

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Judge Orr Road RV and Storage Development

Facility Location & Jurisdiction: 14010 Judge Orr Road, Peyton, Colorado (El Paso County)

User Input: Watershed Characteristics

Watershed Slope = 0.018 ft/ft
 Watershed Length = 1100 ft
 Watershed Area = 29.80 acres
 Watershed Imperviousness = 36.5% 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

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

Douglas County - Zone 1 ▼

WQCV Treatment Method = Extended Detention ▼

Revise to user input since El Paso Count is not available in the drop down list.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	0	0.00	0.00
0.33	10	0.33	0.30
0.50	50	0.50	0.30
0.90	203	0.90	0.30
1.00	817	1.00	0.30
1.50	9,974	1.50	0.30
2.00	17,195	2.00	0.30
2.50	18,052	2.50	0.30
3.00	18,910	3.00	0.30
3.50	19,787	3.50	0.30
4.00	20,681	4.00	0.30
4.50	21,594	4.50	0.40
5.00	22,524	5.00	8.20
5.50	23,473	5.50	49.50
6.00	24,439	6.00	62.80
6.50	25,423	6.50	73.70
7.00	26,426	7.00	76.80
7.50	27,446	7.50	79.90
8.00	28,485	8.00	83.10
9.00	30,616	9.00	150.40

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

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =	0.53	1.06	1.43	1.66	2.26	2.60	in
One-Hour Rainfall Depth =	0.423	0.789	1.184	1.710	3.483	4.478	acre-ft
Calculated Runoff Volume =							acre-ft
OPTIONAL Override Runoff Volume =							
Inflow Hydrograph Volume =	0.423	0.789	1.184	1.709	3.482	4.477	acre-ft
Time to Drain 97% of Inflow Volume =	16.7	31.0	46.3	52.9	51.0	49.9	hours
Time to Drain 99% of Inflow Volume =	17.0	31.6	47.3	54.3	53.8	53.5	hours
Maximum Ponding Depth =	2.40	3.25	4.10	4.79	5.43	5.77	ft
Maximum Ponded Area =	0.41	0.44	0.48	0.51	0.54	0.55	acres
Maximum Volume Stored =	0.378	0.742	1.131	1.472	1.808	1.992	acre-ft

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