Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Pond A

Facility Location & Jurisdiction: Cathedral Pines

User Input: Watershed Characteristics

_	or any act traceronea entaractemente		
	Extended Detention Basin (EDB)	EDB	
	Watershed Area =	5.50	acres
	Watershed Length =	795	ft
	Watershed Length to Centroid =	350	ft
	Watershed Slope =	0.040	ft/ft
	Watershed Imperviousness =	21.5%	percent
	Percentage Hydrologic Soil Group A =	0.0%	percent
	Percentage Hydrologic Soil Group B =	100.0%	percent
	Percentage Hydrologic Soil Groups C/D =	0.0%	percent
	Target WQCV Drain Time =	40.0	hours
	Location for 1-hr Rainfall Depths (u	se dropdown):
	User Input	•	•

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'.

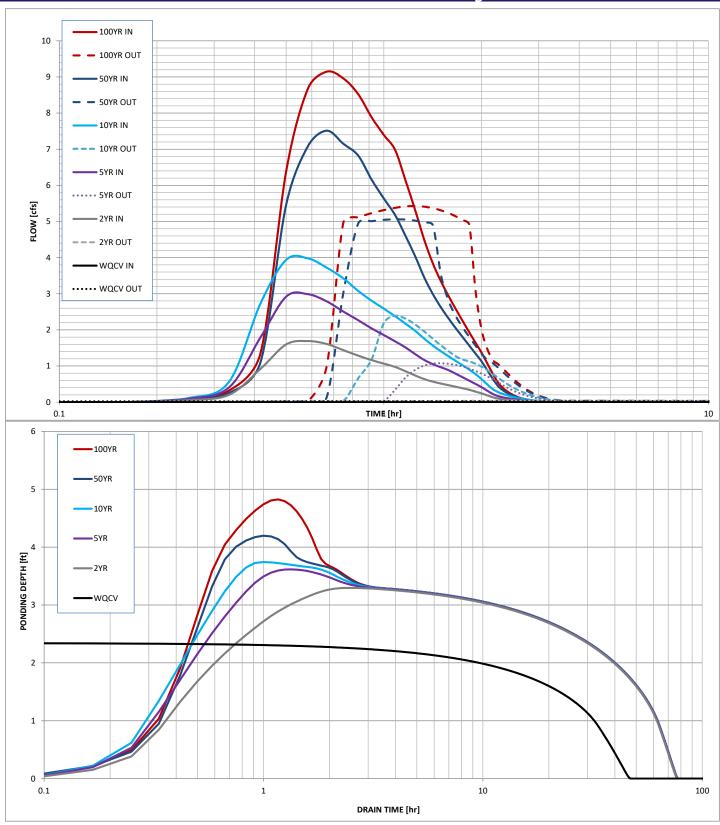
User Defined	User Defined	User Defined	User Defined	
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]	
0.00	10	0.00	0.00	
0.92	537	0.92	0.01	
1.92	1,979	1.92	0.02	
2.35	2,418	2.35	0.02	
2.92	3,000	2.92	0.03	
3.28	3,407	3.28	0.03	
3.29	3,418	3.29	0.03	
3.65	3,825	3.65	1.20	
3.74	3,927	3.74	2.38	
3.92	4,130	3.92	4.89	
4.19	4,464	4.19	5.06	
4.84	5,269	4.84	5.44	
4.92	5,368	4.92	5.48	
5.92	6,715	5.92	6.05	
6.92	8,247	6.92	46.80	
7.42	8,984	7.42	89.31	

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

Routed Hydrograph Results

tea riyarographi resaits							
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 =	0.056	0.126	0.224	0.317	0.575	0.725	acre-ft
Inflow Hydrograph Volume =	N/A	0.126	0.224	0.317	0.575	0.725	acre-ft
Time to Drain 97% of Inflow Volume =	39.3	65.8	62.6	60.0	53.7	50.5	hours
Time to Drain 99% of Inflow Volume =	42.3	70.3	68.5	67.2	63.9	62.3	hours
Maximum Ponding Depth =	2.35	3.30	3.62	3.74	4.20	4.82	ft
Maximum Ponded Area =	0.06	0.08	0.09	0.09	0.10	0.12	acres
Maximum Volume Stored =	0.056	0.119	0.146	0.157	0.200	0.271	acre-ft





Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Pond B

Facility Location & Jurisdiction: Cathedral Pines

User Input: Watershed Characteristics

	-
EDB	
4.00	acres
955	ft
450	ft
0.045	ft/ft
27.0%	percent
0.0%	percent
100.0%	percent
0.0%	percent
40.0	hours
dropdown):	
•	
	4.00 955 450 0.045 27.0% 0.0% 100.0% 0.0%

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	10	0.00	0.00
0.92	396	0.92	0.01
1.92	2,414	1.92	0.02
2.10	2,685	2.10	0.02
2.87	3,843	2.87	0.03
2.92	3,918	2.92	0.03
2.93	3,932	2.93	0.03
3.25	4,388	3.25	0.67
3.32	4,488	3.32	1.44
3.48	4,715	3.48	3.82
3.92	5,342	3.92	4.49
4.42	6,150	4.42	4.75
4.92	6,882	4.92	17.30
5.92	8,899	5.92	87.03

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

Routed Hydrograph Results

ted Trydrograph Results							
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 =	0.047	0.112	0.187	0.257	0.446	0.554	acre-ft
Inflow Hydrograph Volume =	N/A	0.112	0.187	0.257	0.446	0.554	acre-ft
Time to Drain 97% of Inflow Volume =	38.0	63.2	62.8	60.7	55.3	52.6	hours
Time to Drain 99% of Inflow Volume =	40.9	67.6	68.5	67.3	64.7	63.3	hours
Maximum Ponding Depth =	2.11	2.88	3.20	3.32	3.47	3.71	ft
Maximum Ponded Area =	0.06	0.09	0.10	0.10	0.11	0.12	acres
Maximum Volume Stored =	0.048	0.105	0.135	0.147	0.163	0.189	acre-ft



