Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220 • GallowayUS.com

May 20, 2024

Brady Shyrock, on Behalf of Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920

RE: Lot 2 Elm Grove Villa - Smith Plumbing & Heating; Water Quality Detention Pond Certification

Dear Natahsa Grimaldo,

Please accept this letter as formal documentation of conformance of the Water Quality Detention Pond for stormwater quality and detention at the Lot 2 Elm Grove Villa - Smith Plumbing & Heating development. The Lot 2 Elm Grove Villa - Smith Plumbing & Heating (Site) is located at 1875 Main Street, Colorado Springs within El Paso County, Colorado. The project site is located east of Main Street, which is also designated as Hancock Expressway and south/southwest of Bradley Road. The Site is located in the Southwest ¼ of the Southwest ¼ of Section 01, Township 15 South, Range 66 West of the 6th Principal Meridian, City of Colorado Springs, County of El Paso, State of Colorado.

Survey data detailing the Water Quality Detention Pond at the site was provided to Galloway & Company, Inc. on February 14, 2024 and updated February 23, 2024 & March 12, 2024, by Ridge Line Land Surveying. The pond was constructed based on the pond design prepared by Galloway, Inc. in the approved Lot 2 Elm Grove Villa Subdivision Final Drainage Report dated March, 2022.

WQCV Design

The WQCV has a volume of 0.030-acre feet and a depth of 2.74 feet. The WQCV has a 99% drain time of 45 hours which is in conformance with MHFD Criteria and City of Colorado Springs Criteria.

EURV, 5-Year, & 100-Year Design

Per the approved FDR, the EURV and 100-year volumes will be conveyed via the Modified CDOT Type C Outlet structure to the existing inlet, downstream to the existing concrete flume, and outfalls into the existing 6' concrete valley pan flowing in a southward direction within the townhome site. concrete pan and Elm Grove Drive roadway section with curb & gutter). The proposed development does not increase runoff being discharged from the site, therefore the pond release flows can sufficiently be handled by the existing conveyance system as originally intended. Runoff then sheet flows across Elm Grove Drive (to the east) to an existing low point on the east side of Elm Grove Drive (existing concrete chase), to the existing concrete rundown structure and into the existing pond situated to the south of the existing townhomes. Storm events larger than the 100-year storm will overtop the emergency overflow weir and free release into the structures as described below.

The water quality volume release will be controlled with an orifice plate that will release over a period of 45 hours. The water quality pond will release treated flows into the existing flume and existing 6' concrete valley pan within the Elm Grove Villa townhome development to the south as described above. According to the approved **FDR**, the existing detention pond to the south was designed to accommodate runoff from this development and is functioning as intended.

Total area which will not be treated via the on-site facility is less than 1.0 acre, which is also 20% of the total site, as required.

Miscellaneous

As-builts were also conducted to verify the construction of the forebay and trickle channel. Based on those as-builts the forebay and trickle channel are in substantial compliance with the approved design.

Conclusion

In summary I, Brady Shyrock, a registered professional engineer in the State of Colorado, do hereby affirm, to the best of my knowledge, based on the as-built survey provided by Ridge Line Land Surveying and information provided to date by the general contractor, the Water Quality Detention Pond for Lot 2 Elm Grove Villa - Smith Plumbing & Heating and associated drainage facilities were constructed in accordance with the design intent of the approved drainage report and construction drawings, and in accordance with local standards and specifications, regional jurisdictional design criteria and state statutes.

The site and adjacent properties (as affected by work performed under the County permit) are stable with respect to settlement and subsidence, sloughing of cut and fill slopes, revegetation or other ground cover, and that the improvements (public improvements, common improvements, site grading and paving) meet or exceed the minimum design requirements.

The facilities outlined in this certification letter provide the required WQCV and will meet the required release rates (as documented by the attached MHFD design form), the stage areas, elevations, and outlet dimensions.

Should you have any further questions, or require additional information, please do not hesitate to contact me at (719) 900-7220.

My previous comment must have been unclear regarding this. Here's what this whole sentence should say:

Total area which will not be treated via the on-site facility is less than 1.0 acre, and less than 20% ~~which is also 20%~~ of the total site, as required.

Sincerely,
GALLOWAY

Project Manager
BradyShyrock@GallowayUS.com

cc: John Radcliffe, PE
Principal & Regional Office Manager
JohnRadcliffe@GallowayUS.com

Attached Documents:

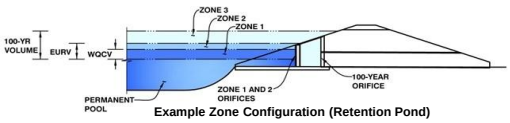
- MHFD WQ Detention Pond Calculations
- As-Built Drawings

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.05 (January 2022)

Project: Smith Plumbing

Basin ID: WQCV Pond As-Built



Example Zone Configuration (Retention Pond)

Watershed Information

Selected BMP Type =	EDB	
Watershed Area =	1.00	acres
Watershed Length =	520	ft
Watershed Length to Centroid =	55	ft
Watershed Slope =	0.030	ft/ft
Watershed Imperviousness =	84.60%	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 =	40.0	hours
Location for 1-hr Rainfall Depths =	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.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.030	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.113	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 1.19 in.) =	0.073	acre-feet	1.19	inches
5-yr Runoff Volume (P1 = 1.5 in.) =	0.094	acre-feet	1.50	inches
10-yr Runoff Volume (P1 = 1.75 in.) =	0.111	acre-feet	1.75	inches
25-yr Runoff Volume (P1 = 2 in.) =	0.131	acre-feet	2.00	inches
50-yr Runoff Volume (P1 = 2.25 in.) =	0.150	acre-feet	2.25	inches
100-yr Runoff Volume (P1 = 2.52 in.) =	0.171	acre-feet	2.52	inches
500-yr Runoff Volume (P1 = 3.68 in.) =	0.262	acre-feet	3.68	inches
Approximate 2-yr Detention Volume =	0.074	acre-feet		
Approximate 5-yr Detention Volume =	0.097	acre-feet		
Approximate 10-yr Detention Volume =	0.115	acre-feet		
Approximate 25-yr Detention Volume =	0.136	acre-feet		
Approximate 50-yr Detention Volume =	0.148	acre-feet		
Approximate 100-yr Detention Volume =	0.159	acre-feet		

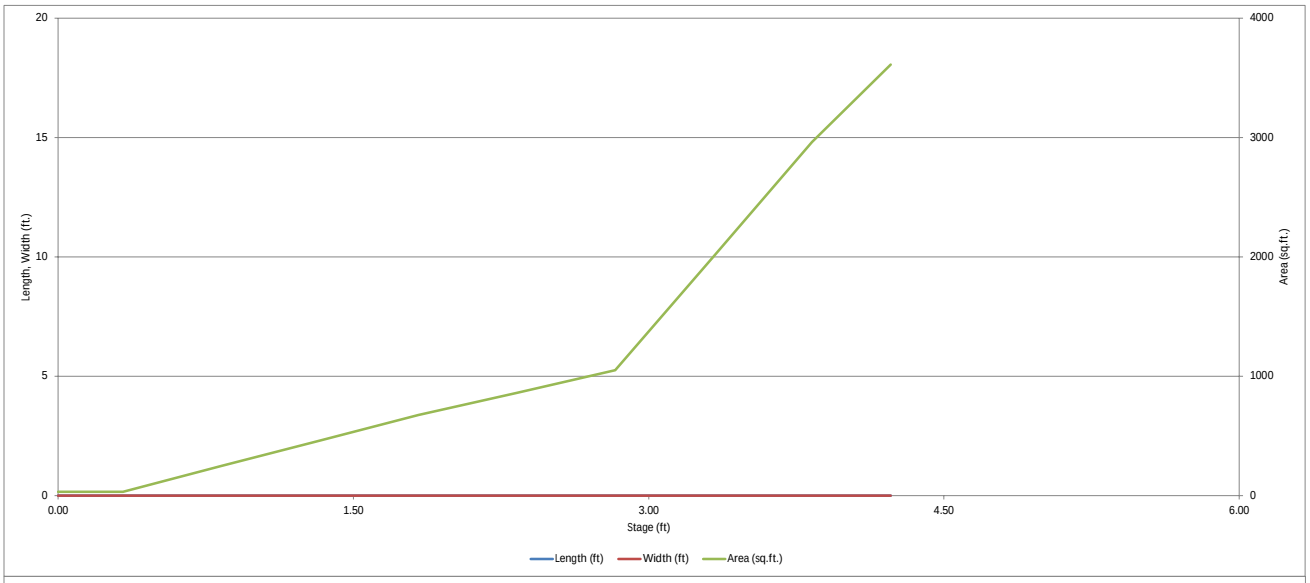
Define Zones and Basin Geometry

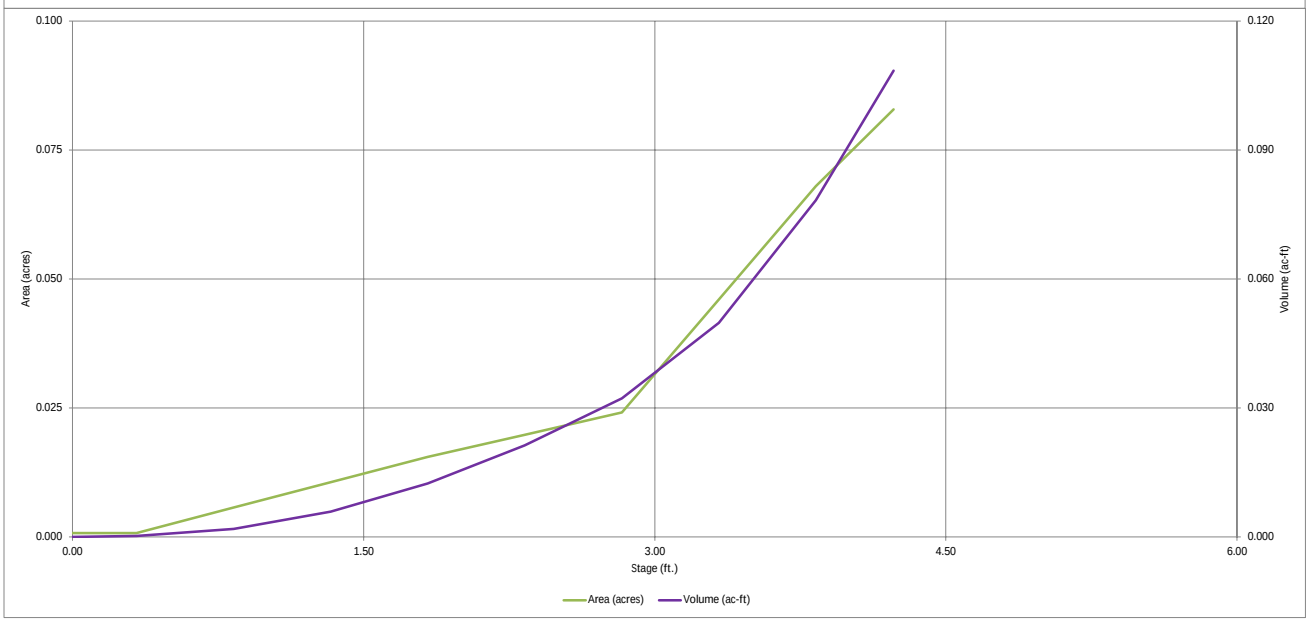
Zone 1 Volume (WQCV) =	0.030	acre-feet
Zone 2 Volume (User Defined - Zone 1) =	0.020	acre-feet
Select Zone 3 Storage Volume (Optional) =		acre-feet
Total Detention Basin Volume =	0.050	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	user	acre-feet

Total detention volume is less than 100-year volume.

Depth Increment = ft

	Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
5846.17	Top of Micropool	--	0.00	--	--	--	32	0.001		
5846.5		--	0.33	--	--	--	32	0.001	11	0.000
	5847	--	0.83	--	--	--	248	0.006	80	0.002
	5847.5	--	1.33	--	--	--	462	0.011	258	0.006
	5848	--	1.83	--	--	--	676	0.016	542	0.012
	5848.5	--	2.33	--	--	--	861	0.020	926	0.021
	5849	--	2.83	--	--	--	1,050	0.024	1,404	0.032
	5849.5	--	3.33	--	--	--	2,005	0.046	2,168	0.050
	5850	--	3.83	--	--	--	2,961	0.068	3,410	0.078
	5850.4	--	4.23	--	--	--	3,610	0.083	4,724	0.108


20
15
10
5
0
Length, Width (ft.)
4000
3000
2000
1000
0
Area (sq.ft.)
0.00
1.50
3.00
4.50
6.00
Stage (ft)
Length (ft)
Width (ft)
Area (sq.ft.)

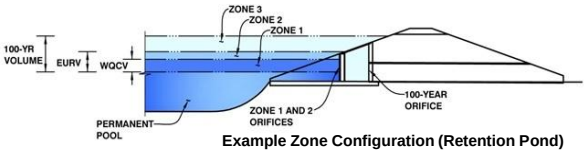

0.100
0.075
0.050
0.025
0.000
Area (acres)
0.120
0.090
0.060
0.030
0.000
Volume (ac-ft)
0.00
1.50
3.00
4.50
6.00
Stage (ft.)
Area (acres)
Volume (ac-ft)

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.05 (January 2022)

Project: Smith Plumbing

Basin ID: WQCV Pond As-Built



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	2.74	0.030	Orifice Plate
Zone 2 (User)	3.34	0.020	Weir&Pipe (Restrict)
Zone 3			
Total (all zones)		0.050	

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =		ft (distance below the filtration media surface)	Underdrain Orifice Area =		ft^2
Underdrain Orifice Diameter =		inches	Underdrain Orifice Centroid =		feet

Calculated Parameters for Underdrain

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Centroid of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	8.333E-04	ft^2
Depth at top of Zone using Orifice Plate =	2.92	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	N/A	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	0.12	sq. inches (diameter = 3/8 inch)	Elliptical Slot Area =	N/A	ft^2

Calculated Parameters for Plate

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.01	1.09	2.09					
Orifice Area (sq. inches)	0.12	0.12	0.12					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected	
Invert of Vertical Orifice =			ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice =			ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter =			inches

Calculated Parameters for Vertical Orifice

	Not Selected	Not Selected	
Vertical Orifice Area =			ft^2
Vertical Orifice Centroid =			feet

User Input: Overflow Weir (Dropbox with Flat or Sloped Grate and Outlet Pipe OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

	Zone 2 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	2.76		ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length =	2.92		feet
Overflow Weir Grate Slope =	0.00		H:V
Horiz. Length of Weir Sides =	2.92		feet
Overflow Grate Type =	Close Mesh Grate		
Debris Clogging % =	50%		%

Calculated Parameters for Overflow Weir

	Zone 2 Weir	Not Selected	
Height of Grate Upper Edge, H_t =	2.76		feet
Overflow Weir Slope Length =	2.92		feet
Grate Open Area / 100-yr Orifice Area =	29.40		
Overflow Grate Open Area w/o Debris =	6.74		ft^2
Overflow Grate Open Area w/ Debris =	3.37		ft^2

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 2 Restrictor	Not Selected	
Depth to Invert of Outlet Pipe =	2.50		ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter =	18.00		inches
Restrictor Plate Height Above Pipe Invert =	3.38		inches

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

	Zone 2 Restrictor	Not Selected	
Outlet Orifice Area =	0.23		ft^2
Outlet Orifice Centroid =	0.17		feet
Half-Central Angle of Restrictor Plate on Pipe =	0.90	N/A	radians

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	3.82	ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length =	12.02	feet
Spillway End Slopes =	4.00	H:V
Freeboard above Max Water Surface =	0.00	feet

Calculated Parameters for Spillway

Spillway Design Flow Depth=	0.21	feet
Stage at Top of Freeboard =	4.03	feet
Basin Area at Top of Freeboard =	0.08	acres
Basin Volume at Top of Freeboard =	0.09	acre-ft

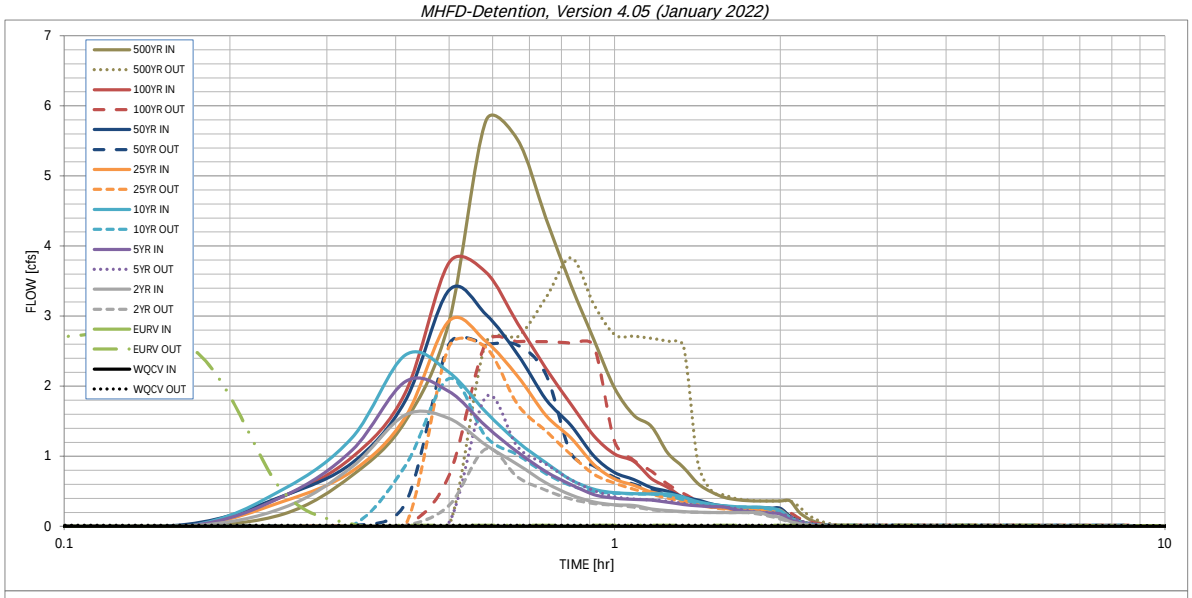
Routed Hydrograph Results

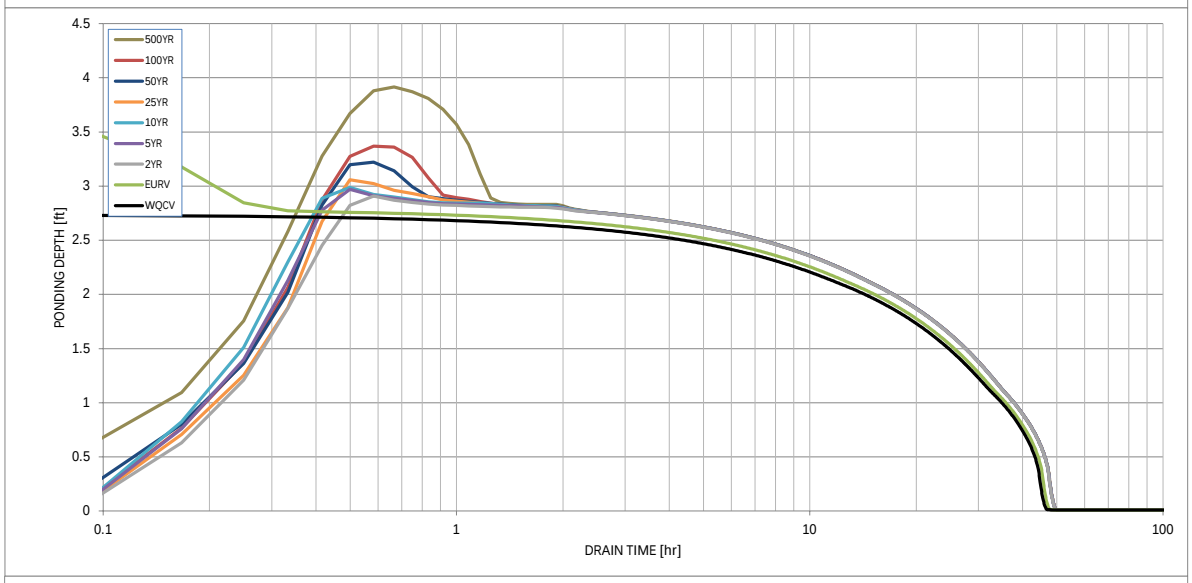
The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

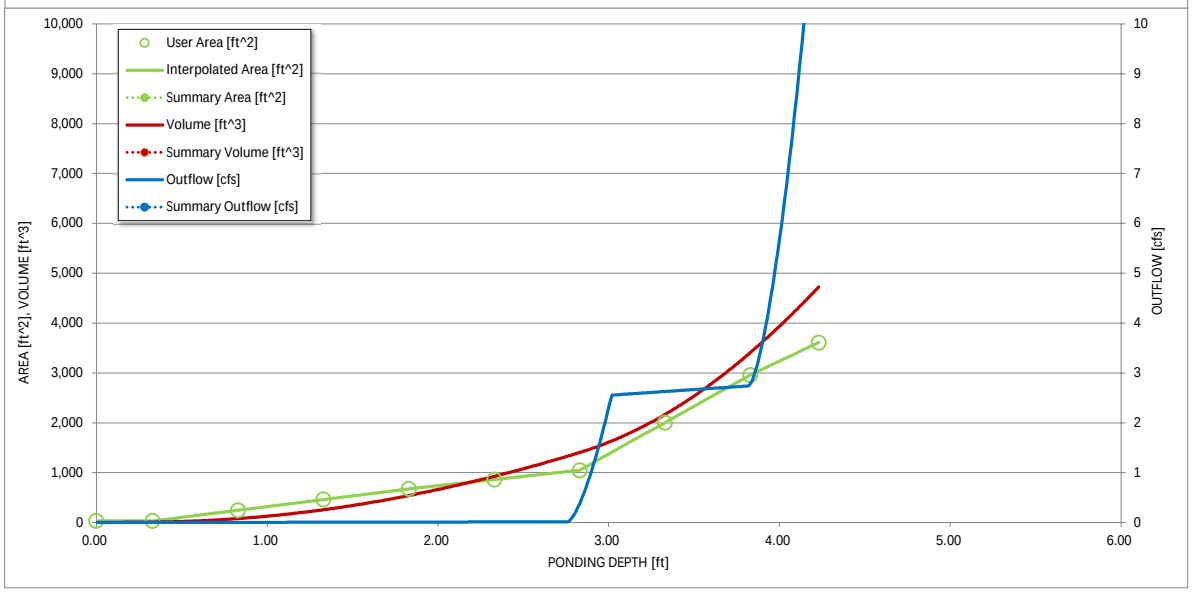
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52	3.68
CUHP Runoff Volume (acre-ft) =	0.030	0.113	0.073	0.094	0.111	0.131	0.150	0.171	0.262
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.073	0.094	0.111	0.131	0.150	0.171	0.262
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.0	0.0	0.0	0.3	0.5	0.8	2.0
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.01	0.02	0.03	0.25	0.48	0.79	1.97
Peak Inflow Q (cfs) =	N/A	N/A	1.6	2.1	2.4	2.9	3.4	3.8	5.8
Peak Outflow Q (cfs) =	0.0	6.2	1.1	1.8	2.1	2.6	2.6	2.6	3.8
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	90.4	75.4	10.2	5.4	3.4	1.9
Structure Controlling Flow =	Plate	Outlet Plate 1	Overflow Weir 1	Overflow Weir 1	Overflow Weir 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1	Spillway
Max Velocity through Grate 1 (fps) =	N/A	0.39	0.17	0.3	0.3	0.4	0.4	0.4	0.4
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	42	37	40	38	37	35	34	33	28
Time to Drain 99% of Inflow Volume (hours) =	44	43	45	45	44	43	43	42	39
Maximum Ponding Depth (ft) =	2.74	3.56	2.91	2.97	2.99	3.06	3.22	3.37	3.91
Area at Maximum Ponding Depth (acres) =	0.02	0.06	0.03	0.03	0.03	0.03	0.04	0.05	0.07
Maximum Volume Stored (acre-ft) =	0.030	0.061	0.034	0.036	0.036	0.039	0.045	0.051	0.084

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.05 (January 2022)







S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

DETENTION BASIN OUTLET STRUCTURE DESIGN

Outflow Hydrograph Workbook Filename: _____

Inflow Hydrographs

The user can override the calculated inflow hydrographs from this workbook with inflow hydrographs developed in a separate program.

	SOURCE	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP
Time Interval	TIME	WQCV [cfs]	EURV [cfs]	2 Year [cfs]	5 Year [cfs]	10 Year [cfs]	25 Year [cfs]	50 Year [cfs]	100 Year [cfs]	500 Year [cfs]
5.00 min	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:05:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.18
	0:15:00	0.00	0.00	0.26	0.43	0.53	0.36	0.43	0.43	0.73
	0:20:00	0.00	0.00	0.85	1.09	1.26	0.79	0.91	0.99	1.50
	0:25:00	0.00	0.00	1.59	2.07	2.44	1.56	1.79	1.91	2.92
	0:30:00	0.00	0.00	1.54	1.92	2.20	2.93	3.37	3.76	5.79
	0:35:00	0.00	0.00	1.16	1.43	1.63	2.64	3.03	3.63	5.52
	0:40:00	0.00	0.00	0.88	1.06	1.21	2.14	2.45	2.90	4.40
	0:45:00	0.00	0.00	0.62	0.78	0.91	1.58	1.81	2.26	3.44
	0:50:00	0.00	0.00	0.45	0.60	0.67	1.26	1.44	1.74	2.67
	0:55:00	0.00	0.00	0.35	0.46	0.53	0.88	1.01	1.29	1.98
	1:00:00	0.00	0.00	0.31	0.40	0.48	0.68	0.77	1.03	1.58
	1:05:00	0.00	0.00	0.30	0.38	0.47	0.59	0.67	0.93	1.43
	1:10:00	0.00	0.00	0.25	0.38	0.46	0.49	0.55	0.68	1.04
	1:15:00	0.00	0.00	0.23	0.34	0.46	0.44	0.50	0.55	0.84
	1:20:00	0.00	0.00	0.21	0.31	0.42	0.37	0.42	0.41	0.61
	1:25:00	0.00	0.00	0.20	0.29	0.35	0.33	0.38	0.33	0.49
	1:30:00	0.00	0.00	0.20	0.28	0.31	0.28	0.32	0.28	0.41
	1:35:00	0.00	0.00	0.20	0.28	0.29	0.26	0.29	0.26	0.38
	1:40:00	0.00	0.00	0.20	0.23	0.28	0.24	0.27	0.25	0.37
	1:45:00	0.00	0.00	0.20	0.21	0.28	0.23	0.26	0.25	0.36
	1:50:00	0.00	0.00	0.20	0.20	0.27	0.23	0.26	0.25	0.36
	1:55:00	0.00	0.00	0.15	0.19	0.26	0.23	0.26	0.25	0.36
	2:00:00	0.00	0.00	0.13	0.18	0.23	0.23	0.26	0.25	0.36
	2:05:00	0.00	0.00	0.07	0.10	0.12	0.13	0.14	0.14	0.20
	2:10:00	0.00	0.00	0.04	0.05	0.07	0.07	0.08	0.07	0.11
	2:15:00	0.00	0.00	0.02	0.03	0.03	0.04	0.04	0.04	0.05
	2:20:00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02
	2:25:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	2:30:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:35:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:40:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:45:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:50:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:55:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:05:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:15:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:20:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	5:55:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CIVIL CONSTRUCTION PLANS
LOT 2 ELM GROVE VILLA
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY
SMITH PLUMBING & HEATING

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

Unresolved previous comment from Review 2: Even if everything was built exactly per plan on the other sheets that you did not provide with this submittal, we need an electronic PDF of the original drawings to be signed, dated, and stamped with "As-Built" on every sheet.

Review 2 clarification: thanks for adding all sheets and including the "As-Built Drawings" stamp on every sheet. However, we still need every sheet to to be signed by the engineer or record (example: engineer stamp and then sign the stamp)

PROJECT CONTACTS

OWNER/DEVELOPER
GREAT DANE VENTURES, LLC
5903 HIGH NOON AVE.
COLORADO SPRINGS, CO 80923
TELE:
ATTN: EVA ROBINSON
EMAIL:

APPLICANT
HAMMERS CONSTRUCTION, INC.
1411 WOOLSEY HEIGHTS
COLORADO SPRINGS, CO 80915
TELE: (719) 570-1599
ATTN: LISA PETERSON
EMAIL: LPETERSON@HAMMERSCONSTRUCTION.COM

CIVIL ENGINEER
GALLOWAY & CO., INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
TELE: (719) 900-7220
ATTN: GRANT DENNIS, P.E.
EMAIL: GRANTDENNIS@GALLOWAYUS.COM

GEOTECHNICAL ENGINEER
ENTECH ENGINEERING, INC.
505 ELKTON DRIVE
COLORADO SPRINGS, CO 80907
TELE: (719) 531-5599
ATTN:
EMAIL:

SURVEYOR
GALLOWAY & CO., INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
TELE: (719) 337-1262
ATTN: BRIAN DENNIS
EMAIL: BRIANDENNIS@GALLOWAYUS.COM

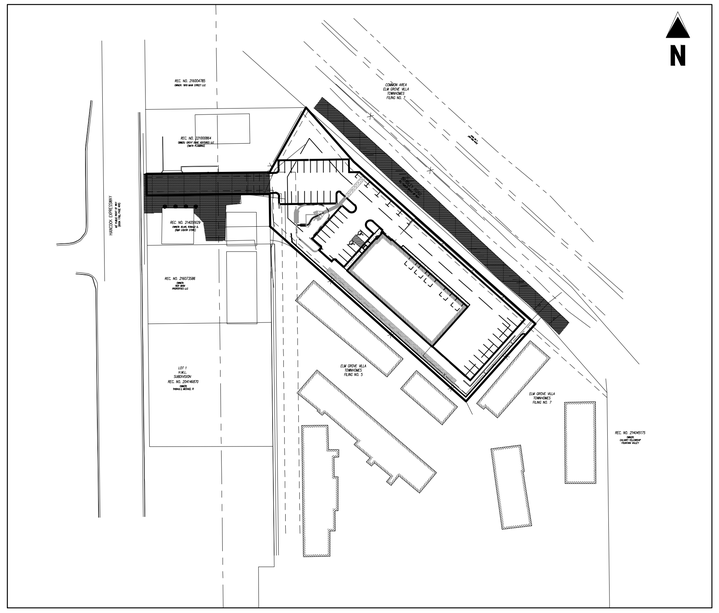
UTILITY CONTACTS

WATER & WASTEWATER
WIDEFIELD WATER & SANITATION DISTRICT
8495 FONTAINE BLVD.
COLORADO SPRINGS, CO 80925
TELE: (719) 390-7111
ATTN:
EMAIL:

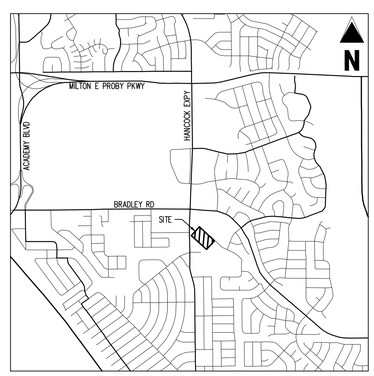
ELECTRIC
COLORADO SPRINGS UTILITIES (CSU)
111 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903
TELE: (719) 448-4800
ATTN:
EMAIL:

NATURAL GAS
COLORADO SPRINGS UTILITIES (CSU)
7710 DURANT DRIVE, P.O. BOX 1103, MAIL CODE 2150
COLORADO SPRINGS, CO 80947-2150
TELE: (719) 668-5573
ATTN:
EMAIL:

FIRE
SECURITY FIRE DEPARTMENT
400 SECURITY BLVD.
SECURITY, CO 80911
TELE: (719) 392-7121
EMAIL:



SITE MAP
SCALE: 1"=100'



VICINITY MAP
SCALE: 1"=500'

THESE ARE THE ONLY SHEETS THAT HAVE AS-BUILT INFORMATION INCLUDED AS PART OF THE WQCV POND CERTIFICATION. THEREFORE ONLY THESE SHEETS WILL HAVE ENGINEER'S STAMP FOR AS-BUILTS

ENGINEER'S STATEMENT
THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

RONALD G. DENNIS, COLORADO P.E. NO. 0051622 — DATE

OWNER'S STATEMENT
I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENT SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

EVA ROBINSON — DATE
GREAT DANE VENTURES, LLC.

EL PASO COUNTY
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/ OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/ OR ACCURACY OF THIS DOCUMENT. FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. — DATE
COUNTY ENGINEER / ECM ADMINISTRATOR

SHEET INDEX

SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	COVER SHEET	C0.0
2	NOTES	C0.1
3	DEMOLITION PLAN	C1.1
4	SITE PLAN	C1.2
5	HORIZONTAL CONTROL PLAN	C1.3
6	PAVING & STRIPING PLAN	C1.4
7	SITE DETAILS	C1.5
8	EROSION CONTROL INITIAL PLAN	C2.1
9	EROSION CONTROL INTERIM PLAN	C2.2
10	GRADING & EROSION CONTROL FINAL PLAN	C2.3
11	GEC DETAILS	C2.4
12	GEC DETAILS	C2.5
13	GEC DETAILS	C2.6
14	GEC DETAILS	C2.7
15	WATER QUALITY DETENTION POND	C3.1
16	POND DETAILS	C3.2
17	UTILITY SERVICE PLAN	C4.1
18	LANDSCAPE PLAN	L1.1

BASIS OF BEARINGS
BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T245 R66W W.C. 6.00' S 35 S36 S2 S1 T1 ‖ S R65W 2012 PLS 2431.5" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK
PUBLISHED BENCHMARK
FMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

CAUTION – NOTICE TO CONTRACTOR
1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

COPYRIGHT
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.

HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1983

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	RGD
Date:	05/20/2024

COVER SHEET

PCD FILING NO. PPR2143

C0.0
Sheet 1 of 18

V:\Hammers Construction\HCI00 El Paso County - HCI000008 - Smith Plumbing\DESIGN\CIVIL\01-Cover.dwg Brady Stymiest, 4/30/2024

STANDARD NOTES FOR GEC PLANS

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFFSITE WATERS, INCLUDING WETLANDS.

2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.

5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT MAY CONTRIBUTE POLLUTANTS TO STORMWATER. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES IS NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN PRIOR TO IMPLEMENTATION.

7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE STABILIZED.

8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLAN DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE HYDROLOGY OR HYDRAULICS OF A PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.

10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.

12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.

13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUT SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY.

14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED OR DISCHARGED AT THE SITE.

17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.

21. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF PETROLEUM PRODUCTS OR OTHER LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL HAVE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344). IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I, ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

26. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

28. THE SOILS REPORT, TITLED "SUBSURFACE SOIL INVESTIGATION – UPDATE – 1875 MAIN STREET" FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, DATED APRIL 15, 2021 AND SHALL BE CONSIDERED A PART OF THESE PLANS.

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TOT HE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD – PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN:PERMITS UNIT

STANDARD NOTES FOR CONSTRUCTION PLANS

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).

3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M & S STANDARDS

4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.

8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.

9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.

10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.

11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.

13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]

14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.

15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

EROSION CONTROL NOTES

1. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

2. CONSTRUCTION FENCE AND SILT FENCE OFFSET FOR CLARITY. CONTRACTOR TO ENSURE BMPS ARE PLACED DOWNSTREAM OF DISTURBED AREAS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

GENERAL CONSTRUCTION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.

2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.

3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.

4. ALL BACKFILL, SUB-BASE AND / OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.

5. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.

6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC ECM APPENDIX K – 1.2C.

7. ALL CULVERT AND STORM PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), OR REINFORCED CONCRETE PIPE (RCP), ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNERS GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 – CULVERTS.

8. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180N OR EQUAL MAY BE SUBSTITUTED WHERE TYPE L RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.

9. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH WOODMAN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.

10. ALL POTABLE WATER MAINS SHALL BE AWWA C900-SDR18 PVC WITH PUSH-ON SINGLE GASKET TYPE JOINTS AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.

11. SANITARY SEWER PIPE AND FITTINGS: PVC 4" ASTM D3034, TYPE PSM, SDR 35: PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTIONS, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS IS 100' FOR 8" PVC SANITARY SEWER MAIN)

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

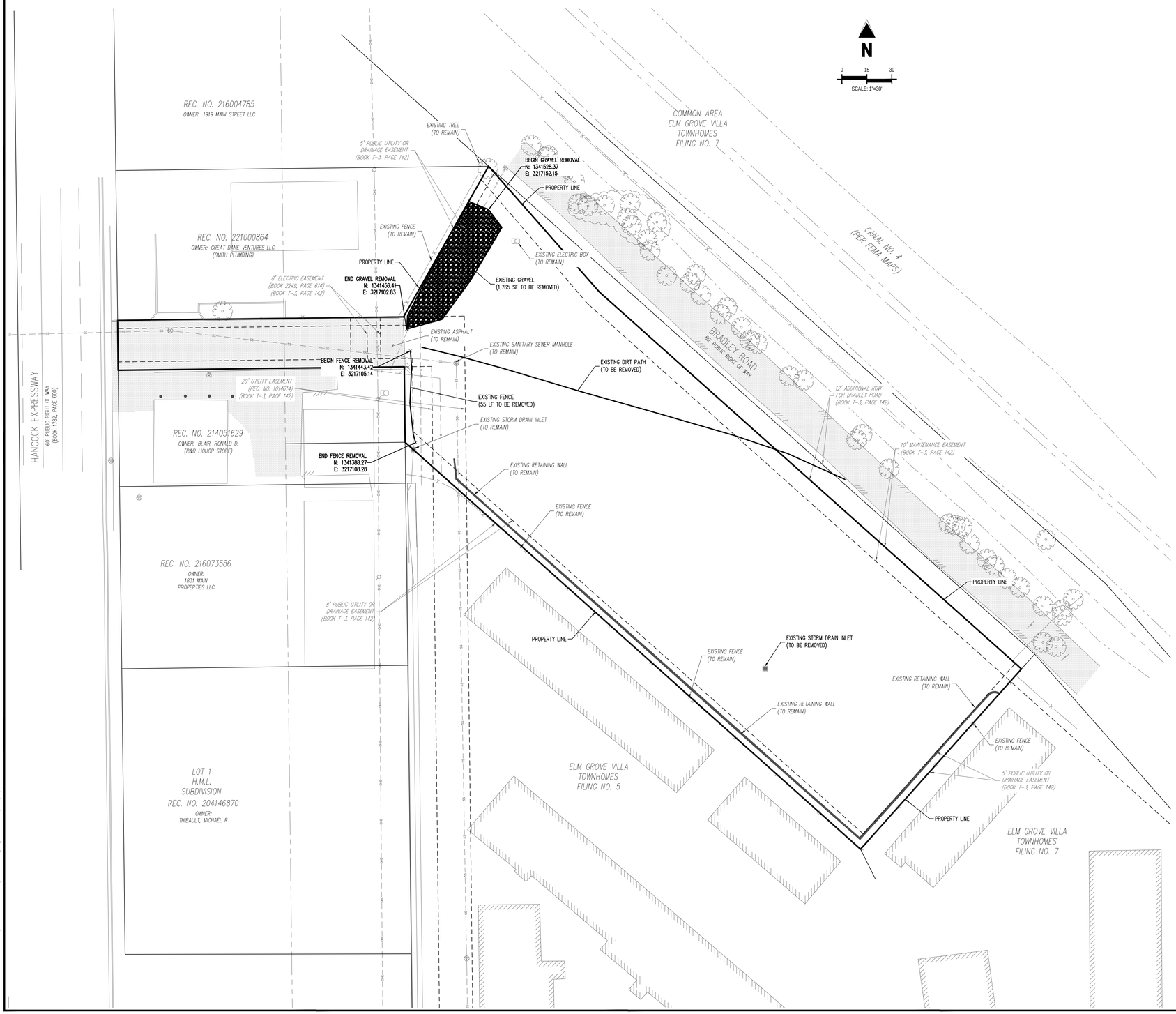
NOTES

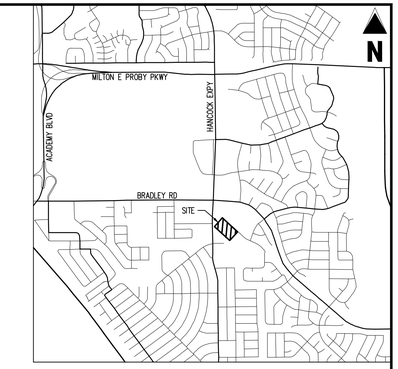
PCD FILING NO. PPR2143

C0.1

Sheet 2 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

DEMOLITION LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- EXISTING EASEMENT LINE
- EXISTING CURB & GUTTER
- EXISTING ASPHALT EDGE
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING STORM DRAIN LINE
- EXISTING BUILDING HATCH
- EXISTING ASPHALT PAVING
- EXISTING FIRE HYDRANT
- EXISTING STORM STRUCTURES
- EXISTING ELECTRIC STRUCTURES
- EXISTING TELEPHONE STRUCTURES
- EXISTING SIGN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER STRUCTURES
- EXISTING TREES

DEMOLITION NOTES

1. ALL DEMOLITION TO BE IN ACCORDANCE WITH STATE, LOCAL, AND FEDERAL REQUIREMENTS.
2. CONTRACTOR TO VERIFY ALL UTILITY SERVICE LOCATIONS AND EXISTING SITE CONDITIONS PRIOR TO PROCEEDING. ANY SITE CONDITIONS THAT ARE NOT AS SHOWN MUST BE REPORTED TO THE COMPANY REPRESENTATIVE PRIOR TO BID.
3. CONTRACTOR TO REMOVE OR RELOCATE EXISTING UTILITIES PER UTILITY COMPANY REQUIREMENTS.
4. ALL UNDERGROUND STORM SEWER, WATER, AND SANITARY SEWER MAIN LOCATIONS ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY.
5. ALL UNDERGROUND GAS AND ELECTRIC UTILITY INFORMATION SHOWN IS BASED ON MAPS PROVIDED BY UTILITY COMPANY AND ARE TO BE CONSIDERED AS AN APPROXIMATE LOCATION ONLY BASED ON SAID MAPS.
6. CONTRACTOR TO OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR DEMOLITION OF WORK SHOWN.

NOTE: CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.

NOTE: CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	CJD
Date:	05/20/2024

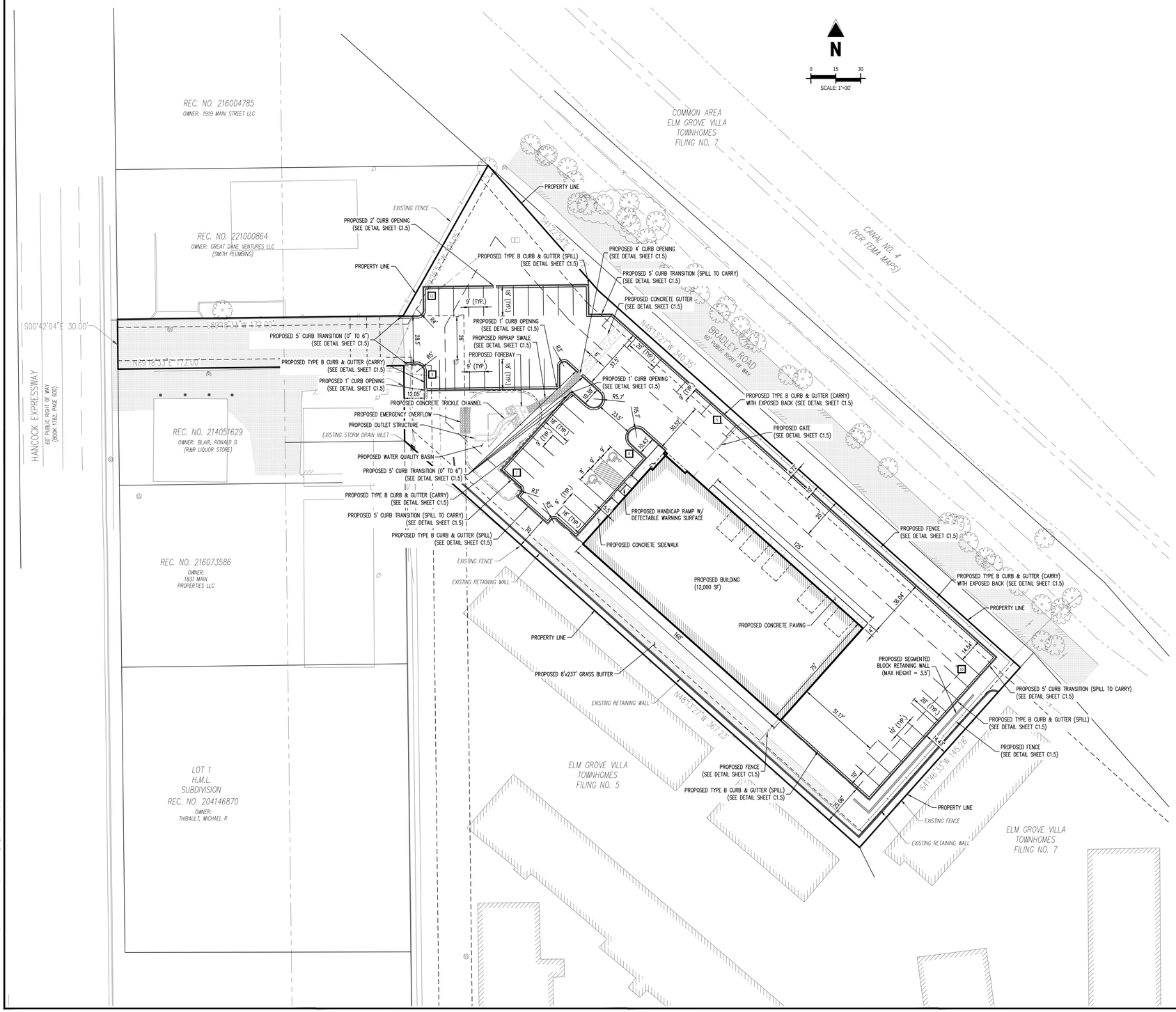
DEMOLITION PLAN

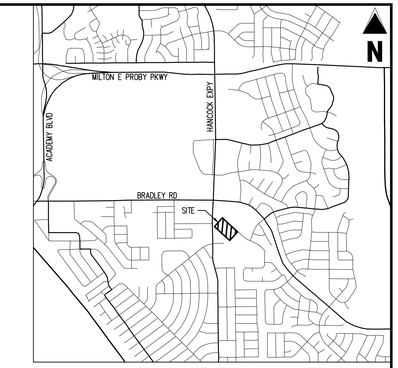
PCD FILING NO. PPR2143

C1.1

Sheet 3 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

SITE LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- PROPOSED BUILDING HATCH
- PROPOSED CONCRETE PAVING
- PROPOSED BUILDING OUTLINE
- PROPOSED EASEMENT
- PROPOSED FENCE
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- EXISTING EASEMENT LINE
- EXISTING LANDSCAPE BUFFER
- EXISTING ASPHALT EDGE
- EXISTING CURB & GUTTER
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING STORM DRAIN LINE
- EXISTING BUILDING HATCH
- EXISTING ASPHALT PAVING
- EXISTING FIRE HYDRANT
- EXISTING STORM STRUCTURES
- EXISTING ELECTRIC STRUCTURES
- EXISTING SIGN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER STRUCTURES
- EXISTING TREES
- PROPOSED SITE LIGHTING
- PROPOSED SIGN
- PARKING COUNT

GENERAL NOTES

1. REFER TO GRADING & EROSION CONTROL PLAN FOR ADA RMAP & FINE GRADING.
2. REFER TO UTILITY SERVICE PLANS FOR WATER AND WASTEWATER CONSTRUCTION PLANS.
3. ALL WORK & MATERIAL SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND OSHA STANDARD.
4. NO WETLANDS ARE PRESENT ON SITE.
5. ALL PROPOSED PAVING AREAS & DRIVE AISLES TO BE PAVED W/ ASPHALT.
6. ALL PROPOSED SIDEWALKS TO BE CONSTRUCTED W/ CONCRETE, 4" THICK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE TO ANY EXISTING ITEMS THAT WILL REMAIN IN PLACE AFTER CONSTRUCTION AND DEMOLITION ARE COMPLETE. THOSE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, DRAINAGE SYSTEMS, UTILITIES, CURBING, PAVING, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN EXISTING CONDITIONS.

ADA DESIGN PROFESSIONAL STATEMENT

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY THE CITY OF COLORADO SPRINGS DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY OTHER FEDERAL OR STATE ACCESSIBILITY LAWS OR REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS. SOLE RESPONSIBILITY FOR COMPLIANCE WITH FEDERAL AND STATE ACCESSIBILITY LAWS LIES WITH THE PROPERTY OWNER.

BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00' S 35 S36 S2 S1 T1 ¼ S R55W 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

NOTE: CONTRACTOR MUST COORDINATE WORK WITH WOEFIELD WATER AND SANITATION DISTRICT AND EL PASO COUNTY PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ETC. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.

NOTE: CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1983

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

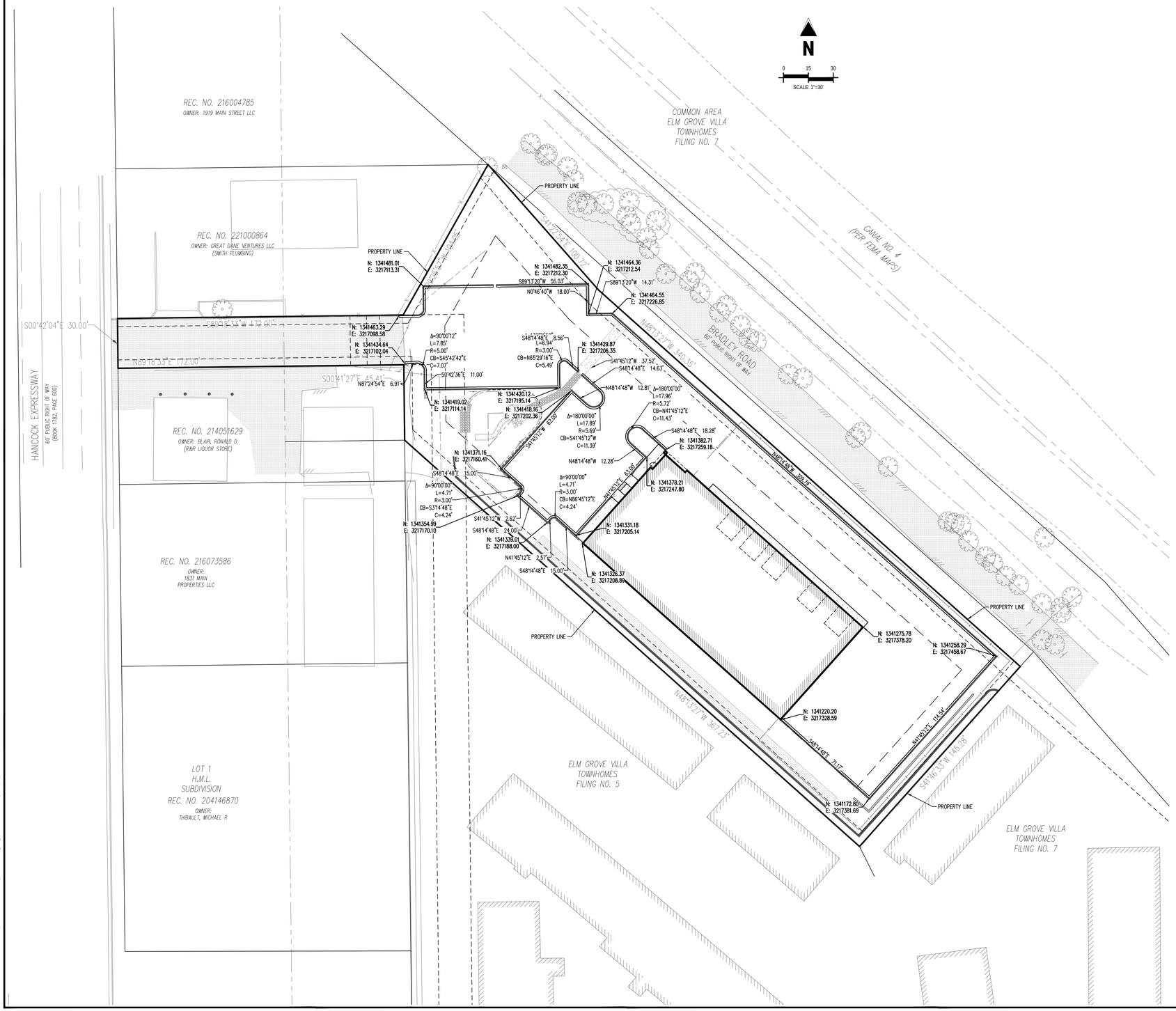
SITE PLAN

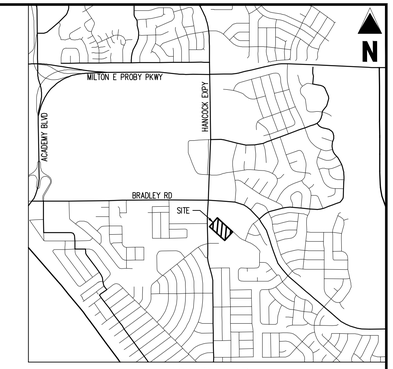
PCD FILING NO. PPR2143

C1.2

Sheet 4 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

SITE LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- PROPOSED BUILDING HATCH
- PROPOSED CONCRETE PAVING
- PROPOSED BUILDING OUTLINE
- PROPOSED EASEMENT
- PROPOSED FENCE
- EXISTING EASEMENT LINE
- EXISTING LANDSCAPE BUFFER
- EXISTING ASPHALT EDGE
- EXISTING CURB & GUTTER
- EXISTING BUILDING HATCH
- EXISTING ASPHALT PAVING

GENERAL NOTES

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BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00' S 35 536 52 51 11 | S 85SW 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

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CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
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1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

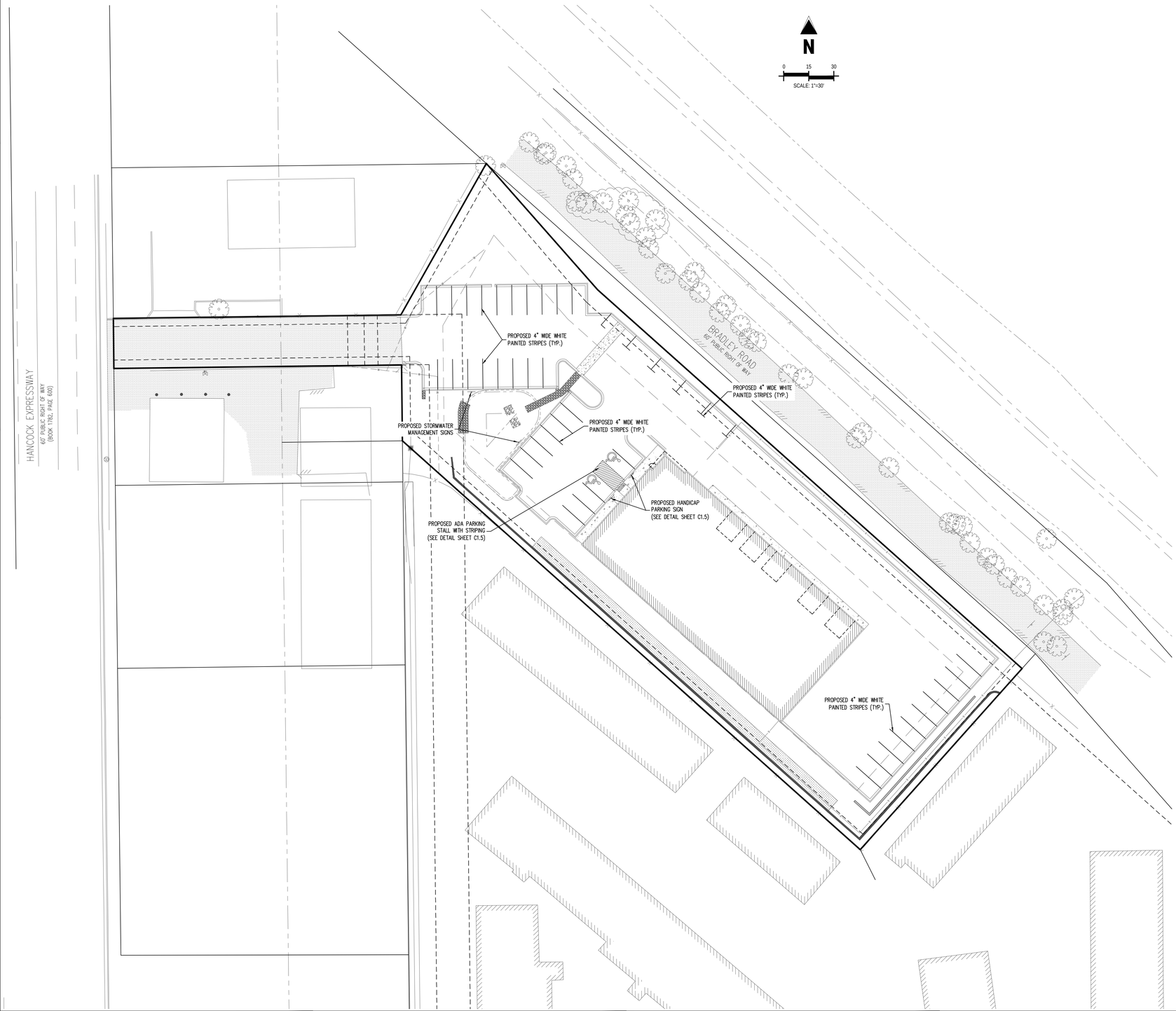
Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

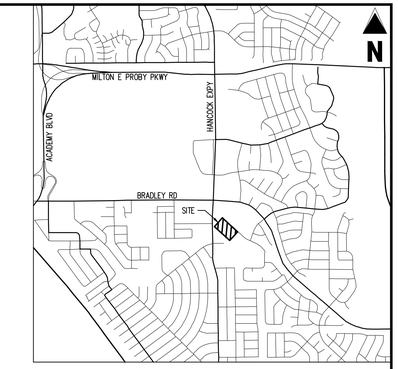
HORIZONTAL CONTROL PLAN

PCD FILING NO. PPR2143

C1.3

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

SITE LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- PROPOSED BUILDING HATCH
- PROPOSED CONCRETE PAVING
- PROPOSED BUILDING OUTLINE
- PROPOSED EASEMENT
- PROPOSED FENCE
- EXISTING EASEMENT LINE
- EXISTING LANDSCAPE BUFFER
- EXISTING ASPHALT EDGE
- EXISTING CURB & GUTTER
- EXISTING FENCE
- EXISTING BUILDING HATCH
- EXISTING ASPHALT PAVING

GENERAL NOTES

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2. REFER TO UTILITY SERVICE PLANS FOR WATER AND WASTEWATER CONSTRUCTION PLANS.
3. ALL WORK & MATERIAL SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND OSHA STANDARD.
4. NO WETLANDS ARE PRESENT ON SITE.
5. ALL PROPOSED PAVING AREAS & DRIVE AISLES TO BE PAVED W/ ASPHALT.
6. ALL PROPOSED SIDEWALKS TO BE CONSTRUCTED W/ CONCRETE, 4" THICK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE TO ANY EXISTING ITEMS THAT WILL REMAIN IN PLACE AFTER CONSTRUCTION AND DEMOLITION ARE COMPLETE. THOSE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, DRAINAGE SYSTEMS, UTILITIES, CURBING, PAVING, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN EXISTING CONDITIONS.

ADA DESIGN PROFESSIONAL STATEMENT

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY THE CITY OF COLORADO SPRINGS DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY OTHER FEDERAL OR STATE ACCESSIBILITY LAWS OR REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS. SOLE RESPONSIBILITY FOR COMPLIANCE WITH FEDERAL AND STATE ACCESSIBILITY LAWS LIES WITH THE PROPERTY OWNER.

BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00' S 35 536 52 S1 T1 | S 1R55W 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

NOTE: CONTRACTOR MUST COORDINATE WORK WITH WIDEFIELD WATER AND SANITATION DISTRICT AND EL PASO COUNTY PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ETC. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.

NOTE: CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.

NOTE: CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

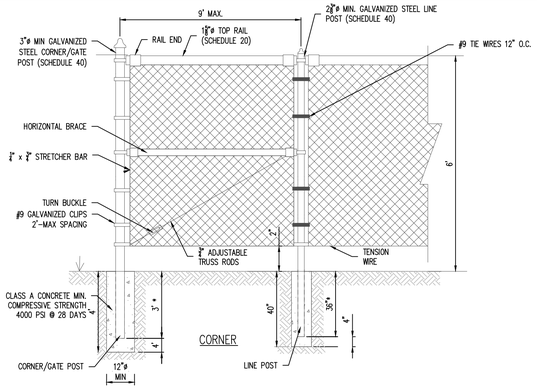
PAVING & STRIPING PLAN

PCD FILING NO. PPR2143

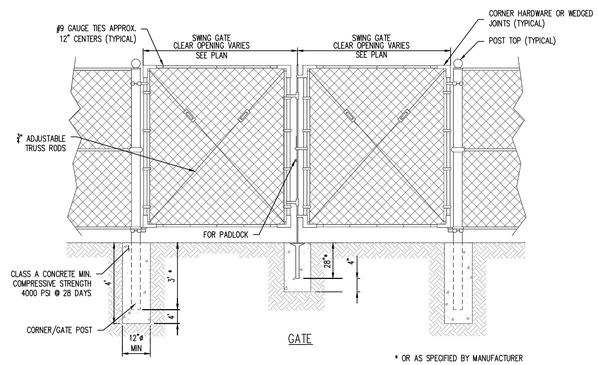
C1.4

Sheet 6 of 18

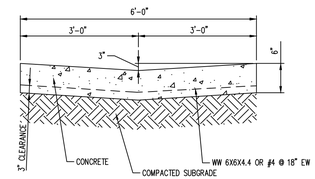
ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS



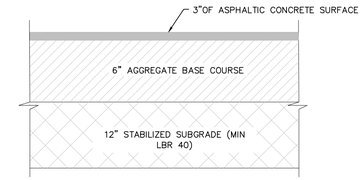
CHAIN LINK FENCE & GATE DETAIL
NOT TO SCALE



NOTE:
1. CONTRACTOR TO ADHERE TO LOCAL SPECIFICATION IF MORE STRINGENT.
2. TRUSS BARS ARE REQUIRED FOR EACH GATE SECTION AND THE FIRST SPAN ON EACH SIDE OF A CORNER POST ONLY.
3. ADD (3) STAND BARBED WIRE TO THE TOP OF THE PERIMETER FENCE & SLATS WOVEN THRU CHAIN LINK.

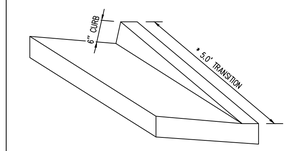


6' CONCRETE GUTTER DETAIL
NOT TO SCALE

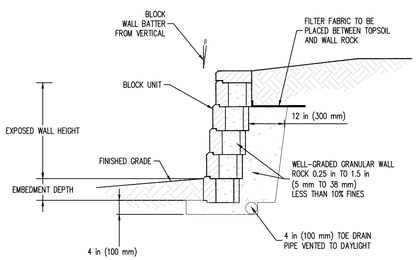


ASHPALT PAVEMENT DETAIL
NOT TO SCALE

NOTE:
CONTRACTOR TO VERIFY ASPHALT PAVEMENT DETAIL MEETS COUNTY STANDARD REQUIREMENTS



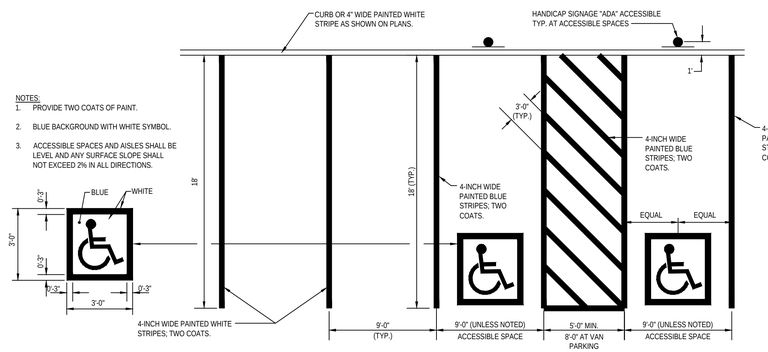
TRANSITION CURB (6" TO 0") DETAIL
NOT TO SCALE



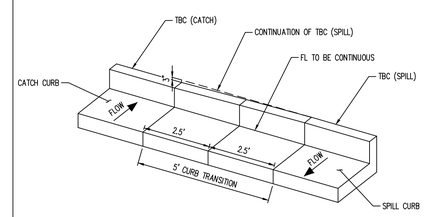
NOTE: BLOCK MANUFACTURER SHALL BE COORDINATED WITH OWNER

SEGMENTED BLOCK RETAINING WALL DETAIL
NOT TO SCALE

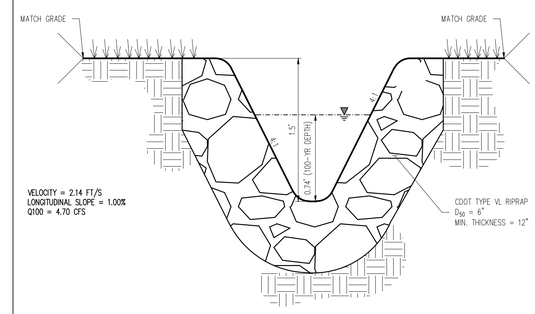
NOTES:
1. PROVIDE TWO COATS OF PAINT.
2. BLUE BACKGROUND WITH WHITE SYMBOL.
3. ACCESSIBLE SPACES AND AISLES SHALL BE LEVEL AND ANY SURFACE SLOPE SHALL NOT EXCEED 2% IN ALL DIRECTIONS.



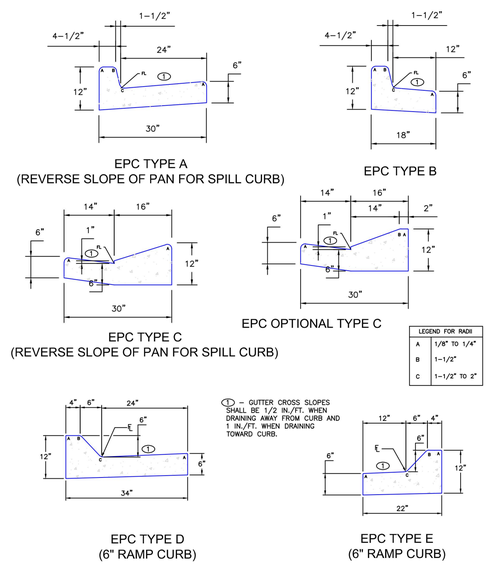
ACCESSIBLE PARKING STRIPING DETAIL
NOT TO SCALE



TRANSITION CURB (SPILL TO CATCH) DETAIL
NOT TO SCALE



RIPRAP SWALE DETAIL
NOT TO SCALE



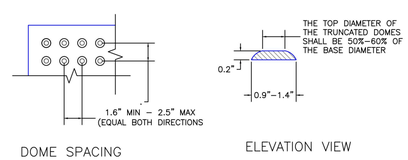
LEGEND FOR RADII	
A	1/8" TO 1/4"
B	1-1/2"
C	1-1/2" TO 2"

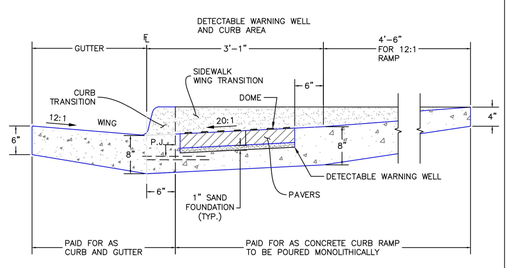
① – GUTTER CROSS SLOPES SHALL BE 1/2 IN./FT. WHEN DRAINING AWAY FROM CURB AND 1 IN./FT. WHEN DRAINING TOWARD CURB.

SCALE: NOT TO SCALE

8/11/11	Typical Curb and Gutter Details	
DATE APPROVED:	Standard Drawing	
André P. Brackin	REVISION DATE: 12/8/15	FILE NAME: SD_2-20
DEPARTMENT OF TRANSPORTATION		

TRUNCATED DOME DETAILS

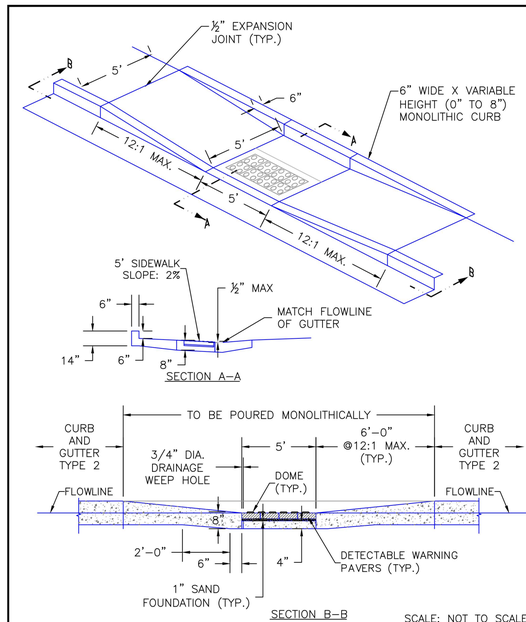




P.J.= PERMISSABLE JOINT WITH EPOXY-COATED DEFORMED NO. 4 BARS CONFORMING TO AASHTO M 284 AT 18 IN. SPACING

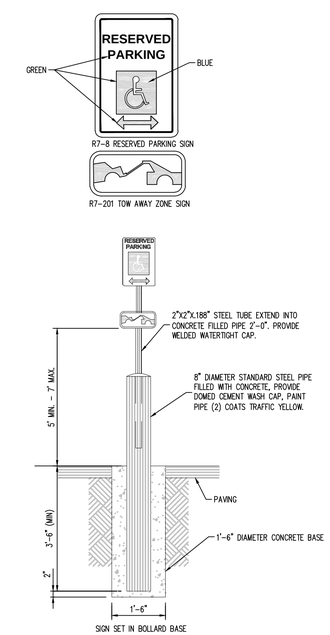
SIDE CROSS SECTION VIEW OF
DETECTABLE WARNING, WELL, CURB AND GUTTER

1/1/08	Truncated Dome Details	
DATE APPROVED:	Standard Drawing	
John A. McCarty	REVISION DATE: 11/25/15	FILE NAME: SD_2-42
DEPARTMENT OF TRANSPORTATION		



SCALE: NOT TO SCALE

8/11/11	Parallel Pedestrian Ramp Detail	
DATE APPROVED:	Standard Drawing	
André P. Brackin	REVISION DATE: 12/8/15	FILE NAME: SD_2-50
DEPARTMENT OF TRANSPORTATION		



ADA ACCESSIBLE SIGN DETAIL
NOT TO SCALE

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QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

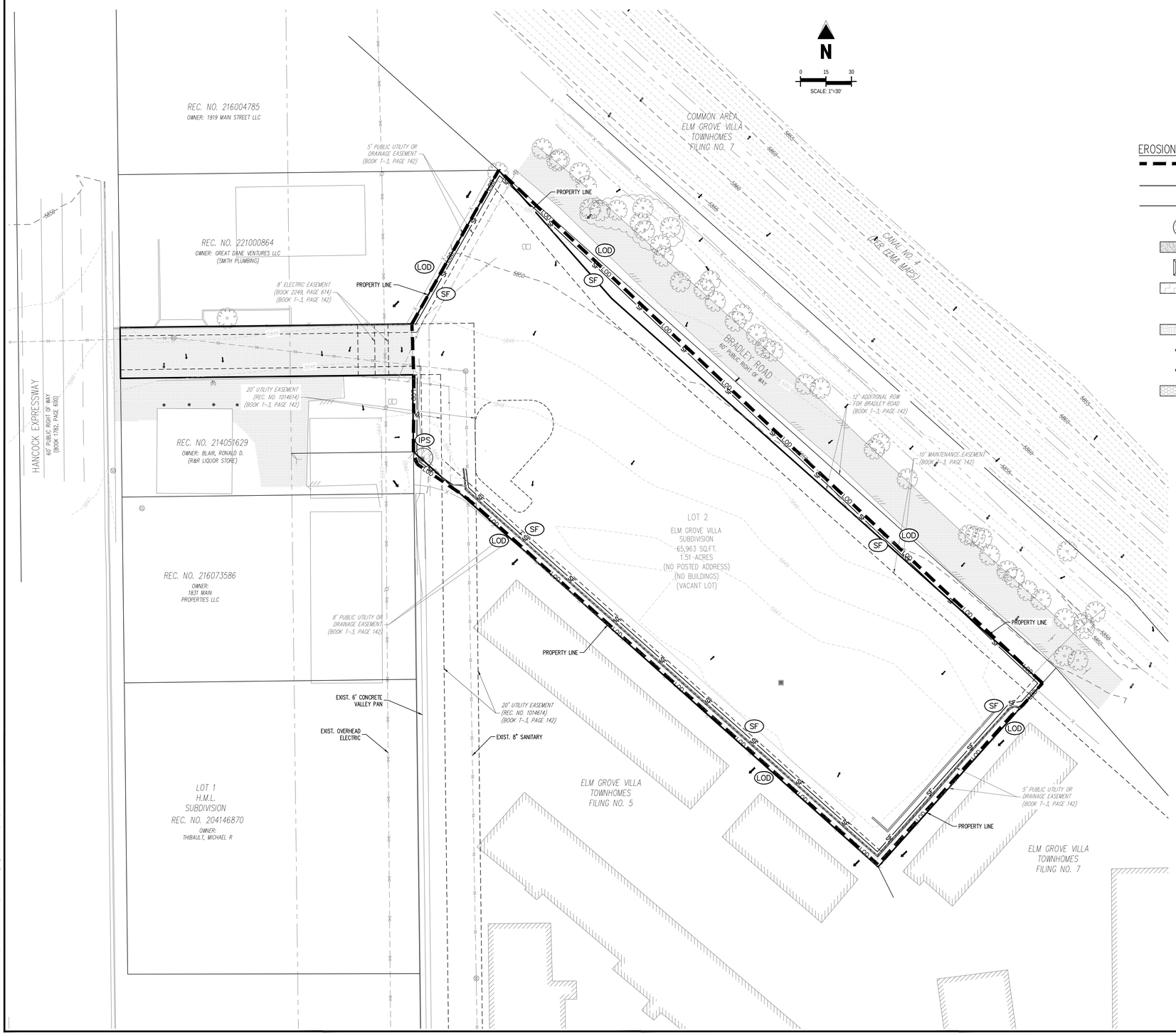
Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

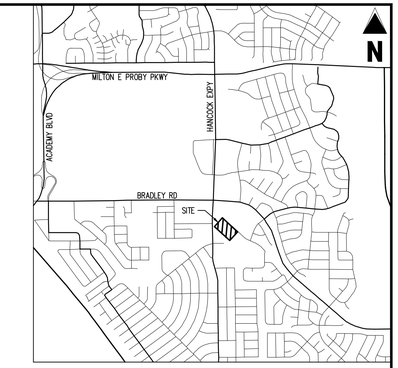
SITE DETAILS

PCD FILING NO. PPR2143

C1.5

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

EROSION CONTROL LEGEND

LOD	LIMITS OF CONSTRUCTION / DISTURBANCE
SF	SILT FENCE
CF	CONSTRUCTION FENCE
IPS	SUMP INLET PROTECTION
VTC	VEHICLE TRACKING CONTROL
CWA	CONCRETE WASHOUT AREA
SSA	STABILIZED STAGING AREA
PT	PORTABLE TOILET
SP	STOCKPILE
SITE	SITE (CONTACTS AND PERMITS)
WP	WASHOUT POSTING
ECB	EROSION CONTROL BLANKET
SB	SEDIMENT BASIN

GRADING LEGEND

	PROPERTY BOUNDARY LINE
	ADJACENT PROPERTY BOUNDARY LINE
	PROPOSED SETBACK
	EXISTING EASEMENT LINE
	PROPOSED BUILDING OUTLINE
	EXISTING ASPHALT EDGE
6940	EXISTING MAJOR CONTOUR
6941	EXISTING MINOR CONTOUR
6940	PROPOSED MAJOR CONTOUR
6939	PROPOSED MINOR CONTOUR
W	PROPOSED WATER LINE
W	EXISTING WATER LINE
SS	PROPOSED SANITARY SEWER LINE
SS	EXISTING SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
SD	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE FEATURE OUTLINE
	PROPOSED SWALE WITH FLOW DIRECTION
	EXISTING TOE SLOPE
	EXISTING TOP SLOPE
	CUT / FILL
	PROPOSED RETAINING WALL
	EXISTING RETAINING WALL
	PROPOSED RIP RAP
	EXISTING ASPHALT PAVING
55.00 HP	SPOT ELEVATION – HIGH POINT
55.00 LP	SPOT ELEVATION – LOW POINT
55.00 FG	SPOT ELEVATION – FINISH GRADE
2.00%	PROPOSED SLOPE (PERCENT)
4:1	PROPOSED SLOPE (RISE:RUN)
	FLOW ARROW

NOTES

1. ADD 5800 TO ALL SPOT ELEVATIONS
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY FACILITIES. ADDITIONALLY, THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMMODATE THE PLAN, MUST BE DISCUSSED AND AGREED TO BY THE AFFECTED UTILITY PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE PROTECT UTILITIES, OR PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.
3. NO WETLANDS ARE PRESENT ON THIS SITE.
4. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTORS.
5. CONTRACTOR SHALL PROTECT ALL AREAS OUTSIDE OF THE CONSTRUCTION LIMITS WITH SILT FENCE OR OTHER METHOD TO PROTECT UNDISTURBED AREAS FROM EROSION.
6. ALL TEMPORARY OR PERMANENT GRADING DISTURBANCES SHALL BE RE-SEEDED AND MULCHED PER EL PASO COUNTY CRITERIA AND SPECIFICATIONS.
7. EXISTING VEGETATION CONSISTS OF NATURAL GRASSES AND SHRUBS.

EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS.
INTERIM	INSTALL PROPOSED WATER QUALITY CAPTURE VOLUME DETENTION BASIN W/ ALL PERMANENT CONTROL MEASURES. THEN, INSTALL STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCE, AND CONCRETE WASHOUT AREA. FINALLY, INSTALL PROPOSED STORM SEWER.
FINAL	CONSTRUCT CURB/GUTTER AND PAVEMENT. REMOVE CONSTRUCTION BMP'S ONCE VERTICAL CONSTRUCTION AND APPLICABLE LANDSCAPING IS COMPLETE.

BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00' S 35 S36 S2 S1 T1 ⅃ S R55W 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FIMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

CAUTION – NOTICE TO CONTRACTOR

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HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

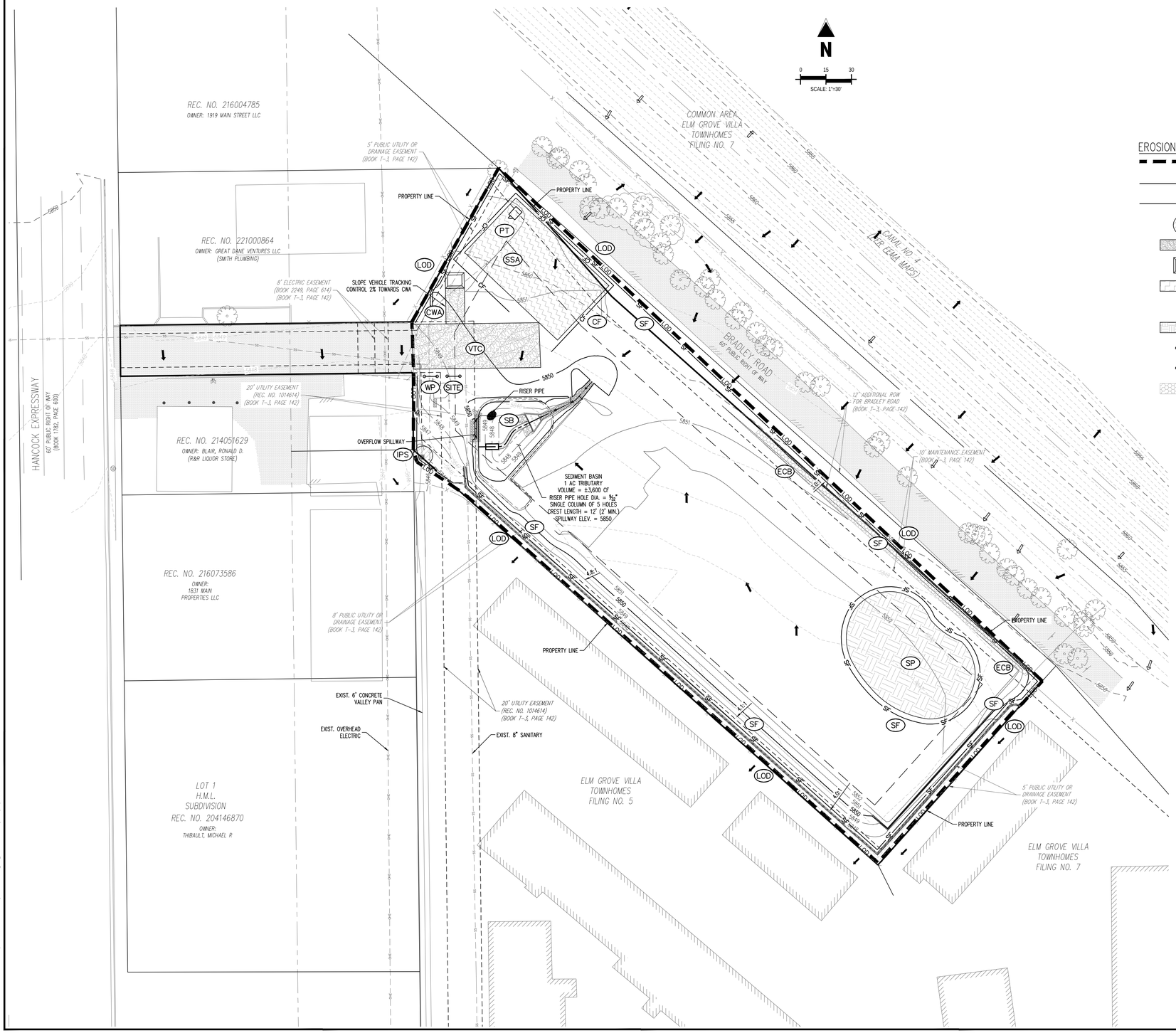
EROSION CONTROL INITIAL PLAN

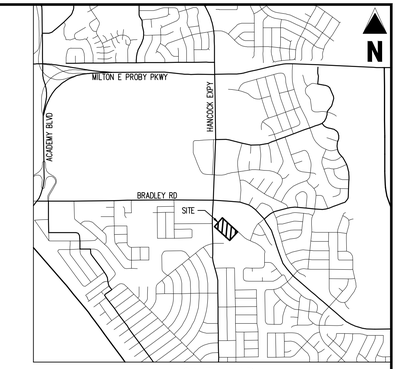
PCD FILING NO. PPR2143

C2.1

Sheet 8 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP

SCALE: 1"=500'

EROSION CONTROL LEGEND

LOD	LIMITS OF CONSTRUCTION / DISTURBANCE
SF	SILT FENCE
CF	CONSTRUCTION FENCE
IPS	SUMP INLET PROTECTION
VTC	VEHICLE TRACKING CONTROL
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WP	WASHOUT POSTING
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	PROPOSED SETBACK
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SS	EXISTING SANITARY SEWER LINE
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	PROPOSED SWALE WITH FLOW DIRECTION
	EXISTING TOE SLOPE
	EXISTING TOP SLOPE
	CUT / FILL
	PROPOSED RETAINING WALL
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	PROPOSED RIP RAP
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55.00 HP	SPOT ELEVATION – HIGH POINT
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4:1	PROPOSED SLOPE (RISE:RUN)
	FLOW ARROW

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BENCHMARK

PUBLISHED BENCHMARK
FIMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

CAUTION – NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1983

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	CJD
Date:	05/20/2024

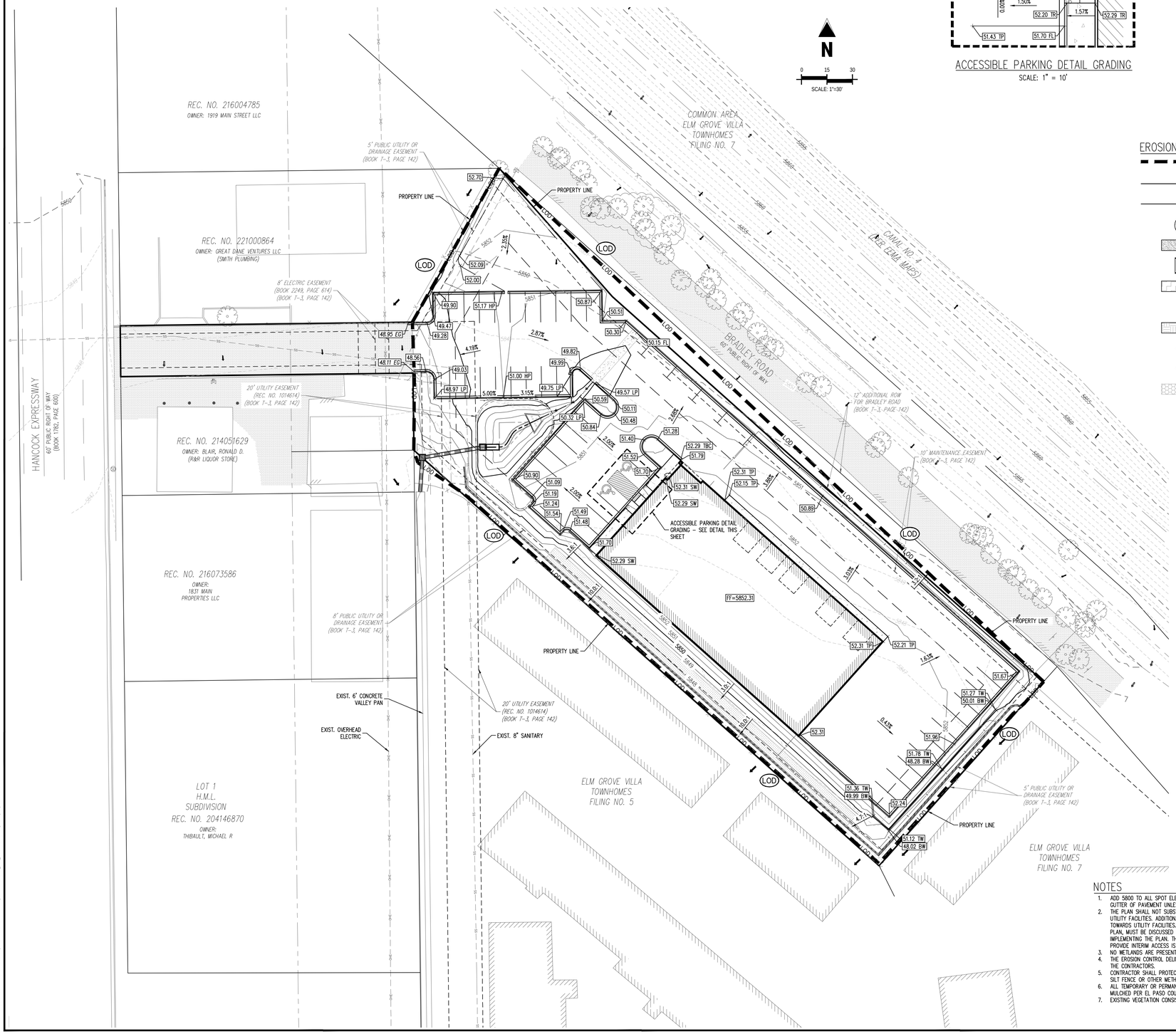
EROSION CONTROL
INTERIM PLAN

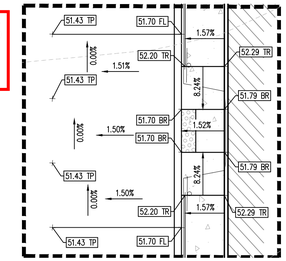
PCD FILING NO. PPR2143

C2.2

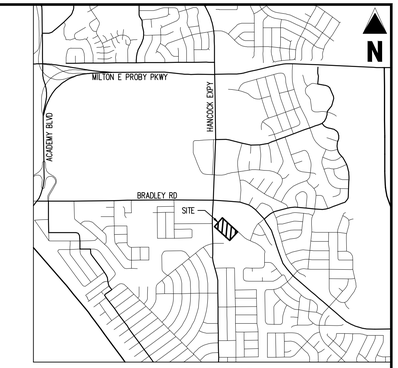
Sheet 9 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





ACCESSIBLE PARKING DETAIL GRADING
SCALE: 1" = 10'



VICINITY MAP
SCALE: 1"=500'

EROSION CONTROL LEGEND

LOD	LIMITS OF CONSTRUCTION / DISTURBANCE
SF	SILT FENCE
CF	CONSTRUCTION FENCE
IPS	SUMP INLET PROTECTION
VTC	VEHICLE TRACKING CONTROL
CWA	CONCRETE WASHOUT AREA
SSA	STABILIZED STAGING AREA
PT	PORTABLE TOILET
SP	STOCKPILE
SITE	SITE (CONTACTS AND PERMITS)
WP	WASHOUT POSTING
ECB	EROSION CONTROL BLANKET
SB	SEDIMENT BASIN

GRADING LEGEND

	PROPERTY BOUNDARY LINE
	ADJACENT PROPERTY BOUNDARY LINE
	PROPOSED SETBACK
	EXISTING EASEMENT LINE
	PROPOSED BUILDING OUTLINE
	EXISTING ASPHALT EDGE
6940	EXISTING MAJOR CONTOUR
6941	EXISTING MINOR CONTOUR
6940	PROPOSED MAJOR CONTOUR
6939	PROPOSED MINOR CONTOUR
W	PROPOSED WATER LINE
W	EXISTING WATER LINE
SS	PROPOSED SANITARY SEWER LINE
SS	EXISTING SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
SD	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE FEATURE OUTLINE
	PROPOSED SWALE WITH FLOW DIRECTION
	EXISTING TOE SLOPE
	EXISTING TOP SLOPE
	CUT / FILL
	PROPOSED RETAINING WALL
	EXISTING RETAINING WALL
	PROPOSED RIP RAP
	EXISTING ASPHALT PAVING
55.00 EG	SPOT ELEVATION – EXISTING GRADE
55.00 HP	SPOT ELEVATION – HIGH POINT
55.00 LP	SPOT ELEVATION – LOW POINT
55.00 SW	SPOT ELEVATION – SIDEWALK
55.00 FL	SPOT ELEVATION – FLOW LINE
55.00 TOW	SPOT ELEVATION – TOP OF WALL
55.00 BOW	SPOT ELEVATION – BOTTOM OF WALL
55.00 TR	SPOT ELEVATION – TOP OF RAMP
55.00 BR	SPOT ELEVATION – BOTTOM OF RAMP
55.00 TP	SPOT ELEVATION – TOP OF PAVEMENT
2.00%	PROPOSED SLOPE (PERCENT)
4:1	PROPOSED SLOPE (RISE:RUN)
	FLOW ARROW

EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS.
INTERIM	INSTALL PROPOSED WATER QUALITY CAPTURE VOLUME DETENTION BASIN W/ ALL PERMANENT CONTROL MEASURES. THEN, INSTALL STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCE, AND CONCRETE WASHOUT AREA. FINALLY, INSTALL PROPOSED STORM SEWER.
FINAL	CONSTRUCT CURB/GUTTER AND PAVEMENT. REMOVE CONSTRUCTION BMP'S ONCE VERTICAL CONSTRUCTION AND APPLICABLE LANDSCAPING IS COMPLETE.

BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00" S 35 536 52 S1 T1 | S 65SW 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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NOTES

1. ADD 5800 TO ALL SPOT ELEVATIONS. SPOT ELEVATIONS ARE AT FLOWLINE OF CURB AND GUTTER OF PAVEMENT UNLESS OTHERWISE NOTED.
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY FACILITIES. ADDITIONALLY, THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMMODATE THE PLAN, MUST BE DISCUSSED AND AGREED TO BY THE AFFECTED UTILITY PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE PROTECT UTILITIES, OR PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.
3. NO WETLANDS ARE PRESENT ON THIS SITE.
4. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTORS.
5. CONTRACTOR SHALL PROTECT ALL AREAS OUTSIDE OF THE CONSTRUCTION LIMITS WITH SILT FENCE OR OTHER METHOD TO PROTECT UNDISTURBED AREAS FROM EROSION.
6. ALL TEMPORARY OR PERMANENT GRADING DISTURBANCES SHALL BE RE-SEEDED AND MULCHED PER EL PASO COUNTY CRITERIA AND SPECIFICATIONS.
7. EXISTING VEGETATION CONSISTS OF NATURAL GRASSES AND SHRUBS.

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#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

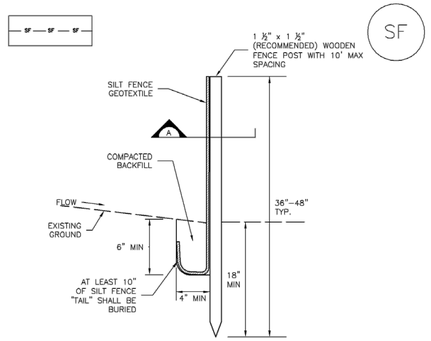
GRADING & EROSION CONTROL FINAL PLAN

PCD FILING NO. PPR2143

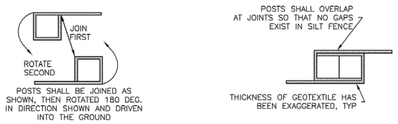
C2.3

Sheet 10 of 18

Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF–1. SILT FENCE

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

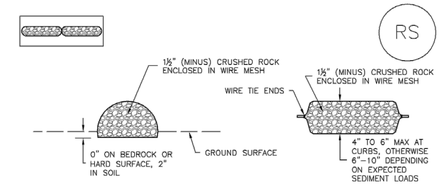
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

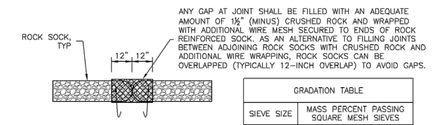
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SC-5 Rock Sock (RS)



ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

Construction Fence (CF) SM-3

CONSTRUCTION FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

Construction Fence (CF) SM-3

CONSTRUCTION FENCE MAINTENANCE NOTES

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2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District CF-3
Urban Storm Drainage Criteria Manual Volume 3

Rock Sock (RS) SC-5

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

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CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

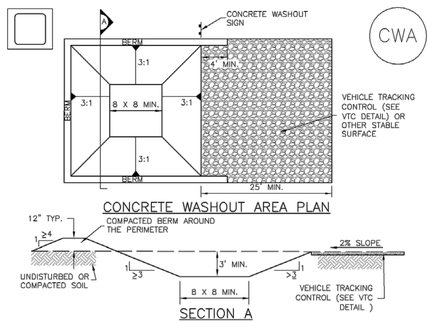
GEC DETAILS

PCD FILING NO. PPR2143

C2.4

Sheet 11 of 18

Concrete Washout Area (CWA) MM-1



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

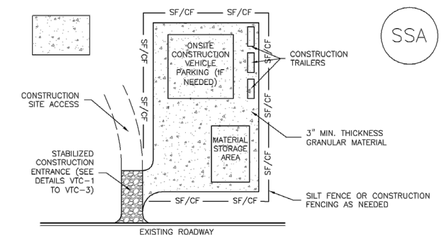
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Stabilized Staging Area (SSA) SM-6



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

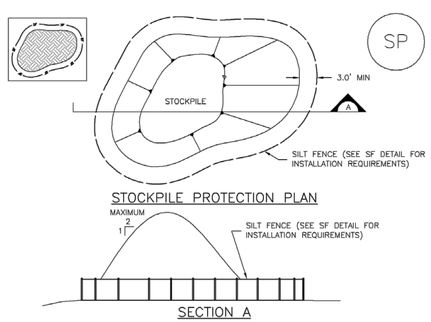
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

Stockpile Management (SP) MM-2



SP–1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF STOCKPILES.
   –TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
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HC HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

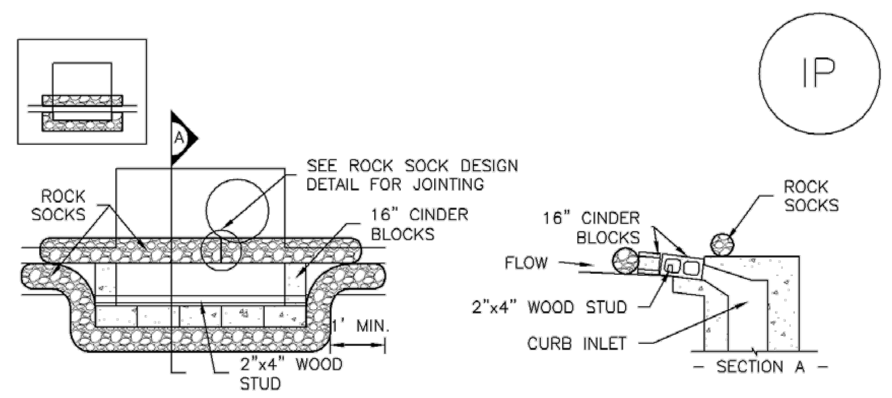
Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

GEC DETAILS

PCD FILING NO. PPR2143

C2.5

Sheet 12 of 18



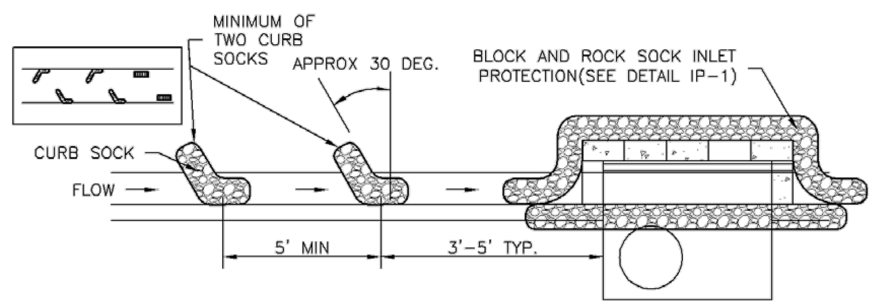
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

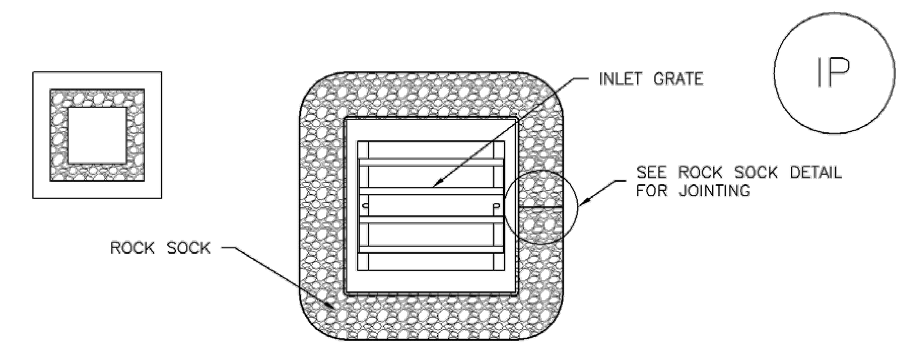
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON–GRADE INLETS.

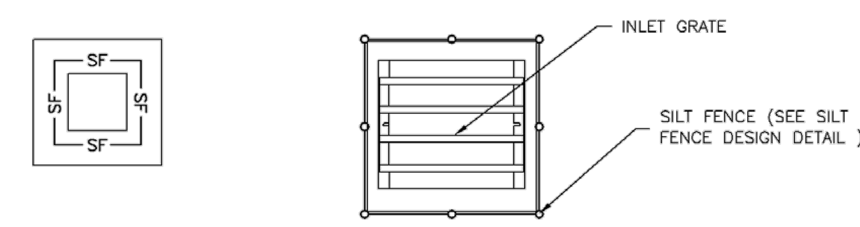


IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP–4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 –LOCATION OF INLET PROTECTION.
 –TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

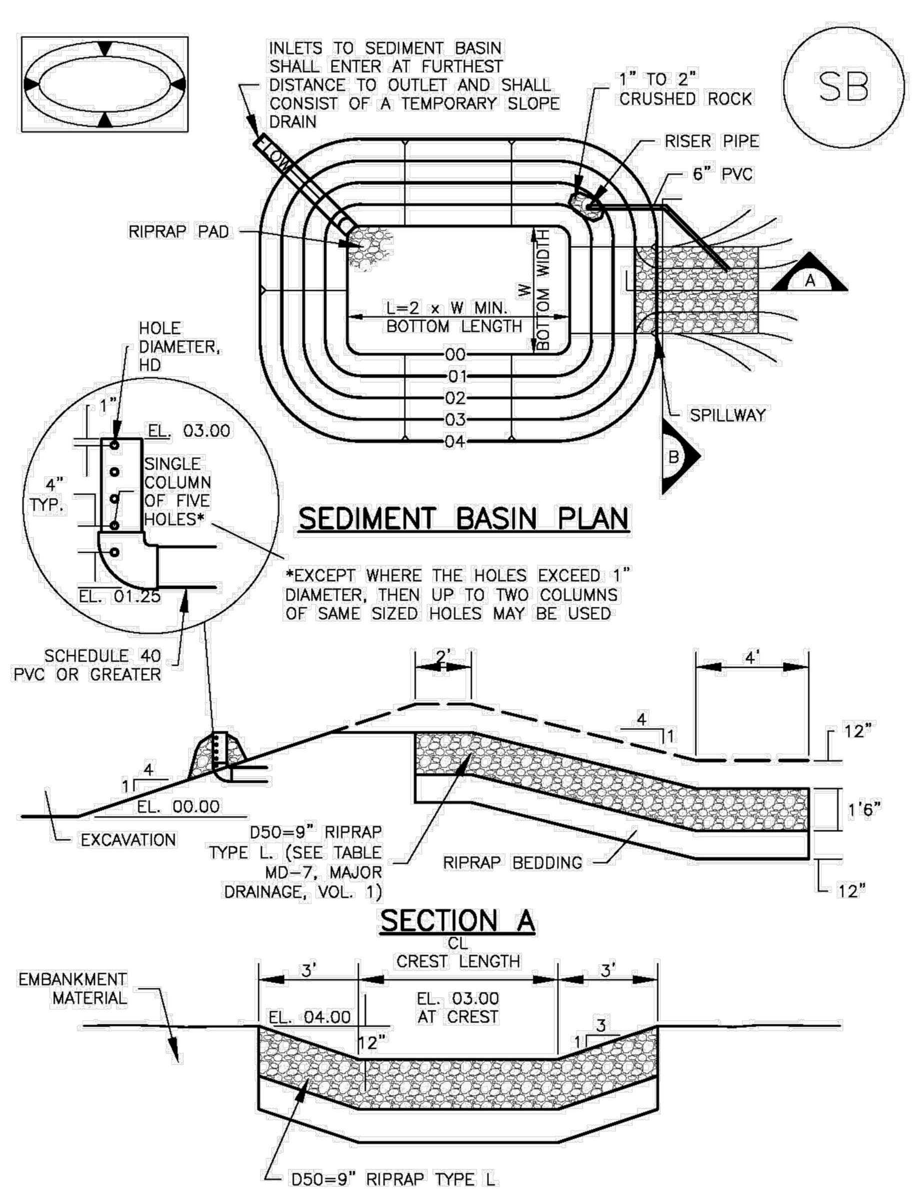


TABLE SB–1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	9/32
2	21	3	13/16
3	28	5	½
4	33 ½	6	9/16
5	38 ½	8	21/32
6	43	9	21/32
7	47 ¼	11	25/32
8	51	12	27/32
9	55	13	7/8
10	58 ¼	15	15/16
11	61	16	31/32
12	64	18	1
13	67 ½	19	1 1/16
14	70 ½	21	1 1/8
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 –LOCATION OF SEDIMENT BASIN.
 –TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 –FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
 –FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND–DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).

5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

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HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

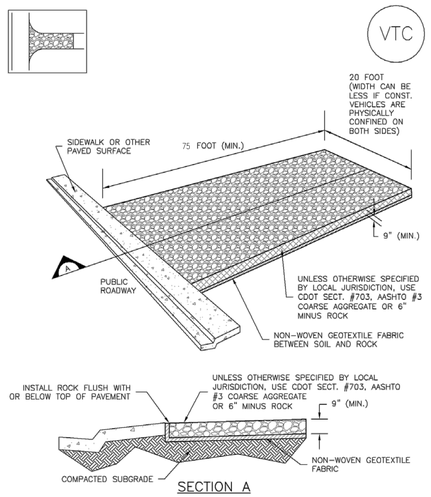
GEC DETAILS

PCD FILING NO. PPR2143

C2.6
Sheet 13 of 18

H:\H\Hammers Construction Inc\CO, El Paso County - HCI000008 - Smith Plumbing\0CIV3-CD\HCI08_C2.4_GEC Details.dwg - Brady Shyrock - 4/23/2024

Vehicle Tracking Control (VTC) SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   -TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

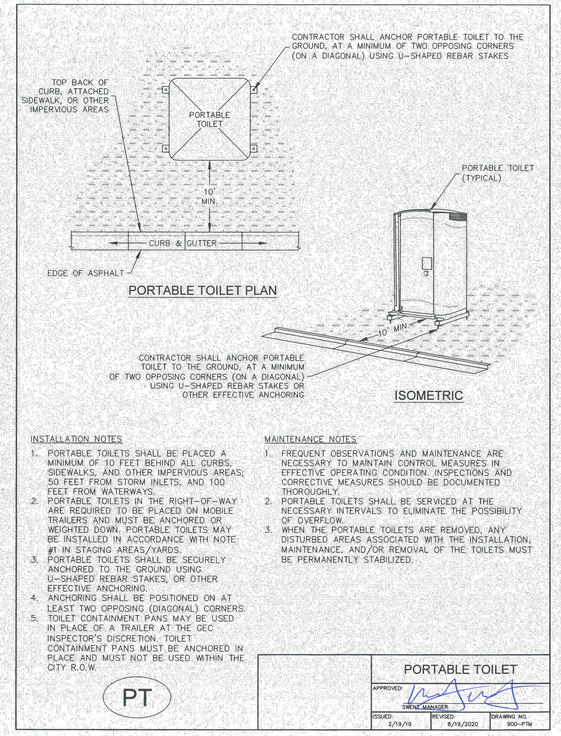
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



INSTALLATION NOTES

1. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS; 50 FEET FROM STORM INLETS, AND 100 FEET FROM WATERWAYS.
2. PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY BE INSTALLED IN ACCORDANCE WITH NOTE #1 IN STAGING AREAS/YARDS.
3. PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER EFFECTIVE ANCHORING.
4. ANCHORING SHALL BE POSITIONED ON AT LEAST TWO OPPOSING (DIAGONAL) CORNERS
5. TOILET CONTAINMENT PANS MAY BE USED IN PLACE OF A TRAILER AT THE GEC INSPECTOR'S DISCRETION. TOILET CONTAINMENT PANS MUST BE ANCHORED IN PLACE AND MUST NOT BE USED WITHIN THE CITY R.O.W.

PT

MAINTENANCE NOTES

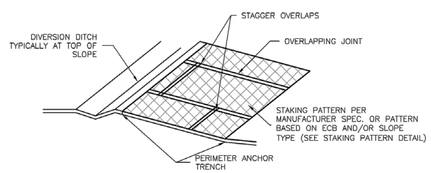
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERFLOW.
3. WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST BE PERMANENTLY STABILIZED.

PORTABLE TOILET

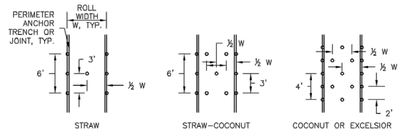
APPROVED: SWMM MANAGER

ISSUED:	REVISED:	DRAWING NO.
2/19/19	8/19/2020	900-PTM

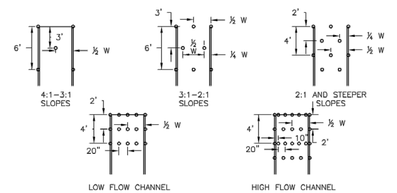
Rolled Erosion Control Products (RECP) EC-6



ECB-3. OUTSIDE OF DRAINAGEWAY



STAKING PATTERNS BY ECB TYPE



STAKING PATTERNS BY SLOPE OR CHANNEL TYPE

EC-6 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF ECB.
   -TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
   -AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.

2. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.

3. IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.

4. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.

5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.

6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.

7. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.

8. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBS SHALL BE RESEEDED AND MULCHED.

10. DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TABLE ECB-1. ECB MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING**
STRAW*	–	100%	–	DOUBLE/ NATURAL
STRAW-COCONUT	30% MIN	70% MAX	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNEL.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS

Rolled Erosion Control Products (RECP) EC-6

EROSION CONTROL BLANKET MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

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HC HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

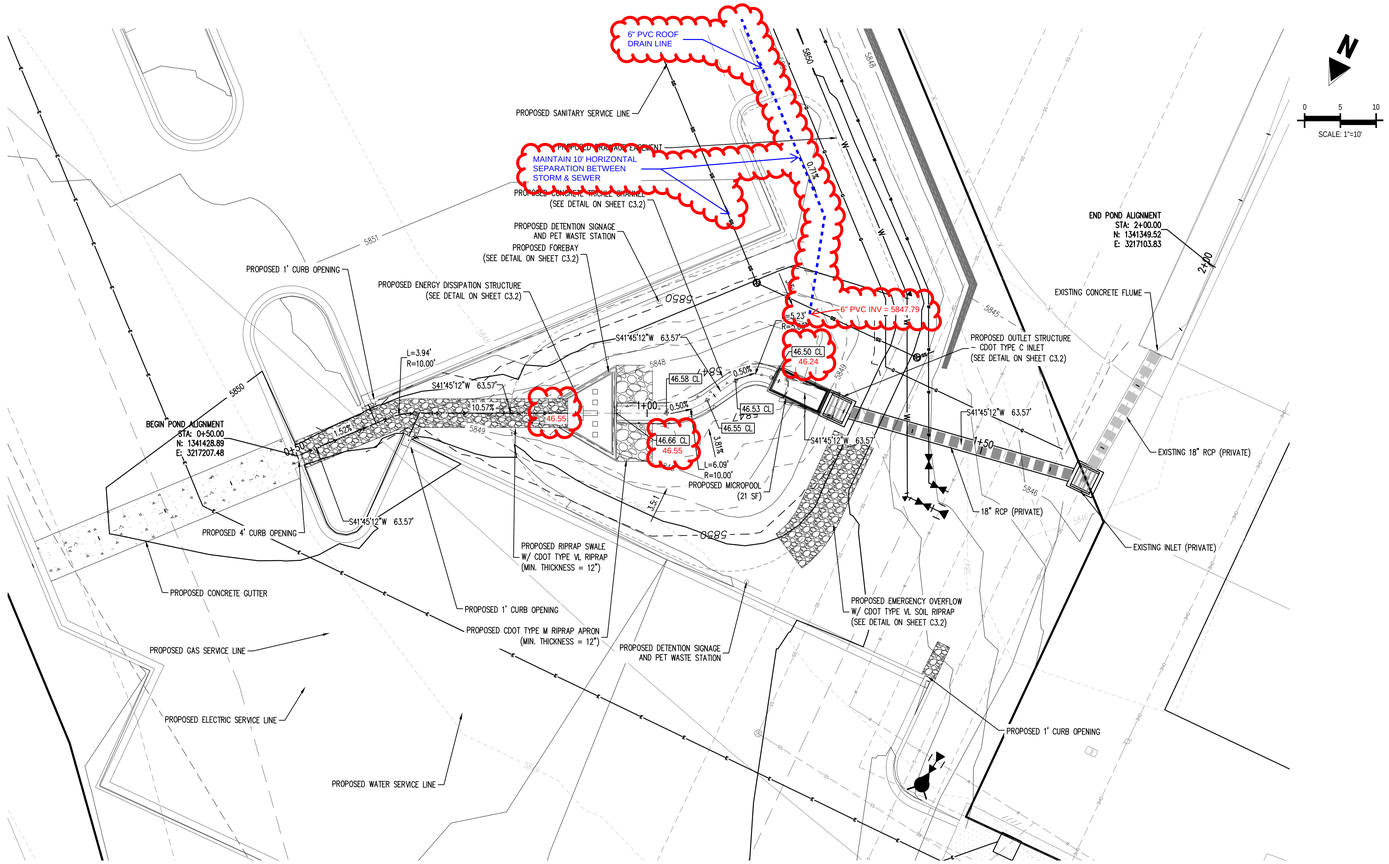
Project No:	HCI000008
Drawn By:	TPT
Checked By:	CVD
Date:	05/20/2024

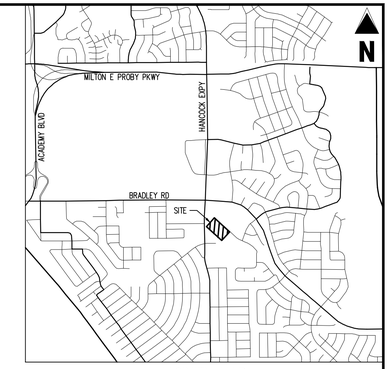
GEC DETAILS

PCD FILING NO. PPR2143

C2.7

Sheet 14 of 18





VICINITY MAP
SCALE: 1"=500'

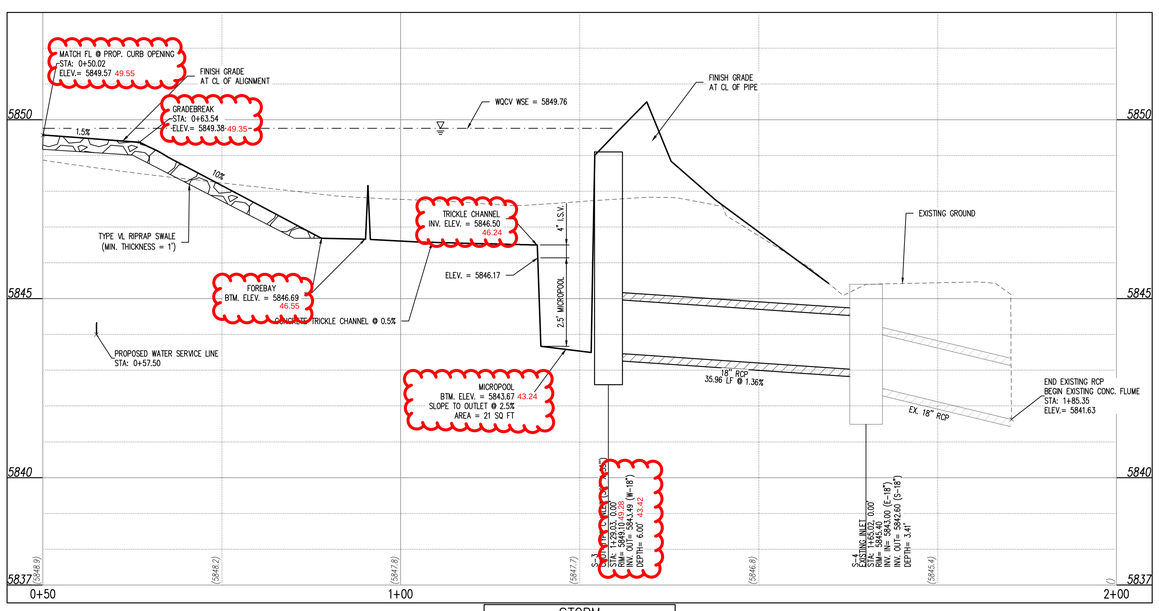
LEGEND

- PROPERTY BOUNDARY LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT LINE
- PROPOSED BUILDING OUTLINE
- 6940 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 6940 — PROPOSED MAJOR CONTOUR
- 6939 — PROPOSED MINOR CONTOUR
- PROPOSED STORM DRAIN LINE
- PROPOSED SWALE WITH FLOW DIRECTION
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- PROPOSED RIP RAP
- PROPOSED CONCRETE

NOTES

1. ADD 5800 TO ALL SPOT ELEVATIONS
2. ALL STORM PIPE SHALL BE CLASS 3 RCP OR HDPE IN ACCORDANCE WITH COUNTY STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS



STORM
STA: 0+50 – 2+00
SCALE: H: 1"=10' V: 1"=2'

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CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

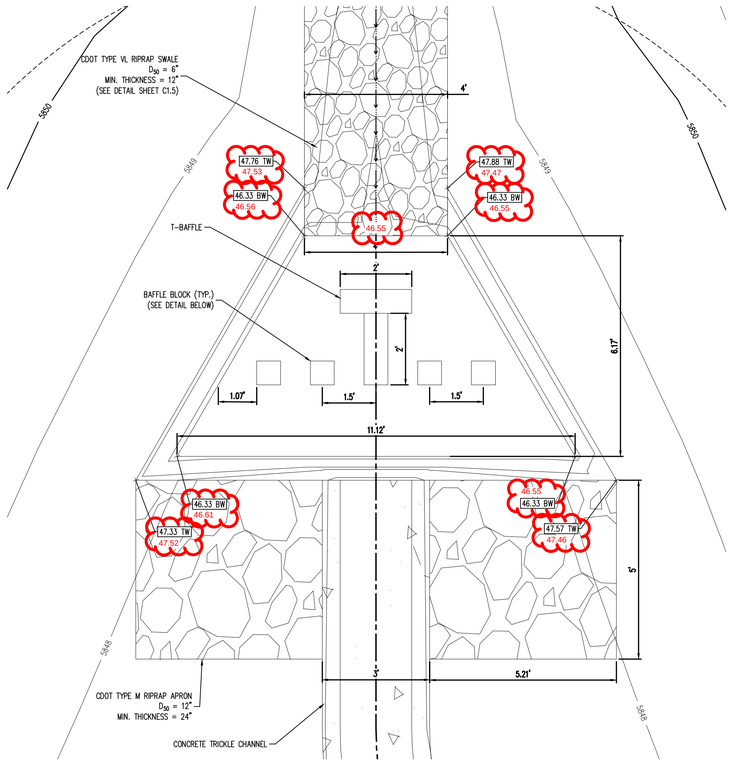
Project No:	HCI000008
Drawn By:	TPT
Checked By:	CMD
Date:	05/20/2024

WATER QUALITY
DETENTION POND

PCD FILING NO. PPR2143

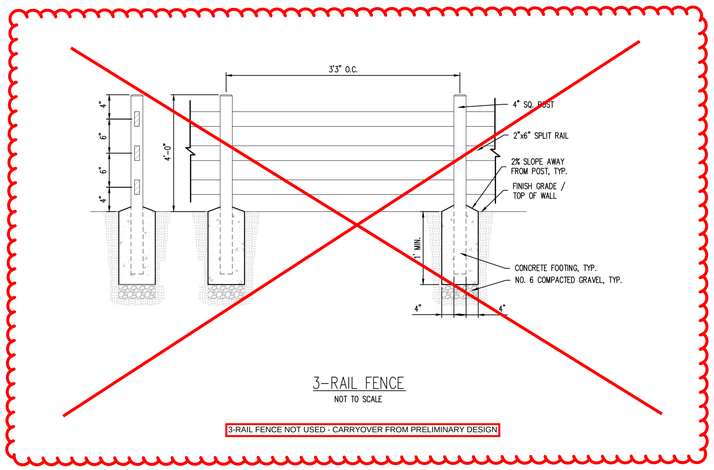
C3.1

Sheet 15 of 18



FOREBAY DETAIL

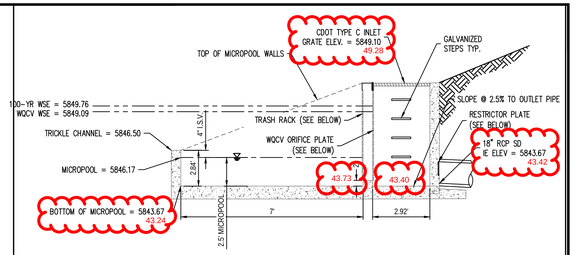
SCALE: 1"=1'



3-RAIL FENCE

NOT TO SCALE

3-RAIL FENCE NOT USED - CARRYOVER FROM PRELIMINARY DESIGN



OUTLET STRUCTURE PROFILE

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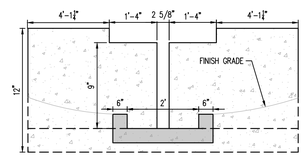


FOREBAY – SLOT DETAIL

NOT TO SCALE

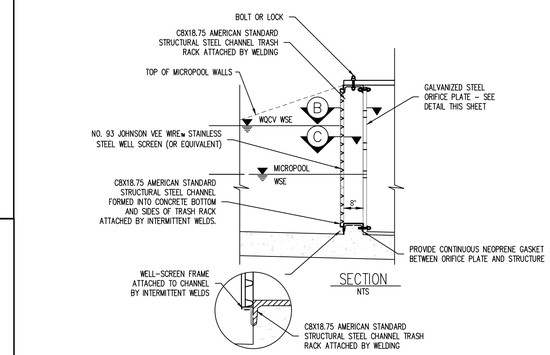
WARNING
THIS AREA IS A STORMWATER FACILITY
AND IS SUBJECT TO PERIODIC FLOODING

WARNING
PET WASTE MUST BE PICKED UP

NOTES:

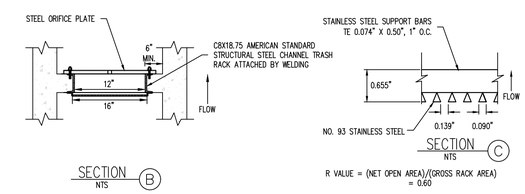
- TWO (2) SIGNS WITH THE ABOVE MESSAGE, EACH WITH A MINIMUM AREA OF 3 SQUARE FEET SHALL BE PROVIDED AROUND THE PERIMETER OF THE DETENTION POND, AS SHOWN ON THESE PLANS.
- SIGNS SHALL BE DURABLE MATERIALS, SUCH AS METAL OR PLASTIC, USING RED LETTERING ON A WHITE BACKGROUND.

DETENTION POND SIGNAGE



SECTION

NTS



SECTION B

NTS

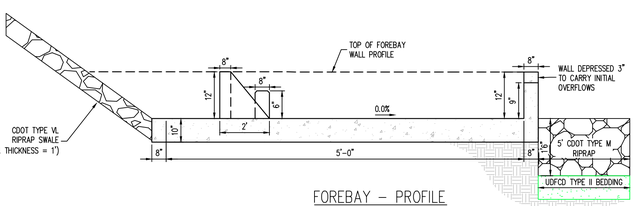
SECTION C

NTS

R VALUE = (NET OPEN AREA)/(GROSS RACK AREA) = 0.60

WQCV OPENING AND PLATE MOUNTING DETAIL

NOT TO SCALE



FOREBAY – PROFILE

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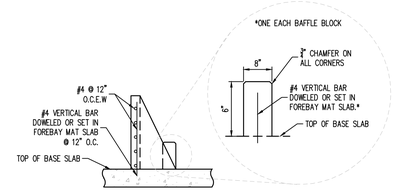
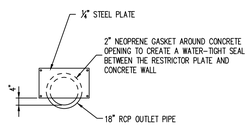


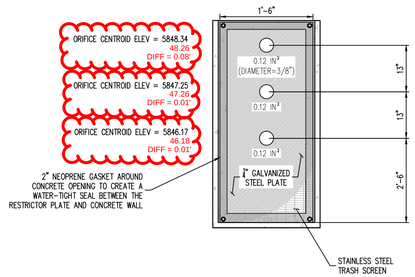
T-BAFFLES & BAFFLE BLOCKS – REINFORCING DETAIL

NOT TO SCALE



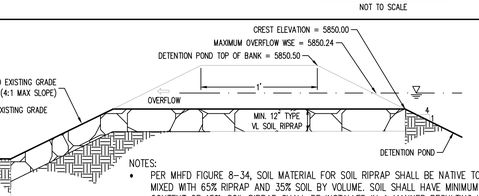
100-YR RESTRICTOR PLATE DETAIL

NOT TO SCALE



ORIFICE PLATE DETAIL

NOT TO SCALE



NOTES:

- PER MHFD FIGURE 8-34, SOIL MATERIAL FOR SOIL RIPRAP SHALL BE NATIVE TOPSOIL, MIXED WITH 65% RIPRAP AND 35% SOIL BY VOLUME. SOIL SHALL HAVE MINIMUM FINES CONTENT OF 15%. SOIL RIPRAP SHALL BE INSTALLED IN A MANNER RESULTING IN A UNIFORM MIXTURE WITHOUT VOIDS. REFERENCE MHFD FIGURE 8-34.
- CDOT SECTION 506 REQUIREMENTS APPLY TO RIPRAP

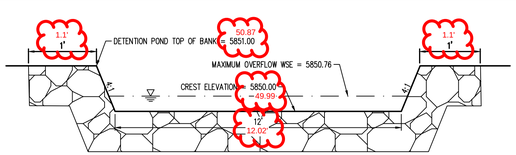
100-YEAR OVERFLOW – PROFILE

NOT TO SCALE

Table 506-2

Pay Item	Stone Size $d50^1$ (Inches)	Percent of Material Smaller Than Typical Stone[2]	Typical Stone Dimensions[3] (Inches)	Typical Stone Weight[4] (Pounds)
Riprap	6	70-100 50-70 35-50 2-10	12 9 6 2	85 35 10 0.4
Riprap	9	70-100 50-70 35-50 2-10	15 12 9 3	160 85 35 1.3
Riprap	12	70-100 50-70 35-50 2-10	21 18 12 4	440 275 85 3
Riprap	18	100 50-70 35-50 2-10	30 24 18 6	1280 650 275 10
Riprap	24	100 50-70 35-50 2-10	42 33 24 9	3500 1700 650 35

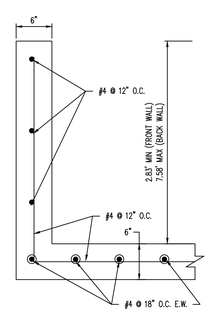
[1]d50 = nominal stone size
[2]based on typical rock mass
[3]equivalent spherical diameter
[4]based on a specific gravity = 2.5



100-YEAR OVERFLOW – CROSS SECTION

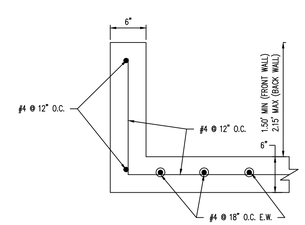
NOT TO SCALE

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS



MICROPOOL REINFORCING DETAIL

NOT TO SCALE



FOREBAY REINFORCING DETAIL

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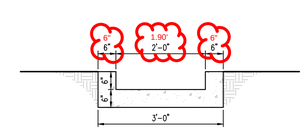

CONCRETE TRICKLE CHANNEL

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QUALITY COMMERCIAL CONSTRUCTION SINCE 1963

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	
Date:	05/20/2024

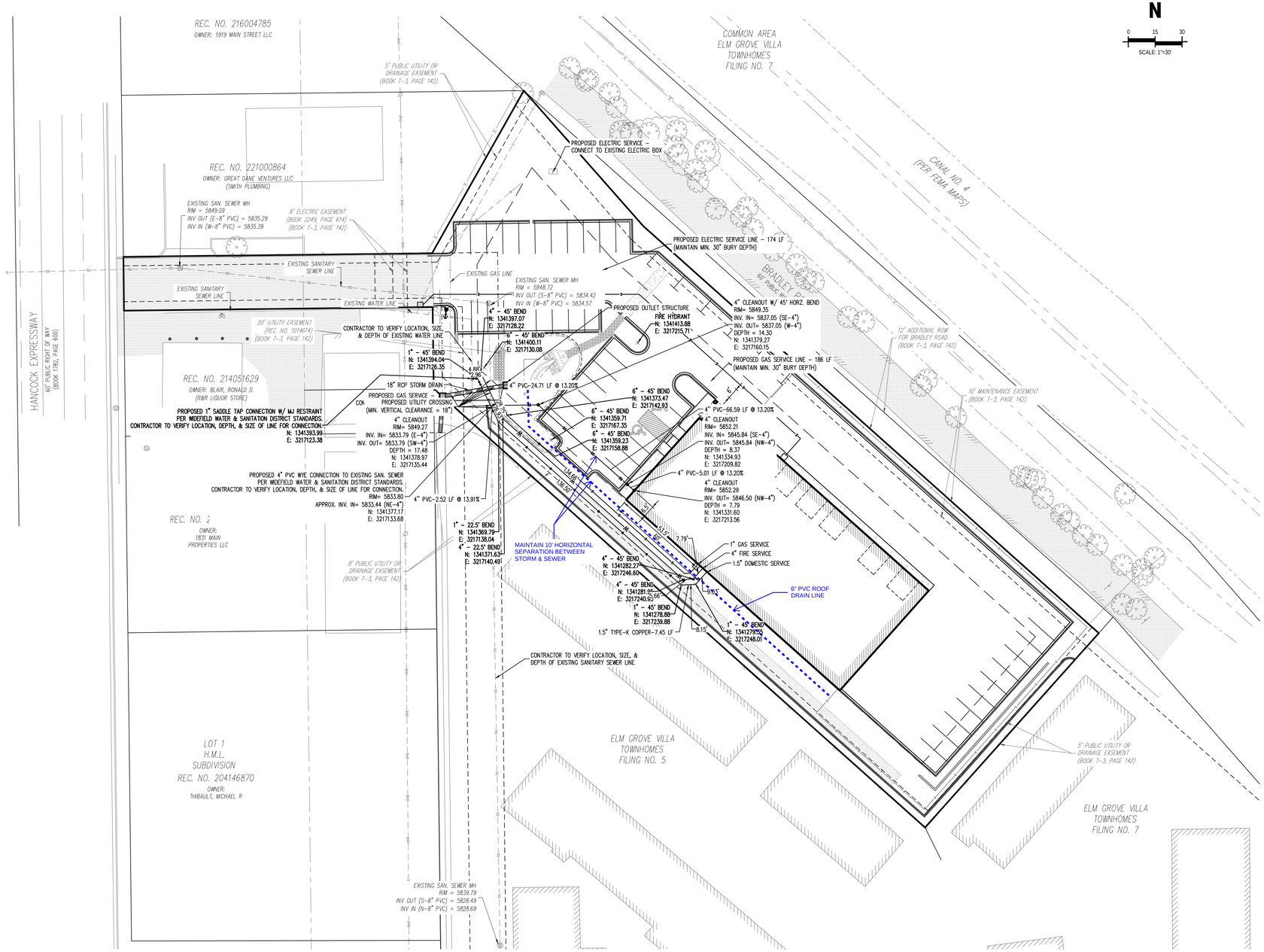
POND DETAILS

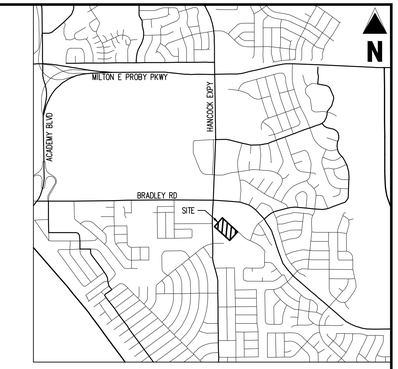
PCD FILING NO. PPR2143

C3.2

Sheet 16 of 18

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS





VICINITY MAP
SCALE: 1"=500'

UTILITY LEGEND

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT LINE
- PROPOSED BUILDING OUTLINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED RIP RAP
- EXISTING ASPHALT PAVING
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED REDUCER
- PROPOSED WATER BEND/TEE
- PROPOSED SANITARY MANHOLE
- PROPOSED FES
- PROPOSED STORM MANHOLE
- PROPOSED CDOT TYPE R STORM INLET

WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN AND HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

DATE: _____ BY: _____

PROJECT NO. _____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WASTEWATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN AND HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

DATE: _____ BY: _____

PROJECT NO. _____

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APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

BASIS OF BEARINGS

BEARINGS ARE BASED ON WEST LINE OF SECTION 1, TOWNSHIP 15 SOUTH, RANGE 66 WEST, MONUMENTED ON THE NORTH END BY A 6" WITNESS CORNER, FOUND, 3.5" ALUMINUM CAP, "T24S R66W W.C. 6.00' S 35 S36 S2 S1 T1 | S 85SW 2012 PLS 24313" AND ON THE SOUTH END BY A 3.5" ALUMINUM CAP, FOUND, "RMPS 19625", AND IS CONSIDERED TO BEAR N00°42'04"W.

BENCHMARK

PUBLISHED BENCHMARK
FIMS MONUMENT FX35
ELEVATION = 5980.39 (NAVD88)

CAUTION - NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

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SMITH PLUMBING & HEATING
FOR
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1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

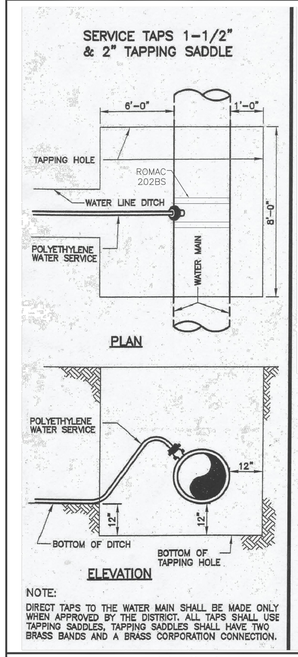
Project No:	HCI000008
Drawn By:	TPT
Checked By:	[illegible]
Date:	05/20/2024

UTILITY SERVICE PLAN

PCD FILING NO. PPR2143

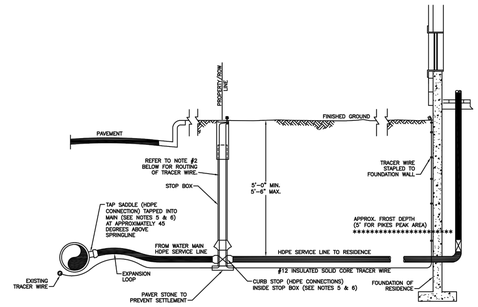
C4.1

Sheet 17 of 18



TAPPING DETAIL – 3/4" THROUGH 2"

Drawn: GGM	Revised:	Widefield Water and Sanitation District	W-32
Date: SEPT 2014	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		



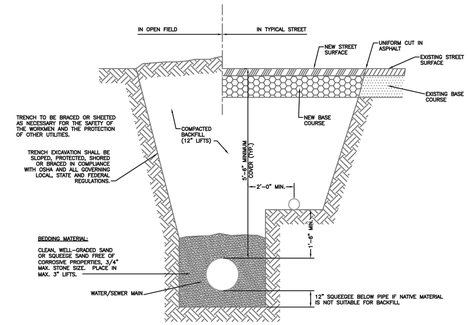
NOTES:

1. REFER TO STANDARD DRAWINGS FOR METER, PRESSURE REGULATION AND BACKFLOW PREVENTION DEVICE INSTALLATION DETAILS.
2. SERVICE LINE FROM CURB STOP TO THE STRUCTURE BEING SERVED IS THE RESPONSIBILITY OF THE CUSTOMER/OWNER FOR OPERATION AND MAINTENANCE. ONLY THE DISTRICT IS AUTHORIZED TO OPEN AND CLOSE THE CORPORATION AND CURB STOP ONCE IN SERVICE.

TYP. INSTALLATION FOR SERVICE LINE AND STOP BOX

Drawn: GGM	Revised:	Widefield Water and Sanitation District	W-33
Date: SEPT 2014	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		

ENGINEERING RECORD DRAWINGS
AS-BUILT DRAWINGS

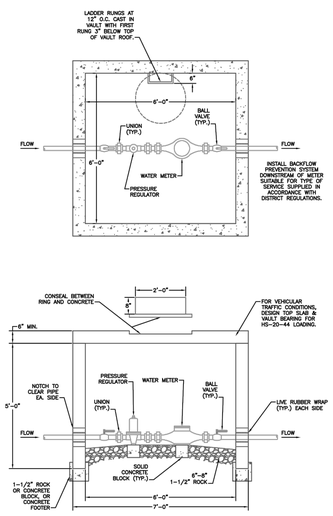


NOTES:

1. SPECIFIC CASE-BY-CASE APPROVAL BY THE DISTRICT SHALL BE REQUIRED PRIOR TO INSTALLATION OF WATER AND SEWER SERVICES IN A COMMON TRENCH.
2. USE OF COMMON TRENCH FOR WATER AND SEWER SERVICES SHALL NOT BE PERMITTED IN PUBLIC RIGHT-OF-WAY OR BETWEEN THE WATER CORPORATION STOP AND CURB STOP.
3. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND ANY OTHER APPLICABLE CODE OR REGULATION.

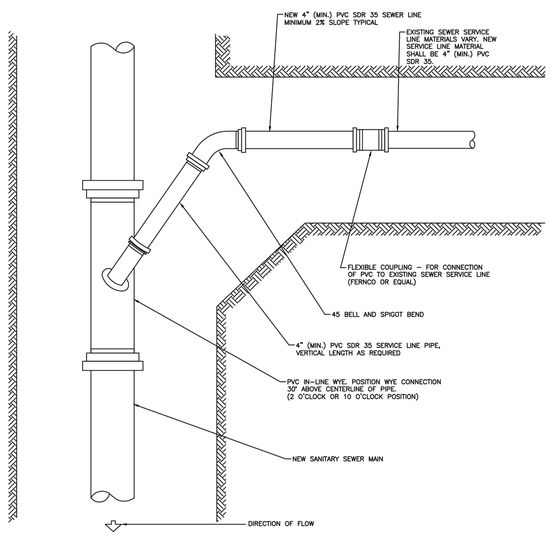
TYP. SERVICE LINE TRENCH – COMMON DITCH FOR WATER/SEWER

Drawn: GGM	Revised:	Widefield Water and Sanitation District	W-34
Date: JULY 2011	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		



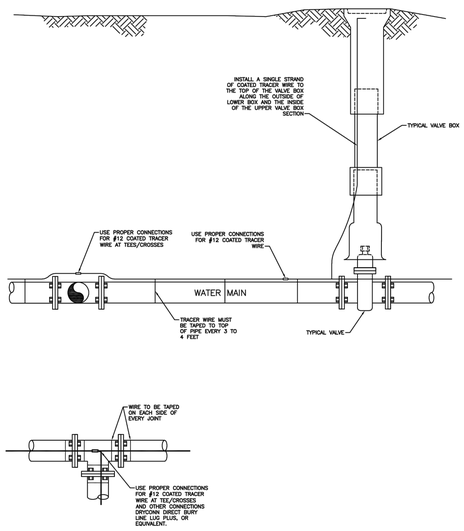
1 1/2" AND 2" IRRIGATION METER INSTALLATION

Drawn: GGM	Revised:	Widefield Water and Sanitation District	W-38
Date: SEPT 2014	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		



SANITARY SEWER SERVICE CONNECTION

Drawn: GGM	Revised:	Widefield Water and Sanitation District	WW-7
Date: JULY 2011	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		



TRACER WIRE INSTALLATION DETAILS

Drawn: GGM	Revised:	Widefield Water and Sanitation District	W-9
Date: SEPT 2014	Revised:		
Scale: N.T.S.	Revised:		
Revised:	Revised:		
Revised:	Revised:		
Revised:	Revised:		

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HC HAMMERS CONSTRUCTION
QUALITY COMMERCIAL CONSTRUCTION SINCE 1983

CONSTRUCTION DOCUMENTS
SMITH PLUMBING & HEATING
FOR
HAMMERS CONSTRUCTION, LLC

1875 MAIN STREET
COLORADO SPRINGS, CO 80911 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	HCI000008
Drawn By:	TPT
Checked By:	
Date:	05/20/2024

UTILITY DETAILS

PCD FILING NO. PPR2143

C4.2

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