

June 17, 2026

Department of Public Works – Stormwater Section
El Paso County**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:

... (indicated as as-built on the AS-BUILT) are stable and sloughing of cut and fill slopes - only as determined by a review of the constructed slopes represented by the as-built survey and indicated as as-built on the *Space Village Filing No. 4. Grading & Erosion Plan – As-Built (AS-BUILT)*. In addition, the improvements (indicated as as-built on the AS-BUILT) meet 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.

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 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.

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.

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

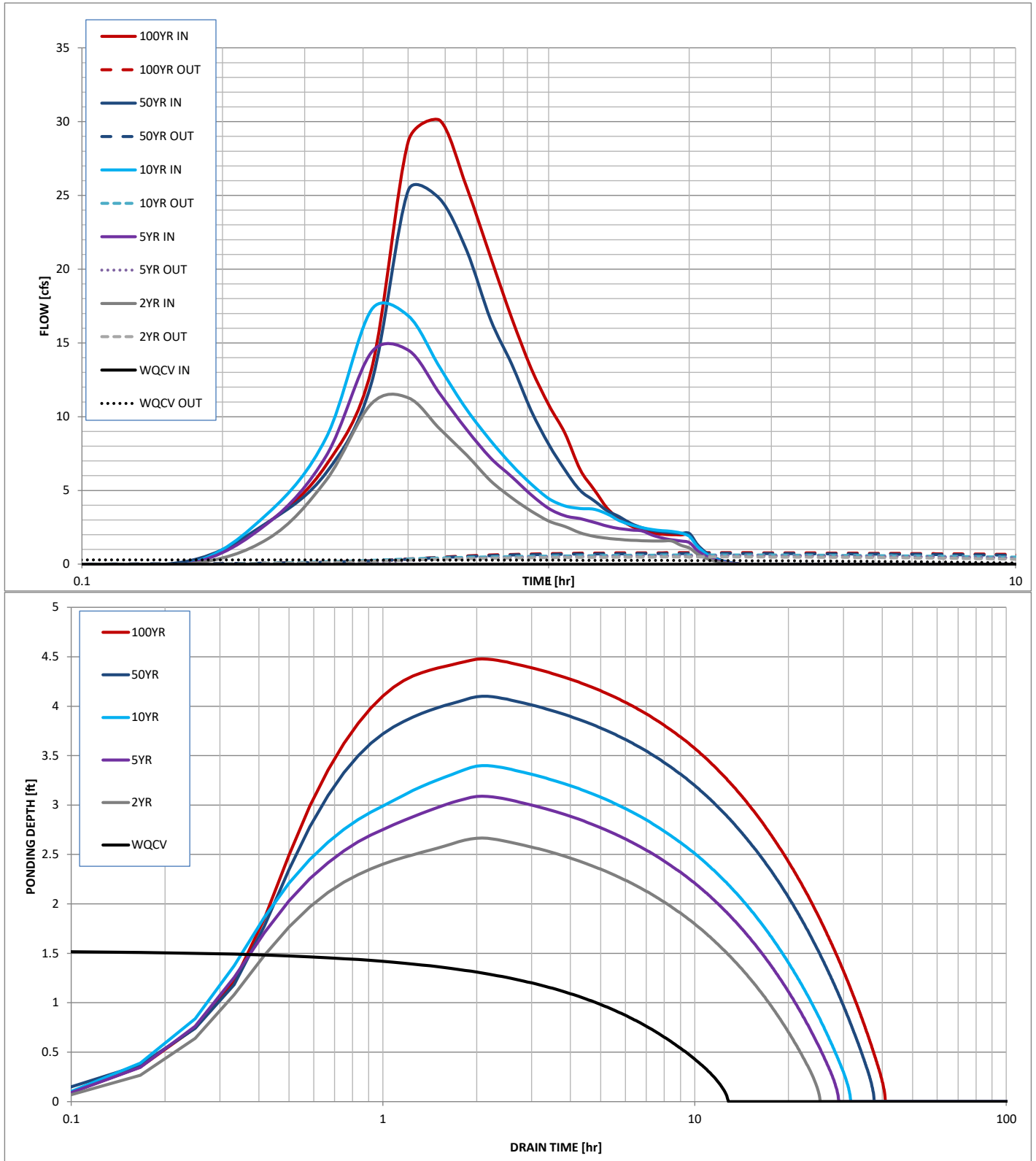
Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

[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



SPI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **West Pond**

User Input: Watershed Characteristics

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

User Input

[illegible]

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'.

After completing and printing this worksheet to a pdf, go to:

<https://maperture.digitaldataservices.com/qvh/?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.

Stormwater Detention and Infiltration Design Data Sheet

