Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Winsome Subdivison- Filing 2 - Pond 5

Facility Location & Jurisdiction: Winsome Subdivison, El Paso County

User Input: Watershed Characteristics

	Extended Detention Basin (EDB)	▼	EDB		
	Watershed Area	=	155.65	acres	
	Watershed Length	=	6,210	ft	
	Watershed Length to Centroid	=	2,295	ft	
	Watershed Slope	=	0.026	ft/ft	
	Watershed Imperviousness	=	12.3%	percent	
	Percentage Hydrologic Soil Group A	=	0.0%	percent	
	Percentage Hydrologic Soil Group B	=	98.1%	percent	
	Percentage Hydrologic Soil Groups C/D	=	1.9%	percent	
	Target WQCV Drain Time	=	40.0	hours	
Location for 1-hr Rainfall Depths (use dropdown):					
	User Input	-			
	1			-	

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

User Defined	User Defined	User Defined	User Defined	
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]	
0.00	20	0.00	0.00	
1.00	2,300	1.00	0.10	
2.00	26,000	2.00	0.25	
3.00	57,483	3.00	0.60	
4.00	82,400	4.00	18.06	
5.00	98,700	5.00	86.25	
6.00	108,000	6.00	95.59	
6.50	112,000	6.50	170.14	
7.00	116,000	7.00	307.86	

After completing and printing this worksheet to a pdf, go to: <u>https://maperture.digitaldataservices.com/gvh/?viewer=cswdif</u> Create a new stormwater facility, and attach the PDF of this worksheet to that record.

Routed Hydrograph Results

5 0 1							
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	1.033	2.396	4.987	7.554	15.055	19.430	acre-ft
Inflow Hydrograph Volume =	N/A	2.396	4.987	7.554	15.055	19.430	acre-ft
Time to Drain 97% of Inflow Volume =	41.9	49.4	44.8	40.6	30.1	25.5	hours
Time to Drain 99% of Inflow Volume =	44.8	54.0	52.3	50.5	45.5	42.9	hours
Maximum Ponding Depth =	2.78	3.29	3.93	4.26	5.05	5.84	ft
Maximum Ponded Area =	1.16	1.48	1.85	1.99	2.27	2.44	acres
Maximum Volume Stored =	1.038	1.705	2.769	3.412	5.095	6.940	acre-ft

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