

April 08, 2024

Kari Parsons  
E.P.C. Planning & Community Development  
2880 International Circle  
Colorado Springs, CO 80910

RE: SF Final Plat – Falcon Meadows at Bent Grass Filing No. 3 - Drainage

Dear Kari,

The approved FDR (10/19/2022) for Falcon Meadows at Bent Grass Filing No. 3 (*PCD Filing No.: SF-2216*) shows that the upstream tributary acreage for Pond North (WQCV Detention Pond – Filing 2) has a calculated watershed imperviousness of 60%. The sub-basins associated with the area where the proposed additional lot (Lots 33-39) is to be located are identified as C-1a, C-1c, C-1d, & C-1f. The total acreage associated with these sub-basins is 3.57 acres. The proposed additional lot will be placed within the C-1c sub-basin. The calculated imperviousness for sub-basin C-1c is 68.2% (see attached sheets from the approved FDR). This imperviousness was utilized to calculate the composite runoff coefficient ( $C_5=0.52$ ,  $C_{100}=0.65$ ) for the associated rational calculations.

Sub-basin C-1c has a total area of 1.19 acres. The 7 lots within this sub-basin have an average size of 0.193 acres (slightly larger than 1/8 acre and slightly smaller than 1/4 acre). The area designated as pavement within sub-basin C-1c is 0.265 acres. The area to be designated as building footprints (1,421 SF per lot) totals 0.228 acres. The area to be designated as driveways (390 SF per lot) totals 0.063 acres. Therefore, the updated total imperviousness within sub-basin C-1c where the additional lot is proposed is:  $0.556 \text{ ac} / 1.19 \text{ ac} = 46.72\%$ . Excerpts from the approved FDR have been provided as well as updated / revised % imperviousness & composite runoff coefficient calculations so that the two conditions can be compared. Per the calculations, the previous analysis conservatively assumed a higher concentration of 1/8 acre lots as compared with the updated / revised calculations, which reflect a more even split between 1/8 acre and 1/4 acre lots. With the inclusion of the additional lot within sub-basin C-1c, the resulting % imperviousness has been reduced from 68.2% (FDR) to 62.6%. With the reduction in imperviousness, surface flows that are routed to Existing Inlet DP 41, via curb & gutter, also have been reduced and Existing Inlet DP 41 has sufficient capacity to capture flows and convey them downstream to Pond North (WQCV Detention Pond – Filing 2). This imperviousness does not adversely impact the capacity / design of Pond North (WQCV Detention Pond – Filing 2) or the storm sewer conveyance system.

Per the provided analysis above, the addition of a lot (Lots 33-39) within the Falcon Meadows at Bent Grass Filing 3 does not have an adverse impact on the storm sewer conveyance system nor Pond North (WQCV Detention Pond – Filing 2).

Sincerely,  
**GALLOWAY**



Brady Shyrock, PE  
BradyShyrock@GallowayUS.com





# COMPOSITE % IMPERVIOUS CALCULATIONS: PROPOSED

**Subdivision:** Falcon Meadows  
**Location:** CO, Colorado Springs

**Project Name:** Falcon Meadows at Bent Grass Filing No. 3  
**Project No.:** CLH000020  
**Calculated By:** CMV  
**Checked By:** SMB  
**Date:** 12/6/21

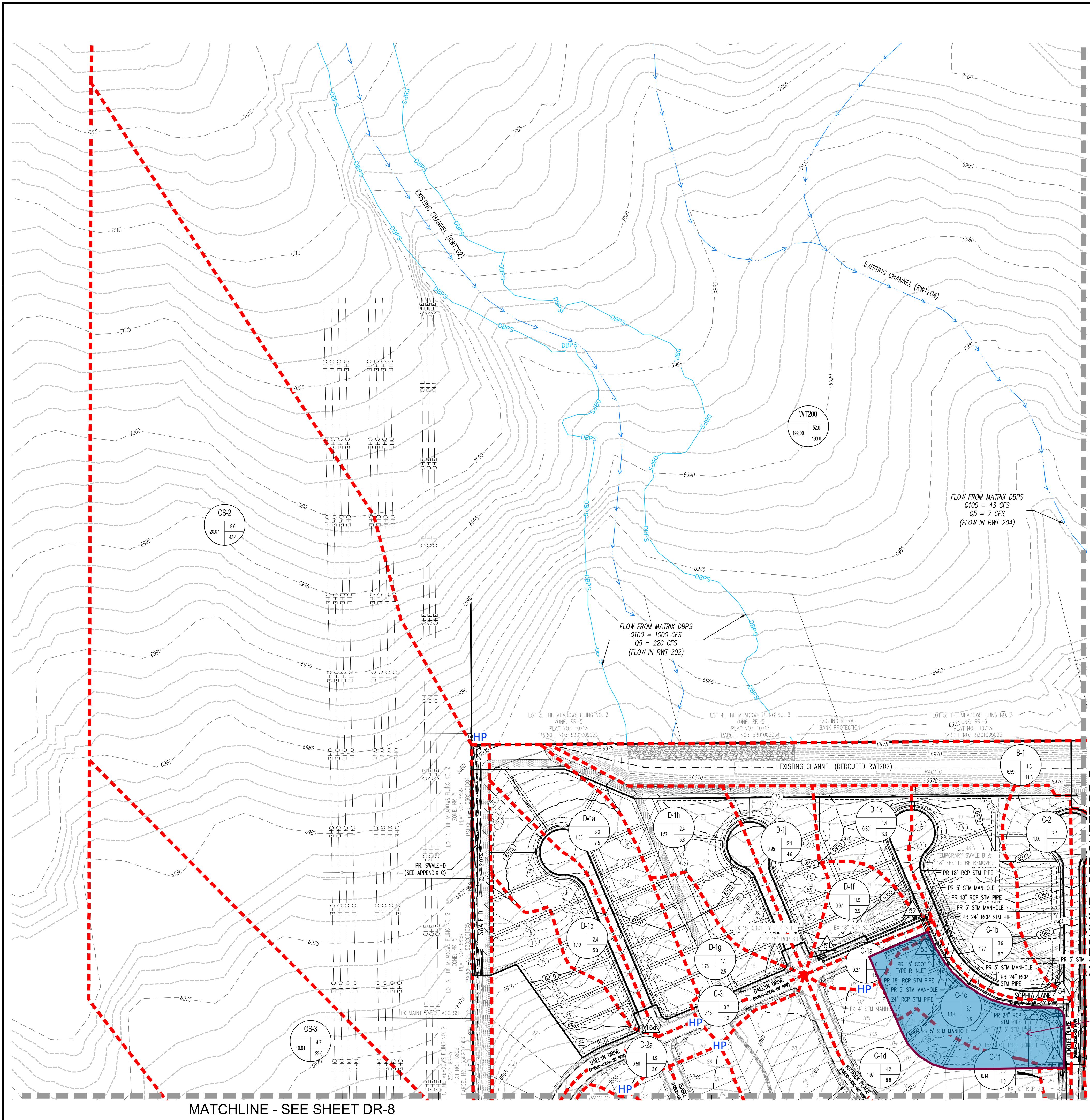
Basin ID	Total Area (ac)	Paved/Gravel Roads			Lawns/Undeveloped			Residential - 1/8 Acre			Residential - 1/4 Acre			Residential - 1/3 Acre			Residential - 1/2 Acre			Residential - 1 Acre			Basins Total Weighted % Imp.	
		% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.		
<b>OFFSITE</b>																								
OS-1	32.28	100	2.15	6.7	2	29.25	1.8	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	11.0	
OS-2	20.07	80	0.90	3.6	2	18.62	1.9	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	8.0	
OS-3	10.61	80	0.48	3.6	2	9.84	1.9	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	8.0	
<b>BENT GRASS FILING NO. 2 &amp; FALCON MEADOWS AT BENT GRASS FILING NO. 1</b>																								
EX-1	1.19	100	0.00	0.0	2	1.19	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
EX-2	1.60	100	0.00	0.0	2	1.60	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
EX-3	0.66	100	0.00	0.0	2	0.66	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
B-1	6.59	100	0.00	0.0	2	6.59	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
B-2	4.16	100	0.00	0.0	2	4.16	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
D-4a	0.98	100	0.21	21.4	2	0.00	0.0	65.0	0.77	51.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.5	
D-4b	0.95	100	0.43	45.3	2	0.00	0.0	65.0	0.52	35.6	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	80.9	
D-4c	1.22	100	0.43	35.2	2	0.24	0.4	65.0	0.55	29.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	64.9	
D-5	1.08	100	0.22	20.4	2	0.11	0.2	65.0	0.75	45.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.7	
D-6a	1.33	100	0.44	33.1	2	0.00	0.0	65.0	0.89	43.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	76.6	
D-6b	2.69	100	0.59	21.9	2	0.00	0.0	65.0	2.10	50.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.6	
D-7	7.65	100	0.00	0.0	2	6.22	1.6	65.0	1.43	12.2	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	13.8	
D-8	1.69	100	0.00	0.0	2	0.11	0.1	65.0	1.58	60.8	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	60.9	
E-1	1.71	100	0.78	45.6	2	0.23	0.3	65.0	0.00	0.0	40	0.70	16.4	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	62.3	
E-2	0.68	100	0.56	82.4	2	0.12	0.4	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	82.8	
E-3	0.78	100	0.69	88.5	2	0.09	0.2	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	88.7	
E-4	0.91	100	0.73	80.2	2	0.18	0.4	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	80.6	
E-5	0.89	100	0.79	88.8	2	0.10	0.2	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	89.0	
OS-4	4.46	100	0.00	0.0	2	0.00	0.0	65.0	2.28	33.2	40	1.46	13.1	30	0.00	0.0	25	0.00	0.0	20	0.72	3.2	49.5	
OS-5	0.46	100	0.00	0.0	2	0.00	0.0	65.0	0.46	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
OS-6	1.17	100	0.00	0.0	2	0.00	0.0	65.0	1.17	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
<b>FALCON MEADOWS AT BENT GRASS FILING NO. 2</b>																								
C-1a	0.27	100	0.15	55.6	2	0.00	0.0	65.0	0.12	28.9	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	84.5	
C-1d	1.97	100	0.40	20.3	2	0.00	0.0	65.0	1.57	51.8	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.1	
C-1e	0.49	100	0.49	100.0	2	0.00	0.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	100.0	
C-3	0.18	100	0.14	77.8	2	0.02	0.3	65.0	0.02	7.6	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	85.7	
C-4	2.67	100	0.41	15.4	2	0.84	0.6	65.0	1.41	34.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	50.3	
C-5	0.60	100	0.00	0.0	2	0.60	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
C-6	0.94	100	0.00	0.0	2	0.65	1.4	65.0	0.29	20.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	21.5	
C-7	0.52	100	0.15	29.4	2	0.00	0.0	65.0	0.37	46.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	75.7	
D-9	0.72	100	0.00	0.0	2	0.46	1.3	65.0	0.26	23.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	24.8	
D-1c	3.95	100	0.33	8.4	2	0.00	0.0	65.0	2.67	43.9	40	0.95	9.6	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.9	
D-2a	0.50	100	0.33	66.0	2	0.00	0.0	65.0	0.17	22.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	88.7	
D-2b	0.74	100	0.18	24.3	2	0.14	0.4	65.0	0.42	37.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.8	
D-2c	0.31	100	0.15	50.0	2	0.00	0.0	65.0	0.16	33.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	83.5	
D-2d	0.24	100	0.10	43.4	2	0.00	0.0	65.0	0.14	37.9	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	81.3	
D-2e	1.41	100	0.41	29.3	2	0.00	0.0	65.0	1.00	46.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	75.4	
D-2f	2.43	100	0.70	28.8	2	0.07	0.1	65.0	1.67	44.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	73.6	
D-2g	1.81	100	0.48	26.5	2	0.57	0.6	65.0	0.76	27.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	54.4	
D-2h	0.23	100	0.00	0.0	2	0.00	0.0	65.0	0.23	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
D-3	2.26	100	0.00	0.0	2	0.28	0.2	65.0	1.74	50.0	40	0.13	2.3	30	0.11	1.5	25	0.00	0.0	20	0.00	0.0	54.0	
<b>FALCON MEADOWS AT BENT GRASS FILING NO. 3</b>																								
C-1b	1.77	100	0.38	21.5	2	0.10	0.1	65.0	0.75	27.5	40	0.54	12.2	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.3	
C-1c	1.19	100	0.26	21.8	2	0.00	0.0	65.0	0.72	39.3	40	0.21	7.1	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	68.2	
C-11	0.14	100	0.09	64.5	2	0.00	0.0	65.0	0.05	23.2	40	0.00	0.0	30	0.00	0								

# COMPOSITE RUNOFF COEFFICIENT CALCULATIONS: PROPOSED

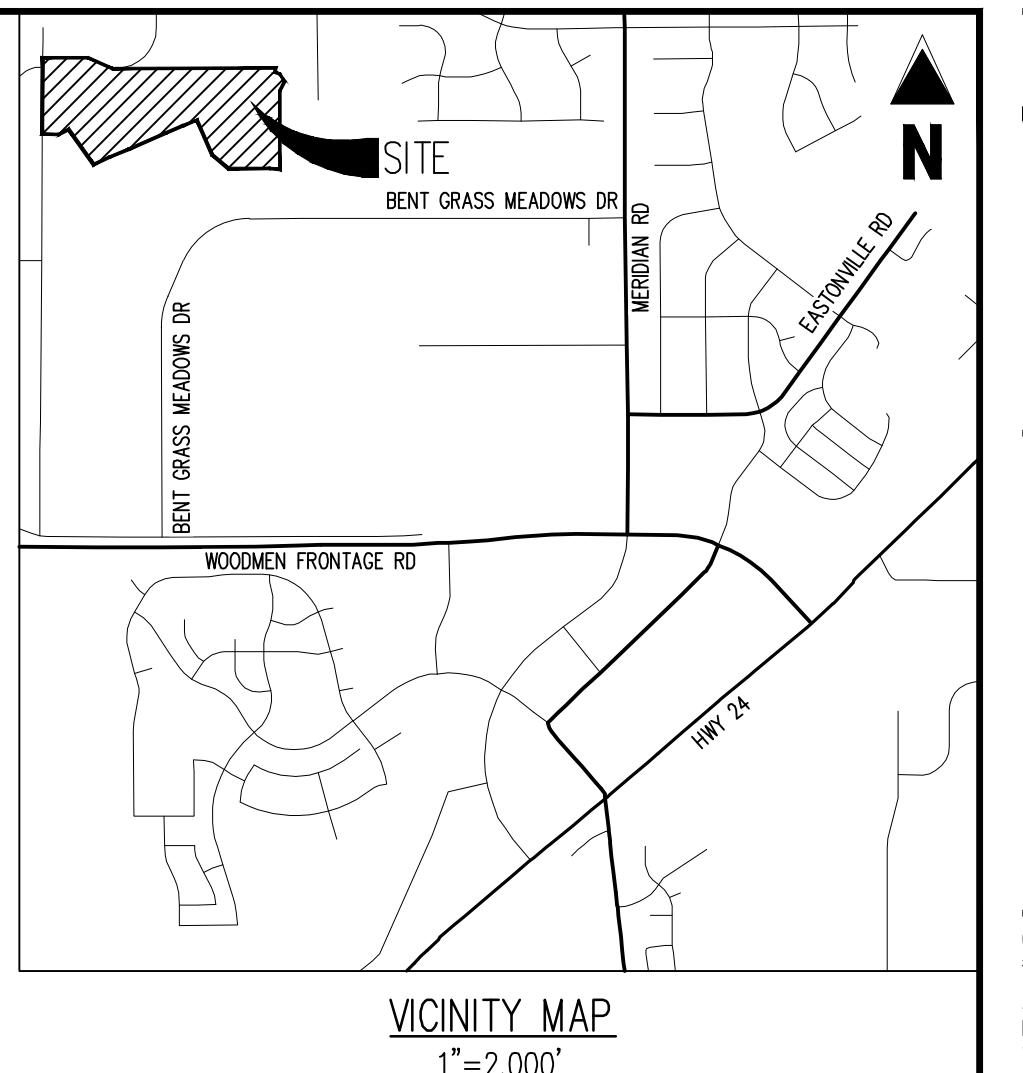
**Subdivision:** Falcon Meadows  
**Location:** CO, Colorado Springs

**Project Name:** Falcon Meadows at Bent Grass Filing No. 3  
**Project No.:** CLH000020  
**Calculated By:** CMV  
**Checked By:** SMB  
**Date:** 12/6/21

Basin ID	Total Area (ac)	Paved/Gravel Roads			Lawns/Undeveloped			Residential - 1/8 Acre			Residential - 1/4 Acre			Residential - 1/3 Acre			Residential - 1/2 Acre			Residential - 1 Acre			Composite C <sub>5</sub>	Composite C <sub>100</sub>	
		C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)			
<b>OFFSITE</b>																									
OS-1	32.28	0.90	0.96	2.15	0.09	0.36	29.25	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.16	0.41	
OS-2	20.07	0.90	0.96	0.90	0.09	0.36	18.62	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.14	0.40	
OS-3	10.61	0.90	0.96	0.48	0.09	0.36	9.84	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.14	0.40	
<b>BENT GRASS FILING NO. 2 &amp; FALCON MEADOWS AT BENT GRASS FILING NO. 1</b>																									
EX-1	1.19	0.90	0.96	0.00	0.09	0.36	1.19	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
EX-2	1.60	0.90	0.96	0.00	0.09	0.36	1.60	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
EX-3	0.66	0.90	0.96	0.00	0.09	0.36	0.66	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
B-1	6.59	0.90	0.96	0.00	0.09	0.36	6.59	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
B-2	4.16	0.90	0.96	0.00	0.09	0.36	4.16	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
D-4a	0.98	0.90	0.96	0.21	0.09	0.36	0.00	0.45	0.59	0.77	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.67	
D-4b	0.95	0.90	0.96	0.43	0.09	0.36	0.00	0.45	0.59	0.52	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.65	0.76	
D-4c	1.22	0.90	0.96	0.43	0.09	0.36	0.24	0.45	0.59	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.54	0.68		
D-5	1.08	0.90	0.96	0.22	0.09	0.36	0.11	0.45	0.59	0.75	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.51	0.64	
D-6a	1.33	0.90	0.96	0.44	0.09	0.36	0.00	0.45	0.59	0.89	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.60	0.71	
D-6b	2.69	0.90	0.96	0.59	0.09	0.36	0.00	0.45	0.59	2.10	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.67	
D-7	7.65	0.90	0.96	0.00	0.09	0.36	6.22	0.45	0.59	1.43	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.16	0.40	
D-8	1.69	0.90	0.96	0.00	0.09	0.36	0.11	0.45	0.59	1.58	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.43	0.58	
E-1	1.71	0.90	0.96	0.78	0.09	0.36	0.23	0.45	0.59	0.00	0.30	0.50	0.70	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.69	
E-2	0.68	0.90	0.96	0.56	0.09	0.36	0.12	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.76	0.85	
E-3	0.78	0.90	0.96	0.69	0.09	0.36	0.09	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.81	0.89	
E-4	0.91	0.90	0.96	0.73	0.09	0.36	0.18	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.74	0.84	
E-5	0.89	0.90	0.96	0.79	0.09	0.36	0.10	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.81	0.89	
OS-4	4.46	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	2.28	0.30	0.50	1.46	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.72	0.36	0.54	
OS-5	0.46	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	0.46	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.59	
OS-6	1.17	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	1.17	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.59	
<b>FALCON MEADOWS FILING NO. 2</b>																									
C-1a	0.27	0.90	0.96	0.15	0.09	0.36	0.00	0.45	0.59																

PRELIMINARY  
NOT FOR BIDDING  
NOT FOR CONSTRUCTIONCOPYRIGHT  
THESE PLANS ARE AN INSTRUMENT OF SERVICE  
AND ARE THE PROPERTY OF GALLOWAY, AND MAY  
NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED  
WITHOUT THE WRITTEN CONSENT OF GALLOWAY.  
COPYRIGHTS AND INFRINGEMENTS WILL BE  
ENFORCED AND PROSECUTED.**CHALLENGER HOMES****FINAL DRAINAGE REPORT  
FALCON MEADOWS AT BENT GRASS FILING NO. 3  
FOR  
CHALLENGER COMMUNITIES, LLC**BENT GRASS MEADOWS DRIVE  
FALCON, CO 80831 - EL PASO COUNTY**MATCHLINE - SEE SHEET DR-7**ADDITIONAL LOT LOCATED IN  
SUB-BASIN C-1c

RUNOFF SUMMARY TABLE			DESIGN POINT SUMMARY TABLE		
Basin	Area	Q <sub>5</sub>	Q <sub>10</sub>	Q <sub>25</sub>	Q <sub>100</sub>
RWT 202	1574.40	22.0	100.0	1	277.1
RWT 204	38.40	7.0	43.0	1	5.6
RWT 200	159.00	9.2	19.0	2	2.3
EX-1	1.50	0.3	1.5	3	2.0
EX-2	1.60	0.5	3.8	5	7.6
EX-3	0.66	0.2	1.6	6	0.2
EX-4	0.19	0.05	1.1	10	0.2
B-2	4.16	1.3	11.8	51	11.8
C-1	0.27	1.0	1.9	52	3.0
C-2	1.77	3.9	8.7	53	7.8
C-3	0.16	0.5	1.4	54	1.4
C-4	1.97	4.2	8.8	41	30.8
C-5	0.49	2.3	4.1	42	0.7
C-6	0.16	0.5	4.3	43	8.3
C-7	1.02	2.0	4.1	44	4.7
C-8	1.00	2.5	5.0	19	2.0
C-9	0.18	0.7	1.2	15	23.5
C-10	0.49	1.3	3.2	12	20.4
C-11	0.60	0.3	1.9	45	7.2
C-12	0.94	1.0	3.4	13	26.8
D-1	1.45	1.4	2.9	8	22.2
D-2	1.83	3.3	7.7	AA	122.1
D-3	1.19	2.4	5.3	9	43.4
D-4	3.95	5.4	12.0	10	2.5
D-5	0.19	0.5	1.0	11	1.0
D-6	0.78	1.1	2.5	11	5.6
D-7	1.57	2.4	5.8	14a	7.6
D-8	0.95	2.1	4.6	14b	8.9
D-9	0.56	1.3	3.4	15	12.2
D-10	0.50	1.9	3.6	14c	4.2
D-11	0.74	1.4	3.2	14	6.4
D-12	0.24	0.8	2.0	15a	12.5
D-13	1.24	0.9	1.6	15	33.5
D-14	1.41	3.3	8.7	18	21.8
D-15	2.43	6.0	12.2	17a	2.1
D-16	0.39	0.8	1.0	17b	1.7
D-17	0.23	0.3	0.8	17c	15.5
D-18	2.26	2.6	6.3	17	42.4
D-19	0.98	2.1	4.4	24	5.9
D-20	0.55	1.3	3.3	25	5.1
D-21	1.22	2.4	5.0	26	7.9
D-22	0.68	2.8	6.0	30	55.0
D-23	2.69	5.5	11.4	32	6.8
D-24	7.65	4.3	18.2	CC	340.0
D-25	1.69	2.6	6.0		
D-26	0.48	1.2	2.7		
OS-1	32.28	1.51	5.1		
OS-2	20.07	9.0	43.4		
OS-3	10.61	4.7	22.6		
OS-4	0.44	1.5	4.3		
OS-5	0.46	1.1	2.3		
OS-6	1.17	2.0	4.3		
E-1	0.68	2.4	6.6		
E-2	0.68	2.4	6.6		
E-3	0.78	2.9	5.3		
E-4	0.91	3.0	5.7		
E-5	0.89	3.3	6.1		

**DRAINAGE LEGEND**

PROPERTY LINE	-6480
EXISTING MAJOR CONTOUR	-6482
PROPOSED MAJOR CONTOUR	-6480
PROPOSED MINOR CONTOUR	-6482
BASIN BOUNDARY LINE	-100YR
DRAINAGE TRAVEL PATH	FEMA EFFECTIVE 100-YR FLOODPLAIN
100YR FLOODPLAIN	100-YR FLOODPLAIN PER MATRIX DBPS
100YR FLOODPLAIN PER MATRIX DBPS	100-YR FLOODPLAIN
CENTERLINE OF STREAM	EXISTING RIPRAP
EXISTING ACCESS	PROPOSED RIPRAP
PROPOSED ACCESS	PROPOSED ACCESS
BASIN DESIGNATION	1
5-YEAR RUNOFF IN CUBIC FEET PER SECOND	0.71
100-YEAR RUNOFF IN CUBIC FEET PER SECOND	4.87
BASIN AREA IN ACRES	1
DESIGN POINT	1
DIRECTION OF RUNOFF	1

# COMPOSITE % IMPERVIOUS CALCULATIONS: PROPOSED

**Subdivision:** Falcon Meadows  
**Location:** CO, Colorado Springs

**Project Name:** Falcon Meadows at Bent Grass Filing No. 3  
**Project No.:** CLH000020  
**Calculated By:** CMV  
**Checked By:** SMB  
**Date:** 3/25/24

Basin ID	Total Area (ac)	Paved/Gravel Roads			Lawns/Undeveloped			Residential - 1/8 Acre			Residential - 1/4 Acre			Residential - 1/3 Acre			Residential - 1/2 Acre			Residential - 1 Acre			Basins Total Weighted % Imp.	
		% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.	% Imp.	Area (ac)	Weighted % Imp.		
<b>OFFSITE</b>																								
OS-1	32.28	100	2.15	6.7	2	29.25	1.8	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	11.0	
OS-2	20.07	80	0.90	3.6	2	18.62	1.9	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	8.0	
OS-3	10.61	80	0.48	3.6	2	9.84	1.9	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	8.0	
<b>BENT GRASS FILING NO. 2 &amp; FALCON MEADOWS AT BENT GRASS FILING NO. 1</b>																								
EX-1	1.19	100	0.00	0.0	2	1.19	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
EX-2	1.60	100	0.00	0.0	2	1.60	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
EX-3	0.66	100	0.00	0.0	2	0.66	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
B-1	6.59	100	0.00	0.0	2	6.59	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
B-2	4.16	100	0.00	0.0	2	4.16	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
D-4a	0.98	100	0.21	21.4	2	0.00	0.0	65.0	0.77	51.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.5	
D-4b	0.95	100	0.43	45.3	2	0.00	0.0	65.0	0.52	35.6	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	80.9	
D-4c	1.22	100	0.43	35.2	2	0.24	0.4	65.0	0.55	29.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	64.9	
D-5	1.08	100	0.22	20.4	2	0.11	0.2	65.0	0.75	45.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.7	
D-6a	1.33	100	0.44	33.1	2	0.00	0.0	65.0	0.89	43.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	76.6	
D-6b	2.69	100	0.59	21.9	2	0.00	0.0	65.0	2.10	50.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.6	
D-7	7.65	100	0.00	0.0	2	6.22	1.6	65.0	1.43	12.2	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	13.8	
D-8	1.69	100	0.00	0.0	2	0.11	0.1	65.0	1.58	60.8	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	60.9	
E-1	1.71	100	0.78	45.6	2	0.23	0.3	65.0	0.00	0.0	40	0.70	16.4	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	62.3	
E-2	0.68	100	0.56	82.4	2	0.12	0.4	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	82.8	
E-3	0.78	100	0.69	88.5	2	0.09	0.2	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	88.7	
E-4	0.91	100	0.73	80.2	2	0.18	0.4	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	80.6	
E-5	0.89	100	0.79	88.8	2	0.10	0.2	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	89.0	
OS-4	4.46	100	0.00	0.0	2	0.00	0.0	65.0	2.28	33.2	40	1.46	13.1	30	0.00	0.0	25	0.00	0.0	20	0.72	3.2	49.5	
OS-5	0.46	100	0.00	0.0	2	0.00	0.0	65.0	0.46	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
OS-6	1.17	100	0.00	0.0	2	0.00	0.0	65.0	1.17	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
<b>FALCON MEADOWS AT BENT GRASS FILING NO. 2</b>																								
C-1a	0.27	100	0.15	55.6	2	0.00	0.0	65.0	0.12	28.9	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	84.5	
C-1d	1.97	100	0.40	20.3	2	0.00	0.0	65.0	1.57	51.8	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	72.1	
C-1e	0.49	100	0.49	100.0	2	0.00	0.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	100.0	
C-3	0.18	100	0.14	77.8	2	0.02	0.3	65.0	0.02	7.6	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	85.7	
C-4	2.67	100	0.41	15.4	2	0.84	0.6	65.0	1.41	34.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	50.3	
C-5	0.60	100	0.00	0.0	2	0.60	2.0	65.0	0.00	0.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	2.0	
C-6	0.94	100	0.00	0.0	2	0.65	1.4	65.0	0.29	20.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	21.5	
C-7	0.52	100	0.15	29.4	2	0.00	0.0	65.0	0.37	46.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	75.7	
D-9	0.72	100	0.00	0.0	2	0.46	1.3	65.0	0.26	23.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	24.8	
D-1c	3.95	100	0.33	8.4	2	0.00	0.0	65.0	2.67	43.9	40	0.95	9.6	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.9	
D-2a	0.50	100	0.33	66.0	2	0.00	0.0	65.0	0.17	22.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	88.7	
D-2b	0.74	100	0.18	24.3	2	0.14	0.4	65.0	0.42	37.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.8	
D-2c	0.31	100	0.15	50.0	2	0.00	0.0	65.0	0.16	33.5	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	83.5	
D-2d	0.24	100	0.10	43.4	2	0.00	0.0	65.0	0.14	37.9	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	81.3	
D-2e	1.41	100	0.41	29.3	2	0.00	0.0	65.0	1.00	46.1	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	75.4	
D-2f	2.43	100	0.70	28.8	2	0.07	0.1	65.0	1.67	44.7	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	73.6	
D-2g	1.81	100	0.48	26.5	2	0.57	0.6	65.0	0.76	27.3	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	54.4	
D-2h	0.23	100	0.00	0.0	2	0.00	0.0	65.0	0.23	65.0	40	0.00	0.0	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	65.0	
D-3	2.26	100	0.00	0.0	2	0.28	0.2	65.0	1.74	50.0	40	0.13	2.3	30	0.11	1.5	25	0.00	0.0	20	0.00	0.0	54.0	
<b>FALCON MEADOWS AT BENT GRASS FILING NO. 3</b>																								
C-1b	1.77	100	0.28	21.6	2	0.10	0.1	65.0	0.26	23.5	40	0.54	12.2	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	61.2	
C-1c	1.19	100	0.26	21.8	2	0.00	0.0	65.0	0.46	25.3	40	0.46	15.5	30	0.00	0.0	25	0.00	0.0	20	0.00	0.0	62.6	
C-11	0.14	100	0.09	64.3	2	0.00	0.0	65.0	0.05	23.2	40	0.00	0.0	30	0.00									

# COMPOSITE RUNOFF COEFFICIENT CALCULATIONS: PROPOSED

**Subdivision:** Falcon Meadows  
**Location:** CO, Colorado Springs

**Project Name:** Falcon Meadows at Bent Grass Filing No. 3  
**Project No.:** CLH000020  
**Calculated By:** CMV  
**Checked By:** SMB  
**Date:** 3/25/24

Basin ID	Total Area (ac)	Paved/Gravel Roads			Lawns/Undeveloped			Residential - 1/8 Acre			Residential - 1/4 Acre			Residential - 1/3 Acre			Residential - 1/2 Acre			Residential - 1 Acre			Composite C <sub>5</sub>	Composite C <sub>100</sub>	
		C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)			
<b>OFFSITE</b>																									
OS-1	32.28	0.90	0.96	2.15	0.09	0.36	29.25	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.16	0.41	
OS-2	20.07	0.90	0.96	0.90	0.09	0.36	18.62	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.14	0.40	
OS-3	10.61	0.90	0.96	0.48	0.09	0.36	9.84	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.14	0.40	
<b>BENT GRASS FILING NO. 2 &amp; FALCON MEADOWS AT BENT GRASS FILING NO. 1</b>																									
EX-1	1.19	0.90	0.96	0.00	0.09	0.36	1.19	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
EX-2	1.60	0.90	0.96	0.00	0.09	0.36	1.60	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
EX-3	0.66	0.90	0.96	0.00	0.09	0.36	0.66	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
B-1	6.59	0.90	0.96	0.00	0.09	0.36	6.59	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
B-2	4.16	0.90	0.96	0.00	0.09	0.36	4.16	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.09	0.36	
D-4a	0.98	0.90	0.96	0.21	0.09	0.36	0.00	0.45	0.59	0.77	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.67	
D-4b	0.95	0.90	0.96	0.43	0.09	0.36	0.00	0.45	0.59	0.52	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.65	0.76	
D-4c	1.22	0.90	0.96	0.43	0.09	0.36	0.24	0.45	0.59	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.54	0.68		
D-5	1.08	0.90	0.96	0.22	0.09	0.36	0.11	0.45	0.59	0.75	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.51	0.64	
D-6a	1.33	0.90	0.96	0.44	0.09	0.36	0.00	0.45	0.59	0.89	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.60	0.71	
D-6b	2.69	0.90	0.96	0.59	0.09	0.36	0.00	0.45	0.59	2.10	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.67	
D-7	7.65	0.90	0.96	0.00	0.09	0.36	6.22	0.45	0.59	1.43	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.16	0.40	
D-8	1.69	0.90	0.96	0.00	0.09	0.36	0.11	0.45	0.59	1.58	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.43	0.58	
E-1	1.71	0.90	0.96	0.78	0.09	0.36	0.23	0.45	0.59	0.00	0.30	0.50	0.70	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.55	0.69	
E-2	0.68	0.90	0.96	0.56	0.09	0.36	0.12	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.76	0.85	
E-3	0.78	0.90	0.96	0.69	0.09	0.36	0.09	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.81	0.89	
E-4	0.91	0.90	0.96	0.73	0.09	0.36	0.18	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.74	0.84	
E-5	0.89	0.90	0.96	0.79	0.09	0.36	0.10	0.45	0.59	0.00	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.81	0.89	
OS-4	4.46	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	2.28	0.30	0.50	1.46	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.72	0.36	0.54	
OS-5	0.46	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	0.46	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.59	
OS-6	1.17	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	1.17	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.59	
<b>FALCON MEADOWS FILING NO. 2</b>																									
C-1a	0.27	0.90	0.96	0.15	0.09	0.36	0.00	0.45	0.59	0.12	0.3														

Basin ID	Total Area (ac)	Paved/Gravel Roads			Lawns/Undeveloped			Residential - 1/8 Acre			Residential - 1/4 Acre			Residential - 1/3 Acre			Residential - 1/2 Acre			Residential - 1 Acre			Composite C <sub>5</sub>	Composite C <sub>100</sub>	
		C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)	C <sub>5</sub>	C <sub>100</sub>	Area (ac)			
C-2	1.00	0.90	0.96	0.27	0.09	0.36	0.04	0.45	0.59	0.69	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.56	0.68	
D-1a	1.83	0.90	0.96	0.35	0.09	0.36	0.15	0.45	0.59	0.75	0.30	0.50	0.25	0.25	0.47	0.33	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.61	
D-1b	1.19	0.90	0.96	0.29	0.09	0.36	0.00	0.45	0.59	0.39	0.30	0.50	0.39	0.25	0.47	0.12	0.22	0.46	0.00	0.20	0.44	0.00	0.49	0.64	
D-1f	0.67	0.90	0.96	0.16	0.09	0.36	0.00	0.45	0.59	0.51	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.56	0.68	
D-1g	0.78	0.90	0.96	0.13	0.09	0.36	0.20	0.45	0.59	0.34	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.37	0.51	
D-1h	1.57	0.90	0.96	0.23	0.09	0.36	0.31	0.45	0.59	0.58	0.30	0.50	0.19	0.25	0.47	0.26	0.22	0.46	0.00	0.20	0.44	0.00	0.39	0.57	
D-1j	0.95	0.90	0.96	0.23	0.09	0.36	0.09	0.45	0.59	0.38	0.30	0.50	0.22	0.25	0.47	0.03	0.22	0.46	0.00	0.20	0.44	0.00	0.48	0.63	
D-1k	0.80	0.90	0.96	0.18	0.09	0.36	0.10	0.45	0.59	0.19	0.30	0.50	0.00	0.25	0.47	0.33	0.22	0.46	0.00	0.20	0.44	0.00	0.42	0.60	
<b>FUTURE FILINGS</b>																									
C-1g	1.02	0.90	0.96	0.00	0.09	0.36	0.00	0.45	0.59	1.02	0.30	0.50	0.00	0.25	0.47	0.00	0.22	0.46	0.00	0.20	0.44	0.00	0.45	0.59	

**Lot Type Identification:**

Lot Size (SF)	Lot Size (Acre)
0 - 8,167	<= 1/8 Acre
8,168 - 12,704	1/4 Acre
12,705 - 18,149	1/3 Acre
18,150 - 32,670	1/2 Acre
32,671 - 43,560	1 Acre

**NOTES:**

*C values are taken directly from Table 6-6 in the Colorado Springs DCM Vol. 1. CH. 6 (Referencing UDFCD 2001)*

*Coefficients use HSG A&B soils - Refer to "Appendix A: Exhibits and Figures" for soil map*