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Network 2019.1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	
6.001	4.166	0.042	100.0	0.047	0.00		0.0	0.600	o	150	Pipe/Conduit
6.002	9.102	0.091	100.0	0.000	0.00		0.0	0.600	o	150	Pipe/Conduit
1.006	5.967	0.317	18.8	0.036	0.00		0.0	0.600	o	225	Pipe/Conduit
1.007	36.439	0.364	100.0	0.019	0.00		0.0	0.600	o	225	Pipe/Conduit
7.000	12.801	0.160	80.0	0.000	5.00		0.0	0.600	o	150	Pipe/Conduit
7.001	10.694	0.135	79.4	0.024	0.00		0.0	0.600	o	150	Pipe/Conduit
7.002	8.790	0.110	80.0	0.000	0.00		0.0	0.600	o	150	Pipe/Conduit
7.003	5.986	0.063	95.0	0.033	0.00		0.0	0.600	o	150	Pipe/Conduit
8.000	8.681	0.087	100.0	0.040	5.00		0.0	0.600	o	150	Pipe/Conduit
8.001	5.531	0.581	9.5	0.000	0.00		0.0	0.600	o	150	Pipe/Conduit
7.004	11.974	0.332	36.1	0.024	0.00		0.0	0.600	o	225	Pipe/Conduit
1.008	14.458	0.100	144.6	0.027	0.00		0.0	0.600	o	225	Pipe/Conduit
9.000	24.345	0.520	46.8	0.018	5.00		0.0	0.600	o	225	Pipe/Conduit
9.001	28.800	0.650	44.3	0.045	0.00		0.0	0.600	o	225	Pipe/Conduit
9.002	6.021	0.767	7.9	0.057	0.00		0.0	0.600	o	225	Pipe/Conduit

	PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
1	6.001	84.850	0.051	0.0	1.00	17.8
	6.002	84.808	0.051	0.0	1.00	17.8
2	1.006	84.717	0.179	0.0	3.03	120.5
	1.007	84.400	0.198	0.0	1.31	52.0
3	7.000	84.100	0.000	0.0	1.12	19.9
	7.001	83.940	0.024	0.0	1.13	20.0
	7.002	83.805	0.024	0.0	1.12	19.9
	7.003	83.695	0.057	0.0	1.03	18.2
4	8.000	84.300	0.040	0.0	1.00	17.8
	8.001	84.213	0.040	0.0	3.29	58.1
5	7.004	83.632	0.121	0.0	2.19	86.9
6	1.008	83.300	0.346	0.0	1.09	43.2
7	9.000	85.535	0.018	0.0	1.92	76.2
	9.001	85.015	0.063	0.0	1.97	78.4
	9.002	84.365	0.120	0.0	4.70	186.9

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10.000	26.660	0.267	100.0	0.050	5.00	0.0	0.600	o	225	Pipe/Conduit
9.003	14.020	0.258	54.3	0.054	0.00	0.0	0.600	o	225	Pipe/Conduit
9.004	10.318	0.140	73.7	0.013	0.00	0.0	0.600	o	225	Pipe/Conduit
1.009	17.180	0.172	99.9	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit
1.010	20.648	0.438	47.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit
1.011	21.259	0.214	99.3	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit
1.012	2.416	0.012	200.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
10.000	83.865	0.050	0.0	1.31	52.0
9.003	83.598	0.225	0.0	1.78	70.7
9.004	83.340	0.238	0.0	1.53	60.6
1.009	83.200	0.584	0.0	1.31	52.0
1.010	83.028	0.584	0.0	1.47	26.0
1.011	82.590	0.584	0.0	1.31	52.2
1.012	81.539	0.584	0.0	0.92	36.0

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	I*W
9.002	o	225	25	85.790	84.365	1.200	Open Manhole		1500
10.000	o	225	26	85.290	83.865	1.200	Open Manhole		1500
9.003	o	225	27	85.750	83.598	1.927	Open Manhole		1200
9.004	o	225	28	85.800	83.340	2.235	Open Manhole		1500
1.009	o	225	TANK	85.600	83.200	2.175	Open Manhole		1200
1.010	o	150	FCC1	85.300	83.028	2.122	Open Manhole		1500
1.011	o	225	C1	85.230	82.590	2.415	Open Manhole		1500
1.012	o	225	C2	85.045	81.539	3.281	Open Manhole		1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	I*W
9.002	6.021	7.9	27	85.750	83.598	1.927	Open Manhole		1200
10.000	26.660	100.0	27	85.750	83.598	1.927	Open Manhole		1200
9.003	14.020	54.3	28	85.800	83.340	2.235	Open Manhole		1500
9.004	10.318	73.7	TANK	85.600	83.200	2.175	Open Manhole		1200
1.009	17.180	99.9	FCC1	85.300	83.028	2.047	Open Manhole		1500
1.010	20.648	47.1	C1	85.230	82.590	2.490	Open Manhole		1500
1.011	21.259	99.3	C2	85.045	82.376	2.444	Open Manhole		1200
1.012	2.416	200.0		84.859	81.527	3.107	Open Manhole		0

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Date 10/02/2022 14:14	Designed by Charlie.Smith	
File Site 1 proposed drainag...	Checked by	
Innovyze	Network 2019.1	
<u>Online Controls for Storm</u> <u>Complex Manhole: FCC1, DS/PN: 1.010, Volume (m³): 4.6</u> <u>Orifice</u> Diameter (m) 0.095 Discharge Coefficient 0.600 Invert Level (m) 83.028 <u>Orifice</u> Diameter (m) 0.070 Discharge Coefficient 0.600 Invert Level (m) 83.773		
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Date 10/02/2022 14:14	Designed by Charlie.Smith																			
File Site 1 proposed drainag...	Checked by																			
Innovyze	Network 2019.1																			
Storage Structures for Storm Cellular Storage Manhole: TANK, DS/PN: 1.009 Invert Level (m) 83.200 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>235.0</td><td>0.0</td><td>0.801</td><td>0.0</td><td>0.0</td></tr><tr><td>0.800</td><td>235.0</td><td>0.0</td><td></td><td></td><td></td></tr></tbody></table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	235.0	0.0	0.801	0.0	0.0	0.800	235.0	0.0			
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)															
0.000	235.0	0.0	0.801	0.0	0.0															
0.800	235.0	0.0																		
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PN	US/MH	Surcharged	Flooded	Flow / Cap.	Overflow (l/s)	Pipe	Status	Level
	Name	Depth (m)	Volume (m³)			Flow (l/s)		Exceeded
1.000	1	-0.034	0.000	0.04		0.7		OK
1.001	2	0.079	0.000	0.20		3.3	SURCHARGED	
2.000	3	-0.144	0.000	0.01		0.3		OK
1.002	4	0.349	0.000	0.79		12.8	SURCHARGED	
1.003	5	0.457	0.000	0.99		14.5	SURCHARGED	
3.000	6	0.061	0.000	0.40		8.0	SURCHARGED	
4.000	7A	-0.150	0.000	0.00		0.0		OK
3.001	7	0.164	0.000	0.53		14.9	SURCHARGED	
1.004	8	0.490	0.000	1.59		26.6	SURCHARGED	
5.000	9	-0.130	0.000	0.04		1.0		OK
5.001	10	-0.113	0.000	0.14		2.2		OK
1.005	11	0.324	0.000	0.68		38.2	SURCHARGED	
6.000	12	-0.126	0.000	0.06		2.0		OK
6.001	13	0.756	0.000	1.45		18.5	SURCHARGED	
6.002	14	0.717	0.000	1.15		18.1	SURCHARGED	
1.006	15	0.619	0.000	0.80		63.5	SURCHARGED	
1.007	16	0.740	0.000	1.41		69.2	SURCHARGED	
7.000	17A	0.741	0.000	0.01		0.3	FLOOD RISK	
7.001	17	0.906	0.000	0.55		9.9	FLOOD RISK	
7.002	18A	1.031	0.000	0.23		4.0	FLOOD RISK	

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

											Water
	US/MH			Return	Climate	First (X)		First (Y)	First (Z)	Overflow	Level
PN	Name		Storm	Period	Change	Surcharge		Flood	Overflow	Act.	(m)
7.003	18	120	Winter	100	+40%	100/15	Summer				84.981
8.000	19	120	Winter	100	+40%	100/15	Summer				84.987
8.001	20	120	Winter	100	+40%	100/15	Summer				84.979
7.004	21	120	Winter	100	+40%	100/15	Summer				84.973
1.008	22	120	Winter	100	+40%	100/15	Summer				84.962
9.000	23	15	Winter	100	+40%						85.591
9.001	24	15	Winter	100	+40%						85.125
9.002	25	120	Winter	100	+40%	100/15	Summer				84.975
10.000	26	120	Winter	100	+40%	100/15	Summer				84.976
9.003	27	120	Winter	100	+40%	100/15	Summer				84.968
9.004	28	120	Winter	100	+40%	100/15	Summer				84.944
1.009	TANK	120	Winter	100	+40%	100/15	Summer				84.925
1.010	FCC1	120	Winter	100	+40%	100/15	Summer				84.825
1.011	C1	120	Winter	100	+40%						82.735
1.012	C2	120	Winter	100	+40%	100/60	Winter				81.800

PN	Surcharged Flooded			Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
	US/MH Name	Depth (m)	Volume (m³)			Flow (l/s)		
7.003	18	1.136	0.000	0.63		9.6	FLOOD RISK	
8.000	19	0.537	0.000	0.48		7.6	SURCHARGED	
8.001	20	0.616	0.000	0.16		7.6	SURCHARGED	
7.004	21	1.116	0.000	0.28		21.1	FLOOD RISK	
1.008	22	1.437	0.000	1.67		63.1	SURCHARGED	
9.000	23	-0.169	0.000	0.14		9.6	OK	
9.001	24	-0.115	0.000	0.48		35.0	OK	
9.002	25	0.385	0.000	0.19		22.9	SURCHARGED	
10.000	26	0.886	0.000	0.19		9.3	SURCHARGED	
9.003	27	1.145	0.000	0.65		40.1	SURCHARGED	
9.004	28	1.379	0.000	0.83		41.9	SURCHARGED	
1.009	TANK	1.500	0.000	0.76		35.4	SURCHARGED	
1.010	FCC1	1.647	0.000	1.44		35.2	SURCHARGED	
1.011	C1	-0.080	0.000	0.74		35.2	OK	
1.012	C2	0.039	0.000	1.26		35.2	SURCHARGED	