Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Retreat at TimberRidge Filing No. 4 - Pond 4

Facility Location & Jurisdiction: Approx. 1400' east of int. of Vollmer Rd. and Arroya Lane, El Paso County

User (Input) Watershed Characteristics

Watershed Slope =	0.050	ft/ft
Watershed Length-to-Width Ratio =	2.00	L:W
Watershed Area =	48.50	acres
Watershed Imperviousness =	7.1%	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

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

User Input

User Input: Detention Basin Characteristics

WQCV Design Drain Time =	40.00	hours

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	106	0.00	0.00
1.00	1,547	1.00	0.03
2.00	2,988	2.00	0.06
3.00	10,267	3.00	0.11
4.00	17,546	4.00	4.58
5.00	19,716	5.00	29.26
6.00	21,886	6.00	60.58
7.00	24,268	7.00	146.79
8.00	26,651	8.00	321.23

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	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.199	0.218	0.907	1.774	3.386	4.526	5.873	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.199	0.217	0.907	1.773	3.385	4.526	5.872	acre-ft
Time to Drain 97% of Inflow Volume =	40	41	**36**	29	20	15	10	hours
Time to Drain 99% of Inflow Volume =	44	46	44	40	35	32	**28**	hours
Maximum Ponding Depth =	2.84	2.92	4.11	4.73	5.72	6.24	6.62	ft
Maximum Ponded Area =	0.207	0.222	0.408	0.439	0.488	0.515	0.536	acres
Maximum Volume Stored =	0.185	0.204	0.585	0.848	1.307	1.567	1.768	acre-ft

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