Pipe - (418)
2	1	28.012	-0.664	Comb	0.00	0.40	0.60	10.0	362.40	2.86	363.20	48	Cir	0.013	1.50	371.94	Pipe - (417)
3	2	33.797	-88.332	Comb	0.00	0.03	0.60	10.0	363.70	0.89	364.00	42	Cir	0.013	1.13	372.18	Pipe - (416)
4	3	43.841	45.000	Comb	0.00	0.07	0.60	10.0	364.10	0.91	364.50	36	Cir	0.013	1.50	372.99	Pipe - (368)
5	4	28.000	-45.000	Comb	0.00	1.08	0.60	10.0	364.70	1.07	365.00	36	Cir	0.013	1.75	373.02	Pipe - (380)
6	5	67.788	96.424	Comb	0.00	0.09	0.60	10.0	365.20	0.89	365.80	36	Cir	0.013	0.50	375.08	Pipe - (367) (1) (
7	6	56.317	14.470	Comb	0.00	0.21	0.60	10.0	365.90	1.07	366.50	36	Cir	0.013	1.80	376.94	Pipe - (367) (1)
8	7	35.477	57.582	Comb	0.00	0.16	0.60	10.0	367.50	0.85	367.80	36	Cir	0.013	0.95	377.70	Pipe - (374) (1)
9	8	113.770	35.649	DrGrt	0.00	0.79	0.60	10.0	367.90	0.70	368.70	36	Cir	0.013	0.50	372.15	Pipe - (374)
10	9	130.000	-2.441	DrGrt	0.00	0.54	0.60	10.0	368.80	0.77	369.80	24	Cir	0.013	0.50	372.97	Pipe - (373)
11	10	136.000	0.000	DrGrt	0.00	0.51	0.60	10.0	370.05	3.13	374.30	15	Cir	0.013	0.50	379.16	Pipe - (372)
12	11	176.286	0.000	DrGrt	0.00	0.53	0.60	10.0	374.40	2.61	379.00	15	Cir	0.013	0.50	383.14	Pipe - (490)
13	12	250.514	-12.494	MH	0.00	0.25	0.60	10.0	379.10	0.76	381.00	15	Cir	0.013	0.97	388.75	Pipe - (624)
14	13	124.357	-75.174	DrGrt	0.00	0.79	0.60	10.0	381.10	0.50	381.72	15	Cir	0.013	1.00	385.62	Pipe - (623)
15	7	128.000	4.879	Comb	0.00	0.09	0.60	10.0	367.00	2.66	370.40	24	Cir	0.013	1.50	380.11	Pipe - (366)
16	15	64.616	-13.839	Comb	0.00	0.08	0.60	10.0	370.90	2.94	372.80	18	Cir	0.013	1.27	380.82	Pipe - (409)
17	16	49.983	-55.102	Comb	0.00	0.09	0.60	10.0	372.90	2.40	374.10	18	Cir	0.013	1.22	382.08	Pipe - (408)
18	17	137.706	-50.808	Comb	0.00	0.09	0.60	10.0	374.20	0.94	375.50	18	Cir	0.013	1.50	384.92	Pipe - (432)
19	18	34.000	90.000	Comb	0.00	0.04	0.60	10.0	375.60	0.88	375.90	18	Cir	0.013	1.08	384.48	Pipe - (438)
20	19	115.233	-42.654	Comb	0.00	0.41	0.60	10.0	376.15	0.74	377.00	15	Cir	0.013	1.07	385.66	Pipe - (437)
21	20	28.000	-41.665	Comb	0.00	0.97	0.60	10.0	377.10	0.71	377.30	15	Cir	0.013	1.18	385.66	Pipe - (436)
22	21	78.850	-48.424	Comb	0.00	0.15	0.60	10.0	377.40	0.63	377.90	15	Cir	0.013	0.50	385.46	Pipe - (435)
23	22	76.953	-14.049	Comb	0.00	0.01	0.60	10.0	378.00	0.65	378.50	15	Cir	0.013	1.18	385.96	Pipe - (434)

Project File: SCM 4 Storm Network.stm

Number of lines: 54

Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	28.000	-48.252	Comb	0.00	0.03	0.60	10.0	378.60	0.71	378.80	15	Cir	0.013	1.30	385.96	Pipe - (433)
25	24	37.369	-57.113	Comb	0.00	0.09	0.60	10.0	379.00	5.65	381.11	15	Cir	0.013	1.00	386.87	Pipe - (535)
26	15	28.099	89.385	Comb	0.00	0.06	0.60	10.0	370.60	0.71	370.80	24	Cir	0.013	1.21	380.13	Pipe - (367)
27	26	43.416	-50.732	Comb	0.00	0.83	0.60	10.0	370.90	1.15	371.40	24	Cir	0.013	1.38	380.58	Pipe - (379)
28	27	29.427	-64.132	Comb	0.00	0.78	0.60	10.0	371.90	1.36	372.30	24	Cir	0.013	0.51	380.64	Pipe - (364)
29	28	54.011	16.712	Comb	0.00	0.20	0.60	10.0	372.40	0.74	372.80	24	Cir	0.013	2.16	381.78	Pipe - (363)
30	29	297.666	94.522	Comb	0.00	0.15	0.60	10.0	373.05	0.79	375.40	15	Cir	0.013	1.50	385.57	Pipe - (412)
31	30	237.368	-7.963	Comb	0.00	0.02	0.60	10.0	375.60	0.84	377.60	15	Cir	0.013	1.49	387.28	Pipe - (411)
32	31	54.000	84.067	Comb	0.00	0.06	0.60	10.0	377.70	0.74	378.10	15	Cir	0.013	0.50	385.70	Pipe - (415)
33	32	28.507	10.831	Comb	0.00	0.01	0.60	10.0	378.20	0.70	378.40	15	Cir	0.013	1.36	385.62	Pipe - (414)
34	33	74.490	-62.309	Comb	0.00	0.65	0.60	10.0	378.50	0.67	379.00	15	Cir	0.013	1.00	386.30	Pipe - (413)
35	30	34.065	-86.348	Comb	0.00	0.47	0.60	10.0	375.60	5.23	377.38	15	Cir	0.013	1.00	384.85	Pipe - (534)
36	29	34.020	-2.563	Comb	0.00	0.39	0.60	10.0	373.00	0.88	373.30	18	Cir	0.013	1.36	381.93	Pipe - (362)
37	36	53.159	-56.631	Comb	0.00	0.23	0.60	10.0	373.55	0.66	373.90	15	Cir	0.013	1.05	382.06	Pipe - (371)
38	37	28.000	-40.898	Comb	0.00	0.20	0.60	10.0	374.00	0.71	374.20	15	Cir	0.013	1.18	381.71	Pipe - (394)
39	38	44.039	-48.688	Comb	0.00	0.28	0.60	10.0	374.30	5.13	376.56	15	Cir	0.013	1.00	381.97	Pipe - (410)
40	36	74.045	62.314	DrGrt	0.00	0.58	0.60	10.0	373.55	5.28	377.46	15	Cir	0.013	1.00	382.60	Pipe - (584)
41	1	206.011	-88.996	Comb	0.00	0.01	0.60	10.0	363.20	0.53	364.30	42	Cir	0.013	1.69	373.72	Pipe - (384)
42	41	28.000	90.000	Comb	0.00	0.02	0.60	10.0	365.05	4.11	366.20	24	Cir	0.013	1.13	374.06	Pipe - (386)
43	42	46.669	-45.000	Comb	0.00	0.08	0.60	10.0	366.30	5.79	369.00	15	Cir	0.013	1.13	376.54	Pipe - (421)
44	43	101.483	45.000	Comb	0.00	0.13	0.60	10.0	369.10	3.84	373.00	15	Cir	0.013	1.50	380.82	Pipe - (420)
45	44	34.024	-87.851	Comb	0.00	0.21	0.60	10.0	373.10	1.00	373.44	15	Cir	0.013	1.00	381.61	Pipe - (419)
46	1	97.083	99.571	Comb	0.00	0.18	0.60	10.0	363.70	1.55	365.20	30	Cir	0.013	0.50	373.08	Pipe - (388)

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	181.821	12.960	Comb	0.00	0.20	0.60	10.0	365.45	3.82	372.40	15	Cir	0.013	1.43	380.34	Pipe - (387)
48	47	29.575	-71.057	Comb	0.00	0.18	0.60	10.0	372.50	1.01	372.80	15	Cir	0.013	1.00	380.75	Pipe - (389)
49	41	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	365.05	0.54	365.30	30	Cir	0.013	1.13	371.66	Pipe - (422)
50	49	34.000	45.000	Comb	0.00	0.08	0.60	10.0	365.40	0.59	365.60	15	Cir	0.013	1.13	372.40	Pipe - (383)
51	50	46.669	45.000	Comb	0.00	0.20	0.60	10.0	365.70	1.50	366.40	15	Cir	0.013	1.13	374.70	Pipe - (382)
52	51	28.000	45.000	Comb	0.00	0.30	0.60	10.0	366.50	2.00	367.06	15	Cir	0.013	1.00	374.89	Pipe - (381)
53	5	42.110	-47.406	Comb	0.00	1.09	0.60	10.0	366.25	1.99	367.09	15	Cir	0.013	1.00	373.06	Pipe - (687)
54	4	21.891	119.979	DrGrt	0.00	0.07	0.60	10.0	365.75	8.91	367.70	18	Cir	0.013	1.00	372.42	Pipe - (585)

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 401	Combination	371.94	Rect	4.00	4.00	48	Cir	362.20	48 42 30	Cir Cir Cir	362.40 363.20 363.70
2	CB 402	Combination	371.94	Rect	4.00	4.00	48	Cir	363.20	42	Cir	363.70
3	CB 403	Combination	372.18	Rect	4.00	4.00	42	Cir	364.00	36	Cir	364.10
4	CB 404	Combination	372.99	Rect	4.00	4.00	36	Cir	364.50	36 18	Cir Cir	364.70 365.75
5	CB 405	Combination	373.02	Rect	4.00	4.00	36	Cir	365.00	36 15	Cir Cir	365.20 366.25
6	CB 406	Combination	375.08	Rect	4.00	4.00	36	Cir	365.80	36	Cir	365.90
7	CB 407	Combination	376.94	Rect	4.00	4.00	36	Cir	366.50	36 24	Cir Cir	367.50 367.00
8	CB 407A	Combination	377.70	Rect	4.00	4.00	36	Cir	367.80	36	Cir	367.90
9	YI 407B	DropGrate	372.15	Rect	4.00	4.00	36	Cir	368.70	24	Cir	368.80
10	YI 407C	DropGrate	372.97	Rect	4.00	4.00	24	Cir	369.80	15	Cir	370.05
11	YI 407D	DropGrate	379.16	Rect	4.00	4.00	15	Cir	374.30	15	Cir	374.40
12	YI 407E	DropGrate	383.14	Rect	4.00	4.00	15	Cir	379.00	15	Cir	379.10
13	JB 407F	Manhole	388.75	Rect	4.00	4.00	15	Cir	381.00	15	Cir	381.10
14	YI 407G	DropGrate	385.62	Rect	4.00	4.00	15	Cir	381.72			
15	CB 408	Combination	380.11	Rect	4.00	4.00	24	Cir	370.40	18 24	Cir Cir	370.90 370.60
16	CB 409	Combination	380.82	Rect	4.00	4.00	18	Cir	372.80	18	Cir	372.90
17	CB 410	Combination	382.08	Rect	4.00	4.00	18	Cir	374.10	18	Cir	374.20
18	CB 411	Combination	384.92	Rect	4.00	4.00	18	Cir	375.50	18	Cir	375.60
19	CB 412	Combination	384.48	Rect	4.00	4.00	18	Cir	375.90	15	Cir	376.15
20	CB 413	Combination	385.66	Rect	4.00	4.00	15	Cir	377.00	15	Cir	377.10

Project File: SCM 4 Storm Network.stm | Number of Structures: 54 | Run Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 414	Combination	385.66	Rect	4.00	4.00	15	Cir	377.30	15	Cir	377.40
22	CB 415	Combination	385.46	Rect	4.00	4.00	15	Cir	377.90	15	Cir	378.00
23	CB 416	Combination	385.96	Rect	4.00	4.00	15	Cir	378.50	15	Cir	378.60
24	CB 417	Combination	385.96	Rect	4.00	4.00	15	Cir	378.80	15	Cir	379.00
25	CB 418	Combination	386.87	Rect	4.00	4.00	15	Cir	381.11			
26	CB 419	Combination	380.13	Rect	4.00	4.00	24	Cir	370.80	24	Cir	370.90
27	CB 420	Combination	380.58	Rect	4.00	4.00	24	Cir	371.40	24	Cir	371.90
28	CB 421	Combination	380.64	Rect	4.00	4.00	24	Cir	372.30	24	Cir	372.40
29	CB 422	Combination	381.78	Rect	4.00	4.00	24	Cir	372.80	15 18	Cir Cir	373.05 373.00
30	CB 423	Combination	385.57	Rect	4.00	4.00	15	Cir	375.40	15 15	Cir Cir	375.60 375.60
31	CB 424	Combination	387.28	Rect	4.00	4.00	15	Cir	377.60	15	Cir	377.70
32	CB 425	Combination	385.70	Rect	4.00	4.00	15	Cir	378.10	15	Cir	378.20
33	CB 426	Combination	385.62	Rect	4.00	4.00	15	Cir	378.40	15	Cir	378.50
34	CB 427	Combination	386.30	Rect	4.00	4.00	15	Cir	379.00			
35	CB 423A	Combination	384.85	Rect	4.00	4.00	15	Cir	377.38			
36	CB 422A	Combination	381.93	Rect	4.00	4.00	18	Cir	373.30	15 15	Cir Cir	373.55 373.55
37	CB 422C	Combination	382.06	Rect	4.00	4.00	15	Cir	373.90	15	Cir	374.00
38	CB 422D	Combination	381.71	Rect	4.00	4.00	15	Cir	374.20	15	Cir	374.30
39	CB 422E	Combination	381.97	Rect	4.00	4.00	15	Cir	376.56			
40	YI 422B	DropGrate	382.60	Rect	4.00	4.00	15	Cir	377.46			
41	CB 430	Combination	373.72	Rect	4.00	4.00	42	Cir	364.30	24 30	Cir Cir	365.05 365.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
42	CB 431	Combination	374.06	Rect	4.00	4.00	24	Cir	366.20	15	Cir	366.30
43	CB 432	Combination	376.54	Rect	4.00	4.00	15	Cir	369.00	15	Cir	369.10
44	CB 433	Combination	380.82	Rect	4.00	4.00	15	Cir	373.00	15	Cir	373.10
45	CB 433A	Combination	381.61	Rect	4.00	4.00	15	Cir	373.44			
46	CB 428	Combination	373.08	Rect	4.00	4.00	30	Cir	365.20	15	Cir	365.45
47	CB 429	Combination	380.34	Rect	4.00	4.00	15	Cir	372.40	15	Cir	372.50
48	CB 429A	Combination	380.75	Rect	4.00	4.00	15	Cir	372.80			
49	CB 434	Combination	371.66	Rect	4.00	4.00	30	Cir	365.30	15	Cir	365.40
50	CB 435	Combination	372.40	Rect	4.00	4.00	15	Cir	365.60	15	Cir	365.70
51	CB 436	Combination	374.70	Rect	4.00	4.00	15	Cir	366.40	15	Cir	366.50
52	CB 436A	Combination	374.89	Rect	4.00	4.00	15	Cir	367.06			
53	CB 405A	Combination	373.06	Rect	4.00	4.00	15	Cir	367.09			
54	YI 404A	DropGrate	372.42	Rect	4.00	4.00	18	Cir	367.70			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (418)	46.48	48	Cir	29.195	362.00	362.20	0.685	363.74	364.24	n/a	364.24	End	Combination
2	Pipe - (417)	40.91	48	Cir	28.012	362.40	363.20	2.856	364.24	365.11	n/a	365.11	1	Combination
3	Pipe - (416)	39.78	42	Cir	33.797	363.70	364.00	0.888	365.28	365.96	0.90	365.96	2	Combination
4	Pipe - (368)	39.80	36	Cir	43.841	364.10	364.50	0.912	365.96	366.55	1.39	366.55	3	Combination
5	Pipe - (380)	39.44	36	Cir	28.000	364.70	365.00	1.071	366.55	367.04	n/a	367.04	4	Combination
6	Pipe - (367) (1) (1)	33.01	36	Cir	67.788	365.20	365.80	0.885	367.04	367.66	n/a	367.66	5	Combination
7	Pipe - (367) (1)	32.86	36	Cir	56.317	365.90	366.50	1.065	367.66	368.36	1.43	368.36	6	Combination
8	Pipe - (374) (1)	11.34	36	Cir	35.477	367.50	367.80	0.846	368.37	368.87	n/a	368.87	7	Combination
9	Pipe - (374)	10.95	36	Cir	113.770	367.90	368.70	0.703	368.87	369.75	n/a	369.75	8	DropGrate
10	Pipe - (373)	8.52	24	Cir	130.000	368.80	369.80	0.769	369.75	370.84	0.21	370.84	9	DropGrate
11	Pipe - (372)	6.84	15	Cir	136.000	370.05	374.30	3.125	370.84	375.35	0.30	375.35	10	DropGrate
12	Pipe - (490)	5.25	15	Cir	176.286	374.40	379.00	2.609	375.35	379.93	n/a	379.93 j	11	DropGrate
13	Pipe - (624)	3.60	15	Cir	250.514	379.10	381.00	0.758	379.93	381.77	n/a	381.77 j	12	Manhole
14	Pipe - (623)	2.78	15	Cir	124.357	381.10	381.72	0.499	381.81	382.43	0.24	382.66	13	DropGrate
15	Pipe - (366)	21.46	24	Cir	128.000	367.00	370.40	2.656	368.36	372.06	n/a	372.06	7	Combination
16	Pipe - (409)	6.08	18	Cir	64.616	370.90	372.80	2.940	372.06	373.75	n/a	373.75 j	15	Combination
17	Pipe - (408)	5.86	18	Cir	49.983	372.90	374.10	2.401	373.75	375.03	n/a	375.03	16	Combination
18	Pipe - (432)	5.66	18	Cir	137.706	374.20	375.50	0.944	375.03	376.42	n/a	376.42	17	Combination
19	Pipe - (438)	5.39	18	Cir	34.000	375.60	375.90	0.882	376.42	376.79	0.40	376.79	18	Combination
20	Pipe - (437)	5.33	15	Cir	115.233	376.15	377.00	0.738	377.13	377.98	0.44	378.42	19	Combination
21	Pipe - (436)	4.03	15	Cir	28.000	377.10	377.30	0.714	378.42	378.53	0.20	378.73	20	Combination
22	Pipe - (435)	0.95	15	Cir	78.850	377.40	377.90	0.634	378.73	378.74	0.01	378.75	21	Combination
23	Pipe - (434)	0.45	15	Cir	76.953	378.00	378.50	0.650	378.75	378.76	n/a	378.76 j	22	Combination
24	Pipe - (433)	0.42	15	Cir	28.000	378.60	378.80	0.714	378.83	379.05	0.11	379.05	23	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (535)	0.32	15	Cir	37.369	379.00	381.11	5.646	379.12	381.33	0.08	381.33	24	Combination
26	Pipe - (367)	15.65	24	Cir	28.099	370.60	370.80	0.712	372.06	372.22	n/a	372.22 j	15	Combination
27	Pipe - (379)	15.51	24	Cir	43.416	370.90	371.40	1.152	372.22	372.82	n/a	372.82	26	Combination
28	Pipe - (364)	12.88	24	Cir	29.427	371.90	372.30	1.359	372.89	373.59	0.29	373.59	27	Combination
29	Pipe - (363)	10.44	24	Cir	54.011	372.40	372.80	0.741	373.59	373.96	n/a	373.96 j	28	Combination
30	Pipe - (412)	4.53	15	Cir	297.666	373.05	375.40	0.789	373.96	376.26	n/a	376.26 j	29	Combination
31	Pipe - (411)	2.55	15	Cir	237.368	375.60	377.60	0.843	376.26	378.24	n/a	378.24 j	30	Combination
32	Pipe - (415)	2.50	15	Cir	54.000	377.70	378.10	0.741	378.29	378.73	n/a	378.73	31	Combination
33	Pipe - (414)	2.30	15	Cir	28.507	378.20	378.40	0.702	378.77	379.01	0.32	379.01	32	Combination
34	Pipe - (413)	2.29	15	Cir	74.490	378.50	379.00	0.671	379.08	379.60	0.24	379.60	33	Combination
35	Pipe - (534)	1.66	15	Cir	34.065	375.60	377.38	5.225	376.26	377.89	n/a	377.89 j	30	Combination
36	Pipe - (362)	5.79	18	Cir	34.020	373.00	373.30	0.882	373.96	374.23	n/a	374.23 j	29	Combination
37	Pipe - (371)	2.47	15	Cir	53.159	373.55	373.90	0.658	374.23	374.53	n/a	374.53	36	Combination
38	Pipe - (394)	1.68	15	Cir	28.000	374.00	374.20	0.714	374.53	374.71	n/a	374.71 j	37	Combination
39	Pipe - (410)	0.99	15	Cir	44.039	374.30	376.56	5.132	374.71	376.95	n/a	376.95 j	38	Combination
40	Pipe - (584)	2.04	15	Cir	74.045	373.55	377.46	5.281	374.23	378.03	n/a	378.03 j	36	DropGrate
41	Pipe - (384)	3.75	42	Cir	206.011	363.20	364.30	0.534	364.24	364.88	n/a	364.88 j	1	Combination
42	Pipe - (386)	1.50	24	Cir	28.000	365.05	366.20	4.107	365.30	366.62	0.17	366.62	41	Combination
43	Pipe - (421)	1.44	15	Cir	46.669	366.30	369.00	5.785	366.62	369.48	n/a	369.48	42	Combination
44	Pipe - (420)	1.19	15	Cir	101.483	369.10	373.00	3.843	369.48	373.43	0.24	373.43	43	Combination
45	Pipe - (419)	0.74	15	Cir	34.024	373.10	373.44	0.999	373.43	373.78	0.12	373.78	44	Combination
46	Pipe - (388)	1.92	30	Cir	97.083	363.70	365.20	1.545	364.24	365.65	n/a	365.65 j	1	Combination
47	Pipe - (387)	1.33	15	Cir	181.821	365.45	372.40	3.822	365.72	372.86	0.24	372.86	46	Combination
48	Pipe - (389)	0.63	15	Cir	29.575	372.50	372.80	1.014	372.86	373.11	n/a	373.11 j	47	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (422)	2.25	30	Cir	46.669	365.05	365.30	0.536	365.51	365.79	n/a	365.79	41	Combination
50	Pipe - (383)	2.02	15	Cir	34.000	365.40	365.60	0.588	365.96	366.17	0.25	366.17	49	Combination
51	Pipe - (382)	1.75	15	Cir	46.669	365.70	366.40	1.500	366.17	366.93	0.23	366.93	50	Combination
52	Pipe - (381)	1.06	15	Cir	28.000	366.50	367.06	2.000	366.93	367.46	n/a	367.46 j	51	Combination
53	Pipe - (687)	3.84	15	Cir	42.110	366.25	367.09	1.995	367.04	367.88	0.34	367.88	5	Combination
54	Pipe - (585)	0.25	18	Cir	21.891	365.75	367.70	8.908	366.55	367.88	n/a	367.88 j	4	DropGrate

Project File: SCM 4 Storm Network.stm

Number of lines: 54

Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	CB 401	0.78	0.01	0.78	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.10	0.16	4.10	0.0	Off
2	CB 402	1.41	0.00	1.41	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.56	0.21	6.56	0.0	Off
3	CB 403	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.09	1.45	0.00	0.00	0.0	2
4	CB 404	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.68	0.00	0.00	0.0	3
5	CB 405	3.81	0.00	2.46	1.34	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.25	8.51	0.18	5.10	0.0	53
6	CB 406	0.32	0.02	0.34	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.89	0.00	0.00	0.0	5
7	CB 407	0.74	0.00	0.72	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.15	3.50	0.04	0.71	0.0	6
8	CB 407A	0.56	0.00	0.56	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.14	2.83	0.02	0.37	0.0	4
9	YI 407B	2.78	0.00	2.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.19	21.72	0.19	21.72	0.0	Off
10	YI 407C	1.90	0.00	1.90	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.41	0.15	17.41	0.0	Off
11	YI 407D	1.80	0.00	1.80	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.85	0.14	16.85	0.0	Off
12	YI 407E	1.87	0.00	1.87	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.23	0.15	17.23	0.0	Off
13	JB 407F	0.88	0.00	0.00	0.88	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.020	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
14	YI 407G	2.78	0.00	2.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.19	21.72	0.19	21.72	0.0	Off
15	CB 408	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.84	0.00	0.00	0.0	7
16	CB 409	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.76	0.00	0.00	0.0	15
17	CB 410	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.13	2.28	0.00	0.00	0.0	16
18	CB 411	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.92	0.00	0.00	0.0	17
19	CB 412	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.42	0.00	0.00	0.0	39
20	CB 413	1.44	0.00	1.44	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.69	0.21	6.69	0.0	Off
21	CB 414	3.42	0.03	3.45	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.33	12.72	0.33	12.72	0.0	Off
22	CB 415	0.53	0.00	0.50	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.16	4.19	0.06	0.96	0.0	21
23	CB 416	0.04	0.00	0.04	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.04	0.72	0.04	0.72	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 417	0.11	0.00	0.11	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.08	1.35	0.08	1.35	0.0	Off
25	CB 418	0.32	0.00	0.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.63	0.13	2.63	0.0	Off
26	CB 419	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.09	1.58	0.00	0.00	0.0	8
27	CB 420	2.92	0.05	2.98	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.31	11.45	0.31	11.45	0.0	Off
28	CB 421	2.75	0.03	1.83	0.96	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.26	9.07	0.19	5.44	0.0	Off
29	CB 422	0.70	0.03	0.70	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.77	0.05	0.83	0.0	28
30	CB 423	0.53	0.00	0.50	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.16	4.19	0.06	0.96	0.0	29
31	CB 424	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.08	1.42	0.00	0.00	0.0	32
32	CB 425	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.11	1.79	0.00	0.00	0.0	28
33	CB 426	0.04	0.70	0.68	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.17	4.34	0.06	1.08	0.0	27
34	CB 427	2.29	0.00	1.59	0.70	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.25	8.32	0.17	4.57	0.0	33
35	CB 423A	1.66	0.00	1.23	0.42	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.23	7.67	0.15	3.61	0.0	36
36	CB 422A	1.37	0.42	1.80	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	7.89	0.24	7.89	0.0	Off
37	CB 422C	0.81	0.00	0.81	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.23	0.16	4.23	0.0	Off
38	CB 422D	0.70	0.00	0.70	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.76	0.16	3.76	0.0	Off
39	CB 422E	0.99	0.00	0.99	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.18	4.96	0.18	4.96	0.0	Off
40	YI 422B	2.04	0.00	2.04	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.14	0.16	18.14	0.0	Off
41	CB 430	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.05	0.84	0.00	0.00	0.0	49
42	CB 431	0.07	0.00	0.07	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.07	1.24	0.00	0.00	0.0	53
43	CB 432	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.55	0.00	0.00	0.0	42
44	CB 433	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.11	1.85	0.00	0.00	0.0	43
45	CB 433A	0.74	0.00	0.74	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.13	2.65	0.02	0.27	0.0	52
46	CB 428	0.63	0.00	0.63	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.14	2.79	0.02	0.37	0.0	1

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	CB 429	0.70	0.00	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.65	0.02	0.31	0.0	46
48	CB 429A	0.63	0.00	0.63	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.40	0.01	0.18	0.0	2
49	CB 434	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	Off
50	CB 435	0.28	0.03	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	Off
51	CB 436	0.70	0.00	0.68	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.66	0.05	0.78	0.0	50
52	CB 436A	1.06	0.00	1.06	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.25	0.19	5.25	0.0	Off
53	CB 405A	3.84	1.34	5.18	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.42	17.00	0.42	17.00	0.0	Off
54	YI 404A	0.25	0.00	0.25	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.04	6.32	0.04	6.32	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	46.48	362.00	363.74	1.74	5.25	8.86	0.81	364.55	0.000	29.195	362.20	364.24	2.04**	6.44	7.21	0.81	365.05	0.000	0.000	n/a	1.50	n/a
2	48	40.91	362.40	364.24	1.84	5.65	7.25	0.74	364.98	0.000	28.012	363.20	365.11	1.91**	5.92	6.91	0.74	365.85	0.000	0.000	n/a	1.50	n/a
3	42	39.78	363.70	365.28	1.58*	4.23	9.41	0.80	366.08	0.000	33.797	364.00	365.96	1.96**	5.54	7.18	0.80	366.76	0.000	0.000	n/a	1.13	0.90
4	36	39.80	364.10	365.96	1.86	4.60	8.65	0.93	366.89	0.000	43.841	364.50	366.55	2.05**	5.15	7.73	0.93	367.48	0.000	0.000	n/a	1.50	1.39
5	36	39.44	364.70	366.55	1.85	4.58	8.61	0.92	367.47	0.000	28.000	365.00	367.04	2.04**	5.13	7.69	0.92	367.96	0.000	0.000	n/a	1.75	n/a
6	36	33.01	365.20	367.04	1.84	4.55	7.25	0.80	367.84	0.000	67.788	365.80	367.66	1.86**	4.61	7.15	0.80	368.46	0.000	0.000	n/a	0.50	n/a
7	36	32.86	365.90	367.66	1.76	4.32	7.61	0.79	368.46	0.000	56.317	366.50	368.36	1.86**	4.60	7.14	0.79	369.15	0.000	0.000	n/a	1.80	1.43
8	36	11.34	367.50	368.37	0.87*	1.71	6.62	0.39	368.77	0.000	35.477	367.80	368.87	1.07**	2.25	5.03	0.39	369.26	0.000	0.000	n/a	0.95	n/a
9	36	10.95	367.90	368.87	0.97	1.97	5.56	0.39	369.25	0.000	113.770	368.70	369.75	1.05**	2.20	4.98	0.39	370.13	0.000	0.000	n/a	0.50	n/a
10	24	8.52	368.80	369.75	0.95	1.47	5.81	0.41	370.16	0.000	130.000	369.80	370.84	1.04**	1.65	5.16	0.41	371.25	0.000	0.000	n/a	0.50	0.21
11	15	6.84	370.05	370.84	0.79	0.82	8.37	0.60	371.44	0.000	136.000	374.30	375.35	1.05**	1.10	6.22	0.60	375.95	0.000	0.000	n/a	0.50	0.30
12	15	5.25	374.40	375.35	0.95	0.98	5.26	0.45	375.80	0.000	176.286	379.00	379.93 j	0.93**	0.98	5.38	0.45	380.38	0.000	0.000	n/a	0.50	0.22
13	15	3.60	379.10	379.93	0.83	0.79	4.17	0.32	380.25	0.000	250.514	381.00	381.77 j	0.77**	0.79	4.57	0.32	382.09	0.000	0.000	n/a	0.97	n/a
14	15	2.78	381.10	381.81	0.71*	0.71	3.90	0.24	382.04	0.499	124.357	381.72	382.43	0.71	0.72	3.89	0.24	382.66	0.496	0.498	0.619	1.00	0.24
15	24	21.46	367.00	368.36	1.36	2.27	9.44	0.93	369.28	0.000	128.000	370.40	372.06	1.66**	2.78	7.72	0.93	372.98	0.000	0.000	n/a	1.50	n/a
16	18	6.08	370.90	372.06	1.16	1.18	4.16	0.41	372.47	0.000	64.616	372.80	373.75 j	0.95**	1.18	5.14	0.41	374.16	0.000	0.000	n/a	1.27	n/a
17	18	5.86	372.90	373.75	0.85	1.04	5.66	0.40	374.15	0.000	49.983	374.10	375.03	0.93**	1.16	5.07	0.40	375.43	0.000	0.000	n/a	1.22	n/a
18	18	5.66	374.20	375.03	0.83	1.01	5.61	0.39	375.42	0.000	137.706	375.50	376.42	0.92**	1.13	5.00	0.39	376.81	0.000	0.000	n/a	1.50	n/a
19	18	5.39	375.60	376.42	0.82	0.98	5.48	0.37	376.79	0.000	34.000	375.90	376.79	0.89**	1.10	4.91	0.37	377.17	0.000	0.000	n/a	1.08	0.40
20	15	5.33	376.15	377.13	0.98*	1.04	5.15	0.41	377.54	0.737	115.233	377.00	377.98	0.98	1.03	5.15	0.41	378.39	0.739	0.738	0.851	1.07	0.44
21	15	4.03	377.10	378.42	1.25	1.23	3.29	0.17	378.59	0.390	28.000	377.30	378.53	1.23	1.22	3.30	0.17	378.69	0.349	0.369	0.103	1.18	0.20
22	15	0.95	377.40	378.73	1.25	1.23	0.77	0.01	378.73	0.021	78.850	377.90	378.74	0.84	0.88	1.08	0.02	378.76	0.034	0.028	0.022	0.50	0.01

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
23	15	0.45	378.00	378.75	0.75	0.19	0.59	0.09	378.84	0.000	76.953	378.50	378.76 j	0.26**	0.19	2.43	0.09	378.85	0.000	0.000	n/a	1.18	n/a
24	15	0.42	378.60	378.83	0.23*	0.16	2.63	0.09	378.92	0.000	28.000	378.80	379.05	0.25**	0.18	2.38	0.09	379.14	0.000	0.000	n/a	1.30	0.11
25	15	0.32	379.00	379.12	0.12*	0.06	5.00	0.08	379.20	0.000	37.369	381.11	381.33	0.22**	0.14	2.21	0.08	381.40	0.000	0.000	n/a	1.00	0.08
26	24	15.65	370.60	372.06	1.46	2.39	6.39	0.66	372.72	0.000	28.099	370.80	372.22 j	1.42**	2.39	6.54	0.66	372.89	0.000	0.000	n/a	1.21	n/a
27	24	15.51	370.90	372.22	1.32	2.21	7.02	0.66	372.88	0.000	43.416	371.40	372.82	1.42**	2.38	6.51	0.66	373.48	0.000	0.000	n/a	1.38	n/a
28	24	12.88	371.90	372.89	0.99*	1.54	8.34	0.56	373.45	0.000	29.427	372.30	373.59	1.29**	2.14	6.01	0.56	374.15	0.000	0.000	n/a	0.51	0.29
29	24	10.44	372.40	373.59	1.19	1.88	5.36	0.48	374.07	0.000	54.011	372.80	373.96 j	1.16**	1.88	5.55	0.48	374.43	0.000	0.000	n/a	2.16	1.03
30	15	4.53	373.05	373.96	0.91	0.90	4.75	0.39	374.35	0.000	297.666	375.40	376.26 j	0.86**	0.90	5.02	0.39	376.65	0.000	0.000	n/a	1.50	0.59
31	15	2.55	375.60	376.26	0.66	0.63	3.87	0.25	376.52	0.000	237.368	377.60	378.24 j	0.64**	0.63	4.04	0.25	378.49	0.000	0.000	n/a	1.49	n/a
32	15	2.50	377.70	378.29	0.59*	0.57	4.41	0.25	378.54	0.000	54.000	378.10	378.73	0.63**	0.62	4.01	0.25	378.98	0.000	0.000	n/a	0.50	n/a
33	15	2.30	378.20	378.77	0.57*	0.54	4.23	0.24	379.01	0.000	28.507	378.40	379.01	0.61**	0.59	3.90	0.24	379.24	0.000	0.000	n/a	1.36	0.32
34	15	2.29	378.50	379.08	0.58*	0.55	4.15	0.24	379.31	0.000	74.490	379.00	379.60	0.60**	0.59	3.90	0.24	379.84	0.000	0.000	n/a	1.00	0.24
35	15	1.66	375.60	376.26	0.66	0.47	2.51	0.19	376.45	0.000	34.065	377.38	377.89 j	0.51**	0.47	3.52	0.19	378.08	0.000	0.000	n/a	1.00	0.19
36	18	5.79	373.00	373.96	0.96	1.15	4.87	0.40	374.35	0.000	34.020	373.30	374.23 j	0.93**	1.15	5.04	0.40	374.62	0.000	0.000	n/a	1.36	0.54
37	15	2.47	373.55	374.23	0.68	0.62	3.63	0.25	374.48	0.000	53.159	373.90	374.53	0.63**	0.62	4.00	0.25	374.78	0.000	0.000	n/a	1.05	n/a
38	15	1.68	374.00	374.53	0.53	0.48	3.40	0.19	374.72	0.000	28.000	374.20	374.71 j	0.51**	0.47	3.53	0.19	374.91	0.000	0.000	n/a	1.18	n/a
39	15	0.99	374.30	374.71	0.41	0.33	2.78	0.14	374.86	0.000	44.039	376.56	376.95 j	0.39**	0.33	3.02	0.14	377.09	0.000	0.000	n/a	1.00	n/a
40	15	2.04	373.55	374.23	0.68	0.54	3.01	0.22	374.45	0.000	74.045	377.46	378.03 j	0.57**	0.54	3.76	0.22	378.25	0.000	0.000	n/a	1.00	n/a
41	42	3.75	363.20	364.24	1.04	1.04	1.56	0.20	364.44	0.000	206.011	364.30	364.88 j	0.58**	1.04	3.60	0.20	365.08	0.000	0.000	n/a	1.69	0.34
42	24	1.50	365.05	365.30	0.25*	0.22	6.70	0.15	365.45	0.000	28.000	366.20	366.62	0.42**	0.49	3.09	0.15	366.77	0.000	0.000	n/a	1.13	0.17
43	15	1.44	366.30	366.62	0.32	0.25	5.72	0.18	366.80	0.000	46.669	369.00	369.48	0.48**	0.43	3.37	0.18	369.65	0.000	0.000	n/a	1.13	n/a
44	15	1.19	369.10	369.48	0.38	0.31	3.84	0.16	369.63	0.000	101.483	373.00	373.43	0.43**	0.37	3.18	0.16	373.59	0.000	0.000	n/a	1.50	0.24

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

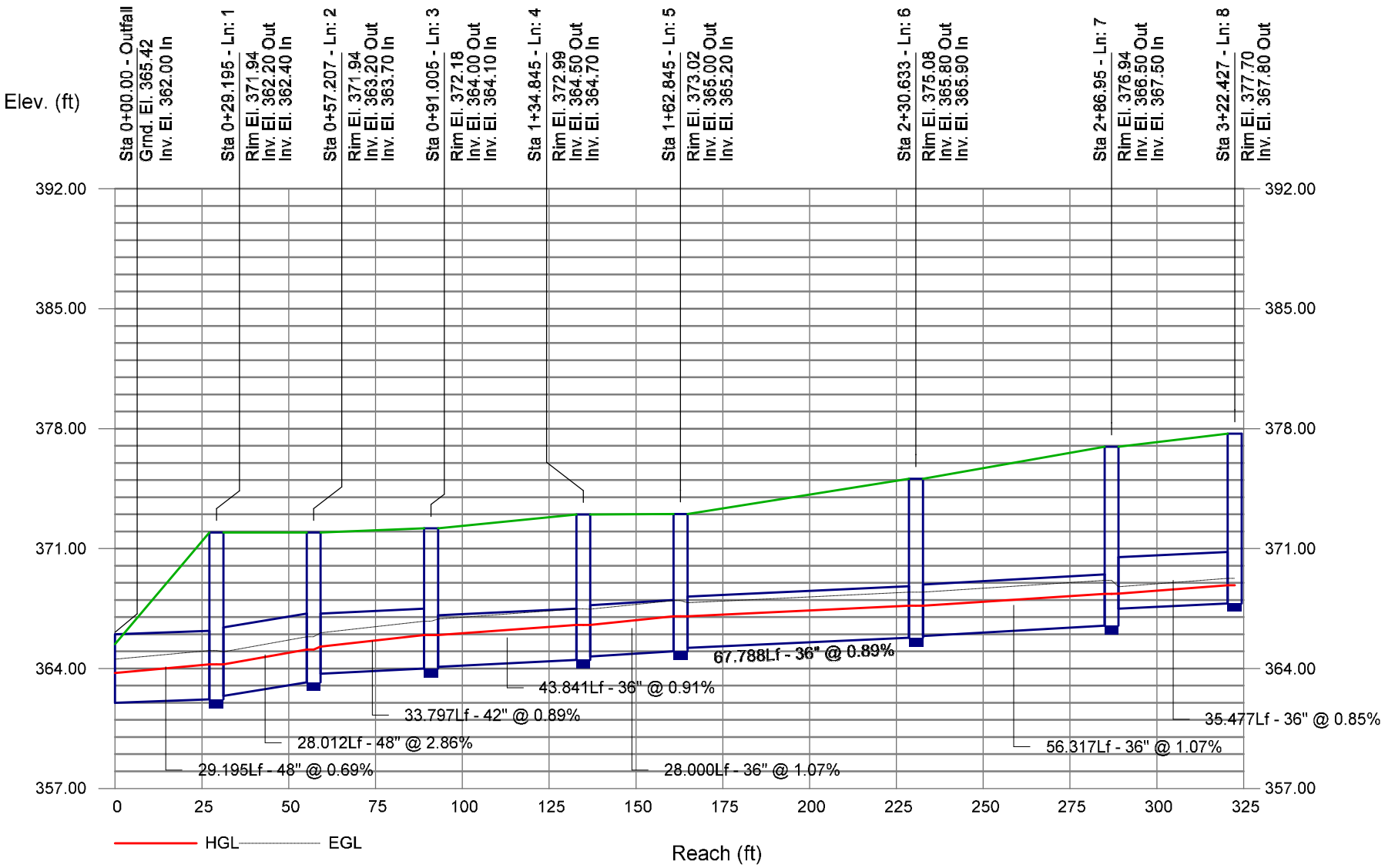
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.74	373.10	373.43	0.33	0.26	2.86	0.12	373.55	0.000	34.024	373.44	373.78	0.34**	0.27	2.78	0.12	373.90	0.000	0.000	n/a	1.00	0.12
46	30	1.92	363.70	364.24	0.54	0.60	2.46	0.16	364.40	0.000	97.083	365.20	365.65 j	0.45**	0.60	3.18	0.16	365.81	0.000	0.000	n/a	0.50	0.08
47	15	1.33	365.45	365.72	0.27*	0.20	6.68	0.17	365.89	0.000	181.821	372.40	372.86	0.46**	0.40	3.29	0.17	373.02	0.000	0.000	n/a	1.43	0.24
48	15	0.63	372.50	372.86	0.36	0.24	2.21	0.11	372.97	0.000	29.575	372.80	373.11 j	0.31**	0.24	2.66	0.11	373.22	0.000	0.000	n/a	1.00	0.11
49	30	2.25	365.05	365.51	0.46*	0.63	3.59	0.17	365.68	0.000	46.669	365.30	365.79	0.49**	0.68	3.32	0.17	365.96	0.000	0.000	n/a	1.13	n/a
50	15	2.02	365.40	365.96	0.56*	0.53	3.83	0.22	366.17	0.000	34.000	365.60	366.17	0.57**	0.54	3.74	0.22	366.38	0.000	0.000	n/a	1.13	0.25
51	15	1.75	365.70	366.17	0.47	0.42	4.21	0.20	366.36	0.000	46.669	366.40	366.93	0.53**	0.49	3.58	0.20	367.12	0.000	0.000	n/a	1.13	0.23
52	15	1.06	366.50	366.93	0.43	0.34	2.87	0.15	367.07	0.000	28.000	367.06	367.46 j	0.40**	0.34	3.08	0.15	367.61	0.000	0.000	n/a	1.00	0.15
53	15	3.84	366.25	367.04	0.79	0.82	4.68	0.34	367.38	0.000	42.110	367.09	367.88	0.79**	0.82	4.69	0.34	368.22	0.000	0.000	n/a	1.00	0.34
54	18	0.25	365.75	366.55	0.80	0.12	0.26	0.06	366.61	0.000	21.891	367.70	367.88 j	0.18**	0.12	2.01	0.06	367.95	0.000	0.000	n/a	1.00	0.06

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

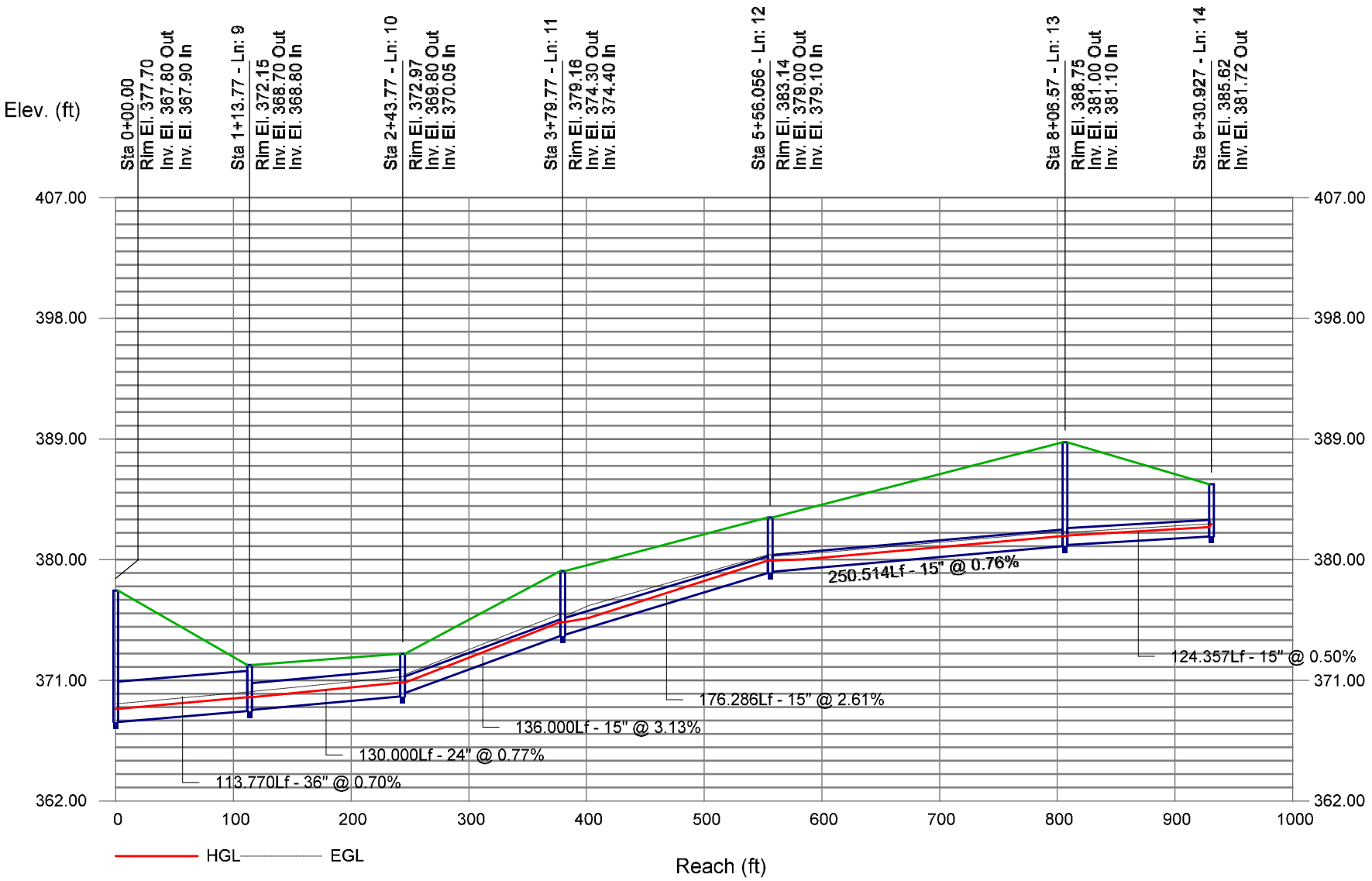
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



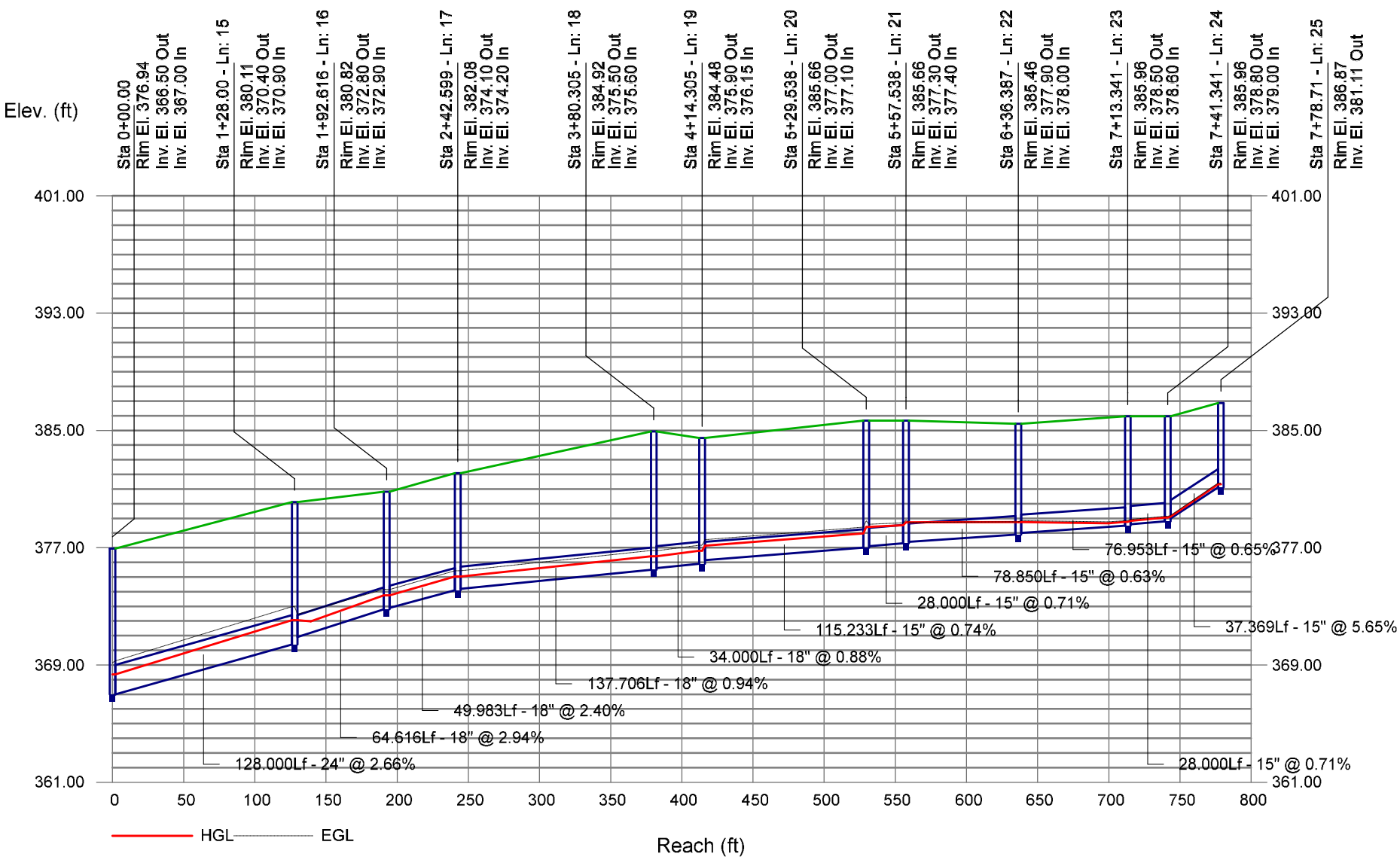
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



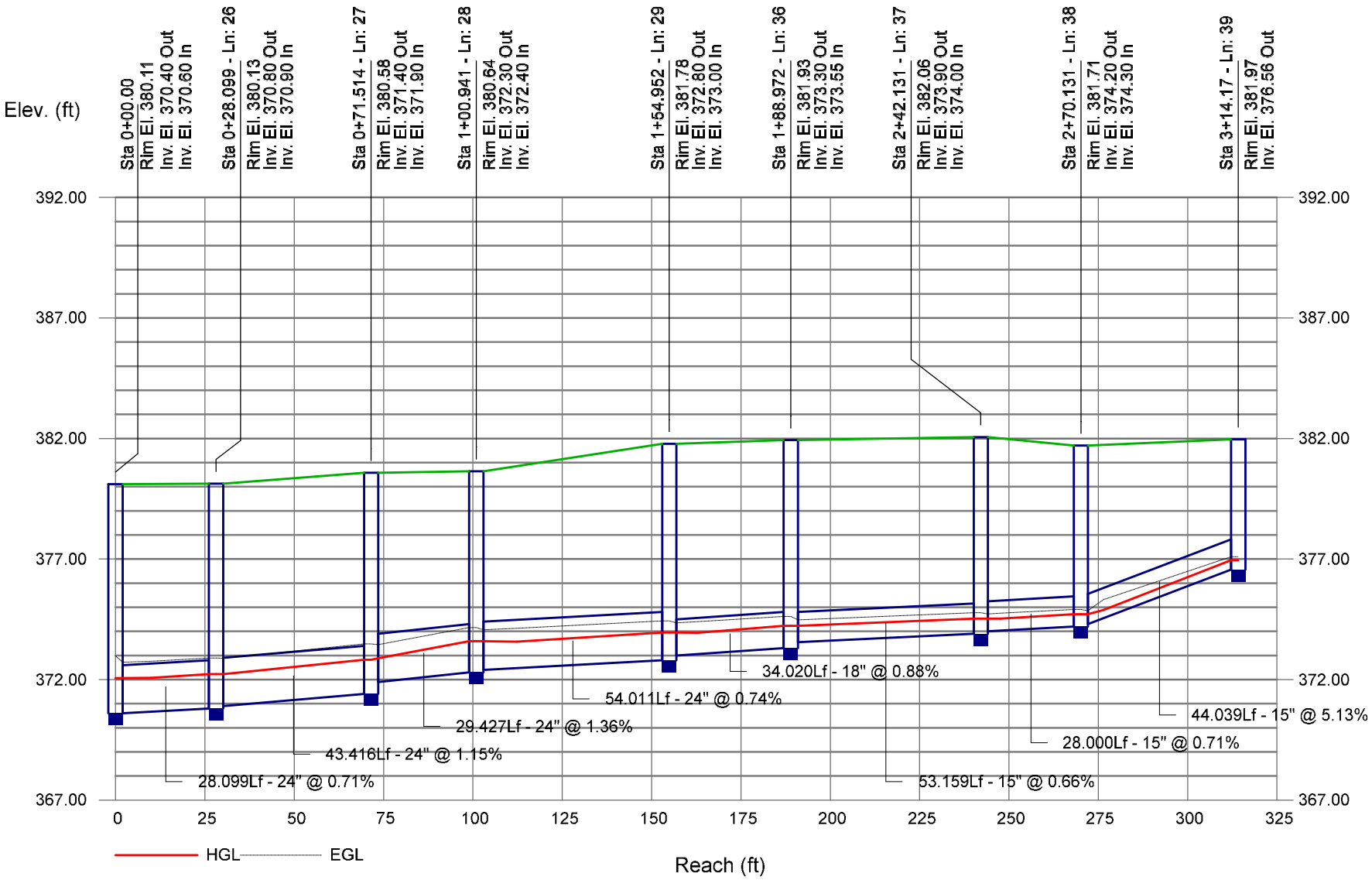
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



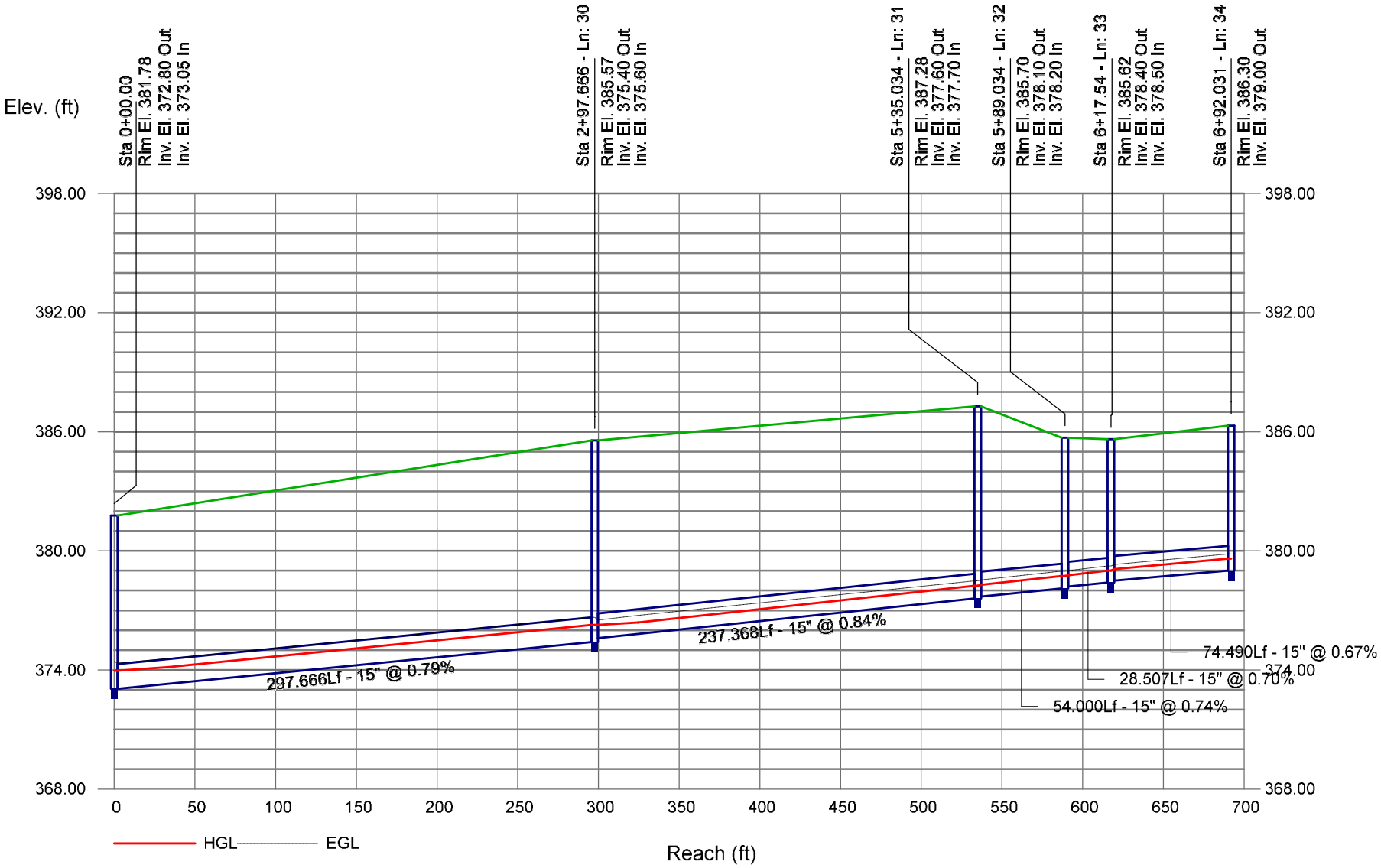
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



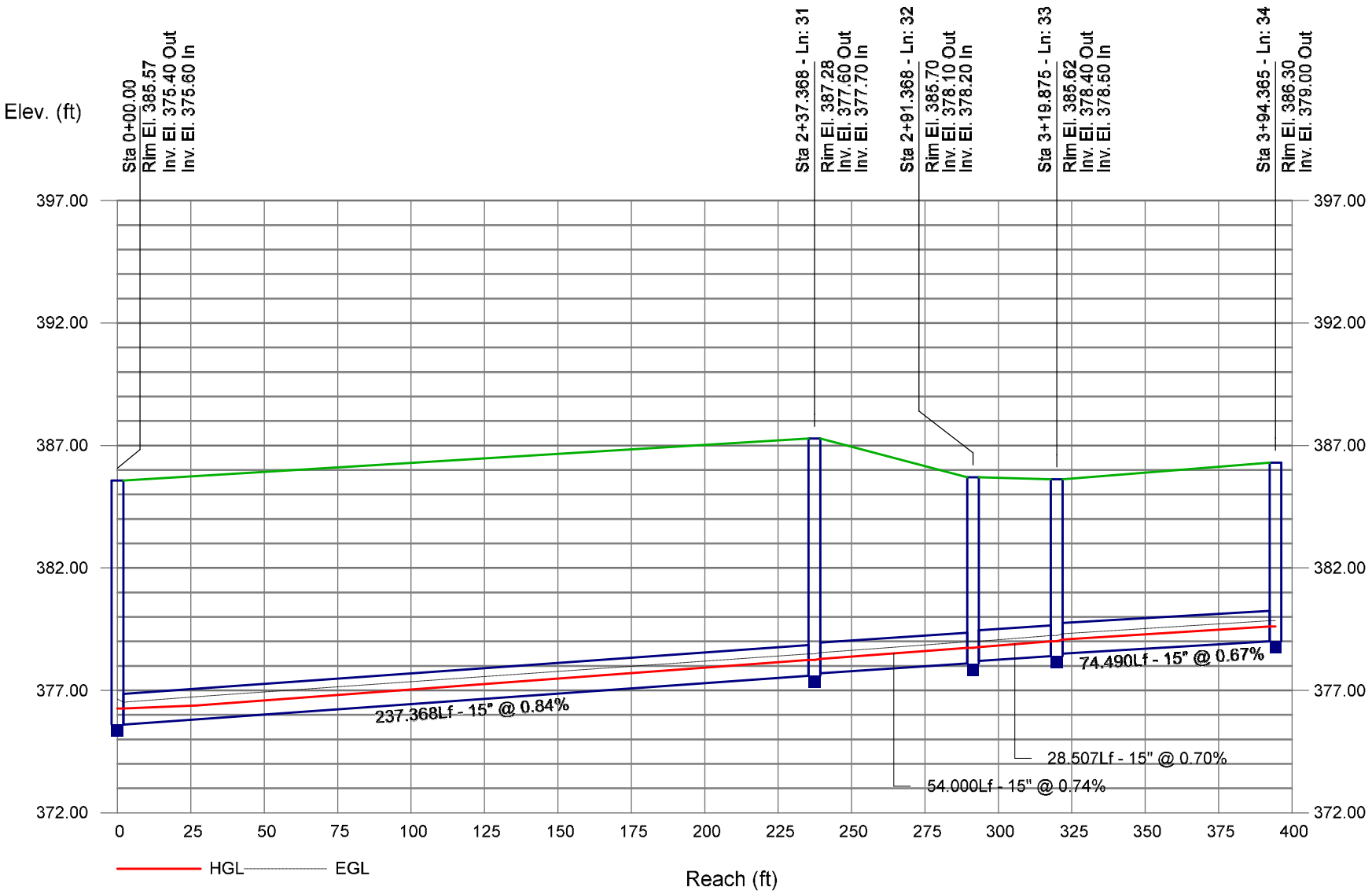
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



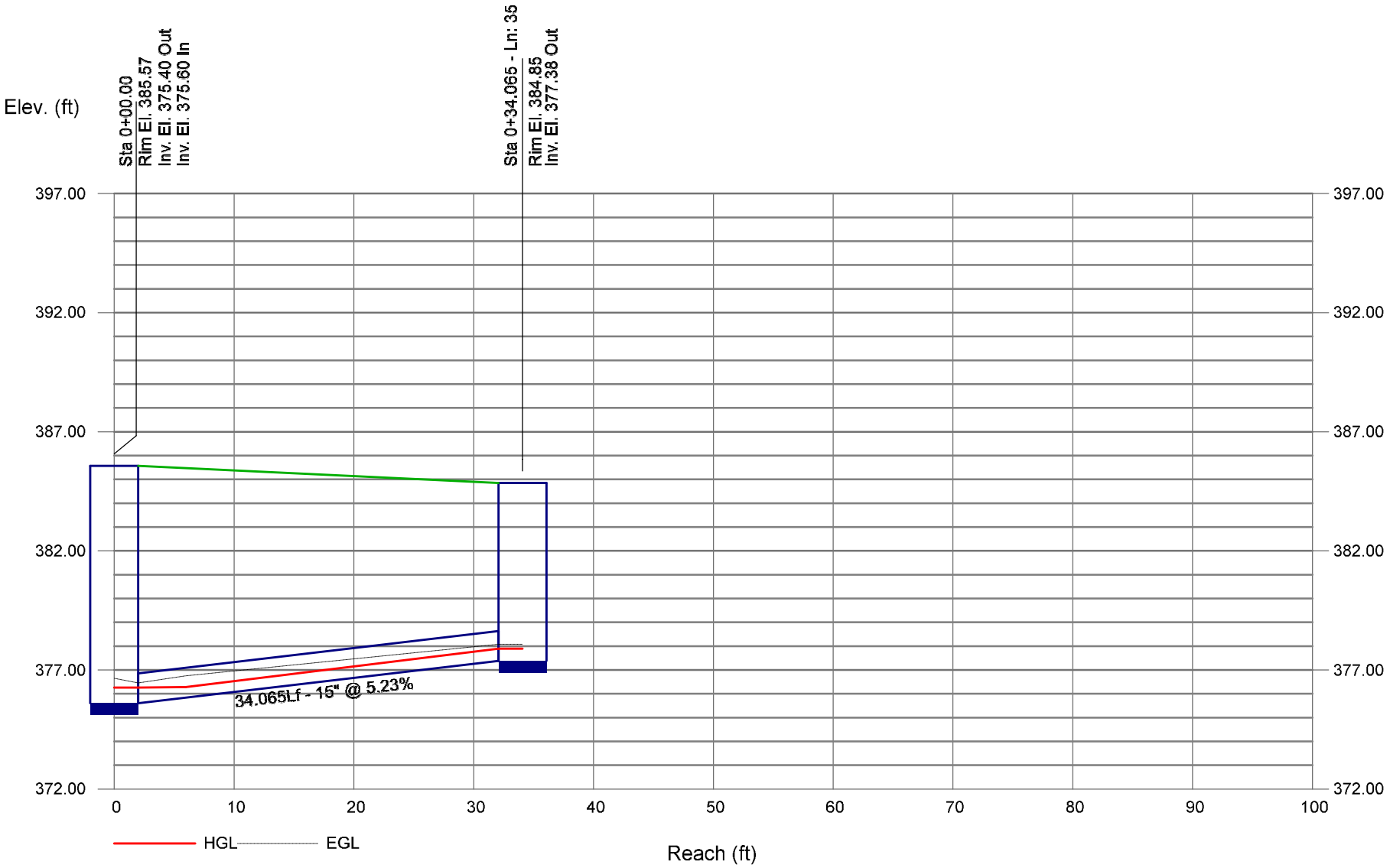
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



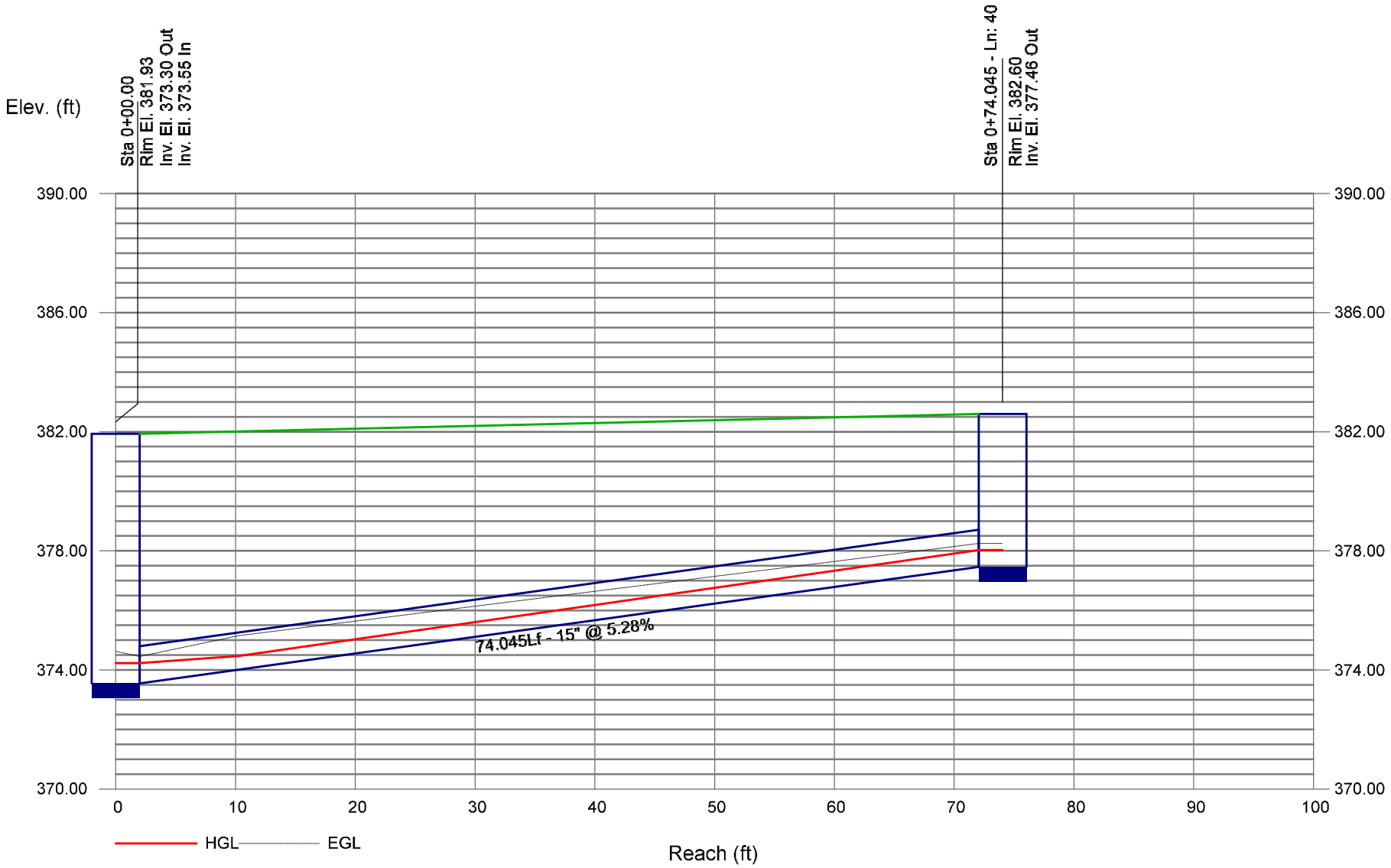
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



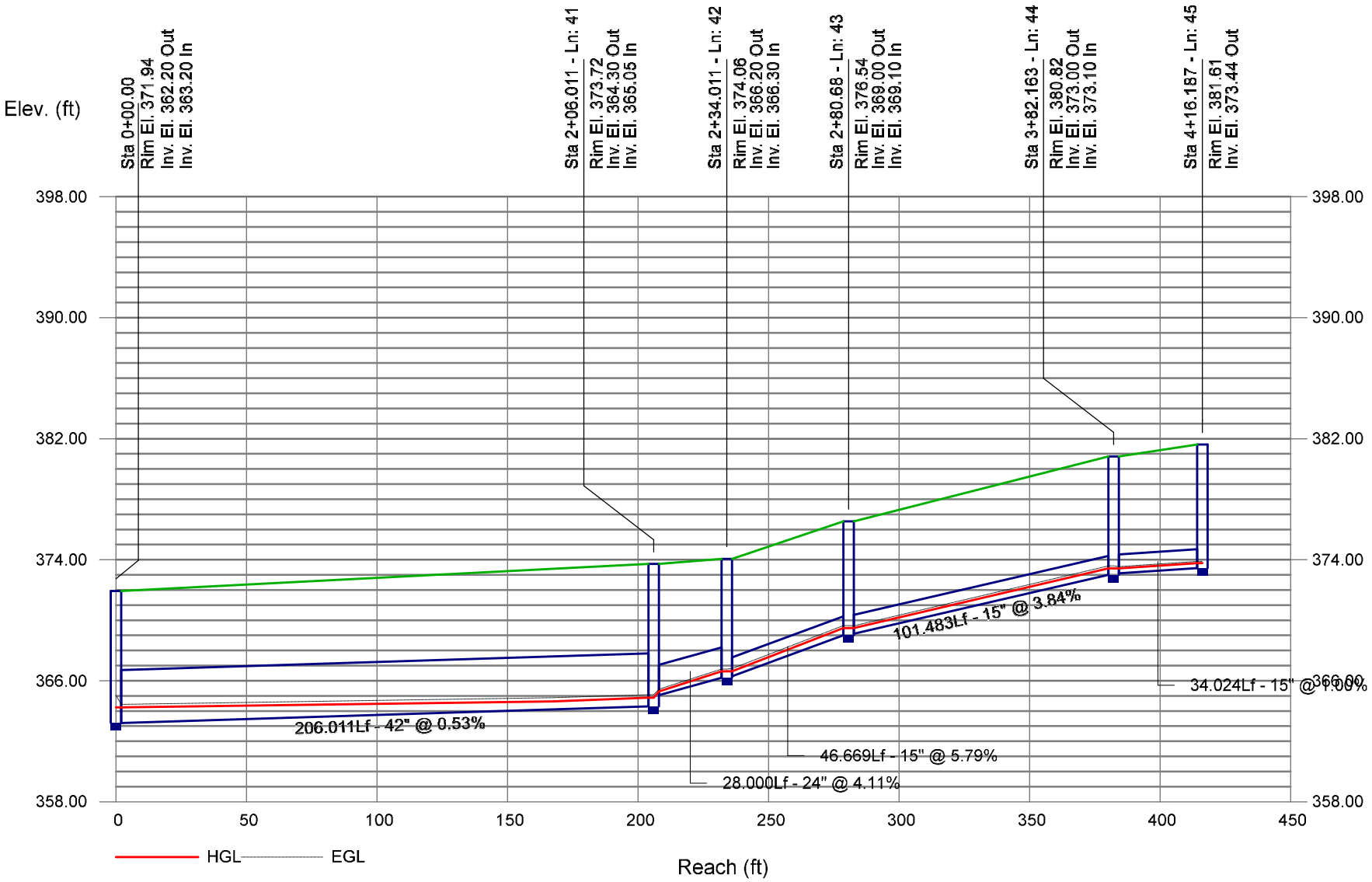
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



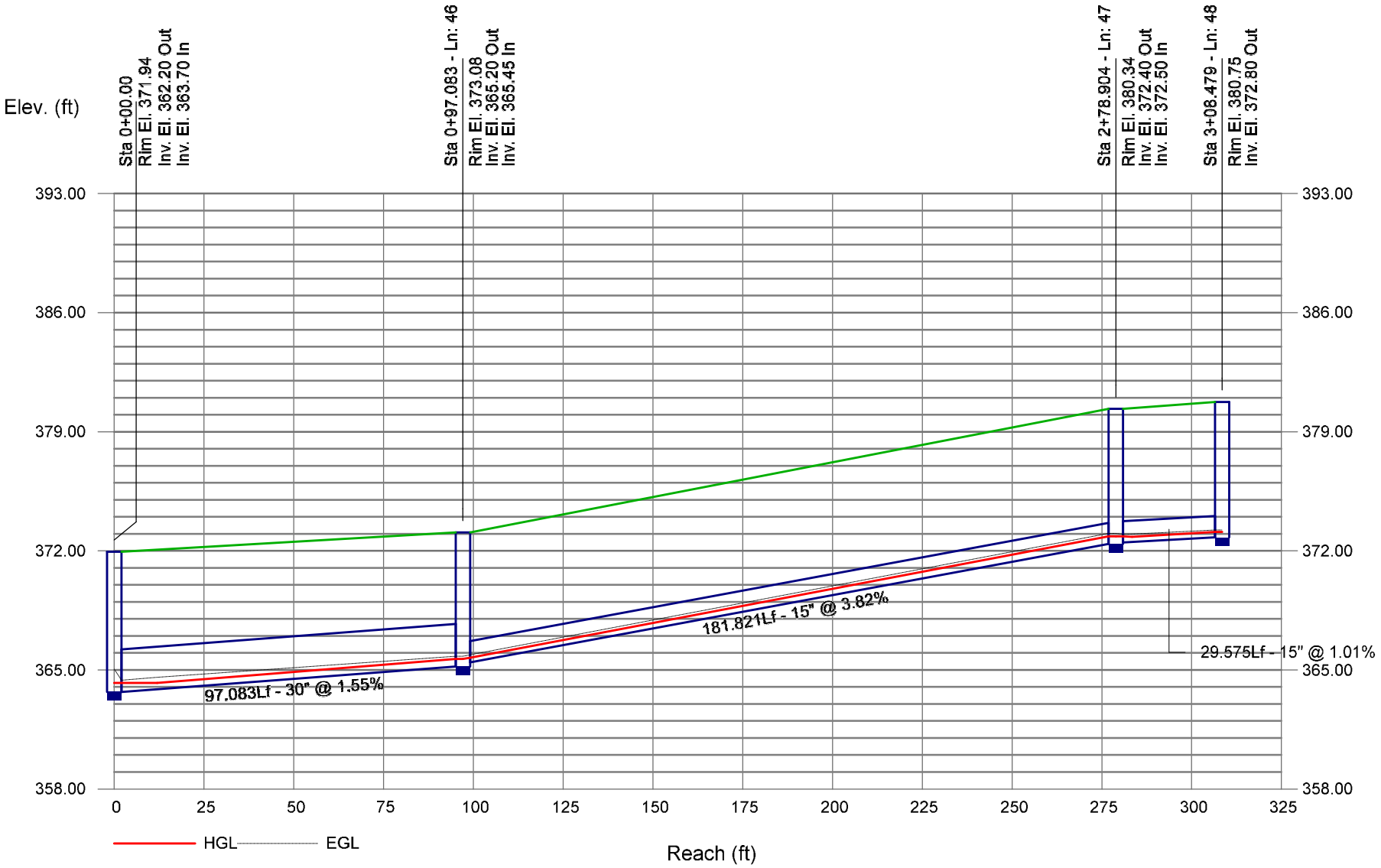
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



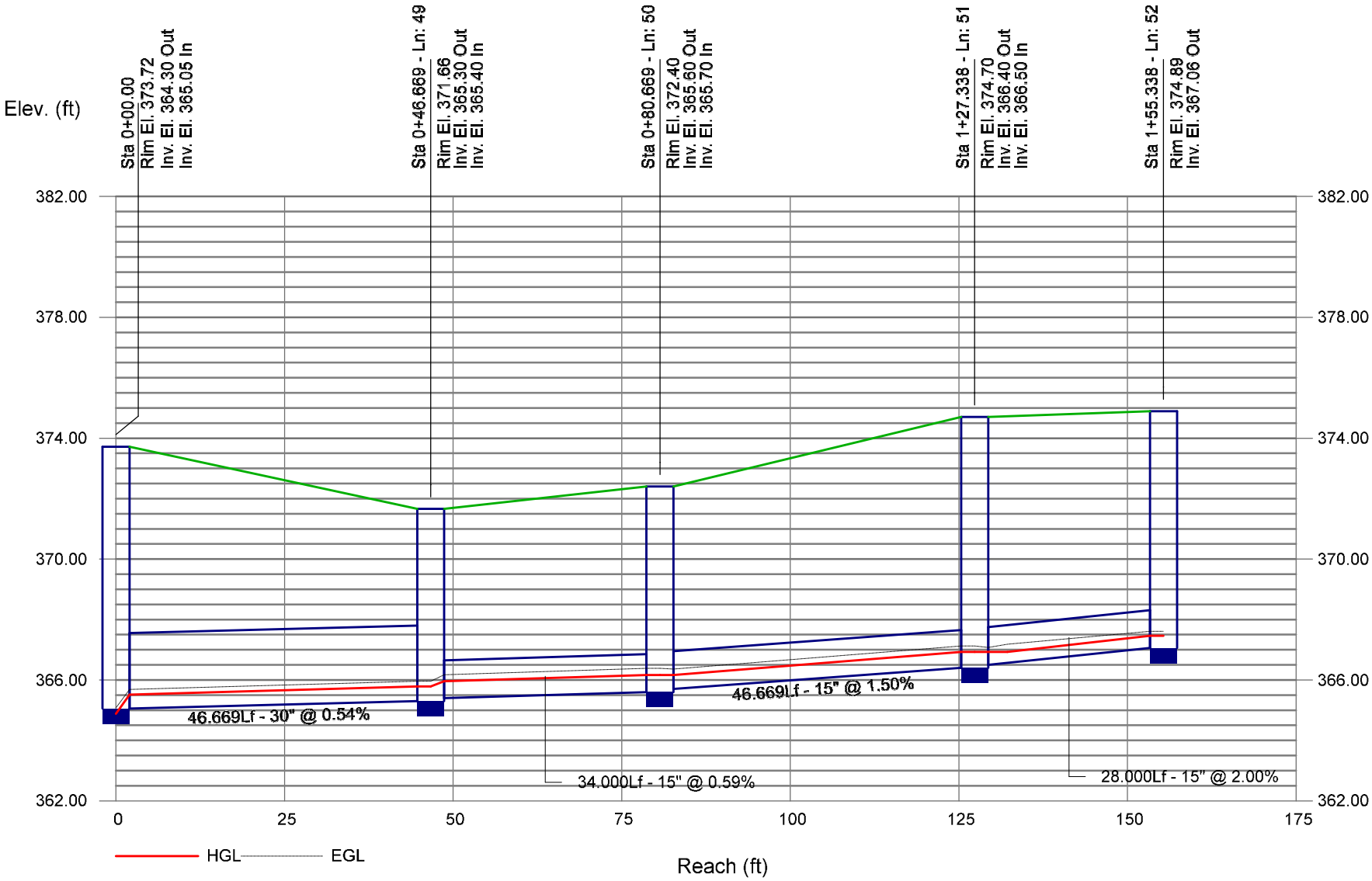
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



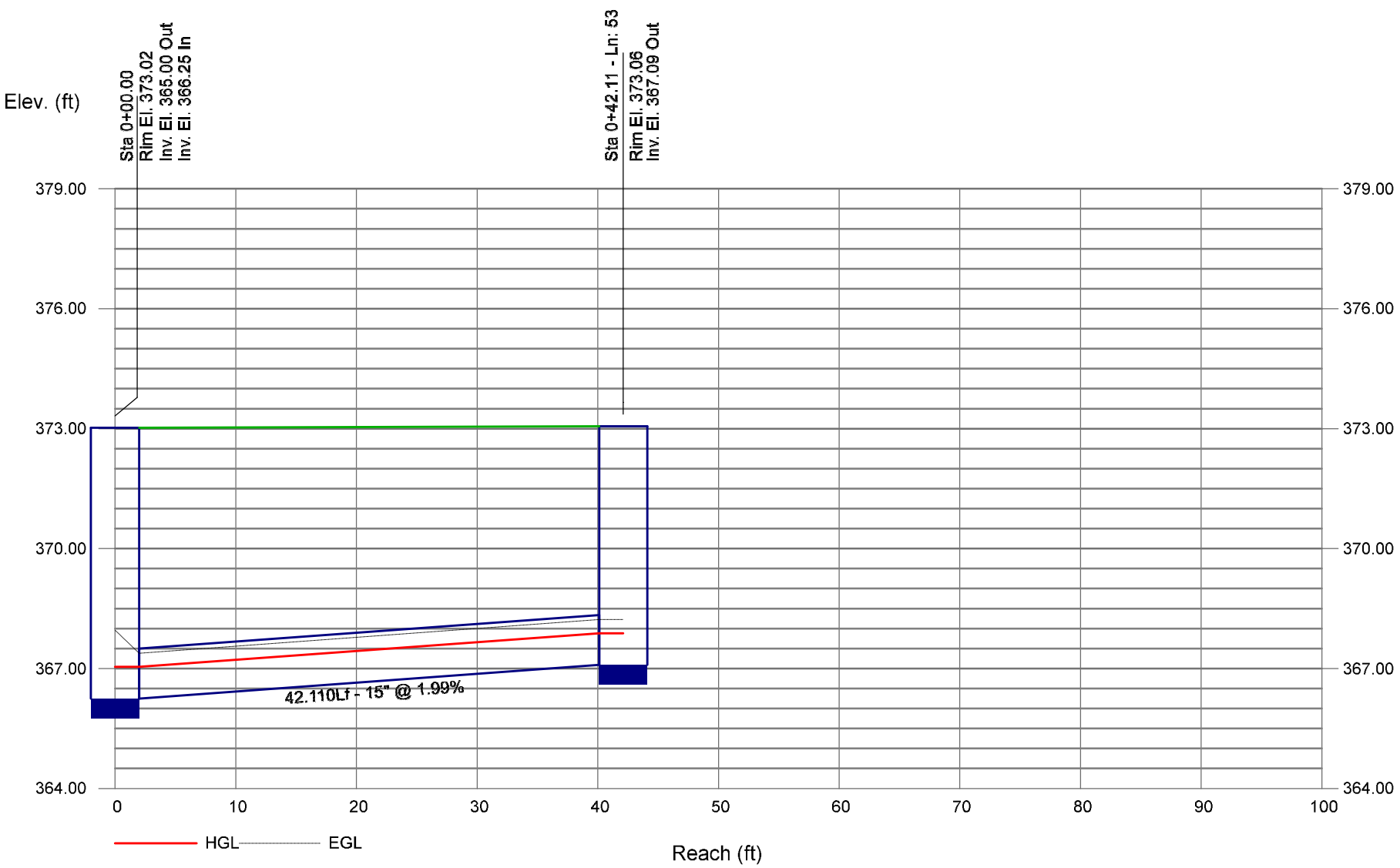
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



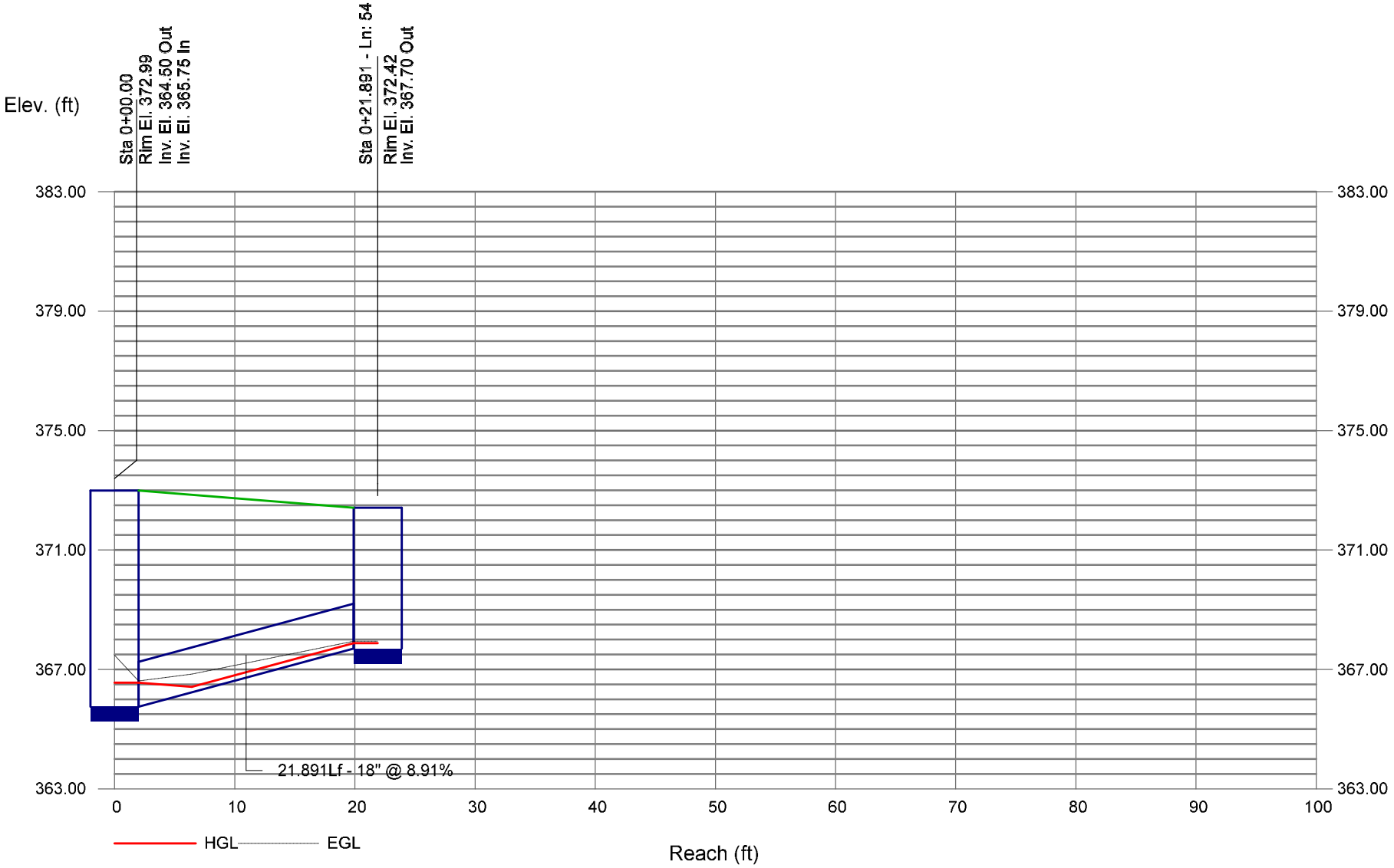
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



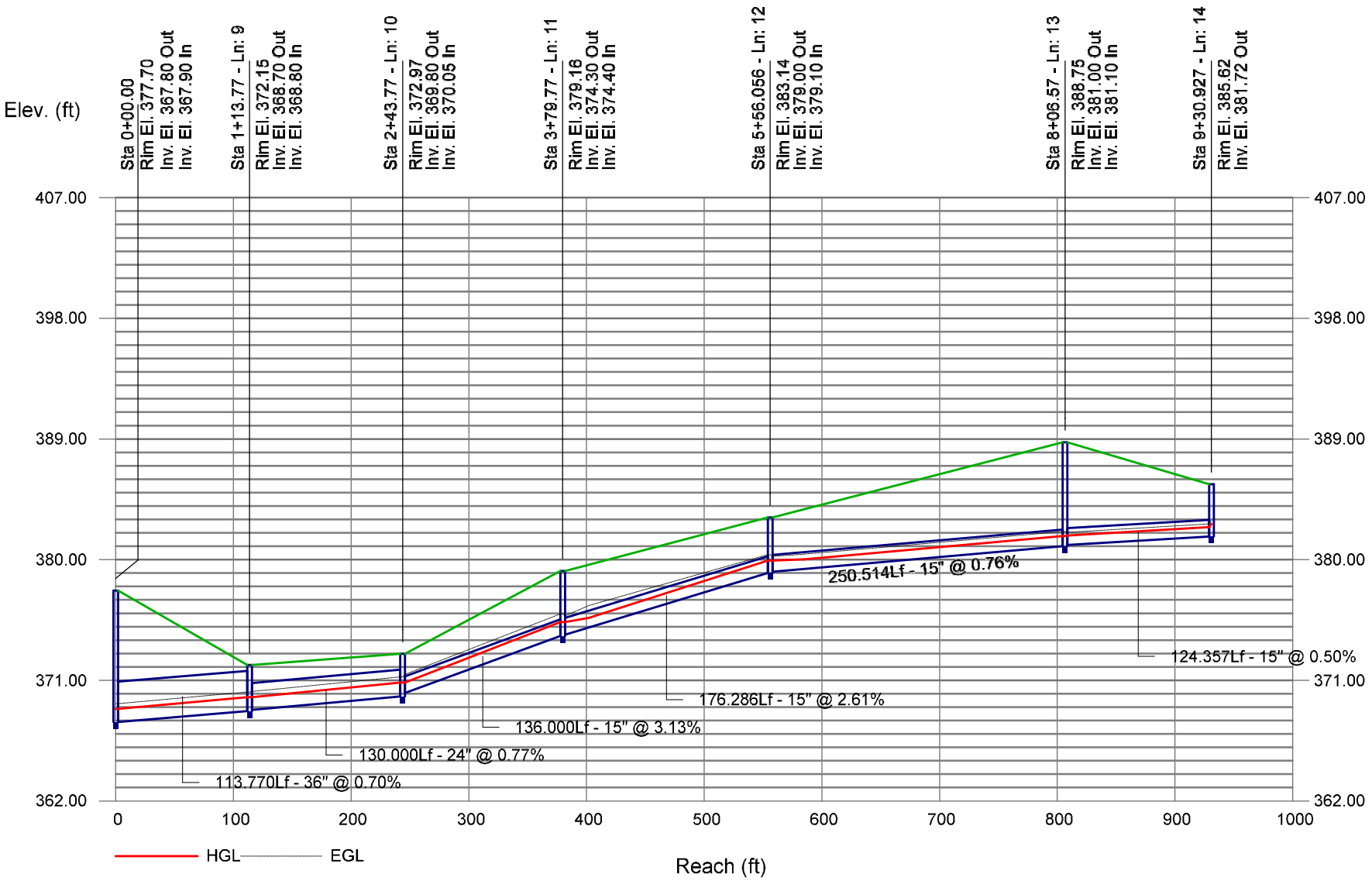
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



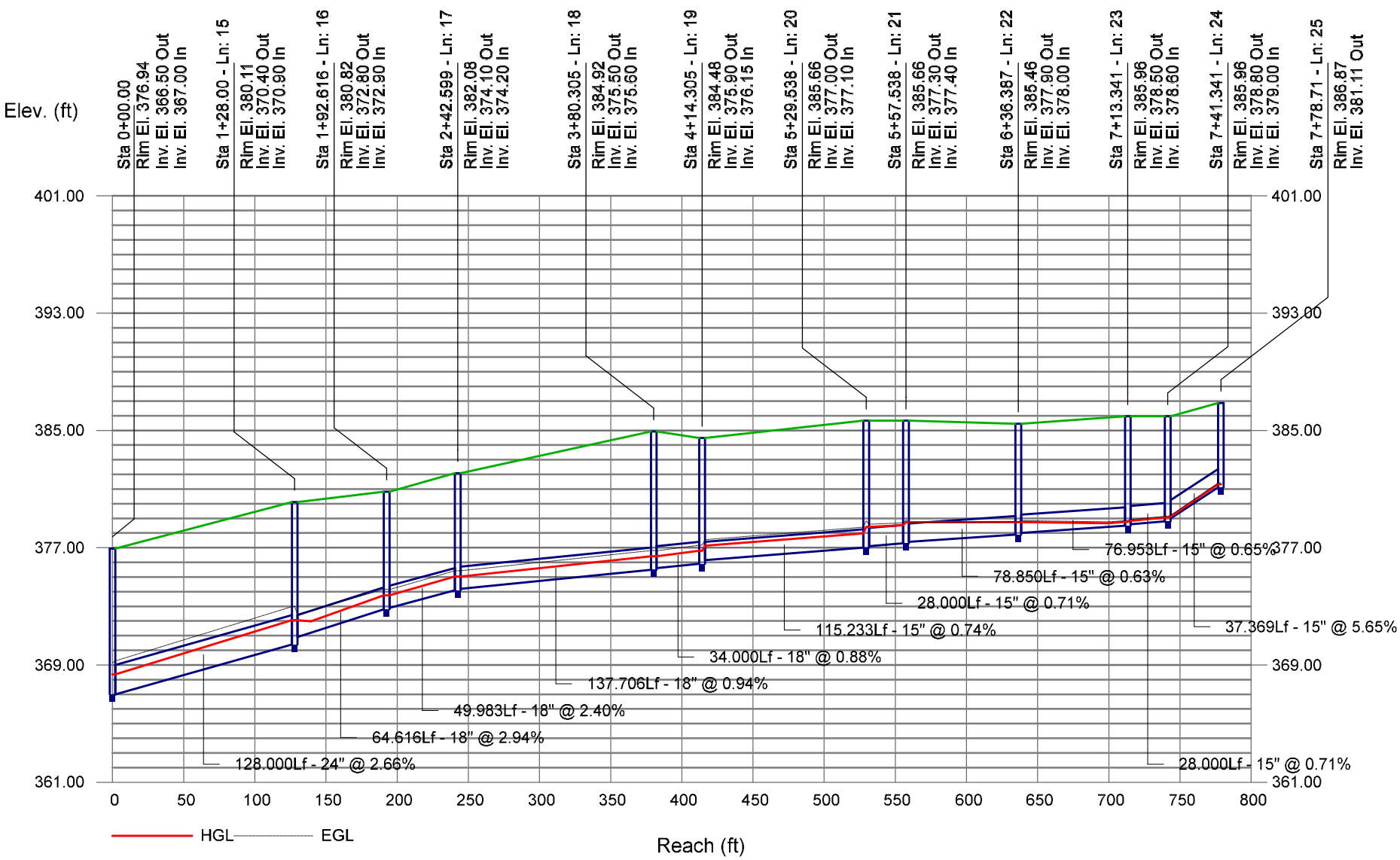
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



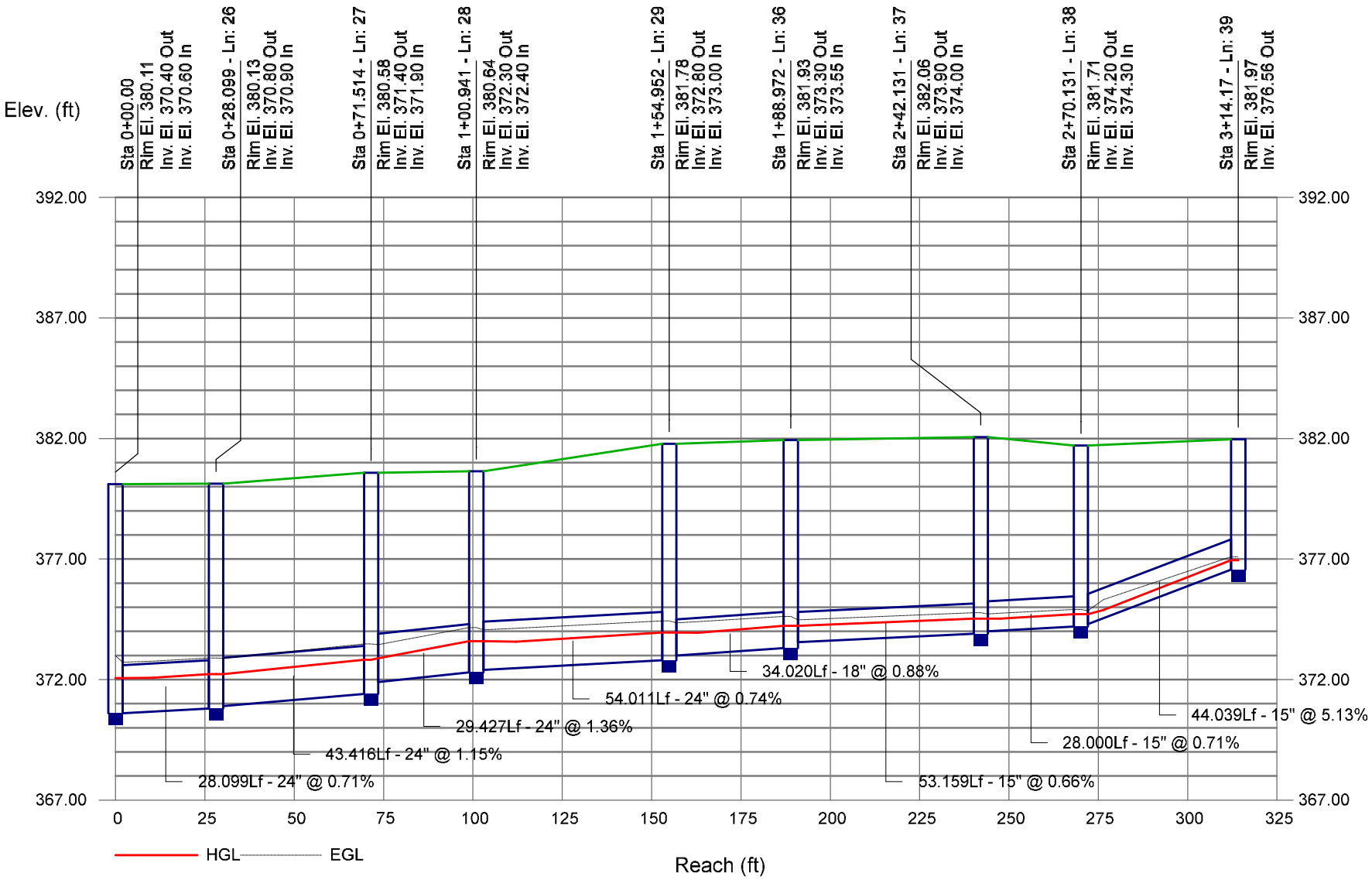
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



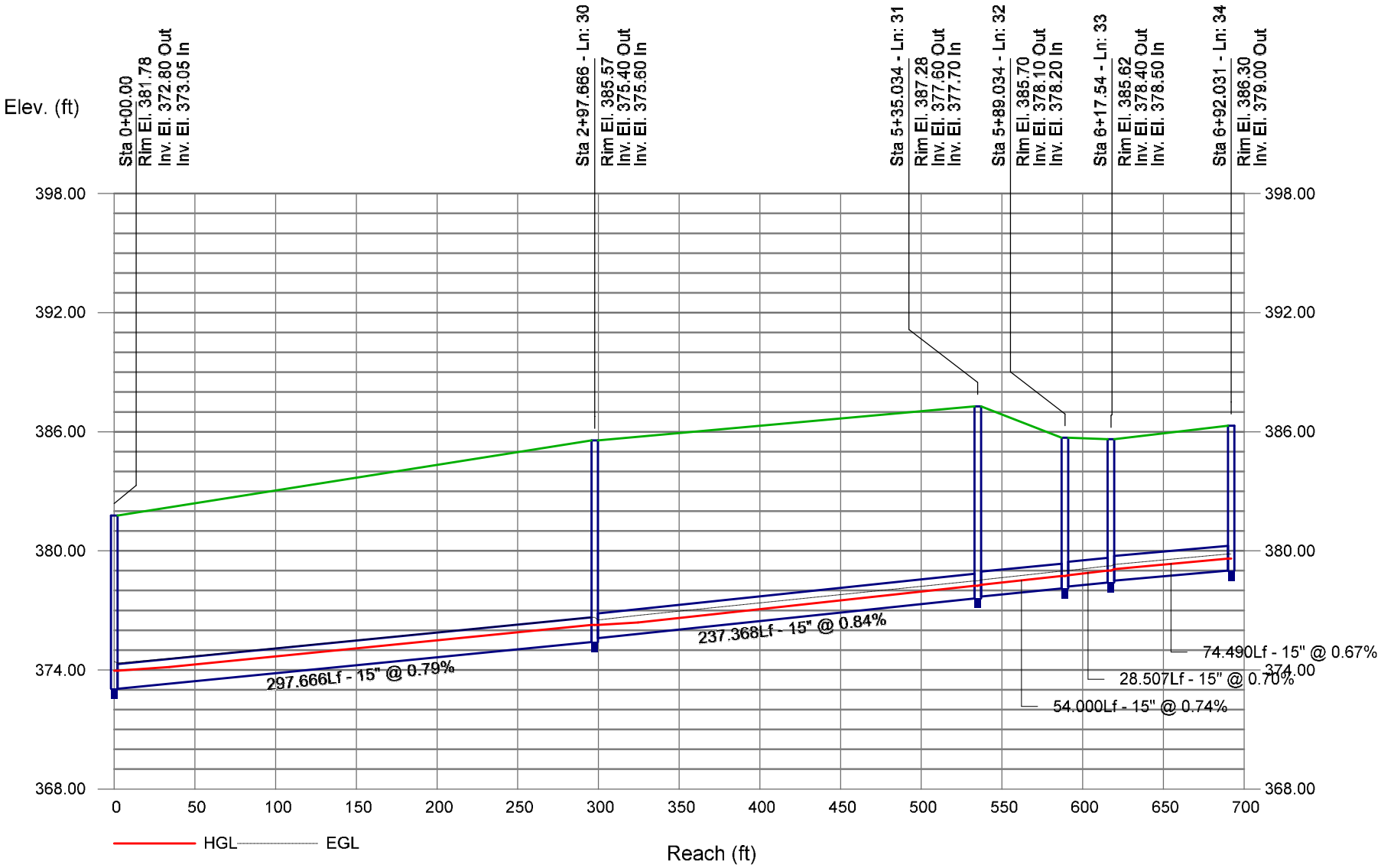
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



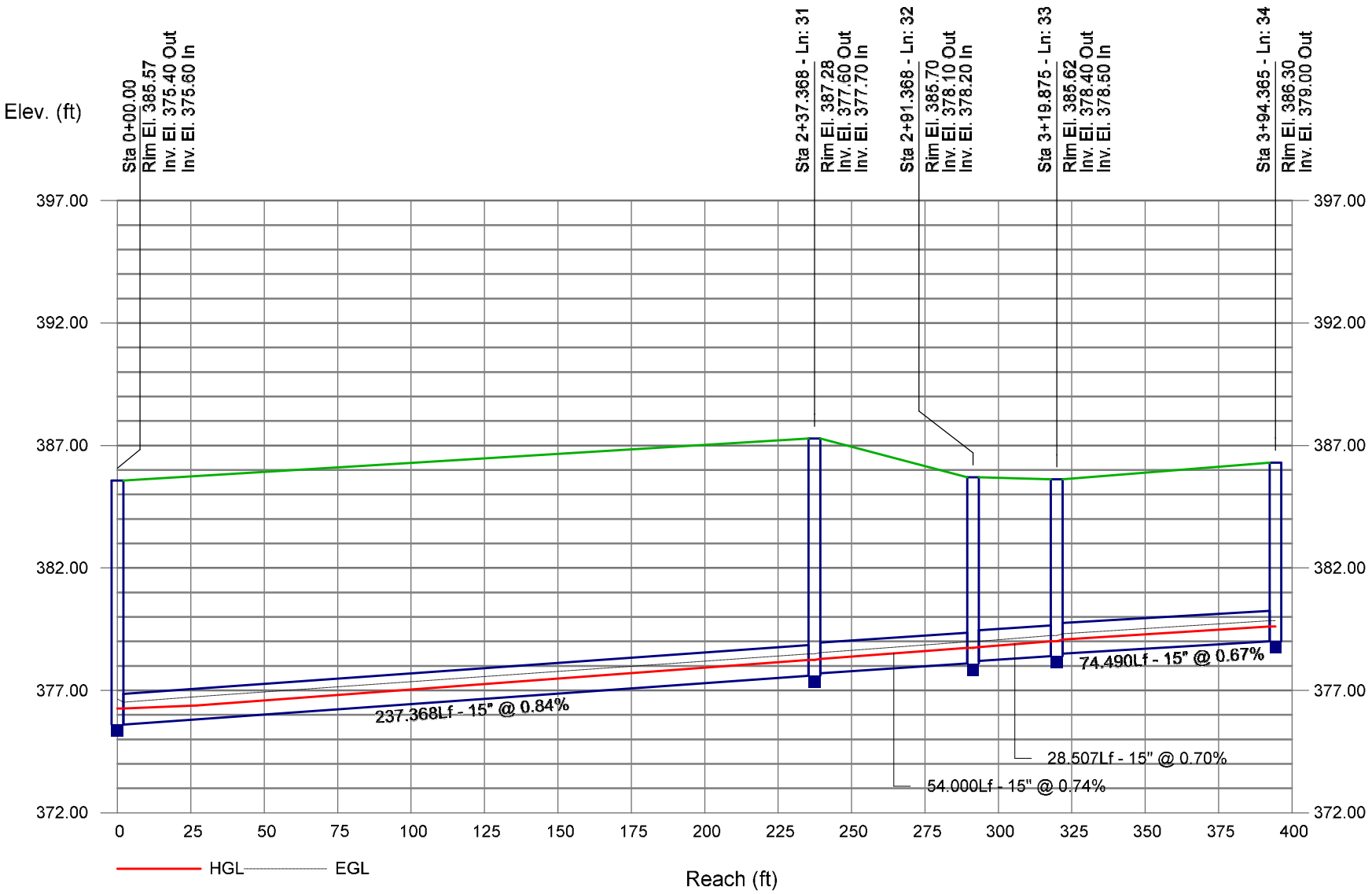
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



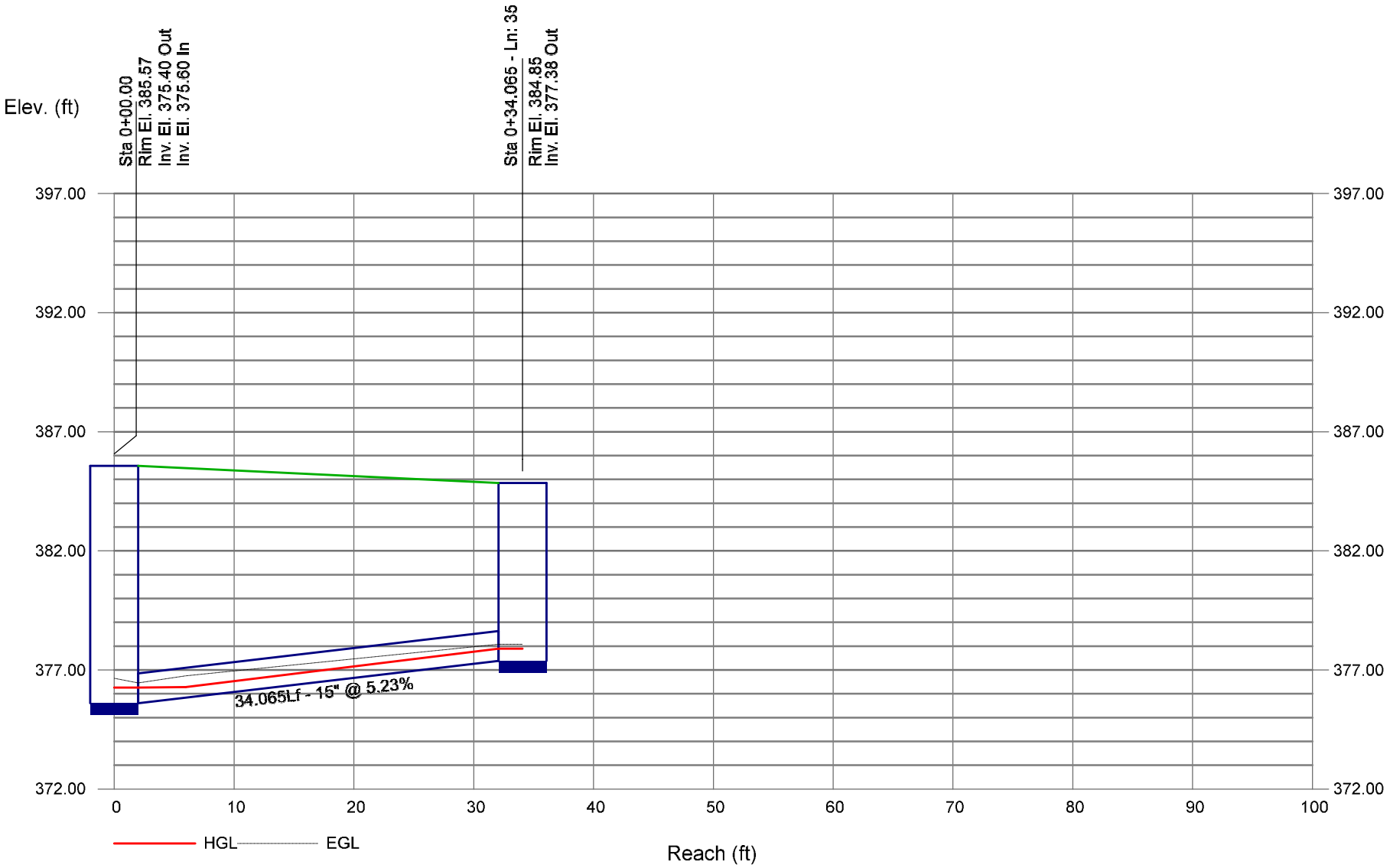
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



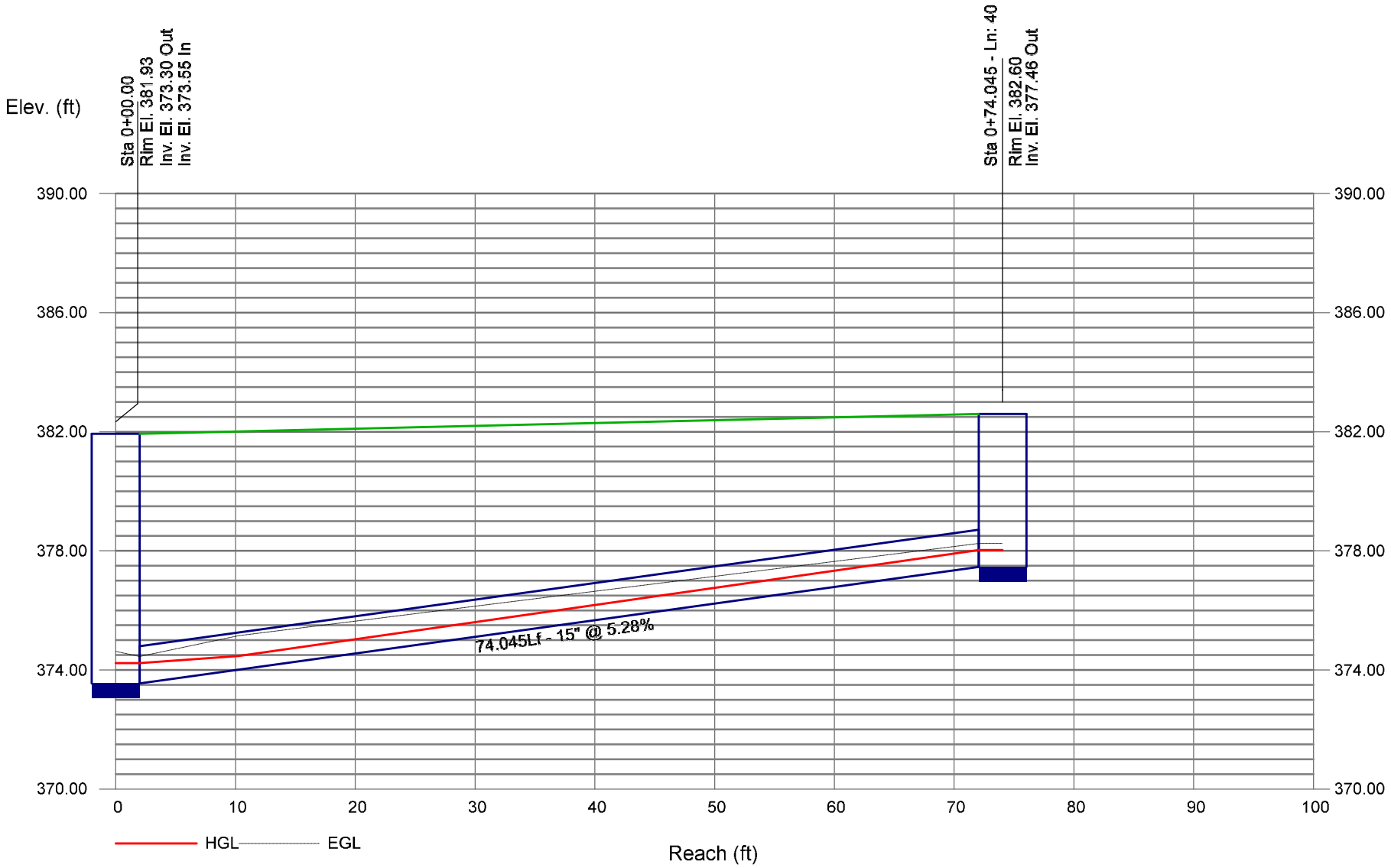
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



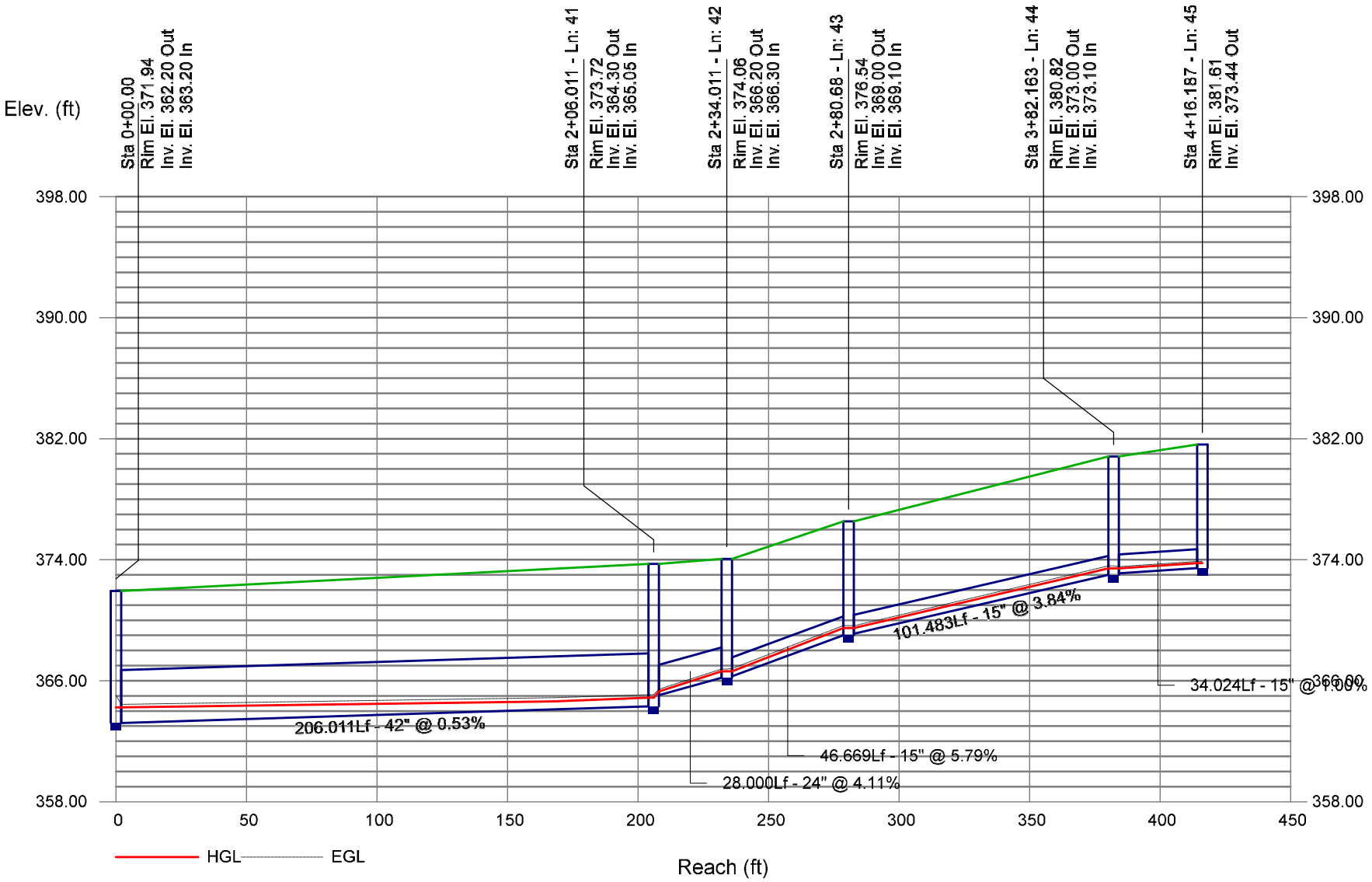
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



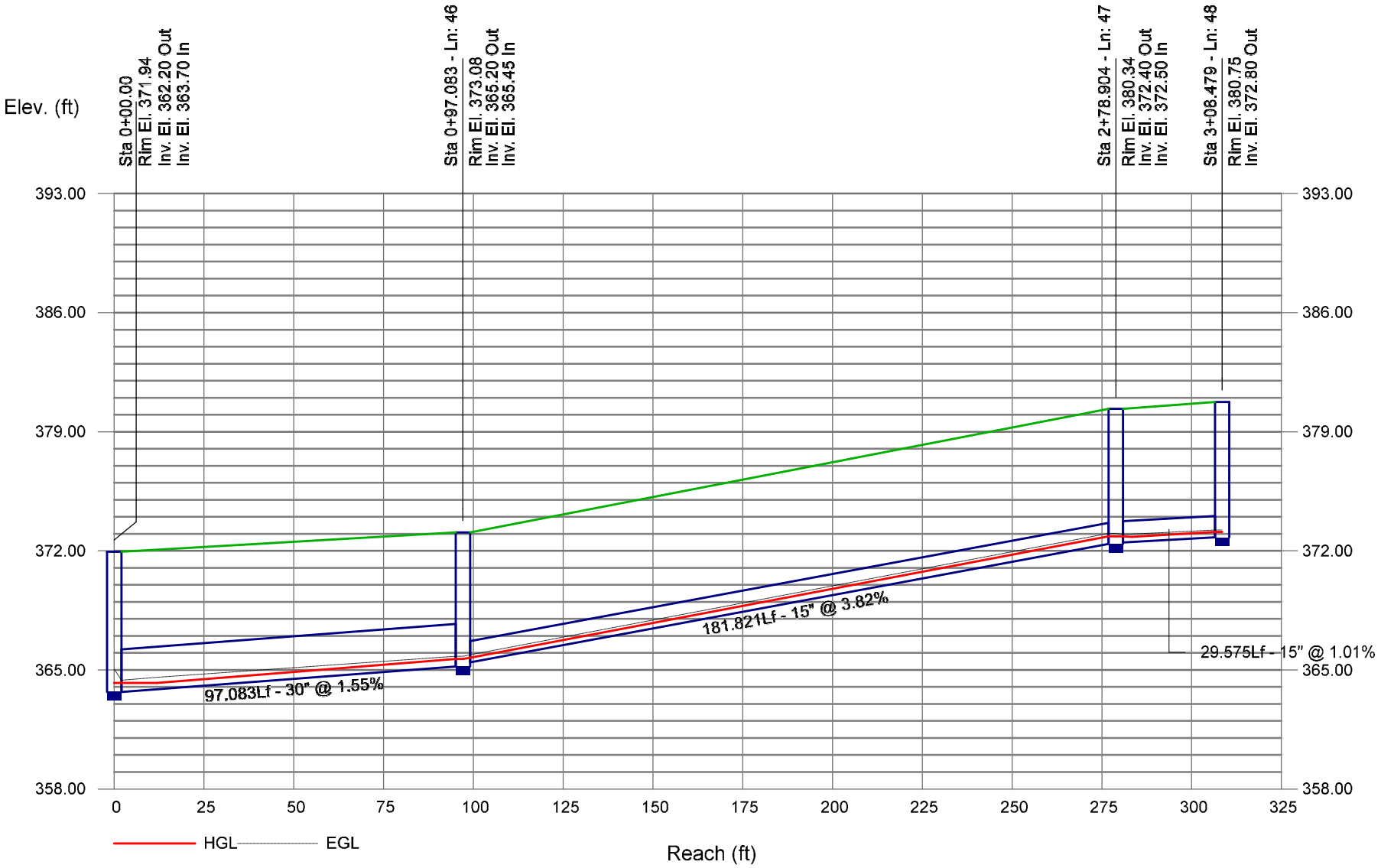
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



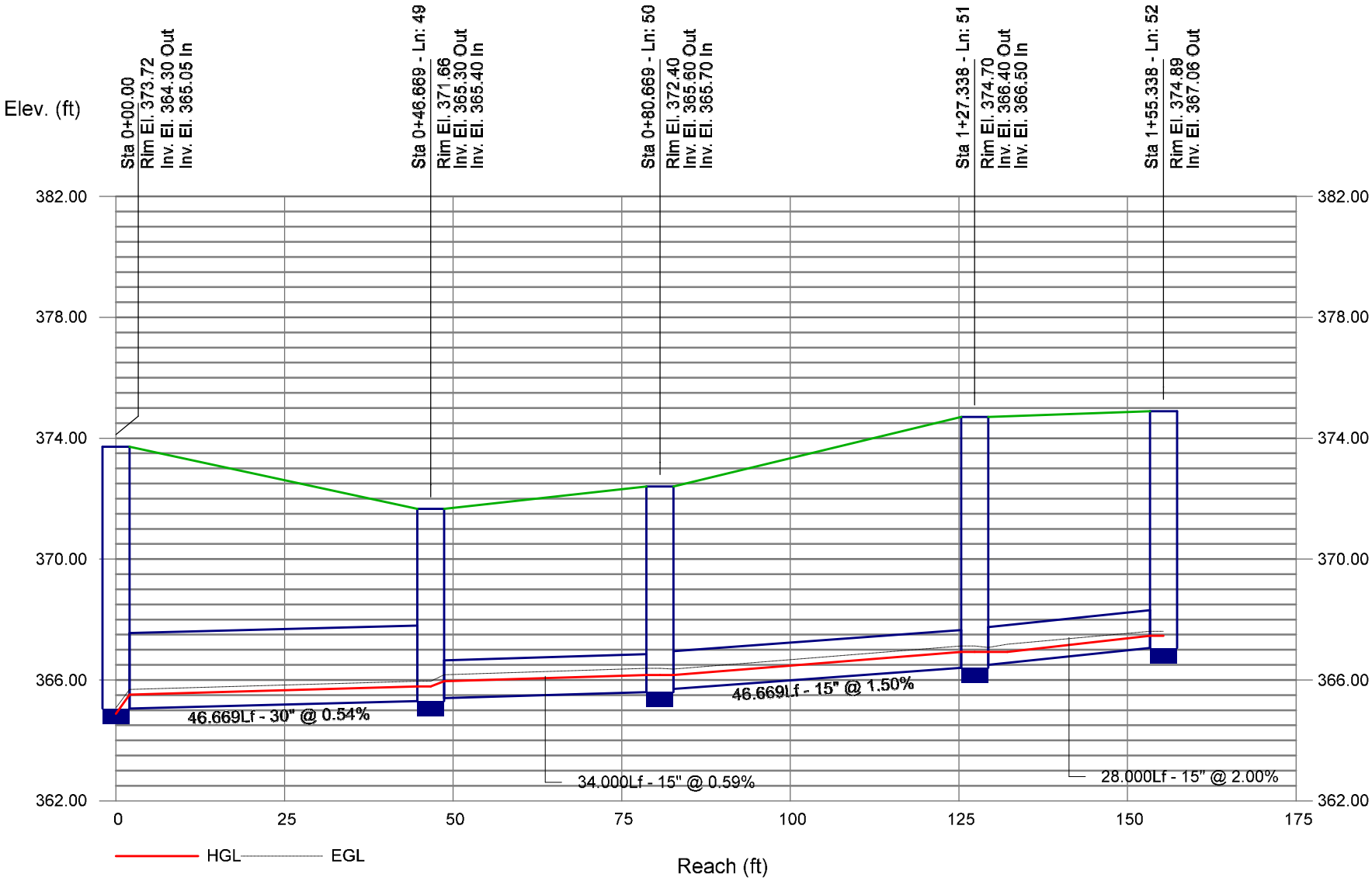
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



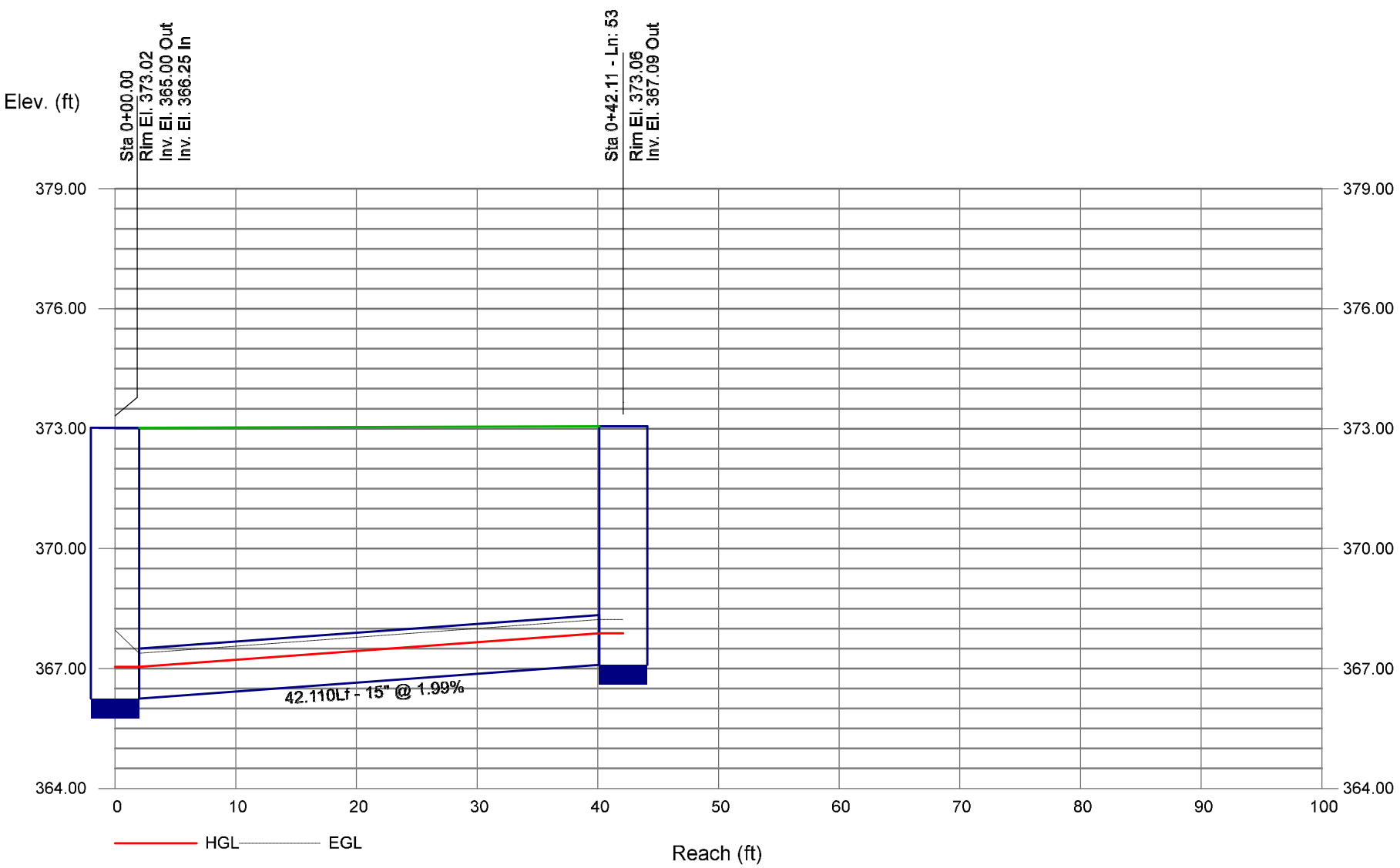
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



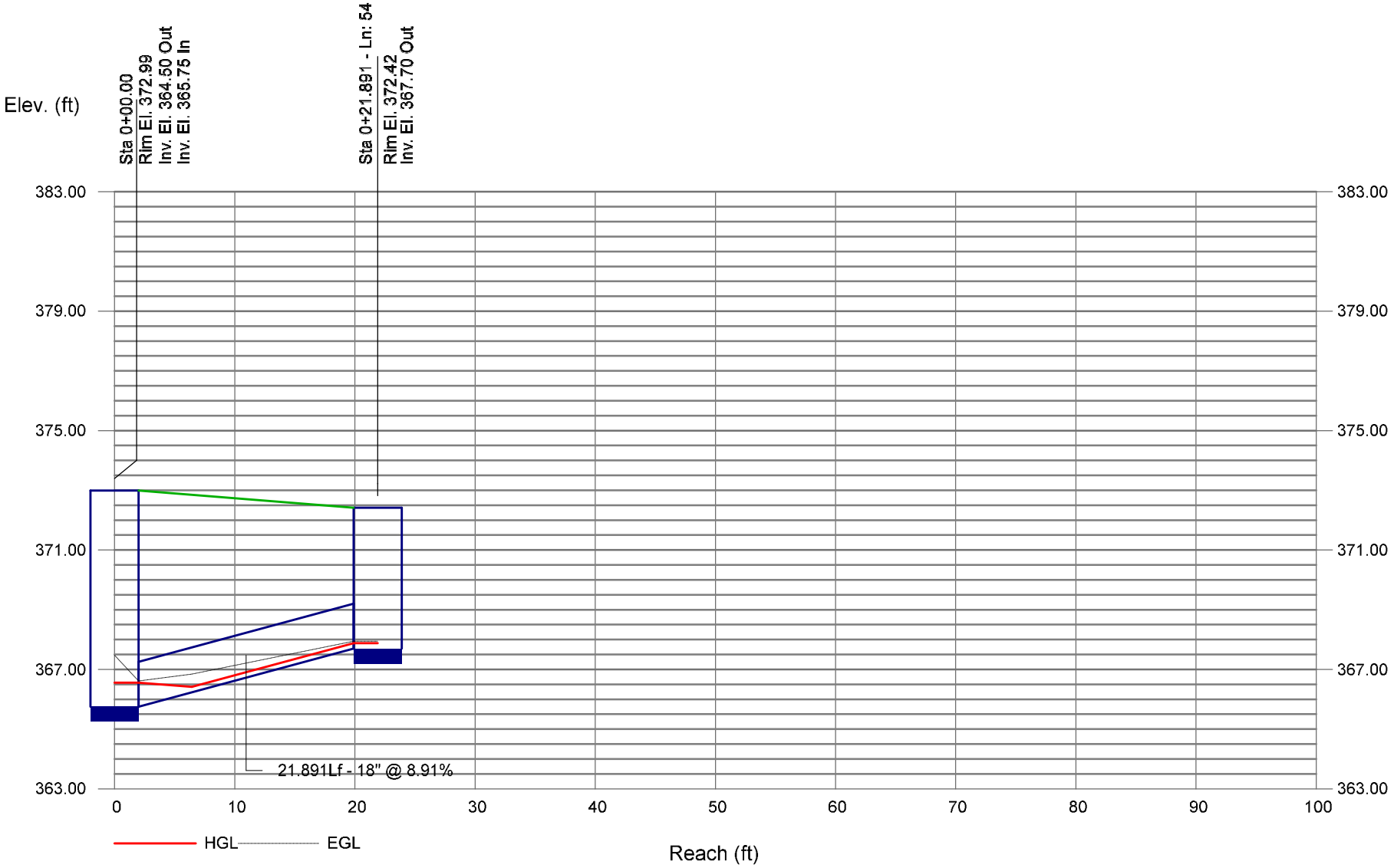
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm

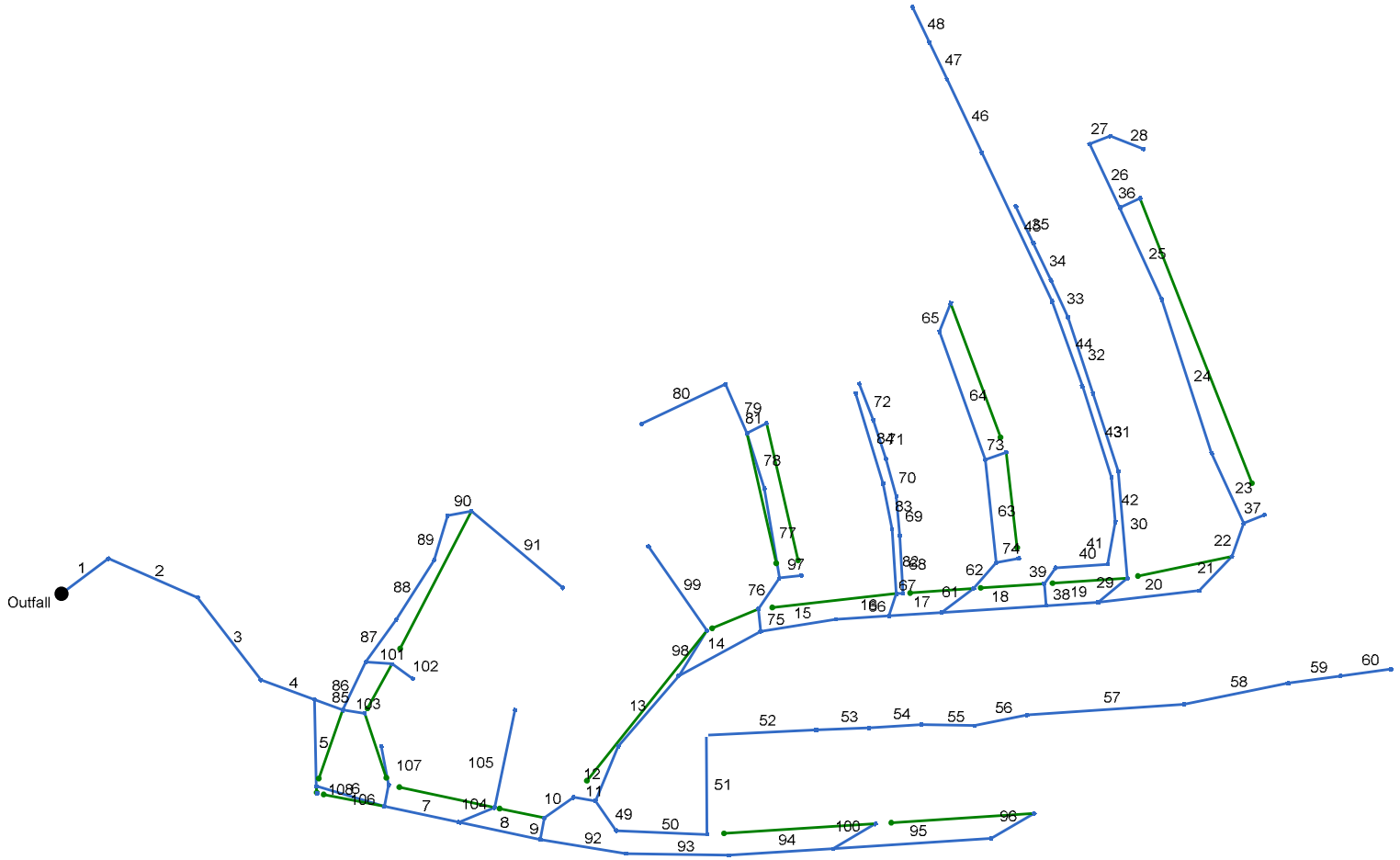


Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 5A Storm Network.stm	Number of lines: 108	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	74.659	-36.862	MH	0.00	0.00	0.00	0.0	316.00	1.00	316.75	48	Cir	0.013	0.89	332.98	Pipe - (648)
2	1	123.527	60.601	DrGrt	0.00	1.39	0.60	10.0	316.95	1.00	318.19	48	Cir	0.013	0.81	326.82	Pipe - (646)
3	2	132.055	28.871	DrGrt	0.00	0.06	0.60	10.0	318.30	2.50	321.60	48	Cir	0.013	0.89	339.45	Pipe - (292)
4	3	72.832	-32.438	DrGrt	0.00	0.01	0.60	10.0	322.10	0.49	322.46	48	Cir	0.013	1.42	340.36	Pipe - (291) (1)
5	4	110.092	68.821	Comb	0.00	0.21	0.60	10.0	322.66	0.50	323.21	48	Cir	0.013	1.44	332.33	Pipe - (515)
6	5	90.197	-72.396	Comb	0.00	0.06	0.60	10.0	323.44	0.51	323.90	48	Cir	0.013	1.50	334.39	Pipe - (287)
7	6	96.914	-4.581	Comb	0.00	0.09	0.60	10.0	324.10	0.99	325.06	48	Cir	0.013	0.93	335.43	Pipe - (236) (1)
8	7	105.502	0.000	Comb	0.00	0.12	0.60	10.0	325.17	1.00	326.22	48	Cir	0.013	2.23	336.49	Pipe - (425)
9	8	28.011	-91.609	Comb	0.00	0.07	0.60	10.0	326.42	0.64	326.60	48	Cir	0.013	1.12	336.62	Pipe - (236)
10	9	45.483	44.496	Comb	0.00	0.42	0.60	10.0	326.70	1.10	327.20	48	Cir	0.013	1.12	337.61	Pipe - (517)
11	10	28.154	44.548	Comb	0.00	0.06	0.60	10.0	327.30	0.71	327.50	48	Cir	0.013	1.71	337.59	Pipe - (518)
12	11	75.321	-76.898	Comb	0.00	0.07	0.60	10.0	328.00	4.51	331.40	36	Cir	0.013	0.54	341.32	Pipe - (265)
13	12	118.134	17.998	Comb	0.00	0.07	0.60	10.0	331.50	5.67	338.20	36	Cir	0.013	0.63	347.71	Pipe - (266)
14	13	118.619	20.885	Comb	0.00	0.10	0.60	10.0	338.70	4.13	343.60	30	Cir	0.013	1.41	352.80	Pipe - (232)
15	14	96.000	19.449	Comb	0.00	0.08	0.60	10.0	344.10	4.37	348.30	30	Cir	0.013	0.50	356.65	Pipe - (533)
16	15	67.783	5.437	Comb	0.00	0.07	0.60	10.0	348.40	4.57	351.50	30	Cir	0.013	1.41	360.12	Pipe - (274)
17	16	67.241	-0.093	Comb	0.00	0.14	0.60	10.0	351.70	5.35	355.30	30	Cir	0.013	0.91	364.04	Pipe - (260)
18	17	133.000	0.043	Comb	0.00	0.07	0.60	10.0	355.50	2.18	358.40	30	Cir	0.013	1.50	369.61	Pipe - (532)
19	18	66.111	0.014	Comb	0.00	0.13	0.60	10.0	358.60	9.08	364.60	24	Cir	0.013	0.96	373.20	Pipe - (272)
20	19	129.000	-2.881	Comb	0.00	0.16	0.60	10.0	365.10	5.81	372.60	18	Cir	0.013	1.04	380.55	Pipe - (227)
21	20	60.236	-39.930	Comb	0.00	0.06	0.60	10.0	372.70	3.15	374.60	18	Cir	0.013	0.69	382.80	Pipe - (530)
22	21	44.832	-23.761	Comb	0.00	0.10	0.60	10.0	374.70	3.35	376.20	18	Cir	0.013	1.17	384.22	Pipe - (226)
23	22	98.443	-44.465	Comb	0.00	0.20	0.60	10.0	376.45	0.66	377.10	15	Cir	0.013	0.50	384.98	Pipe - (225) (1)

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	205.640	6.883	Comb	0.00	0.12	0.60	10.0	377.20	1.02	379.30	15	Cir	0.013	0.50	387.17	Pipe - (225)
25	24	128.177	-6.601	Comb	0.00	0.09	0.60	10.0	379.40	1.64	381.50	15	Cir	0.013	1.50	389.10	Pipe - (224)
26	25	89.745	-0.806	Comb	0.00	0.09	0.60	10.0	381.70	0.89	382.50	15	Cir	0.013	1.50	390.43	Pipe - (223) (1)
27	26	28.070	94.057	Comb	0.00	0.10	0.60	10.0	382.60	1.07	382.90	15	Cir	0.013	1.08	390.68	Pipe - (528)
28	27	45.000	42.659	Comb	0.00	0.17	0.60	10.0	383.00	1.11	383.50	15	Cir	0.013	1.00	390.55	Pipe - (593)
29	19	47.992	-36.058	Comb	0.00	0.13	0.60	10.0	365.35	7.54	368.97	15	Cir	0.013	1.27	375.87	Pipe - (674)
30	29	137.042	-55.105	DrGrt	0.00	0.23	0.60	10.0	369.17	6.78	378.46	15	Cir	0.013	0.50	382.46	Pipe - (673)
31	30	104.000	-13.022	DrGrt	0.00	0.22	0.60	10.0	378.66	1.00	379.70	15	Cir	0.013	0.50	384.50	Pipe - (672)
32	31	102.047	-0.242	DrGrt	0.00	0.04	0.60	10.0	379.90	0.50	380.41	15	Cir	0.013	0.50	386.76	Pipe - (671)
33	32	51.989	-6.776	DrGrt	0.00	0.19	0.60	10.0	380.61	0.50	380.87	15	Cir	0.013	0.50	384.72	Pipe - (675)
34	33	51.970	-0.240	DrGrt	0.00	0.12	0.60	10.0	381.07	1.48	381.84	15	Cir	0.013	0.50	385.69	Pipe - (670)
35	34	52.092	-0.127	DrGrt	0.00	0.33	0.60	10.0	382.04	1.63	382.89	15	Cir	0.013	1.00	386.54	Pipe - (669)
36	25	28.048	89.194	Comb	0.00	0.29	0.60	10.0	381.70	0.50	381.84	15	Cir	0.013	1.00	389.44	Pipe - (245)
37	22	28.090	47.998	Comb	0.00	1.32	0.60	10.0	376.45	0.50	376.59	18	Cir	0.013	1.00	384.42	Pipe - (529)
38	18	28.013	-91.754	Comb	0.00	0.35	0.60	10.0	359.15	0.82	359.38	24	Cir	0.013	1.06	369.73	Pipe - (273)
39	38	24.995	41.184	MH	0.00	0.00	0.00	0.0	359.58	0.52	359.71	24	Cir	0.013	0.81	368.44	Pipe - (667)
40	39	66.154	50.557	MH	0.00	0.00	0.00	0.0	359.91	0.50	360.24	24	Cir	0.013	0.98	367.12	Pipe - (666)
41	40	55.000	-76.319	DrGrt	0.00	0.51	0.60	10.0	360.16	0.51	360.44	18	Cir	0.013	0.50	363.90	Pipe - (665)
42	41	56.890	-14.673	MH	0.00	0.00	0.00	0.0	360.44	3.92	362.67	18	Cir	0.013	0.27	366.32	Pipe - (639)
43	42	122.036	-12.878	DrGrt	0.00	0.22	0.60	10.0	362.87	0.81	363.86	18	Cir	0.013	0.50	367.51	Pipe - (638)
44	43	114.791	-1.955	DrGrt	0.00	0.47	0.60	10.0	364.06	2.33	366.73	15	Cir	0.013	0.50	370.38	Pipe - (637)
45	44	208.408	-5.694	DrGrt	0.00	0.13	0.60	10.0	366.93	2.43	371.99	15	Cir	0.013	0.50	377.77	Pipe - (642)
46	45	104.000	-0.130	DrGrt	0.00	0.13	0.60	10.0	372.19	0.50	372.71	15	Cir	0.013	0.50	378.30	Pipe - (678)

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	52.000	0.087	DrGrt	0.00	0.11	0.60	10.0	372.91	0.50	373.17	15	Cir	0.013	0.50	377.79	Pipe - (677)
48	47	49.902	0.000	DrGrt	0.00	0.62	0.60	10.0	373.37	0.50	373.62	15	Cir	0.013	1.00	377.07	Pipe - (676)
49	11	45.939	45.868	Comb	0.00	0.18	0.60	10.0	328.50	0.65	328.80	36	Cir	0.013	1.25	337.97	Pipe - (271)
50	49	115.606	-52.914	Comb	0.00	0.18	0.60	10.0	328.90	0.69	329.70	36	Cir	0.013	1.50	340.39	Pipe - (649)
51	50	126.362	-92.770	DrGrt	0.00	1.78	0.60	10.0	329.80	0.95	331.00	36	Cir	0.013	1.50	338.51	Pipe - (285)
52	51	139.166	87.626	DrGrt	0.00	1.85	0.60	10.0	331.50	3.95	337.00	30	Cir	0.013	0.50	343.66	Pipe - (284) (1) (
53	52	67.594	0.528	DrGrt	0.00	1.85	0.60	10.0	337.10	5.47	340.80	30	Cir	0.013	0.50	347.52	Pipe - (284) (1)
54	53	66.533	-1.545	DrGrt	0.00	0.95	0.60	10.0	340.90	6.16	345.00	30	Cir	0.013	0.50	352.08	Pipe - (284)
55	54	67.477	4.887	DrGrt	0.00	1.37	0.60	10.0	345.50	9.93	352.20	24	Cir	0.013	0.50	357.37	Pipe - (283) (1)
56	55	68.154	-12.683	DrGrt	0.00	0.91	0.60	10.0	352.30	7.92	357.70	24	Cir	0.013	0.50	362.32	Pipe - (283)
57	56	199.337	7.647	DrGrt	0.00	1.22	0.60	10.0	357.95	4.54	367.00	24	Cir	0.013	0.50	372.00	Pipe - (282) (1) (
58	57	134.326	-7.575	DrGrt	0.00	1.22	0.60	10.0	367.10	1.19	368.70	24	Cir	0.013	0.50	374.67	Pipe - (282) (1) (
59	58	67.009	3.670	DrGrt	0.00	1.22	0.60	10.0	368.80	1.49	369.80	18	Cir	0.013	0.50	374.75	Pipe - (282) (1)
60	59	65.325	-0.105	DrGrt	0.00	1.05	0.60	10.0	369.90	1.00	370.55	15	Cir	0.013	1.00	374.42	Pipe - (282)
61	17	50.671	-33.471	Comb	0.00	0.07	0.60	10.0	355.80	3.95	357.80	18	Cir	0.013	0.50	366.26	Pipe - (531)
62	61	43.841	-11.501	Comb	0.00	0.14	0.60	10.0	357.90	4.33	359.80	18	Cir	0.013	1.50	367.80	Pipe - (259)
63	62	131.638	-47.350	Comb	0.00	0.18	0.60	10.0	360.05	1.41	361.90	15	Cir	0.013	1.46	369.52	Pipe - (258)
64	63	173.316	-13.483	Comb	0.00	0.23	0.60	10.0	362.00	2.54	366.40	15	Cir	0.013	1.05	374.11	Pipe - (257)
65	64	38.552	40.848	Comb	0.00	0.19	0.60	10.0	366.50	2.75	367.56	15	Cir	0.013	1.00	375.18	Pipe - (256)
66	16	30.177	-67.893	Comb	0.00	0.01	0.60	10.0	352.25	0.83	352.50	18	Cir	0.013	1.46	360.93	Pipe - (263)
67	66	8.474	72.177	Comb	0.00	0.10	0.60	10.0	352.70	5.90	353.20	15	Cir	0.013	1.50	361.25	Pipe - (705)
68	67	73.390	-93.922	DrGrt	0.00	0.20	0.60	10.0	353.30	9.81	360.50	15	Cir	0.013	0.50	367.82	Pipe - (704)
69	68	50.413	-1.463	DrGrt	0.00	0.20	0.60	10.0	360.60	4.36	362.80	15	Cir	0.013	0.50	368.84	Pipe - (703)

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
70	69	49.506	-10.850	DrGrt	0.00	0.20	0.60	10.0	362.90	2.22	364.00	15	Cir	0.013	0.50	369.18	Pipe - (702)
71	70	52.057	-2.272	DrGrt	0.00	0.20	0.60	10.0	364.10	0.96	364.60	15	Cir	0.013	0.50	369.47	Pipe - (701)
72	71	49.835	-3.167	DrGrt	0.00	0.10	0.60	10.0	364.70	5.52	367.45	15	Cir	0.013	1.00	371.89	Pipe - (700)
73	63	28.090	76.190	Comb	0.00	0.22	0.60	10.0	362.00	1.00	362.28	15	Cir	0.013	1.00	369.72	Pipe - (261)
74	62	28.533	38.046	Comb	0.00	0.17	0.60	10.0	360.05	1.02	360.34	15	Cir	0.013	1.00	368.24	Pipe - (688)
75	14	28.499	-67.597	Comb	0.00	0.07	0.60	0.0	344.10	1.05	344.40	24	Cir	0.013	1.04	353.24	Pipe - (242)
76	75	47.998	39.967	Comb	0.00	0.20	0.60	10.0	344.90	4.79	347.20	18	Cir	0.013	1.21	355.24	Pipe - (241)
77	76	115.718	-43.449	MH	0.00	0.00	0.00	10.0	347.45	4.28	352.40	15	Cir	0.013	0.16	360.64	Pipe - (240) (1)
78	77	73.254	-7.668	Comb	0.00	0.12	0.60	10.0	352.50	3.41	355.00	15	Cir	0.013	1.48	363.35	Pipe - (240)
79	78	68.104	-6.332	MH	0.00	0.00	0.00	0.0	355.20	1.88	356.48	15	Cir	0.013	1.00	364.95	Pipe - (660)
80	79	118.063	-91.660	DrGrt	0.00	0.30	0.60	10.0	356.67	0.51	357.27	15	Cir	0.013	1.00	364.69	Pipe - (659)
81	78	27.894	79.953	Comb	0.00	0.12	0.60	10.0	355.20	1.00	355.48	15	Cir	0.013	1.00	363.56	Pipe - (243)
82	66	81.670	-22.172	DrGrt	0.00	0.44	0.60	10.0	352.70	0.55	353.15	15	Cir	0.013	0.50	355.81	Pipe - (627)
83	82	59.620	-7.268	DrGrt	0.00	0.20	0.60	10.0	353.25	0.75	353.70	15	Cir	0.013	0.50	358.39	Pipe - (699) (1)
84	83	119.807	-5.999	DrGrt	0.00	0.40	0.60	10.0	353.80	3.70	358.23	15	Cir	0.013	1.00	362.67	Pipe - (699)
85	4	37.830	0.000	Comb	0.00	0.07	0.60	10.0	324.46	9.36	328.00	24	Cir	0.013	1.81	340.50	Pipe - (291)
86	85	67.669	-84.535	Comb	0.00	0.07	0.60	10.0	328.20	9.46	334.60	24	Cir	0.013	1.41	345.64	Pipe - (297)
87	86	66.501	9.954	Comb	0.00	0.09	0.60	10.0	334.80	9.47	341.10	18	Cir	0.013	0.50	350.88	Pipe - (299)
88	87	89.618	-3.183	Comb	0.00	0.07	0.60	10.0	341.20	9.48	349.70	18	Cir	0.013	0.50	358.28	Pipe - (296)
89	88	59.370	-15.703	Comb	0.00	0.15	0.60	10.0	349.80	4.88	352.70	18	Cir	0.013	1.36	362.88	Pipe - (685)
90	89	30.806	62.435	Comb	0.00	0.21	0.60	10.0	352.85	0.49	353.00	15	Cir	0.013	1.22	363.70	Pipe - (519)
91	90	151.519	50.996	DrGrt	0.00	0.76	0.60	10.0	353.22	0.49	353.97	15	Cir	0.013	1.00	357.62	Pipe - (656)
92	8	110.218	-2.645	Comb	0.00	0.15	0.60	10.0	327.22	1.52	328.90	30	Cir	0.013	0.50	338.24	Pipe - (235)

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
93	92	130.561	-8.424	Comb	0.00	0.15	0.60	10.0	329.40	2.14	332.20	24	Cir	0.013	0.50	340.87	Pipe - (270)
94	93	132.413	-4.628	Comb	0.00	0.21	0.60	10.0	332.70	3.85	337.80	18	Cir	0.013	0.76	346.09	Pipe - (269)
95	94	201.000	-0.061	Comb	0.00	0.37	0.60	10.0	338.05	6.89	351.90	15	Cir	0.013	0.75	359.96	Pipe - (268)
96	95	63.000	-26.471	Comb	0.00	0.27	0.60	10.0	352.00	7.51	356.73	15	Cir	0.013	1.00	364.48	Pipe - (277)
97	76	27.998	50.565	Comb	0.00	0.40	0.60	10.0	347.45	1.00	347.73	15	Cir	0.013	1.00	355.45	Pipe - (244)
98	13	67.945	-8.872	Comb	0.00	0.10	0.60	10.0	339.95	1.16	340.74	15	Cir	0.013	1.40	350.55	Pipe - (662)
99	98	130.118	-66.396	DrGrt	0.00	0.54	0.60	10.0	340.75	0.68	341.63	15	Cir	0.013	1.00	345.98	Pipe - (661)
100	94	62.439	-26.705	Comb	0.00	0.18	0.60	10.0	338.05	5.00	341.17	15	Cir	0.013	1.00	349.44	Pipe - (278)
101	86	33.617	68.314	Comb	0.00	0.15	0.60	10.0	334.80	8.92	337.80	15	Cir	0.013	0.87	347.02	Pipe - (655)
102	101	32.232	31.769	DrGrt	0.00	0.48	0.60	10.0	337.90	9.49	340.96	15	Cir	0.013	1.00	346.30	Pipe - (654)
103	85	28.384	-11.463	Comb	0.00	0.07	0.60	10.0	328.20	8.98	330.75	15	Cir	0.013	1.00	340.65	Pipe - (288)
104	7	48.953	-34.521	Comb	0.00	0.07	0.60	10.0	327.32	1.18	327.90	15	Cir	0.013	1.28	335.90	Pipe - (684)
105	104	127.001	-55.728	DrGrt	0.00	1.02	0.60	10.0	328.00	1.00	329.27	15	Cir	0.013	1.00	332.20	Pipe - (663)
106	6	28.000	-95.287	Comb	0.00	0.21	0.60	10.0	326.15	2.00	326.71	15	Cir	0.013	0.64	334.78	Pipe - (281)
107	106	50.307	-22.034	DrGrt	0.00	0.01	0.60	10.0	326.90	1.67	327.74	15	Cir	0.013	1.00	331.40	Pipe - (653)
108	5	9.040	-4.699	Comb	0.00	0.01	0.60	10.0	323.44	0.22	323.46	42	Cir	0.013	1.00	332.17	Pipe - (610)

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Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 500A	Manhole	332.98	Rect	4.00	4.00	48	Cir	316.75	48	Cir	316.95
2	YI 500B	DropGrate	326.82	Rect	4.00	4.00	48	Cir	318.19	48	Cir	318.30
3	YI 501	DropGrate	339.45	Rect	4.00	4.00	48	Cir	321.60	48	Cir	322.10
4	YI 502	DropGrate	340.36	Rect	4.00	4.00	48	Cir	322.46	48 24	Cir Cir	322.66 324.46
5	CB 503	Combination	332.33	Rect	4.00	4.00	48	Cir	323.21	48 42	Cir Cir	323.44 323.44
6	CB 504	Combination	334.39	Rect	4.00	4.00	48	Cir	323.90	48 15	Cir Cir	324.10 326.15
7	CB 505	Combination	335.43	Rect	4.00	4.00	48	Cir	325.06	48 15	Cir Cir	325.17 327.32
8	CB 506	Combination	336.49	Rect	4.00	4.00	48	Cir	326.22	48 30	Cir Cir	326.42 327.22
9	CB 515	Combination	336.62	Rect	4.00	4.00	48	Cir	326.60	48	Cir	326.70
10	CB 516	Combination	337.61	Rect	4.00	4.00	48	Cir	327.20	48	Cir	327.30
11	CB 517	Combination	337.59	Rect	4.00	4.00	48	Cir	327.50	36 36	Cir Cir	328.00 328.50
12	CB 518	Combination	341.32	Rect	4.00	4.00	36	Cir	331.40	36	Cir	331.50
13	CB 519	Combination	347.71	Rect	4.00	4.00	36	Cir	338.20	30 15	Cir Cir	338.70 339.95
14	CB 520	Combination	352.80	Rect	4.00	4.00	30	Cir	343.60	30 24	Cir Cir	344.10 344.10
15	CB 521	Combination	356.65	Rect	4.00	4.00	30	Cir	348.30	30	Cir	348.40
16	CB 522	Combination	360.12	Rect	4.00	4.00	30	Cir	351.50	30 18	Cir Cir	351.70 352.25
17	CB 523	Combination	364.04	Rect	4.00	4.00	30	Cir	355.30	30 18	Cir Cir	355.50 355.80
18	CB 524	Combination	369.61	Rect	4.00	4.00	30	Cir	358.40	24 24	Cir Cir	358.60 359.15

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
19	CB 525	Combination	373.20	Rect	4.00	4.00	24	Cir	364.60	18 15	Cir Cir	365.10 365.35
20	CB 526	Combination	380.55	Rect	4.00	4.00	18	Cir	372.60	18	Cir	372.70
21	CB 527	Combination	382.80	Rect	4.00	4.00	18	Cir	374.60	18	Cir	374.70
22	CB 528	Combination	384.22	Rect	4.00	4.00	18	Cir	376.20	15 18	Cir Cir	376.45 376.45
23	CB 529	Combination	384.98	Rect	4.00	4.00	15	Cir	377.10	15	Cir	377.20
24	CB 530	Combination	387.17	Rect	4.00	4.00	15	Cir	379.30	15	Cir	379.40
25	CB 531	Combination	389.10	Rect	4.00	4.00	15	Cir	381.50	15 15	Cir Cir	381.70 381.70
26	CB 532	Combination	390.43	Rect	4.00	4.00	15	Cir	382.50	15	Cir	382.60
27	CB 532A	Combination	390.68	Rect	4.00	4.00	15	Cir	382.90	15	Cir	383.00
28	CB 533	Combination	390.55	Rect	4.00	4.00	15	Cir	383.50			
29	CB 525A	Combination	375.87	Rect	4.00	4.00	15	Cir	368.97	15	Cir	369.17
30	YI 525B	DropGrate	382.46	Rect	4.00	4.00	15	Cir	378.46	15	Cir	378.66
31	YI 525C	DropGrate	384.50	Rect	4.00	4.00	15	Cir	379.70	15	Cir	379.90
32	YI 525D	DropGrate	386.76	Rect	4.00	4.00	15	Cir	380.41	15	Cir	380.61
33	YI 525E	DropGrate	384.72	Rect	4.00	4.00	15	Cir	380.87	15	Cir	381.07
34	YI 525F	DropGrate	385.69	Rect	4.00	4.00	15	Cir	381.84	15	Cir	382.04
35	YI 525G	DropGrate	386.54	Rect	4.00	4.00	15	Cir	382.89			
36	CB 531A	Combination	389.44	Rect	4.00	4.00	15	Cir	381.84			
37	CB 528A	Combination	384.42	Rect	4.00	4.00	18	Cir	376.59			
38	CB 524A	Combination	369.73	Rect	4.00	4.00	24	Cir	359.38	24	Cir	359.58
39	JB 524B	Manhole	368.44	Rect	4.00	4.00	24	Cir	359.71	24	Cir	359.91

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
40	JB 524C	Manhole	367.12	Rect	4.00	4.00	24	Cir	360.24	18	Cir	360.16
41	YI 524D	DropGrate	363.90	Rect	4.00	4.00	18	Cir	360.44	18	Cir	360.44
42	JB 524E	Manhole	366.32	Rect	4.00	4.00	18	Cir	362.67	18	Cir	362.87
43	YI 524F	DropGrate	367.51	Rect	4.00	4.00	18	Cir	363.86	15	Cir	364.06
44	YI 524G	DropGrate	370.38	Rect	4.00	4.00	15	Cir	366.73	15	Cir	366.93
45	YI 524H	DropGrate	377.77	Rect	4.00	4.00	15	Cir	371.99	15	Cir	372.19
46	YI 524I	DropGrate	378.30	Rect	4.00	4.00	15	Cir	372.71	15	Cir	372.91
47	YI 524J	DropGrate	377.79	Rect	4.00	4.00	15	Cir	373.17	15	Cir	373.37
48	YI 524K	DropGrate	377.07	Rect	4.00	4.00	15	Cir	373.62			
49	CB 517A	Combination	337.97	Rect	4.00	4.00	36	Cir	328.80	36	Cir	328.90
50	CB 517B	Combination	340.39	Rect	4.00	4.00	36	Cir	329.70	36	Cir	329.80
51	YI 517C	DropGrate	338.51	Rect	4.00	4.00	36	Cir	331.00	30	Cir	331.50
52	YI 517D	DropGrate	343.66	Rect	4.00	4.00	30	Cir	337.00	30	Cir	337.10
53	YI 517E	DropGrate	347.52	Rect	4.00	4.00	30	Cir	340.80	30	Cir	340.90
54	YI 517F	DropGrate	352.08	Rect	4.00	4.00	30	Cir	345.00	24	Cir	345.50
55	YI 517G	DropGrate	357.37	Rect	4.00	4.00	24	Cir	352.20	24	Cir	352.30
56	YI 517H	DropGrate	362.32	Rect	4.00	4.00	24	Cir	357.70	24	Cir	357.95
57	YI 517I	DropGrate	372.00	Rect	4.00	4.00	24	Cir	367.00	24	Cir	367.10
58	YI 517J	DropGrate	374.67	Rect	4.00	4.00	24	Cir	368.70	18	Cir	368.80
59	YI 517K	DropGrate	374.75	Rect	4.00	4.00	18	Cir	369.80	15	Cir	369.90
60	YI 517L	DropGrate	374.42	Rect	4.00	4.00	15	Cir	370.55			
61	CB 534	Combination	366.26	Rect	4.00	4.00	18	Cir	357.80	18	Cir	357.90
62	CB 535	Combination	367.80	Rect	4.00	4.00	18	Cir	359.80	15 15	Cir Cir	360.05 360.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
63	CB 536	Combination	369.52	Rect	4.00	4.00	15	Cir	361.90	15 15	Cir Cir	362.00 362.00
64	CB 537	Combination	374.11	Rect	4.00	4.00	15	Cir	366.40	15	Cir	366.50
65	CB 537A	Combination	375.18	Rect	4.00	4.00	15	Cir	367.56			
66	CB 522A	Combination	360.93	Rect	4.00	4.00	18	Cir	352.50	15 15	Cir Cir	352.70 352.70
67	CB 522E	Combination	361.25	Rect	4.00	4.00	15	Cir	353.20	15	Cir	353.30
68	YI 522F	DropGrate	367.82	Rect	4.00	4.00	15	Cir	360.50	15	Cir	360.60
69	YI 522G	DropGrate	368.84	Rect	4.00	4.00	15	Cir	362.80	15	Cir	362.90
70	YI 522H	DropGrate	369.18	Rect	4.00	4.00	15	Cir	364.00	15	Cir	364.10
71	YI 522I	DropGrate	369.47	Rect	4.00	4.00	15	Cir	364.60	15	Cir	364.70
72	YI 522J	DropGrate	371.89	Rect	4.00	4.00	15	Cir	367.45			
73	CB 536A	Combination	369.72	Rect	4.00	4.00	15	Cir	362.28			
74	CB 535A	Combination	368.24	Rect	4.00	4.00	15	Cir	360.34			
75	CB 538	Combination	353.24	Rect	4.00	4.00	24	Cir	344.40	18	Cir	344.90
76	CB 539	Combination	355.24	Rect	4.00	4.00	18	Cir	347.20	15 15	Cir Cir	347.45 347.45
77	JB 540	Manhole	360.64	Rect	4.00	4.00	15	Cir	352.40	15	Cir	352.50
78	CB 541	Combination	363.35	Rect	4.00	4.00	15	Cir	355.00	15 15	Cir Cir	355.20 355.20
79	JB 541B	Manhole	364.95	Rect	4.00	4.00	15	Cir	356.48	15	Cir	356.67
80	YI 541C	DropGrate	364.69	Rect	4.00	4.00	15	Cir	357.27			
81	CB 541A	Combination	363.56	Rect	4.00	4.00	15	Cir	355.48			
82	YI 522B	DropGrate	355.81	Rect	4.00	4.00	15	Cir	353.15	15	Cir	353.25
83	YI 522C	DropGrate	358.39	Rect	4.00	4.00	15	Cir	353.70	15	Cir	353.80

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
84	YI 522D	DropGrate	362.67	Rect	4.00	4.00	15	Cir	358.23			
85	CB 511	Combination	340.50	Rect	4.00	4.00	24	Cir	328.00	24 15	Cir Cir	328.20 328.20
86	CB 512	Combination	345.64	Rect	4.00	4.00	24	Cir	334.60	18 15	Cir Cir	334.80 334.80
87	CB 513	Combination	350.88	Rect	4.00	4.00	18	Cir	341.10	18	Cir	341.20
88	CB 514	Combination	358.28	Rect	4.00	4.00	18	Cir	349.70	18	Cir	349.80
89	CB 514A	Combination	362.88	Rect	4.00	4.00	18	Cir	352.70	15	Cir	352.85
90	CB 514B	Combination	363.70	Rect	4.00	4.00	15	Cir	353.00	15	Cir	353.22
91	YI 514C	DropGrate	357.62	Rect	4.00	4.00	15	Cir	353.97			
92	CB 507	Combination	338.24	Rect	4.00	4.00	30	Cir	328.90	24	Cir	329.40
93	CB 508	Combination	340.87	Rect	4.00	4.00	24	Cir	332.20	18	Cir	332.70
94	CB 509	Combination	346.09	Rect	4.00	4.00	18	Cir	337.80	15 15	Cir Cir	338.05 338.05
95	CB 510	Combination	359.96	Rect	4.00	4.00	15	Cir	351.90	15	Cir	352.00
96	CB 510A	Combination	364.48	Rect	4.00	4.00	15	Cir	356.73			
97	CB 539A	Combination	355.45	Rect	4.00	4.00	15	Cir	347.73			
98	JB 519A	Combination	350.55	Rect	4.00	4.00	15	Cir	340.74	15	Cir	340.75
99	YI 519B	DropGrate	345.98	Rect	4.00	4.00	15	Cir	341.63			
100	CB 509A	Combination	349.44	Rect	4.00	4.00	15	Cir	341.17			
101	CB 512A	Combination	347.02	Rect	4.00	4.00	15	Cir	337.80	15	Cir	337.90
102	YI 512B	DropGrate	346.30	Rect	4.00	4.00	15	Cir	340.96			
103	CB 511A	Combination	340.65	Rect	4.00	4.00	15	Cir	330.75			
104	CB 518A	Combination	335.90	Rect	4.00	4.00	15	Cir	327.90	15	Cir	328.00

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
105	YI 518B	DropGrate	332.20	Rect	4.00	4.00	15	Cir	329.27			
106	CB 504A	Combination	334.78	Rect	4.00	4.00	15	Cir	326.71	15	Cir	326.90
107	CB 504B	DropGrate	331.40	Rect	4.00	4.00	15	Cir	327.74			
108	CB 503A	Combination	332.17	Rect	4.00	4.00	42	Cir	323.46			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (648)	60.89	48	Cir	74.659	316.00	316.75	1.005	319.29	319.10	n/a	319.10	End	Manhole
2	Pipe - (646)	61.13	48	Cir	123.527	316.95	318.19	1.004	319.10	320.54	0.79	320.54	1	DropGrate
3	Pipe - (292)	58.84	48	Cir	132.055	318.30	321.60	2.499	320.54	323.91	n/a	323.91	2	DropGrate
4	Pipe - (291) (1)	58.87	48	Cir	72.832	322.10	322.46	0.494	324.29	324.77	n/a	324.77	3	DropGrate
5	Pipe - (515)	55.15	48	Cir	110.092	322.66	323.21	0.500	324.77	325.44	1.31	325.44	4	Combination
6	Pipe - (287)	54.89	48	Cir	90.197	323.44	323.90	0.510	325.52	326.13	n/a	326.13	5	Combination
7	Pipe - (236) (1)	86.81	48	Cir	96.914	324.10	325.06	0.991	326.35	327.88	n/a	327.88	6	Combination
8	Pipe - (425)	83.95	48	Cir	105.502	325.17	326.22	0.995	327.88	328.99	n/a	328.99	7	Combination
9	Pipe - (236)	79.79	48	Cir	28.011	326.42	326.60	0.643	328.99	329.30	1.36	329.30	8	Combination
10	Pipe - (517)	79.85	48	Cir	45.483	326.70	327.20	1.099	329.30	329.90	n/a	329.90	9	Combination
11	Pipe - (518)	78.76	48	Cir	28.154	327.30	327.50	0.710	329.90	330.19	2.05	330.19	10	Combination
12	Pipe - (265)	37.38	36	Cir	75.321	328.00	331.40	4.514	330.19	333.39	n/a	333.39 j	11	Combination
13	Pipe - (266)	37.51	36	Cir	118.134	331.50	338.20	5.672	333.39	340.19	n/a	340.19	12	Combination
14	Pipe - (232)	35.54	30	Cir	118.619	338.70	343.60	4.131	340.19	345.62	n/a	345.62	13	Combination
15	Pipe - (533)	31.68	30	Cir	96.000	344.10	348.30	4.375	345.62	350.22	n/a	350.22	14	Combination
16	Pipe - (274)	31.57	30	Cir	67.783	348.40	351.50	4.573	350.22	353.41	n/a	353.41	15	Combination
17	Pipe - (260)	25.11	30	Cir	67.241	351.70	355.30	5.354	353.41	357.01	n/a	357.01 j	16	Combination
18	Pipe - (532)	21.14	30	Cir	133.000	355.50	358.40	2.180	357.01	359.96	1.00	359.96	17	Combination
19	Pipe - (272)	12.98	24	Cir	66.111	358.60	364.60	9.076	359.96	365.90	n/a	365.90 j	18	Combination
20	Pipe - (227)	8.65	18	Cir	129.000	365.10	372.60	5.814	365.90	373.74	n/a	373.74	19	Combination
21	Pipe - (530)	8.18	18	Cir	60.236	372.70	374.60	3.154	373.74	375.71	n/a	375.71	20	Combination
22	Pipe - (226)	8.01	18	Cir	44.832	374.70	376.20	3.346	375.71	377.30	n/a	377.30	21	Combination
23	Pipe - (225) (1)	3.47	15	Cir	98.443	376.45	377.10	0.660	377.30	377.85	n/a	377.85 j	22	Combination
24	Pipe - (225)	2.89	15	Cir	205.640	377.20	379.30	1.021	377.85	379.98	n/a	379.98	23	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (224)	2.53	15	Cir	128.177	379.40	381.50	1.638	379.98	382.14	n/a	382.14	24	Combination
26	Pipe - (223) (1)	1.25	15	Cir	89.745	381.70	382.50	0.891	382.14	382.94	n/a	382.94	25	Combination
27	Pipe - (528)	0.94	15	Cir	28.070	382.60	382.90	1.069	382.94	383.28	n/a	383.28	26	Combination
28	Pipe - (593)	0.60	15	Cir	45.000	383.00	383.50	1.111	383.28	383.80	n/a	383.80	27	Combination
29	Pipe - (674)	4.15	15	Cir	47.992	365.35	368.97	7.543	365.90	369.79	0.46	369.79	19	Combination
30	Pipe - (673)	3.78	15	Cir	137.042	369.17	378.46	6.779	369.79	379.24	0.17	379.24	29	DropGrate
31	Pipe - (672)	3.05	15	Cir	104.000	378.66	379.70	1.000	379.26	380.40	n/a	380.40	30	DropGrate
32	Pipe - (671)	2.34	15	Cir	102.047	379.90	380.41	0.500	380.53	381.04	0.11	381.15	31	DropGrate
33	Pipe - (675)	2.22	15	Cir	51.989	380.61	380.87	0.500	381.22	381.48	0.11	381.59	32	DropGrate
34	Pipe - (670)	1.57	15	Cir	51.970	381.07	381.84	1.482	381.59	382.34	n/a	382.34 j	33	DropGrate
35	Pipe - (669)	1.16	15	Cir	52.092	382.04	382.89	1.632	382.36	383.31	n/a	383.31	34	DropGrate
36	Pipe - (245)	1.02	15	Cir	28.048	381.70	381.84	0.499	382.14	382.24	0.14	382.38	25	Combination
37	Pipe - (529)	4.65	18	Cir	28.090	376.45	376.59	0.498	377.31	377.45	0.31	377.76	22	Combination
38	Pipe - (273)	8.07	24	Cir	28.013	359.15	359.38	0.821	360.02	360.39	0.42	360.39	18	Combination
39	Pipe - (667)	6.98	24	Cir	24.995	359.58	359.71	0.520	360.49	360.65	0.29	360.65	38	Manhole
40	Pipe - (666)	7.03	24	Cir	66.154	359.91	360.24	0.499	360.84	361.18	n/a	361.18	39	Manhole
41	Pipe - (665)	7.07	18	Cir	55.000	360.16	360.44	0.509	361.32	361.60	0.18	361.78	40	DropGrate
42	Pipe - (639)	5.47	18	Cir	56.890	360.44	362.67	3.920	361.78	363.57	n/a	363.57 j	41	Manhole
43	Pipe - (638)	5.54	18	Cir	122.036	362.87	363.86	0.811	363.70	364.77	n/a	364.77	42	DropGrate
44	Pipe - (637)	4.86	15	Cir	114.791	364.06	366.73	2.326	364.77	367.62	0.21	367.62	43	DropGrate
45	Pipe - (642)	3.38	15	Cir	208.408	366.93	371.99	2.428	367.62	372.73	0.15	372.73	44	DropGrate
46	Pipe - (678)	2.98	15	Cir	104.000	372.19	372.71	0.500	372.93	373.45	0.12	373.57	45	DropGrate
47	Pipe - (677)	2.55	15	Cir	52.000	372.91	373.17	0.500	373.58	373.84	0.11	373.95	46	DropGrate
48	Pipe - (676)	2.18	15	Cir	49.902	373.37	373.62	0.501	373.98	374.23	0.21	374.44	47	DropGrate

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (271)	44.07	36	Cir	45.939	328.50	328.80	0.653	330.56	330.96	n/a	330.96	11	Combination
50	Pipe - (649)	43.93	36	Cir	115.606	328.90	329.70	0.692	330.96	331.86	1.52	331.86	49	Combination
51	Pipe - (285)	43.82	36	Cir	126.362	329.80	331.00	0.950	331.86	333.15	n/a	333.15	50	DropGrate
52	Pipe - (284) (1) (1)	38.38	30	Cir	139.166	331.50	337.00	3.952	333.15	339.09	n/a	339.09	51	DropGrate
53	Pipe - (284) (1)	32.44	30	Cir	67.594	337.10	340.80	5.474	339.09	342.74	n/a	342.74 j	52	DropGrate
54	Pipe - (284)	26.45	30	Cir	66.533	340.90	345.00	6.162	342.74	346.75	n/a	346.75 j	53	DropGrate
55	Pipe - (283) (1)	23.37	24	Cir	67.477	345.50	352.20	9.929	346.75	353.92	n/a	353.92	54	DropGrate
56	Pipe - (283)	18.89	24	Cir	68.154	352.30	357.70	7.923	353.92	359.26	n/a	359.26 j	55	DropGrate
57	Pipe - (282) (1) (1) (1)	16.09	24	Cir	199.337	357.95	367.00	4.540	359.26	368.45	0.34	368.45	56	DropGrate
58	Pipe - (282) (1) (1)	12.09	24	Cir	134.326	367.10	368.70	1.191	368.45	369.95	n/a	369.95 j	57	DropGrate
59	Pipe - (282) (1)	7.92	18	Cir	67.009	368.80	369.80	1.492	369.95	370.89	n/a	370.89 j	58	DropGrate
60	Pipe - (282)	3.69	15	Cir	65.325	369.90	370.55	1.000	370.89	371.33	n/a	371.33 j	59	DropGrate
61	Pipe - (531)	3.97	18	Cir	50.671	355.80	357.80	3.947	357.01	358.56	n/a	358.56 j	17	Combination
62	Pipe - (259)	3.76	18	Cir	43.841	357.90	359.80	4.334	358.56	360.54	0.44	360.54	61	Combination
63	Pipe - (258)	2.77	15	Cir	131.638	360.05	361.90	1.405	360.57	362.57	n/a	362.57	62	Combination
64	Pipe - (257)	1.47	15	Cir	173.316	362.00	366.40	2.539	362.57	366.88	n/a	366.88 j	63	Combination
65	Pipe - (256)	0.67	15	Cir	38.552	366.50	367.56	2.750	366.88	367.88	n/a	367.88 j	64	Combination
66	Pipe - (263)	6.87	18	Cir	30.177	352.25	352.50	0.828	353.41	353.51	n/a	353.51 j	16	Combination
67	Pipe - (705)	3.35	15	Cir	8.474	352.70	353.20	5.900	353.51	353.94	n/a	353.94 j	66	Combination
68	Pipe - (704)	3.04	15	Cir	73.390	353.30	360.50	9.811	353.94	361.20	n/a	361.20	67	DropGrate
69	Pipe - (703)	2.39	15	Cir	50.413	360.60	362.80	4.364	361.20	363.42	0.12	363.42	68	DropGrate
70	Pipe - (702)	1.72	15	Cir	49.506	362.90	364.00	2.222	363.42	364.52	n/a	364.52	69	DropGrate
71	Pipe - (701)	1.04	15	Cir	52.057	364.10	364.60	0.960	364.52	365.00	n/a	365.00 j	70	DropGrate
72	Pipe - (700)	0.35	15	Cir	49.835	364.70	367.45	5.518	365.00	367.68	n/a	367.68 j	71	DropGrate

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

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Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
73	Pipe - (261)	0.78	15	Cir	28.090	362.00	362.28	0.997	362.57	362.62	n/a	362.62 j	63	Combination
74	Pipe - (688)	0.60	15	Cir	28.533	360.05	360.34	1.016	360.54	360.64	n/a	360.64 j	62	Combination
75	Pipe - (242)	4.00	24	Cir	28.499	344.10	344.40	1.053	345.62	345.10	0.27	345.10	14	Combination
76	Pipe - (241)	3.78	18	Cir	47.998	344.90	347.20	4.792	345.31	347.94	0.35	347.94	75	Combination
77	Pipe - (240) (1)	1.82	15	Cir	115.718	347.45	352.40	4.278	347.94	352.94	n/a	352.94	76	Manhole
78	Pipe - (240)	1.84	15	Cir	73.254	352.50	355.00	3.413	352.94	355.54	n/a	355.54	77	Combination
79	Pipe - (660)	1.03	15	Cir	68.104	355.20	356.48	1.879	355.54	356.88	0.15	356.88	78	Manhole
80	Pipe - (659)	1.06	15	Cir	118.063	356.67	357.27	0.508	357.08	357.68	0.14	357.82	79	DropGrate
81	Pipe - (243)	0.42	15	Cir	27.894	355.20	355.48	1.004	355.54	355.73	n/a	355.73 j	78	Combination
82	Pipe - (627)	3.55	15	Cir	81.670	352.70	353.15	0.551	353.51	353.94	0.15	354.09	66	DropGrate
83	Pipe - (699) (1)	2.07	15	Cir	59.620	353.25	353.70	0.755	354.09	354.27	n/a	354.27 j	82	DropGrate
84	Pipe - (699)	1.41	15	Cir	119.807	353.80	358.23	3.698	354.27	358.70	n/a	358.70 j	83	DropGrate
85	Pipe - (291)	7.02	24	Cir	37.830	324.46	328.00	9.358	324.89	328.94	n/a	328.94	4	Combination
86	Pipe - (297)	6.60	24	Cir	67.669	328.20	334.60	9.458	328.94	335.51	0.49	335.51	85	Combination
87	Pipe - (299)	4.30	18	Cir	66.501	334.80	341.10	9.474	335.51	341.89	n/a	341.89	86	Combination
88	Pipe - (296)	4.04	18	Cir	89.618	341.20	349.70	9.485	341.89	350.47	0.15	350.47	87	Combination
89	Pipe - (685)	3.83	18	Cir	59.370	349.80	352.70	4.885	350.47	353.45	n/a	353.45	88	Combination
90	Pipe - (519)	3.33	15	Cir	30.806	352.85	353.00	0.487	353.65	353.80	0.31	354.11	89	Combination
91	Pipe - (656)	2.68	15	Cir	151.519	353.22	353.97	0.495	354.11	354.63	0.26	354.89	90	DropGrate
92	Pipe - (235)	4.33	30	Cir	110.218	327.22	328.90	1.524	328.99	329.58	n/a	329.58 j	8	Combination
93	Pipe - (270)	3.95	24	Cir	130.561	329.40	332.20	2.145	329.87	332.90	n/a	332.90	92	Combination
94	Pipe - (269)	3.49	18	Cir	132.413	332.70	337.80	3.852	333.12	338.51	0.21	338.51	93	Combination
95	Pipe - (268)	2.22	15	Cir	201.000	338.05	351.90	6.891	338.51	352.49	0.17	352.49	94	Combination
96	Pipe - (277)	0.95	15	Cir	63.000	352.00	356.73	7.508	352.49	357.11	n/a	357.11 j	95	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

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Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
97	Pipe - (244)	1.41	15	Cir	27.998	347.45	347.73	1.000	347.94	348.20	n/a	348.20 j	76	Combination
98	Pipe - (662)	2.21	15	Cir	67.945	339.95	340.74	1.163	340.43	341.33	n/a	341.33	13	Combination
99	Pipe - (661)	1.90	15	Cir	130.118	340.75	341.63	0.676	341.33	342.18	n/a	342.18 j	98	DropGrate
100	Pipe - (278)	0.63	15	Cir	62.439	338.05	341.17	4.997	338.51	341.48	n/a	341.48 j	94	Combination
101	Pipe - (655)	2.21	15	Cir	33.617	334.80	337.80	8.924	335.51	338.39	n/a	338.39 j	86	Combination
102	Pipe - (654)	1.69	15	Cir	32.232	337.90	340.96	9.494	338.39	341.48	n/a	341.48	101	DropGrate
103	Pipe - (288)	0.25	15	Cir	28.384	328.20	330.75	8.984	328.94	330.94	n/a	330.94 j	85	Combination
104	Pipe - (684)	3.74	15	Cir	48.953	327.32	327.90	1.185	327.97	328.68	0.43	328.68	7	Combination
105	Pipe - (663)	3.59	15	Cir	127.001	328.00	329.27	1.000	328.68	330.03	n/a	330.03	104	DropGrate
106	Pipe - (281)	0.42	15	Cir	28.000	326.15	326.71	2.000	326.33	326.96	n/a	326.96	6	Combination
107	Pipe - (653)	0.04	15	Cir	50.307	326.90	327.74	1.670	326.96	327.81	n/a	327.81	106	DropGrate
108	Pipe - (610)	0.04	42	Cir	9.040	323.44	323.46	0.221	325.44	325.44	0.00	325.44	5	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 500A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	YI 500B	4.90	0.00	4.90	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.28	30.52	0.28	30.52	0.0	Off
3	YI 501	0.21	0.00	0.18	0.03	DrGrt	0.0	0.00	0.00	3.00	2.50	0.300	2.00	0.020	0.020	0.013	0.02	4.10	0.02	4.10	0.0	Off
4	YI 502	0.04	0.00	0.03	0.01	DrGrt	0.0	0.00	0.00	1.00	2.00	0.300	2.00	0.020	0.020	0.013	0.01	3.10	0.01	3.10	0.0	Off
5	CB 503	0.74	0.00	0.71	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.79	0.05	0.84	0.0	108
6	CB 504	0.21	0.00	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.88	0.00	0.00	0.0	108
7	CB 505	0.32	0.01	0.33	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.62	0.02	0.26	0.0	6
8	CB 506	0.42	0.02	0.44	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.38	0.04	0.62	0.0	7
9	CB 515	0.25	0.18	0.42	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.28	0.03	0.57	0.0	104
10	CB 516	1.48	0.00	1.30	0.18	Comb	6.0	1.50	0.00	3.00	2.50	0.035	2.00	0.060	0.020	0.013	0.18	4.90	0.08	1.40	0.0	9
11	CB 517	0.21	0.00	0.21	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.12	1.96	0.12	1.96	0.0	Off
12	CB 518	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.09	1.53	0.00	0.00	0.0	11
13	CB 519	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.09	1.53	0.00	0.00	0.0	12
14	CB 520	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.11	1.75	0.00	0.00	0.0	13
15	CB 521	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.55	0.00	0.00	0.0	14
16	CB 522	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.08	1.38	0.00	0.00	0.0	15
17	CB 523	0.49	0.00	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.79	0.00	0.00	0.0	16
18	CB 524	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.08	1.38	0.00	0.00	0.0	17
19	CB 525	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.74	0.00	0.00	0.0	18
20	CB 526	0.56	0.00	0.56	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.12	2.13	0.00	0.00	0.0	19
21	CB 527	0.21	0.01	0.22	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	29
22	CB 528	0.35	0.06	0.41	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.19	0.03	0.53	0.0	21
23	CB 529	0.70	0.01	0.65	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.61	0.07	1.18	0.0	22

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 530	0.42	0.00	0.42	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.25	0.03	0.56	0.0	23
25	CB 531	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.56	0.01	0.21	0.0	24
26	CB 532	0.32	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.14	2.89	0.02	0.36	0.0	25
27	CB 532A	0.35	0.00	0.35	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
28	CB 533	0.60	0.00	0.60	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.28	0.15	3.28	0.0	Off
29	CB 525A	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.74	0.00	0.00	0.0	38
30	YI 525B	0.81	0.00	0.81	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.94	0.08	10.94	0.0	Off
31	YI 525C	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.69	0.08	10.69	0.0	Off
32	YI 525D	0.14	0.00	0.14	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.03	5.13	0.03	5.13	0.0	Off
33	YI 525E	0.67	0.00	0.67	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.07	9.93	0.07	9.93	0.0	Off
34	YI 525F	0.42	0.00	0.42	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.97	0.05	7.97	0.0	Off
35	YI 525G	1.16	0.00	1.16	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.24	0.11	13.24	0.0	Off
36	CB 531A	1.02	0.00	0.87	0.15	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.64	0.10	1.65	0.0	37
37	CB 528A	4.65	0.15	4.80	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.40	16.11	0.40	16.11	0.0	Off
38	CB 524A	1.23	0.00	1.19	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.15	3.49	0.04	0.73	0.0	61
39	JB 524B	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
40	JB 524C	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
41	YI 524D	1.80	0.00	1.80	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.85	0.14	16.85	0.0	Off
42	JB 524E	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
43	YI 524F	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.69	0.08	10.69	0.0	Off
44	YI 524G	1.66	0.00	1.66	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.09	0.14	16.09	0.0	Off
45	YI 524H	0.46	0.00	0.46	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.27	0.06	8.27	0.0	Off
46	YI 524I	0.46	0.00	0.46	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.27	0.06	8.27	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	YI 524J	0.39	0.00	0.39	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.66	0.05	7.66	0.0	Off
48	YI 524K	2.18	0.00	2.18	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.85	0.16	18.85	0.0	Off
49	CB 517A	0.63	0.01	0.64	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.47	0.15	3.47	0.0	Off
50	CB 517B	0.63	0.00	0.63	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.14	2.89	0.02	0.40	0.0	49
51	YI 517C	6.27	0.00	6.27	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.33	35.54	0.33	35.54	0.0	Off
52	YI 517D	6.52	0.00	6.52	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.34	36.40	0.34	36.40	0.0	Off
53	YI 517E	6.52	0.00	6.52	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.34	36.40	0.34	36.40	0.0	Off
54	YI 517F	3.35	0.00	3.35	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.22	24.23	0.22	24.23	0.0	Off
55	YI 517G	4.83	0.00	4.83	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.28	30.25	0.28	30.25	0.0	Off
56	YI 517H	3.20	0.00	3.20	0.00	DrGrt	6.0	1.50	4.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	23.60	0.21	23.60	0.0	Off
57	YI 517I	4.30	0.00	4.30	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.26	28.18	0.26	28.18	0.0	Off
58	YI 517J	4.30	0.00	4.30	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.26	28.18	0.26	28.18	0.0	Off
59	YI 517K	4.30	0.00	4.30	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.26	28.18	0.26	28.18	0.0	Off
60	YI 517L	3.69	0.00	3.69	0.00	DrGrt	6.0	1.50	4.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.23	25.70	0.23	25.70	0.0	Off
61	CB 534	0.25	0.05	0.30	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.49	0.00	0.00	0.0	67
62	CB 535	0.49	0.02	0.50	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.14	3.22	0.03	0.56	0.0	61
63	CB 536	0.63	0.01	0.63	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.45	0.04	0.68	0.0	62
64	CB 537	0.81	0.00	0.80	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.14	3.14	0.03	0.53	0.0	63
65	CB 537A	0.67	0.00	0.67	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.67	0.02	0.31	0.0	73
66	CB 522A	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.04	0.67	0.00	0.00	0.0	75
67	CB 522E	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.58	0.00	0.00	0.0	66
68	YI 522F	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
69	YI 522G	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
70	YI 522H	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
71	YI 522I	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
72	YI 522J	0.35	0.00	0.35	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.34	0.05	7.34	0.0	Off
73	CB 536A	0.78	0.00	0.74	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.92	0.05	0.90	0.0	74
74	CB 535A	0.60	0.04	0.64	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.47	0.15	3.47	0.0	Off
75	CB 538	0.00	0.01	0.01	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.03	0.51	0.00	0.00	0.0	98
76	CB 539	0.70	0.00	0.69	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.14	3.15	0.03	0.53	0.0	75
77	JB 540	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	76
78	CB 541	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.12	1.93	0.00	0.00	0.0	76
79	JB 541B	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
80	YI 541C	1.06	0.00	1.06	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.58	0.10	12.58	0.0	Off
81	CB 541A	0.42	0.00	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.12	1.93	0.00	0.00	0.0	97
82	YI 522B	1.55	0.00	1.55	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.13	15.51	0.13	15.51	0.0	Off
83	YI 522C	0.70	0.00	0.70	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.19	0.08	10.19	0.0	Off
84	YI 522D	1.41	0.00	1.41	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.71	0.12	14.71	0.0	Off
85	CB 511	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.35	0.00	0.00	0.0	5
86	CB 512	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.35	0.00	0.00	0.0	85
87	CB 513	0.32	0.00	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.09	1.48	0.00	0.00	0.0	86
88	CB 514	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.35	0.00	0.00	0.0	87
89	CB 514A	0.53	0.00	0.53	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.84	0.00	0.00	0.0	88
90	CB 514B	0.74	0.00	0.74	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.12	2.09	0.00	0.00	0.0	101
91	YI 514C	2.68	0.00	2.68	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.19	21.23	0.19	21.23	0.0	Off
92	CB 507	0.53	0.00	0.51	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	3.83	0.05	0.82	0.0	8

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
93	CB 508	0.53	0.00	0.53	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.67	0.02	0.31	0.0	92
94	CB 509	0.74	0.04	0.78	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.36	0.00	0.00	0.0	93
95	CB 510	1.30	0.00	1.27	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.15	3.32	0.04	0.64	0.0	94
96	CB 510A	0.95	0.00	0.95	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.13	2.54	0.02	0.25	0.0	100
97	CB 539A	1.41	0.00	1.41	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.56	0.21	6.56	0.0	Off
98	JB 519A	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.10	1.71	0.00	0.00	0.0	10
99	YI 519B	1.90	0.00	1.90	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.41	0.15	17.41	0.0	Off
100	CB 509A	0.63	0.00	0.64	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.12	1.97	0.00	0.00	0.0	50
101	CB 512A	0.53	0.00	0.53	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.11	1.79	0.00	0.00	0.0	103
102	YI 512B	1.69	0.00	1.69	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.28	0.14	16.28	0.0	Off
103	CB 511A	0.25	0.00	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.35	0.00	0.00	0.0	106
104	CB 518A	0.25	0.01	0.26	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.12	2.04	0.00	0.00	0.0	106
105	YI 518B	3.59	0.00	3.59	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.23	25.29	0.23	25.29	0.0	Off
106	CB 504A	0.75	0.00	0.75	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.96	0.16	3.96	0.0	Off
107	CB 504B	0.04	0.00	0.04	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.01	3.54	0.01	3.54	0.0	Off
108	CB 503A	0.04	0.03	0.07	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.06	1.07	0.06	1.07	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	60.89	316.00	319.29	3.29	7.67	5.51	0.98	320.27	0.000	74.659	316.75	319.10	2.35**	7.67	7.93	0.98	320.08	0.000	0.000	n/a	0.89	n/a
2	48	61.13	316.95	319.10	2.15	6.88	8.88	0.98	320.08	0.000	123.527	318.19	320.54	2.35**	7.69	7.95	0.98	321.53	0.000	0.000	n/a	0.81	0.79
3	48	58.84	318.30	320.54	2.24	7.26	8.11	0.95	321.50	0.000	132.055	321.60	323.91	2.31**	7.51	7.83	0.95	324.86	0.000	0.000	n/a	0.89	n/a
4	48	58.87	322.10	324.29	2.19*	7.06	8.34	0.95	325.25	0.000	72.832	322.46	324.77	2.31**	7.51	7.83	0.95	325.72	0.000	0.000	n/a	1.42	n/a
5	48	55.15	322.66	324.77	2.11	6.72	8.21	0.91	325.68	0.000	110.092	323.21	325.44	2.23**	7.20	7.66	0.91	326.35	0.000	0.000	n/a	1.44	1.31
6	48	54.89	323.44	325.52	2.08*	6.61	8.30	0.91	326.43	0.510	90.197	323.90	326.13	2.23**	7.18	7.64	0.91	327.03	0.510	0.510	n/a	1.50	n/a
7	48	86.81	324.10	326.35	2.25*	7.28	11.92	1.30	327.66	0.370	96.914	325.06	327.88	2.82**	9.48	9.16	1.30	329.19	0.364	0.367	n/a	0.93	n/a
8	48	83.95	325.17	327.88	2.71	9.07	9.25	1.27	329.15	0.345	105.502	326.22	328.99	2.77**	9.30	9.02	1.27	330.26	0.302	0.323	n/a	2.23	n/a
9	48	79.79	326.42	328.99	2.57	8.55	9.33	1.21	330.21	0.311	28.011	326.60	329.30	2.70**	9.04	8.83	1.21	330.52	0.311	0.311	n/a	1.12	1.36
10	48	79.85	326.70	329.30	2.60	8.66	9.22	1.21	330.52	0.311	45.483	327.20	329.90	2.70**	9.04	8.83	1.21	331.12	0.311	0.311	n/a	1.12	n/a
11	48	78.76	327.30	329.90	2.60	8.67	9.09	1.20	331.10	0.302	28.154	327.50	330.19	2.69**	8.97	8.78	1.20	331.38	0.302	0.302	n/a	1.71	2.05
12	36	37.38	328.00	330.19	2.19	4.97	6.78	0.88	331.06	0.315	75.321	331.40	333.39 j	1.99**	4.97	7.52	0.88	334.27	0.314	0.315	n/a	0.54	0.47
13	36	37.51	331.50	333.39	1.89	4.68	8.01	0.88	334.27	0.316	118.134	338.20	340.19	1.99**	4.98	7.53	0.88	341.07	0.521	0.419	n/a	0.63	n/a
14	30	35.54	338.70	340.19	1.49	3.05	11.65	1.09	341.28	0.000	118.619	343.60	345.62	2.02**	4.25	8.36	1.09	346.71	0.000	0.000	n/a	1.41	n/a
15	30	31.68	344.10	345.62	1.52	3.13	10.13	0.96	346.58	0.000	96.000	348.30	350.22	1.92**	4.04	7.85	0.96	351.17	0.000	0.000	n/a	0.50	n/a
16	30	31.57	348.40	350.22	1.82	3.82	8.27	0.95	351.17	0.000	67.783	351.50	353.41	1.91**	4.03	7.84	0.95	354.37	0.000	0.000	n/a	1.41	n/a
17	30	25.11	351.70	353.41	1.71	3.57	7.01	0.77	354.18	0.000	67.241	355.30	357.01 j	1.71**	3.57	7.04	0.77	357.78	0.000	0.000	n/a	0.91	n/a
18	30	21.14	355.50	357.01	1.51	3.09	6.84	0.67	357.67	0.000	133.000	358.40	359.96	1.56**	3.22	6.56	0.67	360.63	0.000	0.000	n/a	1.50	1.00
19	24	12.98	358.60	359.96	1.36	2.15	5.70	0.57	360.53	0.000	66.111	364.60	365.90 j	1.30**	2.15	6.03	0.57	366.46	0.000	0.000	n/a	0.96	0.54
20	18	8.65	365.10	365.90	0.80	0.95	9.09	0.56	366.46	0.000	129.000	372.60	373.74	1.14**	1.44	6.01	0.56	374.30	0.000	0.000	n/a	1.04	n/a
21	18	8.18	372.70	373.74	1.04	1.30	6.27	0.53	374.27	0.000	60.236	374.60	375.71	1.11**	1.40	5.85	0.53	376.24	0.000	0.000	n/a	0.69	n/a
22	18	8.01	374.70	375.71	1.01	1.26	6.36	0.52	376.23	0.000	44.832	376.20	377.30	1.10**	1.38	5.79	0.52	377.82	0.000	0.000	n/a	1.17	n/a

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	3.47	376.45	377.30	0.85	0.77	3.93	0.32	377.61	0.000	98.443	377.10	377.85 j	0.75**	0.77	4.51	0.32	378.17	0.000	0.000	n/a	0.50	n/a
24	15	2.89	377.20	377.85	0.65	0.65	4.47	0.28	378.13	0.000	205.640	379.30	379.98	0.68**	0.69	4.22	0.28	380.26	0.000	0.000	n/a	0.50	n/a
25	15	2.53	379.40	379.98	0.58	0.56	4.51	0.25	380.23	0.000	128.177	381.50	382.14	0.64**	0.63	4.03	0.25	382.39	0.000	0.000	n/a	1.50	n/a
26	15	1.25	381.70	382.14	0.44	0.38	3.28	0.16	382.30	0.000	89.745	382.50	382.94	0.44**	0.39	3.23	0.16	383.10	0.000	0.000	n/a	1.50	n/a
27	15	0.94	382.60	382.94	0.34	0.27	3.48	0.14	383.08	0.000	28.070	382.90	383.28	0.38**	0.32	2.98	0.14	383.42	0.000	0.000	n/a	1.08	n/a
28	15	0.60	383.00	383.28	0.28	0.21	2.90	0.11	383.39	0.000	45.000	383.50	383.80	0.30**	0.23	2.62	0.11	383.91	0.000	0.000	n/a	1.00	n/a
29	15	4.15	365.35	365.90	0.55	0.51	8.08	0.36	366.26	0.000	47.992	368.97	369.79	0.82**	0.86	4.84	0.36	370.16	0.000	0.000	n/a	1.27	0.46
30	15	3.78	369.17	369.79	0.62	0.61	6.16	0.34	370.13	0.000	137.042	378.46	379.24	0.78**	0.81	4.66	0.34	379.58	0.000	0.000	n/a	0.50	0.17
31	15	3.05	378.66	379.26	0.60*	0.59	5.18	0.29	379.55	0.000	104.000	379.70	380.40	0.70**	0.71	4.30	0.29	380.69	0.000	0.000	n/a	0.50	n/a
32	15	2.34	379.90	380.53	0.63*	0.62	3.74	0.22	380.75	0.500	102.047	380.41	381.04	0.63	0.62	3.75	0.22	381.26	0.503	0.501	0.511	0.50	0.11
33	15	2.22	380.61	381.22	0.61*	0.60	3.69	0.21	381.44	0.500	51.989	380.87	381.48	0.61	0.60	3.71	0.21	381.70	0.504	0.502	0.261	0.50	0.11
34	15	1.57	381.07	381.59	0.52	0.45	3.26	0.19	381.78	0.000	51.970	381.84	382.34 j	0.50**	0.45	3.46	0.19	382.52	0.000	0.000	n/a	0.50	0.09
35	15	1.16	382.04	382.36	0.32*	0.25	4.74	0.16	382.51	0.000	52.092	382.89	383.31	0.42**	0.37	3.16	0.16	383.47	0.000	0.000	n/a	1.00	n/a
36	15	1.02	381.70	382.14	0.44	0.34	2.68	0.11	382.25	0.366	28.048	381.84	382.24	0.40**	0.34	3.02	0.14	382.38	0.510	0.438	0.123	1.00	0.14
37	18	4.65	376.45	377.31	0.86*	1.05	4.43	0.31	377.62	0.498	28.090	376.59	377.45	0.86	1.05	4.43	0.31	377.76	0.499	0.498	0.140	1.00	0.31
38	24	8.07	359.15	360.02	0.87*	1.32	6.13	0.40	360.42	0.000	28.013	359.38	360.39	1.01**	1.59	5.07	0.40	360.79	0.000	0.000	n/a	1.06	0.42
39	24	6.98	359.58	360.49	0.91*	1.40	4.99	0.36	360.86	0.000	24.995	359.71	360.65	0.94**	1.44	4.83	0.36	361.01	0.000	0.000	n/a	0.81	0.29
40	24	7.03	359.91	360.84	0.93*	1.43	4.92	0.36	361.20	0.000	66.154	360.24	361.18	0.94**	1.45	4.84	0.36	361.55	0.000	0.000	n/a	0.98	n/a
41	18	7.07	360.16	361.32	1.16*	1.47	4.82	0.36	361.68	0.509	55.000	360.44	361.60	1.16	1.47	4.82	0.36	361.96	0.508	0.508	0.280	0.50	0.18
42	18	5.47	360.44	361.78	1.34	1.11	3.28	0.38	362.16	0.000	56.890	362.67	363.57 j	0.90**	1.11	4.93	0.38	363.95	0.000	0.000	n/a	0.27	0.10
43	18	5.54	362.87	363.70	0.83*	1.00	5.56	0.38	364.08	0.000	122.036	363.86	364.77	0.91**	1.12	4.96	0.38	365.15	0.000	0.000	n/a	0.50	n/a
44	15	4.86	364.06	364.77	0.71	0.72	6.80	0.42	365.18	0.000	114.791	366.73	367.62	0.89**	0.94	5.18	0.42	368.04	0.000	0.000	n/a	0.50	0.21

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	3.38	366.93	367.62	0.69	0.70	4.84	0.31	367.93	0.000	208.408	371.99	372.73	0.74**	0.76	4.46	0.31	373.04	0.000	0.000	n/a	0.50	0.15
46	15	2.98	372.19	372.93	0.74*	0.75	3.96	0.24	373.17	0.499	104.000	372.71	373.45	0.74	0.75	3.96	0.24	373.69	0.499	0.499	0.519	0.50	0.12
47	15	2.55	372.91	373.58	0.67*	0.67	3.82	0.23	373.81	0.500	52.000	373.17	373.84	0.67	0.67	3.83	0.23	374.07	0.501	0.500	0.260	0.50	0.11
48	15	2.18	373.37	373.98	0.61*	0.59	3.68	0.21	374.19	0.501	49.902	373.62	374.23	0.61	0.59	3.69	0.21	374.44	0.502	0.502	0.250	1.00	0.21
49	36	44.07	328.50	330.56	2.06*	5.18	8.50	1.02	331.58	0.442	45.939	328.80	330.96	2.16**	5.45	8.09	1.02	331.98	0.442	0.442	n/a	1.25	n/a
50	36	43.93	328.90	330.96	2.06	5.18	8.49	1.01	331.97	0.438	115.606	329.70	331.86	2.16**	5.44	8.07	1.01	332.87	0.437	0.438	n/a	1.50	1.52
51	36	43.82	329.80	331.86	2.06	5.17	8.48	1.01	332.87	0.433	126.362	331.00	333.15	2.15**	5.43	8.06	1.01	334.17	0.433	0.433	n/a	1.50	n/a
52	30	38.38	331.50	333.15	1.65	3.45	11.13	1.19	334.35	0.876	139.166	337.00	339.09	2.09**	4.39	8.75	1.19	340.28	0.867	0.872	n/a	0.50	n/a
53	30	32.44	337.10	339.09	1.99	4.08	7.74	0.98	340.07	0.626	67.594	340.80	342.74 j	1.94**	4.08	7.95	0.98	343.72	0.699	0.662	n/a	0.50	n/a
54	30	26.45	340.90	342.74	1.84	3.67	6.84	0.81	343.54	0.000	66.533	345.00	346.75 j	1.75**	3.67	7.20	0.81	347.56	0.000	0.000	n/a	0.50	n/a
55	24	23.37	345.50	346.75	1.25	2.07	11.30	1.03	347.78	0.000	67.477	352.20	353.92	1.72**	2.87	8.15	1.03	354.95	0.000	0.000	n/a	0.50	n/a
56	24	18.89	352.30	353.92	1.62	2.63	6.95	0.80	354.72	0.000	68.154	357.70	359.26 j	1.56**	2.63	7.17	0.80	360.06	0.000	0.000	n/a	0.50	n/a
57	24	16.09	357.95	359.26	1.31	2.19	7.36	0.68	359.94	0.000	199.337	367.00	368.45	1.44**	2.43	6.62	0.68	369.13	0.000	0.000	n/a	0.50	0.34
58	24	12.09	367.10	368.45	1.34	2.06	5.38	0.53	368.98	0.000	134.326	368.70	369.95 j	1.25**	2.06	5.86	0.53	370.48	0.000	0.000	n/a	0.50	0.27
59	18	7.92	368.80	369.95	1.15	1.37	5.45	0.52	370.46	0.000	67.009	369.80	370.89 j	1.09**	1.37	5.76	0.52	371.40	0.000	0.000	n/a	0.50	n/a
60	15	3.69	369.90	370.89	0.99	0.80	3.55	0.33	371.22	0.000	65.325	370.55	371.33 j	0.78**	0.80	4.61	0.33	371.66	0.000	0.000	n/a	1.00	0.33
61	18	3.97	355.80	357.01	1.21	0.90	2.61	0.30	357.31	0.000	50.671	357.80	358.56 j	0.76**	0.90	4.41	0.30	358.86	0.000	0.000	n/a	0.50	0.15
62	18	3.76	357.90	358.56	0.66	0.75	5.00	0.29	358.85	0.000	43.841	359.80	360.54	0.74**	0.87	4.33	0.29	360.83	0.000	0.000	n/a	1.50	0.44
63	15	2.77	360.05	360.57	0.52*	0.48	5.74	0.27	360.84	0.000	131.638	361.90	362.57	0.67**	0.67	4.15	0.27	362.84	0.000	0.000	n/a	1.46	n/a
64	15	1.47	362.00	362.57	0.57	0.43	2.71	0.18	362.75	0.000	173.316	366.40	366.88 j	0.48**	0.43	3.39	0.18	367.06	0.000	0.000	n/a	1.05	n/a
65	15	0.67	366.50	366.88	0.38	0.25	2.13	0.11	366.99	0.000	38.552	367.56	367.88 j	0.32**	0.25	2.71	0.11	367.99	0.000	0.000	n/a	1.00	n/a
66	18	6.87	352.25	353.41	1.16	1.27	4.67	0.45	353.87	0.000	30.177	352.50	353.51 j	1.01**	1.27	5.41	0.45	353.97	0.000	0.000	n/a	1.46	0.66

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
67	15	3.35	352.70	353.51	0.81	0.75	3.97	0.31	353.82	0.000	8.474	353.20	353.94 j	0.74**	0.75	4.45	0.31	354.25	0.000	0.000	n/a	1.50	n/a
68	15	3.04	353.30	353.94	0.64	0.63	4.84	0.29	354.22	0.000	73.390	360.50	361.20	0.70**	0.71	4.30	0.29	361.49	0.000	0.000	n/a	0.50	n/a
69	15	2.39	360.60	361.20	0.60	0.58	4.08	0.24	361.44	0.000	50.413	362.80	363.42	0.62**	0.60	3.95	0.24	363.66	0.000	0.000	n/a	0.50	0.12
70	15	1.72	362.90	363.42	0.52	0.48	3.58	0.20	363.61	0.000	49.506	364.00	364.52	0.52**	0.48	3.56	0.20	364.72	0.000	0.000	n/a	0.50	n/a
71	15	1.04	364.10	364.52	0.42	0.34	2.88	0.15	364.67	0.000	52.057	364.60	365.00 j	0.40**	0.34	3.07	0.15	365.15	0.000	0.000	n/a	0.50	n/a
72	15	0.35	364.70	365.00	0.30	0.16	1.55	0.08	365.08	0.000	49.835	367.45	367.68 j	0.23**	0.16	2.27	0.08	367.76	0.000	0.000	n/a	1.00	n/a
73	15	0.78	362.00	362.57	0.57	0.27	1.43	0.12	362.69	0.000	28.090	362.28	362.62 j	0.34**	0.27	2.82	0.12	362.75	0.000	0.000	n/a	1.00	0.12
74	15	0.60	360.05	360.54	0.49	0.23	1.34	0.11	360.65	0.000	28.533	360.34	360.64 j	0.30**	0.23	2.62	0.11	360.75	0.000	0.000	n/a	1.00	n/a
75	24	4.00	344.10	345.62	1.52	0.98	1.56	0.26	345.88	0.000	28.499	344.40	345.10	0.70**	0.98	4.07	0.26	345.36	0.000	0.000	n/a	1.04	0.27
76	18	3.78	344.90	345.31	0.41*	0.39	9.60	0.29	345.60	0.000	47.998	347.20	347.94	0.74**	0.87	4.33	0.29	348.23	0.000	0.000	n/a	1.21	0.35
77	15	1.82	347.45	347.94	0.49	0.45	4.05	0.20	348.15	0.000	115.718	352.40	352.94	0.54**	0.50	3.62	0.20	353.14	0.000	0.000	n/a	0.16	n/a
78	15	1.84	352.50	352.94	0.44	0.38	4.83	0.21	353.14	0.000	73.254	355.00	355.54	0.54**	0.51	3.63	0.21	355.74	0.000	0.000	n/a	1.48	n/a
79	15	1.03	355.20	355.54	0.34	0.27	3.84	0.15	355.68	0.000	68.104	356.48	356.88	0.40**	0.34	3.06	0.15	357.02	0.000	0.000	n/a	1.00	0.15
80	15	1.06	356.67	357.08	0.41*	0.34	3.04	0.14	357.22	0.507	118.063	357.27	357.68	0.41**	0.35	3.05	0.14	357.82	0.510	0.509	0.601	1.00	0.14
81	15	0.42	355.20	355.54	0.34	0.18	1.57	0.09	355.63	0.000	27.894	355.48	355.73 j	0.25**	0.18	2.39	0.09	355.82	0.000	0.000	n/a	1.00	n/a
82	15	3.55	352.70	353.51	0.81	0.85	4.20	0.27	353.79	0.526	81.670	353.15	353.94	0.79	0.82	4.32	0.29	354.23	0.566	0.546	0.446	0.50	0.15
83	15	2.07	353.25	354.09	0.84	0.55	2.37	0.22	354.31	0.000	59.620	353.70	354.27 j	0.57**	0.55	3.77	0.22	354.49	0.000	0.000	n/a	0.50	0.11
84	15	1.41	353.80	354.27	0.47	0.42	3.31	0.17	354.45	0.000	119.807	358.23	358.70 j	0.47**	0.42	3.35	0.17	358.87	0.000	0.000	n/a	1.00	0.17
85	24	7.02	324.46	324.89	0.43*	0.50	14.12	0.36	325.26	0.000	37.830	328.00	328.94	0.94**	1.45	4.84	0.36	329.30	0.000	0.000	n/a	1.81	n/a
86	24	6.60	328.20	328.94	0.74	1.06	6.26	0.35	329.29	0.000	67.669	334.60	335.51	0.91**	1.39	4.75	0.35	335.86	0.000	0.000	n/a	1.41	0.49
87	18	4.30	334.80	335.51	0.71	0.82	5.22	0.32	335.83	0.000	66.501	341.10	341.89	0.79**	0.95	4.53	0.32	342.21	0.000	0.000	n/a	0.50	n/a
88	18	4.04	341.20	341.89	0.69	0.80	5.05	0.31	342.20	0.000	89.618	349.70	350.47	0.77**	0.91	4.43	0.31	350.77	0.000	0.000	n/a	0.50	0.15

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

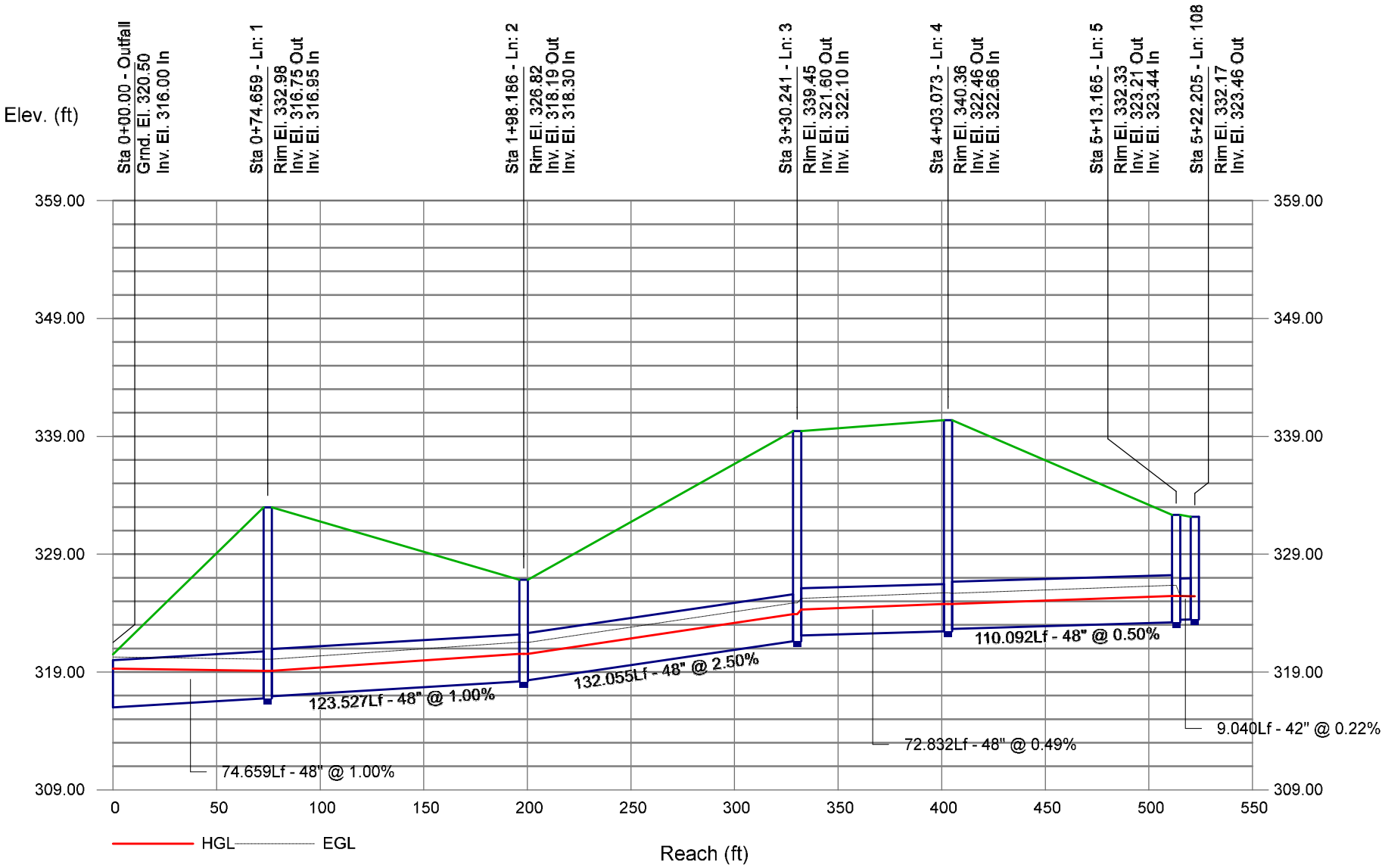
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
89	18	3.83	349.80	350.47	0.67	0.76	5.03	0.29	350.76	0.000	59.370	352.70	353.45	0.75**	0.88	4.35	0.29	353.74	0.000	0.000	n/a	1.36	n/a
90	15	3.33	352.85	353.65	0.80*	0.83	4.02	0.25	353.90	0.487	30.806	353.00	353.80	0.80	0.83	4.02	0.25	354.05	0.488	0.487	0.150	1.22	0.31
91	15	2.68	353.22	354.11	0.89	0.65	2.88	0.13	354.23	0.238	151.519	353.97	354.63	0.66**	0.66	4.08	0.26	354.89	0.576	0.407	0.617	1.00	0.26
92	30	4.33	327.22	328.99	1.77	1.09	1.16	0.25	329.24	0.011	110.218	328.90	329.58 j	0.68**	1.09	3.97	0.25	329.83	0.011	0.011	n/a	0.50	0.12
93	24	3.95	329.40	329.87	0.47*	0.56	7.10	0.26	330.12	0.031	130.561	332.20	332.90	0.70**	0.97	4.06	0.26	333.15	0.450	0.240	n/a	0.50	n/a
94	18	3.49	332.70	333.12	0.42*	0.40	8.67	0.28	333.39	0.000	132.418	337.80	338.51	0.71**	0.83	4.22	0.28	338.79	0.000	0.000	n/a	0.76	0.21
95	15	2.22	338.05	338.51	0.46	0.41	5.39	0.23	338.74	0.000	201.000	351.90	352.49	0.59**	0.58	3.86	0.23	352.73	0.000	0.000	n/a	0.75	0.17
96	15	0.95	352.00	352.49	0.49	0.32	2.10	0.14	352.63	0.000	63.000	356.73	357.11 j	0.38**	0.32	2.99	0.14	357.25	0.000	0.000	n/a	1.00	n/a
97	15	1.41	347.45	347.94	0.49	0.42	3.14	0.17	348.12	0.000	27.998	347.73	348.20 j	0.47**	0.42	3.35	0.17	348.37	0.000	0.000	n/a	1.00	0.17
98	15	2.21	339.95	340.43	0.48*	0.44	5.03	0.23	340.66	0.000	67.945	340.74	341.33	0.59**	0.57	3.85	0.23	341.56	0.000	0.000	n/a	1.40	n/a
99	15	1.90	340.75	341.33	0.58	0.52	3.39	0.21	341.54	0.000	130.118	341.63	342.18 j	0.55**	0.52	3.67	0.21	342.39	0.000	0.000	n/a	1.00	n/a
100	15	0.63	338.05	338.51	0.46	0.24	1.54	0.11	338.62	0.000	62.439	341.17	341.48 j	0.31**	0.24	2.66	0.11	341.59	0.000	0.000	n/a	1.00	0.11
101	15	2.21	334.80	335.51	0.71	0.57	3.07	0.23	335.74	0.000	33.617	337.80	338.39 j	0.59**	0.57	3.85	0.23	338.62	0.000	0.000	n/a	0.87	0.20
102	15	1.69	337.90	338.39	0.49	0.45	3.76	0.19	338.59	0.000	32.232	340.96	341.48	0.52**	0.48	3.54	0.19	341.67	0.000	0.000	n/a	1.00	n/a
103	15	0.25	328.20	328.94	0.74	0.12	0.33	0.07	329.01	0.000	28.384	330.75	330.94 j	0.19**	0.12	2.07	0.07	331.01	0.000	0.000	n/a	1.00	n/a
104	15	3.74	327.32	327.97	0.65*	0.64	5.82	0.33	328.30	0.343	48.953	327.90	328.68	0.78**	0.81	4.64	0.33	329.02	0.343	0.343	n/a	1.28	0.43
105	15	3.59	328.00	328.68	0.68	0.68	5.26	0.32	329.01	0.310	127.001	329.27	330.03	0.76**	0.79	4.57	0.32	330.36	0.273	0.291	n/a	1.00	n/a
106	15	0.42	326.15	326.33	0.18*	0.11	3.77	0.09	326.42	0.014	28.000	326.71	326.96	0.25**	0.18	2.38	0.09	327.04	0.014	0.014	n/a	0.64	n/a
107	15	0.04	326.90	326.96	0.06*	0.02	1.67	0.02	326.98	0.000	50.307	327.74	327.81	0.07**	0.03	1.25	0.02	327.84	0.000	0.000	n/a	1.00	n/a
108	42	0.04	323.44	325.44	2.00	5.69	0.01	0.00	325.44	0.000	9.040	323.46	325.44	1.98	5.61	0.01	0.00	325.44	0.000	0.000	0.000	1.00	0.00

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

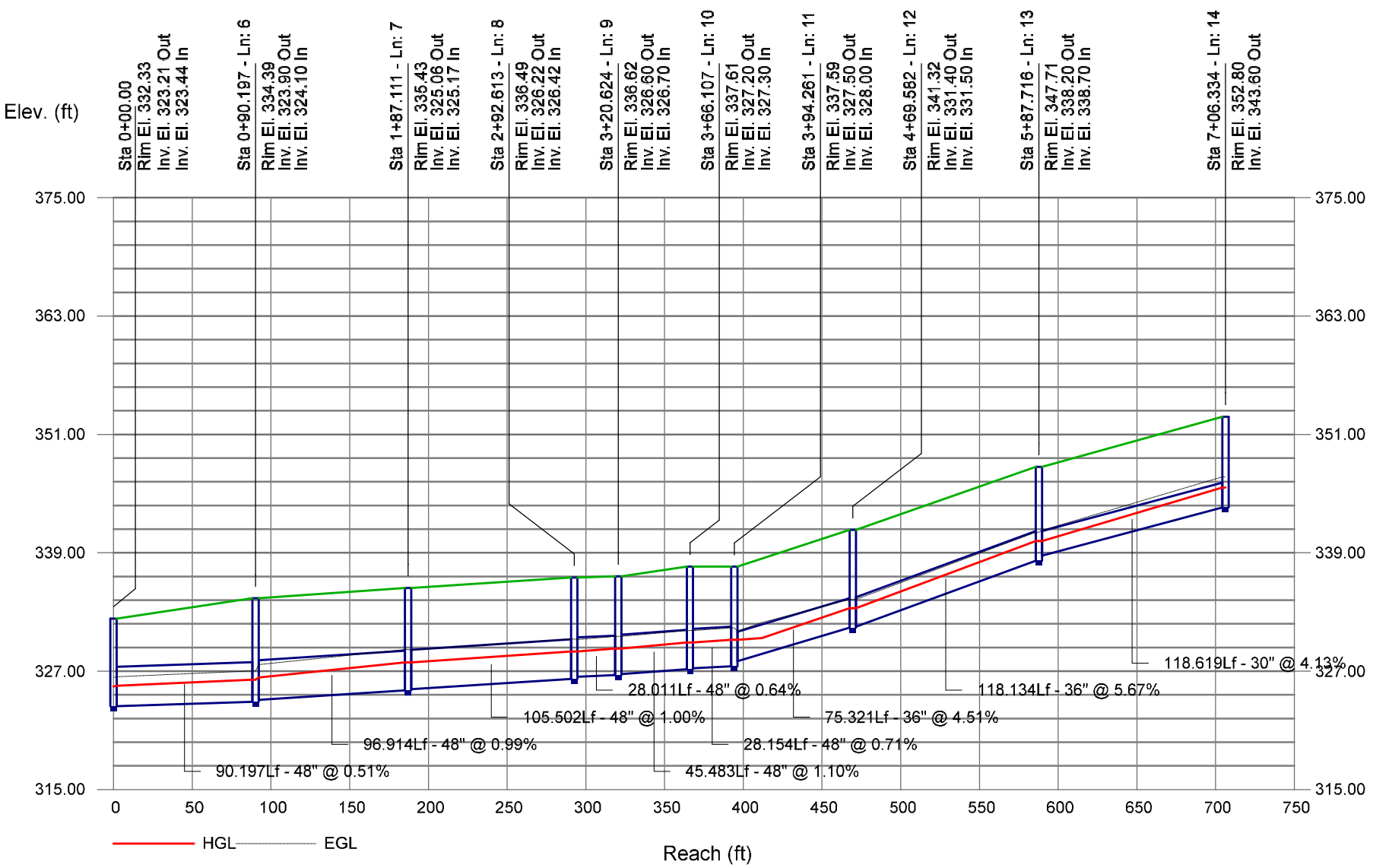
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



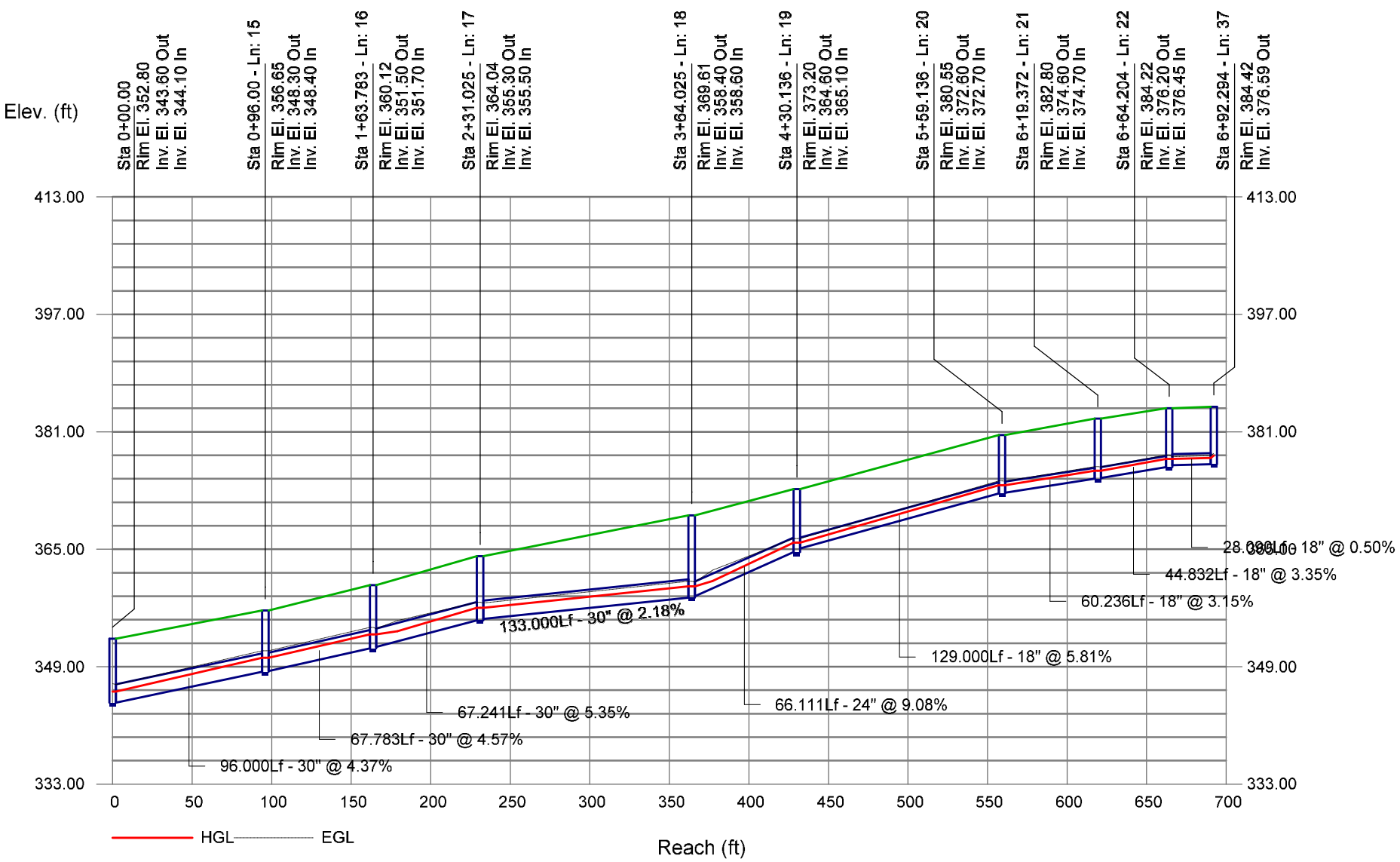
Storm Sewer Profile

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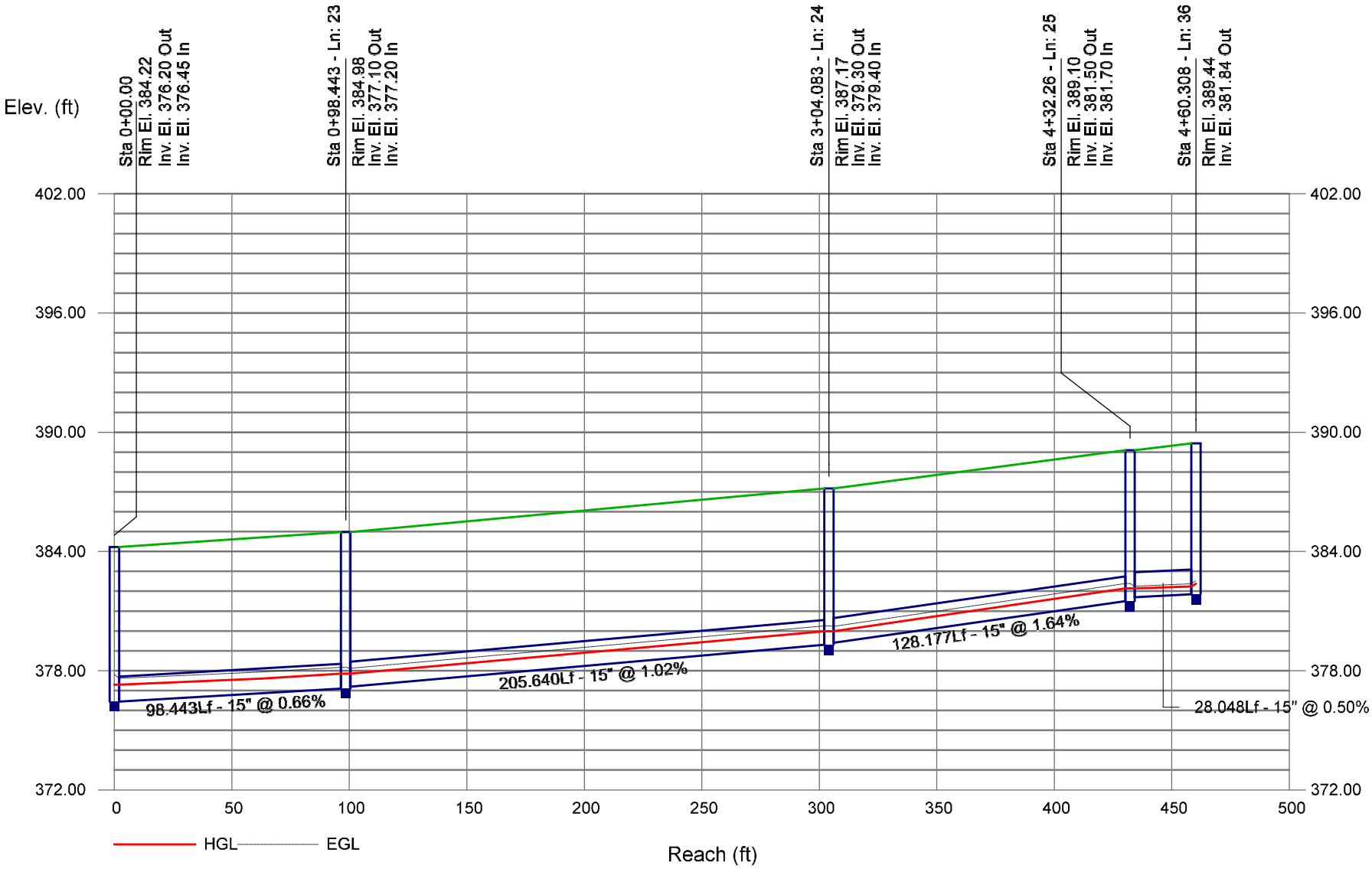
Storm Sewer Profile

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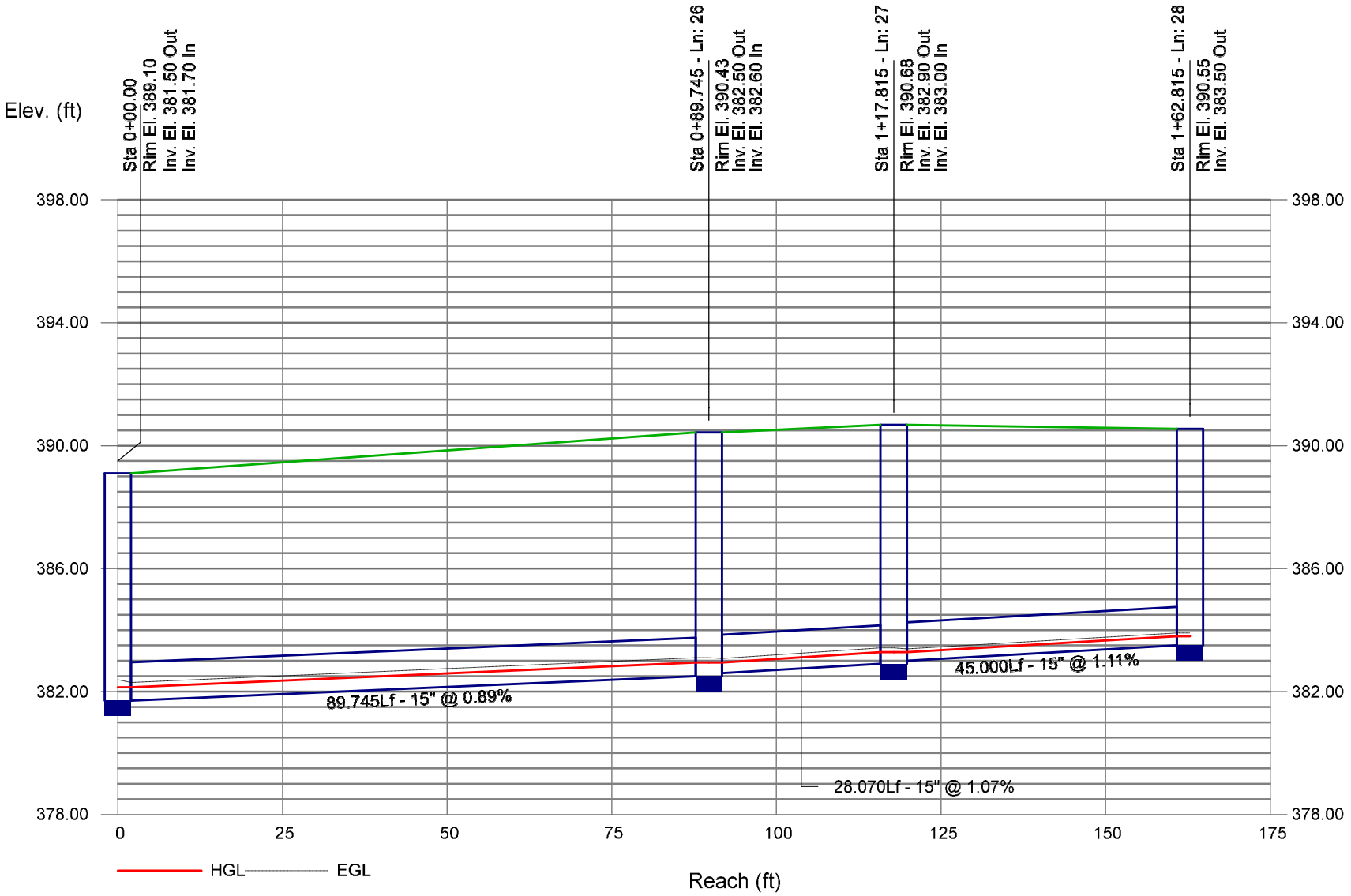
Storm Sewer Profile

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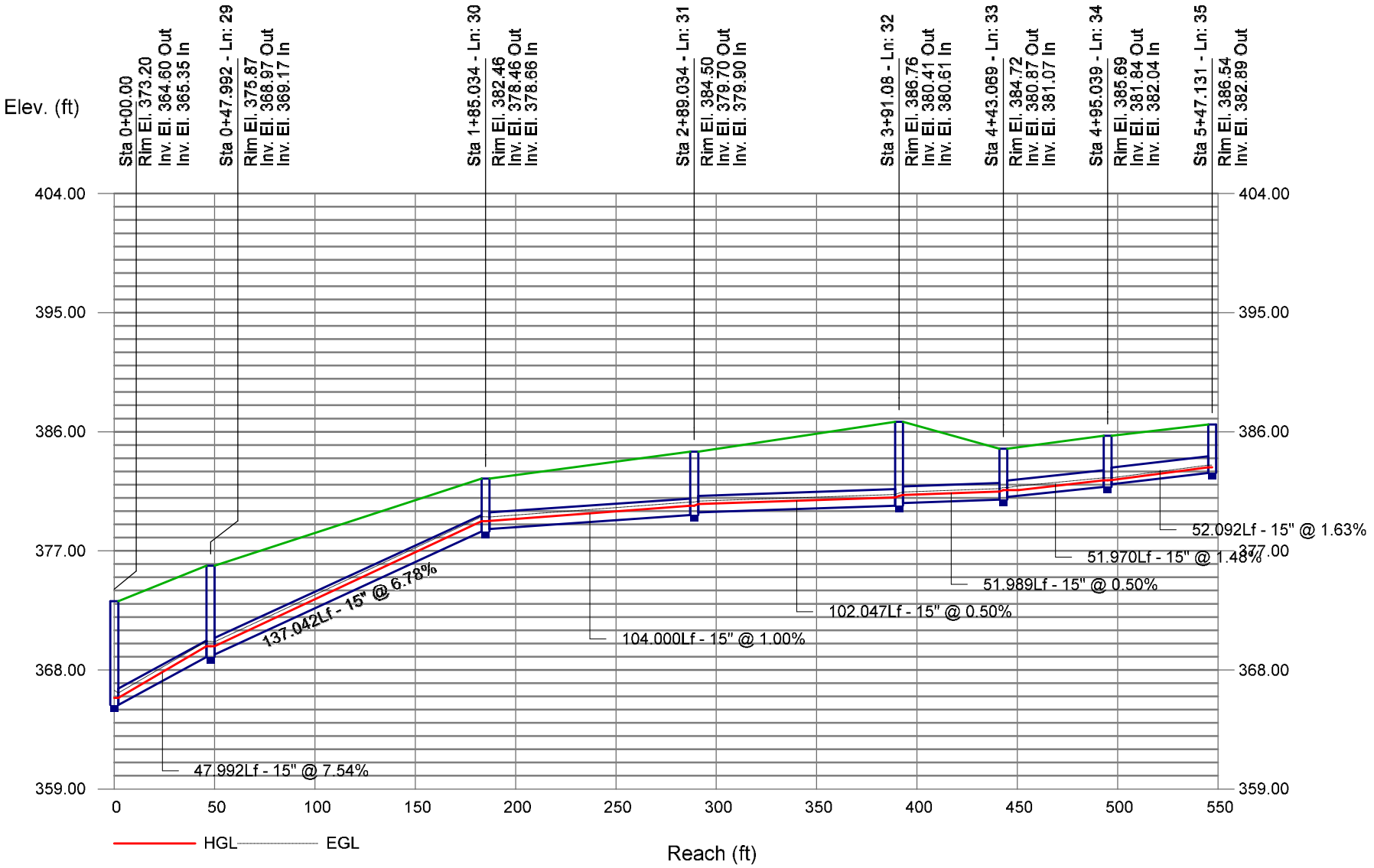
Storm Sewer Profile

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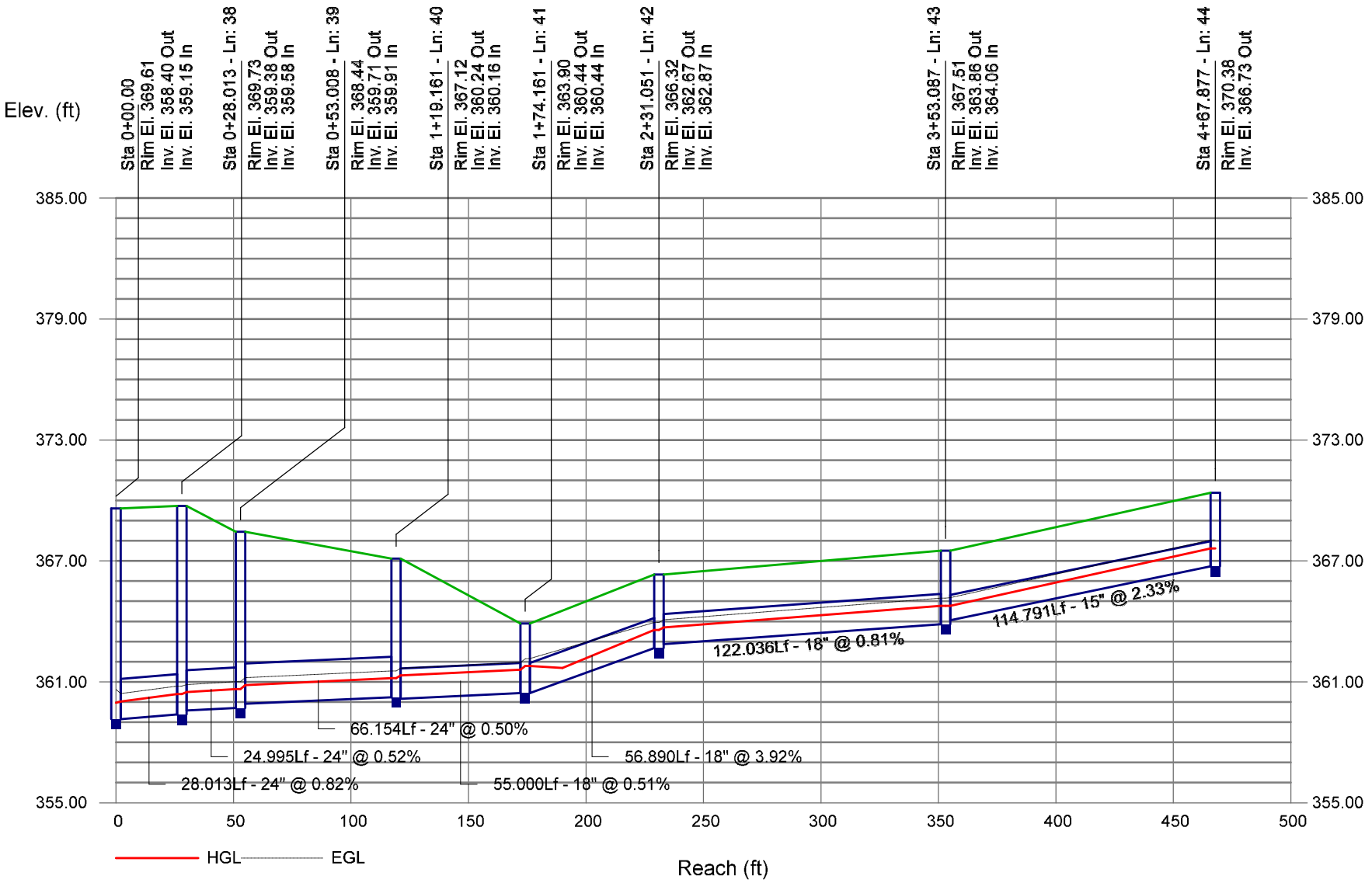
Storm Sewer Profile

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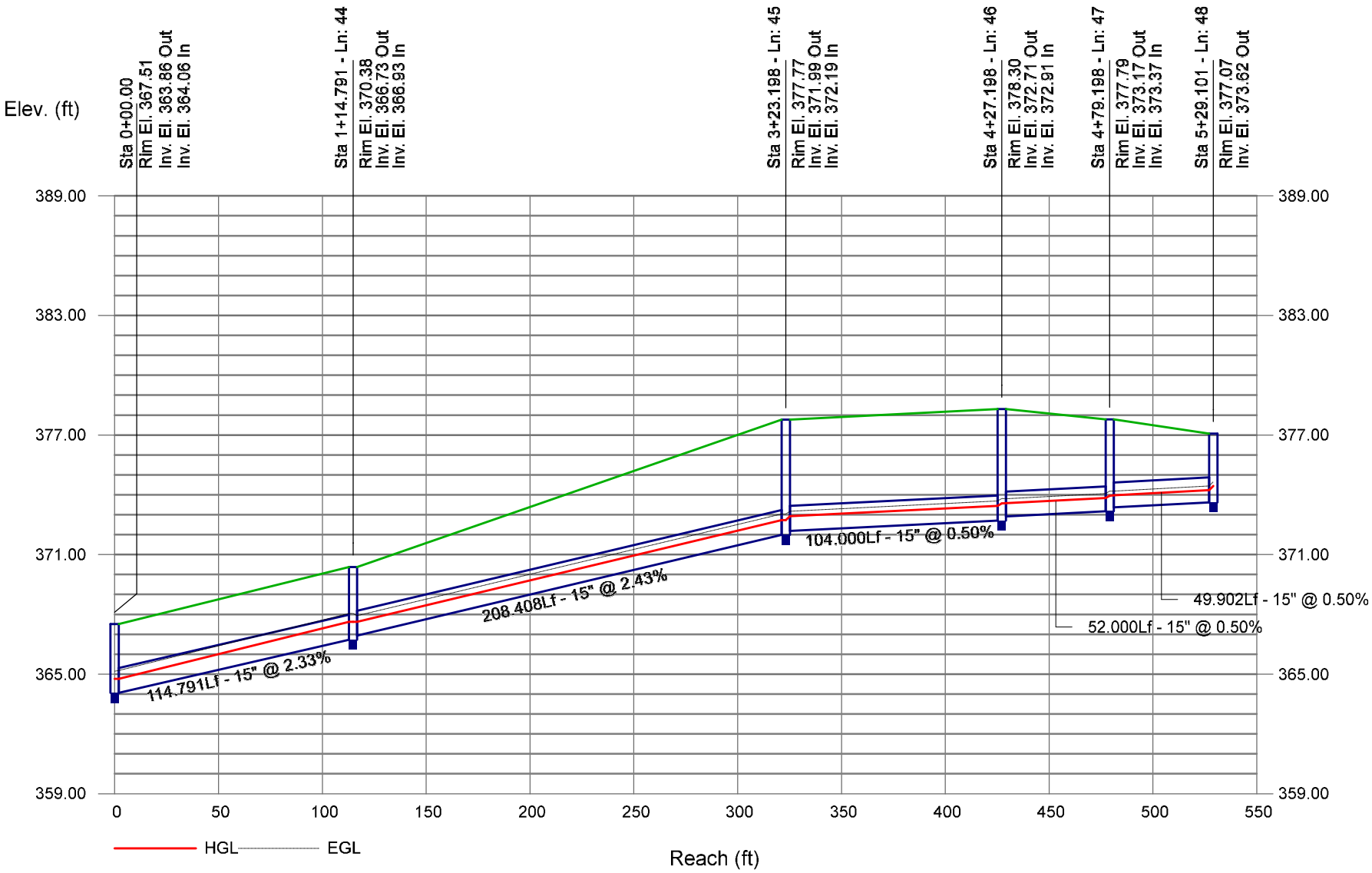
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



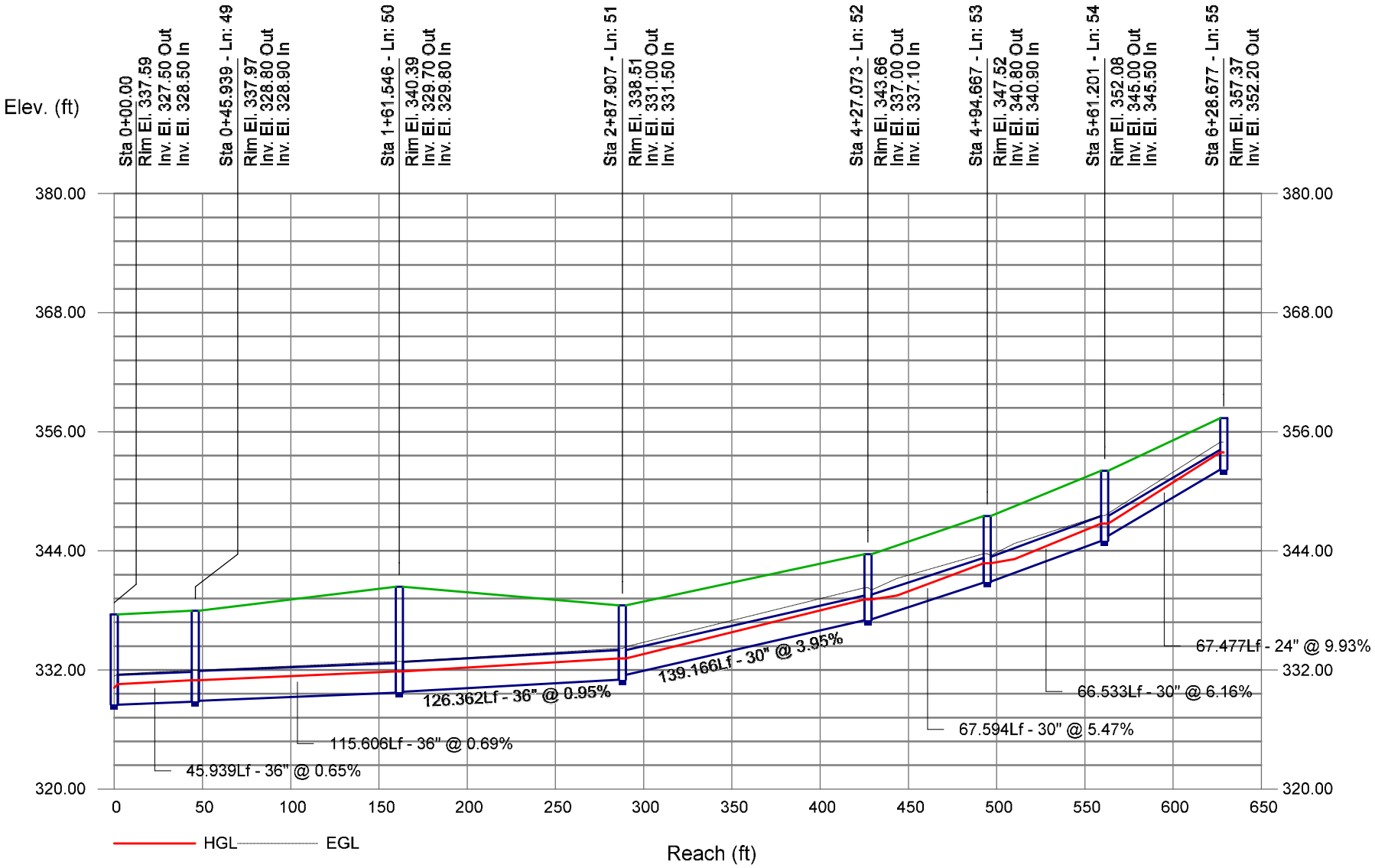
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



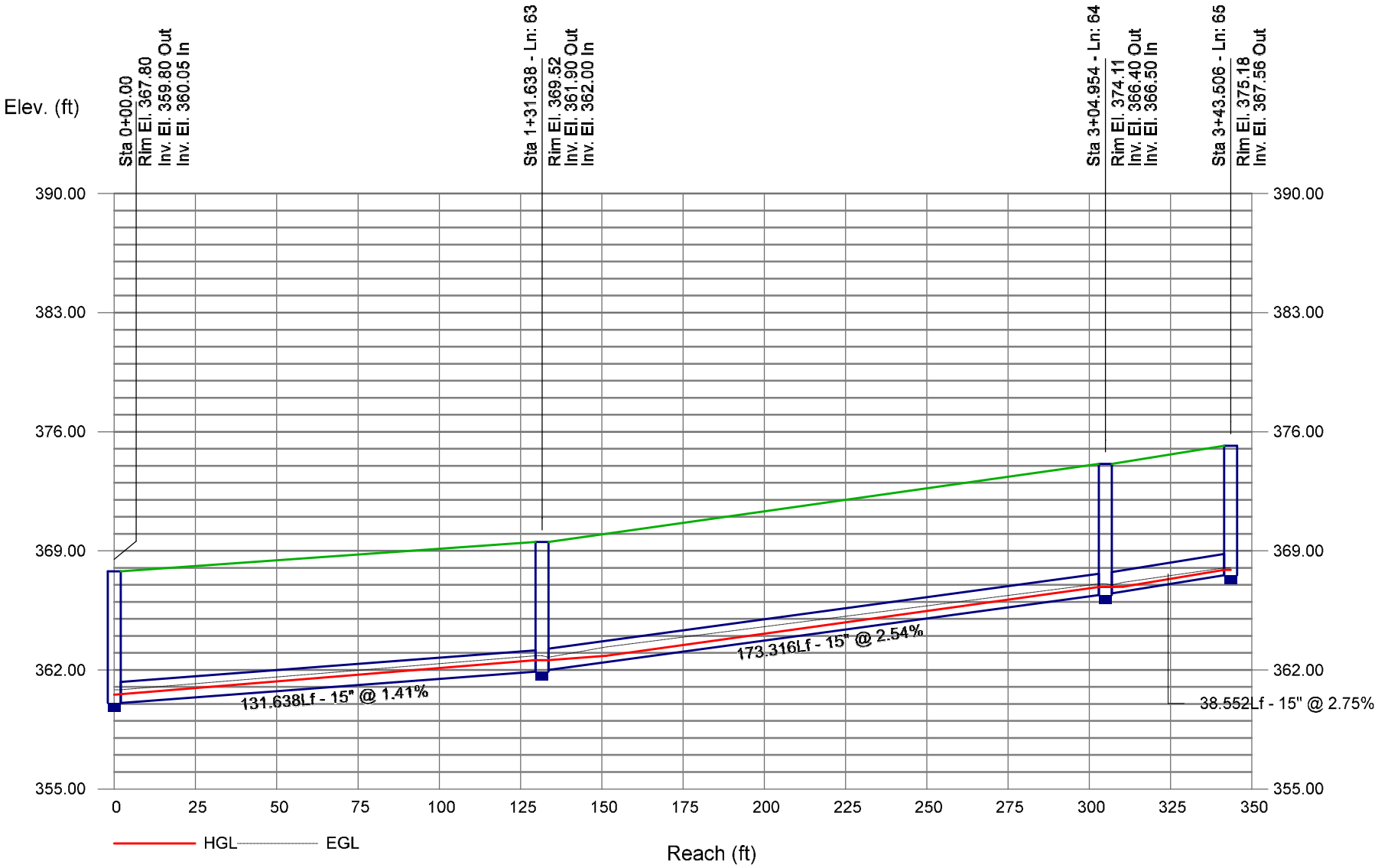
Storm Sewer Profile

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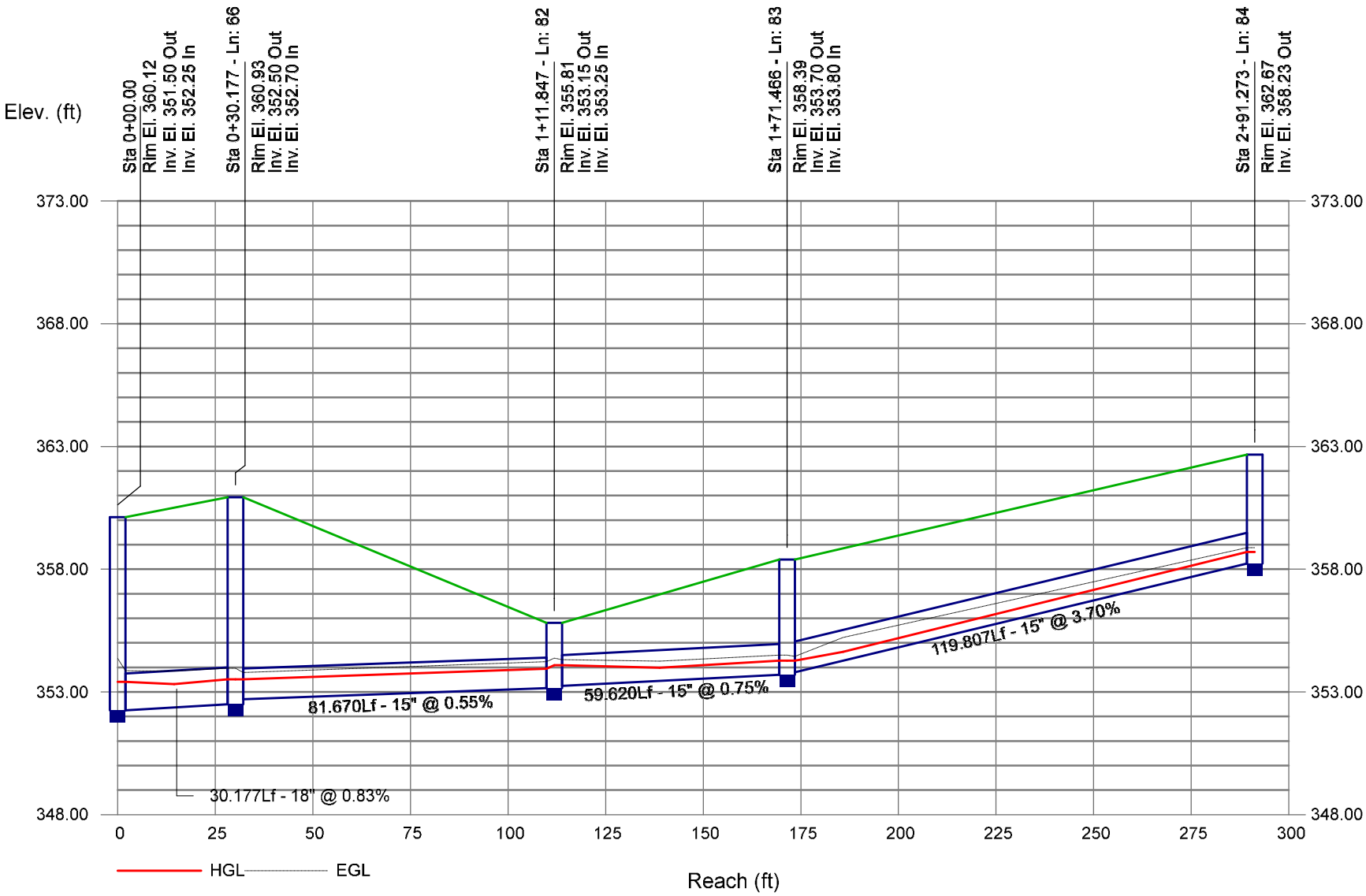
Storm Sewer Profile

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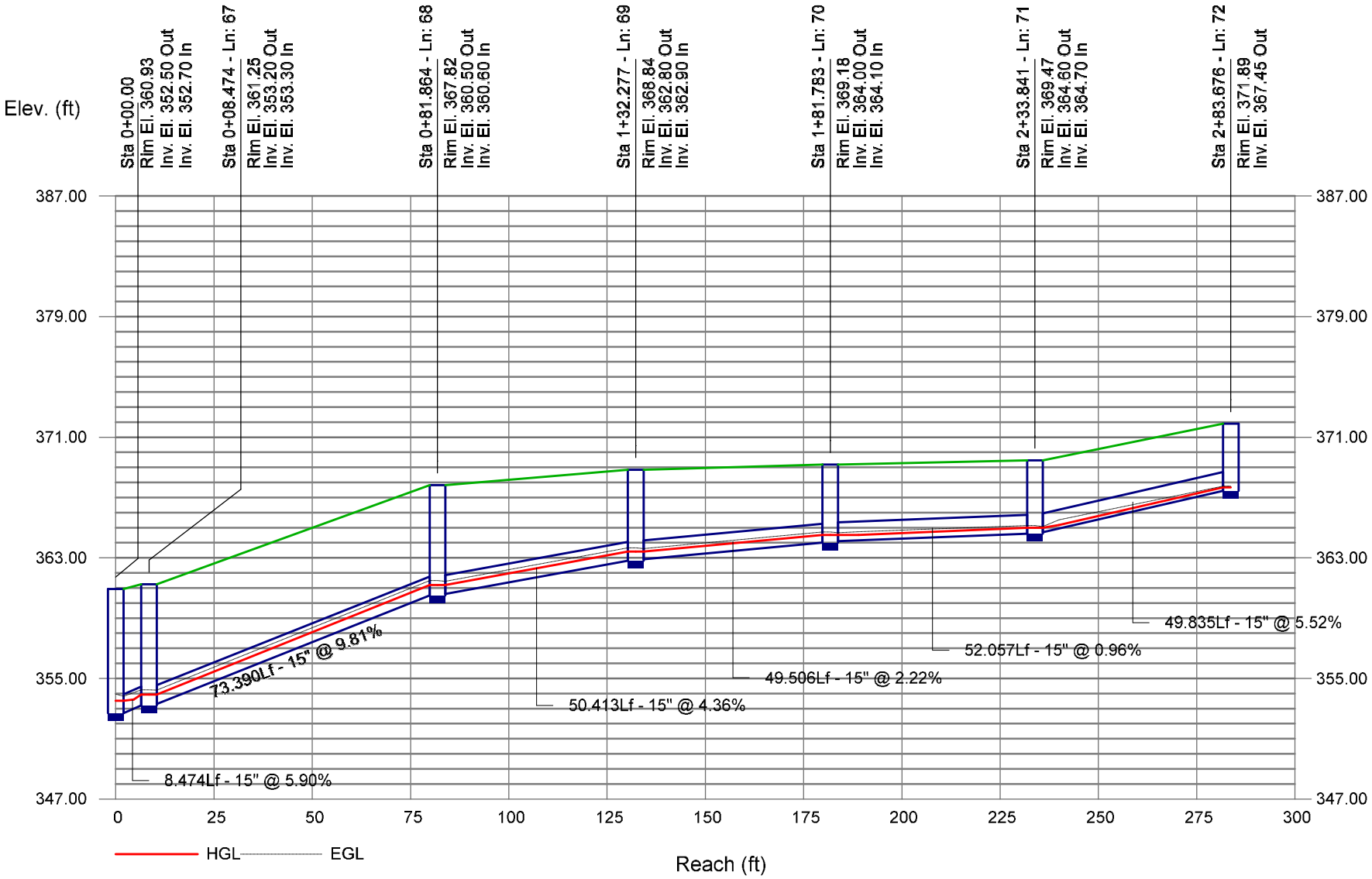
Storm Sewer Profile

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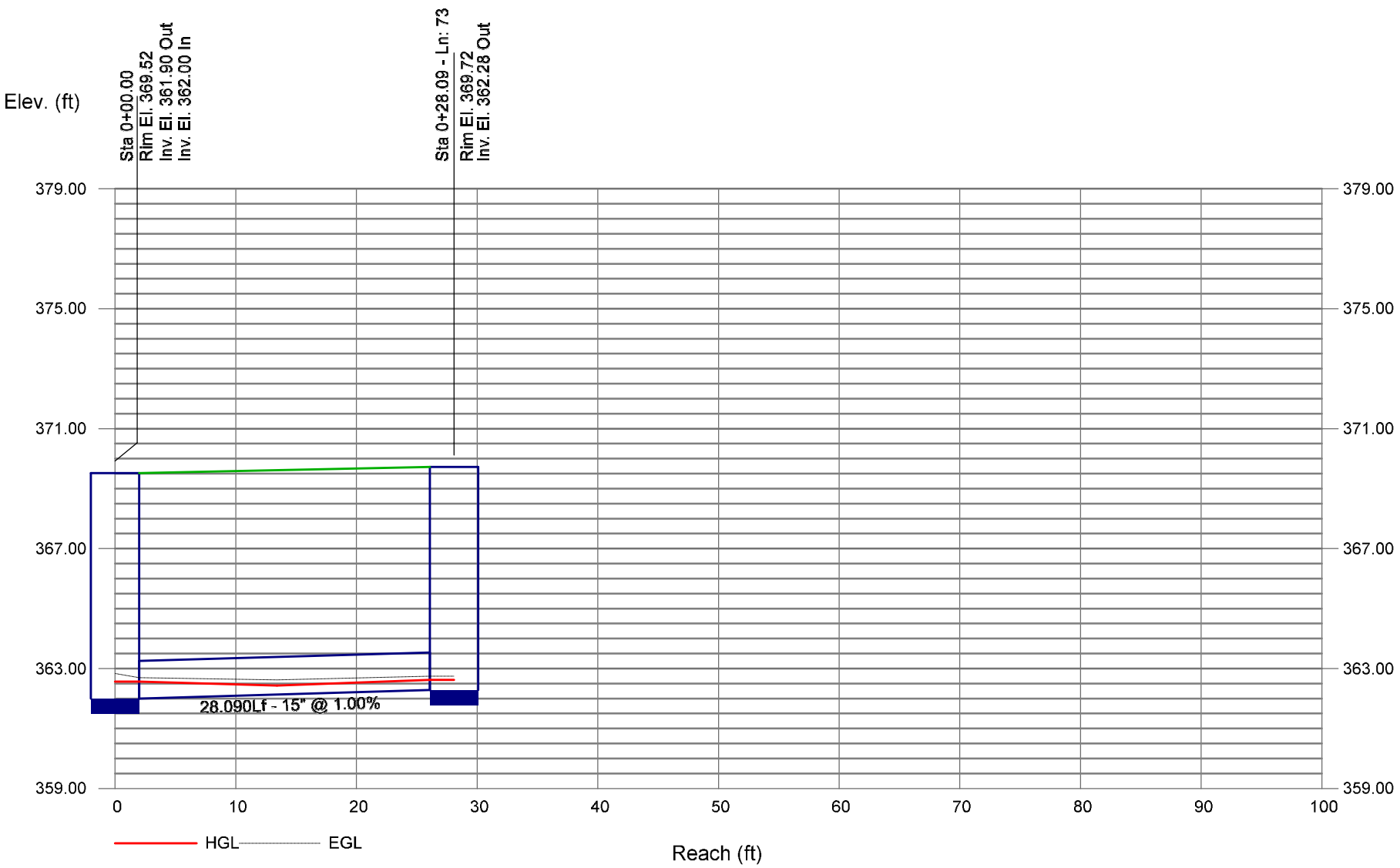
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Proj. file: SCM 5A Storm Network.stm



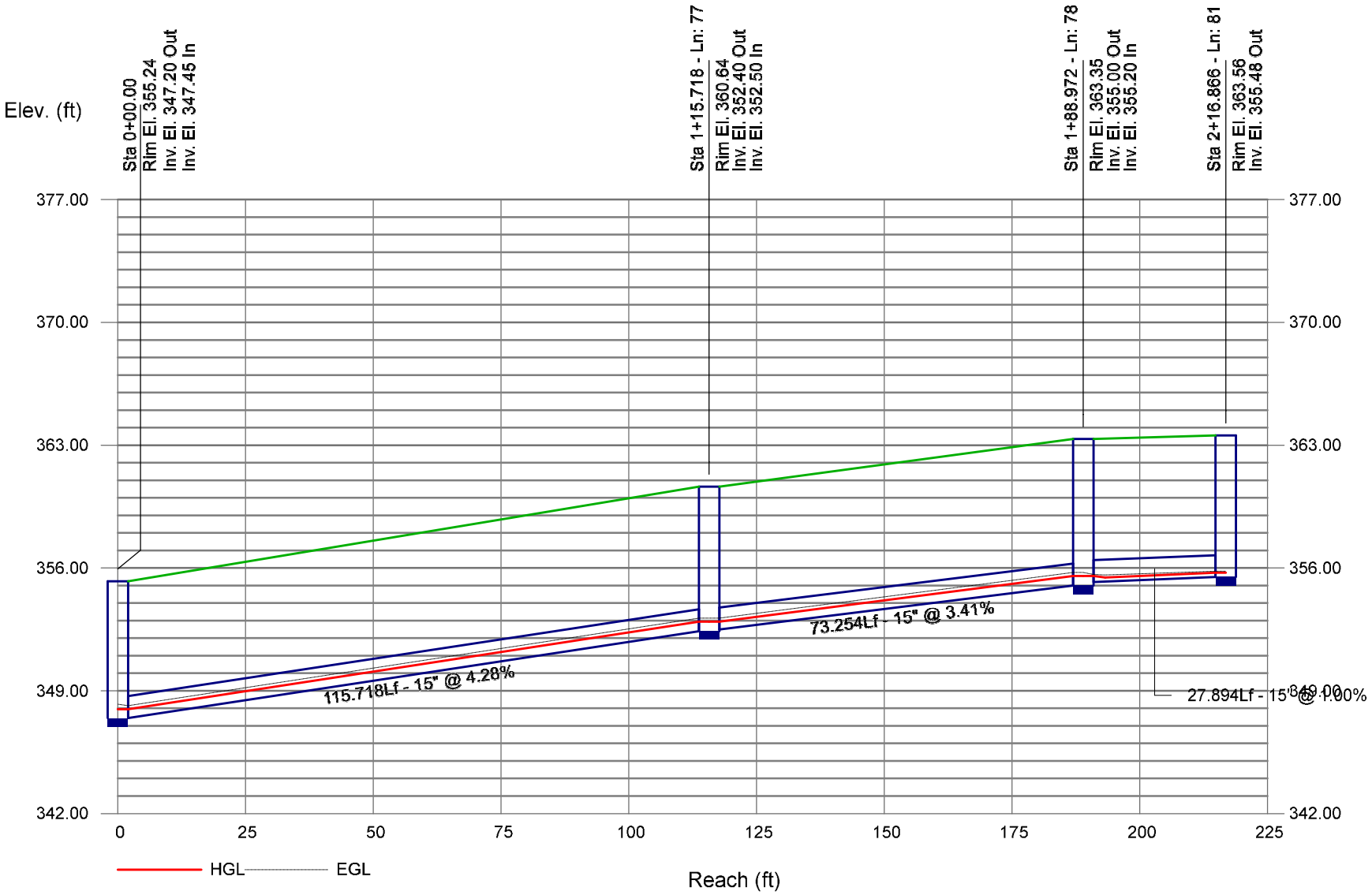
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



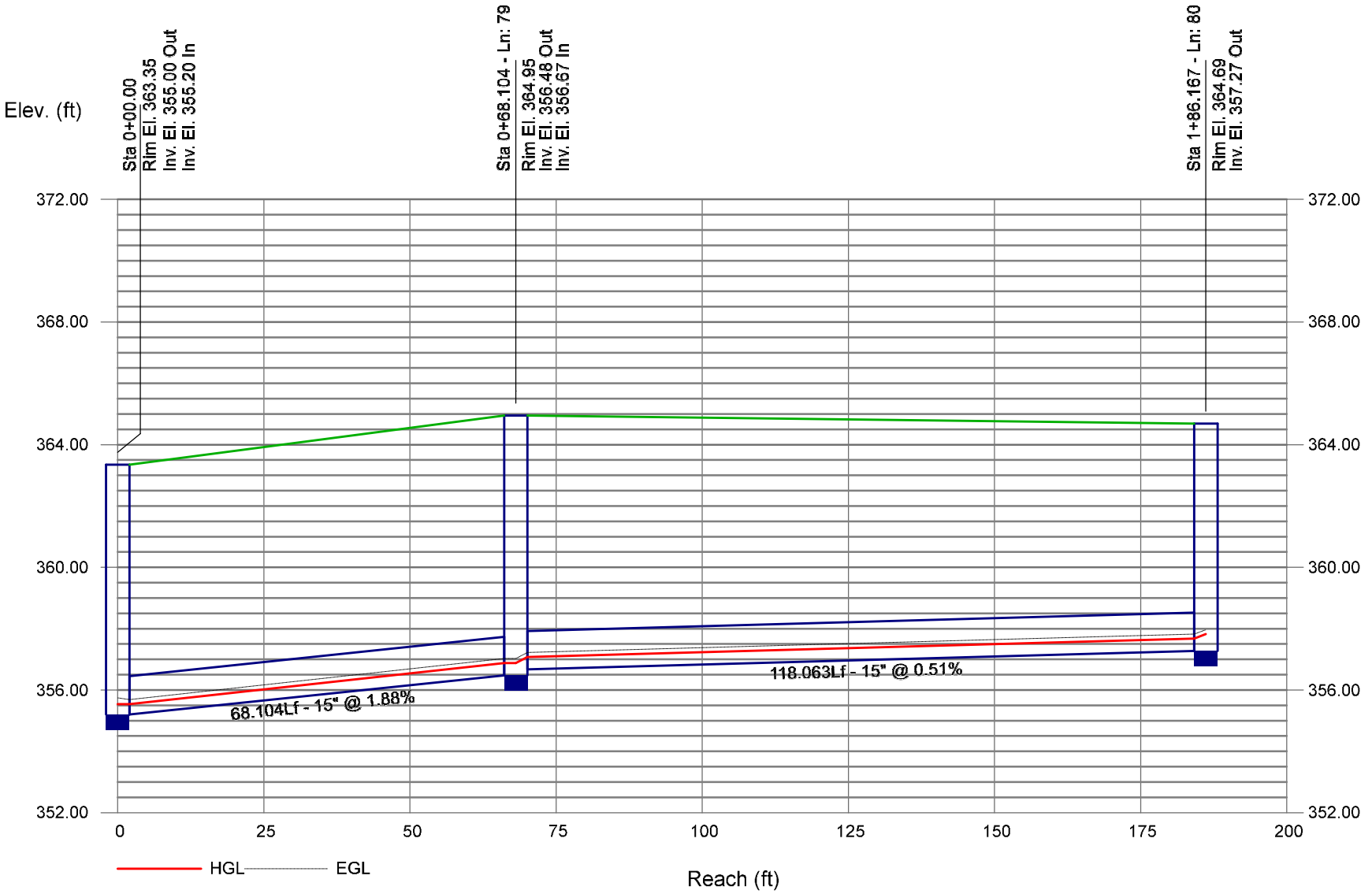
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



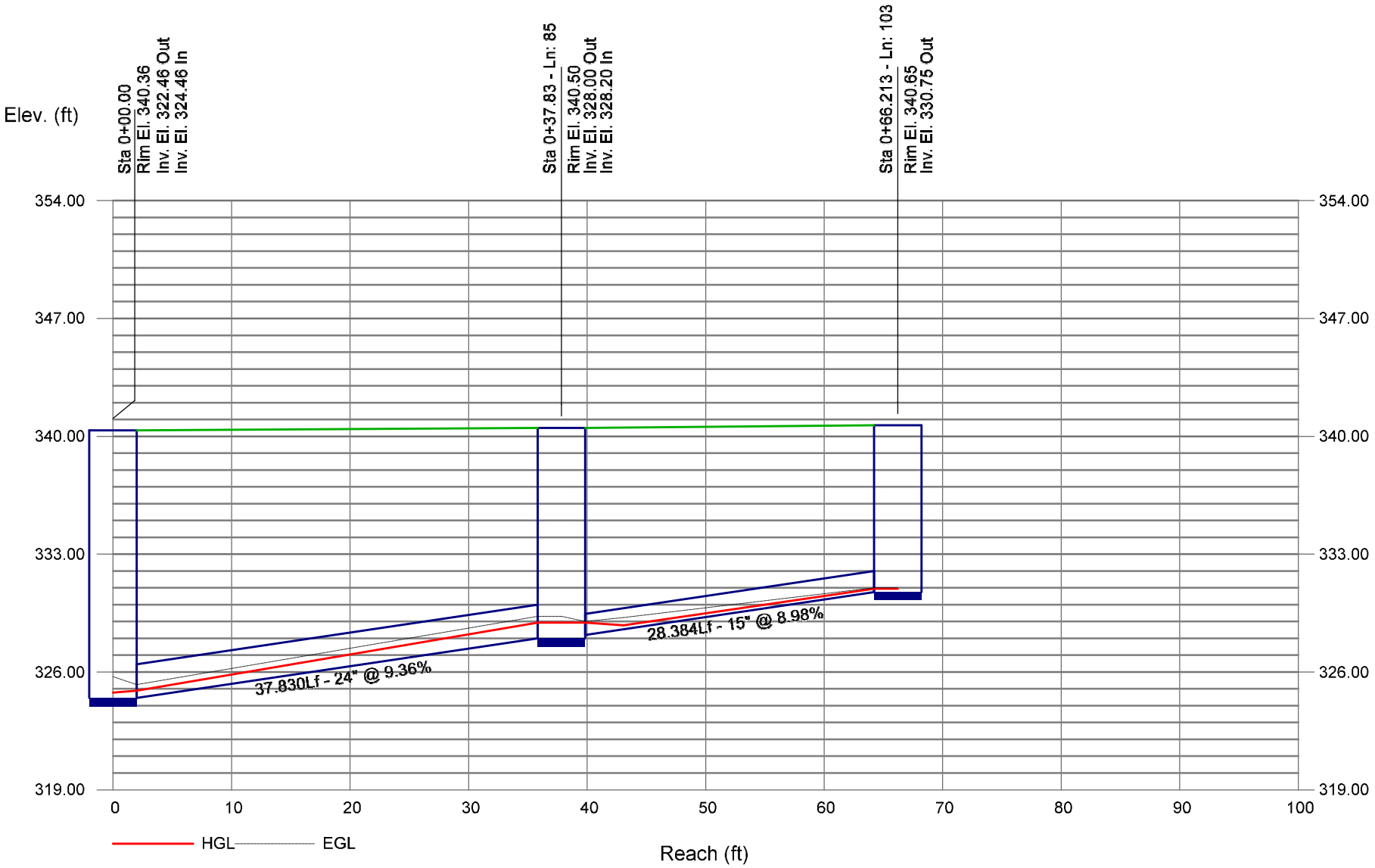
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



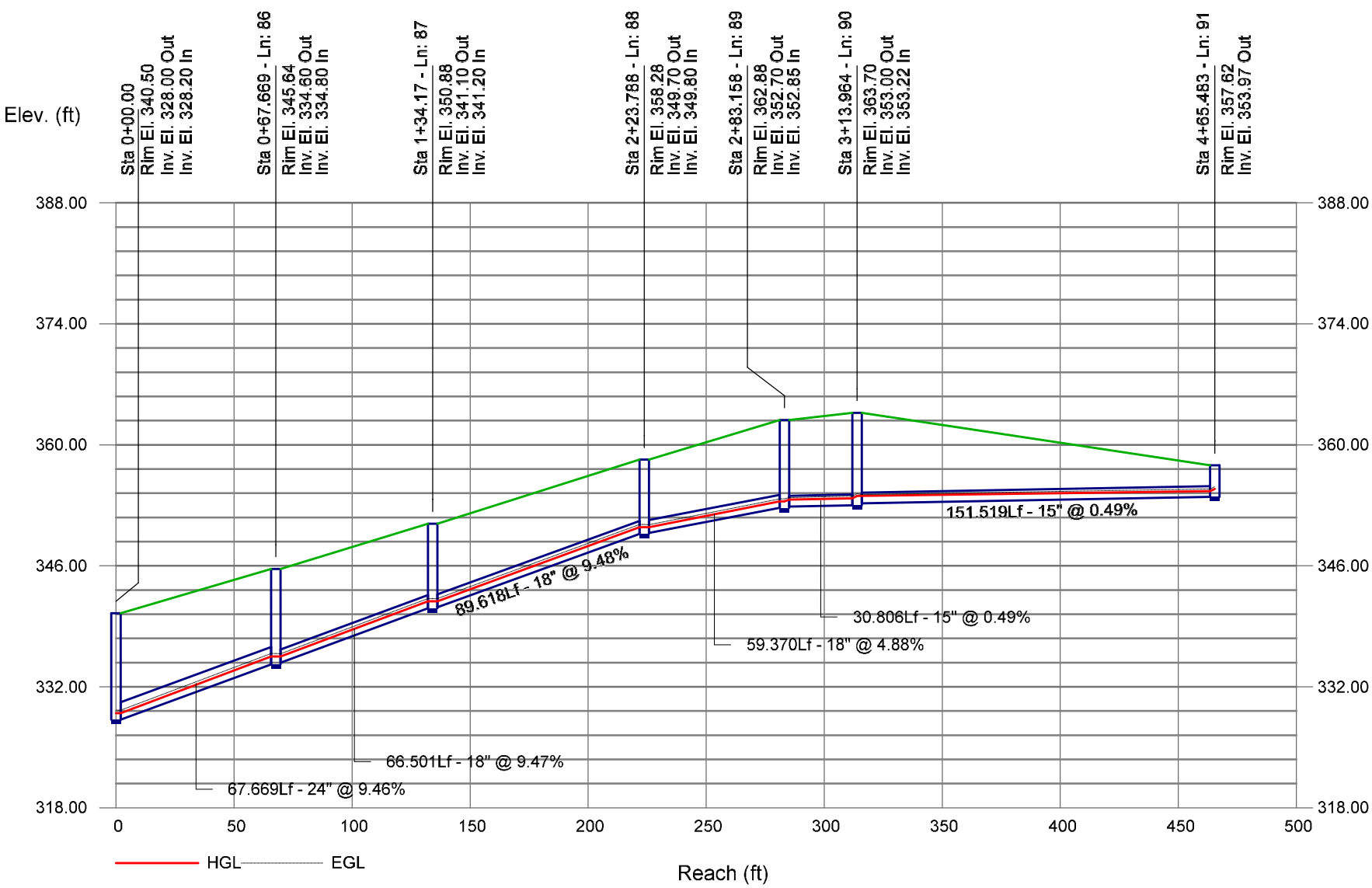
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



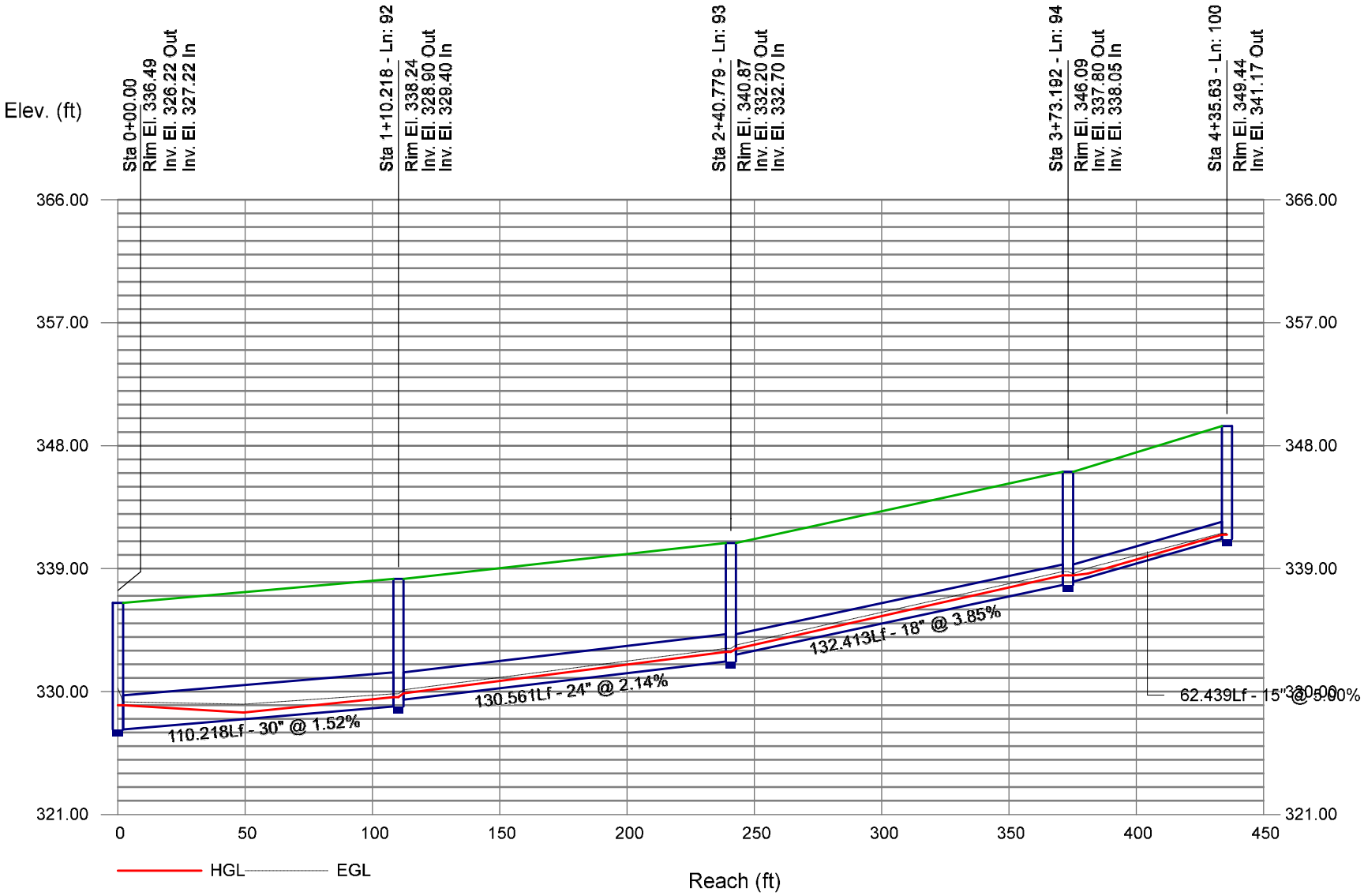
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



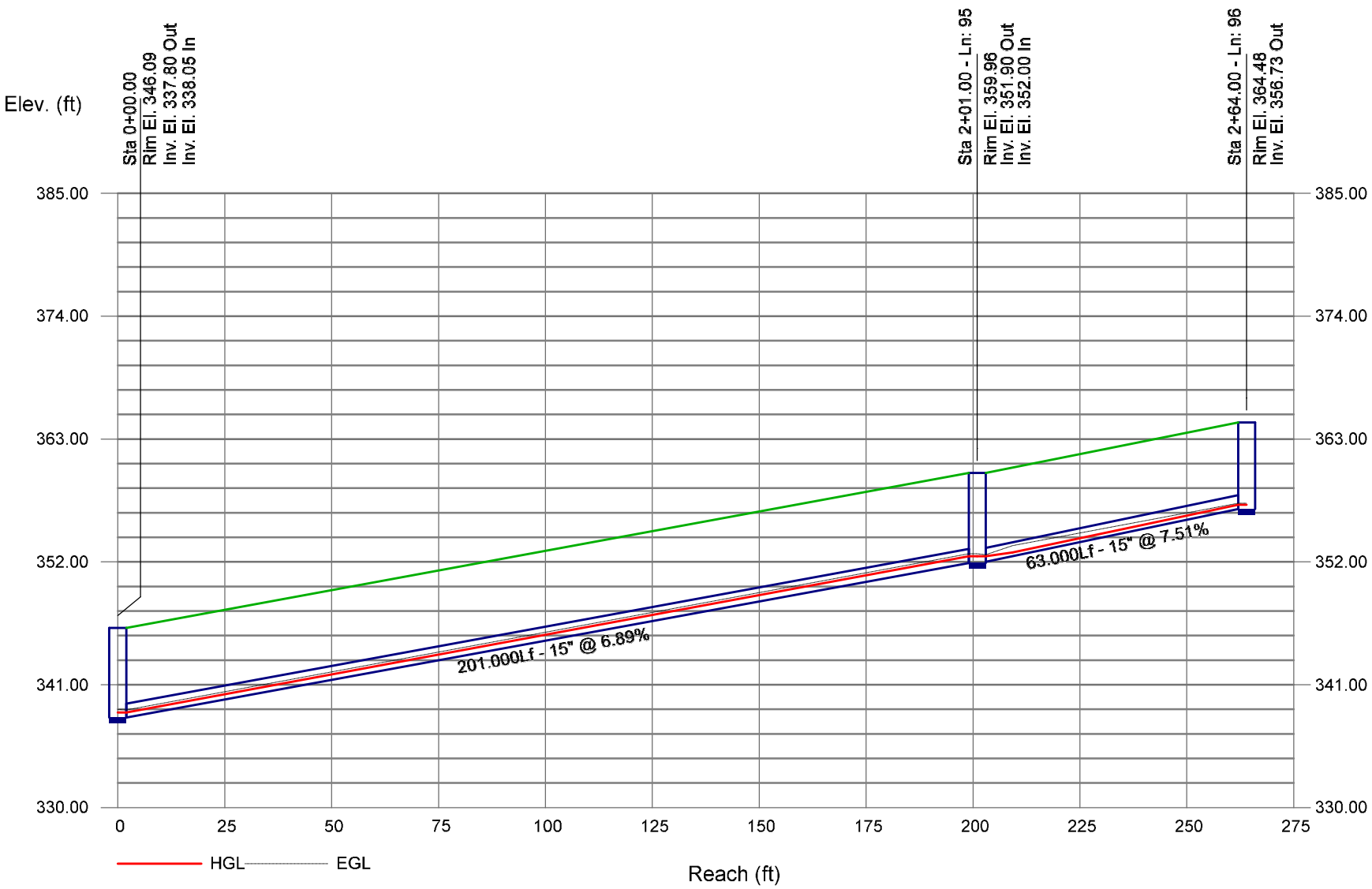
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



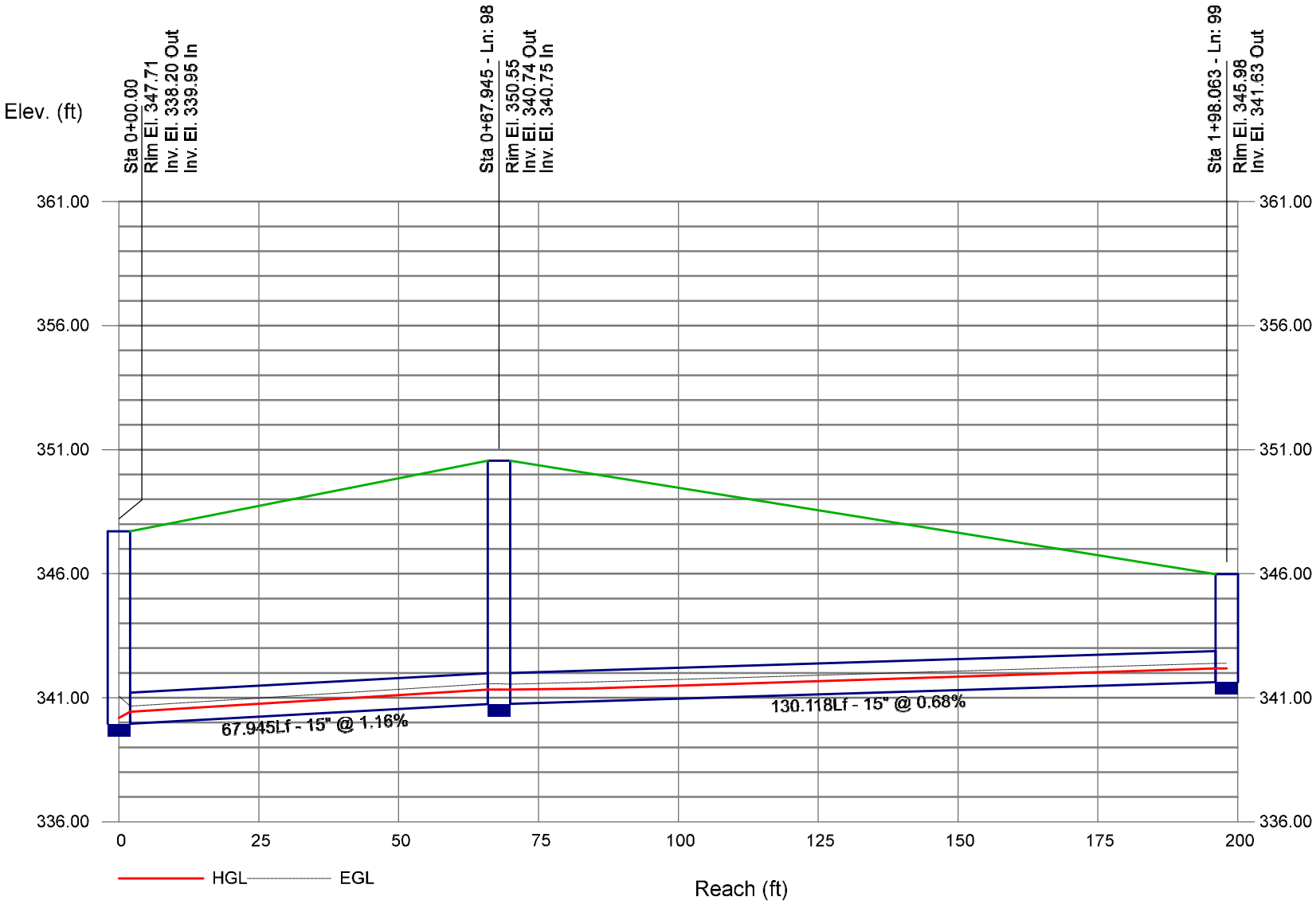
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



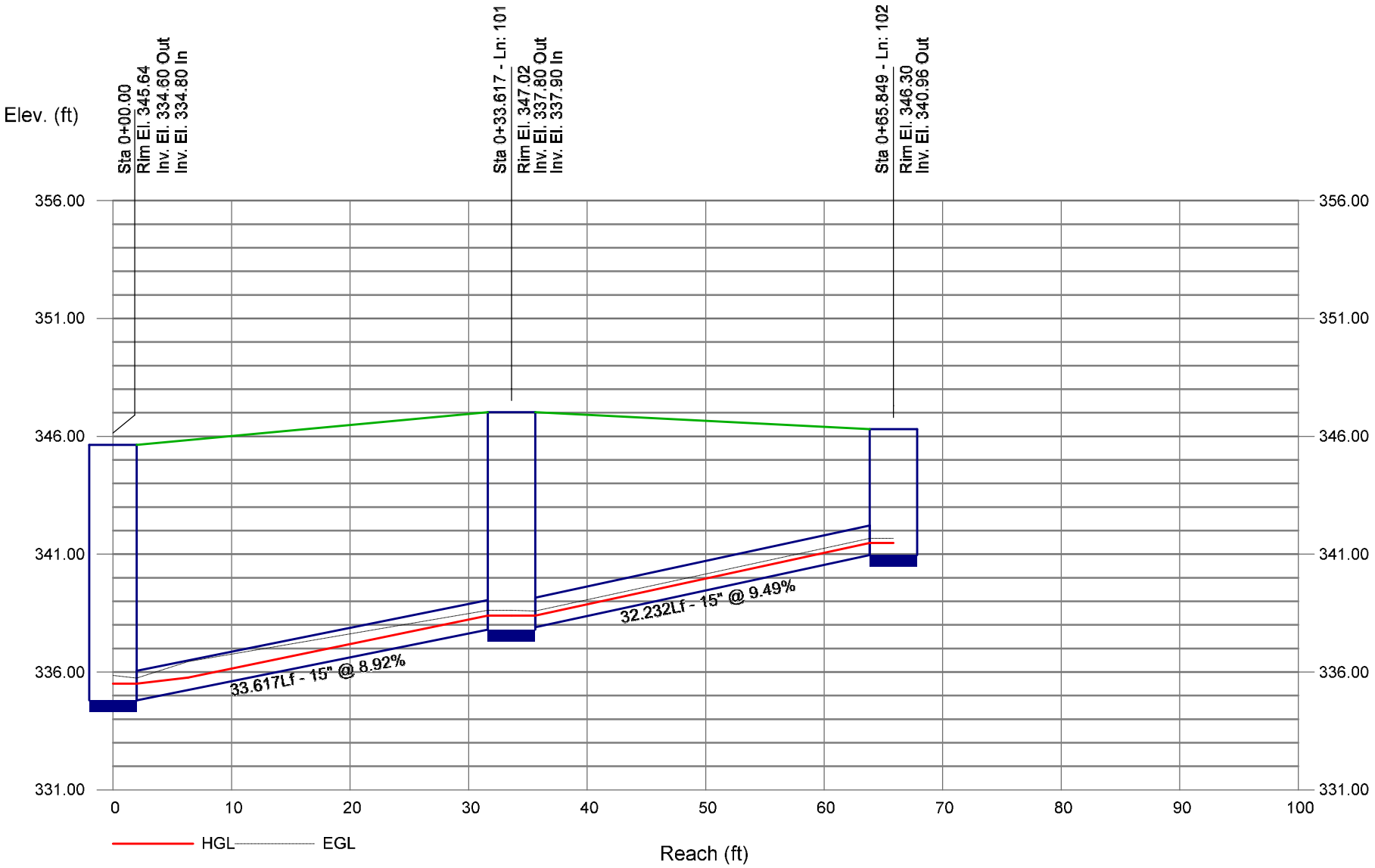
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



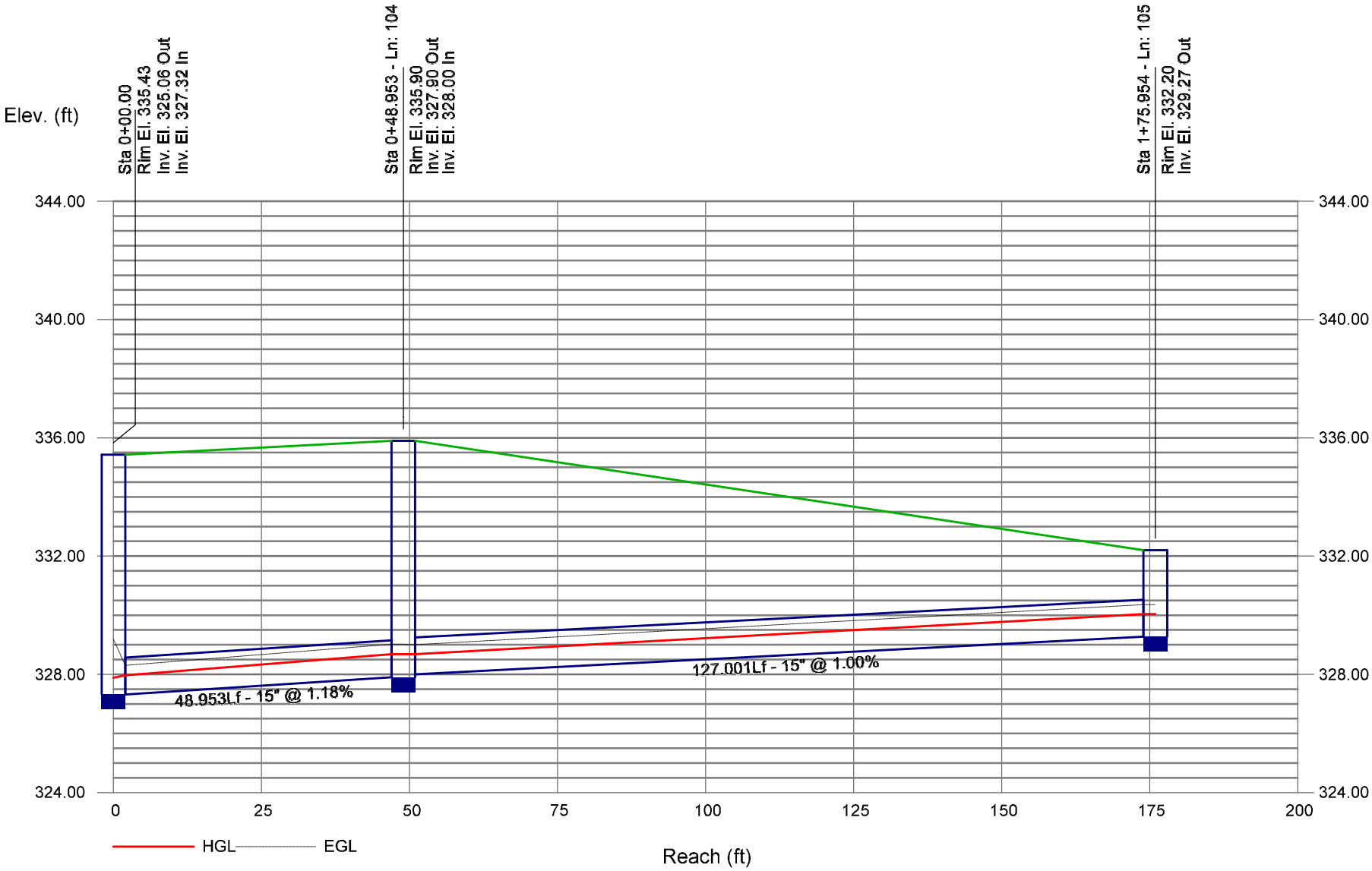
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



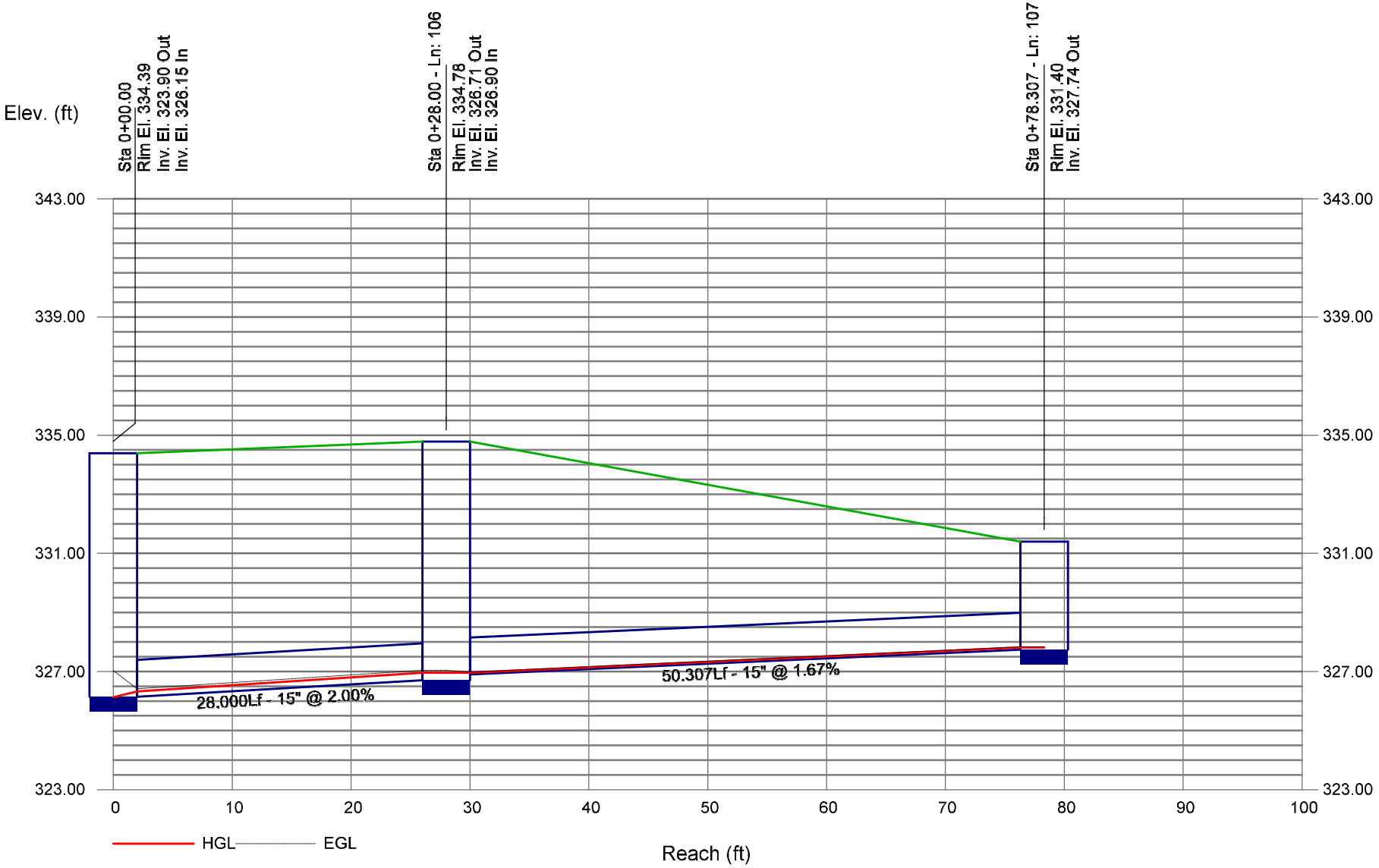
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm

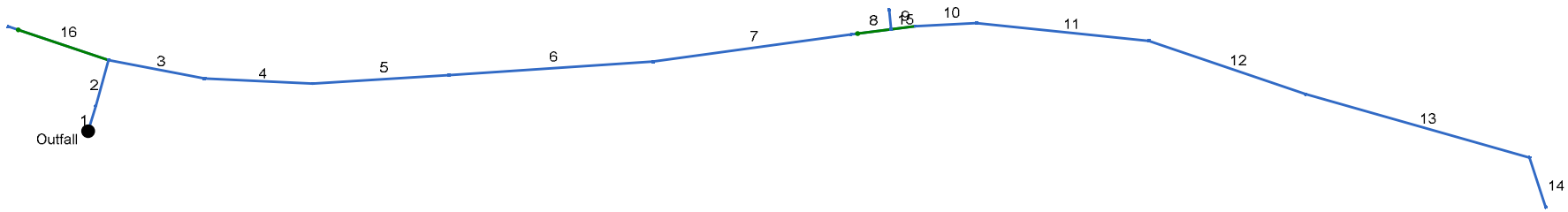


Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 5C Storm Network.stm	Number of lines: 16	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	45.107	-73.515	MH	0.00	0.00	0.00	0.0	293.00	8.20	296.70	30	Cir	0.013	0.15	306.95	Pipe - (547)
2	1	79.000	-1.209	Comb	0.00	0.63	0.60	10.0	300.40	3.92	303.50	30	Cir	0.013	1.50	312.97	Pipe - (548)
3	2	163.563	85.653	Comb	0.00	0.67	0.60	10.0	304.00	4.59	311.50	24	Cir	0.013	0.50	317.91	Pipe - (550)
4	3	180.720	-8.188	Comb	0.00	1.04	0.60	10.0	311.60	4.09	319.00	24	Cir	0.013	0.50	325.97	Pipe - (551)
5	4	228.426	-6.317	Comb	0.00	1.46	0.60	10.0	319.10	5.73	332.20	24	Cir	0.013	0.50	339.97	Pipe - (552)
6	5	340.817	-0.292	Comb	0.00	1.27	0.60	10.0	332.30	5.63	351.50	24	Cir	0.013	0.50	357.51	Pipe - (553)
7	6	334.230	-3.925	Comb	0.00	0.35	0.60	10.0	352.00	1.80	358.00	18	Cir	0.013	0.50	367.15	Pipe - (554)
8	7	67.118	0.500	MH	0.00	0.27	0.72	10.0	358.25	2.91	360.20	15	Cir	0.013	1.00	368.11	Pipe - (562) (1)
9	8	40.912	0.000	Comb	0.00	0.23	0.60	10.0	360.40	2.44	361.40	15	Cir	0.013	0.50	369.70	Pipe - (562)
10	9	101.668	4.188	Comb	0.00	0.47	0.60	10.0	361.50	3.93	365.50	15	Cir	0.013	0.50	372.27	Pipe - (561)
11	10	289.580	9.059	Comb	0.00	0.62	0.60	0.0	365.60	2.35	372.40	15	Cir	0.013	0.50	380.46	Pipe - (560)
12	11	276.541	12.894	Comb	0.00	0.21	0.60	10.0	372.50	0.61	374.20	15	Cir	0.013	0.50	386.83	Pipe - (559)
13	12	389.260	-2.936	Comb	0.00	0.26	0.60	10.0	374.30	0.62	376.70	15	Cir	0.013	1.29	386.59	Pipe - (558)
14	13	86.959	56.108	Comb	0.00	0.22	0.60	10.0	376.80	0.57	377.30	15	Cir	0.013	1.00	385.12	Pipe - (557)
15	8	33.261	-88.623	Comb	0.00	0.15	0.60	10.0	360.40	6.31	362.50	15	Cir	0.013	1.00	367.66	Pipe - (694)
16	2	176.320	-86.677	Comb	0.00	1.03	0.60	10.0	304.50	0.85	306.00	18	Cir	0.013	1.00	310.97	Pipe - (549)

Project File: SCM 5C Storm Network.stm

Number of lines: 16

Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 561	Manhole	306.95	Rect	4.00	4.00	30	Cir	296.70	30	Cir	300.40
2	CB 562	Combination	312.97	Rect	4.00	4.00	30	Cir	303.50	24 18	Cir Cir	304.00 304.50
3	CB 563	Combination	317.91	Rect	4.00	4.00	24	Cir	311.50	24	Cir	311.60
4	CB 564	Combination	325.97	Rect	4.00	4.00	24	Cir	319.00	24	Cir	319.10
5	CB 565	Combination	339.97	Rect	4.00	4.00	24	Cir	332.20	24	Cir	332.30
6	CB 566	Combination	357.51	Rect	4.00	4.00	24	Cir	351.50	18	Cir	352.00
7	CB 567	Combination	367.15	Rect	4.00	4.00	18	Cir	358.00	15	Cir	358.25
8	JB 567A	Manhole	368.11	Rect	4.00	4.00	15	Cir	360.20	15 15	Cir Cir	360.40 360.40
9	CB 568	Combination	369.70	Rect	4.00	4.00	15	Cir	361.40	15	Cir	361.50
10	CB 569	Combination	372.27	Rect	4.00	4.00	15	Cir	365.50	15	Cir	365.60
11	CB 570	Combination	380.46	Rect	4.00	4.00	15	Cir	372.40	15	Cir	372.50
12	CB 571	Combination	386.83	Rect	4.00	4.00	15	Cir	374.20	15	Cir	374.30
13	CB 572	Combination	386.59	Rect	4.00	4.00	15	Cir	376.70	15	Cir	376.80
14	CB 572A	Combination	385.12	Rect	4.00	4.00	15	Cir	377.30			
15	CB 567B	Combination	367.66	Rect	4.00	4.00	15	Cir	362.50			
16	CB 562A	Combination	310.97	Rect	4.00	4.00	18	Cir	306.00			

Project File: SCM 5C Storm Network.stm | Number of Structures: 16 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (547)	24.30	30	Cir	45.107	293.00	296.70	8.203	296.54	298.38	n/a	298.38 j	End	Manhole
2	Pipe - (548)	24.38	30	Cir	79.000	300.40	303.50	3.924	301.34	305.18	1.13	305.18	1	Combination
3	Pipe - (550)	20.01	24	Cir	163.563	304.00	311.50	4.585	305.18	313.11	n/a	313.11	2	Combination
4	Pipe - (551)	18.37	24	Cir	180.720	311.60	319.00	4.095	313.11	320.54	n/a	320.54	3	Combination
5	Pipe - (552)	15.72	24	Cir	228.426	319.10	332.20	5.735	320.54	333.63	n/a	333.63 j	4	Combination
6	Pipe - (553)	11.93	24	Cir	340.817	332.30	351.50	5.634	333.63	352.74	n/a	352.74 j	5	Combination
7	Pipe - (554)	8.42	18	Cir	334.230	352.00	358.00	1.795	352.84	359.12	n/a	359.12	6	Combination
8	Pipe - (562) (1)	7.42	15	Cir	67.118	358.25	360.20	2.905	359.12	361.28	n/a	361.28	7	Manhole
9	Pipe - (562)	6.02	15	Cir	40.912	360.40	361.40	2.444	361.28	362.39	0.26	362.39	8	Combination
10	Pipe - (561)	5.38	15	Cir	101.668	361.50	365.50	3.934	362.39	366.44	0.23	366.44	9	Combination
11	Pipe - (560)	4.08	15	Cir	289.580	365.60	372.40	2.348	366.44	373.22	n/a	373.22 j	10	Combination
12	Pipe - (559)	2.24	15	Cir	276.541	372.50	374.20	0.615	373.22	374.80	n/a	374.80 j	11	Combination
13	Pipe - (558)	1.66	15	Cir	389.260	374.30	376.70	0.617	374.80	377.21	0.25	377.21	12	Combination
14	Pipe - (557)	0.78	15	Cir	86.959	376.80	377.30	0.575	377.21	377.64	n/a	377.64 j	13	Combination
15	Pipe - (694)	0.53	15	Cir	33.261	360.40	362.50	6.314	361.28	362.78	n/a	362.78 j	8	Combination
16	Pipe - (549)	3.63	18	Cir	176.320	304.50	306.00	0.851	305.18	306.73	0.28	306.73	2	Combination

Project File: SCM 5C Storm Network.stm | Number of lines: 16 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 561	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	CB 562	2.22	2.06	2.60	1.68	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.27	9.41	0.20	6.09	0.0	16
3	CB 563	2.36	2.78	3.08	2.06	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.27	9.33	0.20	6.10	0.0	2
4	CB 564	3.66	2.86	3.74	2.78	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.27	9.72	0.21	6.59	0.0	3
5	CB 565	5.14	1.87	4.16	2.86	Comb	6.0	1.50	0.00	3.00	2.50	0.060	2.00	0.060	0.020	0.013	0.26	9.19	0.20	6.04	0.0	4
6	CB 566	4.48	0.54	3.14	1.87	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.25	8.66	0.19	5.38	0.0	5
7	CB 567	1.23	1.22	1.92	0.54	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.20	6.20	0.12	2.15	0.0	6
8	JB 567A	1.14	0.00	0.00	1.14	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	7
9	CB 568	0.81	0.27	0.99	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.16	4.24	0.06	1.08	0.0	7
10	CB 569	1.66	0.00	1.39	0.27	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.19	5.44	0.10	1.66	0.0	9
11	CB 570	0.00	0.03	0.03	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.05	0.78	0.00	0.00	0.0	10
12	CB 571	0.74	0.00	0.71	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.79	0.05	0.84	0.0	11
13	CB 572	0.92	0.00	0.84	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.35	0.07	1.11	0.0	Off
14	CB 572A	0.78	0.00	0.73	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.91	0.05	0.90	0.0	Off
15	CB 567B	0.53	0.00	0.53	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.93	0.14	2.93	0.0	Off
16	CB 562A	3.63	1.68	5.31	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.43	17.28	0.43	17.28	0.0	Off

Project File: SCM 5C Storm Network.stm | Number of lines: 16 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

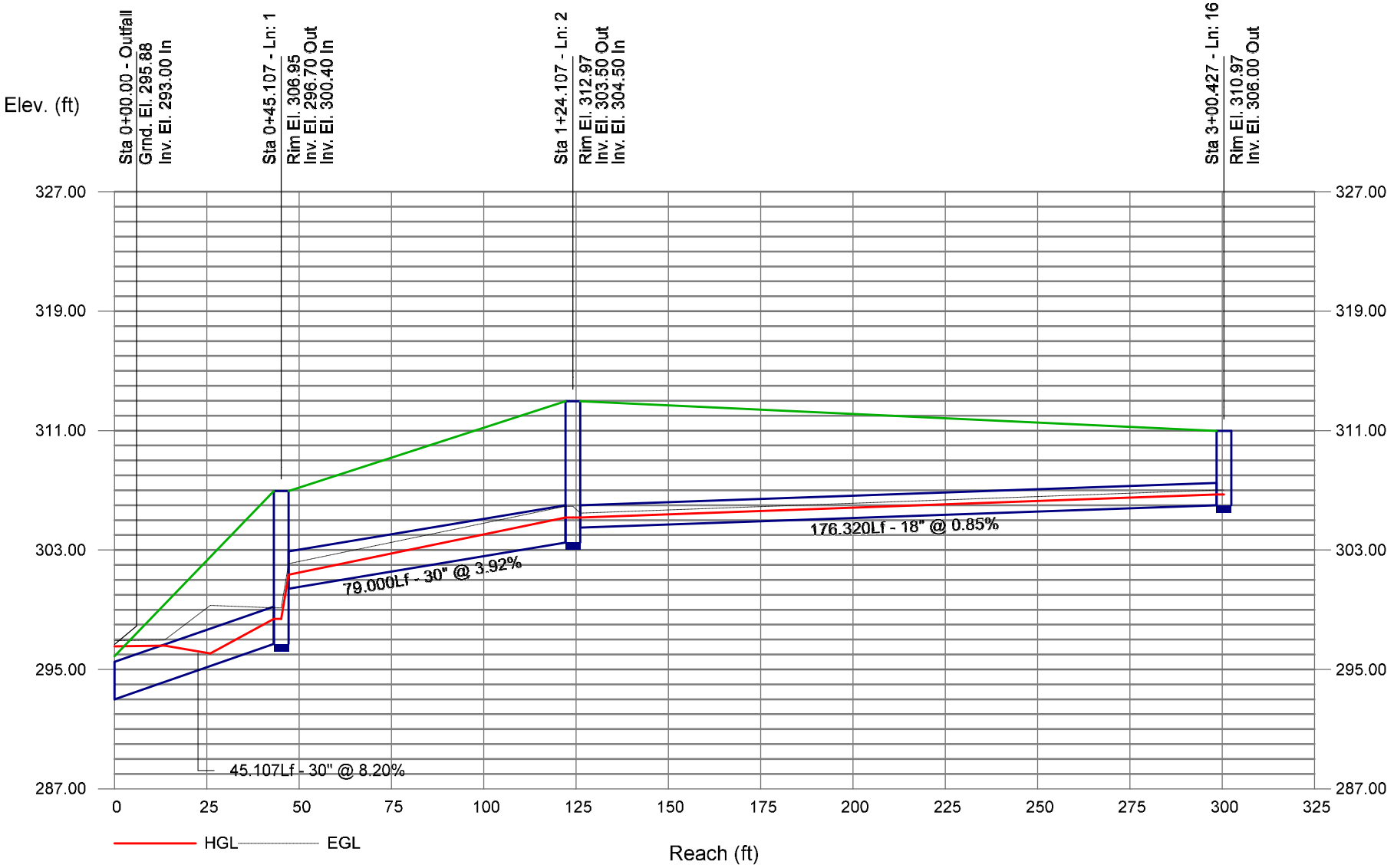
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	30	24.30	293.00	296.54	2.50	3.50	4.95	0.38	296.92	0.351	45.107	296.70	298.38 j	1.68**	3.50	6.94	0.75	299.13	0.561	0.456	n/a	0.15	0.11
2	30	24.38	300.40	301.34	0.94*	1.69	14.47	0.75	302.09	0.000	79.000	303.50	305.18	1.68**	3.51	6.95	0.75	305.93	0.000	0.000	n/a	1.50	1.13
3	24	20.01	304.00	305.18	1.18	1.93	10.37	0.85	306.03	0.000	163.563	311.50	313.11	1.61**	2.70	7.40	0.85	313.96	0.000	0.000	n/a	0.50	n/a
4	24	18.37	311.60	313.11	1.51	2.54	7.24	0.78	313.88	0.000	180.720	319.00	320.54	1.54**	2.60	7.07	0.78	321.32	0.000	0.000	n/a	0.50	n/a
5	24	15.72	319.10	320.54	1.44	2.40	6.48	0.67	321.21	0.000	228.426	332.20	333.63 j	1.43**	2.40	6.55	0.67	334.30	0.000	0.000	n/a	0.50	0.33
6	24	11.93	332.30	333.63	1.33	2.04	5.38	0.53	334.16	0.000	340.817	351.50	352.74 j	1.24**	2.04	5.83	0.53	353.27	0.000	0.000	n/a	0.50	0.26
7	18	8.42	352.00	352.84	0.84*	1.01	8.31	0.55	353.38	0.000	334.230	358.00	359.12	1.12**	1.42	5.93	0.55	359.67	0.000	0.000	n/a	0.50	n/a
8	15	7.42	358.25	359.12	0.87	0.92	8.10	0.67	359.79	0.000	67.118	360.20	361.28	1.08**	1.13	6.56	0.67	361.95	0.000	0.000	n/a	1.00	n/a
9	15	6.02	360.40	361.28	0.88	0.93	6.49	0.52	361.80	0.000	40.912	361.40	362.39	0.99**	1.04	5.77	0.52	362.91	0.000	0.000	n/a	0.50	0.26
10	15	5.38	361.50	362.39	0.89	0.94	5.75	0.46	362.85	0.000	101.668	365.50	366.44	0.94**	0.99	5.44	0.46	366.90	0.000	0.000	n/a	0.50	0.23
11	15	4.08	365.60	366.44	0.84	0.85	4.66	0.36	366.80	0.000	289.580	372.40	373.22 j	0.82**	0.85	4.80	0.36	373.58	0.000	0.000	n/a	0.50	0.18
12	15	2.24	372.50	373.22	0.72	0.58	3.08	0.23	373.45	0.000	276.541	374.20	374.80 j	0.60**	0.58	3.87	0.23	375.03	0.000	0.000	n/a	0.50	0.12
13	15	1.66	374.30	374.80	0.50	0.46	3.64	0.19	374.99	0.000	389.260	376.70	377.21	0.51**	0.47	3.52	0.19	377.40	0.000	0.000	n/a	1.29	0.25
14	15	0.78	376.80	377.21	0.41	0.27	2.21	0.12	377.33	0.000	86.959	377.30	377.64 j	0.34**	0.27	2.82	0.12	377.77	0.000	0.000	n/a	1.00	0.12
15	15	0.53	360.40	361.28	0.88	0.21	0.57	0.10	361.38	0.000	33.261	362.50	362.78 j	0.28**	0.21	2.54	0.10	362.88	0.000	0.000	n/a	1.00	0.10
16	18	3.63	304.50	305.18	0.68	0.78	4.66	0.28	305.46	0.000	176.320	306.00	306.73	0.73**	0.85	4.28	0.28	307.01	0.000	0.000	n/a	1.00	0.28

Project File: SCM 5C Storm Network.stm | Number of lines: 16 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

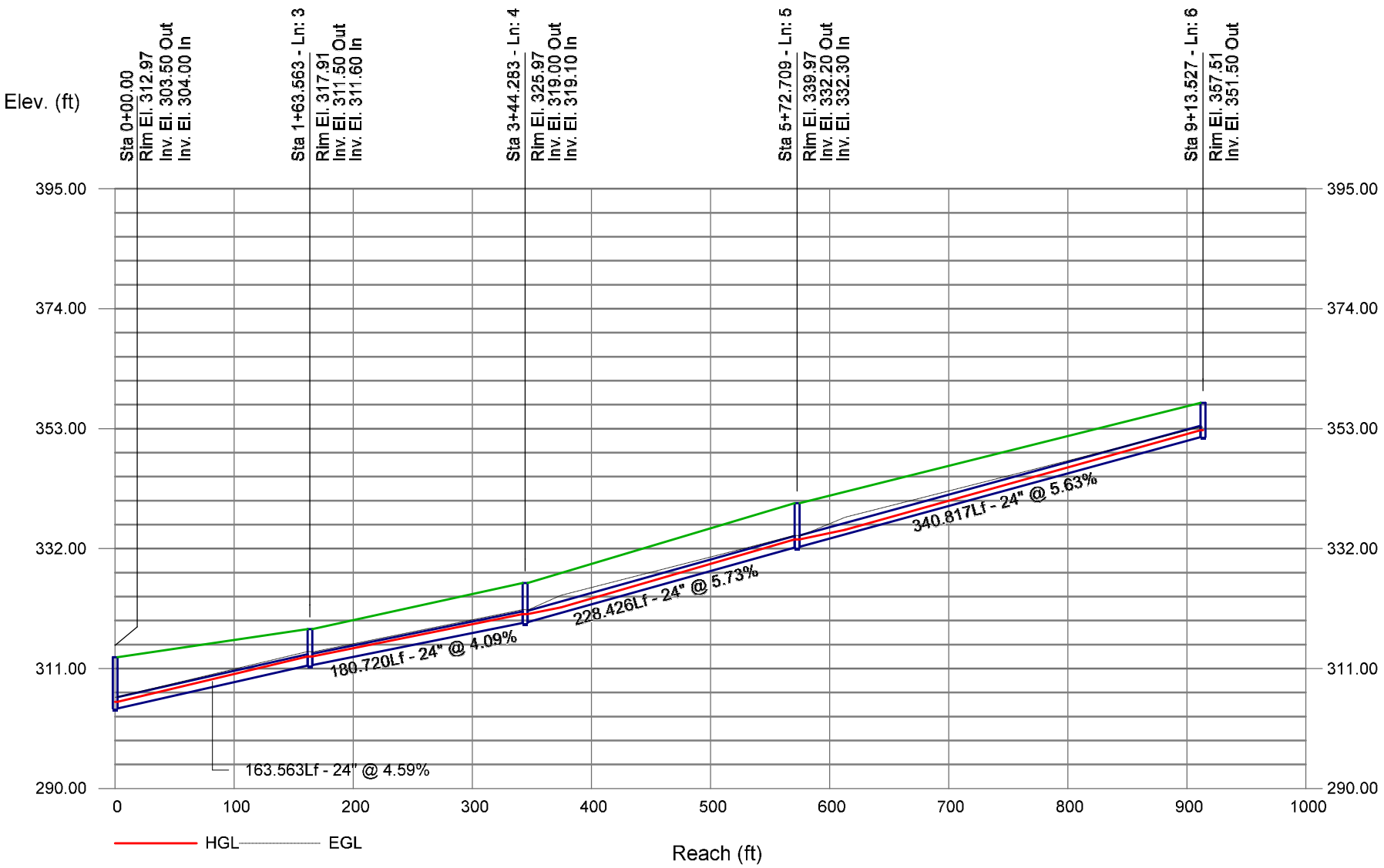
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



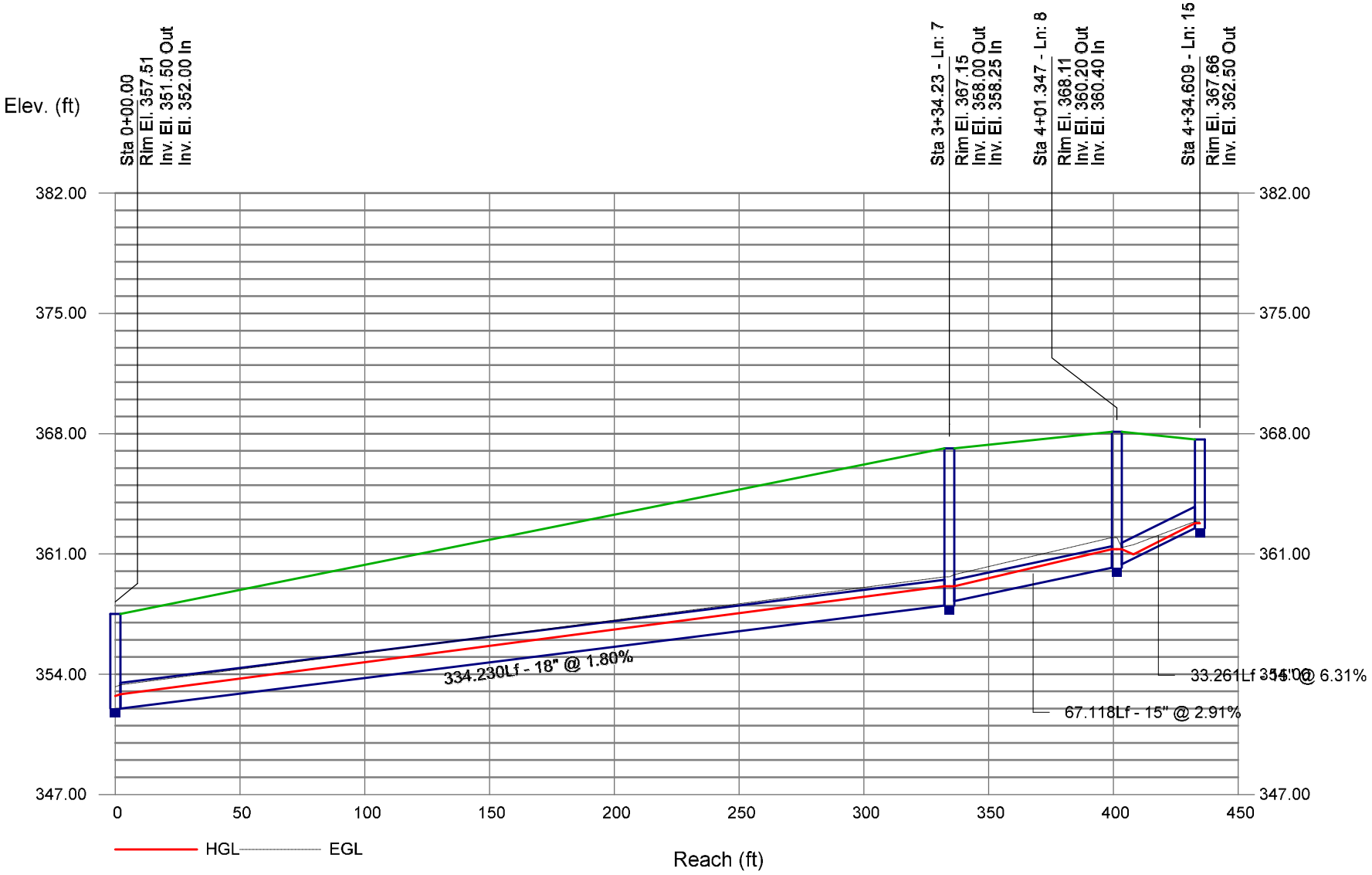
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



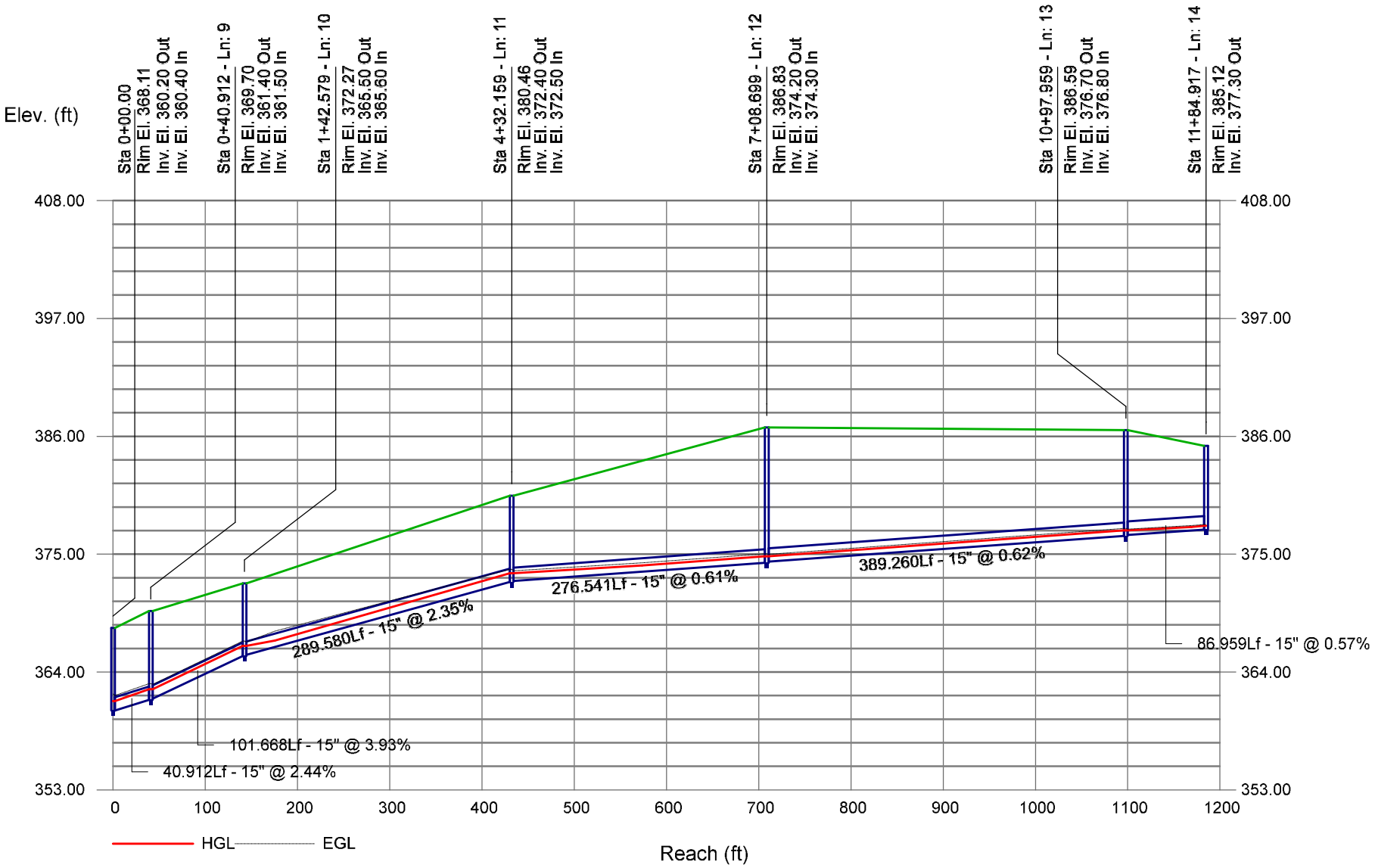
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm

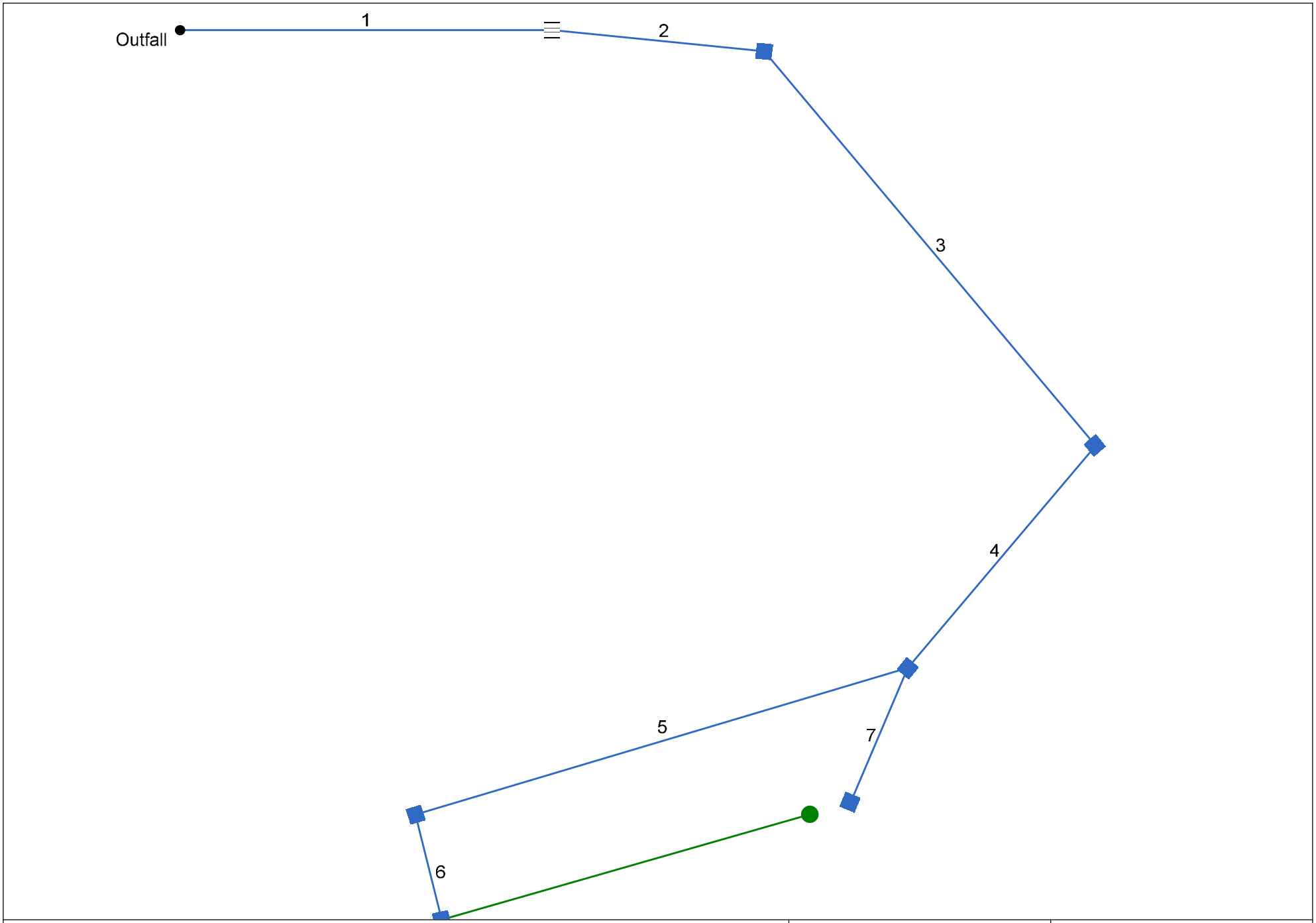


Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 6A Storm Network.stm	Number of lines: 7	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	96.000	0.000	DrGrt	0.00	0.35	0.60	10.0	282.00	4.17	286.00	15	Cir	0.013	0.50	296.41	Pipe - (495)
2	1	55.122	5.726	MH	0.00	0.01	0.60	10.0	286.20	8.71	291.00	15	Cir	0.013	0.74	304.38	Pipe - (494)
3	2	133.087	44.423	Comb	0.00	1.12	0.60	10.0	291.20	8.94	303.10	15	Cir	0.013	1.48	321.07	Pipe - (493)
4	3	75.218	79.870	Comb	0.00	0.07	0.60	10.0	303.30	6.91	308.50	15	Cir	0.013	0.91	326.27	Pipe - (492)
5	4	132.556	33.318	Comb	0.00	0.16	0.60	10.0	308.70	7.17	318.20	15	Cir	0.013	1.50	333.00	Pipe - (491)
6	5	28.021	-87.190	Comb	0.00	0.44	0.60	10.0	318.40	1.00	318.68	15	Cir	0.013	1.00	333.05	Pipe - (496)
7	4	37.852	-17.053	Comb	0.00	0.29	0.60	10.0	308.70	2.09	309.49	18	Cir	0.013	1.00	327.58	Pipe - (512)

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 601	DropGrate	296.41	Rect	4.00	4.00	15	Cir	286.00	15	Cir	286.20
2	JB 602	Manhole	304.38	Rect	4.00	4.00	15	Cir	291.00	15	Cir	291.20
3	CB 603	Combination	321.07	Rect	4.00	4.00	15	Cir	303.10	15	Cir	303.30
4	CB 604	Combination	326.27	Rect	4.00	4.00	15	Cir	308.50	15 18	Cir Cir	308.70 308.70
5	CB 605	Combination	333.00	Rect	4.00	4.00	15	Cir	318.20	15	Cir	318.40
6	CB 605A	Combination	333.05	Rect	4.00	4.00	15	Cir	318.68			
7	CB 604A	Combination	327.58	Rect	4.00	4.00	18	Cir	309.49			

Project File: SCM 6A Storm Network.stm | Number of Structures: 7 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (495)	8.18	15	Cir	96.000	282.00	286.00	4.167	282.71	287.12	0.39	287.12	End	DropGrate
2	Pipe - (494)	7.04	15	Cir	55.122	286.20	291.00	8.708	287.12	292.06	n/a	292.06	1	Manhole
3	Pipe - (493)	7.08	15	Cir	133.087	291.20	303.10	8.942	292.06	304.16	0.93	304.16	2	Combination
4	Pipe - (492)	3.30	15	Cir	75.218	303.30	308.50	6.913	304.16	309.23	n/a	309.23 j	3	Combination
5	Pipe - (491)	2.11	15	Cir	132.556	308.70	318.20	7.167	309.23	318.78	n/a	318.78	4	Combination
6	Pipe - (496)	1.55	15	Cir	28.021	318.40	318.68	0.999	318.82	319.17	0.18	319.17	5	Combination
7	Pipe - (512)	1.02	18	Cir	37.852	308.70	309.49	2.087	309.23	309.87	n/a	309.87 j	4	Combination

Project File: SCM 6A Storm Network.stm

Number of lines: 7

Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 601	1.23	1.48	1.19	1.52	DrGrt	0.0	0.00	0.00	3.00	2.50	0.050	2.00	0.020	0.020	0.013	0.10	12.10	0.10	12.10	0.0	Off
2	JB 602	0.04	1.45	0.00	1.48	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	CB 603	3.95	0.00	2.50	1.45	Comb	6.0	1.50	0.00	3.00	2.50	0.300	2.00	0.060	0.020	0.013	0.17	4.64	0.12	2.12	0.0	2
4	CB 604	0.25	0.06	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	3
5	CB 605	0.56	0.00	0.56	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	2.01	0.00	0.00	0.0	4
6	CB 605A	1.55	0.00	1.40	0.16	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.17	4.54	0.07	1.24	0.0	7
7	CB 604A	1.02	0.16	1.11	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.16	3.80	0.05	0.88	0.0	4

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

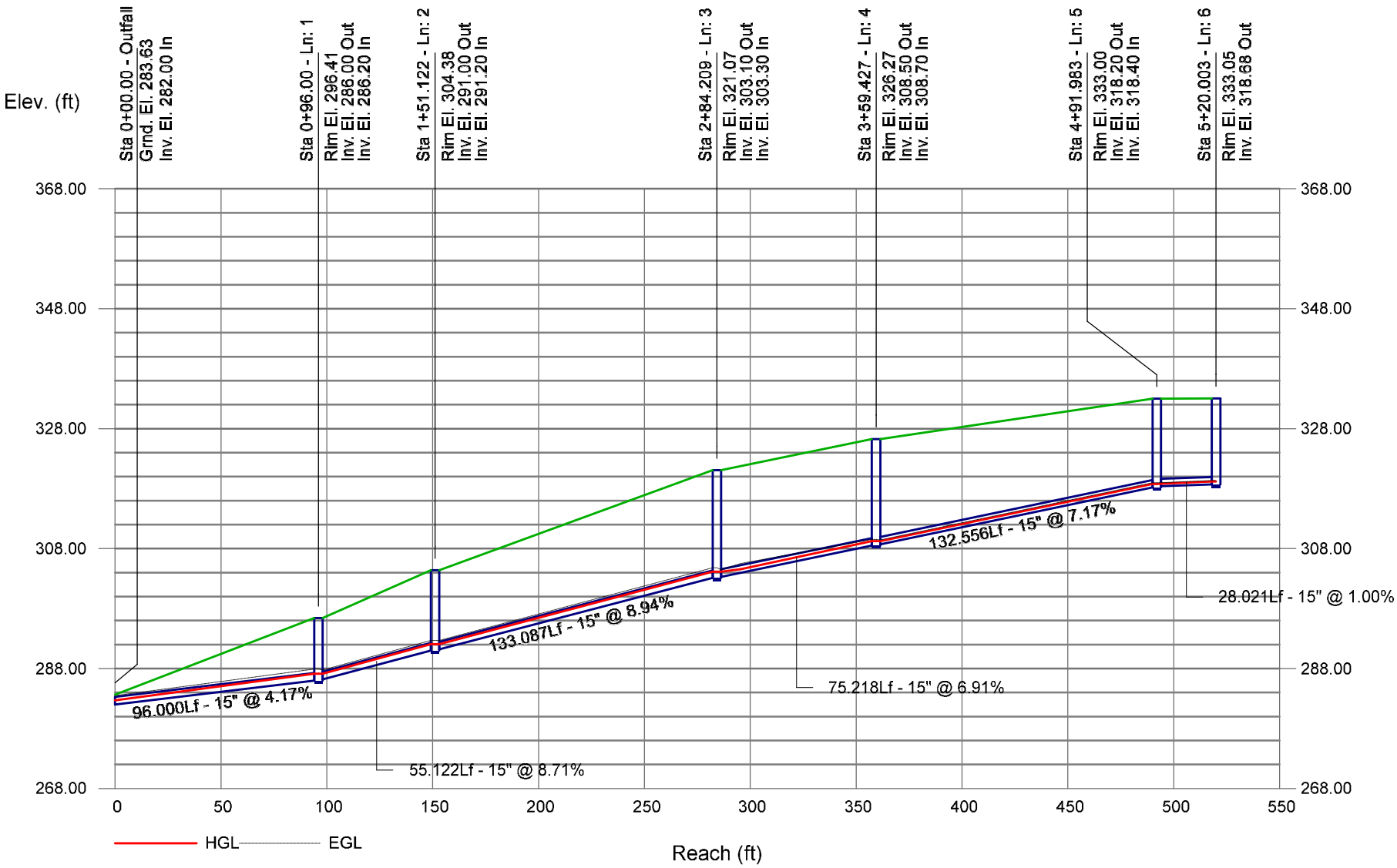
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	15	8.18	282.00	282.71	0.71	0.72	11.31	0.77	283.48	0.000	96.000	286.00	287.12	1.12**	1.16	7.04	0.77	287.89	0.000	0.000	n/a	0.50	0.39
2	15	7.04	286.20	287.12	0.92	0.97	7.25	0.62	287.75	0.000	55.122	291.00	292.06	1.06**	1.11	6.34	0.62	292.69	0.000	0.000	n/a	0.74	n/a
3	15	7.08	291.20	292.06	0.86	0.90	7.85	0.63	292.69	0.000	133.087	303.10	304.16	1.06**	1.11	6.36	0.63	304.79	0.000	0.000	n/a	1.48	0.93
4	15	3.30	303.30	304.16	0.86	0.75	3.65	0.30	304.47	0.000	75.218	308.50	309.23 j	0.73**	0.75	4.42	0.30	309.54	0.000	0.000	n/a	0.91	0.28
5	15	2.11	308.70	309.23	0.53	0.50	4.23	0.22	309.46	0.000	132.556	318.20	318.78	0.58**	0.56	3.79	0.22	319.00	0.000	0.000	n/a	1.50	n/a
6	15	1.55	318.40	318.82	0.42*	0.36	4.32	0.18	319.00	0.000	28.021	318.68	319.17	0.49**	0.45	3.45	0.18	319.36	0.000	0.000	n/a	1.00	0.18
7	18	1.02	308.70	309.23	0.53	0.35	1.82	0.13	309.37	0.000	37.852	309.49	309.87 j	0.38**	0.35	2.94	0.13	310.00	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

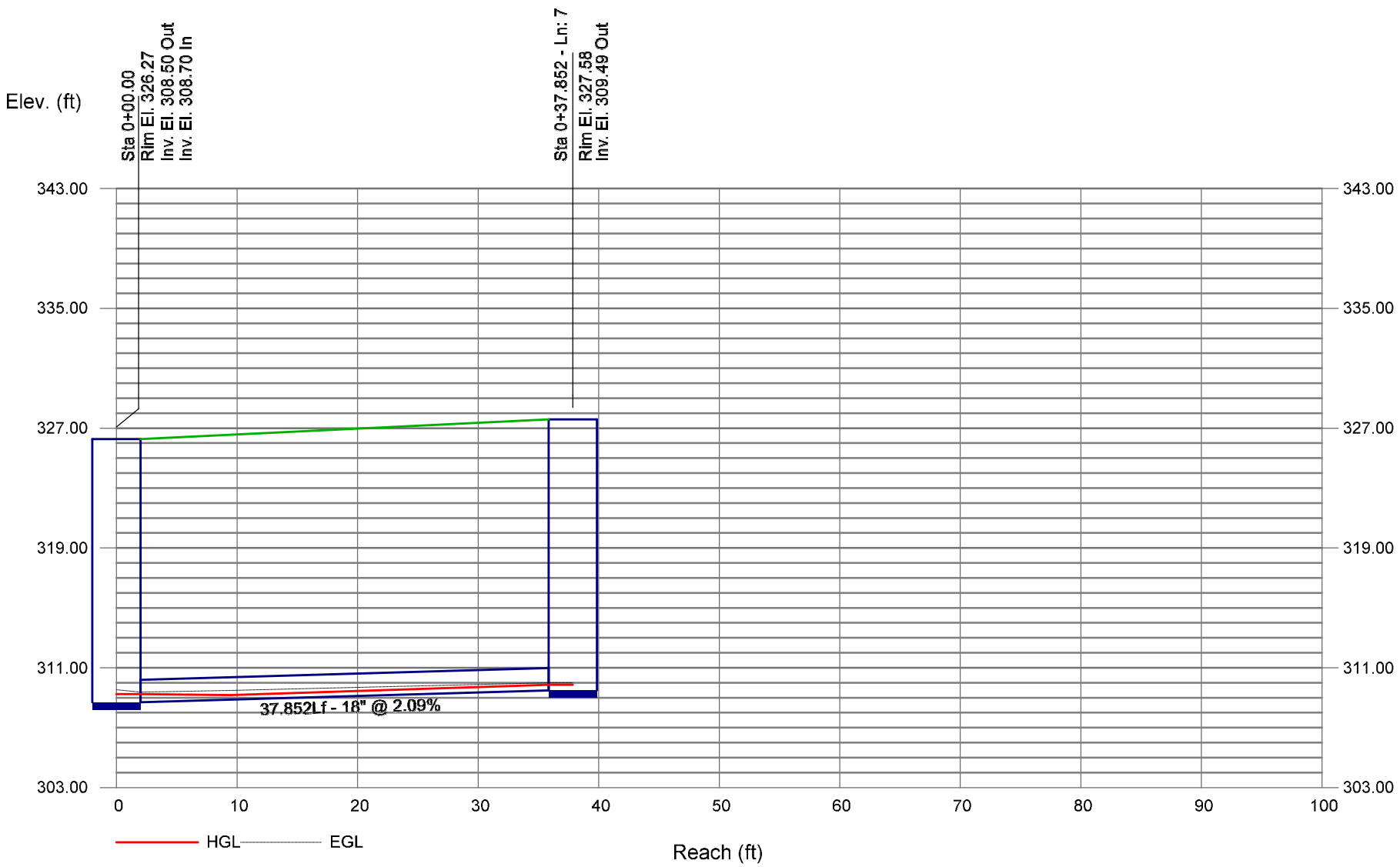
Storm Sewer Profile

Proj. file: SCM 6A Storm Network.stm

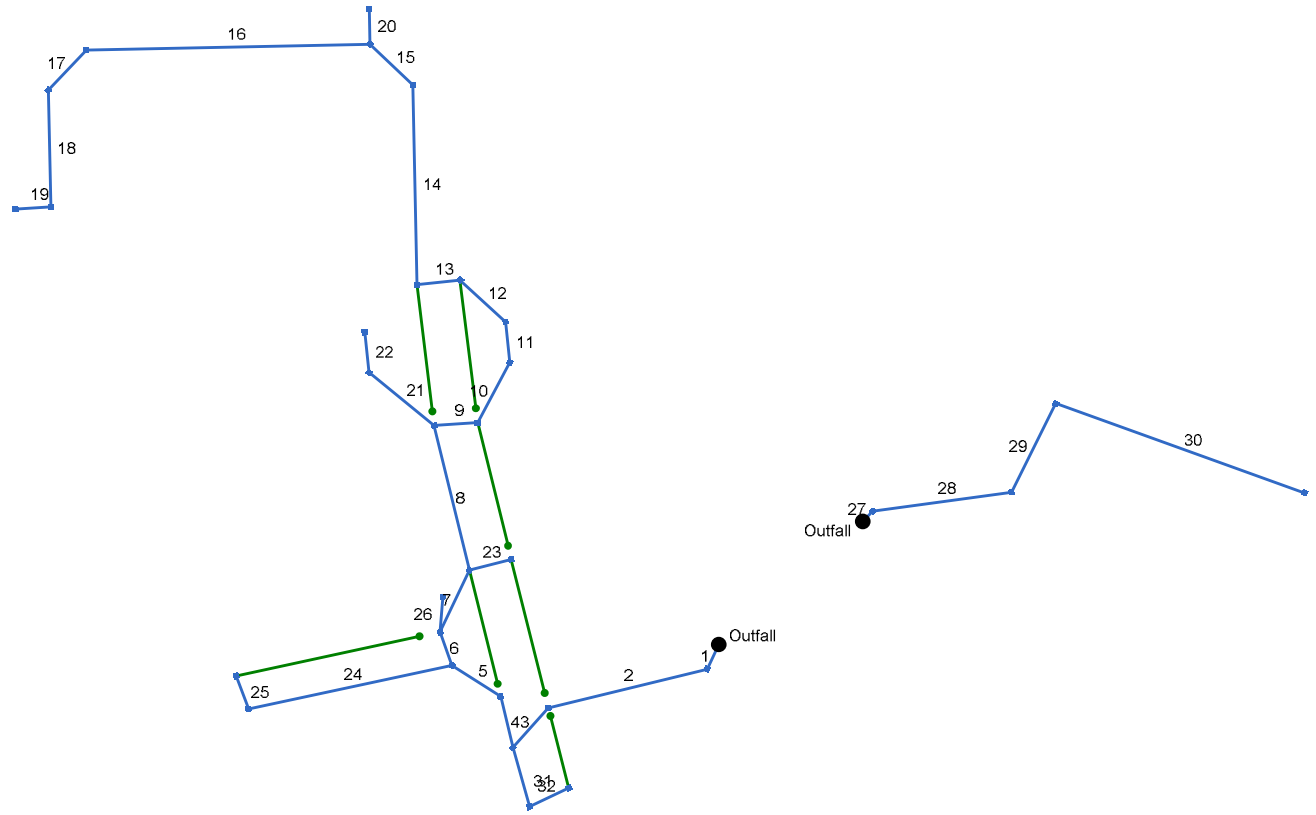


Storm Sewer Profile

Proj. file: SCM 6A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 6B Storm Network.stm	Number of lines: 32	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	21.595	114.988	Comb	0.00	0.73	0.60	10.0	289.00	4.63	290.00	24	Cir	0.013	1.22	311.92	Pipe - (466)
2	1	129.199	51.274	Comb	0.00	0.14	0.60	10.0	290.20	8.36	301.00	24	Cir	0.013	0.93	318.02	Pipe - (465)
3	2	41.927	-34.580	Comb	0.00	0.02	0.60	10.0	301.28	1.00	301.70	24	Cir	0.013	1.95	315.00	Pipe - (546)
4	3	41.516	124.607	Comb	0.00	0.08	0.60	10.0	301.90	10.00	306.05	24	Cir	0.013	1.10	319.55	Pipe - (514)
5	4	45.778	-43.754	Comb	0.00	0.19	0.60	10.0	306.25	9.94	310.80	24	Cir	0.013	1.12	324.12	Pipe - (460)
6	5	28.278	38.229	Comb	0.00	0.30	0.60	10.0	311.00	9.90	313.80	24	Cir	0.013	1.55	325.19	Pipe - (321)
7	6	54.257	44.766	Comb	0.00	0.12	0.60	10.0	314.00	9.95	319.40	24	Cir	0.013	1.21	331.02	Pipe - (459)
8	7	118.068	-39.263	Comb	0.00	0.03	0.60	10.0	319.60	6.27	327.00	24	Cir	0.013	2.20	336.57	Pipe - (513)
9	8	34.519	99.944	Comb	0.00	0.04	0.60	10.0	327.20	1.87	327.85	18	Cir	0.013	1.31	337.19	Pipe - (463)
10	9	54.019	-58.028	Comb	0.00	0.03	0.60	10.0	328.05	0.80	328.48	18	Cir	0.013	0.92	334.59	Pipe - (310)
11	10	32.394	-34.234	Comb	0.00	0.11	0.60	10.0	328.68	0.89	328.97	18	Cir	0.013	1.06	333.35	Pipe - (309)
12	11	49.141	-41.395	Comb	0.00	0.27	0.60	10.0	329.17	1.10	329.71	18	Cir	0.013	1.18	337.00	Pipe - (308)
13	12	34.087	-48.578	Comb	0.00	1.09	0.60	10.0	329.91	0.81	330.19	18	Cir	0.013	1.50	336.78	Pipe - (307)
14	13	158.245	94.812	Comb	0.00	0.15	0.60	10.0	330.48	3.30	335.70	15	Cir	0.013	1.12	344.51	Pipe - (301)
15	14	46.667	-44.997	Comb	0.00	0.25	0.60	10.0	335.90	4.50	338.00	15	Cir	0.013	1.69	345.78	Pipe - (300)
16	15	224.015	-44.997	Comb	0.00	0.04	0.60	10.0	338.20	2.72	344.30	15	Cir	0.013	1.13	351.50	Pipe - (486)
17	16	43.823	-45.023	Comb	0.00	0.05	0.60	10.0	344.50	0.91	344.90	15	Cir	0.013	1.12	351.96	Pipe - (485)
18	17	92.623	-44.977	Comb	0.00	0.13	0.60	10.0	345.10	1.25	346.26	15	Cir	0.013	1.50	353.78	Pipe - (502)
19	18	28.029	87.415	Comb	0.00	0.08	0.60	10.0	346.50	0.61	346.67	15	Cir	0.013	1.00	353.75	Pipe - (503)
20	15	27.999	44.982	Comb	0.00	0.35	0.60	10.0	338.20	-0.71	338.00	15	Cir	0.013	1.00	345.78	Pipe - (305)
21	8	66.408	-37.002	Comb	0.00	0.08	0.60	10.0	327.20	6.63	331.60	15	Cir	0.013	1.12	340.36	Pipe - (537)
22	21	32.002	44.457	Comb	0.00	0.73	0.60	10.0	331.80	0.59	331.99	15	Cir	0.013	1.00	340.43	Pipe - (538)
23	7	33.996	50.101	Comb	0.00	0.08	0.60	10.0	319.60	10.00	323.00	15	Cir	0.013	1.00	331.00	Pipe - (545)

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	5	164.315	-44.670	Comb	0.00	0.25	0.60	10.0	311.00	4.75	318.80	18	Cir	0.013	1.49	329.77	Pipe - (315)
25	24	28.000	81.868	Comb	0.00	0.29	0.60	10.0	319.00	1.00	319.28	15	Cir	0.013	1.00	329.77	Pipe - (320)
26	6	27.975	23.822	DrGrt	0.00	0.77	0.60	10.0	315.79	3.57	316.79	15	Cir	0.013	1.00	322.37	Pipe - (686)
27	End	11.262	-45.988	Comb	0.00	1.01	0.60	10.0	289.00	8.88	290.00	18	Cir	0.013	1.00	310.05	Pipe - (539)
28	27	110.638	38.130	Comb	0.00	0.11	0.60	10.0	290.20	9.76	301.00	15	Cir	0.013	1.28	315.26	Pipe - (540)
29	28	78.569	-55.641	Comb	0.00	0.71	0.60	10.0	301.20	1.91	302.70	15	Cir	0.013	1.49	313.86	Pipe - (541)
30	29	208.966	83.346	Comb	0.00	0.29	0.60	10.0	302.90	1.00	305.00	15	Cir	0.013	1.00	311.00	Pipe - (542)
31	3	48.735	-57.114	Comb	0.00	0.05	0.60	10.0	301.91	0.60	302.20	18	Cir	0.013	1.50	310.31	Pipe - (462)
32	31	34.300	-99.882	Comb	0.00	0.05	0.60	10.0	302.40	0.70	302.64	15	Cir	0.013	1.00	310.04	Pipe - (464)

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 611	Combination	311.92	Rect	4.00	4.00	24	Cir	290.00	24	Cir	290.20
2	CB 612	Combination	318.02	Rect	4.00	4.00	24	Cir	301.00	24	Cir	301.28
3	CB 613	Combination	315.00	Rect	4.00	4.00	24	Cir	301.70	24 18	Cir Cir	301.90 301.91
4	CB 614	Combination	319.55	Rect	4.00	4.00	24	Cir	306.05	24	Cir	306.25
5	CB 615	Combination	324.12	Rect	4.00	4.00	24	Cir	310.80	24 18	Cir Cir	311.00 311.00
6	CB 616	Combination	325.19	Rect	4.00	4.00	24	Cir	313.80	24 15	Cir Cir	314.00 315.79
7	CB 617	Combination	331.02	Rect	4.00	4.00	24	Cir	319.40	24 15	Cir Cir	319.60 319.60
8	CB 618	Combination	336.57	Rect	4.00	4.00	24	Cir	327.00	18 15	Cir Cir	327.20 327.20
9	CB 619	Combination	337.19	Rect	4.00	4.00	18	Cir	327.85	18	Cir	328.05
10	CB 620	Combination	334.59	Rect	4.00	4.00	18	Cir	328.48	18	Cir	328.68
11	CB 621	Combination	333.35	Rect	4.00	4.00	18	Cir	328.97	18	Cir	329.17
12	CB 622	Combination	337.00	Rect	4.00	4.00	18	Cir	329.71	18	Cir	329.91
13	CB 623	Combination	336.78	Rect	4.00	4.00	18	Cir	330.19	15	Cir	330.48
14	CB 624	Combination	344.51	Rect	4.00	4.00	15	Cir	335.70	15	Cir	335.90
15	CB 625	Combination	345.78	Rect	4.00	4.00	15	Cir	338.00	15 15	Cir Cir	338.20 338.20
16	CB 626	Combination	351.50	Rect	4.00	4.00	15	Cir	344.30	15	Cir	344.50
17	CB 627	Combination	351.96	Rect	4.00	4.00	15	Cir	344.90	15	Cir	345.10
18	CB 628	Combination	353.78	Rect	4.00	4.00	15	Cir	346.26	15	Cir	346.50
19	CB 628A	Combination	353.75	Rect	4.00	4.00	15	Cir	346.67			
20	CB 625A	Combination	345.78	Rect	4.00	4.00	15	Cir	338.00			

Project File: SCM 6B Storm Network.stm | Number of Structures: 32 | Run Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 618A	Combination	340.36	Rect	4.00	4.00	15	Cir	331.60	15	Cir	331.80
22	CB 618B	Combination	340.43	Rect	4.00	4.00	15	Cir	331.99			
23	CB 617A	Combination	331.00	Rect	4.00	4.00	15	Cir	323.00			
24	CB 615A	Combination	329.77	Rect	4.00	4.00	18	Cir	318.80	15	Cir	319.00
25	CB 615B	Combination	329.77	Rect	4.00	4.00	15	Cir	319.28			
26	YI 616A	DropGrate	322.37	Rect	4.00	4.00	15	Cir	316.79			
27	JB 631	Combination	310.05	Rect	4.00	4.00	18	Cir	290.00	15	Cir	290.20
28	JB 632	Combination	315.26	Rect	4.00	4.00	15	Cir	301.00	15	Cir	301.20
29	CB 633	Combination	313.86	Rect	4.00	4.00	15	Cir	302.70	15	Cir	302.90
30	CB 634	Combination	311.00	Rect	4.00	4.00	15	Cir	305.00			
31	CB 613A	Combination	310.31	Rect	4.00	4.00	18	Cir	302.20	15	Cir	302.40
32	CB 613B	Combination	310.04	Rect	4.00	4.00	15	Cir	302.64			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (466)	19.60	24	Cir	21.595	289.00	290.00	4.631	294.45*	294.61*	0.74	295.35	End	Combination
2	Pipe - (465)	17.57	24	Cir	129.199	290.20	301.00	8.359	295.35	302.51	n/a	302.51 j	1	Combination
3	Pipe - (546)	17.20	24	Cir	41.927	301.28	301.70	1.002	302.58	303.19	1.42	303.19	2	Combination
4	Pipe - (514)	16.89	24	Cir	41.516	301.90	306.05	9.996	303.19	307.53	0.78	307.53	3	Combination
5	Pipe - (460)	16.70	24	Cir	45.778	306.25	310.80	9.939	307.53	312.27	0.79	312.27	4	Combination
6	Pipe - (321)	14.48	24	Cir	28.278	311.00	313.80	9.902	312.27	315.17	0.96	315.17	5	Combination
7	Pipe - (459)	11.24	24	Cir	54.257	314.00	319.40	9.953	315.17	320.60	0.61	320.60	6	Combination
8	Pipe - (513)	10.72	24	Cir	118.068	319.60	327.00	6.268	320.60	328.17	n/a	328.17	7	Combination
9	Pipe - (463)	8.12	18	Cir	34.519	327.20	327.85	1.868	328.17	328.95	n/a	328.95	8	Combination
10	Pipe - (310)	8.03	18	Cir	54.019	328.05	328.48	0.800	329.11	329.57	0.48	329.57	9	Combination
11	Pipe - (309)	7.96	18	Cir	32.394	328.68	328.97	0.892	329.70	330.06	0.55	330.06	10	Combination
12	Pipe - (308)	7.65	18	Cir	49.141	329.17	329.71	1.105	330.09	330.78	n/a	330.78	11	Combination
13	Pipe - (307)	6.81	18	Cir	34.087	329.91	330.19	0.813	330.86	331.20	n/a	331.20	12	Combination
14	Pipe - (301)	3.40	15	Cir	158.245	330.48	335.70	3.300	331.20	336.44	n/a	336.44	13	Combination
15	Pipe - (300)	2.93	15	Cir	46.667	335.90	338.00	4.500	336.44	338.69	n/a	338.69	14	Combination
16	Pipe - (486)	1.02	15	Cir	224.015	338.20	344.30	2.723	338.69	344.70	n/a	344.70 j	15	Combination
17	Pipe - (485)	0.89	15	Cir	43.823	344.50	344.90	0.913	344.82	345.27	0.15	345.27	16	Combination
18	Pipe - (502)	0.73	15	Cir	92.623	345.10	346.26	1.252	345.37	346.59	n/a	346.59	17	Combination
19	Pipe - (503)	0.28	15	Cir	28.029	346.50	346.67	0.607	346.70	346.88	0.07	346.88	18	Combination
20	Pipe - (305)	1.23	15	Cir	27.999	338.20	338.00	-0.714	339.45*	339.46*	0.02	339.48	15	Combination
21	Pipe - (537)	2.84	15	Cir	66.408	327.20	331.60	6.626	328.17	332.28	n/a	332.28 j	8	Combination
22	Pipe - (538)	2.57	15	Cir	32.002	331.80	331.99	0.594	332.44	332.63	0.25	332.63	21	Combination
23	Pipe - (545)	0.28	15	Cir	33.996	319.60	323.00	10.001	320.60	323.21	n/a	323.21 j	7	Combination
24	Pipe - (315)	1.89	18	Cir	164.315	311.00	318.80	4.747	312.27	319.32	n/a	319.32 j	5	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (320)	1.02	15	Cir	28.000	319.00	319.28	1.000	319.34	319.68	n/a	319.68	24	Combination
26	Pipe - (686)	2.71	15	Cir	27.975	315.79	316.79	3.575	316.19	317.45	n/a	317.45	6	DropGrate
27	Pipe - (539)	6.95	18	Cir	11.262	289.00	290.00	8.879	294.45*	294.50*	0.24	294.74	End	Combination
28	Pipe - (540)	3.70	15	Cir	110.638	290.20	301.00	9.762	294.74	301.78	n/a	301.78 j	27	Combination
29	Pipe - (541)	3.36	15	Cir	78.569	301.20	302.70	1.909	301.78	303.44	n/a	303.44	28	Combination
30	Pipe - (542)	1.02	15	Cir	208.966	302.90	305.00	1.005	303.44	305.40	n/a	305.40 j	29	Combination
31	Pipe - (462)	0.35	18	Cir	48.735	301.91	302.20	0.595	303.19	302.42	n/a	302.42	3	Combination
32	Pipe - (464)	0.18	15	Cir	34.300	302.40	302.64	0.700	302.55	302.80	n/a	302.80	31	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 611	2.57	0.00	2.57	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.25	12.29	0.25	12.29	0.0	Off
2	CB 612	0.49	0.00	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	1
3	CB 613	0.06	0.00	0.06	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.04	0.75	0.00	0.00	0.0	Off
4	CB 614	0.28	0.08	0.36	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.09	1.49	0.00	0.00	0.0	3
5	CB 615	0.67	0.03	0.63	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.006	2.00	0.060	0.020	0.013	0.19	5.30	0.09	1.42	0.0	4
6	CB 616	1.06	0.05	1.10	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.14	2.78	0.02	0.37	0.0	5
7	CB 617	0.42	0.06	0.49	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	4
8	CB 618	0.11	1.18	1.23	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.063	2.00	0.060	0.020	0.013	0.15	3.74	0.05	0.85	0.0	7
9	CB 619	0.14	0.05	0.20	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.09	1.57	0.00	0.00	0.0	23
10	CB 620	0.11	0.00	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.06	1.03	0.00	0.00	0.0	9
11	CB 621	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	10
12	CB 622	0.95	0.00	0.90	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.16	3.91	0.06	0.92	0.0	9
13	CB 623	3.84	0.00	2.67	1.17	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.23	7.48	0.16	3.94	0.0	8
14	CB 624	0.53	0.06	0.59	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.39	0.00	0.00	0.0	13
15	CB 625	0.88	0.26	1.08	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.16	3.87	0.05	0.91	0.0	14
16	CB 626	0.14	0.00	0.14	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.42	0.00	0.00	0.0	15
17	CB 627	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.012	2.00	0.060	0.020	0.013	0.10	1.70	0.00	0.00	0.0	16
18	CB 628	0.46	0.00	0.46	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.59	0.02	0.27	0.0	17
19	CB 628A	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.83	0.00	0.00	0.0	Off
20	CB 625A	1.23	0.00	0.97	0.26	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.23	7.35	0.14	2.94	0.0	15
21	CB 618A	0.28	0.54	0.81	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.049	2.00	0.060	0.020	0.013	0.14	2.92	0.03	0.44	0.0	8
22	CB 618B	2.57	0.00	2.03	0.54	Comb	6.0	1.50	0.00	3.00	2.50	0.049	2.00	0.060	0.020	0.013	0.20	6.03	0.12	1.98	0.0	21
23	CB 617A	0.28	0.00	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.36	0.00	0.00	0.0	2

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 615A	0.88	0.00	0.86	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.039	2.00	0.060	0.020	0.013	0.15	3.38	0.04	0.66	0.0	5
25	CB 615B	1.02	0.00	0.97	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.039	2.00	0.060	0.020	0.013	0.16	3.76	0.05	0.85	0.0	6
26	YI 616A	2.71	0.00	1.77	0.94	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.050	0.020	0.013	0.16	18.10	0.16	18.10	0.0	Off
27	JB 631	3.56	0.00	3.56	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.30	15.01	0.30	15.01	0.0	Off
28	JB 632	0.39	0.71	1.10	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	7.40	0.15	7.40	0.0	Off
29	CB 633	2.50	0.10	1.89	0.71	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.22	7.15	0.15	3.40	0.0	28
30	CB 634	1.02	0.00	0.92	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.65	0.08	1.25	0.0	29
31	CB 613A	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.07	1.14	0.00	0.00	0.0	3
32	CB 613B	0.18	0.00	0.18	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.07	1.14	0.00	0.00	0.0	2

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	24	19.60	289.00	294.45	2.00	3.14	6.24	0.61	295.06	0.751	21.595	290.00	294.61	2.00	3.14	6.24	0.61	295.22	0.751	0.751	0.162	1.22	0.74
2	24	17.57	290.20	295.35	2.00	2.54	5.60	0.49	295.84	0.604	129.199	301.00	302.51 j	1.51**	2.54	6.91	0.74	303.25	0.716	0.660	n/a	0.93	n/a
3	24	17.20	301.28	302.58	1.30*	2.17	7.93	0.73	303.31	0.000	41.927	301.70	303.19	1.49**	2.52	6.83	0.73	303.92	0.000	0.000	n/a	1.95	1.42
4	24	16.89	301.90	303.19	1.29	2.15	7.86	0.71	303.91	0.000	41.516	306.05	307.53	1.48**	2.49	6.77	0.71	308.24	0.000	0.000	n/a	1.10	0.78
5	24	16.70	306.25	307.53	1.28	2.12	7.86	0.71	308.24	0.000	45.778	310.80	312.27	1.47**	2.48	6.74	0.71	312.98	0.000	0.000	n/a	1.12	0.79
6	24	14.48	311.00	312.27	1.27	2.11	6.87	0.62	312.89	0.000	28.278	313.80	315.17	1.37**	2.29	6.31	0.62	315.79	0.000	0.000	n/a	1.55	0.96
7	24	11.24	314.00	315.17	1.17	1.91	5.89	0.51	315.68	0.000	54.257	319.40	320.60	1.20**	1.97	5.70	0.51	321.11	0.000	0.000	n/a	1.21	0.61
8	24	10.72	319.60	320.60	1.00	1.57	6.81	0.49	321.09	0.000	118.068	327.00	328.17	1.17**	1.91	5.60	0.49	328.66	0.000	0.000	n/a	2.20	n/a
9	18	8.12	327.20	328.17	0.97	1.21	6.70	0.53	328.70	0.000	34.519	327.85	328.95	1.10**	1.39	5.83	0.53	329.48	0.000	0.000	n/a	1.31	n/a
10	18	8.03	328.05	329.11	1.07*	1.35	5.97	0.52	329.64	0.000	54.019	328.48	329.57	1.10**	1.38	5.80	0.52	330.10	0.000	0.000	n/a	0.92	0.48
11	18	7.96	328.68	329.70	1.02*	1.28	6.24	0.52	330.22	0.000	32.394	328.97	330.06	1.09**	1.38	5.78	0.52	330.58	0.000	0.000	n/a	1.06	0.55
12	18	7.65	329.17	330.09	0.92*	1.13	6.74	0.50	330.59	0.000	49.141	329.71	330.78	1.07**	1.35	5.67	0.50	331.28	0.000	0.000	n/a	1.18	n/a
13	18	6.81	329.91	330.86	0.94*	1.17	5.83	0.45	331.31	0.000	34.087	330.19	331.20	1.01**	1.26	5.39	0.45	331.65	0.000	0.000	n/a	1.50	n/a
14	15	3.40	330.48	331.20	0.72	0.73	4.64	0.31	331.51	0.000	158.245	335.70	336.44	0.74**	0.76	4.47	0.31	336.75	0.000	0.000	n/a	1.12	n/a
15	15	2.93	335.90	336.44	0.54	0.51	5.73	0.28	336.72	0.000	46.667	338.00	338.69	0.69**	0.69	4.24	0.28	338.97	0.000	0.000	n/a	1.69	n/a
16	15	1.02	338.20	338.69	0.49	0.34	2.31	0.14	338.83	0.000	224.015	344.30	344.70 j	0.40**	0.34	3.05	0.14	344.84	0.000	0.000	n/a	1.13	n/a
17	15	0.89	344.50	344.82	0.32*	0.25	3.58	0.13	344.96	0.000	43.823	344.90	345.27	0.37**	0.30	2.93	0.13	345.40	0.000	0.000	n/a	1.12	0.15
18	15	0.73	345.10	345.37	0.27*	0.19	3.78	0.12	345.49	0.000	92.623	346.26	346.59	0.33**	0.26	2.78	0.12	346.71	0.000	0.000	n/a	1.50	n/a
19	15	0.28	346.50	346.70	0.20*	0.13	2.21	0.07	346.77	0.000	28.029	346.67	346.88	0.21**	0.13	2.14	0.07	346.95	0.000	0.000	n/a	1.00	0.07
20	15	1.23	338.20	339.45	1.25*	1.23	1.01	0.02	339.47	0.036	27.999	338.00	339.46	1.25	1.23	1.01	0.02	339.48	0.036	0.036	0.010	1.00	0.02
21	15	2.84	327.20	328.17	0.97	0.68	2.77	0.27	328.45	0.000	66.408	331.60	332.28 j	0.68**	0.68	4.19	0.27	332.55	0.000	0.000	n/a	1.12	n/a
22	15	2.57	331.80	332.44	0.64*	0.63	4.09	0.25	332.69	0.000	32.002	331.99	332.63	0.64**	0.64	4.05	0.25	332.89	0.000	0.000	n/a	1.00	0.25

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

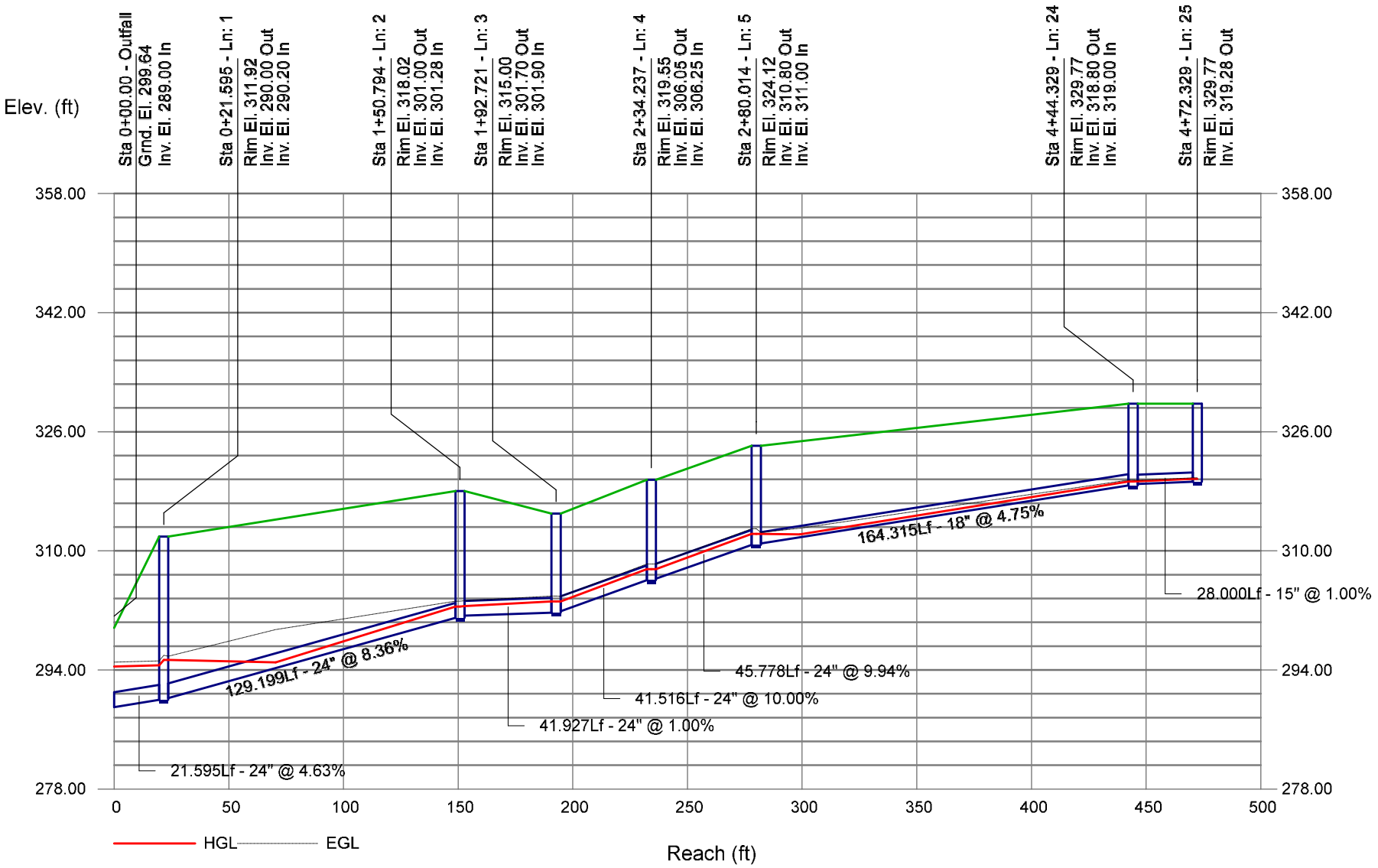
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.28	319.60	320.60	1.00	0.13	0.27	0.07	320.67	0.000	33.996	323.00	323.21 j	0.21**	0.13	2.14	0.07	323.28	0.000	0.000	n/a	1.00	0.07
24	18	1.89	311.00	312.27	1.27	0.54	1.19	0.19	312.46	0.000	164.315	318.80	319.32 j	0.52**	0.54	3.50	0.19	319.51	0.000	0.000	n/a	1.49	n/a
25	15	1.02	319.00	319.34	0.34*	0.27	3.84	0.14	319.48	0.000	28.000	319.28	319.68	0.40**	0.34	3.05	0.14	319.82	0.000	0.000	n/a	1.00	n/a
26	15	2.71	315.79	316.19	0.40*	0.34	8.00	0.26	316.46	0.000	27.975	316.79	317.45	0.66**	0.66	4.12	0.26	317.71	0.000	0.000	n/a	1.00	n/a
27	18	6.95	289.00	294.45	1.50	1.77	3.93	0.24	294.69	0.438	11.262	290.00	294.50	1.50	1.77	3.93	0.24	294.74	0.438	0.438	0.049	1.00	0.24
28	15	3.70	290.20	294.74	1.25	0.80	3.01	0.14	294.88	0.328	110.638	301.00	301.78 j	0.78**	0.80	4.62	0.33	302.11	0.655	0.491	n/a	1.28	0.42
29	15	3.36	301.20	301.78	0.58	0.55	6.08	0.31	302.08	0.000	78.569	302.70	303.44	0.74**	0.75	4.45	0.31	303.75	0.000	0.000	n/a	1.49	n/a
30	15	1.02	302.90	303.44	0.54	0.34	2.02	0.14	303.58	0.000	208.966	305.00	305.40 j	0.40**	0.34	3.05	0.14	305.54	0.000	0.000	n/a	1.00	n/a
31	18	0.35	301.91	303.19	1.28	0.16	0.22	0.08	303.27	0.000	48.735	302.20	302.42	0.22**	0.16	2.20	0.08	302.49	0.000	0.000	n/a	1.50	n/a
32	15	0.18	302.40	302.55	0.15*	0.09	2.02	0.06	302.61	0.000	34.300	302.64	302.80	0.16**	0.09	1.89	0.06	302.86	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

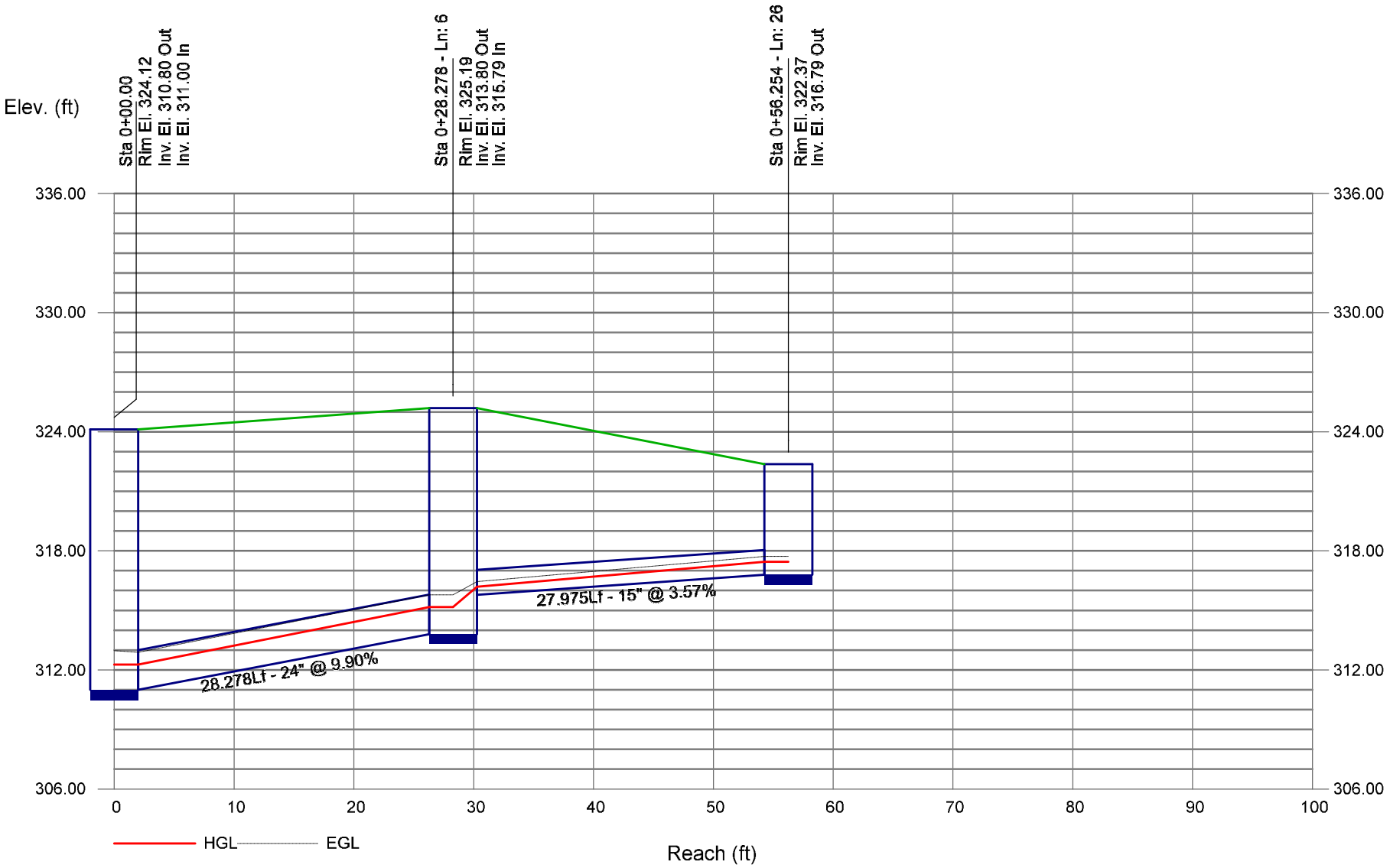
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



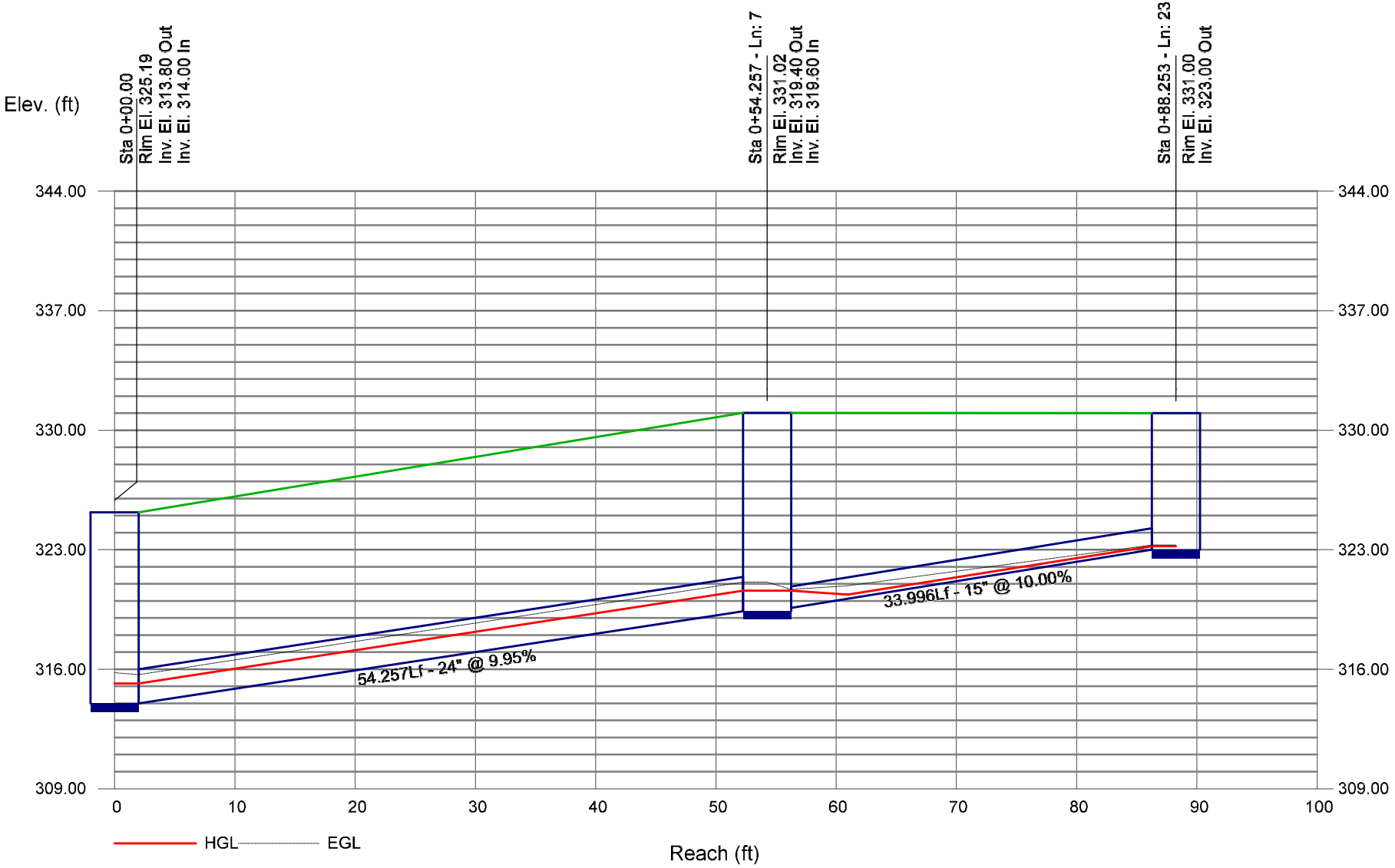
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



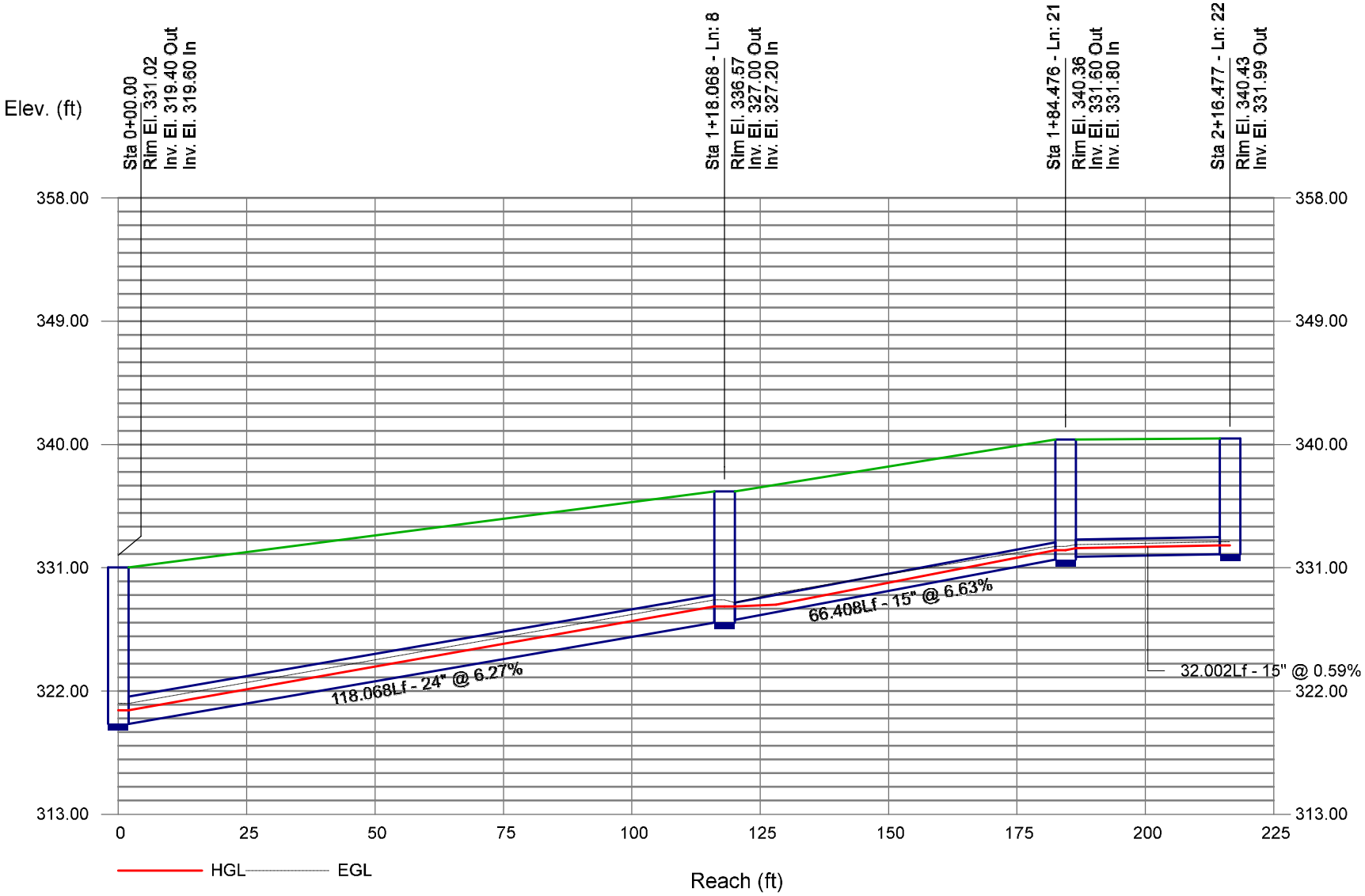
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



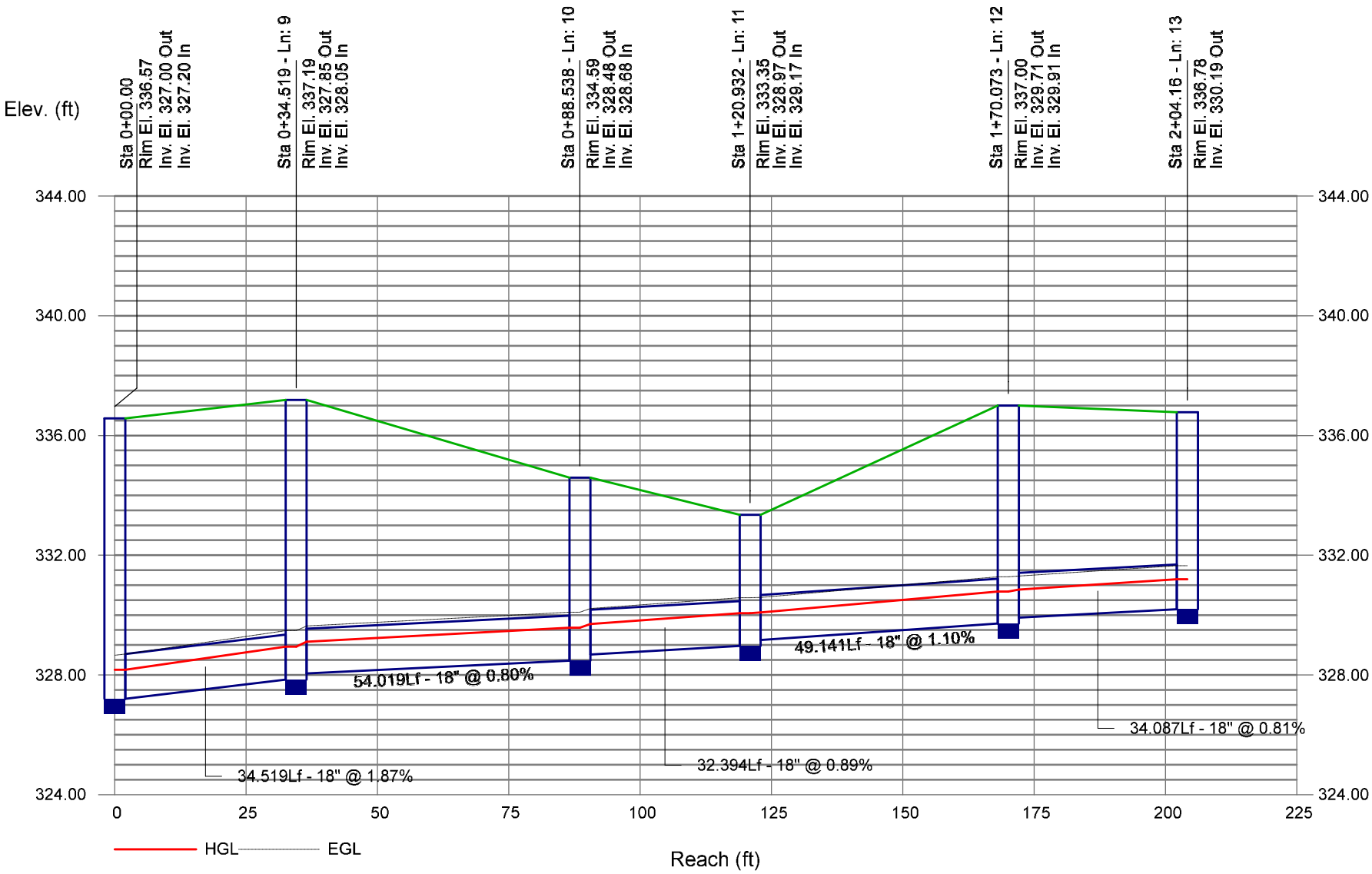
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



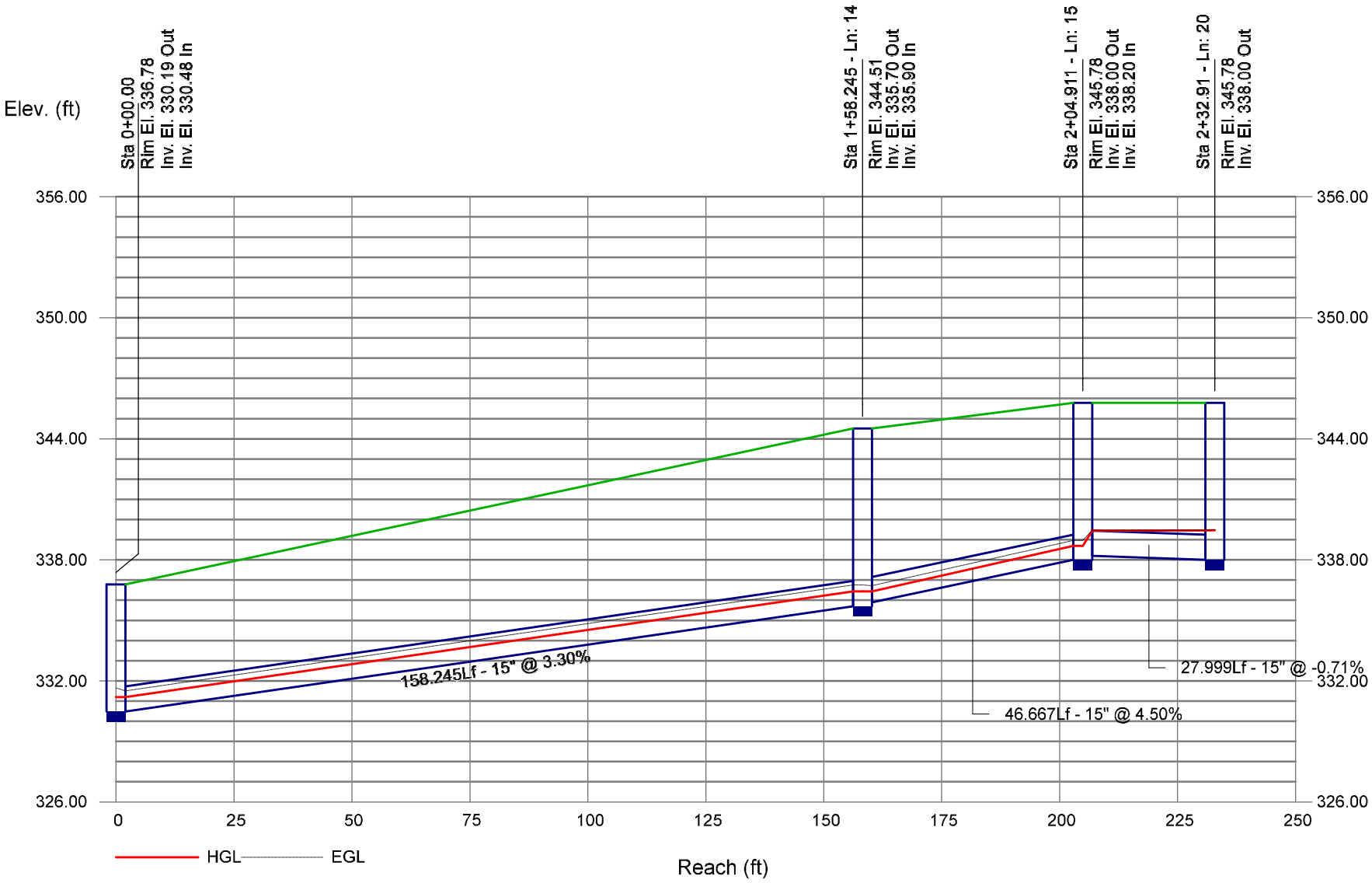
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



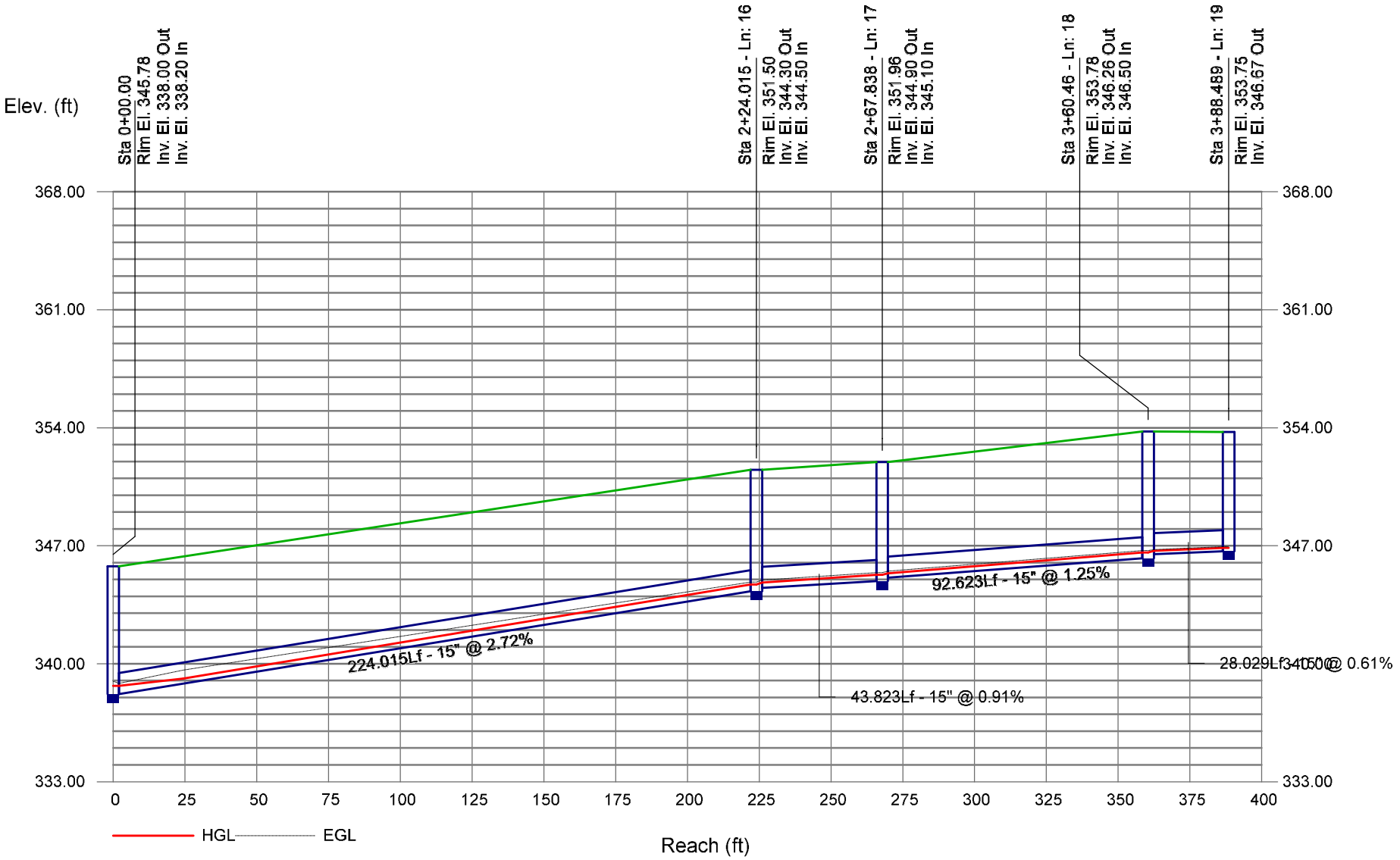
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



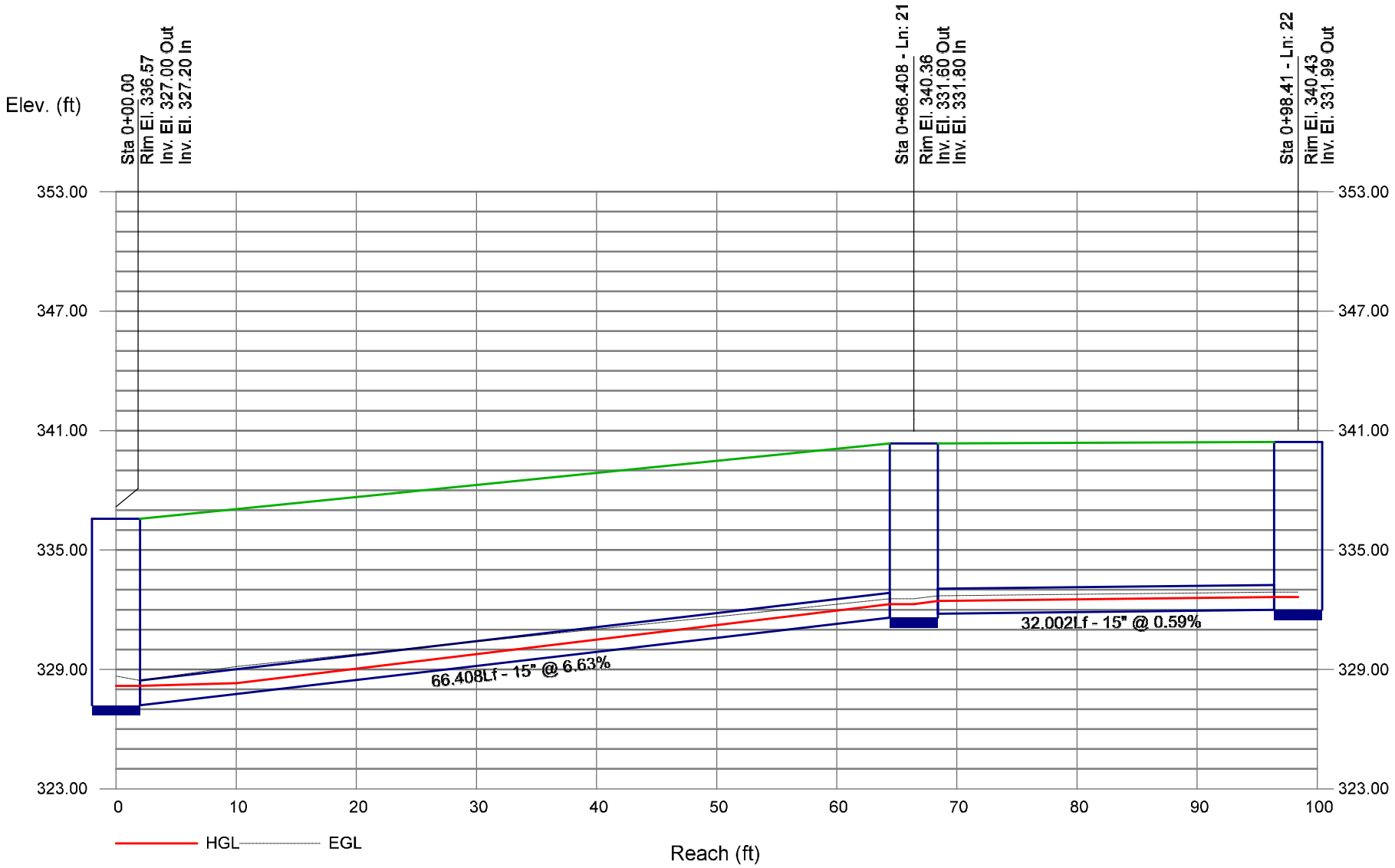
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



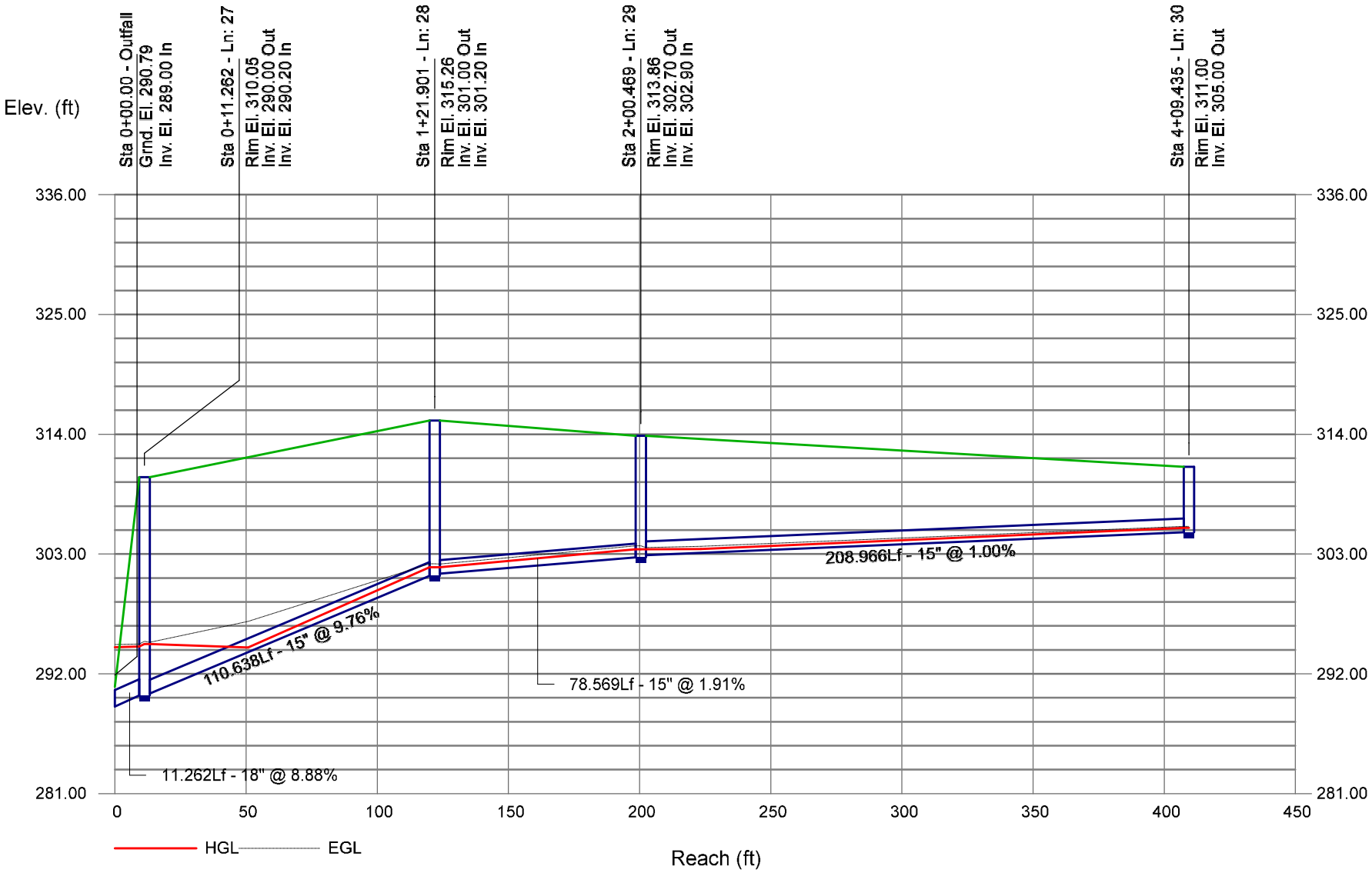
Storm Sewer Profile

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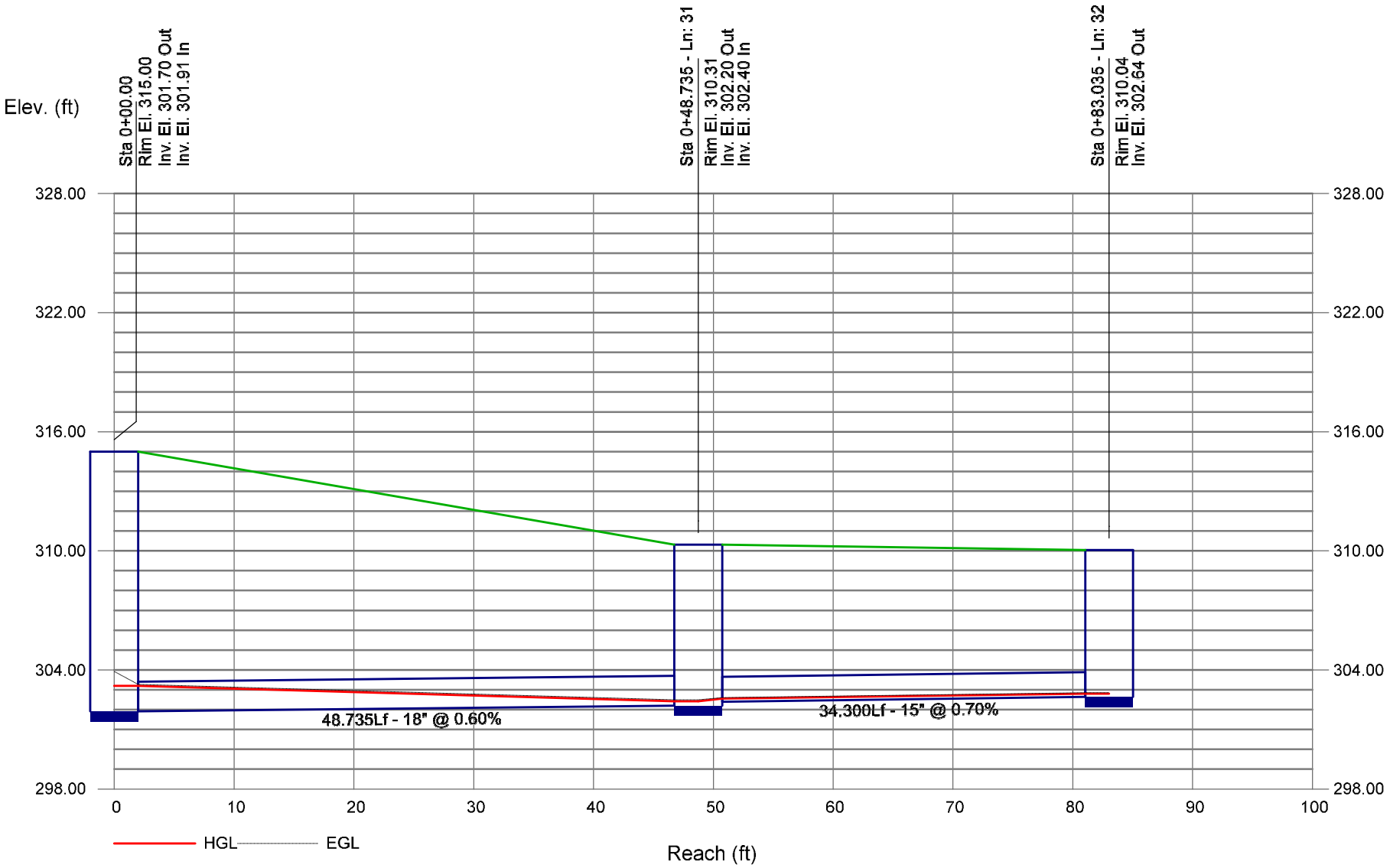
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm

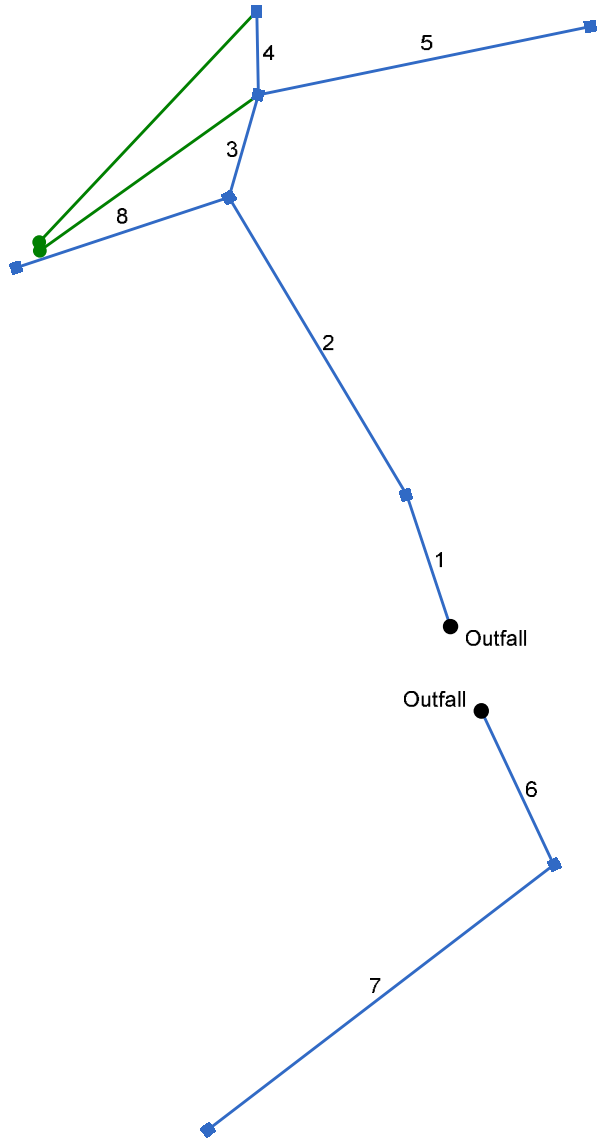


Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	50.793	-108.351	MH	0.00	0.65	0.60	10.0	322.50	0.49	322.75	30	Cir	0.013	0.26	330.94	Pipe - (505)
2	1	126.978	-12.394	MH	0.00	0.00	0.00	10.0	322.95	3.58	327.50	30	Cir	0.013	0.98	337.93	Pipe - (504)
3	2	39.048	46.583	Comb	0.00	0.26	0.60	10.0	327.75	7.04	330.50	18	Cir	0.013	1.36	339.11	Pipe - (480)
4	3	30.684	-16.910	Comb	0.00	1.04	0.60	10.0	330.70	0.68	330.91	18	Cir	0.013	1.00	339.93	Pipe - (487)
5	3	124.068	62.476	Comb	0.00	0.31	0.60	10.0	330.70	5.43	337.44	15	Cir	0.013	1.00	345.79	Pipe - (481)
6	End	62.247	64.868	MH	0.00	0.00	0.00	0.0	322.50	9.64	328.50	24	Cir	0.013	0.98	342.42	Pipe - (609)
7	6	159.463	77.557	Comb	0.00	0.18	0.60	10.0	328.70	9.59	344.00	18	Cir	0.013	1.00	349.87	Pipe - (608)
8	2	82.186	-77.626	Comb	0.00	1.08	0.60	10.0	327.75	0.69	328.32	24	Cir	0.013	1.00	335.52	Pipe - (506)

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 701	Manhole	330.94	Rect	4.00	4.00	30	Cir	322.75	30	Cir	322.95
2	JB 702	Manhole	337.93	Rect	4.00	4.00	30	Cir	327.50	18 24	Cir Cir	327.75 327.75
3	CB 703	Combination	339.11	Rect	4.00	4.00	18	Cir	330.50	18 15	Cir Cir	330.70 330.70
4	CB 703A	Combination	339.93	Rect	4.00	4.00	18	Cir	330.91			
5	CB 704	Combination	345.79	Rect	4.00	4.00	15	Cir	337.44			
6	JB 751	Manhole	342.42	Rect	4.00	4.00	24	Cir	328.50	18	Cir	328.70
7	CB 752	Combination	349.87	Rect	4.00	4.00	18	Cir	344.00			
8	CB 702A	Combination	335.52	Rect	4.00	4.00	24	Cir	328.32			

Project File: SCM 7 Storm Network.stm | Number of Structures: 8 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (505)	11.14	30	Cir	50.793	322.50	322.75	0.492	327.19*	327.23*	0.02	327.25	End	Manhole
2	Pipe - (504)	9.16	30	Cir	126.978	322.95	327.50	3.583	327.25	328.51	n/a	328.51 j	1	Manhole
3	Pipe - (480)	5.51	18	Cir	39.048	327.75	330.50	7.043	328.51	331.40	0.52	331.40	2	Combination
4	Pipe - (487)	3.66	18	Cir	30.684	330.70	330.91	0.684	331.40	331.64	0.29	331.64	3	Combination
5	Pipe - (481)	1.09	15	Cir	124.068	330.70	337.44	5.433	331.40	337.85	n/a	337.85 j	3	Combination
6	Pipe - (609)	0.62	24	Cir	62.247	322.50	328.50	9.639	327.19	328.77	n/a	328.77 j	End	Manhole
7	Pipe - (608)	0.63	18	Cir	159.463	328.70	344.00	9.595	328.85	344.30	0.10	344.30	6	Combination
8	Pipe - (506)	3.81	24	Cir	82.186	327.75	328.32	0.694	328.51	329.00	n/a	329.00 j	2	Combination

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 701	2.29	0.00	0.00	2.29	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	JB 702	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 703	0.93	0.02	0.94	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.14	2.85	0.02	0.40	0.0	8
4	CB 703A	3.66	0.00	2.74	0.92	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.21	6.58	0.14	2.77	0.0	8
5	CB 704	1.09	0.00	1.07	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.14	3.19	0.03	0.57	0.0	3
6	JB 751	0.00	0.00	0.00	0.00	MH	6.0	1.50	0.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
7	CB 752	0.63	0.00	0.62	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.39	0.04	0.65	0.0	Off
8	CB 702A	3.81	0.93	4.74	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.40	15.95	0.40	15.95	0.0	Off

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 72.00 / (Inlet time + 12.50) ^ 0.80; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

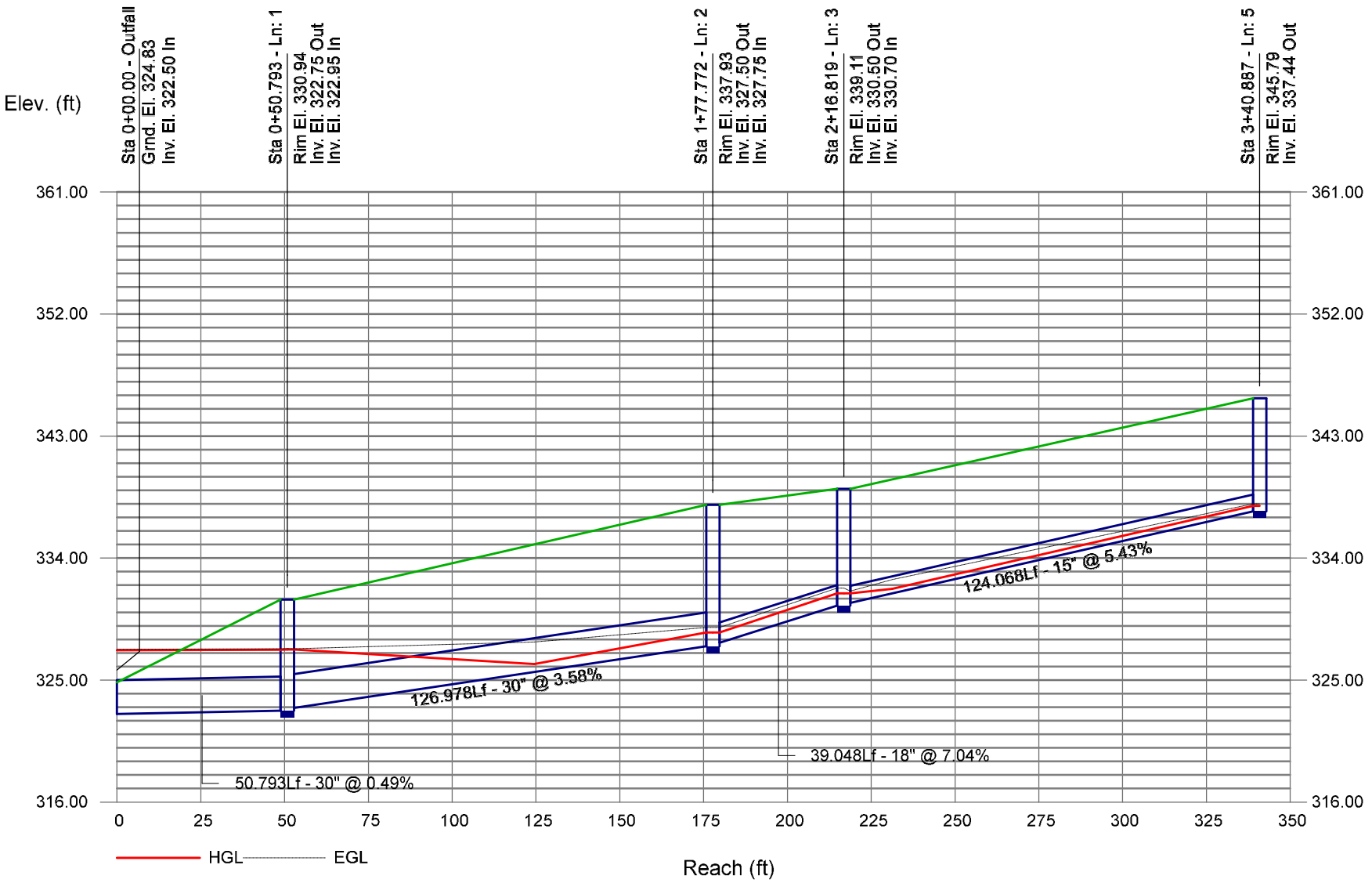
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	30	11.14	322.50	327.19	2.50	4.91	2.27	0.08	327.27	0.074	50.793	322.75	327.23	2.50	4.91	2.27	0.08	327.31	0.074	0.074	0.037	0.26	0.02
2	30	9.16	322.95	327.25	2.50	1.85	1.87	0.05	327.30	0.050	126.978	327.50	328.51 j	1.01**	1.85	4.94	0.38	328.89	0.426	0.238	n/a	0.98	n/a
3	18	5.51	327.75	328.51	0.76	0.90	6.15	0.38	328.89	0.000	39.048	330.50	331.40	0.90**	1.11	4.95	0.38	331.79	0.000	0.000	n/a	1.36	0.52
4	18	3.66	330.70	331.40	0.70	0.82	4.49	0.29	331.69	0.000	30.684	330.91	331.64	0.73**	0.85	4.29	0.29	331.93	0.000	0.000	n/a	1.00	0.29
5	15	1.09	330.70	331.40	0.70	0.35	1.53	0.15	331.55	0.000	124.068	337.44	337.85 j	0.41**	0.35	3.11	0.15	338.00	0.000	0.000	n/a	1.00	n/a
6	24	0.62	322.50	327.19	2.00	0.25	0.20	0.00	327.19	0.001	62.247	328.50	328.77 j	0.27**	0.25	2.45	0.09	328.86	0.493	0.247	n/a	0.98	n/a
7	18	0.63	328.70	328.85	0.15*	0.09	7.23	0.10	328.95	0.000	159.463	344.00	344.30	0.30**	0.25	2.58	0.10	344.40	0.000	0.000	n/a	1.00	0.10
8	24	3.81	327.75	328.51	0.76	0.95	3.48	0.25	328.76	0.000	82.186	328.32	329.00 j	0.68**	0.95	4.01	0.25	329.25	0.000	0.000	n/a	1.00	0.25

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

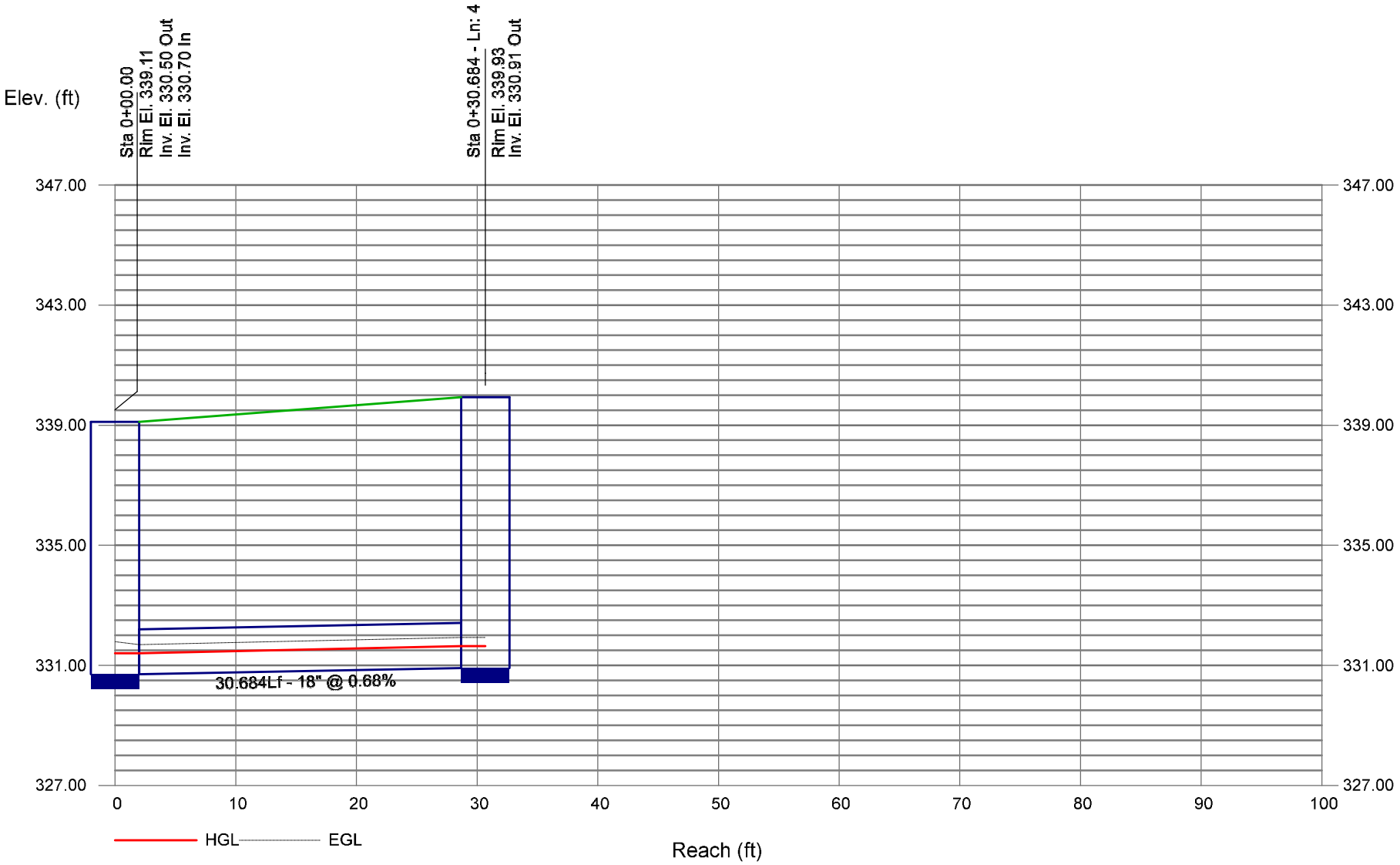
Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm



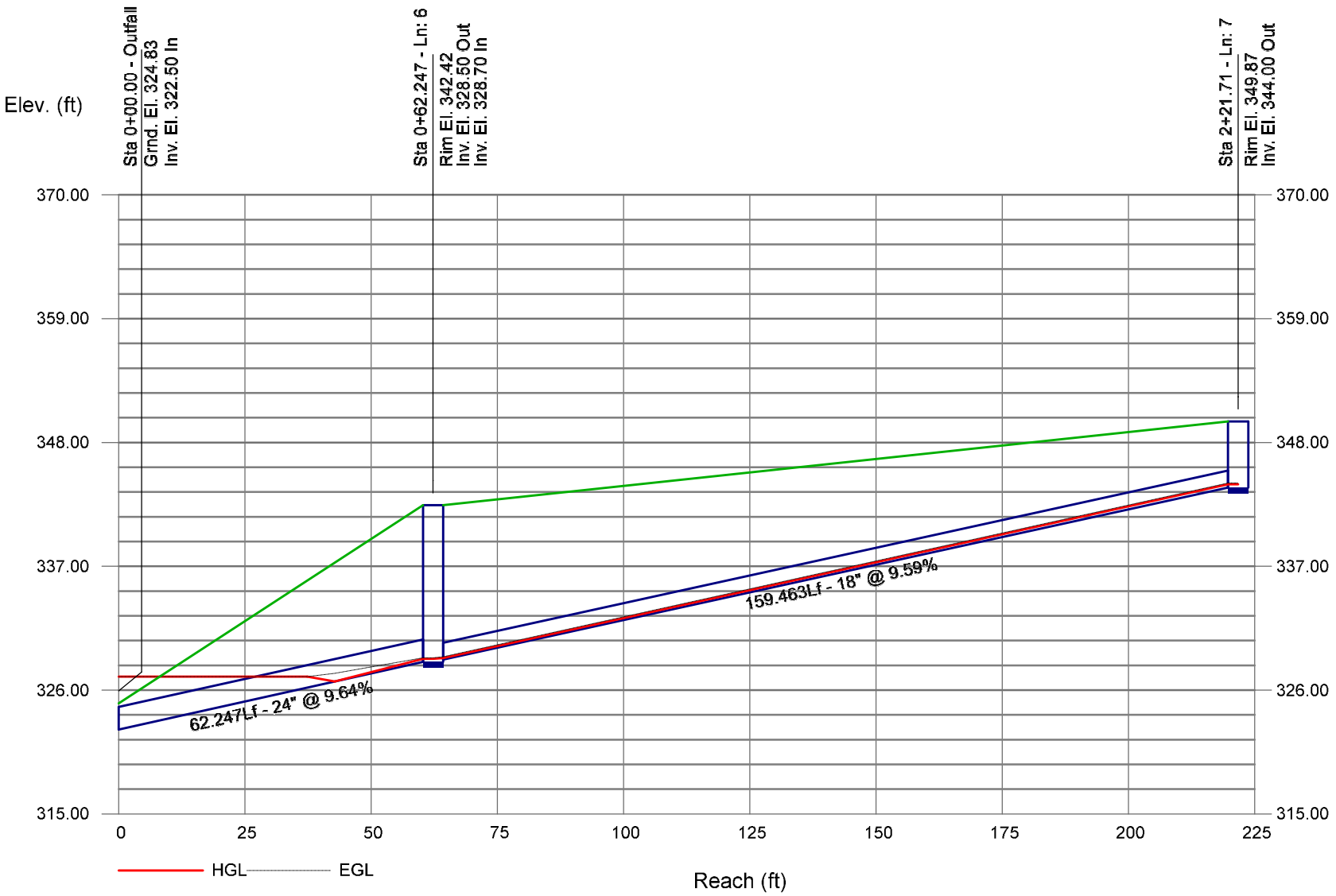
Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm



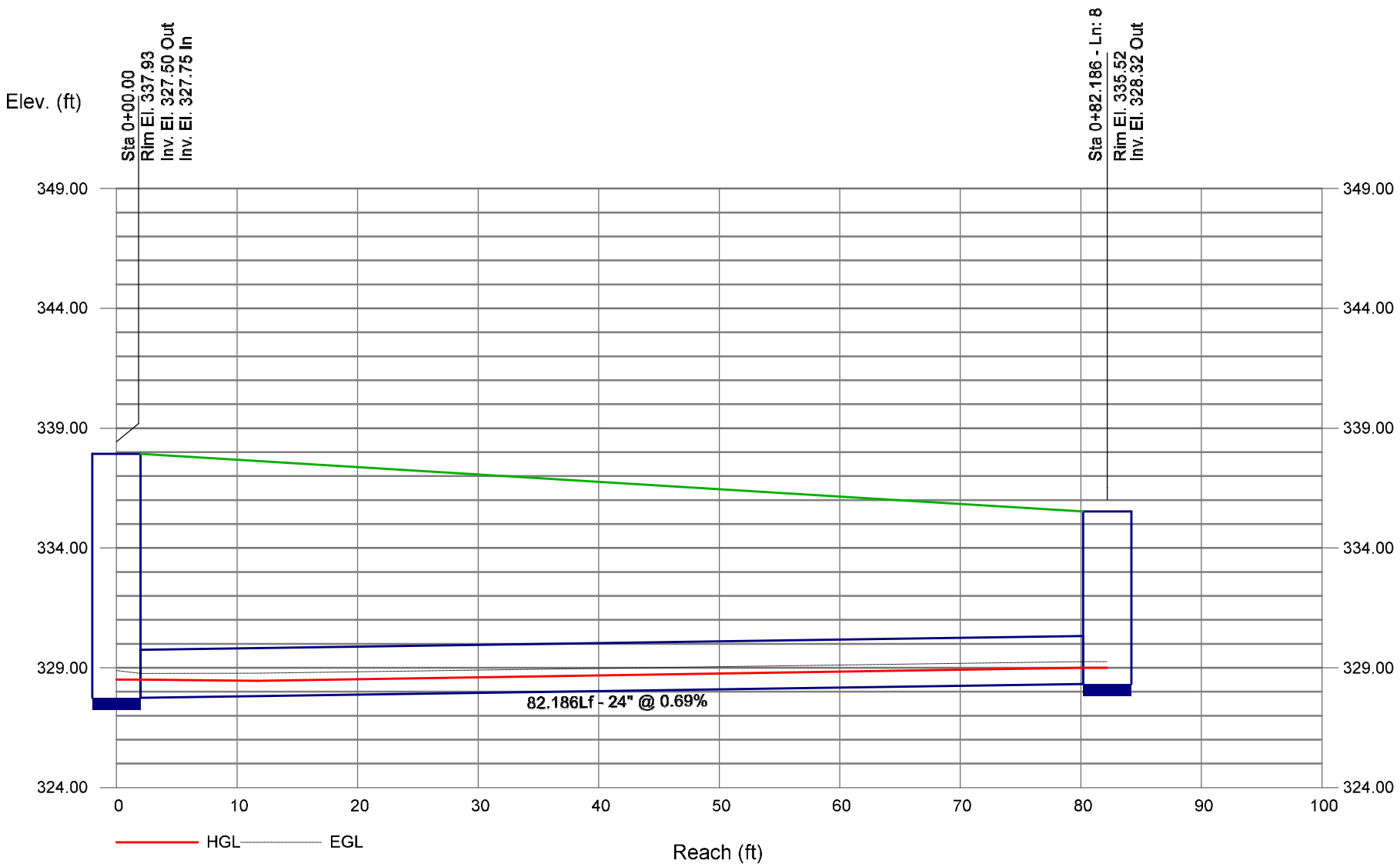
Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm

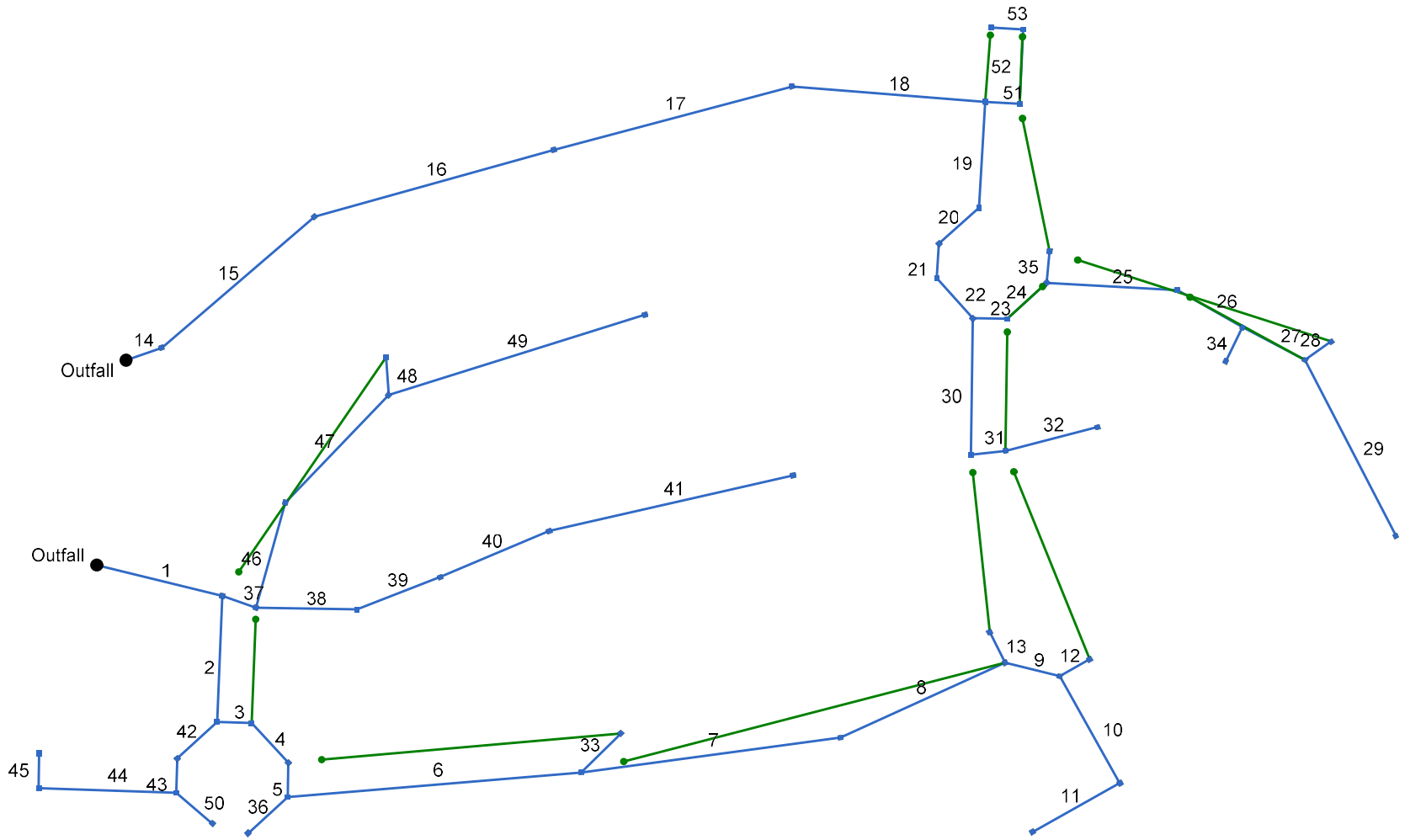


Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 1A Storm Network.stm	Number of lines: 53	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	104.799	13.820	Comb	0.00	0.36	0.60	10.0	346.50	6.87	353.70	30	Cir	0.013	2.12	359.93	Pipe - (71)
2	1	102.646	78.603	Comb	0.00	0.06	0.60	10.0	354.20	0.54	354.75	24	Cir	0.013	1.68	361.97	Pipe - (77)
3	2	28.000	-90.230	Comb	0.00	0.05	0.60	10.0	355.25	0.54	355.40	24	Cir	0.013	1.13	361.97	Pipe - (115)
4	3	43.841	45.001	Comb	0.00	0.39	0.60	10.0	355.60	3.76	357.25	24	Cir	0.013	1.11	363.81	Pipe - (76)
5	4	28.006	43.837	Comb	0.00	0.39	0.60	10.0	357.45	0.54	357.60	24	Cir	0.013	1.71	363.82	Pipe - (75)
6	5	238.741	-95.835	Comb	0.00	0.72	0.60	10.0	357.80	2.18	363.00	18	Cir	0.013	1.03	371.19	Pipe - (101)
7	6	211.860	-2.905	MH	0.00	0.00	0.00	10.0	363.25	3.16	369.95	15	Cir	0.013	0.34	377.80	Pipe - (590)
8	7	146.606	-16.815	Comb	0.00	0.03	0.60	10.0	370.15	1.84	372.85	15	Cir	0.013	1.50	380.34	Pipe - (589)
9	8	45.582	38.390	Comb	0.00	0.07	0.60	10.0	373.05	4.50	375.10	15	Cir	0.013	1.65	383.02	Pipe - (588)
10	9	99.530	46.930	Comb	0.00	0.14	0.60	10.0	375.30	6.33	381.60	15	Cir	0.013	1.50	388.02	Pipe - (652)
11	10	81.500	89.712	DrGrt	0.00	0.25	0.60	10.0	381.80	6.00	386.69	15	Cir	0.013	1.00	391.42	Pipe - (651)
12	9	28.000	-43.358	Comb	0.00	0.21	0.60	10.0	375.30	1.00	375.58	15	Cir	0.013	1.00	383.02	Pipe - (587)
13	8	28.000	-91.856	Comb	0.00	0.01	0.60	10.0	373.05	1.00	373.33	15	Cir	0.013	1.00	380.27	Pipe - (592)
14	End	30.559	-19.488	DrGrt	0.00	0.21	0.60	10.0	346.50	6.87	348.60	30	Cir	0.013	0.63	357.59	Pipe - (444)
15	14	163.303	-21.267	DrGrt	0.00	0.48	0.60	10.0	348.70	0.85	350.09	30	Cir	0.013	0.72	357.89	Pipe - (443)
16	15	201.556	25.100	DrGrt	0.00	0.25	0.60	10.0	350.19	0.50	351.20	30	Cir	0.013	0.50	361.22	Pipe - (442)
17	16	199.856	0.657	DrGrt	0.00	0.36	0.60	10.0	351.30	0.50	352.30	30	Cir	0.013	0.58	361.43	Pipe - (441)
18	17	156.736	19.586	Comb	0.00	0.10	0.60	10.0	352.52	0.50	353.30	30	Cir	0.013	1.50	362.39	Pipe - (440)
19	18	86.389	88.640	Comb	0.00	0.05	0.60	10.0	353.50	4.40	357.30	24	Cir	0.013	1.13	365.23	Pipe - (447)
20	19	43.841	45.000	Comb	0.00	0.03	0.60	10.0	357.50	2.97	358.80	24	Cir	0.013	1.13	366.95	Pipe - (446)
21	20	28.000	-45.000	Comb	0.00	0.06	0.60	10.0	359.00	0.50	359.14	24	Cir	0.013	1.13	367.13	Pipe - (453)
22	21	43.841	-45.000	Comb	0.00	0.15	0.60	10.0	359.35	0.57	359.60	24	Cir	0.013	1.62	367.86	Pipe - (452)
23	22	28.018	-47.046	Comb	0.00	0.08	0.60	10.0	360.10	0.50	360.24	18	Cir	0.013	1.11	367.66	Pipe - (24)

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	43.139	-43.893	Comb	0.00	0.13	0.60	10.0	360.44	0.60	360.70	18	Cir	0.013	1.61	367.09	Pipe - (15)
25	24	106.050	45.939	Comb	0.00	0.08	0.60	10.0	360.90	0.50	361.43	18	Cir	0.013	0.75	368.26	Pipe - (14)
26	25	60.787	26.463	MH	0.00	0.00	0.00	10.0	361.65	1.07	362.30	15	Cir	0.013	1.00	370.19	Pipe - (11) (1)
27	26	57.233	-1.964	Comb	0.00	0.18	0.60	10.0	362.50	4.89	365.30	15	Cir	0.013	1.41	372.92	Pipe - (11)
28	27	26.000	-63.106	Comb	0.00	0.22	0.60	10.0	365.50	8.04	367.59	15	Cir	0.013	1.00	372.97	Pipe - (67)
29	27	161.000	35.067	Comb	0.00	0.16	0.60	10.0	365.50	5.99	375.15	15	Cir	0.013	1.00	383.13	Pipe - (489)
30	22	111.287	42.545	Comb	0.00	0.21	0.60	10.0	359.80	3.86	364.10	24	Cir	0.013	1.50	373.40	Pipe - (451)
31	30	28.000	-97.237	Comb	0.00	0.18	0.60	10.0	364.30	0.50	364.44	24	Cir	0.013	0.50	373.13	Pipe - (445)
32	31	77.032	-8.187	DrGrt	0.00	1.57	0.60	10.0	365.19	0.51	365.58	18	Cir	0.013	1.00	367.52	Pipe - (476)
33	6	45.226	-39.872	Comb	0.00	0.46	0.60	10.0	363.25	1.99	364.15	15	Cir	0.013	1.00	372.31	Pipe - (103)
34	26	31.121	85.999	DrGrt	0.00	0.14	0.60	10.0	362.50	2.99	363.43	15	Cir	0.013	1.00	368.68	Pipe - (477)
35	24	26.015	-41.858	Comb	0.00	0.25	0.60	10.0	360.95	0.50	361.08	15	Cir	0.013	1.00	366.92	Pipe - (68)
36	5	43.126	46.030	Comb	0.00	0.09	0.60	10.0	357.85	1.60	358.54	15	Cir	0.013	1.00	364.25	Pipe - (690)
37	1	28.983	5.756	Comb	0.00	0.26	0.60	10.0	354.20	0.52	354.35	30	Cir	0.013	1.50	359.93	Pipe - (70)
38	37	81.813	-18.633	DrGrt	0.00	0.22	0.60	10.0	354.55	0.73	355.15	24	Cir	0.013	0.65	362.05	Pipe - (510)
39	38	72.154	-22.294	DrGrt	0.00	0.35	0.60	10.0	355.65	0.69	356.15	18	Cir	0.013	0.50	359.76	Pipe - (509)
40	39	96.135	-1.660	DrGrt	0.00	1.21	0.60	10.0	356.35	0.68	357.00	18	Cir	0.013	0.50	360.90	Pipe - (508)
41	40	202.630	10.144	DrGrt	0.00	0.49	0.60	10.0	357.25	2.27	361.84	15	Cir	0.013	1.00	366.70	Pipe - (507)
42	2	43.841	44.771	Comb	0.00	0.05	0.60	10.0	355.50	0.50	355.72	15	Cir	0.013	1.14	363.43	Pipe - (105)
43	42	28.003	-45.813	Comb	0.00	0.06	0.60	10.0	355.95	0.50	356.09	15	Cir	0.013	1.82	363.51	Pipe - (116)
44	43	111.664	90.556	Comb	0.00	0.09	0.60	10.0	356.29	0.50	356.85	15	Cir	0.013	1.50	362.60	Pipe - (104)
45	44	28.509	88.780	Comb	0.00	0.07	0.60	10.0	356.85	0.49	356.99	15	Cir	0.013	1.00	362.46	Pipe - (79)
46	37	88.766	-94.067	Comb	0.00	0.21	0.60	10.0	355.10	0.62	355.65	18	Cir	0.013	0.79	360.54	Pipe - (69)

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	121.131	28.141	Comb	0.00	0.80	0.60	10.0	355.75	0.62	356.50	18	Cir	0.013	1.21	362.14	Pipe - (61)
48	47	30.909	-46.977	Comb	0.00	0.45	0.60	10.0	356.70	0.49	356.85	15	Cir	0.013	1.00	362.43	Pipe - (72)
49	47	217.760	28.893	Comb	0.00	0.26	0.60	10.0	356.60	0.96	358.70	15	Cir	0.013	1.00	364.92	Pipe - (536)
50	43	38.578	-50.663	Comb	0.00	0.14	0.60	10.0	356.29	1.01	356.68	15	Cir	0.013	1.00	364.15	Pipe - (689)
51	18	28.000	-1.360	Comb	0.00	0.15	0.60	10.0	354.33	0.61	354.50	18	Cir	0.013	1.50	362.28	Pipe - (439)
52	51	60.544	-90.674	Comb	0.00	0.09	0.60	10.0	354.70	0.66	355.10	18	Cir	0.013	1.50	361.72	Pipe - (583)
53	52	26.000	-89.364	Comb	0.00	0.10	0.60	10.0	355.35	0.58	355.50	15	Cir	0.013	1.00	361.72	Pipe - (582)

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 101	Combination	359.93	Rect	4.00	4.00	30	Cir	353.70	24 30	Cir Cir	354.20 354.20
2	CB 102	Combination	361.97	Rect	4.00	4.00	24	Cir	354.75	24 15	Cir Cir	355.25 355.50
3	CB 106	Combination	361.97	Rect	4.00	4.00	24	Cir	355.40	24	Cir	355.60
4	CB 107	Combination	363.81	Rect	4.00	4.00	24	Cir	357.25	24	Cir	357.45
5	CB 108	Combination	363.82	Rect	4.00	4.00	24	Cir	357.60	18 15	Cir Cir	357.80 357.85
6	CB 109	Combination	371.19	Rect	4.00	4.00	18	Cir	363.00	15 15	Cir Cir	363.25 363.25
7	JB 110	Manhole	377.80	Rect	4.00	4.00	15	Cir	369.95	15	Cir	370.15
8	CB 111	Combination	380.34	Rect	4.00	4.00	15	Cir	372.85	15 15	Cir Cir	373.05 373.05
9	CB 112	Combination	383.02	Rect	4.00	4.00	15	Cir	375.10	15 15	Cir Cir	375.30 375.30
10	CB 112B	Combination	388.02	Rect	4.00	4.00	15	Cir	381.60	15	Cir	381.80
11	YI 112C	DropGrate	391.42	Rect	4.00	4.00	15	Cir	386.69			
12	CB 112A	Combination	383.02	Rect	4.00	4.00	15	Cir	375.58			
13	CB 111A	Combination	380.27	Rect	4.00	4.00	15	Cir	373.33			
14	YI 121	DropGrate	357.59	Rect	4.00	4.00	30	Cir	348.60	30	Cir	348.70
15	YI 122	DropGrate	357.89	Rect	4.00	4.00	30	Cir	350.09	30	Cir	350.19
16	YI 123	DropGrate	361.22	Rect	4.00	4.00	30	Cir	351.20	30	Cir	351.30
17	YI 124	DropGrate	361.43	Rect	4.00	4.00	30	Cir	352.30	30	Cir	352.52
18	CB 125	Combination	362.39	Rect	4.00	4.00	30	Cir	353.30	24 18	Cir Cir	353.50 354.33
19	CB 126	Combination	365.23	Rect	4.00	4.00	24	Cir	357.30	24	Cir	357.50

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
20	CB 127	Combination	366.95	Rect	4.00	4.00	24	Cir	358.80	24	Cir	359.00
21	CB 128	Combination	367.13	Rect	4.00	4.00	24	Cir	359.14	24	Cir	359.35
22	CB 129	Combination	367.86	Rect	4.00	4.00	24	Cir	359.60	18 24	Cir Cir	360.10 359.80
23	CB 130	Combination	367.66	Rect	4.00	4.00	18	Cir	360.24	18	Cir	360.44
24	CB 131	Combination	367.09	Rect	4.00	4.00	18	Cir	360.70	18 15	Cir Cir	360.90 360.95
25	CB 132	Combination	368.26	Rect	4.00	4.00	18	Cir	361.43	15	Cir	361.65
26	JB 133	Manhole	370.19	Rect	4.00	4.00	15	Cir	362.30	15 15	Cir Cir	362.50 362.50
27	CB 134	Combination	372.92	Rect	4.00	4.00	15	Cir	365.30	15 15	Cir Cir	365.50 365.50
28	CB 134A	Combination	372.97	Rect	4.00	4.00	15	Cir	367.59			
29	CB 135	Combination	383.13	Rect	4.00	4.00	15	Cir	375.15			
30	CB 136	Combination	373.40	Rect	4.00	4.00	24	Cir	364.10	24	Cir	364.30
31	CB 136A	Combination	373.13	Rect	4.00	4.00	24	Cir	364.44	18	Cir	365.19
32	YI 136B	DropGrate	367.52	Rect	4.00	4.00	18	Cir	365.58			
33	CB 109A	Combination	372.31	Rect	4.00	4.00	15	Cir	364.15			
34	YI 133A	DropGrate	368.68	Rect	4.00	4.00	15	Cir	363.43			
35	CB 131A	Combination	366.92	Rect	4.00	4.00	15	Cir	361.08			
36	CB 108A	Combination	364.25	Rect	4.00	4.00	15	Cir	358.54			
37	CB 113	Combination	359.93	Rect	4.00	4.00	30	Cir	354.35	24 18	Cir Cir	354.55 355.10
38	YI 113A	DropGrate	362.05	Rect	4.00	4.00	24	Cir	355.15	18	Cir	355.65
39	YI 113B	DropGrate	359.76	Rect	4.00	4.00	18	Cir	356.15	18	Cir	356.35

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
40	YI 113C	DropGrate	360.90	Rect	4.00	4.00	18	Cir	357.00	15	Cir	357.25
41	YI 113D	DropGrate	366.70	Rect	4.00	4.00	15	Cir	361.84			
42	CB 103	Combination	363.43	Rect	4.00	4.00	15	Cir	355.72	15	Cir	355.95
43	CB 104	Combination	363.51	Rect	4.00	4.00	15	Cir	356.09	15 15	Cir Cir	356.29 356.29
44	CB 105	Combination	362.60	Rect	4.00	4.00	15	Cir	356.85	15	Cir	356.85
45	CB 105A	Combination	362.46	Rect	4.00	4.00	15	Cir	356.99			
46	CB 114	Combination	360.54	Rect	4.00	4.00	18	Cir	355.65	18	Cir	355.75
47	CB 115	Combination	362.14	Rect	4.00	4.00	18	Cir	356.50	15 15	Cir Cir	356.70 356.60
48	CB 115A	Combination	362.43	Rect	4.00	4.00	15	Cir	356.85			
49	CB 116	Combination	364.92	Rect	4.00	4.00	15	Cir	358.70			
50	CB 104A	Combination	364.15	Rect	4.00	4.00	15	Cir	356.68			
51	CB 125A	Combination	362.28	Rect	4.00	4.00	18	Cir	354.50	18	Cir	354.70
52	CB 137	Combination	361.72	Rect	4.00	4.00	18	Cir	355.10	15	Cir	355.35
53	CB 138	Combination	361.72	Rect	4.00	4.00	15	Cir	355.50			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (71)	27.28	30	Cir	104.799	346.50	353.70	6.870	353.25	355.48	n/a	355.48 j	End	Combination
2	Pipe - (77)	11.45	24	Cir	102.646	354.20	354.75	0.536	355.48	355.97	0.85	356.82	1	Combination
3	Pipe - (115)	9.84	24	Cir	28.000	355.25	355.40	0.536	356.82	356.52	0.52	356.52	2	Combination
4	Pipe - (76)	9.70	24	Cir	43.841	355.60	357.25	3.764	356.52	358.36	n/a	358.36	3	Combination
5	Pipe - (75)	8.35	24	Cir	28.006	357.45	357.60	0.536	358.46	358.63	0.70	358.63	4	Combination
6	Pipe - (101)	6.79	18	Cir	238.741	357.80	363.00	2.178	358.63	364.01	n/a	364.01	5	Combination
7	Pipe - (590)	2.63	15	Cir	211.860	363.25	369.95	3.162	364.01	370.60	n/a	370.60 j	6	Manhole
8	Pipe - (589)	2.67	15	Cir	146.606	370.15	372.85	1.842	370.62	373.50	0.39	373.50	7	Combination
9	Pipe - (588)	2.53	15	Cir	45.582	373.05	375.10	4.497	373.50	375.74	0.42	375.74	8	Combination
10	Pipe - (652)	1.49	15	Cir	99.530	375.30	381.60	6.330	375.74	382.08	0.27	382.08	9	Combination
11	Pipe - (651)	0.97	15	Cir	81.500	381.80	386.69	6.000	382.08	387.08	n/a	387.08	10	DropGrate
12	Pipe - (587)	0.81	15	Cir	28.000	375.30	375.58	1.000	375.74	375.93	n/a	375.93 j	9	Combination
13	Pipe - (592)	0.04	15	Cir	28.000	373.05	373.33	1.000	373.50	373.41	0.03	373.41	8	Combination
14	Pipe - (444)	16.74	30	Cir	30.559	346.50	348.60	6.872	353.25*	353.30*	0.11	353.42	End	DropGrate
15	Pipe - (443)	16.43	30	Cir	163.303	348.70	350.09	0.851	353.42*	353.68*	0.13	353.80	14	DropGrate
16	Pipe - (442)	15.30	30	Cir	201.556	350.19	351.20	0.501	353.80*	354.08*	0.08	354.16	15	DropGrate
17	Pipe - (441)	14.90	30	Cir	199.856	351.30	352.30	0.500	354.16	354.38	0.11	354.48	16	DropGrate
18	Pipe - (440)	13.88	30	Cir	156.736	352.52	353.30	0.498	354.48	354.55	n/a	354.55	17	Combination
19	Pipe - (447)	12.41	24	Cir	86.389	353.50	357.30	4.399	354.55	358.56	n/a	358.56	18	Combination
20	Pipe - (446)	12.27	24	Cir	43.841	357.50	358.80	2.965	358.56	360.06	0.61	360.06	19	Combination
21	Pipe - (453)	12.20	24	Cir	28.000	359.00	359.14	0.500	360.31	360.45	0.55	361.00	20	Combination
22	Pipe - (452)	12.03	24	Cir	43.841	359.35	359.60	0.570	361.00	360.85	0.86	360.85	21	Combination
23	Pipe - (24)	4.47	18	Cir	28.018	360.10	360.24	0.500	360.94	361.08	0.33	361.41	22	Combination
24	Pipe - (15)	4.21	18	Cir	43.139	360.44	360.70	0.603	361.41	361.49	n/a	361.49	23	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (14)	2.87	18	Cir	106.050	360.90	361.43	0.500	361.55	362.08	0.18	362.26	24	Combination
26	Pipe - (11) (1)	2.60	15	Cir	60.787	361.65	362.30	1.069	362.26	362.95	0.26	362.95	25	Manhole
27	Pipe - (11)	2.09	15	Cir	57.233	362.50	365.30	4.892	362.95	365.88	0.31	365.88	26	Combination
28	Pipe - (67)	0.85	15	Cir	26.000	365.50	367.59	8.038	365.88	367.95	n/a	367.95 j	27	Combination
29	Pipe - (489)	0.62	15	Cir	161.000	365.50	375.15	5.994	365.88	375.46	n/a	375.46 j	27	Combination
30	Pipe - (451)	7.49	24	Cir	111.287	359.80	364.10	3.864	360.85	365.07	n/a	365.07 j	22	Combination
31	Pipe - (445)	6.73	24	Cir	28.000	364.30	364.44	0.500	365.21	365.36	n/a	365.36	30	Combination
32	Pipe - (476)	6.09	18	Cir	77.032	365.19	365.58	0.506	366.22	366.61	0.35	366.95	31	DropGrate
33	Pipe - (103)	1.78	15	Cir	45.226	363.25	364.15	1.990	364.01	364.68	n/a	364.68 j	6	Combination
34	Pipe - (477)	0.54	15	Cir	31.121	362.50	363.43	2.988	362.95	363.72	n/a	363.72 j	26	DropGrate
35	Pipe - (68)	0.97	15	Cir	26.015	360.95	361.08	0.500	361.49	361.50	0.11	361.61	24	Combination
36	Pipe - (690)	0.35	15	Cir	43.126	357.85	358.54	1.600	358.63	358.77	n/a	358.77 j	5	Combination
37	Pipe - (70)	15.24	30	Cir	28.983	354.20	354.35	0.518	355.48	355.67	0.79	355.67	1	Combination
38	Pipe - (510)	8.36	24	Cir	81.813	354.55	355.15	0.733	355.67	356.18	n/a	356.18 j	37	DropGrate
39	Pipe - (509)	7.60	18	Cir	72.154	355.65	356.15	0.693	356.73	357.23	0.24	357.47	38	DropGrate
40	Pipe - (508)	6.36	18	Cir	96.135	356.35	357.00	0.676	357.47	357.97	n/a	357.97 j	39	DropGrate
41	Pipe - (507)	1.90	15	Cir	202.630	357.25	361.84	2.265	357.97	362.39	n/a	362.39 j	40	DropGrate
42	Pipe - (105)	1.49	15	Cir	43.841	355.50	355.72	0.502	356.82	356.84	0.03	356.87	2	Combination
43	Pipe - (116)	1.32	15	Cir	28.003	355.95	356.09	0.500	356.87	356.88	0.07	356.95	42	Combination
44	Pipe - (104)	0.61	15	Cir	111.664	356.29	356.85	0.502	356.95	357.16	0.16	357.32	43	Combination
45	Pipe - (79)	0.27	15	Cir	28.509	356.85	356.99	0.491	357.32	357.32	0.02	357.34	44	Combination
46	Pipe - (69)	6.22	18	Cir	88.766	355.10	355.65	0.620	356.07	356.62	0.32	356.94	37	Combination
47	Pipe - (61)	5.54	18	Cir	121.131	355.75	356.50	0.619	356.94	357.41	n/a	357.41 j	46	Combination
48	Pipe - (72)	1.75	15	Cir	30.909	356.70	356.85	0.485	357.41	357.44	0.15	357.59	47	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (536)	1.01	15	Cir	217.760	356.60	358.70	0.964	357.41	359.09	n/a	359.09 j	47	Combination
50	Pipe - (689)	0.54	15	Cir	38.578	356.29	356.68	1.011	356.95	356.97	n/a	356.97 j	43	Combination
51	Pipe - (439)	1.29	18	Cir	28.000	354.33	354.50	0.607	354.73	354.93	n/a	354.93	18	Combination
52	Pipe - (583)	0.73	18	Cir	60.544	354.70	355.10	0.661	355.00	355.42	n/a	355.42	51	Combination
53	Pipe - (582)	0.39	15	Cir	26.000	355.35	355.50	0.577	355.59	355.74	0.08	355.74	52	Combination

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	CB 101	1.38	0.44	1.82	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	7.96	0.24	7.96	0.0	Off
2	CB 102	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.12	1.94	0.00	0.00	0.0	1
3	CB 106	0.19	0.54	0.67	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.71	0.07	1.22	0.0	37
4	CB 107	1.51	0.46	1.43	0.54	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.24	7.78	0.16	3.89	0.0	3
5	CB 108	1.51	0.96	2.47	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.28	10.00	0.28	10.00	0.0	Off
6	CB 109	2.79	0.00	1.83	0.96	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.26	9.09	0.19	5.46	0.0	5
7	JB 110	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
8	CB 111	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	6
9	CB 112	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	8
10	CB 112B	0.54	0.00	0.54	0.00	Comb	4.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.12	2.18	0.00	0.00	0.0	9
11	YI 112C	0.97	0.00	0.97	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.01	0.10	12.01	0.0	Off
12	CB 112A	0.81	0.00	0.73	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.98	0.08	1.35	0.0	31
13	CB 111A	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.06	0.99	0.00	0.00	0.0	30
14	YI 121	0.81	0.00	0.81	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.97	0.08	10.97	0.0	Off
15	YI 122	1.86	0.00	1.86	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.20	0.15	17.20	0.0	Off
16	YI 123	0.97	0.00	0.97	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.01	0.10	12.01	0.0	15
17	YI 124	1.40	0.00	1.40	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.63	0.12	14.63	0.0	Off
18	CB 125	0.39	0.00	0.38	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.03	0.03	0.45	0.0	53
19	CB 126	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.08	1.40	0.00	0.00	0.0	18
20	CB 127	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	19
21	CB 128	0.23	0.03	0.26	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.30	0.13	2.30	0.0	Off
22	CB 129	0.58	0.00	0.55	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	4.07	0.06	0.92	0.0	21
23	CB 130	0.31	0.08	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	3.05	0.03	0.45	0.0	24

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 131	0.50	0.01	0.51	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.86	0.14	2.86	0.0	Off
25	CB 132	0.31	0.07	0.37	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.96	0.03	0.42	0.0	24
26	JB 133	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
27	CB 134	0.70	0.04	0.67	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.71	0.07	1.22	0.0	25
28	CB 134A	0.85	0.00	0.75	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	5.12	0.08	1.41	0.0	35
29	CB 135	0.62	0.00	0.58	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	4.24	0.06	1.00	0.0	27
30	CB 136	0.80	0.00	0.72	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.93	0.08	1.32	0.0	Off
31	CB 136A	0.70	0.09	0.71	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.88	0.08	1.30	0.0	23
32	YI 136B	6.09	0.00	6.09	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.32	34.89	0.32	34.89	0.0	Off
33	CB 109A	1.78	0.00	1.33	0.46	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.43	0.15	3.45	0.0	4
34	YI 133A	0.54	0.00	0.54	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.96	0.06	8.96	0.0	Off
35	CB 131A	0.97	0.10	0.90	0.17	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.77	0.10	1.72	0.0	51
36	CB 108A	0.35	0.00	0.35	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.050	0.020	0.013	0.11	2.63	0.11	2.63	0.0	Off
37	CB 113	1.01	0.44	1.44	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.21	6.68	0.21	6.68	0.0	Off
38	YI 113A	0.85	0.00	0.57	0.28	DrGrt	0.0	0.00	0.00	3.00	2.50	0.010	2.00	0.020	0.020	0.013	0.09	11.10	0.09	11.10	0.0	37
39	YI 113B	1.37	3.27	4.64	0.00	DrGrt	0.0	1.50	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.27	29.52	0.27	29.52	0.0	Off
40	YI 113C	4.69	0.82	2.24	3.27	DrGrt	0.0	0.00	0.00	3.00	2.50	0.010	2.00	0.020	0.020	0.013	0.19	21.10	0.19	21.10	0.0	39
41	YI 113D	1.90	0.00	1.08	0.82	DrGrt	0.0	0.00	0.00	3.00	2.50	0.010	2.00	0.020	0.020	0.013	0.13	15.10	0.13	15.10	0.0	40
42	CB 103	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	2
43	CB 104	0.23	0.00	0.23	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.12	2.09	0.12	2.09	0.0	Off
44	CB 105	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.77	0.02	0.34	0.0	Off
45	CB 105A	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.12	2.18	0.00	0.00	0.0	Off
46	CB 114	0.81	0.00	0.73	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.98	0.08	1.35	0.0	37

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	CB 115	3.10	0.15	2.04	1.21	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.27	9.70	0.20	6.16	0.0	Off
48	CB 115A	1.75	0.00	1.31	0.44	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.35	0.15	3.35	0.0	1
49	CB 116	1.01	0.00	0.86	0.15	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.19	5.60	0.10	1.64	0.0	47
50	CB 104A	0.54	0.00	0.54	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.050	0.020	0.013	0.13	3.50	0.13	3.50	0.0	Off
51	CB 125A	0.58	0.17	0.68	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.17	4.75	0.07	1.24	0.0	52
52	CB 137	0.35	0.07	0.42	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
53	CB 138	0.39	0.00	0.39	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	30	27.28	346.50	353.25	2.50	3.74	5.56	0.48	353.73	0.443	104.799	353.70	355.48 j	1.78**	3.74	7.30	0.83	356.31	0.605	0.524	n/a	2.12	1.76
2	24	11.45	354.20	355.48	1.28	1.99	5.39	0.45	355.93	0.469	102.646	354.75	355.97	1.22**	2.00	5.71	0.51	356.48	0.542	0.506	0.519	1.68	0.85
3	24	9.84	355.25	356.82	1.57	1.81	3.72	0.46	357.28	0.000	28.000	355.40	356.52	1.12**	1.81	5.43	0.46	356.98	0.000	0.000	n/a	1.13	0.52
4	24	9.70	355.60	356.52	0.92	1.41	6.86	0.45	356.97	0.000	43.841	357.25	358.36	1.11**	1.80	5.40	0.45	358.82	0.000	0.000	n/a	1.11	n/a
5	24	8.35	357.45	358.46	1.01*	1.58	5.28	0.41	358.86	0.000	28.006	357.60	358.63	1.03**	1.63	5.13	0.41	359.04	0.000	0.000	n/a	1.71	0.70
6	18	6.79	357.80	358.63	0.83	1.00	6.78	0.45	359.08	0.000	238.741	363.00	364.01	1.01**	1.26	5.38	0.45	364.46	0.000	0.000	n/a	1.03	n/a
7	15	2.63	363.25	364.01	0.76	0.64	3.38	0.26	364.27	0.000	211.860	369.95	370.60 j	0.65**	0.64	4.08	0.26	370.86	0.000	0.000	n/a	0.34	0.09
8	15	2.67	370.15	370.62	0.47*	0.43	6.27	0.26	370.88	0.000	146.606	372.85	373.50	0.65**	0.65	4.10	0.26	373.77	0.000	0.000	n/a	1.50	0.39
9	15	2.53	373.05	373.50	0.45	0.40	6.27	0.25	373.76	0.000	45.582	375.10	375.74	0.64**	0.63	4.03	0.25	375.99	0.000	0.000	n/a	1.65	0.42
10	15	1.49	375.30	375.74	0.44	0.38	3.91	0.18	375.92	0.000	99.530	381.60	382.08	0.48**	0.44	3.41	0.18	382.26	0.000	0.000	n/a	1.50	0.27
11	15	0.97	381.80	382.08	0.28	0.21	4.64	0.14	382.22	0.000	81.500	386.69	387.08	0.39**	0.32	3.00	0.14	387.22	0.000	0.000	n/a	1.00	n/a
12	15	0.81	375.30	375.74	0.44	0.28	2.13	0.13	375.86	0.000	28.000	375.58	375.93 j	0.35**	0.28	2.86	0.13	376.06	0.000	0.000	n/a	1.00	0.13
13	15	0.04	373.05	373.50	0.45	0.03	0.10	0.03	373.53	0.000	28.000	373.33	373.41	0.08**	0.03	1.28	0.03	373.43	0.000	0.000	n/a	1.00	0.03
14	30	16.74	346.50	353.25	2.50	4.91	3.41	0.18	353.43	0.167	30.559	348.60	353.30	2.50	4.91	3.41	0.18	353.48	0.167	0.167	0.051	0.63	0.11
15	30	16.43	348.70	353.42	2.50	4.91	3.35	0.17	353.59	0.160	163.303	350.09	353.68	2.50	4.91	3.35	0.17	353.85	0.160	0.160	0.262	0.72	0.13
16	30	15.30	350.19	353.80	2.50	4.91	3.12	0.15	353.95	0.139	201.556	351.20	354.08	2.50	4.91	3.12	0.15	354.23	0.139	0.139	0.281	0.50	0.08
17	30	14.90	351.30	354.16	2.50	4.91	3.04	0.14	354.30	0.132	199.856	352.30	354.38	2.08	4.36	3.41	0.18	354.56	0.129	0.130	0.260	0.58	0.11
18	30	13.88	352.52	354.48	1.96	2.46	3.36	0.49	354.98	0.000	156.736	353.30	354.55	1.25**	2.46	5.64	0.49	355.05	0.000	0.000	n/a	1.50	n/a
19	24	12.41	353.50	354.55	1.05	1.68	7.40	0.55	355.10	0.000	86.389	357.30	358.56	1.26**	2.09	5.92	0.55	359.11	0.000	0.000	n/a	1.13	n/a
20	24	12.27	357.50	358.56	1.06	1.70	7.22	0.54	359.11	0.000	43.841	358.80	360.06	1.26**	2.08	5.90	0.54	360.60	0.000	0.000	n/a	1.13	0.61
21	24	12.20	359.00	360.31	1.31*	2.18	5.60	0.49	360.80	0.500	28.000	359.14	360.45	1.31	2.17	5.61	0.49	360.94	0.501	0.500	0.140	1.13	0.55
22	24	12.03	359.35	361.00	1.65	2.06	4.34	0.53	361.53	0.000	43.841	359.60	360.85	1.25**	2.06	5.85	0.53	361.38	0.000	0.000	n/a	1.62	0.86

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	18	4.47	360.10	360.94	0.84*	1.02	4.39	0.30	361.24	0.500	28.018	360.24	361.08	0.84	1.02	4.39	0.30	361.38	0.497	0.498	0.140	1.11	0.33
24	18	4.21	360.44	361.41	0.97	0.94	3.47	0.31	361.73	0.000	43.139	360.70	361.49	0.79**	0.94	4.49	0.31	361.80	0.000	0.000	n/a	1.61	n/a
25	18	2.87	360.90	361.55	0.65*	0.72	3.93	0.24	361.79	0.499	106.050	361.43	362.08	0.65**	0.73	3.94	0.24	362.32	0.502	0.500	0.531	0.75	0.18
26	15	2.60	361.65	362.26	0.61	0.59	4.39	0.26	362.51	0.000	60.787	362.30	362.95	0.65**	0.64	4.06	0.26	363.20	0.000	0.000	n/a	1.00	0.26
27	15	2.09	362.50	362.95	0.45	0.39	5.34	0.22	363.17	0.000	57.233	365.30	365.88	0.58**	0.55	3.78	0.22	366.10	0.000	0.000	n/a	1.41	0.31
28	15	0.85	365.50	365.88	0.38	0.29	2.74	0.13	366.01	0.000	26.000	367.59	367.95 j	0.36**	0.29	2.90	0.13	368.08	0.000	0.000	n/a	1.00	n/a
29	15	0.62	365.50	365.88	0.38	0.23	2.00	0.11	365.99	0.000	161.000	375.15	375.46 j	0.31**	0.23	2.65	0.11	375.57	0.000	0.000	n/a	1.00	0.11
30	24	7.49	359.80	360.85	1.05	1.52	4.51	0.38	361.23	0.000	111.287	364.10	365.07 j	0.97**	1.52	4.94	0.38	365.45	0.000	0.000	n/a	1.50	0.57
31	24	6.73	364.30	365.21	0.91*	1.38	4.87	0.35	365.56	0.000	28.000	364.44	365.36	0.92**	1.41	4.78	0.35	365.71	0.000	0.000	n/a	0.50	n/a
32	18	6.09	365.19	366.22	1.03*	1.29	4.71	0.35	366.56	0.506	77.032	365.58	366.61	1.03	1.29	4.72	0.35	366.95	0.508	0.507	0.391	1.00	0.35
33	15	1.78	363.25	364.01	0.76	0.50	2.29	0.20	364.21	0.000	45.226	364.15	364.68 j	0.53**	0.50	3.60	0.20	364.88	0.000	0.000	n/a	1.00	0.20
34	15	0.54	362.50	362.95	0.45	0.21	1.39	0.10	363.05	0.000	31.121	363.43	363.72 j	0.29**	0.21	2.56	0.10	363.82	0.000	0.000	n/a	1.00	0.10
35	15	0.97	360.95	361.49	0.54	0.50	1.93	0.06	361.54	0.155	26.015	361.08	361.50	0.42	0.36	2.66	0.11	361.61	0.375	0.265	0.069	1.00	0.11
36	15	0.35	357.85	358.63	0.78	0.15	0.43	0.08	358.71	0.000	43.126	358.54	358.77 j	0.23**	0.15	2.27	0.08	358.85	0.000	0.000	n/a	1.00	0.08
37	30	15.24	354.20	355.48	1.28	2.53	6.03	0.53	356.01	0.000	28.983	354.35	355.67	1.32**	2.62	5.82	0.53	356.19	0.000	0.000	n/a	1.50	0.79
38	24	8.36	354.55	355.67	1.12	1.63	4.64	0.41	356.08	0.000	81.813	355.15	356.18 j	1.03**	1.63	5.13	0.41	356.59	0.000	0.000	n/a	0.65	0.27
39	18	7.60	355.65	356.73	1.08*	1.36	5.57	0.48	357.21	0.693	72.154	356.15	357.23	1.08	1.36	5.58	0.48	357.71	0.694	0.694	0.500	0.50	0.24
40	18	6.36	356.35	357.47	1.12	1.21	4.48	0.43	357.90	0.000	96.135	357.00	357.97 j	0.97**	1.21	5.24	0.43	358.40	0.000	0.000	n/a	0.50	0.21
41	15	1.90	357.25	357.97	0.72	0.52	2.58	0.21	358.18	0.000	202.630	361.84	362.39 j	0.55**	0.52	3.67	0.21	362.60	0.000	0.000	n/a	1.00	n/a
42	15	1.49	355.50	356.82	1.25	1.23	1.22	0.02	356.84	0.054	43.841	355.72	356.84	1.12	1.16	1.29	0.03	356.87	0.047	0.050	0.022	1.14	0.03
43	15	1.32	355.95	356.87	0.92	0.97	1.37	0.03	356.90	0.053	28.003	356.09	356.88	0.79	0.81	1.63	0.04	356.92	0.080	0.067	0.019	1.82	0.07
44	15	0.61	356.29	356.95	0.66	0.23	0.92	0.01	356.97	0.029	111.664	356.85	357.16	0.31**	0.23	2.60	0.11	357.26	0.509	0.269	0.301	1.50	0.16

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

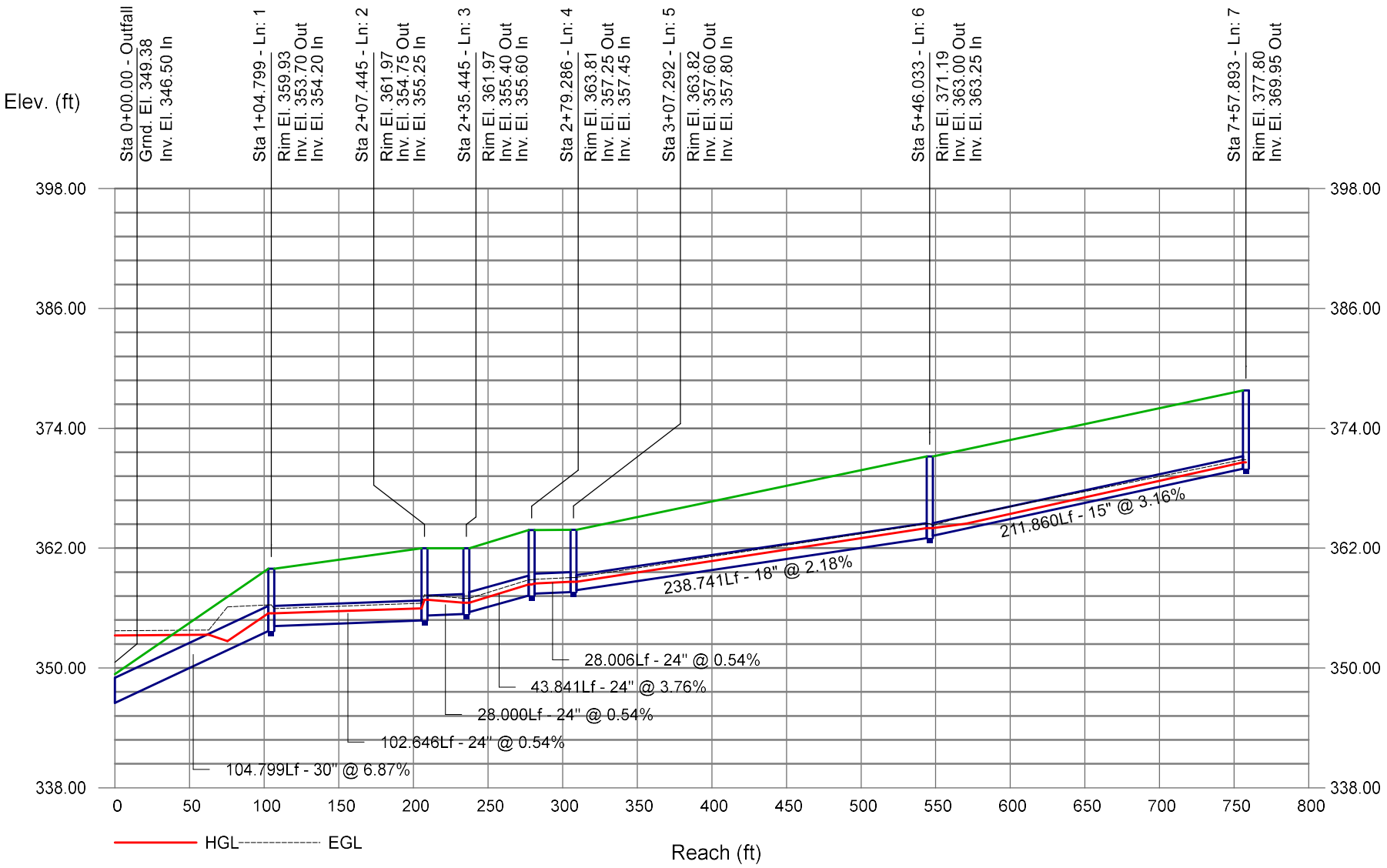
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.27	356.85	357.32	0.47	0.42	0.65	0.01	357.32	0.020	28.509	356.99	357.32	0.33	0.26	1.06	0.02	357.34	0.078	0.049	0.014	1.00	0.02
46	18	6.22	355.10	356.07	0.97*	1.20	5.13	0.41	356.48	0.619	88.766	355.65	356.62	0.97**	1.21	5.14	0.41	357.03	0.622	0.620	0.551	0.79	0.32
47	18	5.54	355.75	356.94	1.19	1.12	3.67	0.38	357.33	0.000	121.131	356.50	357.41 j	0.91**	1.12	4.96	0.38	357.79	0.000	0.000	n/a	1.21	n/a
48	15	1.75	356.70	357.41	0.71	0.72	2.44	0.09	357.50	0.195	30.909	356.85	357.44	0.59	0.57	3.07	0.15	357.59	0.357	0.276	0.085	1.00	0.15
49	15	1.01	356.60	357.41	0.81	0.33	1.20	0.14	357.55	0.000	217.760	358.70	359.09 j	0.39**	0.33	3.04	0.14	359.24	0.000	0.000	n/a	1.00	0.14
50	15	0.54	356.29	356.95	0.66	0.21	0.82	0.10	357.05	0.000	38.578	356.68	356.97 j	0.29**	0.21	2.56	0.10	357.07	0.000	0.000	n/a	1.00	0.10
51	18	1.29	354.33	354.73	0.40*	0.38	3.38	0.15	354.89	0.000	28.000	354.50	354.93	0.43**	0.41	3.14	0.15	355.08	0.000	0.000	n/a	1.50	n/a
52	18	0.73	354.70	355.00	0.30*	0.25	2.95	0.11	355.11	0.000	60.544	355.10	355.42	0.32**	0.27	2.68	0.11	355.53	0.000	0.000	n/a	1.50	n/a
53	15	0.39	355.35	355.59	0.24*	0.16	2.38	0.08	355.67	0.000	26.000	355.50	355.74	0.24**	0.17	2.33	0.08	355.83	0.000	0.000	n/a	1.00	0.08

Project File: SCM 1A Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

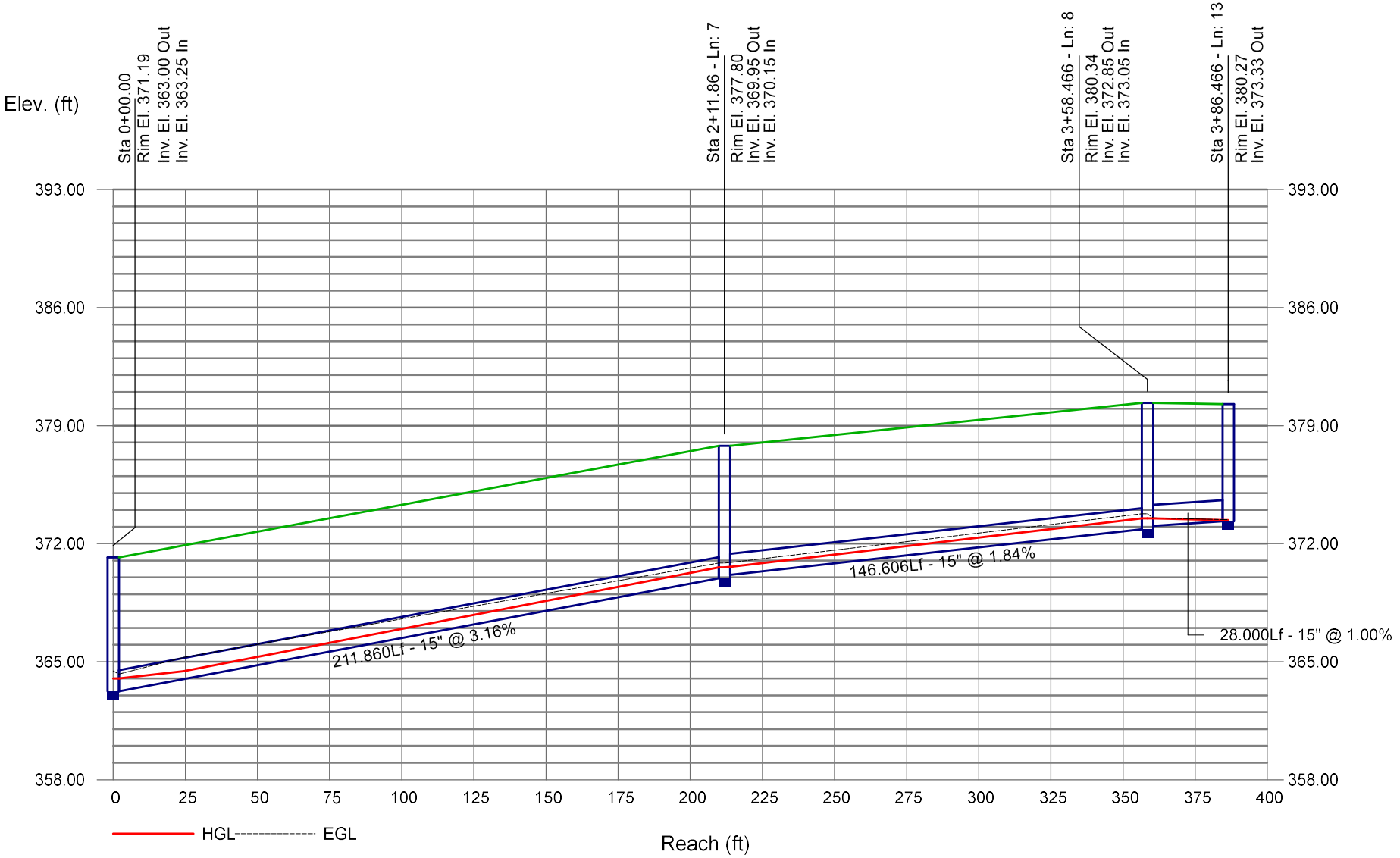
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



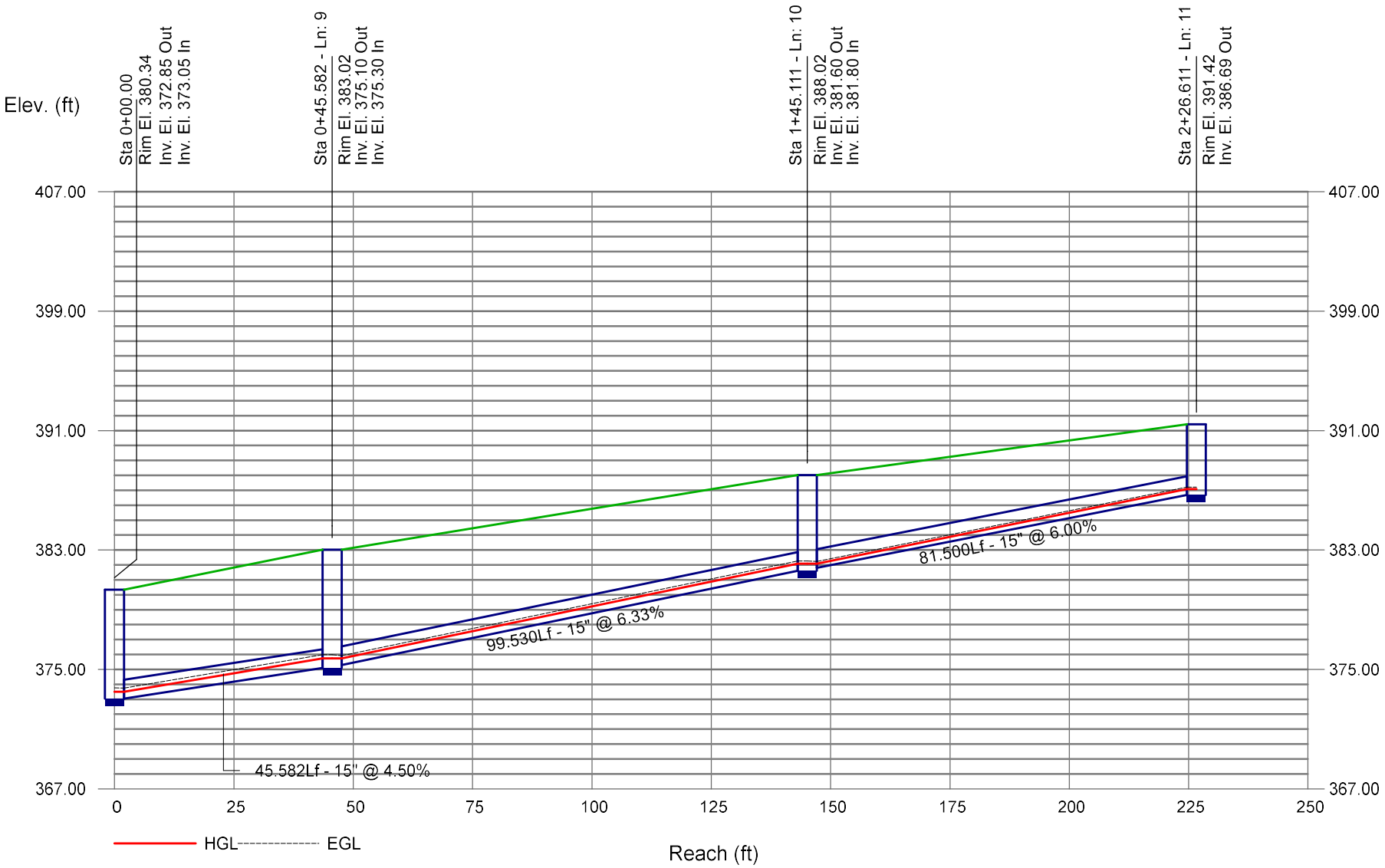
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



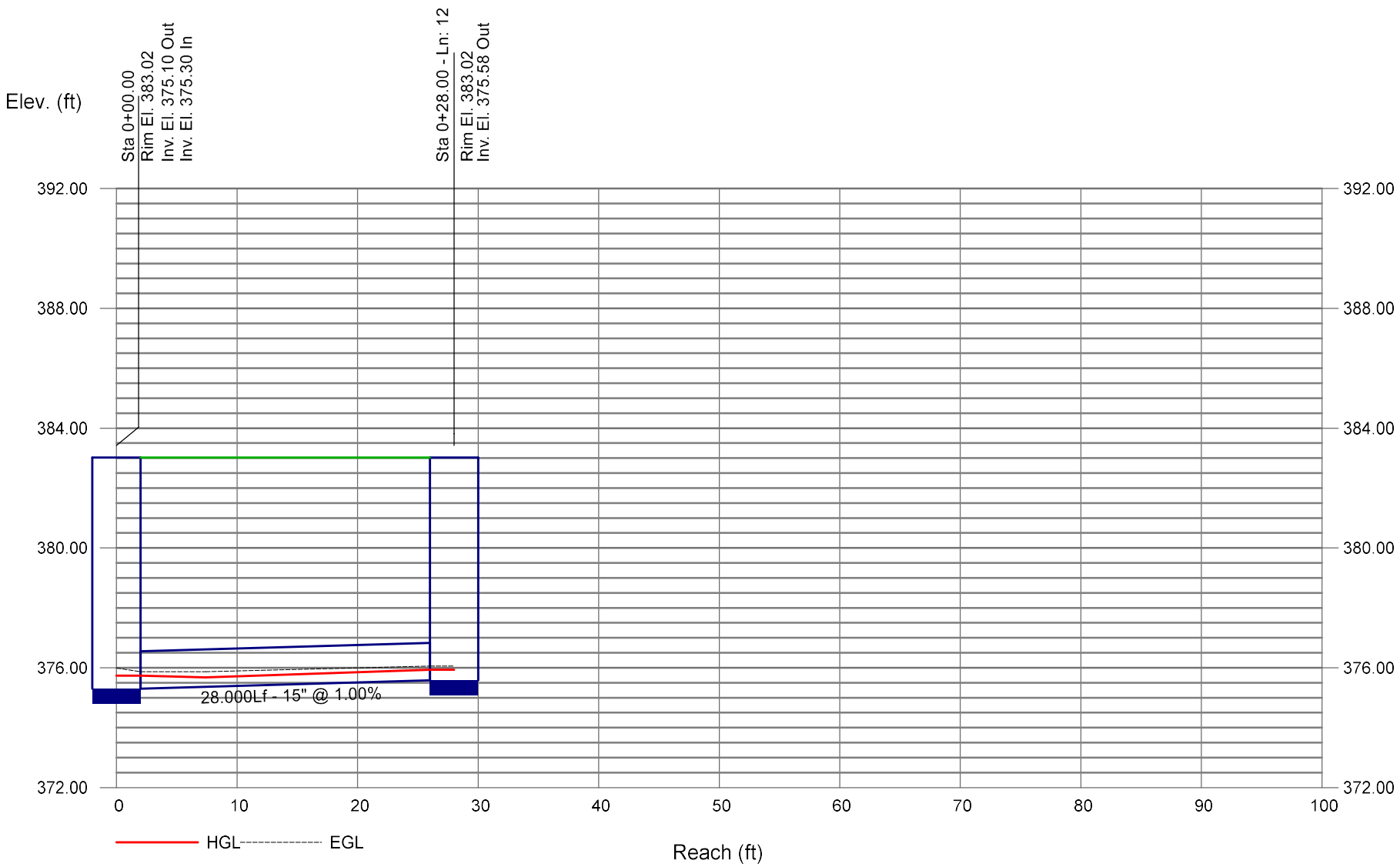
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



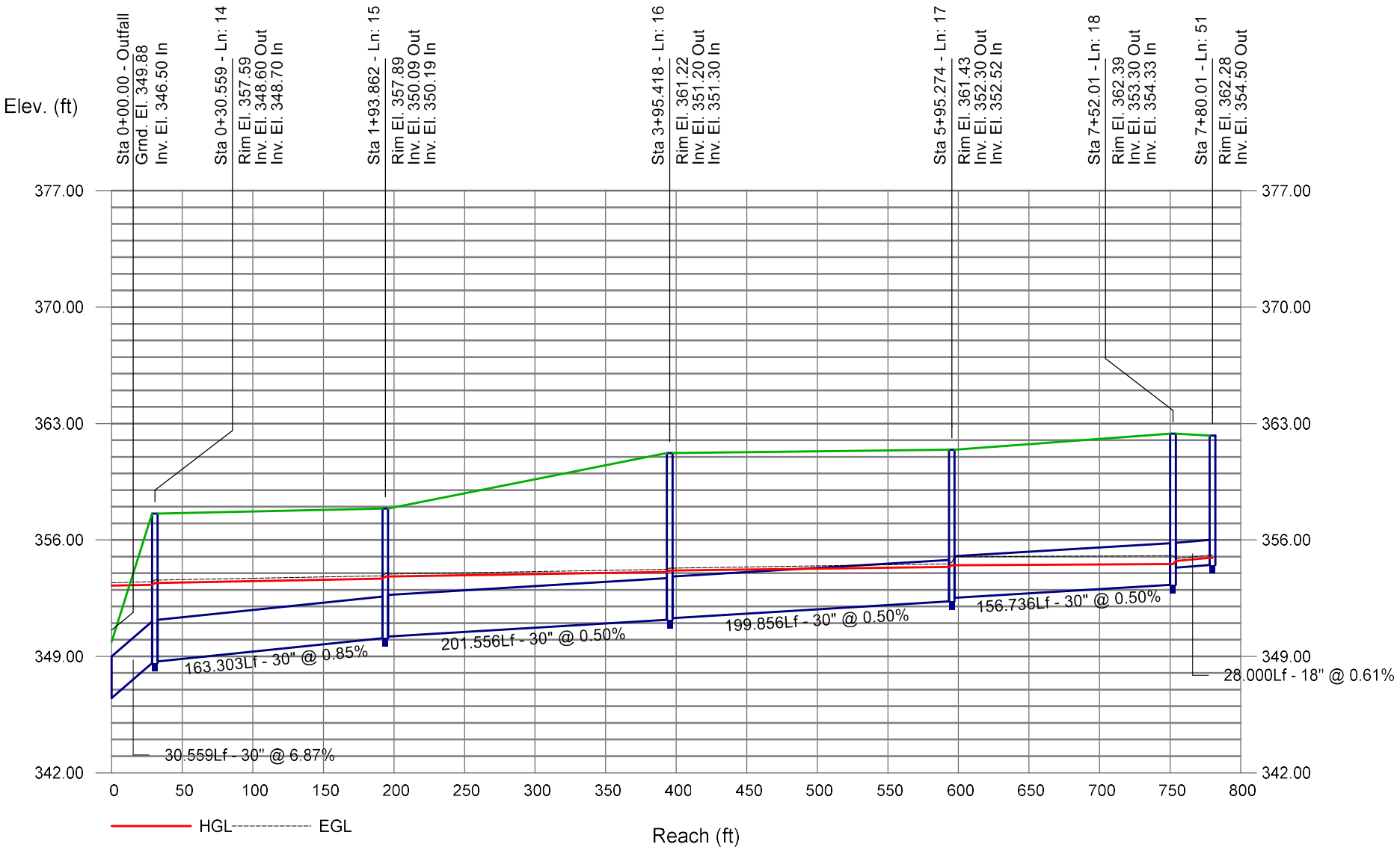
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



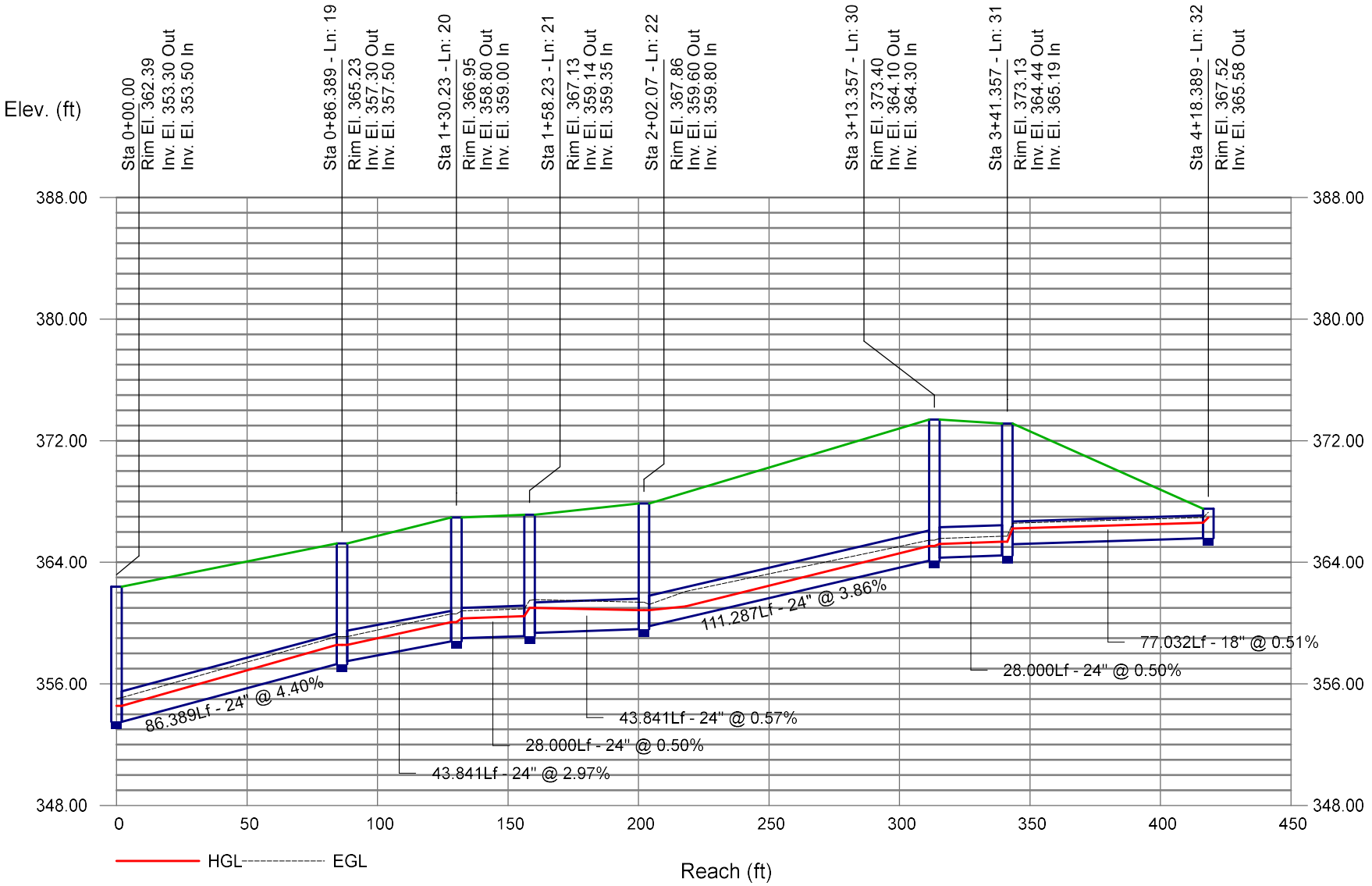
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



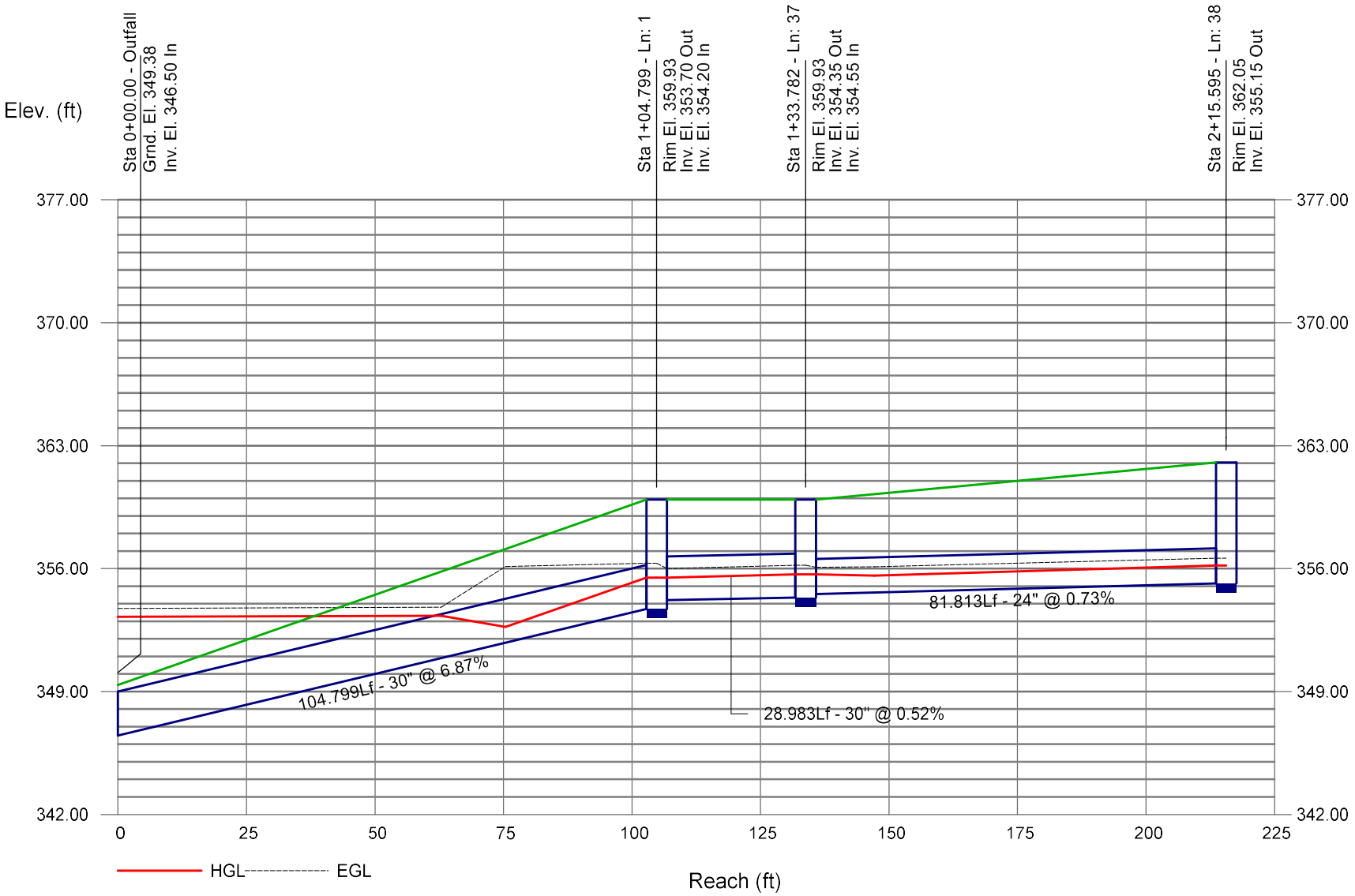
Storm Sewer Profile

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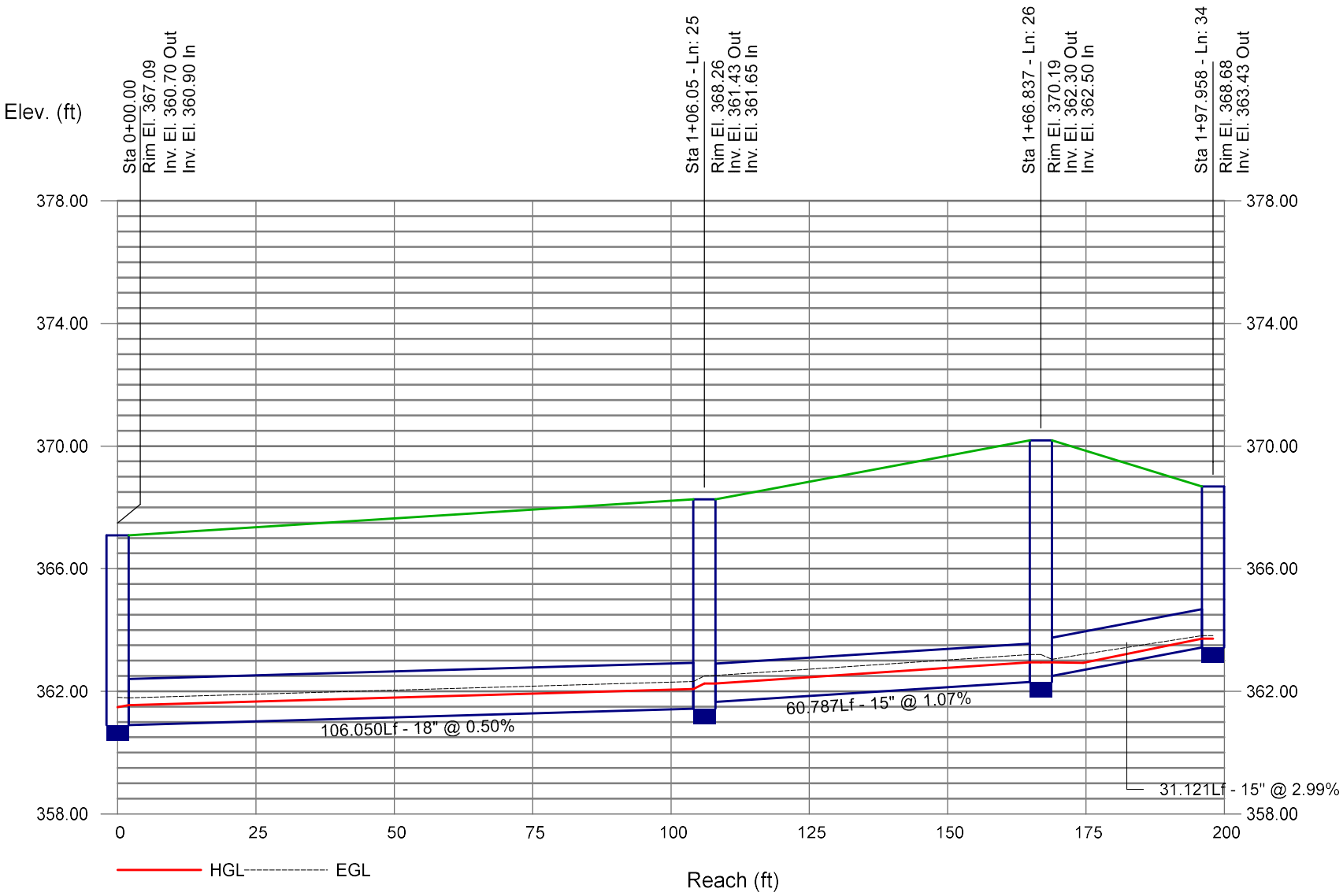
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



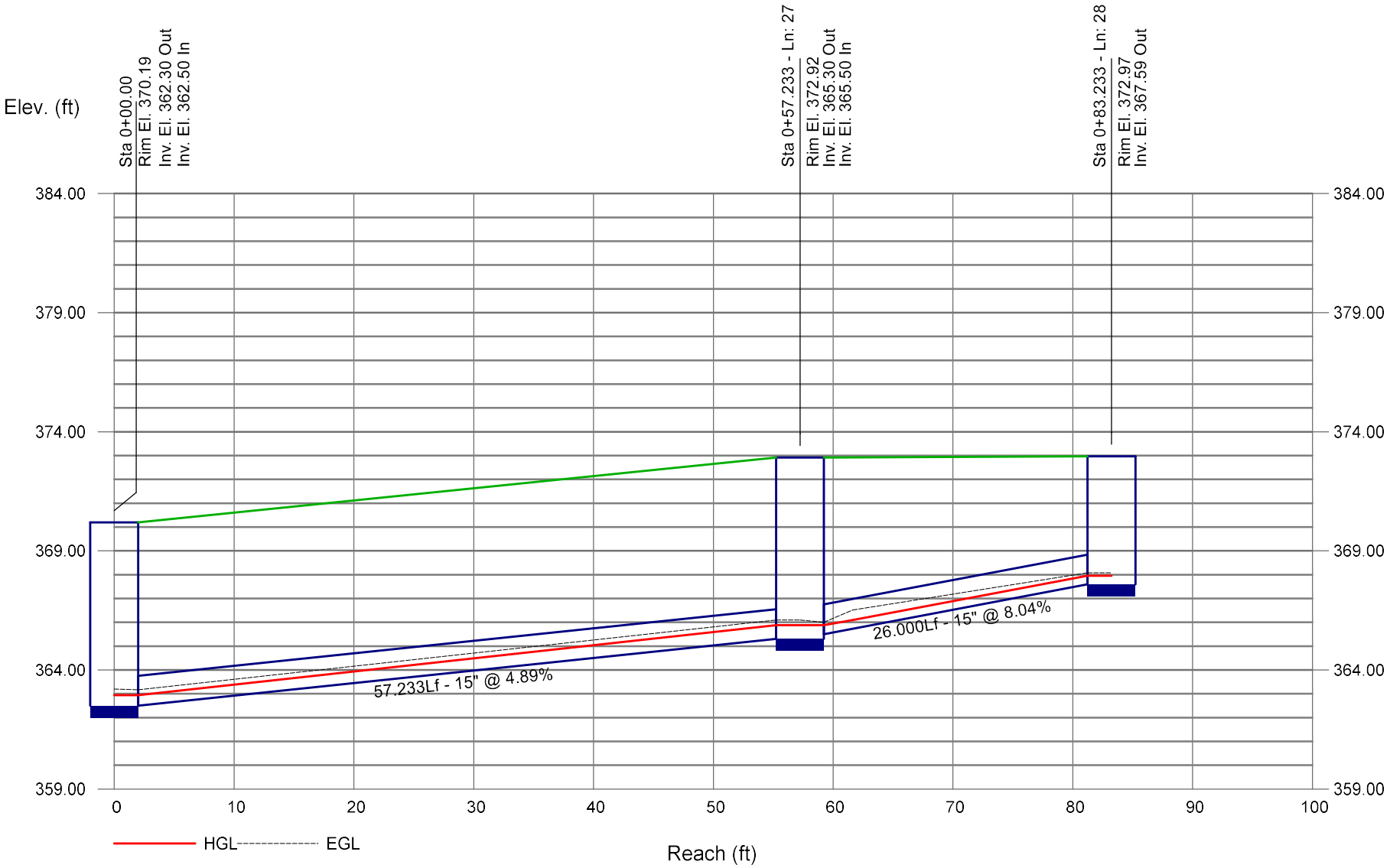
Storm Sewer Profile

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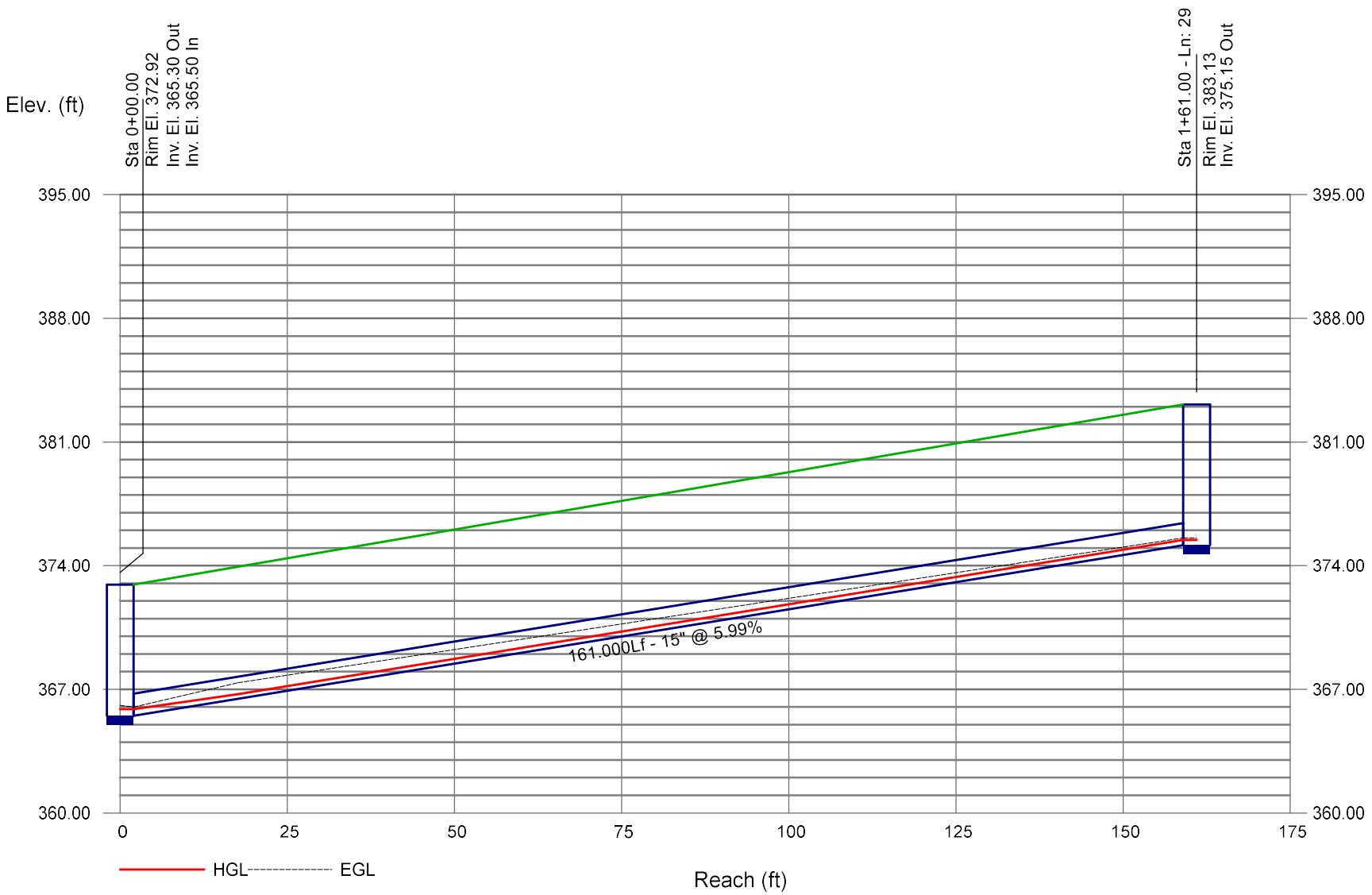
Storm Sewer Profile

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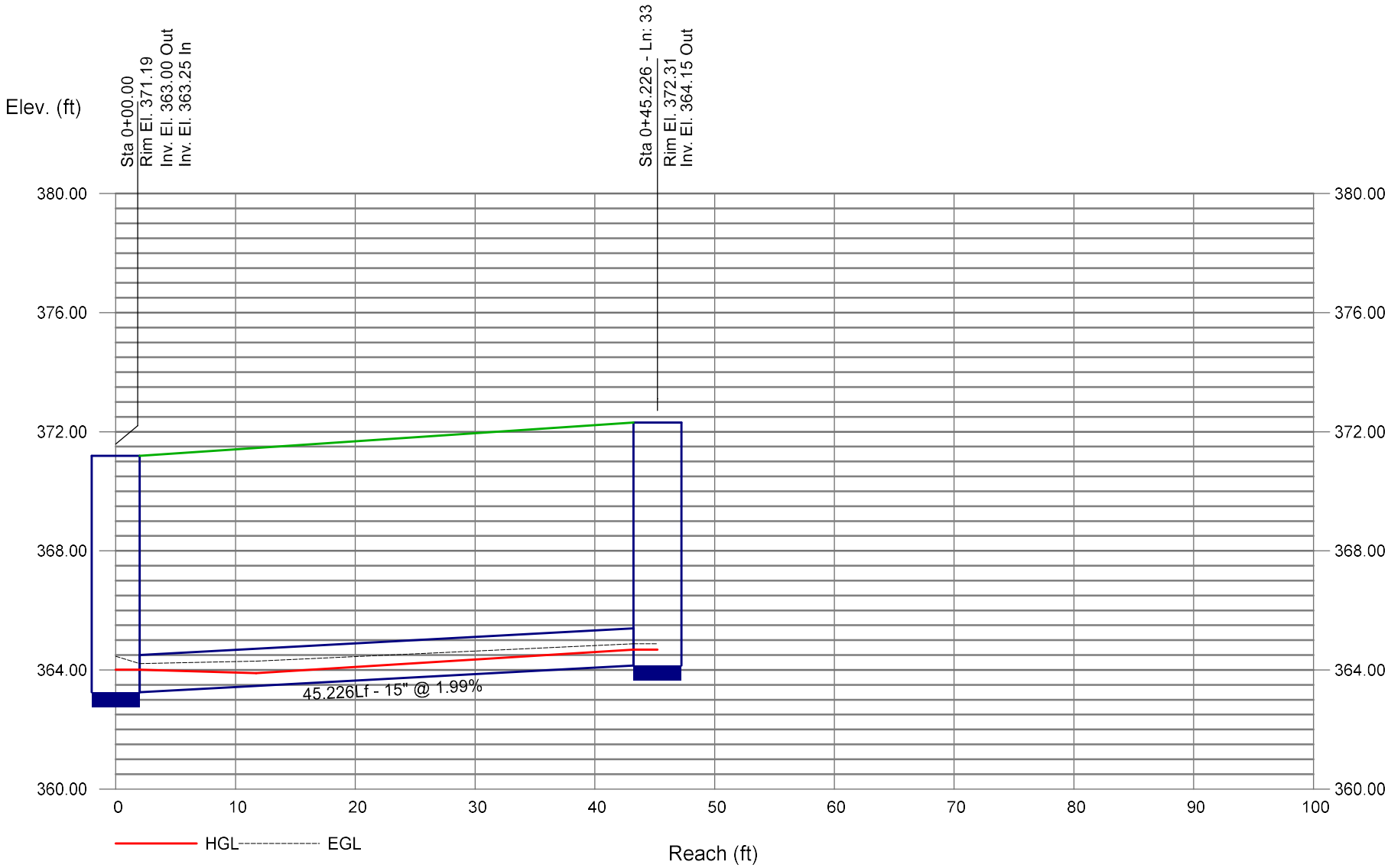
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



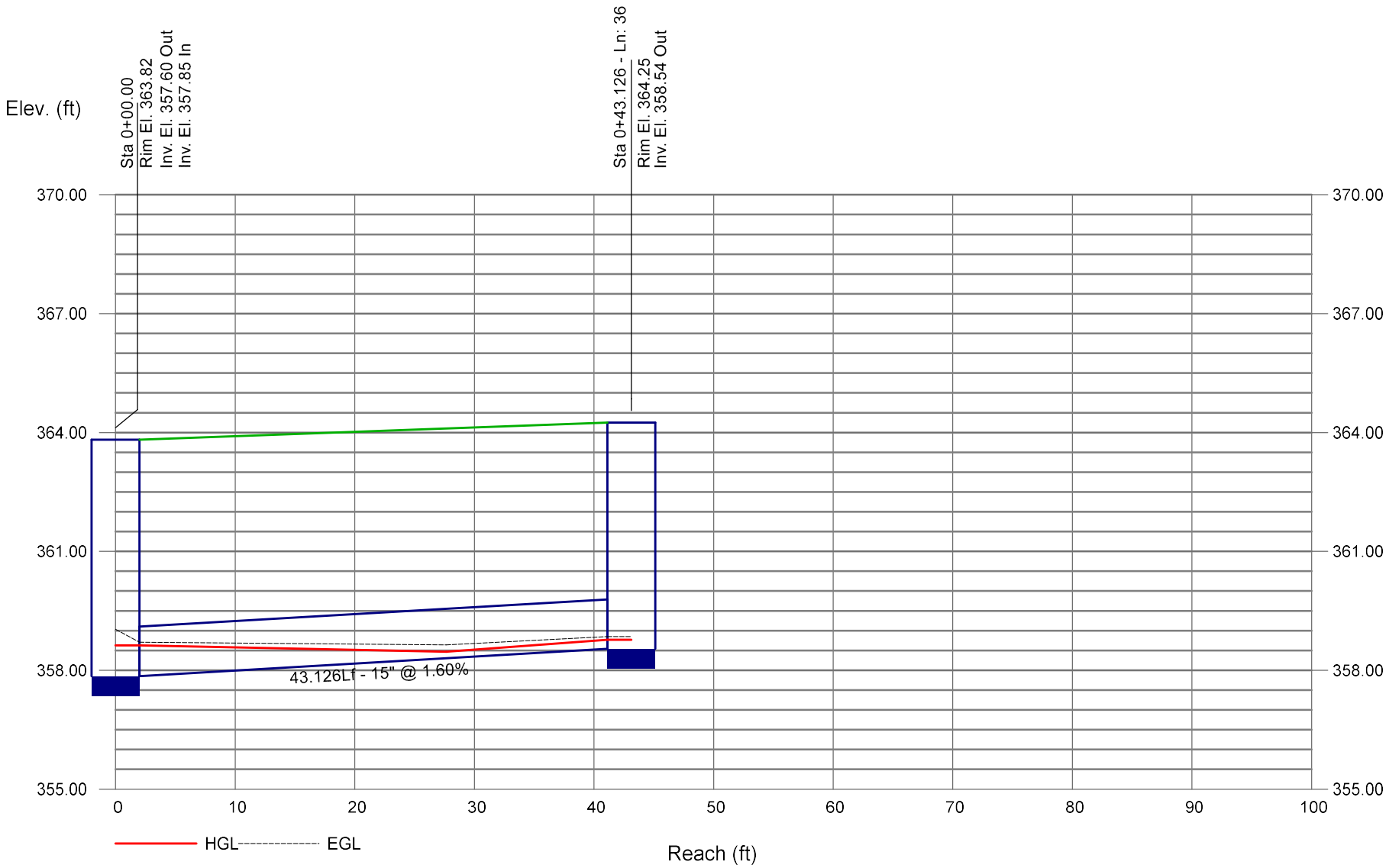
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



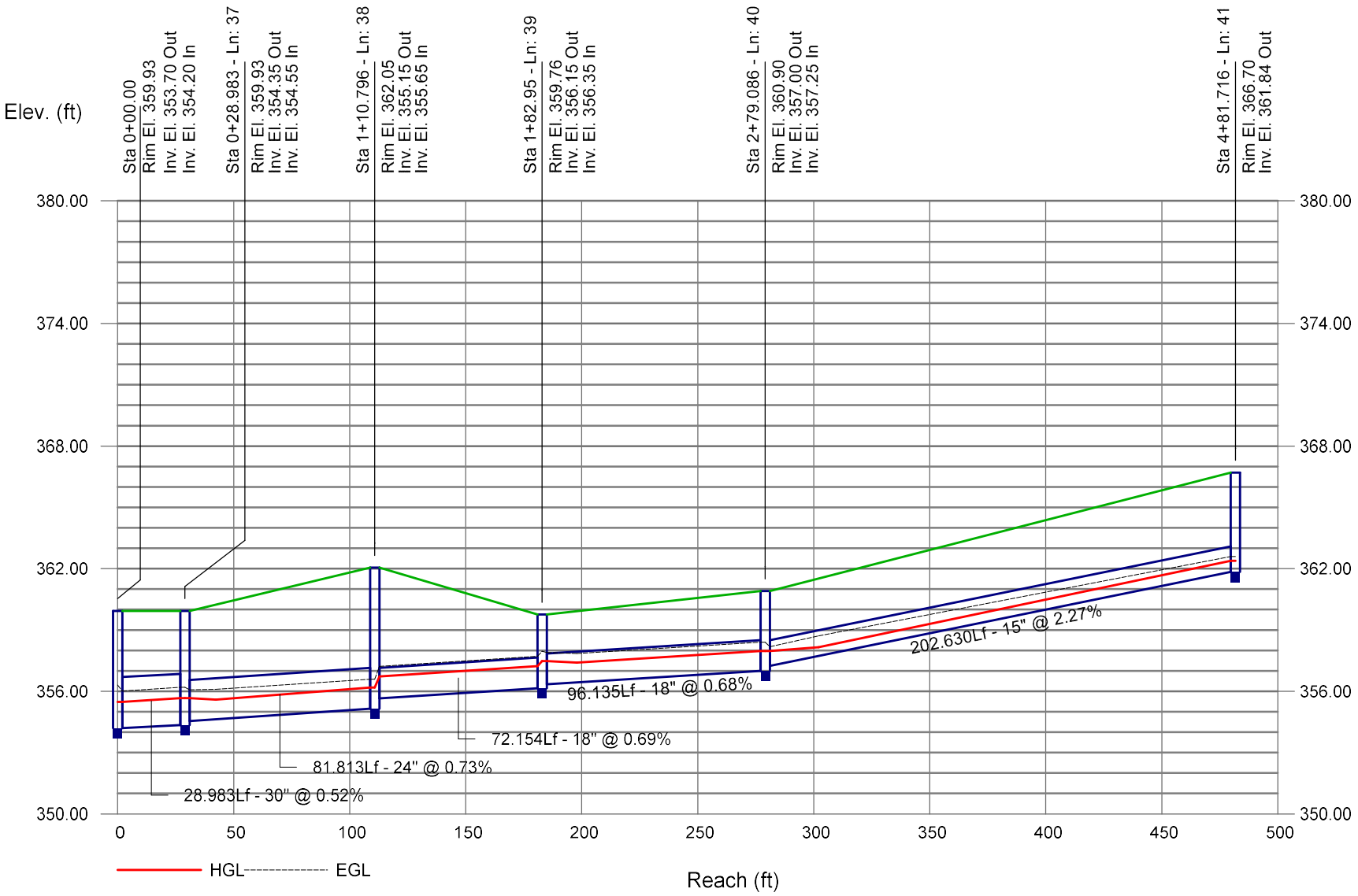
Storm Sewer Profile

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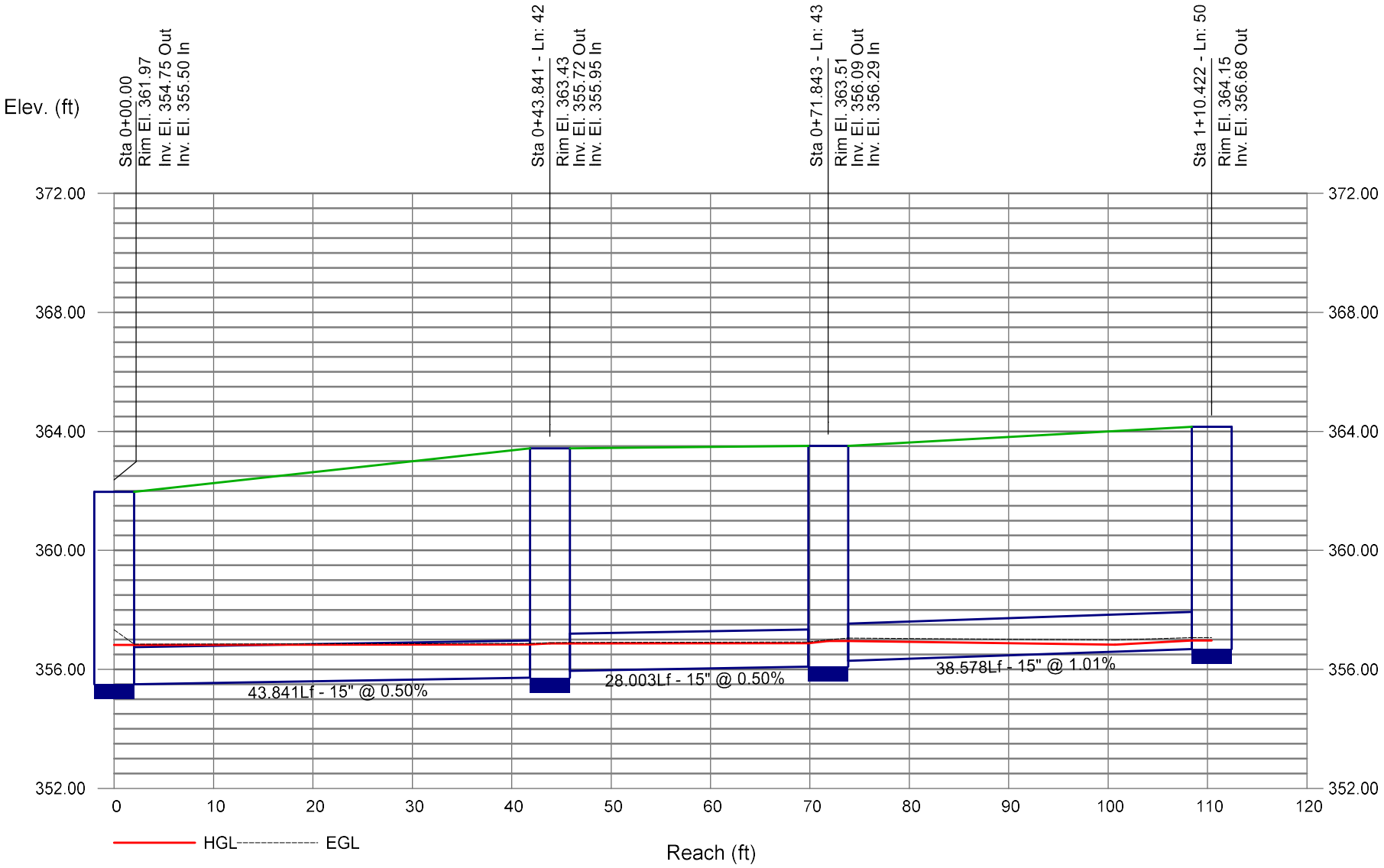
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



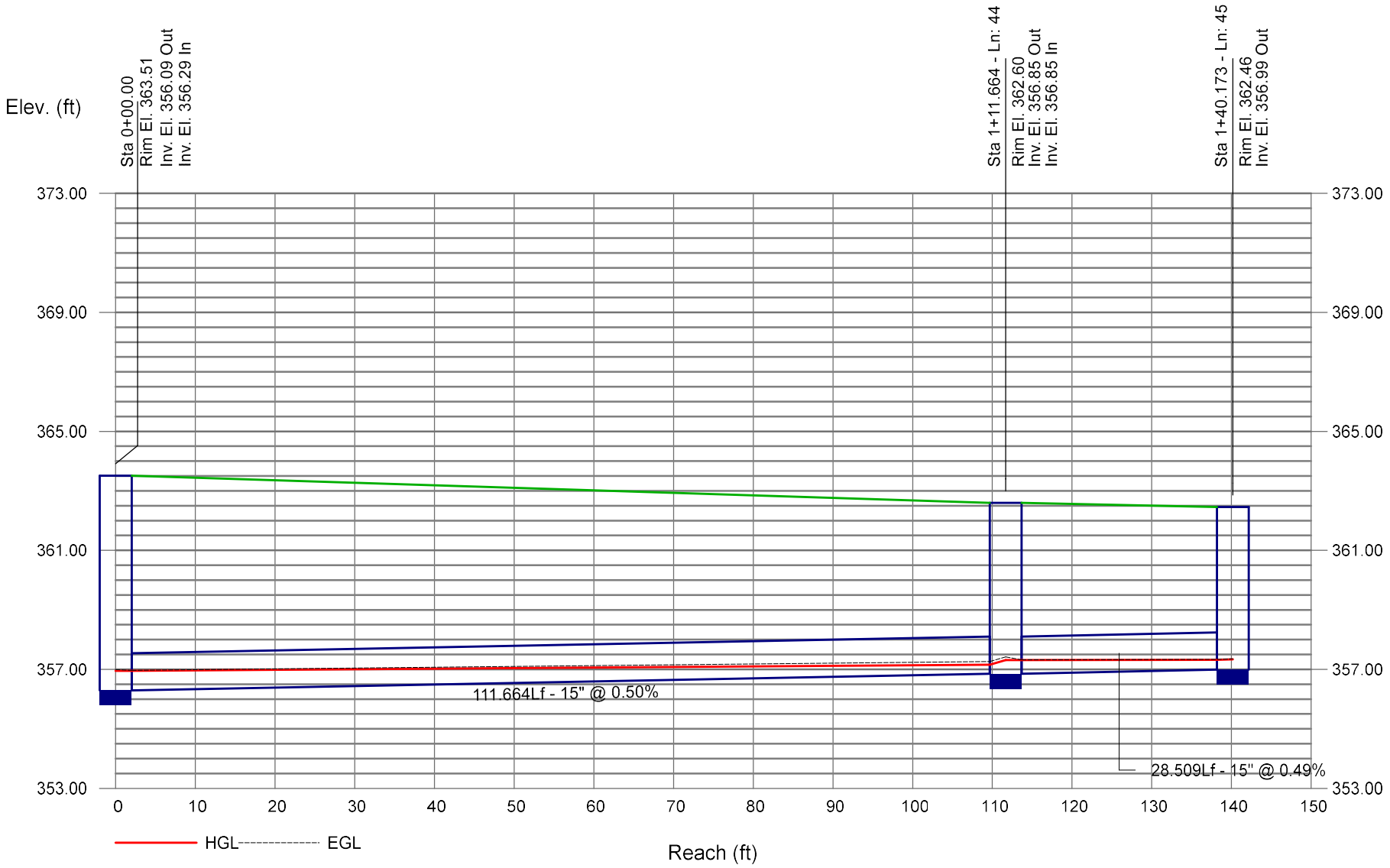
Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



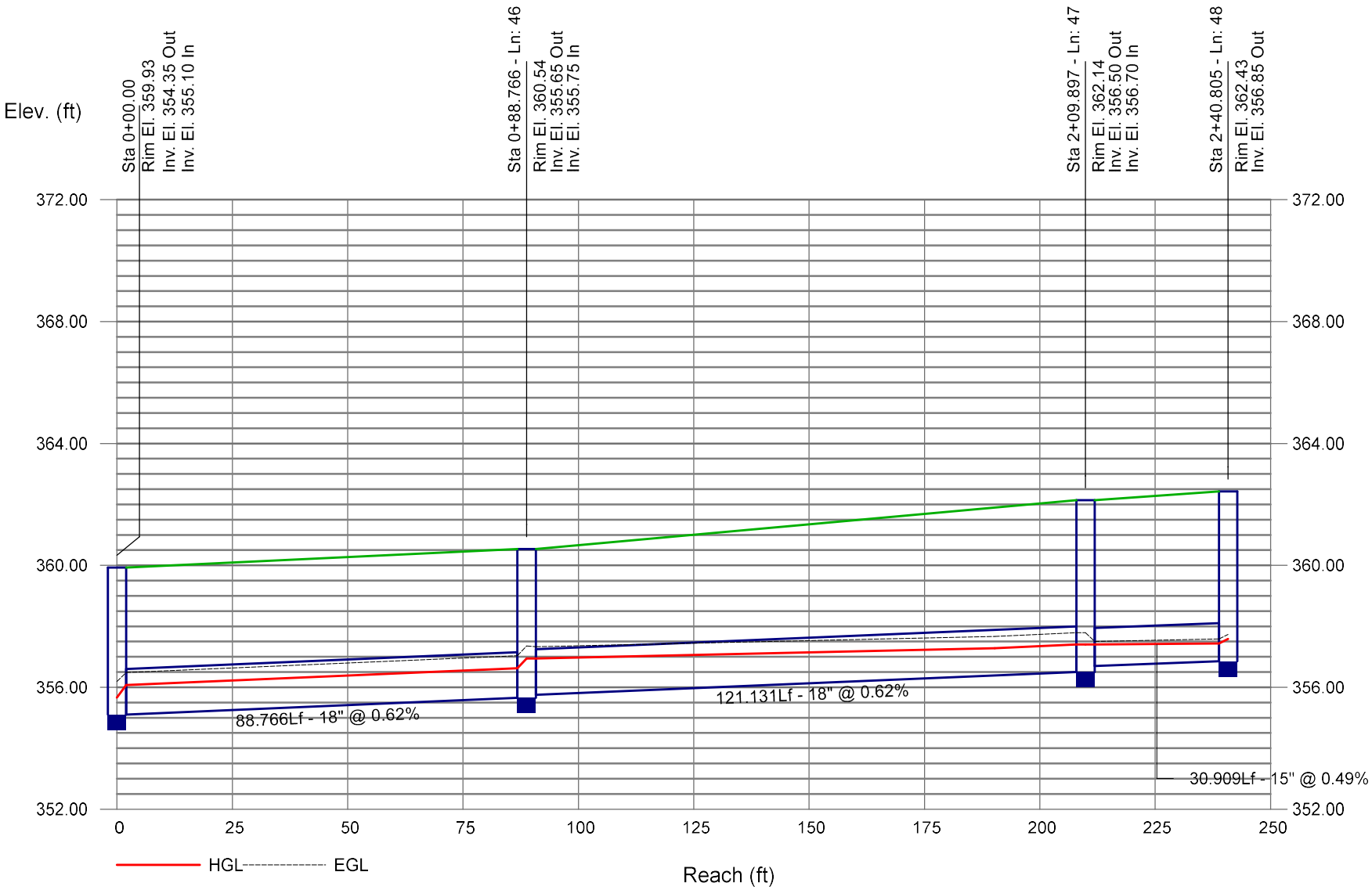
Storm Sewer Profile

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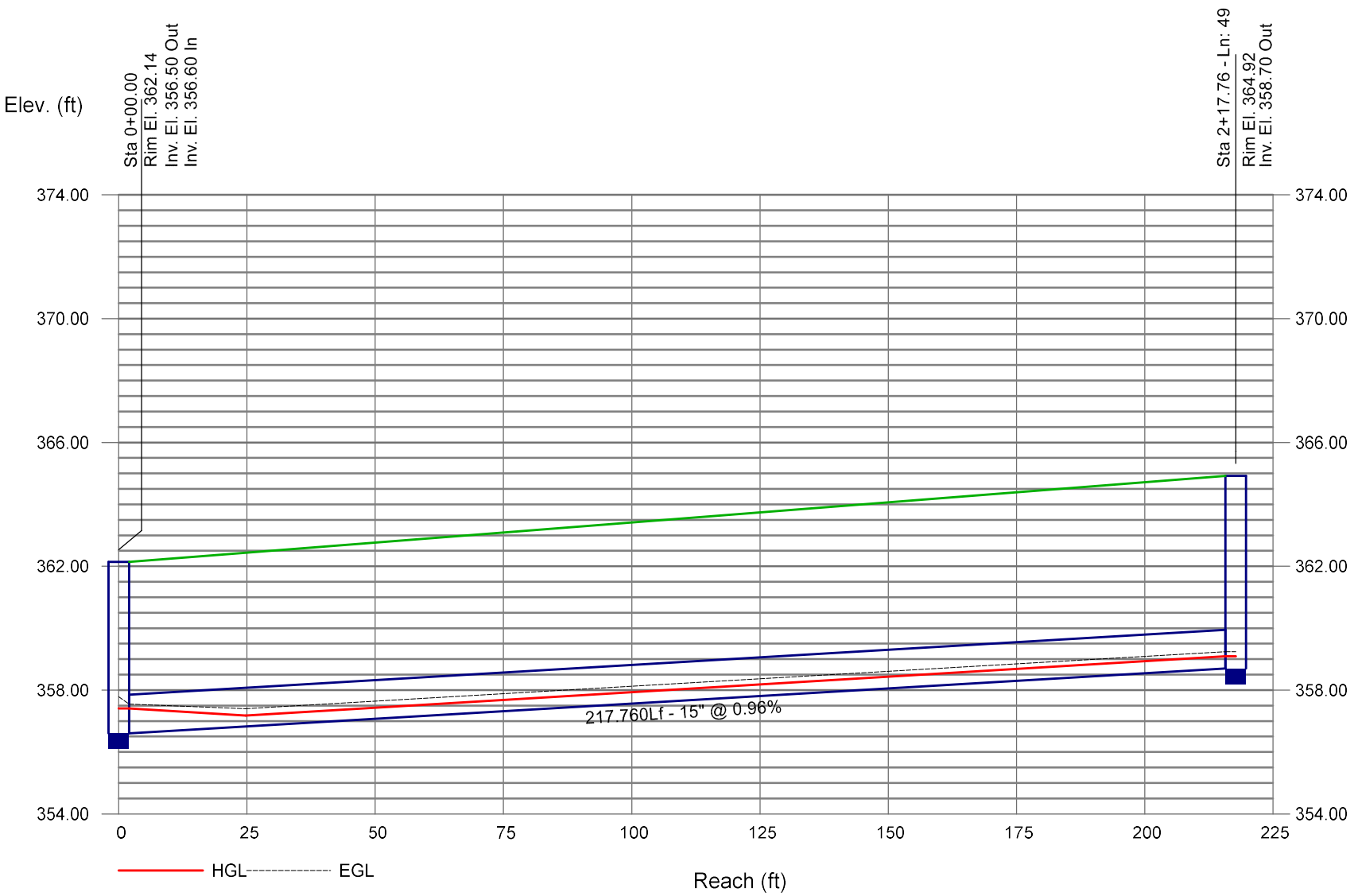
Storm Sewer Profile

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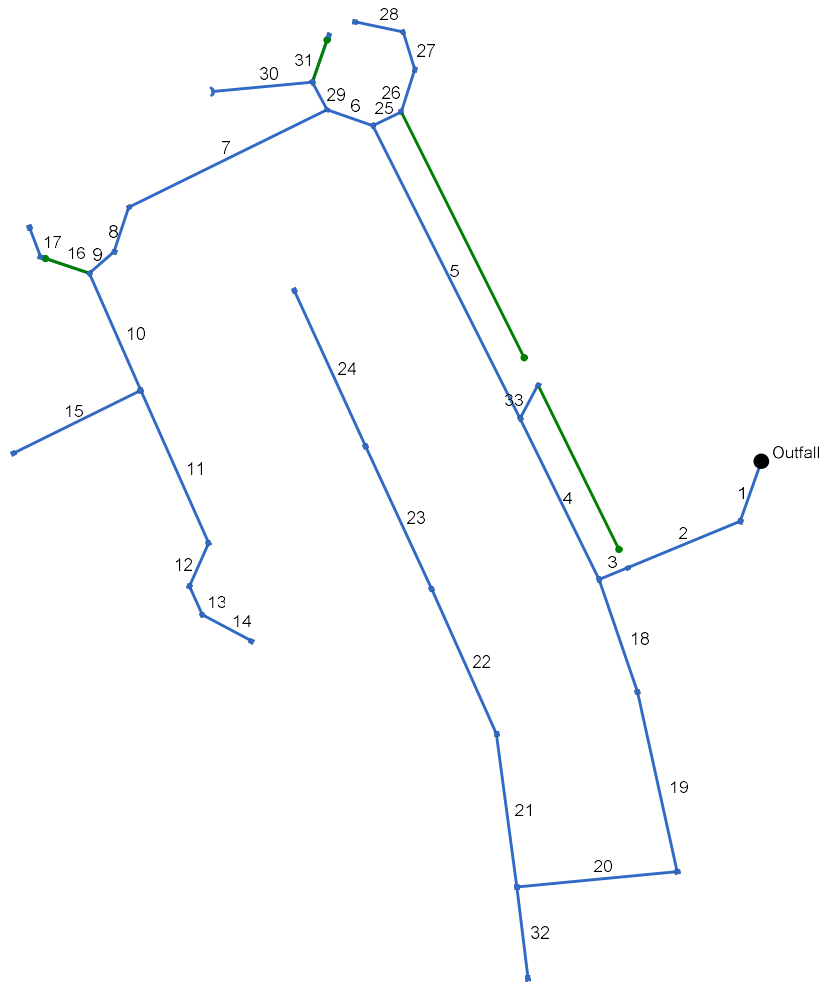


Storm Sewer Profile

Proj. file: SCM 1A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 1B Storm Network.stm	Number of lines: 33	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	56.876	109.419	DrGrt	0.00	0.08	0.60	10.0	375.50	0.49	375.78	42	Cir	0.013	1.17	383.11	Pipe - (402)
2	1	108.264	48.008	Comb	0.00	0.44	0.60	10.0	375.90	0.50	376.44	42	Cir	0.013	0.50	386.35	Pipe - (401)
3	2	27.685	0.267	Comb	0.00	0.53	0.60	10.0	376.55	0.51	376.69	42	Cir	0.013	1.50	386.12	Pipe - (400)
4	3	160.199	86.300	Comb	0.00	0.60	0.60	10.0	376.90	0.84	378.25	36	Cir	0.013	1.26	387.46	Pipe - (398)
5	4	292.665	-0.578	Comb	0.00	0.02	0.60	10.0	378.35	0.80	380.70	30	Cir	0.013	1.50	389.80	Pipe - (397)
6	5	43.286	-44.139	Comb	0.00	0.19	0.60	10.0	380.90	0.58	381.15	30	Cir	0.013	1.63	390.04	Pipe - (185)
7	6	196.769	-45.581	Comb	0.00	0.06	0.60	10.0	381.65	0.69	383.00	24	Cir	0.013	1.13	391.67	Pipe - (198)
8	7	41.948	-45.324	Comb	0.00	0.38	0.60	10.0	383.10	0.50	383.31	24	Cir	0.013	0.85	392.29	Pipe - (197)
9	8	29.270	30.927	Comb	0.00	0.22	0.60	10.0	383.41	0.51	383.56	24	Cir	0.013	1.98	392.38	Pipe - (199)
10	9	114.437	-72.992	Comb	0.00	0.15	0.60	10.0	384.05	1.00	385.20	18	Cir	0.013	1.50	393.33	Pipe - (196)
11	10	149.122	-0.126	Comb	0.00	0.06	0.60	10.0	385.45	1.01	386.95	15	Cir	0.013	1.16	394.48	Pipe - (194)
12	11	42.068	47.408	Comb	0.00	0.05	0.60	10.0	387.05	0.50	387.26	15	Cir	0.013	1.17	394.74	Pipe - (193)
13	12	28.000	-47.644	Comb	0.00	0.15	0.60	10.0	387.36	0.50	387.50	15	Cir	0.013	0.99	394.96	Pipe - (526)
14	13	50.224	-37.536	Comb	0.00	0.11	0.60	10.0	387.60	0.50	387.85	15	Cir	0.013	1.00	395.26	Pipe - (527)
15	10	126.742	87.317	DrGrt	0.00	1.09	0.60	10.0	385.45	0.50	386.08	15	Cir	0.013	1.00	388.72	Pipe - (691)
16	9	45.621	59.076	Comb	0.00	0.13	0.60	10.0	384.05	0.55	384.30	18	Cir	0.013	1.22	392.24	Pipe - (428)
17	16	28.355	51.210	Comb	0.00	0.15	0.60	10.0	384.50	0.49	384.64	18	Cir	0.013	1.00	391.80	Pipe - (427)
18	3	105.990	-86.519	Comb	0.00	0.18	0.60	10.0	376.90	0.75	377.70	36	Cir	0.013	0.50	387.12	Pipe - (208)
19	18	164.842	6.435	MH	0.00	0.00	0.60	10.0	377.80	0.50	378.62	30	Cir	0.013	1.00	387.27	Pipe - (597)
20	19	143.185	96.958	DrGrt	0.00	0.16	0.60	10.0	378.75	0.52	379.50	30	Cir	0.013	1.50	385.09	Pipe - (596)
21	20	138.266	87.802	DrGrt	0.00	0.77	0.60	10.0	380.00	0.51	380.70	24	Cir	0.013	0.50	384.91	Pipe - (601)
22	21	141.574	-16.470	DrGrt	0.00	0.64	0.60	10.0	381.20	0.50	381.91	18	Cir	0.013	0.50	384.85	Pipe - (600)
23	22	140.673	-0.572	DrGrt	0.00	0.60	0.60	10.0	382.16	0.50	382.86	15	Cir	0.013	0.50	385.85	Pipe - (599)

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	153.175	0.183	DrGrt	0.00	0.61	0.60	10.0	382.96	0.50	383.73	15	Cir	0.013	1.00	387.21	Pipe - (598)
25	5	28.000	90.133	Comb	0.00	0.03	0.60	10.0	381.95	0.50	382.09	15	Cir	0.013	1.14	389.80	Pipe - (396)
26	25	39.908	-45.826	Comb	0.00	0.02	0.60	10.0	382.19	0.50	382.39	15	Cir	0.013	0.94	388.01	Pipe - (430)
27	26	34.848	-35.110	Comb	0.00	0.04	0.60	10.0	382.49	0.50	382.66	15	Cir	0.013	1.34	387.49	Pipe - (429)
28	27	44.136	-60.527	Comb	0.00	0.02	0.60	10.0	382.76	0.50	382.98	15	Cir	0.013	1.00	389.26	Pipe - (431)
29	6	28.043	42.691	Comb	0.00	0.19	0.60	10.0	382.40	0.53	382.55	15	Cir	0.013	1.74	389.83	Pipe - (184)
30	29	88.937	-67.359	Hdwl	0.00	0.29	0.60	10.0	382.75	3.75	386.09	15	Cir	0.013	1.00	387.61	Pipe - (190)
31	29	44.388	47.309	Comb	0.00	0.02	0.60	10.0	382.75	0.99	383.19	15	Cir	0.013	1.00	389.48	Pipe - (183)
32	20	82.242	-91.237	DrGrt	0.00	0.66	0.60	10.0	380.75	0.50	381.16	15	Cir	0.013	1.00	382.91	Pipe - (218)
33	4	34.000	53.997	Comb	0.00	0.24	0.60	10.0	379.50	2.03	380.19	18	Cir	0.013	1.00	387.62	Pipe - (399)

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 141	DropGrate	383.11	Rect	4.00	4.00	42	Cir	375.78	42	Cir	375.90
2	CB 142	Combination	386.35	Rect	4.00	4.00	42	Cir	376.44	42	Cir	376.55
3	CB 143	Combination	386.12	Rect	4.00	4.00	42	Cir	376.69	36 36	Cir Cir	376.90 376.90
4	CB 144	Combination	387.46	Rect	4.00	4.00	36	Cir	378.25	30 18	Cir Cir	378.35 379.50
5	CB 145	Combination	389.80	Rect	4.00	4.00	30	Cir	380.70	30 15	Cir Cir	380.90 381.95
6	CB 146	Combination	390.04	Rect	4.00	4.00	30	Cir	381.15	24 15	Cir Cir	381.65 382.40
7	CB 148	Combination	391.67	Rect	4.00	4.00	24	Cir	383.00	24	Cir	383.10
8	CB 149	Combination	392.29	Rect	4.00	4.00	24	Cir	383.31	24	Cir	383.41
9	CB 150	Combination	392.38	Rect	4.00	4.00	24	Cir	383.56	18 18	Cir Cir	384.05 384.05
10	CB 151	Combination	393.33	Rect	4.00	4.00	18	Cir	385.20	15 15	Cir Cir	385.45 385.45
11	CB 152	Combination	394.48	Rect	4.00	4.00	15	Cir	386.95	15	Cir	387.05
12	CB 153	Combination	394.74	Rect	4.00	4.00	15	Cir	387.26	15	Cir	387.36
13	CB 154	Combination	394.96	Rect	4.00	4.00	15	Cir	387.50	15	Cir	387.60
14	CB 154A	Combination	395.26	Rect	4.00	4.00	15	Cir	387.85			
15	YI 151A	DropGrate	388.72	Rect	4.00	4.00	15	Cir	386.08			
16	CB 150A	Combination	392.24	Rect	4.00	4.00	18	Cir	384.30	18	Cir	384.50
17	CB 150B	Combination	391.80	Rect	4.00	4.00	18	Cir	384.64			
18	CB 143A	Combination	387.12	Rect	4.00	4.00	36	Cir	377.70	30	Cir	377.80
19	JB-147	Manhole	387.27	Rect	4.00	4.00	30	Cir	378.62	30	Cir	378.75
20	YI 158A	DropGrate	385.09	Rect	4.00	4.00	30	Cir	379.50	24 15	Cir Cir	380.00 380.75

Project File: SCM 1B Storm Network.stm | Number of Structures: 33 | Run Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	YI 158	DropGrate	384.91	Rect	4.00	4.00	24	Cir	380.70	18	Cir	381.20
22	YI 157	DropGrate	384.85	Rect	4.00	4.00	18	Cir	381.91	15	Cir	382.16
23	YI 156	DropGrate	385.85	Rect	4.00	4.00	15	Cir	382.86	15	Cir	382.96
24	YI 155	DropGrate	387.21	Rect	4.00	4.00	15	Cir	383.73			
25	CB 145A	Combination	389.80	Rect	4.00	4.00	15	Cir	382.09	15	Cir	382.19
26	CB 145B	Combination	388.01	Rect	4.00	4.00	15	Cir	382.39	15	Cir	382.49
27	CB 145C	Combination	387.49	Rect	4.00	4.00	15	Cir	382.66	15	Cir	382.76
28	CB 145D	Combination	389.26	Rect	4.00	4.00	15	Cir	382.98			
29	CB 146A	Combination	389.83	Rect	4.00	4.00	15	Cir	382.55	15 15	Cir Cir	382.75 382.75
30	FES 146C	OpenHeadwall	387.61	n/a	n/a	n/a	15	Cir	386.09			
31	CB 146B	Combination	389.48	Rect	4.00	4.00	15	Cir	383.19			
32	YI 159	DropGrate	382.91	Rect	4.00	4.00	15	Cir	381.16			
33	CB 144A	Combination	387.62	Rect	4.00	4.00	18	Cir	380.19			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (402)	28.14	42	Cir	56.876	375.50	375.78	0.492	381.23*	381.27*	0.16	381.43	End	DropGrate
2	Pipe - (401)	28.34	42	Cir	108.264	375.90	376.44	0.499	381.43*	381.52*	0.07	381.58	1	Combination
3	Pipe - (400)	27.04	42	Cir	27.685	376.55	376.69	0.506	381.58*	381.60*	0.18	381.79	2	Combination
4	Pipe - (398)	14.13	36	Cir	160.199	376.90	378.25	0.843	381.79*	381.86*	0.08	381.94	3	Combination
5	Pipe - (397)	11.83	30	Cir	292.665	378.35	380.70	0.803	381.94	382.19	0.35	382.54	4	Combination
6	Pipe - (185)	11.42	30	Cir	43.286	380.90	381.15	0.578	382.54	382.28	0.71	382.28	5	Combination
7	Pipe - (198)	9.15	24	Cir	196.769	381.65	383.00	0.686	382.64	384.08	0.49	384.08	6	Combination
8	Pipe - (197)	8.97	24	Cir	41.948	383.10	383.31	0.501	384.17	384.38	0.36	384.74	7	Combination
9	Pipe - (199)	7.63	24	Cir	29.270	383.41	383.56	0.512	384.74	384.54	n/a	384.54	8	Combination
10	Pipe - (196)	5.89	18	Cir	114.437	384.05	385.20	1.005	384.85	386.14	n/a	386.14	9	Combination
11	Pipe - (194)	1.39	15	Cir	149.122	385.45	386.95	1.006	386.14	387.42	n/a	387.42 j	10	Combination
12	Pipe - (193)	1.18	15	Cir	42.068	387.05	387.26	0.499	387.48	387.69	0.18	387.87	11	Combination
13	Pipe - (526)	0.99	15	Cir	28.000	387.36	387.50	0.500	387.87	387.90	n/a	388.03 j	12	Combination
14	Pipe - (527)	0.43	15	Cir	50.224	387.60	387.85	0.498	388.03	388.11	0.08	388.19	13	Combination
15	Pipe - (691)	4.23	15	Cir	126.742	385.45	386.08	0.497	386.40	387.03	0.28	387.31	10	DropGrate
16	Pipe - (428)	1.08	18	Cir	45.621	384.05	384.30	0.548	384.54	384.69	n/a	384.69 j	9	Combination
17	Pipe - (427)	0.58	18	Cir	28.355	384.50	384.64	0.494	384.79	384.93	n/a	385.02 j	16	Combination
18	Pipe - (208)	12.09	36	Cir	105.990	376.90	377.70	0.755	381.79*	381.82*	0.02	381.85	3	Combination
19	Pipe - (597)	11.87	30	Cir	164.842	377.80	378.62	0.497	381.85*	381.98*	0.09	382.07	18	Manhole
20	Pipe - (596)	12.21	30	Cir	143.185	378.75	379.50	0.524	382.07*	382.20*	0.14	382.35	19	DropGrate
21	Pipe - (601)	9.52	24	Cir	138.266	380.00	380.70	0.506	382.35	382.57	0.08	382.64	20	DropGrate
22	Pipe - (600)	6.84	18	Cir	141.574	381.20	381.91	0.501	382.64	383.14	0.15	383.29	21	DropGrate
23	Pipe - (599)	4.56	15	Cir	140.673	382.16	382.86	0.498	383.29	383.91	0.13	384.04	22	DropGrate
24	Pipe - (598)	2.37	15	Cir	153.175	382.96	383.73	0.503	384.04	384.37	0.22	384.59	23	DropGrate

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (396)	0.40	15	Cir	28.000	381.95	382.09	0.500	382.54	382.54	0.02	382.56	5	Combination
26	Pipe - (430)	0.30	15	Cir	39.908	382.19	382.39	0.500	382.56	382.61	0.06	382.67	25	Combination
27	Pipe - (429)	0.22	15	Cir	34.848	382.49	382.66	0.500	382.68	382.85	0.08	382.93	26	Combination
28	Pipe - (431)	0.08	15	Cir	44.136	382.76	382.98	0.500	382.93	383.09	0.03	383.12	27	Combination
29	Pipe - (184)	1.88	15	Cir	28.043	382.40	382.55	0.535	382.95	383.10	0.36	383.45	6	Combination
30	Pipe - (190)	1.12	15	Cir	88.937	382.75	386.09	3.752	383.45	386.50	n/a	386.50 j	29	OpenHeadwall
31	Pipe - (183)	0.08	15	Cir	44.388	382.75	383.19	0.991	383.45	383.30	n/a	383.30	29	Combination
32	Pipe - (218)	2.56	15	Cir	82.242	380.75	381.16	0.499	382.35*	382.48*	0.07	382.54	20	DropGrate
33	Pipe - (399)	0.93	18	Cir	34.000	379.50	380.19	2.029	381.94*	381.94*	0.00	381.94	4	Combination

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 141	0.31	0.00	0.31	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.04	6.95	0.04	6.95	0.0	Off
2	CB 142	1.71	0.08	1.78	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.24	7.84	0.24	7.84	0.0	Off
3	CB 143	2.06	0.65	2.70	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.29	10.66	0.29	10.66	0.0	Off
4	CB 144	2.33	0.00	1.71	0.62	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.22	7.15	0.15	3.33	0.0	3
5	CB 145	0.09	0.00	0.09	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.19	0.00	0.00	0.0	Off
6	CB 146	0.74	0.00	0.74	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.92	0.16	3.92	0.0	Off
7	CB 148	0.23	0.25	0.48	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.73	0.02	0.33	0.0	6
8	CB 149	1.47	0.00	1.22	0.25	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.19	5.70	0.11	1.76	0.0	7
9	CB 150	0.85	0.00	0.80	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.16	0.06	1.02	0.0	16
10	CB 151	0.58	0.00	0.57	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	3.18	0.03	0.55	0.0	Off
11	CB 152	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.71	0.00	0.00	0.0	10
12	CB 153	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	11
13	CB 154	0.58	0.00	0.58	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.19	0.14	3.19	0.0	Off
14	CB 154A	0.43	0.00	0.43	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
15	YI 151A	4.23	0.00	4.23	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.25	27.90	0.25	27.90	0.0	Off
16	CB 150A	0.50	0.06	0.56	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.10	0.14	3.10	0.0	Off
17	CB 150B	0.58	0.00	0.57	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	3.18	0.03	0.54	0.0	Off
18	CB 143A	0.70	0.00	0.67	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.64	0.05	0.77	0.0	3
19	JB-147	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
20	YI 158A	0.62	0.00	0.62	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.07	9.56	0.07	9.56	0.0	Off
21	YI 158	2.99	0.00	2.99	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.64	0.20	22.64	0.0	Off
22	YI 157	2.48	0.00	2.48	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.18	20.30	0.18	20.30	0.0	Off
23	YI 156	2.33	0.00	2.33	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.55	0.17	19.55	0.0	Off

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	YI 155	2.37	0.00	2.37	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.74	0.17	19.74	0.0	Off
25	CB 145A	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.32	0.00	0.00	0.0	33
26	CB 145B	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	Off
27	CB 145C	0.15	0.00	0.15	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.09	1.45	0.00	0.00	0.0	Off
28	CB 145D	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.07	1.13	0.00	0.00	0.0	Off
29	CB 146A	0.74	0.00	0.70	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.78	0.05	0.83	0.0	31
30	FES 146C	1.12	0.00	1.12	0.00	Hdwl	0.0	1.50	4.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
31	CB 146B	0.08	0.03	0.11	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.08	1.30	0.00	0.00	0.0	Off
32	YI 159	2.56	0.00	2.56	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.18	20.67	0.18	20.67	0.0	Off
33	CB 144A	0.93	0.00	0.85	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.39	0.07	1.13	0.0	2

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	42	28.14	375.50	381.23	3.50	9.62	2.93	0.13	381.36	0.078	56.876	375.78	381.27	3.50	9.62	2.92	0.13	381.41	0.078	0.078	0.045	1.17	0.16
2	42	28.34	375.90	381.43	3.50	9.62	2.95	0.13	381.57	0.079	108.264	376.44	381.52	3.50	9.62	2.95	0.13	381.65	0.079	0.079	0.086	0.50	0.07
3	42	27.04	376.55	381.58	3.50	9.62	2.81	0.12	381.71	0.072	27.685	376.69	381.60	3.50	9.62	2.81	0.12	381.73	0.072	0.072	0.020	1.50	0.18
4	36	14.13	376.90	381.79	3.00	7.07	2.00	0.06	381.85	0.045	160.199	378.25	381.86	3.00	7.07	2.00	0.06	381.92	0.045	0.045	0.072	1.26	0.08
5	30	11.83	378.35	381.94	2.50	4.91	2.41	0.09	382.03	0.083	292.665	380.70	382.19	1.49	3.05	3.88	0.23	382.42	0.189	0.136	0.398	1.50	0.35
6	30	11.42	380.90	382.54	1.64	2.16	3.35	0.44	382.98	0.000	43.286	381.15	382.28	1.13**	2.16	5.29	0.44	382.72	0.000	0.000	n/a	1.63	0.71
7	24	9.15	381.65	382.64	0.99*	1.54	5.93	0.44	383.07	0.000	196.769	383.00	384.08	1.08**	1.73	5.29	0.44	384.51	0.000	0.000	n/a	1.13	0.49
8	24	8.97	383.10	384.17	1.07*	1.71	5.24	0.43	384.60	0.500	41.948	383.31	384.38	1.07**	1.72	5.23	0.42	384.81	0.497	0.499	0.209	0.85	0.36
9	24	7.63	383.41	384.74	1.33	1.53	3.43	0.39	385.13	0.000	29.270	383.56	384.54	0.98**	1.53	4.98	0.39	384.93	0.000	0.000	n/a	1.98	n/a
10	18	5.89	384.05	384.85	0.80*	0.96	6.12	0.40	385.25	0.000	114.437	385.20	386.14	0.94**	1.16	5.08	0.40	386.54	0.000	0.000	n/a	1.50	n/a
11	15	1.39	385.45	386.14	0.69	0.42	2.02	0.17	386.31	0.000	149.122	386.95	387.42 j	0.47**	0.42	3.34	0.17	387.59	0.000	0.000	n/a	1.16	n/a
12	15	1.18	387.05	387.48	0.43*	0.37	3.12	0.15	387.63	0.499	42.068	387.26	387.69	0.43**	0.38	3.12	0.15	387.84	0.499	0.499	0.210	1.17	0.18
13	15	0.99	387.36	387.87	0.51	0.33	2.11	0.07	387.94	0.194	28.000	387.50	387.90 j	0.40**	0.34	2.93	0.13	388.03	0.480	0.337	0.094	0.99	0.13
14	15	0.43	387.60	388.03	0.43	0.18	1.13	0.02	388.05	0.066	50.224	387.85	388.11	0.26**	0.18	2.33	0.08	388.19	0.496	0.281	0.141	1.00	0.08
15	15	4.23	385.45	386.40	0.95*	1.00	4.21	0.28	386.68	0.497	126.742	386.08	387.03	0.95	1.00	4.21	0.28	387.31	0.496	0.497	0.630	1.00	0.28
16	18	1.08	384.05	384.54	0.49	0.36	2.14	0.14	384.68	0.000	45.621	384.30	384.69 j	0.39**	0.36	2.98	0.14	384.83	0.000	0.000	n/a	1.22	n/a
17	18	0.58	384.50	384.79	0.28*	0.23	2.49	0.10	384.88	0.493	28.355	384.64	384.93 j	0.29**	0.23	2.48	0.10	385.02	0.489	0.491	0.139	1.00	0.10
18	36	12.09	376.90	381.79	3.00	7.07	1.71	0.05	381.83	0.033	105.990	377.70	381.82	3.00	7.07	1.71	0.05	381.87	0.033	0.033	0.035	0.50	0.02
19	30	11.87	377.80	381.85	2.50	4.91	2.42	0.09	381.94	0.084	164.842	378.62	381.98	2.50	4.91	2.42	0.09	382.07	0.084	0.084	0.138	1.00	0.09
20	30	12.21	378.75	382.07	2.50	4.91	2.49	0.10	382.17	0.089	143.185	379.50	382.20	2.50	4.91	2.49	0.10	382.30	0.089	0.089	0.127	1.50	0.14
21	24	9.52	380.00	382.35	2.00	3.14	3.03	0.14	382.49	0.177	138.266	380.70	382.57	1.87	3.05	3.12	0.15	382.72	0.153	0.165	0.228	0.50	0.08
22	18	6.84	381.20	382.64	1.44	1.74	3.92	0.24	382.88	0.370	141.574	381.91	383.14	1.23	1.55	4.41	0.30	383.44	0.423	0.397	0.562	0.50	0.15

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

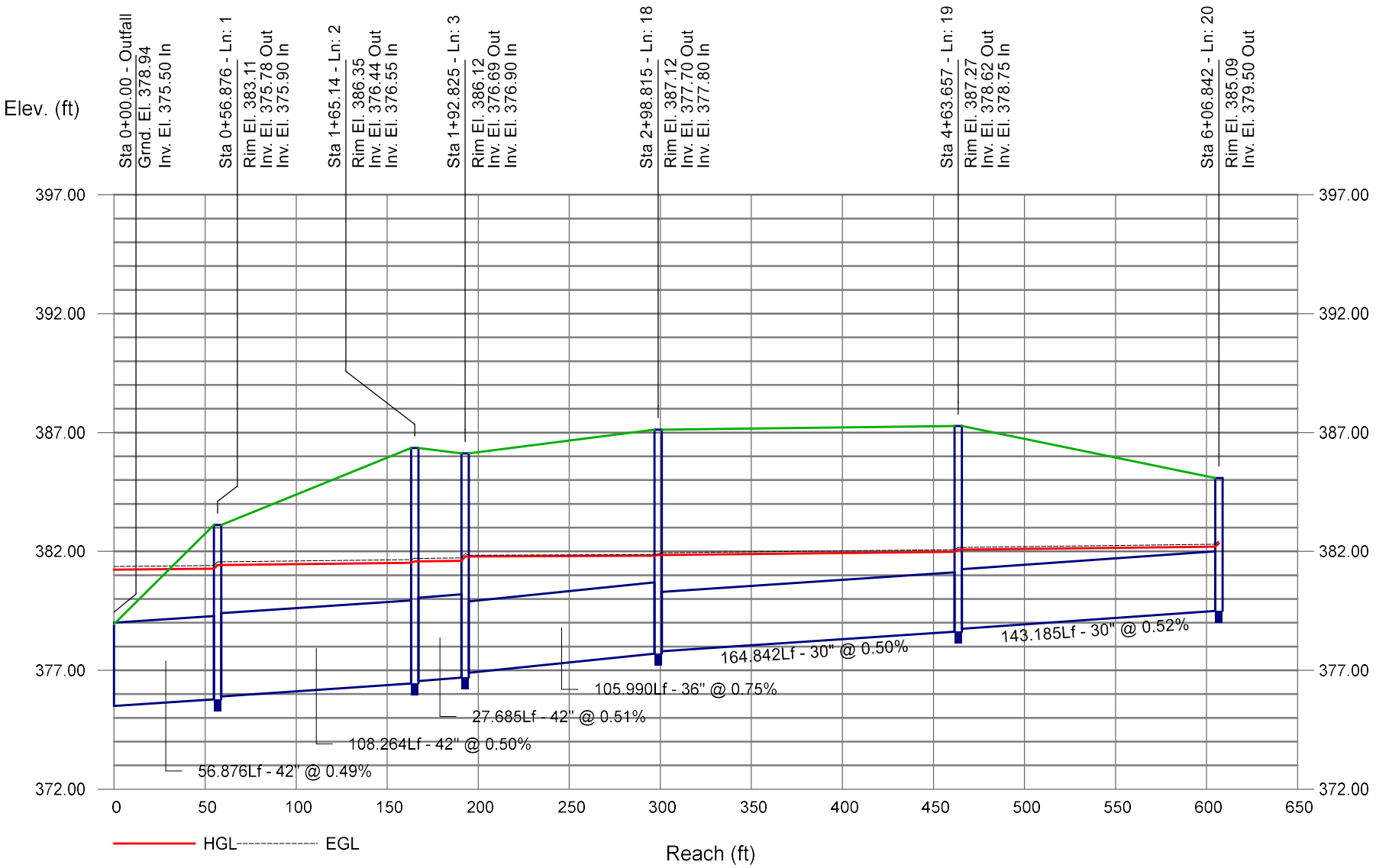
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	4.56	382.16	383.29	1.13	1.17	3.90	0.24	383.53	0.437	140.673	382.86	383.91	1.05	1.10	4.16	0.27	384.17	0.481	0.459	0.646	0.50	0.13
24	15	2.37	382.96	384.04	1.08	1.13	2.10	0.07	384.11	0.124	153.175	383.73	384.37	0.64	0.63	3.77	0.22	384.59	0.505	0.314	0.482	1.00	0.22
25	15	0.40	381.95	382.54	0.59	0.57	0.71	0.01	382.55	0.019	28.000	382.09	382.54	0.45	0.40	1.01	0.02	382.56	0.050	0.035	0.010	1.14	0.02
26	15	0.30	382.19	382.56	0.37	0.30	0.98	0.01	382.57	0.058	39.908	382.39	382.61	0.22	0.15	2.01	0.06	382.67	0.443	0.250	0.100	0.94	0.06
27	15	0.22	382.49	382.68	0.19*	0.11	1.92	0.06	382.74	0.498	34.848	382.66	382.85	0.19**	0.12	1.94	0.06	382.91	0.513	0.505	0.176	1.34	0.08
28	15	0.08	382.76	382.93	0.17	0.05	0.77	0.01	382.94	0.092	44.136	382.98	383.09	0.11**	0.05	1.49	0.03	383.12	0.598	0.345	0.152	1.00	0.03
29	15	1.88	382.40	382.95	0.55*	0.51	3.63	0.20	383.15	0.534	28.043	382.55	383.10	0.55**	0.52	3.63	0.20	383.30	0.536	0.535	0.150	1.74	0.36
30	15	1.12	382.75	383.45	0.70	0.36	1.57	0.15	383.61	0.000	88.937	386.09	386.50 j	0.42**	0.36	3.13	0.15	386.66	0.000	0.000	n/a	1.00	n/a
31	15	0.08	382.75	383.45	0.70	0.05	0.11	0.04	383.49	0.000	44.388	383.19	383.30	0.11**	0.05	1.53	0.04	383.33	0.000	0.000	n/a	1.00	n/a
32	15	2.56	380.75	382.35	1.25	1.23	2.09	0.07	382.41	0.157	82.242	381.16	382.48	1.25	1.23	2.09	0.07	382.54	0.157	0.157	0.129	1.00	0.07
33	18	0.93	379.50	381.94	1.50	1.77	0.53	0.00	381.94	0.008	34.000	380.19	381.94	1.50	1.77	0.53	0.00	381.94	0.008	0.008	0.003	1.00	0.00

Project File: SCM 1B Storm Network.stm | Number of lines: 33 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

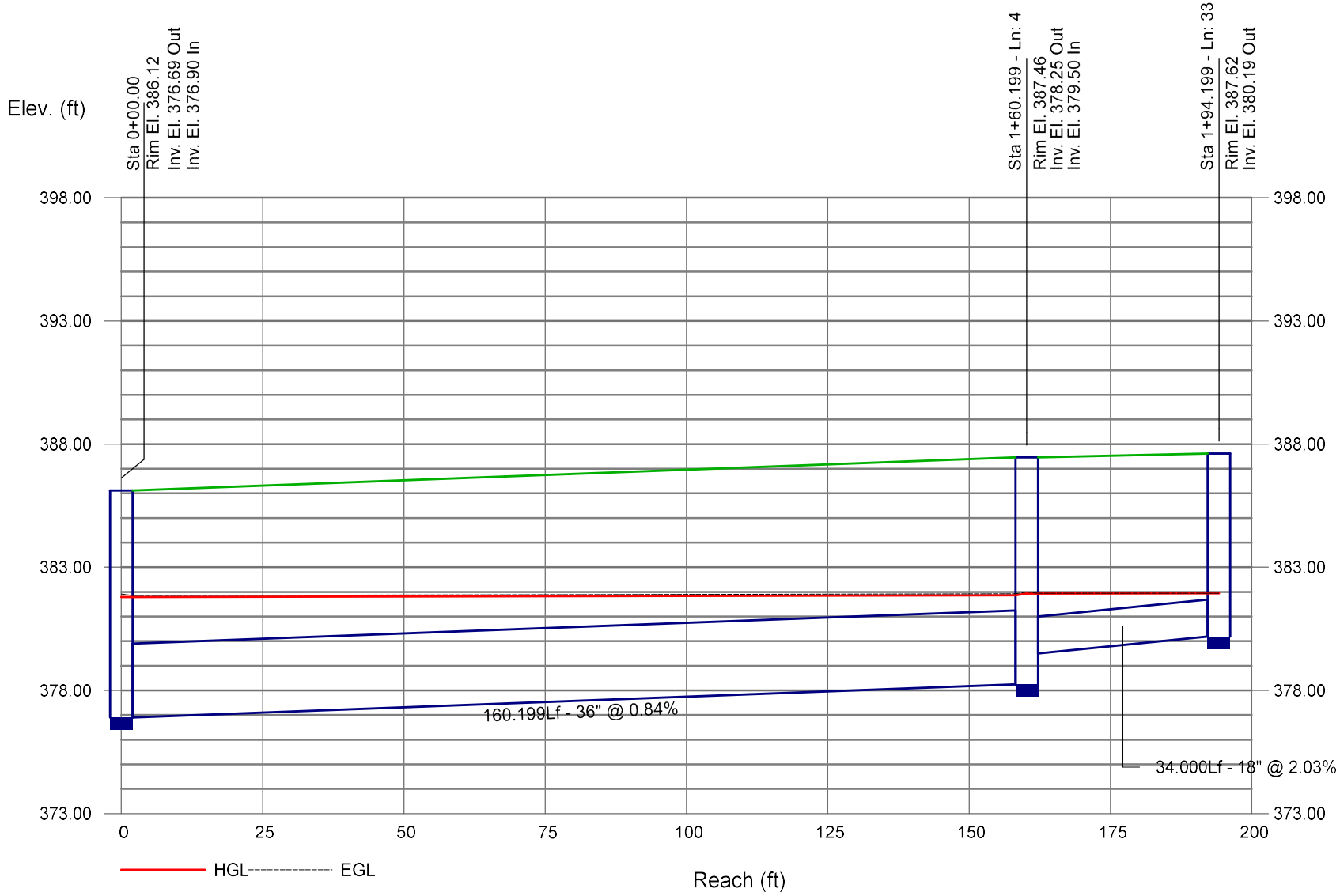
Storm Sewer Profile

Proj. file: SCM 1B Storm Network.stm



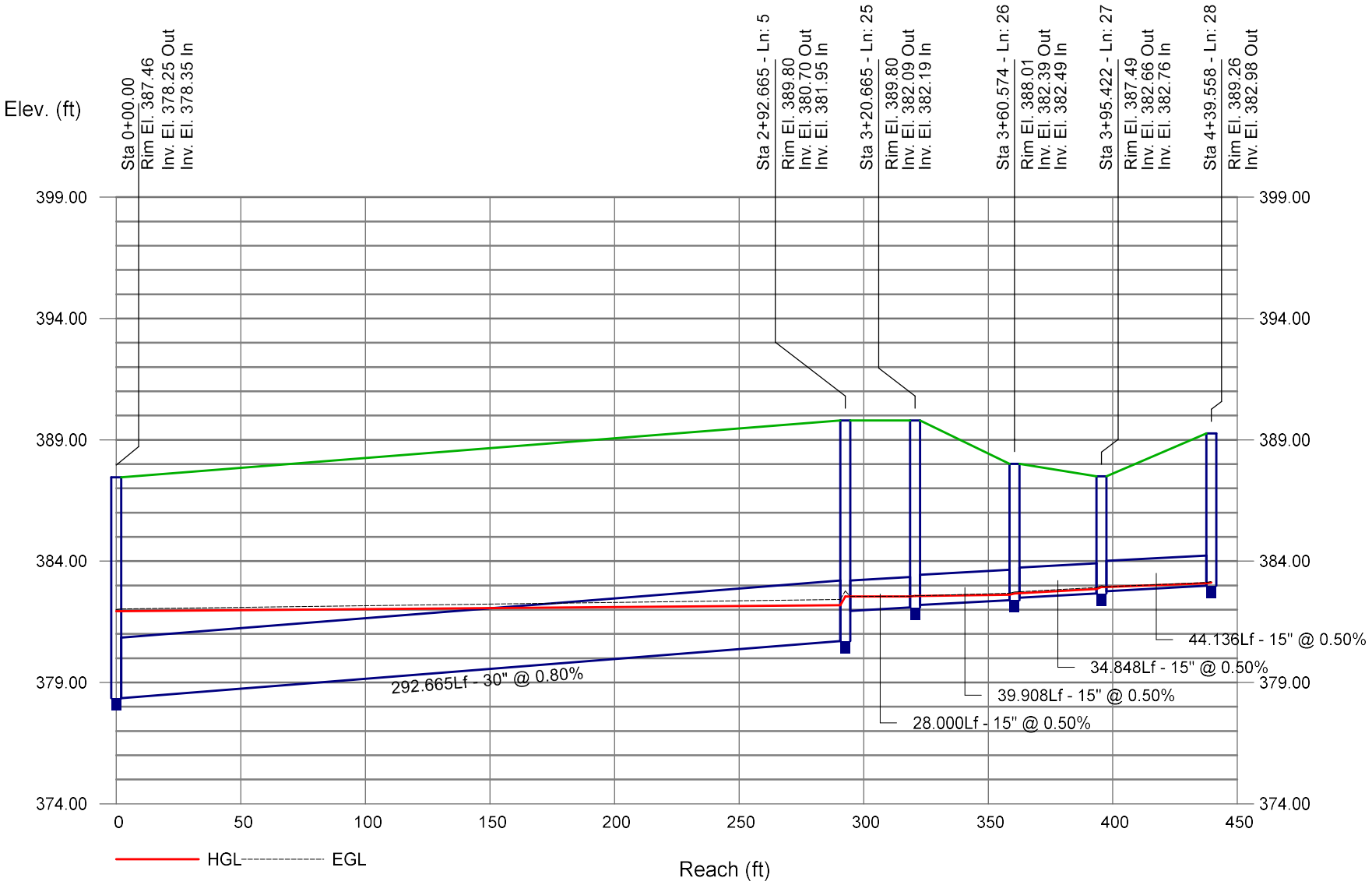
Storm Sewer Profile

Proj. file: SCM 1B Storm Network.stm



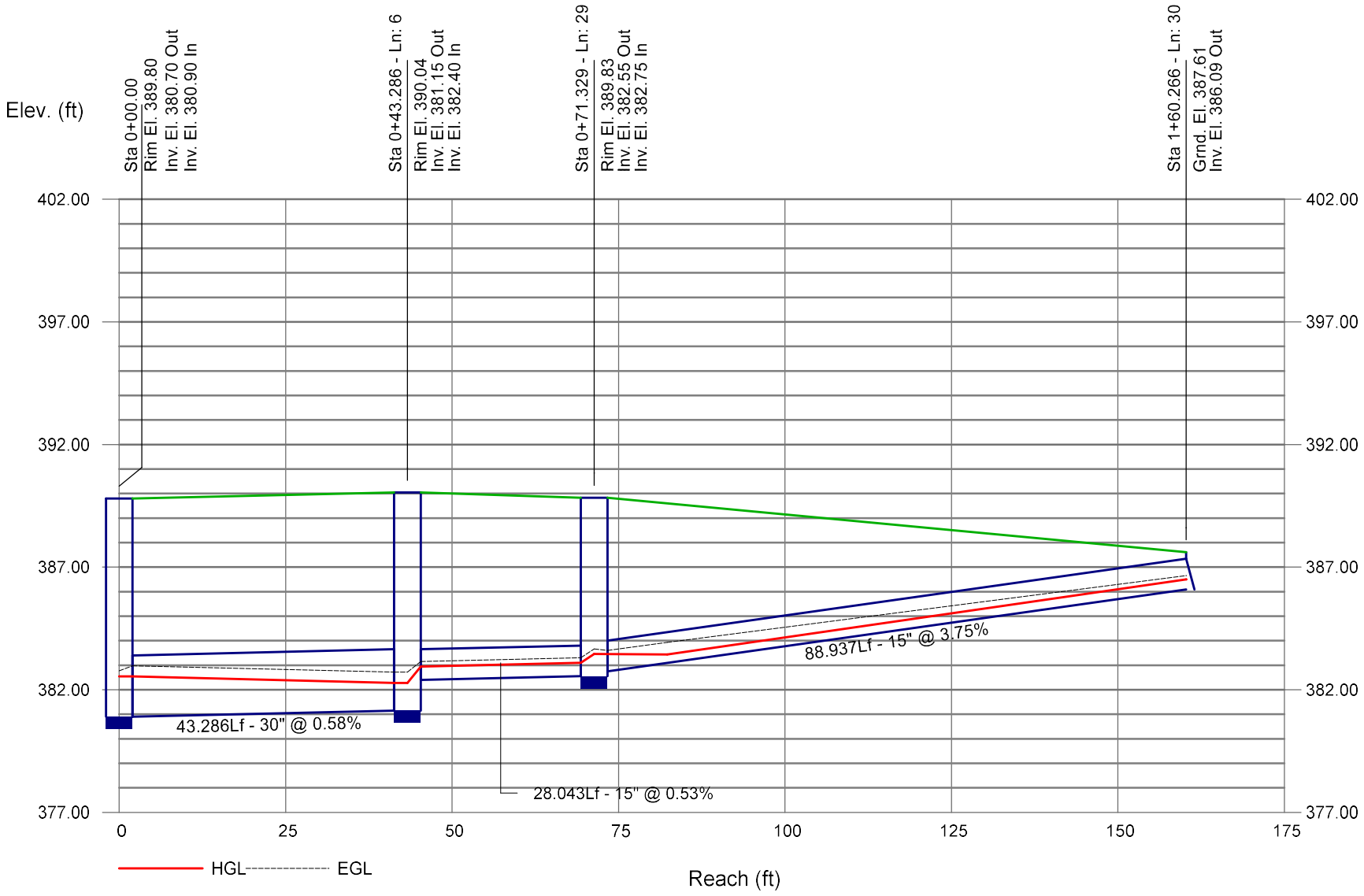
Storm Sewer Profile

Proj. file: SCM 1B Storm Network.stm



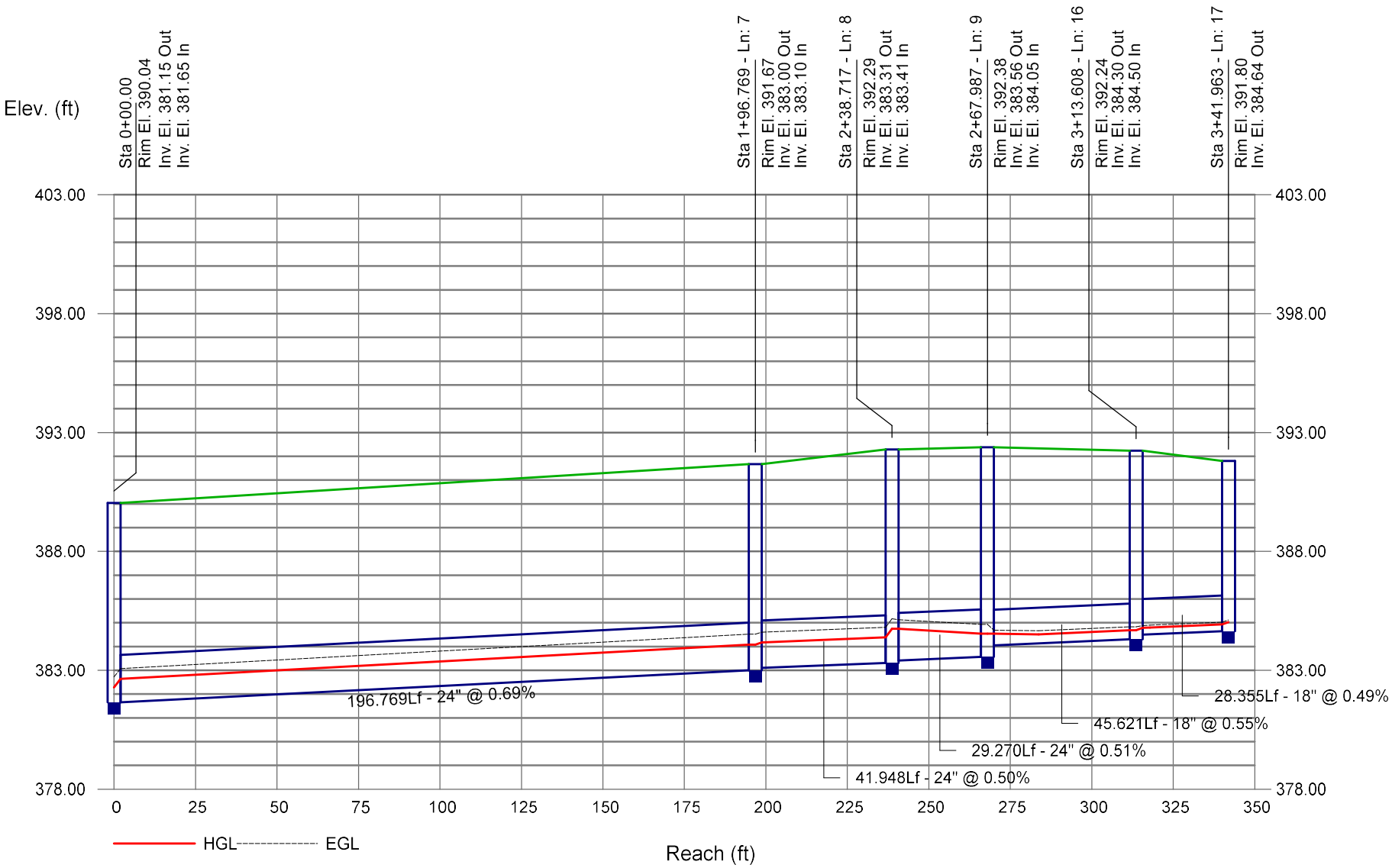
Storm Sewer Profile

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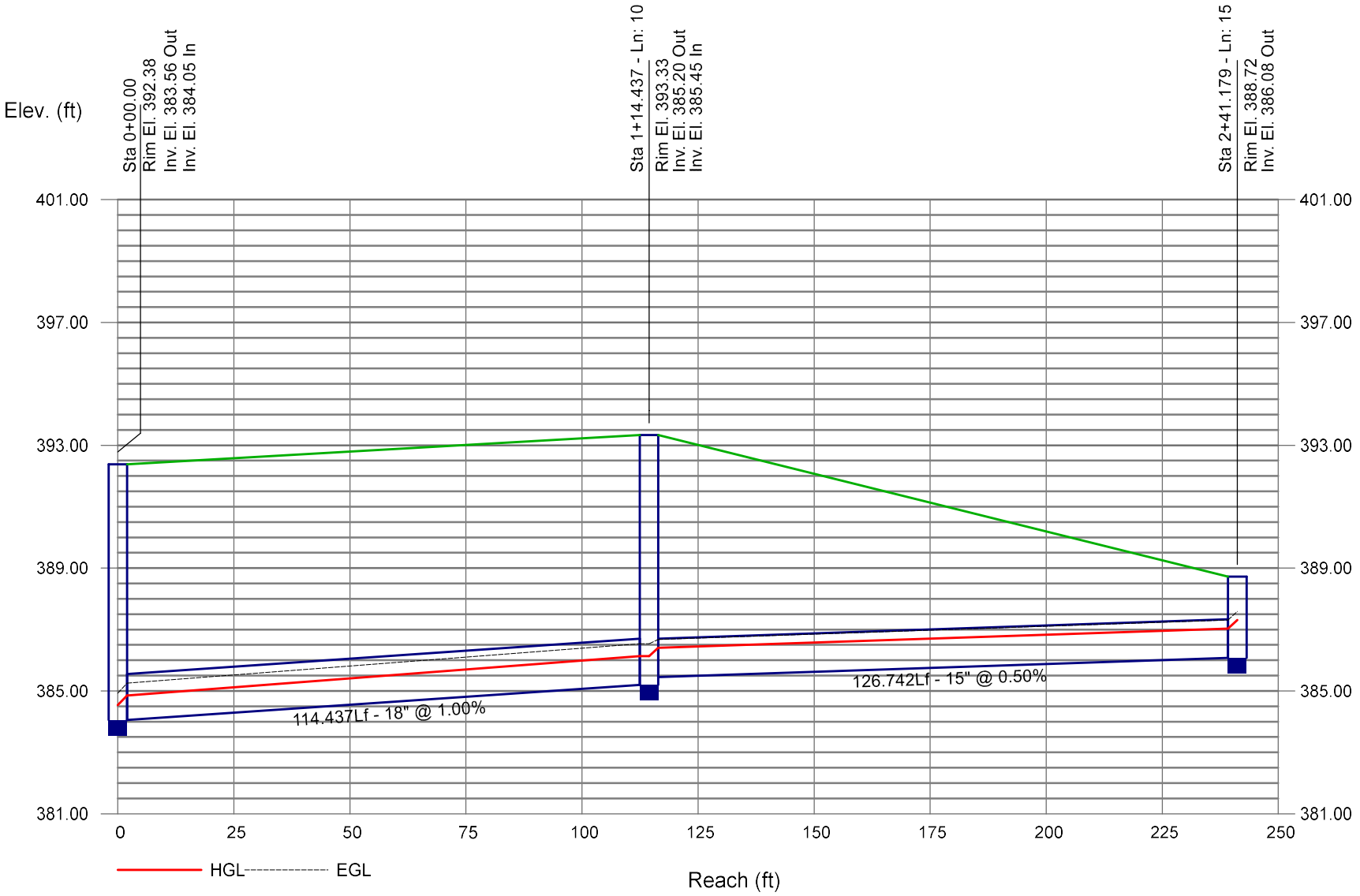
Storm Sewer Profile

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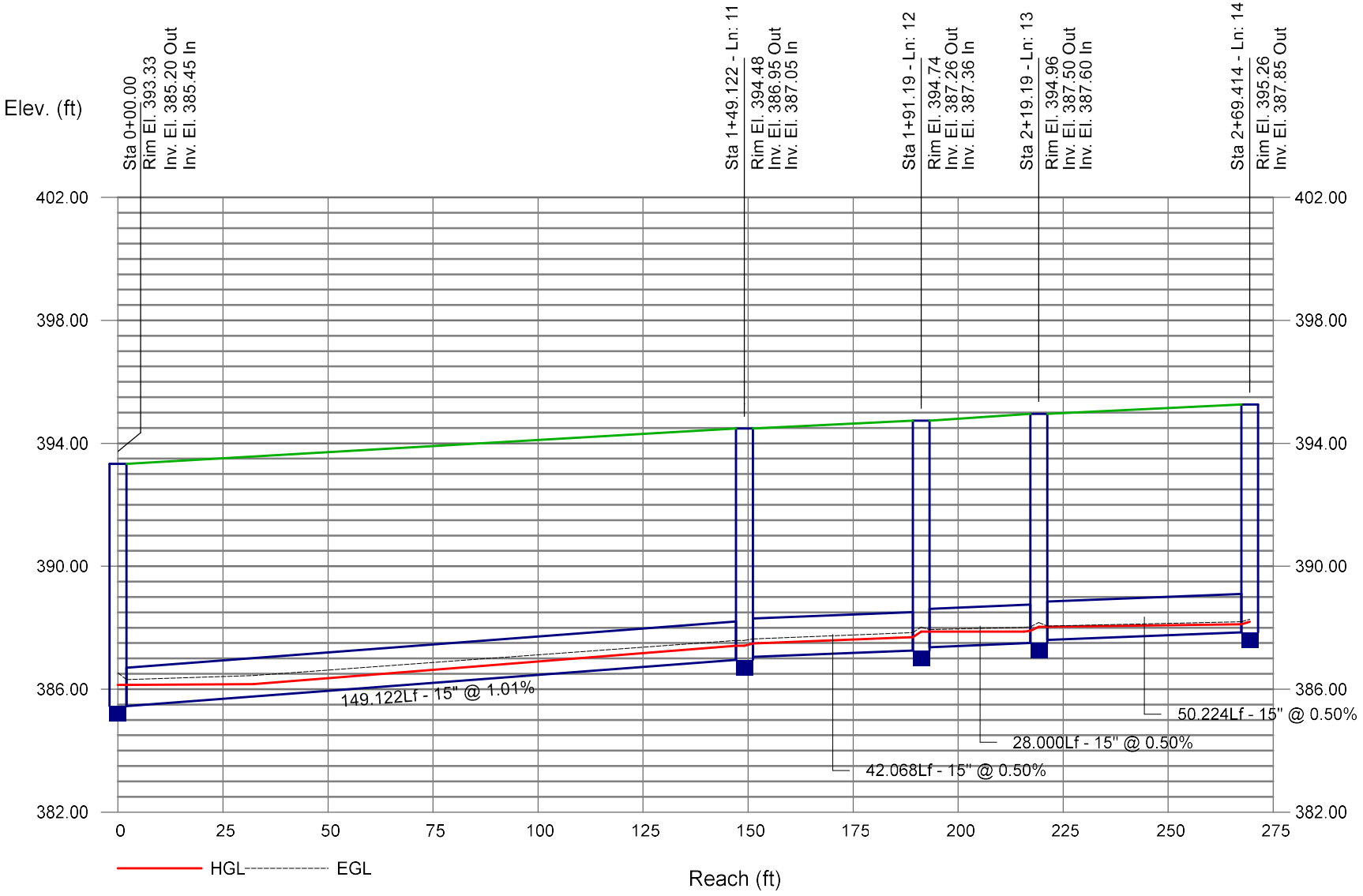
Storm Sewer Profile

Proj. file: SCM 1B Storm Network.stm



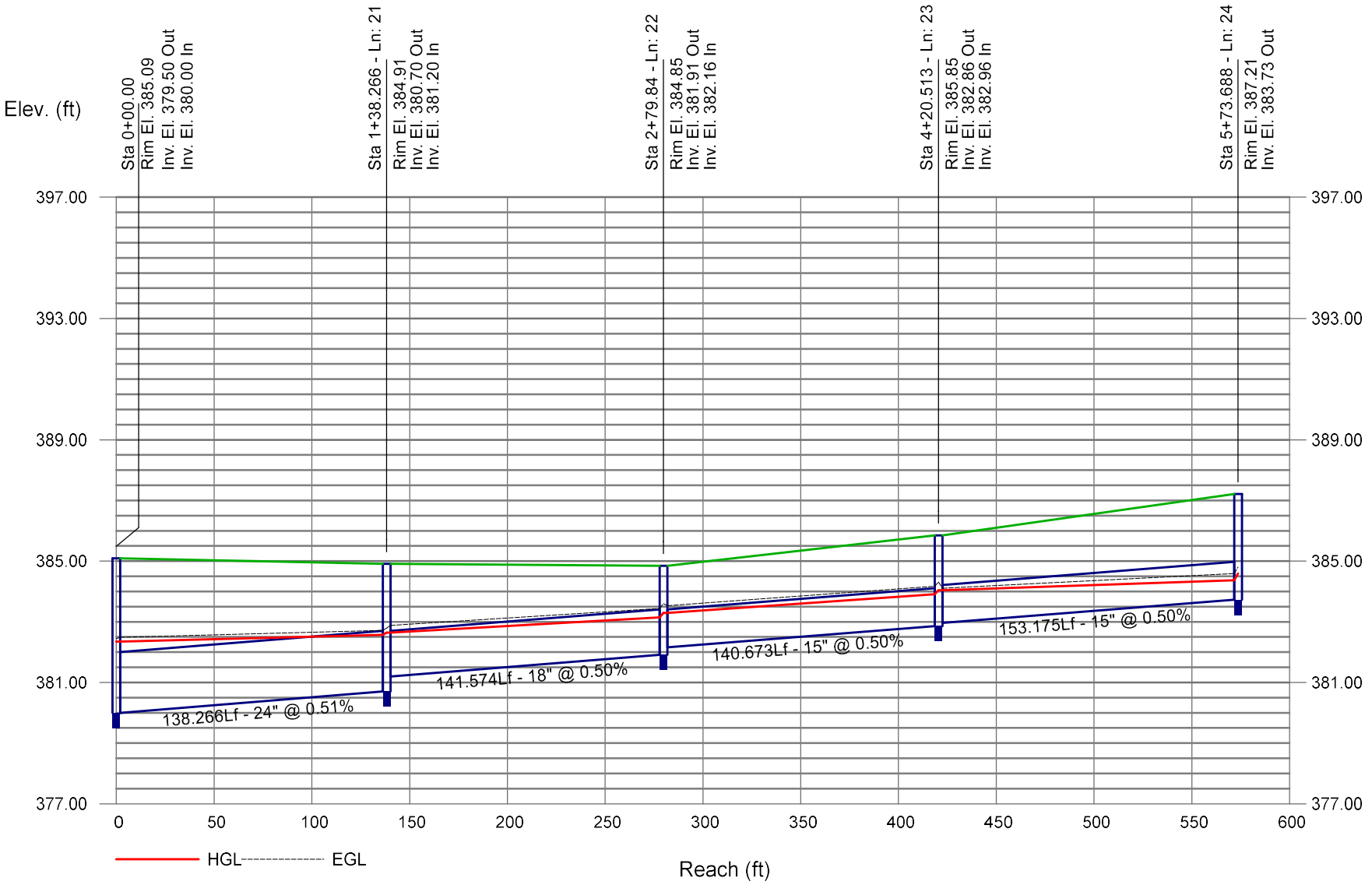
Storm Sewer Profile

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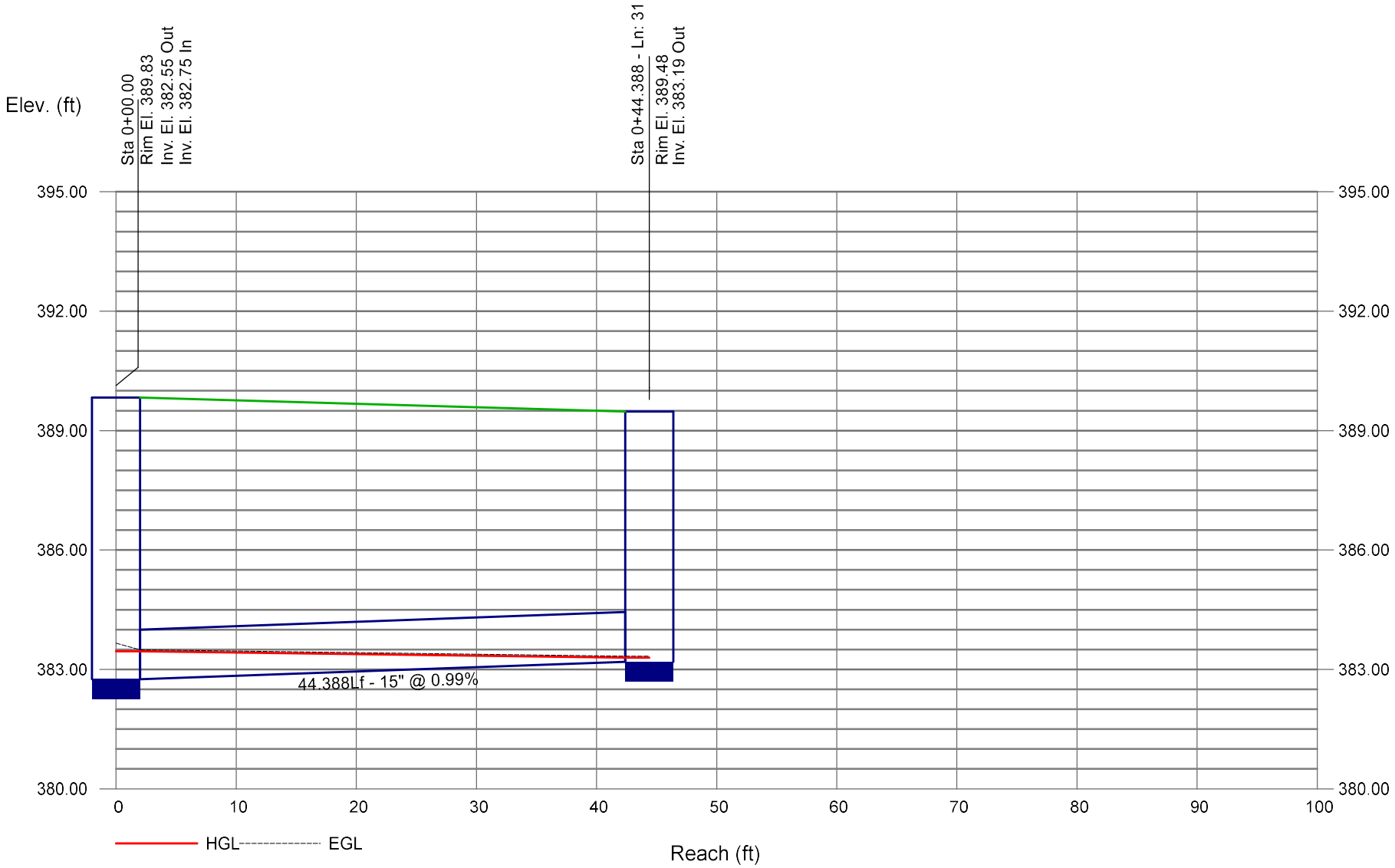
Storm Sewer Profile

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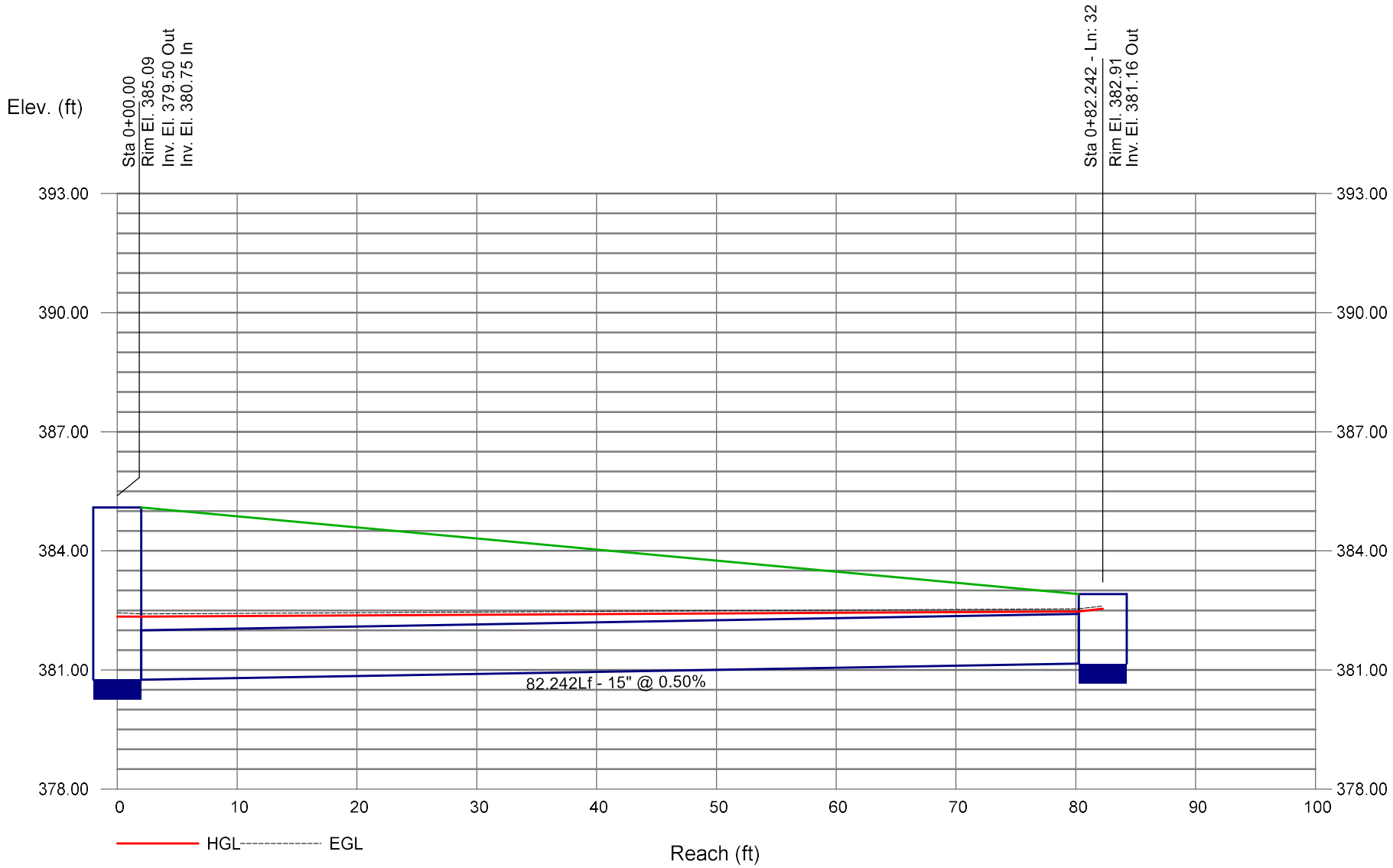
Storm Sewer Profile

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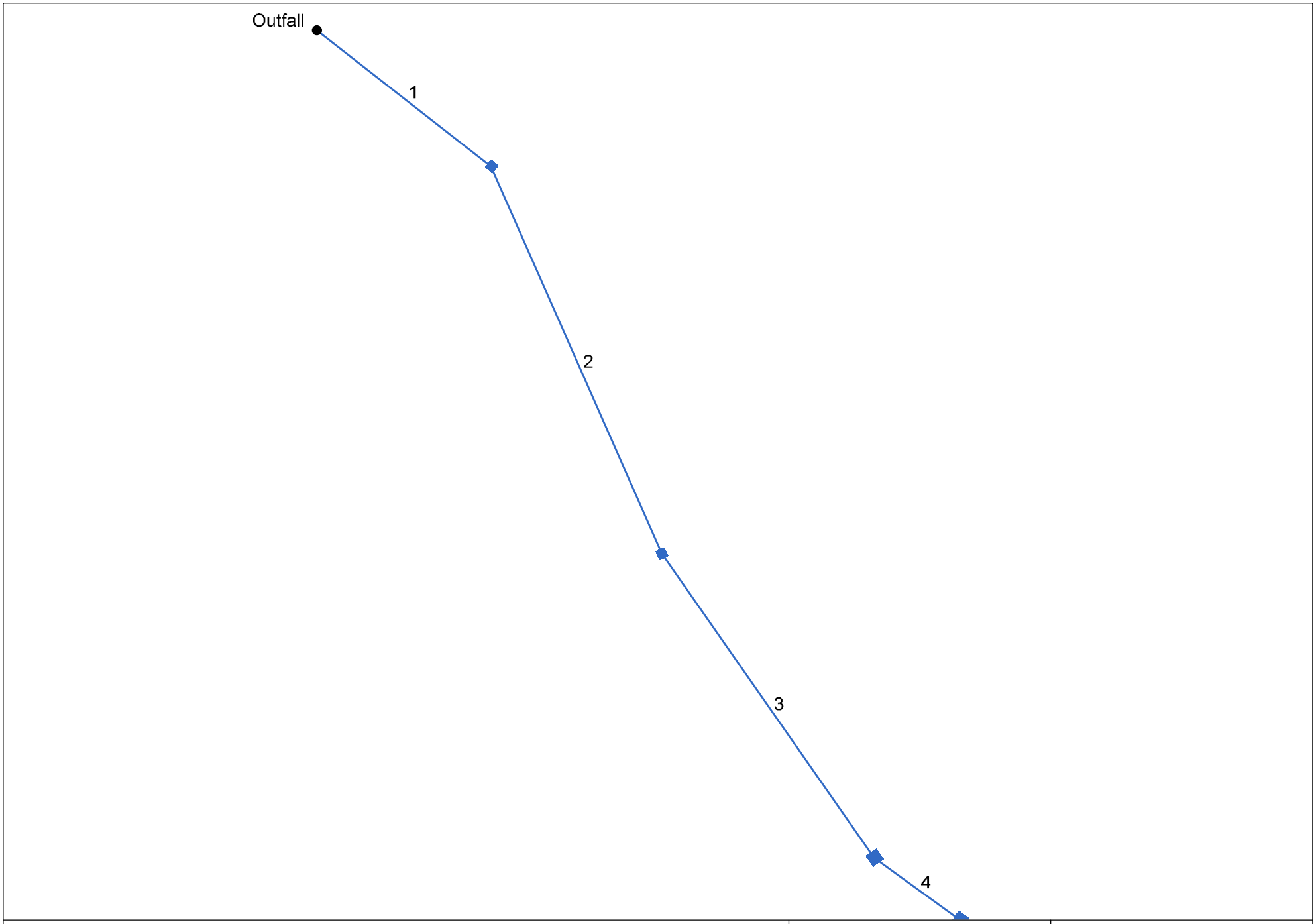


Storm Sewer Profile

Proj. file: SCM 1B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan SCM 1C 25-YEAR



Project File: SCM 1C Storm Network.stm	Number of lines: 4	Date: 4/11/2025

Storm Sewer Inventory Report

SCM 1C 25-YEAR

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	70.981	38.145	DrGrt	0.00	0.39	0.60	10.0	358.50	6.68	363.24	15	Cir	0.013	0.79	371.16	Pipe - (570)
2	1	136.000	28.168	DrGrt	0.00	0.16	0.60	10.0	363.50	5.51	371.00	15	Cir	0.013	0.50	378.82	Pipe - (569)
3	2	119.127	-11.154	Comb	0.00	0.33	0.60	10.0	371.20	0.92	372.30	15	Cir	0.013	0.57	380.11	Pipe - (568)
4	3	34.000	-19.075	Comb	0.00	0.34	0.60	10.0	372.56	1.00	372.90	15	Cir	0.013	1.00	380.85	Pipe - (567)

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Date: 4/11/2025

Structure Report

SCM 1C 25-YEAR

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 161	DropGrate	371.16	Rect	3.00	3.00	15	Cir	363.24	15	Cir	363.50
2	YI 162	DropGrate	378.82	Rect	3.00	3.00	15	Cir	371.00	15	Cir	371.20
3	CB 163	Combination	380.11	Rect	4.00	4.00	15	Cir	372.30	15	Cir	372.56
4	CB 164	Combination	380.85	Rect	4.00	4.00	15	Cir	372.90			

Project File: SCM 1C Storm Network.stm | Number of Structures: 4 | Run Date: 4/11/2025

Storm Sewer Summary Report

SCM 1C 25-YEAR

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (570)	4.57	15	Cir	70.981	358.50	363.24	6.678	359.75	364.11	n/a	364.11 j	End	DropGrate
2	Pipe - (569)	3.16	15	Cir	136.000	363.50	371.00	5.515	364.11	371.71	n/a	371.71	1	DropGrate
3	Pipe - (568)	2.59	15	Cir	119.127	371.20	372.30	0.923	371.76	372.94	0.15	372.94	2	Combination
4	Pipe - (567)	1.32	15	Cir	34.000	372.56	372.90	1.000	372.94	373.35	0.17	373.35	3	Combination

Project File: SCM 1C Storm Network.stm

Number of lines: 4

Run Date: 4/11/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

SCM 1C 25-YEAR

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 161	1.51	0.00	1.51	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.16	17.82	0.16	17.82	0.0	Off
2	YI 162	0.62	0.00	0.62	0.00	DrGrt	0.0	0.00	4.00	2.00	2.00	Sag	2.00	0.020	0.020	0.013	0.09	10.73	0.09	10.73	0.0	Off
3	CB 163	1.28	0.00	1.28	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.09	0.20	6.09	0.0	Off
4	CB 164	1.32	0.00	1.32	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	6.23	0.20	6.23	0.0	Off

Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

SCM 1C 25-YEAR

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	15	4.57	358.50	359.75	1.25	0.91	3.72	0.22	359.97	0.501	70.981	363.24	364.11 j	0.87**	0.91	5.04	0.39	364.50	0.734	0.617	n/a	0.79	0.31
2	15	3.16	363.50	364.11	0.61	0.59	5.35	0.29	364.40	0.000	136.000	371.00	371.71	0.71**	0.73	4.35	0.29	372.01	0.000	0.000	n/a	0.50	n/a
3	15	2.59	371.20	371.76	0.56*	0.54	4.82	0.26	372.02	0.000	119.127	372.30	372.94	0.64**	0.64	4.06	0.26	373.20	0.000	0.000	n/a	0.57	0.15
4	15	1.32	372.56	372.94	0.38	0.32	4.12	0.17	373.11	0.000	34.000	372.90	373.35	0.45**	0.40	3.28	0.17	373.52	0.000	0.000	n/a	1.00	0.17

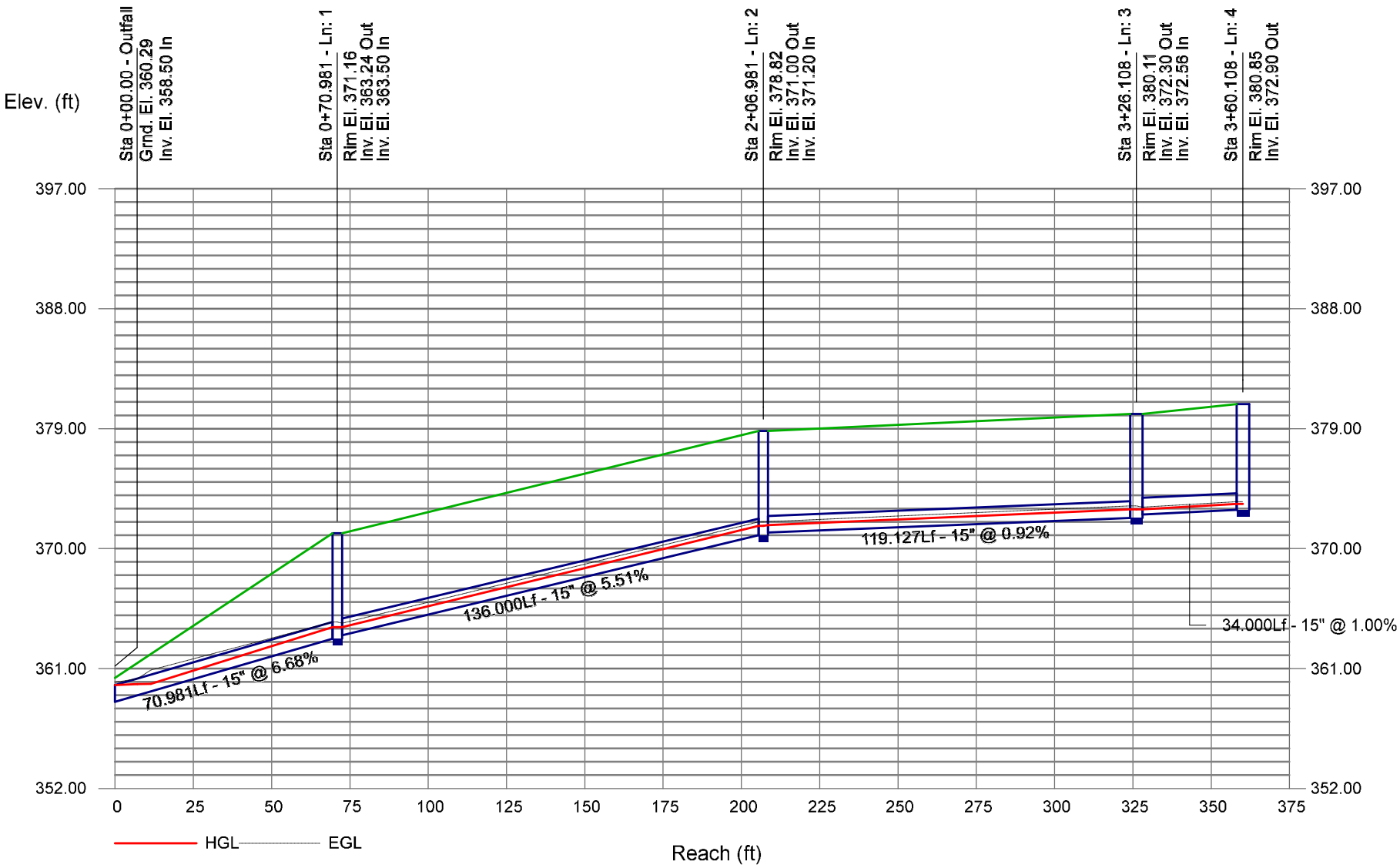
Project File: SCM 1C Storm Network.stm | Number of lines: 4 | Run Date: 4/11/2025

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

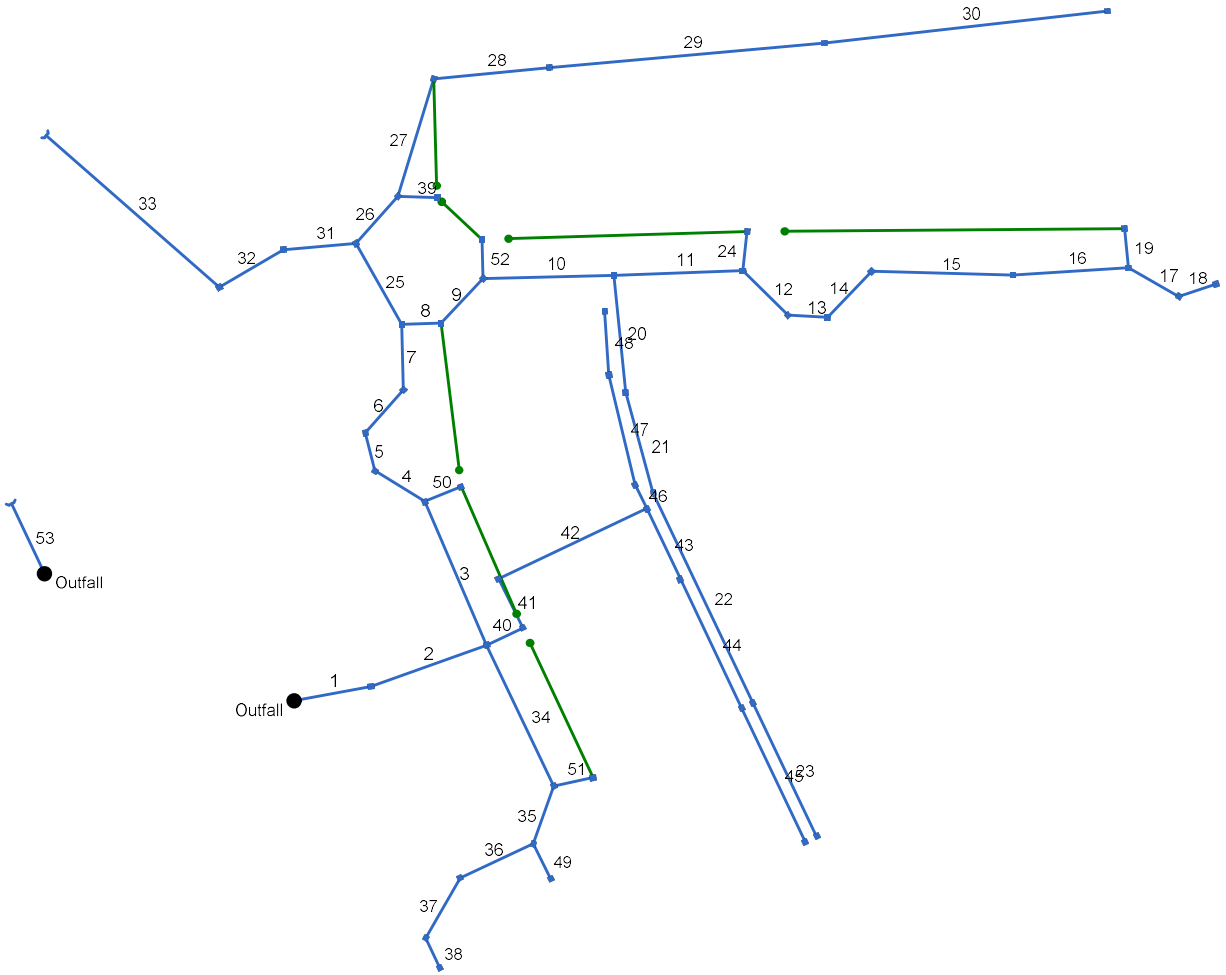
Storm Sewer Profile

SCM 1C 25-YEAR PROFILE 1-4

Proj. file: SCM 1C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 2 Storm Network.stm	Number of lines: 53	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	55.641	-10.592	DrGrt	0.00	0.55	0.60	10.0	351.50	4.49	354.00	36	Cir	0.013	0.50	359.42	Pipe - (137)
2	1	87.767	-9.149	Comb	0.00	0.22	0.60	10.0	354.10	0.51	354.55	36	Cir	0.013	3.15	362.55	Pipe - (135)
3	2	112.122	-93.473	Comb	0.00	0.07	0.60	10.0	354.75	0.50	355.31	36	Cir	0.013	1.50	363.48	Pipe - (131)
4	3	41.788	-35.084	Comb	0.00	0.49	0.60	10.0	355.50	0.50	355.71	36	Cir	0.013	1.11	363.98	Pipe - (172)
5	4	28.013	44.313	Comb	0.00	0.29	0.60	10.0	355.81	0.50	355.95	36	Cir	0.013	1.28	363.99	Pipe - (171)
6	5	41.080	55.403	Comb	0.00	0.05	0.60	10.0	356.05	0.51	356.26	36	Cir	0.013	1.09	364.44	Pipe - (123)
7	6	46.931	-42.881	Comb	0.00	0.11	0.60	10.0	356.36	0.49	356.59	36	Cir	0.013	1.77	364.74	Pipe - (520)
8	7	28.000	89.726	Comb	0.00	0.06	0.60	10.0	357.10	0.50	357.24	24	Cir	0.013	1.13	364.74	Pipe - (521)
9	8	43.841	-45.000	Comb	0.00	0.08	0.60	10.0	357.34	0.50	357.56	24	Cir	0.013	1.69	365.56	Pipe - (122)
10	9	93.175	45.308	Comb	0.00	0.18	0.60	10.0	358.06	3.58	361.40	18	Cir	0.013	1.50	369.86	Pipe - (157) (1)
11	10	92.149	-0.611	Comb	0.00	0.06	0.60	10.0	361.50	5.97	367.00	18	Cir	0.013	1.49	375.02	Pipe - (157)
12	11	45.242	46.792	Comb	0.00	0.26	0.60	10.0	367.20	3.54	368.80	18	Cir	0.013	1.07	377.33	Pipe - (160)
13	12	28.241	-41.708	Comb	0.00	0.29	0.60	10.0	369.00	1.06	369.30	18	Cir	0.013	1.19	377.80	Pipe - (162)
14	13	45.687	-49.362	Comb	0.00	0.06	0.60	10.0	369.40	6.13	372.20	18	Cir	0.013	1.17	380.34	Pipe - (168)
15	14	100.604	47.950	Comb	0.00	0.04	0.60	10.0	372.45	5.22	377.70	15	Cir	0.013	0.50	385.71	Pipe - (156)
16	15	82.671	-5.332	Comb	0.00	0.05	0.60	10.0	377.80	3.87	381.00	15	Cir	0.013	1.50	388.96	Pipe - (143)
17	16	41.477	33.551	Comb	0.00	0.15	0.60	10.0	381.20	2.41	382.20	15	Cir	0.013	1.18	390.18	Pipe - (138)
18	17	28.000	-48.574	Comb	0.00	0.22	0.60	10.0	382.30	1.00	382.58	15	Cir	0.013	1.00	390.18	Pipe - (158)
19	16	28.132	-92.136	Comb	0.00	0.11	0.60	10.0	381.20	0.50	381.34	15	Cir	0.013	1.00	388.99	Pipe - (167)
20	10	84.227	85.677	DrGrt	0.00	0.04	0.60	10.0	361.65	9.02	369.25	15	Cir	0.013	0.50	376.84	Pipe - (631)
21	20	74.539	-9.548	DrGrt	0.00	0.34	0.60	10.0	369.35	1.01	370.10	15	Cir	0.013	0.50	376.49	Pipe - (630)
22	21	166.311	-10.004	DrGrt	0.00	0.24	0.60	10.0	370.20	0.96	371.80	15	Cir	0.013	0.50	378.16	Pipe - (628)
23	22	106.063	0.031	DrGrt	0.00	0.25	0.60	10.0	371.90	0.60	372.54	15	Cir	0.013	1.00	376.49	Pipe - (706)

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	11	28.251	-81.849	Comb	0.00	0.28	0.60	10.0	367.25	0.50	367.39	15	Cir	0.013	1.00	375.23	Pipe - (161)
25	7	66.604	-27.920	Comb	0.00	0.14	0.60	10.0	357.60	0.50	357.93	30	Cir	0.013	2.09	365.30	Pipe - (524)
26	25	45.065	70.943	Comb	0.00	0.04	0.60	10.0	358.15	0.51	358.38	24	Cir	0.013	1.21	365.58	Pipe - (522)
27	26	87.915	-24.725	Comb	0.00	0.04	0.60	10.0	358.58	0.50	359.02	24	Cir	0.013	1.41	365.35	Pipe - (238)
28	27	82.566	67.583	DrGrt	0.00	0.86	0.60	10.0	359.20	0.97	360.00	18	Cir	0.013	0.50	364.22	Pipe - (237)
29	28	197.312	0.434	DrGrt	0.00	0.59	0.60	10.0	360.20	2.58	365.30	18	Cir	0.013	0.50	371.55	Pipe - (216)
30	29	203.129	-1.314	DrGrt	0.00	0.82	0.60	10.0	365.40	3.01	371.51	18	Cir	0.013	1.00	376.52	Pipe - (217)
31	25	51.995	-65.768	MH	0.00	0.00	0.00	0.0	358.18	0.50	358.44	18	Cir	0.013	0.48	365.42	Pipe - (696) (1)
32	31	52.903	-25.160	MH	0.00	0.00	0.00	0.0	358.55	0.51	358.82	18	Cir	0.013	0.96	365.62	Pipe - (696)
33	32	164.382	71.654	Hdwl	0.00	1.00	0.60	10.0	359.07	0.50	359.89	15	Cir	0.013	1.00	361.14	Pipe - (695)
34	2	111.705	84.397	Comb	0.00	0.08	0.60	10.0	355.05	0.50	355.61	24	Cir	0.013	1.47	363.57	Pipe - (180)
35	34	43.844	45.036	Comb	0.00	0.15	0.60	10.0	356.36	0.55	356.60	15	Cir	0.013	1.15	364.75	Pipe - (178)
36	35	57.443	44.868	Comb	0.00	0.13	0.60	10.0	356.80	1.91	357.90	15	Cir	0.013	0.94	365.63	Pipe - (177)
37	36	49.489	-34.827	MH	0.00	0.00	0.00	0.0	358.10	1.01	358.60	15	Cir	0.013	0.85	366.43	Pipe - (658)
38	37	23.641	-55.037	DrGrt	0.00	0.12	0.60	10.0	358.70	11.21	361.35	15	Cir	0.013	1.00	365.00	Pipe - (657)
39	26	28.058	50.378	Comb	0.00	0.05	0.60	10.0	358.63	0.50	358.77	18	Cir	0.013	1.00	365.59	Pipe - (523)
40	2	28.538	-5.713	Comb	0.00	0.29	0.60	10.0	355.80	0.49	355.94	30	Cir	0.013	1.50	362.65	Pipe - (132) (1)
41	40	39.389	-90.519	MH	0.00	0.69	0.60	10.0	356.05	0.63	356.30	24	Cir	0.013	1.00	362.75	Pipe - (132)
42	41	116.936	90.528	MH	0.00	0.23	0.60	10.0	356.40	0.51	357.00	18	Cir	0.013	1.00	362.27	Pipe - (682)
43	42	56.289	89.981	DrGrt	0.00	0.25	0.60	10.0	357.20	0.71	357.60	15	Cir	0.013	0.50	361.89	Pipe - (683)
44	43	101.921	0.181	DrGrt	0.00	0.20	0.60	10.0	357.70	0.59	358.30	15	Cir	0.013	0.50	362.74	Pipe - (698)
45	44	106.000	0.011	DrGrt	0.00	0.15	0.60	10.0	358.40	2.15	360.68	15	Cir	0.013	1.00	365.12	Pipe - (697)
46	42	19.124	-89.826	DrGrt	0.00	0.10	0.60	10.0	357.20	1.05	357.40	15	Cir	0.013	0.50	361.93	Pipe - (681)

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	80.726	11.799	DrGrt	0.00	0.13	0.60	10.0	357.50	0.93	358.25	15	Cir	0.013	0.50	363.59	Pipe - (680)
48	47	45.513	9.831	DrGrt	0.00	0.09	0.60	10.0	358.35	3.47	359.93	15	Cir	0.013	1.00	364.84	Pipe - (679)
49	35	28.005	-46.494	Comb	0.00	0.32	0.60	10.0	356.80	1.00	357.08	15	Cir	0.013	1.00	364.78	Pipe - (556)
50	3	28.141	90.903	Comb	0.00	0.17	0.60	10.0	356.55	0.50	356.69	15	Cir	0.013	1.00	363.49	Pipe - (173)
51	34	28.755	-76.802	Comb	0.00	0.12	0.60	10.0	356.36	0.49	356.50	15	Cir	0.013	1.00	363.70	Pipe - (179)
52	9	28.020	-45.030	Comb	0.00	0.25	0.60	10.0	358.31	0.50	358.45	15	Cir	0.013	1.00	365.65	209A
53	End	55.276	-115.126	Hdwl	0.00	0.55	0.60	10.0	354.31	8.85	359.20	18	Cir	0.013	1.00	360.99	Pipe - (581)

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 201	DropGrate	359.42	Rect	4.00	4.00	36	Cir	354.00	36	Cir	354.10
2	CB 202	Combination	362.55	Rect	4.00	4.00	36	Cir	354.55	36 24 30	Cir Cir Cir	354.75 355.05 355.80
3	CB 203	Combination	363.48	Rect	4.00	4.00	36	Cir	355.31	36 15	Cir Cir	355.50 356.55
4	CB 204	Combination	363.98	Rect	4.00	4.00	36	Cir	355.71	36	Cir	355.81
5	CB 205	Combination	363.99	Rect	4.00	4.00	36	Cir	355.95	36	Cir	356.05
6	CB 206	Combination	364.44	Rect	4.00	4.00	36	Cir	356.26	36	Cir	356.36
7	CB 207	Combination	364.74	Rect	4.00	4.00	36	Cir	356.59	24 30	Cir Cir	357.10 357.60
8	CB 208	Combination	364.74	Rect	4.00	4.00	24	Cir	357.24	24	Cir	357.34
9	CB 209	Combination	365.56	Rect	4.00	4.00	24	Cir	357.56	18 15	Cir Cir	358.06 358.31
10	CB 210	Combination	369.86	Rect	4.00	4.00	18	Cir	361.40	18 15	Cir Cir	361.50 361.65
11	CB 211	Combination	375.02	Rect	4.00	4.00	18	Cir	367.00	18 15	Cir Cir	367.20 367.25
12	CB 212	Combination	377.33	Rect	4.00	4.00	18	Cir	368.80	18	Cir	369.00
13	CB 213	Combination	377.80	Rect	4.00	4.00	18	Cir	369.30	18	Cir	369.40
14	CB 214	Combination	380.34	Rect	4.00	4.00	18	Cir	372.20	15	Cir	372.45
15	CB 215	Combination	385.71	Rect	4.00	4.00	15	Cir	377.70	15	Cir	377.80
16	CB 216	Combination	388.96	Rect	4.00	4.00	15	Cir	381.00	15 15	Cir Cir	381.20 381.20
17	CB 217	Combination	390.18	Rect	4.00	4.00	15	Cir	382.20	15	Cir	382.30
18	CB 217A	Combination	390.18	Rect	4.00	4.00	15	Cir	382.58			
19	CB 216A	Combination	388.99	Rect	4.00	4.00	15	Cir	381.34			

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
20	YI 212B	DropGrate	376.84	Rect	4.00	4.00	15	Cir	369.25	15	Cir	369.35
21	YI 212C	DropGrate	376.49	Rect	4.00	4.00	15	Cir	370.10	15	Cir	370.20
22	YI 212D	DropGrate	378.16	Rect	4.00	4.00	15	Cir	371.80	15	Cir	371.90
23	YI 212E	DropGrate	376.49	Rect	4.00	4.00	15	Cir	372.54			
24	CB 211A	Combination	375.23	Rect	4.00	4.00	15	Cir	367.39			
25	CB 226	Combination	365.30	Rect	4.00	4.00	30	Cir	357.93	24 18	Cir Cir	358.15 358.18
26	CB 227	Combination	365.58	Rect	4.00	4.00	24	Cir	358.38	24 18	Cir Cir	358.58 358.63
27	CB 228	Combination	365.35	Rect	4.00	4.00	24	Cir	359.02	18	Cir	359.20
28	YI 229	DropGrate	364.22	Rect	4.00	4.00	18	Cir	360.00	18	Cir	360.20
29	YI 230	DropGrate	371.55	Rect	4.00	4.00	18	Cir	365.30	18	Cir	365.40
30	YI 231	DropGrate	376.52	Rect	4.00	4.00	18	Cir	371.51			
31	Structure - (762)	Manhole	365.42	Rect	4.00	4.00	18	Cir	358.44	18	Cir	358.55
32	Structure - (761)	Manhole	365.62	Rect	4.00	4.00	18	Cir	358.82	15	Cir	359.07
33	Structure - (760)	OpenHeadwall	361.14	n/a	n/a	n/a	15	Cir	359.89			
34	CB 223	Combination	363.57	Rect	4.00	4.00	24	Cir	355.61	15 15	Cir Cir	356.36 356.36
35	CB 224	Combination	364.75	Rect	4.00	4.00	15	Cir	356.60	15 15	Cir Cir	356.80 356.80
36	CB 225	Combination	365.63	Rect	4.00	4.00	15	Cir	357.90	15	Cir	358.10
37	JB 225A	Manhole	366.43	Rect	4.00	4.00	15	Cir	358.60	15	Cir	358.70
38	YI 225B	DropGrate	365.00	Rect	4.00	4.00	15	Cir	361.35			
39	CB 227A	Combination	365.59	Rect	4.00	4.00	18	Cir	358.77			
40	CB 202A	Combination	362.65	Rect	4.00	4.00	30	Cir	355.94	24	Cir	356.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
41	JB 202B	Manhole	362.75	Rect	4.00	4.00	24	Cir	356.30	18	Cir	356.40
42	YI 202B	Manhole	362.27	Rect	4.00	4.00	18	Cir	357.00	15 15	Cir Cir	357.20 357.20
43	YI 210C	DropGrate	361.89	Rect	4.00	4.00	15	Cir	357.60	15	Cir	357.70
44	YI 210D	DropGrate	362.74	Rect	4.00	4.00	15	Cir	358.30	15	Cir	358.40
45	YI 210E	DropGrate	365.12	Rect	4.00	4.00	15	Cir	360.68			
46	YI 202D	DropGrate	361.93	Rect	4.00	4.00	15	Cir	357.40	15	Cir	357.50
47	YI 202E	DropGrate	363.59	Rect	4.00	4.00	15	Cir	358.25	15	Cir	358.35
48	YI 202F	DropGrate	364.84	Rect	4.00	4.00	15	Cir	359.93			
49	CB 224A	Combination	364.78	Rect	4.00	4.00	15	Cir	357.08			
50	CB 203A	Combination	363.49	Rect	4.00	4.00	15	Cir	356.69			
51	CB 223A	Combination	363.70	Rect	4.00	4.00	15	Cir	356.50			
52	CB 209A	Combination	365.65	Rect	4.00	4.00	15	Cir	358.45			
53	FES 240	OpenHeadwall	360.99	n/a	n/a	n/a	18	Cir	359.20			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (137)	36.61	36	Cir	55.641	351.50	354.00	4.493	357.63*	357.80*	0.21	358.01	End	DropGrate
2	Pipe - (135)	35.13	36	Cir	87.767	354.10	354.55	0.513	358.01*	358.25*	1.21	359.46	1	Combination
3	Pipe - (131)	24.99	36	Cir	112.122	354.75	355.31	0.499	359.46*	359.62*	0.29	359.91	2	Combination
4	Pipe - (172)	24.34	36	Cir	41.788	355.50	355.71	0.503	359.91*	359.96*	0.20	360.17	3	Combination
5	Pipe - (171)	22.82	36	Cir	28.013	355.81	355.95	0.500	360.17*	360.20*	0.21	360.41	4	Combination
6	Pipe - (123)	22.00	36	Cir	41.080	356.05	356.26	0.511	360.41*	360.45*	0.16	360.62	5	Combination
7	Pipe - (520)	21.99	36	Cir	46.931	356.36	356.59	0.490	360.62*	360.67*	0.27	360.94	6	Combination
8	Pipe - (521)	10.57	24	Cir	28.000	357.10	357.24	0.500	360.94*	361.00*	0.20	361.20	7	Combination
9	Pipe - (122)	10.42	24	Cir	43.841	357.34	357.56	0.502	361.20*	361.29*	0.29	361.58	8	Combination
10	Pipe - (157) (1)	9.31	18	Cir	93.175	358.06	361.40	3.585	361.58	362.58	n/a	362.58 j	9	Combination
11	Pipe - (157)	5.63	18	Cir	92.149	361.50	367.00	5.969	362.58	367.91	n/a	367.91 j	10	Combination
12	Pipe - (160)	4.39	18	Cir	45.242	367.20	368.80	3.536	367.91	369.60	n/a	369.60	11	Combination
13	Pipe - (162)	3.44	18	Cir	28.241	369.00	369.30	1.062	369.60	370.01	0.33	370.01	12	Combination
14	Pipe - (168)	2.37	18	Cir	45.687	369.40	372.20	6.129	370.01	372.78	n/a	372.78 j	13	Combination
15	Pipe - (156)	2.16	15	Cir	100.604	372.45	377.70	5.218	372.78	378.29	0.11	378.29	14	Combination
16	Pipe - (143)	2.03	15	Cir	82.671	377.80	381.00	3.871	378.29	381.57	n/a	381.57	15	Combination
17	Pipe - (138)	1.43	15	Cir	41.477	381.20	382.20	2.411	381.57	382.67	0.21	382.67	16	Combination
18	Pipe - (158)	0.85	15	Cir	28.000	382.30	382.58	1.000	382.67	382.94	n/a	382.94 j	17	Combination
19	Pipe - (167)	0.43	15	Cir	28.132	381.20	381.34	0.498	381.57	381.60	0.08	381.68	16	Combination
20	Pipe - (631)	3.19	15	Cir	84.227	361.65	369.25	9.023	362.58	369.97	n/a	369.97 j	10	DropGrate
21	Pipe - (630)	3.07	15	Cir	74.539	369.35	370.10	1.006	369.97	370.80	n/a	370.80	20	DropGrate
22	Pipe - (628)	1.86	15	Cir	166.311	370.20	371.80	0.962	370.80	372.34	n/a	372.34 j	21	DropGrate
23	Pipe - (706)	0.97	15	Cir	106.063	371.90	372.54	0.603	372.34	372.93	n/a	372.93 j	22	DropGrate
24	Pipe - (161)	1.09	15	Cir	28.251	367.25	367.39	0.496	367.91	367.92	0.07	368.00	11	Combination

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (524)	11.93	30	Cir	66.604	357.60	357.93	0.495	360.94*	360.99*	0.19	361.18	7	Combination
26	Pipe - (522)	8.15	24	Cir	45.065	358.15	358.38	0.510	361.18*	361.24*	0.13	361.37	25	Combination
27	Pipe - (238)	8.39	24	Cir	87.915	358.58	359.02	0.500	361.37*	361.49*	0.16	361.65	26	Combination
28	Pipe - (237)	8.32	18	Cir	82.566	359.20	360.00	0.969	361.65*	362.16*	0.17	362.34	27	DropGrate
29	Pipe - (216)	5.31	18	Cir	197.312	360.20	365.30	2.585	362.34	366.19	n/a	366.19 j	28	DropGrate
30	Pipe - (217)	3.18	18	Cir	203.129	365.40	371.51	3.008	366.19	372.19	n/a	372.19 j	29	DropGrate
31	Pipe - (696) (1)	3.72	18	Cir	51.995	358.18	358.44	0.500	361.18*	361.25*	0.03	361.28	25	Manhole
32	Pipe - (696)	3.77	18	Cir	52.903	358.55	358.82	0.510	361.28*	361.35*	0.07	361.42	31	Manhole
33	Pipe - (695)	3.88	15	Cir	164.382	359.07	359.89	0.499	361.42*	362.01*	0.16	362.17	32	OpenHeadwall
34	Pipe - (180)	3.15	24	Cir	111.705	355.05	355.61	0.501	359.46*	359.48*	0.02	359.50	2	Combination
35	Pipe - (178)	2.49	15	Cir	43.844	356.36	356.60	0.547	359.50*	359.57*	0.07	359.64	34	Combination
36	Pipe - (177)	0.90	15	Cir	57.443	356.80	357.90	1.915	359.64*	359.65*	0.01	359.66	35	Combination
37	Pipe - (658)	0.46	15	Cir	49.489	358.10	358.60	1.010	359.66	359.66	0.00	359.67	36	Manhole
38	Pipe - (657)	0.47	15	Cir	23.641	358.70	361.35	11.210	359.67	361.62	n/a	361.62 j	37	DropGrate
39	Pipe - (523)	0.19	18	Cir	28.058	358.63	358.77	0.499	361.37*	361.37*	0.00	361.37	26	Combination
40	Pipe - (132) (1)	7.20	30	Cir	28.538	355.80	355.94	0.491	359.46*	359.47*	0.05	359.52	2	Combination
41	Pipe - (132)	6.27	24	Cir	39.389	356.05	356.30	0.635	359.52*	359.55*	0.06	359.61	40	Manhole
42	Pipe - (682)	4.02	18	Cir	116.936	356.40	357.00	0.513	359.61*	359.78*	0.08	359.86	41	Manhole
43	Pipe - (683)	2.13	15	Cir	56.289	357.20	357.60	0.711	359.86*	359.92*	0.02	359.95	42	DropGrate
44	Pipe - (698)	1.31	15	Cir	101.921	357.70	358.30	0.589	359.95*	359.99*	0.01	360.00	43	DropGrate
45	Pipe - (697)	0.58	15	Cir	106.000	358.40	360.68	2.151	360.00	360.98	n/a	360.98 j	44	DropGrate
46	Pipe - (681)	1.14	15	Cir	19.124	357.20	357.40	1.046	359.86*	359.87*	0.01	359.88	42	DropGrate
47	Pipe - (680)	0.84	15	Cir	80.726	357.50	358.25	0.929	359.88*	359.89*	0.00	359.89	46	DropGrate
48	Pipe - (679)	0.35	15	Cir	45.513	358.35	359.93	3.472	359.89	360.16	n/a	360.16 j	47	DropGrate

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (556)	1.24	15	Cir	28.005	356.80	357.08	1.000	359.64*	359.65*	0.02	359.67	35	Combination
50	Pipe - (173)	0.66	15	Cir	28.141	356.55	356.69	0.498	359.91*	359.91*	0.00	359.92	3	Combination
51	Pipe - (179)	0.47	15	Cir	28.755	356.36	356.50	0.487	359.50*	359.51*	0.00	359.51	34	Combination
52	209A	0.97	15	Cir	28.020	358.31	358.45	0.500	361.58*	361.58*	0.01	361.59	9	Combination
53	Pipe - (581)	2.13	18	Cir	55.276	354.31	359.20	8.847	357.63	359.75	n/a	359.75 j	End	OpenHeadwall

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 201	2.13	0.00	2.13	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.59	0.16	18.59	0.0	Off
2	CB 202	0.85	0.04	0.90	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.59	0.17	4.59	0.0	Off
3	CB 203	0.27	0.51	0.74	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.94	0.05	0.90	0.0	2
4	CB 204	1.90	0.00	1.39	0.51	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.23	7.65	0.15	3.73	0.0	3
5	CB 205	1.12	0.00	1.12	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.50	0.19	5.50	0.0	Off
6	CB 206	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	5
7	CB 207	0.43	0.00	0.43	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.13	2.43	0.00	0.05	0.0	6
8	CB 208	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.10	1.71	0.00	0.00	0.0	50
9	CB 209	0.31	0.01	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.68	0.00	0.00	0.0	Off
10	CB 210	0.70	0.00	0.69	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.14	2.77	0.02	0.37	0.0	9
11	CB 211	0.23	0.12	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.68	0.00	0.00	0.0	10
12	CB 212	1.01	0.00	0.89	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.18	5.01	0.08	1.40	0.0	11
13	CB 213	1.12	0.00	1.12	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.50	0.19	5.50	0.0	Off
14	CB 214	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.44	0.00	0.00	0.0	13
15	CB 215	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	14
16	CB 216	0.19	0.02	0.21	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	15
17	CB 217	0.58	0.00	0.56	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.15	3.54	0.04	0.70	0.0	16
18	CB 217A	0.85	0.00	0.85	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.41	0.17	4.41	0.0	Off
19	CB 216A	0.43	0.00	0.43	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.12	1.95	0.00	0.00	0.0	24
20	YI 212B	0.16	0.00	0.16	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.03	5.30	0.03	5.30	0.0	Off
21	YI 212C	1.32	0.00	1.32	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.12	14.18	0.12	14.18	0.0	Off
22	YI 212D	0.93	0.00	0.93	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.76	0.09	11.76	0.0	Off
23	YI 212E	0.97	0.00	0.97	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.01	0.10	12.01	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 211A	1.09	0.00	1.04	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.15	3.60	0.05	0.77	0.0	52
25	CB 226	0.54	0.00	0.54	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.00	0.14	3.00	0.0	Off
26	CB 227	0.16	0.00	0.16	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.10	1.66	0.10	1.66	0.0	Off
27	CB 228	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	39
28	YI 229	3.34	2.36	5.69	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.31	33.47	0.31	33.47	0.0	Off
29	YI 230	2.29	1.74	1.67	2.36	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.020	0.020	0.013	0.15	17.10	0.15	17.10	0.0	28
30	YI 231	3.18	0.00	1.44	1.74	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.020	0.020	0.013	0.14	16.10	0.14	16.10	0.0	29
31	Structure - (762)	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
32	Structure - (761)	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
33	Structure - (760)	3.88	0.00	3.88	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
34	CB 223	0.31	0.01	0.32	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.84	0.00	0.00	0.0	2
35	CB 224	0.58	0.00	0.58	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.14	2.90	0.02	0.41	0.0	34
36	CB 225	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.13	2.34	0.00	0.00	0.0	35
37	JB 225A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
38	YI 225B	0.47	0.00	0.47	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.33	0.06	8.33	0.0	Off
39	CB 227A	0.19	0.10	0.29	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.13	2.48	0.13	2.48	0.0	Off
40	CB 202A	1.12	0.02	1.15	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.59	0.19	5.59	0.0	Off
41	JB 202B	2.68	0.00	0.00	2.68	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
42	YI 202B	0.89	0.00	0.00	0.89	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
43	YI 210C	0.97	0.00	0.97	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.10	12.01	0.10	12.01	0.0	Off
44	YI 210D	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off
45	YI 210E	0.58	0.00	0.58	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.07	9.26	0.07	9.26	0.0	Off
46	YI 202D	0.39	0.00	0.39	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.66	0.05	7.66	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	YI 202E	0.50	0.00	0.50	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.65	0.06	8.65	0.0	Off
48	YI 202F	0.35	0.00	0.35	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.31	0.05	7.31	0.0	Off
49	CB 224A	1.24	0.00	1.24	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.20	5.95	0.20	5.95	0.0	Off
50	CB 203A	0.66	0.00	0.64	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.49	0.04	0.70	0.0	40
51	CB 223A	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.13	2.37	0.01	0.09	0.0	40
52	CB 209A	0.97	0.04	0.91	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.63	0.07	1.24	0.0	39
53	FES 240	2.13	0.00	2.13	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	36.61	351.50	357.63	3.00	7.07	5.18	0.42	358.05	0.301	55.641	354.00	357.80	3.00	7.07	5.18	0.42	358.21	0.301	0.301	0.168	0.50	0.21
2	36	35.13	354.10	358.01	3.00	7.07	4.97	0.38	358.39	0.278	87.767	354.55	358.25	3.00	7.07	4.97	0.38	358.63	0.277	0.277	0.244	3.15	1.21
3	36	24.99	354.75	359.46	3.00	7.07	3.54	0.19	359.65	0.140	112.122	355.31	359.62	3.00	7.07	3.53	0.19	359.81	0.140	0.140	0.157	1.50	0.29
4	36	24.34	355.50	359.91	3.00	7.07	3.44	0.18	360.09	0.133	41.788	355.71	359.96	3.00	7.07	3.44	0.18	360.15	0.133	0.133	0.056	1.11	0.20
5	36	22.82	355.81	360.17	3.00	7.07	3.23	0.16	360.33	0.117	28.013	355.95	360.20	3.00	7.07	3.23	0.16	360.36	0.117	0.117	0.033	1.28	0.21
6	36	22.00	356.05	360.41	3.00	7.07	3.11	0.15	360.56	0.109	41.080	356.26	360.45	3.00	7.07	3.11	0.15	360.60	0.109	0.109	0.045	1.09	0.16
7	36	21.99	356.36	360.62	3.00	7.07	3.11	0.15	360.77	0.109	46.931	356.59	360.67	3.00	7.07	3.11	0.15	360.82	0.109	0.109	0.051	1.77	0.27
8	24	10.57	357.10	360.94	2.00	3.14	3.36	0.18	361.11	0.218	28.000	357.24	361.00	2.00	3.14	3.36	0.18	361.17	0.218	0.218	0.061	1.13	0.20
9	24	10.42	357.34	361.20	2.00	3.14	3.32	0.17	361.37	0.212	43.841	357.56	361.29	2.00	3.14	3.32	0.17	361.46	0.212	0.212	0.093	1.69	0.29
10	18	9.31	358.06	361.58	1.50	1.49	5.27	0.43	362.01	0.787	93.175	361.40	362.58 j	1.18**	1.49	6.25	0.61	363.19	0.854	0.820	n/a	1.50	n/a
11	18	5.63	361.50	362.58	1.08	1.13	4.14	0.39	362.97	0.000	92.149	367.00	367.91 j	0.91**	1.13	4.99	0.39	368.30	0.000	0.000	n/a	1.49	n/a
12	18	4.39	367.20	367.91	0.71	0.83	5.29	0.32	368.24	0.000	45.242	368.80	369.60	0.80**	0.96	4.56	0.32	369.93	0.000	0.000	n/a	1.07	n/a
13	18	3.44	369.00	369.60	0.60	0.66	5.17	0.27	369.88	0.000	28.241	369.30	370.01	0.71**	0.82	4.20	0.27	370.28	0.000	0.000	n/a	1.19	0.33
14	18	2.37	369.40	370.01	0.61	0.63	3.54	0.22	370.22	0.000	45.687	372.20	372.78 j	0.58**	0.63	3.74	0.22	373.00	0.000	0.000	n/a	1.17	0.25
15	15	2.16	372.45	372.78	0.33	0.26	8.29	0.23	373.01	0.000	100.604	377.70	378.29	0.59**	0.57	3.82	0.23	378.51	0.000	0.000	n/a	0.50	0.11
16	15	2.03	377.80	378.29	0.49	0.44	4.60	0.22	378.51	0.000	82.671	381.00	381.57	0.57**	0.54	3.75	0.22	381.79	0.000	0.000	n/a	1.50	n/a
17	15	1.43	381.20	381.57	0.37	0.30	4.74	0.18	381.74	0.000	41.477	382.20	382.67	0.47**	0.42	3.36	0.18	382.85	0.000	0.000	n/a	1.18	0.21
18	15	0.85	382.30	382.67	0.37	0.29	2.78	0.13	382.80	0.000	28.000	382.58	382.94 j	0.36**	0.29	2.90	0.13	383.07	0.000	0.000	n/a	1.00	n/a
19	15	0.43	381.20	381.57	0.37	0.18	1.42	0.03	381.60	0.123	28.132	381.34	381.60	0.26**	0.19	2.29	0.08	381.68	0.477	0.300	0.084	1.00	0.08
20	15	3.19	361.65	362.58	0.93	0.73	3.26	0.30	362.88	0.000	84.227	369.25	369.97 j	0.72**	0.73	4.37	0.30	370.27	0.000	0.000	n/a	0.50	0.15
21	15	3.07	369.35	369.97	0.62	0.61	5.07	0.29	370.26	0.000	74.539	370.10	370.80	0.70**	0.71	4.31	0.29	371.09	0.000	0.000	n/a	0.50	n/a
22	15	1.86	370.20	370.80	0.60	0.51	3.17	0.21	371.01	0.000	166.311	371.80	372.34 j	0.54**	0.51	3.65	0.21	372.55	0.000	0.000	n/a	0.50	0.10

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: ; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.97	371.90	372.34	0.44	0.32	2.50	0.14	372.48	0.000	106.063	372.54	372.93 j	0.39**	0.32	3.00	0.14	373.07	0.000	0.000	n/a	1.00	n/a
24	15	1.09	367.25	367.91	0.66	0.66	1.64	0.04	367.96	0.092	28.251	367.39	367.92	0.53	0.50	2.17	0.07	368.00	0.196	0.144	0.041	1.00	0.07
25	30	11.93	357.60	360.94	2.50	4.91	2.43	0.09	361.03	0.085	66.604	357.93	360.99	2.50	4.91	2.43	0.09	361.08	0.085	0.085	0.056	2.09	0.19
26	24	8.15	358.15	361.18	2.00	3.14	2.60	0.10	361.29	0.130	45.065	358.38	361.24	2.00	3.14	2.60	0.10	361.35	0.130	0.130	0.059	1.21	0.13
27	24	8.39	358.58	361.37	2.00	3.14	2.67	0.11	361.48	0.138	87.915	359.02	361.49	2.00	3.14	2.67	0.11	361.60	0.138	0.138	0.121	1.41	0.16
28	18	8.32	359.20	361.65	1.50	1.77	4.71	0.34	361.99	0.628	82.566	360.00	362.16	1.50	1.77	4.71	0.34	362.51	0.628	0.628	0.518	0.50	0.17
29	18	5.31	360.20	362.34	1.50	1.09	3.00	0.14	362.48	0.255	197.312	365.30	366.19 j	0.89**	1.09	4.88	0.37	366.56	0.593	0.424	n/a	0.50	n/a
30	18	3.18	365.40	366.19	0.79	0.78	3.39	0.26	366.45	0.000	203.129	371.51	372.19 j	0.68**	0.78	4.10	0.26	372.45	0.000	0.000	n/a	1.00	0.26
31	18	3.72	358.18	361.18	1.50	1.77	2.10	0.07	361.25	0.125	51.995	358.44	361.25	1.50	1.77	2.10	0.07	361.32	0.125	0.125	0.065	0.48	0.03
32	18	3.77	358.55	361.28	1.50	1.77	2.13	0.07	361.35	0.129	52.903	358.82	361.35	1.50	1.77	2.13	0.07	361.42	0.129	0.129	0.068	0.96	0.07
33	15	3.88	359.07	361.42	1.25	1.23	3.16	0.16	361.57	0.361	164.382	359.89	362.01	1.25	1.23	3.16	0.16	362.17	0.361	0.361	0.593	1.00	0.16
34	24	3.15	355.05	359.46	2.00	3.14	1.00	0.02	359.48	0.019	111.705	355.61	359.48	2.00	3.14	1.00	0.02	359.50	0.019	0.019	0.022	1.47	0.02
35	15	2.49	356.36	359.50	1.25	1.23	2.03	0.06	359.57	0.149	43.844	356.60	359.57	1.25	1.23	2.03	0.06	359.63	0.148	0.148	0.065	1.15	0.07
36	15	0.90	356.80	359.64	1.25	1.23	0.73	0.01	359.65	0.019	57.443	357.90	359.65	1.25	1.23	0.73	0.01	359.66	0.019	0.019	0.011	0.94	0.01
37	15	0.46	358.10	359.66	1.25	1.23	0.38	0.00	359.66	0.005	49.489	358.60	359.66	1.06	1.11	0.41	0.00	359.67	0.005	0.005	0.002	0.85	0.00
38	15	0.47	358.70	359.67	0.97	0.19	0.46	0.09	359.76	0.000	23.641	361.35	361.62 j	0.27**	0.19	2.45	0.09	361.71	0.000	0.000	n/a	1.00	n/a
39	18	0.19	358.63	361.37	1.50	1.77	0.11	0.00	361.37	0.000	28.058	358.77	361.37	1.50	1.77	0.11	0.00	361.37	0.000	0.000	0.000	1.00	0.00
40	30	7.20	355.80	359.46	2.50	4.91	1.47	0.03	359.49	0.031	28.538	355.94	359.47	2.50	4.91	1.47	0.03	359.50	0.031	0.031	0.009	1.50	0.05
41	24	6.27	356.05	359.52	2.00	3.14	2.00	0.06	359.58	0.077	39.389	356.30	359.55	2.00	3.14	2.00	0.06	359.61	0.077	0.077	0.030	1.00	0.06
42	18	4.02	356.40	359.61	1.50	1.77	2.28	0.08	359.69	0.147	116.936	357.00	359.78	1.50	1.77	2.27	0.08	359.86	0.147	0.147	0.171	1.00	0.08
43	15	2.13	357.20	359.86	1.25	1.23	1.74	0.05	359.91	0.109	56.289	357.60	359.92	1.25	1.23	1.74	0.05	359.97	0.109	0.109	0.061	0.50	0.02
44	15	1.31	357.70	359.95	1.25	1.23	1.07	0.02	359.97	0.041	101.921	358.30	359.99	1.25	1.23	1.06	0.02	360.01	0.041	0.041	0.042	0.50	0.01

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: ; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

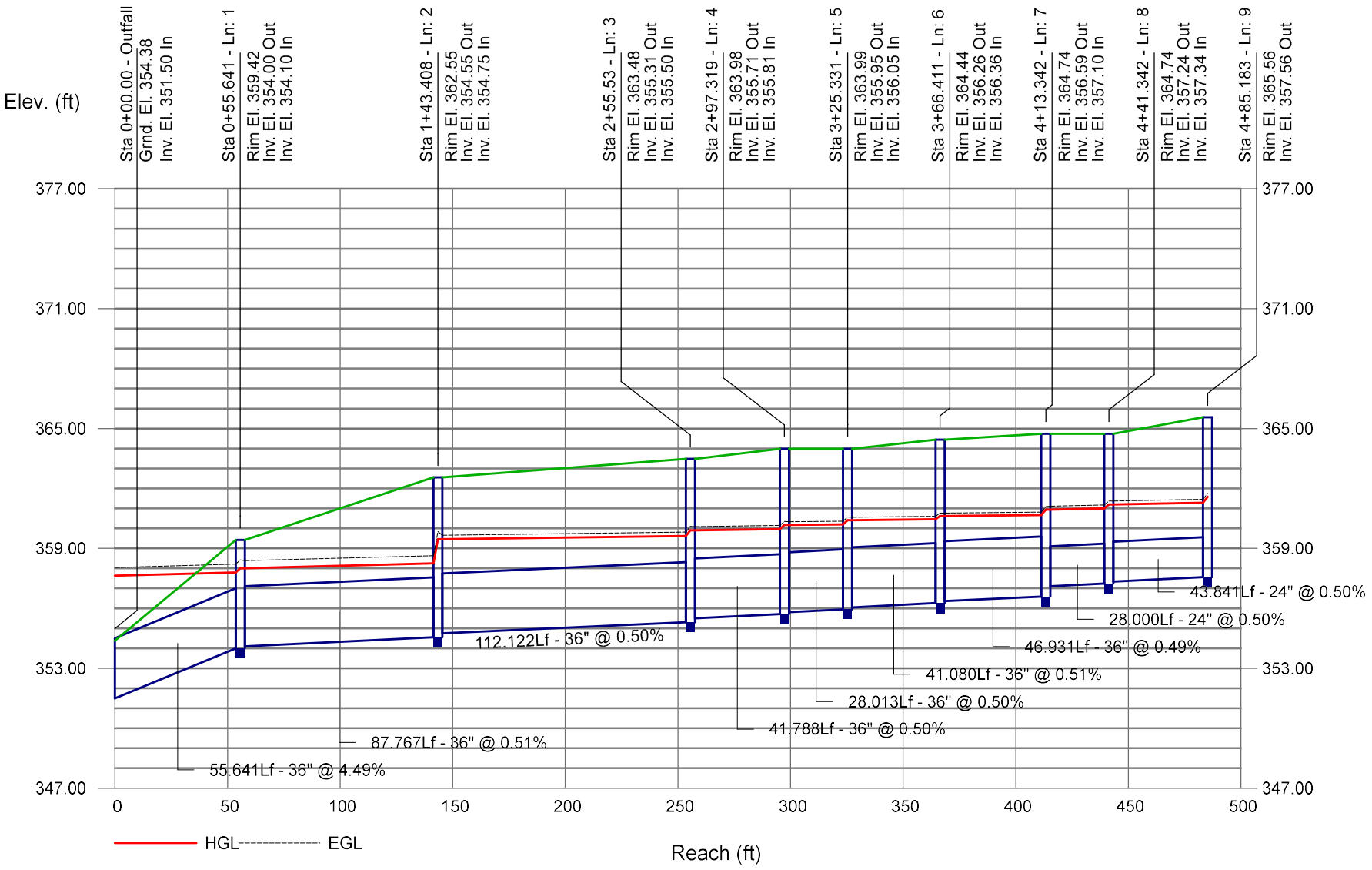
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.58	358.40	360.00	1.25	0.22	0.47	0.00	360.00	0.008	106.000	360.68	360.98 j	0.30**	0.22	2.60	0.11	361.08	0.529	0.269	n/a	1.00	0.11
46	15	1.14	357.20	359.86	1.25	1.23	0.93	0.01	359.88	0.031	19.124	357.40	359.87	1.25	1.23	0.93	0.01	359.88	0.031	0.031	0.006	0.50	0.01
47	15	0.84	357.50	359.88	1.25	1.23	0.68	0.01	359.88	0.017	80.726	358.25	359.89	1.25	1.23	0.68	0.01	359.90	0.017	0.017	0.014	0.50	0.00
48	15	0.35	358.35	359.89	1.25	0.15	0.28	0.00	359.89	0.003	45.513	359.93	360.16 j	0.23**	0.15	2.27	0.08	360.24	0.545	0.274	n/a	1.00	0.08
49	15	1.24	356.80	359.64	1.25	1.23	1.01	0.02	359.66	0.037	28.005	357.08	359.65	1.25	1.23	1.01	0.02	359.67	0.037	0.037	0.010	1.00	0.02
50	15	0.66	356.55	359.91	1.25	1.23	0.54	0.00	359.91	0.010	28.141	356.69	359.91	1.25	1.23	0.54	0.00	359.92	0.010	0.010	0.003	1.00	0.00
51	15	0.47	356.36	359.50	1.25	1.23	0.38	0.00	359.51	0.005	28.755	356.50	359.51	1.25	1.23	0.38	0.00	359.51	0.005	0.005	0.001	1.00	0.00
52	15	0.97	358.31	361.58	1.25	1.23	0.79	0.01	361.59	0.023	28.020	358.45	361.58	1.25	1.23	0.79	0.01	361.59	0.023	0.023	0.006	1.00	0.01
53	18	2.13	354.31	357.63	1.50	0.59	1.21	0.02	357.65	0.041	55.276	359.20	359.75 j	0.55**	0.59	3.63	0.20	359.96	0.499	0.270	n/a	1.00	n/a

Project File: SCM 2 Storm Network.stm | Number of lines: 53 | Run Date: 8/4/2025

Notes: ; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

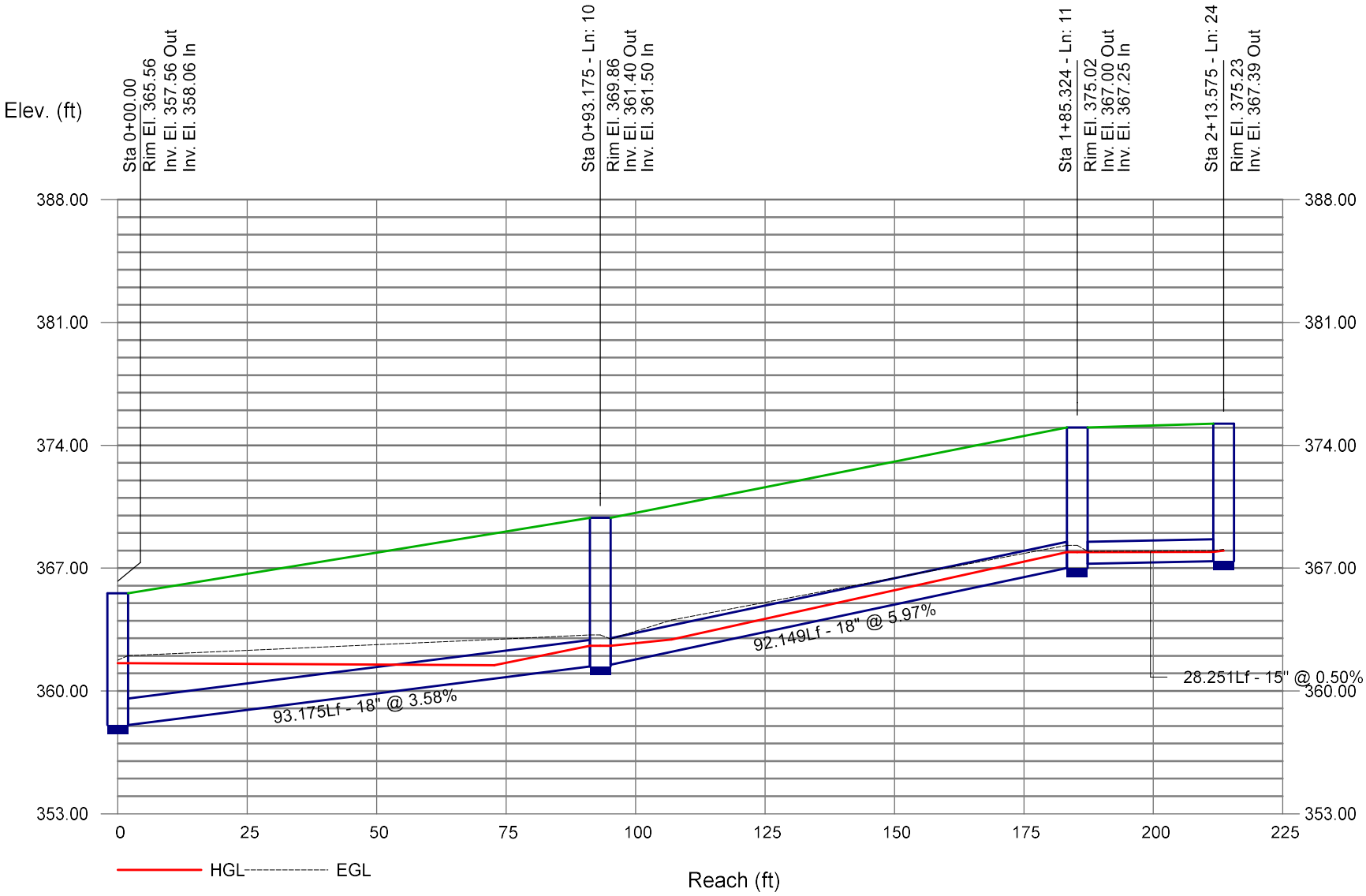
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



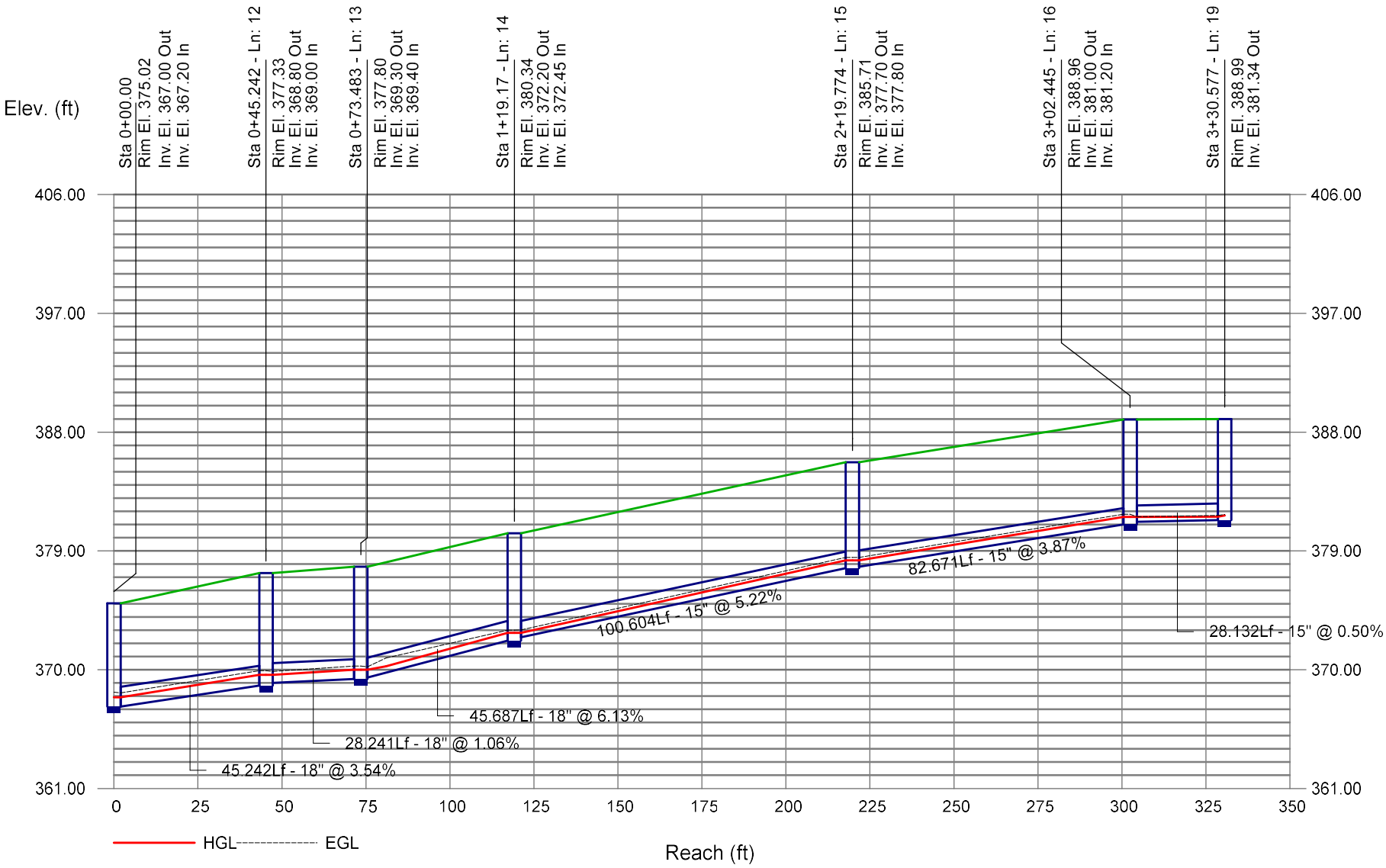
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



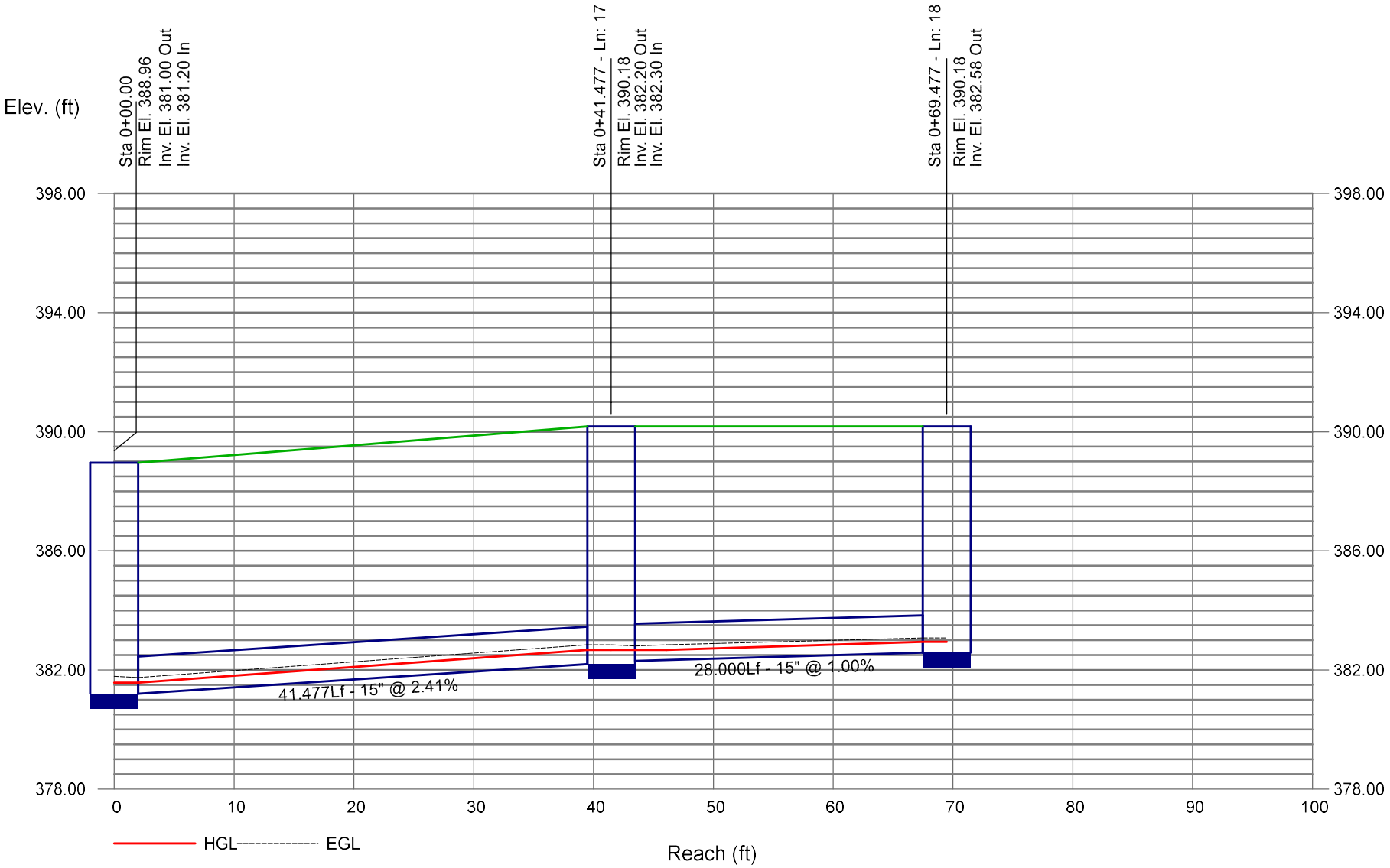
Storm Sewer Profile

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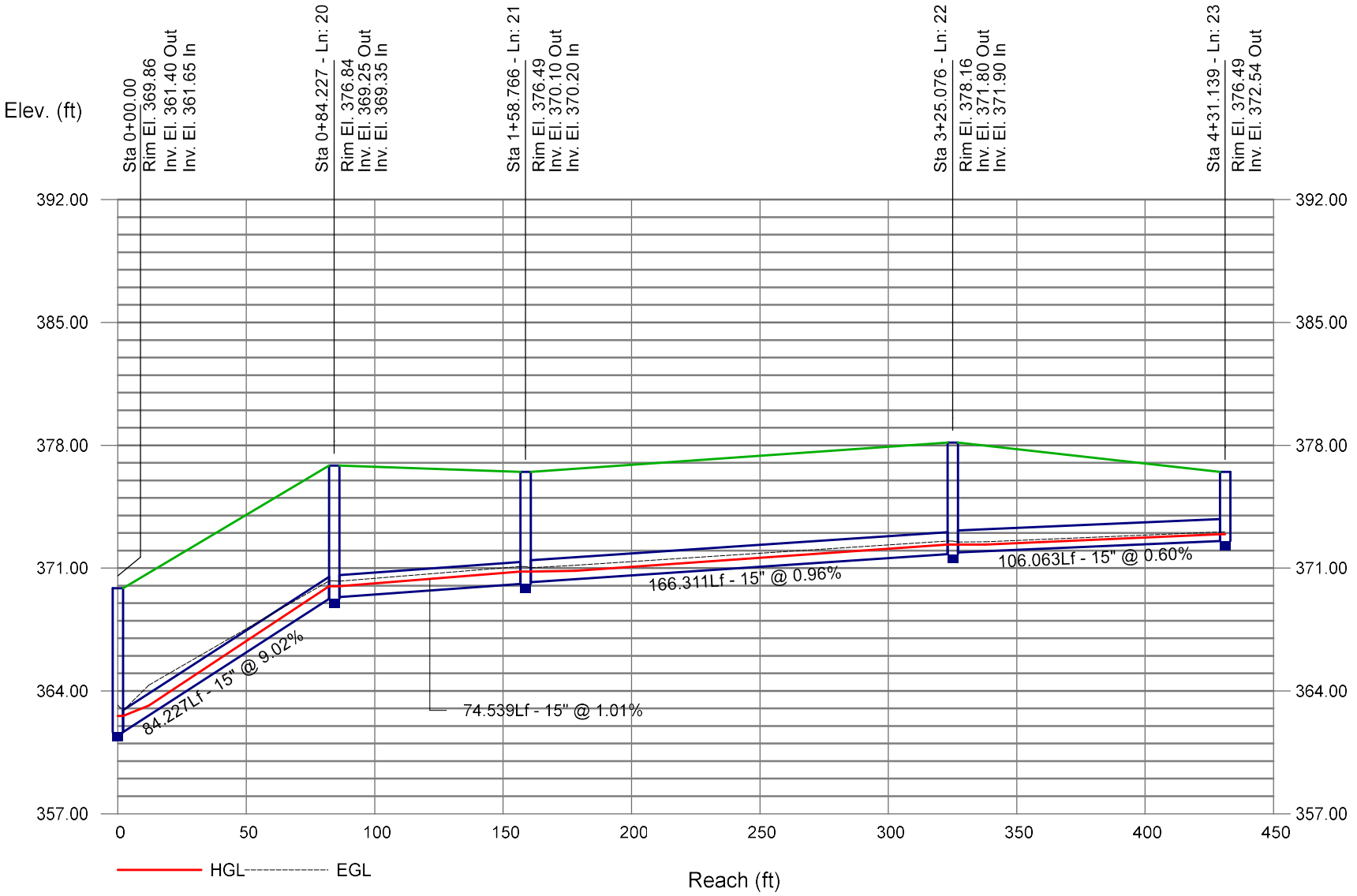
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



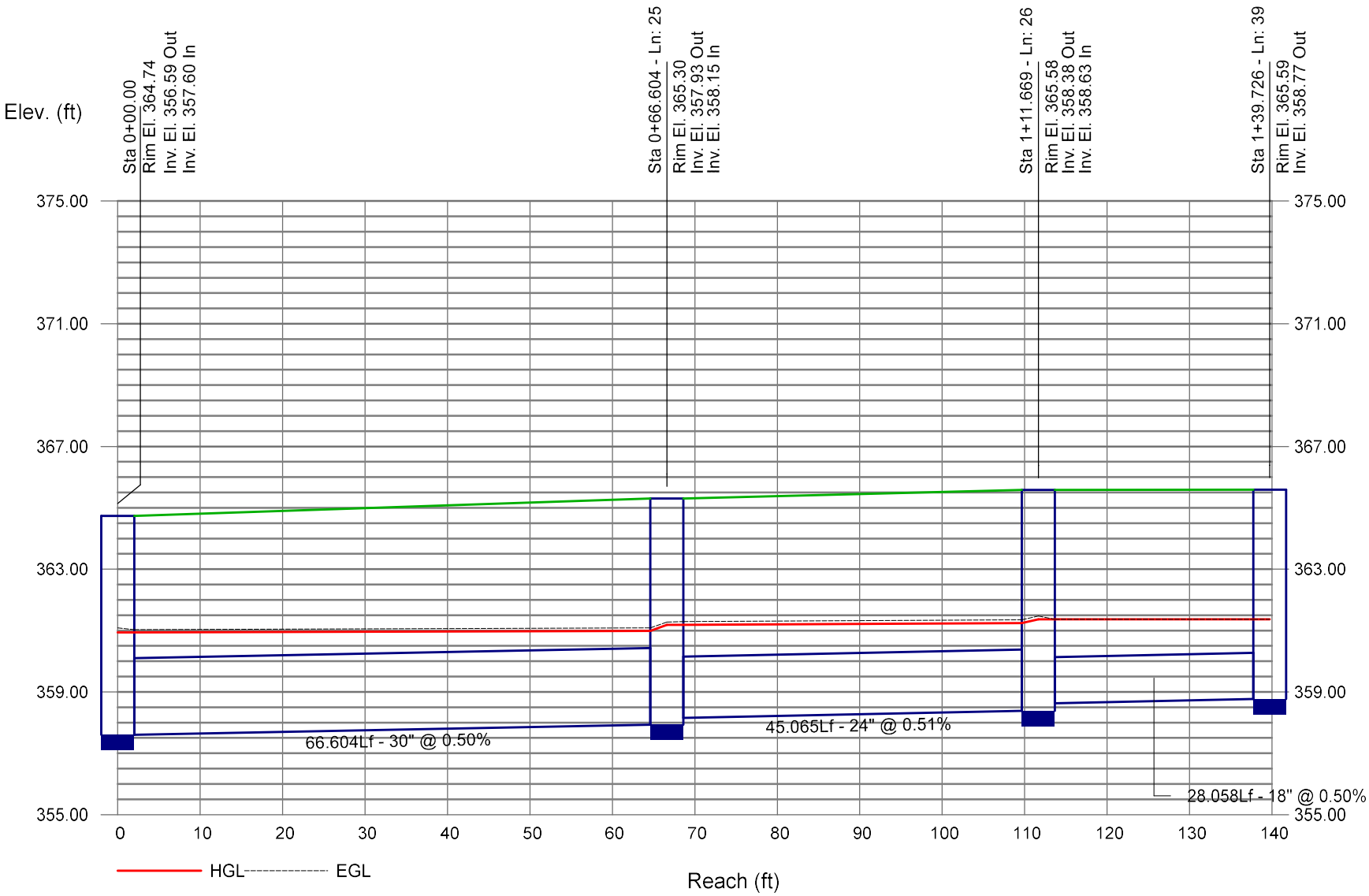
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



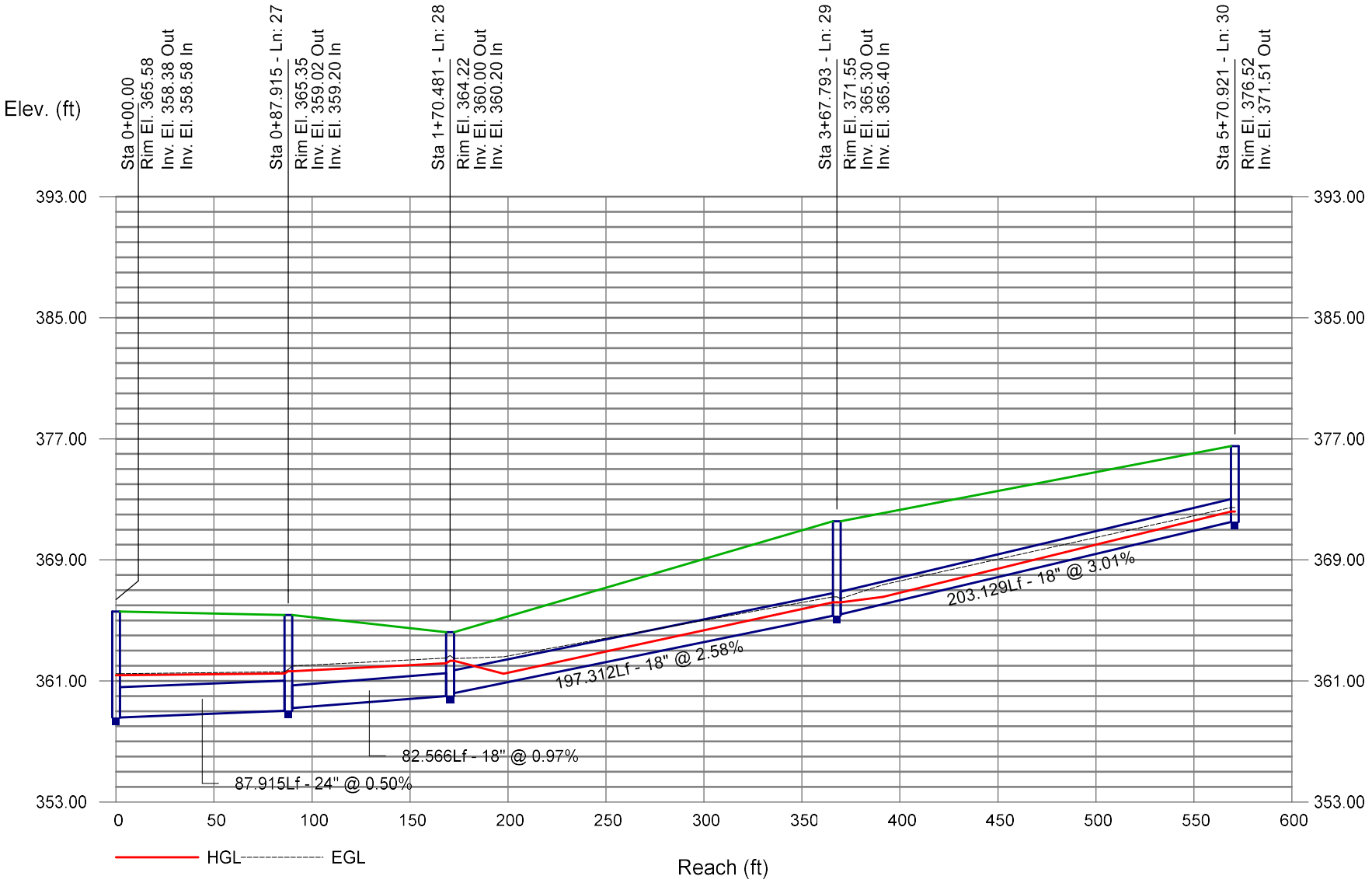
Storm Sewer Profile

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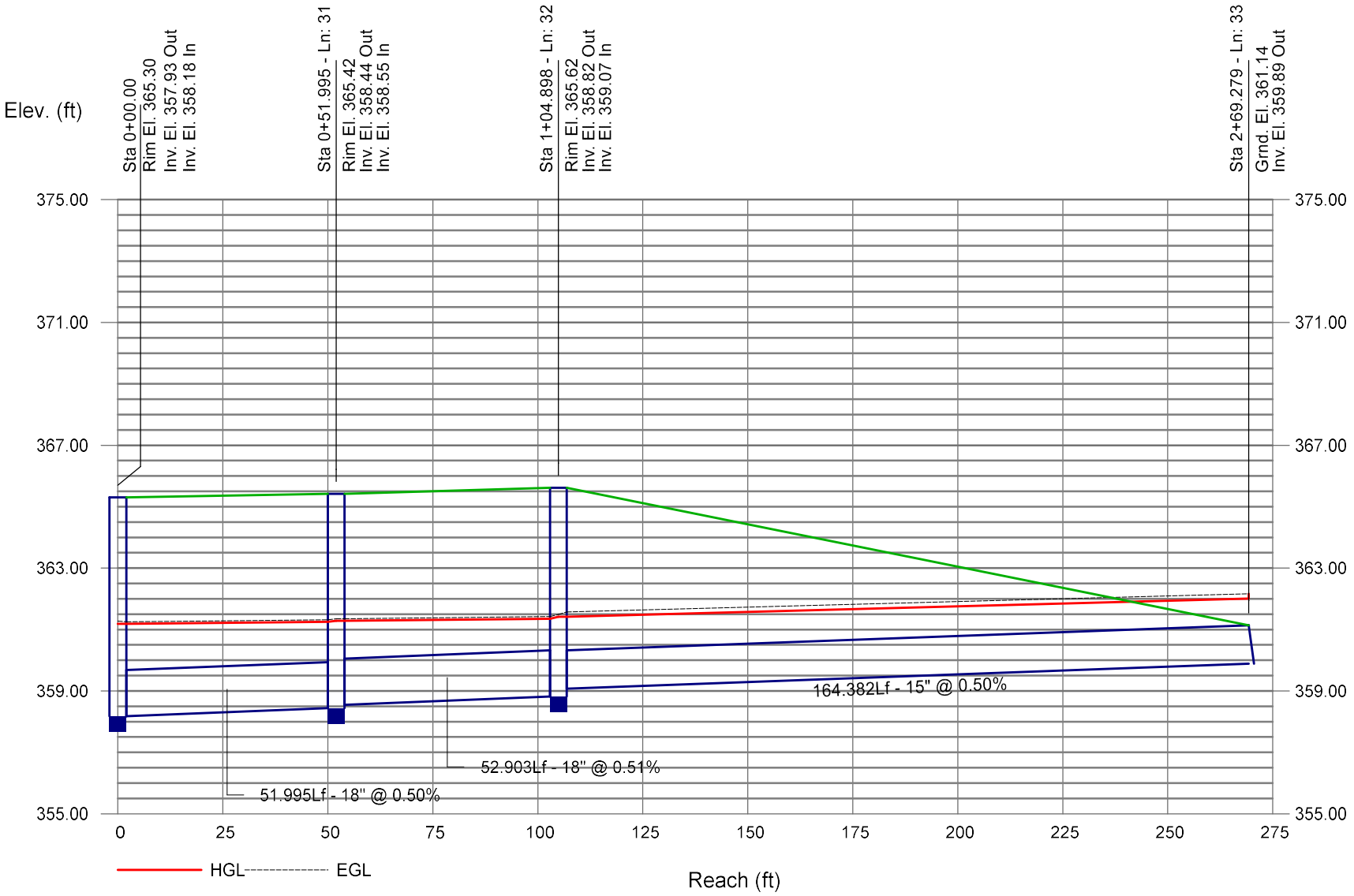
Storm Sewer Profile

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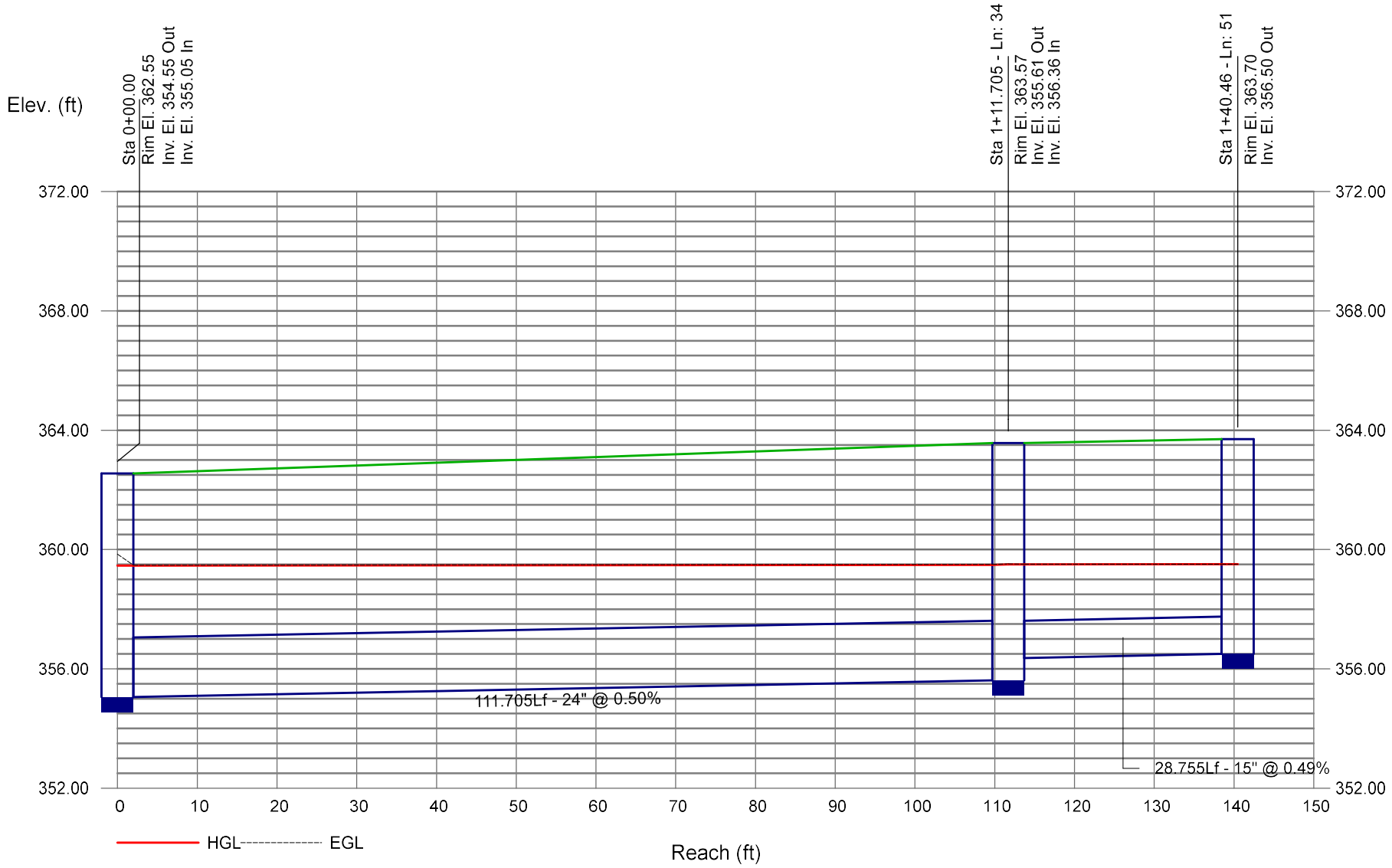
Storm Sewer Profile

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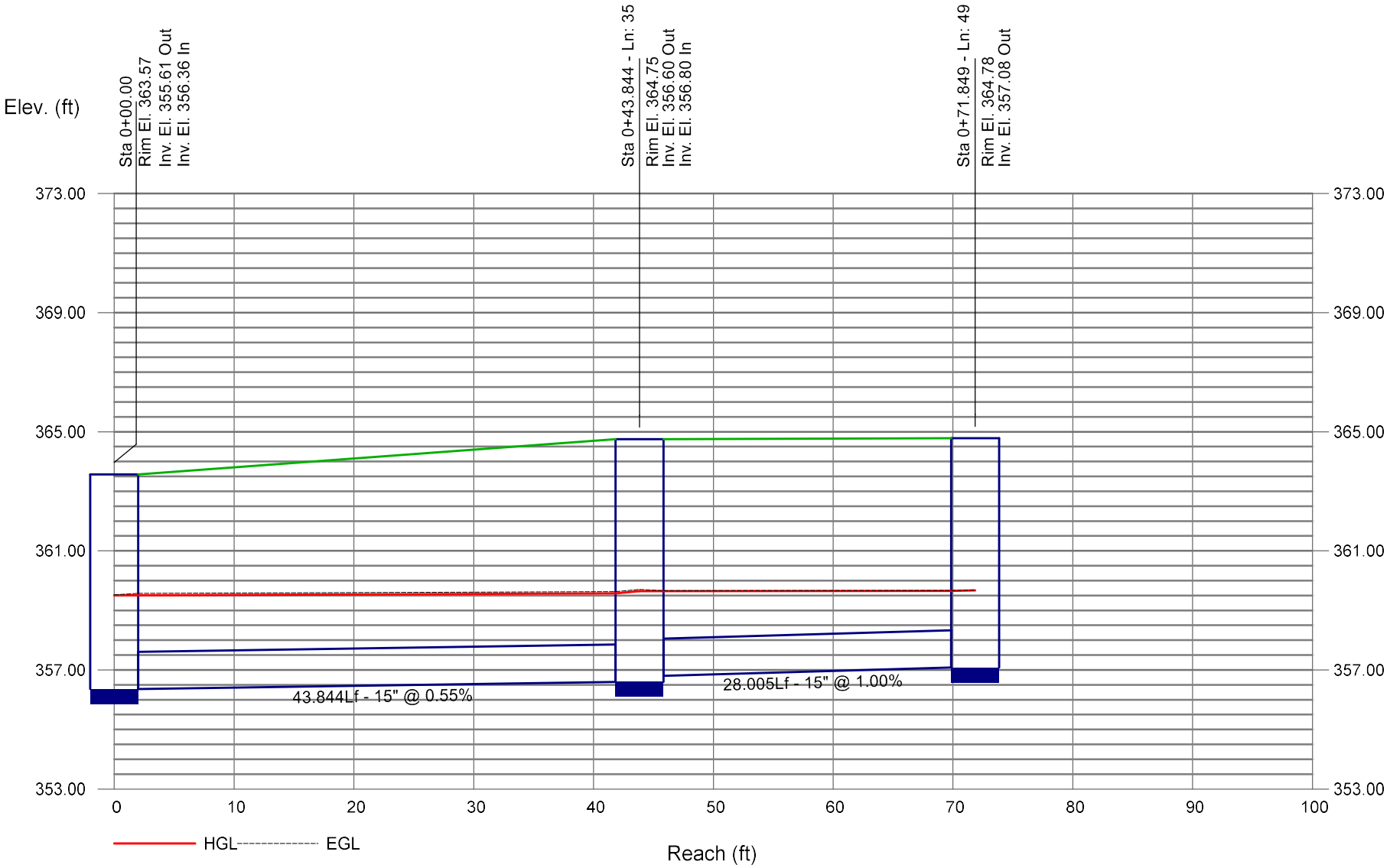
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



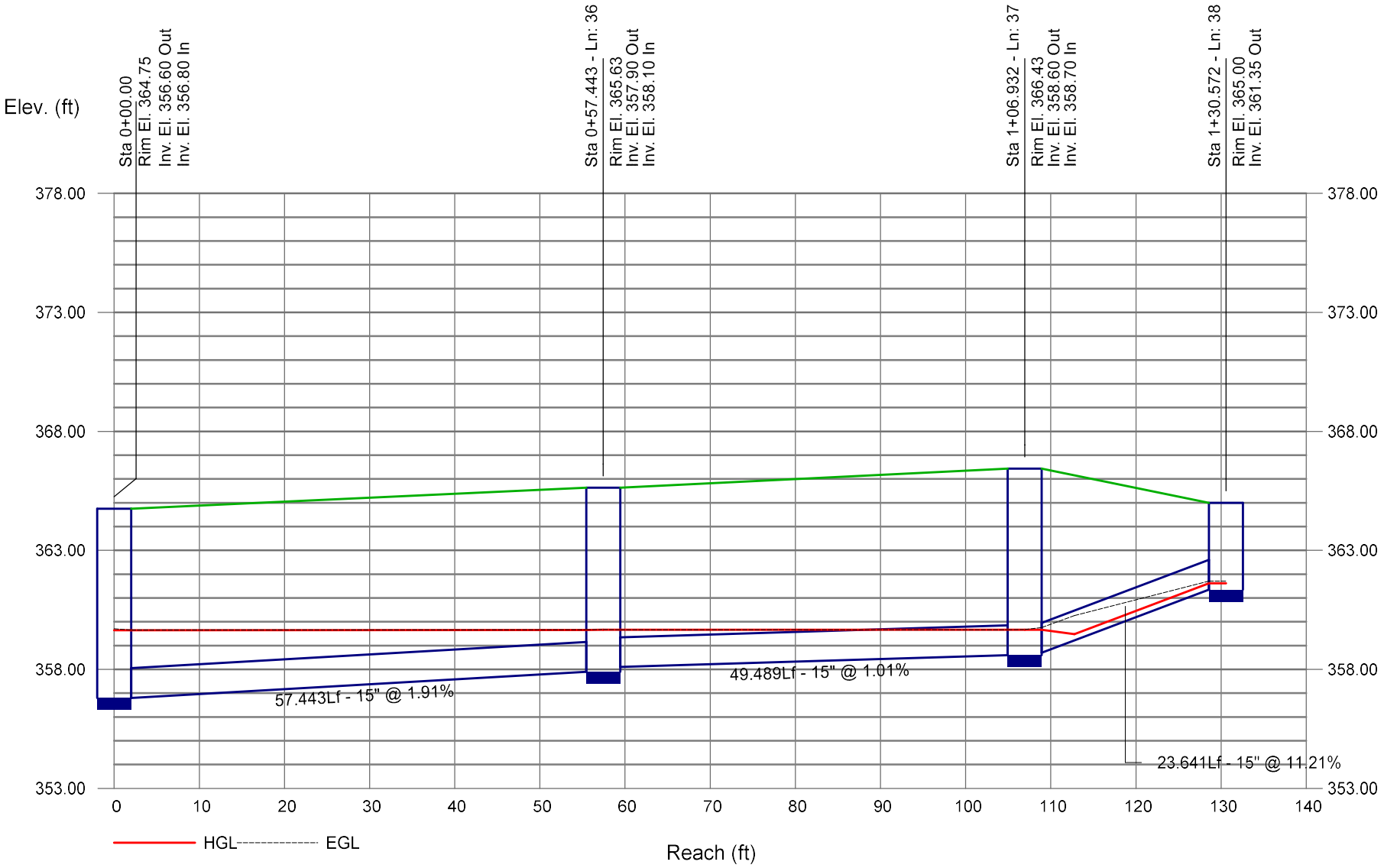
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



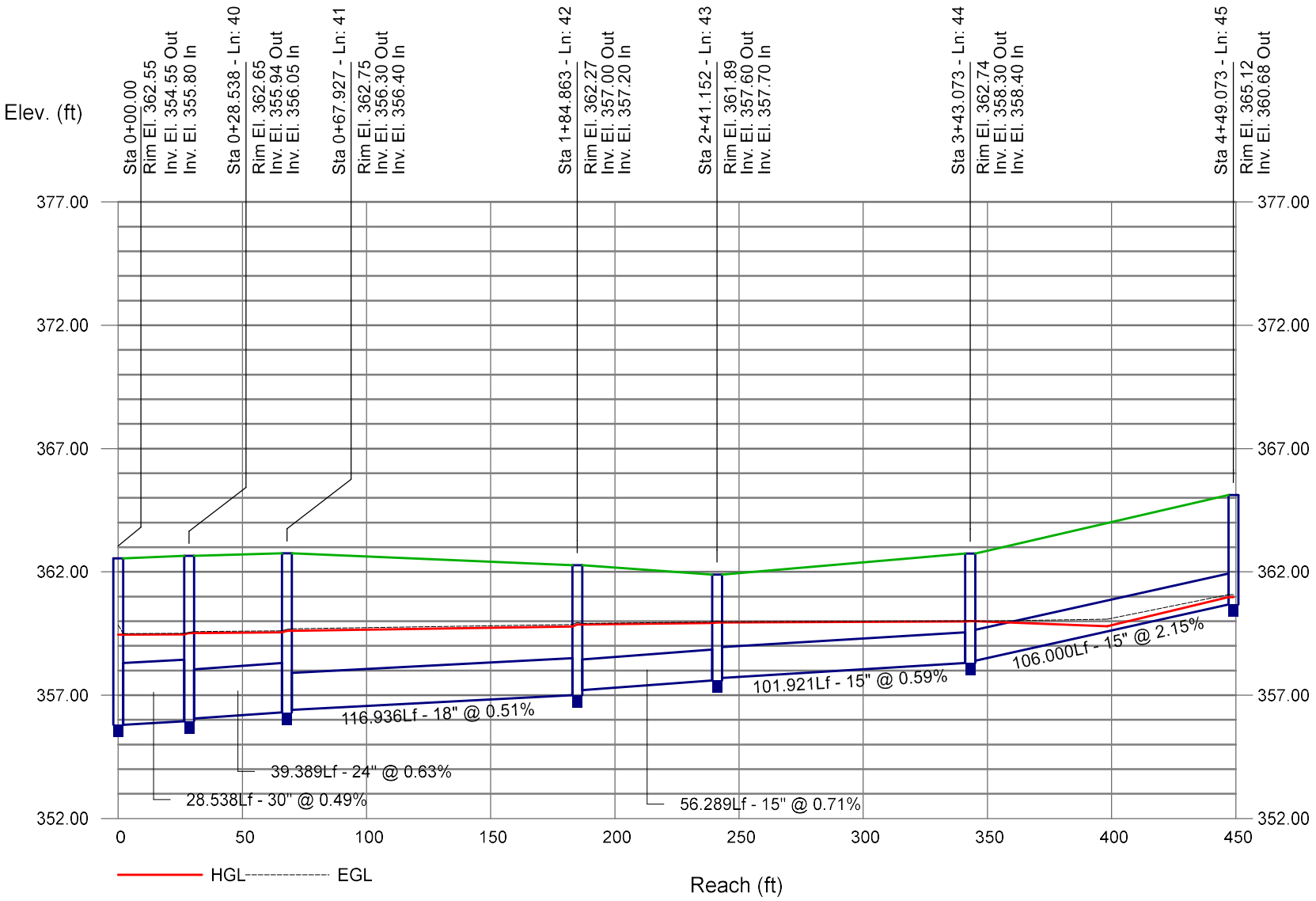
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



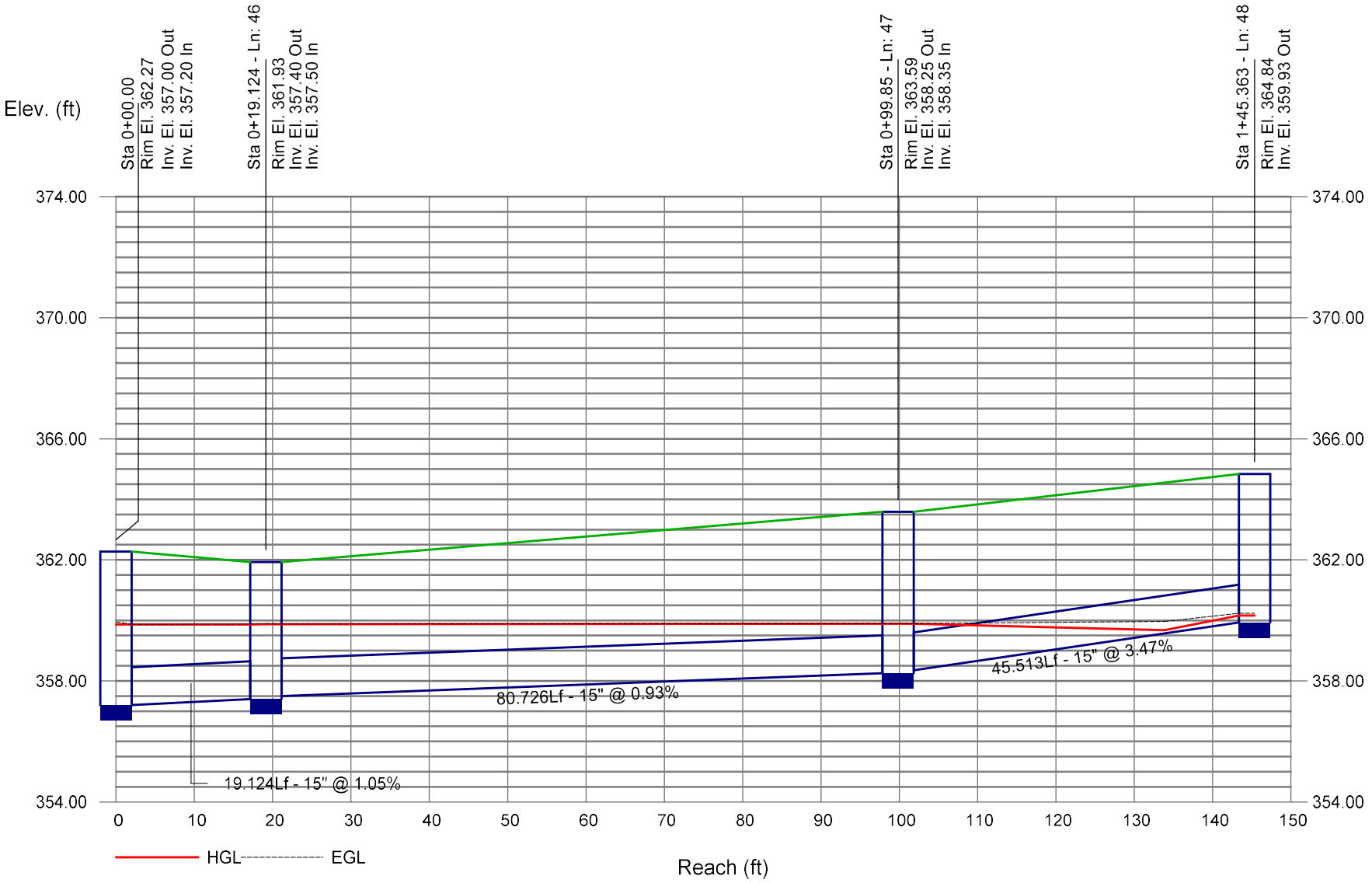
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



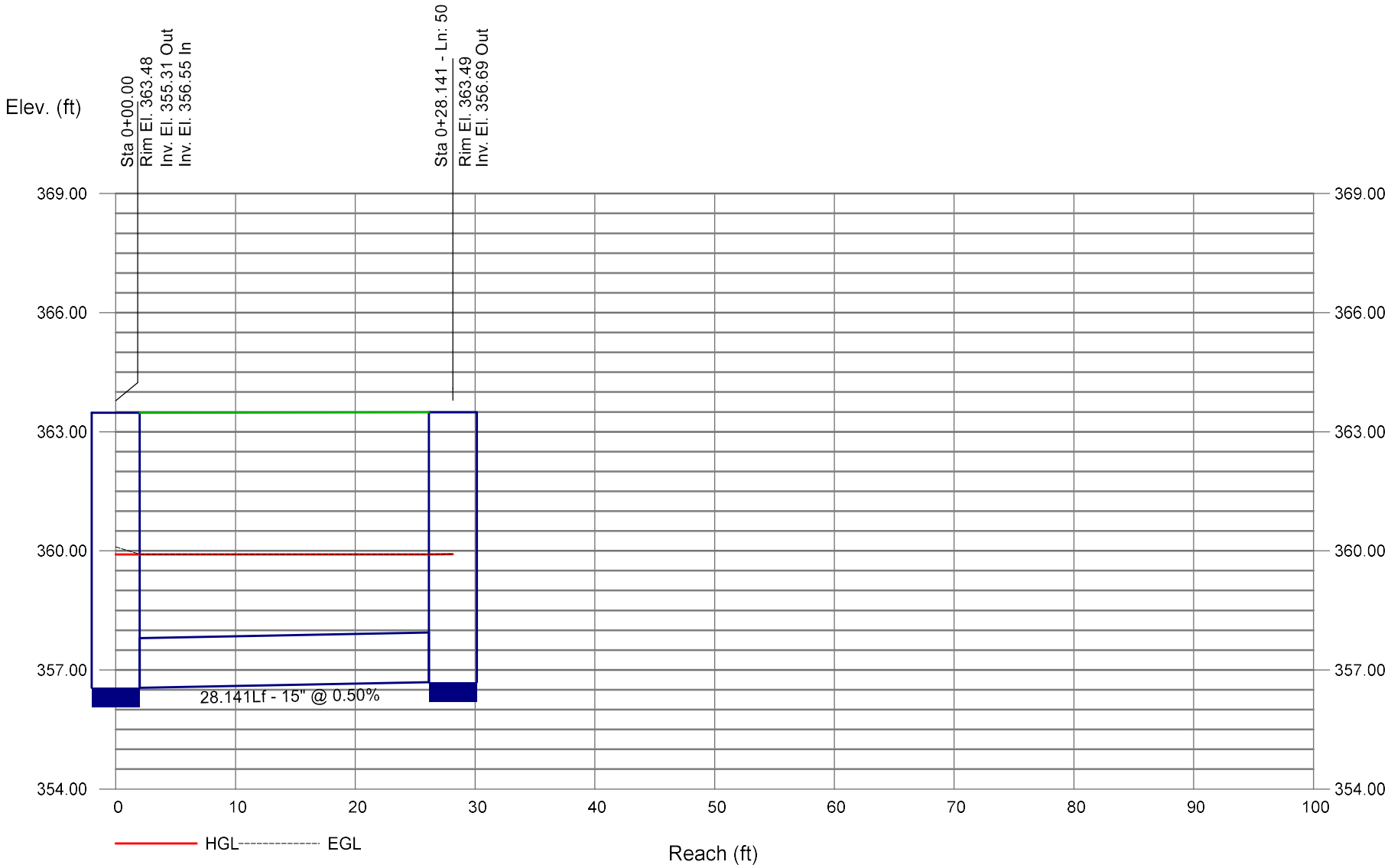
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



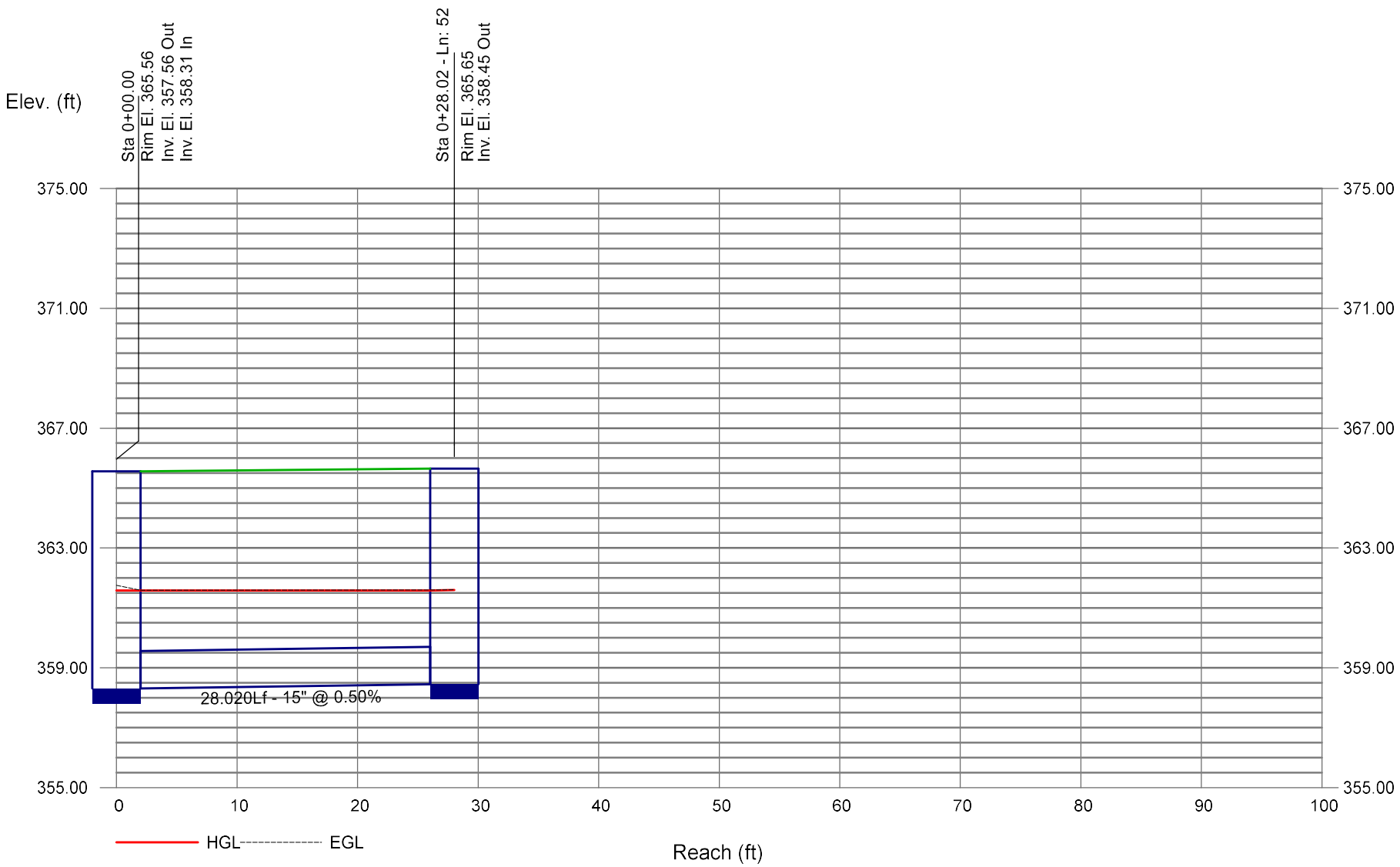
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



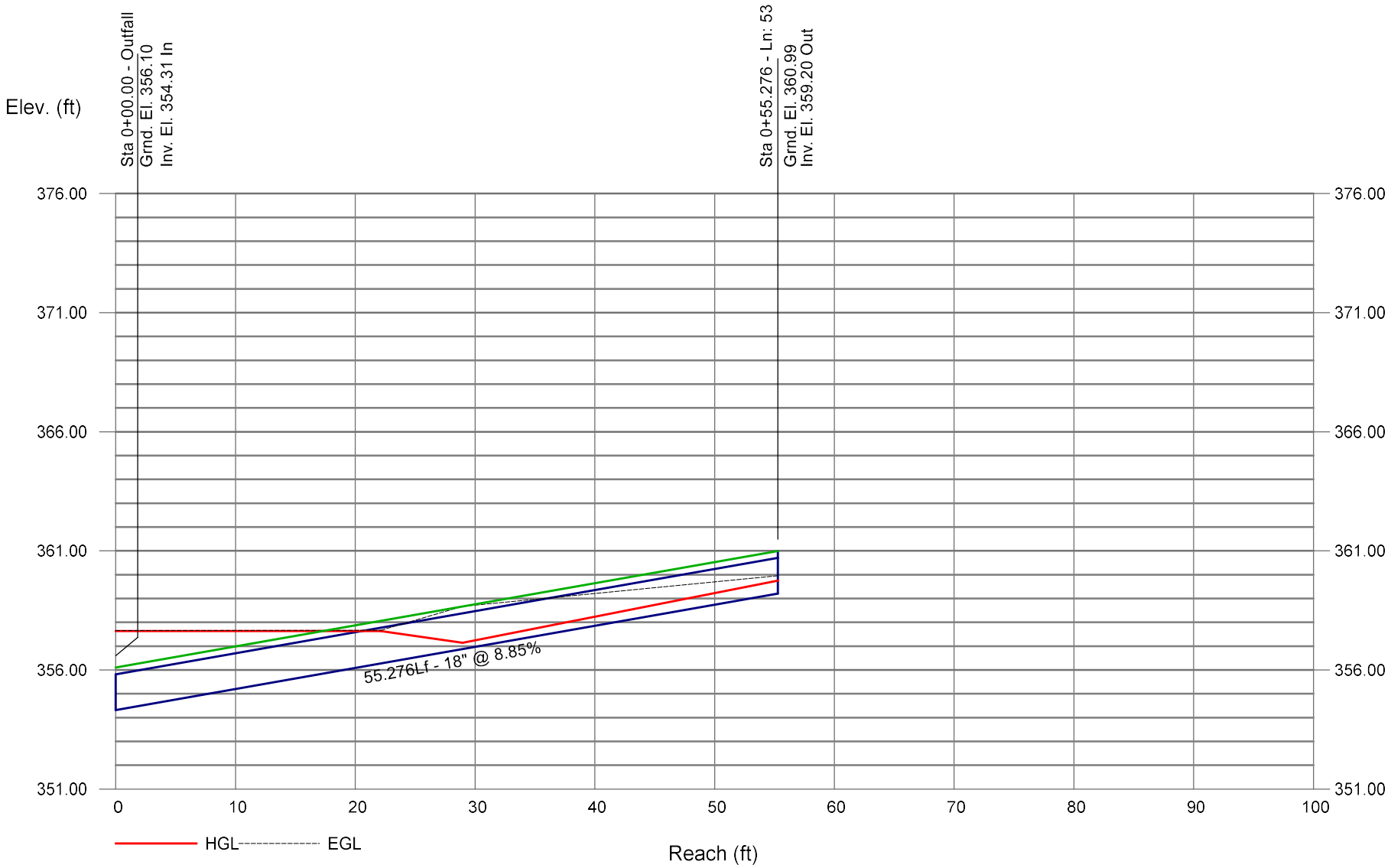
Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm

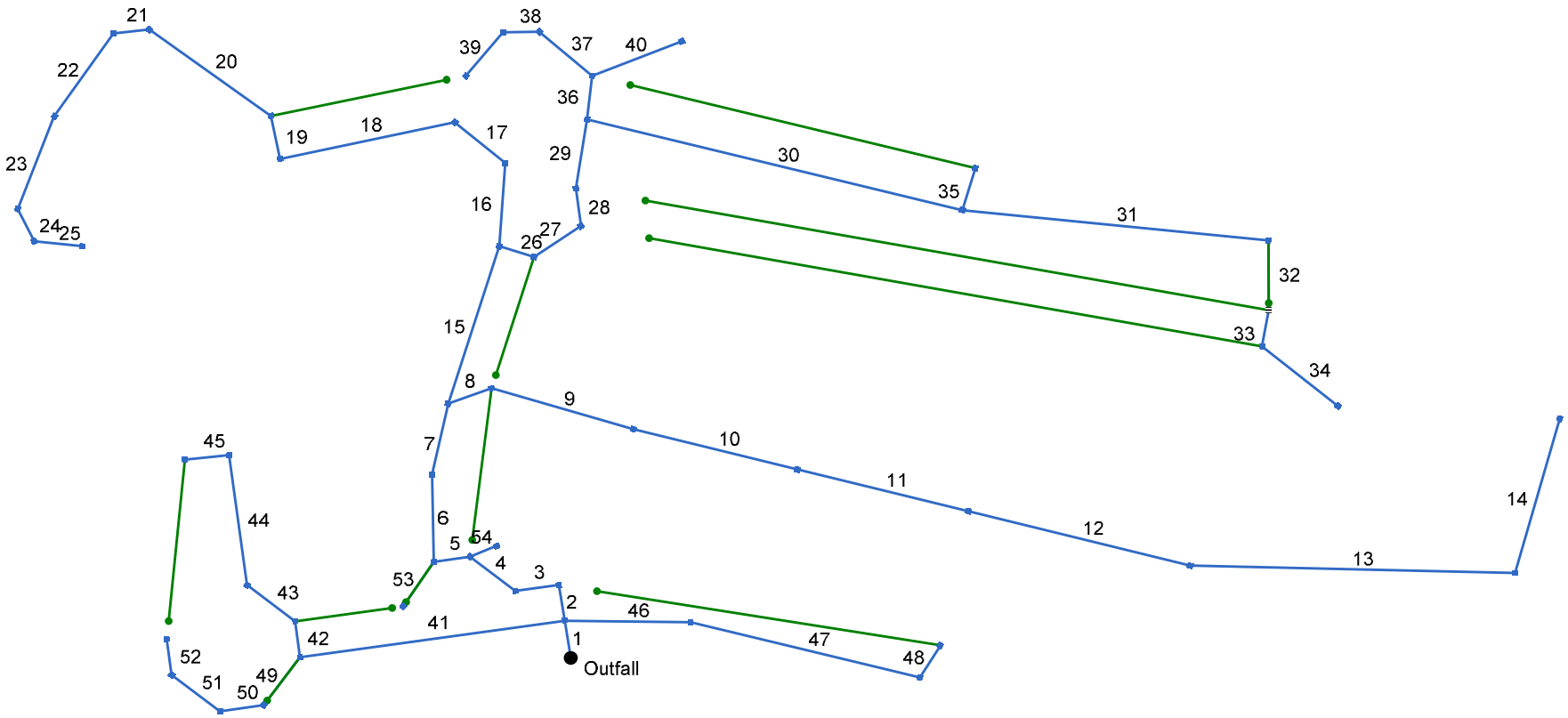


Storm Sewer Profile

Proj. file: SCM 2 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 4 Storm Network.stm	Number of lines: 54	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	29.195	-98.889	Comb	0.00	0.22	0.60	10.0	362.00	0.69	362.20	48	Cir	0.013	1.50	371.94	Pipe - (418)
2	1	28.012	-0.664	Comb	0.00	0.40	0.60	10.0	362.40	2.86	363.20	48	Cir	0.013	1.50	371.94	Pipe - (417)
3	2	33.797	-88.332	Comb	0.00	0.03	0.60	10.0	363.70	0.89	364.00	42	Cir	0.013	1.13	372.18	Pipe - (416)
4	3	43.841	45.000	Comb	0.00	0.07	0.60	10.0	364.10	0.91	364.50	36	Cir	0.013	1.50	372.99	Pipe - (368)
5	4	28.000	-45.000	Comb	0.00	1.08	0.60	10.0	364.70	1.07	365.00	36	Cir	0.013	1.75	373.02	Pipe - (380)
6	5	67.788	96.424	Comb	0.00	0.09	0.60	10.0	365.20	0.89	365.80	36	Cir	0.013	0.50	375.08	Pipe - (367) (1) (
7	6	56.317	14.470	Comb	0.00	0.21	0.60	10.0	365.90	1.07	366.50	36	Cir	0.013	1.80	376.94	Pipe - (367) (1)
8	7	35.477	57.582	Comb	0.00	0.16	0.60	10.0	367.50	0.85	367.80	36	Cir	0.013	0.95	377.70	Pipe - (374) (1)
9	8	113.770	35.649	DrGrt	0.00	0.79	0.60	10.0	367.90	0.70	368.70	36	Cir	0.013	0.50	372.15	Pipe - (374)
10	9	130.000	-2.441	DrGrt	0.00	0.54	0.60	10.0	368.80	0.77	369.80	24	Cir	0.013	0.50	372.97	Pipe - (373)
11	10	136.000	0.000	DrGrt	0.00	0.51	0.60	10.0	370.05	3.13	374.30	15	Cir	0.013	0.50	379.16	Pipe - (372)
12	11	176.286	0.000	DrGrt	0.00	0.53	0.60	10.0	374.40	2.61	379.00	15	Cir	0.013	0.50	383.14	Pipe - (490)
13	12	250.514	-12.494	MH	0.00	0.25	0.60	10.0	379.10	0.76	381.00	15	Cir	0.013	0.97	388.75	Pipe - (624)
14	13	124.357	-75.174	DrGrt	0.00	0.79	0.60	10.0	381.10	0.50	381.72	15	Cir	0.013	1.00	385.62	Pipe - (623)
15	7	128.000	4.879	Comb	0.00	0.09	0.60	10.0	367.00	2.66	370.40	24	Cir	0.013	1.50	380.11	Pipe - (366)
16	15	64.616	-13.839	Comb	0.00	0.08	0.60	10.0	370.90	2.94	372.80	18	Cir	0.013	1.27	380.82	Pipe - (409)
17	16	49.983	-55.102	Comb	0.00	0.09	0.60	10.0	372.90	2.40	374.10	18	Cir	0.013	1.22	382.08	Pipe - (408)
18	17	137.706	-50.808	Comb	0.00	0.09	0.60	10.0	374.20	0.94	375.50	18	Cir	0.013	1.50	384.92	Pipe - (432)
19	18	34.000	90.000	Comb	0.00	0.04	0.60	10.0	375.60	0.88	375.90	18	Cir	0.013	1.08	384.48	Pipe - (438)
20	19	115.233	-42.654	Comb	0.00	0.41	0.60	10.0	376.15	0.74	377.00	15	Cir	0.013	1.07	385.66	Pipe - (437)
21	20	28.000	-41.665	Comb	0.00	0.97	0.60	10.0	377.10	0.71	377.30	15	Cir	0.013	1.18	385.66	Pipe - (436)
22	21	78.850	-48.424	Comb	0.00	0.15	0.60	10.0	377.40	0.63	377.90	15	Cir	0.013	0.50	385.46	Pipe - (435)
23	22	76.953	-14.049	Comb	0.00	0.01	0.60	10.0	378.00	0.65	378.50	15	Cir	0.013	1.18	385.96	Pipe - (434)

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	28.000	-48.252	Comb	0.00	0.03	0.60	10.0	378.60	0.71	378.80	15	Cir	0.013	1.30	385.96	Pipe - (433)
25	24	37.369	-57.113	Comb	0.00	0.09	0.60	10.0	379.00	5.65	381.11	15	Cir	0.013	1.00	386.87	Pipe - (535)
26	15	28.099	89.385	Comb	0.00	0.06	0.60	10.0	370.60	0.71	370.80	24	Cir	0.013	1.21	380.13	Pipe - (367)
27	26	43.416	-50.732	Comb	0.00	0.83	0.60	10.0	370.90	1.15	371.40	24	Cir	0.013	1.38	380.58	Pipe - (379)
28	27	29.427	-64.132	Comb	0.00	0.78	0.60	10.0	371.90	1.36	372.30	24	Cir	0.013	0.51	380.64	Pipe - (364)
29	28	54.011	16.712	Comb	0.00	0.20	0.60	10.0	372.40	0.74	372.80	24	Cir	0.013	2.16	381.78	Pipe - (363)
30	29	297.666	94.522	Comb	0.00	0.15	0.60	10.0	373.05	0.79	375.40	15	Cir	0.013	1.50	385.57	Pipe - (412)
31	30	237.368	-7.963	Comb	0.00	0.02	0.60	10.0	375.60	0.84	377.60	15	Cir	0.013	1.49	387.28	Pipe - (411)
32	31	54.000	84.067	Comb	0.00	0.06	0.60	10.0	377.70	0.74	378.10	15	Cir	0.013	0.50	385.70	Pipe - (415)
33	32	28.507	10.831	Comb	0.00	0.01	0.60	10.0	378.20	0.70	378.40	15	Cir	0.013	1.36	385.62	Pipe - (414)
34	33	74.490	-62.309	Comb	0.00	0.65	0.60	10.0	378.50	0.67	379.00	15	Cir	0.013	1.00	386.30	Pipe - (413)
35	30	34.065	-86.348	Comb	0.00	0.47	0.60	10.0	375.60	5.23	377.38	15	Cir	0.013	1.00	384.85	Pipe - (534)
36	29	34.020	-2.563	Comb	0.00	0.39	0.60	10.0	373.00	0.88	373.30	18	Cir	0.013	1.36	381.93	Pipe - (362)
37	36	53.159	-56.631	Comb	0.00	0.23	0.60	10.0	373.55	0.66	373.90	15	Cir	0.013	1.05	382.06	Pipe - (371)
38	37	28.000	-40.898	Comb	0.00	0.20	0.60	10.0	374.00	0.71	374.20	15	Cir	0.013	1.18	381.71	Pipe - (394)
39	38	44.039	-48.688	Comb	0.00	0.28	0.60	10.0	374.30	5.13	376.56	15	Cir	0.013	1.00	381.97	Pipe - (410)
40	36	74.045	62.314	DrGrt	0.00	0.58	0.60	10.0	373.55	5.28	377.46	15	Cir	0.013	1.00	382.60	Pipe - (584)
41	1	206.011	-88.996	Comb	0.00	0.01	0.60	10.0	363.20	0.53	364.30	42	Cir	0.013	1.69	373.72	Pipe - (384)
42	41	28.000	90.000	Comb	0.00	0.02	0.60	10.0	365.05	4.11	366.20	24	Cir	0.013	1.13	374.06	Pipe - (386)
43	42	46.669	-45.000	Comb	0.00	0.08	0.60	10.0	366.30	5.79	369.00	15	Cir	0.013	1.13	376.54	Pipe - (421)
44	43	101.483	45.000	Comb	0.00	0.13	0.60	10.0	369.10	3.84	373.00	15	Cir	0.013	1.50	380.82	Pipe - (420)
45	44	34.024	-87.851	Comb	0.00	0.21	0.60	10.0	373.10	1.00	373.44	15	Cir	0.013	1.00	381.61	Pipe - (419)
46	1	97.083	99.571	Comb	0.00	0.18	0.60	10.0	363.70	1.55	365.20	30	Cir	0.013	0.50	373.08	Pipe - (388)

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	181.821	12.960	Comb	0.00	0.20	0.60	10.0	365.45	3.82	372.40	15	Cir	0.013	1.43	380.34	Pipe - (387)
48	47	29.575	-71.057	Comb	0.00	0.18	0.60	10.0	372.50	1.01	372.80	15	Cir	0.013	1.00	380.75	Pipe - (389)
49	41	46.669	-45.000	Comb	0.00	0.07	0.60	10.0	365.05	0.54	365.30	30	Cir	0.013	1.13	371.66	Pipe - (422)
50	49	34.000	45.000	Comb	0.00	0.08	0.60	10.0	365.40	0.59	365.60	15	Cir	0.013	1.13	372.40	Pipe - (383)
51	50	46.669	45.000	Comb	0.00	0.20	0.60	10.0	365.70	1.50	366.40	15	Cir	0.013	1.13	374.70	Pipe - (382)
52	51	28.000	45.000	Comb	0.00	0.30	0.60	10.0	366.50	2.00	367.06	15	Cir	0.013	1.00	374.89	Pipe - (381)
53	5	42.110	-47.406	Comb	0.00	1.09	0.60	10.0	366.25	1.99	367.09	15	Cir	0.013	1.00	373.06	Pipe - (687)
54	4	21.891	119.979	DrGrt	0.00	0.07	0.60	10.0	365.75	8.91	367.70	18	Cir	0.013	1.00	372.42	Pipe - (585)

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	CB 401	Combination	371.94	Rect	4.00	4.00	48	Cir	362.20	48 42 30	Cir Cir Cir	362.40 363.20 363.70
2	CB 402	Combination	371.94	Rect	4.00	4.00	48	Cir	363.20	42	Cir	363.70
3	CB 403	Combination	372.18	Rect	4.00	4.00	42	Cir	364.00	36	Cir	364.10
4	CB 404	Combination	372.99	Rect	4.00	4.00	36	Cir	364.50	36 18	Cir Cir	364.70 365.75
5	CB 405	Combination	373.02	Rect	4.00	4.00	36	Cir	365.00	36 15	Cir Cir	365.20 366.25
6	CB 406	Combination	375.08	Rect	4.00	4.00	36	Cir	365.80	36	Cir	365.90
7	CB 407	Combination	376.94	Rect	4.00	4.00	36	Cir	366.50	36 24	Cir Cir	367.50 367.00
8	CB 407A	Combination	377.70	Rect	4.00	4.00	36	Cir	367.80	36	Cir	367.90
9	YI 407B	DropGrate	372.15	Rect	4.00	4.00	36	Cir	368.70	24	Cir	368.80
10	YI 407C	DropGrate	372.97	Rect	4.00	4.00	24	Cir	369.80	15	Cir	370.05
11	YI 407D	DropGrate	379.16	Rect	4.00	4.00	15	Cir	374.30	15	Cir	374.40
12	YI 407E	DropGrate	383.14	Rect	4.00	4.00	15	Cir	379.00	15	Cir	379.10
13	JB 407F	Manhole	388.75	Rect	4.00	4.00	15	Cir	381.00	15	Cir	381.10
14	YI 407G	DropGrate	385.62	Rect	4.00	4.00	15	Cir	381.72			
15	CB 408	Combination	380.11	Rect	4.00	4.00	24	Cir	370.40	18 24	Cir Cir	370.90 370.60
16	CB 409	Combination	380.82	Rect	4.00	4.00	18	Cir	372.80	18	Cir	372.90
17	CB 410	Combination	382.08	Rect	4.00	4.00	18	Cir	374.10	18	Cir	374.20
18	CB 411	Combination	384.92	Rect	4.00	4.00	18	Cir	375.50	18	Cir	375.60
19	CB 412	Combination	384.48	Rect	4.00	4.00	18	Cir	375.90	15	Cir	376.15
20	CB 413	Combination	385.66	Rect	4.00	4.00	15	Cir	377.00	15	Cir	377.10

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 414	Combination	385.66	Rect	4.00	4.00	15	Cir	377.30	15	Cir	377.40
22	CB 415	Combination	385.46	Rect	4.00	4.00	15	Cir	377.90	15	Cir	378.00
23	CB 416	Combination	385.96	Rect	4.00	4.00	15	Cir	378.50	15	Cir	378.60
24	CB 417	Combination	385.96	Rect	4.00	4.00	15	Cir	378.80	15	Cir	379.00
25	CB 418	Combination	386.87	Rect	4.00	4.00	15	Cir	381.11			
26	CB 419	Combination	380.13	Rect	4.00	4.00	24	Cir	370.80	24	Cir	370.90
27	CB 420	Combination	380.58	Rect	4.00	4.00	24	Cir	371.40	24	Cir	371.90
28	CB 421	Combination	380.64	Rect	4.00	4.00	24	Cir	372.30	24	Cir	372.40
29	CB 422	Combination	381.78	Rect	4.00	4.00	24	Cir	372.80	15 18	Cir Cir	373.05 373.00
30	CB 423	Combination	385.57	Rect	4.00	4.00	15	Cir	375.40	15 15	Cir Cir	375.60 375.60
31	CB 424	Combination	387.28	Rect	4.00	4.00	15	Cir	377.60	15	Cir	377.70
32	CB 425	Combination	385.70	Rect	4.00	4.00	15	Cir	378.10	15	Cir	378.20
33	CB 426	Combination	385.62	Rect	4.00	4.00	15	Cir	378.40	15	Cir	378.50
34	CB 427	Combination	386.30	Rect	4.00	4.00	15	Cir	379.00			
35	CB 423A	Combination	384.85	Rect	4.00	4.00	15	Cir	377.38			
36	CB 422A	Combination	381.93	Rect	4.00	4.00	18	Cir	373.30	15 15	Cir Cir	373.55 373.55
37	CB 422C	Combination	382.06	Rect	4.00	4.00	15	Cir	373.90	15	Cir	374.00
38	CB 422D	Combination	381.71	Rect	4.00	4.00	15	Cir	374.20	15	Cir	374.30
39	CB 422E	Combination	381.97	Rect	4.00	4.00	15	Cir	376.56			
40	YI 422B	DropGrate	382.60	Rect	4.00	4.00	15	Cir	377.46			
41	CB 430	Combination	373.72	Rect	4.00	4.00	42	Cir	364.30	24 30	Cir Cir	365.05 365.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
42	CB 431	Combination	374.06	Rect	4.00	4.00	24	Cir	366.20	15	Cir	366.30
43	CB 432	Combination	376.54	Rect	4.00	4.00	15	Cir	369.00	15	Cir	369.10
44	CB 433	Combination	380.82	Rect	4.00	4.00	15	Cir	373.00	15	Cir	373.10
45	CB 433A	Combination	381.61	Rect	4.00	4.00	15	Cir	373.44			
46	CB 428	Combination	373.08	Rect	4.00	4.00	30	Cir	365.20	15	Cir	365.45
47	CB 429	Combination	380.34	Rect	4.00	4.00	15	Cir	372.40	15	Cir	372.50
48	CB 429A	Combination	380.75	Rect	4.00	4.00	15	Cir	372.80			
49	CB 434	Combination	371.66	Rect	4.00	4.00	30	Cir	365.30	15	Cir	365.40
50	CB 435	Combination	372.40	Rect	4.00	4.00	15	Cir	365.60	15	Cir	365.70
51	CB 436	Combination	374.70	Rect	4.00	4.00	15	Cir	366.40	15	Cir	366.50
52	CB 436A	Combination	374.89	Rect	4.00	4.00	15	Cir	367.06			
53	CB 405A	Combination	373.06	Rect	4.00	4.00	15	Cir	367.09			
54	YI 404A	DropGrate	372.42	Rect	4.00	4.00	18	Cir	367.70			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (418)	51.70	48	Cir	29.195	362.00	362.20	0.685	363.85	364.36	1.31	364.36	End	Combination
2	Pipe - (417)	45.49	48	Cir	28.012	362.40	363.20	2.856	364.36	365.22	1.20	365.22	1	Combination
3	Pipe - (416)	44.24	42	Cir	33.797	363.70	364.00	0.888	365.38	366.07	n/a	366.07	2	Combination
4	Pipe - (368)	44.24	36	Cir	43.841	364.10	364.50	0.912	366.07	366.66	n/a	366.66	3	Combination
5	Pipe - (380)	43.84	36	Cir	28.000	364.70	365.00	1.071	366.66	367.16	n/a	367.16	4	Combination
6	Pipe - (367) (1) (1)	36.68	36	Cir	67.788	365.20	365.80	0.885	367.16	367.77	0.43	367.77	5	Combination
7	Pipe - (367) (1)	36.51	36	Cir	56.317	365.90	366.50	1.065	367.77	368.46	1.55	368.46	6	Combination
8	Pipe - (374) (1)	12.59	36	Cir	35.477	367.50	367.80	0.846	368.46	368.93	0.40	368.93	7	Combination
9	Pipe - (374)	12.15	36	Cir	113.770	367.90	368.70	0.703	368.93	369.81	0.21	369.81	8	DropGrate
10	Pipe - (373)	9.45	24	Cir	130.000	368.80	369.80	0.769	369.81	370.90	n/a	370.90	9	DropGrate
11	Pipe - (372)	7.57	15	Cir	136.000	370.05	374.30	3.125	370.90	375.39	n/a	375.39	10	DropGrate
12	Pipe - (490)	5.81	15	Cir	176.286	374.40	379.00	2.609	375.39	379.97	n/a	379.97 j	11	DropGrate
13	Pipe - (624)	3.96	15	Cir	250.514	379.10	381.00	0.758	379.97	381.80	n/a	381.80 j	12	Manhole
14	Pipe - (623)	3.06	15	Cir	124.357	381.10	381.72	0.499	381.85	382.47	0.25	382.72	13	DropGrate
15	Pipe - (366)	23.82	24	Cir	128.000	367.00	370.40	2.656	368.46	372.13	1.59	372.13	7	Combination
16	Pipe - (409)	6.75	18	Cir	64.616	370.90	372.80	2.940	372.13	373.80	n/a	373.80 j	15	Combination
17	Pipe - (408)	6.51	18	Cir	49.983	372.90	374.10	2.401	373.80	375.09	0.53	375.09	16	Combination
18	Pipe - (432)	6.27	18	Cir	137.706	374.20	375.50	0.944	375.09	376.47	n/a	376.47	17	Combination
19	Pipe - (438)	5.98	18	Cir	34.000	375.60	375.90	0.882	376.47	376.84	0.44	376.84	18	Combination
20	Pipe - (437)	5.90	15	Cir	115.233	376.15	377.00	0.738	377.27	378.12	0.43	378.55	19	Combination
21	Pipe - (436)	4.46	15	Cir	28.000	377.10	377.30	0.714	378.55*	378.69*	0.24	378.93	20	Combination
22	Pipe - (435)	1.04	15	Cir	78.850	377.40	377.90	0.634	378.93	378.95	0.01	378.95	21	Combination
23	Pipe - (434)	0.50	15	Cir	76.953	378.00	378.50	0.650	378.95	378.77	n/a	378.77	22	Combination
24	Pipe - (433)	0.46	15	Cir	28.000	378.60	378.80	0.714	378.85	379.06	n/a	379.06	23	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (535)	0.35	15	Cir	37.369	379.00	381.11	5.646	379.13	381.34	0.08	381.34	24	Combination
26	Pipe - (367)	17.36	24	Cir	28.099	370.60	370.80	0.712	372.13	372.30	n/a	372.30 j	15	Combination
27	Pipe - (379)	17.20	24	Cir	43.416	370.90	371.40	1.152	372.30	372.89	1.00	372.89	26	Combination
28	Pipe - (364)	14.29	24	Cir	29.427	371.90	372.30	1.359	372.95	373.66	n/a	373.66	27	Combination
29	Pipe - (363)	11.57	24	Cir	54.011	372.40	372.80	0.741	373.66	374.02	n/a	374.02 j	28	Combination
30	Pipe - (412)	5.01	15	Cir	297.666	373.05	375.40	0.789	374.02	376.31	0.64	376.31	29	Combination
31	Pipe - (411)	2.81	15	Cir	237.368	375.60	377.60	0.843	376.31	378.27	n/a	378.27 j	30	Combination
32	Pipe - (415)	2.75	15	Cir	54.000	377.70	378.10	0.741	378.32	378.77	0.13	378.77	31	Combination
33	Pipe - (414)	2.53	15	Cir	28.507	378.20	378.40	0.702	378.80	379.04	0.34	379.04	32	Combination
34	Pipe - (413)	2.52	15	Cir	74.490	378.50	379.00	0.671	379.11	379.64	0.25	379.64	33	Combination
35	Pipe - (534)	1.82	15	Cir	34.065	375.60	377.38	5.225	376.31	377.92	n/a	377.92 j	30	Combination
36	Pipe - (362)	6.39	18	Cir	34.020	373.00	373.30	0.882	374.02	374.28	n/a	374.28 j	29	Combination
37	Pipe - (371)	2.72	15	Cir	53.159	373.55	373.90	0.658	374.28	374.56	n/a	374.56 j	36	Combination
38	Pipe - (394)	1.85	15	Cir	28.000	374.00	374.20	0.714	374.56	374.74	n/a	374.74 j	37	Combination
39	Pipe - (410)	1.09	15	Cir	44.039	374.30	376.56	5.132	374.74	376.97	n/a	376.97 j	38	Combination
40	Pipe - (584)	2.25	15	Cir	74.045	373.55	377.46	5.281	374.28	378.06	n/a	378.06 j	36	DropGrate
41	Pipe - (384)	4.14	42	Cir	206.011	363.20	364.30	0.534	364.36	364.91	n/a	364.91 j	1	Combination
42	Pipe - (386)	1.66	24	Cir	28.000	365.05	366.20	4.107	365.31	366.65	0.18	366.65	41	Combination
43	Pipe - (421)	1.59	15	Cir	46.669	366.30	369.00	5.785	366.65	369.50	n/a	369.50	42	Combination
44	Pipe - (420)	1.31	15	Cir	101.483	369.10	373.00	3.843	369.50	373.45	0.25	373.45	43	Combination
45	Pipe - (419)	0.81	15	Cir	34.024	373.10	373.44	0.999	373.45	373.79	0.13	373.79	44	Combination
46	Pipe - (388)	2.12	30	Cir	97.083	363.70	365.20	1.545	364.36	365.67	n/a	365.67 j	1	Combination
47	Pipe - (387)	1.46	15	Cir	181.821	365.45	372.40	3.822	365.74	372.88	n/a	372.88	46	Combination
48	Pipe - (389)	0.70	15	Cir	29.575	372.50	372.80	1.014	372.88	373.13	n/a	373.13 j	47	Combination

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (422)	2.48	30	Cir	46.669	365.05	365.30	0.536	365.54	365.81	n/a	365.81	41	Combination
50	Pipe - (383)	2.22	15	Cir	34.000	365.40	365.60	0.588	365.99	366.19	0.26	366.19	49	Combination
51	Pipe - (382)	1.93	15	Cir	46.669	365.70	366.40	1.500	366.19	366.95	n/a	366.95	50	Combination
52	Pipe - (381)	1.16	15	Cir	28.000	366.50	367.06	2.000	366.95	367.48	n/a	367.48 j	51	Combination
53	Pipe - (687)	4.23	15	Cir	42.110	366.25	367.09	1.995	367.16	367.92	n/a	367.92 j	5	Combination
54	Pipe - (585)	0.27	18	Cir	21.891	365.75	367.70	8.908	366.66	367.89	n/a	367.89 j	4	DropGrate

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	CB 401	0.85	0.01	0.86	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.46	0.17	4.46	0.0	Off
2	CB 402	1.55	0.00	1.55	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.07	0.22	7.07	0.0	Off
3	CB 403	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.09	1.50	0.00	0.00	0.0	2
4	CB 404	0.27	0.01	0.28	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.76	0.00	0.00	0.0	3
5	CB 405	4.19	0.00	2.63	1.56	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.26	8.88	0.19	5.54	0.0	53
6	CB 406	0.35	0.04	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.12	1.98	0.00	0.00	0.0	5
7	CB 407	0.81	0.00	0.78	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.15	3.75	0.05	0.83	0.0	6
8	CB 407A	0.62	0.00	0.61	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.14	3.06	0.03	0.49	0.0	4
9	YI 407B	3.06	0.00	3.06	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.99	0.20	22.99	0.0	Off
10	YI 407C	2.09	0.00	2.09	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.40	0.16	18.40	0.0	Off
11	YI 407D	1.98	0.00	1.98	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.80	0.15	17.80	0.0	Off
12	YI 407E	2.06	0.00	2.06	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.20	0.16	18.20	0.0	Off
13	JB 407F	0.97	0.00	0.00	0.97	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.020	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
14	YI 407G	3.06	0.00	3.06	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.99	0.20	22.99	0.0	Off
15	CB 408	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.91	0.00	0.00	0.0	7
16	CB 409	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	15
17	CB 410	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.13	2.51	0.01	0.18	0.0	16
18	CB 411	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.12	1.99	0.00	0.00	0.0	17
19	CB 412	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	39
20	CB 413	1.59	0.00	1.59	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.19	0.22	7.19	0.0	Off
21	CB 414	3.76	0.04	3.80	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.35	13.64	0.35	13.64	0.0	Off
22	CB 415	0.58	0.00	0.54	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.17	4.45	0.06	1.07	0.0	21
23	CB 416	0.04	0.00	0.04	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.05	0.76	0.05	0.76	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 417	0.12	0.00	0.12	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.09	1.42	0.09	1.42	0.0	Off
25	CB 418	0.35	0.00	0.35	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
26	CB 419	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.64	0.00	0.00	0.0	8
27	CB 420	3.22	0.09	3.30	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.33	12.34	0.33	12.34	0.0	Off
28	CB 421	3.03	0.05	1.96	1.12	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.27	9.47	0.20	5.91	0.0	Off
29	CB 422	0.78	0.04	0.77	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.05	0.06	0.96	0.0	28
30	CB 423	0.58	0.00	0.54	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.17	4.45	0.06	1.07	0.0	29
31	CB 424	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	32
32	CB 425	0.23	0.00	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.11	1.85	0.00	0.00	0.0	28
33	CB 426	0.04	0.82	0.77	0.09	Comb	6.0	1.50	0.00	3.00	2.50	0.013	2.00	0.060	0.020	0.013	0.18	4.76	0.08	1.27	0.0	27
34	CB 427	2.52	0.00	1.70	0.82	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.25	8.69	0.18	5.00	0.0	33
35	CB 423A	1.82	0.00	1.32	0.50	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.24	8.01	0.16	4.04	0.0	36
36	CB 422A	1.51	0.50	2.01	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	8.58	0.25	8.58	0.0	Off
37	CB 422C	0.89	0.00	0.89	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.57	0.17	4.57	0.0	Off
38	CB 422D	0.78	0.00	0.78	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	4.08	0.16	4.08	0.0	Off
39	CB 422E	1.09	0.00	1.09	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.35	0.19	5.35	0.0	Off
40	YI 422B	2.25	0.00	2.25	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.17	0.17	19.17	0.0	Off
41	CB 430	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.05	0.87	0.00	0.00	0.0	49
42	CB 431	0.08	0.00	0.08	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.08	1.29	0.00	0.00	0.0	53
43	CB 432	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	42
44	CB 433	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	1.92	0.00	0.00	0.0	43
45	CB 433A	0.81	0.00	0.81	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.14	2.88	0.02	0.41	0.0	52
46	CB 428	0.70	0.01	0.70	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.033	2.00	0.060	0.020	0.013	0.14	3.04	0.03	0.49	0.0	1

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	CB 429	0.78	0.00	0.77	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.14	2.89	0.02	0.42	0.0	46
48	CB 429A	0.70	0.00	0.70	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.63	0.02	0.28	0.0	2
49	CB 434	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.09	1.52	0.00	0.00	0.0	Off
50	CB 435	0.31	0.04	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.68	0.00	0.00	0.0	Off
51	CB 436	0.78	0.00	0.73	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	3.91	0.05	0.89	0.0	50
52	CB 436A	1.16	0.01	1.17	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.19	5.69	0.19	5.69	0.0	Off
53	CB 405A	4.23	1.56	5.79	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.45	18.37	0.45	18.37	0.0	Off
54	YI 404A	0.27	0.00	0.27	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.04	6.57	0.04	6.57	0.0	Off

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	51.70	362.00	363.85	1.85	5.68	9.10	0.87	364.72	0.000	29.195	362.20	364.36	2.16**	6.91	7.48	0.87	365.23	0.000	0.000	n/a	1.50	1.31
2	48	45.49	362.40	364.36	1.96	6.11	7.44	0.80	365.15	0.000	28.012	363.20	365.22	2.02**	6.35	7.16	0.80	366.01	0.000	0.000	n/a	1.50	1.20
3	42	44.24	363.70	365.38	1.68*	4.57	9.68	0.87	366.25	0.000	33.797	364.00	366.07	2.07**	5.93	7.46	0.87	366.94	0.000	0.000	n/a	1.13	n/a
4	36	44.24	364.10	366.07	1.97	4.92	8.98	1.02	367.09	0.000	43.841	364.50	366.66	2.16**	5.46	8.10	1.02	367.69	0.000	0.000	n/a	1.50	n/a
5	36	43.84	364.70	366.66	1.96	4.91	8.94	1.01	367.68	0.000	28.000	365.00	367.16	2.16**	5.44	8.07	1.01	368.17	0.000	0.000	n/a	1.75	n/a
6	36	36.68	365.20	367.16	1.96	4.88	7.52	0.87	368.02	0.000	67.788	365.80	367.77	1.97**	4.91	7.46	0.87	368.63	0.000	0.000	n/a	0.50	0.43
7	36	36.51	365.90	367.77	1.87	4.63	7.89	0.86	368.63	0.000	56.317	366.50	368.46	1.96**	4.90	7.45	0.86	369.33	0.000	0.000	n/a	1.80	1.55
8	36	12.59	367.50	368.46	0.96	1.96	6.42	0.42	368.88	0.000	35.477	367.80	368.93	1.13**	2.42	5.19	0.42	369.35	0.000	0.000	n/a	0.95	0.40
9	36	12.15	367.90	368.93	1.03	2.14	5.69	0.41	369.34	0.000	113.770	368.70	369.81	1.11**	2.37	5.14	0.41	370.22	0.000	0.000	n/a	0.50	0.21
10	24	9.45	368.80	369.81	1.01	1.58	5.97	0.44	370.25	0.000	130.000	369.80	370.90	1.10**	1.77	5.35	0.44	371.34	0.000	0.000	n/a	0.50	n/a
11	15	7.57	370.05	370.90	0.85	0.89	8.54	0.69	371.59	0.000	136.000	374.30	375.39	1.09**	1.14	6.65	0.69	376.08	0.000	0.000	n/a	0.50	n/a
12	15	5.81	374.40	375.39	0.99	1.03	5.56	0.50	375.89	0.000	176.286	379.00	379.97 j	0.97**	1.03	5.66	0.50	380.47	0.000	0.000	n/a	0.50	n/a
13	15	3.96	379.10	379.97	0.87	0.84	4.32	0.35	380.32	0.000	250.514	381.00	381.80 j	0.80**	0.84	4.75	0.35	382.16	0.000	0.000	n/a	0.97	0.34
14	15	3.06	381.10	381.85	0.75*	0.77	3.98	0.25	382.10	0.498	124.357	381.72	382.47	0.75	0.77	3.99	0.25	382.72	0.499	0.499	0.620	1.00	0.25
15	24	23.82	367.00	368.46	1.46	2.46	9.67	1.06	369.52	0.000	128.000	370.40	372.13	1.73**	2.89	8.25	1.06	373.19	0.000	0.000	n/a	1.50	1.59
16	18	6.75	370.90	372.13	1.23	1.26	4.36	0.45	372.58	0.000	64.616	372.80	373.80 j	1.00**	1.26	5.37	0.45	374.25	0.000	0.000	n/a	1.27	0.57
17	18	6.51	372.90	373.80	0.90	1.11	5.84	0.43	374.24	0.000	49.983	374.10	375.09	0.99**	1.23	5.28	0.43	375.52	0.000	0.000	n/a	1.22	0.53
18	18	6.27	374.20	375.09	0.89	1.09	5.78	0.42	375.51	0.000	137.706	375.50	376.47	0.97**	1.21	5.21	0.42	376.89	0.000	0.000	n/a	1.50	n/a
19	18	5.98	375.60	376.47	0.87	1.06	5.64	0.41	376.87	0.000	34.000	375.90	376.84	0.94**	1.17	5.11	0.41	377.25	0.000	0.000	n/a	1.08	0.44
20	15	5.90	376.15	377.27	1.12*	1.16	5.09	0.40	377.67	0.738	115.233	377.00	378.12	1.12	1.16	5.08	0.40	378.52	0.737	0.737	0.850	1.07	0.43
21	15	4.46	377.10	378.55	1.25	1.23	3.64	0.21	378.76	0.478	28.000	377.30	378.69	1.25	1.23	3.64	0.21	378.89	0.478	0.478	0.134	1.18	0.24
22	15	1.04	377.40	378.93	1.25	1.23	0.85	0.01	378.94	0.026	78.850	377.90	378.95	1.05	1.10	0.95	0.01	378.96	0.025	0.026	0.020	0.50	0.01

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.50	378.00	378.95	0.95	0.20	0.50	0.10	379.05	0.006	76.953	378.50	378.77	0.27**	0.20	2.50	0.10	378.87	0.011	0.008	n/a	1.18	n/a
24	15	0.46	378.60	378.85	0.25*	0.17	2.71	0.09	378.94	0.000	28.000	378.80	379.06	0.26**	0.19	2.45	0.09	379.16	0.000	0.000	n/a	1.30	n/a
25	15	0.35	379.00	379.13	0.13*	0.07	5.14	0.08	379.21	0.000	37.369	381.11	381.34	0.23**	0.15	2.27	0.08	381.42	0.000	0.000	n/a	1.00	0.08
26	24	17.36	370.60	372.13	1.53	2.53	6.74	0.73	372.86	0.000	28.099	370.80	372.30 j	1.50**	2.53	6.87	0.73	373.03	0.000	0.000	n/a	1.21	n/a
27	24	17.20	370.90	372.30	1.40	2.35	7.32	0.73	373.03	0.000	43.416	371.40	372.89	1.49**	2.52	6.84	0.73	373.62	0.000	0.000	n/a	1.38	1.00
28	24	14.29	371.90	372.95	1.05*	1.67	8.56	0.61	373.56	0.000	29.427	372.30	373.66	1.36**	2.28	6.28	0.61	374.27	0.000	0.000	n/a	0.51	n/a
29	24	11.57	372.40	373.66	1.26	2.01	5.55	0.52	374.18	0.000	54.011	372.80	374.02 j	1.22**	2.01	5.76	0.52	374.54	0.000	0.000	n/a	2.16	n/a
30	15	5.01	373.05	374.02	0.97	0.95	4.90	0.43	374.45	0.000	297.666	375.40	376.31	0.91**	0.95	5.25	0.43	376.74	0.000	0.000	n/a	1.50	0.64
31	15	2.81	375.60	376.31	0.71	0.67	3.93	0.27	376.58	0.000	237.368	377.60	378.27 j	0.67**	0.67	4.18	0.27	378.54	0.000	0.000	n/a	1.49	0.40
32	15	2.75	377.70	378.32	0.62*	0.61	4.52	0.27	378.59	0.000	54.000	378.10	378.77	0.67**	0.66	4.15	0.27	379.03	0.000	0.000	n/a	0.50	0.13
33	15	2.53	378.20	378.80	0.60*	0.58	4.33	0.25	379.05	0.000	28.507	378.40	379.04	0.64**	0.63	4.03	0.25	379.29	0.000	0.000	n/a	1.36	0.34
34	15	2.52	378.50	379.11	0.61*	0.59	4.26	0.25	379.36	0.000	74.490	379.00	379.64	0.64**	0.63	4.02	0.25	379.89	0.000	0.000	n/a	1.00	0.25
35	15	1.82	375.60	376.31	0.71	0.50	2.55	0.20	376.51	0.000	34.065	377.38	377.92 j	0.54**	0.50	3.62	0.20	378.12	0.000	0.000	n/a	1.00	n/a
36	18	6.39	373.00	374.02	1.02	1.22	4.99	0.43	374.45	0.000	34.020	373.30	374.28 j	0.98**	1.22	5.24	0.43	374.70	0.000	0.000	n/a	1.36	n/a
37	15	2.72	373.55	374.28	0.73	0.66	3.68	0.26	374.54	0.000	53.159	373.90	374.56 j	0.66**	0.66	4.13	0.26	374.83	0.000	0.000	n/a	1.05	0.28
38	15	1.85	374.00	374.56	0.56	0.51	3.46	0.21	374.77	0.000	28.000	374.20	374.74 j	0.54**	0.51	3.64	0.21	374.95	0.000	0.000	n/a	1.18	0.24
39	15	1.09	374.30	374.74	0.44	0.35	2.82	0.15	374.89	0.000	44.039	376.56	376.97 j	0.41**	0.35	3.10	0.15	377.12	0.000	0.000	n/a	1.00	0.15
40	15	2.25	373.55	374.28	0.73	0.58	3.04	0.23	374.51	0.000	74.045	377.46	378.06 j	0.60**	0.58	3.87	0.23	378.29	0.000	0.000	n/a	1.00	0.23
41	42	4.14	363.20	364.36	1.16	1.12	1.49	0.21	364.57	0.000	206.011	364.30	364.91 j	0.61**	1.12	3.69	0.21	365.12	0.000	0.000	n/a	1.69	0.36
42	24	1.66	365.05	365.31	0.26*	0.24	6.89	0.16	365.47	0.000	28.000	366.20	366.65	0.45**	0.52	3.18	0.16	366.80	0.000	0.000	n/a	1.13	0.18
43	15	1.59	366.30	366.65	0.35	0.28	5.77	0.19	366.83	0.000	46.669	369.00	369.50	0.50**	0.46	3.47	0.19	369.69	0.000	0.000	n/a	1.13	n/a
44	15	1.31	369.10	369.50	0.40	0.34	3.87	0.17	369.67	0.000	101.483	373.00	373.45	0.45**	0.40	3.28	0.17	373.62	0.000	0.000	n/a	1.50	0.25

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

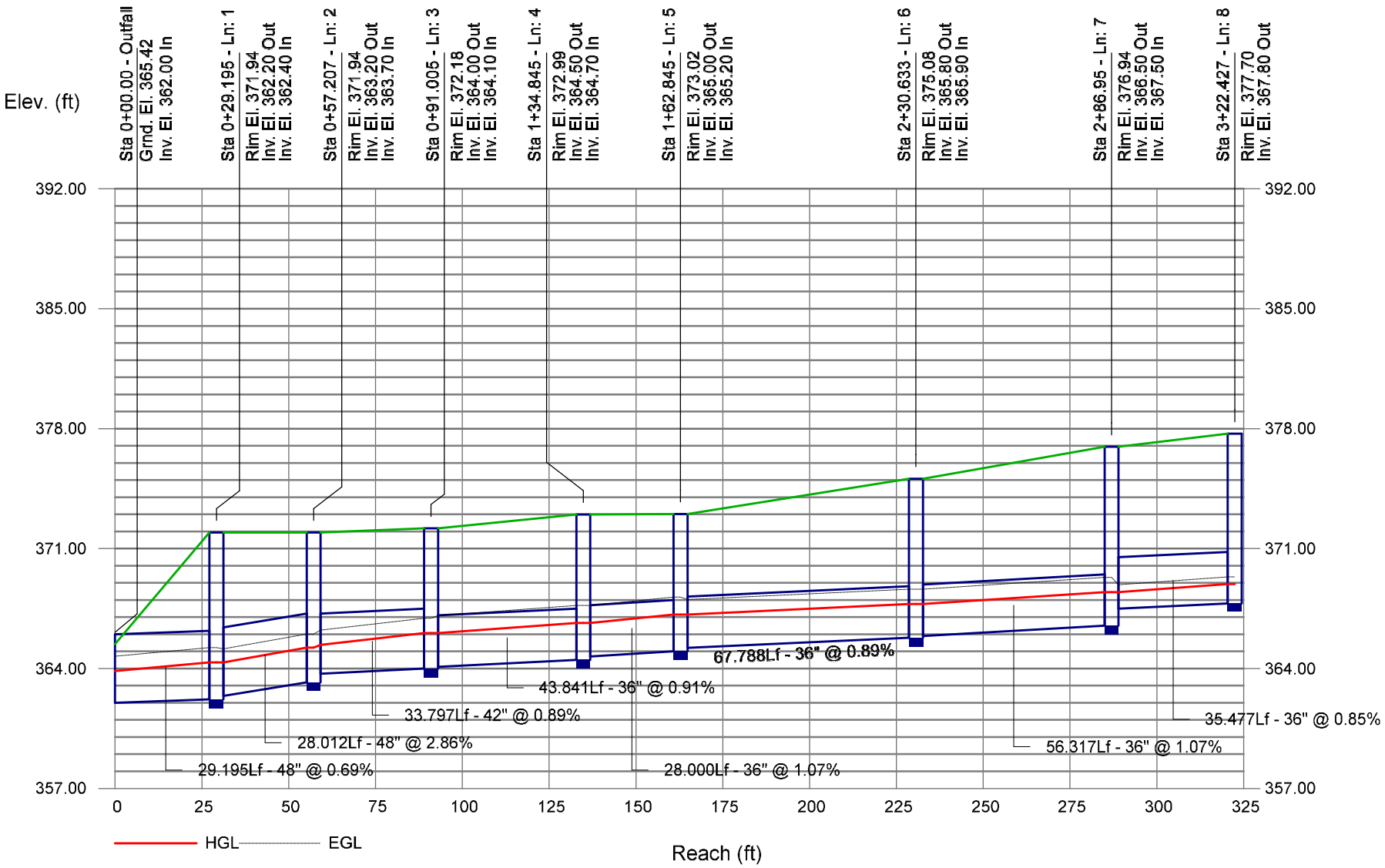
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	0.81	373.10	373.45	0.35	0.28	2.88	0.13	373.58	0.000	34.024	373.44	373.79	0.35**	0.28	2.86	0.13	373.92	0.000	0.000	n/a	1.00	0.13
46	30	2.12	363.70	364.36	0.66	0.65	2.05	0.17	364.52	0.000	97.083	365.20	365.67 j	0.47**	0.65	3.26	0.17	365.84	0.000	0.000	n/a	0.50	n/a
47	15	1.46	365.45	365.74	0.29*	0.21	6.86	0.18	365.92	0.000	181.821	372.40	372.88	0.48**	0.43	3.39	0.18	373.06	0.000	0.000	n/a	1.43	n/a
48	15	0.70	372.50	372.88	0.38	0.25	2.23	0.12	372.99	0.000	29.575	372.80	373.13 j	0.33**	0.25	2.74	0.12	373.24	0.000	0.000	n/a	1.00	n/a
49	30	2.48	365.05	365.54	0.49*	0.67	3.69	0.18	365.72	0.000	46.669	365.30	365.81	0.51**	0.73	3.41	0.18	365.99	0.000	0.000	n/a	1.13	n/a
50	15	2.22	365.40	365.99	0.59*	0.57	3.92	0.23	366.22	0.000	34.000	365.60	366.19	0.59**	0.58	3.86	0.23	366.43	0.000	0.000	n/a	1.13	0.26
51	15	1.93	365.70	366.19	0.49	0.45	4.27	0.21	366.41	0.000	46.669	366.40	366.95	0.55**	0.52	3.69	0.21	367.16	0.000	0.000	n/a	1.13	n/a
52	15	1.16	366.50	366.95	0.45	0.37	2.90	0.16	367.11	0.000	28.000	367.06	367.48 j	0.42**	0.37	3.17	0.16	367.64	0.000	0.000	n/a	1.00	n/a
53	15	4.23	366.25	367.16	0.91	0.87	4.44	0.37	367.52	0.000	42.110	367.09	367.92 j	0.83**	0.87	4.87	0.37	368.29	0.000	0.000	n/a	1.00	0.37
54	18	0.27	365.75	366.66	0.91	0.13	0.24	0.07	366.73	0.000	21.891	367.70	367.89 j	0.19**	0.13	2.06	0.07	367.96	0.000	0.000	n/a	1.00	n/a

Project File: SCM 4 Storm Network.stm | Number of lines: 54 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

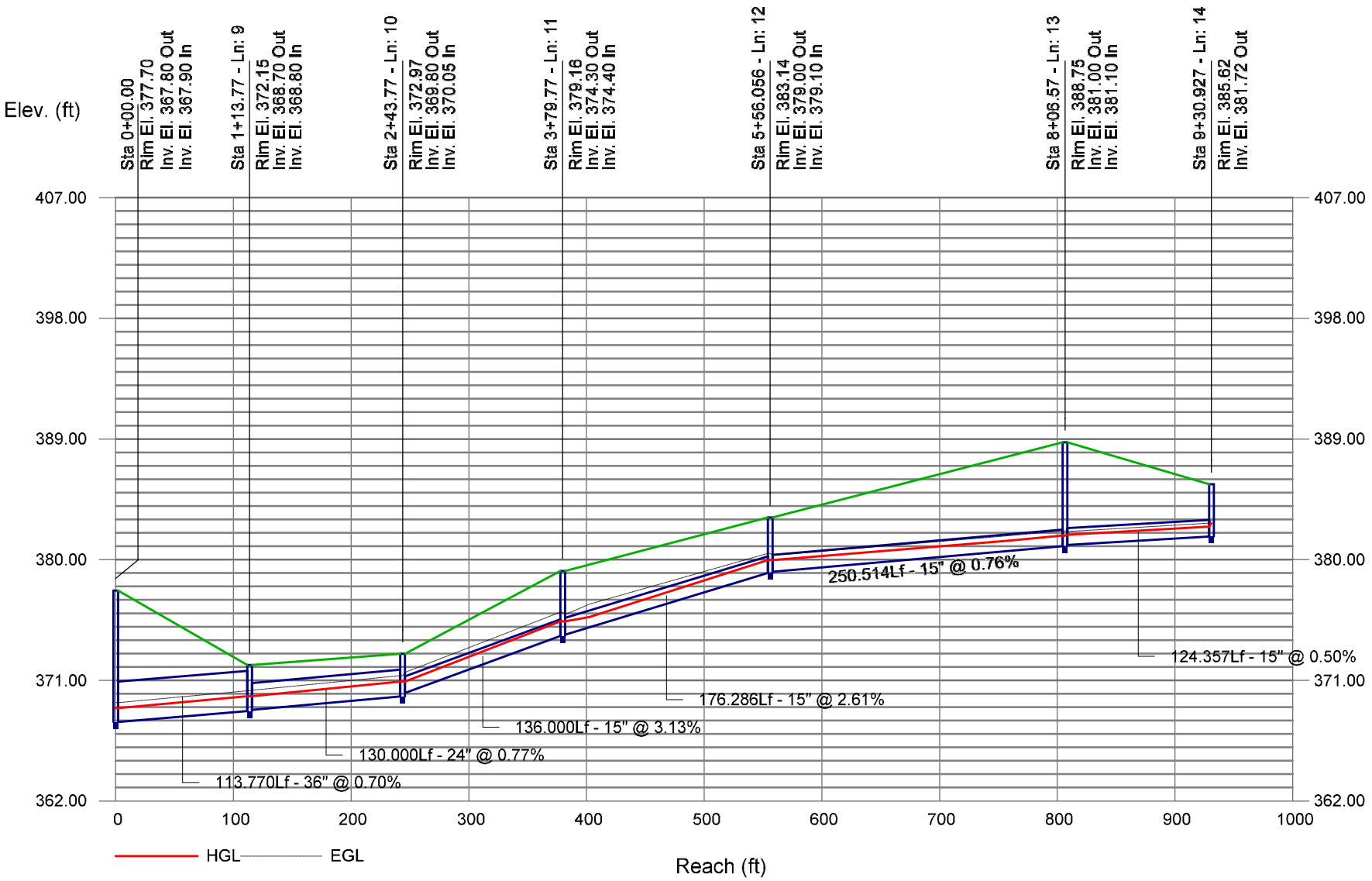
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



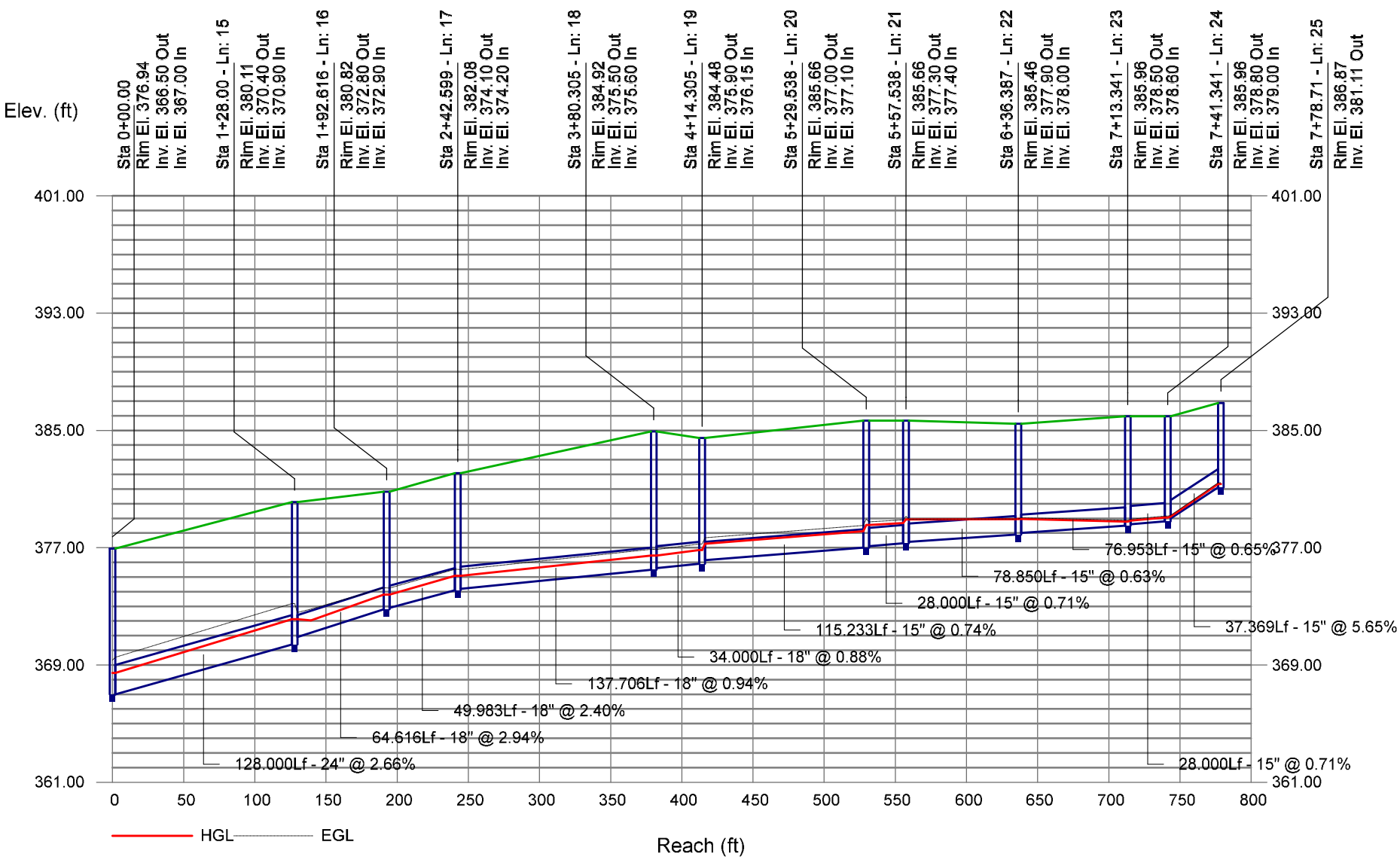
Storm Sewer Profile

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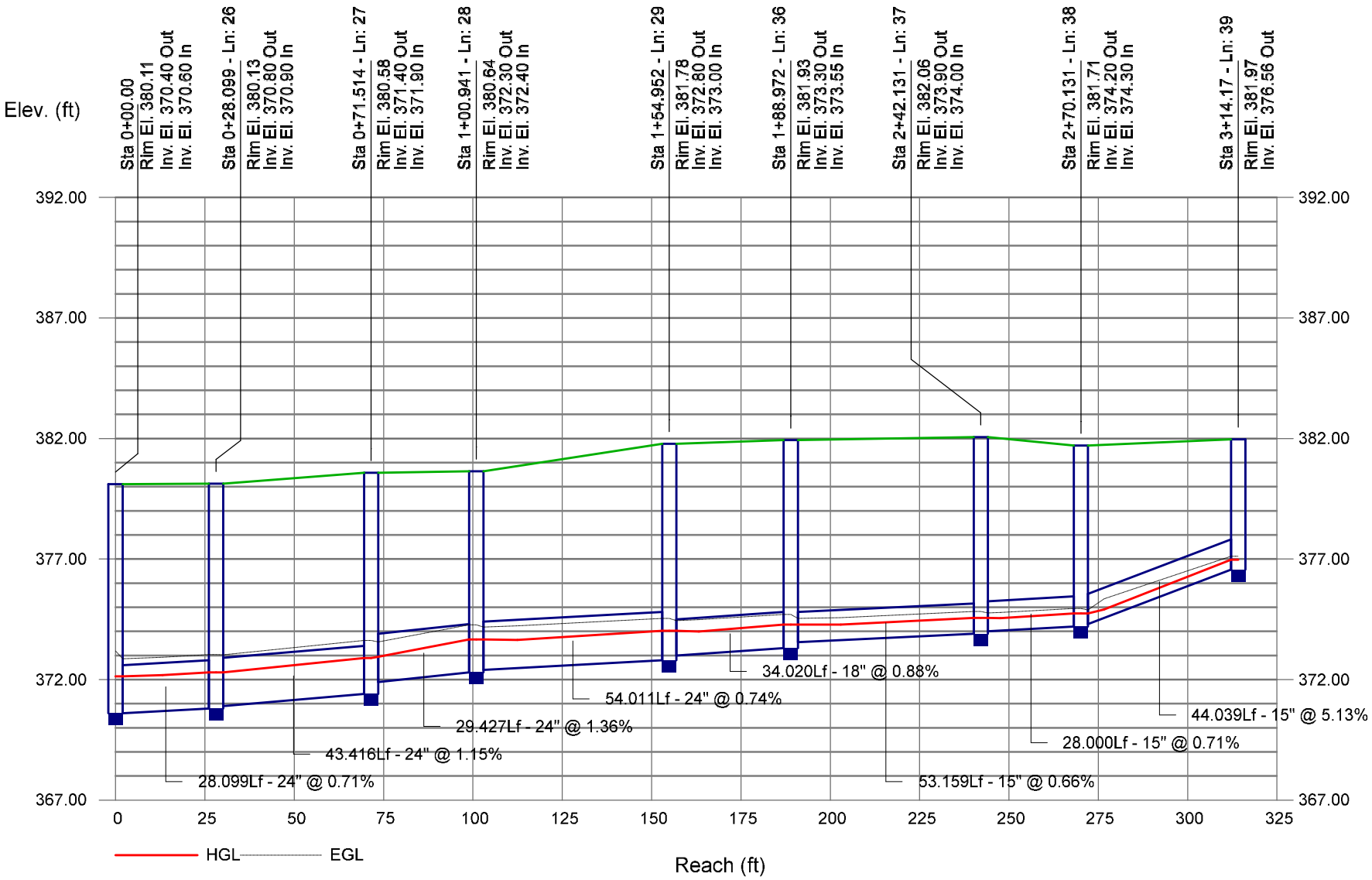
Storm Sewer Profile

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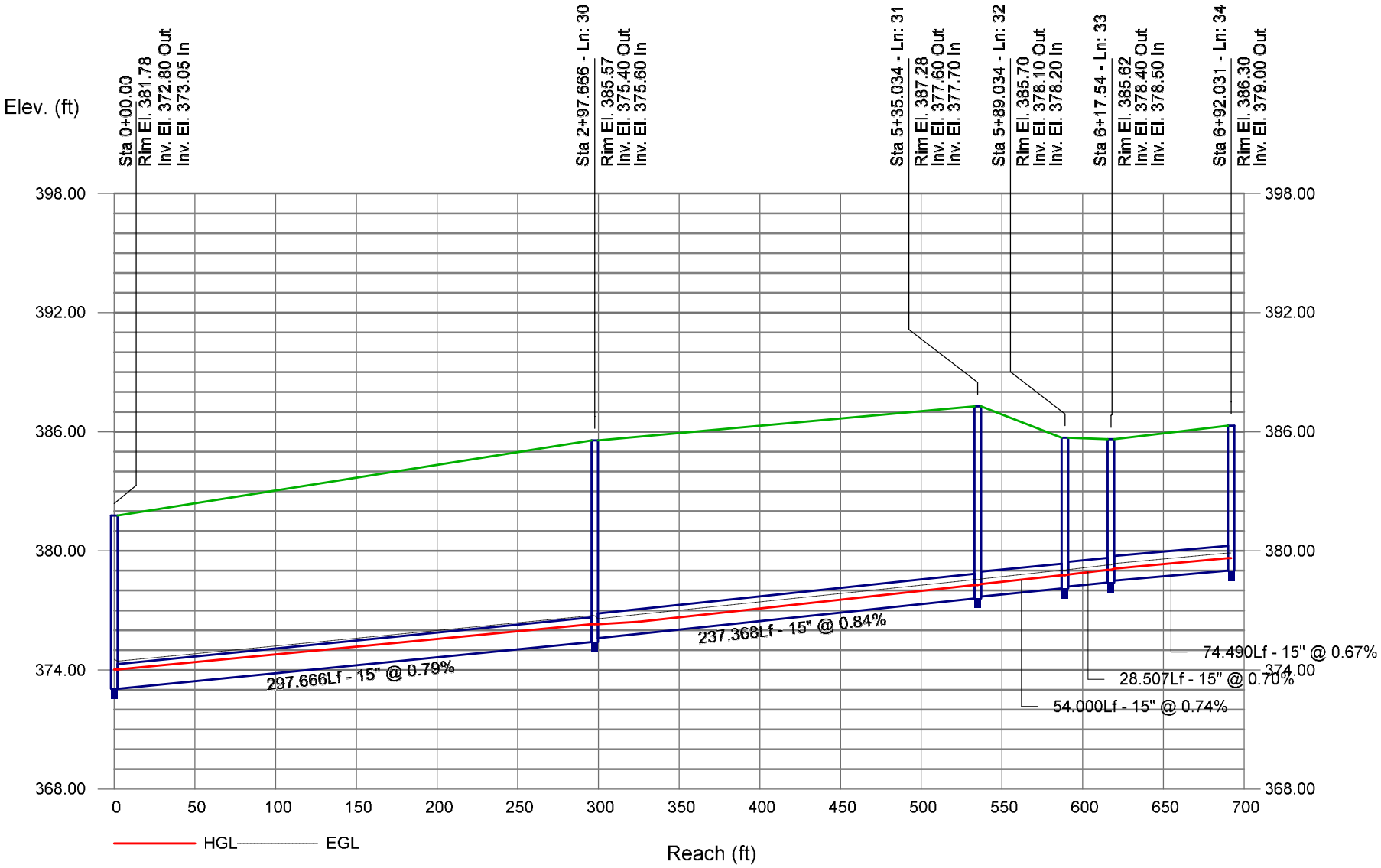
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



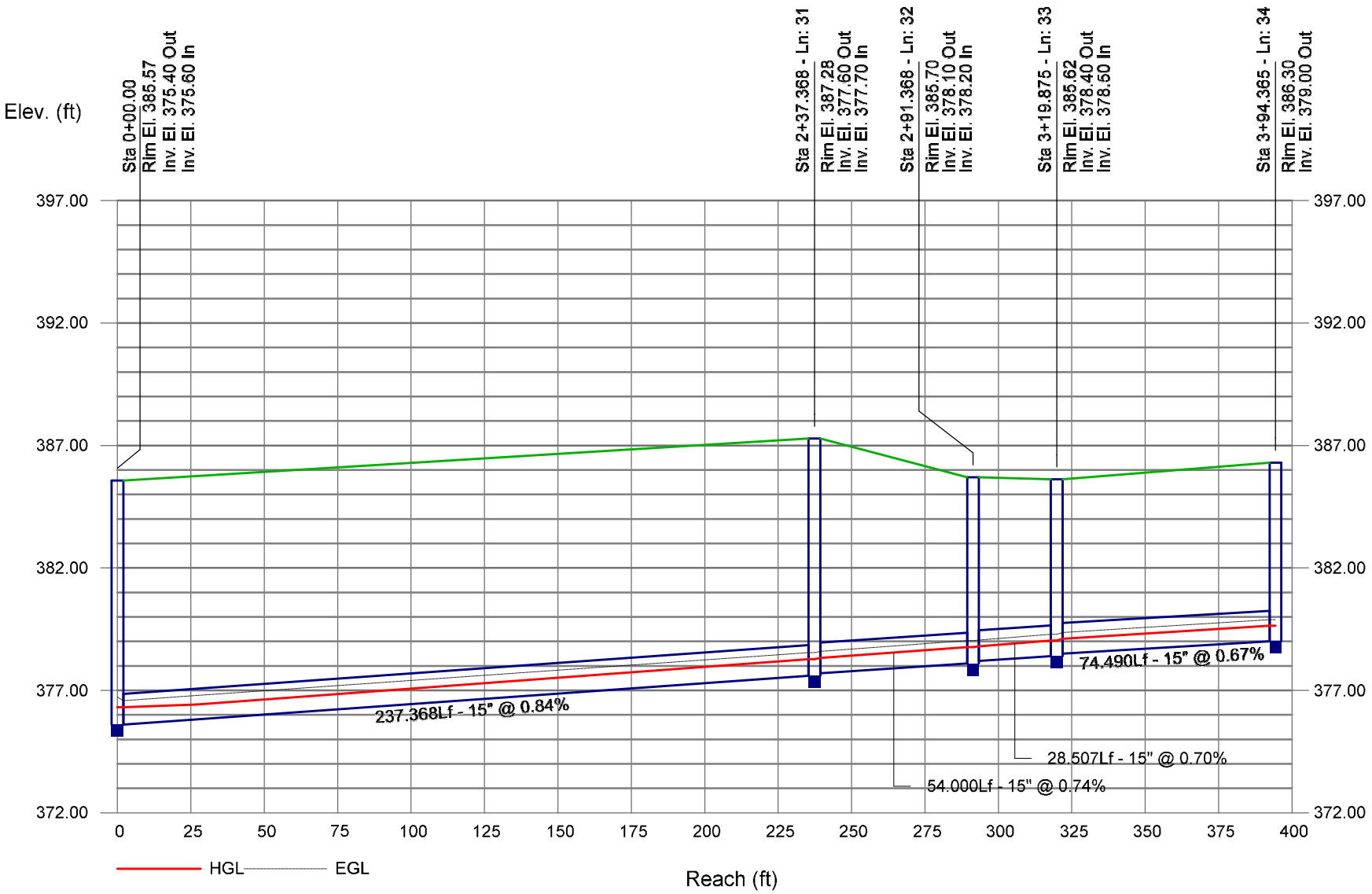
Storm Sewer Profile

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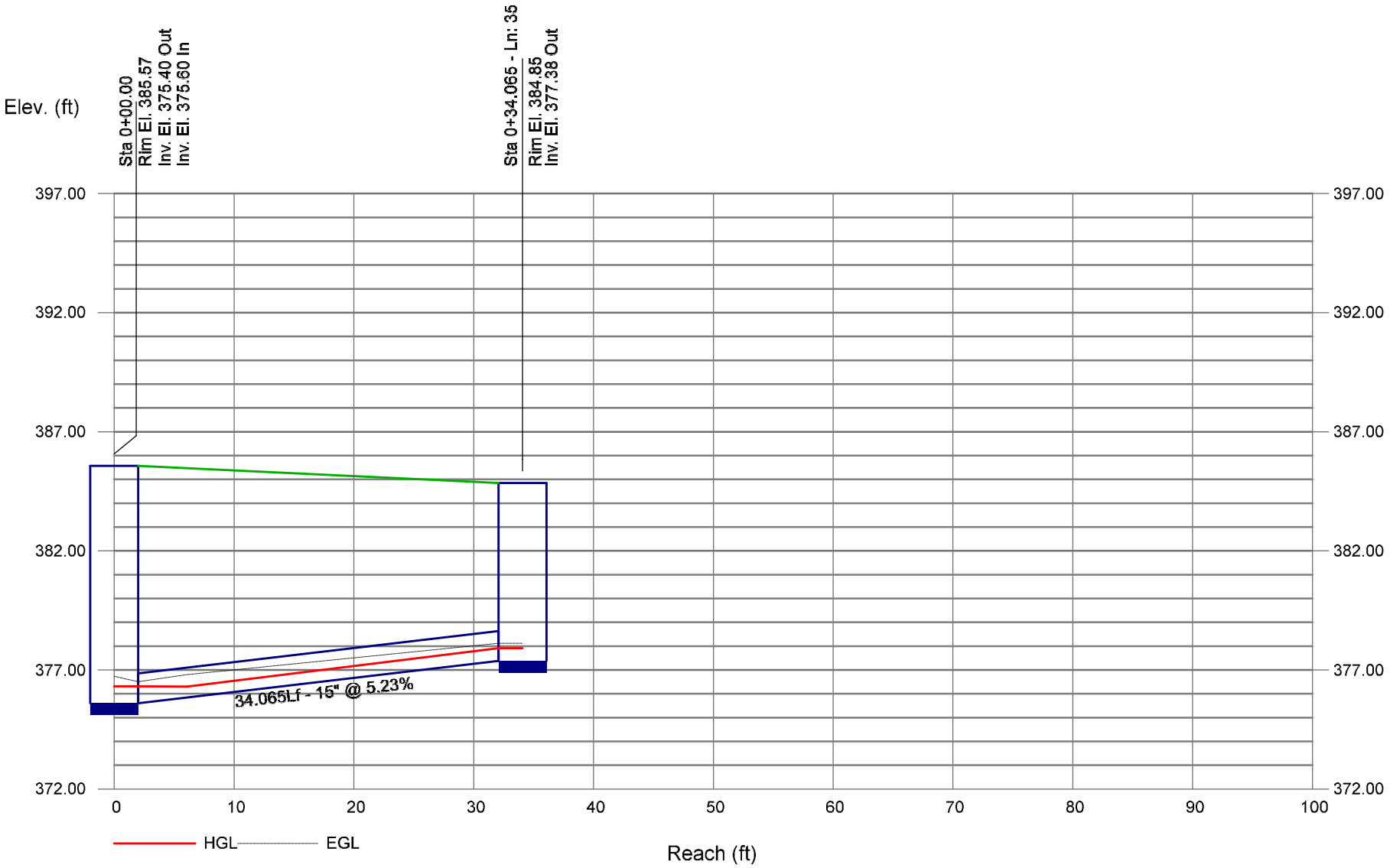
Storm Sewer Profile

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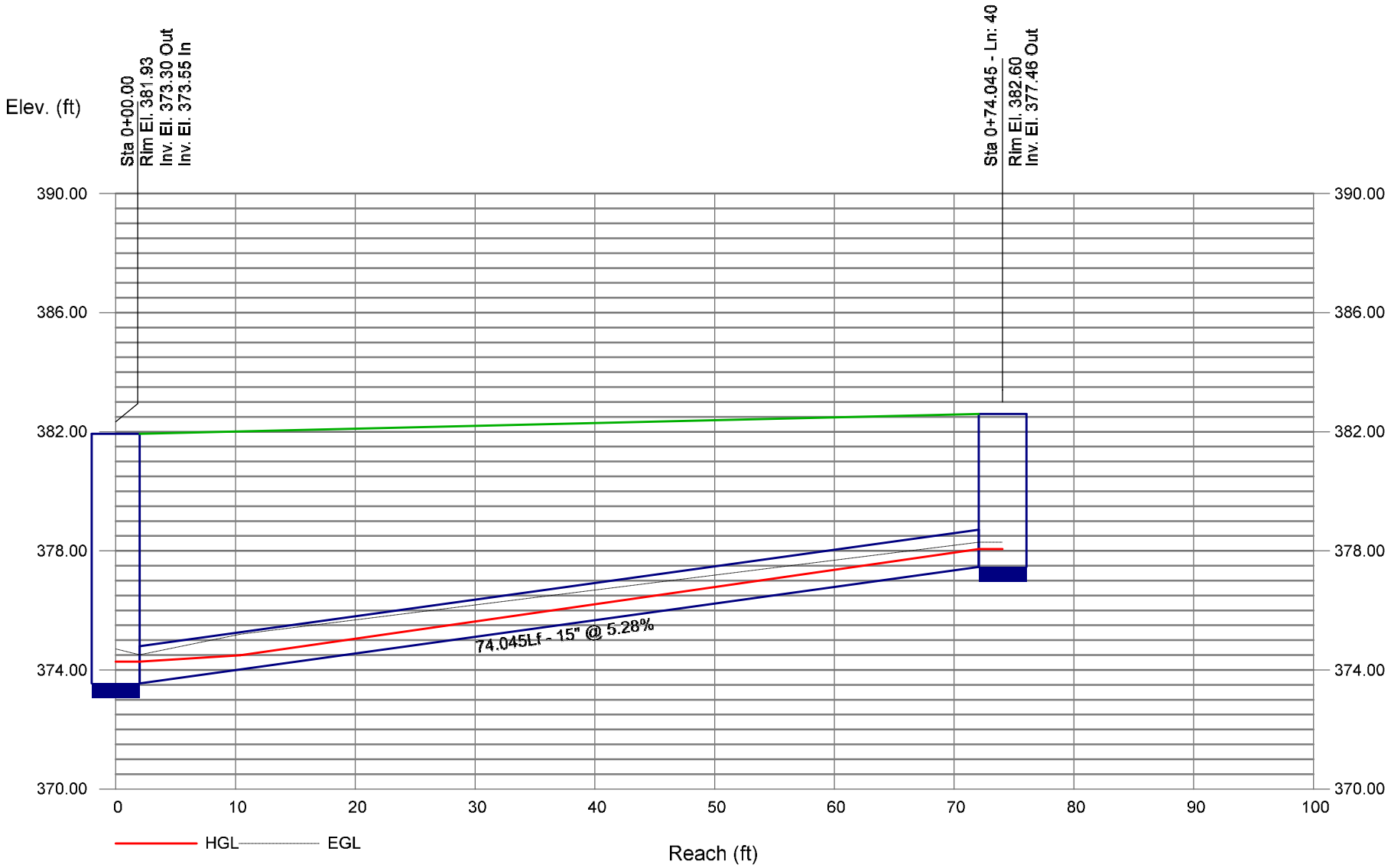
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



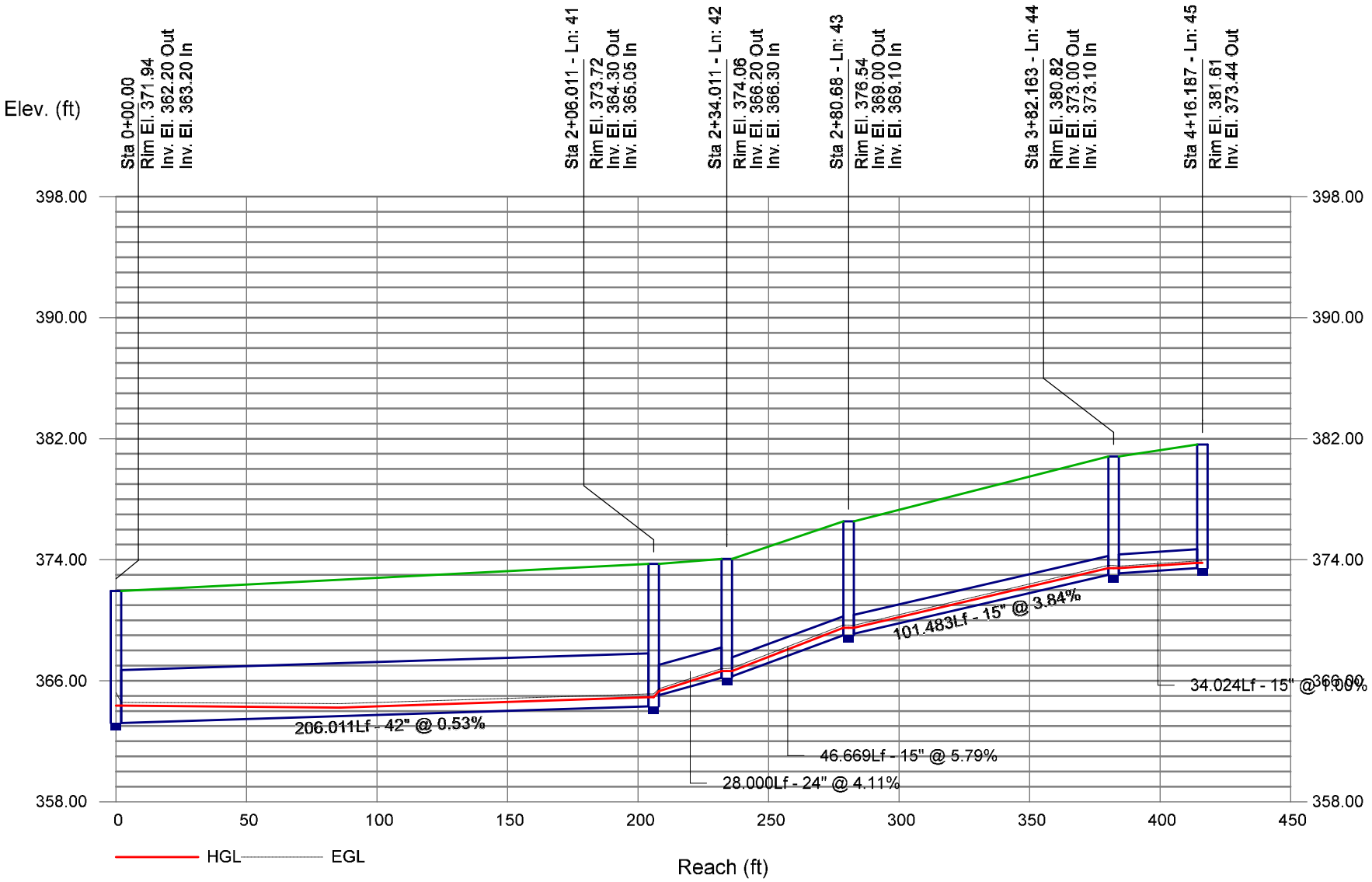
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



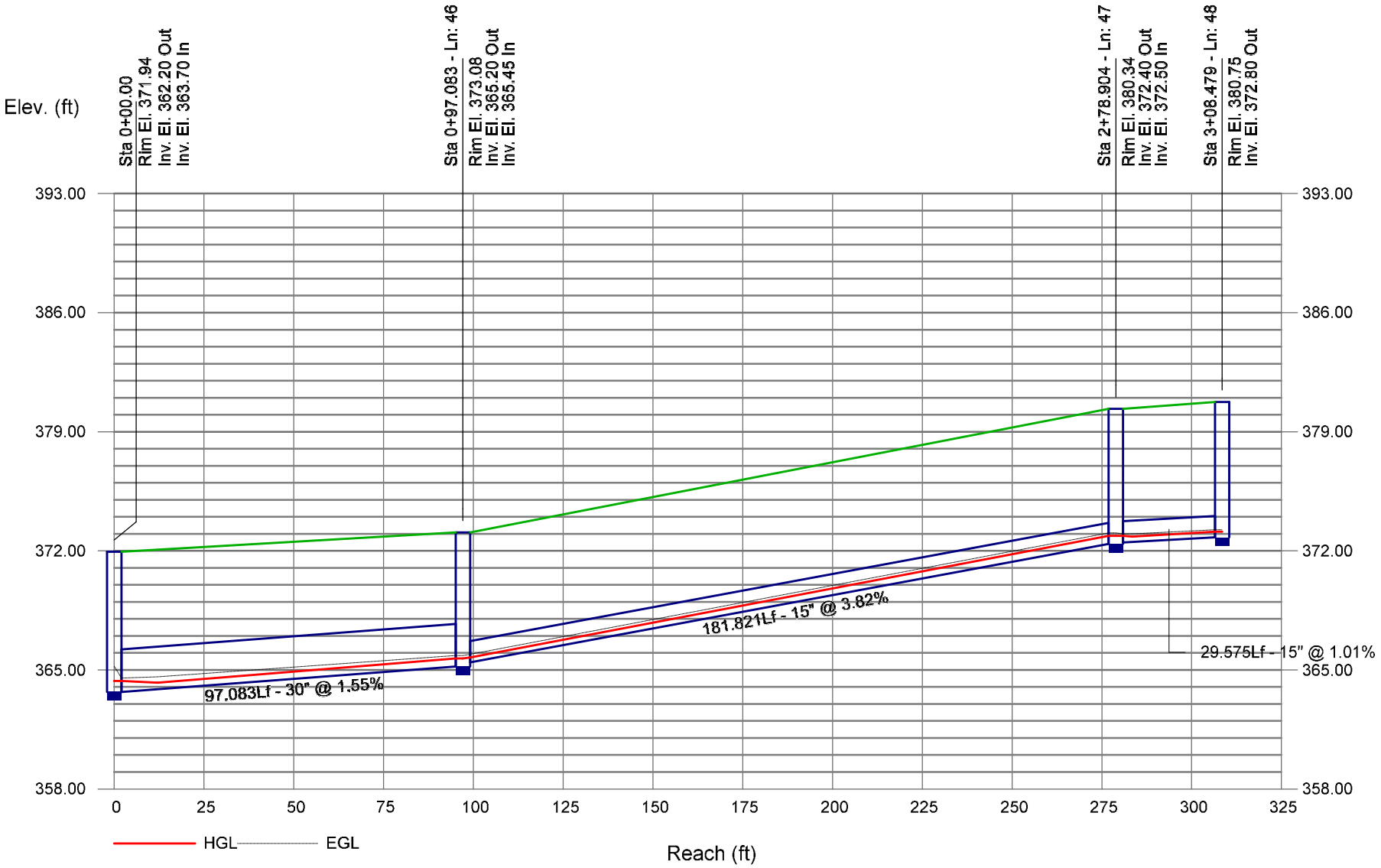
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



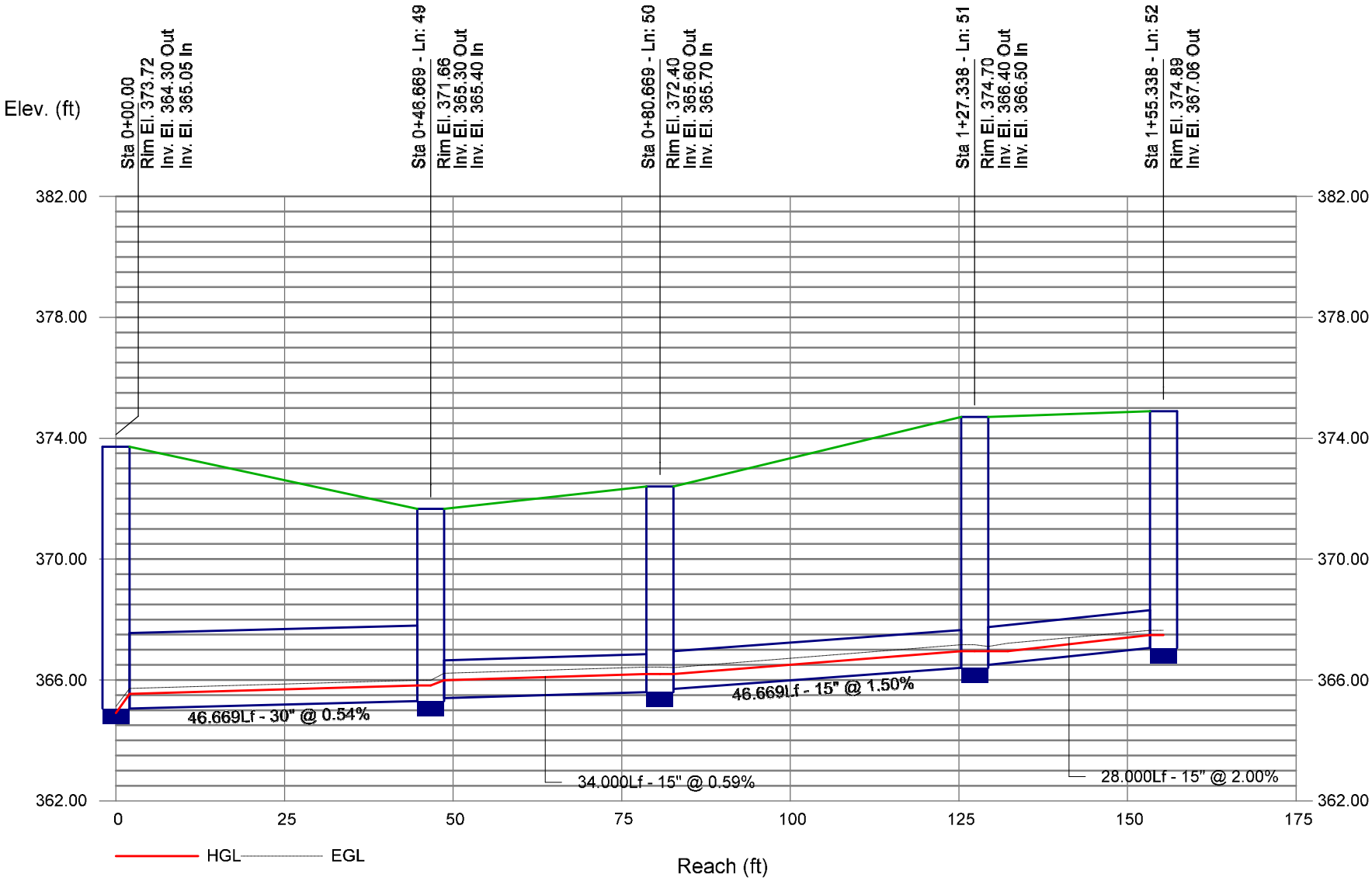
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



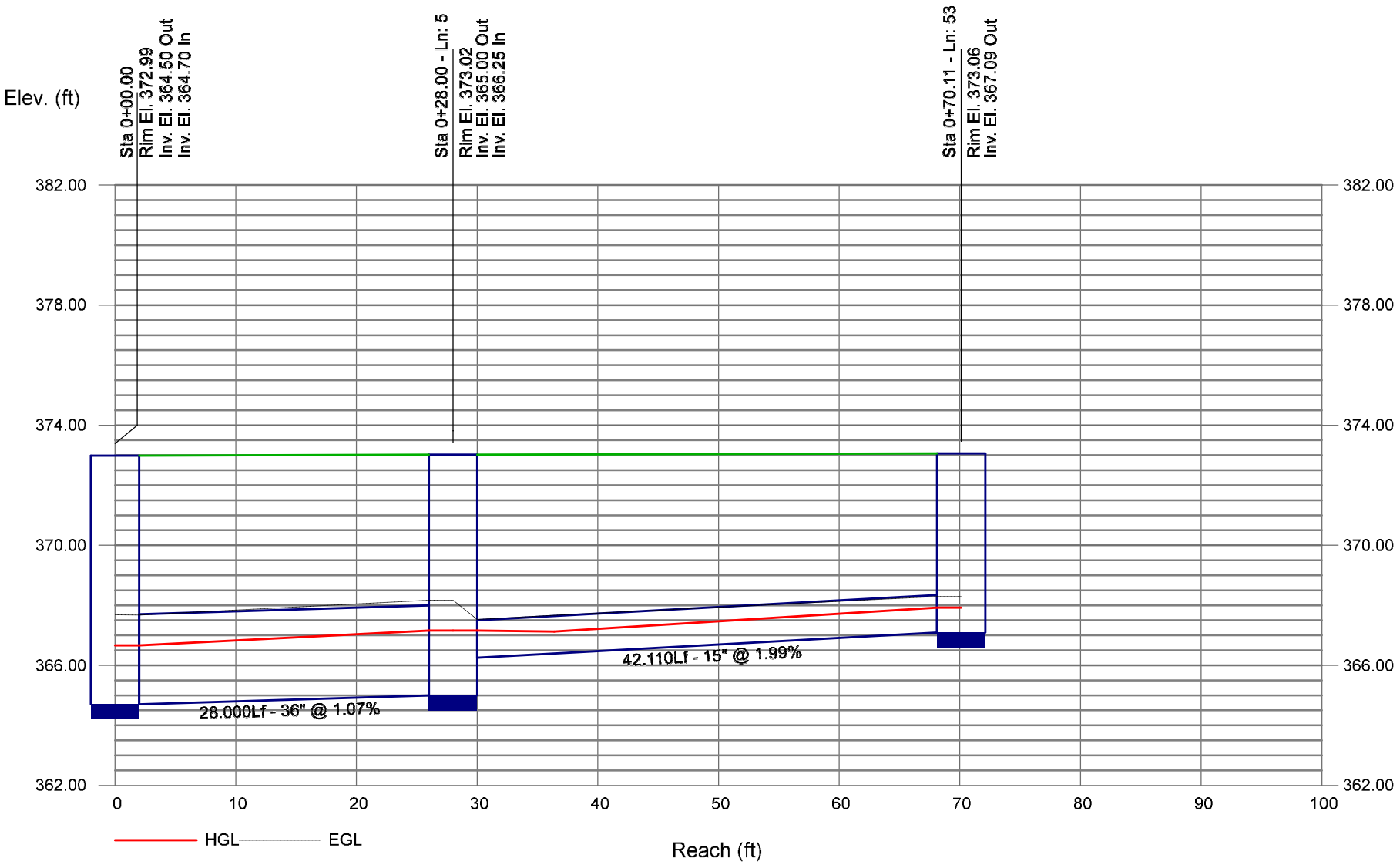
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



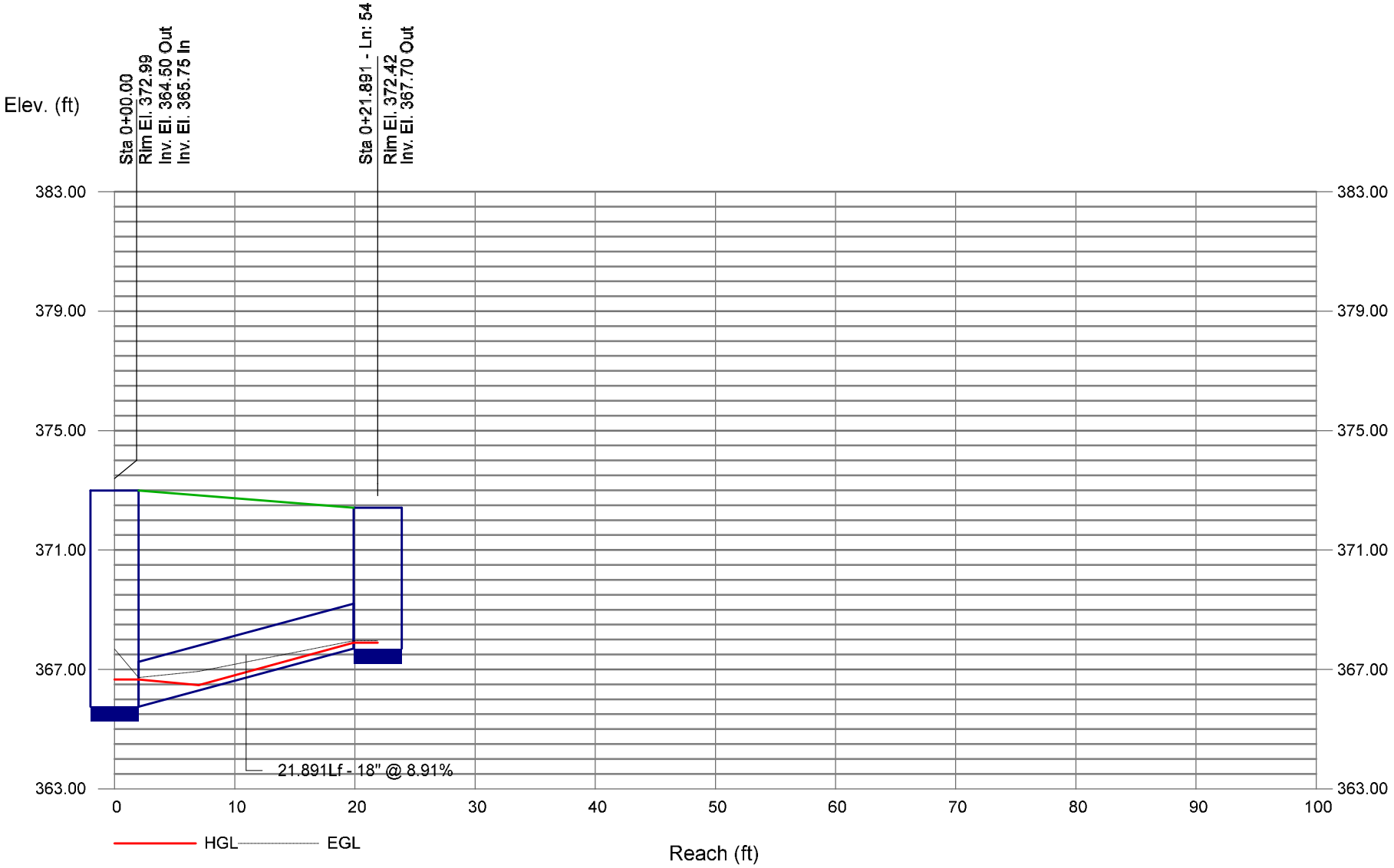
Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm

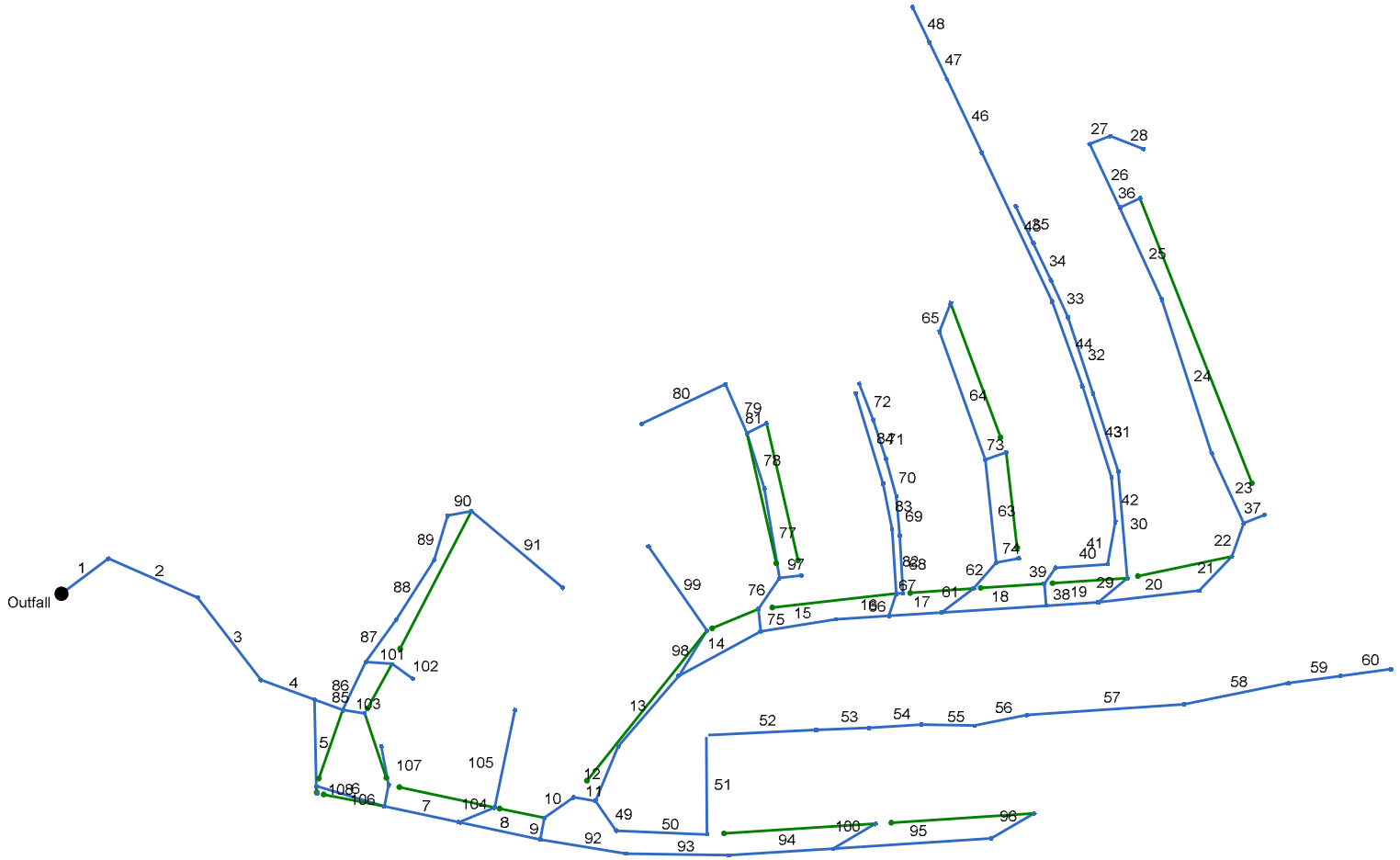


Storm Sewer Profile

Proj. file: SCM 4 Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 5A Storm Network.stm	Number of lines: 108	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	74.659	-36.862	MH	0.00	0.00	0.00	0.0	316.00	1.00	316.75	48	Cir	0.013	0.89	332.98	Pipe - (648)
2	1	123.527	60.601	DrGrt	0.00	1.39	0.60	10.0	316.95	1.00	318.19	48	Cir	0.013	0.81	326.82	Pipe - (646)
3	2	132.055	28.871	DrGrt	0.00	0.06	0.60	10.0	318.30	2.50	321.60	48	Cir	0.013	0.89	339.45	Pipe - (292)
4	3	72.832	-32.438	DrGrt	0.00	0.01	0.60	10.0	322.10	0.49	322.46	48	Cir	0.013	1.42	340.36	Pipe - (291) (1)
5	4	110.092	68.821	Comb	0.00	0.21	0.60	10.0	322.66	0.50	323.21	48	Cir	0.013	1.44	332.33	Pipe - (515)
6	5	90.197	-72.396	Comb	0.00	0.06	0.60	10.0	323.44	0.51	323.90	48	Cir	0.013	1.50	334.39	Pipe - (287)
7	6	96.914	-4.581	Comb	0.00	0.09	0.60	10.0	324.10	0.99	325.06	48	Cir	0.013	0.93	335.43	Pipe - (236) (1)
8	7	105.502	0.000	Comb	0.00	0.12	0.60	10.0	325.17	1.00	326.22	48	Cir	0.013	2.23	336.49	Pipe - (425)
9	8	28.011	-91.609	Comb	0.00	0.07	0.60	10.0	326.42	0.64	326.60	48	Cir	0.013	1.12	336.62	Pipe - (236)
10	9	45.483	44.496	Comb	0.00	0.42	0.60	10.0	326.70	1.10	327.20	48	Cir	0.013	1.12	337.61	Pipe - (517)
11	10	28.154	44.548	Comb	0.00	0.06	0.60	10.0	327.30	0.71	327.50	48	Cir	0.013	1.71	337.59	Pipe - (518)
12	11	75.321	-76.898	Comb	0.00	0.07	0.60	10.0	328.00	4.51	331.40	36	Cir	0.013	0.54	341.32	Pipe - (265)
13	12	118.134	17.998	Comb	0.00	0.07	0.60	10.0	331.50	5.67	338.20	36	Cir	0.013	0.63	347.71	Pipe - (266)
14	13	118.619	20.885	Comb	0.00	0.10	0.60	10.0	338.70	4.13	343.60	30	Cir	0.013	1.41	352.80	Pipe - (232)
15	14	96.000	19.449	Comb	0.00	0.08	0.60	10.0	344.10	4.37	348.30	30	Cir	0.013	0.50	356.65	Pipe - (533)
16	15	67.783	5.437	Comb	0.00	0.07	0.60	10.0	348.40	4.57	351.50	30	Cir	0.013	1.41	360.12	Pipe - (274)
17	16	67.241	-0.093	Comb	0.00	0.14	0.60	10.0	351.70	5.35	355.30	30	Cir	0.013	0.91	364.04	Pipe - (260)
18	17	133.000	0.043	Comb	0.00	0.07	0.60	10.0	355.50	2.18	358.40	30	Cir	0.013	1.50	369.61	Pipe - (532)
19	18	66.111	0.014	Comb	0.00	0.13	0.60	10.0	358.60	9.08	364.60	24	Cir	0.013	0.96	373.20	Pipe - (272)
20	19	129.000	-2.881	Comb	0.00	0.16	0.60	10.0	365.10	5.81	372.60	18	Cir	0.013	1.04	380.55	Pipe - (227)
21	20	60.236	-39.930	Comb	0.00	0.06	0.60	10.0	372.70	3.15	374.60	18	Cir	0.013	0.69	382.80	Pipe - (530)
22	21	44.832	-23.761	Comb	0.00	0.10	0.60	10.0	374.70	3.35	376.20	18	Cir	0.013	1.17	384.22	Pipe - (226)
23	22	98.443	-44.465	Comb	0.00	0.20	0.60	10.0	376.45	0.66	377.10	15	Cir	0.013	0.50	384.98	Pipe - (225) (1)

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	205.640	6.883	Comb	0.00	0.12	0.60	10.0	377.20	1.02	379.30	15	Cir	0.013	0.50	387.17	Pipe - (225)
25	24	128.177	-6.601	Comb	0.00	0.09	0.60	10.0	379.40	1.64	381.50	15	Cir	0.013	1.50	389.10	Pipe - (224)
26	25	89.745	-0.806	Comb	0.00	0.09	0.60	10.0	381.70	0.89	382.50	15	Cir	0.013	1.50	390.43	Pipe - (223) (1)
27	26	28.070	94.057	Comb	0.00	0.10	0.60	10.0	382.60	1.07	382.90	15	Cir	0.013	1.08	390.68	Pipe - (528)
28	27	45.000	42.659	Comb	0.00	0.17	0.60	10.0	383.00	1.11	383.50	15	Cir	0.013	1.00	390.55	Pipe - (593)
29	19	47.992	-36.058	Comb	0.00	0.13	0.60	10.0	365.35	7.54	368.97	15	Cir	0.013	1.27	375.87	Pipe - (674)
30	29	137.042	-55.105	DrGrt	0.00	0.23	0.60	10.0	369.17	6.78	378.46	15	Cir	0.013	0.50	382.46	Pipe - (673)
31	30	104.000	-13.022	DrGrt	0.00	0.22	0.60	10.0	378.66	1.00	379.70	15	Cir	0.013	0.50	384.50	Pipe - (672)
32	31	102.047	-0.242	DrGrt	0.00	0.04	0.60	10.0	379.90	0.50	380.41	15	Cir	0.013	0.50	386.76	Pipe - (671)
33	32	51.989	-6.776	DrGrt	0.00	0.19	0.60	10.0	380.61	0.50	380.87	15	Cir	0.013	0.50	384.72	Pipe - (675)
34	33	51.970	-0.240	DrGrt	0.00	0.12	0.60	10.0	381.07	1.48	381.84	15	Cir	0.013	0.50	385.69	Pipe - (670)
35	34	52.092	-0.127	DrGrt	0.00	0.33	0.60	10.0	382.04	1.63	382.89	15	Cir	0.013	1.00	386.54	Pipe - (669)
36	25	28.048	89.194	Comb	0.00	0.29	0.60	10.0	381.70	0.50	381.84	15	Cir	0.013	1.00	389.44	Pipe - (245)
37	22	28.090	47.998	Comb	0.00	1.32	0.60	10.0	376.45	0.50	376.59	18	Cir	0.013	1.00	384.42	Pipe - (529)
38	18	28.013	-91.754	Comb	0.00	0.35	0.60	10.0	359.15	0.82	359.38	24	Cir	0.013	1.06	369.73	Pipe - (273)
39	38	24.995	41.184	MH	0.00	0.00	0.00	0.0	359.58	0.52	359.71	24	Cir	0.013	0.81	368.44	Pipe - (667)
40	39	66.154	50.557	MH	0.00	0.00	0.00	0.0	359.91	0.50	360.24	24	Cir	0.013	0.98	367.12	Pipe - (666)
41	40	55.000	-76.319	DrGrt	0.00	0.51	0.60	10.0	360.16	0.51	360.44	18	Cir	0.013	0.50	363.90	Pipe - (665)
42	41	56.890	-14.673	MH	0.00	0.00	0.00	0.0	360.44	3.92	362.67	18	Cir	0.013	0.27	366.32	Pipe - (639)
43	42	122.036	-12.878	DrGrt	0.00	0.22	0.60	10.0	362.87	0.81	363.86	18	Cir	0.013	0.50	367.51	Pipe - (638)
44	43	114.791	-1.955	DrGrt	0.00	0.47	0.60	10.0	364.06	2.33	366.73	15	Cir	0.013	0.50	370.38	Pipe - (637)
45	44	208.408	-5.694	DrGrt	0.00	0.13	0.60	10.0	366.93	2.43	371.99	15	Cir	0.013	0.50	377.77	Pipe - (642)
46	45	104.000	-0.130	DrGrt	0.00	0.13	0.60	10.0	372.19	0.50	372.71	15	Cir	0.013	0.50	378.30	Pipe - (678)

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
47	46	52.000	0.087	DrGrt	0.00	0.11	0.60	10.0	372.91	0.50	373.17	15	Cir	0.013	0.50	377.79	Pipe - (677)
48	47	49.902	0.000	DrGrt	0.00	0.62	0.60	10.0	373.37	0.50	373.62	15	Cir	0.013	1.00	377.07	Pipe - (676)
49	11	45.939	45.868	Comb	0.00	0.18	0.60	10.0	328.50	0.65	328.80	36	Cir	0.013	1.25	337.97	Pipe - (271)
50	49	115.606	-52.914	Comb	0.00	0.18	0.60	10.0	328.90	0.69	329.70	36	Cir	0.013	1.50	340.39	Pipe - (649)
51	50	126.362	-92.770	DrGrt	0.00	1.78	0.60	10.0	329.80	0.95	331.00	36	Cir	0.013	1.50	338.51	Pipe - (285)
52	51	139.166	87.626	DrGrt	0.00	1.85	0.60	10.0	331.50	3.95	337.00	30	Cir	0.013	0.50	343.66	Pipe - (284) (1) (
53	52	67.594	0.528	DrGrt	0.00	1.85	0.60	10.0	337.10	5.47	340.80	30	Cir	0.013	0.50	347.52	Pipe - (284) (1)
54	53	66.533	-1.545	DrGrt	0.00	0.95	0.60	10.0	340.90	6.16	345.00	30	Cir	0.013	0.50	352.08	Pipe - (284)
55	54	67.477	4.887	DrGrt	0.00	1.37	0.60	10.0	345.50	9.93	352.20	24	Cir	0.013	0.50	357.37	Pipe - (283) (1)
56	55	68.154	-12.683	DrGrt	0.00	0.91	0.60	10.0	352.30	7.92	357.70	24	Cir	0.013	0.50	362.32	Pipe - (283)
57	56	199.337	7.647	DrGrt	0.00	1.22	0.60	10.0	357.95	4.54	367.00	24	Cir	0.013	0.50	372.00	Pipe - (282) (1) (
58	57	134.326	-7.575	DrGrt	0.00	1.22	0.60	10.0	367.10	1.19	368.70	24	Cir	0.013	0.50	374.67	Pipe - (282) (1) (
59	58	67.009	3.670	DrGrt	0.00	1.22	0.60	10.0	368.80	1.49	369.80	18	Cir	0.013	0.50	374.75	Pipe - (282) (1)
60	59	65.325	-0.105	DrGrt	0.00	1.05	0.60	10.0	369.90	1.00	370.55	15	Cir	0.013	1.00	374.42	Pipe - (282)
61	17	50.671	-33.471	Comb	0.00	0.07	0.60	10.0	355.80	3.95	357.80	18	Cir	0.013	0.50	366.26	Pipe - (531)
62	61	43.841	-11.501	Comb	0.00	0.14	0.60	10.0	357.90	4.33	359.80	18	Cir	0.013	1.50	367.80	Pipe - (259)
63	62	131.638	-47.350	Comb	0.00	0.18	0.60	10.0	360.05	1.41	361.90	15	Cir	0.013	1.46	369.52	Pipe - (258)
64	63	173.316	-13.483	Comb	0.00	0.23	0.60	10.0	362.00	2.54	366.40	15	Cir	0.013	1.05	374.11	Pipe - (257)
65	64	38.552	40.848	Comb	0.00	0.19	0.60	10.0	366.50	2.75	367.56	15	Cir	0.013	1.00	375.18	Pipe - (256)
66	16	30.177	-67.893	Comb	0.00	0.01	0.60	10.0	352.25	0.83	352.50	18	Cir	0.013	1.46	360.93	Pipe - (263)
67	66	8.474	72.177	Comb	0.00	0.10	0.60	10.0	352.70	5.90	353.20	15	Cir	0.013	1.50	361.25	Pipe - (705)
68	67	73.390	-93.922	DrGrt	0.00	0.20	0.60	10.0	353.30	9.81	360.50	15	Cir	0.013	0.50	367.82	Pipe - (704)
69	68	50.413	-1.463	DrGrt	0.00	0.20	0.60	10.0	360.60	4.36	362.80	15	Cir	0.013	0.50	368.84	Pipe - (703)

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
70	69	49.506	-10.850	DrGrt	0.00	0.20	0.60	10.0	362.90	2.22	364.00	15	Cir	0.013	0.50	369.18	Pipe - (702)
71	70	52.057	-2.272	DrGrt	0.00	0.20	0.60	10.0	364.10	0.96	364.60	15	Cir	0.013	0.50	369.47	Pipe - (701)
72	71	49.835	-3.167	DrGrt	0.00	0.10	0.60	10.0	364.70	5.52	367.45	15	Cir	0.013	1.00	371.89	Pipe - (700)
73	63	28.090	76.190	Comb	0.00	0.22	0.60	10.0	362.00	1.00	362.28	15	Cir	0.013	1.00	369.72	Pipe - (261)
74	62	28.533	38.046	Comb	0.00	0.17	0.60	10.0	360.05	1.02	360.34	15	Cir	0.013	1.00	368.24	Pipe - (688)
75	14	28.499	-67.597	Comb	0.00	0.07	0.60	0.0	344.10	1.05	344.40	24	Cir	0.013	1.04	353.24	Pipe - (242)
76	75	47.998	39.967	Comb	0.00	0.20	0.60	10.0	344.90	4.79	347.20	18	Cir	0.013	1.21	355.24	Pipe - (241)
77	76	115.718	-43.449	MH	0.00	0.00	0.00	10.0	347.45	4.28	352.40	15	Cir	0.013	0.16	360.64	Pipe - (240) (1)
78	77	73.254	-7.668	Comb	0.00	0.12	0.60	10.0	352.50	3.41	355.00	15	Cir	0.013	1.48	363.35	Pipe - (240)
79	78	68.104	-6.332	MH	0.00	0.00	0.00	0.0	355.20	1.88	356.48	15	Cir	0.013	1.00	364.95	Pipe - (660)
80	79	118.063	-91.660	DrGrt	0.00	0.30	0.60	10.0	356.67	0.51	357.27	15	Cir	0.013	1.00	364.69	Pipe - (659)
81	78	27.894	79.953	Comb	0.00	0.12	0.60	10.0	355.20	1.00	355.48	15	Cir	0.013	1.00	363.56	Pipe - (243)
82	66	81.670	-22.172	DrGrt	0.00	0.44	0.60	10.0	352.70	0.55	353.15	15	Cir	0.013	0.50	355.81	Pipe - (627)
83	82	59.620	-7.268	DrGrt	0.00	0.20	0.60	10.0	353.25	0.75	353.70	15	Cir	0.013	0.50	358.39	Pipe - (699) (1)
84	83	119.807	-5.999	DrGrt	0.00	0.40	0.60	10.0	353.80	3.70	358.23	15	Cir	0.013	1.00	362.67	Pipe - (699)
85	4	37.830	0.000	Comb	0.00	0.07	0.60	10.0	324.46	9.36	328.00	24	Cir	0.013	1.81	340.50	Pipe - (291)
86	85	67.669	-84.535	Comb	0.00	0.07	0.60	10.0	328.20	9.46	334.60	24	Cir	0.013	1.41	345.64	Pipe - (297)
87	86	66.501	9.954	Comb	0.00	0.09	0.60	10.0	334.80	9.47	341.10	18	Cir	0.013	0.50	350.88	Pipe - (299)
88	87	89.618	-3.183	Comb	0.00	0.07	0.60	10.0	341.20	9.48	349.70	18	Cir	0.013	0.50	358.28	Pipe - (296)
89	88	59.370	-15.703	Comb	0.00	0.15	0.60	10.0	349.80	4.88	352.70	18	Cir	0.013	1.36	362.88	Pipe - (685)
90	89	30.806	62.435	Comb	0.00	0.21	0.60	10.0	352.85	0.49	353.00	15	Cir	0.013	1.22	363.70	Pipe - (519)
91	90	151.519	50.996	DrGrt	0.00	0.76	0.60	10.0	353.22	0.49	353.97	15	Cir	0.013	1.00	357.62	Pipe - (656)
92	8	110.218	-2.645	Comb	0.00	0.15	0.60	10.0	327.22	1.52	328.90	30	Cir	0.013	0.50	338.24	Pipe - (235)

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
93	92	130.561	-8.424	Comb	0.00	0.15	0.60	10.0	329.40	2.14	332.20	24	Cir	0.013	0.50	340.87	Pipe - (270)
94	93	132.413	-4.628	Comb	0.00	0.21	0.60	10.0	332.70	3.85	337.80	18	Cir	0.013	0.76	346.09	Pipe - (269)
95	94	201.000	-0.061	Comb	0.00	0.37	0.60	10.0	338.05	6.89	351.90	15	Cir	0.013	0.75	359.96	Pipe - (268)
96	95	63.000	-26.471	Comb	0.00	0.27	0.60	10.0	352.00	7.51	356.73	15	Cir	0.013	1.00	364.48	Pipe - (277)
97	76	27.998	50.565	Comb	0.00	0.40	0.60	10.0	347.45	1.00	347.73	15	Cir	0.013	1.00	355.45	Pipe - (244)
98	13	67.945	-8.872	Comb	0.00	0.10	0.60	10.0	339.95	1.16	340.74	15	Cir	0.013	1.40	350.55	Pipe - (662)
99	98	130.118	-66.396	DrGrt	0.00	0.54	0.60	10.0	340.75	0.68	341.63	15	Cir	0.013	1.00	345.98	Pipe - (661)
100	94	62.439	-26.705	Comb	0.00	0.18	0.60	10.0	338.05	5.00	341.17	15	Cir	0.013	1.00	349.44	Pipe - (278)
101	86	33.617	68.314	Comb	0.00	0.15	0.60	10.0	334.80	8.92	337.80	15	Cir	0.013	0.87	347.02	Pipe - (655)
102	101	32.232	31.769	DrGrt	0.00	0.48	0.60	10.0	337.90	9.49	340.96	15	Cir	0.013	1.00	346.30	Pipe - (654)
103	85	28.384	-11.463	Comb	0.00	0.07	0.60	10.0	328.20	8.98	330.75	15	Cir	0.013	1.00	340.65	Pipe - (288)
104	7	48.953	-34.521	Comb	0.00	0.07	0.60	10.0	327.32	1.18	327.90	15	Cir	0.013	1.28	335.90	Pipe - (684)
105	104	127.001	-55.728	DrGrt	0.00	1.02	0.60	10.0	328.00	1.00	329.27	15	Cir	0.013	1.00	332.20	Pipe - (663)
106	6	28.000	-95.287	Comb	0.00	0.21	0.60	10.0	326.15	2.00	326.71	15	Cir	0.013	0.64	334.78	Pipe - (281)
107	106	50.307	-22.034	DrGrt	0.00	0.01	0.60	10.0	326.90	1.67	327.74	15	Cir	0.013	1.00	331.40	Pipe - (653)
108	5	9.040	-4.699	Comb	0.00	0.01	0.60	10.0	323.44	0.22	323.46	42	Cir	0.013	1.00	332.17	Pipe - (610)

Project File: SCM 5A Storm Network.stm

Number of lines: 108

Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 500A	Manhole	332.98	Rect	4.00	4.00	48	Cir	316.75	48	Cir	316.95
2	YI 500B	DropGrate	326.82	Rect	4.00	4.00	48	Cir	318.19	48	Cir	318.30
3	YI 501	DropGrate	339.45	Rect	4.00	4.00	48	Cir	321.60	48	Cir	322.10
4	YI 502	DropGrate	340.36	Rect	4.00	4.00	48	Cir	322.46	48 24	Cir Cir	322.66 324.46
5	CB 503	Combination	332.33	Rect	4.00	4.00	48	Cir	323.21	48 42	Cir Cir	323.44 323.44
6	CB 504	Combination	334.39	Rect	4.00	4.00	48	Cir	323.90	48 15	Cir Cir	324.10 326.15
7	CB 505	Combination	335.43	Rect	4.00	4.00	48	Cir	325.06	48 15	Cir Cir	325.17 327.32
8	CB 506	Combination	336.49	Rect	4.00	4.00	48	Cir	326.22	48 30	Cir Cir	326.42 327.22
9	CB 515	Combination	336.62	Rect	4.00	4.00	48	Cir	326.60	48	Cir	326.70
10	CB 516	Combination	337.61	Rect	4.00	4.00	48	Cir	327.20	48	Cir	327.30
11	CB 517	Combination	337.59	Rect	4.00	4.00	48	Cir	327.50	36 36	Cir Cir	328.00 328.50
12	CB 518	Combination	341.32	Rect	4.00	4.00	36	Cir	331.40	36	Cir	331.50
13	CB 519	Combination	347.71	Rect	4.00	4.00	36	Cir	338.20	30 15	Cir Cir	338.70 339.95
14	CB 520	Combination	352.80	Rect	4.00	4.00	30	Cir	343.60	30 24	Cir Cir	344.10 344.10
15	CB 521	Combination	356.65	Rect	4.00	4.00	30	Cir	348.30	30	Cir	348.40
16	CB 522	Combination	360.12	Rect	4.00	4.00	30	Cir	351.50	30 18	Cir Cir	351.70 352.25
17	CB 523	Combination	364.04	Rect	4.00	4.00	30	Cir	355.30	30 18	Cir Cir	355.50 355.80
18	CB 524	Combination	369.61	Rect	4.00	4.00	30	Cir	358.40	24 24	Cir Cir	358.60 359.15

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
19	CB 525	Combination	373.20	Rect	4.00	4.00	24	Cir	364.60	18 15	Cir Cir	365.10 365.35
20	CB 526	Combination	380.55	Rect	4.00	4.00	18	Cir	372.60	18	Cir	372.70
21	CB 527	Combination	382.80	Rect	4.00	4.00	18	Cir	374.60	18	Cir	374.70
22	CB 528	Combination	384.22	Rect	4.00	4.00	18	Cir	376.20	15 18	Cir Cir	376.45 376.45
23	CB 529	Combination	384.98	Rect	4.00	4.00	15	Cir	377.10	15	Cir	377.20
24	CB 530	Combination	387.17	Rect	4.00	4.00	15	Cir	379.30	15	Cir	379.40
25	CB 531	Combination	389.10	Rect	4.00	4.00	15	Cir	381.50	15 15	Cir Cir	381.70 381.70
26	CB 532	Combination	390.43	Rect	4.00	4.00	15	Cir	382.50	15	Cir	382.60
27	CB 532A	Combination	390.68	Rect	4.00	4.00	15	Cir	382.90	15	Cir	383.00
28	CB 533	Combination	390.55	Rect	4.00	4.00	15	Cir	383.50			
29	CB 525A	Combination	375.87	Rect	4.00	4.00	15	Cir	368.97	15	Cir	369.17
30	YI 525B	DropGrate	382.46	Rect	4.00	4.00	15	Cir	378.46	15	Cir	378.66
31	YI 525C	DropGrate	384.50	Rect	4.00	4.00	15	Cir	379.70	15	Cir	379.90
32	YI 525D	DropGrate	386.76	Rect	4.00	4.00	15	Cir	380.41	15	Cir	380.61
33	YI 525E	DropGrate	384.72	Rect	4.00	4.00	15	Cir	380.87	15	Cir	381.07
34	YI 525F	DropGrate	385.69	Rect	4.00	4.00	15	Cir	381.84	15	Cir	382.04
35	YI 525G	DropGrate	386.54	Rect	4.00	4.00	15	Cir	382.89			
36	CB 531A	Combination	389.44	Rect	4.00	4.00	15	Cir	381.84			
37	CB 528A	Combination	384.42	Rect	4.00	4.00	18	Cir	376.59			
38	CB 524A	Combination	369.73	Rect	4.00	4.00	24	Cir	359.38	24	Cir	359.58
39	JB 524B	Manhole	368.44	Rect	4.00	4.00	24	Cir	359.71	24	Cir	359.91

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
40	JB 524C	Manhole	367.12	Rect	4.00	4.00	24	Cir	360.24	18	Cir	360.16
41	YI 524D	DropGrate	363.90	Rect	4.00	4.00	18	Cir	360.44	18	Cir	360.44
42	JB 524E	Manhole	366.32	Rect	4.00	4.00	18	Cir	362.67	18	Cir	362.87
43	YI 524F	DropGrate	367.51	Rect	4.00	4.00	18	Cir	363.86	15	Cir	364.06
44	YI 524G	DropGrate	370.38	Rect	4.00	4.00	15	Cir	366.73	15	Cir	366.93
45	YI 524H	DropGrate	377.77	Rect	4.00	4.00	15	Cir	371.99	15	Cir	372.19
46	YI 524I	DropGrate	378.30	Rect	4.00	4.00	15	Cir	372.71	15	Cir	372.91
47	YI 524J	DropGrate	377.79	Rect	4.00	4.00	15	Cir	373.17	15	Cir	373.37
48	YI 524K	DropGrate	377.07	Rect	4.00	4.00	15	Cir	373.62			
49	CB 517A	Combination	337.97	Rect	4.00	4.00	36	Cir	328.80	36	Cir	328.90
50	CB 517B	Combination	340.39	Rect	4.00	4.00	36	Cir	329.70	36	Cir	329.80
51	YI 517C	DropGrate	338.51	Rect	4.00	4.00	36	Cir	331.00	30	Cir	331.50
52	YI 517D	DropGrate	343.66	Rect	4.00	4.00	30	Cir	337.00	30	Cir	337.10
53	YI 517E	DropGrate	347.52	Rect	4.00	4.00	30	Cir	340.80	30	Cir	340.90
54	YI 517F	DropGrate	352.08	Rect	4.00	4.00	30	Cir	345.00	24	Cir	345.50
55	YI 517G	DropGrate	357.37	Rect	4.00	4.00	24	Cir	352.20	24	Cir	352.30
56	YI 517H	DropGrate	362.32	Rect	4.00	4.00	24	Cir	357.70	24	Cir	357.95
57	YI 517I	DropGrate	372.00	Rect	4.00	4.00	24	Cir	367.00	24	Cir	367.10
58	YI 517J	DropGrate	374.67	Rect	4.00	4.00	24	Cir	368.70	18	Cir	368.80
59	YI 517K	DropGrate	374.75	Rect	4.00	4.00	18	Cir	369.80	15	Cir	369.90
60	YI 517L	DropGrate	374.42	Rect	4.00	4.00	15	Cir	370.55			
61	CB 534	Combination	366.26	Rect	4.00	4.00	18	Cir	357.80	18	Cir	357.90
62	CB 535	Combination	367.80	Rect	4.00	4.00	18	Cir	359.80	15 15	Cir Cir	360.05 360.05

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
63	CB 536	Combination	369.52	Rect	4.00	4.00	15	Cir	361.90	15 15	Cir Cir	362.00 362.00
64	CB 537	Combination	374.11	Rect	4.00	4.00	15	Cir	366.40	15	Cir	366.50
65	CB 537A	Combination	375.18	Rect	4.00	4.00	15	Cir	367.56			
66	CB 522A	Combination	360.93	Rect	4.00	4.00	18	Cir	352.50	15 15	Cir Cir	352.70 352.70
67	CB 522E	Combination	361.25	Rect	4.00	4.00	15	Cir	353.20	15	Cir	353.30
68	YI 522F	DropGrate	367.82	Rect	4.00	4.00	15	Cir	360.50	15	Cir	360.60
69	YI 522G	DropGrate	368.84	Rect	4.00	4.00	15	Cir	362.80	15	Cir	362.90
70	YI 522H	DropGrate	369.18	Rect	4.00	4.00	15	Cir	364.00	15	Cir	364.10
71	YI 522I	DropGrate	369.47	Rect	4.00	4.00	15	Cir	364.60	15	Cir	364.70
72	YI 522J	DropGrate	371.89	Rect	4.00	4.00	15	Cir	367.45			
73	CB 536A	Combination	369.72	Rect	4.00	4.00	15	Cir	362.28			
74	CB 535A	Combination	368.24	Rect	4.00	4.00	15	Cir	360.34			
75	CB 538	Combination	353.24	Rect	4.00	4.00	24	Cir	344.40	18	Cir	344.90
76	CB 539	Combination	355.24	Rect	4.00	4.00	18	Cir	347.20	15 15	Cir Cir	347.45 347.45
77	JB 540	Manhole	360.64	Rect	4.00	4.00	15	Cir	352.40	15	Cir	352.50
78	CB 541	Combination	363.35	Rect	4.00	4.00	15	Cir	355.00	15 15	Cir Cir	355.20 355.20
79	JB 541B	Manhole	364.95	Rect	4.00	4.00	15	Cir	356.48	15	Cir	356.67
80	YI 541C	DropGrate	364.69	Rect	4.00	4.00	15	Cir	357.27			
81	CB 541A	Combination	363.56	Rect	4.00	4.00	15	Cir	355.48			
82	YI 522B	DropGrate	355.81	Rect	4.00	4.00	15	Cir	353.15	15	Cir	353.25
83	YI 522C	DropGrate	358.39	Rect	4.00	4.00	15	Cir	353.70	15	Cir	353.80

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
84	YI 522D	DropGrate	362.67	Rect	4.00	4.00	15	Cir	358.23			
85	CB 511	Combination	340.50	Rect	4.00	4.00	24	Cir	328.00	24 15	Cir Cir	328.20 328.20
86	CB 512	Combination	345.64	Rect	4.00	4.00	24	Cir	334.60	18 15	Cir Cir	334.80 334.80
87	CB 513	Combination	350.88	Rect	4.00	4.00	18	Cir	341.10	18	Cir	341.20
88	CB 514	Combination	358.28	Rect	4.00	4.00	18	Cir	349.70	18	Cir	349.80
89	CB 514A	Combination	362.88	Rect	4.00	4.00	18	Cir	352.70	15	Cir	352.85
90	CB 514B	Combination	363.70	Rect	4.00	4.00	15	Cir	353.00	15	Cir	353.22
91	YI 514C	DropGrate	357.62	Rect	4.00	4.00	15	Cir	353.97			
92	CB 507	Combination	338.24	Rect	4.00	4.00	30	Cir	328.90	24	Cir	329.40
93	CB 508	Combination	340.87	Rect	4.00	4.00	24	Cir	332.20	18	Cir	332.70
94	CB 509	Combination	346.09	Rect	4.00	4.00	18	Cir	337.80	15 15	Cir Cir	338.05 338.05
95	CB 510	Combination	359.96	Rect	4.00	4.00	15	Cir	351.90	15	Cir	352.00
96	CB 510A	Combination	364.48	Rect	4.00	4.00	15	Cir	356.73			
97	CB 539A	Combination	355.45	Rect	4.00	4.00	15	Cir	347.73			
98	JB 519A	Combination	350.55	Rect	4.00	4.00	15	Cir	340.74	15	Cir	340.75
99	YI 519B	DropGrate	345.98	Rect	4.00	4.00	15	Cir	341.63			
100	CB 509A	Combination	349.44	Rect	4.00	4.00	15	Cir	341.17			
101	CB 512A	Combination	347.02	Rect	4.00	4.00	15	Cir	337.80	15	Cir	337.90
102	YI 512B	DropGrate	346.30	Rect	4.00	4.00	15	Cir	340.96			
103	CB 511A	Combination	340.65	Rect	4.00	4.00	15	Cir	330.75			
104	CB 518A	Combination	335.90	Rect	4.00	4.00	15	Cir	327.90	15	Cir	328.00

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
105	YI 518B	DropGrate	332.20	Rect	4.00	4.00	15	Cir	329.27			
106	CB 504A	Combination	334.78	Rect	4.00	4.00	15	Cir	326.71	15	Cir	326.90
107	CB 504B	DropGrate	331.40	Rect	4.00	4.00	15	Cir	327.74			
108	CB 503A	Combination	332.17	Rect	4.00	4.00	42	Cir	323.46			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (648)	69.18	48	Cir	74.659	316.00	316.75	1.005	320.49	320.65	0.43	321.07	End	Manhole
2	Pipe - (646)	69.51	48	Cir	123.527	316.95	318.19	1.004	321.07	321.10	0.63	321.73	1	DropGrate
3	Pipe - (292)	66.89	48	Cir	132.055	318.30	321.60	2.499	321.73	324.07	0.93	324.07	2	DropGrate
4	Pipe - (291) (1)	66.92	48	Cir	72.832	322.10	322.46	0.494	324.48	324.93	1.49	324.93	3	DropGrate
5	Pipe - (515)	62.67	48	Cir	110.092	322.66	323.21	0.500	324.93	325.60	n/a	325.60	4	Combination
6	Pipe - (287)	98.09	48	Cir	90.197	323.44	323.90	0.510	326.57	327.03	2.01	329.05	5	Combination
7	Pipe - (236) (1)	97.55	48	Cir	96.914	324.10	325.06	0.991	329.05*	329.49*	0.87	330.36	6	Combination
8	Pipe - (425)	94.10	48	Cir	105.502	325.17	326.22	0.995	330.36*	330.82*	1.94	332.76	7	Combination
9	Pipe - (236)	89.37	48	Cir	28.011	326.42	326.60	0.643	332.76*	332.87*	0.88	333.75	8	Combination
10	Pipe - (517)	89.34	48	Cir	45.483	326.70	327.20	1.099	333.75*	333.93*	0.88	334.81	9	Combination
11	Pipe - (518)	88.05	48	Cir	28.154	327.30	327.50	0.710	334.81*	334.91*	1.31	336.22	10	Combination
12	Pipe - (265)	41.69	36	Cir	75.321	328.00	331.40	4.514	336.22*	336.51*	0.29	336.81	11	Combination
13	Pipe - (266)	41.74	36	Cir	118.134	331.50	338.20	5.672	336.81	340.30	n/a	340.30 j	12	Combination
14	Pipe - (232)	39.54	30	Cir	118.619	338.70	343.60	4.131	340.30	345.72	n/a	345.72	13	Combination
15	Pipe - (533)	35.23	30	Cir	96.000	344.10	348.30	4.375	345.72	350.31	n/a	350.31	14	Combination
16	Pipe - (274)	35.09	30	Cir	67.783	348.40	351.50	4.573	350.31	353.51	n/a	353.51	15	Combination
17	Pipe - (260)	27.89	30	Cir	67.241	351.70	355.30	5.354	353.51	357.10	n/a	357.10 j	16	Combination
18	Pipe - (532)	23.46	30	Cir	133.000	355.50	358.40	2.180	357.10	360.05	1.09	360.05	17	Combination
19	Pipe - (272)	14.40	24	Cir	66.111	358.60	364.60	9.076	360.05	365.97	n/a	365.97 j	18	Combination
20	Pipe - (227)	9.58	18	Cir	129.000	365.10	372.60	5.814	365.97	373.79	0.65	373.79	19	Combination
21	Pipe - (530)	9.06	18	Cir	60.236	372.70	374.60	3.154	373.79	375.76	0.41	375.76	20	Combination
22	Pipe - (226)	8.88	18	Cir	44.832	374.70	376.20	3.346	375.76	377.35	0.68	377.35	21	Combination
23	Pipe - (225) (1)	3.84	15	Cir	98.443	376.45	377.10	0.660	377.35	377.89	0.17	377.89	22	Combination
24	Pipe - (225)	3.19	15	Cir	205.640	377.20	379.30	1.021	377.89	380.02	n/a	380.02	23	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (224)	2.79	15	Cir	128.177	379.40	381.50	1.638	380.02	382.17	0.40	382.17	24	Combination
26	Pipe - (223) (1)	1.38	15	Cir	89.745	381.70	382.50	0.891	382.17	382.96	n/a	382.96 j	25	Combination
27	Pipe - (528)	1.04	15	Cir	28.070	382.60	382.90	1.069	382.96	383.30	n/a	383.30	26	Combination
28	Pipe - (593)	0.66	15	Cir	45.000	383.00	383.50	1.111	383.30	383.82	0.11	383.82	27	Combination
29	Pipe - (674)	4.59	15	Cir	47.992	365.35	368.97	7.543	365.97	369.84	n/a	369.84	19	Combination
30	Pipe - (673)	4.17	15	Cir	137.042	369.17	378.46	6.779	369.84	379.29	0.18	379.29	29	DropGrate
31	Pipe - (672)	3.36	15	Cir	104.000	378.66	379.70	1.000	379.30	380.44	n/a	380.44	30	DropGrate
32	Pipe - (671)	2.58	15	Cir	102.047	379.90	380.41	0.500	380.57	381.08	0.11	381.20	31	DropGrate
33	Pipe - (675)	2.44	15	Cir	51.989	380.61	380.87	0.500	381.26	381.52	0.11	381.63	32	DropGrate
34	Pipe - (670)	1.73	15	Cir	51.970	381.07	381.84	1.482	381.63	382.36	n/a	382.36 j	33	DropGrate
35	Pipe - (669)	1.28	15	Cir	52.092	382.04	382.89	1.632	382.37	383.34	0.16	383.34	34	DropGrate
36	Pipe - (245)	1.12	15	Cir	28.048	381.70	381.84	0.499	382.17	382.26	0.15	382.41	25	Combination
37	Pipe - (529)	5.12	18	Cir	28.090	376.45	376.59	0.498	377.37	377.51	0.32	377.83	22	Combination
38	Pipe - (273)	8.96	24	Cir	28.013	359.15	359.38	0.821	360.08	360.45	0.45	360.45	18	Combination
39	Pipe - (667)	7.74	24	Cir	24.995	359.58	359.71	0.520	360.55	360.70	n/a	360.70	38	Manhole
40	Pipe - (666)	7.79	24	Cir	66.154	359.91	360.24	0.499	360.90	361.23	0.38	361.23	39	Manhole
41	Pipe - (665)	7.84	18	Cir	55.000	360.16	360.44	0.509	361.46	361.74	0.18	361.92	40	DropGrate
42	Pipe - (639)	6.05	18	Cir	56.890	360.44	362.67	3.920	361.92	363.62	n/a	363.62 j	41	Manhole
43	Pipe - (638)	6.12	18	Cir	122.036	362.87	363.86	0.811	363.75	364.82	0.21	364.82	42	DropGrate
44	Pipe - (637)	5.37	15	Cir	114.791	364.06	366.73	2.326	364.82	367.67	n/a	367.67	43	DropGrate
45	Pipe - (642)	3.73	15	Cir	208.408	366.93	371.99	2.428	367.67	372.77	n/a	372.77	44	DropGrate
46	Pipe - (678)	3.29	15	Cir	104.000	372.19	372.71	0.500	372.98	373.49	0.13	373.62	45	DropGrate
47	Pipe - (677)	2.81	15	Cir	52.000	372.91	373.17	0.500	373.62	373.88	0.12	374.00	46	DropGrate
48	Pipe - (676)	2.40	15	Cir	49.902	373.37	373.62	0.501	374.01	374.26	0.22	374.49	47	DropGrate

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
49	Pipe - (271)	49.27	36	Cir	45.939	328.50	328.80	0.653	336.22*	336.47*	0.94	337.41	11	Combination
50	Pipe - (649)	48.96	36	Cir	115.606	328.90	329.70	0.692	337.41*	338.04*	1.12	339.16	49	Combination
51	Pipe - (285)	48.68	36	Cir	126.362	329.80	331.00	0.950	339.16*	339.83*	1.11	340.94	50	DropGrate
52	Pipe - (284) (1) (1)	42.51	30	Cir	139.166	331.50	337.00	3.952	340.94*	342.43*	0.58	343.02	51	DropGrate
53	Pipe - (284) (1)	35.91	30	Cir	67.594	337.10	340.80	5.474	343.02*	343.53*	0.42	343.95	52	DropGrate
54	Pipe - (284)	29.26	30	Cir	66.533	340.90	345.00	6.162	343.95	346.84	n/a	346.84 j	53	DropGrate
55	Pipe - (283) (1)	25.85	24	Cir	67.477	345.50	352.20	9.929	346.84	353.98	n/a	353.98	54	DropGrate
56	Pipe - (283)	20.88	24	Cir	68.154	352.30	357.70	7.923	353.98	359.34	n/a	359.34 j	55	DropGrate
57	Pipe - (282) (1) (1) (1)	17.76	24	Cir	199.337	357.95	367.00	4.540	359.34	368.52	n/a	368.52	56	DropGrate
58	Pipe - (282) (1) (1)	13.33	24	Cir	134.326	367.10	368.70	1.191	368.52	370.01	n/a	370.01 j	57	DropGrate
59	Pipe - (282) (1)	8.72	18	Cir	67.009	368.80	369.80	1.492	370.01	370.94	n/a	370.94 j	58	DropGrate
60	Pipe - (282)	4.06	15	Cir	65.325	369.90	370.55	1.000	370.94	371.37	n/a	371.37 j	59	DropGrate
61	Pipe - (531)	4.39	18	Cir	50.671	355.80	357.80	3.947	357.10	358.60	n/a	358.60 j	17	Combination
62	Pipe - (259)	4.16	18	Cir	43.841	357.90	359.80	4.334	358.60	360.58	n/a	360.58	61	Combination
63	Pipe - (258)	3.06	15	Cir	131.638	360.05	361.90	1.405	360.60	362.60	0.42	362.60	62	Combination
64	Pipe - (257)	1.61	15	Cir	173.316	362.00	366.40	2.539	362.60	366.90	n/a	366.90 j	63	Combination
65	Pipe - (256)	0.74	15	Cir	38.552	366.50	367.56	2.750	366.90	367.90	n/a	367.90 j	64	Combination
66	Pipe - (263)	7.58	18	Cir	30.177	352.25	352.50	0.828	353.51	353.57	n/a	353.57 j	16	Combination
67	Pipe - (705)	3.70	15	Cir	8.474	352.70	353.20	5.900	353.57	353.98	n/a	353.98 j	66	Combination
68	Pipe - (704)	3.36	15	Cir	73.390	353.30	360.50	9.811	353.98	361.24	n/a	361.24	67	DropGrate
69	Pipe - (703)	2.63	15	Cir	50.413	360.60	362.80	4.364	361.24	363.45	n/a	363.45	68	DropGrate
70	Pipe - (702)	1.89	15	Cir	49.506	362.90	364.00	2.222	363.45	364.55	n/a	364.55 j	69	DropGrate
71	Pipe - (701)	1.15	15	Cir	52.057	364.10	364.60	0.960	364.55	365.02	n/a	365.02 j	70	DropGrate
72	Pipe - (700)	0.39	15	Cir	49.835	364.70	367.45	5.518	365.02	367.69	n/a	367.69 j	71	DropGrate

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
73	Pipe - (261)	0.85	15	Cir	28.090	362.00	362.28	0.997	362.60	362.64	n/a	362.64 j	63	Combination
74	Pipe - (688)	0.66	15	Cir	28.533	360.05	360.34	1.016	360.58	360.66	n/a	360.66 j	62	Combination
75	Pipe - (242)	4.42	24	Cir	28.499	344.10	344.40	1.053	345.72	345.14	n/a	345.14	14	Combination
76	Pipe - (241)	4.18	18	Cir	47.998	344.90	347.20	4.792	345.33	347.98	0.38	347.98	75	Combination
77	Pipe - (240) (1)	2.01	15	Cir	115.718	347.45	352.40	4.278	347.98	352.96	n/a	352.96	76	Manhole
78	Pipe - (240)	2.03	15	Cir	73.254	352.50	355.00	3.413	352.96	355.57	0.32	355.57	77	Combination
79	Pipe - (660)	1.14	15	Cir	68.104	355.20	356.48	1.879	355.57	356.90	n/a	356.90	78	Manhole
80	Pipe - (659)	1.16	15	Cir	118.063	356.67	357.27	0.508	357.10	357.70	n/a	357.85 j	79	DropGrate
81	Pipe - (243)	0.47	15	Cir	27.894	355.20	355.48	1.004	355.57	355.75	n/a	355.75 j	78	Combination
82	Pipe - (627)	3.91	15	Cir	81.670	352.70	353.15	0.551	353.57	354.01	0.15	354.15	66	DropGrate
83	Pipe - (699) (1)	2.28	15	Cir	59.620	353.25	353.70	0.755	354.15	354.30	n/a	354.30 j	82	DropGrate
84	Pipe - (699)	1.55	15	Cir	119.807	353.80	358.23	3.698	354.30	358.72	n/a	358.72 j	83	DropGrate
85	Pipe - (291)	7.76	24	Cir	37.830	324.46	328.00	9.358	324.93	328.99	n/a	328.99	4	Combination
86	Pipe - (297)	7.30	24	Cir	67.669	328.20	334.60	9.458	328.99	335.56	0.53	335.56	85	Combination
87	Pipe - (299)	4.75	18	Cir	66.501	334.80	341.10	9.474	335.56	341.94	0.17	341.94	86	Combination
88	Pipe - (296)	4.46	18	Cir	89.618	341.20	349.70	9.485	341.94	350.51	n/a	350.51	87	Combination
89	Pipe - (685)	4.23	18	Cir	59.370	349.80	352.70	4.885	350.51	353.49	n/a	353.49	88	Combination
90	Pipe - (519)	3.67	15	Cir	30.806	352.85	353.00	0.487	353.71	353.86	0.32	354.18	89	Combination
91	Pipe - (656)	2.95	15	Cir	151.519	353.22	353.97	0.495	354.18	354.66	0.28	354.94	90	DropGrate
92	Pipe - (235)	4.86	30	Cir	110.218	327.22	328.90	1.524	332.76*	332.78*	0.01	332.78	8	Combination
93	Pipe - (270)	4.36	24	Cir	130.561	329.40	332.20	2.145	332.78	332.93	n/a	332.93 j	92	Combination
94	Pipe - (269)	3.85	18	Cir	132.413	332.70	337.80	3.852	333.14	338.55	n/a	338.55	93	Combination
95	Pipe - (268)	2.45	15	Cir	201.000	338.05	351.90	6.891	338.55	352.53	n/a	352.53	94	Combination
96	Pipe - (277)	1.05	15	Cir	63.000	352.00	356.73	7.508	352.53	357.13	n/a	357.13 j	95	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
97	Pipe - (244)	1.55	15	Cir	27.998	347.45	347.73	1.000	347.98	348.22	n/a	348.22 j	76	Combination
98	Pipe - (662)	2.43	15	Cir	67.945	339.95	340.74	1.163	340.46	341.36	0.34	341.36	13	Combination
99	Pipe - (661)	2.09	15	Cir	130.118	340.75	341.63	0.676	341.36	342.21	n/a	342.21 j	98	DropGrate
100	Pipe - (278)	0.70	15	Cir	62.439	338.05	341.17	4.997	338.55	341.50	n/a	341.50 j	94	Combination
101	Pipe - (655)	2.43	15	Cir	33.617	334.80	337.80	8.924	335.56	338.42	n/a	338.42 j	86	Combination
102	Pipe - (654)	1.86	15	Cir	32.232	337.90	340.96	9.494	338.42	341.50	n/a	341.50	101	DropGrate
103	Pipe - (288)	0.27	15	Cir	28.384	328.20	330.75	8.984	328.99	330.95	n/a	330.95 j	85	Combination
104	Pipe - (684)	4.17	15	Cir	48.953	327.32	327.90	1.185	330.36*	330.57*	0.23	330.80	7	Combination
105	Pipe - (663)	3.96	15	Cir	127.001	328.00	329.27	1.000	330.80*	331.27*	0.16	331.44	104	DropGrate
106	Pipe - (281)	0.84	15	Cir	28.000	326.15	326.71	2.000	329.05*	329.05*	0.00	329.05	6	Combination
107	Pipe - (653)	0.04	15	Cir	50.307	326.90	327.74	1.670	329.05*	329.05*	0.00	329.05	106	DropGrate
108	Pipe - (610)	0.04	42	Cir	9.040	323.44	323.46	0.221	325.60	326.96	0.00	326.96	5	Combination

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 500A	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	YI 500B	5.39	0.00	5.39	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.30	32.37	0.30	32.37	0.0	Off
3	YI 501	0.23	0.00	0.20	0.04	DrGrt	0.0	0.00	0.00	3.00	2.50	0.300	2.00	0.020	0.020	0.013	0.02	4.10	0.02	4.10	0.0	Off
4	YI 502	0.04	0.00	0.03	0.01	DrGrt	0.0	0.00	0.00	1.00	2.00	0.300	2.00	0.020	0.020	0.013	0.01	3.10	0.01	3.10	0.0	Off
5	CB 503	0.81	0.00	0.76	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.04	0.06	0.96	0.0	108
6	CB 504	0.23	0.00	0.24	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.12	1.95	0.00	0.00	0.0	108
7	CB 505	0.35	0.02	0.36	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.90	0.02	0.38	0.0	6
8	CB 506	0.47	0.03	0.48	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.66	0.04	0.74	0.0	7
9	CB 515	0.27	0.23	0.49	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.69	0.05	0.75	0.0	104
10	CB 516	1.63	0.00	1.40	0.23	Comb	6.0	1.50	0.00	3.00	2.50	0.035	2.00	0.060	0.020	0.013	0.18	5.17	0.09	1.54	0.0	9
11	CB 517	0.23	0.00	0.23	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.12	2.09	0.12	2.09	0.0	Off
12	CB 518	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	11
13	CB 519	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	12
14	CB 520	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.11	1.82	0.00	0.00	0.0	13
15	CB 521	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.60	0.00	0.00	0.0	14
16	CB 522	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.43	0.00	0.00	0.0	15
17	CB 523	0.54	0.00	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.85	0.00	0.00	0.0	16
18	CB 524	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.09	1.43	0.00	0.00	0.0	17
19	CB 525	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.80	0.00	0.00	0.0	18
20	CB 526	0.62	0.00	0.62	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.13	2.35	0.01	0.10	0.0	19
21	CB 527	0.23	0.01	0.25	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	29
22	CB 528	0.39	0.08	0.45	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.50	0.04	0.67	0.0	21
23	CB 529	0.78	0.01	0.71	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.18	4.89	0.08	1.31	0.0	22

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 530	0.47	0.00	0.45	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.15	3.50	0.04	0.66	0.0	23
25	CB 531	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.14	2.81	0.02	0.34	0.0	24
26	CB 532	0.35	0.00	0.34	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.008	2.00	0.060	0.020	0.013	0.14	3.13	0.03	0.48	0.0	25
27	CB 532A	0.39	0.00	0.39	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	2.75	0.14	2.75	0.0	Off
28	CB 533	0.66	0.00	0.66	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.15	3.56	0.15	3.56	0.0	Off
29	CB 525A	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.80	0.00	0.00	0.0	38
30	YI 525B	0.89	0.00	0.89	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.50	0.09	11.50	0.0	Off
31	YI 525C	0.85	0.00	0.85	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.23	0.09	11.23	0.0	Off
32	YI 525D	0.16	0.00	0.16	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.03	5.30	0.03	5.30	0.0	Off
33	YI 525E	0.74	0.00	0.74	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.42	0.08	10.42	0.0	Off
34	YI 525F	0.47	0.00	0.47	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.33	0.06	8.33	0.0	Off
35	YI 525G	1.28	0.00	1.28	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.95	0.11	13.95	0.0	Off
36	CB 531A	1.12	0.00	0.94	0.19	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.20	5.93	0.11	1.79	0.0	37
37	CB 528A	5.12	0.19	5.31	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.43	17.29	0.43	17.29	0.0	Off
38	CB 524A	1.36	0.00	1.29	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.15	3.74	0.05	0.85	0.0	61
39	JB 524B	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
40	JB 524C	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
41	YI 524D	1.98	0.00	1.98	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.80	0.15	17.80	0.0	Off
42	JB 524E	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
43	YI 524F	0.85	0.00	0.85	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.09	11.23	0.09	11.23	0.0	Off
44	YI 524G	1.82	0.00	1.82	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.99	0.14	16.99	0.0	Off
45	YI 524H	0.50	0.00	0.50	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.65	0.06	8.65	0.0	Off
46	YI 524I	0.50	0.00	0.50	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.65	0.06	8.65	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
47	YI 524J	0.43	0.00	0.43	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.06	8.00	0.06	8.00	0.0	Off
48	YI 524K	2.40	0.00	2.40	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.17	19.93	0.17	19.93	0.0	Off
49	CB 517A	0.70	0.01	0.71	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.79	0.16	3.79	0.0	Off
50	CB 517B	0.70	0.00	0.69	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.14	3.13	0.03	0.53	0.0	49
51	YI 517C	6.90	0.00	6.90	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.35	37.72	0.35	37.72	0.0	Off
52	YI 517D	7.18	0.00	7.18	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.36	38.64	0.36	38.64	0.0	Off
53	YI 517E	7.18	0.00	7.18	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.36	38.64	0.36	38.64	0.0	Off
54	YI 517F	3.68	0.00	3.68	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.23	25.67	0.23	25.67	0.0	Off
55	YI 517G	5.31	0.00	5.31	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.30	32.08	0.30	32.08	0.0	Off
56	YI 517H	3.52	0.00	3.52	0.00	DrGrt	6.0	1.50	4.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	24.99	0.22	24.99	0.0	Off
57	YI 517I	4.73	0.00	4.73	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.27	29.88	0.27	29.88	0.0	Off
58	YI 517J	4.73	0.00	4.73	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.27	29.88	0.27	29.88	0.0	Off
59	YI 517K	4.73	0.00	4.73	0.00	DrGrt	0.0	0.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.27	29.88	0.27	29.88	0.0	Off
60	YI 517L	4.06	0.00	4.06	0.00	DrGrt	6.0	1.50	4.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.25	27.24	0.25	27.24	0.0	Off
61	CB 534	0.27	0.09	0.36	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.59	0.00	0.00	0.0	67
62	CB 535	0.54	0.03	0.56	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.015	2.00	0.060	0.020	0.013	0.15	3.51	0.04	0.69	0.0	61
63	CB 536	0.70	0.03	0.69	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.73	0.05	0.81	0.0	62
64	CB 537	0.89	0.00	0.87	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.15	3.38	0.04	0.66	0.0	63
65	CB 537A	0.74	0.00	0.73	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.14	2.91	0.02	0.42	0.0	73
66	CB 522A	0.04	0.00	0.04	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.04	0.69	0.00	0.00	0.0	75
67	CB 522E	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.10	1.64	0.00	0.00	0.0	66
68	YI 522F	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off
69	YI 522G	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
70	YI 522H	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off
71	YI 522I	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off
72	YI 522J	0.39	0.00	0.39	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.05	7.66	0.05	7.66	0.0	Off
73	CB 536A	0.85	0.01	0.80	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.19	0.06	1.03	0.0	74
74	CB 535A	0.66	0.06	0.72	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.16	3.83	0.16	3.83	0.0	Off
75	CB 538	0.00	0.02	0.02	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.04	0.62	0.00	0.00	0.0	98
76	CB 539	0.78	0.00	0.75	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.15	3.39	0.04	0.66	0.0	75
77	JB 540	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	76
78	CB 541	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.12	2.01	0.00	0.00	0.0	76
79	JB 541B	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
80	YI 541C	1.16	0.00	1.16	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.11	13.24	0.11	13.24	0.0	Off
81	CB 541A	0.47	0.00	0.47	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.034	2.00	0.060	0.020	0.013	0.12	2.01	0.00	0.00	0.0	97
82	YI 522B	1.71	0.00	1.71	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.14	16.37	0.14	16.37	0.0	Off
83	YI 522C	0.78	0.00	0.78	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.08	10.70	0.08	10.70	0.0	Off
84	YI 522D	1.55	0.00	1.55	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.13	15.51	0.13	15.51	0.0	Off
85	CB 511	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.40	0.00	0.00	0.0	5
86	CB 512	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.40	0.00	0.00	0.0	85
87	CB 513	0.35	0.00	0.35	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.09	1.53	0.00	0.00	0.0	86
88	CB 514	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.40	0.00	0.00	0.0	87
89	CB 514A	0.58	0.00	0.58	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	88
90	CB 514B	0.81	0.00	0.81	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.13	2.32	0.00	0.00	0.0	101
91	YI 514C	2.95	0.00	2.95	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.20	22.47	0.20	22.47	0.0	Off
92	CB 507	0.58	0.01	0.55	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.16	4.09	0.06	0.94	0.0	8

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

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Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
93	CB 508	0.58	0.00	0.58	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.14	2.92	0.03	0.42	0.0	92
94	CB 509	0.81	0.06	0.87	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.13	2.64	0.02	0.28	0.0	93
95	CB 510	1.44	0.00	1.38	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.15	3.56	0.05	0.76	0.0	94
96	CB 510A	1.05	0.00	1.04	0.01	Comb	6.0	1.50	0.00	3.00	2.50	0.090	2.00	0.060	0.020	0.013	0.14	2.77	0.02	0.38	0.0	100
97	CB 539A	1.55	0.00	1.55	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.22	7.06	0.22	7.06	0.0	Off
98	JB 519A	0.39	0.00	0.39	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.11	1.78	0.00	0.00	0.0	10
99	YI 519B	2.09	0.00	2.09	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	18.40	0.16	18.40	0.0	Off
100	CB 509A	0.70	0.01	0.71	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.12	2.14	0.00	0.00	0.0	50
101	CB 512A	0.58	0.00	0.58	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.11	1.86	0.00	0.00	0.0	103
102	YI 512B	1.86	0.00	1.86	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.15	17.20	0.15	17.20	0.0	Off
103	CB 511A	0.27	0.00	0.27	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.080	2.00	0.060	0.020	0.013	0.08	1.40	0.00	0.00	0.0	106
104	CB 518A	0.27	0.02	0.29	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.010	2.00	0.060	0.020	0.013	0.13	2.33	0.00	0.00	0.0	106
105	YI 518B	3.96	0.00	3.96	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.24	26.80	0.24	26.80	0.0	Off
106	CB 504A	0.82	0.00	0.82	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.17	4.29	0.17	4.29	0.0	Off
107	CB 504B	0.04	0.00	0.04	0.00	DrGrt	0.0	0.00	7.50	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.01	3.61	0.01	3.61	0.0	Off
108	CB 503A	0.04	0.05	0.09	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.07	1.22	0.07	1.22	0.0	Off

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NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	69.18	316.00	320.49	4.00	12.56	5.51	0.47	320.96	0.232	74.659	316.75	320.65	3.90	12.48	5.54	0.48	321.12	0.205	0.219	0.163	0.89	0.43
2	48	69.51	316.95	321.07	4.00	12.56	5.53	0.48	321.55	0.234	123.527	318.19	321.10	2.91	9.79	7.10	0.78	321.88	0.303	0.269	0.332	0.81	0.63
3	48	66.89	318.30	321.73	3.43	8.14	5.83	1.05	322.78	0.390	132.055	321.60	324.07	2.47**	8.14	8.22	1.05	325.12	0.522	0.456	n/a	0.89	0.93
4	48	66.92	322.10	324.48	2.38*	7.79	8.59	1.05	325.53	0.494	72.832	322.46	324.93	2.47**	8.14	8.22	1.05	325.98	0.495	0.494	n/a	1.42	1.49
5	48	62.67	322.66	324.93	2.27*	7.37	8.50	1.00	325.93	0.354	110.092	323.21	325.60	2.39**	7.82	8.02	1.00	326.60	0.354	0.354	n/a	1.44	n/a
6	48	98.09	323.44	326.57	3.13*	10.56	9.29	1.34	327.91	0.510	90.197	323.90	327.03	3.13	10.56	9.29	1.34	328.37	0.509	0.509	0.459	1.50	2.01
7	48	97.55	324.10	329.05	4.00	12.56	7.76	0.94	329.98	0.461	96.914	325.06	329.49	4.00	12.57	7.76	0.94	330.43	0.461	0.461	0.447	0.93	0.87
8	48	94.10	325.17	330.36	4.00	12.56	7.49	0.87	331.24	0.429	105.502	326.22	330.82	4.00	12.57	7.49	0.87	331.69	0.429	0.429	0.453	2.23	1.94
9	48	89.37	326.42	332.76	4.00	12.56	7.11	0.79	333.55	0.387	28.011	326.60	332.87	4.00	12.57	7.11	0.79	333.66	0.387	0.387	0.108	1.12	0.88
10	48	89.34	326.70	333.75	4.00	12.56	7.11	0.79	334.54	0.387	45.483	327.20	333.93	4.00	12.57	7.11	0.79	334.71	0.387	0.387	0.176	1.12	0.88
11	48	88.05	327.30	334.81	4.00	12.56	7.01	0.76	335.57	0.376	28.154	327.50	334.91	4.00	12.57	7.01	0.76	335.68	0.376	0.376	0.106	1.71	1.31
12	36	41.69	328.00	336.22	3.00	7.07	5.90	0.54	336.76	0.391	75.321	331.40	336.51	3.00	7.07	5.90	0.54	337.05	0.391	0.391	0.294	0.54	0.29
13	36	41.74	331.50	336.81	3.00	5.29	5.91	0.54	337.35	0.392	118.134	338.20	340.30 j	2.10**	5.29	7.89	0.97	341.27	0.557	0.474	n/a	0.63	n/a
14	30	39.54	338.70	340.30	1.60	3.32	11.90	1.24	341.54	0.000	118.619	343.60	345.72	2.12**	4.43	8.92	1.24	346.95	0.000	0.000	n/a	1.41	n/a
15	30	35.23	344.10	345.72	1.62	3.36	10.49	1.07	346.79	0.000	96.000	348.30	350.31	2.01**	4.24	8.31	1.07	351.39	0.000	0.000	n/a	0.50	n/a
16	30	35.09	348.40	350.31	1.91	4.03	8.70	1.07	351.38	0.000	67.783	351.50	353.51	2.01**	4.23	8.30	1.07	354.58	0.000	0.000	n/a	1.41	n/a
17	30	27.89	351.70	353.51	1.81	3.78	7.33	0.85	354.36	0.000	67.241	355.30	357.10 j	1.80**	3.78	7.38	0.85	357.94	0.000	0.000	n/a	0.91	n/a
18	30	23.46	355.50	357.10	1.60	3.32	7.08	0.73	357.83	0.000	133.000	358.40	360.05	1.65**	3.43	6.84	0.73	360.77	0.000	0.000	n/a	1.50	1.09
19	24	14.40	358.60	360.05	1.45	2.29	5.91	0.62	360.66	0.000	66.111	364.60	365.97 j	1.37**	2.29	6.30	0.62	366.58	0.000	0.000	n/a	0.96	n/a
20	18	9.58	365.10	365.97	0.87	1.06	9.07	0.63	366.59	0.000	129.000	372.60	373.79	1.19**	1.51	6.35	0.63	374.42	0.000	0.000	n/a	1.04	0.65
21	18	9.06	372.70	373.79	1.09	1.38	6.56	0.59	374.38	0.000	60.236	374.60	375.76	1.16**	1.47	6.16	0.59	376.35	0.000	0.000	n/a	0.69	0.41
22	18	8.88	374.70	375.76	1.06	1.34	6.63	0.58	376.34	0.000	44.832	376.20	377.35	1.15**	1.46	6.10	0.58	377.93	0.000	0.000	n/a	1.17	0.68

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	3.84	376.45	377.35	0.90	0.82	4.05	0.25	377.61	0.466	98.443	377.10	377.89	0.79**	0.82	4.69	0.34	378.23	0.666	0.566	n/a	0.50	0.17
24	15	3.19	377.20	377.89	0.69	0.70	4.58	0.30	378.19	0.000	205.640	379.30	380.02	0.72**	0.73	4.37	0.30	380.32	0.000	0.000	n/a	0.50	n/a
25	15	2.79	379.40	380.02	0.62	0.61	4.60	0.27	380.29	0.000	128.177	381.50	382.17	0.67**	0.67	4.17	0.27	382.44	0.000	0.000	n/a	1.50	0.40
26	15	1.38	381.70	382.17	0.47	0.41	3.27	0.17	382.34	0.000	89.745	382.50	382.96 j	0.46**	0.41	3.33	0.17	383.14	0.000	0.000	n/a	1.50	n/a
27	15	1.04	382.60	382.96	0.36	0.30	3.50	0.15	383.11	0.000	28.070	382.90	383.30	0.40**	0.34	3.06	0.15	383.45	0.000	0.000	n/a	1.08	n/a
28	15	0.66	383.00	383.30	0.30	0.23	2.91	0.11	383.41	0.000	45.000	383.50	383.82	0.32**	0.24	2.69	0.11	383.93	0.000	0.000	n/a	1.00	0.11
29	15	4.59	365.35	365.97	0.62	0.60	7.63	0.40	366.36	0.000	47.992	368.97	369.84	0.87**	0.91	5.05	0.40	370.23	0.000	0.000	n/a	1.27	n/a
30	15	4.17	369.17	369.84	0.67	0.67	6.25	0.37	370.20	0.000	137.042	378.46	379.29	0.83**	0.86	4.85	0.37	379.65	0.000	0.000	n/a	0.50	0.18
31	15	3.36	378.66	379.30	0.64*	0.63	5.31	0.31	379.61	0.000	104.000	379.70	380.44	0.74**	0.75	4.45	0.31	380.75	0.000	0.000	n/a	0.50	n/a
32	15	2.58	379.90	380.57	0.67*	0.67	3.83	0.23	380.80	0.499	102.047	380.41	381.08	0.67	0.67	3.84	0.23	381.31	0.503	0.501	0.512	0.50	0.11
33	15	2.44	380.61	381.26	0.65*	0.65	3.78	0.22	381.48	0.500	51.989	380.87	381.52	0.65	0.64	3.79	0.22	381.74	0.502	0.501	0.260	0.50	0.11
34	15	1.73	381.07	381.63	0.56	0.49	3.24	0.20	381.83	0.000	51.970	381.84	382.36 j	0.52**	0.49	3.57	0.20	382.56	0.000	0.000	n/a	0.50	n/a
35	15	1.28	382.04	382.37	0.33*	0.26	4.88	0.16	382.54	0.000	52.092	382.89	383.34	0.45**	0.39	3.26	0.16	383.50	0.000	0.000	n/a	1.00	0.16
36	15	1.12	381.70	382.17	0.47	0.36	2.67	0.11	382.28	0.336	28.048	381.84	382.26	0.42**	0.36	3.10	0.15	382.41	0.511	0.424	0.119	1.00	0.15
37	18	5.12	376.45	377.37	0.92*	1.13	4.52	0.32	377.69	0.498	28.090	376.59	377.51	0.92	1.13	4.52	0.32	377.83	0.496	0.497	0.140	1.00	0.32
38	24	8.96	359.15	360.08	0.93*	1.42	6.30	0.43	360.50	0.000	28.013	359.38	360.45	1.07**	1.70	5.25	0.43	360.88	0.000	0.000	n/a	1.06	0.45
39	24	7.74	359.58	360.55	0.97*	1.51	5.12	0.39	360.94	0.000	24.995	359.71	360.70	0.99**	1.55	5.00	0.39	361.09	0.000	0.000	n/a	0.81	n/a
40	24	7.79	359.91	360.90	0.99*	1.54	5.05	0.39	361.29	0.000	66.154	360.24	361.23	0.99**	1.56	5.01	0.39	361.62	0.000	0.000	n/a	0.98	0.38
41	18	7.84	360.16	361.46	1.30*	1.63	4.81	0.36	361.82	0.509	55.000	360.44	361.74	1.30	1.63	4.80	0.36	362.10	0.509	0.509	0.280	0.50	0.18
42	18	6.05	360.44	361.92	1.48	1.18	3.43	0.41	362.33	0.000	56.890	362.67	363.62 j	0.95**	1.18	5.13	0.41	364.03	0.000	0.000	n/a	0.27	n/a
43	18	6.12	362.87	363.75	0.88*	1.08	5.69	0.41	364.16	0.000	122.036	363.86	364.82	0.96**	1.19	5.16	0.41	365.23	0.000	0.000	n/a	0.50	0.21
44	15	5.37	364.06	364.82	0.76	0.78	6.93	0.46	365.27	0.000	114.791	366.73	367.67	0.94**	0.99	5.44	0.46	368.13	0.000	0.000	n/a	0.50	n/a

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
45	15	3.73	366.93	367.67	0.74	0.76	4.94	0.33	368.00	0.000	208.408	371.99	372.77	0.78**	0.81	4.63	0.33	373.10	0.000	0.000	n/a	0.50	n/a
46	15	3.29	372.19	372.98	0.79*	0.81	4.05	0.25	373.23	0.500	104.000	372.71	373.49	0.78	0.81	4.05	0.26	373.75	0.501	0.500	0.520	0.50	0.13
47	15	2.81	372.91	373.62	0.71	0.72	3.89	0.24	373.86	0.492	52.000	373.17	373.88	0.71	0.72	3.93	0.24	374.12	0.505	0.499	0.259	0.50	0.12
48	15	2.40	373.37	374.01	0.64*	0.64	3.77	0.22	374.24	0.500	49.902	373.62	374.26	0.64	0.64	3.77	0.22	374.49	0.499	0.500	0.249	1.00	0.22
49	36	49.27	328.50	336.22	3.00	7.07	6.97	0.76	336.97	0.546	45.939	328.80	336.47	3.00	7.07	6.97	0.76	337.22	0.546	0.546	0.251	1.25	0.94
50	36	48.96	328.90	337.41	3.00	7.07	6.93	0.75	338.16	0.539	115.606	329.70	338.04	3.00	7.07	6.93	0.75	338.78	0.539	0.539	0.623	1.50	1.12
51	36	48.68	329.80	339.16	3.00	7.07	6.89	0.74	339.89	0.533	126.362	331.00	339.83	3.00	7.07	6.89	0.74	340.57	0.533	0.533	0.673	1.50	1.11
52	30	42.51	331.50	340.94	2.50	4.91	8.66	1.17	342.10	1.075	139.166	337.00	342.43	2.50	4.91	8.66	1.17	343.60	1.075	1.075	1.496	0.50	0.58
53	30	35.91	337.10	343.02	2.50	4.91	7.32	0.83	343.85	0.767	67.594	340.80	343.53	2.50	4.91	7.32	0.83	344.37	0.767	0.767	0.518	0.50	0.42
54	30	29.26	340.90	343.95	2.50	3.88	5.96	0.55	344.50	0.509	66.533	345.00	346.84 j	1.84**	3.88	7.54	0.88	347.73	0.638	0.573	n/a	0.50	n/a
55	24	25.85	345.50	346.84	1.34	2.24	11.52	1.19	348.03	0.000	67.477	352.20	353.98	1.78**	2.96	8.75	1.19	355.17	0.000	0.000	n/a	0.50	n/a
56	24	20.88	352.30	353.98	1.68	2.75	7.41	0.90	354.88	0.000	68.154	357.70	359.34 j	1.64**	2.75	7.59	0.90	360.23	0.000	0.000	n/a	0.50	0.45
57	24	17.76	357.95	359.34	1.39	2.32	7.64	0.75	360.09	0.000	199.337	367.00	368.52	1.52**	2.56	6.95	0.75	369.27	0.000	0.000	n/a	0.50	n/a
58	24	13.33	367.10	368.52	1.42	2.19	5.60	0.58	369.10	0.000	134.326	368.70	370.01 j	1.31**	2.19	6.10	0.58	370.59	0.000	0.000	n/a	0.50	n/a
59	18	8.72	368.80	370.01	1.21	1.44	5.70	0.57	370.58	0.000	67.009	369.80	370.94 j	1.14**	1.44	6.04	0.57	371.51	0.000	0.000	n/a	0.50	0.28
60	15	4.06	369.90	370.94	1.04	0.85	3.72	0.36	371.30	0.000	65.325	370.55	371.37 j	0.82**	0.85	4.80	0.36	371.73	0.000	0.000	n/a	1.00	n/a
61	18	4.39	355.80	357.10	1.30	0.96	2.70	0.32	357.42	0.000	50.671	357.80	358.60 j	0.80**	0.96	4.56	0.32	358.93	0.000	0.000	n/a	0.50	0.16
62	18	4.16	357.90	358.60	0.70	0.81	5.11	0.31	358.91	0.000	43.841	359.80	360.58	0.78**	0.93	4.47	0.31	360.89	0.000	0.000	n/a	1.50	n/a
63	15	3.06	360.05	360.60	0.55*	0.52	5.88	0.29	360.89	0.000	131.638	361.90	362.60	0.70**	0.71	4.30	0.29	362.89	0.000	0.000	n/a	1.46	0.42
64	15	1.61	362.00	362.60	0.60	0.46	2.75	0.19	362.79	0.000	173.316	366.40	366.90 j	0.50**	0.46	3.49	0.19	367.09	0.000	0.000	n/a	1.05	n/a
65	15	0.74	366.50	366.90	0.40	0.27	2.15	0.12	367.02	0.000	38.552	367.56	367.90 j	0.34**	0.27	2.78	0.12	368.02	0.000	0.000	n/a	1.00	n/a
66	18	7.58	352.25	353.51	1.26	1.34	4.79	0.50	354.01	0.000	30.177	352.50	353.57 j	1.07**	1.34	5.65	0.50	354.06	0.000	0.000	n/a	1.46	0.72

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Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	(ft)	Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)	(K)	(ft)
67	15	3.70	352.70	353.57	0.87	0.80	4.08	0.33	353.90	0.000	8.474	353.20	353.98 j	0.78**	0.80	4.62	0.33	354.31	0.000	0.000	n/a	1.50	0.50
68	15	3.36	353.30	353.98	0.68	0.68	4.95	0.31	354.29	0.000	73.390	360.50	361.24	0.74**	0.75	4.45	0.31	361.55	0.000	0.000	n/a	0.50	n/a
69	15	2.63	360.60	361.24	0.64	0.63	4.17	0.26	361.50	0.000	50.413	362.80	363.45	0.65**	0.64	4.08	0.26	363.71	0.000	0.000	n/a	0.50	n/a
70	15	1.89	362.90	363.45	0.55	0.52	3.64	0.21	363.66	0.000	49.506	364.00	364.55 j	0.55**	0.52	3.67	0.21	364.76	0.000	0.000	n/a	0.50	0.10
71	15	1.15	364.10	364.55	0.45	0.36	2.91	0.15	364.70	0.000	52.057	364.60	365.02 j	0.42**	0.36	3.15	0.15	365.18	0.000	0.000	n/a	0.50	0.08
72	15	0.39	364.70	365.02	0.32	0.17	1.55	0.08	365.11	0.000	49.835	367.45	367.69 j	0.24**	0.17	2.33	0.08	367.78	0.000	0.000	n/a	1.00	0.08
73	15	0.85	362.00	362.60	0.60	0.29	1.46	0.13	362.73	0.000	28.090	362.28	362.64 j	0.36**	0.29	2.90	0.13	362.77	0.000	0.000	n/a	1.00	n/a
74	15	0.66	360.05	360.58	0.53	0.24	1.33	0.11	360.69	0.000	28.533	360.34	360.66 j	0.32**	0.24	2.69	0.11	360.77	0.000	0.000	n/a	1.00	0.11
75	24	4.42	344.10	345.72	1.62	1.05	1.62	0.27	345.99	0.000	28.499	344.40	345.14	0.74**	1.05	4.19	0.27	345.41	0.000	0.000	n/a	1.04	n/a
76	18	4.18	344.90	345.33	0.43*	0.42	9.88	0.31	345.65	0.000	47.998	347.20	347.98	0.78**	0.93	4.48	0.31	348.29	0.000	0.000	n/a	1.21	0.38
77	15	2.01	347.45	347.98	0.53	0.50	4.04	0.22	348.20	0.000	115.718	352.40	352.96	0.56**	0.54	3.74	0.22	353.18	0.000	0.000	n/a	0.16	n/a
78	15	2.03	352.50	352.96	0.46	0.42	4.89	0.22	353.18	0.000	73.254	355.00	355.57	0.57**	0.54	3.75	0.22	355.79	0.000	0.000	n/a	1.48	0.32
79	15	1.14	355.20	355.57	0.37	0.30	3.79	0.15	355.72	0.000	68.104	356.48	356.90	0.42**	0.36	3.15	0.15	357.05	0.000	0.000	n/a	1.00	n/a
80	15	1.16	356.67	357.10	0.43*	0.37	3.13	0.15	357.25	0.508	118.063	357.27	357.70 j	0.43**	0.37	3.14	0.15	357.85	0.512	0.510	0.602	1.00	0.15
81	15	0.47	355.20	355.57	0.37	0.19	1.55	0.09	355.66	0.000	27.894	355.48	355.75 j	0.27**	0.19	2.45	0.09	355.84	0.000	0.000	n/a	1.00	n/a
82	15	3.91	352.70	353.57	0.87	0.91	4.32	0.29	353.86	0.539	81.670	353.15	354.01	0.86	0.90	4.37	0.30	354.30	0.556	0.548	0.447	0.50	0.15
83	15	2.28	353.25	354.15	0.90	0.59	2.40	0.24	354.39	0.000	59.620	353.70	354.30 j	0.60**	0.59	3.89	0.24	354.54	0.000	0.000	n/a	0.50	n/a
84	15	1.55	353.80	354.30	0.50	0.45	3.36	0.18	354.49	0.000	119.807	358.23	358.72 j	0.49**	0.45	3.45	0.18	358.91	0.000	0.000	n/a	1.00	0.18
85	24	7.76	324.46	324.93	0.47	0.56	13.88	0.39	325.32	0.112	37.830	328.00	328.99	0.99**	1.55	5.00	0.39	329.38	0.484	0.298	n/a	1.81	n/a
86	24	7.30	328.20	328.99	0.79	1.15	6.32	0.37	329.36	0.000	67.669	334.60	335.56	0.96**	1.49	4.90	0.37	335.93	0.000	0.000	n/a	1.41	0.53
87	18	4.75	334.80	335.56	0.76	0.90	5.30	0.34	335.90	0.000	66.501	341.10	341.94	0.84**	1.01	4.69	0.34	342.28	0.000	0.000	n/a	0.50	0.17
88	18	4.46	341.20	341.94	0.74	0.86	5.16	0.33	342.26	0.000	89.618	349.70	350.51	0.81**	0.97	4.58	0.33	350.84	0.000	0.000	n/a	0.50	n/a

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

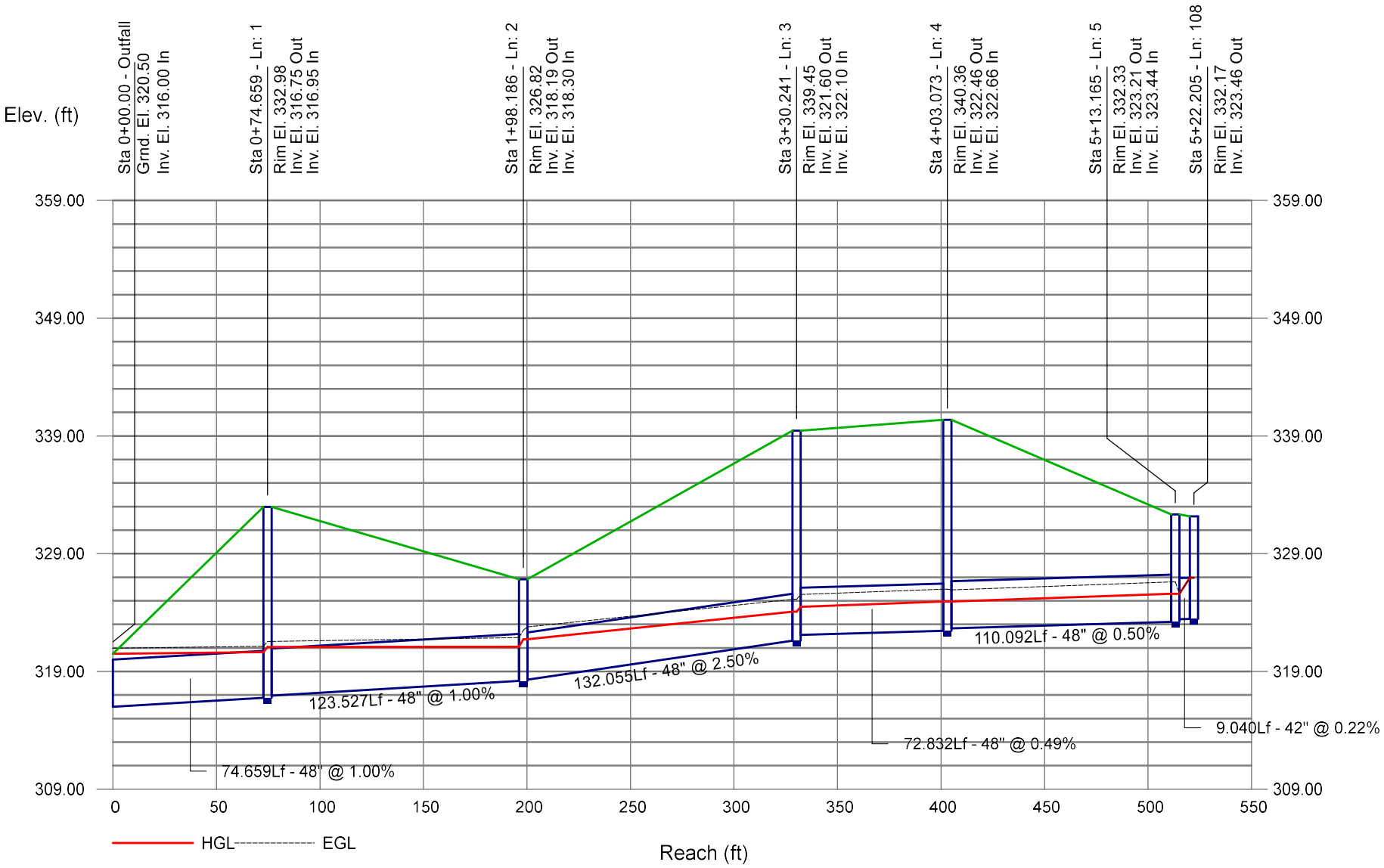
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
89	18	4.23	349.80	350.51	0.71	0.82	5.13	0.31	350.82	0.000	59.370	352.70	353.49	0.79**	0.94	4.50	0.31	353.80	0.000	0.000	n/a	1.36	n/a
90	15	3.67	352.85	353.71	0.86*	0.90	4.09	0.26	353.97	0.486	30.806	353.00	353.86	0.86	0.90	4.10	0.26	354.12	0.488	0.487	0.150	1.22	0.32
91	15	2.95	353.22	354.18	0.96	0.69	2.93	0.13	354.31	0.240	151.519	353.97	354.66	0.69**	0.70	4.22	0.28	354.94	0.593	0.416	0.631	1.00	0.28
92	30	4.86	327.22	332.76	2.50	4.91	0.99	0.02	332.78	0.014	110.218	328.90	332.78	2.50	4.91	0.99	0.02	332.79	0.014	0.014	0.015	0.50	0.01
93	24	4.36	329.40	332.78	2.00	1.04	1.39	0.03	332.81	0.037	130.561	332.20	332.93 j	0.73**	1.04	4.18	0.27	333.21	0.452	0.245	n/a	0.50	n/a
94	18	3.85	332.70	333.14	0.44*	0.43	8.93	0.30	333.43	0.000	132.413	337.80	338.55	0.75**	0.88	4.36	0.30	338.85	0.000	0.000	n/a	0.76	n/a
95	15	2.45	338.05	338.55	0.50	0.46	5.35	0.25	338.80	0.000	201.000	351.90	352.53	0.63**	0.61	3.99	0.25	352.77	0.000	0.000	n/a	0.75	n/a
96	15	1.05	352.00	352.53	0.53	0.34	2.14	0.15	352.67	0.000	63.000	356.73	357.13 j	0.40**	0.34	3.07	0.15	357.28	0.000	0.000	n/a	1.00	n/a
97	15	1.55	347.45	347.98	0.53	0.45	3.11	0.18	348.17	0.000	27.998	347.73	348.22 j	0.49**	0.45	3.45	0.18	348.41	0.000	0.000	n/a	1.00	0.18
98	15	2.43	339.95	340.46	0.51*	0.47	5.17	0.25	340.71	0.000	67.945	340.74	341.36	0.62**	0.61	3.97	0.25	341.61	0.000	0.000	n/a	1.40	0.34
99	15	2.09	340.75	341.36	0.61	0.55	3.49	0.22	341.59	0.000	130.118	341.63	342.21 j	0.58**	0.55	3.79	0.22	342.43	0.000	0.000	n/a	1.00	n/a
100	15	0.70	338.05	338.55	0.50	0.25	1.52	0.12	338.67	0.000	62.439	341.17	341.50 j	0.33**	0.25	2.74	0.12	341.61	0.000	0.000	n/a	1.00	n/a
101	15	2.43	334.80	335.56	0.76	0.61	3.12	0.25	335.80	0.000	33.617	337.80	338.42 j	0.62**	0.61	3.97	0.25	338.67	0.000	0.000	n/a	0.87	0.21
102	15	1.86	337.90	338.42	0.52	0.49	3.82	0.21	338.63	0.000	32.232	340.96	341.50	0.54**	0.51	3.65	0.21	341.71	0.000	0.000	n/a	1.00	n/a
103	15	0.27	328.20	328.99	0.79	0.13	0.33	0.07	329.06	0.000	28.384	330.75	330.95 j	0.20**	0.13	2.12	0.07	331.02	0.000	0.000	n/a	1.00	n/a
104	15	4.17	327.32	330.36	1.25	1.23	3.40	0.18	330.54	0.417	48.953	327.90	330.57	1.25	1.23	3.40	0.18	330.75	0.417	0.417	0.204	1.28	0.23
105	15	3.96	328.00	330.80	1.25	1.23	3.22	0.16	330.96	0.376	127.001	329.27	331.27	1.25	1.23	3.22	0.16	331.44	0.375	0.375	0.477	1.00	0.16
106	15	0.84	326.15	329.05	1.25	1.23	0.69	0.01	329.05	0.017	28.000	326.71	329.05	1.25	1.23	0.69	0.01	329.06	0.017	0.017	0.005	0.64	0.00
107	15	0.04	326.90	329.05	1.25	1.23	0.03	0.00	329.05	0.000	50.307	327.74	329.05	1.25	1.23	0.03	0.00	329.05	0.000	0.000	0.000	1.00	0.00
108	42	0.04	323.44	325.60	2.16	6.22	0.01	0.00	325.60	0.000	9.040	323.46	326.96	3.50**	9.62	0.00	0.00	326.96	0.000	0.000	n/a	1.00	0.00

Project File: SCM 5A Storm Network.stm | Number of lines: 108 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

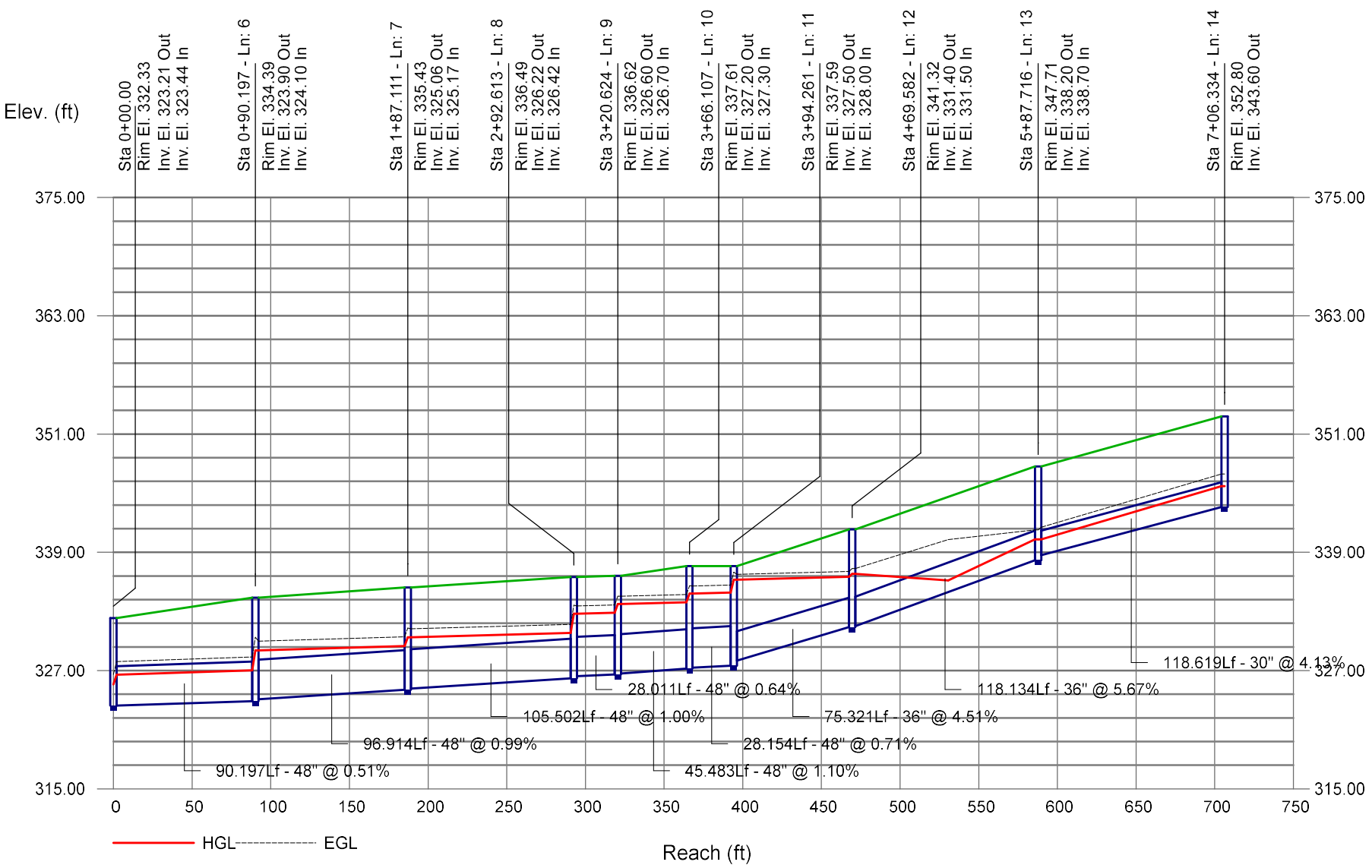
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



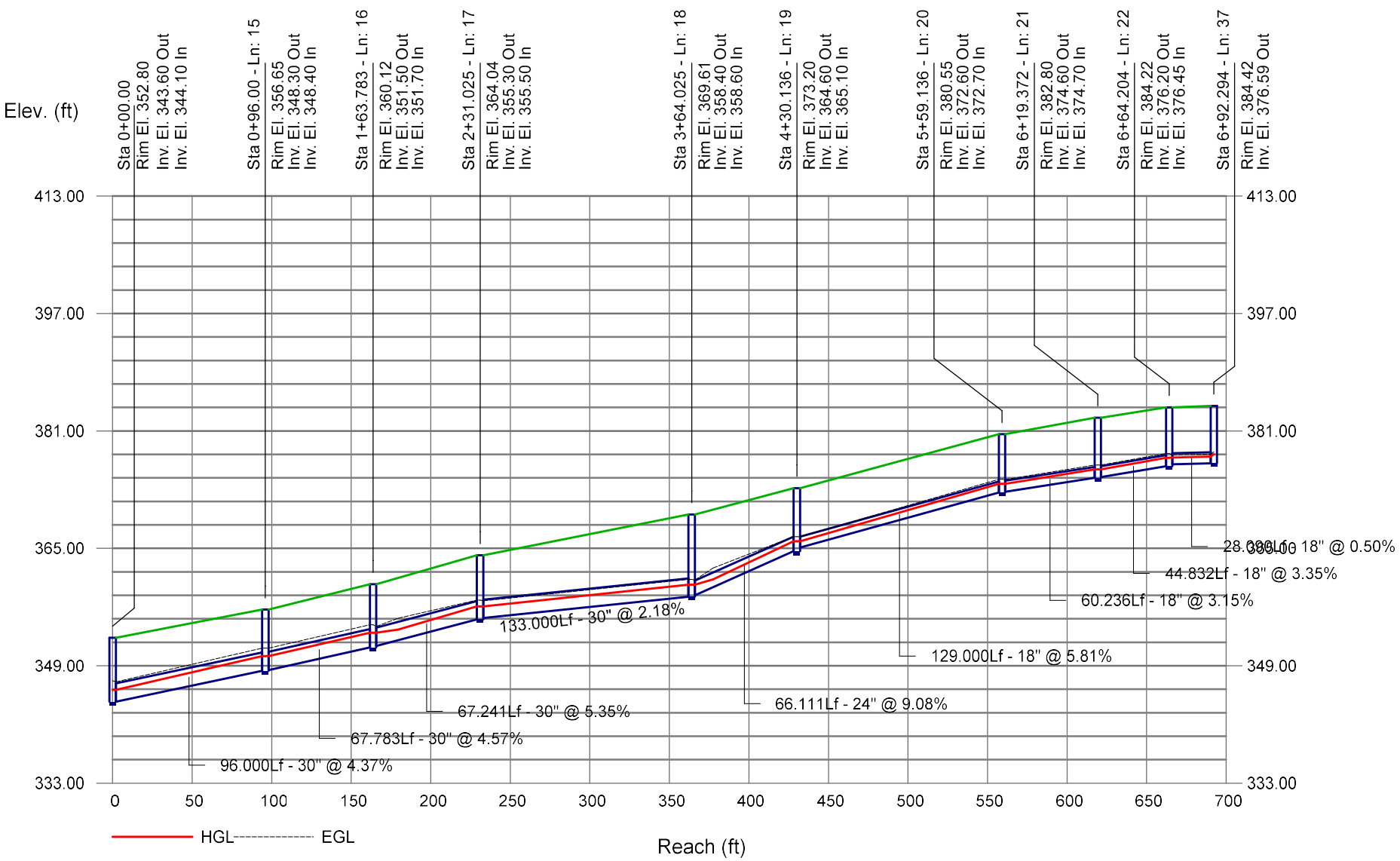
Storm Sewer Profile

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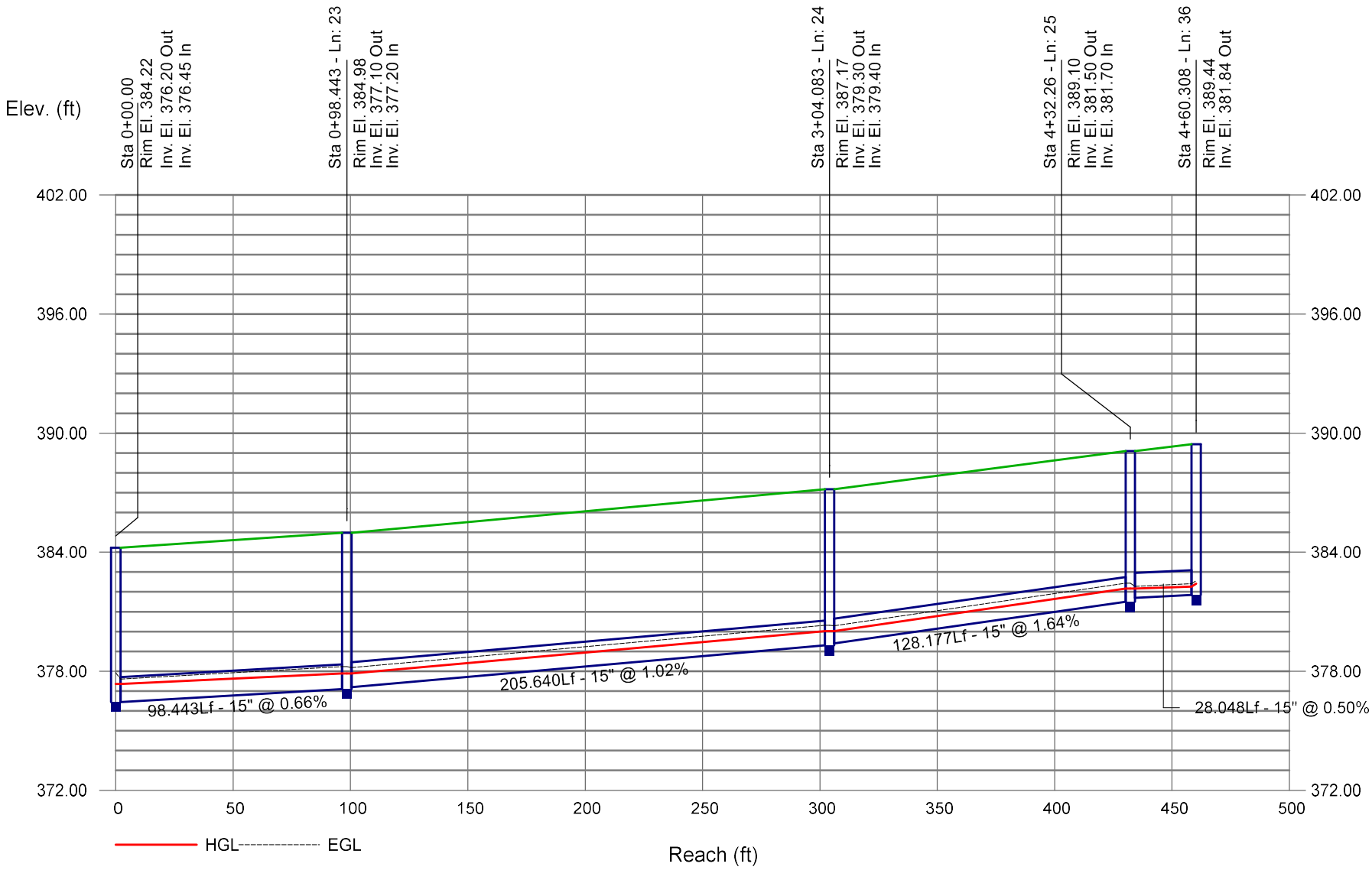
Storm Sewer Profile

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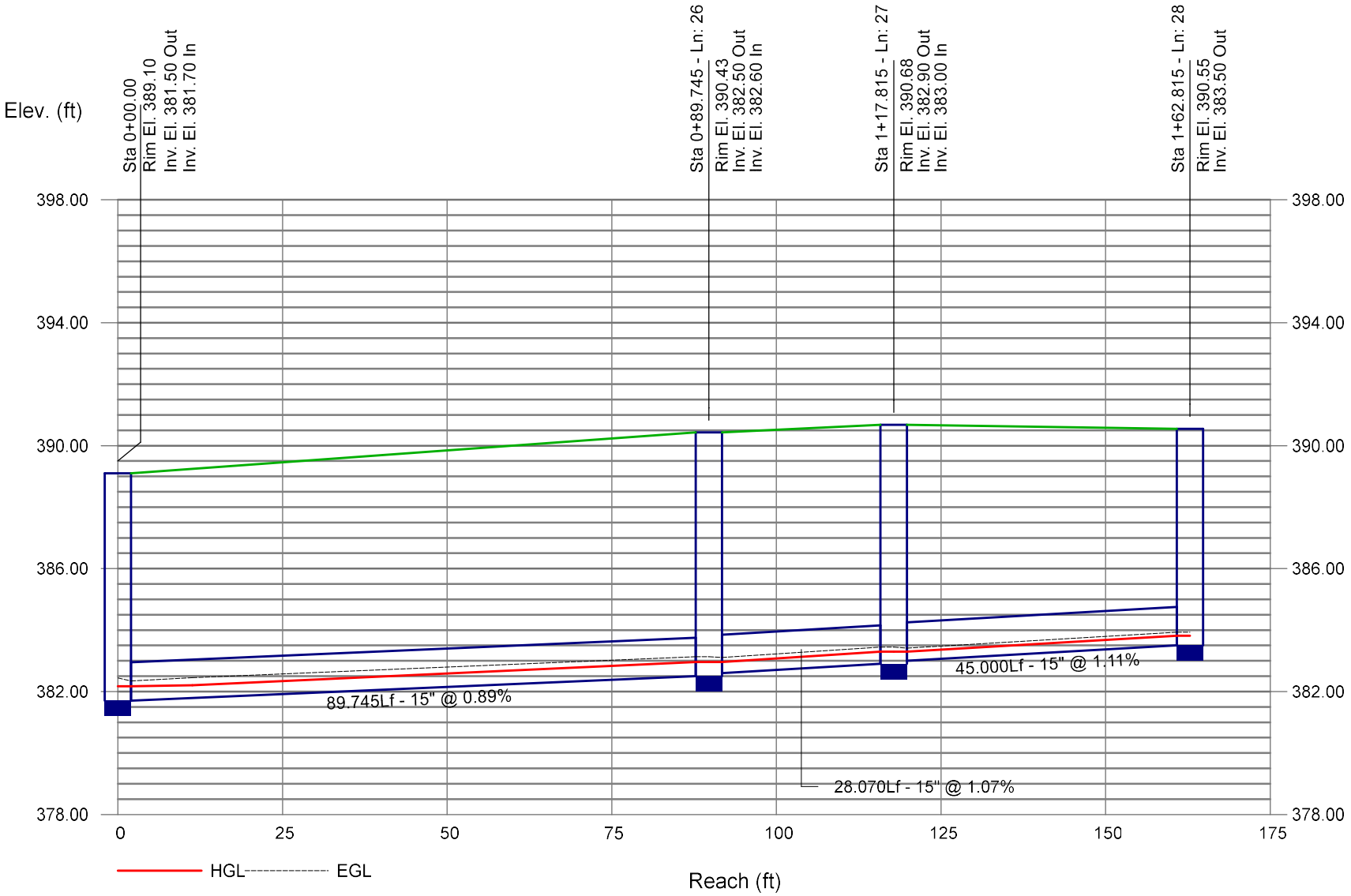
Storm Sewer Profile

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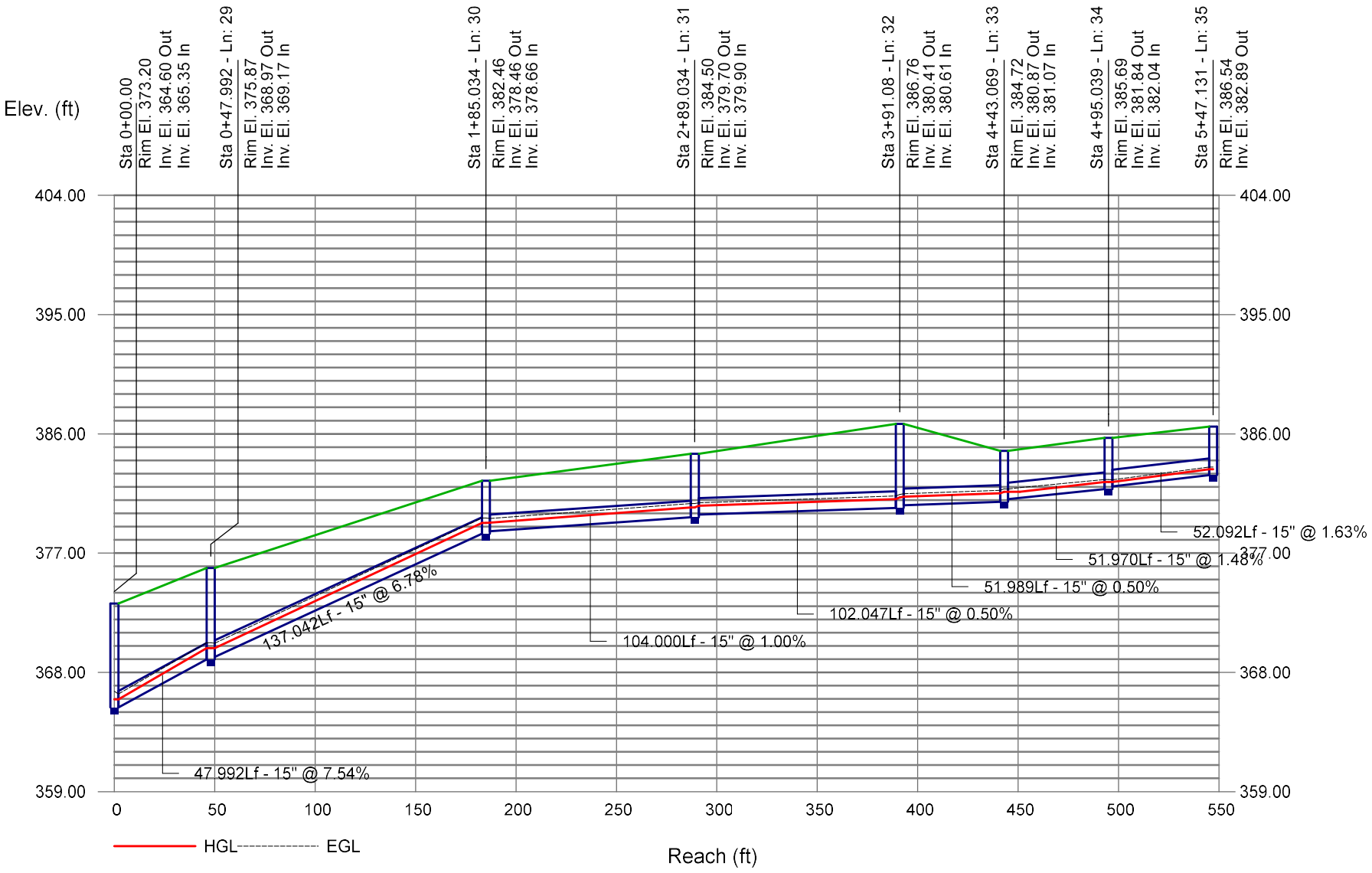
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



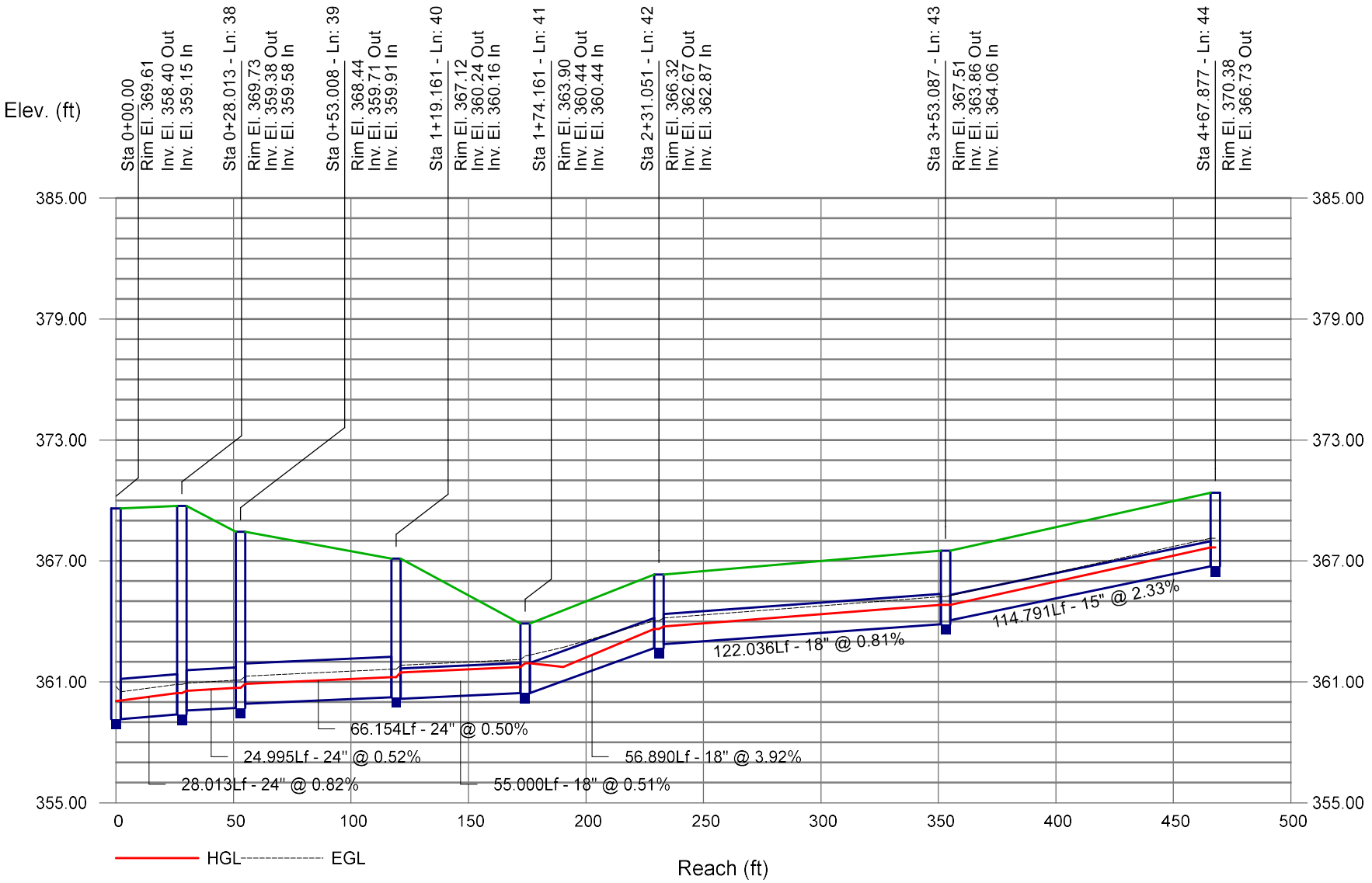
Storm Sewer Profile

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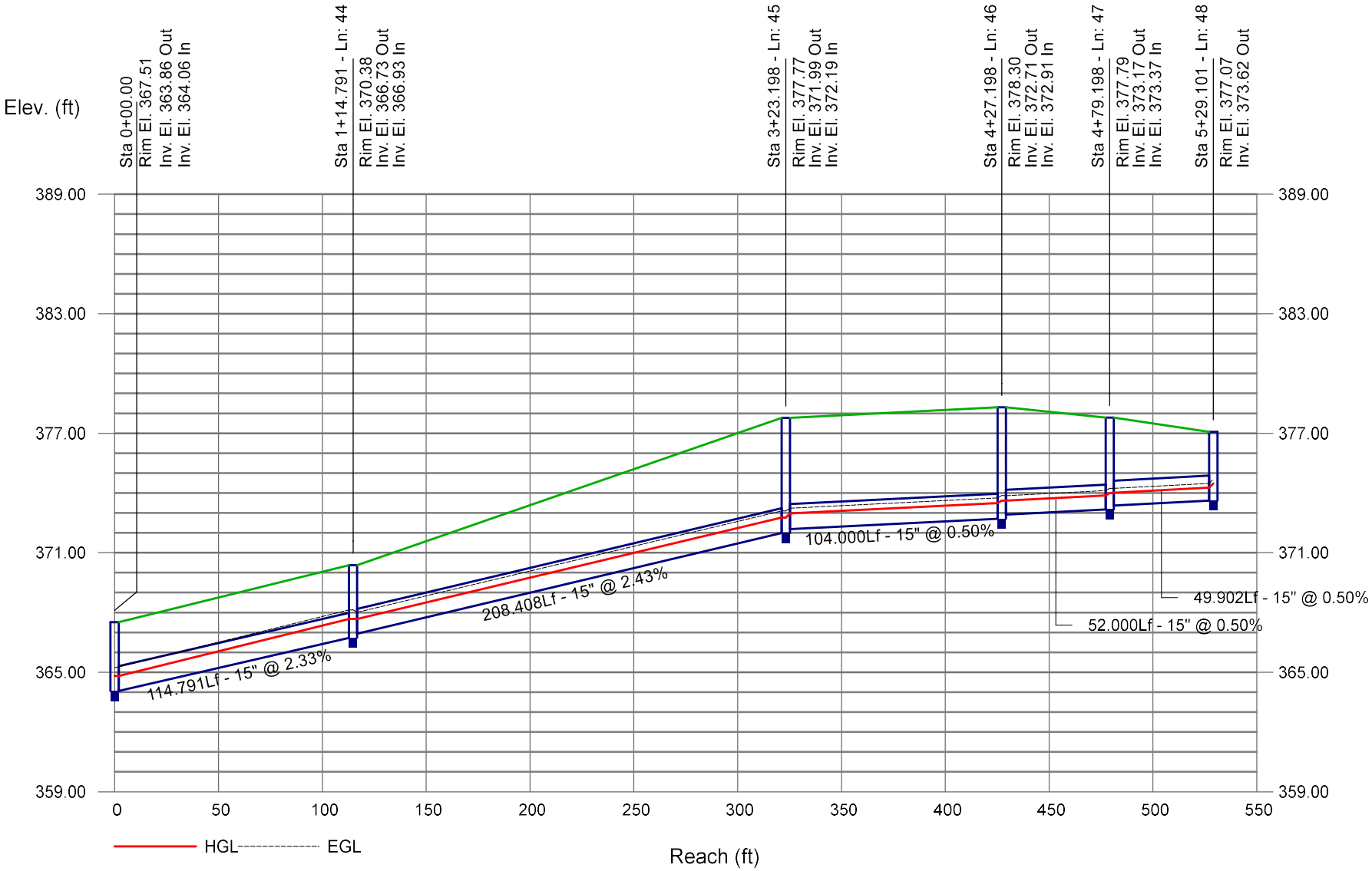
Storm Sewer Profile

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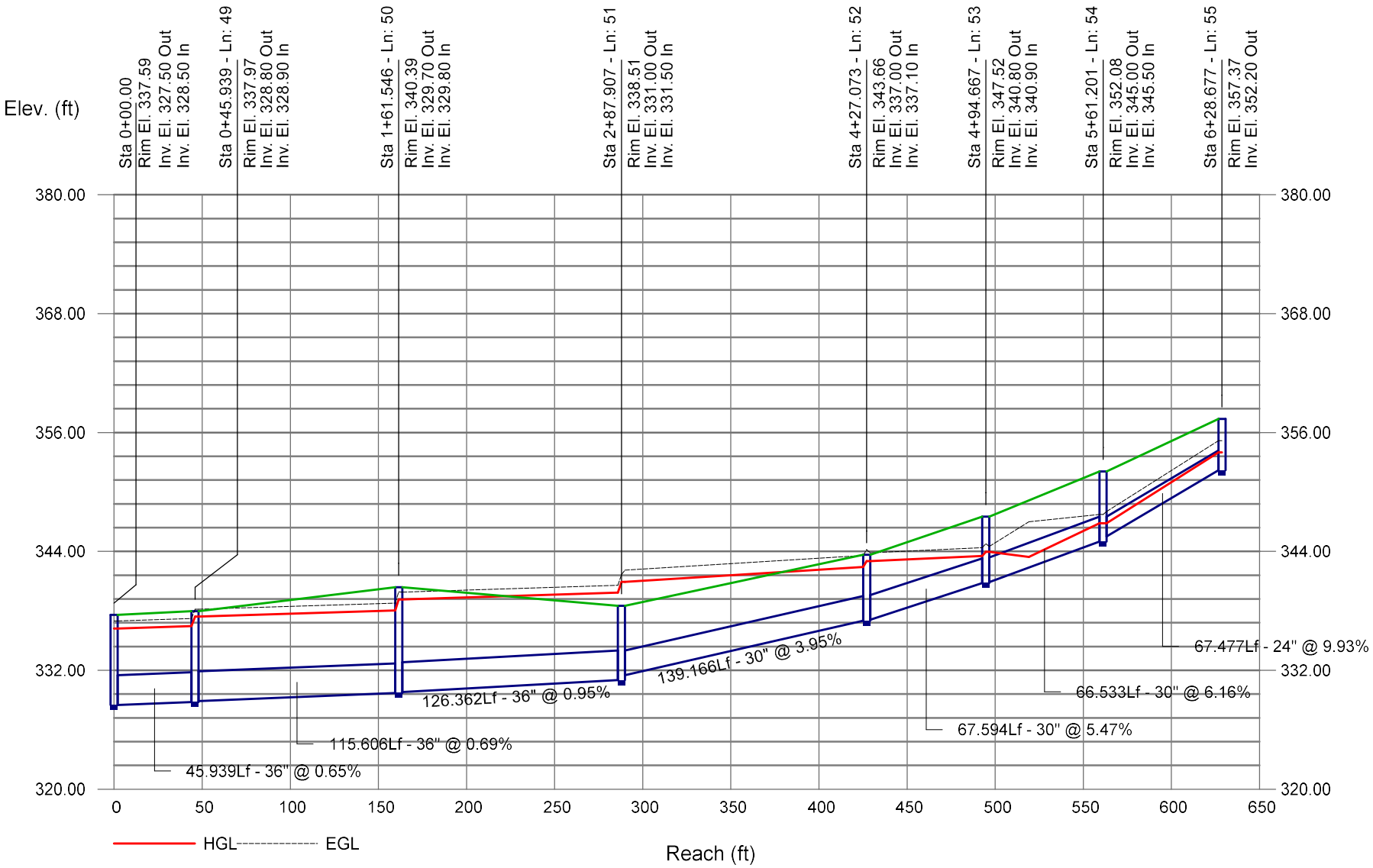
Storm Sewer Profile

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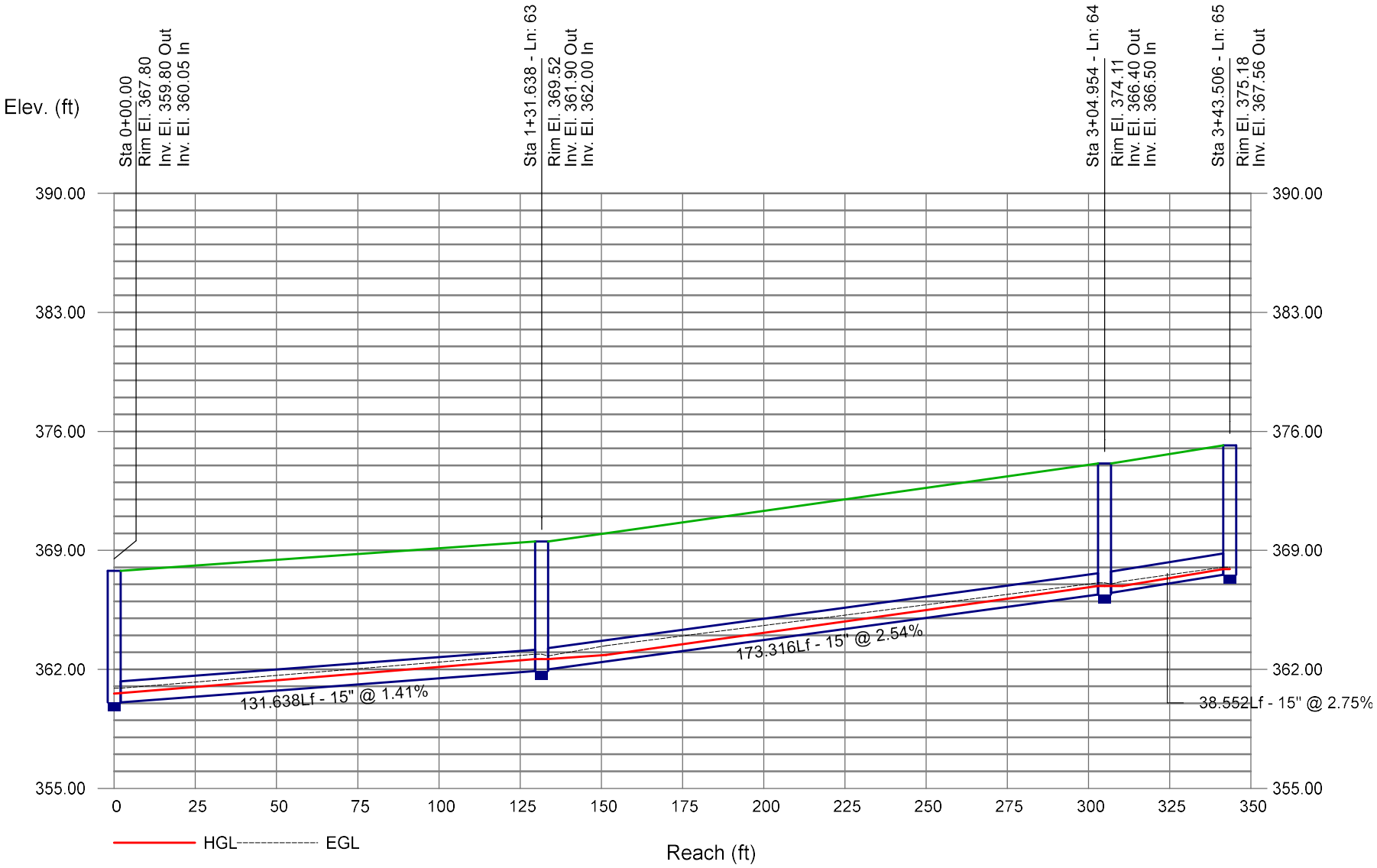
Storm Sewer Profile

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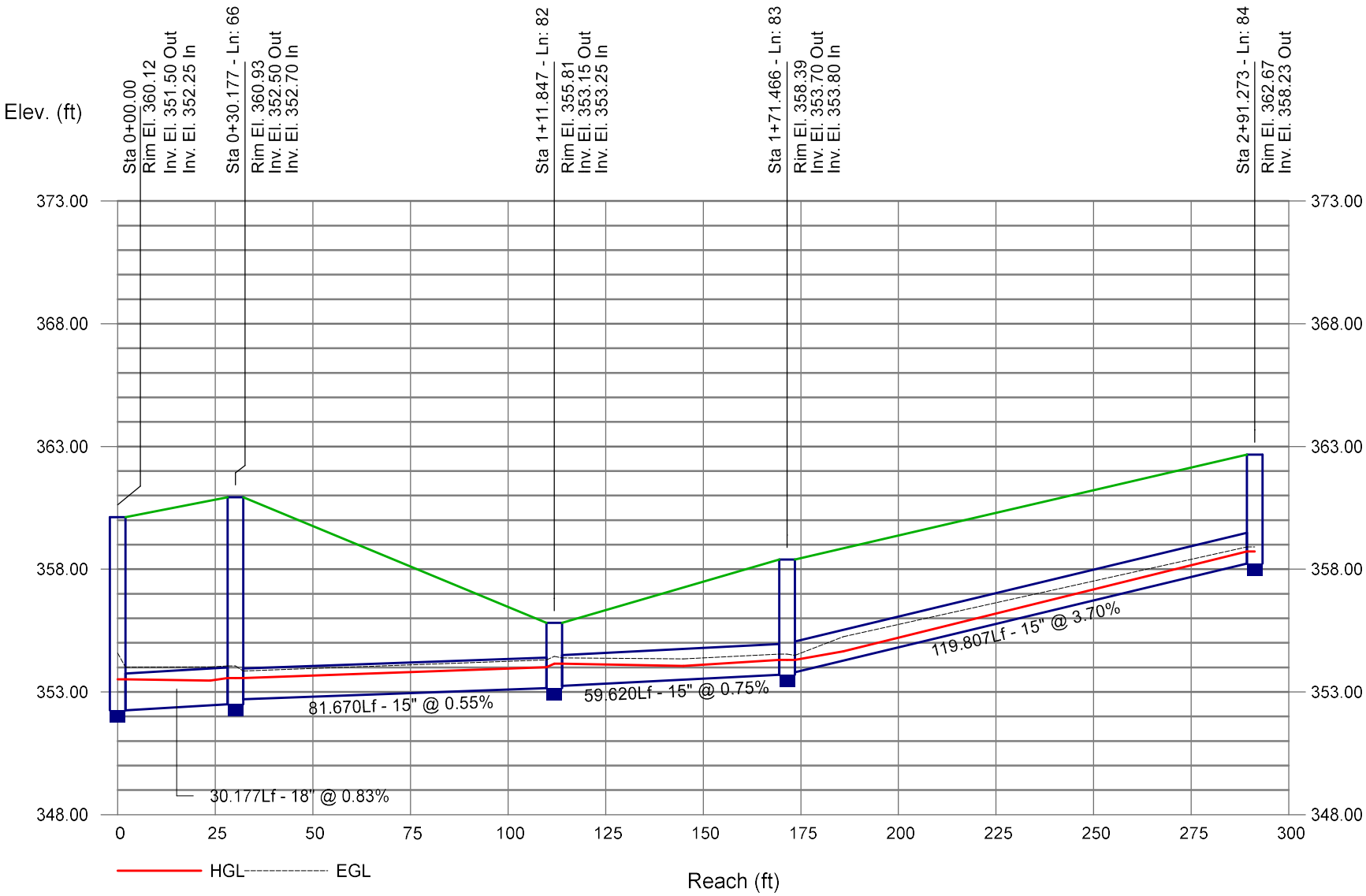
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



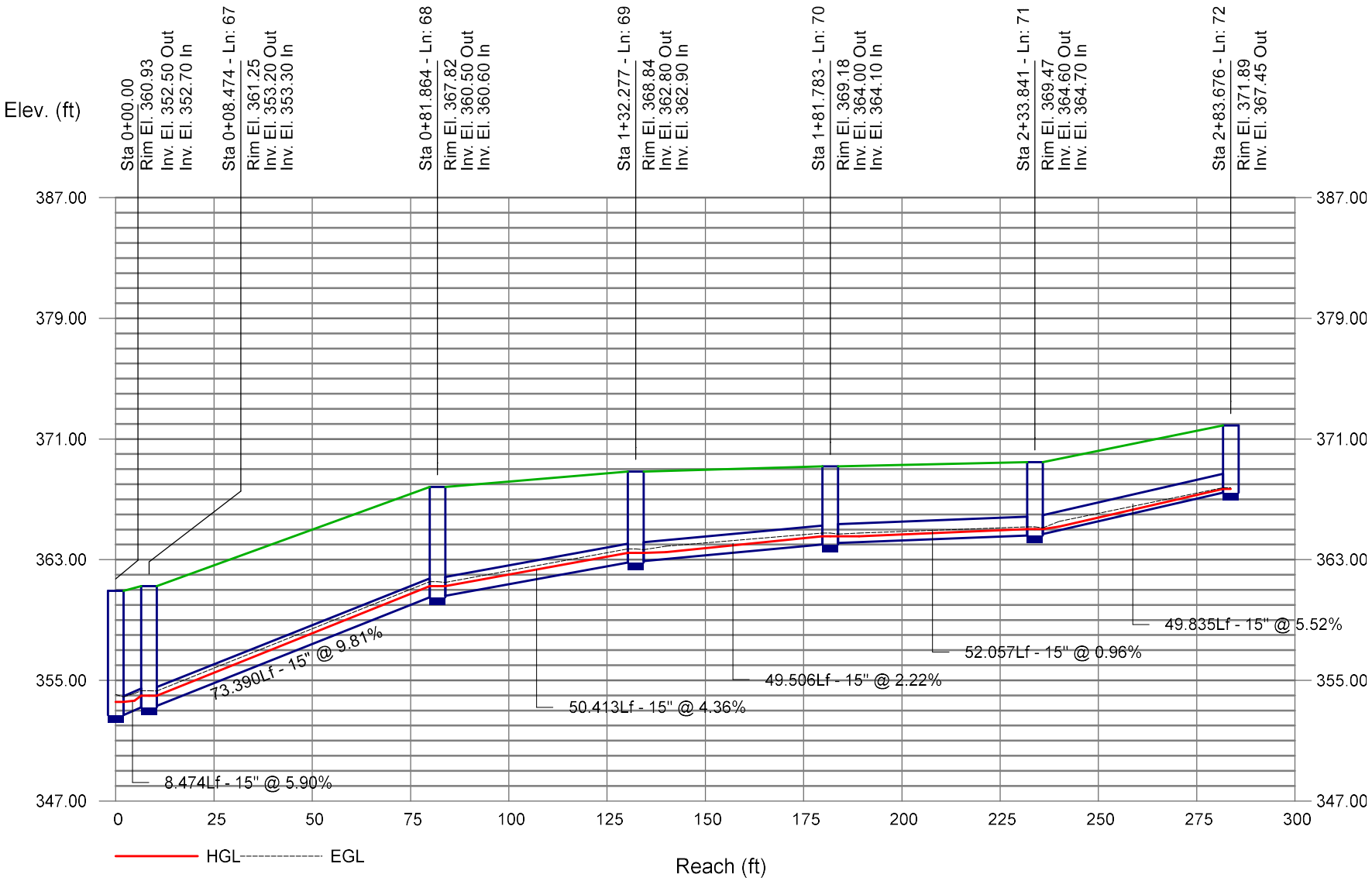
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



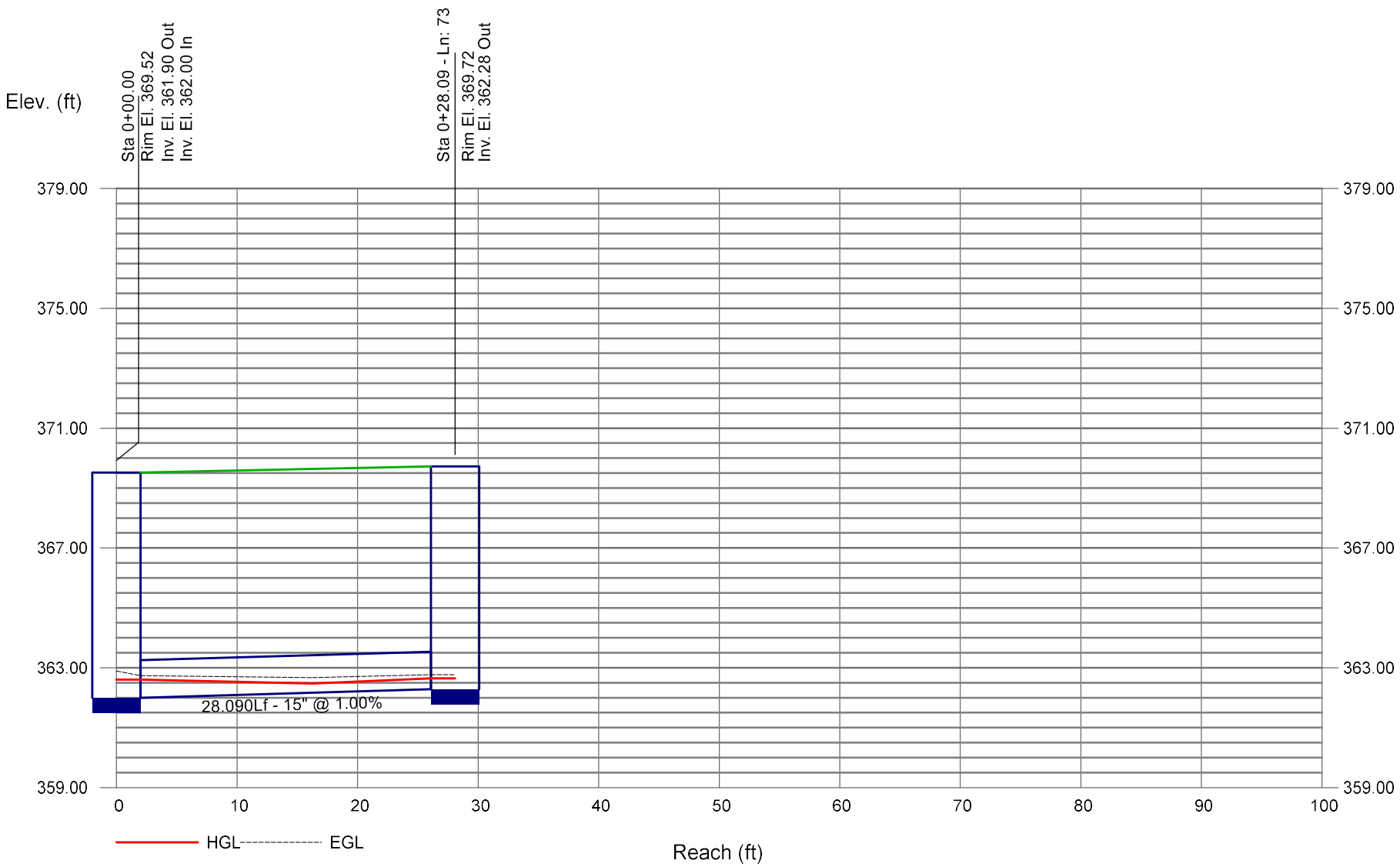
Storm Sewer Profile

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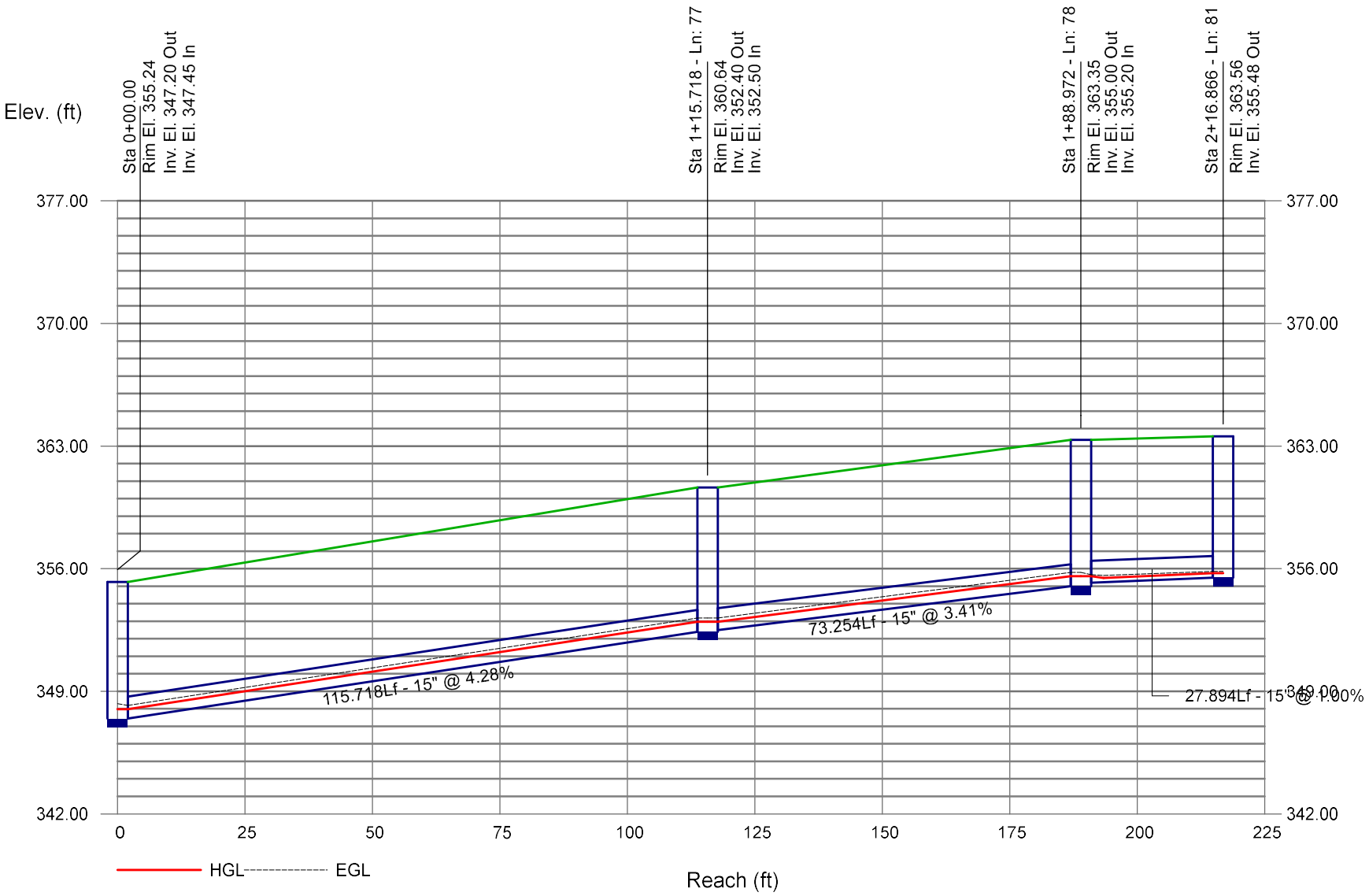
Storm Sewer Profile

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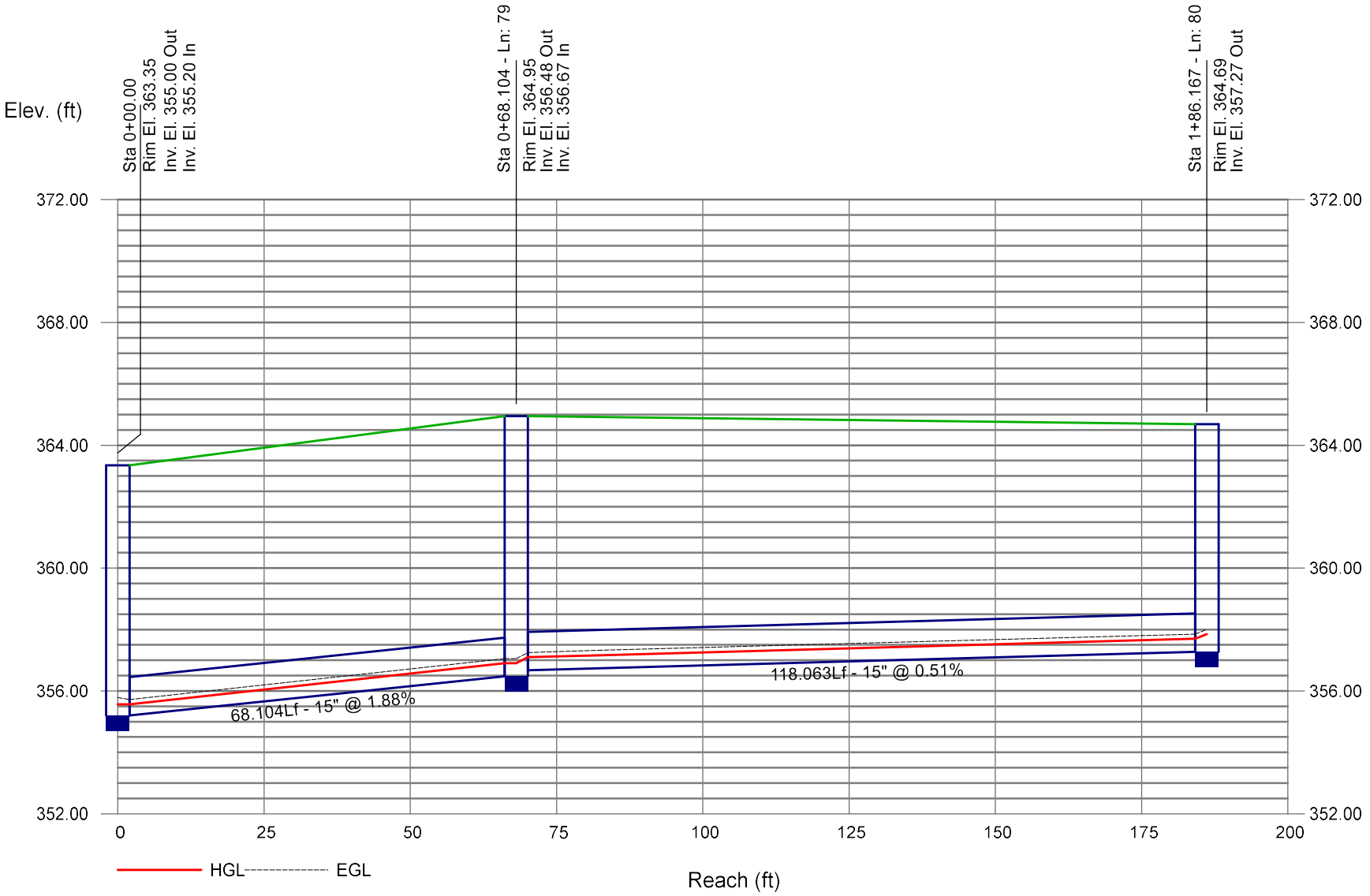
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



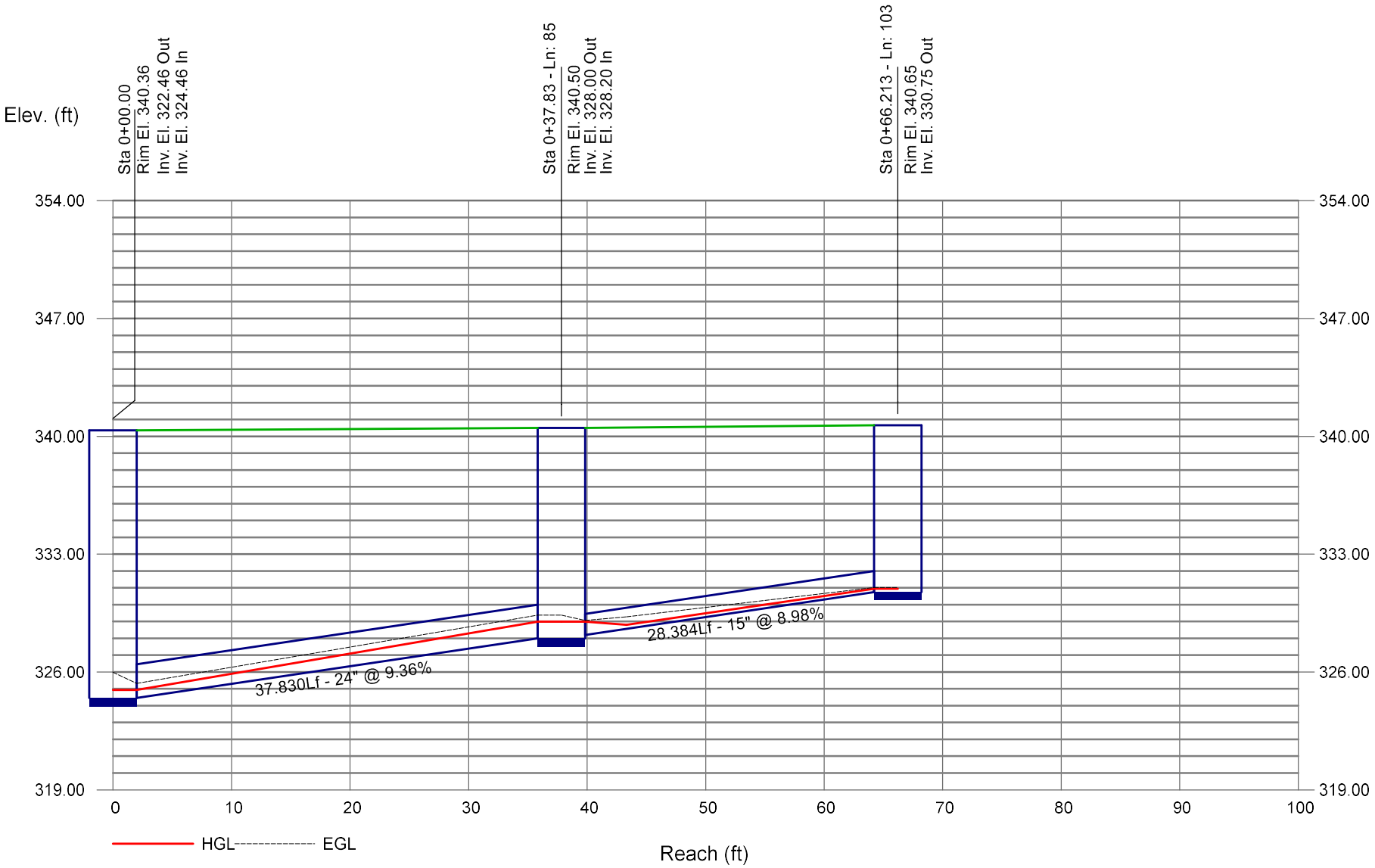
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



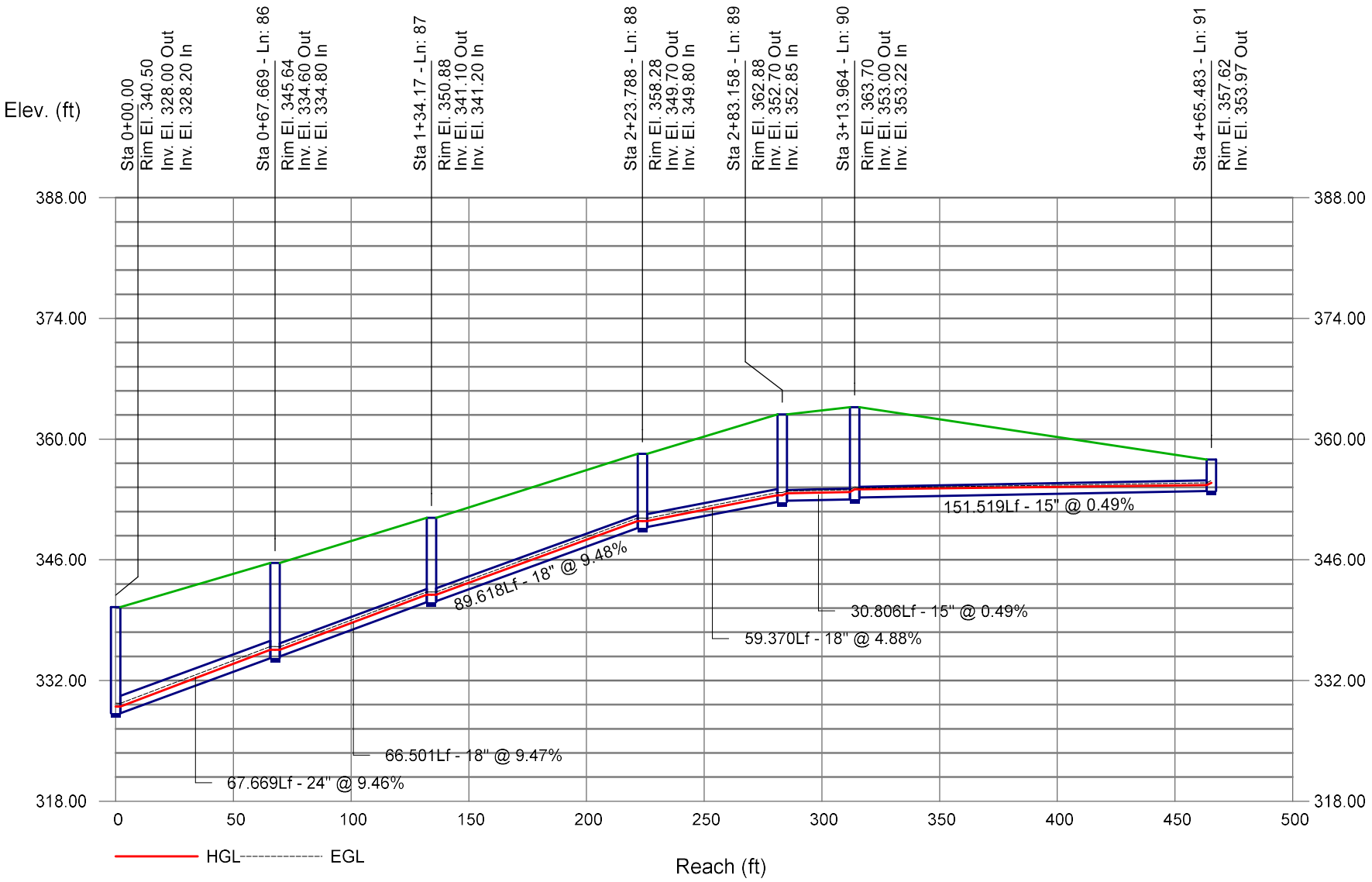
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



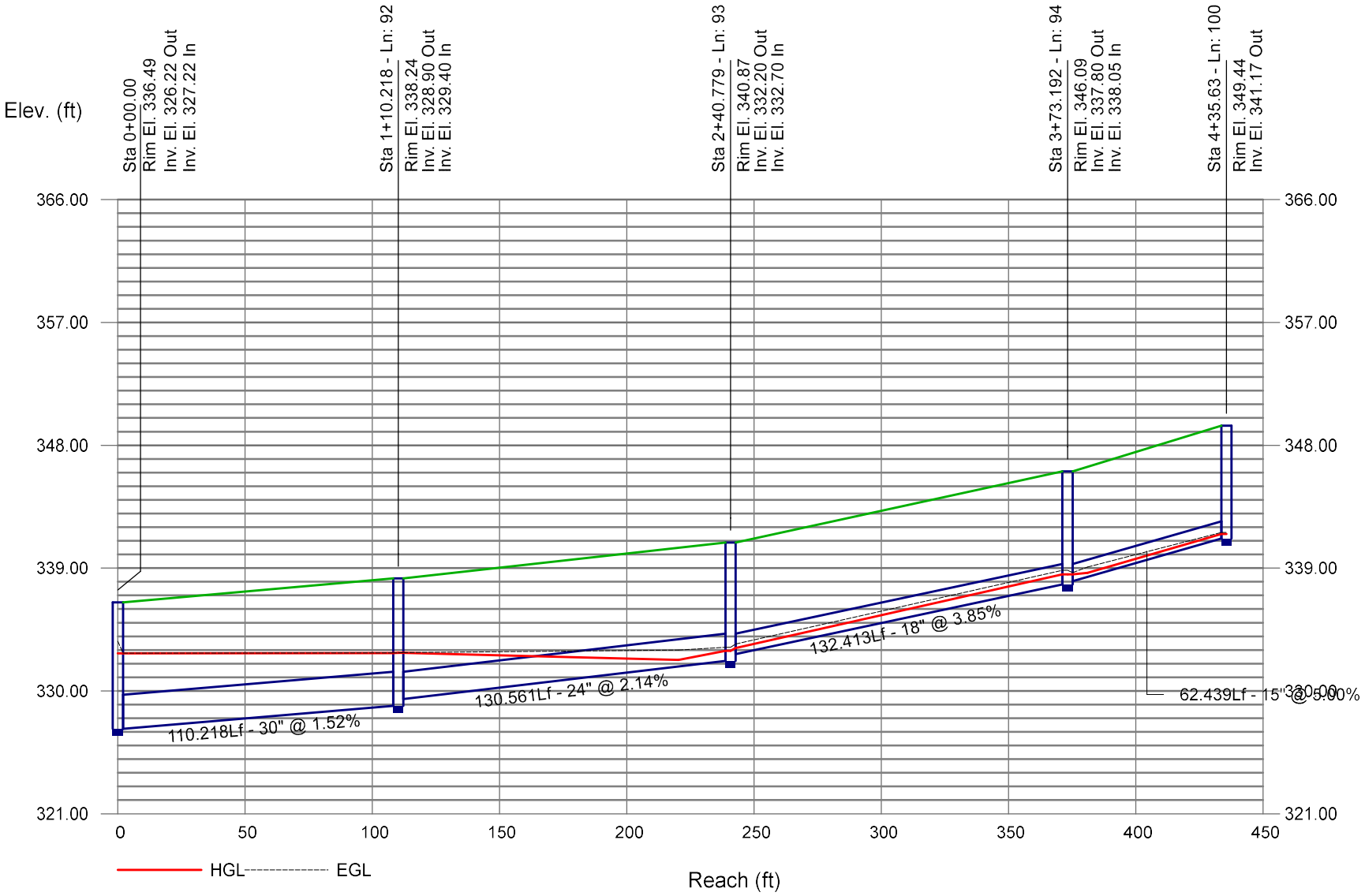
Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



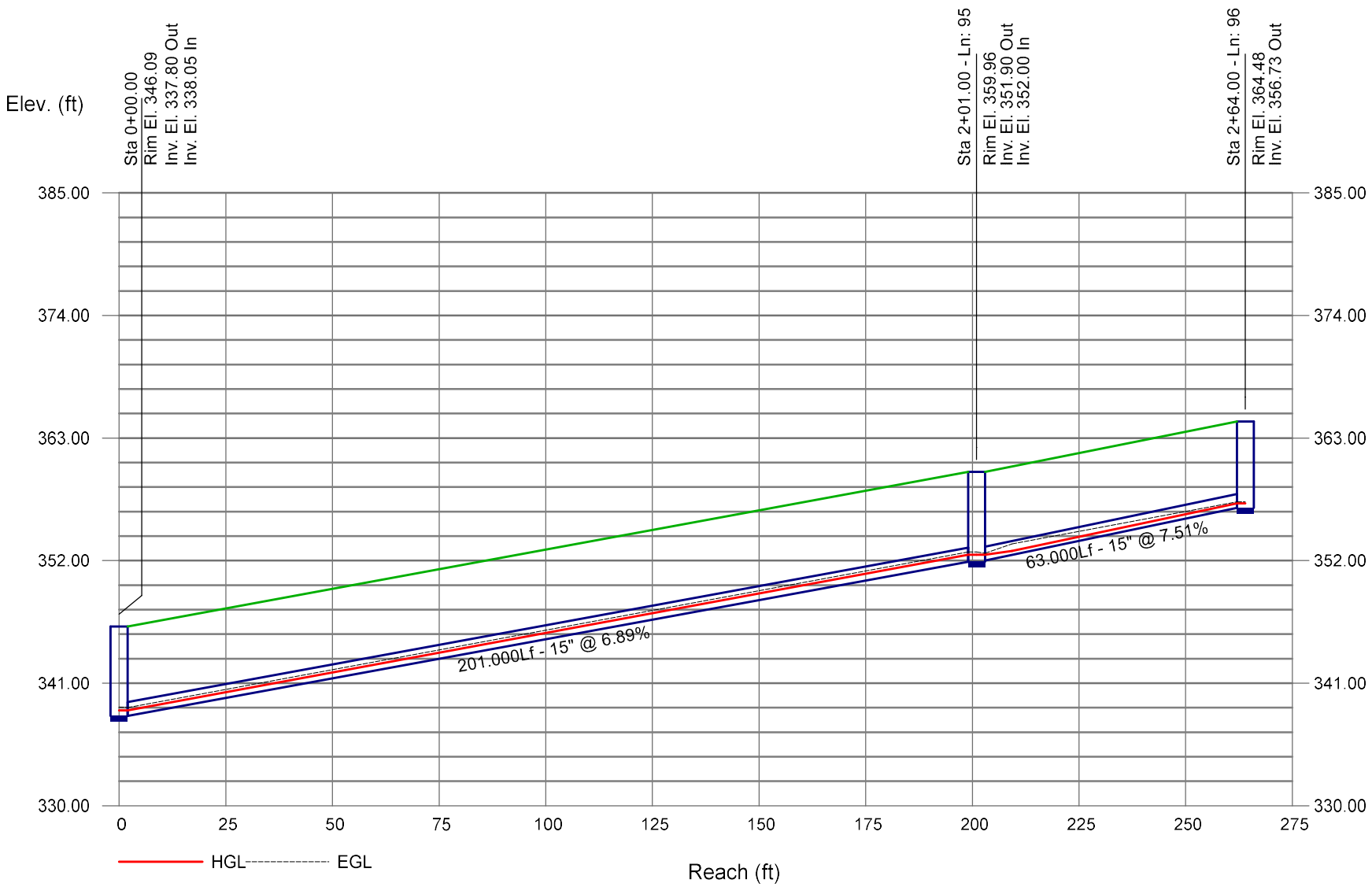
Storm Sewer Profile

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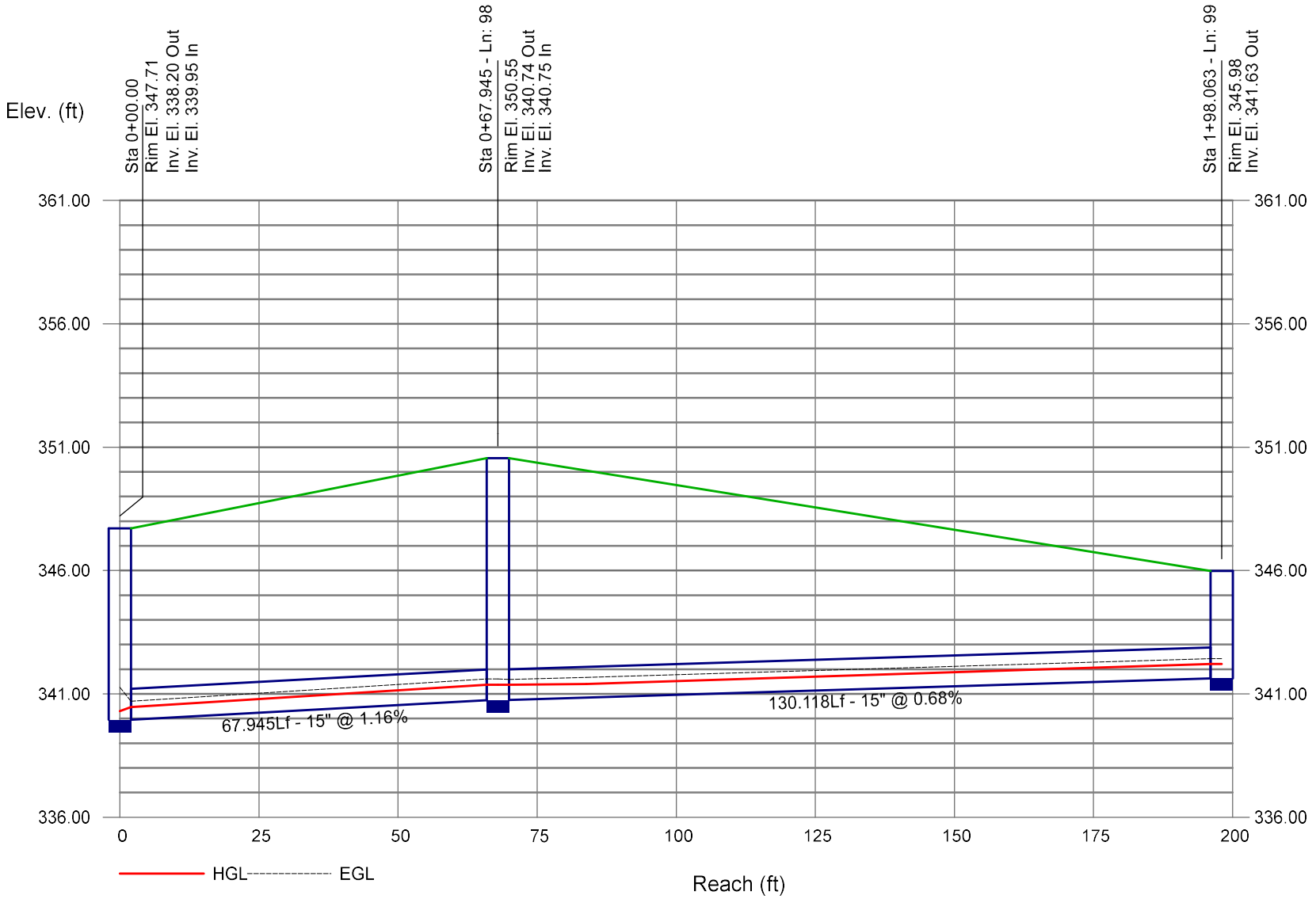
Storm Sewer Profile

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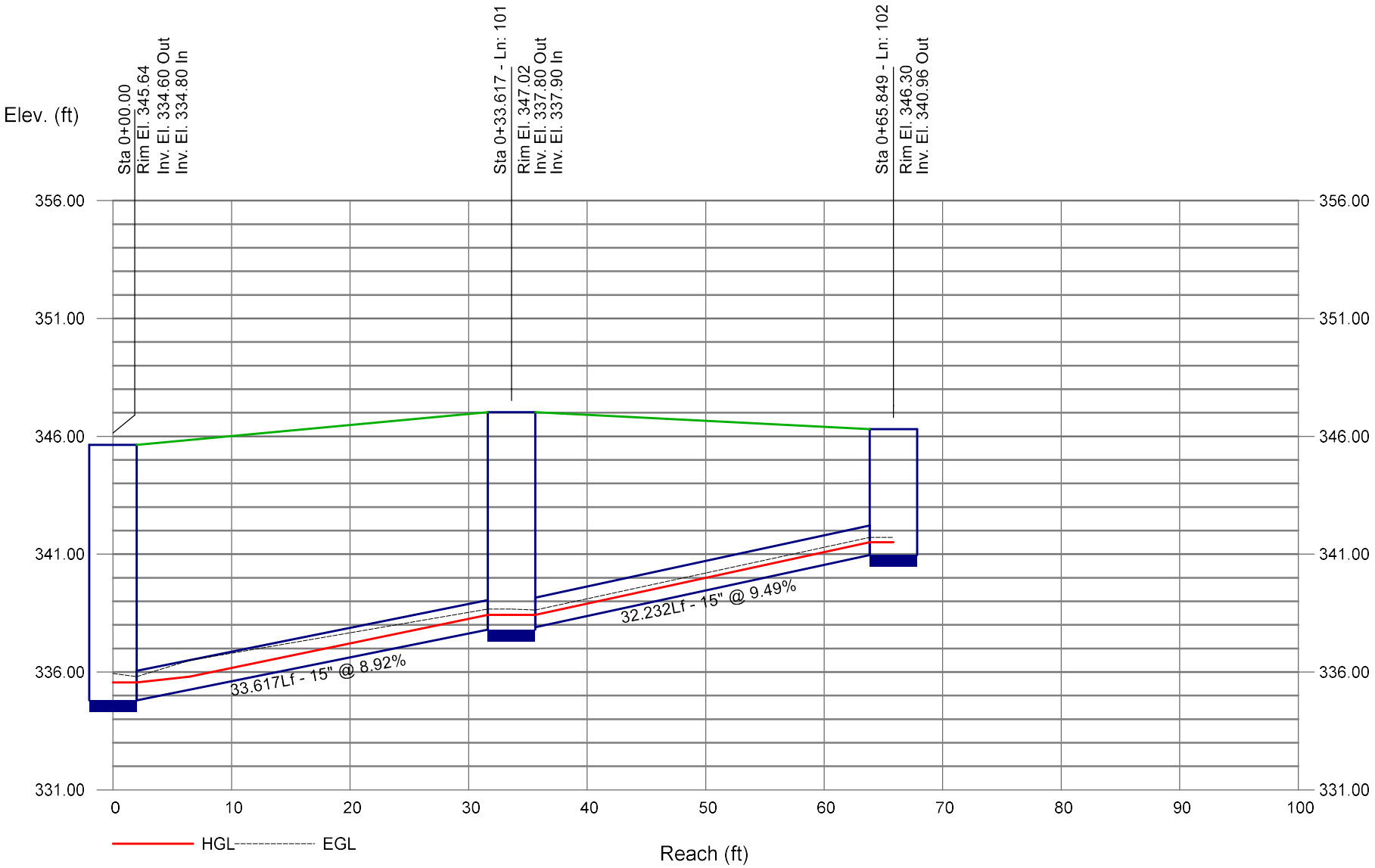
Storm Sewer Profile

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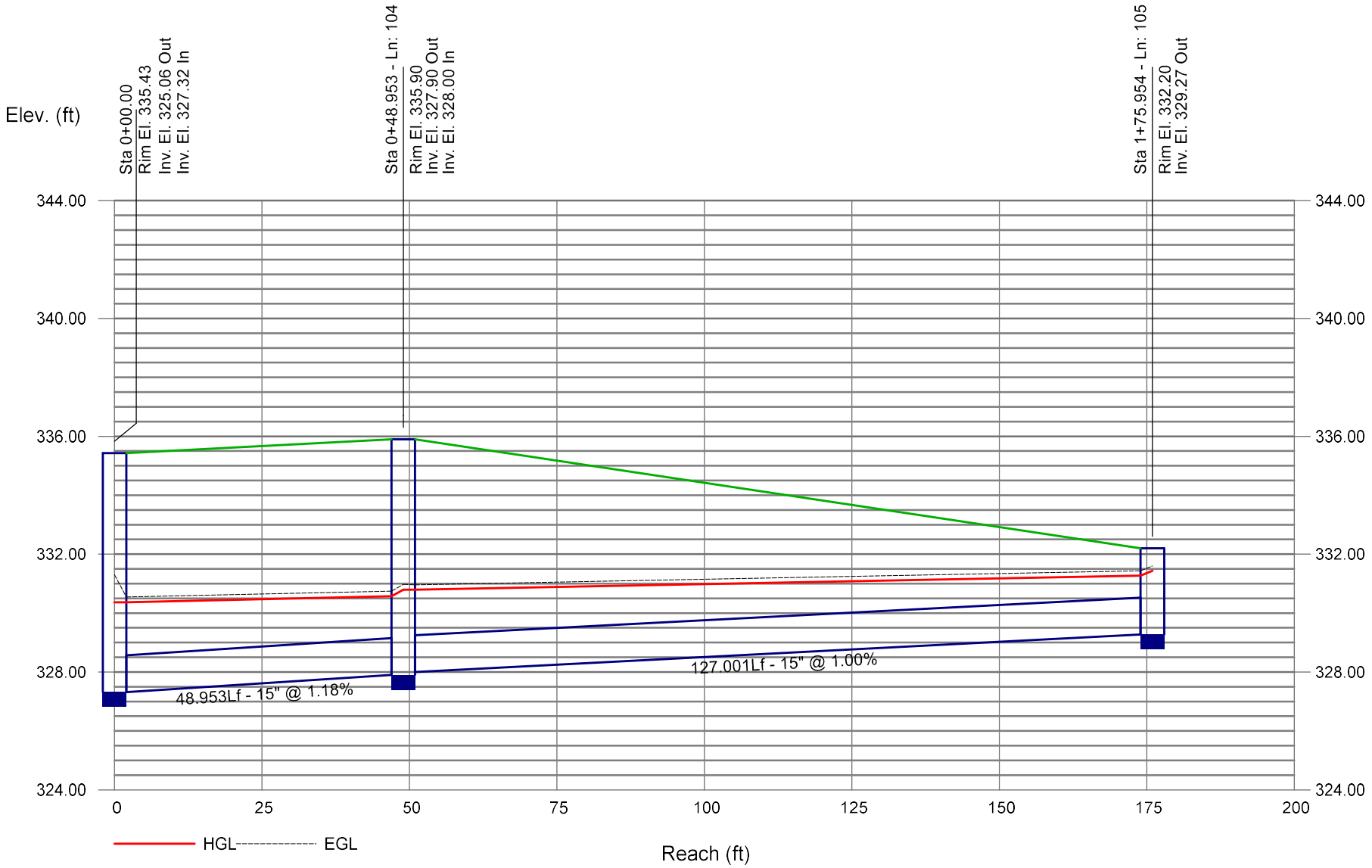
Storm Sewer Profile

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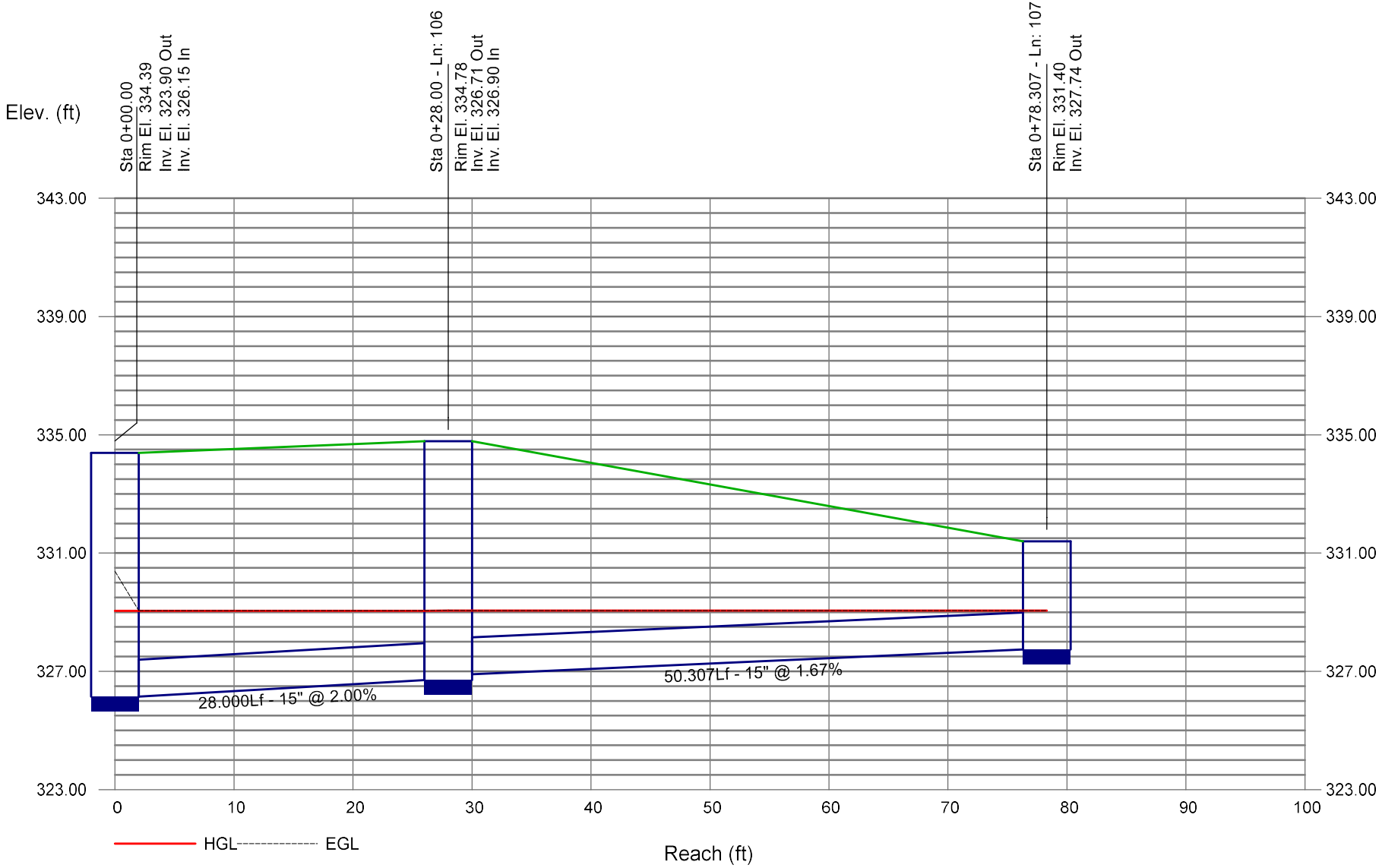
Storm Sewer Profile

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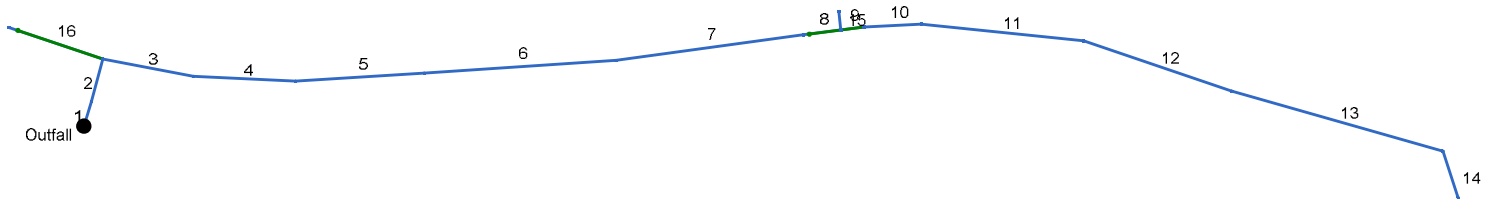


Storm Sewer Profile

Proj. file: SCM 5A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 5C Storm Network.stm	Number of lines: 16	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	45.107	-73.515	MH	0.00	0.00	0.00	0.0	293.00	8.20	296.70	30	Cir	0.013	0.15	306.95	Pipe - (547)
2	1	79.000	-1.209	Comb	0.00	0.63	0.60	10.0	300.40	3.92	303.50	30	Cir	0.013	1.50	312.97	Pipe - (548)
3	2	163.563	85.653	Comb	0.00	0.67	0.60	10.0	304.00	4.59	311.50	24	Cir	0.013	0.50	317.91	Pipe - (550)
4	3	180.720	-8.188	Comb	0.00	1.04	0.60	10.0	311.60	4.09	319.00	24	Cir	0.013	0.50	325.97	Pipe - (551)
5	4	228.426	-6.317	Comb	0.00	1.46	0.60	10.0	319.10	5.73	332.20	24	Cir	0.013	0.50	339.97	Pipe - (552)
6	5	340.817	-0.292	Comb	0.00	1.27	0.60	10.0	332.30	5.63	351.50	24	Cir	0.013	0.50	357.51	Pipe - (553)
7	6	334.230	-3.925	Comb	0.00	0.35	0.60	10.0	352.00	1.80	358.00	18	Cir	0.013	0.50	367.15	Pipe - (554)
8	7	67.118	0.500	MH	0.00	0.27	0.72	10.0	358.25	2.91	360.20	15	Cir	0.013	1.00	368.11	Pipe - (562) (1)
9	8	40.912	0.000	Comb	0.00	0.23	0.60	10.0	360.40	2.44	361.40	15	Cir	0.013	0.50	369.70	Pipe - (562)
10	9	101.668	4.188	Comb	0.00	0.47	0.60	10.0	361.50	3.93	365.50	15	Cir	0.013	0.50	372.27	Pipe - (561)
11	10	289.580	9.059	Comb	0.00	0.62	0.60	0.0	365.60	2.35	372.40	15	Cir	0.013	0.50	380.46	Pipe - (560)
12	11	276.541	12.894	Comb	0.00	0.21	0.60	10.0	372.50	0.61	374.20	15	Cir	0.013	0.50	386.83	Pipe - (559)
13	12	389.260	-2.936	Comb	0.00	0.26	0.60	10.0	374.30	0.62	376.70	15	Cir	0.013	1.29	386.59	Pipe - (558)
14	13	86.959	56.108	Comb	0.00	0.22	0.60	10.0	376.80	0.57	377.30	15	Cir	0.013	1.00	385.12	Pipe - (557)
15	8	33.261	-88.623	Comb	0.00	0.15	0.60	10.0	360.40	6.31	362.50	15	Cir	0.013	1.00	367.66	Pipe - (694)
16	2	176.320	-86.677	Comb	0.00	1.03	0.60	10.0	304.50	0.85	306.00	18	Cir	0.013	1.00	310.97	Pipe - (549)

Project File: SCM 5C Storm Network.stm

Number of lines: 16

Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 561	Manhole	306.95	Rect	4.00	4.00	30	Cir	296.70	30	Cir	300.40
2	CB 562	Combination	312.97	Rect	4.00	4.00	30	Cir	303.50	24 18	Cir Cir	304.00 304.50
3	CB 563	Combination	317.91	Rect	4.00	4.00	24	Cir	311.50	24	Cir	311.60
4	CB 564	Combination	325.97	Rect	4.00	4.00	24	Cir	319.00	24	Cir	319.10
5	CB 565	Combination	339.97	Rect	4.00	4.00	24	Cir	332.20	24	Cir	332.30
6	CB 566	Combination	357.51	Rect	4.00	4.00	24	Cir	351.50	18	Cir	352.00
7	CB 567	Combination	367.15	Rect	4.00	4.00	18	Cir	358.00	15	Cir	358.25
8	JB 567A	Manhole	368.11	Rect	4.00	4.00	15	Cir	360.20	15 15	Cir Cir	360.40 360.40
9	CB 568	Combination	369.70	Rect	4.00	4.00	15	Cir	361.40	15	Cir	361.50
10	CB 569	Combination	372.27	Rect	4.00	4.00	15	Cir	365.50	15	Cir	365.60
11	CB 570	Combination	380.46	Rect	4.00	4.00	15	Cir	372.40	15	Cir	372.50
12	CB 571	Combination	386.83	Rect	4.00	4.00	15	Cir	374.20	15	Cir	374.30
13	CB 572	Combination	386.59	Rect	4.00	4.00	15	Cir	376.70	15	Cir	376.80
14	CB 572A	Combination	385.12	Rect	4.00	4.00	15	Cir	377.30			
15	CB 567B	Combination	367.66	Rect	4.00	4.00	15	Cir	362.50			
16	CB 562A	Combination	310.97	Rect	4.00	4.00	18	Cir	306.00			

Project File: SCM 5C Storm Network.stm | Number of Structures: 16 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (547)	27.32	30	Cir	45.107	293.00	296.70	8.203	297.18	298.48	n/a	298.48 j	End	Manhole
2	Pipe - (548)	27.40	30	Cir	79.000	300.40	303.50	3.924	301.40	305.28	1.25	305.28	1	Combination
3	Pipe - (550)	22.48	24	Cir	163.563	304.00	311.50	4.585	305.28	313.19	0.49	313.19	2	Combination
4	Pipe - (551)	20.61	24	Cir	180.720	311.60	319.00	4.095	313.19	320.63	0.44	320.63	3	Combination
5	Pipe - (552)	17.61	24	Cir	228.426	319.10	332.20	5.735	320.63	333.71	n/a	333.71 j	4	Combination
6	Pipe - (553)	13.33	24	Cir	340.817	332.30	351.50	5.634	333.71	352.81	n/a	352.81 j	5	Combination
7	Pipe - (554)	9.39	18	Cir	334.230	352.00	358.00	1.795	352.90	359.18	n/a	359.18	6	Combination
8	Pipe - (562) (1)	8.27	15	Cir	67.118	358.25	360.20	2.905	359.18	361.33	0.78	361.33	7	Manhole
9	Pipe - (562)	6.71	15	Cir	40.912	360.40	361.40	2.444	361.33	362.44	0.29	362.44	8	Combination
10	Pipe - (561)	5.99	15	Cir	101.668	361.50	365.50	3.934	362.44	366.49	0.26	366.49	9	Combination
11	Pipe - (560)	4.53	15	Cir	289.580	365.60	372.40	2.348	366.49	373.26	n/a	373.26 j	10	Combination
12	Pipe - (559)	2.48	15	Cir	276.541	372.50	374.20	0.615	373.26	374.83	n/a	374.83 j	11	Combination
13	Pipe - (558)	1.83	15	Cir	389.260	374.30	376.70	0.617	374.83	377.24	0.26	377.24	12	Combination
14	Pipe - (557)	0.85	15	Cir	86.959	376.80	377.30	0.575	377.24	377.66	n/a	377.66 j	13	Combination
15	Pipe - (694)	0.58	15	Cir	33.261	360.40	362.50	6.314	361.33	362.80	n/a	362.80 j	8	Combination
16	Pipe - (549)	4.00	18	Cir	176.320	304.50	306.00	0.851	305.28	306.76	n/a	306.76 j	2	Combination

Project File: SCM 5C Storm Network.stm

Number of lines: 16

Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 561	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	CB 562	2.44	2.55	2.89	2.11	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.28	10.05	0.22	6.82	0.0	16
3	CB 563	2.60	3.35	3.40	2.55	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.28	9.93	0.22	6.79	0.0	2
4	CB 564	4.03	3.39	4.07	3.35	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.29	10.26	0.22	7.21	0.0	3
5	CB 565	5.66	2.21	4.48	3.39	Comb	6.0	1.50	0.00	3.00	2.50	0.060	2.00	0.060	0.020	0.013	0.27	9.65	0.21	6.58	0.0	4
6	CB 566	4.93	0.66	3.38	2.21	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.26	9.09	0.20	5.87	0.0	5
7	CB 567	1.36	1.38	2.07	0.66	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.21	6.54	0.13	2.64	0.0	6
8	JB 567A	1.26	0.00	0.00	1.26	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	7
9	CB 568	0.89	0.33	1.10	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.17	4.58	0.07	1.24	0.0	7
10	CB 569	1.82	0.00	1.49	0.33	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.19	5.73	0.11	1.80	0.0	9
11	CB 570	0.00	0.05	0.05	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.05	0.89	0.00	0.00	0.0	10
12	CB 571	0.81	0.00	0.76	0.05	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.04	0.06	0.96	0.0	11
13	CB 572	1.01	0.00	0.91	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.17	4.61	0.07	1.23	0.0	Off
14	CB 572A	0.85	0.00	0.80	0.06	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.16	4.16	0.06	1.02	0.0	Off
15	CB 567B	0.58	0.00	0.58	0.00	Comb	4.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.14	3.19	0.14	3.19	0.0	Off
16	CB 562A	4.00	2.11	6.10	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.46	19.07	0.46	19.07	0.0	Off

Project File: SCM 5C Storm Network.stm | Number of lines: 16 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

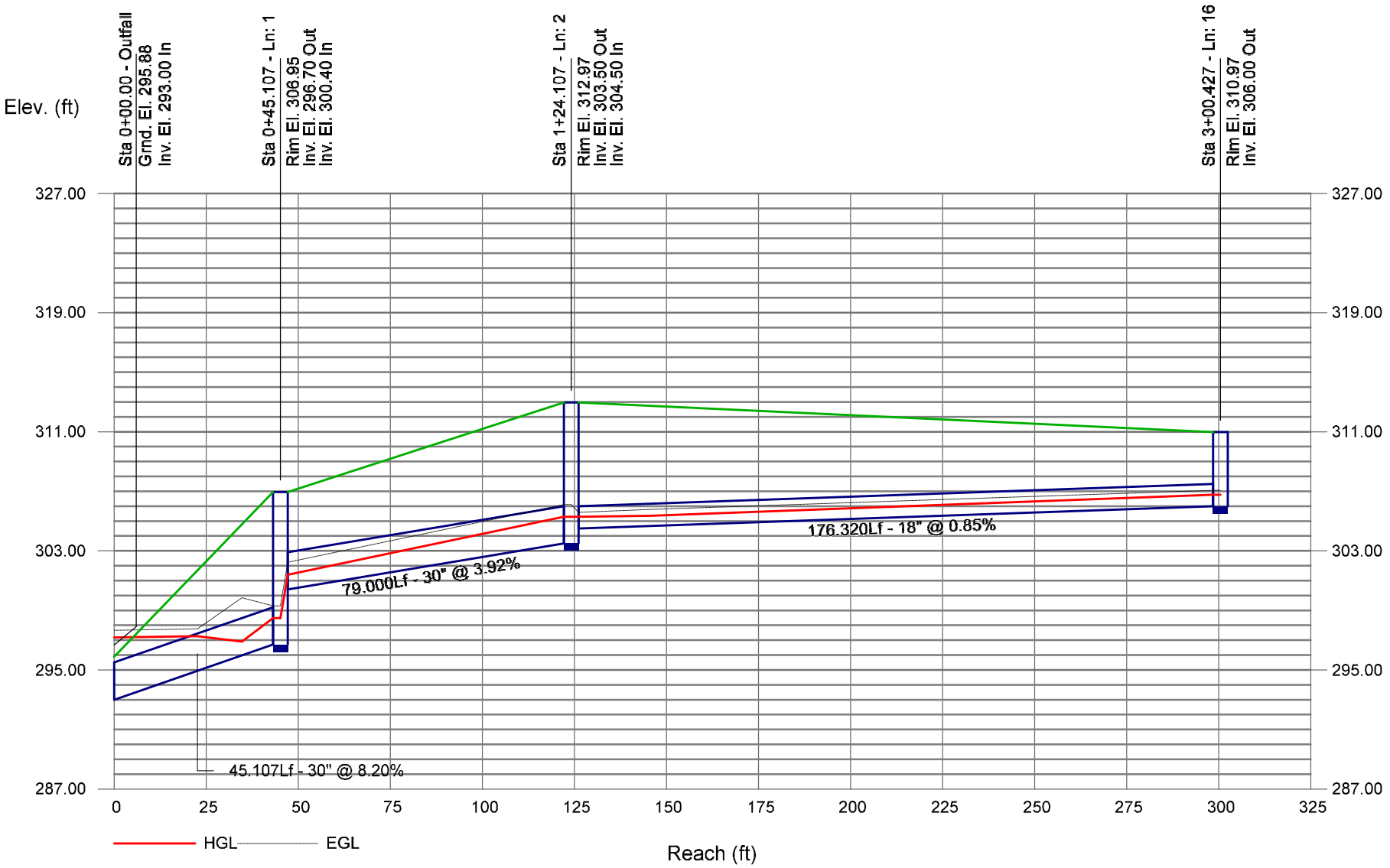
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	30	27.32	293.00	297.18	2.50	3.74	5.57	0.48	297.66	0.444	45.107	296.70	298.48 j	1.78**	3.74	7.31	0.83	299.31	0.606	0.525	n/a	0.15	0.12
2	30	27.40	300.40	301.40	1.00*	1.84	14.93	0.83	302.23	0.000	79.000	303.50	305.28	1.78**	3.75	7.32	0.83	306.12	0.000	0.000	n/a	1.50	1.25
3	24	22.48	304.00	305.28	1.28	2.13	10.55	0.98	306.26	0.000	163.563	311.50	313.19	1.69**	2.83	7.94	0.98	314.17	0.000	0.000	n/a	0.50	0.49
4	24	20.61	311.60	313.19	1.59	2.68	7.70	0.88	314.07	0.000	180.720	319.00	320.63	1.63**	2.74	7.53	0.88	321.51	0.000	0.000	n/a	0.50	0.44
5	24	17.61	319.10	320.63	1.53	2.55	6.84	0.74	321.37	0.000	228.426	332.20	333.71 j	1.51**	2.55	6.92	0.74	334.45	0.000	0.000	n/a	0.50	0.37
6	24	13.33	332.30	333.71	1.41	2.19	5.63	0.58	334.29	0.000	340.817	351.50	352.81 j	1.31**	2.19	6.10	0.58	353.39	0.000	0.000	n/a	0.50	n/a
7	18	9.39	352.00	352.90	0.90*	1.10	8.53	0.61	353.51	0.000	334.230	358.00	359.18	1.18**	1.50	6.28	0.61	359.80	0.000	0.000	n/a	0.50	n/a
8	15	8.27	358.25	359.18	0.93	0.98	8.41	0.78	359.97	0.000	67.118	360.20	361.33	1.13**	1.16	7.10	0.78	362.11	0.000	0.000	n/a	1.00	0.78
9	15	6.71	360.40	361.33	0.93	0.98	6.88	0.59	361.91	0.000	40.912	361.40	362.44	1.04**	1.09	6.15	0.59	363.03	0.000	0.000	n/a	0.50	0.29
10	15	5.99	361.50	362.44	0.94	0.99	6.05	0.51	362.96	0.000	101.668	365.50	366.49	0.99**	1.04	5.75	0.51	367.00	0.000	0.000	n/a	0.50	0.26
11	15	4.53	365.60	366.49	0.89	0.90	4.86	0.39	366.88	0.000	289.580	372.40	373.26 j	0.86**	0.90	5.02	0.39	373.65	0.000	0.000	n/a	0.50	n/a
12	15	2.48	372.50	373.26	0.76	0.62	3.17	0.25	373.51	0.000	276.541	374.20	374.83 j	0.63**	0.62	4.00	0.25	375.08	0.000	0.000	n/a	0.50	0.12
13	15	1.83	374.30	374.83	0.53	0.50	3.69	0.20	375.03	0.000	389.260	376.70	377.24	0.54**	0.50	3.63	0.20	377.44	0.000	0.000	n/a	1.29	0.26
14	15	0.85	376.80	377.24	0.44	0.29	2.23	0.13	377.37	0.000	86.959	377.30	377.66 j	0.36**	0.29	2.90	0.13	377.79	0.000	0.000	n/a	1.00	n/a
15	15	0.58	360.40	361.33	0.93	0.22	0.60	0.11	361.43	0.000	33.261	362.50	362.80 j	0.30**	0.22	2.60	0.11	362.90	0.000	0.000	n/a	1.00	0.11
16	18	4.00	304.50	305.28	0.78	0.91	4.28	0.30	305.59	0.000	176.320	306.00	306.76 j	0.76**	0.91	4.41	0.30	307.07	0.000	0.000	n/a	1.00	n/a

Project File: SCM 5C Storm Network.stm | Number of lines: 16 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

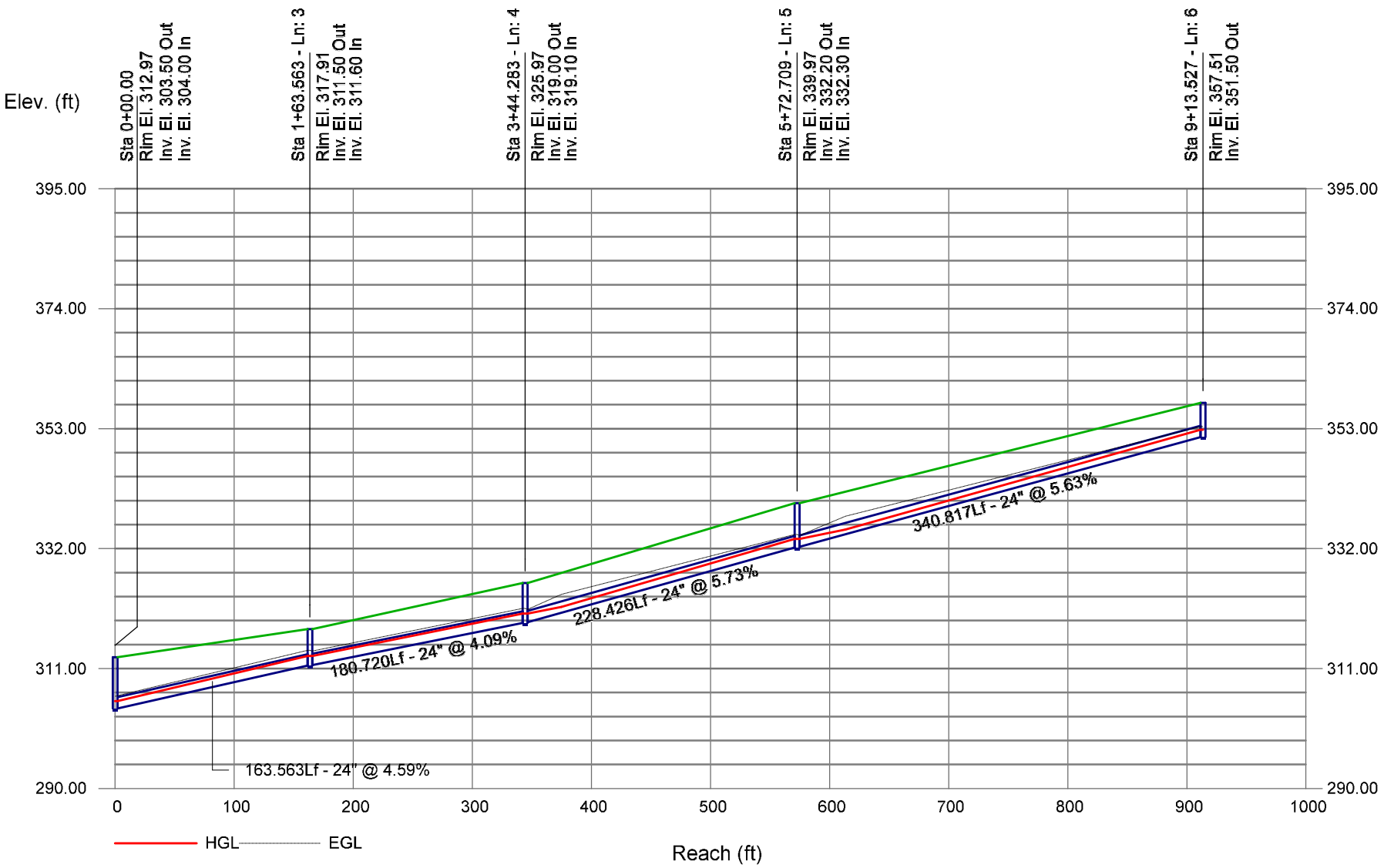
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



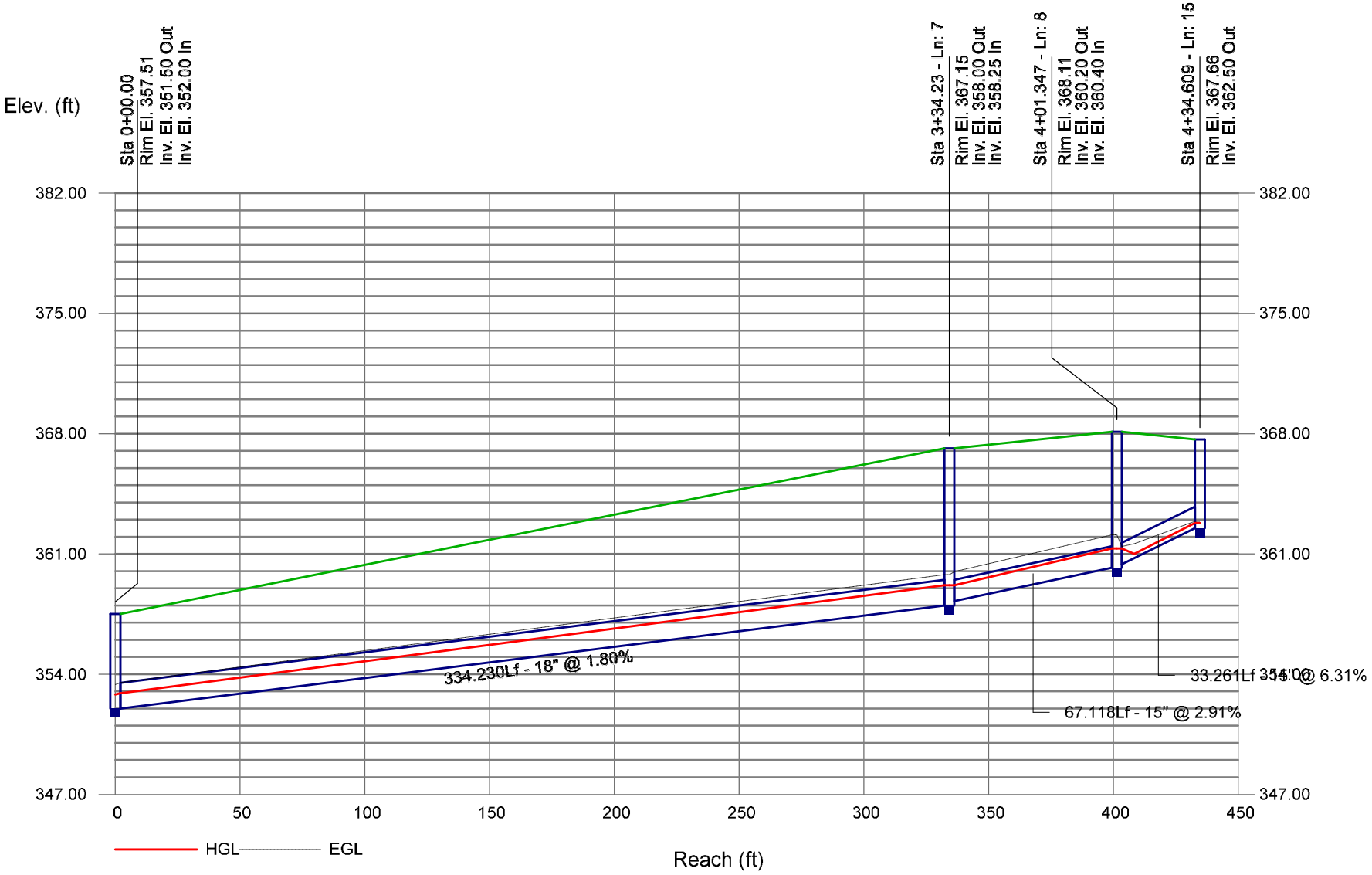
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



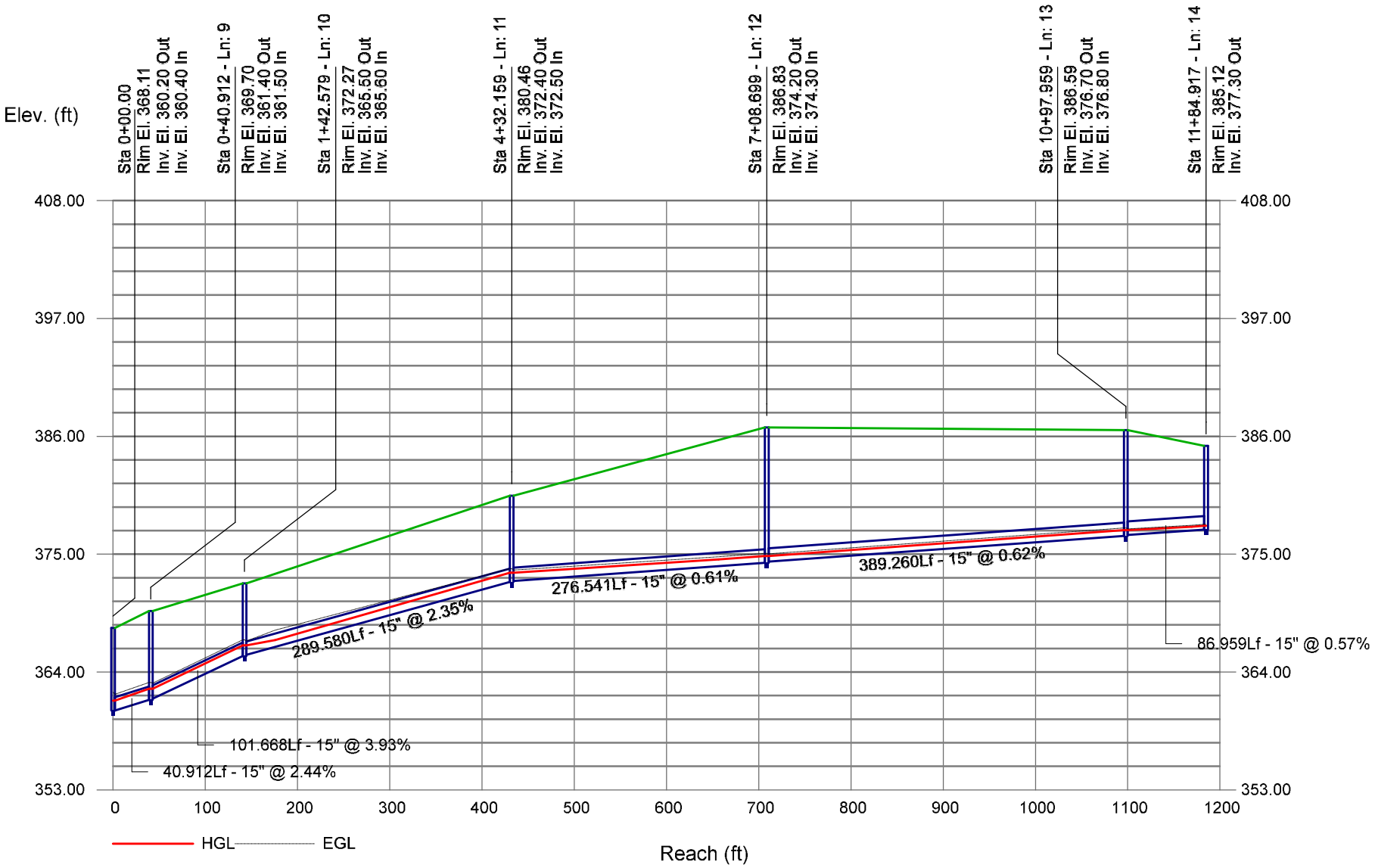
Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm

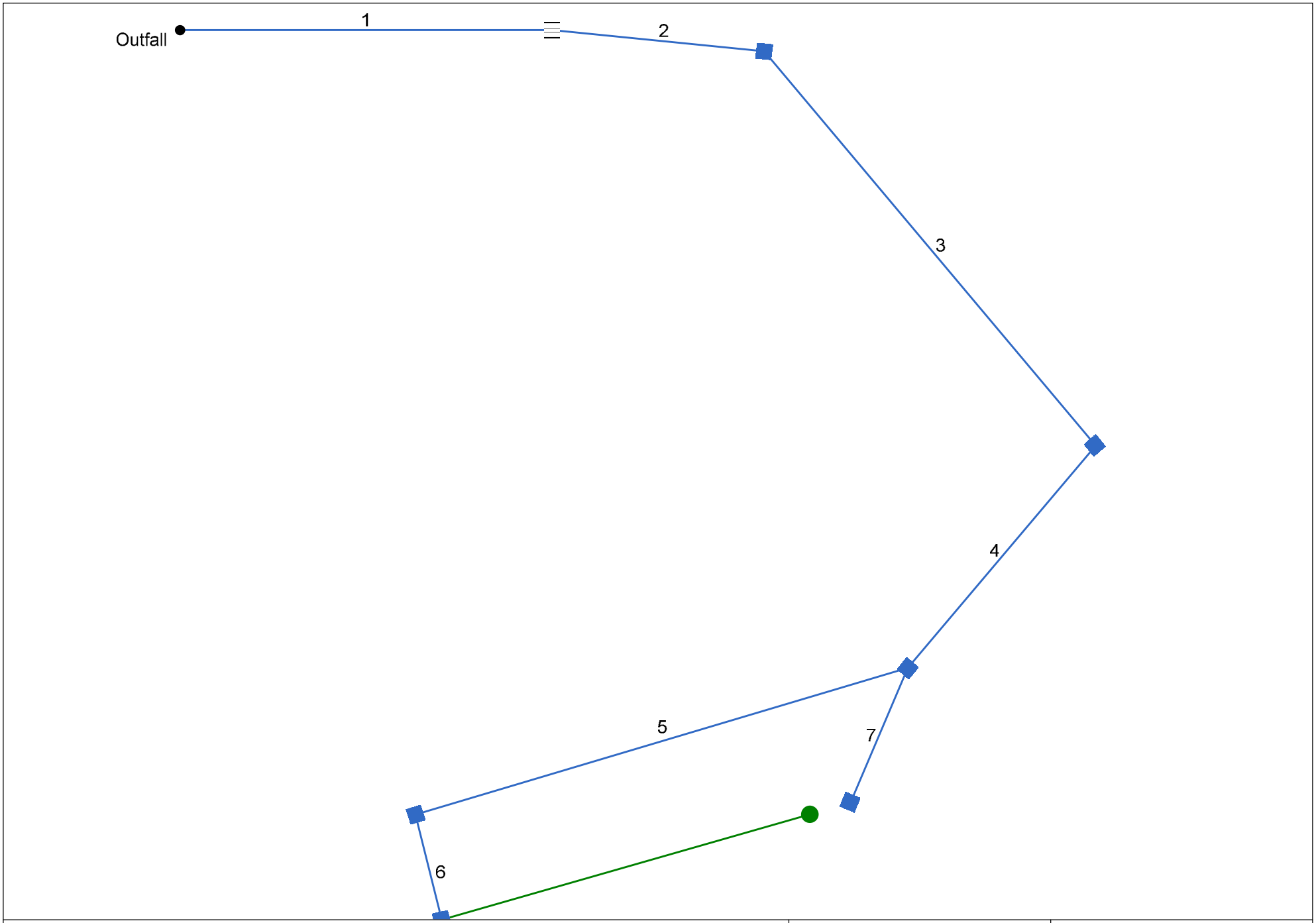


Storm Sewer Profile

Proj. file: SCM 5C Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 6A Storm Network.stm	Number of lines: 7	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	96.000	0.000	DrGrt	0.00	0.35	0.60	10.0	282.00	4.17	286.00	15	Cir	0.013	0.50	296.41	Pipe - (495)
2	1	55.122	5.726	MH	0.00	0.01	0.60	10.0	286.20	8.71	291.00	15	Cir	0.013	0.74	304.38	Pipe - (494)
3	2	133.087	44.423	Comb	0.00	1.12	0.60	10.0	291.20	8.94	303.10	15	Cir	0.013	1.48	321.07	Pipe - (493)
4	3	75.218	79.870	Comb	0.00	0.07	0.60	10.0	303.30	6.91	308.50	15	Cir	0.013	0.91	326.27	Pipe - (492)
5	4	132.556	33.318	Comb	0.00	0.16	0.60	10.0	308.70	7.17	318.20	15	Cir	0.013	1.50	333.00	Pipe - (491)
6	5	28.021	-87.190	Comb	0.00	0.44	0.60	10.0	318.40	1.00	318.68	15	Cir	0.013	1.00	333.05	Pipe - (496)
7	4	37.852	-17.053	Comb	0.00	0.29	0.60	10.0	308.70	2.09	309.49	18	Cir	0.013	1.00	327.58	Pipe - (512)

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	YI 601	DropGrate	296.41	Rect	4.00	4.00	15	Cir	286.00	15	Cir	286.20
2	JB 602	Manhole	304.38	Rect	4.00	4.00	15	Cir	291.00	15	Cir	291.20
3	CB 603	Combination	321.07	Rect	4.00	4.00	15	Cir	303.10	15	Cir	303.30
4	CB 604	Combination	326.27	Rect	4.00	4.00	15	Cir	308.50	15 18	Cir Cir	308.70 308.70
5	CB 605	Combination	333.00	Rect	4.00	4.00	15	Cir	318.20	15	Cir	318.40
6	CB 605A	Combination	333.05	Rect	4.00	4.00	15	Cir	318.68			
7	CB 604A	Combination	327.58	Rect	4.00	4.00	18	Cir	309.49			

Project File: SCM 6A Storm Network.stm | Number of Structures: 7 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (495)	9.04	15	Cir	96.000	282.00	286.00	4.167	282.76	287.16	0.45	287.16	End	DropGrate
2	Pipe - (494)	7.78	15	Cir	55.122	286.20	291.00	8.708	287.16	292.10	0.53	292.10	1	Manhole
3	Pipe - (493)	7.82	15	Cir	133.087	291.20	303.10	8.942	292.10	304.21	1.07	304.21	2	Combination
4	Pipe - (492)	3.64	15	Cir	75.218	303.30	308.50	6.913	304.21	309.27	n/a	309.27 j	3	Combination
5	Pipe - (491)	2.32	15	Cir	132.556	308.70	318.20	7.167	309.27	318.81	0.36	318.81	4	Combination
6	Pipe - (496)	1.71	15	Cir	28.021	318.40	318.68	0.999	318.84	319.20	0.20	319.20	5	Combination
7	Pipe - (512)	1.12	18	Cir	37.852	308.70	309.49	2.087	309.27	309.89	n/a	309.89 j	4	Combination

Project File: SCM 6A Storm Network.stm

Number of lines: 7

Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	YI 601	1.36	1.76	1.31	1.80	DrGrt	0.0	0.00	0.00	3.00	2.50	0.050	2.00	0.020	0.020	0.013	0.11	13.10	0.11	13.10	0.0	Off
2	JB 602	0.04	1.72	0.00	1.76	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	CB 603	4.34	0.00	2.63	1.72	Comb	6.0	1.50	0.00	3.00	2.50	0.300	2.00	0.060	0.020	0.013	0.18	4.91	0.13	2.52	0.0	2
4	CB 604	0.27	0.10	0.37	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.10	1.71	0.00	0.00	0.0	3
5	CB 605	0.62	0.00	0.62	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.12	2.23	0.01	0.10	0.0	4
6	CB 605A	1.71	0.00	1.50	0.20	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.18	4.80	0.08	1.37	0.0	7
7	CB 604A	1.12	0.20	1.23	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.050	2.00	0.060	0.020	0.013	0.16	4.12	0.06	1.03	0.0	4

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

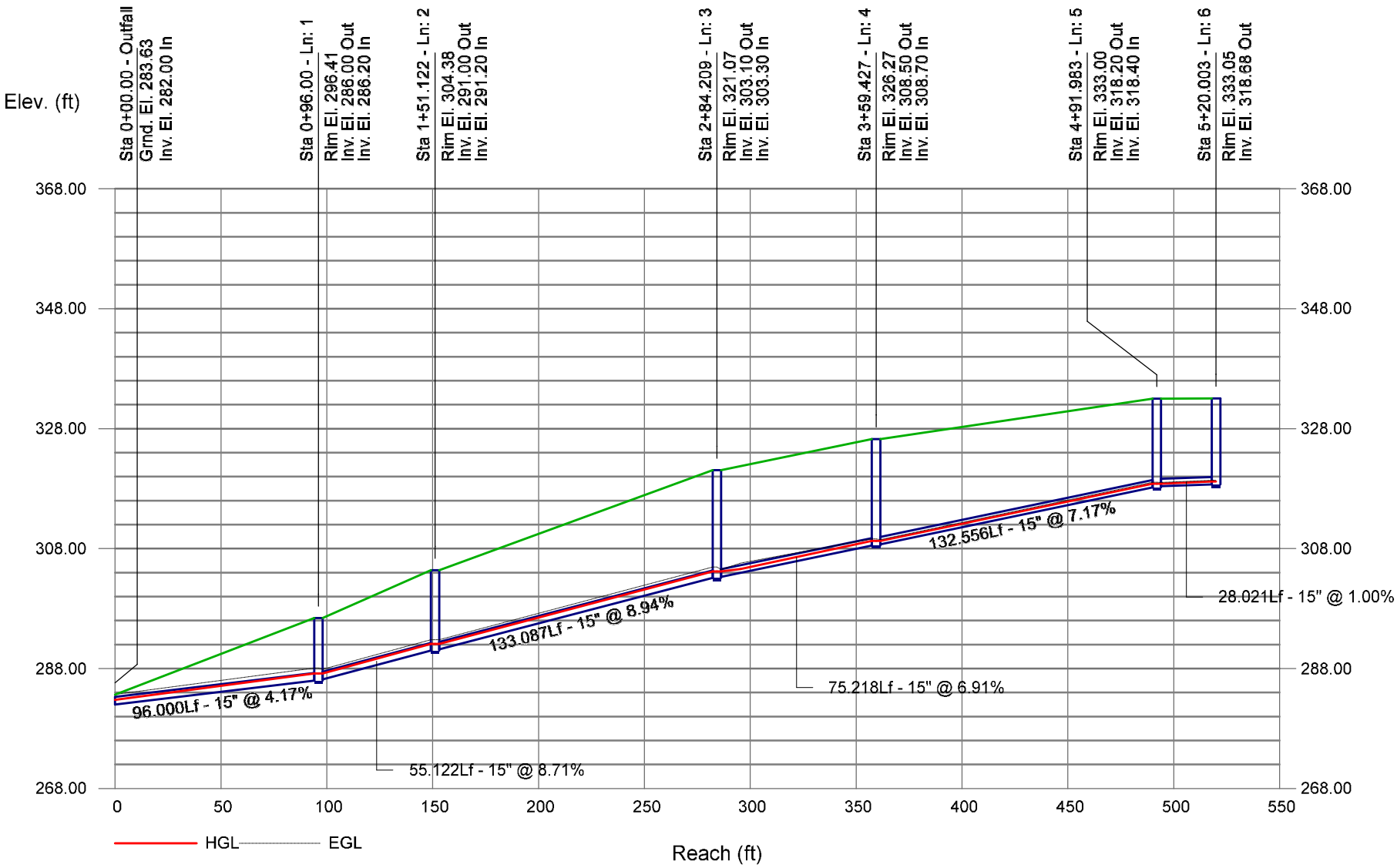
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	15	9.04	282.00	282.76	0.76	0.78	11.57	0.90	283.67	0.000	96.000	286.00	287.16	1.16**	1.19	7.63	0.90	288.06	0.000	0.000	n/a	0.50	0.45
2	15	7.78	286.20	287.16	0.96	1.01	7.72	0.72	287.87	0.000	55.122	291.00	292.10	1.10**	1.15	6.78	0.72	292.82	0.000	0.000	n/a	0.74	0.53
3	15	7.82	291.20	292.10	0.90	0.95	8.23	0.72	292.82	0.000	133.087	303.10	304.21	1.11**	1.15	6.81	0.72	304.93	0.000	0.000	n/a	1.48	1.07
4	15	3.64	303.30	304.21	0.91	0.79	3.83	0.33	304.53	0.000	75.218	308.50	309.27 j	0.77**	0.79	4.59	0.33	309.60	0.000	0.000	n/a	0.91	0.30
5	15	2.32	308.70	309.27	0.57	0.55	4.25	0.24	309.51	0.000	132.556	318.20	318.81	0.61**	0.59	3.91	0.24	319.05	0.000	0.000	n/a	1.50	0.36
6	15	1.71	318.40	318.84	0.44*	0.38	4.44	0.20	319.03	0.000	28.021	318.68	319.20	0.52**	0.48	3.55	0.20	319.39	0.000	0.000	n/a	1.00	0.20
7	18	1.12	308.70	309.27	0.57	0.37	1.82	0.14	309.41	0.000	37.852	309.49	309.89 j	0.40**	0.37	3.02	0.14	310.03	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6A Storm Network.stm | Number of lines: 7 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

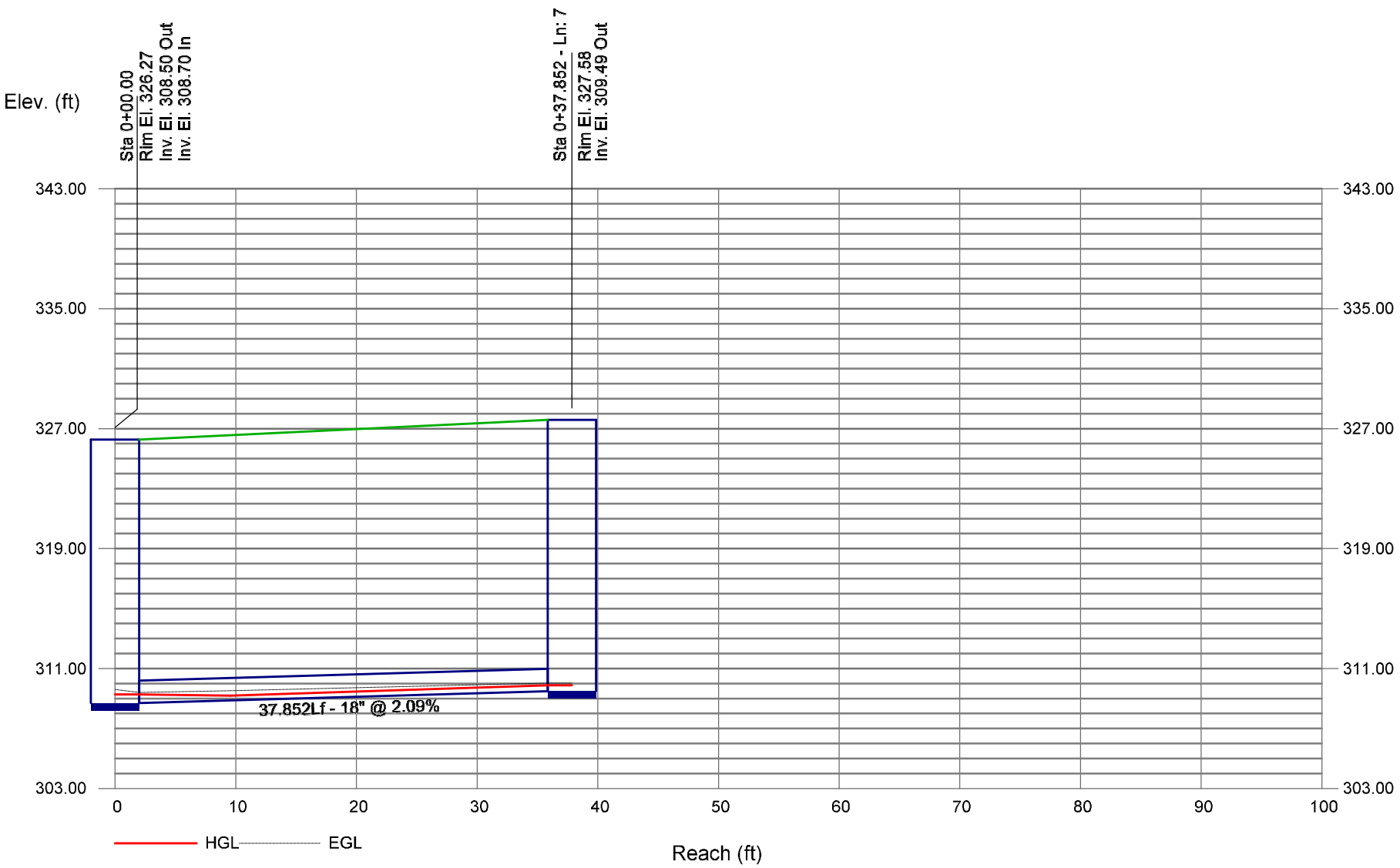
Storm Sewer Profile

Proj. file: SCM 6A Storm Network.stm

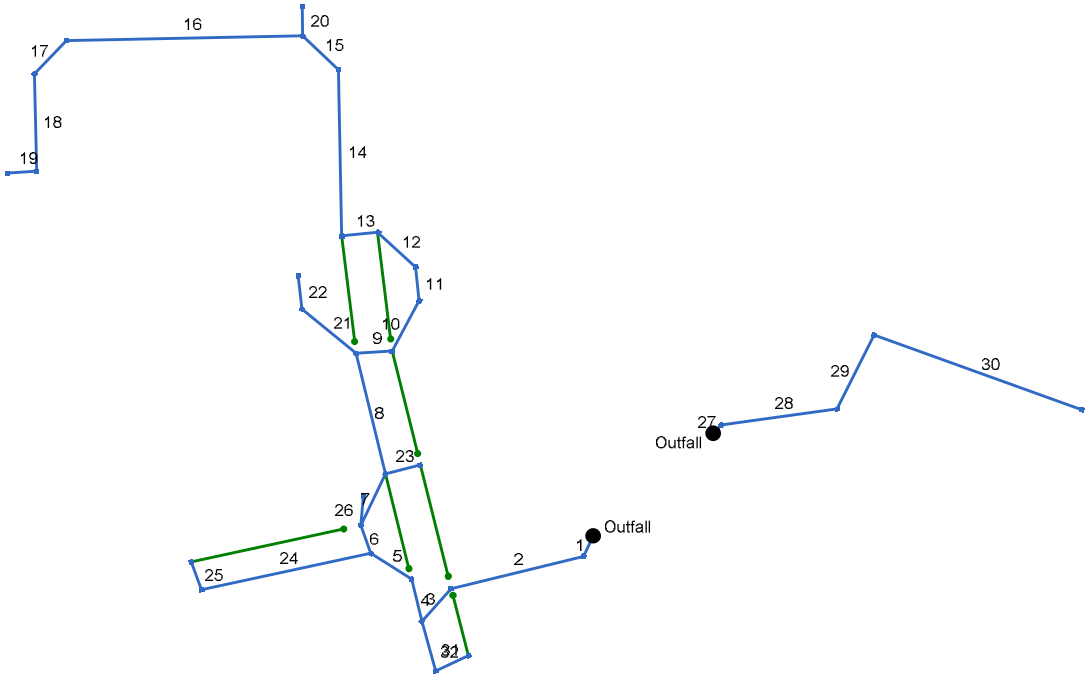


Storm Sewer Profile

Proj. file: SCM 6A Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 6B Storm Network.stm	Number of lines: 32	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	21.595	114.988	Comb	0.00	0.73	0.60	10.0	289.00	4.63	290.00	24	Cir	0.013	1.22	311.92	Pipe - (466)
2	1	129.199	51.274	Comb	0.00	0.14	0.60	10.0	290.20	8.36	301.00	24	Cir	0.013	0.93	318.02	Pipe - (465)
3	2	41.927	-34.580	Comb	0.00	0.02	0.60	10.0	301.28	1.00	301.70	24	Cir	0.013	1.95	315.00	Pipe - (546)
4	3	41.516	124.607	Comb	0.00	0.08	0.60	10.0	301.90	10.00	306.05	24	Cir	0.013	1.10	319.55	Pipe - (514)
5	4	45.778	-43.754	Comb	0.00	0.19	0.60	10.0	306.25	9.94	310.80	24	Cir	0.013	1.12	324.12	Pipe - (460)
6	5	28.278	38.229	Comb	0.00	0.30	0.60	10.0	311.00	9.90	313.80	24	Cir	0.013	1.55	325.19	Pipe - (321)
7	6	54.257	44.766	Comb	0.00	0.12	0.60	10.0	314.00	9.95	319.40	24	Cir	0.013	1.21	331.02	Pipe - (459)
8	7	118.068	-39.263	Comb	0.00	0.03	0.60	10.0	319.60	6.27	327.00	24	Cir	0.013	2.20	336.57	Pipe - (513)
9	8	34.519	99.944	Comb	0.00	0.04	0.60	10.0	327.20	1.87	327.85	18	Cir	0.013	1.31	337.19	Pipe - (463)
10	9	54.019	-58.028	Comb	0.00	0.03	0.60	10.0	328.05	0.80	328.48	18	Cir	0.013	0.92	334.59	Pipe - (310)
11	10	32.394	-34.234	Comb	0.00	0.11	0.60	10.0	328.68	0.89	328.97	18	Cir	0.013	1.06	333.35	Pipe - (309)
12	11	49.141	-41.395	Comb	0.00	0.27	0.60	10.0	329.17	1.10	329.71	18	Cir	0.013	1.18	337.00	Pipe - (308)
13	12	34.087	-48.578	Comb	0.00	1.09	0.60	10.0	329.91	0.81	330.19	18	Cir	0.013	1.50	336.78	Pipe - (307)
14	13	158.245	94.812	Comb	0.00	0.15	0.60	10.0	330.48	3.30	335.70	15	Cir	0.013	1.12	344.51	Pipe - (301)
15	14	46.667	-44.997	Comb	0.00	0.25	0.60	10.0	335.90	4.50	338.00	15	Cir	0.013	1.69	345.78	Pipe - (300)
16	15	224.015	-44.997	Comb	0.00	0.04	0.60	10.0	338.20	2.72	344.30	15	Cir	0.013	1.13	351.50	Pipe - (486)
17	16	43.823	-45.023	Comb	0.00	0.05	0.60	10.0	344.50	0.91	344.90	15	Cir	0.013	1.12	351.96	Pipe - (485)
18	17	92.623	-44.977	Comb	0.00	0.13	0.60	10.0	345.10	1.25	346.26	15	Cir	0.013	1.50	353.78	Pipe - (502)
19	18	28.029	87.415	Comb	0.00	0.08	0.60	10.0	346.50	0.61	346.67	15	Cir	0.013	1.00	353.75	Pipe - (503)
20	15	27.999	44.982	Comb	0.00	0.35	0.60	10.0	338.20	-0.71	338.00	15	Cir	0.013	1.00	345.78	Pipe - (305)
21	8	66.408	-37.002	Comb	0.00	0.08	0.60	10.0	327.20	6.63	331.60	15	Cir	0.013	1.12	340.36	Pipe - (537)
22	21	32.002	44.457	Comb	0.00	0.73	0.60	10.0	331.80	0.59	331.99	15	Cir	0.013	1.00	340.43	Pipe - (538)
23	7	33.996	50.101	Comb	0.00	0.08	0.60	10.0	319.60	10.00	323.00	15	Cir	0.013	1.00	331.00	Pipe - (545)

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	5	164.315	-44.670	Comb	0.00	0.25	0.60	10.0	311.00	4.75	318.80	18	Cir	0.013	1.49	329.77	Pipe - (315)
25	24	28.000	81.868	Comb	0.00	0.29	0.60	10.0	319.00	1.00	319.28	15	Cir	0.013	1.00	329.77	Pipe - (320)
26	6	27.975	23.822	DrGrt	0.00	0.77	0.60	10.0	315.79	3.57	316.79	15	Cir	0.013	1.00	322.37	Pipe - (686)
27	End	11.262	-45.988	Comb	0.00	1.01	0.60	10.0	289.00	8.88	290.00	18	Cir	0.013	1.00	310.05	Pipe - (539)
28	27	110.638	38.130	Comb	0.00	0.11	0.60	10.0	290.20	9.76	301.00	15	Cir	0.013	1.28	315.26	Pipe - (540)
29	28	78.569	-55.641	Comb	0.00	0.71	0.60	10.0	301.20	1.91	302.70	15	Cir	0.013	1.49	313.86	Pipe - (541)
30	29	208.966	83.346	Comb	0.00	0.29	0.60	10.0	302.90	1.00	305.00	15	Cir	0.013	1.00	311.00	Pipe - (542)
31	3	48.735	-57.114	Comb	0.00	0.05	0.60	10.0	301.91	0.60	302.20	18	Cir	0.013	1.50	310.31	Pipe - (462)
32	31	34.300	-99.882	Comb	0.00	0.05	0.60	10.0	302.40	0.70	302.64	15	Cir	0.013	1.00	310.04	Pipe - (464)

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 611	Combination	311.92	Rect	4.00	4.00	24	Cir	290.00	24	Cir	290.20
2	CB 612	Combination	318.02	Rect	4.00	4.00	24	Cir	301.00	24	Cir	301.28
3	CB 613	Combination	315.00	Rect	4.00	4.00	24	Cir	301.70	24 18	Cir Cir	301.90 301.91
4	CB 614	Combination	319.55	Rect	4.00	4.00	24	Cir	306.05	24	Cir	306.25
5	CB 615	Combination	324.12	Rect	4.00	4.00	24	Cir	310.80	24 18	Cir Cir	311.00 311.00
6	CB 616	Combination	325.19	Rect	4.00	4.00	24	Cir	313.80	24 15	Cir Cir	314.00 315.79
7	CB 617	Combination	331.02	Rect	4.00	4.00	24	Cir	319.40	24 15	Cir Cir	319.60 319.60
8	CB 618	Combination	336.57	Rect	4.00	4.00	24	Cir	327.00	18 15	Cir Cir	327.20 327.20
9	CB 619	Combination	337.19	Rect	4.00	4.00	18	Cir	327.85	18	Cir	328.05
10	CB 620	Combination	334.59	Rect	4.00	4.00	18	Cir	328.48	18	Cir	328.68
11	CB 621	Combination	333.35	Rect	4.00	4.00	18	Cir	328.97	18	Cir	329.17
12	CB 622	Combination	337.00	Rect	4.00	4.00	18	Cir	329.71	18	Cir	329.91
13	CB 623	Combination	336.78	Rect	4.00	4.00	18	Cir	330.19	15	Cir	330.48
14	CB 624	Combination	344.51	Rect	4.00	4.00	15	Cir	335.70	15	Cir	335.90
15	CB 625	Combination	345.78	Rect	4.00	4.00	15	Cir	338.00	15 15	Cir Cir	338.20 338.20
16	CB 626	Combination	351.50	Rect	4.00	4.00	15	Cir	344.30	15	Cir	344.50
17	CB 627	Combination	351.96	Rect	4.00	4.00	15	Cir	344.90	15	Cir	345.10
18	CB 628	Combination	353.78	Rect	4.00	4.00	15	Cir	346.26	15	Cir	346.50
19	CB 628A	Combination	353.75	Rect	4.00	4.00	15	Cir	346.67			
20	CB 625A	Combination	345.78	Rect	4.00	4.00	15	Cir	338.00			

Project File: SCM 6B Storm Network.stm | Number of Structures: 32 | Run Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	CB 618A	Combination	340.36	Rect	4.00	4.00	15	Cir	331.60	15	Cir	331.80
22	CB 618B	Combination	340.43	Rect	4.00	4.00	15	Cir	331.99			
23	CB 617A	Combination	331.00	Rect	4.00	4.00	15	Cir	323.00			
24	CB 615A	Combination	329.77	Rect	4.00	4.00	18	Cir	318.80	15	Cir	319.00
25	CB 615B	Combination	329.77	Rect	4.00	4.00	15	Cir	319.28			
26	YI 616A	DropGrate	322.37	Rect	4.00	4.00	15	Cir	316.79			
27	JB 631	Combination	310.05	Rect	4.00	4.00	18	Cir	290.00	15	Cir	290.20
28	JB 632	Combination	315.26	Rect	4.00	4.00	15	Cir	301.00	15	Cir	301.20
29	CB 633	Combination	313.86	Rect	4.00	4.00	15	Cir	302.70	15	Cir	302.90
30	CB 634	Combination	311.00	Rect	4.00	4.00	15	Cir	305.00			
31	CB 613A	Combination	310.31	Rect	4.00	4.00	18	Cir	302.20	15	Cir	302.40
32	CB 613B	Combination	310.04	Rect	4.00	4.00	15	Cir	302.64			

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (466)	21.83	24	Cir	21.595	289.00	290.00	4.631	295.14*	295.34*	0.92	296.26	End	Combination
2	Pipe - (465)	19.55	24	Cir	129.199	290.20	301.00	8.359	296.26	302.59	n/a	302.59 j	1	Combination
3	Pipe - (546)	19.12	24	Cir	41.927	301.28	301.70	1.002	302.69	303.27	n/a	303.27	2	Combination
4	Pipe - (514)	18.78	24	Cir	41.516	301.90	306.05	9.996	303.27	307.61	n/a	307.61	3	Combination
5	Pipe - (460)	18.56	24	Cir	45.778	306.25	310.80	9.939	307.61	312.35	0.88	312.35	4	Combination
6	Pipe - (321)	16.09	24	Cir	28.278	311.00	313.80	9.902	312.35	315.25	1.06	315.25	5	Combination
7	Pipe - (459)	12.48	24	Cir	54.257	314.00	319.40	9.953	315.25	320.67	n/a	320.67	6	Combination
8	Pipe - (513)	11.90	24	Cir	118.068	319.60	327.00	6.268	320.67	328.24	n/a	328.24	7	Combination
9	Pipe - (463)	9.01	18	Cir	34.519	327.20	327.85	1.868	328.24	329.01	0.77	329.01	8	Combination
10	Pipe - (310)	8.91	18	Cir	54.019	328.05	328.48	0.800	329.21	329.64	0.52	330.17	9	Combination
11	Pipe - (309)	8.83	18	Cir	32.394	328.68	328.97	0.892	330.17	330.12	n/a	330.12	10	Combination
12	Pipe - (308)	8.48	18	Cir	49.141	329.17	329.71	1.105	330.16	330.84	n/a	330.84	11	Combination
13	Pipe - (307)	7.55	18	Cir	34.087	329.91	330.19	0.813	330.93	331.25	0.74	331.25	12	Combination
14	Pipe - (301)	3.77	15	Cir	158.245	330.48	335.70	3.300	331.25	336.48	0.38	336.48	13	Combination
15	Pipe - (300)	3.25	15	Cir	46.667	335.90	338.00	4.500	336.48	338.73	n/a	338.73	14	Combination
16	Pipe - (486)	1.13	15	Cir	224.015	338.20	344.30	2.723	338.73	344.72	n/a	344.72 j	15	Combination
17	Pipe - (485)	0.99	15	Cir	43.823	344.50	344.90	0.913	344.84	345.29	0.16	345.29	16	Combination
18	Pipe - (502)	0.81	15	Cir	92.623	345.10	346.26	1.252	345.38	346.61	0.19	346.61	17	Combination
19	Pipe - (503)	0.31	15	Cir	28.029	346.50	346.67	0.607	346.71	346.89	n/a	346.89	18	Combination
20	Pipe - (305)	1.36	15	Cir	27.999	338.20	338.00	-0.714	339.45*	339.46*	0.02	339.48	15	Combination
21	Pipe - (537)	3.13	15	Cir	66.408	327.20	331.60	6.626	328.24	332.31	n/a	332.31 j	8	Combination
22	Pipe - (538)	2.83	15	Cir	32.002	331.80	331.99	0.594	332.48	332.67	0.27	332.94	21	Combination
23	Pipe - (545)	0.31	15	Cir	33.996	319.60	323.00	10.001	320.67	323.22	n/a	323.22 j	7	Combination
24	Pipe - (315)	2.09	18	Cir	164.315	311.00	318.80	4.747	312.35	319.34	n/a	319.34 j	5	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	Pipe - (320)	1.12	15	Cir	28.000	319.00	319.28	1.000	319.35	319.70	n/a	319.70	24	Combination
26	Pipe - (686)	2.99	15	Cir	27.975	315.79	316.79	3.575	316.21	317.48	n/a	317.48	6	DropGrate
27	Pipe - (539)	7.69	18	Cir	11.262	289.00	290.00	8.879	295.14*	295.20*	0.29	295.50	End	Combination
28	Pipe - (540)	4.09	15	Cir	110.638	290.20	301.00	9.762	295.50	301.82	n/a	301.82 j	27	Combination
29	Pipe - (541)	3.71	15	Cir	78.569	301.20	302.70	1.909	301.82	303.48	0.50	303.48	28	Combination
30	Pipe - (542)	1.12	15	Cir	208.966	302.90	305.00	1.005	303.48	305.42	n/a	305.42 j	29	Combination
31	Pipe - (462)	0.38	18	Cir	48.735	301.91	302.20	0.595	303.27	302.43	n/a	302.43	3	Combination
32	Pipe - (464)	0.19	15	Cir	34.300	302.40	302.64	0.700	302.56	302.81	n/a	302.81	31	Combination

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 611	2.83	0.00	2.83	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.26	13.03	0.26	13.03	0.0	Off
2	CB 612	0.54	0.00	0.54	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.10	1.73	0.00	0.00	0.0	1
3	CB 613	0.06	0.00	0.06	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.05	0.77	0.00	0.00	0.0	Off
4	CB 614	0.31	0.11	0.42	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.09	1.57	0.00	0.00	0.0	3
5	CB 615	0.74	0.06	0.69	0.11	Comb	6.0	1.50	0.00	3.00	2.50	0.006	2.00	0.060	0.020	0.013	0.19	5.66	0.10	1.59	0.0	4
6	CB 616	1.16	0.07	1.22	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.14	3.05	0.03	0.50	0.0	5
7	CB 617	0.47	0.12	0.58	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.11	1.78	0.00	0.00	0.0	4
8	CB 618	0.12	1.41	1.41	0.12	Comb	6.0	1.50	0.00	3.00	2.50	0.063	2.00	0.060	0.020	0.013	0.16	4.18	0.06	1.07	0.0	7
9	CB 619	0.16	0.08	0.23	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.022	2.00	0.060	0.020	0.013	0.10	1.67	0.00	0.00	0.0	23
10	CB 620	0.12	0.00	0.12	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.06	1.07	0.00	0.00	0.0	9
11	CB 621	0.43	0.00	0.43	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.062	2.00	0.060	0.020	0.013	0.10	1.73	0.00	0.00	0.0	10
12	CB 622	1.05	0.00	0.97	0.08	Comb	6.0	1.50	0.00	3.00	2.50	0.030	2.00	0.060	0.020	0.013	0.16	4.17	0.06	1.04	0.0	9
13	CB 623	4.23	0.00	2.85	1.38	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.24	7.82	0.17	4.37	0.0	8
14	CB 624	0.58	0.10	0.67	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.040	2.00	0.060	0.020	0.013	0.13	2.70	0.02	0.33	0.0	13
15	CB 625	0.97	0.31	1.19	0.10	Comb	6.0	1.50	0.00	3.00	2.50	0.045	2.00	0.060	0.020	0.013	0.16	4.17	0.06	1.05	0.0	14
16	CB 626	0.16	0.00	0.16	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.09	1.47	0.00	0.00	0.0	15
17	CB 627	0.19	0.00	0.20	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.012	2.00	0.060	0.020	0.013	0.11	1.77	0.00	0.00	0.0	16
18	CB 628	0.50	0.00	0.50	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.14	2.83	0.02	0.36	0.0	17
19	CB 628A	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.11	1.90	0.00	0.00	0.0	Off
20	CB 625A	1.36	0.00	1.04	0.31	Comb	6.0	1.50	0.00	3.00	2.50	0.005	2.00	0.060	0.020	0.013	0.23	7.68	0.15	3.37	0.0	15
21	CB 618A	0.31	0.65	0.94	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.049	2.00	0.060	0.020	0.013	0.15	3.32	0.04	0.63	0.0	8
22	CB 618B	2.83	0.00	2.18	0.65	Comb	6.0	1.50	0.00	3.00	2.50	0.049	2.00	0.060	0.020	0.013	0.21	6.33	0.13	2.37	0.0	21
23	CB 617A	0.31	0.00	0.31	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.08	1.41	0.00	0.00	0.0	2

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
24	CB 615A	0.97	0.00	0.93	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.039	2.00	0.060	0.020	0.013	0.15	3.62	0.05	0.79	0.0	5
25	CB 615B	1.12	0.00	1.05	0.07	Comb	6.0	1.50	0.00	3.00	2.50	0.039	2.00	0.060	0.020	0.013	0.16	4.01	0.06	0.97	0.0	6
26	YI 616A	2.99	0.00	1.92	1.07	DrGrt	0.0	0.00	0.00	3.00	2.50	0.020	2.00	0.050	0.020	0.013	0.17	19.10	0.17	19.10	0.0	Off
27	JB 631	3.92	0.00	3.92	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.32	15.93	0.32	15.93	0.0	Off
28	JB 632	0.43	0.85	1.28	0.00	Comb	4.0	3.00	4.00	3.00	2.50	Sag	2.00	0.020	0.020	0.013	0.16	8.08	0.16	8.08	0.0	Off
29	CB 633	2.75	0.13	2.03	0.85	Comb	6.0	1.50	0.00	3.00	2.50	0.025	2.00	0.060	0.020	0.013	0.23	7.50	0.16	3.86	0.0	28
30	CB 634	1.12	0.00	0.99	0.13	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.18	4.92	0.08	1.38	0.0	29
31	CB 613A	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.07	1.18	0.00	0.00	0.0	3
32	CB 613B	0.19	0.00	0.19	0.00	Comb	6.0	1.50	0.00	3.00	2.50	0.100	2.00	0.060	0.020	0.013	0.07	1.18	0.00	0.00	0.0	2

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	24	21.83	289.00	295.14	2.00	3.14	6.95	0.75	295.89	0.932	21.595	290.00	295.34	2.00	3.14	6.95	0.75	296.09	0.931	0.931	0.201	1.22	0.92
2	24	19.55	290.20	296.26	2.00	2.68	6.22	0.60	296.86	0.747	129.199	301.00	302.59 j	1.59**	2.68	7.31	0.83	303.42	0.793	0.770	n/a	0.93	0.77
3	24	19.12	301.28	302.69	1.41*	2.37	8.08	0.81	303.50	0.000	41.927	301.70	303.27	1.57**	2.65	7.22	0.81	304.08	0.000	0.000	n/a	1.95	n/a
4	24	18.78	301.90	303.27	1.37	2.30	8.17	0.79	304.07	0.000	41.516	306.05	307.61	1.56**	2.63	7.15	0.79	308.40	0.000	0.000	n/a	1.10	n/a
5	24	18.56	306.25	307.61	1.36	2.27	8.17	0.79	308.39	0.000	45.778	310.80	312.35	1.55**	2.61	7.11	0.79	313.13	0.000	0.000	n/a	1.12	0.88
6	24	16.09	311.00	312.35	1.35	2.26	7.14	0.68	313.03	0.000	28.278	313.80	315.25	1.44**	2.43	6.62	0.68	315.93	0.000	0.000	n/a	1.55	1.06
7	24	12.48	314.00	315.25	1.24	2.06	6.07	0.55	315.79	0.000	54.257	319.40	320.67	1.27**	2.10	5.94	0.55	321.22	0.000	0.000	n/a	1.21	n/a
8	24	11.90	319.60	320.67	1.07	1.71	6.96	0.53	321.20	0.000	118.068	327.00	328.24	1.24**	2.04	5.83	0.53	328.77	0.000	0.000	n/a	2.20	n/a
9	18	9.01	327.20	328.24	1.04	1.31	6.90	0.59	328.82	0.000	34.519	327.85	329.01	1.16**	1.47	6.14	0.59	329.59	0.000	0.000	n/a	1.31	0.77
10	18	8.91	328.05	329.21	1.17*	1.47	6.05	0.57	329.78	0.800	54.019	328.48	329.64	1.17	1.47	6.04	0.57	330.21	0.798	0.799	0.432	0.92	0.52
11	18	8.83	328.68	330.17	1.49	1.45	5.01	0.57	330.74	0.000	32.394	328.97	330.12	1.15**	1.45	6.08	0.57	330.69	0.000	0.000	n/a	1.06	n/a
12	18	8.48	329.17	330.16	0.99*	1.23	6.89	0.55	330.71	0.000	49.141	329.71	330.84	1.13**	1.42	5.95	0.55	331.39	0.000	0.000	n/a	1.18	n/a
13	18	7.55	329.91	330.93	1.01*	1.27	5.95	0.49	331.42	0.000	34.087	330.19	331.25	1.06**	1.34	5.64	0.49	331.75	0.000	0.000	n/a	1.50	0.74
14	15	3.77	330.48	331.25	0.78	0.80	4.71	0.34	331.59	0.000	158.245	335.70	336.48	0.78**	0.81	4.65	0.34	336.82	0.000	0.000	n/a	1.12	0.38
15	15	3.25	335.90	336.48	0.58	0.56	5.77	0.30	336.78	0.000	46.667	338.00	338.73	0.73**	0.74	4.40	0.30	339.03	0.000	0.000	n/a	1.69	n/a
16	15	1.13	338.20	338.73	0.53	0.36	2.31	0.15	338.88	0.000	224.015	344.30	344.72 j	0.42**	0.36	3.14	0.15	344.87	0.000	0.000	n/a	1.13	n/a
17	15	0.99	344.50	344.84	0.34*	0.27	3.68	0.14	344.98	0.000	43.823	344.90	345.29	0.39**	0.33	3.02	0.14	345.43	0.000	0.000	n/a	1.12	0.16
18	15	0.81	345.10	345.38	0.28*	0.21	3.89	0.13	345.51	0.000	92.623	346.26	346.61	0.35**	0.28	2.85	0.13	346.74	0.000	0.000	n/a	1.50	0.19
19	15	0.31	346.50	346.71	0.21*	0.14	2.27	0.08	346.79	0.000	28.029	346.67	346.89	0.22**	0.14	2.20	0.08	346.96	0.000	0.000	n/a	1.00	n/a
20	15	1.36	338.20	339.45	1.25*	1.23	1.11	0.02	339.47	0.044	27.999	338.00	339.46	1.25	1.23	1.11	0.02	339.48	0.044	0.044	0.012	1.00	0.02
21	15	3.13	327.20	328.24	1.04	0.72	2.87	0.29	328.53	0.000	66.408	331.60	332.31 j	0.71**	0.72	4.34	0.29	332.60	0.000	0.000	n/a	1.12	0.33
22	15	2.83	331.80	332.48	0.68*	0.68	4.18	0.27	332.75	0.593	32.002	331.99	332.67	0.68**	0.68	4.16	0.27	332.94	0.585	0.589	0.188	1.00	0.27

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

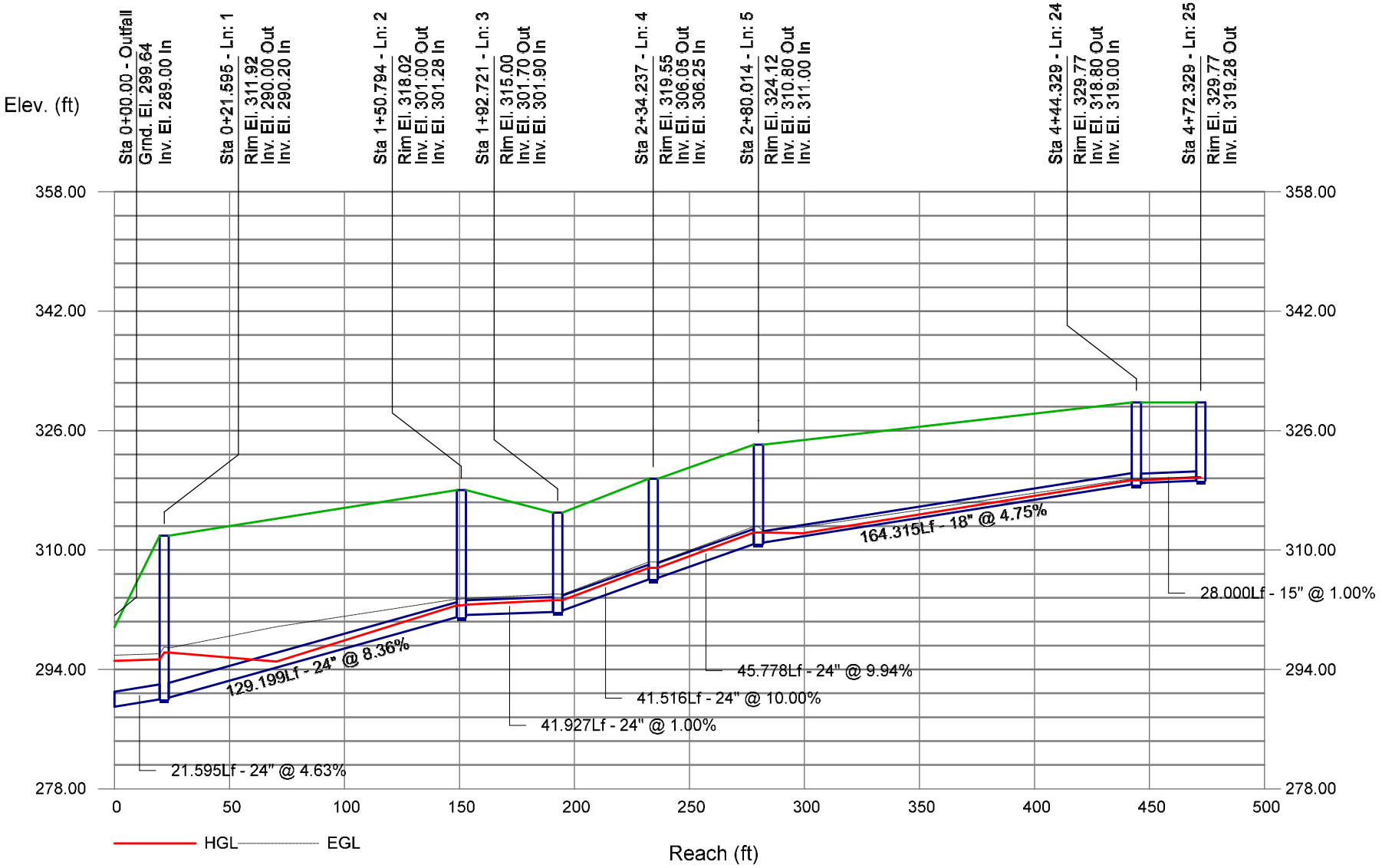
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	0.31	319.60	320.67	1.07	0.14	0.28	0.08	320.74	0.000	33.996	323.00	323.22 j	0.22**	0.14	2.20	0.08	323.29	0.000	0.000	n/a	1.00	n/a
24	18	2.09	311.00	312.35	1.35	0.58	1.25	0.20	312.55	0.000	164.315	318.80	319.34 j	0.54**	0.58	3.60	0.20	319.55	0.000	0.000	n/a	1.49	n/a
25	15	1.12	319.00	319.35	0.35*	0.28	3.95	0.15	319.51	0.000	28.000	319.28	319.70	0.42**	0.36	3.14	0.15	319.85	0.000	0.000	n/a	1.00	n/a
26	15	2.99	315.79	316.21	0.42*	0.36	8.21	0.28	316.49	0.000	27.975	316.79	317.48	0.69**	0.70	4.27	0.28	317.77	0.000	0.000	n/a	1.00	n/a
27	18	7.69	289.00	295.14	1.50	1.77	4.35	0.29	295.43	0.537	11.262	290.00	295.20	1.50	1.77	4.35	0.29	295.50	0.537	0.537	0.060	1.00	0.29
28	15	4.09	290.20	295.50	1.25	0.85	3.33	0.17	295.67	0.401	110.638	301.00	301.82 j	0.82**	0.85	4.81	0.36	302.18	0.688	0.544	n/a	1.28	n/a
29	15	3.71	301.20	301.82	0.62	0.60	6.14	0.33	302.15	0.000	78.569	302.70	303.48	0.78**	0.80	4.62	0.33	303.81	0.000	0.000	n/a	1.49	0.50
30	15	1.12	302.90	303.48	0.58	0.36	2.03	0.15	303.63	0.000	208.966	305.00	305.42 j	0.42**	0.36	3.14	0.15	305.57	0.000	0.000	n/a	1.00	n/a
31	18	0.38	301.91	303.27	1.36	0.17	0.23	0.08	303.35	0.000	48.735	302.20	302.43	0.23**	0.17	2.26	0.08	302.51	0.000	0.000	n/a	1.50	n/a
32	15	0.19	302.40	302.56	0.16*	0.09	2.07	0.06	302.62	0.000	34.300	302.64	302.81	0.17**	0.10	1.94	0.06	302.87	0.000	0.000	n/a	1.00	n/a

Project File: SCM 6B Storm Network.stm | Number of lines: 32 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

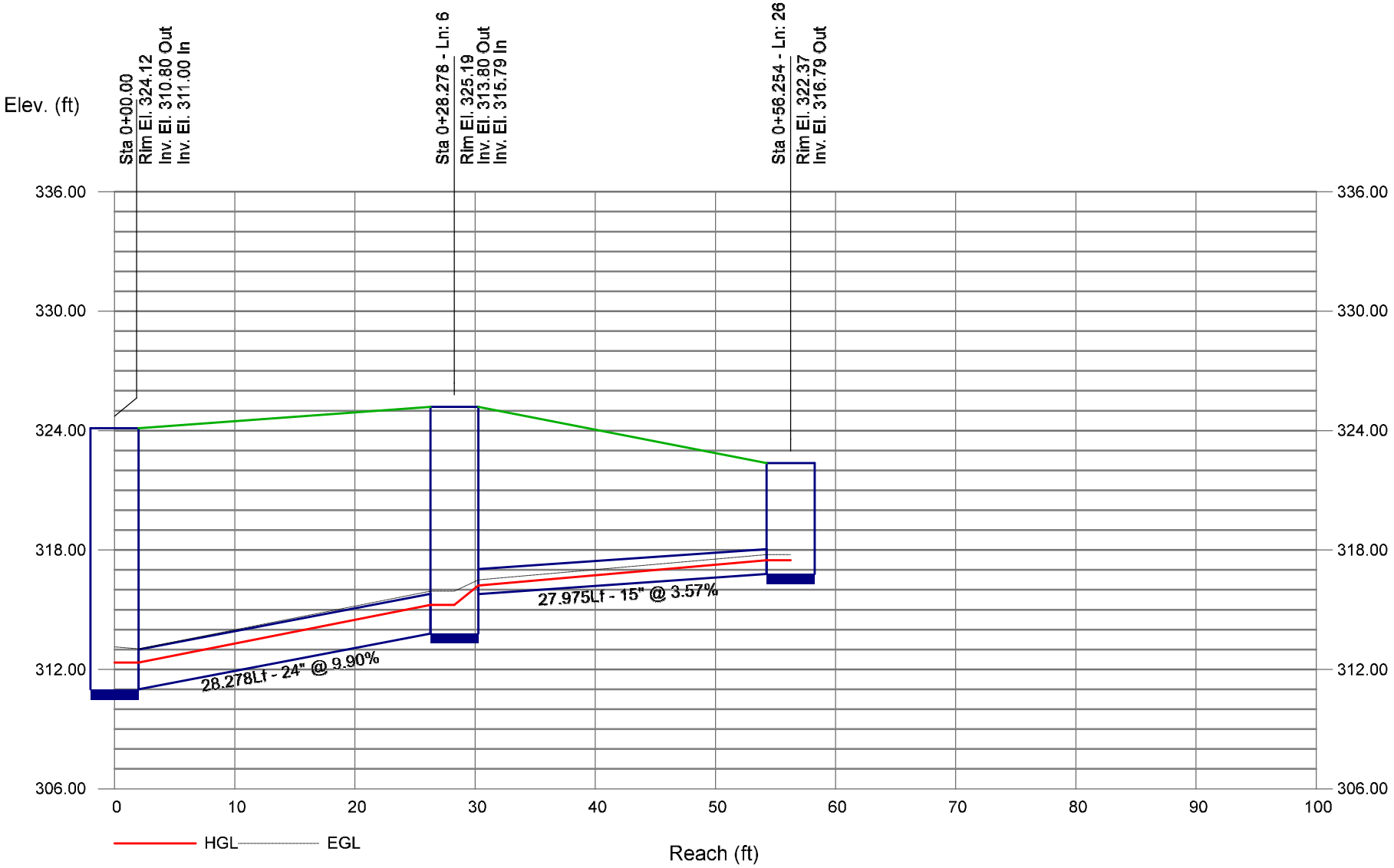
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



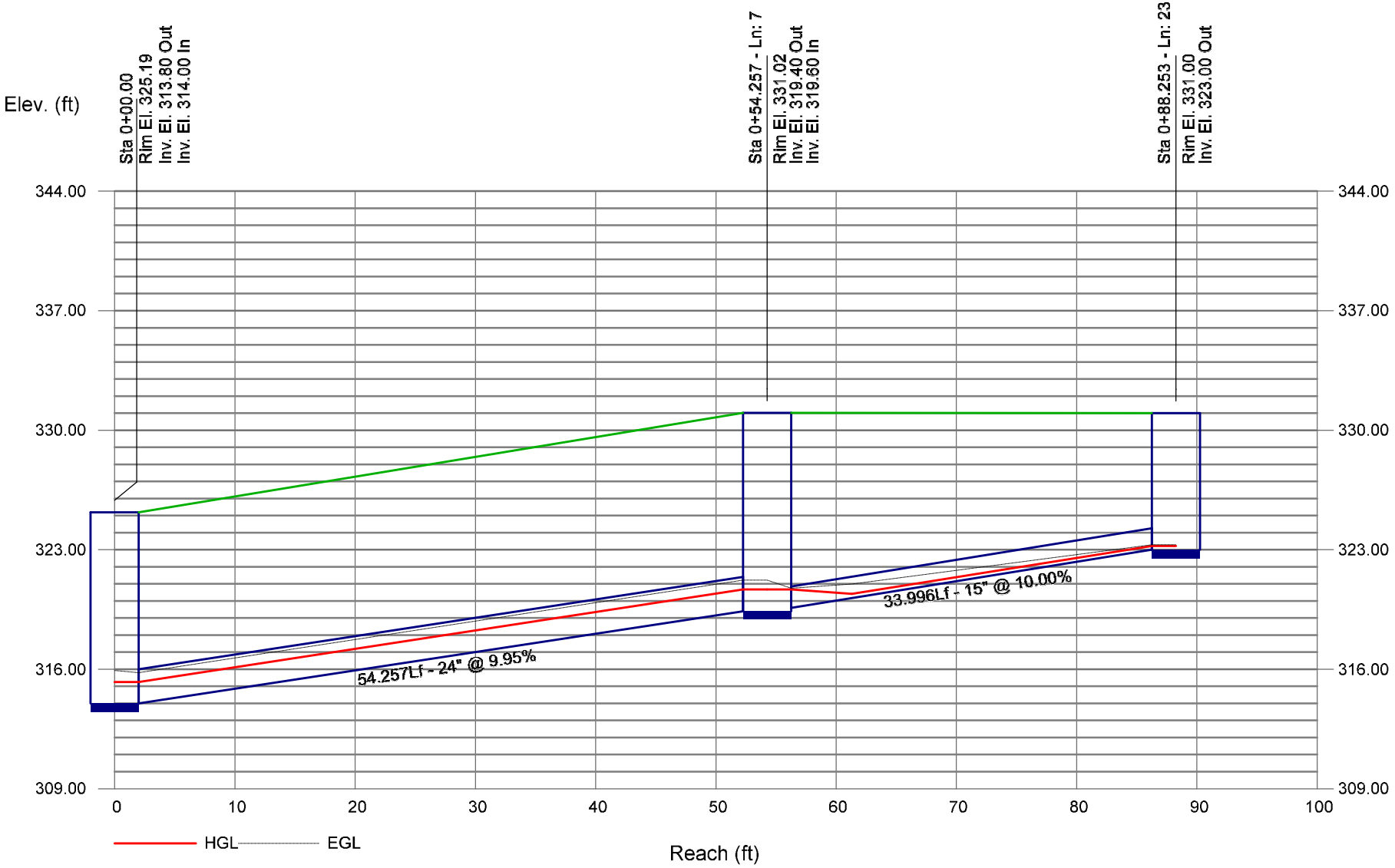
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



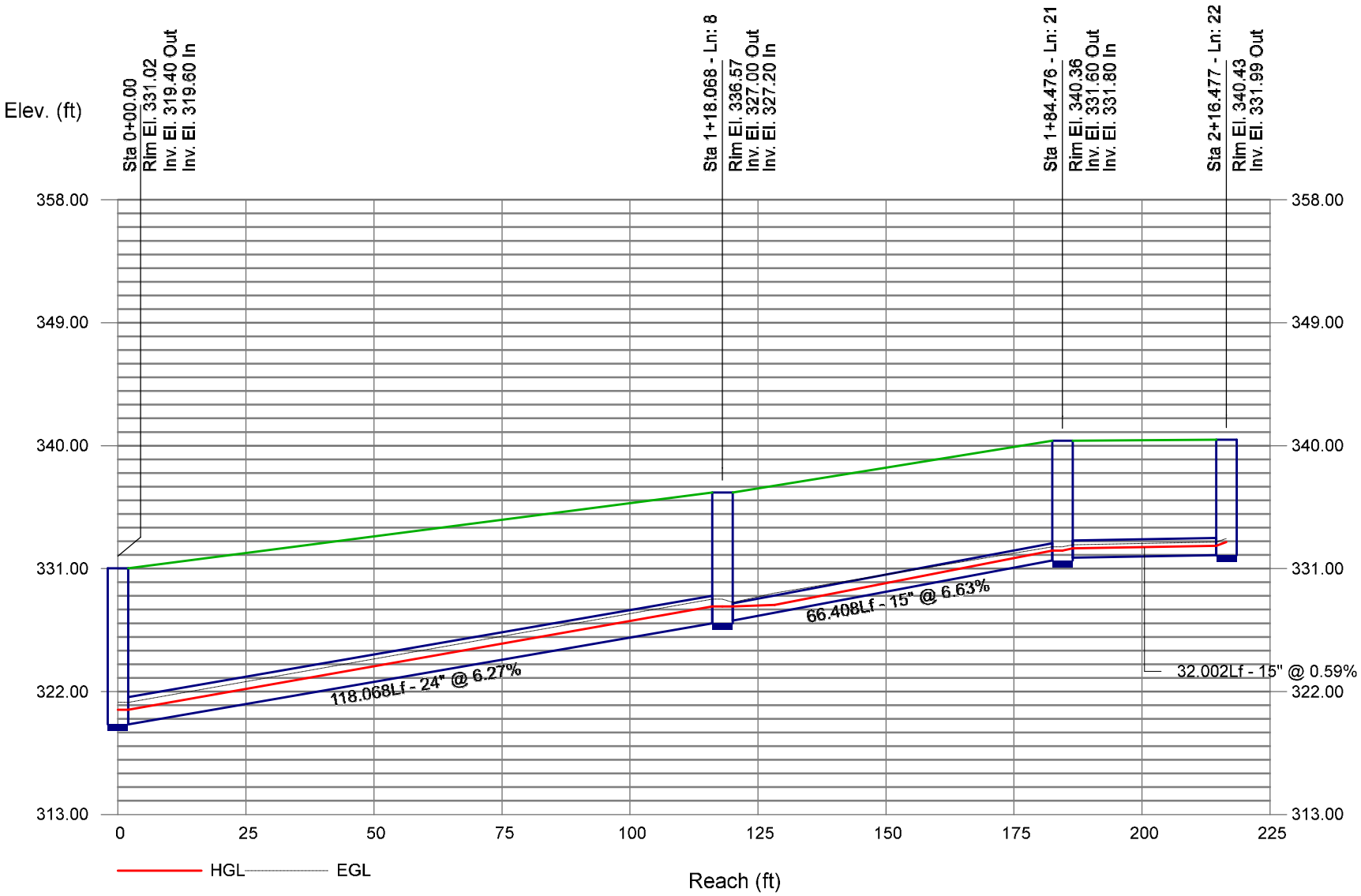
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



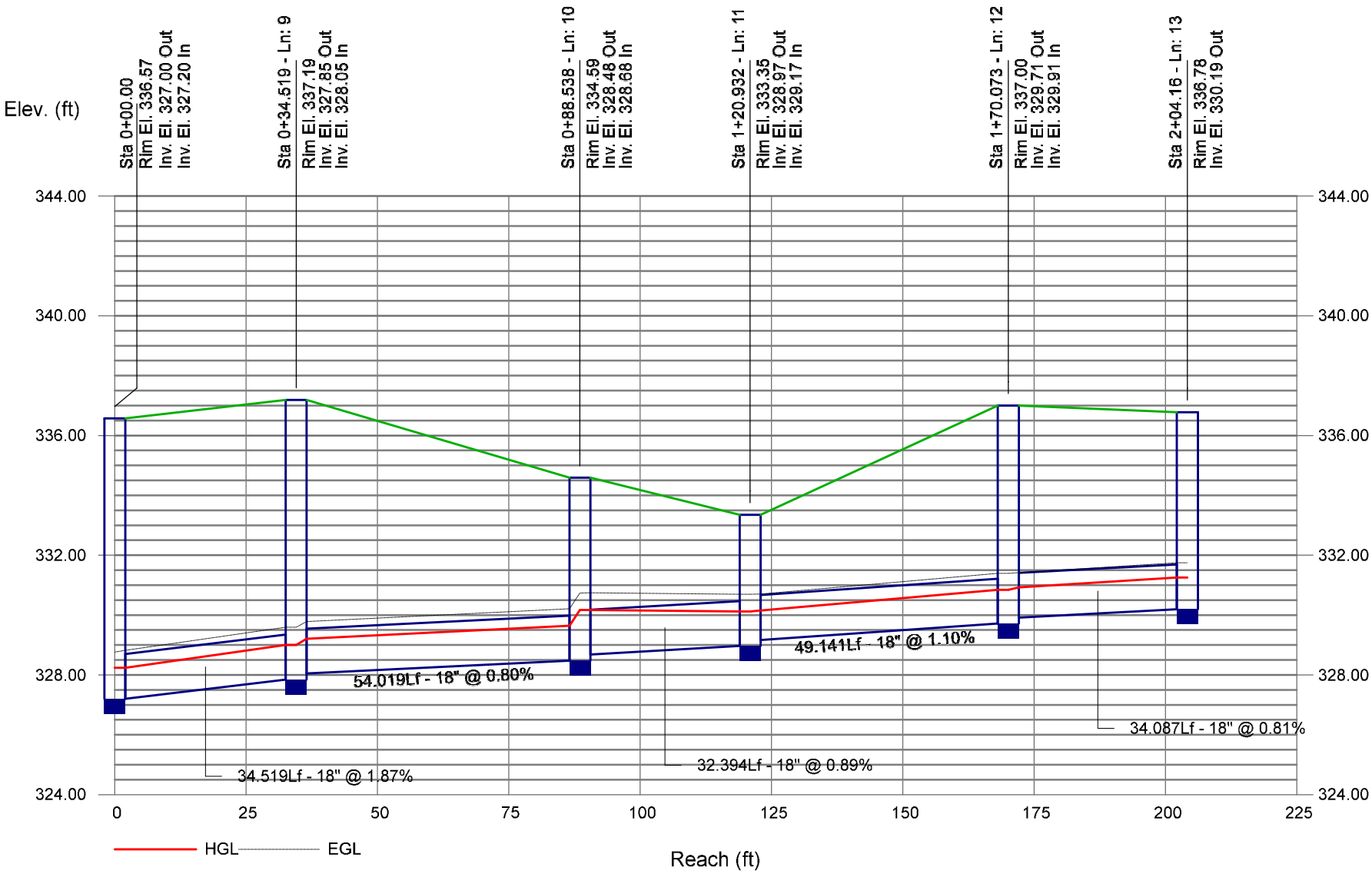
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



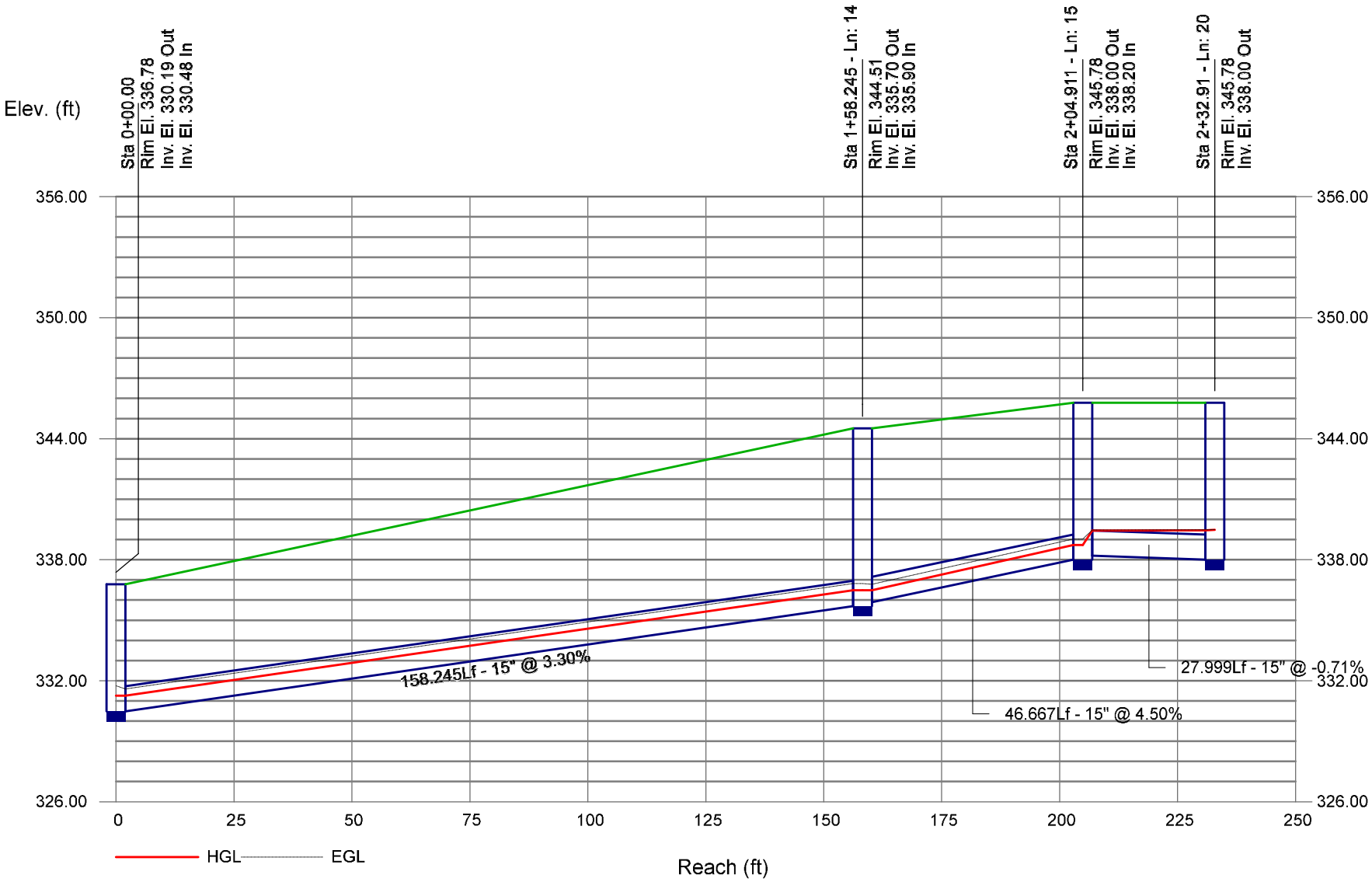
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



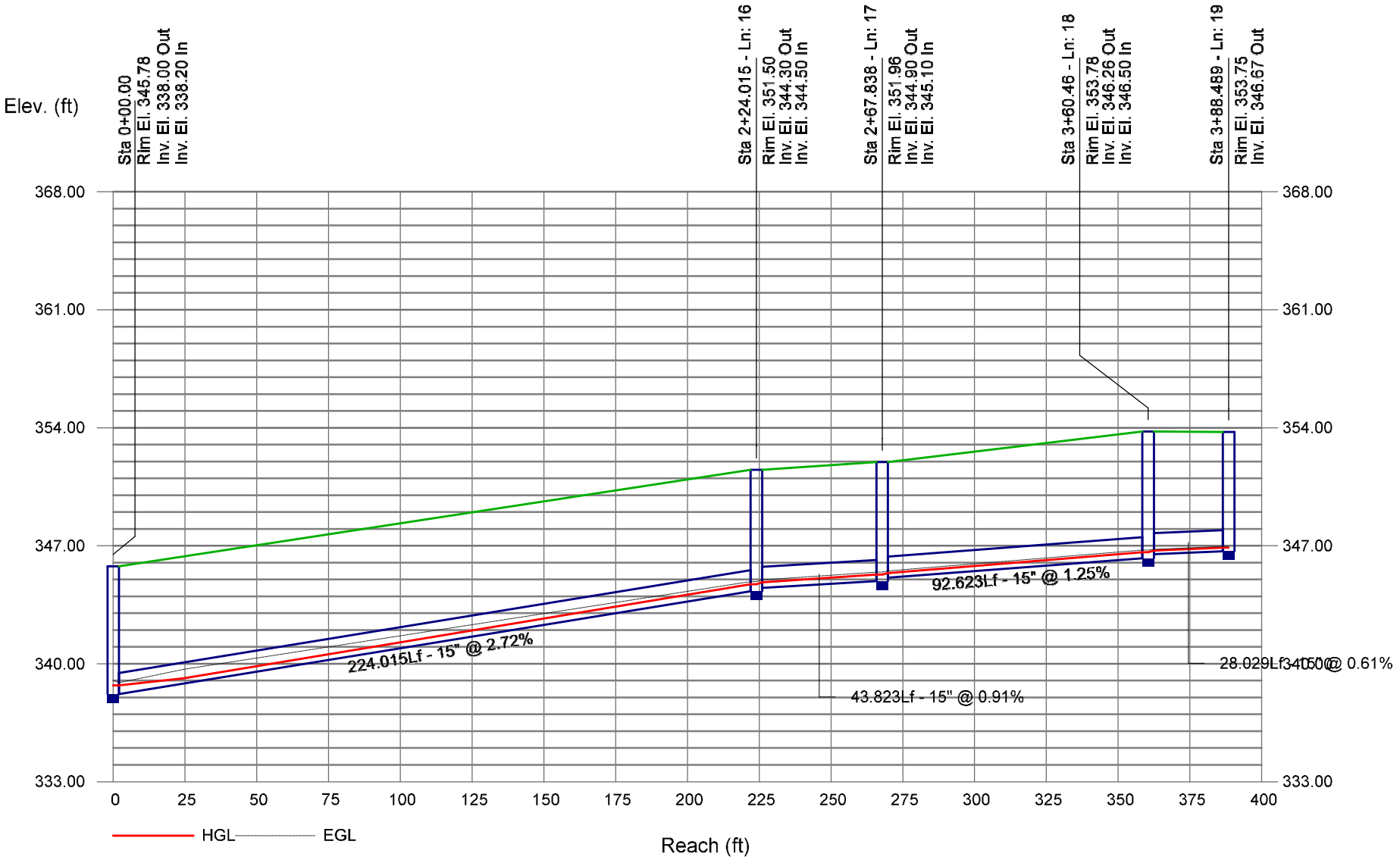
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



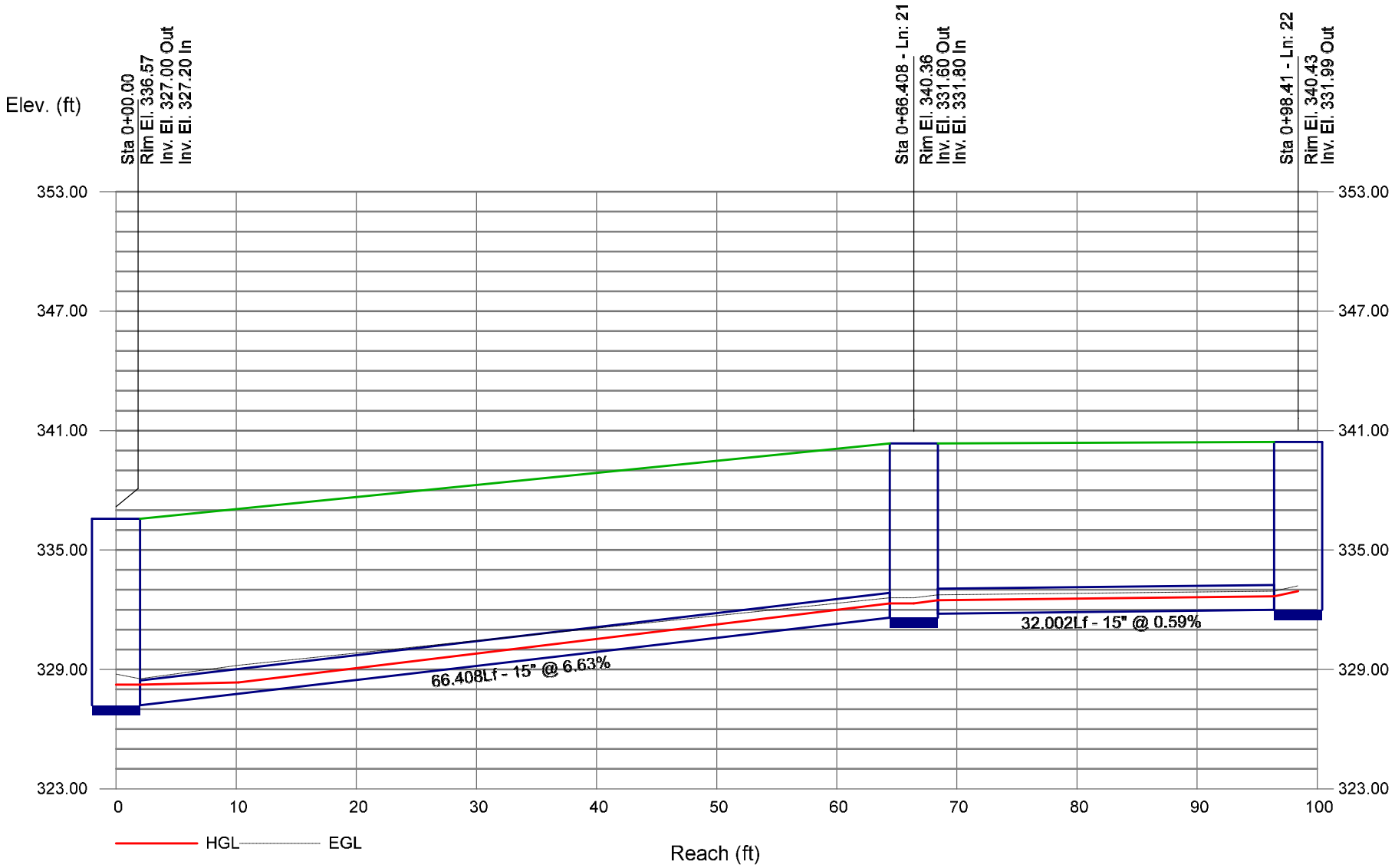
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



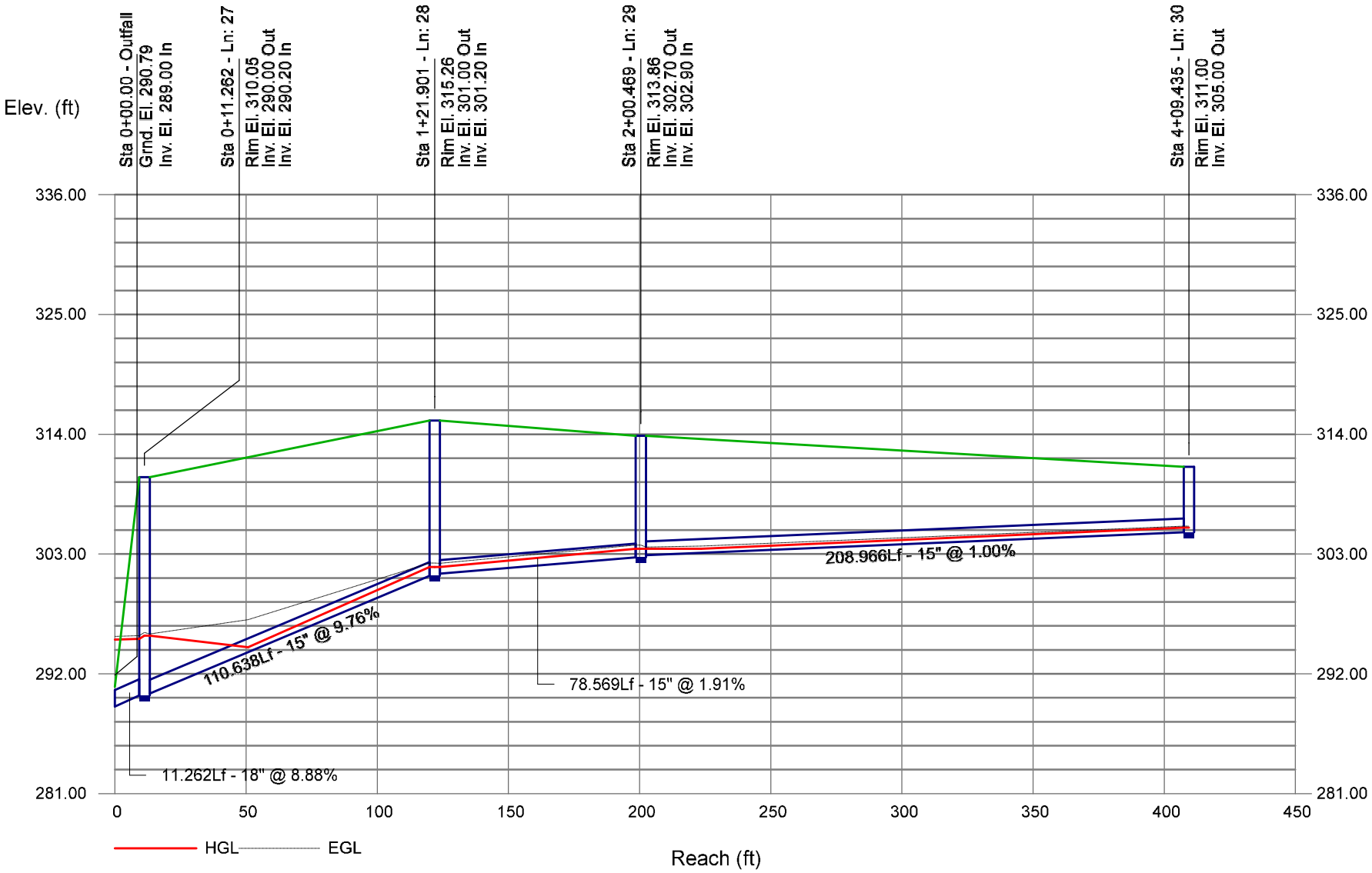
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



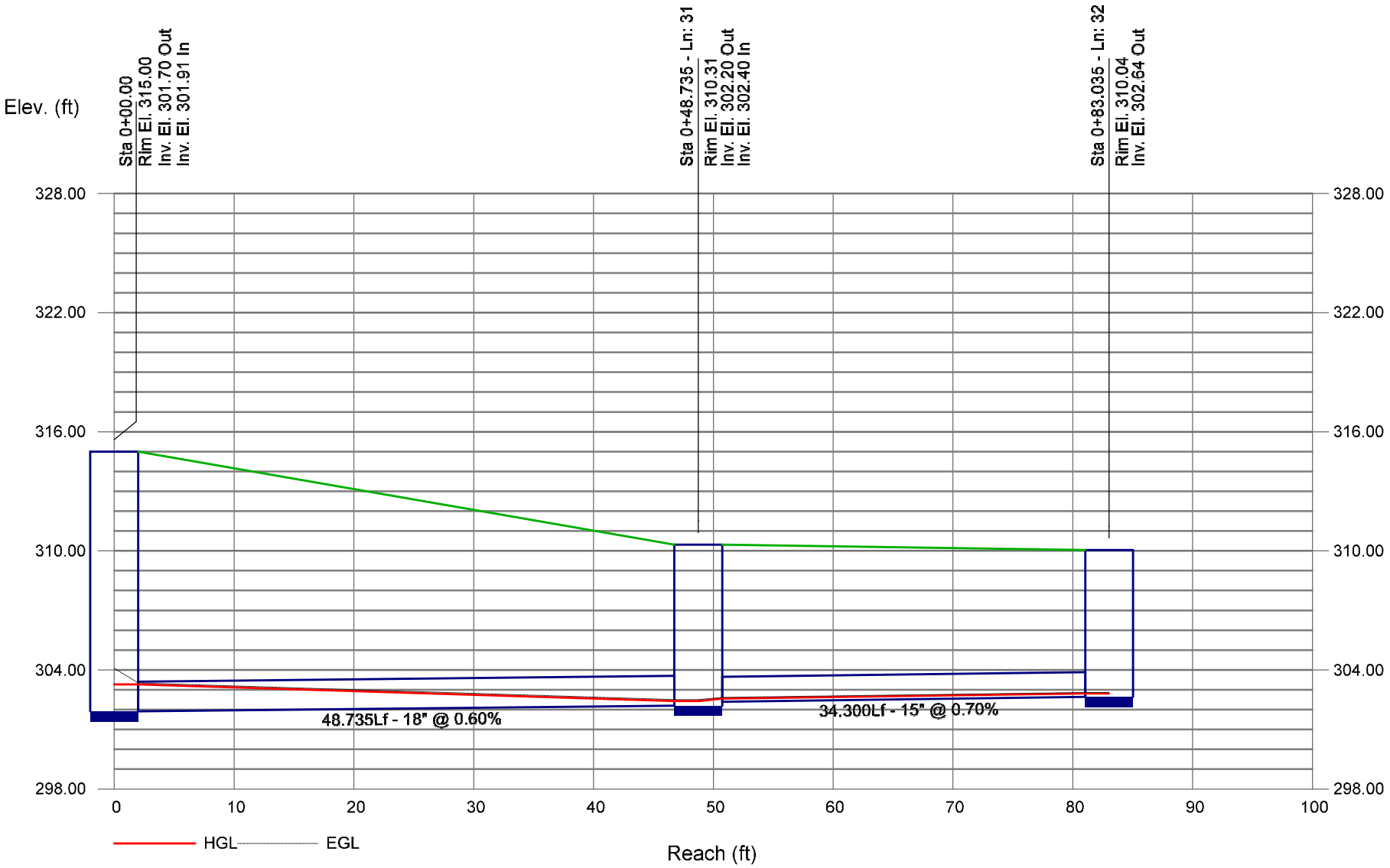
Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm

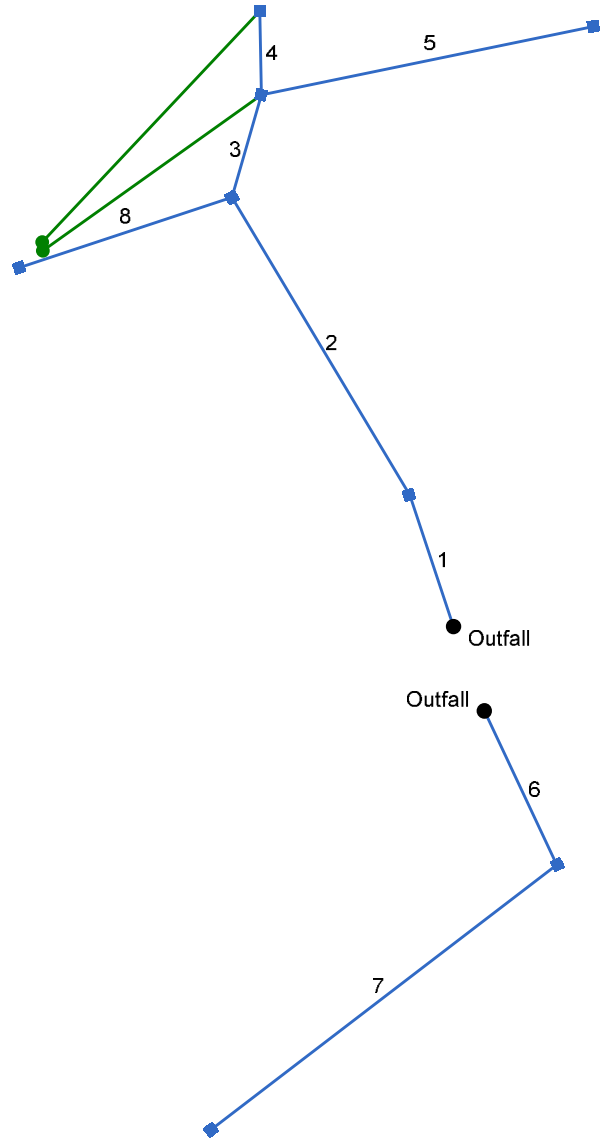


Storm Sewer Profile

Proj. file: SCM 6B Storm Network.stm



Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: SCM 7 Storm Network.stm	Number of lines: 8	Date: 8/4/2025

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	50.793	-108.351	MH	0.00	0.65	0.60	10.0	322.50	0.49	322.75	30	Cir	0.013	0.26	330.94	Pipe - (505)
2	1	126.978	-12.394	MH	0.00	0.00	0.00	10.0	322.95	3.58	327.50	30	Cir	0.013	0.98	337.93	Pipe - (504)
3	2	39.048	46.583	Comb	0.00	0.26	0.60	10.0	327.75	7.04	330.50	18	Cir	0.013	1.36	339.11	Pipe - (480)
4	3	30.684	-16.910	Comb	0.00	1.04	0.60	10.0	330.70	0.68	330.91	18	Cir	0.013	1.00	339.93	Pipe - (487)
5	3	124.068	62.476	Comb	0.00	0.31	0.60	10.0	330.70	5.43	337.44	15	Cir	0.013	1.00	345.79	Pipe - (481)
6	End	62.247	64.868	MH	0.00	0.00	0.00	0.0	322.50	9.64	328.50	24	Cir	0.013	0.98	342.42	Pipe - (609)
7	6	159.463	77.557	Comb	0.00	0.18	0.60	10.0	328.70	9.59	344.00	18	Cir	0.013	1.00	349.87	Pipe - (608)
8	2	82.186	-77.626	Comb	0.00	1.08	0.60	10.0	327.75	0.69	328.32	24	Cir	0.013	1.00	335.52	Pipe - (506)

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Date: 8/4/2025

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	JB 701	Manhole	330.94	Rect	4.00	4.00	30	Cir	322.75	30	Cir	322.95
2	JB 702	Manhole	337.93	Rect	4.00	4.00	30	Cir	327.50	18 24	Cir Cir	327.75 327.75
3	CB 703	Combination	339.11	Rect	4.00	4.00	18	Cir	330.50	18 15	Cir Cir	330.70 330.70
4	CB 703A	Combination	339.93	Rect	4.00	4.00	18	Cir	330.91			
5	CB 704	Combination	345.79	Rect	4.00	4.00	15	Cir	337.44			
6	JB 751	Manhole	342.42	Rect	4.00	4.00	24	Cir	328.50	18	Cir	328.70
7	CB 752	Combination	349.87	Rect	4.00	4.00	18	Cir	344.00			
8	CB 702A	Combination	335.52	Rect	4.00	4.00	24	Cir	328.32			

Project File: SCM 7 Storm Network.stm | Number of Structures: 8 | Run Date: 8/4/2025

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	Pipe - (505)	12.32	30	Cir	50.793	322.50	322.75	0.492	327.46*	327.51*	0.03	327.53	End	Manhole
2	Pipe - (504)	10.11	30	Cir	126.978	322.95	327.50	3.583	327.53	328.56	n/a	328.56 j	1	Manhole
3	Pipe - (480)	6.08	18	Cir	39.048	327.75	330.50	7.043	328.56	331.45	n/a	331.45	2	Combination
4	Pipe - (487)	4.03	18	Cir	30.684	330.70	330.91	0.684	331.45	331.68	n/a	331.68	3	Combination
5	Pipe - (481)	1.20	15	Cir	124.068	330.70	337.44	5.433	331.45	337.87	n/a	337.87 j	3	Combination
6	Pipe - (609)	0.69	24	Cir	62.247	322.50	328.50	9.639	327.46	328.78	n/a	328.78 j	End	Manhole
7	Pipe - (608)	0.70	18	Cir	159.463	328.70	344.00	9.595	328.85	344.31	n/a	344.31	6	Combination
8	Pipe - (506)	4.19	24	Cir	82.186	327.75	328.32	0.694	328.56	329.04	n/a	329.04 j	2	Combination

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	JB 701	2.52	0.00	0.00	2.52	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	JB 702	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
3	CB 703	1.02	0.04	1.04	0.02	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.14	3.12	0.03	0.55	0.0	8
4	CB 703A	4.03	0.00	2.93	1.10	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.22	6.90	0.14	3.21	0.0	8
5	CB 704	1.20	0.00	1.16	0.04	Comb	6.0	1.50	0.00	3.00	2.50	0.070	2.00	0.060	0.020	0.013	0.15	3.43	0.04	0.70	0.0	3
6	JB 751	0.00	0.00	0.00	0.00	MH	6.0	1.50	0.00	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
7	CB 752	0.70	0.00	0.67	0.03	Comb	6.0	1.50	0.00	3.00	2.50	0.020	2.00	0.060	0.020	0.013	0.15	3.64	0.05	0.77	0.0	Off
8	CB 702A	4.19	1.12	5.31	0.00	Comb	6.0	3.00	7.50	3.00	2.50	Sag	2.00	0.060	0.020	0.013	0.43	17.30	0.43	17.30	0.0	Off

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

NOTES: Inlet N-Values = 0.016; Intensity = 68.69 / (Inlet time + 12.40) ^ 0.76; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are Horiz throat.

Hydraulic Grade Line Computations

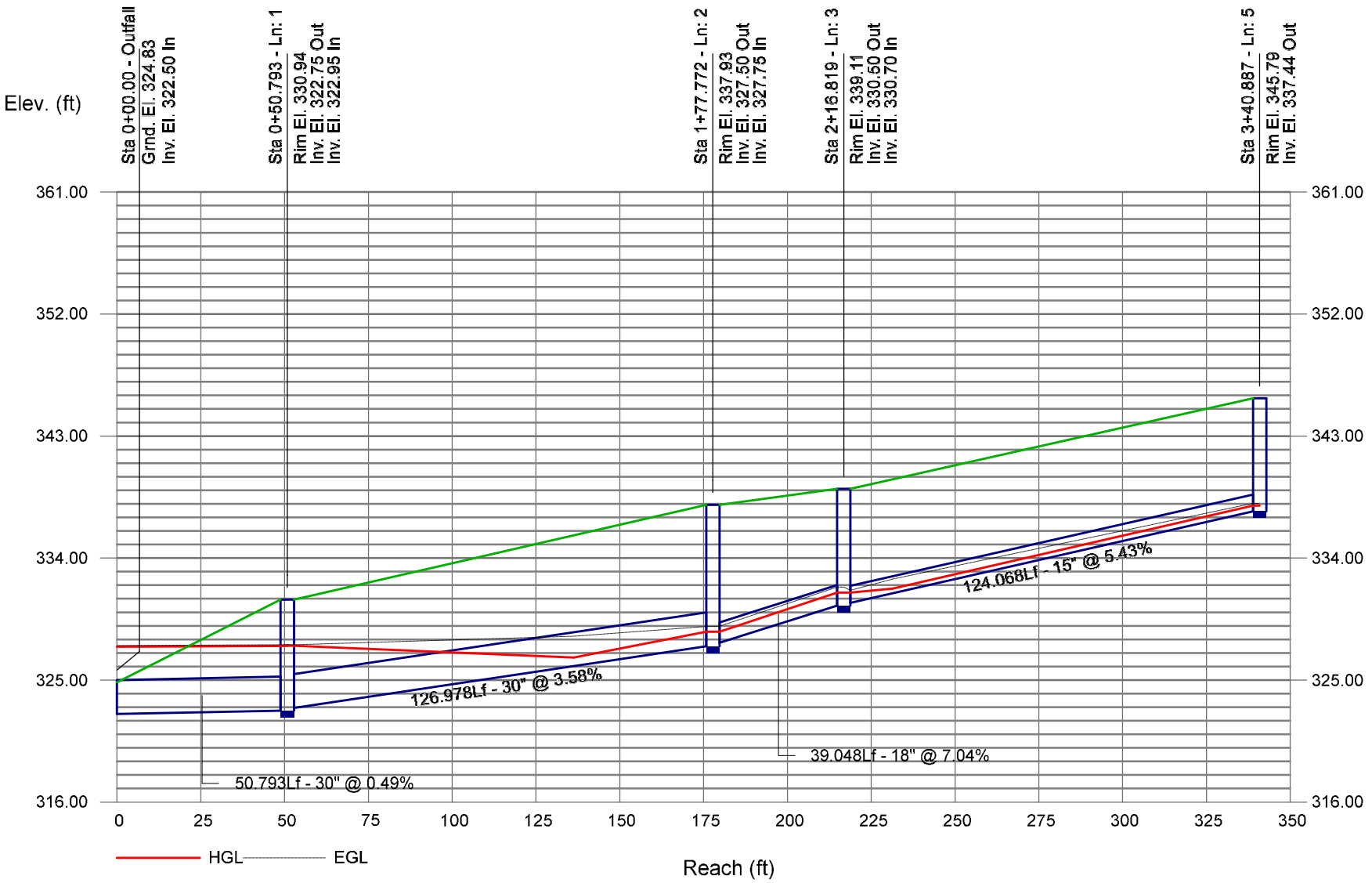
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	30	12.32	322.50	327.46	2.50	4.91	2.51	0.10	327.56	0.090	50.793	322.75	327.51	2.50	4.91	2.51	0.10	327.60	0.090	0.090	0.046	0.26	0.03
2	30	10.11	322.95	327.53	2.50	1.99	2.06	0.07	327.60	0.061	126.978	327.50	328.56 j	1.06**	1.99	5.09	0.40	328.97	0.431	0.246	n/a	0.98	n/a
3	18	6.08	327.75	328.56	0.81	0.98	6.23	0.41	328.97	0.000	39.048	330.50	331.45	0.95**	1.18	5.14	0.41	331.86	0.000	0.000	n/a	1.36	n/a
4	18	4.03	330.70	331.45	0.75	0.89	4.55	0.30	331.76	0.000	30.684	330.91	331.68	0.77**	0.91	4.43	0.30	331.98	0.000	0.000	n/a	1.00	n/a
5	15	1.20	330.70	331.45	0.75	0.38	1.56	0.16	331.61	0.000	124.068	337.44	337.87 j	0.43**	0.38	3.20	0.16	338.03	0.000	0.000	n/a	1.00	n/a
6	24	0.69	322.50	327.46	2.00	0.27	0.22	0.00	327.46	0.001	62.247	328.50	328.78 j	0.28**	0.27	2.51	0.10	328.88	0.487	0.244	n/a	0.98	n/a
7	18	0.70	328.70	328.85	0.15*	0.09	7.44	0.11	328.96	0.000	159.463	344.00	344.31	0.31**	0.26	2.65	0.11	344.42	0.000	0.000	n/a	1.00	n/a
8	24	4.19	327.75	328.56	0.81	1.01	3.50	0.27	328.83	0.000	82.186	328.32	329.04 j	0.72**	1.01	4.13	0.27	329.30	0.000	0.000	n/a	1.00	0.27

Project File: SCM 7 Storm Network.stm | Number of lines: 8 | Run Date: 8/4/2025

Notes: * Normal depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

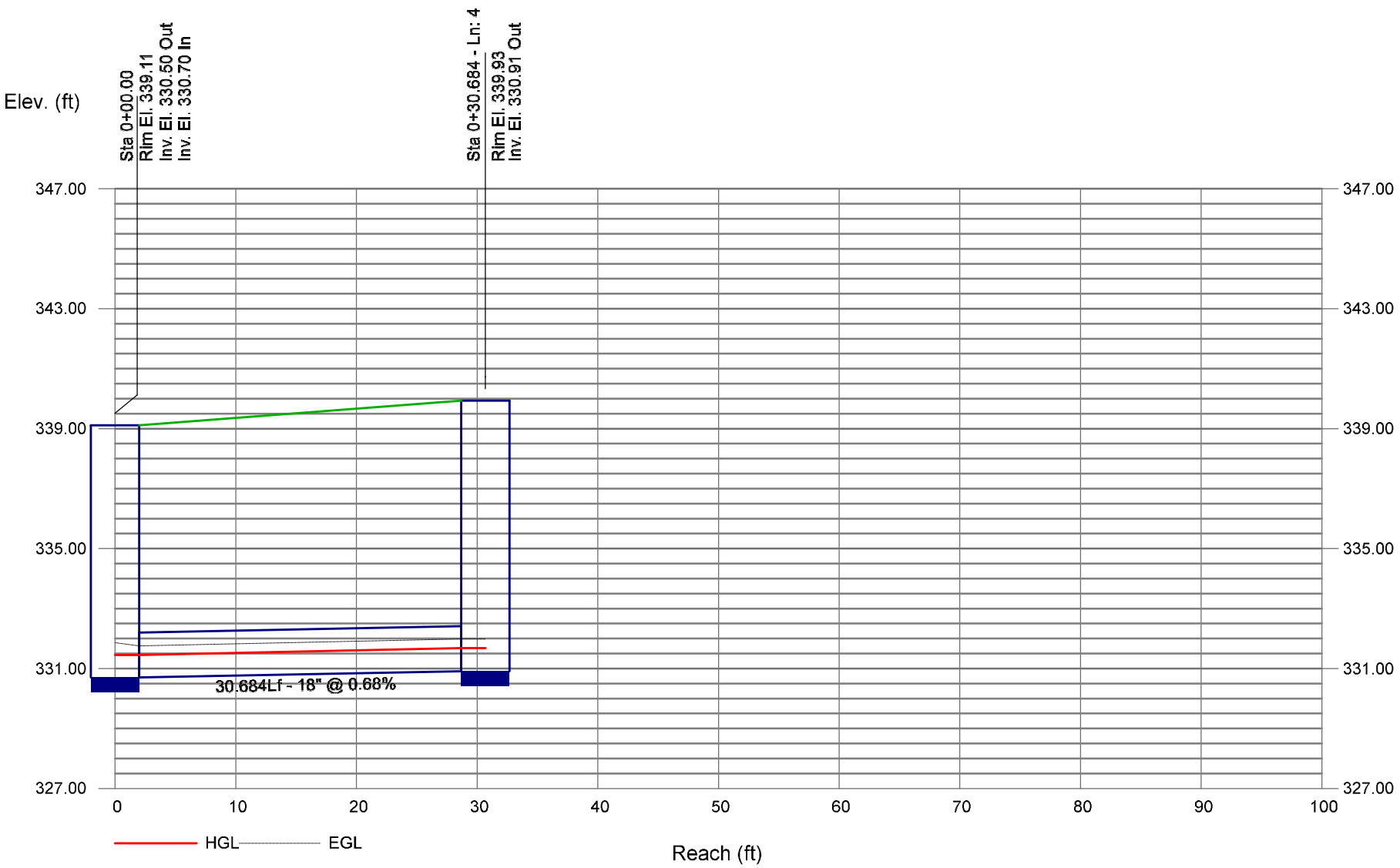
Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm



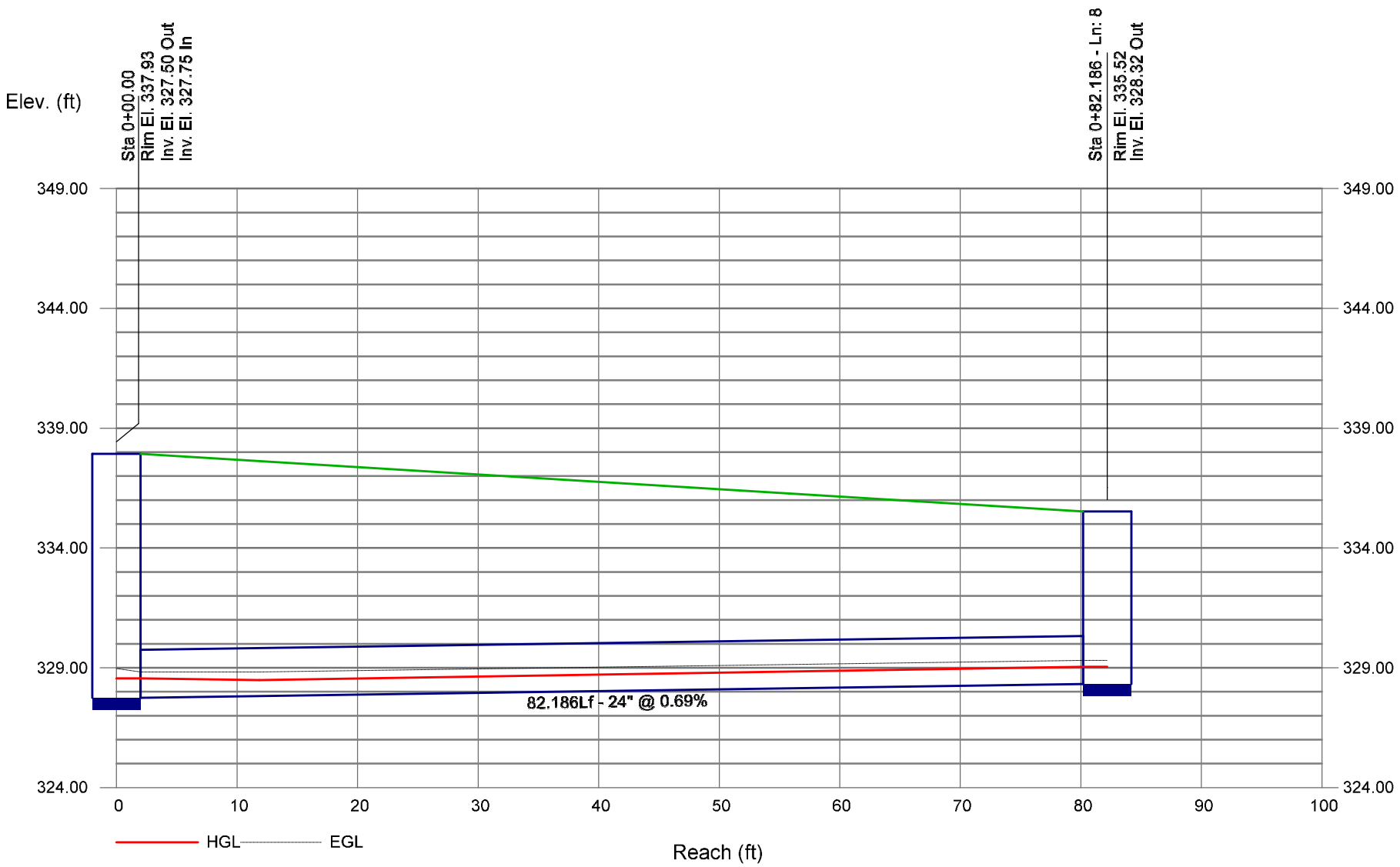
Storm Sewer Profile

Proj. file: SCM 7 Storm Network.stm



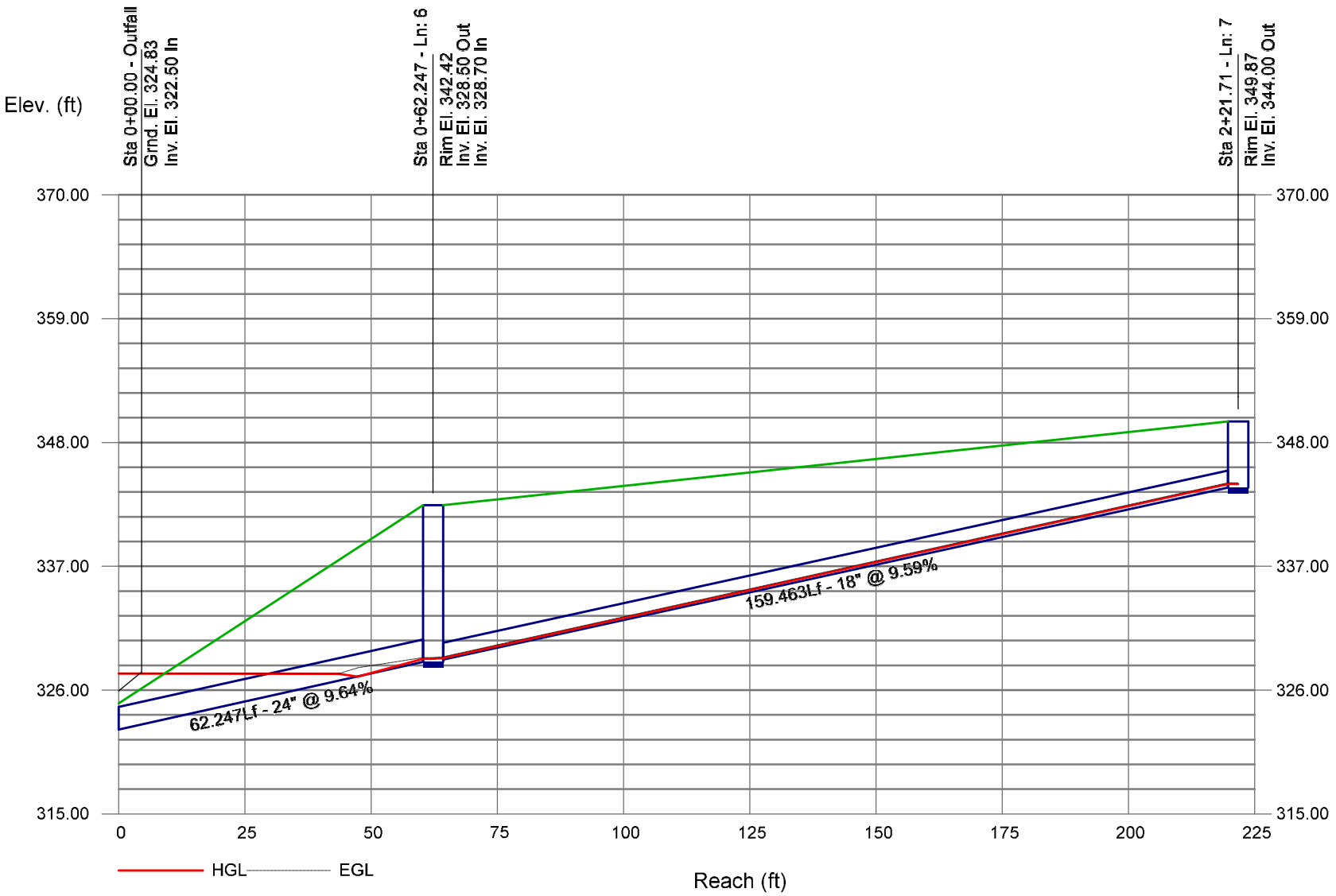
Storm Sewer Profile

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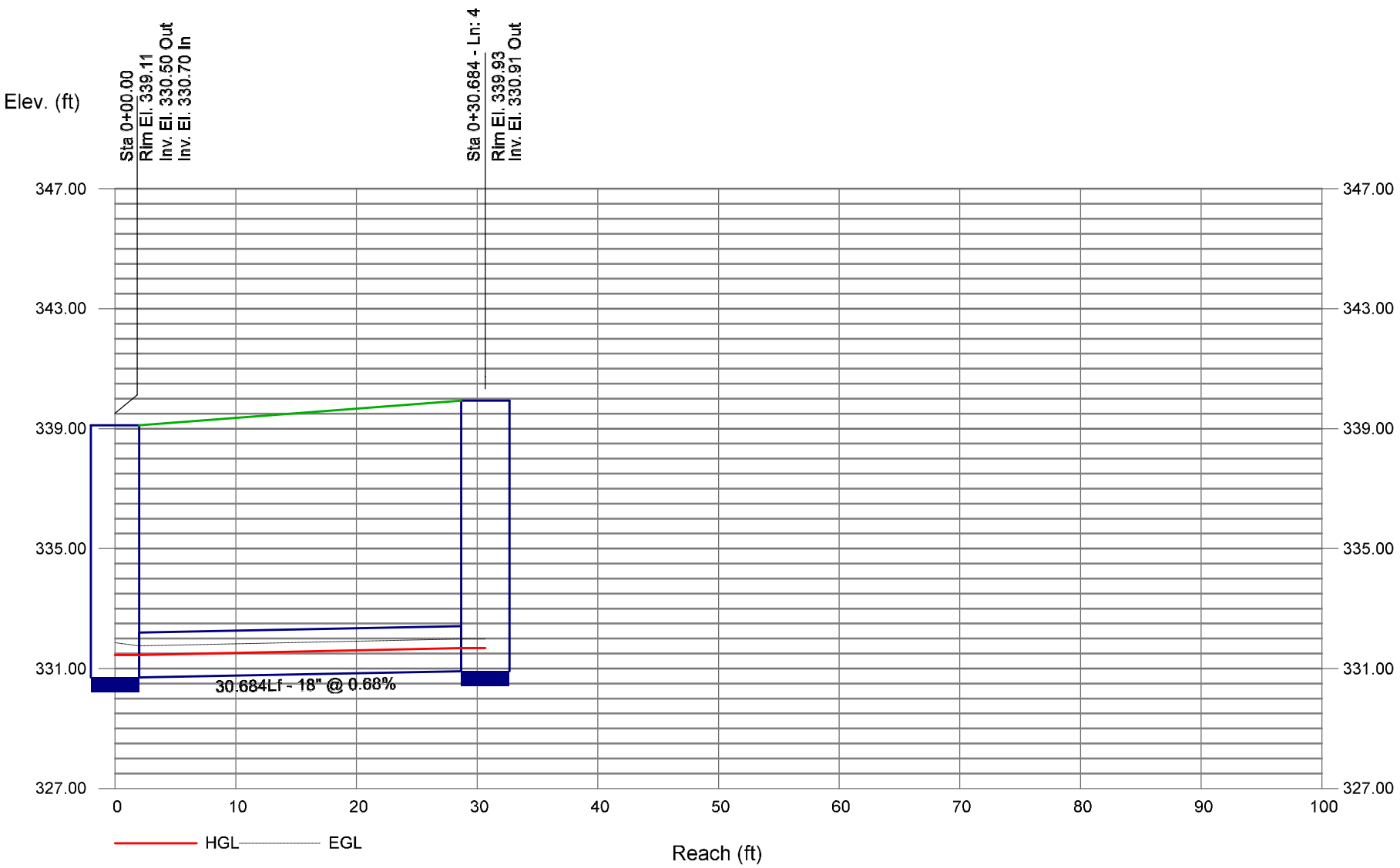
Storm Sewer Profile

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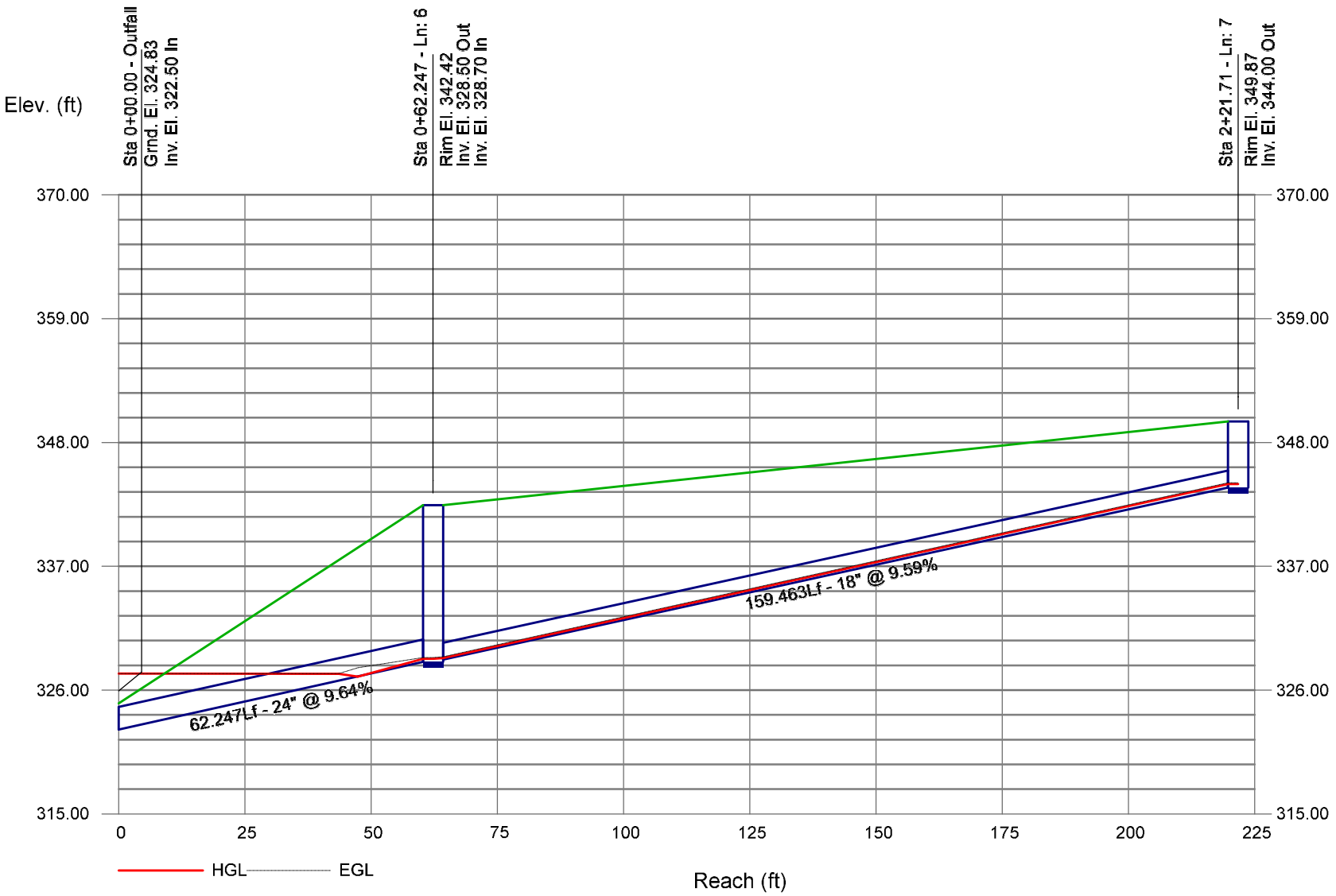
Storm Sewer Profile

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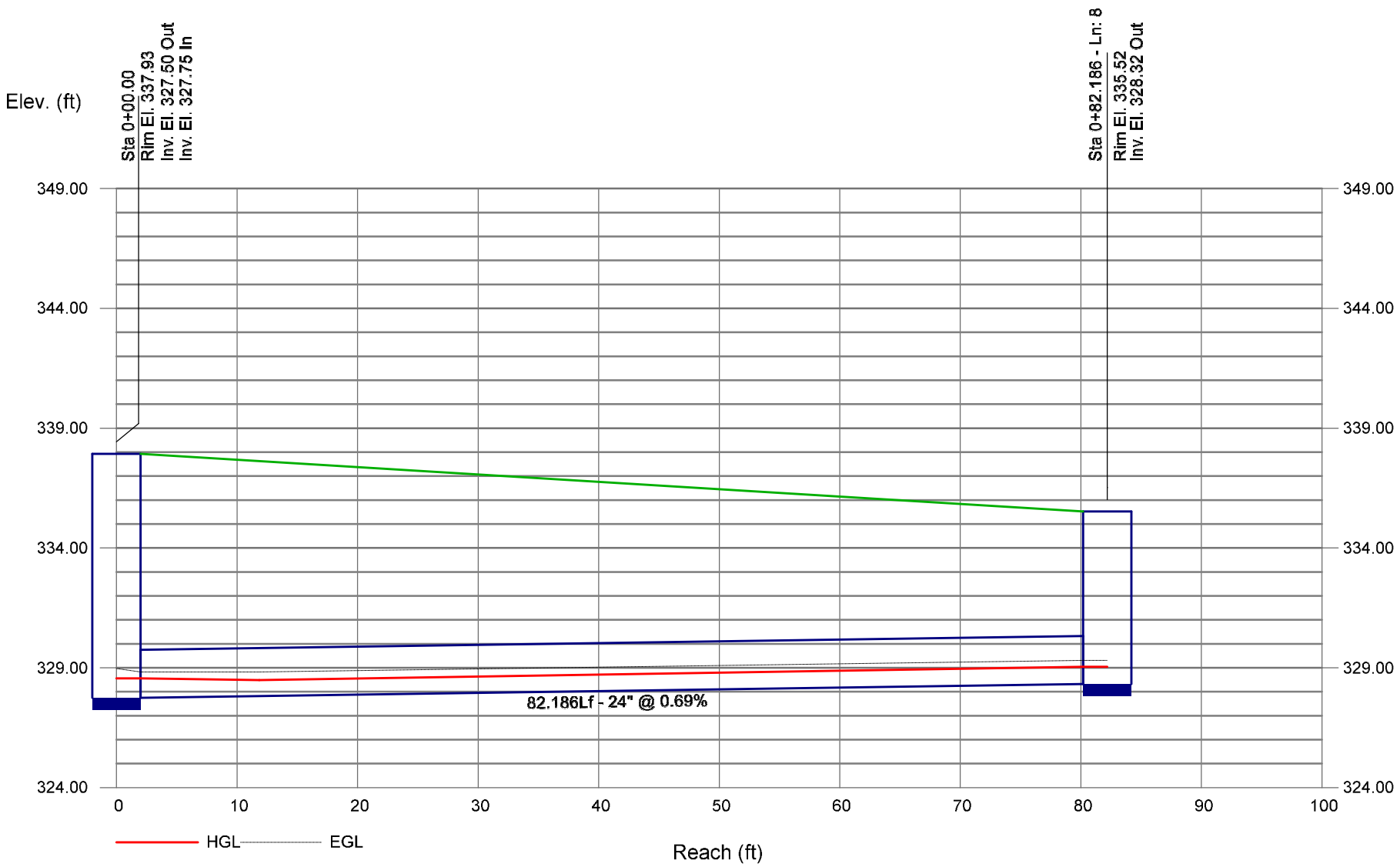
Storm Sewer Profile

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Storm Sewer Profile

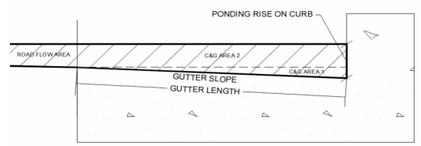
Proj. file: SCM 7 Storm Network.stm



Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Fowler Rd (35' B-B)** Date: 4/14/25



Inlet No. **1** Allowable Spread=Pvm't + Gutter Width: 13 ft

Compute "C" Factor: One Half R/W Width: 27.5 One Half B/B Width: 17.5 S/W Width 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.78 0.04

Gutter Width= 2.00 ft.

Total Allow. Spread = 13.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.81 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Standard Curb and Gutter Profile (see diagram above)

Gutter Length (ft)	2
Gutter Slope (ft/ft)	0.04
Ponding Rise on Curb (ft)	0.30

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 572A	0.025	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.98**	13.00	86238	6970	0.16	GOOD
CB 572	0.025	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.98**	13.00	86238	11761	0.27	GOOD
CB 571	0.023	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.62**	13.00	81812	10454	0.24	GOOD
CB 570	0.035	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**8.26**	13.00	102038	30492	0.70	GOOD
CB 569	0.030	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**7.64**	13.00	94469	27007	0.62	GOOD
CB 568	0.023	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.62**	13.00	81812	11761	0.27	GOOD
CB 567	0.018	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**5.84**	13.00	72152	34848	0.80	GOOD
CB 566	0.040	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**8.83**	13.00	109083	58370	1.34	GOOD
CB 565	0.060	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**10.81**	13.00	133599	50530	1.16	GOOD
CB 564	0.060	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**10.81**	13.00	133599	45302	1.04	GOOD
CB 563	0.040	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**8.83**	13.00	109083	29621	0.68	GOOD
CB 562	0.019	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.08**	13.00	75180	27878	0.64	GOOD
CB 562A	0.005	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**3.12**	13.00	38567	10454	0.24	GOOD
CB 634	0.005	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**3.12**	13.00	38567	12632	0.29	GOOD
CB 633	0.020	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**6.24**	13.00	77133	21344	0.49	GOOD
CB 620	0.060	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**10.81**	13.00	133599	436	0.01	GOOD
CB 621	0.060	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**10.81**	13.00	133599	8276	0.19	GOOD
CB 618A	0.050	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**9.87**	13.00	121958	2178	0.05	GOOD
CB 618B	0.050	0.020	0.22	0.22	0.08	0.44	2.30	1.21	11.00	1.73	13.30	**9.87**	13.00	121958	22216	0.51	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

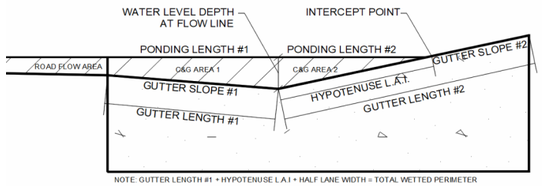
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Merritt Reserve Drive (35' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 8.5 ft

Compute "C" Factor: One Half R/W Width 30 One Half B/B Width: 17.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.71 0.05

Gutter Width= 1.00 ft.

Total Allow. Spread = 8.50 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.76 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	1.05
Water Level Depth at Flow Line (ft)	0.23
Hypotenuse Length at Intercept (ft)	1.08

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 424	0.008	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.53**	9.50	20122	871	0.02	GOOD	
CB 423	0.008	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.53**	9.50	20122	6534	0.15	GOOD	
CB 423A	0.008	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.53**	9.50	40245	20473	0.47	GOOD	*dbl
CB 422	0.012	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.93**	9.50	25453	8712	0.20	GOOD	
CB 422A	0.012	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.93**	9.50	25453	13939	0.32	GOOD	
CB 422E	0.012	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.93**	9.50	25453	11326	0.26	GOOD	
CB 410	0.012	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.93**	9.50	25453	3920	0.09	GOOD	
CB 411	0.023	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**2.67**	9.50	35238	3049	0.07	GOOD	
CB 412	0.023	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**2.67**	9.50	35238	3049	0.07	GOOD	

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

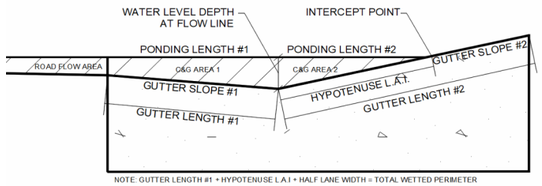
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Strips Dr (35' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 8.5 ft

Compute "C" Factor: One Half R/W Width 30 One Half B/B Width: 17.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.71 0.05

Gutter Width= 1.00 ft.

Total Allow. Spread = 8.50 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.76 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	1.05
Water Level Depth at Flow Line (ft)	0.23
Hypotenuse Length at Intercept (ft)	1.08

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 163	0.005	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.25**	9.50	16430	14375	0.33	GOOD
CB 164	0.005	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**1.25**	9.50	16430	14810	0.34	GOOD
CB 145B	0.034	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.25**	9.50	42844	871	0.02	GOOD
CB 145C	0.034	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.25**	9.50	42844	871	0.02	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

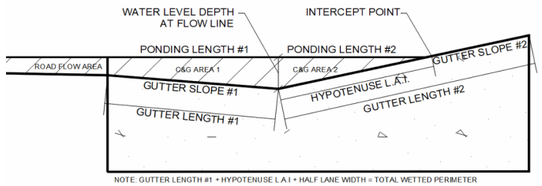
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Jocund St (35' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 8.5 ft

Compute "C" Factor: One Half R/W Width 30 One Half B/B Width: 17.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.71 0.05

Gutter Width= 1.00 ft.

Total Allow. Spread = 8.50 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.76 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	1.05
Water Level Depth at Flow Line (ft)	0.23
Hypotenuse Length at Intercept (ft)	1.08

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 434	0.050	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.94**	9.50	51956	3049	0.07	GOOD
CB 435	0.050	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.94**	9.50	51956	4792	0.11	GOOD
CB 432	0.050	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.94**	9.50	51956	3049	0.07	GOOD
CB 433	0.050	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.94**	9.50	51956	6098	0.14	GOOD
CB 433A	0.050	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.94**	9.50	51956	5663	0.13	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

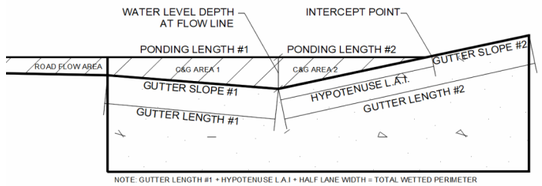
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Fletching Pl (35' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 8.5 ft

Compute "C" Factor: One Half R/W Width 30 One Half B/B Width: 17.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.71 0.05

Gutter Width= 1.00 ft.

Total Allow. Spread = 8.50 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.76 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	1.05
Water Level Depth at Flow Line (ft)	0.23
Hypotenuse Length at Intercept (ft)	1.08

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 624	0.035	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.30**	9.50	43469	6534	0.15	GOOD
CB 622	0.035	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.30**	9.50	43469	8276	0.19	GOOD
CB 623	0.035	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**3.30**	9.50	43469	41382	0.95	GOOD
CB 618	0.020	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**2.49**	9.50	32860	1307	0.03	GOOD
CB 619	0.020	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**2.49**	9.50	32860	1307	0.03	GOOD
CB 617	0.085	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.14**	9.50	67742	23087	0.53	GOOD
CB 617A	0.085	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.14**	9.50	67742	3485	0.08	GOOD
CB 612	0.110	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.84**	9.50	77063	3485	0.08	GOOD
CB 613	0.110	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.84**	9.50	77063	11326	0.26	GOOD
CB 613A	0.100	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.57**	9.50	73477	8712	0.20	GOOD
CB 613B	0.100	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.57**	9.50	73477	5227	0.12	GOOD
CB 614	0.110	0.020	0.15	0.15	0.19	0.12	2.08	0.56	7.50	0.88	9.58	**5.84**	9.50	77063	6098	0.14	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

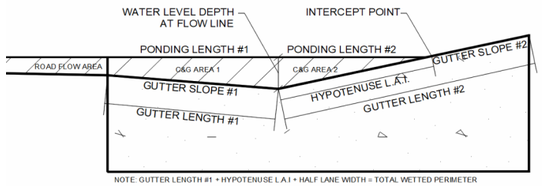
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Strips Dr (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 146	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	8276	0.19	GOOD	
CB 146A	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	5663	0.13	GOOD	
CB 148	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	2614	0.06	GOOD	
CB 150A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	42452	40511	0.93	GOOD	*YI
CB 150B	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	7841	0.18	GOOD	
CB 216	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	5227	0.12	GOOD	
CB 216A	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	5663	0.13	GOOD	
CB 215	0.054	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.57**	8.00	32883	4356	0.10	GOOD	
CB 214	0.054	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.57**	8.00	32883	8276	0.19	GOOD	
CB 211	0.054	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.57**	8.00	32883	1742	0.04	GOOD	
CB 211A	0.054	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.57**	8.00	32883	11761	0.27	GOOD	
CB 209	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	3049	0.07	GOOD	
CB 209A	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	9583	0.22	GOOD	
CB 226	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	4792	0.11	GOOD	
CB 204	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	13504	0.31	GOOD	
CB 205	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	12632	0.29	GOOD	

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

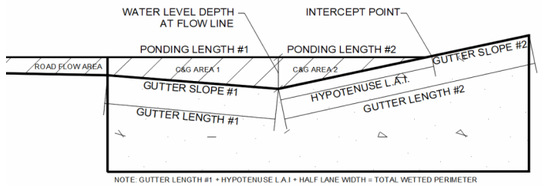
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Staffordshire (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 137	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	3920	0.09	GOOD	
CB 138	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	3920	0.09	GOOD	
CB 125	0.024	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.71**	8.00	21922	4792	0.11	GOOD	
CB 125A	0.024	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.71**	8.00	21922	6970	0.16	GOOD	
CB 126	0.045	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.34**	8.00	30018	2178	0.05	GOOD	
CB 129	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	6970	0.16	GOOD	
CB 130	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	3485	0.08	GOOD	
CB 136	0.047	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.39**	8.00	30678	11326	0.26	GOOD	
CB 136A	0.047	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.39**	8.00	30678	4792	0.11	GOOD	
CB 112	0.047	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.39**	8.00	30678	2178	0.05	GOOD	
CB 112A	0.047	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.39**	8.00	30678	6970	0.16	GOOD	
CB 149	0.009	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.05**	8.00	40273	31363	0.72	GOOD	*YI
CB 150	0.009	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.05**	8.00	13424	11761	0.27	GOOD	
CB 151	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	5663	0.13	GOOD	
CB 152	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	2178	0.05	GOOD	
CB 154A	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	5227	0.12	GOOD	
CB 413	0.038	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.15**	8.00	27585	17860	0.41	GOOD	
CB 414	0.038	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.15**	8.00	55169	37026	0.85	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

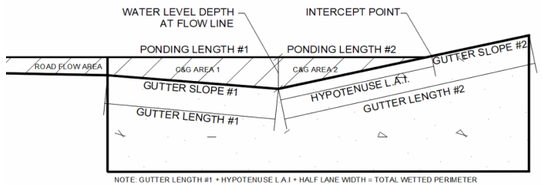
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Lineage Pl (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 105	0.018	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.48**	8.00	18985	8712	0.20	GOOD
CB 105A	0.018	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.48**	8.00	18985	5663	0.13	GOOD
CB 104	0.018	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.48**	8.00	18985	6098	0.14	GOOD
CB 103	0.018	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.48**	8.00	18985	871	0.02	GOOD
CB 107	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	14810	0.34	GOOD
CB 108	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	17424	0.40	GOOD
CB 109	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	17860	0.41	GOOD
CB 109A	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	11761	0.27	GOOD
CB 111	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	12632	0.29	GOOD
CB 111A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	2178	0.05	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

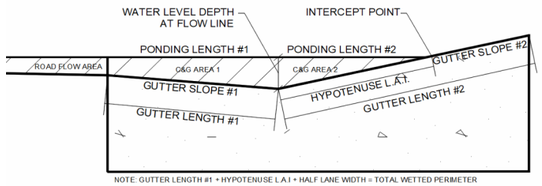
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Merritt Reserve Drive (35' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 416	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	1307	0.03	GOOD
CB 417	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	1742	0.04	GOOD
CB 526	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	3049	0.07	GOOD
CB 527	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	2614	0.06	GOOD
CB 525	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	3049	0.07	GOOD
CB 525A	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	9583	0.22	GOOD
CB 524	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	1742	0.04	GOOD
CB 524A	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	5663	0.13	GOOD
CB 523	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	3485	0.08	GOOD
CB 534	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	3920	0.09	GOOD
CB 522	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	1742	0.04	GOOD
CB 522A	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	7405	0.17	GOOD
CB 521	0.050	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.47**	8.00	31642	1742	0.04	GOOD
CB 520	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	2614	0.06	GOOD
CB 538	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	11326	0.26	GOOD
CB 519	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	5227	0.12	GOOD
CB 519A	0.040	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.21**	8.00	28301	18295	0.42	GOOD
CB 518	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	3485	0.08	GOOD
CB 517	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	26473	3920	0.09	GOOD
CB 516	0.035	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.07**	8.00	52947	34848	0.80	GOOD

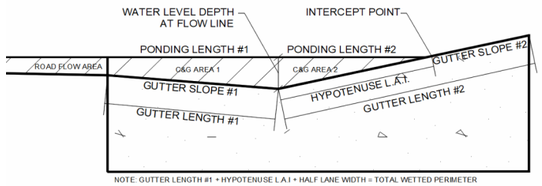
E. O. P. - Edge of Pavement
C&G - Curb and gutter
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Merritt Ridge Ln (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 404	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	1742	0.04	GOOD	
CB 405	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	67122	47045	1.08	GOOD	*YI
CB 406	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	3920	0.09	GOOD	
CB 407	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	9583	0.22	GOOD	
CB 407A	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	6970	0.16	GOOD	
CB 408	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	4792	0.11	GOOD	
CB 419	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	5663	0.13	GOOD	
CB 409	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	3049	0.07	GOOD	
CB 422C	0.033	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.01**	8.00	25706	7405	0.17	GOOD	
CB 422D	0.033	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.01**	8.00	25706	10454	0.24	GOOD	
CB 143A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	8712	0.20	GOOD	
CB 143	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	20012	18295	0.42	GOOD	*dbl
CB 142	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	30018	21344	0.49	GOOD	*dbl
CB 144	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	21344	0.49	GOOD	*dbl
CB 144A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	10890	0.25	GOOD	
CB 145	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	1307	0.03	GOOD	
CB 145A	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	871	0.02	GOOD	
CB 145D	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	871	0.02	GOOD	
CB 146B	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	3049	0.07	GOOD	
CB 135	0.050	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.47**	8.00	31642	8712	0.20	GOOD	
CB 134	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	8276	0.19	GOOD	
CB 134A	0.025	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.75**	8.00	22374	9148	0.21	GOOD	
CB 132	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	3049	0.07	GOOD	

CB 131	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	13504	0.31	GOOD	
CB 131A	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	10890	0.25	GOOD	
CB 127	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	2178	0.05	GOOD	
CB 128	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	3920	0.09	GOOD	
CB 116	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	11326	0.26	GOOD	
CB 115	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	16553	0.38	GOOD	*dbl
CB 115A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	18731	0.43	GOOD	*dbl
CB 114	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	9148	0.21	GOOD	
CB 101	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	20012	13068	0.30	GOOD	*dbl
CB 102	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	871	0.02	GOOD	
CB 106	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	2178	0.05	GOOD	
CB 228	0.007	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.92**	8.00	11839	3485	0.08	GOOD	
CB 227	0.013	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.26**	8.00	16134	3049	0.07	GOOD	
CB 227A	0.013	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.26**	8.00	16134	4792	0.11	GOOD	
CB 207	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	6098	0.14	GOOD	
CB 208	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	2614	0.06	GOOD	
CB 206	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	1307	0.03	GOOD	
CB 203	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	3920	0.09	GOOD	
CB 203A	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	15682	0.36	GOOD	
CB 202	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	20012	10019	0.23	GOOD	
CB 202A	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	40024	30056	0.69	GOOD	*dbl *YI
CB 223	0.028	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.85**	8.00	23678	10019	0.23	GOOD	
CB 223A	0.028	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.85**	8.00	23678	17860	0.41	GOOD	
CB 541	0.034	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.04**	8.00	26092	20038	0.46	GOOD	
CB 541A	0.034	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.04**	8.00	26092	18731	0.43	GOOD	
CB 539	0.048	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.42**	8.00	31002	26572	0.61	GOOD	
CB 539A	0.048	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.42**	8.00	31002	27007	0.62	GOOD	

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

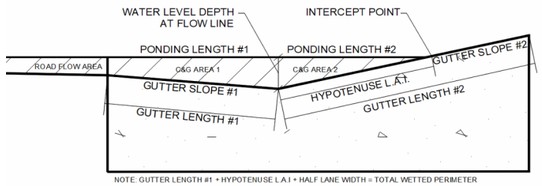
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Davis Rock Pl (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

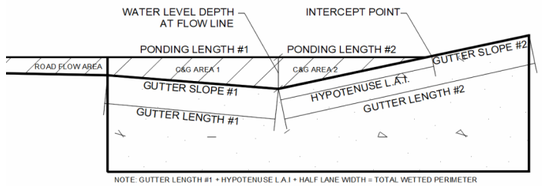
Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 429	0.045	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.34**	8.00	30018	9148	0.21	GOOD	
CB 429A	0.045	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.34**	8.00	30018	7841	0.18	GOOD	
CB 428	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	8276	0.19	GOOD	
CB 403	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	6534	0.15	GOOD	
CB 402	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	20012	15246	0.35	GOOD	*dbl
CB 401	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	20012	16117	0.37	GOOD	*dbl
CB 430	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	436	0.01	GOOD	
CB 431	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	871	0.02	GOOD	
CB 436	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	9148	0.21	GOOD	
CB 436A	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	13504	0.31	GOOD	
CB 510	0.088	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.28**	8.00	41977	14810	0.34	GOOD	
CB 510A	0.088	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.28**	8.00	41977	8712	0.20	GOOD	
CB 509	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	9148	0.21	GOOD	
CB 509A	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	4792	0.11	GOOD	
CB 508	0.023	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.66**	8.00	21226	6098	0.14	GOOD	
CB 507	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	6098	0.14	GOOD	
CB 507A	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	12657	7405	0.17	GOOD	
CB 506	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	5227	0.12	GOOD	
CB 515	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	6534	0.15	GOOD	
CB 505	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	3920	0.09	GOOD	
CB 504	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	2614	0.06	GOOD	
CB 504A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	21344	0.49	GOOD	*dbl
CB 503	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	12197	0.28	GOOD	

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Bent Iron Ln (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 533	0.020	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.56**	8.00	20012	7841	0.18	GOOD	
CB 153	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	3049	0.07	GOOD	
CB 154	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	16988	0.39	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

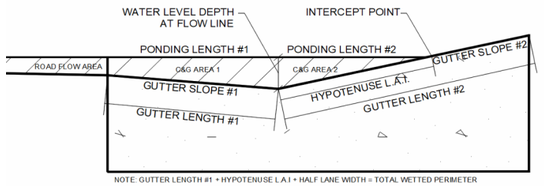
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Cracked Granite Ln (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 528	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	12632	0.29	GOOD	
CB 528A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	70753	60984	1.40	GOOD	*YI
CB 529	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	42452	28750	0.66	GOOD	*dbl
CB 530	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	15246	0.35	GOOD	*dbl
CB 531	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	13939	0.32	GOOD	
CB 531A	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	6534	0.15	GOOD	
CB 532	0.009	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.05**	8.00	13424	10019	0.23	GOOD	
CB 532A	0.009	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.05**	8.00	13424	6534	0.15	GOOD	
CB 217	0.013	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.26**	8.00	32268	25700	0.59	GOOD	*dbl
CB 217A	0.013	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.26**	8.00	16134	15246	0.35	GOOD	

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

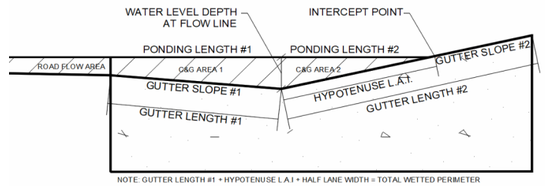
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Tripp Ledge Way (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 535	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	17899	16988	0.39	GOOD	
CB 535A	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	35798	20473	0.47	GOOD	*dbl
CB 536	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	35798	20038	0.46	GOOD	*dbl
CB 536A	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	35798	30492	0.70	GOOD	*dbl
CB 537	0.042	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.25**	8.00	57654	32670	0.75	GOOD	*dbl
CB 537A	0.042	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.25**	8.00	57654	29185	0.67	GOOD	*dbl
CB 212	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	34662	33541	0.77	GOOD	*dbl
CB 213	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	34662	26572	0.61	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

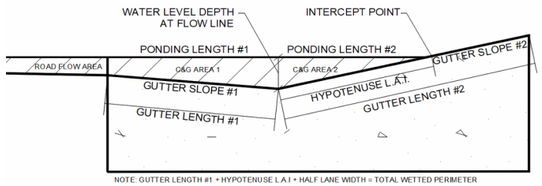
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Split Granite Ct (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 511	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	41256	2178	0.05	GOOD
CB 511A	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	41256	31799	0.73	GOOD
CB 512	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	41256	1742	0.04	GOOD
CB 513	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	41256	2614	0.06	GOOD
CB 514	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	41256	9148	0.21	GOOD
CB 514A	0.085	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.22**	8.00	82511	49658	1.14	GOOD
CB 225	0.028	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.85**	8.00	23678	5227	0.12	GOOD
CB 224	0.026	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.78**	8.00	22817	5227	0.12	GOOD
CB 224A	0.026	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.78**	8.00	22817	10454	0.24	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

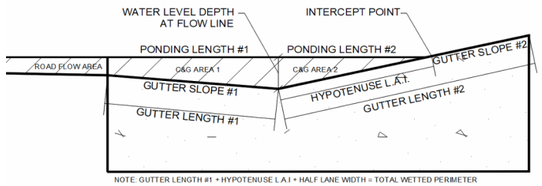
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Toothed Chisel Rd (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 625	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	10890	0.25	GOOD
CB 625A	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	24510	15246	0.35	GOOD
CB 626	0.005	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.78**	8.00	10006	1742	0.04	GOOD
CB 704	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	11326	0.26	GOOD
CB 703	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	7841	0.18	GOOD
CB 703A	0.070	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.92**	8.00	37439	17860	0.41	GOOD
CB 702A	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	13504	0.31	GOOD

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

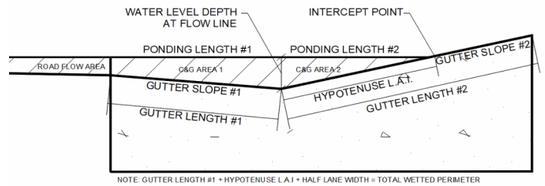
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Deep Pass Ct (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check
CB 626	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	17899	1742	0.04	GOOD
CB 628	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	17899	5227	0.12	GOOD
CB 628A	0.016	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.40**	8.00	17899	3049	0.07	GOOD

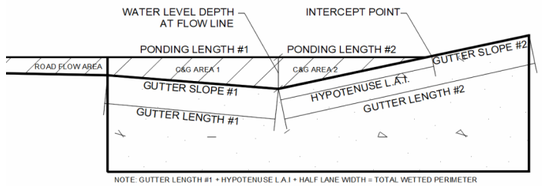
E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Deep Canyon Ct (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 615	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	5227	0.12	GOOD	
CB 616	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	28301	23522	0.54	GOOD	*dbl
CB 615A	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	17331	10019	0.23	GOOD	
CB 615B	0.015	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.35**	8.00	34662	30492	0.70	GOOD	*dbl
CB 605	0.075	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.03**	8.00	38753	3920	0.09	GOOD	
CB 605A	0.075	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.03**	8.00	38753	22216	0.51	GOOD	
CB 604	0.075	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.03**	8.00	38753	4356	0.10	GOOD	
CB 604A	0.075	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**3.03**	8.00	38753	15246	0.35	GOOD	
CB 603	0.045	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**2.34**	8.00	60036	39640	0.91	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

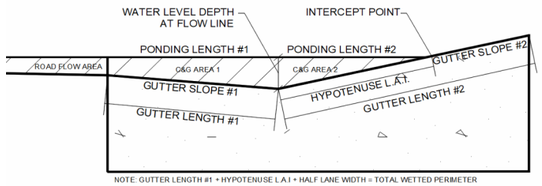
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Old Millstone Ct (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 420	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	42452	36155	0.83	GOOD	*dbl
CB 421	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	42452	33106	0.76	GOOD	*dbl
CB 425	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	1307	0.03	GOOD	
CB 426	0.010	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.10**	8.00	14151	436	0.01	GOOD	
CB 427	0.030	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**1.91**	8.00	73529	26572	0.61	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

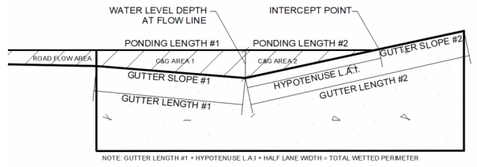
A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Gutter Spread by Limited Area

Determine maximum area to on-grade inlet using input factors as shown below.

Project: **Merritt** Road: **Old Millstone Ct (29' B-B)** Date: 4/14/25



Inlet No. **2** Allowable Spread=Pvm't + Gutter Width: 7 ft

Compute "C" Factor: One Half R/W Width 25 One Half B/B Width: 14.5 S/W Width: 5

Paved Area "C": 0.95 Grass Area "C": 0.2

0.74 0.04

Gutter Width= 1.00 ft.

Total Allow. Spread = 7.00 ft. Manning's n = 0.015 Weir C = 3.33

Inlet Type 1 Inlet Types 1 NCDOT Std. 840.03

Composite Rational C = 0.79 I (2yr.) = 4.00 iph

Roadway X-slope = 0.02 Varies Manual Input

Valley Curb and Gutter Profile (see diagram above)

Gutter Length #1 (ft)	1
Gutter Length #2 (ft)	1.5
Gutter Slope #1 (ft/ft)	0.083
Gutter Slope #2 (ft/ft)	0.222
Ponding Length #1 (ft)	1.00
Ponding Length #2 (ft)	0.92
Water Level Depth at Flow Line (ft)	0.20
Hypotenuse Length at Intercept (ft)	0.94

Max Flow for Limited Spread

C.B. NUMBER	Long. Slope	ROAD X-SLOPE	E. O. P. Depth	Weir Depth	C&G Flow Area 1	C&G Flow Area 2	C&G WP	Road Flow Area	Road WP	Total Flow A	Total WP	MAX Q FOR SPREAD, CFS	On-Grade Spread	Max Drainage Area (S.F.)	Actual Drainage Area Area (S.F.)	Actual Drainage Area Area (ACRE)	Check	
CB 615C	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	25313	13504	0.31	GOOD	*dbl
CB 615D	0.008	0.020	0.12	0.12	0.16	0.09	1.94	0.36	6.00	0.61	7.94	**0.99**	8.00	25313	13939	0.32	GOOD	*dbl

E. O. P. - Edge of Pavement
C&G - Curb and gutter
WP - Wetted Perimeter (ft.)

A - Area (s. f.)
V - Velocity (fps)

Note: Program uses Manning's formula for open channel flow.

Rip-Rap Calculations

AMERICAN Engineering

4020 Westchase Boulevard Suite 450 Raleigh, NC 27607
OFFICE: 919.469.1101 | **AMERICAN-EA.COM**

Project Name: Merritt
Project Number 23-0004
Date: 4/14/25
Calculated By: RC
Checked By: JK

Rip Rap Dissipater Calculations 10-Year Storm

Outlet ID	Pipe Diameter (in)	Stone Class	Stone Depth (in)	Stone Material (tons)	Geo-Textile (SY)	Start Width (ft)	End Width (ft)	Length (ft)
FES 100	30	B	18	5	16	5	15	10
FES 120	30	B	18	5	16	5	15	10
FES 139	18	B	12	2	7	3	9	6
FES OS 1A	30	B	18	5	16	5	15	10
FES 140	36	B	18	7	22	6	18	12
FES OS 1B	18	B	12	2	7	3	9	6
FES 160	15	B	12	1	5	2.5	7.5	5
FES 0S 1C	18	B	12	2	7	3	9	6
FES 200	30	B	18	5	16	5	15	10
FES 250	18	B	12	2	7	3	9	6
FES OS 2	24	B	15	3	11	4	12	8
FES 400	36	B	18	7	22	6	18	12
FES OS 4	36	B	18	7	22	6	18	12
FES 500	48	I	24	17	38	8	24	16
FES OS 5A	24	B	15	3	11	4	12	8
FES 550	18	B	12	2	7	3	9	6
FES OS 5B	18	B	12	2	7	3	9	6
FES 560	30	B	18	5	16	5	15	10
FES OS 5C	18	B	12	2	7	3	9	6
FES 600	15	B	12	1	5	2.5	7.5	5
FES OS 6A	18	B	12	2	7	3	9	6
FES 610	24	B	15	3	11	4	12	8
FES 630	18	B	12	2	7	3	9	6
FES OS 6B	18	B	12	2	7	3	9	6
FES 700	24	B	15	3	11	4	12	8
FES 0S 7	18	B	12	2	7	3	9	6
GRNWY 100	15	B	12	1	5	2.5	7.5	5
GRNWY 110	15	B	12	1	5	2.5	7.5	5
GRNWY 120	15	B	12	1	5	2.5	7.5	5
EW 11	60 (DBL)	I	30	26	56	18	18	36
EW 21	42	B	24	10	28	7	21	14
EW 31	60	I	30	26	56	18	18	36

Calculations were determined from NCDOT Detail 876.02 *Guide for Rip Rap at Pipe Outlets*
Values shown in table above are minimum quantities and dimensions
DBL is double barell pipe

Sediment Basin Calculations

PH1 STG1

Selection of Sediment Control Measure

0.24	Total Drainage Area		User entry **RB1**
Okay	Temporary Sediment Trap		Calculated Value 7/1/25
Okay	Skimmer Sediment Basin		
Okay	Temporary Sediment Basin		
0.24	Disturbed Area (Acres)		
0.82	Peak Flow from 10-year Storm (cfs)		

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	10325	0	0	0.60	5.75	0.24	0.24	0.82

Total Area (SF) 10325

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 5.75 in/hr

Q = 0.82 cfs

PH1 STG1

Temporary Sediment Trap

RB1

Okay

0.24	Disturbed Area (Acres)	
0.82	Peak Flow from 10-year Storm (cfs)	
853	Required Volume ft^3	
359	Required Surface Area ft^2	
13.4	Suggested Width ft	
26.8	Suggested Length ft	
18	Trial Top Width at Spillway Invert ft	
30	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(1.5 feet below grade + 2 to 3.5 feet above grade)
6	Bottom Width ft	
18	Bottom Length ft	
108	Bottom Area ft^2	
900	Actual Volume ft^3	**Okay**
540	Actual Surface Area ft^2	**Okay**
5	Trial Weir Length ft	
1	Trial Depth of Flow ft	
15.0	Spillway Capacity cfs	**Okay**

PH1 STG1

Selection of Sediment Control Measure

0.21	Total Drainage Area		User entry
			Calculated Value

RB2

7/1/25

Okay	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

0.21	Disturbed Area (Acres)
0.73	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	9119	0	0	0.60	5.75	0.21	0.21	0.73

Total Area (SF) 9119

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	5.75	in/hr
Q =	0.72	cfs

PH1 STG1

Temporary Sediment Trap

RB2

	Okay	
0.21	Disturbed Area (Acres)	
0.73	Peak Flow from 10-year Storm (cfs)	
754	Required Volume ft^3	
317	Required Surface Area ft^2	
12.6	Suggested Width ft	
25.2	Suggested Length ft	
17	Trial Top Width at Spillway Invert ft	
30	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(1.5 feet below grade + 2 to 3.5 feet above grade)
5	Bottom Width ft	
18	Bottom Length ft	
90	Bottom Area ft^2	
828	Actual Volume ft^3	**Okay**
510	Actual Surface Area ft^2	**Okay**
5	Trial Weir Length ft	
1	Trial Depth of Flow ft	
15.0	Spillway Capacity cfs	**Okay**

PH1 STG1

Selection of Sediment Control Measure

10.06	Total Drainage Area		User entry	**SCM 1A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
10.06	Disturbed Area (Acres)			
43.80	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	438023	0	0	0.60	7.20	10.06	10.06	43.80

Total Area (SF) 438023

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	43.44	cfs

PH1 STG1

Stormwater Pond with Skimmer

Okay

SCM 1A

10.06	Drainage Area (Acres)
43.80	Peak Flow from 10-year Storm (cfs)

7/1/25

18100	Required Volume ft^3
19053	Required Surface Area ft^2
97.6	Suggested Width ft
195.2	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.92	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG1

Selection of Sediment Control Measure

8.28	Total Drainage Area		User entry	**SCM 1B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
4.13	Disturbed Area (Acres)			
30.06	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
180863	179915	0	0	0.50	7.20	8.28	4.13	30.06

Total Area (SF) 360778

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 29.82 cfs

PH1 STG1

Stormwater Pond with Skimmer

Okay

SCM 1B

8.28	Drainage Area (Acres)	
30.06	Peak Flow from 10-year Storm (cfs)	7/1/25

14908	Required Volume ft^3	
13078	Required Surface Area ft^2	
80.9	Suggested Width ft	
161.7	Suggested Length ft	

100	Trial Top Width at Spillway Invert ft	
210	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
84	Bottom Width ft	
194	Bottom Length ft	
16296	Bottom Area ft^2	
74421	Actual Volume ft^3	**Okay**
21000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.23	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG1

Selection of Sediment Control Measure

1.57	Total Drainage Area		User entry	**SCM 1C**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
1.57	Disturbed Area (Acres)			
6.85	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	68542	0	0	0.60	7.20	1.57	1.57	6.85

Total Area (SF) 68542

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 6.80 cfs

PH1 STG1

Stormwater Pond with Skimmer

Okay

SCM 1C

1.57	Drainage Area (Acres)
6.85	Peak Flow from 10-year Storm (cfs)

7/1/25

2832	Required Volume ft^3
2981	Required Surface Area ft^2
38.6	Suggested Width ft
77.2	Suggested Length ft

50	Trial Top Width at Spillway Invert ft	
66	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft (2 to 13 feet above grade)	
38	Bottom Width ft	
54	Bottom Length ft	
2052	Bottom Area ft^2	
7956	Actual Volume ft^3	**Okay**
3300	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

1.5	Skimmer Size (inches)
0.125	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.47	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG1

Selection of Sediment Control Measure

6.44	Total Drainage Area		User entry	**SCM 4**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
6.44	Disturbed Area (Acres)			
28.06	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	280603	0	0	0.60	7.20	6.44	6.44	28.06

Total Area (SF) 280603

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 27.83 cfs

PH1 STG1

Stormwater Pond with Skimmer

Okay

SCM 4

6.44	Drainage Area (Acres)
28.06	Peak Flow from 10-year Storm (cfs)

7/1/25

11595	Required Volume ft^3
12206	Required Surface Area ft^2
78.1	Suggested Width ft
156.2	Suggested Length ft

83	Trial Top Width at Spillway Invert ft	
193	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft (2 to 13 feet above grade)	
71	Bottom Width ft	
181	Bottom Length ft	
12851	Bottom Area ft^2	
43233	Actual Volume ft^3	**Okay**
16019	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1.75	Orifice Size (1/4 inch increments)
3.59	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG1

Selection of Sediment Control Measure

10.22	Total Drainage Area		User entry	**TSB 1**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
6.58	Disturbed Area (Acres)			
37.10	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
158598	286592	0	0	0.50	7.20	10.22	6.58	37.10

Total Area (SF) 445190

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	36.79	cfs

PH1 STG1

Temporary Sediment Basin

Okay

TSB 1

10.22	Drainage Area (Acres)	
37.10	Peak Flow from 10-year Storm (cfs)	7/1/25

18396	Required Volume ft^3	
16138	Required Surface Area ft^2	
89.8	Suggested Width ft	
179.7	Suggested Length ft	

95	Trial Top Width at Spillway Invert ft	
190	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
83	Bottom Width ft	
178	Bottom Length ft	
14774	Bottom Area ft^2	
49164	Actual Volume ft^3	**Okay**
18050	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.15	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG1

Selection of Sediment Control Measure

13.70	Total Drainage Area		User entry	**TSB 2**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
13.70	Disturbed Area (Acres)			
59.69	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	596905	0	0	0.60	7.20	13.70	13.70	59.69

Total Area (SF) 596905

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 59.20 cfs

PH1 STG1

Temporary Sediment Basin

Okay

TSB 2

13.70	Drainage Area (Acres)	
59.69	Peak Flow from 10-year Storm (cfs)	7/1/25

24665	Required Volume ft^3	
25965	Required Surface Area ft^2	
113.9	Suggested Width ft	
227.9	Suggested Length ft	

100	Trial Top Width at Spillway Invert ft	
285	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft (2 to 13 feet above grade)	
88	Bottom Width ft	
273	Bottom Length ft	
24024	Bottom Area ft^2	
78714	Actual Volume ft^3	**Okay**
28500	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
4.22	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

8.47	Total Drainage Area		User entry	**SCM 1A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
8.47	Disturbed Area (Acres)			
36.89	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	368868	0	0	0.60	7.20	8.47	8.47	36.89

Total Area (SF) 368868

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	36.58	cfs

PH1 STG2

Stormwater Pond with Skimmer

Okay

SCM 1A

8.47	Drainage Area (Acres)
36.89	Peak Flow from 10-year Storm (cfs)

7/1/25

15242	Required Volume ft^3
16045	Required Surface Area ft^2
89.6	Suggested Width ft
179.1	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.30	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

9.34	Total Drainage Area		User entry	**SCM 1B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
9.34	Disturbed Area (Acres)			
40.69	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	406892	0	0	0.60	7.20	9.34	9.34	40.69

Total Area (SF) 406892

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	40.35	cfs

PH1 STG2

Stormwater Pond with Skimmer

Okay

SCM 1B

9.34	Drainage Area (Acres)	
40.69	Peak Flow from 10-year Storm (cfs)	7/1/25

16814	Required Volume ft^3	
17699	Required Surface Area ft^2	
94.1	Suggested Width ft	
188.1	Suggested Length ft	

100	Trial Top Width at Spillway Invert ft	
210	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
84	Bottom Width ft	
194	Bottom Length ft	
16296	Bottom Area ft^2	
74421	Actual Volume ft^3	**Okay**
21000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.64	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

1.49	Total Drainage Area		User entry
			Calculated Value

SCM 1C

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

1.49	Disturbed Area (Acres)
6.50	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	64993	0	0	0.60	7.20	1.49	1.49	6.50

Total Area (SF) 64993

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	6.45	cfs

PH1 STG2

Stormwater Pond with Skimmer

Okay

SCM 1C

1.49	Drainage Area (Acres)
6.50	Peak Flow from 10-year Storm (cfs)

7/1/25

2686	Required Volume ft^3
2827	Required Surface Area ft^2
37.6	Suggested Width ft
75.2	Suggested Length ft

50	Trial Top Width at Spillway Invert ft	
66	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft (2 to 13 feet above grade)	
38	Bottom Width ft	
54	Bottom Length ft	
2052	Bottom Area ft^2	
7956	Actual Volume ft^3	**Okay**
3300	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

1.5	Skimmer Size (inches)
0.125	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.29	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

10.91	Total Drainage Area		User entry	**SCM 2**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
4.08	Disturbed Area (Acres)			
31.64	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
297909	177543	0	0	0.50	5.75	10.91	4.08	31.64

Total Area (SF) 475452

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 5.75 in/hr
Q = 31.38 cfs

PH1 STG2

Stormwater Pond with Skimmer

Okay

SCM 2

10.91	Drainage Area (Acres)	
31.64	Peak Flow from 10-year Storm (cfs)	7/1/25

19647	Required Volume ft^3	
13764	Required Surface Area ft^2	
83.0	Suggested Width ft	
165.9	Suggested Length ft	

95	Trial Top Width at Spillway Invert ft	
145	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
79	Bottom Width ft	
129	Bottom Length ft	
10191	Bottom Area ft^2	
47761	Actual Volume ft^3	**Okay**
13775	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.36	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

6.94	Total Drainage Area		User entry	**SCM 4**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
6.94	Disturbed Area (Acres)			
30.21	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	302145	0	0	0.60	7.20	6.94	6.94	30.21

Total Area (SF) 302145

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 29.96 cfs

PH1 STG2

Stormwater Pond with Skimmer

Okay

SCM 4

6.94	Drainage Area (Acres)	
30.21	Peak Flow from 10-year Storm (cfs)	7/1/25

12485	Required Volume ft^3	
13143	Required Surface Area ft^2	
81.1	Suggested Width ft	
162.1	Suggested Length ft	

83	Trial Top Width at Spillway Invert ft	
193	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
71	Bottom Width ft	
181	Bottom Length ft	
12851	Bottom Area ft^2	
43233	Actual Volume ft^3	**Okay**
16019	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1.75	Orifice Size (1/4 inch increments)
3.87	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

10.64	Total Drainage Area		User entry	**TSB 2**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
10.64	Disturbed Area (Acres)			
46.36	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	463567	0	0	0.60	7.20	10.64	10.64	46.36

Total Area (SF) 463567

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 45.97 cfs

PH1 STG2

Temporary Sediment Basin

Okay

TSB 2

10.64	Drainage Area (Acres)	
46.36	Peak Flow from 10-year Storm (cfs)	7/1/25

19156	Required Volume ft^3	
20164	Required Surface Area ft^2	
100.4	Suggested Width ft	
200.8	Suggested Length ft	

100	Trial Top Width at Spillway Invert ft	
285	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft (2 to 13 feet above grade)	
88	Bottom Width ft	
273	Bottom Length ft	
24024	Bottom Area ft^2	
78714	Actual Volume ft^3	**Okay**
28500	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.28	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH1 STG2

Selection of Sediment Control Measure

5.65	Total Drainage Area		User entry	**TSB 3**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
5.65	Disturbed Area (Acres)			
24.61	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	246102	0	0	0.60	7.20	5.65	5.65	24.61

Total Area (SF) 246102

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	24.41	cfs

PH1 STG2

Skimmer Basin

TSB 3

Okay 7/1/25

5.65	Drainage Area (Acres)
24.61	Peak Flow from 10-year Storm (cfs)
10170	Required Volume ft^3
10705	Required Surface Area ft^2
73.2	Suggested Width ft
146.3	Suggested Length ft
75	Trial Top Width at Spillway Invert ft
150	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
63	Bottom Width ft
138	Bottom Length ft
8694	Bottom Area ft^2
29844	Actual Volume ft^3 **Okay**
11250	Actual Surface Area ft^2 **Okay**
15	Trial Weir Length ft
1	Trial Depth of Flow ft
45.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.91	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

0.12	Total Drainage Area		User entry **RB3**
Okay	Temporary Sediment Trap		Calculated Value 7/1/25
Okay	Skimmer Sediment Basin		
Okay	Temporary Sediment Basin		
0.12	Disturbed Area (Acres)		
0.42	Peak Flow from 10-year Storm (cfs)		

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	5252	0	0	0.60	5.75	0.12	0.12	0.42

Total Area (SF) 5252

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 5.75 in/hr

Q = 0.42 cfs

PH2 STG1

Temporary Sediment Trap

RB3

Okay

0.12	Disturbed Area (Acres)	
0.42	Peak Flow from 10-year Storm (cfs)	
434	Required Volume ft^3	
182	Required Surface Area ft^2	
9.6	Suggested Width ft	
19.1	Suggested Length ft	
15	Trial Top Width at Spillway Invert ft	
25	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(1.5 feet below grade + 2 to 3.5 feet above grade)
3	Bottom Width ft	
13	Bottom Length ft	
39	Bottom Area ft^2	
549	Actual Volume ft^3	**Okay**
375	Actual Surface Area ft^2	**Okay**
5	Trial Weir Length ft	
1	Trial Depth of Flow ft	
15.0	Spillway Capacity cfs	**Okay**

PH2 STG1

Selection of Sediment Control Measure

0.62	Total Drainage Area		User entry **RB4**
Okay	Temporary Sediment Trap		Calculated Value 7/1/25
Okay	Skimmer Sediment Basin		
Okay	Temporary Sediment Basin		
0.62	Disturbed Area (Acres)		
2.17	Peak Flow from 10-year Storm (cfs)		

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	27214	0	0	0.60	5.75	0.62	0.62	2.17

Total Area (SF) 27214

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 5.75 in/hr
Q = 2.16 cfs

PH2 STG1

Temporary Sediment Trap

RB4

Okay

0.62	Disturbed Area (Acres)	
2.17	Peak Flow from 10-year Storm (cfs)	
2249	Required Volume ft^3	
945	Required Surface Area ft^2	
21.7	Suggested Width ft	
43.5	Suggested Length ft	
25	Trial Top Width at Spillway Invert ft	
50	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(1.5 feet below grade + 2 to 3.5 feet above grade)
13	Bottom Width ft	
38	Bottom Length ft	
494	Bottom Area ft^2	
2544	Actual Volume ft^3	**Okay**
1250	Actual Surface Area ft^2	**Okay**
10	Trial Weir Length ft	
1	Trial Depth of Flow ft	
30.0	Spillway Capacity cfs	**Okay**

PH2 STG1

Selection of Sediment Control Measure

9.07	Total Drainage Area		User entry
			Calculated Value

SCM 1A

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

9.07	Disturbed Area (Acres)
39.51	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	395116	0	0	0.60	7.20	9.07	9.07	39.51

Total Area (SF) 395116

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 39.19 cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 1A

9.07	Drainage Area (Acres)
39.51	Peak Flow from 10-year Storm (cfs)

7/1/25

16327	Required Volume ft^3
17187	Required Surface Area ft^2
92.7	Suggested Width ft
185.4	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.53	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

9.09	Total Drainage Area		User entry	**SCM 2**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
9.09	Disturbed Area (Acres)			
31.64	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	396173	0	0	0.60	5.75	9.09	9.09	31.64

Total Area (SF) 396173

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 5.75 in/hr
Q = 31.38 cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 2

9.09	Drainage Area (Acres)	
31.64	Peak Flow from 10-year Storm (cfs)	7/1/25

16371	Required Volume ft^3	
13762	Required Surface Area ft^2	
83.0	Suggested Width ft	
165.9	Suggested Length ft	

95	Trial Top Width at Spillway Invert ft	
145	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
79	Bottom Width ft	
129	Bottom Length ft	
10191	Bottom Area ft^2	
47761	Actual Volume ft^3	**Okay**
13775	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.54	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

3.71	Total Drainage Area		User entry	**SCM 5A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
3.71	Disturbed Area (Acres)			
16.17	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	161745	0	0	0.60	7.20	3.71	3.71	16.17

Total Area (SF) 161745

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	16.04	cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 5A

3.71	Drainage Area (Acres)
16.17	Peak Flow from 10-year Storm (cfs)

7/1/25

6684	Required Volume ft^3
7036	Required Surface Area ft^2
59.3	Suggested Width ft
118.6	Suggested Length ft

87	Trial Top Width at Spillway Invert ft	
175	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
71	Bottom Width ft	
159	Bottom Length ft	
11289	Bottom Area ft^2	
52857	Actual Volume ft^3	**Okay**
15225	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.15	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

1.90	Total Drainage Area		User entry
			Calculated Value

SCM 5B

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

1.90	Disturbed Area (Acres)
8.30	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	82967	0	0	0.60	7.20	1.90	1.90	8.30

Total Area (SF) 82967

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	8.23	cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 5B

1.90	Drainage Area (Acres)
8.30	Peak Flow from 10-year Storm (cfs)

7/1/25

3428	Required Volume ft^3
3609	Required Surface Area ft^2
42.5	Suggested Width ft
85.0	Suggested Length ft

55	Trial Top Width at Spillway Invert ft	
144	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
39	Bottom Width ft	
128	Bottom Length ft	
4992	Bottom Area ft^2	
25653	Actual Volume ft^3	**Okay**
7920	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.25	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

4.94	Total Drainage Area		User entry	**SCM 5C**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
4.94	Disturbed Area (Acres)			
21.50	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	214974	0	0	0.60	7.20	4.94	4.94	21.50

Total Area (SF) 214974

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	21.32	cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 5C

4.94	Drainage Area (Acres)	
21.50	Peak Flow from 10-year Storm (cfs)	7/1/25

8883	Required Volume ft^3	
9351	Required Surface Area ft^2	
68.4	Suggested Width ft	
136.8	Suggested Length ft	

60	Trial Top Width at Spillway Invert ft	
215	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
44	Bottom Width ft	
199	Bottom Length ft	
8756	Bottom Area ft^2	
43141	Actual Volume ft^3	**Okay**
12900	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.42	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.23	Total Drainage Area		User entry	**SCM 6A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.23	Disturbed Area (Acres)			
9.73	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	97275	0	0	0.60	7.20	2.23	2.23	9.73

Total Area (SF) 97275

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	9.65	cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 6A

2.23	Drainage Area (Acres)
9.73	Peak Flow from 10-year Storm (cfs)

7/1/25

4020	Required Volume ft^3
4231	Required Surface Area ft^2
46.0	Suggested Width ft
92.0	Suggested Length ft

32	Trial Top Width at Spillway Invert ft
138	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
4	Trial Depth ft (2 to 13 feet above grade)
16	Bottom Width ft
122	Bottom Length ft
1952	Bottom Area ft^2
12565	Actual Volume ft^3 **Okay**
4416	Actual Surface Area ft^2 **Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.48	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

5.35	Total Drainage Area		User entry	**SCM 6B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
5.35	Disturbed Area (Acres)			
23.30	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	232986	0	0	0.60	7.20	5.35	5.35	23.30

Total Area (SF) 232986

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 23.11 cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 6B

5.35	Drainage Area (Acres)	
23.30	Peak Flow from 10-year Storm (cfs)	7/1/25

9628	Required Volume ft^3	
10135	Required Surface Area ft^2	
71.2	Suggested Width ft	
142.4	Suggested Length ft	

82	Trial Top Width at Spillway Invert ft	
161	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
66	Bottom Width ft	
145	Bottom Length ft	
9570	Bottom Area ft^2	
45373	Actual Volume ft^3	**Okay**
13202	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

4	Skimmer Size (inches)
0.333	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.21	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.18	Total Drainage Area		User entry
			Calculated Value

SCM 7

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

2.18	Disturbed Area (Acres)
9.51	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	95097	0	0	0.60	7.20	2.18	2.18	9.51

Total Area (SF) 95097

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	9.43	cfs

PH2 STG1

Stormwater Pond with Skimmer

Okay

SCM 7

2.18	Drainage Area (Acres)
9.51	Peak Flow from 10-year Storm (cfs)

7/1/25

3930	Required Volume ft^3
4137	Required Surface Area ft^2
45.5	Suggested Width ft
91.0	Suggested Length ft

33	Trial Top Width at Spillway Invert ft	
140	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
17	Bottom Width ft	
124	Bottom Length ft	
2108	Bottom Area ft^2	
13285	Actual Volume ft^3	**Okay**
4620	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.73	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.55	Total Drainage Area		User entry	**TSB 5**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.55	Disturbed Area (Acres)			
11.12	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	111213	0	0	0.60	7.20	2.55	2.55	11.12

Total Area (SF) 111213

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 11.03 cfs

PH2 STG1

Skimmer Basin

TSB 5

Okay 7/1/25

2.55	Drainage Area (Acres)
11.12	Peak Flow from 10-year Storm (cfs)
4596	Required Volume ft^3
4838	Required Surface Area ft^2
49.2	Suggested Width ft
98.4	Suggested Length ft
65	Trial Top Width at Spillway Invert ft
130	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
53	Bottom Width ft
118	Bottom Length ft
6254	Bottom Area ft^2
21984	Actual Volume ft^3 **Okay**
8450	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.98	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

3.86	Total Drainage Area		User entry	**TSB 6**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
3.86	Disturbed Area (Acres)			
16.81	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	168107	0	0	0.60	7.20	3.86	3.86	16.81

Total Area (SF) 168107

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 16.67 cfs

PH2 STG1

Skimmer Basin

TSB 6

Okay 7/1/25

3.86	Disturbed Area (Acres)
16.81	Peak Flow from 10-year Storm (cfs)
6947	Required Volume ft^3
7312	Required Surface Area ft^2
60.5	Suggested Width ft
120.9	Suggested Length ft
60	Trial Top Width at Spillway Invert ft
130	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
48	Bottom Width ft
118	Bottom Length ft
5664	Bottom Area ft^2
20124	Actual Volume ft^3 **Okay**
7800	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1.25	Orifice Size (1/4 inch increments)
3.85	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.95	Total Drainage Area		User entry
			Calculated Value

TSB 7

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

2.95	Disturbed Area (Acres)
12.85	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	128507	0	0	0.60	7.20	2.95	2.95	12.85

Total Area (SF) 128507

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 = 7.20 in/hr

Q = 12.74 cfs

PH2 STG1

Skimmer Basin

TSB 7

Okay 7/1/25

2.95	Disturbed Area (Acres)
12.85	Peak Flow from 10-year Storm (cfs)
5310	Required Volume ft^3
5590	Required Surface Area ft^2
52.9	Suggested Width ft
105.7	Suggested Length ft
40	Trial Top Width at Spillway Invert ft
140	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3.5	Trial Depth ft (2 to 3.5 feet above grade)
26	Bottom Width ft
126	Bottom Length ft
3276	Bottom Area ft^2
15419	Actual Volume ft^3 **Okay**
5600	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1.25	Orifice Size (1/4 inch increments)
3.23	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.51	Total Drainage Area		User entry	**TSB 8A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.51	Disturbed Area (Acres)			
10.95	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	109461	0	0	0.60	7.20	2.51	2.51	10.95

Total Area (SF) 109461

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 10.86 cfs

PH2 STG1

Skimmer Basin

TSB 8A

Okay 7/1/25

2.51	Drainage Area (Acres)
10.95	Peak Flow from 10-year Storm (cfs)
4523	Required Volume ft^3
4761	Required Surface Area ft^2
48.8	Suggested Width ft
97.6	Suggested Length ft
62	Trial Top Width at Spillway Invert ft
124	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
50	Bottom Width ft
112	Bottom Length ft
5600	Bottom Area ft^2
19860	Actual Volume ft^3 **Okay**
7688	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1.25	Orifice Size (1/4 inch increments)
3.07	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

9.18	Total Drainage Area		User entry	**TSB 8B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
9.18	Disturbed Area (Acres)			
39.97	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	399675	0	0	0.60	7.20	9.18	9.18	39.97

Total Area (SF) 399675

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	39.64	cfs

PH2 STG1

Skimmer Basin

TSB 8B

Okay 7/1/25

9.18	Drainage Area (Acres)
39.97	Peak Flow from 10-year Storm (cfs)
16515	Required Volume ft^3
17385	Required Surface Area ft^2
93.2	Suggested Width ft
186.5	Suggested Length ft
95	Trial Top Width at Spillway Invert ft
190	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
83	Bottom Width ft
178	Bottom Length ft
14774	Bottom Area ft^2
49164	Actual Volume ft^3 **Okay**
18050	Actual Surface Area ft^2 **Okay**
20	Trial Weir Length ft
1	Trial Depth of Flow ft
60.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.57	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG1

Selection of Sediment Control Measure

2.07	Total Drainage Area		User entry
			Calculated Value

TSB 9

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

2.07	Disturbed Area (Acres)
9.02	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	90211	0	0	0.60	7.20	2.07	2.07	9.02

Total Area (SF) 90211

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	8.95	cfs

PH2 STG1

Skimmer Basin

TSB 9

Okay 7/1/25

2.07	Disturbed Area (Acres)	
9.02	Peak Flow from 10-year Storm (cfs)	
3728	Required Volume ft^3	
3924	Required Surface Area ft^2	
44.3	Suggested Width ft	
88.6	Suggested Length ft	
45	Trial Top Width at Spillway Invert ft	
100	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3.5	Trial Depth ft	(2 to 3.5 feet above grade)
31	Bottom Width ft	
86	Bottom Length ft	
2666	Bottom Area ft^2	
12426	Actual Volume ft^3	**Okay**
4500	Actual Surface Area ft^2	**Okay**
10	Trial Weir Length ft	
1	Trial Depth of Flow ft	
30.0	Spillway Capacity cfs	**Okay**
2.5	Skimmer Size (inches)	
0.208	Head on Skimmer (feet)	
1	Orifice Size (1/4 inch increments)	
3.54	Dewatering Time (days)	
	Suggest about 3 days	

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

10.02	Total Drainage Area		User entry	**SCM 1A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
10.02	Disturbed Area (Acres)			
43.64	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	436404	0	0	0.60	7.20	10.02	10.02	43.64

Total Area (SF) 436404

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	43.28	cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 1A

10.02	Drainage Area (Acres)
43.64	Peak Flow from 10-year Storm (cfs)

7/1/25

18033	Required Volume ft^3
18983	Required Surface Area ft^2
97.4	Suggested Width ft
194.8	Suggested Length ft

100	Trial Top Width at Spillway Invert ft	
200	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
84	Bottom Width ft	
184	Bottom Length ft	
15456	Bottom Area ft^2	
70741	Actual Volume ft^3	**Okay**
20000	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.90	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

8.95	Total Drainage Area		User entry
			Calculated Value

SCM 2

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

8.95	Disturbed Area (Acres)
31.14	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	389900	0	0	0.60	5.75	8.95	8.95	31.14

Total Area (SF) 389900

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	5.75	in/hr
Q =	30.88	cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 2

8.95	Drainage Area (Acres)	
31.14	Peak Flow from 10-year Storm (cfs)	7/1/25

16112	Required Volume ft^3	
13545	Required Surface Area ft^2	
82.3	Suggested Width ft	
164.6	Suggested Length ft	

95	Trial Top Width at Spillway Invert ft	
145	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft	(2 to 13 feet above grade)
79	Bottom Width ft	
129	Bottom Length ft	
10191	Bottom Area ft^2	
47761	Actual Volume ft^3	**Okay**
13775	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.49	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

8.03	Total Drainage Area		User entry	**SCM 5A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
8.03	Disturbed Area (Acres)			
34.97	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	349691	0	0	0.60	7.20	8.03	8.03	34.97

Total Area (SF) 349691

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	34.68	cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 5A

8.03	Drainage Area (Acres)
34.97	Peak Flow from 10-year Storm (cfs)

7/1/25

14450	Required Volume ft^3
15211	Required Surface Area ft^2
87.2	Suggested Width ft
174.4	Suggested Length ft

87	Trial Top Width at Spillway Invert ft	
175	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
71	Bottom Width ft	
159	Bottom Length ft	
11289	Bottom Area ft^2	
52857	Actual Volume ft^3	**Okay**
15225	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.13	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

6.69	Total Drainage Area		User entry
			Calculated Value

SCM 5C

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

6.69	Disturbed Area (Acres)
29.15	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	291468	0	0	0.60	7.20	6.69	6.69	29.15

Total Area (SF) 291468

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	28.91	cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 5C

6.69	Drainage Area (Acres)
29.15	Peak Flow from 10-year Storm (cfs)

7/1/25

12044	Required Volume ft^3
12678	Required Surface Area ft^2
79.6	Suggested Width ft
159.2	Suggested Length ft

60	Trial Top Width at Spillway Invert ft	
215	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
44	Bottom Width ft	
199	Bottom Length ft	
8756	Bottom Area ft^2	
43141	Actual Volume ft^3	**Okay**
12900	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
4.63	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

2.33	Total Drainage Area		User entry	**SCM 6A**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.33	Disturbed Area (Acres)			
10.15	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	101465	0	0	0.60	7.20	2.33	2.33	10.15

Total Area (SF) 101465

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 10.06 cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 6A

2.33	Drainage Area (Acres)
10.15	Peak Flow from 10-year Storm (cfs)

7/1/25

4193	Required Volume ft^3
4414	Required Surface Area ft^2
47.0	Suggested Width ft
94.0	Suggested Length ft

32	Trial Top Width at Spillway Invert ft	
138	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
16	Bottom Width ft	
122	Bottom Length ft	
1952	Bottom Area ft^2	
12565	Actual Volume ft^3	**Okay**
4416	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.63	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

6.43	Total Drainage Area		User entry	**SCM 6B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
6.43	Disturbed Area (Acres)			
28.03	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	280307	0	0	0.60	7.20	6.43	6.43	28.03

Total Area (SF) 280307

*Assumes woods or grass

Slope Drain (Q=C*i10*A)
i10 = 7.20 in/hr
Q = 27.80 cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 6B

6.43	Drainage Area (Acres)
28.03	Peak Flow from 10-year Storm (cfs)

7/1/25

11583	Required Volume ft^3
12193	Required Surface Area ft^2
78.1	Suggested Width ft
156.2	Suggested Length ft

82	Trial Top Width at Spillway Invert ft	
161	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
66	Bottom Width ft	
145	Bottom Length ft	
9570	Bottom Area ft^2	
45373	Actual Volume ft^3	**Okay**
13202	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

4	Skimmer Size (inches)
0.333	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.86	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

2.23	Total Drainage Area		User entry
			Calculated Value

SCM 7

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

2.23	Disturbed Area (Acres)
9.71	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	97086	0	0	0.60	7.20	2.23	2.23	9.71

Total Area (SF) 97086

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	9.63	cfs

PH2 STG2

Stormwater Pond with Skimmer

Okay

SCM 7

2.23	Drainage Area (Acres)
9.71	Peak Flow from 10-year Storm (cfs)

7/1/25

4012	Required Volume ft^3
4223	Required Surface Area ft^2
46.0	Suggested Width ft
91.9	Suggested Length ft

33	Trial Top Width at Spillway Invert ft	
140	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
4	Trial Depth ft (2 to 13 feet above grade)	
17	Bottom Width ft	
124	Bottom Length ft	
2108	Bottom Area ft^2	
13285	Actual Volume ft^3	**Okay**
4620	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.81	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

2.48	Total Drainage Area		User entry	**TSB 5**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.48	Disturbed Area (Acres)			
10.79	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	107912	0	0	0.60	7.20	2.48	2.48	10.79

Total Area (SF) 107912

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	10.70	cfs

PH2 STG2

Skimmer Basin

TSB 5

Okay 7/1/25

2.48	Drainage Area (Acres)
10.79	Peak Flow from 10-year Storm (cfs)
4459	Required Volume ft^3
4694	Required Surface Area ft^2
48.4	Suggested Width ft
96.9	Suggested Length ft
65	Trial Top Width at Spillway Invert ft
130	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
53	Bottom Width ft
118	Bottom Length ft
6254	Bottom Area ft^2
21984	Actual Volume ft^3 **Okay**
8450	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.86	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

1.91	Total Drainage Area		User entry	**TSB 6**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
1.91	Disturbed Area (Acres)			
8.34	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	83416	0	0	0.60	7.20	1.91	1.91	8.34

Total Area (SF) 83416

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	8.27	cfs

PH2 STG2

Skimmer Basin

TSB 6

Okay 7/1/25

1.91	Disturbed Area (Acres)
8.34	Peak Flow from 10-year Storm (cfs)
3447	Required Volume ft^3
3628	Required Surface Area ft^2
42.6	Suggested Width ft
85.2	Suggested Length ft
60	Trial Top Width at Spillway Invert ft
130	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
48	Bottom Width ft
118	Bottom Length ft
5664	Bottom Area ft^2
20124	Actual Volume ft^3 **Okay**
7800	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
2.5	Skimmer Size (inches)
0.208	Head on Skimmer (feet)
1	Orifice Size (1/4 inch increments)
3.27	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

13.94	Total Drainage Area		User entry	**TSB 8**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Do Not Use	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
13.94	Disturbed Area (Acres)			
60.74	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	607441	0	0	0.60	7.20	13.94	13.94	60.74

Total Area (SF) 607441

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	60.24	cfs

PH2 STG2

Temporary Sediment Basin

Okay

TSB 8

13.94	Drainage Area (Acres)	
60.74	Peak Flow from 10-year Storm (cfs)	7/1/25

25101	Required Volume ft^3	
26423	Required Surface Area ft^2	
114.9	Suggested Width ft	
229.9	Suggested Length ft	

115	Trial Top Width at Spillway Invert ft	
230	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3	Trial Depth ft	(2 to 13 feet above grade)
103	Bottom Width ft	
218	Bottom Length ft	
22454	Bottom Area ft^2	
73284	Actual Volume ft^3	**Okay**
26450	Actual Surface Area ft^2	**Okay**

Use Spillway Capacity Sheet to Size Primary and Emergency Spillways

4	Skimmer Size (inches)
0.333	Head on Skimmer (feet)
2.25	Orifice Size (1/4 inch increments)
3.72	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

4.00	Total Drainage Area		User entry
			Calculated Value

TSB 8A

7/1/25

Do Not Use	Temporary Sediment Trap
Okay	Skimmer Sediment Basin
Okay	Temporary Sediment Basin

4.00	Disturbed Area (Acres)
17.43	Peak Flow from 10-year Storm (cfs)

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	174343	0	0	0.60	7.20	4.00	4.00	17.43

Total Area (SF) 174343

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	17.29	cfs

PH2 STG2

Skimmer Basin

TSB 8A

Okay 7/1/25

4.00	Drainage Area (Acres)
17.43	Peak Flow from 10-year Storm (cfs)
7204	Required Volume ft^3
7584	Required Surface Area ft^2
61.6	Suggested Width ft
123.2	Suggested Length ft
62	Trial Top Width at Spillway Invert ft
124	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
50	Bottom Width ft
112	Bottom Length ft
5600	Bottom Area ft^2
19860	Actual Volume ft^3 **Okay**
7688	Actual Surface Area ft^2 **Okay**
10	Trial Weir Length ft
1	Trial Depth of Flow ft
30.0	Spillway Capacity cfs **Okay**
2	Skimmer Size (inches)
0.167	Head on Skimmer (feet)
1.5	Orifice Size (1/4 inch increments)
3.39	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

9.20	Total Drainage Area		User entry	**TSB 8B**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
9.20	Disturbed Area (Acres)			
40.07	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	400734	0	0	0.60	7.20	9.20	9.20	40.07

Total Area (SF) 400734

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	39.74	cfs

PH2 STG2

Skimmer Basin

TSB 8B

Okay 7/1/25

9.20	Drainage Area (Acres)
40.07	Peak Flow from 10-year Storm (cfs)
16559	Required Volume ft^3
17431	Required Surface Area ft^2
93.4	Suggested Width ft
186.7	Suggested Length ft
95	Trial Top Width at Spillway Invert ft
190	Trial Top Length at Spillway Invert ft
2	Trial Side Slope Ratio Z:1
3	Trial Depth ft (2 to 3.5 feet above grade)
83	Bottom Width ft
178	Bottom Length ft
14774	Bottom Area ft^2
49164	Actual Volume ft^3 **Okay**
18050	Actual Surface Area ft^2 **Okay**
20	Trial Weir Length ft
1	Trial Depth of Flow ft
60.0	Spillway Capacity cfs **Okay**
3	Skimmer Size (inches)
0.25	Head on Skimmer (feet)
2	Orifice Size (1/4 inch increments)
3.58	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

2.21	Total Drainage Area		User entry	**TSB 9**
Do Not Use	Temporary Sediment Trap		Calculated Value	7/1/25
Okay	Skimmer Sediment Basin			
Okay	Temporary Sediment Basin			
2.21	Disturbed Area (Acres)			
9.61	Peak Flow from 10-year Storm (cfs)			

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	96101	0	0	0.60	7.20	2.21	2.21	9.61

Total Area (SF) 96101

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	9.53	cfs

PH2 STG2

Skimmer Basin

TSB 9

Okay 7/1/25

2.21	Disturbed Area (Acres)	
9.61	Peak Flow from 10-year Storm (cfs)	
3971	Required Volume ft^3	
4180	Required Surface Area ft^2	
45.7	Suggested Width ft	
91.4	Suggested Length ft	
45	Trial Top Width at Spillway Invert ft	
100	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3.5	Trial Depth ft	(2 to 3.5 feet above grade)
31	Bottom Width ft	
86	Bottom Length ft	
2666	Bottom Area ft^2	
12426	Actual Volume ft^3	**Okay**
4500	Actual Surface Area ft^2	**Okay**
10	Trial Weir Length ft	
1	Trial Depth of Flow ft	
30.0	Spillway Capacity cfs	**Okay**
2.5	Skimmer Size (inches)	
0.208	Head on Skimmer (feet)	
1	Orifice Size (1/4 inch increments)	
3.77	Dewatering Time (days)	
	Suggest about 3 days	

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

PH2 STG2

Selection of Sediment Control Measure

0.96	Total Drainage Area		User entry
			Calculated Value
Okay	Temporary Sediment Trap		
Okay	Skimmer Sediment Basin		
Okay	Temporary Sediment Basin		
0.96	Disturbed Area (Acres)		
4.17	Peak Flow from 10-year Storm (cfs)		

TSB 10

7/1/25

Items below added by Jakob P. Klein, P.E.

C Factors	Undisturbed*	Disturbed	Off-site	Impervious
	0.22	0.6	0.3	0.9

Undisturbed* (SF)	**Disturbed** (SF)	**Off-site** (SF)	**Impervious** (SF)	**Rational C Factor**	**i(10)** (in./hr.)	**Tot. D. A.** (AC)	**Disturbed** (AC)	**Q(10)** (CFS)
0	41740	0	0	0.60	7.20	0.96	0.96	4.17

Total Area (SF) 41740

*Assumes woods or grass

Slope Drain (Q=C*i10*A)

i10 =	7.20	in/hr
Q =	4.14	cfs

PH2 STG2

Skimmer Basin

TSB 10

Okay 7/1/25

0.96	Disturbed Area (Acres)	
4.17	Peak Flow from 10-year Storm (cfs)	
1725	Required Volume ft^3	
1816	Required Surface Area ft^2	
30.1	Suggested Width ft	
60.3	Suggested Length ft	
30	Trial Top Width at Spillway Invert ft	
65	Trial Top Length at Spillway Invert ft	
2	Trial Side Slope Ratio Z:1	
3.5	Trial Depth ft	(2 to 3.5 feet above grade)
16	Bottom Width ft	
51	Bottom Length ft	
816	Bottom Area ft^2	
4726	Actual Volume ft^3	**Okay**
1950	Actual Surface Area ft^2	**Okay**
10	Trial Weir Length ft	
1	Trial Depth of Flow ft	
30.0	Spillway Capacity cfs	**Okay**
1.5	Skimmer Size (inches)	
0.125	Head on Skimmer (feet)	
0.75	Orifice Size (1/4 inch increments)	
3.75	Dewatering Time (days)	
	Suggest about 3 days	

Skimmer Size (Inches)
1.5
2
2.5
3
4
5
6
8

Merritt Reserve - Phase 1

$$v = \frac{1.486}{n} R_H^{2/3} S^{1/2}$$

where

Q = discharge or flow rate (ft^3/sec)

v = flow velocity (ft/sec)

n = Manning's roughness coefficient

A = cross-sectional area of flow (ft^2)

R_H = hydraulic radius (ft) = $\frac{A}{P}$

P = wetted perimeter (ft)

S = slope of the energy grade line (ft/ft) = $\frac{h_L}{L}$

h_L = head loss (ft)

L = pipe length (ft)

TEMPORARY SLOPE DRAINS - MERRIT RESERVE PHASE 1

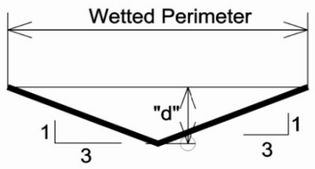
Slope Drain I.D.	D.A., AC.	C	i_{10}, in/hr	Q_{10}, cfs	Inv. Up	Inv. Dn	Pipe Length (ft)	Pipe Slope (ft/ft)	No. of Barrels	Manning, n	Recommended Slope Drain Size (in)*
PHASE 1 STAGE 1											
TDD 1.1	0.32	0.60	7.20	1.38	388.56	384.00	23	0.198	1	0.013	12
TDD 1.2	6.24	0.60	7.20	26.96	385.31	384.00	24	0.055	1	0.013	36
TDD 1B.1	3.04	0.60	7.20	13.13	379.17	374.00	132	0.039	1	0.013	24
TDD 2.1B	12.84	0.60	7.20	55.47	359.00	357.00	38	0.053	1	0.013	48
TDD 4.1	3.82	0.60	7.20	16.50	378.67	360.00	46	0.406	1	0.013	30
TDD 4.2	1.24	0.60	7.20	5.36	377.94	360.00	43	0.417	1	0.013	18
PHASE 1 STAGE 2											
TDD 3.1	4.27	0.60	7.20	18.45	375.00	373.00	10	0.200	1	0.013	30

*Recommended size based on conveyance and inlet capacity

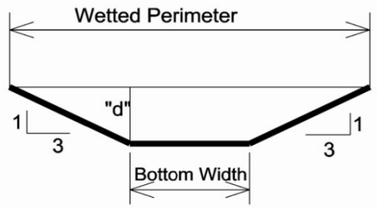
Merritt Reserve - Phase 2 & 3

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 2 & 3

Ditch I.D.	D.A., AC.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Min. Ditch Depth, ft**	Flow Velocity V10, fps	Calc.Shear Stress, psf
PHASE 2 & 3 STAGE 1													
TDD 1A.2	2.32	0.60	7.20	**10.02**	2.00	2.00	1.87	0.00	**E. Coast Ero. Blank.; Straw/Coir, 2 Jute nets**	0.033	**1.43**	**3.90**	1.32
TDD 5.1	2.11	0.60	7.20	**9.12**	2.00	2.00	3.13	0.00	**NAG; 70% straw: 30% Coconut; double net**	0.033	**1.29**	**4.61**	1.94
TDD 5A.1	1.84	0.60	7.20	**7.95**	2.00	2.00	2.44	0.00	**Am. Excelsior Co.; Curlex I.73; 1 net**	0.033	**1.29**	**4.06**	1.51
TDD 5A.2	1.24	0.60	7.20	**5.36**	2.00	2.00	0.56	0.00	**Jute Netting**	0.033	**1.42**	**2.12**	0.39
TDD 5B.1	0.17	0.60	7.20	**0.73**	2.00	2.00	3.50	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**0.68**	**2.54**	0.83
TDD 5C.1	4.18	0.60	7.20	**18.06**	2.00	2.00	0.88	0.00	**Profile; Futerra**	0.033	**1.93**	**3.41**	0.89
TDD 6.1	1.27	0.60	7.20	**5.49**	2.00	2.00	1.40	0.00	**Profile; Futerra**	0.033	**1.26**	**3.00**	0.83
TDD 6.2	0.91	0.60	7.20	**3.93**	2.00	2.00	2.16	0.00	**Am. Excelsior Co.; Straw; 1 net**	0.033	**1.08**	**3.25**	1.05
TDD 6A.1	1.71	0.60	7.20	**7.39**	2.00	2.00	1.97	0.00	**Am. Excelsior Co.; Straw; 1 net**	0.033	**1.30**	**3.68**	1.23
TDD 6B.1	1.60	0.60	7.20	**6.91**	2.00	2.00	0.97	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**1.42**	**2.78**	0.68
TDD 6B.2	3.35	0.60	7.20	**14.47**	2.00	2.00	3.95	0.00	**Am. Excelsior Co.; Curlex High Velocity; 2 nets**	0.033	**1.43**	**5.66**	2.79
TDD 7.1	0.21	0.60	7.20	**0.91**	2.00	2.00	3.11	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**0.72**	**2.57**	0.82
TDD 7.2	2.74	0.60	7.20	**11.84**	2.00	2.00	2.47	0.00	**E. Coast Ero. Blank.; Excelsior, 1 net**	0.033	**1.45**	**4.51**	1.77
TDD 8A.1	2.44	0.60	7.20	**10.54**	2.00	2.00	0.64	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**1.71**	**2.65**	0.56
TDD 8B.1	7.33	0.60	7.20	**31.67**	2.00	2.00	0.37	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**2.66**	**2.85**	0.54
TDD 8B.2	0.85	0.60	7.20	**3.67**	2.00	2.00	0.20	0.00	**Jute Netting**	0.033	**1.48**	**1.31**	0.15
TDD 9.1	1.23	0.60	7.20	**5.31**	2.00	2.00	0.63	0.00	**Jute Netting**	0.033	**1.40**	**2.21**	0.43
PHASE 2 & 3 STAGE 2													
TDD 5.2	0.96	0.60	7.20	**4.15**	2.00	2.00	0.41	0.00	**E. Coast Ero. Blank.; Straw/Coir, 2 Jute nets**	0.033	**1.38**	**1.77**	0.28
TDD 5.3	1.20	0.60	7.20	**5.18**	2.00	2.00	1.93	0.00	**NAG; 70% straw: 30% Coconut; double net**	0.033	**1.18**	**3.34**	1.06
TDD 5A.3	0.90	0.60	7.20	**3.89**	2.00	2.00	0.12	0.00	**Am. Excelsior Co.; Curlex I.73; 1 net**	0.033	**1.63**	**1.10**	0.10
TDD 5A.4	0.54	0.60	7.20	**2.33**	2.00	2.00	0.19	0.00	**Jute Netting**	0.033	**1.31**	**1.15**	0.12
TDD 5A.5	2.18	0.60	7.20	**9.42**	2.00	2.00	1.20	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**1.50**	**3.25**	0.90

TDD 6.3A	0.70	0.60	7.20	**3.02**	2.00	2.00	0.30	0.00	**Profile; Futerra**	0.033	**1.32**	**1.45**	0.19
TDD 6.3B	1.39	0.60	7.20	**6.00**	2.00	2.00	5.42	0.00	**Profile; Futerra**	0.033	**1.07**	**5.10**	2.60
TDD 8A.2	3.92	0.60	7.20	**16.93**	2.00	2.00	0.28	0.00	**Profile; Futerra**	0.033	**2.27**	**2.19**	0.34
TDD 8B.3	7.93	0.60	7.20	**34.26**	2.00	2.00	0.25	0.00	**Am. Excelsior Co.; Straw; 1 net**	0.033	**2.91**	**2.51**	0.41
TDD 8B.4	0.75	0.60	7.20	**3.24**	2.00	2.00	0.17	0.00	**Am. Excelsior Co.; Straw; 1 net**	0.033	**1.46**	**1.20**	0.12
TDD 9.2	2.13	0.60	7.20	**9.20**	2.00	2.00	0.15	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**2.06**	**1.49**	0.16
TDD 10.1	0.96	0.60	7.20	**4.15**	2.00	2.00	1.03	0.00	**Am. Excelsior Co.; Curlex High Velocity; 2 nets**	0.033	**1.21**	**2.50**	0.59

*An approved equal alternate lining may be used

**Ditch depth is Q10 flow depth +0.3 ft of freeboard

Z:\Jobs\23-0004 Merrit Property BRD\Calculations\Erosion Control\Temporary Ditch Calculations.xlsx

Merritt Reserve - Phase 2 & 3

$$v = \frac{1.486}{n} R_H^{2/3} S^{1/2}$$

where

Q = discharge or flow rate (ft^3/sec)

v = flow velocity (ft/sec)

n = Manning's roughness coefficient

A = cross-sectional area of flow (ft^2)

R_H = hydraulic radius (ft) = $\frac{A}{P}$

P = wetted perimeter (ft)

S = slope of the energy grade line (ft/ft) = $\frac{h_L}{L}$

h_L = head loss (ft)

L = pipe length (ft)

TEMPORARY SLOPE DRAINS - MERRIT RESERVE PHASE 2 & 3

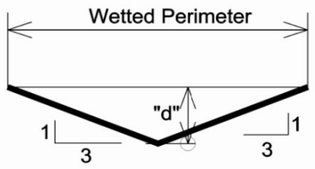
Slope Drain I.D.	D.A., AC.	C	i_{10}, in/hr	Q_{10}, cfs	Inv. Up	Inv. Dn	Pipe Length (ft)	Pipe Slope (ft/ft)	No. of Barrels	Manning, n	Recommended Slope Drain Size (in)**
PHASE 2 & 3 STAGE 1											
TDD 5.1	2.11	0.60	7.20	9.12	307.00	292.00	38	0.395	1	0.013	24
TDD 5A.1	1.84	0.60	7.20	7.95	337.58	310.00	85	0.324	1	0.013	24
TDD 5A.2	1.24	0.60	7.20	5.36	336.21	310.00	78	0.336	1	0.013	18
TDD 5C.1	4.18	0.60	7.20	18.06	312.65	291.00	81	0.267	1	0.013	30
TDD 6.1	1.27	0.60	7.20	5.49	326.40	322.00	27	0.163	1	0.013	18
TDD 6.2	0.91	0.60	7.20	3.93	321.80	321.00	24	0.033	1	0.013	15
TDD 6B.2	3.35	0.60	7.20	14.47	299.50	288.00	45	0.256	1	0.013	30
TDD 7.2	2.74	0.60	7.20	11.84	362.70	361.00	22	0.077	1	0.013	24
TDD 8A.1	2.44	0.60	7.20	10.54	364.50	363.00	16	0.094	1	0.013	24
TDD 8B.1	7.33	0.60	7.20	31.67	349.00	343.00	49	0.122	1	0.013	36
TDD 8B.2	0.85	0.60	7.20	3.67	344.50	343.00	23	0.065	1	0.013	15
TDD 9.1	1.23	0.60	7.20	5.31	360.40	360.00	30	0.013	1	0.013	18
PHASE 2 & 3 STAGE 2											
TDD 5.2	0.96	0.60	7.20	4.15	296.50	292.00	22	0.205	1	0.013	15
TDD 5.3	1.20	0.60	7.20	5.18	310.50	292.00	49	0.378	1	0.013	18
TDD 6.3B	1.39	0.60	7.20	6.00	330.50	322.00	46	0.185	1	0.013	18
TDD 8A.2	3.92	0.60	7.20	16.93	361.36	361.00	34	0.011	1	0.013	30
TDD 8B.3	7.93	0.60	7.20	34.26	342.83	342.00	25	0.033	1	0.013	36
TDD8B.4	0.75	0.60	7.20	3.24	346.00	342.00	18	0.222	1	0.013	15
TDD 9.2	2.13	0.60	7.20	9.20	362.50	361.00	27	0.056	1	0.013	24
TDD 10.1	0.96	0.60	7.20	4.15	380.00	375.00	11	0.455	1	0.013	15

*Recommended size based on conveyance and inlet capacity

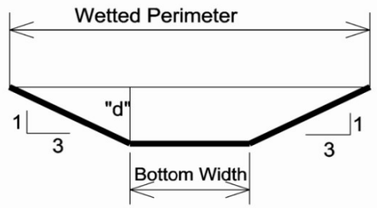
Merritt Reserve - Phase 1

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 1

Ditch I.D.	D.A., AC.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Min. Ditch Depth, ft**	Flow Velocity V_{10}, fps	Calc.Shear Stress, psf
PHASE 1 STAGE 1													
TDD 1.1	0.32	0.60	7.20	**1.38**	2.00	2.00	0.41	0.00	**Jute Netting**	0.033	**1.02**	**1.34**	0.18
TDD 1.2	6.24	0.60	7.20	**26.96**	2.00	2.00	0.50	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**2.40**	**3.06**	0.65
TDD 1A.1	4.79	0.60	7.20	**20.69**	2.00	2.00	3.40	0.00	**Am. Excelsior Co.; Curlex High Velocity; 2 nets**	0.033	**1.63**	**5.85**	2.82
TDD 1B.1	3.04	0.60	7.20	**13.13**	2.00	2.00	1.09	0.00	**Profile; Futerra**	0.033	**1.69**	**3.41**	0.94
TDD 2.1A	12.21	0.60	7.20	**52.75**	2.00	2.00	0.50	0.00	**Profile; Futerra**	0.033	**3.00**	**3.62**	0.84
TDD 2.1B	12.84	0.60	7.20	**55.47**	2.00	2.00	7.89	0.00	**North Am. Green C350; Vegetated**	0.033	**1.94**	**10.29**	8.08
TDD 4.1	3.82	0.60	7.20	**16.50**	2.00	2.00	0.79	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**1.90**	**3.21**	0.79
TDD 4.2	1.24	0.60	7.20	**5.36**	2.00	2.00	2.22	0.00	**Am. Excelsior Co.; Straw; 1 net**	0.033	**1.17**	**3.55**	1.20
PHASE 1 STAGE 2													
TDD 2.2	2.22	0.60	7.20	**9.59**	2.00	2.00	0.50	0.00	**Jute Netting**	0.033	**1.73**	**2.36**	0.45
TDD 2.3	2.08	0.60	7.20	**8.99**	2.00	2.00	0.57	0.00	**Geocoir/Dekowe; Straw; RS-1**	0.033	**1.66**	**2.43**	0.48
TDD 3.1	4.27	0.60	7.20	**18.45**	2.00	2.00	0.20	0.00	**Am. Excelsior Co.; Curlex High Velocity; 2 nets**	0.033	**2.46**	**1.97**	0.27

*An approved equal alternate lining may be used

**Ditch depth is Q10 flow depth +0.3 ft of freeboard

Z:\Jobs\23-0004 Merrit Property BRD\Calculations\Erosion Control\Temporary Ditch Calculations.xlsx

Drainage Swale Calculations

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH1 STG1

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

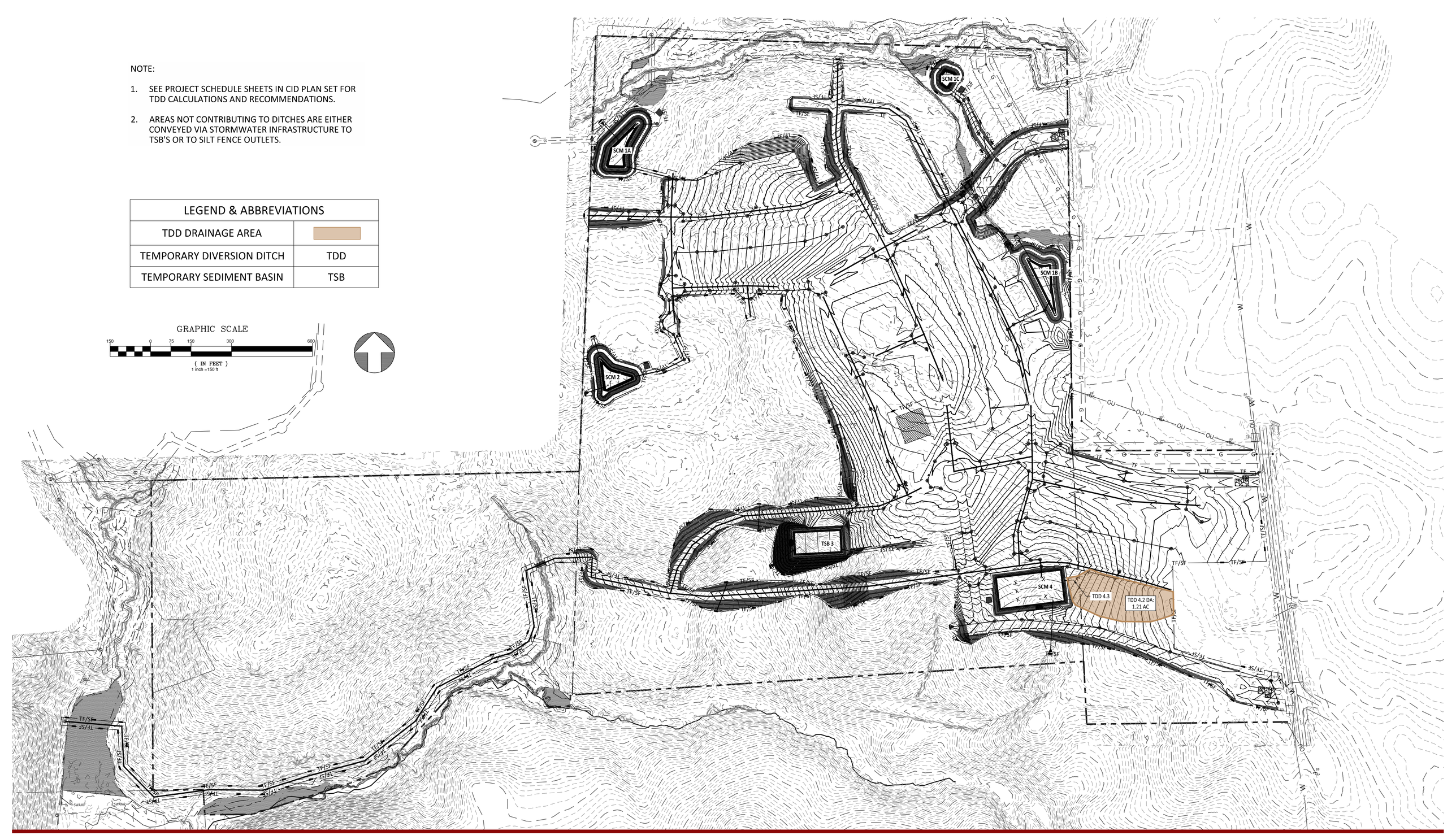
LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH1 STG2

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PROJECT # 230004

MERRITT RESERVE

ROLESVILLE, NC

April 11, 2025

NOTE:

1. SEE PROJECT SCHEDULE SHEETS IN CID PLAN SET FOR TDD CALCULATIONS AND RECOMMENDATIONS.
2. AREAS NOT CONTRIBUTING TO DITCHES ARE EITHER CONVEYED VIA STORMWATER INFRASTRUCTURE TO TSB'S OR TO SILT FENCE OUTLETS.

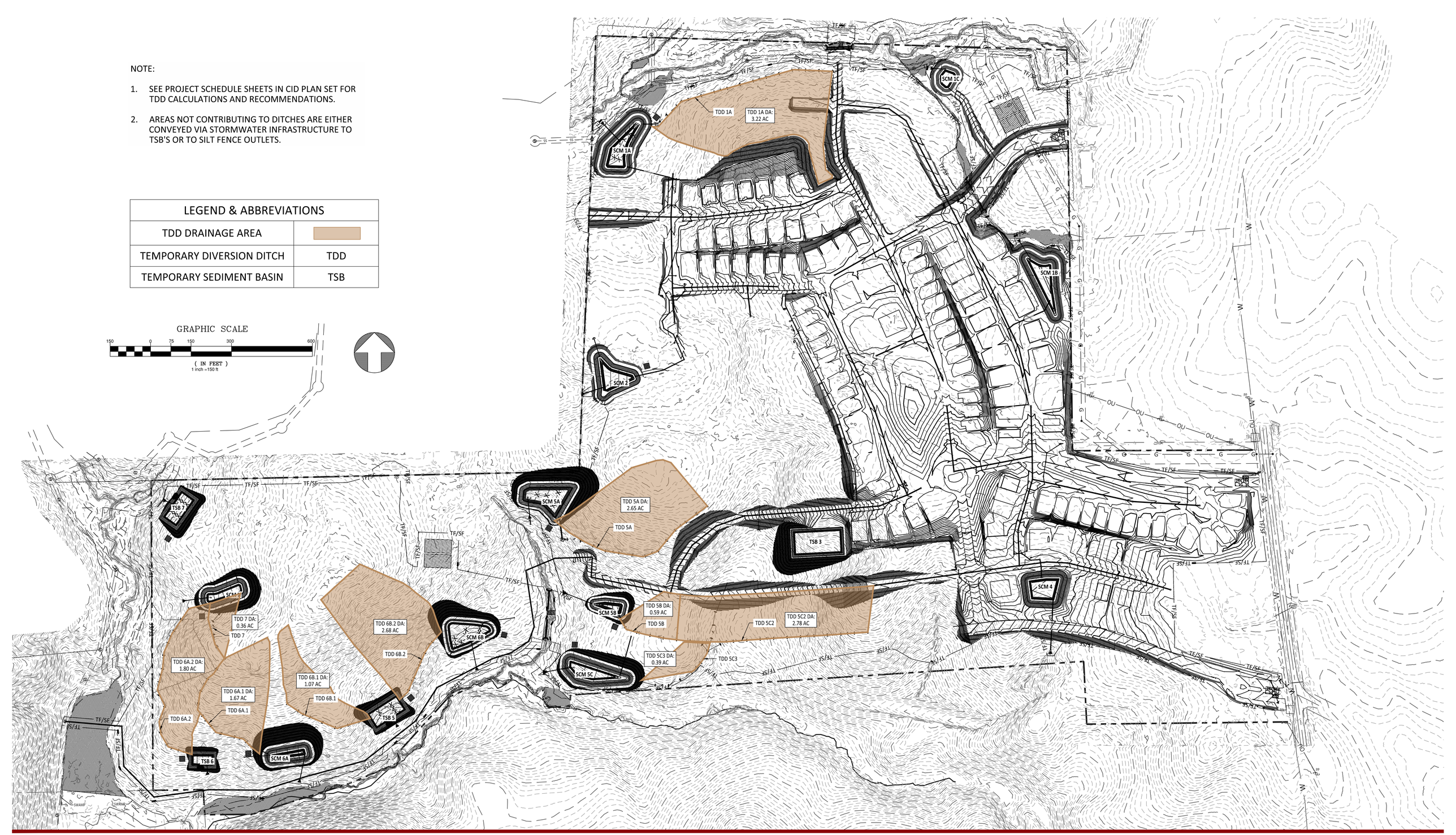
LEGEND & ABBREVIATIONS	
TDD DRAINAGE AREA	
TEMPORARY DIVERSION DITCH	TDD
TEMPORARY SEDIMENT BASIN	TSB

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)

1 inch =150 ft



RUNOFF CONTROL MEASURE DRAINAGE AREAS - PH2 & 3 STG1

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PROJECT # 230004

MERRITT RESERVE

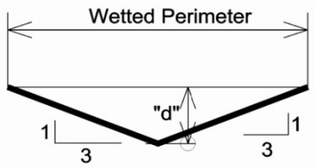
ROLESVILLE, NC

April 13, 2025

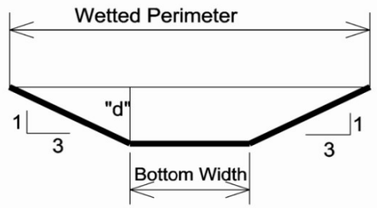
Merritt Reserve - Phase 1

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY - TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 1

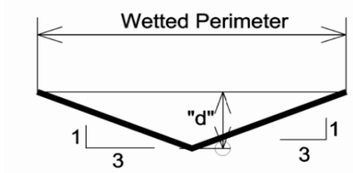
Ditch I.D.	D.A., Ac.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Q_{10} Flow Depth, ft	Flow Velocity V10, fps	Calc.Shear Stress, psf
TDD 1.1	4.84	0.60	7.20	**20.91**	2.00	2.00	3.50	0.00	**Geocoir/Dekowe; 400**	0.033	**1.33**	**5.93**	2.90
TDD 1.2	3.01	0.60	7.20	**13.00**	2.00	2.00	0.92	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**1.43**	**3.19**	0.82
TDD 1.3	0.44	0.60	7.20	**1.90**	2.00	2.00	0.50	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.78**	**1.56**	0.24
TDD 1.4	6.25	0.60	7.20	**27.00**	2.00	2.00	0.25	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**2.39**	**2.36**	0.37
TDD 2.1	11.49	0.60	7.20	**49.64**	2.00	2.00	1.00	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**2.32**	**4.62**	1.45
TDD 4.1	2.64	0.60	7.20	**11.40**	2.00	2.00	1.84	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**1.19**	**4.00**	1.37
TDD 4.2	1.15	0.60	7.20	**4.97**	2.00	2.00	2.46	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.83**	**3.62**	1.27
TDD 4.3	1.21	0.60	7.20	**5.23**	2.00	2.00	2.47	0.00	**Geocoir/Dekowe; Coconut, RSC-4**	0.033	**0.84**	**3.67**	1.30

*Alternate lining may be used if it is an approved equal to the one listed

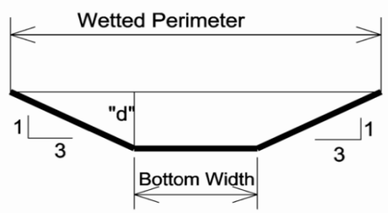
Merritt Reserve - Phase 2 and 3

Rev. 110421

Corrected Wetted Perimeter Equation



Ditch Section (For Bottom Width = 0)
(Not To Scale)



Trapezoidal Ditch / Swale Section
(Not To Scale)

TEMPORARY - TRIANGULAR SWALE DRAINAGE CHART - MERRIT RESERVE PHASE 2 & 3

Ditch I.D.	D.A., Ac.	C	i_{10}, in/hr	Q_{10}, cfs	Left Side Slope, Z Z:1	Right Side Slope, Z Z:1	Avg. Ditch Slope, %	Bottom Width	Ditch Lining*	Manning, n	Q_{10} Flow Depth, ft	Flow Velocity V10, fps	Calc.Shear Stress, psf
TDD 1A	3.22	0.60	7.20	**13.91**	2.00	2.00	1.50	0.00	**N. Am. Green; Coconut; double net**	0.033	**1.34**	**3.90**	1.25
TDD 2	2.64	0.60	7.20	**11.40**	2.00	2.00	4.91	0.00	**Geocoir/Dekowe; 400**	0.033	**0.99**	**5.78**	3.04
TDD 5A	2.65	0.60	7.20	**11.45**	2.00	2.00	6.47	0.00	**Geocoir/Dekowe; 700**	0.033	**0.95**	**6.41**	3.82
TDD 5B	0.59	0.60	7.20	**2.55**	2.00	2.00	4.81	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.57**	**3.93**	1.71
TDD 5C2	2.78	0.60	7.20	**12.01**	2.00	2.00	16.03	0.00	**N. Am. Green; C350; Vegetated**	0.033	**0.81**	**9.11**	8.12
TDD 5C3	0.39	0.60	7.20	**1.68**	2.00	2.00	0.90	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.67**	**1.89**	0.37
TDD 6A.1	1.67	0.60	7.20	**7.21**	2.00	2.00	8.72	0.00	**Geocoir/Dekowe; 700**	0.033	**0.75**	**6.38**	4.09
TDD 6A.2	1.80	0.60	7.20	**7.78**	2.00	2.00	2.91	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.95**	**4.31**	1.72
TDD 6B.1	1.07	0.60	7.20	**4.62**	2.00	2.00	7.44	0.00	**Geocoir/Dekowe; 400**	0.033	**0.66**	**5.37**	3.05
TDD 6B.2	2.68	0.60	7.20	**11.58**	2.00	2.00	3.00	0.00	**N. Am. Green; Coconut; double net**	0.033	**1.10**	**4.82**	2.05
TDD 7	0.36	0.60	7.20	**1.56**	2.00	2.00	7.61	0.00	**N. Am. Green; Coconut; double net**	0.033	**0.44**	**4.11**	2.07

*Alternate lining may be used if it is an approved equal to the one listed

Culvert Calculations

Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Strips Drive Culvert (#1)

Invert Elev Dn (ft)	=	369.90
Pipe Length (ft)	=	75.00
Slope (%)	=	1.33
Invert Elev Up (ft)	=	370.90
Rise (in)	=	33.6
Shape	=	Circular
Span (in)	=	33.6
No. Barrels	=	1
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

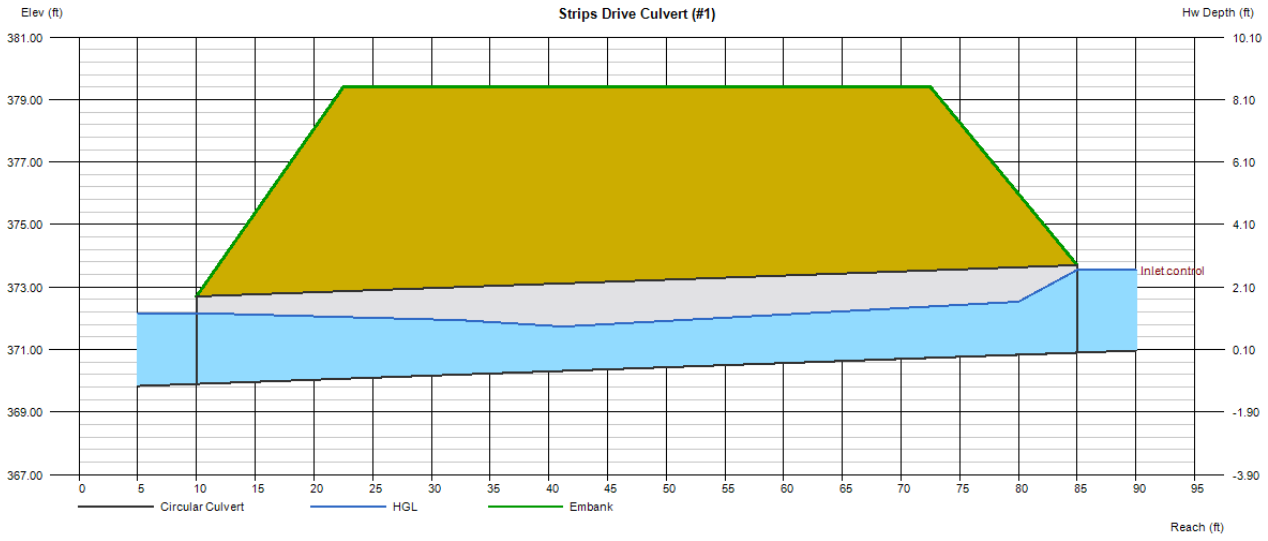
Top Elevation (ft)	=	379.40
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	27.60
Qmax (cfs)	=	27.60
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	27.60
Qpipe (cfs)	=	27.60
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.17
Veloc Up (ft/s)	=	6.90
HGL Dn (ft)	=	372.17
HGL Up (ft)	=	372.63
Hw Elev (ft)	=	373.55
Hw/D (ft)	=	0.95
Flow Regime	=	Inlet Control



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Fowler Road Culvert (#3)

Invert Elev Dn (ft)	=	284.50
Pipe Length (ft)	=	165.00
Slope (%)	=	2.42
Invert Elev Up (ft)	=	288.50
Rise (in)	=	54.0
Shape	=	Circular
Span (in)	=	54.0
No. Barrels	=	1
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

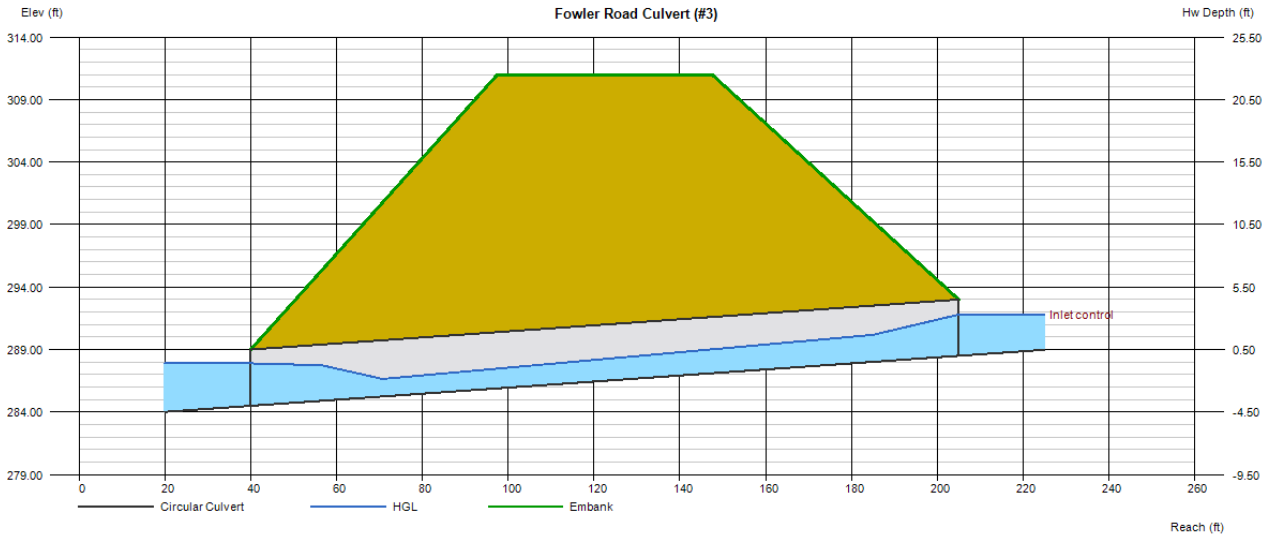
Top Elevation (ft)	=	311.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	62.20
Qmax (cfs)	=	62.20
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	62.20
Qpipe (cfs)	=	62.20
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.83
Veloc Up (ft/s)	=	7.64
HGL Dn (ft)	=	287.90
HGL Up (ft)	=	290.79
Hw Elev (ft)	=	291.79
Hw/D (ft)	=	0.73
Flow Regime	=	Inlet Control



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 14 2025

Jocund Street Culvert (#2)

Invert Elev Dn (ft)	=	349.30
Pipe Length (ft)	=	95.00
Slope (%)	=	1.26
Invert Elev Up (ft)	=	350.50
Rise (in)	=	54.0
Shape	=	Circular
Span (in)	=	54.0
No. Barrels	=	2
n-Value	=	0.012
Culvert Type	=	Circular Concrete
Culvert Entrance	=	Square edge w/headwall (C)
Coeff. K,M,c,Y,k	=	0.0098, 2, 0.0398, 0.67, 0.5

Embankment

Top Elevation (ft)	=	362.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	20.00

Calculations

Qmin (cfs)	=	160.00
Qmax (cfs)	=	160.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	160.00
Qpipe (cfs)	=	160.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.93
Veloc Up (ft/s)	=	8.35
HGL Dn (ft)	=	352.86
HGL Up (ft)	=	353.11
Hw Elev (ft)	=	354.42
Hw/D (ft)	=	0.87
Flow Regime	=	Inlet Control

