

El Paso County MS4 Post Construction Detention / Water Quality Facility Documentation Form

This document must be completed and submitted with required attachments to the County for projects requiring a detention and/or a water quality facility. A separate completed form must be submitted for each facility.

Project name:			
Owner name:			
Location Address:			
Latitude and Longitude:			
Assessor's Parcel #:	Section:	Township:	Range:
Expected Completion date:			
Project acreage: Design	n Ponding Acres:	Design Storn	n:
Design Engineer Email Address:			
To ensure compliance with C.R.S. 37-92-602(8) Detention and Infiltration Design Data Sheet m https://maperture.digitaldataservices.com/gv/	nust be attached. The	form can be found here:	ign Data Sheet)
List all permanent water quality control measu	re(s) (EDBs, rain gard	ens, etc):	
For all projects for which the constrained redennot practicable to meet the full design standar		lard is applied, provide ar	n explanation of why it is
Attach Operations and Maintenance (O&M) Plong-term observation, maintenance, and opermaintenance activities. If multiple, different w & M Plan must be provided for each facility.	ration of control meas	sure(s), including routine	inspection frequencies and
Attach Private Detention Basin / Stormwater	Quality Best Manage	ment Practice Maintenar	nce Agreement and
Easement addressing maintenance of BMPs th	•		-
Attachments:		Review Enginee	r
Stormwater Detention and Infiltration Design I O & M Plan	Data Sheet	EPC Project File No	
Maintenance and Access Agreement			

Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Phase-II: Ellicott School Addition 2 bldgs (Water Quality only)

Facility Location & Jurisdiction: 322 S Ellicott Highway, El Paso County

User Input: Watershed Characteristics

<u> </u>	Input Watershea Characteristics				
Ra	in Garden (RG) - Bioretention	RG			
	Watershed Area =	1.84	acres		
Watershed Length =		569	ft		
Watershed Length to Centroid =		276	ft		
	Watershed Slope =	0.010	ft/ft		
	Watershed Imperviousness =	28.7%	percent		
Percentage Hydrologic Soil Group A =		100.0%	percent		
Percentage Hydrologic Soil Group B =		0.0%	percent		
Percentage Hydrologic Soil Groups C/D =		0.0%	percent		
	Target WQCV Drain Time =	12.0	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	704	0.00	0.00	
0.50	960	0.50	0.02	
1.00	1,705	1.00	0.02	
1.50	3,004	1.50	0.02	
2.00	4,056	2.00	17.00	
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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

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.02	1.35	1.65	2.44	2.82	in
CUHP Runoff Volume =	0.018	0.028	0.042	0.056	0.141	0.196	acre-ft
Inflow Hydrograph Volume =	N/A	0.028	0.042	0.056	0.141	0.196	acre-ft
Time to Drain 97% of Inflow Volume =	23.6	28.3	35.3	42.3	37.4	35.3	hours
Time to Drain 99% of Inflow Volume =	30.0	34.7	41.8	48.8	44.1	42.1	hours
Maximum Ponding Depth =	0.81	0.96	1.27	1.48	1.54	1.56	ft
Maximum Ponded Area =	0.03	0.04	0.06	0.07	0.07	0.07	acres
Maximum Volume Stored =	0.018	0.023	0.037	0.051	0.054	0.056	acre-ft



