## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **POND 1** 

Facility Location & Jurisdiction: CROSSROADS MIXED USE FILING NO. 1, EL PASO COUNTY

User Input: Watershed Characteristics

Tripati Waterbried Characteristics							
Extended Detention Basin (El	OB) ▼	EDB					
	32.10	acres					
\	1,725	ft					
Watershed Length to Centroid =		1,000	ft				
	Watershed Slope =	0.006	ft/ft				
Watershe	d Imperviousness =	78.7%	percent				
Percentage Hydro	100.0%	percent					
Percentage Hydro	0.0%	percent					
Percentage Hydrologic Soil Groups C/D =		0.0%	percent				
Target \	WQCV Drain Time =	40.0	hours				
Location for 1-hr Rainfall Depths (use 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
0.01	20	0.01	0.01
0.32	333	0.32	0.08
0.96	6,977	0.96	0.14
2.03	19,516	2.03	0.22
2.16	21,039	2.16	0.35
2.53	24,829	2.53	0.47
3.04	28,660	3.04	0.58
4.00	35,872	4.00	0.80
4.77	40,656	4.77	1.00
5.71	45,175	5.71	1.21
5.78	45,512	5.78	2.03
5.84	45,801	5.84	3.14
5.88	45,993	5.88	4.04
7.24	53,378	7.24	9.02
7.45	54,599	7.45	20.95
7.66	55,820	7.66	40.39
7.98	57,681	7.98	80.71
8.17	58,786	8.17	109.99
8.29	59,483	8.29	130.40
8.40	60,123	8.40	150.36

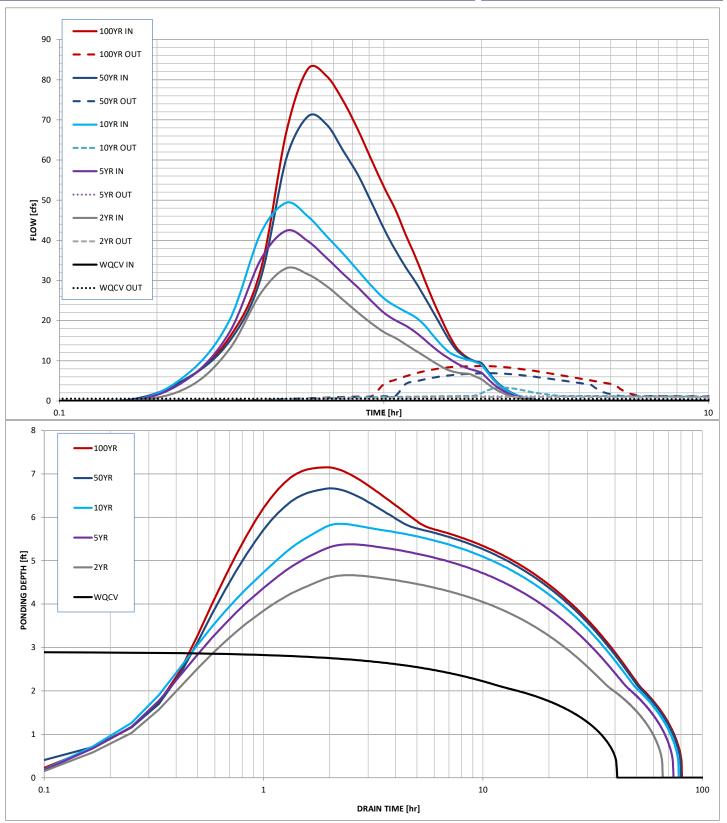
After completing and printing this worksheet to a pdf, go to: <a href="https://maperture.digitaldataservices.com/gvh/?viewer=cswdif">https://maperture.digitaldataservices.com/gvh/?viewer=cswdif</a> Create a new stormwater facility, and attach the PDF of this worksheet to that record.

## Routed Hydrograph Results

Design Storm Return Period = One-Hour Rainfall Depth = One-Hour Rainfall Depth = N/A         Vear         5 Year         10 Year         50 Year         100 Year           CUHP Runoff Volume = Inflow Hydrograph Volume = Inflow Hydrograph Volume = Time to Drain 97% of Inflow Volume = Time to Drain 99% of Inflow Volume = Maximum Ponding Depth = Maximum Ponded Area = Maximum Volume Stored = Maximum Volume Stored = N.858         5 Year         10 Year         50 Year         100 Year           N/A         1.19         1.50         1.75         2.25         2.52         in           3.108         3.680         5.013         5.781         acre-ft           66.8         66.8         66.1         hours           70.3         73.9         74.6         74.8         hours           10.63         0.92         1.00         1.05         1.15         1.21         acre-ft           10.858         2.237         2.918         3.403         4.304         4.872         acre-ft	iteu riyurograpii kesuits							_
CUHP Runoff Volume = 0.857 2.395 3.108 3.680 5.013 5.781 acre-ft Inflow Hydrograph Volume = N/A 2.395 3.108 3.680 5.013 5.781 acre-ft 3.108 5.88 64.9 67.8 66.8 66.1 hours Time to Drain 99% of Inflow Volume = 37.8 58.8 64.9 67.8 66.8 66.1 hours Maximum Ponding Depth = 2.90 4.67 5.38 5.85 6.67 7.15 ft Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 1.21 acres	Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	]
Inflow Hydrograph Volume = N/A 2.395 3.108 3.680 5.013 5.781 acre-ft Time to Drain 97% of Inflow Volume = 37.8 58.8 64.9 67.8 66.8 66.1 hours Time to Drain 99% of Inflow Volume = 39.8 63.1 70.3 73.9 74.6 74.8 hours Maximum Ponding Depth = 2.90 4.67 5.38 5.85 6.67 7.15 ft Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 1.21 acres	One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
Time to Drain 97% of Inflow Volume = 37.8 58.8 64.9 67.8 66.8 66.1 hours Time to Drain 99% of Inflow Volume = 39.8 63.1 70.3 73.9 74.6 74.8 hours Maximum Ponding Depth = 2.90 4.67 5.38 5.85 6.67 7.15 ft Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 1.21 acres	CUHP Runoff Volume =	0.857	2.395	3.108	3.680	5.013	5.781	acre-ft
Time to Drain 99% of Inflow Volume = 39.8 63.1 70.3 73.9 74.6 74.8 hours  Maximum Ponding Depth = 2.90 4.67 5.38 5.85 6.67 7.15 ft  Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 1.21 acres	Inflow Hydrograph Volume =	N/A	2.395	3.108	3.680	5.013	5.781	acre-ft
Maximum Ponding Depth = 2.90 4.67 5.38 5.85 6.67 7.15 ft Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 <b>1.21</b> acres	Time to Drain 97% of Inflow Volume =	37.8	58.8	64.9	67.8	66.8	66.1	hours
Maximum Ponded Area = 0.63 0.92 1.00 1.05 1.15 <b>1.21</b> acres	Time to Drain 99% of Inflow Volume =	39.8	63.1	70.3	73.9	74.6	74.8	hours
0105 0152 1100 1105 1115 1112 1112	Maximum Ponding Depth =	2.90	4.67	5.38	5.85	6.67	7.15	ft
Maximum Volume Stored = 0.858 2.237 2.918 3.403 4.304 4.872 acre-ft	Maximum Ponded Area =	0.63	0.92	1.00	1.05	1.15	1.21	acres
	Maximum Volume Stored =	0.858	2.237	2.918	3.403	4.304	4.872	acre-ft

SDI-Pond, Design Data 10/11/2021, 1:33 PM





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