

10-year Storm Event Pipe Conveyance - Manning's Calculations

Peak Discharge Calculation											Pipe Design					
Upstream Node	Downstream Node	Pipe Length	Area (acres)	Cumulative Area (acres)	C	Weighted C	Upstream Tc (min)	I-10 (i/hr)	Q-10 (cfs)	TOTAL Q-10 (cfs)	Dia (in)	Slope (ft/ft)	Mannings n	Capacity (cfs)	Velocity (fps)	Q/Qcap
4.2	4.1	147	0.17	0.17	0.64	0.64	5.0	7.19	0.78	0.78	12	0.003	0.012	2.19	2.79	0.36
4.1	4	33	0.08	0.25	0.87	0.87	5.0	7.19	0.50	1.56	12	0.003	0.012	2.19	2.79	0.71
2.1	2	50	0.32	0.32	0.52	0.52	5.0	7.19	1.20	1.20	12	0.023	0.012	5.86	7.47	0.20
ROOF	CLEANOUT	50	0.05	0.08	0.95	0.95	5.0	7.19	0.34	0.34	8	0.010	0.012	1.31	3.76	0.26
CLEANOUT	OUT	67	0.05	0.16	0.95	0.95	5.0	7.19	1.09	1.09	8	0.022	0.012	1.94	5.57	0.56