Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Maverik - Monument Basin B

Facility Location & Jurisdiction: El Paso County, CO

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	•	EDB					
Watershed Area	=	1.27	acres				
Watershed Length	=	350	ft				
Watershed Length to Centroid	=	175	ft				
Watershed Slope	=	0.030	ft/ft				
Watershed Imperviousness	=	90.0%	percent				
Percentage Hydrologic Soil Group A	=	10.0%	percent				
Percentage Hydrologic Soil Group B	=	80.0%	percent				
Percentage Hydrologic Soil Groups C/D	=	10.0%	percent				
Target WQCV Drain Time	=	40.0	hours				
Location for 1-hr Rainfall Depths (use dropdown):							
Douglas County - Zone 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	901	0.00	0.00
1.00	901	1.00	1.00
2.00	901	2.00	2.50
3.00	901	3.00	4.70

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

Routed Hydrograph Results

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.06	1.43	1.66	2.26	2.60	in
CUHP Runoff Volume =	0.043	0.093	0.130	0.154	0.218	0.255	acre-ft
Inflow Hydrograph Volume =	N/A	0.093	0.130	0.154	0.218	0.255	acre-ft
Time to Drain 97% of Inflow Volume =	0.9	2.3	2.3	2.3	2.2	2.1	hours
Time to Drain 99% of Inflow Volume =	1.2	2.5	2.5	2.6	2.5	2.5	hours
Maximum Ponding Depth =	2.06	1.14	1.49	1.67	2.35	2.65	ft
Maximum Ponded Area =	0.02	0.02	0.02	0.02	0.02	0.02	acres
Maximum Volume Stored =	0.043	0.024	0.031	0.035	0.049	0.055	acre-ft



