Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Detention Basin A

Facility Location & Jurisdiction: South Academy Business Center, El Paso County

User Input: Watershed Characteristics

Watershed Slope =	0.007	ft/ft
Watershed Length =	1900	ft
Watershed Area =	7.30	acres
Watershed Imperviousness =	48.0%	percent
Percentage Hydrologic Soil Group A =		percent
Percentage Hydrologic Soil Group B =		percent
Percentage Hydrologic Soil Groups C/D =	100.0%	percent

Location for 1-hr Rainfall Depths (use dropdown): Douglas County - Zone 1

WQCV Treatment Method = Extended Detention

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	0	0.00	0.00
0.35	7,500	0.35	0.10
0.40	7,575	0.40	0.10
0.50	7,725	0.50	0.10
0.65	7,950	0.65	0.10
1.50	11,260	1.50	0.20
2.00	15,760	2.00	1.00
2.50	25,000	2.50	5.00
3.00	27,500	3.00	15.60
3.50	30,000	3.50	35.00

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

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.06	1.43	1.66	2.26	2.60	in
Calculated Runoff Volume =	0.122	0.276	0.442	0.570	1.007	1.256	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.121	0.276	0.442	0.570	1.007	1.256	acre-ft
Time to Drain 97% of Inflow Volume =	16.5	27.0	30.6	30.9	29.7	29.0	hours
Time to Drain 99% of Inflow Volume =	17.5	28.7	32.7	33.2	32.8	32.7	hours
Maximum Ponding Depth =	0.71	1.34	1.77	1.99	2.34	2.49	ft
Maximum Ponded Area =	0.19	0.24	0.31	0.36	0.50	0.57	acres
Maximum Volume Stored =	0.094	0.230	0.346	0.422	0.570	0.652	acre-ft