



9/2/2020



Inlet ID	Area Runoff										Gutter Flow										Inlets Capacity										Inlets Capacity									
	Alignment	Station	Offset	Design Freq	C	AREA ID	Time of		Runoff Q	Upstream By pass C/A	Total Gutter Flow Q <sub>g</sub>	Through Arch Type	On-Grade Sag	Manning's n	Long Slope S <sub>l</sub>	Cross Slope S <sub>x</sub>	Depression		Depth of Gutter Flow		Ponding Width/ Spread		Depressed Gutter Section		Section Beyond Depression		Coveynance		Ratio of Depression in flow to Total Flow E <sub>p</sub>		Equivalent Cross-slope, S <sub>e</sub>		Inlet Length		Inlet Capacity Q <sub>c</sub>	Flow Q <sub>by pass</sub>	C/A	To Inlet ID		
							Concentration	Intensity I									Area A	Depth a	Width W	(allow) Y <sub>allow</sub>	(actual) Y <sub>actual</sub>	(allow) T <sub>allow</sub>	(actual) T <sub>actual</sub>	Area A <sub>w</sub>	Wetted Perimeter P <sub>w</sub>	Area A <sub>b</sub>	Wetted Perimeter P <sub>b</sub>	Depression Section K <sub>w</sub>	Section Beyond Depression K <sub>b</sub>	Elevation Upstream	Elevation Downstream	V1^2/2g	V2^2/2g	Required L <sub>req'd</sub>					Actual L <sub>actual</sub>	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)		
1	LAT-1	0+06.00	0	100	0.9	5	10	9.8	0.42	3.70	0	3.70	LOCAL	SAG	0.0175	0.01	0.033	0.5	2	0.33	0.50	10	8.49	5.04	1.02	2.08	0.78	6.89	53.93	15.59	0.78	0.23	0.96	10	11.06	N/A	N/A	N/A		
2	LINE-2	2+64.00	0	100	0.9	OS-2.2, 6	10	9.8	0.44	3.88	0	3.88	LOCAL	DROP	0.0175	0.01	0.033	0.5	2	1.00	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.56	8	8.73	N/A	N/A	N/A		
3	LAT-3	0+32.00	0	100	0.9	OS-2.4, 8	10	9.8	0.96	8.47	0	8.47	LOCAL	SAG	0.0175	0.01	0.033	0.5	2	0.33	0.50	10	12.12	5.04	1.23	2.08	1.69	10.12	73.99	43.48	0.63	0.19	6.81	10	11.06	N/A	N/A	N/A		
EX INLET 3	SD-3	0+51.62	LINE-2	0	100	0.9	3, 3A, OS	10	9.8	0.65	5.76	0	5.76	LOCAL	SAG	0.0175	0.01	0.033	0.5	2	0.33	0.50	10	10.49	5.04	1.13	2.08	1.19	8.49	63.55	27.21	0.70	0.21	3.48	10	10.61	N/A	N/A	N/A	

  

System ID	Conduit Properties										Incremental Drainage Area										Headloss Calculations																		
	Collection Point Station	Downstream Station	Distance Between Points	# of Barrels	Selected Pipe Size	Conduit Material	Area of Flow (ft <sup>2</sup> )	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Manning's n	Flowline Elevation Upstream	Flowline Elevation Downstream	Slope S (ft/ft)	Inlet ID	Drainage Area "A" (Acres)	Run-off Coefficient "C"	Incremental "CA"	Accumulated "CA"	Upstream Te	Design Storm Frequency (years)	Intensity "I" (in/hr)	Storm Water Runoff Q (cfs)	Pipe Capacity Q (cap) (cfs)	Partial Flow (YES/NO)	Velocity (fps)	Time in Conduit (min)	Friction Slope SF (ft/ft)	Friction Head Loss (ft)	Elevation Upstream	Elevation Downstream	V1^2/2g	V2^2/2g	Junction Type	Coefficient K <sub>j</sub>	HeadLoss H <sub>L</sub>	Design HGL	Top of Curb Elevation	Pipe Cover Upstream	HGL Depth Below T/C
LINE-1	1+16.00	0+00.00	116.00	1	48	RCP	12.57	12.57	1.000	0.013	516.00	513.50	0.0216	NONE	13.26	0.90	11.93	11.93	10.00	100	9.80	116.95	211.44	YES	9.31	0.21	0.00659	0.765	516.01	515.25	1.34	Curb Inlet (wye)	0.00	1.34	522.06	529.50	9.50	7.44	

  

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LINE-1	0+35.00	0+00.00	35.00	1	18	RCP	1.77	4.71	0.375	0.013	520.40	520.00	0.0114	0.00	0.9	0.00	1.01	10.00	100	9.80	9.88	11.26	YES	5.59	0.10	0.00880	0.308	521.81	521.5	0.19	0.49	45 deg wye	0.5	0.39	522.20	524.20	2.30	2.00	
LAT-1	0+06.00	0+00.00	6.00	1	18	RCP	1.77	4.71	0.375	0.013	520.50	520.40	0.0167	INLET 1	0.42	0.9	0.38	10.00	100	9.80	3.70	13.60	YES	2.10	0.05	0.00124	0.007	522.21	522.20	0.07	0.09	Curb Inlet	1.25	0.09	522.29	526.50	4.50	4.21	
LINE-2	0+77.00	0+35.00	42.00	1	18	RCP	1.77	4.71	0.375	0.013	521.87	520.40	0.0350	0.00	0.9	0.00	0.63	10.23	100	9.80	6.17	19.70	YES	3.49	0.20	0.00344	0.144	522.34	522.20	0.90	0.19	45 deg. Wye	0.5	0.00	522.34	524.80	1.43	2.46	
LAT-2	0+20.00	0+00.00	20.00	1	18	RCP	1.77	4.71	0.375	0.013	522.18	521.87	0.0155	0.00	0.9	0.00	0.23	10.87	100	9.80	2.29	13.11	YES	1.30	0.26	0.00047	0.009	522.35	522.34	0.03	0.03	45 deg. bend	0.37	0.01	522.36	528.50	4.82	6.14	
LAT-2	0+70.00	0+20.00	50.00	1	18	RCP	1.77	4.71	0.375	0.013	522.97	522.18	0.0158	0.00	0.9	0.00	0.23	10.23	100	9.80	2.29	13.24	YES	1.30	0.64	0.00047	0.024	522.39	522.36	0.03	0.03	45 deg. bend	0.37	0.01	523.40	529.60	5.13	6.20	
LAT-2	0+88.00	0+70.00	18.00	1	18	RCP	1.77	4.71	0.375	0.013	523.25	522.97	0.0156	0.26	0.9	0.23	0.23	10.00	100	9.80	2.29	13.14	YES	1.30	0.23	0.00047	0.009	523.41	523.40	0.03	0.03	Downspout	1.25	0.03	523.68	530.00	5.25	6.32	
LINE-2	1+62.00	0+77.00	85.00	1	18	RCP	1.77	4.71	0.375	0.013	524.02	521.87	0.0253	0.00	0.9	0.00	0.40	10.04	100	9.80	3.88	16.75	YES	7.63	0.19	0.00136	0.115	522.46	522.34	0.90	0.90	45 deg. Bend	0.37	0.33	524.36	528.80	3.28	4.44	
LINE-2	1+81.00	1+62.00	19.00	1	18	RCP	1.77	4.71	0.375	0.013	524.50	524.02	0.0253	INLET 2	0.44	0.9	0.40	10.00	100	9.80	3.88	16.74	YES	7.63	0.04	0.00136	0.026	524.39	524.36	1.23	0.90	Inlet	1.25	1.13	524.84	532.70	6.70	7.86	
LINE-2	2+22.00	1+81.00	41.00	1	18	RCP	1.77	4.71	0.375	0.013	526.10	524.50	0.0390	INLET 2	0.44	0.9	0.40	10.00	100	9.80	3.88	20.81	YES	8.89	0.08	0.00136	0.056	524.90	524.84	1.23	1.23	Inlet	1.25	1.53	526.40	532.70	5.10	6.30	
LINE-2	2+64.00	2+22.00	42.00	1	18	RCP	1.77	4.71	0.375	0.013	527.80	526.10	0.0405	INLET 2	0.44	0.9	0.40	10.00	100	9.80	3.88	21.19	YES	8.89	0.08	0.00136	0.057	526.46	526.40	1.23	1.23	Inlet	1.25	1.53	528.10	531.80	2.50	3.70	

  

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LINE-3	0+04.00	0+00.00	4.00	1	48	RCP	12.57	12.57	1.000	0.013	514.77	514.75	0.0050	0.00	0.90	0.00	9.53	10.13	100	9.80	93.44	101.84	YES	7.44	0.01	0.00421	0.017	518.77	518.75	0.71	0.86	45 deg wye	0.5	0.50	519.27	522.80	4.03	3.53	
LAT-3	0+05.00	0+00.00	5.00	1	18	RCP	1.77	4.71	0.375	0.013	516.14	516.02	0.0240	0.96	0.90	0.86	0.86	10.13	100	9.80	8.47	16.32	YES	4.79	0.02	0.00646	0.032	519.30	519.27	0.36	0.36	45 deg. bend	0.37	0.13	519.43	522.00	4.36	2.57	
LAT-3	0+36.00	0+05.00	31.00	1	18	RCP	1.77	4.71	0.375	0.013	516.88	516.14	0.0239	0.96	0.90	0.86	0.86	10.02	100	9.80	8.47	16.27	YES	4.79	0.11	0.00646	0.200	519.63	519.43	0.71	0.36	45 deg. bend	0.37	0.13	519.77	522.00	3.62	2.23	
LAT-3	0+41.00	0+36.00	5.00	1	18	RCP	1.77	4.71	0.375	0.013	517.00	516.88	0.0240	INLET 3	0.96	0.90	0.86	10.00	100	9.80	8.4																		