

June 17, 2026

Department of Public Works – Stormwater Section
El Paso County

Understood. Erosion control blankets will be installed prior to seeding in order to help establish vegetation within the pond areas.

The area of the ponds are located is very sandy and unstable, and I anticipate that vegetating the embankments will be very difficult, even with 3:1 or shallower slopes. While the plans just call for seeding and mulching, soil amendments and erosion control blanket may be needed to establish vegetation.

I highly recommend that the embankment slopes are fixed in the field to be 3:1 or shallower.

Re: Space Village Road Outdoor Storage; PPR233, CON2429, ESQ2430

Given the unique pond outlet mechanism (infiltration and level spreaders for overflow), please add a statement confirming that the spillway and level-spreaders are installed in the field in accordance with the intent of the design.

Stormwater Section:

A separate statement has been added regarding the emergency spillways and level spreaders as requested.

...ed by work performed under the County permit) are stable
..., and sloughing of cut and fill slopes - only as determined by a
...d by the as-built survey and indicated as as-built on the
Plan – As-Built (AS-BUILT). In addition, the improvements
...or exceed the minimum design requirements as

represented on the approved *Space Village Filing No. 4, Grading & Erosion Control Plan*, except as otherwise noted below.

The constructed detention and stormwater quality facilities represented by the as-built survey and indicated as as-built on the AS-BUILT, provide the required storage volume and will meet the required release rates, as documented by the attached Mile High Flood District, *Stormwater Detention and Infiltration Design Data Sheet(s)*, except as otherwise noted below.

Noted.

This is acceptable, no action required.

- Although most of the pond side slopes are shallower than 3:1, there are a few areas with the side slopes of each pond that exceed 3:1 (no steeper than 2:1).
- The East Pond will drain the WQCV in approximately 12.3 hours rather than the target of 12 hours.
- The West Pond volume is 2,072 CY, which is 87% of the design capacity.
- The West Pond has a freeboard of 0.53'.

A minimum of 1 ft of freeboard is required. Please make the necessary changes in the field and update the as-built drawings.

The West pond has been revised. 1' minimum freeboard is now provided.

This is acceptable but only if the calculations demonstrate that the pond is still capable of infiltrating the 100-year without activating the emergency spillway.

The West pond has been revised. The pond now provides 94% of the design capacity and the 100 year can infiltrate without activating the emergency spillway.

Respectfully,

FARNSWORTH GROUP, INC.



Ryan J. Loftus, PE
Engineering Manager

6/17/26

SPI-Design Data v2.00, Released January 2020

Facility Location & Jurisdiction: **Lot 2, Block 1, Space Village Filing No. 4., El Paso County, CO**

Sand Filter (SF)	SF	
Watershed Area =	9.45	acres
Watershed Length =	750	ft
Watershed Length to Centroid =	375	ft
Watershed Slope =	0.025	ft/ft
Watershed Imperviousness =	70.0%	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

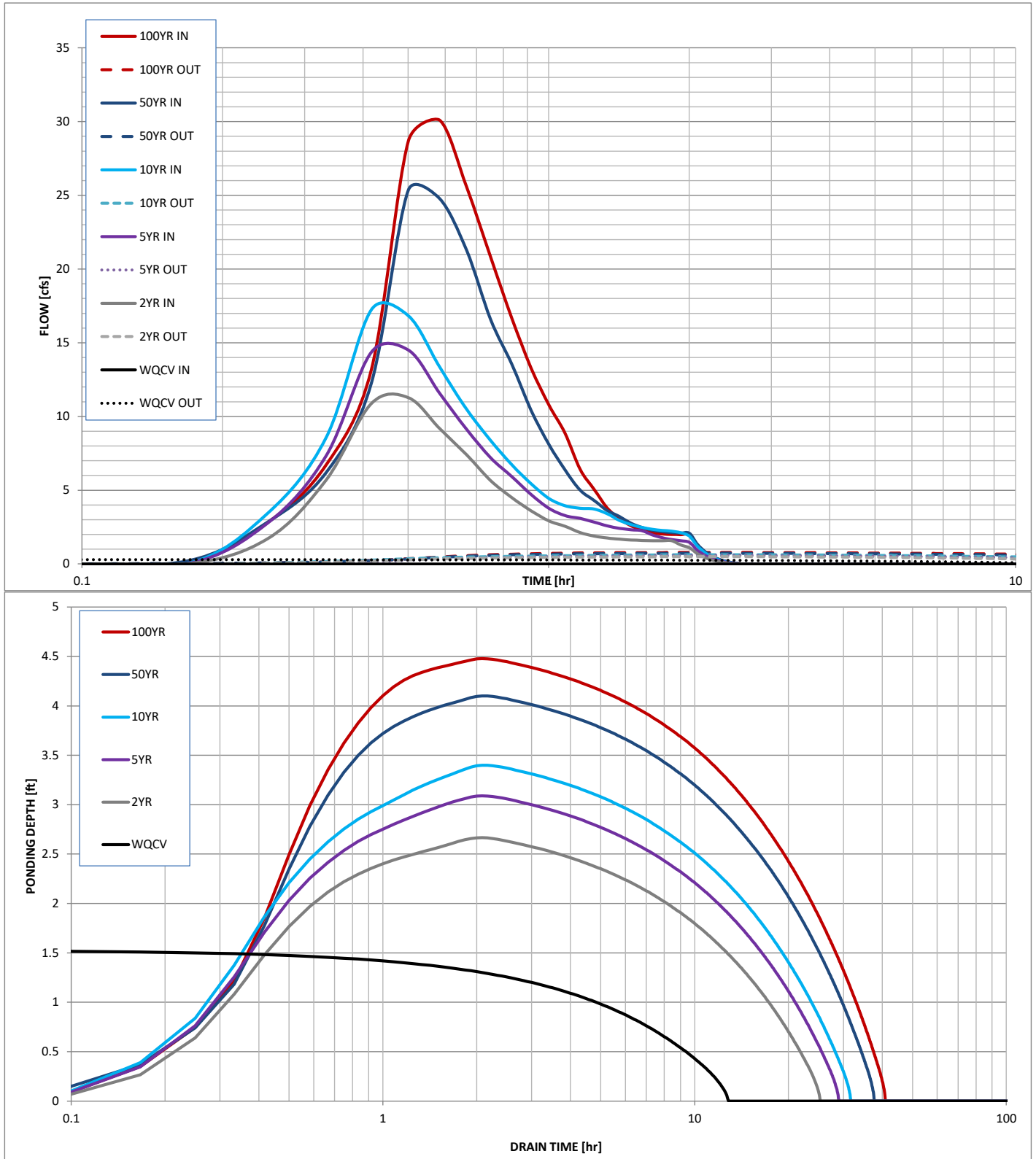
Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

[illegible]

Create a new stormwater facility, and attach the PDF of this worksheet to that record.

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =							
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.173	0.585	0.764	0.907	1.263	1.474	acre-ft
Inflow Hydrograph Volume =	N/A	0.585	0.764	0.907	1.263	1.474	acre-ft
Time to Drain 97% of Inflow Volume =	11.5	22.0	25.2	27.3	32.4	35.1	hours
Time to Drain 99% of Inflow Volume =	12.3	23.8	27.3	29.7	35.2	38.1	hours
Maximum Ponding Depth =	1.53	2.67	3.09	3.40	4.10	4.48	ft
Maximum Poned Area =	0.22	0.37	0.42	0.45	0.52	0.57	acres
Maximum Volume Stored =	0.173	0.512	0.679	0.814	1.155	1.361	acre-ft

Stormwater Detention and Infiltration Design Data Sheet



Stormwater Detection and Trifluoromethane Data Sheet

The West pond has been revised. The depth from pond bottom to spillway crest has been revised on both the SDI sheet and the plan asbuilts.

As-builts show a 3.31' depth from
spillway crest to basin bottom.

Stormwater Facility N

Facility Location & Jurisdiction

County, CO

User Input: Watershed Characteristics

Sand Filter (SF)	SF	
Watershed Area =	10.95	acres
Watershed Length =	750	ft
Watershed Length to Centroid =	375	ft
Watershed Slope =	0.026	ft/ft
Watershed Imperviousness =	68.0%	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'.

[illegible]

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 =							
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.194	0.652	0.853	1.014	1.420	1.663	acre-ft
Inflow Hydrograph Volume =	N/A	0.652	0.853	1.014	1.420	1.663	acre-ft
Time to Drain 97% of Inflow Volume =	2.8	5.9	6.8	7.5	9.0	9.9	hours
Time to Drain 99% of Inflow Volume =	3.0	6.3	7.3	8.0	9.7	10.6	hours
Maximum Ponding Depth =	1.00	1.52	1.88	2.15	2.88	3.31	WARNING
Maximum Poned Area =	0.35	0.43	0.46	0.48	0.54	0.56	acres
Maximum Volume Stored =	0.195	0.407	0.570	0.696	1.069	1.200	acre-ft

This warning indicates that the 100 yr ponding depth is above the maximum depth in the stage-storage table above. This pond was designed to infiltrate the 100-yr storm, please try to adjust this spreadsheet and then make subsequent changes in the field.

The West pond has been revised. The pond now provides 94% of the design capacity and the 100 year can infiltrate without activating the emergency spillway.

Stormwater Detention and Infiltration Design Data Sheet

