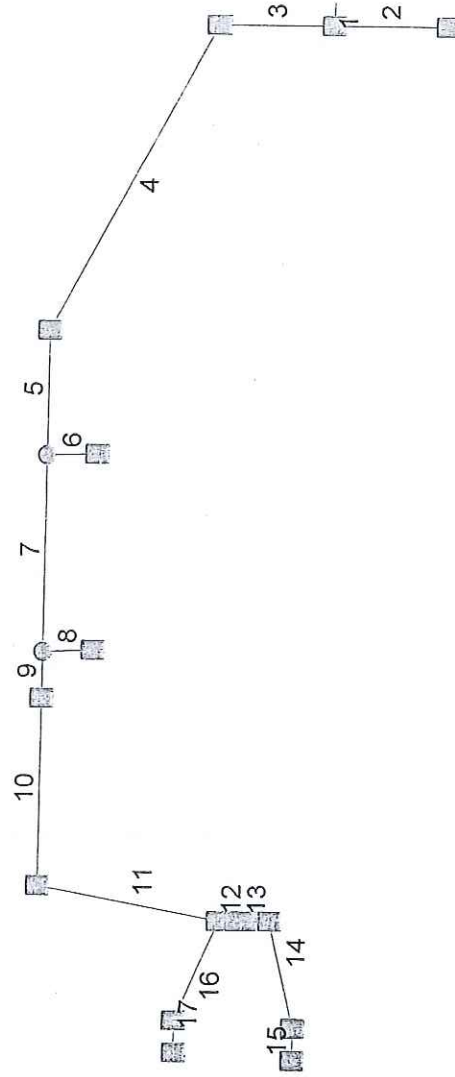


Hydraflow Plan View

only run a 10 yr capacity ! HGL
 ? 100 yr - but run per previous comments



RECEIVED
 AUG 11 2016

Project file: 7757_East.stm

IDF file: Oxford.idf

No. Lines: 17

06-22-2016

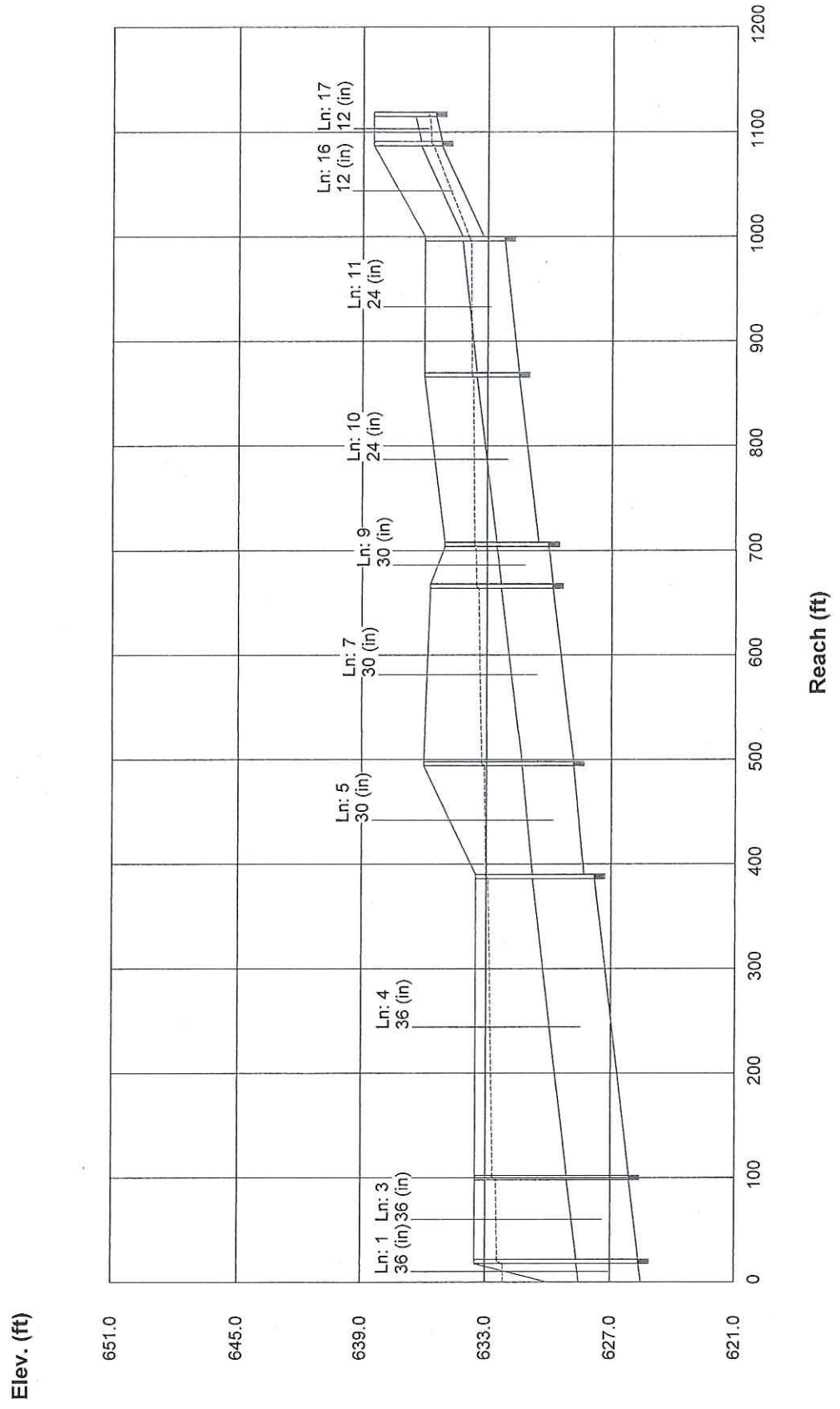
Hydraflow Storm Sewer Tabulation

Station Line	To Line	Len (ft)	Dmg Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
			Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	20.0	0.35	6.75	0.90	0.31	5.93	10.0	20.9	3.9	22.97	51.66	3.25	36	0.60	625.62	625.50	632.17	632.15	633.50	630.00	
2	1	80.0	0.37	0.37	0.90	0.33	0.33	10.0	10.0	5.2	1.72	6.14	2.18	12	2.98	630.00	627.62	632.61	632.42	633.50	633.50	
3	1	80.0	0.35	6.03	0.90	0.31	5.28	10.0	20.5	3.9	20.65	51.66	2.92	36	0.60	626.10	625.62	632.50	632.42	633.50	633.50	
4	3	288.0	1.98	5.68	0.90	1.78	4.96	10.0	19.0	4.1	20.11	51.24	2.85	36	0.59	627.80	626.10	632.92	632.66	633.50	633.50	
5	4	108.0	0.00	3.70	0.00	0.00	3.18	0.0	18.4	4.1	13.08	28.46	2.66	30	0.48	628.82	628.30	633.12	633.01	636.00	633.50	
6	5	35.0	0.14	0.14	0.90	0.13	0.13	5.0	5.0	6.1	0.76	5.61	0.97	12	2.49	631.19	630.32	633.25	633.23	632.48	636.00	
7	5	170.0	0.00	3.56	0.00	0.00	3.05	0.0	17.4	4.2	12.85	31.77	2.62	30	0.60	629.84	628.82	633.40	633.23	635.70	636.00	
8	7	35.0	0.14	0.14	0.90	0.13	0.13	10.0	10.0	5.2	0.65	3.30	0.83	12	0.86	631.19	630.89	633.52	633.51	632.48	635.70	
9	7	40.0	1.92	3.42	0.90	1.73	2.93	10.0	17.2	4.2	12.40	29.00	2.53	30	0.50	630.04	629.84	633.54	633.51	635.00	635.70	
10	9	162.0	0.20	1.50	0.90	0.18	1.20	10.0	15.7	4.4	5.27	17.41	1.68	24	0.59	631.50	630.54	633.68	633.59	636.00	635.00	
11	10	130.0	0.20	1.30	0.90	0.18	1.02	10.0	14.4	4.5	4.64	16.60	1.60	24	0.54	632.20	631.50	633.79	633.75	636.00	636.00	
12	11	17.0	0.30	0.90	0.40	0.12	0.66	10.0	14.3	4.6	3.01	3.56	4.95	12	1.00	633.37	633.20	634.11	633.91	636.00	636.00	
13	12	18.0	0.50	0.60	0.90	0.45	0.54	10.0	14.2	4.6	2.46	3.03	3.37	12	0.72	633.50	633.37	634.35	634.29	636.50	636.00	
14	13	94.0	0.05	0.10	0.90	0.04	0.09	10.0	11.6	4.9	0.44	4.79	1.50	12	1.81	635.20	633.50	635.48	634.63	638.50	636.50	
15	14	28.0	0.05	0.05	0.90	0.04	0.04	10.0	10.0	5.2	0.23	3.69	1.49	12	1.07	635.50	635.20	635.70	635.55	638.50	638.50	
16	11	91.0	0.10	0.20	0.90	0.09	0.18	10.0	10.8	5.0	0.91	5.28	2.35	12	2.20	635.20	633.20	635.60	633.86	638.50	636.00	
17	16	28.0	0.10	0.10	0.90	0.09	0.09	10.0	10.0	5.2	0.46	3.56	1.82	12	1.00	635.48	635.20	635.77	635.70	638.50	638.50	
Project File: 7757_East.stm										IDF File: Oxford.idf	Total number of lines: 17										Run Date: 07-11-2016	

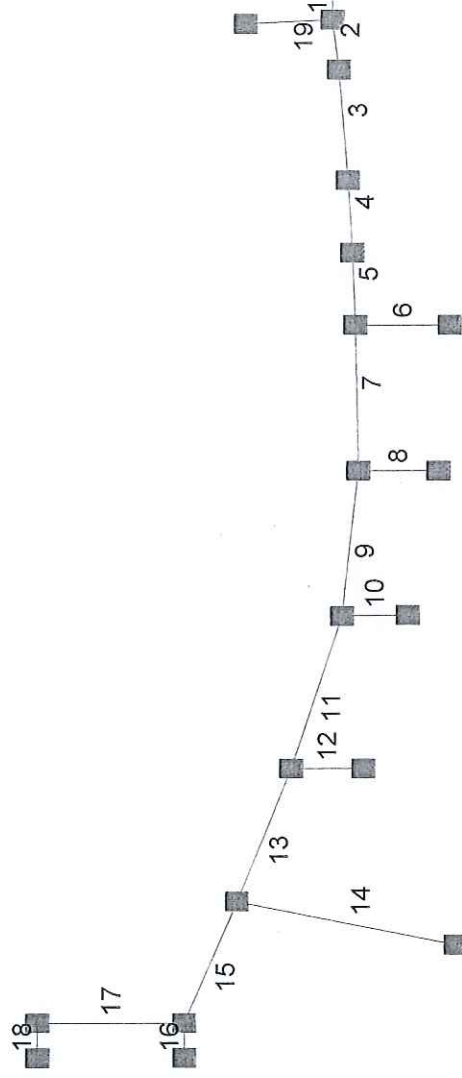
NOTES: Intensity = 172.67 / (Inlet time + 23.20) ^ 1.00; Return period = 10 Yrs.; Initial tailwater elevation = 632.15 (ft)

10 yr.

Storm Sewer Profile



Hydraflow Plan View



Project file: 7757_Mid.stm

IDF file: Oxford.idf

No. Lines: 19

07-11-2016

Hydraflow Storm Sewer Tabulation

Station	Line	To Line	Len (ft)	Dmg Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
				Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End		17.0	0.10	5.49	0.90	0.09	4.87	10.0	23.7	3.6	17.72	31.45	3.61	30	0.59	626.50	626.40	632.18	632.15	633.00	630.00	
2	1		43.0	0.20	5.29	0.90	0.18	4.69	10.0	23.6	3.7	17.13	29.33	3.49	30	0.51	626.72	626.50	632.56	632.49	633.00	633.00	
3	2		95.0	0.20	5.09	0.90	0.18	4.51	10.0	23.2	3.7	16.62	28.85	3.39	30	0.49	627.19	626.72	632.81	632.66	633.50	633.00	
4	3		62.0	0.25	4.89	0.90	0.22	4.33	10.0	22.9	3.7	16.05	29.00	3.27	30	0.50	627.50	627.19	633.00	632.90	633.50	633.50	
5	4		62.0	0.50	4.64	0.90	0.45	4.11	10.0	22.6	3.7	15.31	29.00	3.12	30	0.50	627.81	627.50	633.17	633.08	633.50	633.50	
6	5		65.0	0.38	4.38	0.90	0.34	3.81	10.0	21.9	3.8	12.54	28.88	2.56	30	0.50	628.43	628.31	633.55	633.39	633.50	633.50	
7	5		125.0	0.42	3.76	0.90	0.38	3.31	10.0	21.9	3.8	12.54	28.88	2.56	30	0.50	628.43	628.31	633.55	633.39	633.50	633.50	
8	7		55.0	0.30	3.03	0.90	0.27	2.77	10.0	21.1	5.2	1.39	4.97	1.77	12	1.95	631.00	629.93	633.75	633.66	634.00	634.00	
9	7		125.0	0.51	3.04	0.90	0.46	2.67	10.0	21.1	3.9	10.28	28.88	2.10	30	0.50	629.05	628.43	633.74	633.66	634.50	634.00	
10	9		45.0	0.48	2.05	0.90	0.43	0.43	10.0	20.2	5.2	2.23	5.17	2.83	12	2.11	631.50	630.55	634.02	633.84	634.50	634.50	
11	9		135.0	0.33	2.05	0.90	0.30	1.77	10.0	20.2	3.9	6.98	15.93	2.22	24	0.50	630.22	629.55	633.97	633.84	635.00	634.50	
12	11		50.0	0.58	2.05	0.90	0.52	0.52	10.0	19.5	5.2	2.69	4.45	3.42	12	1.56	632.00	631.22	634.37	634.09	635.00	635.00	
13	11		120.0	0.58	1.14	0.90	0.52	0.96	10.0	19.5	4.0	3.83	7.43	2.17	18	0.50	631.32	630.72	634.25	634.09	635.50	635.00	
14	13		155.0	0.14	0.14	0.40	0.06	0.06	12.0	12.0	4.9	0.27	5.85	1.23	12	2.70	636.00	631.82	636.22	634.36	639.00	635.50	
15	13		110.0	0.16	0.42	0.90	0.14	0.38	10.0	14.5	4.5	1.71	5.28	3.00	12	2.20	634.24	631.82	634.79	634.36	638.50	635.50	
16	15		30.0	0.16	0.16	0.90	0.14	0.14	10.0	10.0	5.2	0.74	7.30	1.96	12	4.20	635.50	634.24	635.87	635.08	638.50	638.50	
17	15		100.0	0.05	0.10	0.90	0.04	0.09	10.0	11.7	4.9	0.44	3.49	1.53	12	0.96	635.20	634.24	635.48	635.08	638.50	638.50	
18	17		30.0	0.05	0.05	0.90	0.04	0.04	10.0	10.0	5.2	0.23	3.56	1.38	12	1.00	635.50	635.20	635.70	635.62	638.50	638.50	
19	1		60.0	0.10	0.10	0.90	0.09	0.09	10.0	10.0	5.2	0.46	7.30	0.59	12	4.20	630.52	628.00	632.50	632.49	633.50	633.00	

Project File: 7757_Mid.stm

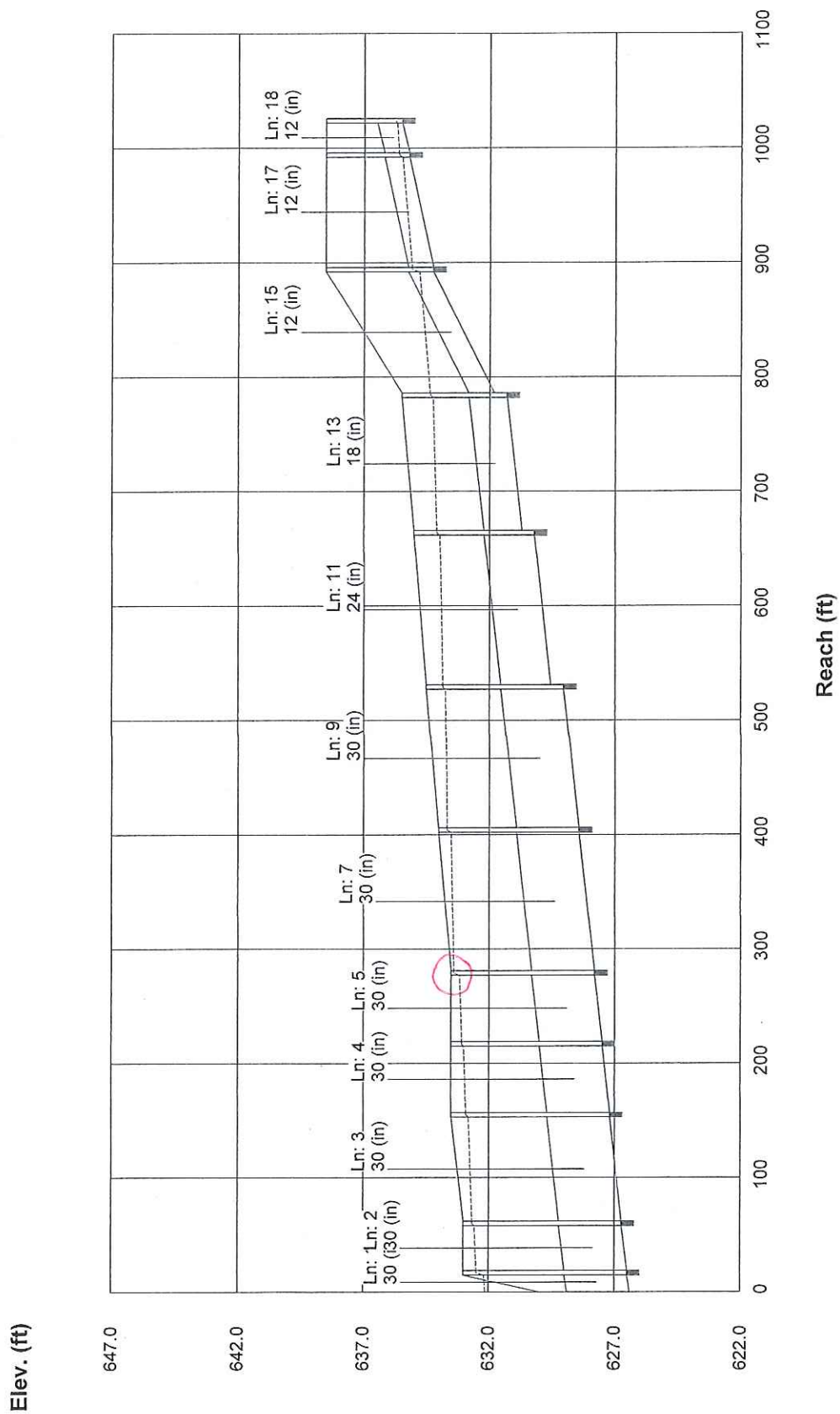
IDF File: Oxford.idf

Total number of lines: 19

Run Date: 07-11-2016

NOTES: Intensity = 172.67 / (Inlet time + 23.20) ^ 1.00; Return period = 10 Yrs. ; Initial tailwater elevation = 632.15 (ft)

Storm Sewer Profile



Hydraflow Plan View



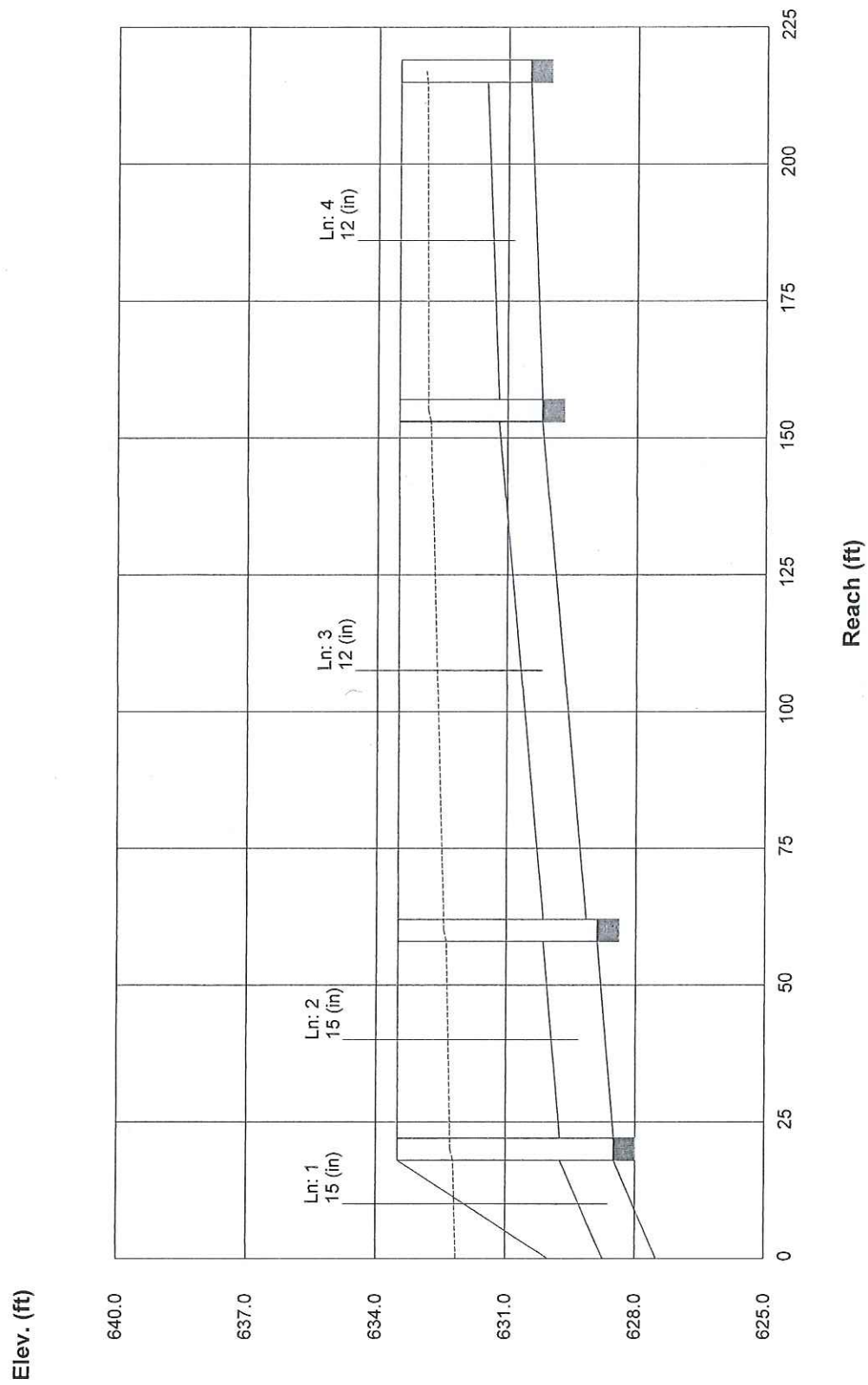
Project file: 7757_west_1.stm	IDF file: Oxford.idf	No. Lines: 4	07-11-2016
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Page 1

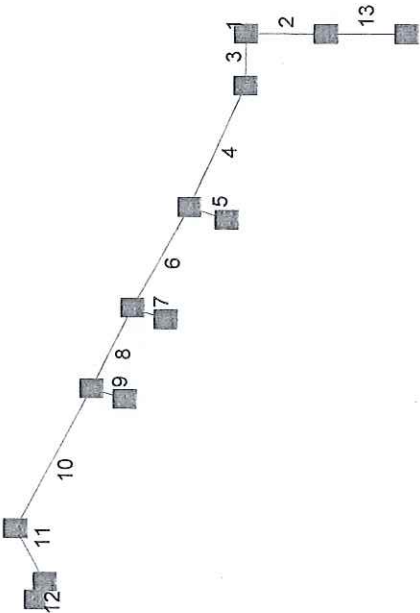
Station		Len (ft)	Dmg Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr (min)	Syst (min)	Size (in)	Slope (%)					Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	20.0	0.10	0.83	0.90	0.09	0.75	10.0	11.6	4.9	3.67	14.44	2.99	15	5.00	628.50	627.50	632.21	632.15	633.50	630.00	
2	1	40.0	0.26	0.73	0.90	0.23	0.66	10.0	11.3	5.0	3.25	6.46	2.65	15	1.00	628.90	628.50	632.39	632.28	633.50	633.50	
3	2	95.0	0.24	0.47	0.90	0.22	0.42	10.0	10.8	5.0	2.13	3.74	2.71	12	1.11	630.20	629.15	632.78	632.44	633.50	633.50	
4	3	62.0	0.23	0.23	0.90	0.21	0.21	10.0	10.0	5.2	1.07	2.48	1.36	12	0.48	630.50	630.20	632.89	632.84	633.50	633.50	
<i>design slope 626.6</i>																						
Project File: 7757_west_1.stm												IDF File: Oxford.idf										
Total number of lines: 4												Run Date: 07-11-2016										

NOTES: Intensity = 172.67 / (Inlet time + 23.20) ^ 1.00; Return period = 10 Yrs. ; Initial tailwater elevation = 632.15 (ft)

Storm Sewer Profile



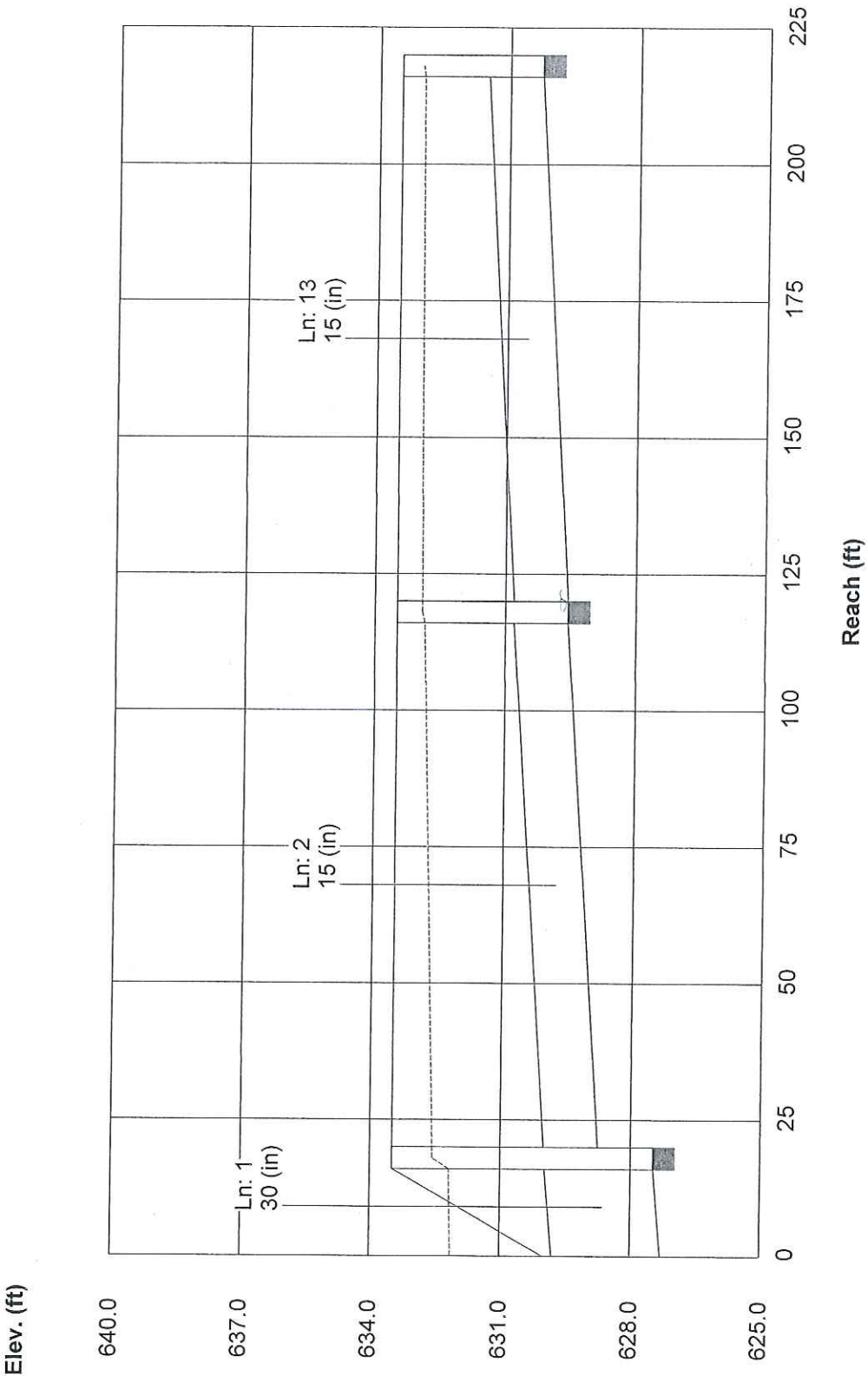
Hydraflow Plan View



Page 1

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID	
Line	To Line		Incr (ac)	Total (ac)		Incr (min)	Syst (min)	Total	Inlet (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)		Up (ft)
1	End	18.0	0.50	5.74	0.90	4.80	10.0	17.9	4.2	19.96	41.01	4.07	30	1.00	627.48	627.30	632.19	632.15	633.50	630.00			
2	1	100.0	0.50	1.00	0.90	0.80	10.0	16.3	4.3	3.46	5.78	2.82	15	0.80	629.55	628.75	632.87	632.58	633.50	633.50			
3	1	80.0	0.40	4.24	0.80	3.55	10.0	17.4	4.2	14.91	41.01	3.04	30	1.00	628.28	627.48	632.68	632.58	634.50	633.50			
4	3	200.0	0.15	3.84	0.90	0.14	10.0	16.3	4.3	13.94	41.01	2.84	30	1.00	630.28	628.28	633.02	632.78	636.80	634.50			
5	4	50.0	0.90	0.90	0.85	0.76	10.0	10.0	5.2	3.94	12.08	4.00	15	3.50	633.25	631.50	634.04	633.20	636.50	636.80			
6	4	170.0	0.12	2.79	0.90	0.11	10.0	15.5	4.4	10.26	22.62	4.42	24	1.00	632.48	630.78	633.61	633.20	638.50	636.80			
7	6	45.0	0.70	0.70	0.85	0.60	10.0	10.0	5.2	3.06	13.61	3.51	15	4.44	635.25	633.25	635.95	634.34	638.50	638.80			
8	6	135.0	0.20	1.97	0.90	0.18	10.0	14.6	4.5	7.33	22.62	3.67	24	1.00	633.83	632.48	634.79	634.34	639.50	638.50			
9	8	45.0	1.50	1.50	0.80	1.20	12.0	12.0	4.9	5.83	23.06	4.83	18	4.82	636.50	634.33	637.42	635.35	640.00	639.50			
10	8	235.0	0.07	0.27	0.90	0.06	10.0	12.1	4.8	1.18	4.68	3.08	12	1.72	638.88	634.83	639.34	635.35	643.00	639.50			
11	10	90.0	0.10	0.20	0.90	0.09	10.0	10.8	5.0	0.90	8.26	2.36	12	5.38	643.72	638.88	644.12	639.53	647.00	643.00			
12	11	30.0	0.10	0.10	0.90	0.09	10.0	10.0	5.2	0.46	3.44	1.73	12	0.93	644.00	643.72	644.29	644.28	647.00	647.00			
13	2	100.0	0.50	0.50	0.70	0.35	15.0	15.0	4.5	1.57	5.40	1.28	15	0.70	630.25	629.55	632.99	632.93	633.50	633.50			
Project File: 7757_west_2.stm														IDF File: Oxford.idf				Total number of lines: 13				Run Date: 07-11-2016	
NOTES: Intensity = 172.67 / (Inlet time + 23.20) ^ 1.00; Return period = 10 Yrs. ; Initial tailwater elevation = 632.15 (ft)																							

Storm Sewer Profile



Storm Sewer Profile

