EROSION CONTROL LEGEND

SF	SILT FENCE (INITIAL/INTERIM)
RS	CURB ROCK SOCKS (INITIAL/INTERIM)
CF	CONSTRUCTION FENCE (INITIAL, INTERIM)
SCL	SEDIMENT CONTROL LOG (INITIAL, INTERIM)
PS	PERMANENT SEEDING (INTERIM, FINAL)
TSB	TEMPORARY SEDIMENT BASIN (INITIAL)
SSA	STABILIZED STAGING AREA (INITIAL)
CWA	CONCRETE WASHOUT AREA (INTERIM)
SP	STOCKPILE AREA (INTERIM)
VTC	VEHICLE TRACK CONTROL (INITIAL, INTERIM)
IP-#	ON-GRADE (IP-1) & SUMP (IP-2) INLET PROTECTION (INITIAL/INTERIM)

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- LIMITS OF DISTURBANCE/CONSTRUCTION
- PROPERTY CORNER/MONUMENT, BENCHMARK OR TEMPORARY BENCHMARK (BM)
- SHEET FLOW/DRAINAGE DIRECTION
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- SPOT ELEVATION

SITE HATCHING

- AREAS OF CUT (CUT)
- AREAS OF FILL (FILL)
- PROP. STRUCTURE/BUILDING
- PROP. SIDEWALK

FEMA FLOODPLAIN STATEMENT:

ACCORDING TO FEMA FLOODPLAIN MAP 08041C0752G DATED 12/07/2018, THE PROPERTY FALLS WITHIN ZONE X, AREA OF MINIMAL FLOOD HAZARD.

BATCH PLANT STATEMENT

NO BATCH PLANTS ARE TO BE USED ON SITE

EXISTING VEGETATION COVERS APPROXIMATELY 98.5% OF THE SITE AND CONSISTS OF NATIVE GRASS WITH EXISTING IMPERVIOUSNESS OF APPROXIMATELY 1.5%

*CONTRACTOR TO HAUL DIRT/SOIL OFF-SITE DURING CONSTRUCTION. NO OVER NIGHT STOCKPILING OF MATERIALS TO BE DONE ON-SITE.

BMP COST ESTIMATE:

BID ITEM	UNIT	EST. $/UNIT	TOTAL COST
PERMANENT SEEDING	0.5 AC	$828/AC	$ 414.00
PERMANENT MULCHING	0.5 AC	$777/AC	$ 388.50
PERMANENT POND	612 CY	$21/CY	$ 12,852.00
SAFETY FENCE	1,600 LF	$3.00/LF	$ 4,800.00
VEHICLE TRACKING CONTROL	4 EA	$2,453/EA	$ 9,812.00
SILT FENCE	1,250 LF	$2.60/LF	$ 3,250.00
SEDIMENT CONTROL LOGS	280 LF	$5.00/LF	$ 1,400.00
INLET PROTECTION	3 EA	$173/EA	$ 519.00
TEMP. SED. BASIN	1 EA	$1,824/EA	$ 1,824.00
CONCRETE WASHOUT	1 EA	$932/EA	$ 932.00

NET: $36,191.50
MAINTENANCE (35%): $6,207.95
TOTAL: $42,399.45

NOTES:
1. ALL UNIT PRICES REFLECT INSTALLED PRICES UNLESS OTHERWISE NOTED.
2. ALL UNIT PRICES PROVIDED BY EL PASO COUNTY 2021 FINANCIAL ASSURANCE ESTIMATE FORM.

ENGINEER'S STATEMENT:
THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

ENGINEER OF RECORD SIGNATURE   DATE

EL PASO COUNTY STANDARD NOTES:

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCES SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY SON-SITE OR OFF-SITE 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 DEVIATION FROM 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. MANAGEMENT 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 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 COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPED, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
6. ALL TEMPORARY SEDIMENT 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 ARE 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.
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.
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 PLANT 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 DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF 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 THE 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 MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION FOR INFILTRATION AND VEGETATIVE CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
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 ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT HE LOCATED IN AN AREA THERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
14. DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER 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 DISCHARGES 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 OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, ROCK, TRASH, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS 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 CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER 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 ONLY AT APPROVED CONSTRUCTION POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM THE EARTHWORK EQUIPMENT AND WIND.
28. THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY RMG-ROCKY MOUNTAIN GROUP, DATED 2/23/2021 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST TEN (1) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OF MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE 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 OF 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

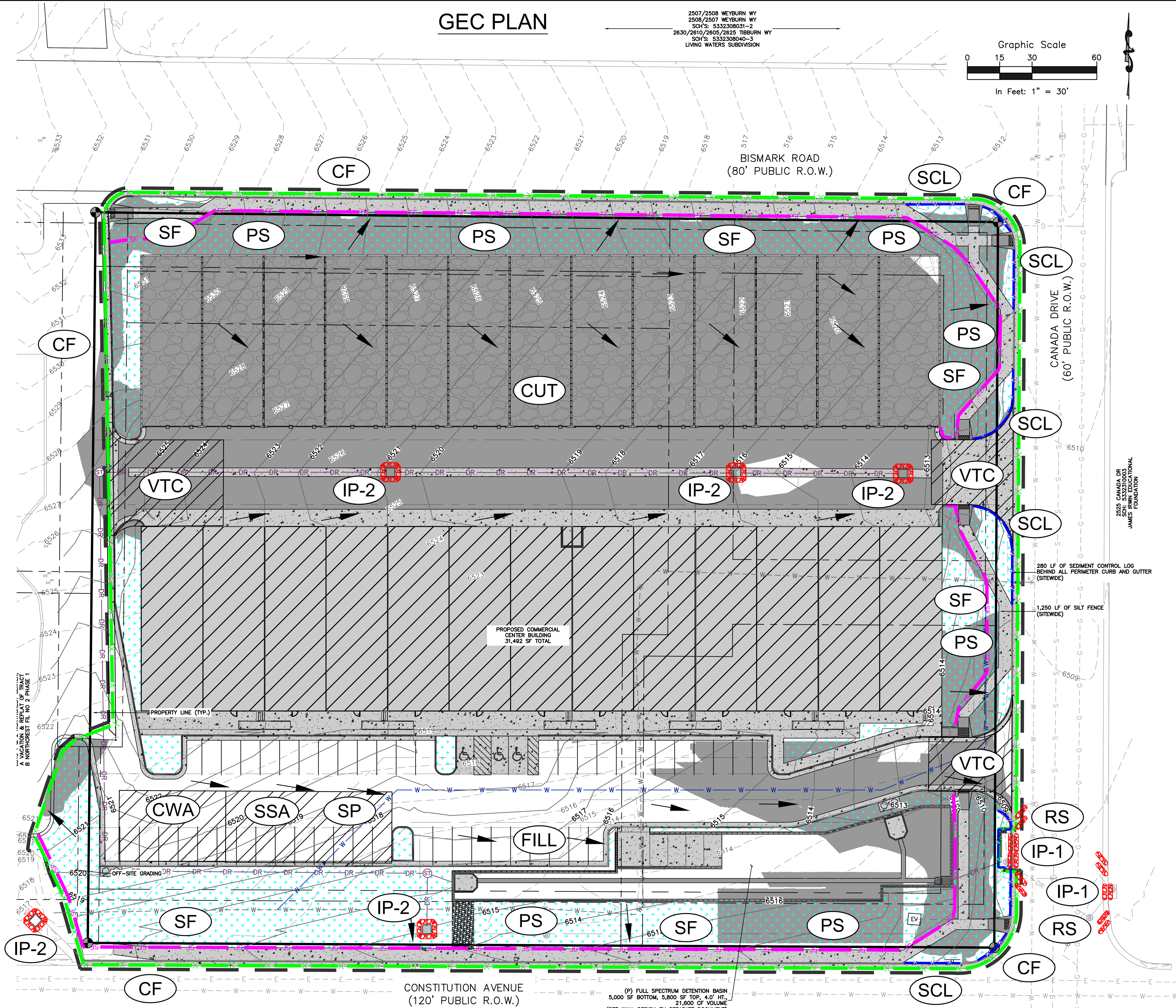
EL PASO COUNTY:
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS. AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT 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 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 DIRECTOR'S DISCRETION.

JENNIFER IRVINE, PE COUNTY ENGINEER/ECM ADMINISTRATOR   DATE

GEC PLAN



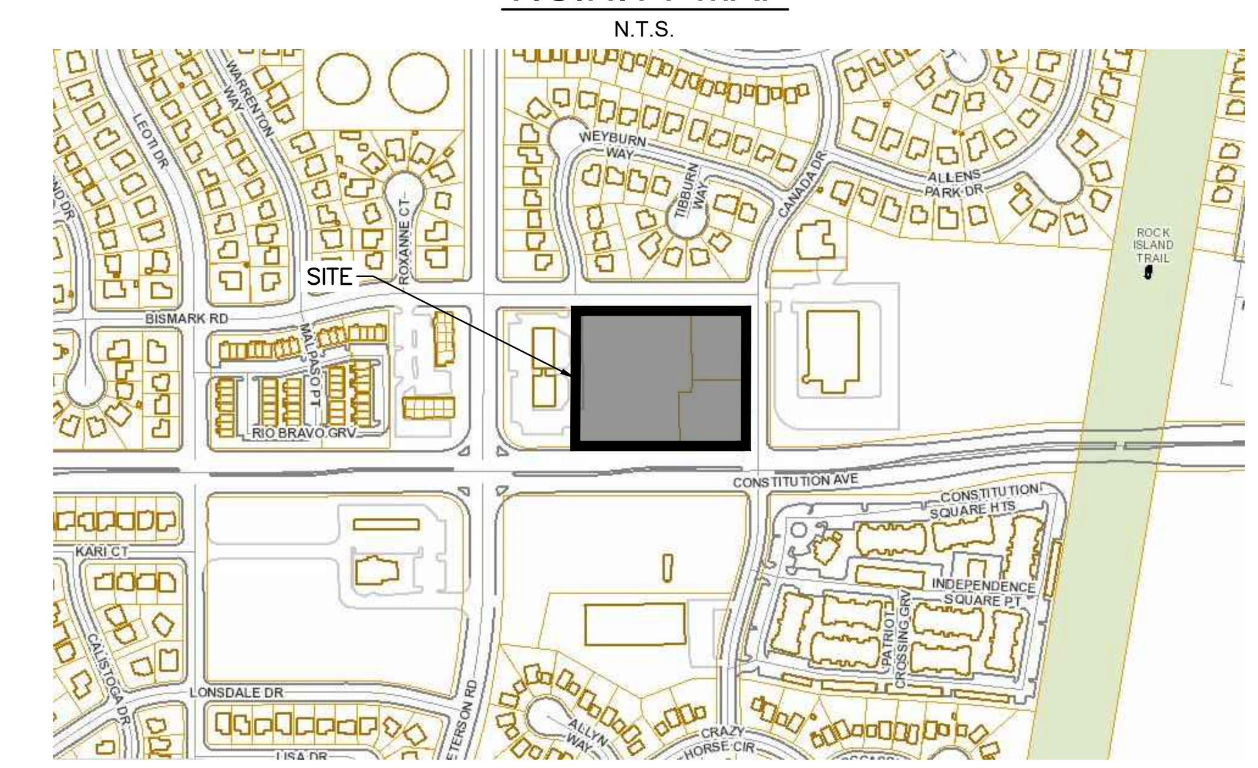
RESTORATION NOTES:
1. FURTHER DETAIL AND NOTES PROVIDED IN THE DRAINAGE CRITERIA MANUAL VOLUME III, CHAPTER 14.
2. SEE SEED MIX TABLES 14-9 THROUGH 14-14 FOR GIVEN GEOGRAPHIC AND GEOLOGIC CONDITIONS IN THE DRAINAGE CRITERIA MANUAL VOLUME III, CHAPTER 14.
3. UNLINED DRAINAGE FACILITIES AND AREAS DISTURBED DURING CONSTRUCTION SHOULD BE ACTIVELY REVEGETATED. SEED MIXES SHOULD BE SELECTED TO MATCH THE CONDITIONS WHERE THEY WILL BE USED. RECOMMENDED SEED MIXES FOR THE BOTTOM (WET SOILS) AND SIDE SLOPES OF DRAINAGE FACILITIES ARE INCLUDED IN TABLES 14-9 AND 14-10, RESPECTIVELY. SEED MIXES FOR ALKALI SOILS AND ALL OTHER SOIL CONDITIONS IN UPLAND AREAS ARE PROVIDED IN TABLES 14-11 AND 14-12, RESPECTIVELY. WILDFLOWER MIXES ARE PROVIDED IN TABLE 14-13. THE SEEDING RATES IN THESE MIXES ARE RECOMMENDED MINIMUM RATES FOR DRILL SEEDING. THESE RATES SHOULD BE DOUBLED FOR BROADCAST SEEDING AND HYDRO-SEEDING IN SMALL AREAS OR STEEP CONDITIONS WITH SLOPES GREATER THAN 3H:1V.

   THE RECOMMENDED SEED MIXES ARE SUITABLE FOR THE COLORADO FRONT RANGE FOR SITES FROM 4,500 TO 7,000 FT IN ELEVATION. APPLICATIONS OUTSIDE THESE RANGES SHOULD BE MADE AFTER CONSULTATION WITH A QUALIFIED REVEGETATION SPECIALIST.

   FALL IS THE PREFERRED TIME FOR NON-IRRIGATED SEEDING. LATE SUMMER SEEDBED PREPARATION FOLLOWED BY INSTALLATION OF THE SEED IN THE FALL (OCTOBER) ALLOWS WINTER MONTHS FOR ADDITIONAL FIRMING OF THE SEEDBED BEFORE SPRING AND GERMINATION. FALL SEEDING BENEFITS FROM WINTER, SPRING MOISTURE, AND USUALLY ASSURES MAXIMUM SOIL MOISTURE AVAILABILITY FOR ESTABLISHMENT.

   LATE WINTER TO EARLY SPRING (FEBRUARY TO EARLY APRIL) IS TYPICALLY THE NEXT MOST FAVORABLE TIME PERIOD FOR SEEDING. WINTER AND EARLY SPRING SEEDING SHOULD NOT BE CONDUCTED IF THE SOIL IS FROZEN, SNOW COVERED, OR WET (MUDDY). WHILE OF GREATER RISK, SPRING SEEDING (MID-APRIL INTO EARLY JUNE) CAN BE SUCCESSFUL, ESPECIALLY DURING MOIST YEARS. MID- TO LATE SUMMER SEEDING CAN BE SUCCESSFUL, WITH ADEQUATE PRECIPITATION CHAPTER 14 REVEGETATION MAY 2014 CITY OF COLORADO SPRINGS 14-21 DRAINAGE CRITERIA MANUAL, VOLUME 1 OR IRRIGATION TO WET AND SETTLE THE SEED BED. FIRMING OF THE SEEDBED FOLLOWING SEEDING WILL IMPROVE RESULTS DURING DRY OR WARM SEEDING TIMES.
4. CONTRACTOR SHALL BE FAMILIAR WITH THE CUT/FILL OF THE PROPOSED CONDITIONS IN ORDER TO MINIMIZE STOCKPILING OF EXCAVATED DIRT. SITE IS NET CUT AND STOCKPILING OVERNIGHT IS NOT PERMITTED WITHOUT PERMISSION FROM THE CITY OF COLORADO SPRINGS.

VICINITY MAP
N.T.S.



PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
RMG ARCHITECTS ENGINEERS
Architectural, Structural, Forensics
Geotechnical, Materials Testing, Civil, Planning
SOUTHERN COLORADO
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SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO

NOT FOR CONSTRUCTION
FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT

2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME: COVER
PROJECT STATUS: DESIGN DEVELOPMENT

ENG: DGW
DRAWN: TPT
CHECKED: DGW
DATE: 08/12/2022

#	REVISION	DATE
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JOB NO. 180649

EROSION CONTROL LEGEND

- SF — SILT FENCE (INITIAL/INTERIM)
- RS — CURB ROCK SOCKS (INITIAL/INTERIM)
- CF — CONSTRUCTION FENCE (INITIAL, INTERIM)
- SCL — SEDIMENT CONTROL LOG (INITIAL, INTERIM)
- PS — PERMANENT SEEDING (INTERIM, FINAL)
- TSB — TEMPORARY SEDIMENT BASIN (INITIAL)
- SSA — STABILIZED STAGING AREA (INITIAL)
- CWA — CONCRETE WASHOUT AREA (INTERIM)
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LEGEND

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- PROPOSED MINOR CONTOUR
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- EXISTING MAJOR CONTOUR
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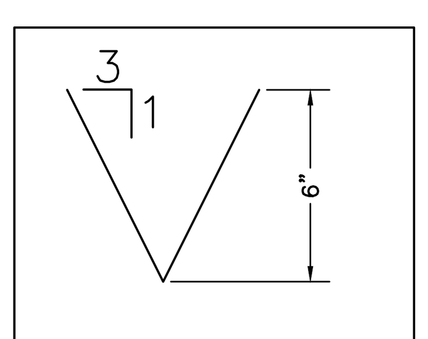
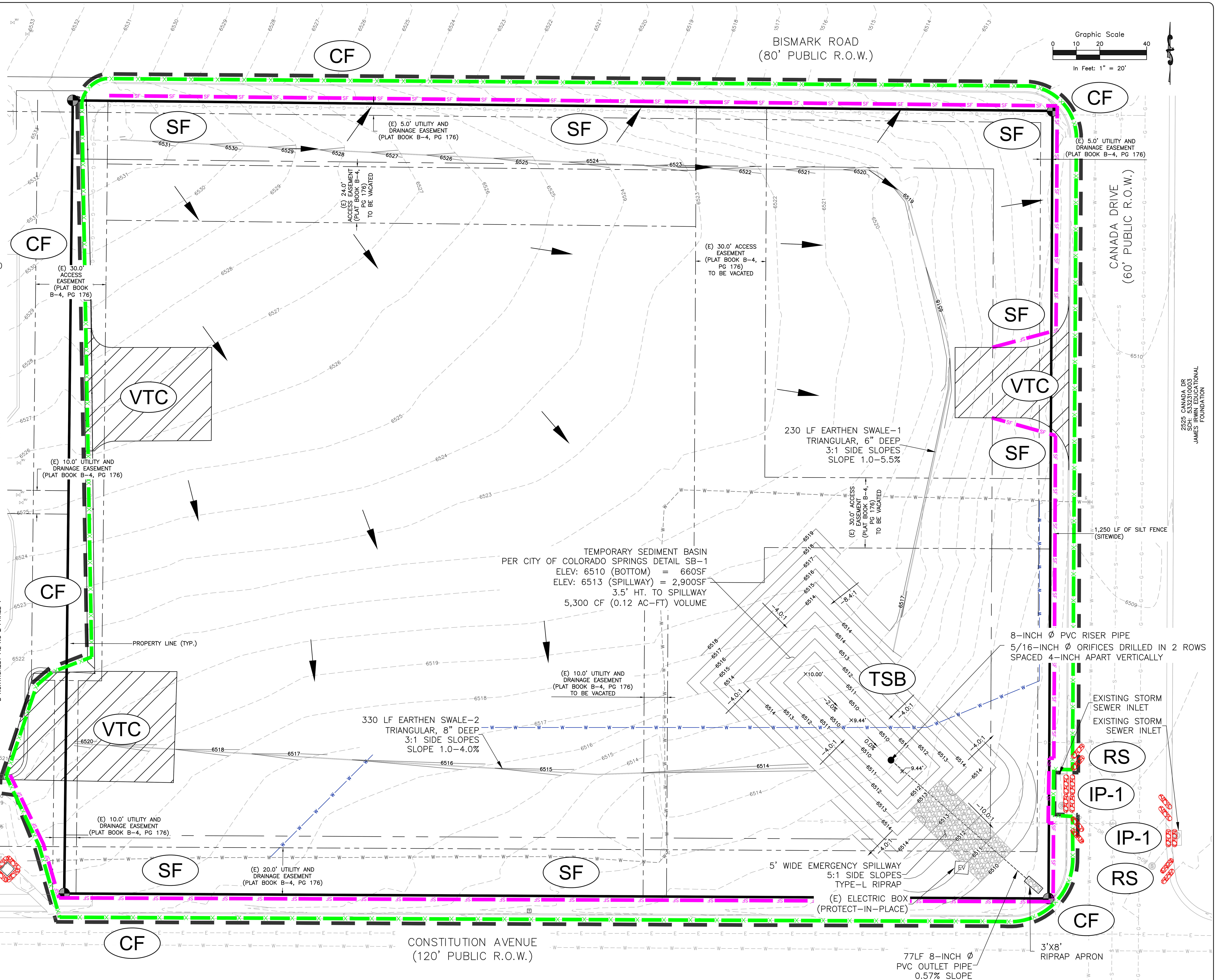
SITE HATCHING

- AREAS OF CUT — CUT
- AREAS OF FILL — FILL
- PROP. STRUCTURE/BUILDING
- PROP. SIDEWALK



STANDARD EARTHEN SWALE DETAIL



BISMARK ROAD
(80' PUBLIC R.O.W.)
CANADA DRIVE
(60' PUBLIC R.O.W.)
CONSTITUTION AVENUE
(120' PUBLIC R.O.W.)
Graphic Scale
0 10 20 40
In Feet: 1" = 20'
CF
SF
VTC
TSB
RS
IP-1
IP-2
(E) 5.0' UTILITY AND DRAINAGE EASEMENT (PLAT BOOK B-4, PG 176)
(E) 24.0' ACCESS EASEMENT (PLAT BOOK B-4, PG 176) TO BE VACATED
(E) 30.0' ACCESS EASEMENT (PLAT BOOK B-4, PG 176)
(E) 30.0' ACCESS EASEMENT (PLAT BOOK B-4, PG 176) TO BE VACATED
(E) 10.0' UTILITY AND DRAINAGE EASEMENT (PLAT BOOK B-4, PG 176)
(E) 10.0' UTILITY AND DRAINAGE EASEMENT (PLAT BOOK B-4, PG 176) TO BE VACATED
(E) 20.0' UTILITY AND DRAINAGE EASEMENT (PLAT BOOK B-4, PG 176)
PROPERTY LINE (TYP.)
6805 BISMARK ROAD SCH: 5332309007 ZONING: CC CAD-O PLAT NO. 7776 LOTS 1 & 2 NORTHCREST CENTER, A VACATION & REPLAT OF TRACT B NORTHCREST FIL NO 2 PHASE 1
2525 CANADA DR SCH: 5332310003 JAMES IRWIN EDUCATIONAL FOUNDATION
230 LF EARTHEN SWALE-1 TRIANGULAR, 6" DEEP 3:1 SIDE SLOPES SLOPE 1.0-5.5%
330 LF EARTHEN SWALE-2 TRIANGULAR, 8" DEEP 3:1 SIDE SLOPES SLOPE 1.0-4.0%
TEMPORARY SEDIMENT BASIN PER CITY OF COLORADO SPRINGS DETAIL SB-1
ELEV: 6510 (BOTTOM) = 660SF
ELEV: 6513 (SPILLWAY) = 2,900SF
3.5' HT. TO SPILLWAY
5,300 CF (0.12 AC-FT) VOLUME
1,250 LF OF SILT FENCE (SITEWIDE)
8-INCH Ø PVC RISER PIPE
5/16-INCH Ø ORIFICES DRILLED IN 2 ROWS SPACED 4-INCH APART VERTICALLY
EXISTING STORM SEWER INLET
EXISTING STORM SEWER INLET
5' WIDE EMERGENCY SPILLWAY 5:1 SIDE SLOPES TYPE-L RIPRAP
(E) ELECTRIC BOX (PROTECT-IN-PLACE)
77LF 8-INCH Ø PVC OUTLET PIPE 0.57% SLOPE
3'X8' RIPRAP APRON

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP — RMG ARCHITECTS ENGINEERS

Architectural, Structural, Forensics — Geotechnical, Materials Testing, Civil, Planning

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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL PLAN - INITIAL

PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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	—	—
	—	—
	—	—

JOB NO. 180649

SHEET NO. C-02 of 12

EROSION CONTROL LEGEND

SF		SILT FENCE (INITIAL/INTERIM)
RS		CURB ROCK SOCKS (INITIAL/INTERIM)
CF		CONSTRUCTION FENCE (INITIAL, INTERIM)
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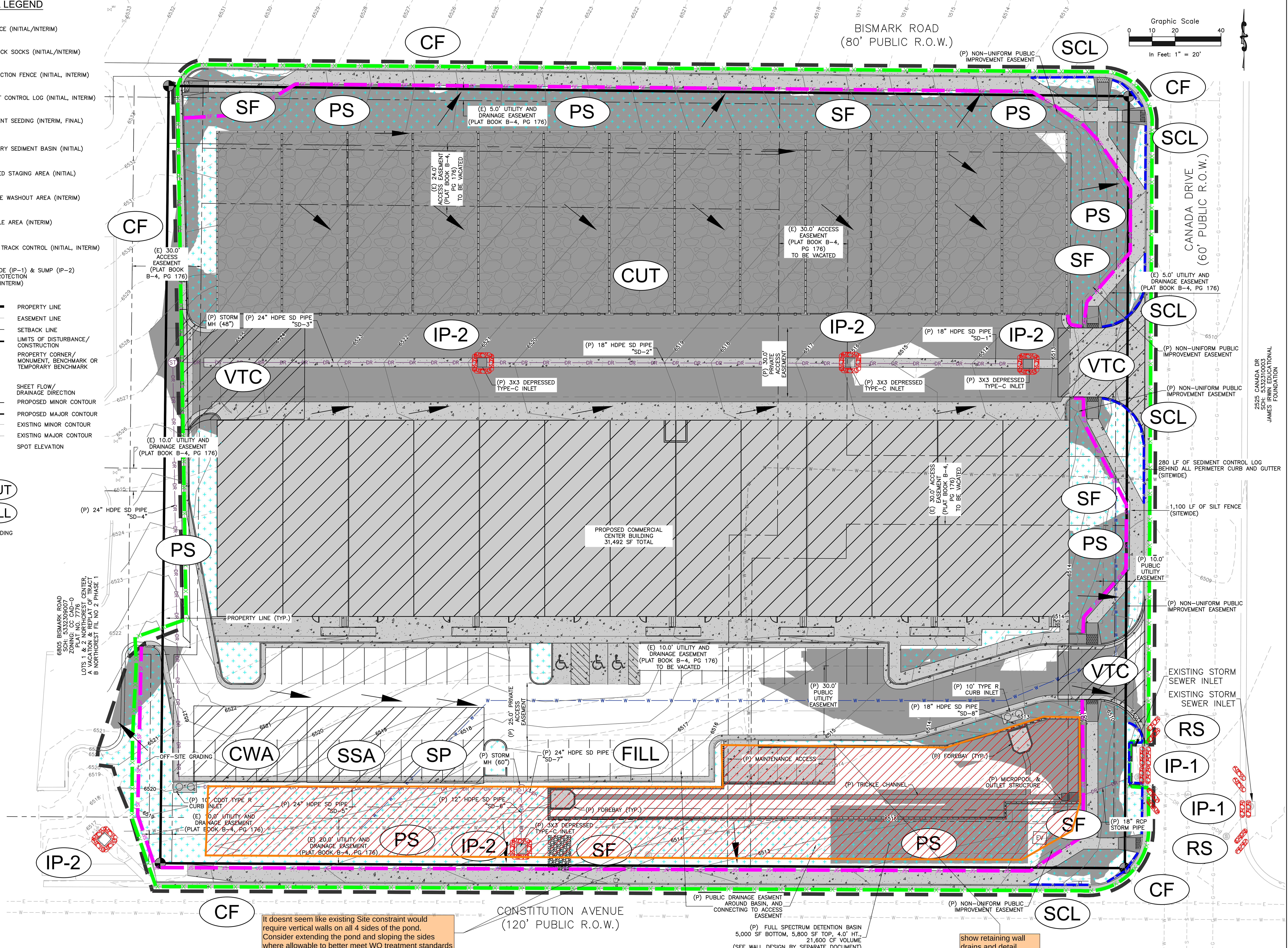
- AREAS OF CUT (CUT)
- AREAS OF FILL (FILL)
- PROP. STRUCTURE/BUILDING
- PROP. SIDEWALK



PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP — RMG ARCHITECTS ENGINEERS

Architectural Structural Forensics | Geotechnical Materials Testing Civil, Planning

SOUTHERN COLORADO: 2910 AUSTIN BLUFFS PARKWAY, COLORADO SPRINGS, CO 80918 (719) 548-0600 · WWW.RMGENGINEERS.COM

SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO

NOT FOR CONSTRUCTION
FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL PLAN - INTERIM

PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
	—	—

JOB NO.: 180649

SHEET NO.: C-03 of 12

EROSION CONTROL LEGEND

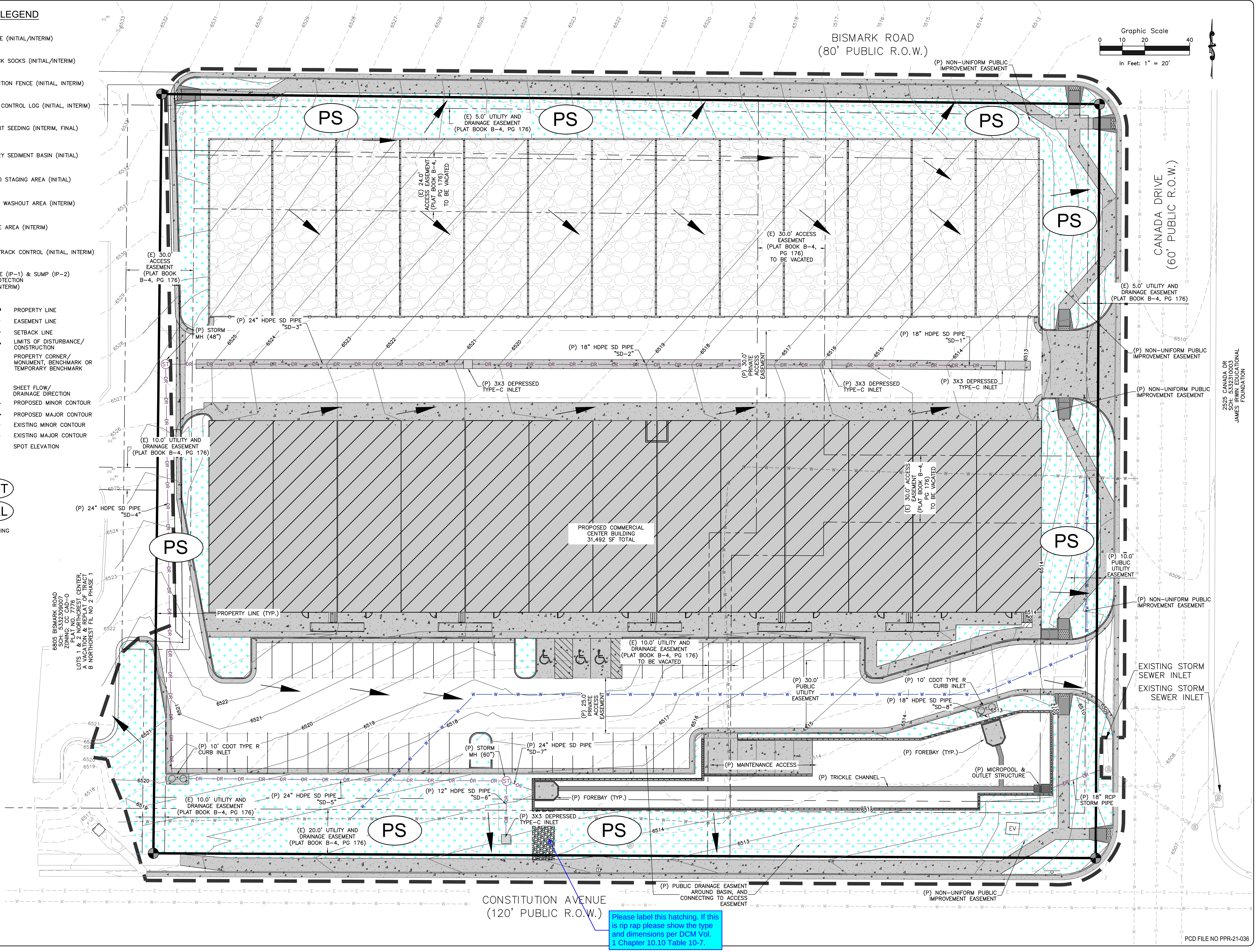
SF		SILT FENCE (INITIAL/INTERIM)
RS		CURB ROCK SOCKS (INITIAL/INTERIM)
CF		CONSTRUCTION FENCE (INITIAL, INTERIM)
SCL		SEDIMENT CONTROL LOG (INITIAL, INTERIM)
PS		PERMANENT SEEDING (INTERIM, FINAL)
TSB		TEMPORARY SEDIMENT BASIN (INITIAL)
SSA		STABILIZED STAGING AREA (INITIAL)
CWA		CONCRETE WASHOUT AREA (INTERIM)
SP		STOCKPILE AREA (INTERIM)
VTC		VEHICLE TRACK CONTROL (INITIAL, INTERIM)
IP-#		ON-GRADE (IP-1) & SUMP (IP-2) INLET PROTECTION (INITIAL/INTERIM)

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- LIMITS OF DISTURBANCE/CONSTRUCTION
- PROPERTY CORNER/MONUMENT, BENCHMARK OR TEMPORARY BENCHMARK (BM)
- SHEET FLOW/DRAINAGE DIRECTION
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- SPOT ELEVATION

SITE HATCHING

- AREAS OF CUT — CUT
- AREAS OF FILL — FILL
- PROP. STRUCTURE/BUILDING
- PROP. SIDEWALK



PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
RMG ARCHITECTS ENGINEERS
Architectural, Structural, Forensics
Geotechnical, Materials Testing, Civil, Planning
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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL PLAN - FINAL
PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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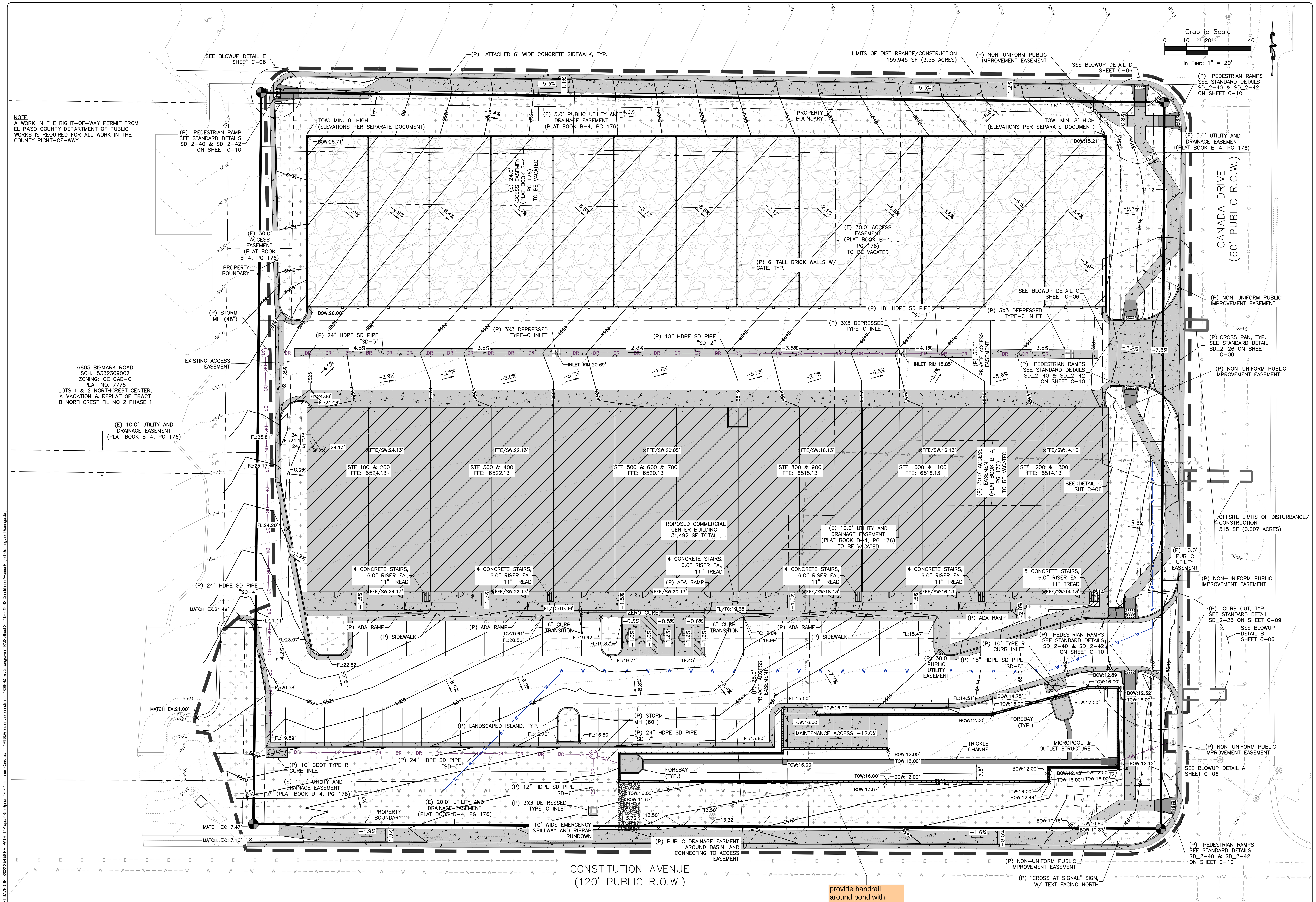
JOB NO. 180649

SHEET NO. C-04 of 12



provide handrail around pond with vertical walls

PCD FILE NO PPR-21-036

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NORTHCREST PEMB DEVELOPMENT

2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME
PRELIMINARY GRADING & DRAINAGE

PROJECT STATUS
DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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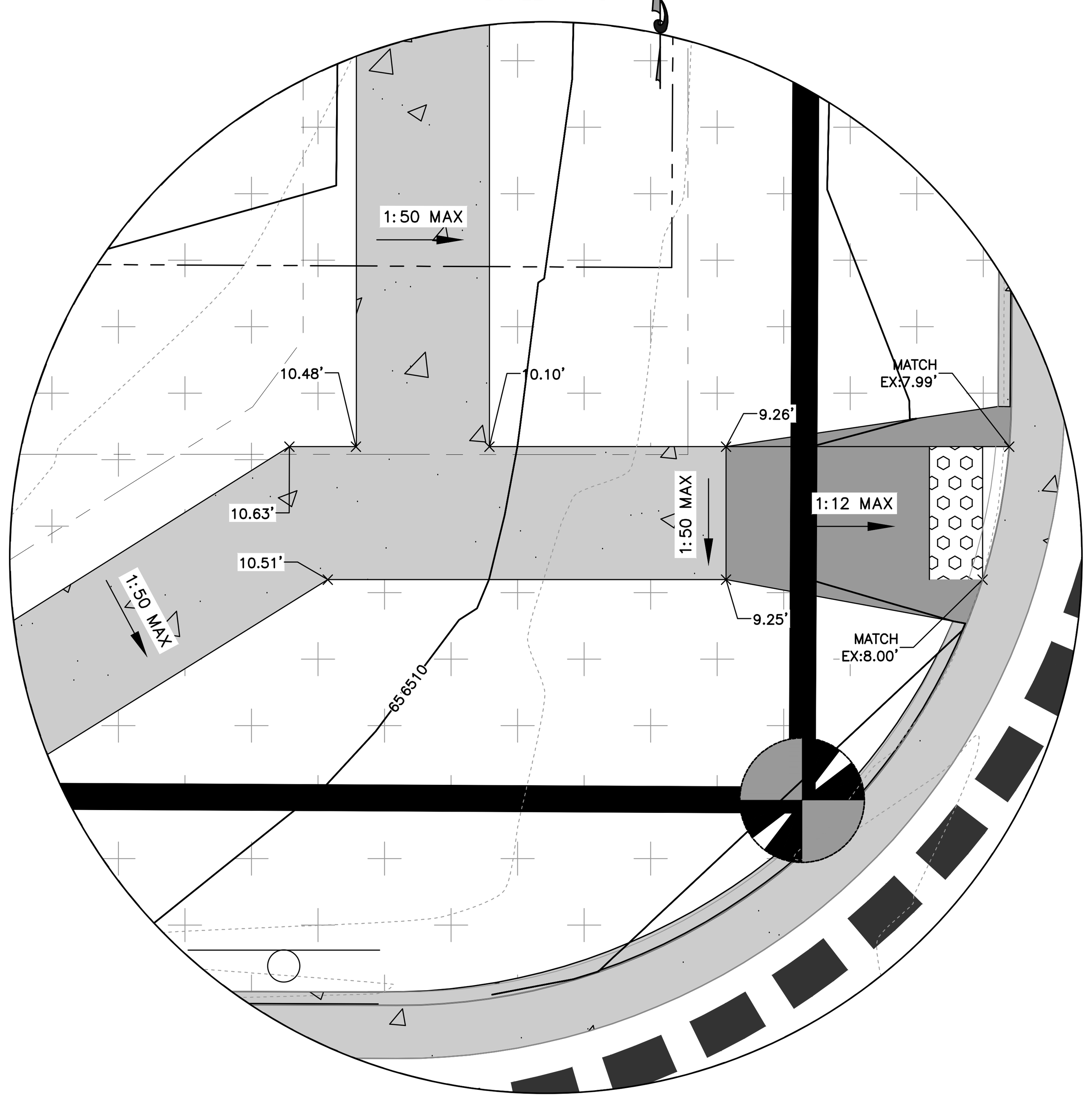
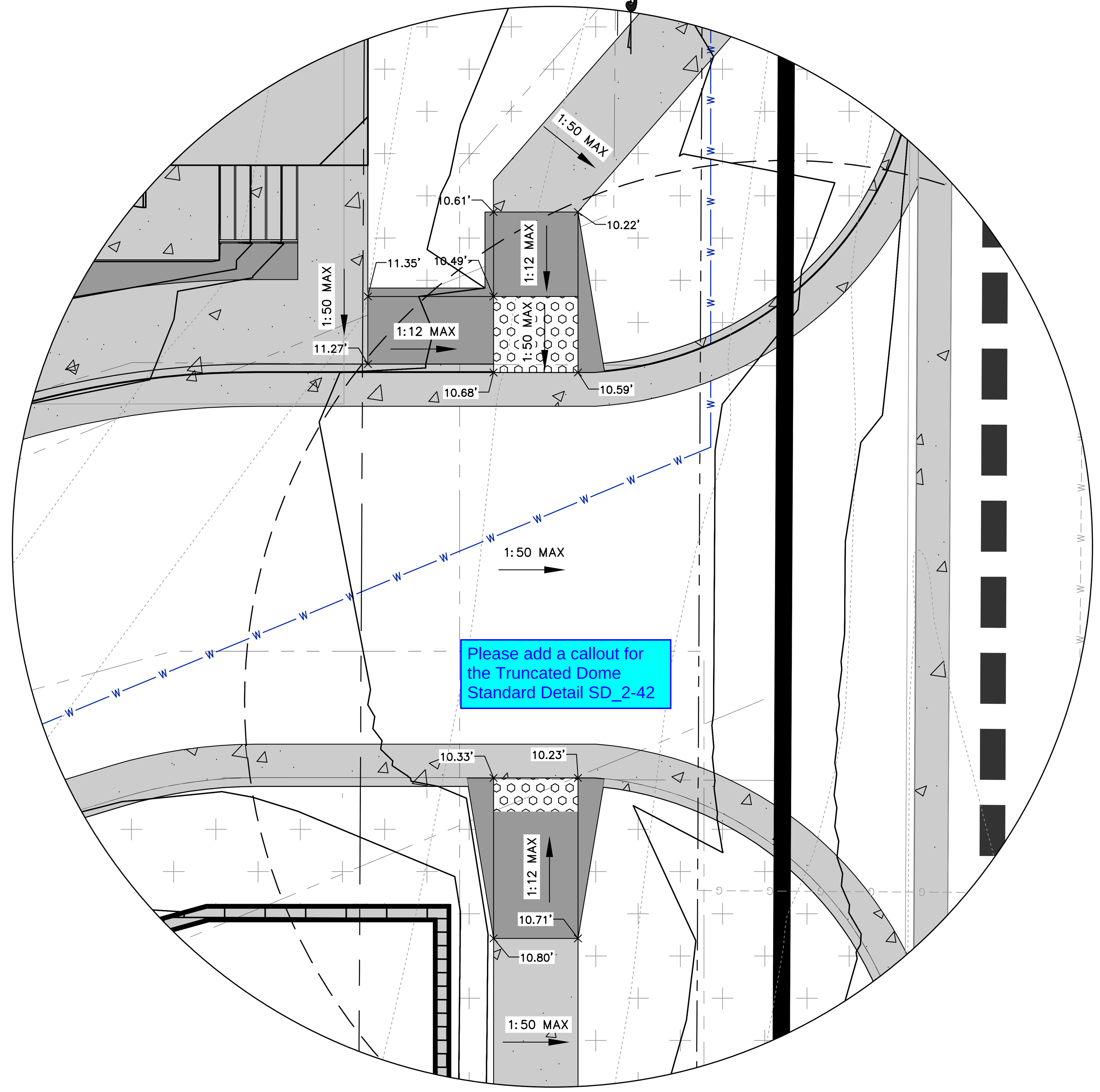
JOB NO.
180649

SHEET NO.
C-05

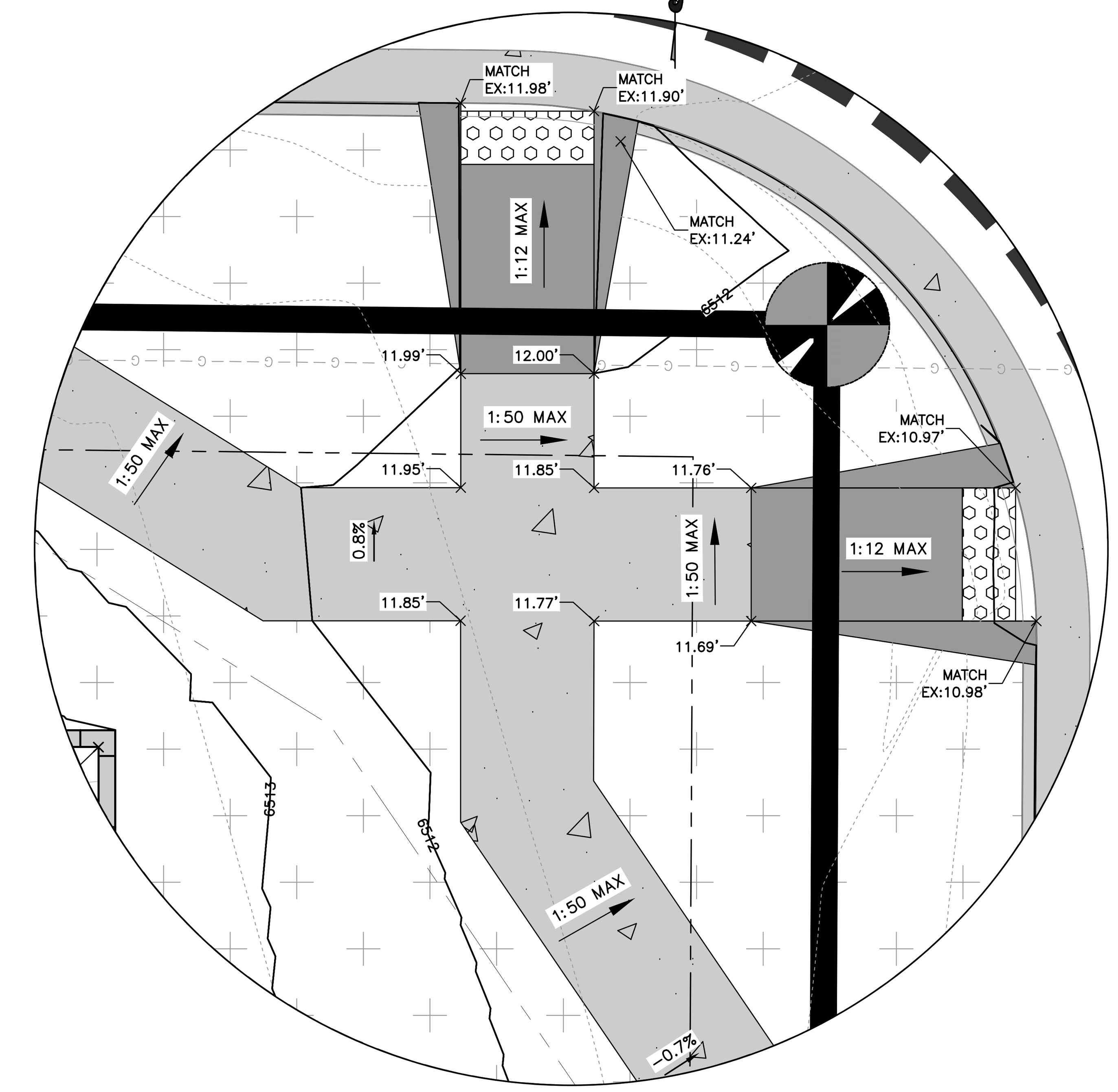
DETAIL A
SCALE=1"=5'



DETAIL B
SCALE=1"=6'

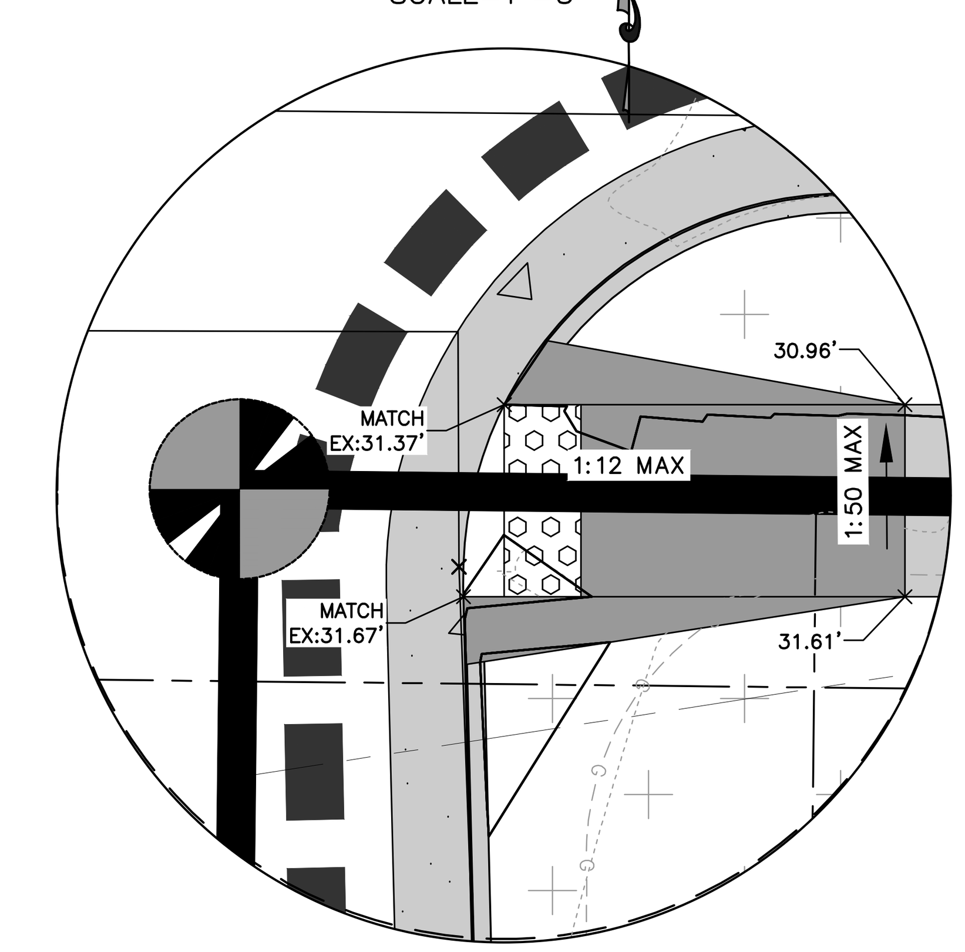


DETAIL D
SCALE=1"=5'



DETAIL C
SCALE=1"=5'

DETAIL E
SCALE=1"=5'



PCD FILE NO PPR-21-036

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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME
PRELIMINARY GRADING & DRAINAGE

PROJECT STATUS
DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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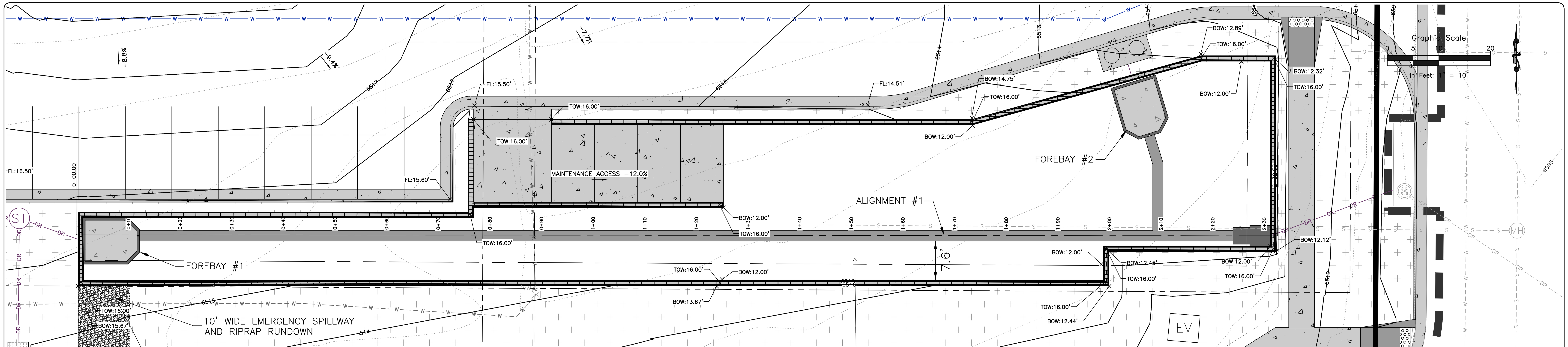
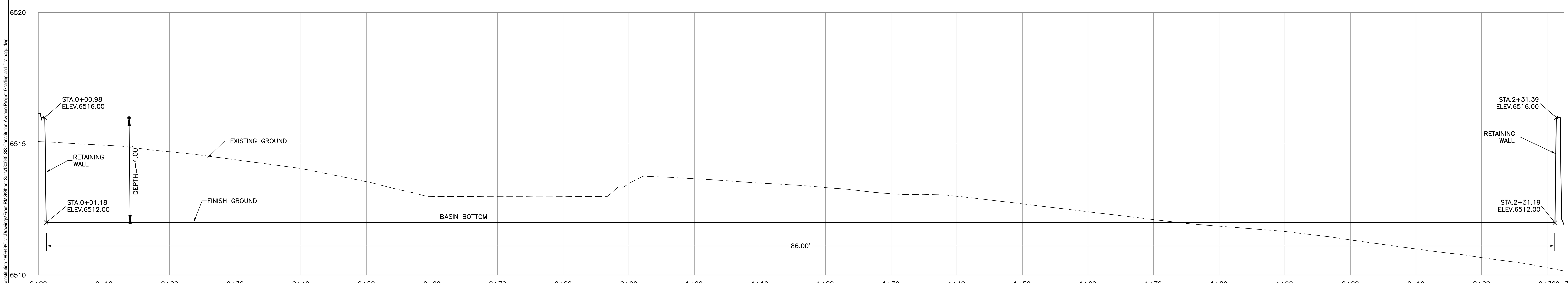
JOB NO.: 180649

SHEET NO.: C-06



provide detail, including wall cut, tie in to exisitng grade, riprap type and size.

show all pond bottom slopes towards trickle channel and outlet structure



PROFILE VIEW – ALIGNMENT #1
HOR. SCALE : 1"=8'
VERT. SCALE : 1"=2'

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
RMG ARCHITECTS ENGINEERS

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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME
DETENTION BASIN
PLAN & PROFILES

PROJECT STATUS
DESIGN DEVELOPMENT

ENG: SAM
DRAWN: SAM
CHECKED: SAM
DATE
08/12/2022

#	REVISION	DATE
	—	—

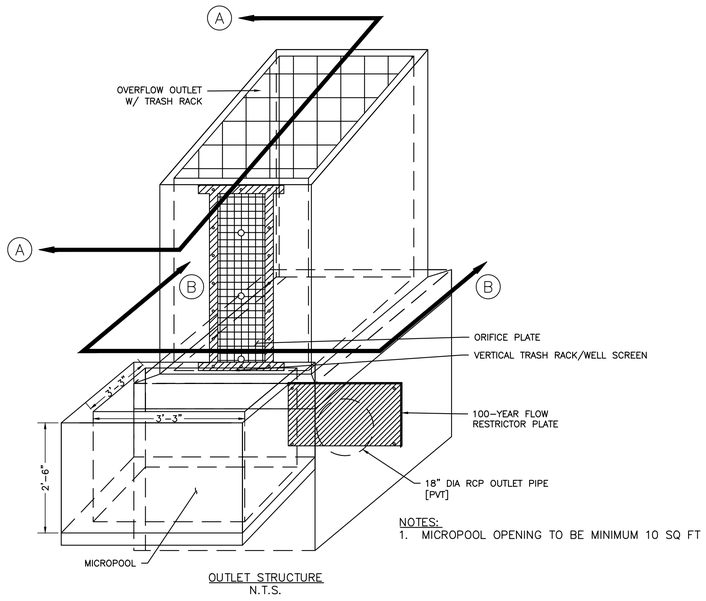
JOB NO.
180649

SHEET NO.
C-07
of 12

Please include detail for emergency spillway and verify dimensions match with final drainage report calculations.

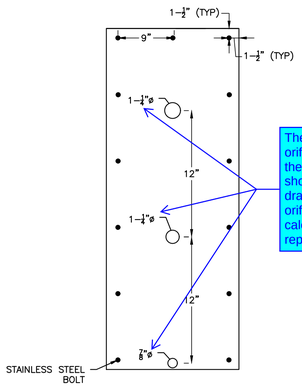
show maintenance access road detail

show handrail detail



NOTES:
1. MICROPOOL OPENING TO BE MINIMUM 10 SQ FT

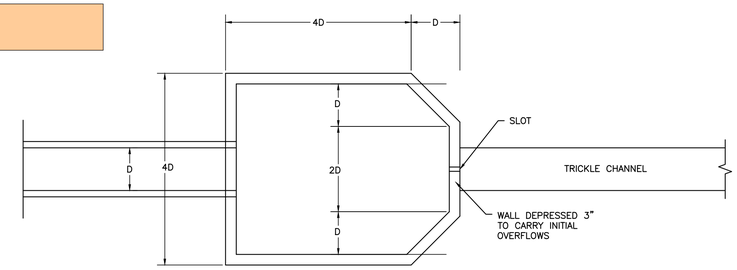
OUTLET STRUCTURE
N.T.S.

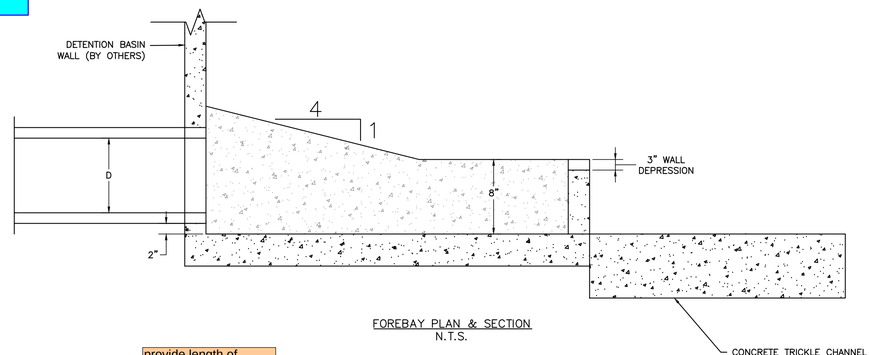


The shown diameter of the orifice holes do not match with the calculated orifice area shown on page 35 of the final drainage report. Please revise orifice plate detail or update calculations in final drainage report.

* DIMENSIONS SHOWN TO CENTER OF ORIFICES AND BOLT HOLES

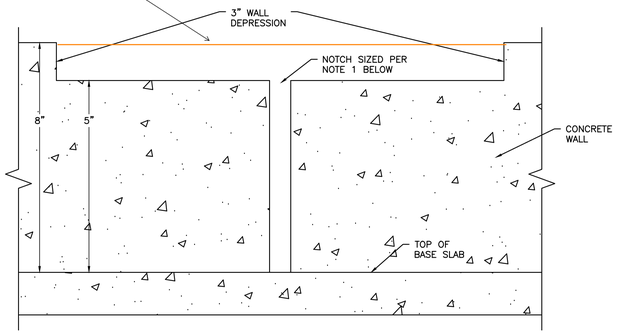
ORIFICE PLATE
N.T.S.



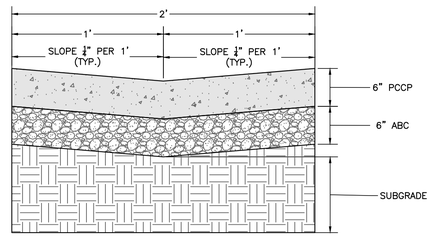


FOREBAY PLAN & SECTION
N.T.S.

provide length of depression for both forebays



FOREBAY OUTLET NOTCH
N.T.S.

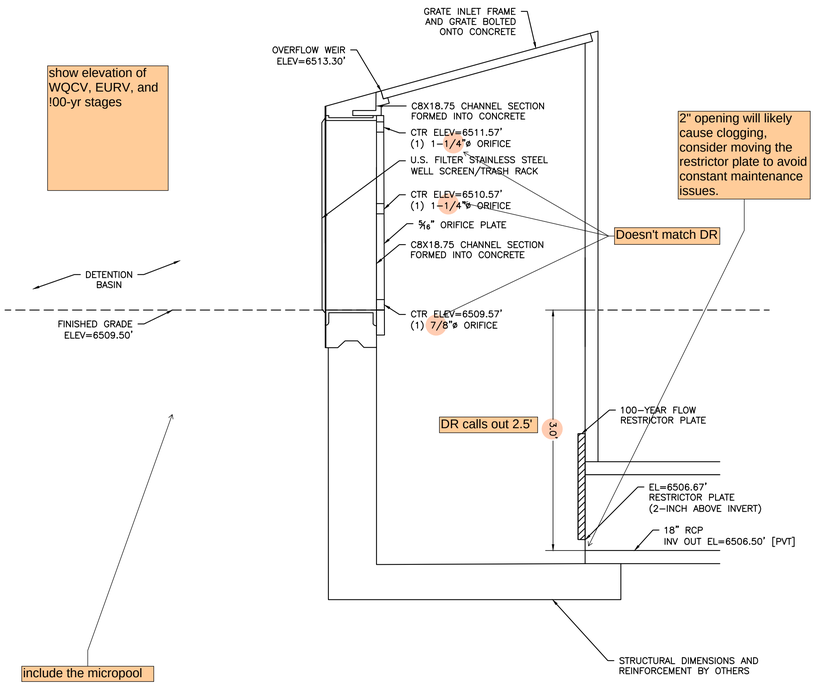


CONCRETE TRICKLE CHANNEL
N.T.S.

NOTES:
1. COMBINED FOREBAY VOLUMES SIZED TO CAPTURE 2% OF WQCV. FOREBAY NOTCHES SIZED TO RELEASE 2% OF THE 100YR PEAK RUNOFF.
2. FOREBAY #1:
   2.1. D=1.5 FT (18 IN PIPE), NOTCH=5" HIGH X 3.00" WIDE
   2.2. VOLUME=MIN. 37 CU FT
3. FOREBAY #2:
   2.1. D=1.5 FT (18 IN PIPE), NOTCH=5" HIGH X 1.00" WIDE
   2.2. VOLUME=MIN. 14 CU FT

provide calcs in DR

show elevation of WQCV, EURV, and !00-yr stages



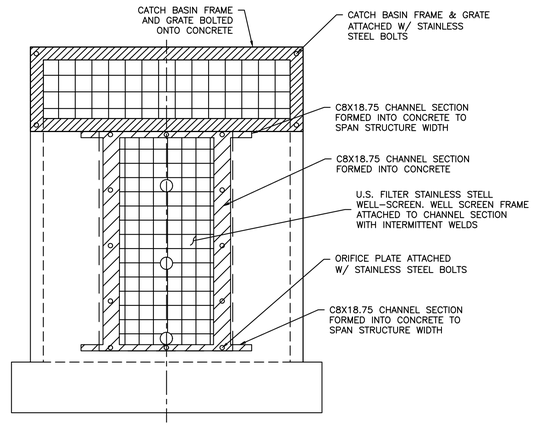
Doesn't match DR

2" opening will likely cause clogging, consider moving the restrictor plate to avoid constant maintenance issues.

DR calls out 2.5'

include the micropool

SECTION A-A
N.T.S.



SECTION B-B (FRONT)
N.T.S.

PCD FILE NO PPR-21-036

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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

SHEET NAME: DETENTION BASIN DETAILS

PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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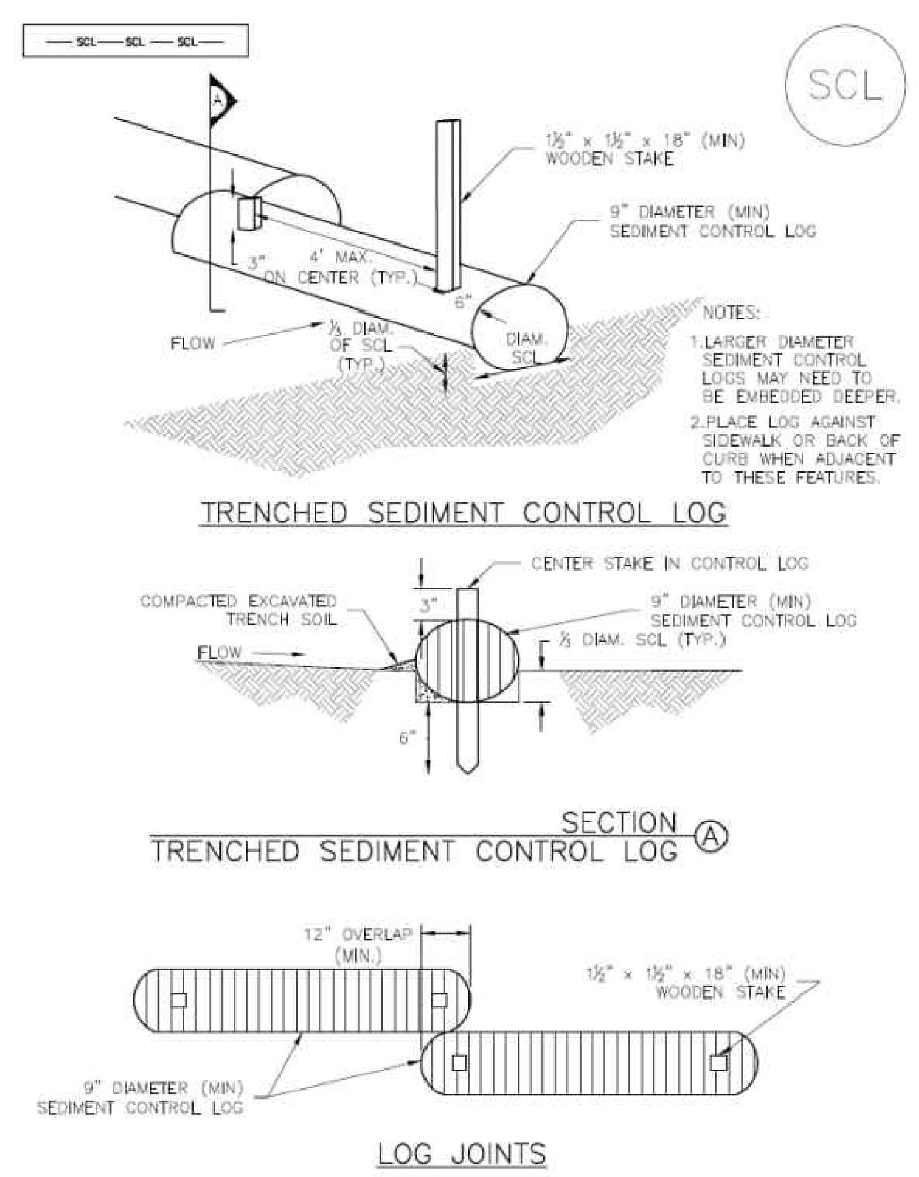
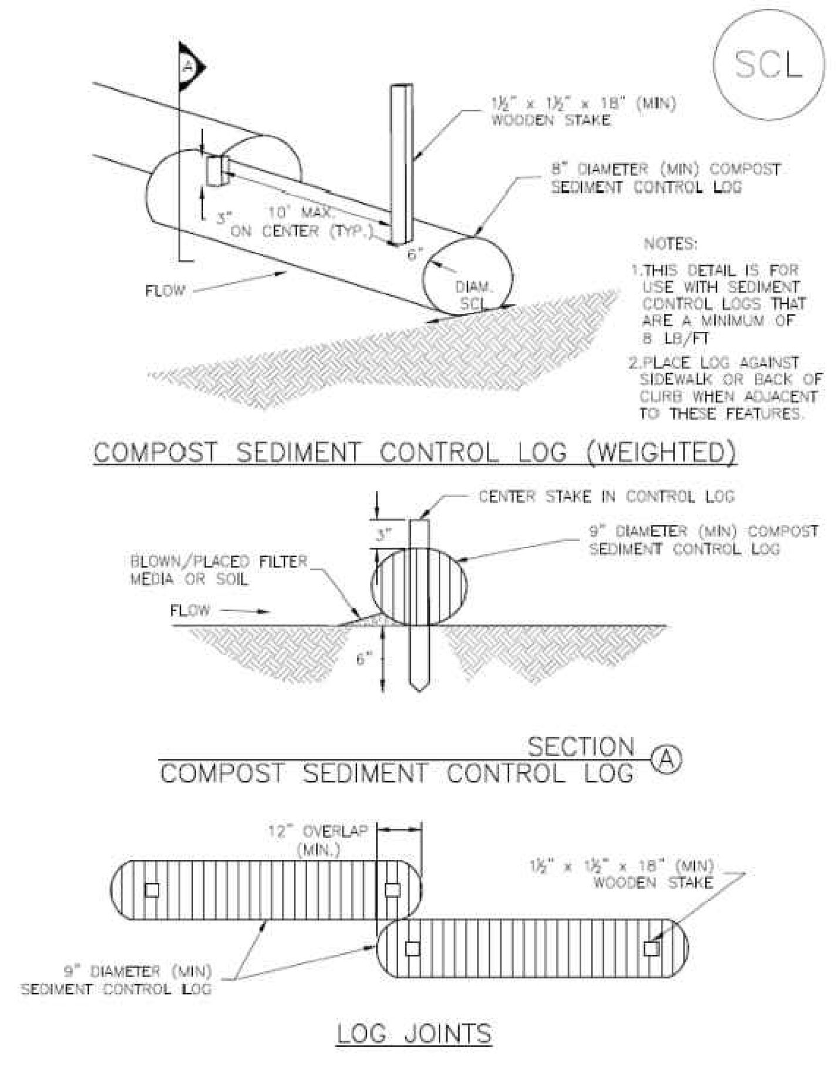
JOB NO. 180649

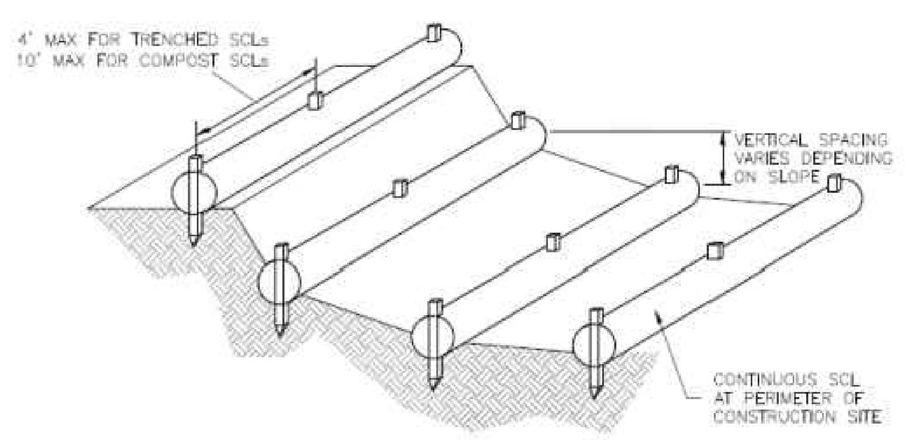
SHEET NO. C-08 of 12



SCL-1. TRENCHED SEDIMENT CONTROL LOG



SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG 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.

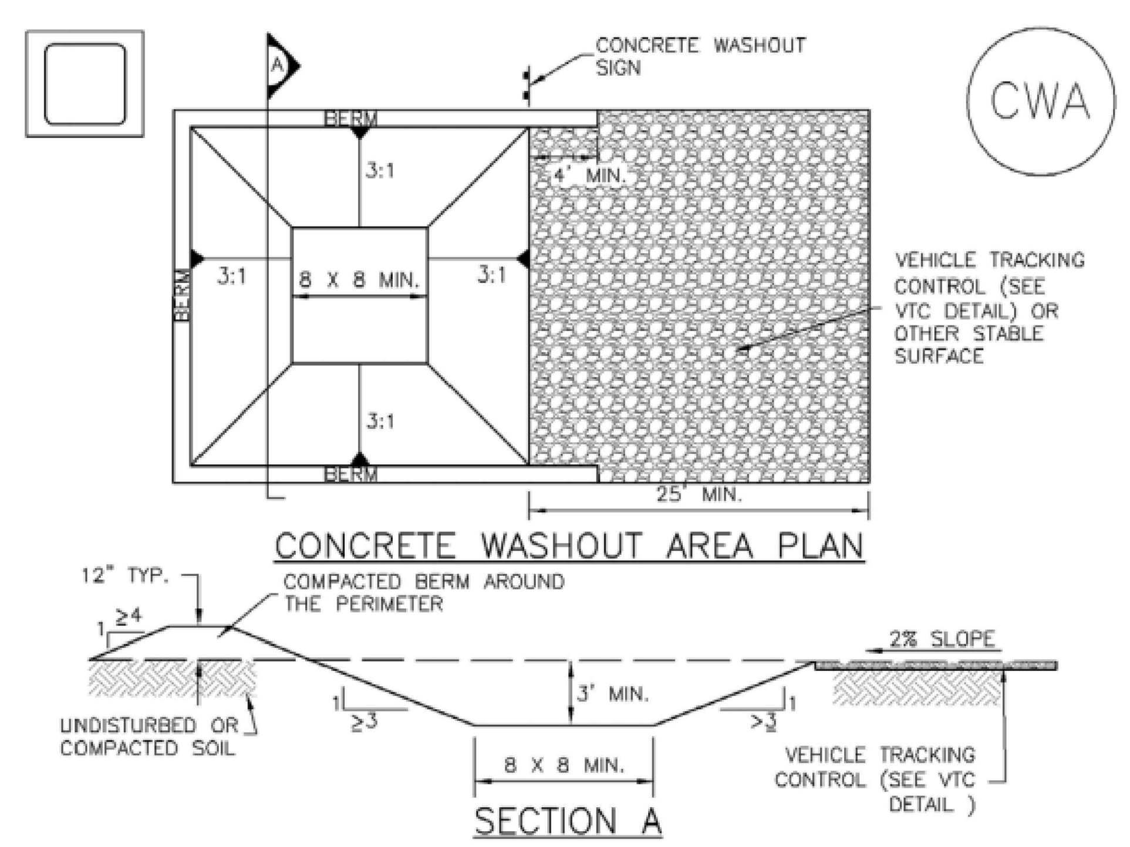
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG 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 SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, 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.



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.

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.

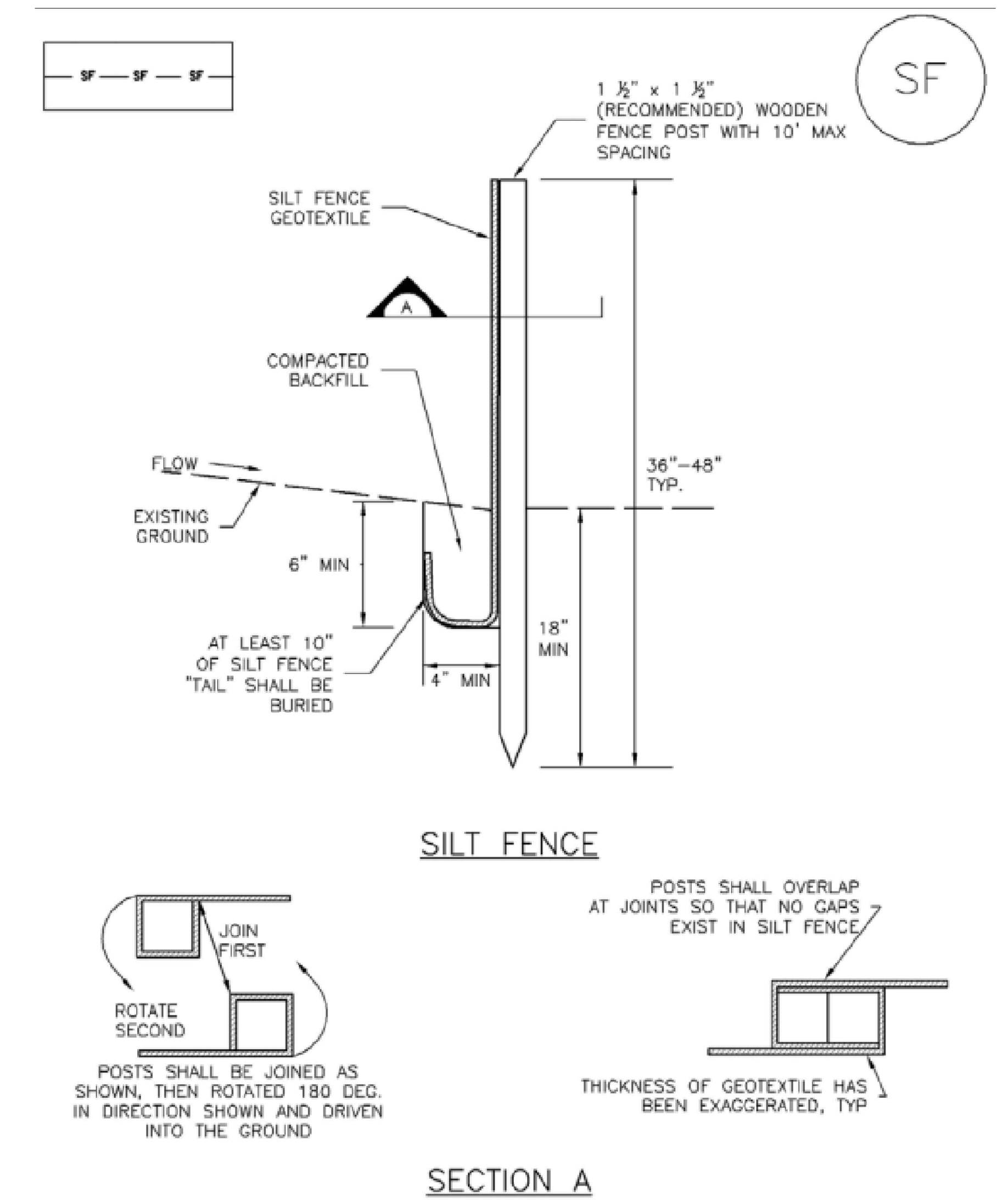
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

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.



SF–1. SILT FENCE

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.

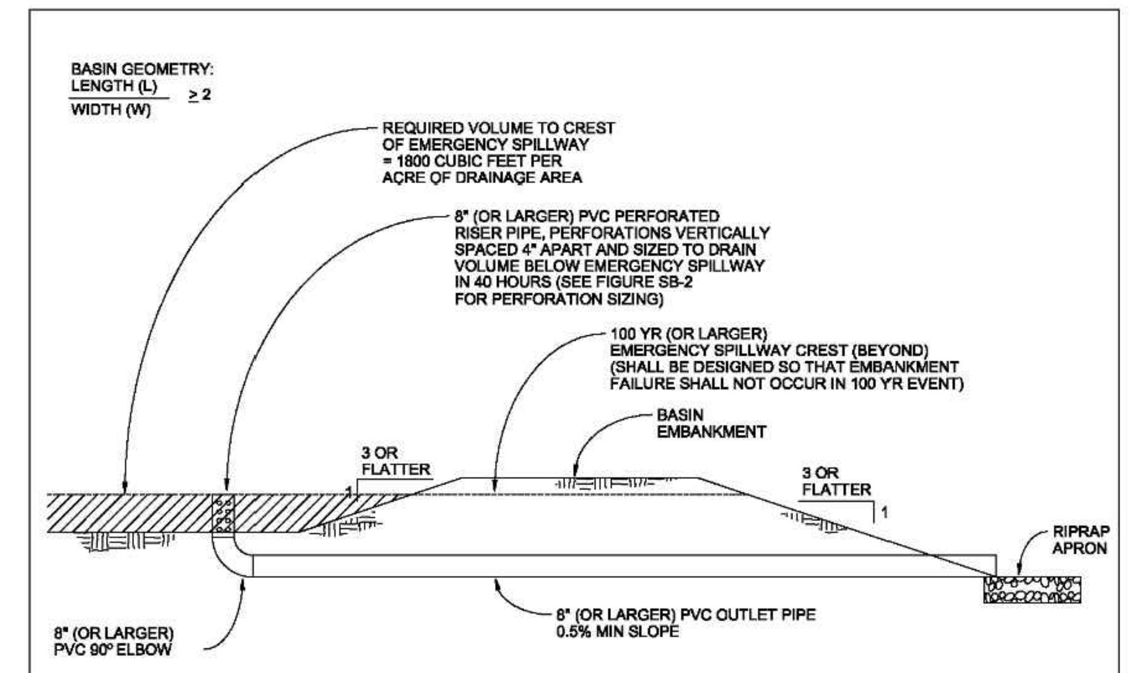
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

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.



SEDIMENT BASIN
NTS

SEDMENT BASIN NOTES

INSTALLATION REQUIREMENTS

1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.

2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.

3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.

4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.

5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.

6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.

7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

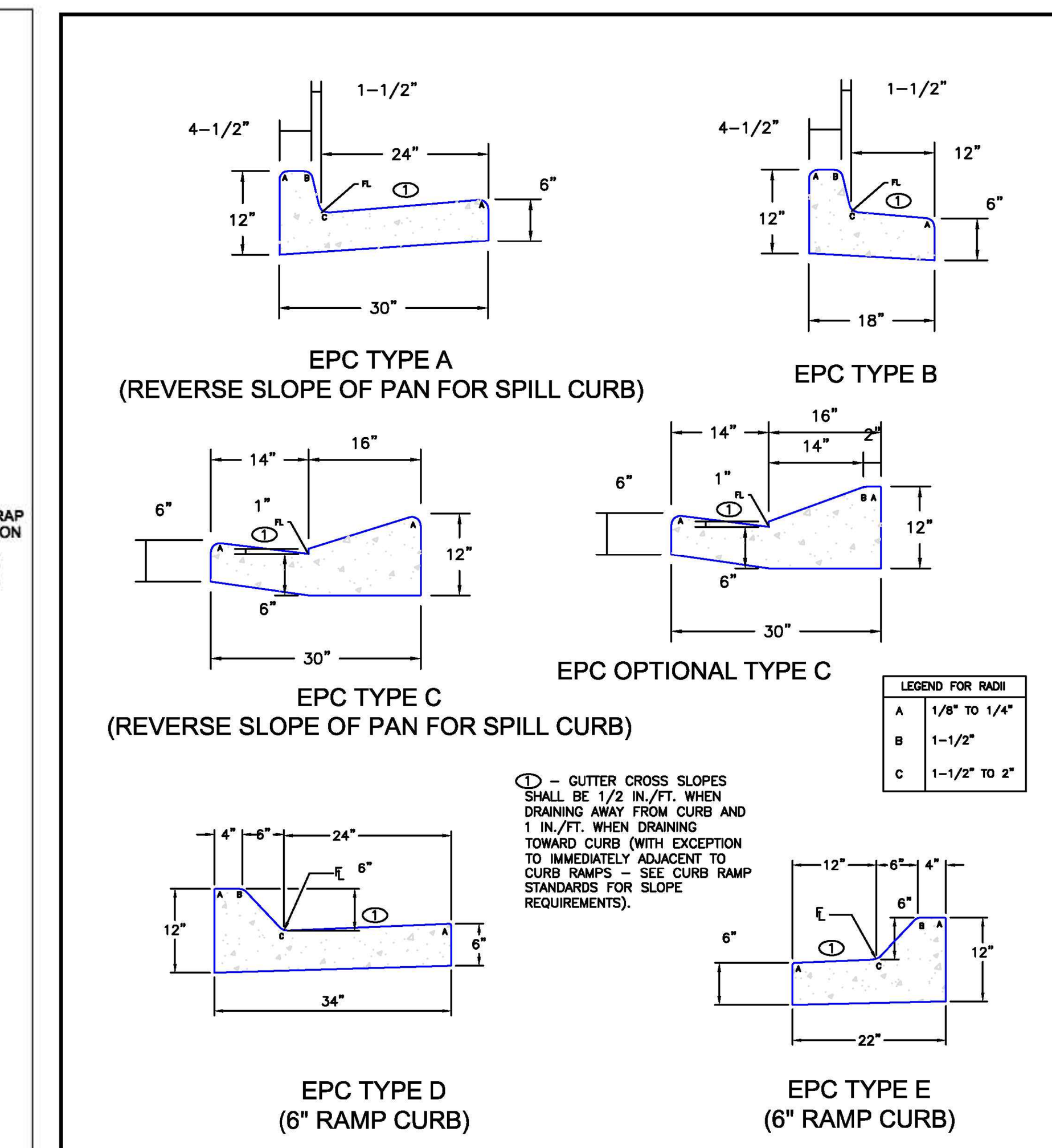
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.

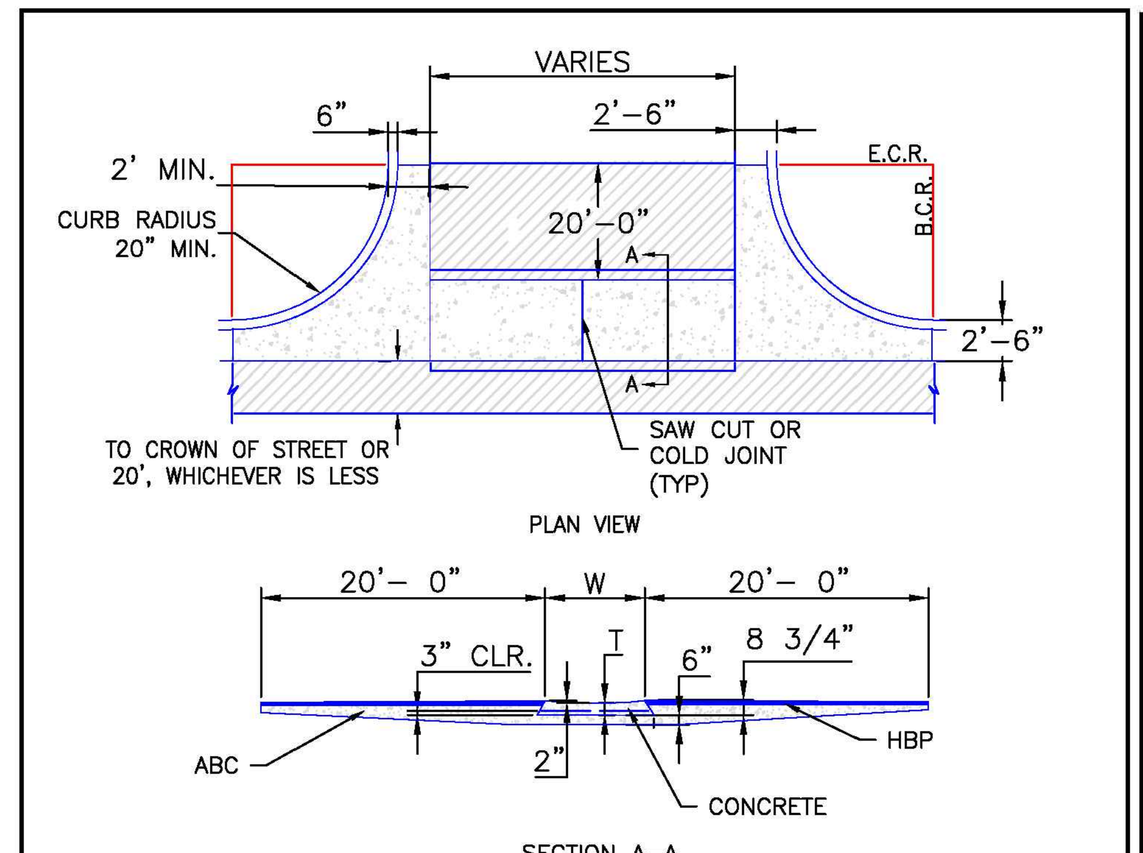
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality	Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements



SCALE: NOT TO SCALE

6/23/20 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Typical Curb and Gutter Details Standard Drawing REVISION DATE: 6/23/20 FILE NAME: SD_2-20



NOTES

1. W – WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, AND 10' FOR ARTERIAL ROADS.

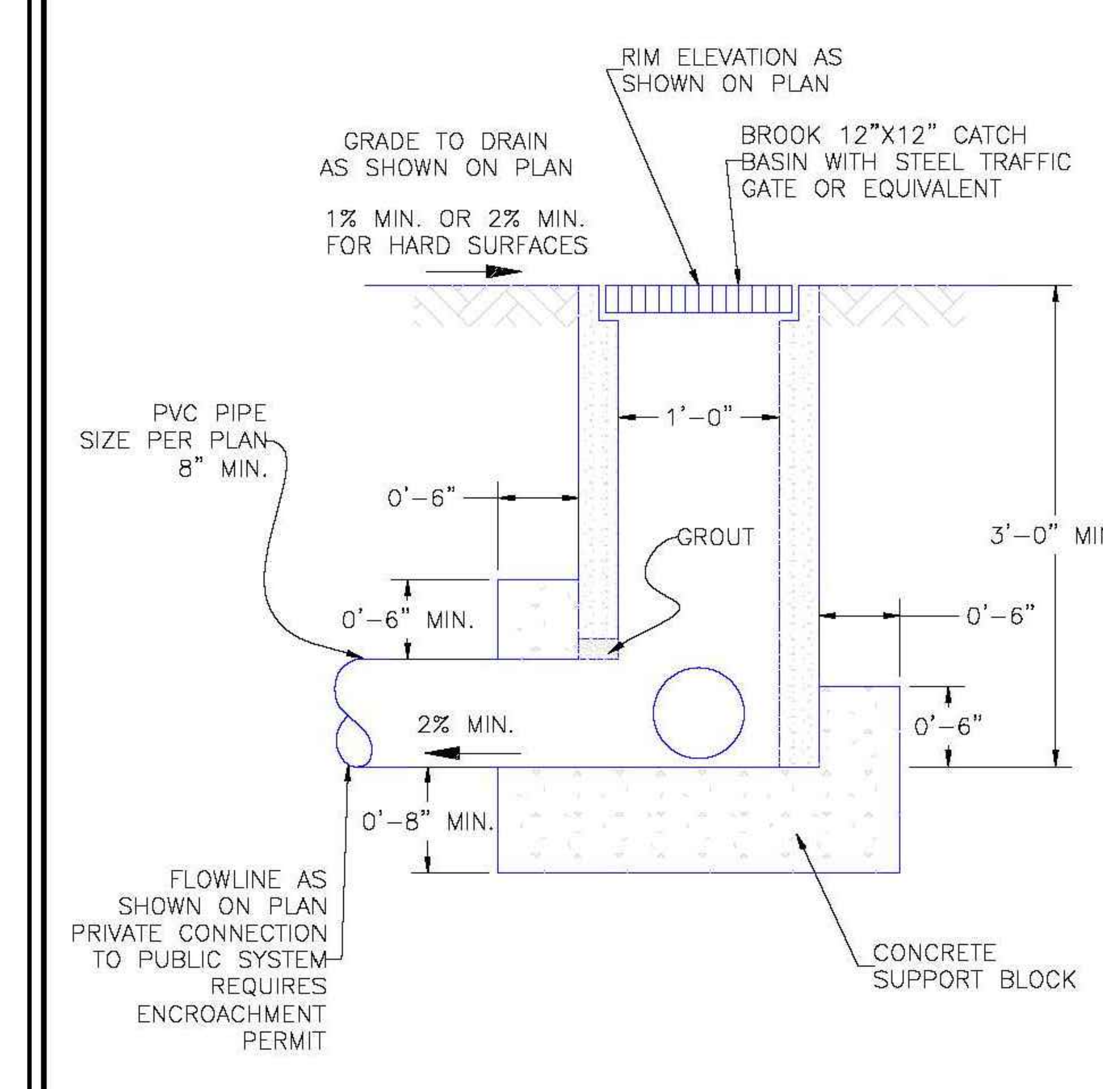
2. T – SQUARED–OFF RETURN TO BE POURED MONOLITHICALLY, 8" PCC FOR LOCAL ROADS, 9" FOR COLLECTORS WITH 6x6 – 4.4 W.W.F. OR #4 REINFORCING BAR @ 18" EACH WAY.

3. [hatched box] = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).

4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Typical Cross Pan Layout Detail Standard Drawing REVISION DATE: 12/8/15 FILE NAME: SD_2-26



SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Grate Inlet for Common Areas (guidance) Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3-8

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
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Architectural Structural Forensics
Geotechnical Materials, Testing Civil, Planning
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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME
EROSION CONTROL DETAILS 1

PROJECT STATUS
DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW

DATE
08/12/2022

#	REVISION	DATE
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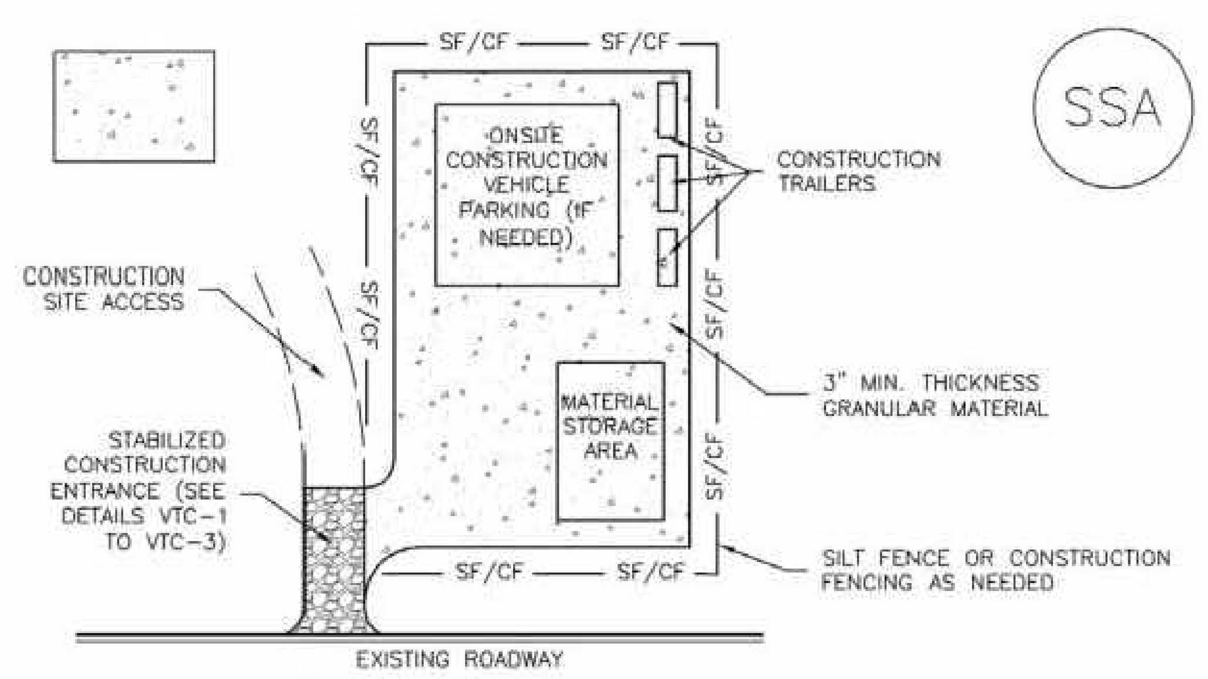
JOB NO.
180649

SHEET NO.
C-09
of 12

LAST SAVED: 8/9/2022 2:13:08 PM PATH: T:\Projects\Site Specific\2020\h-l\Leisure Construction-19638\Peterson and constitution-180649\Civil\Drawings\From RMG\Sheet Sets\180649-SS-Constitution Avenue Project-Construction Details.dwg



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

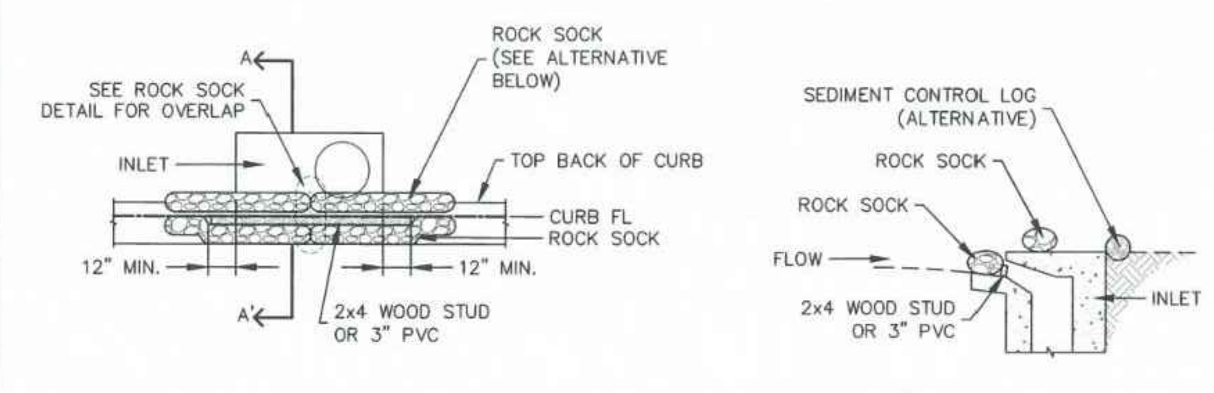
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS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

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.

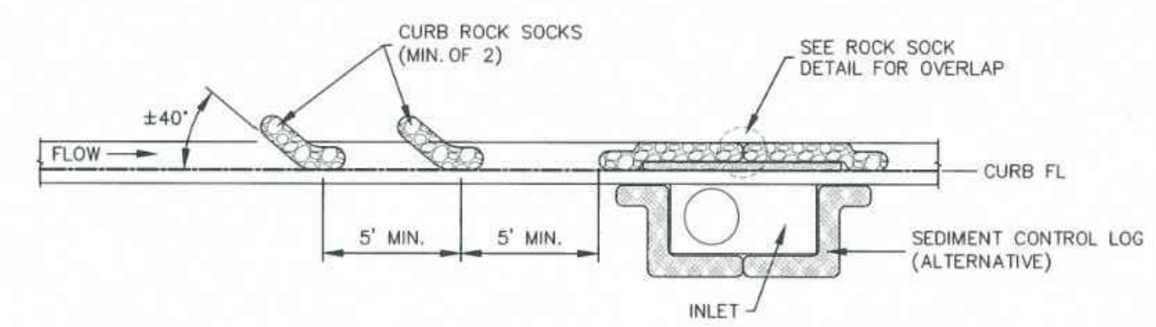
NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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.



CURB INLET PROTECTION PLAN

SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
3. ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
4. AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
5. ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

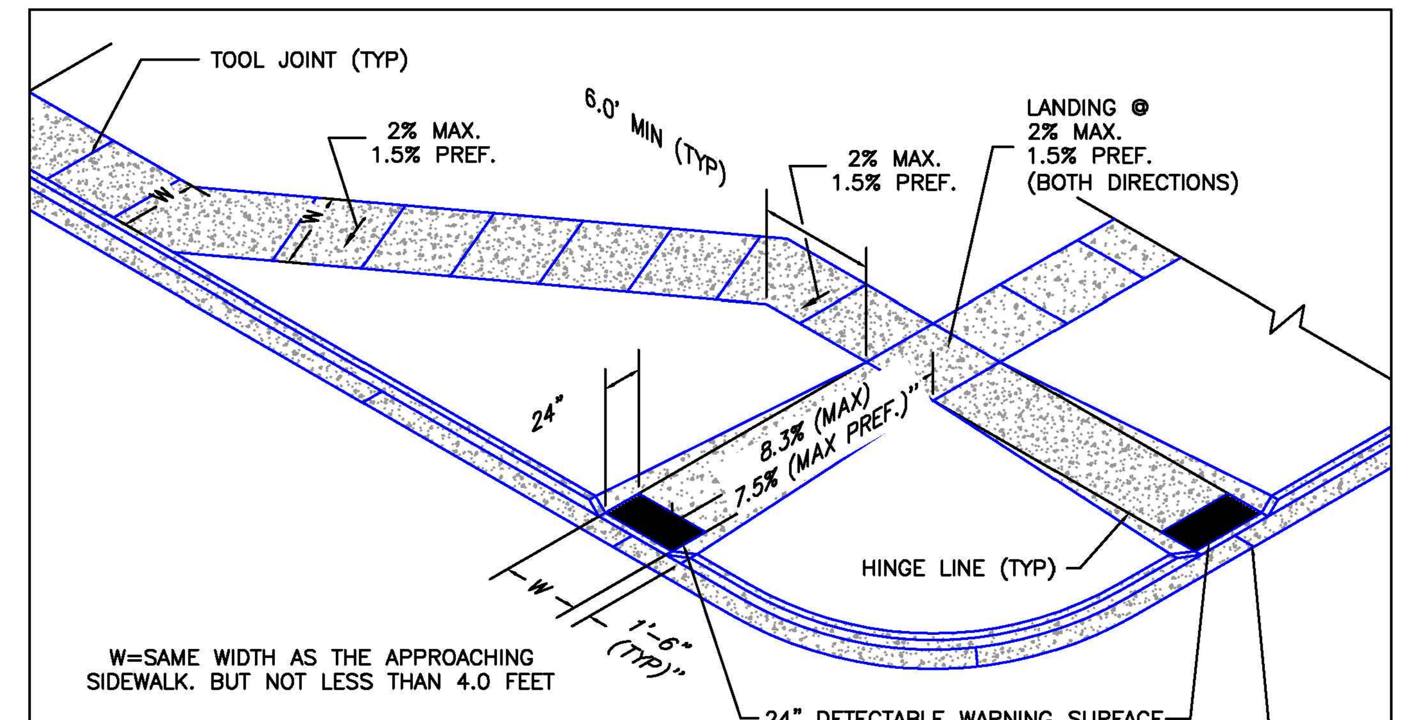
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-1

STORMWATER ENTERPRISE | ON-GRADE INLET PROTECTION

APPROVED: | CABINET MANAGER | ISSUED: 10/7/19 | REVISED: 6/19/2020 | DRAWING NO. 900-IP-1



W=SAME WIDTH AS THE APPROACHING SIDEWALK. BUT NOT LESS THAN 4.0 FEET

24" DETECTABLE WARNING SURFACE WITH TRUNCATED DOMES (TYP)

LAYOUT CURB SECTIONS SO THAT AT LEAST ONE TOOL JOINT IS WITHIN RAMP THROAT

PEDESTRIAN RAMP NOTES

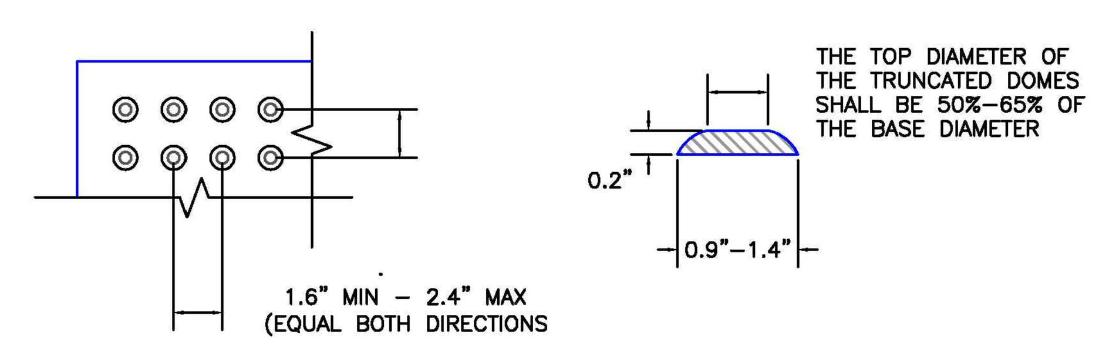
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COARSE BROOM FINISH.
4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE ECM SECTION 6.3.6 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH ECM CHAPTER 6 AND SD_2-42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4' MINIMUM.
9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL SUBJECT TO APPROVAL.
10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.

GENERAL NOTES

1. WHERE THE 1'-6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

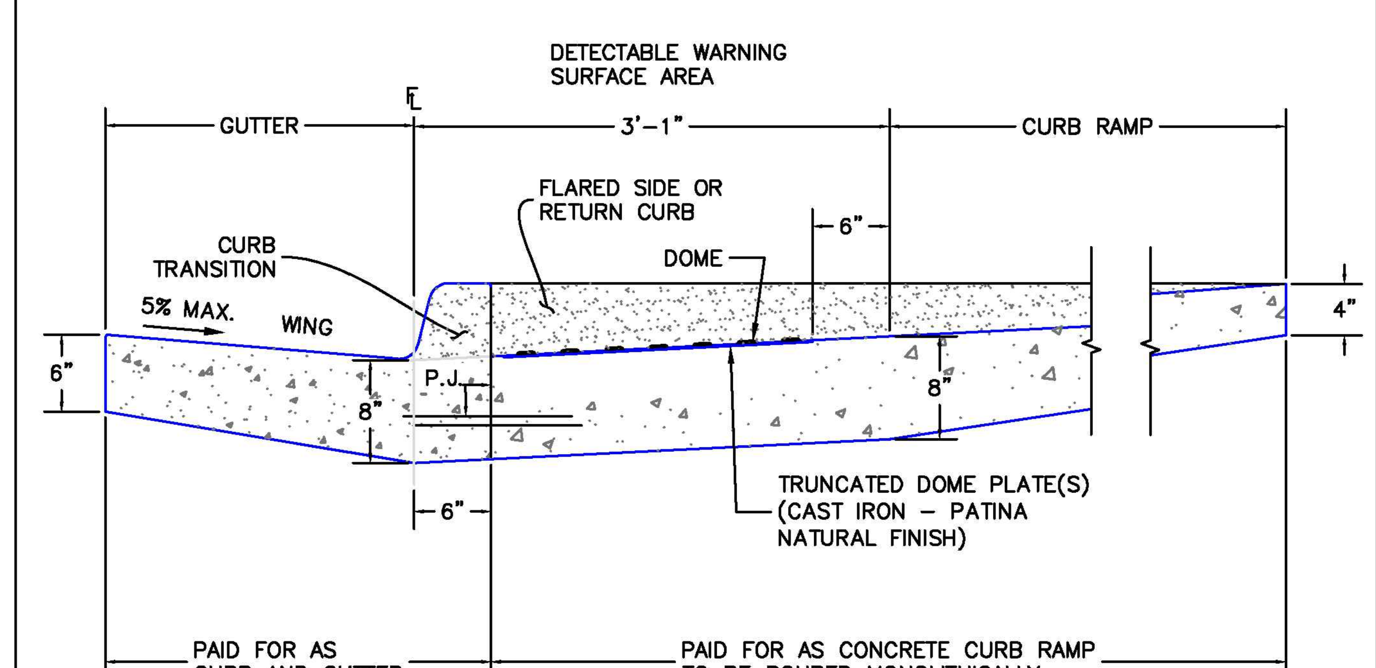
6/23/20	Pedestrian Curb Ramp Detail	
DATE APPROVED:	Standard Drawing	DEPARTMENT OF PUBLIC WORKS, EL PASO COUNTY, EST. 1861
Jennifer E. Irvine, DEPARTMENT OF PUBLIC WORKS	REVISION DATE: 6/23/20	FILE NAME: SD_2-41

TRUNCATED DOME DETAILS



DOME SPACING

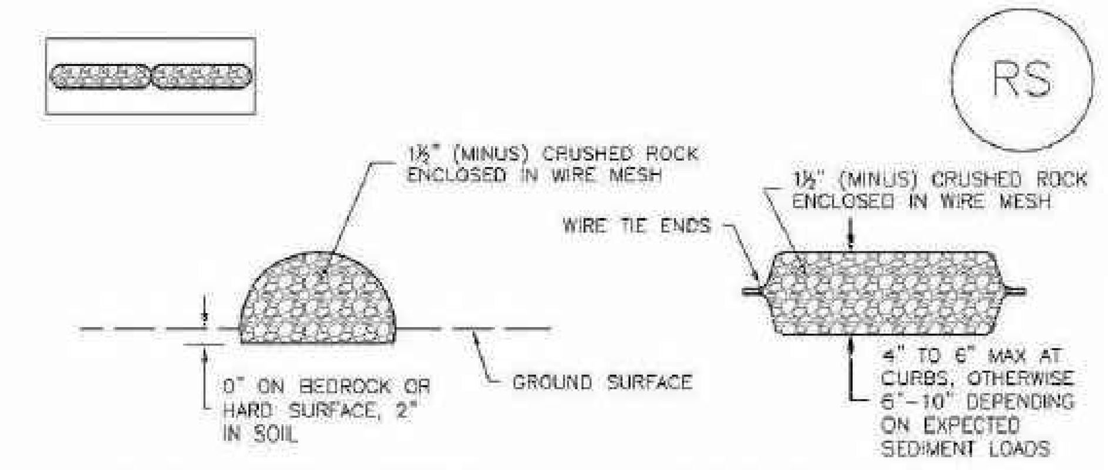
ELEVATION VIEW



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

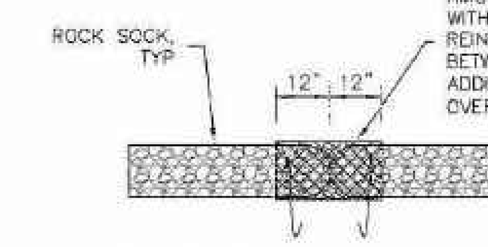
SIDE CROSS SECTION VIEW OF DETECTABLE WARNING SURFACE, CURB AND GUTTER

6/23/20	Detectable Warning Surface Details	
DATE APPROVED:	Standard Drawing	DEPARTMENT OF PUBLIC WORKS, EL PASO COUNTY, EST. 1861
Jennifer E. Irvine, DEPARTMENT OF PUBLIC WORKS	REVISION DATE: 6/23/20	FILE NAME: SD_2-42



ROCK SOCK SECTION

ROCK SOCK PLAN



ROCK SOCK JOINTING

ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS.

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 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1 1/2" MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½ INCH, RECOMMENDED MINIMUM ROLL WIDTH OF 48 INCHES.
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS.
5. ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
6. JEFFERSON COUNTY MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE IF SPECIFIED ON THE APPROVED PLANS.

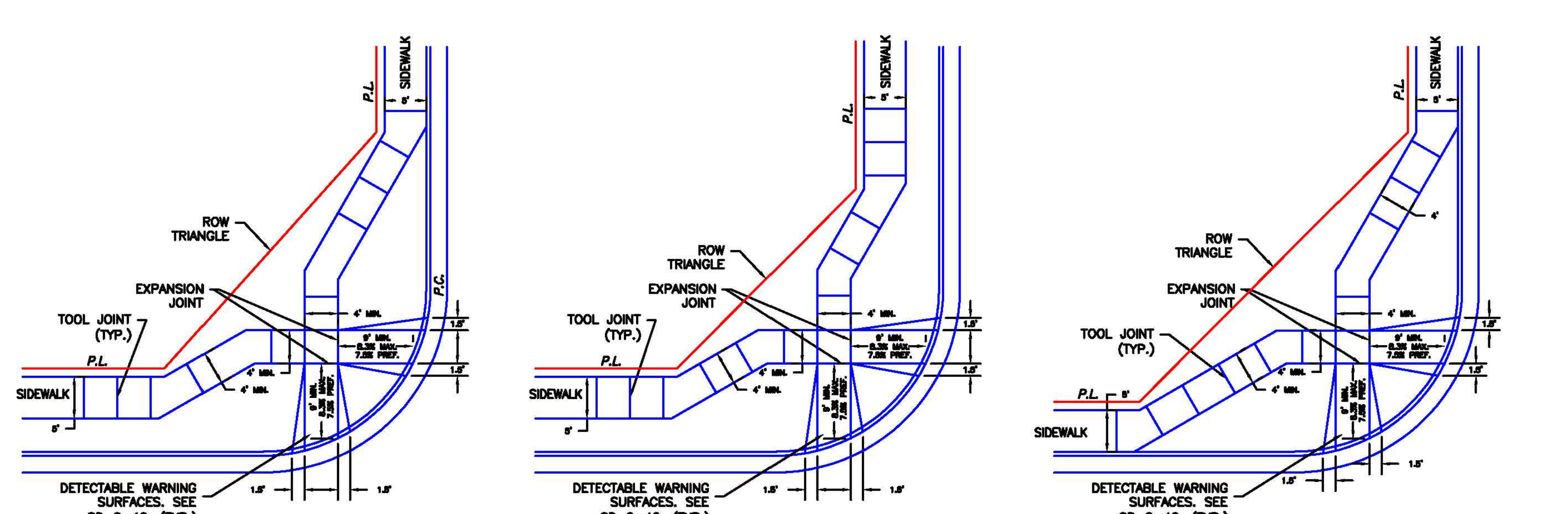
ROCK SOCK MAINTENANCE NOTES

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 1/2 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 JEFFERSON COUNTY.
2. WHEN ROCK SOCKS ARE REMOVED, All DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY JEFFERSON COUNTY.

ROCK SOCK

RS

Detail 14



SCALE: NOT TO SCALE

6/23/20	Pedestrian Curb Ramp Detail	
DATE APPROVED:	Standard Drawing	DEPARTMENT OF PUBLIC WORKS, EL PASO COUNTY, EST. 1861
Jennifer E. Irvine, DEPARTMENT OF PUBLIC WORKS	REVISION DATE: 6/23/20	FILE NAME: SD_2-40

NOTE: THE STABILIZED DRIVEWAY ACCESS/DRIVEWAY TO BE CONSTRUCTED TO VEHICLE TRACKING CONTROL STANDARDS WITH THE PROPOSED DRIVEWAY AGGREGATE BASE COURSE MATERIAL AND COMPACTION. A MINIMUM OF 30' INSIDE RADII ARE TO BE CONSTRUCTED FOR THE STABILIZED DRIVEWAY ACCESS/DRIVEWAY AND VEHICLE TRACKING FOR HEAVY VEHICLE INGRESS/EGRESS.

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
RMG ARCHITECTS ENGINEERS
Architectural, Structural, Forensics
Geotechnical, Materials Testing, Civil, Planning
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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL DETAILS 2

PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

#	REVISION	DATE
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JOB NO. 180649

SHEET NO. C-10 of 12

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

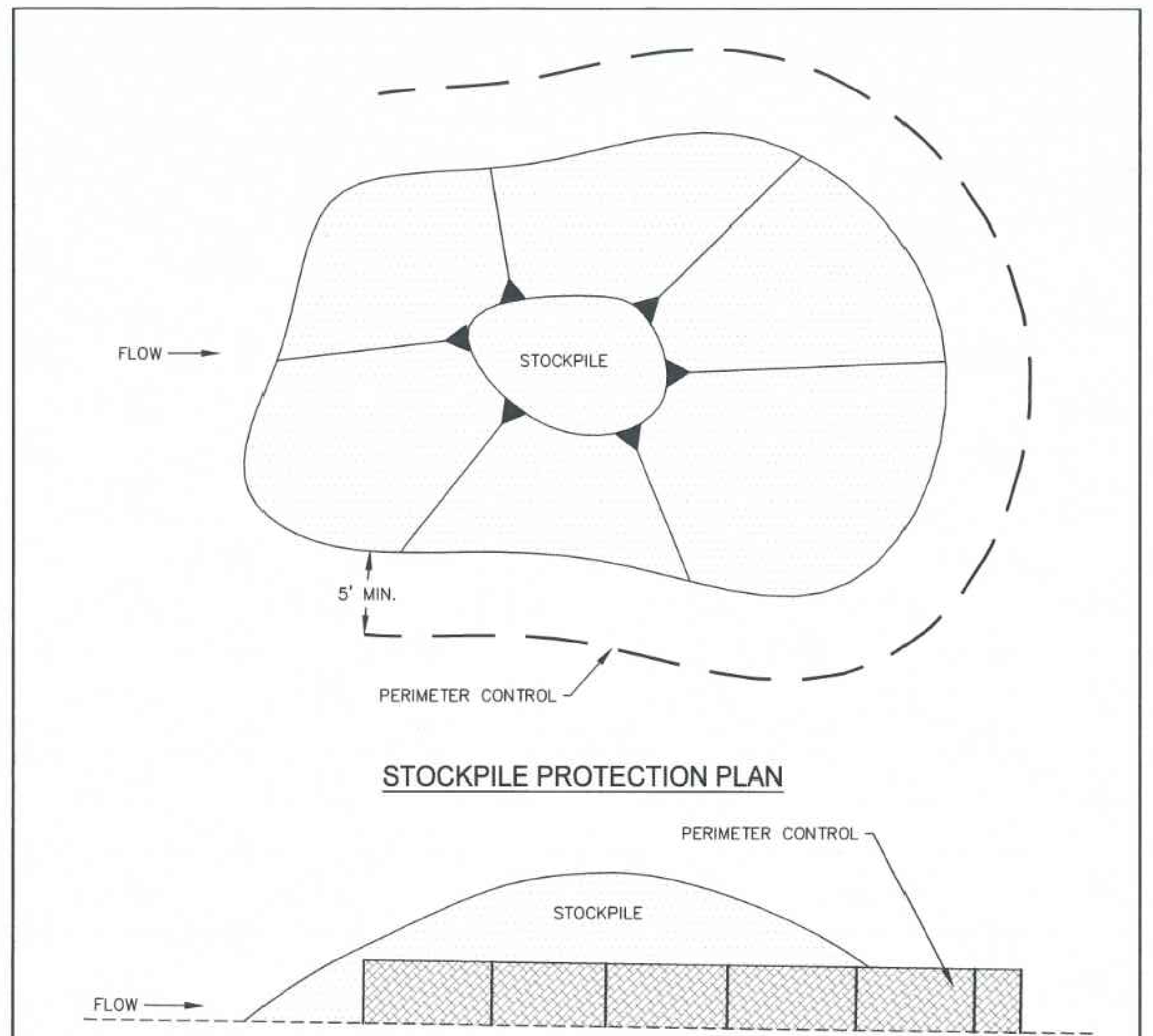
1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL–SEEDED WHENEVER POSSIBLE
   - SEED DEPTH MUST BE ⅓ TO ½ INCHES WHEN DRILL–SEEDING IS USED
3. BROADCAST SEEDING OR HYDRO–SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
   - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO–SEEDING
   - BROADCAST SEEDING MUST BE LIGHTLY HAND–RAKED INTO THE SOIL

MULCHING

1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
   - HAY OR STRAW MULCH
     - ONLY CERTIFIED WEED–FREE AND CERTIFIED SEED–FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
     - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
     - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
   - HYDRAULIC MULCHING
     - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
     - IF HYDRO–SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
     - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
   - EROSION CONTROL BLANKET
     - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

STORMWATER ENTERPRISE — SEEDING & MULCHING
APPROVED: SWENT MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-SM



STOCKPILE PROTECTION PLAN

STOCKPILE PROTECTION ELEVATION

INSTALLATION NOTES

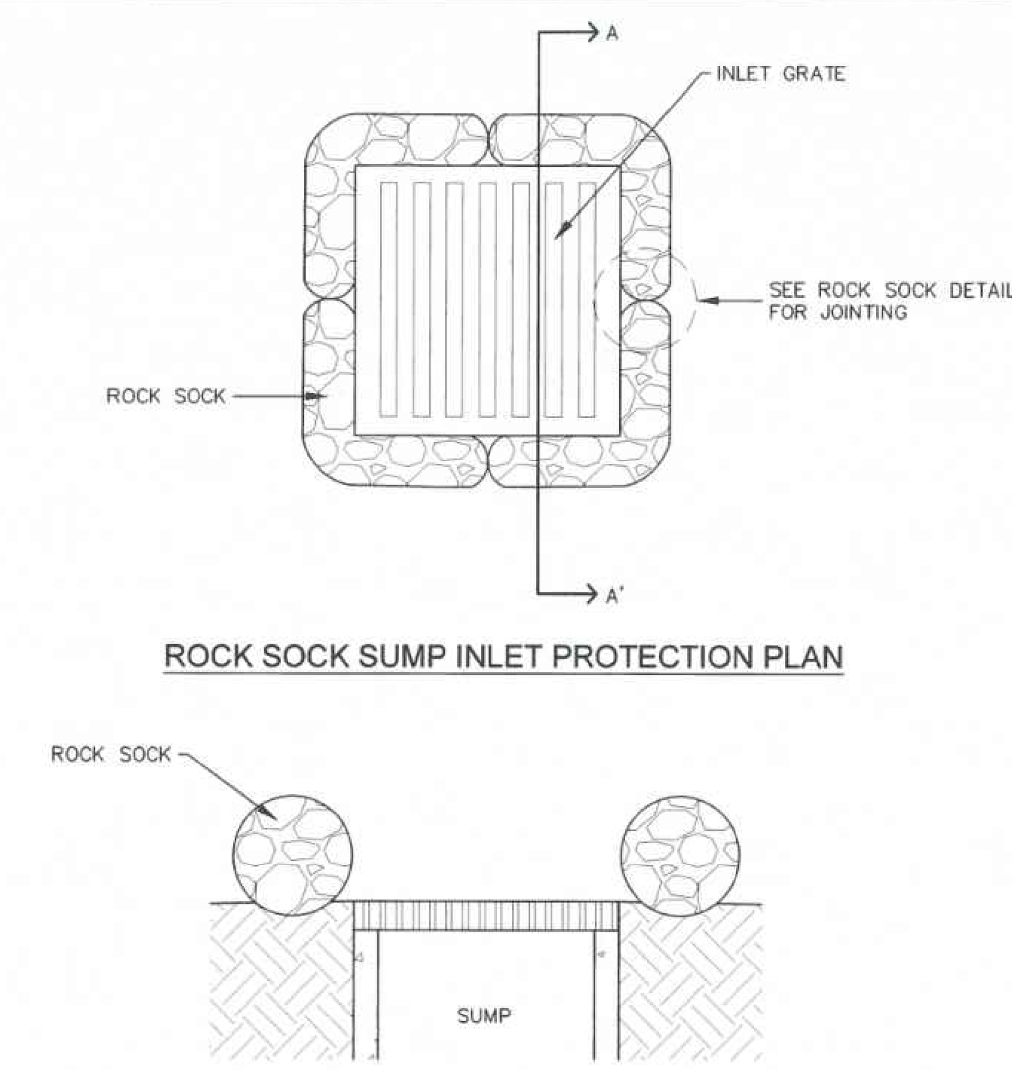
1. INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRADIENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
2. FOR STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS INCLUDING PERIMETER CONTROL ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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. IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
3. ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.

SP

STORMWATER ENTERPRISE — STOCKPILE PROTECTION
APPROVED: SWENT MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-SP



ROCK SOCK SUMP INLET PROTECTION PLAN

SECTION A-A'

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL
3. CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

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. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-2

STORMWATER ENTERPRISE — SUMP INLET PROTECTION
APPROVED: SWENT MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-IP-2

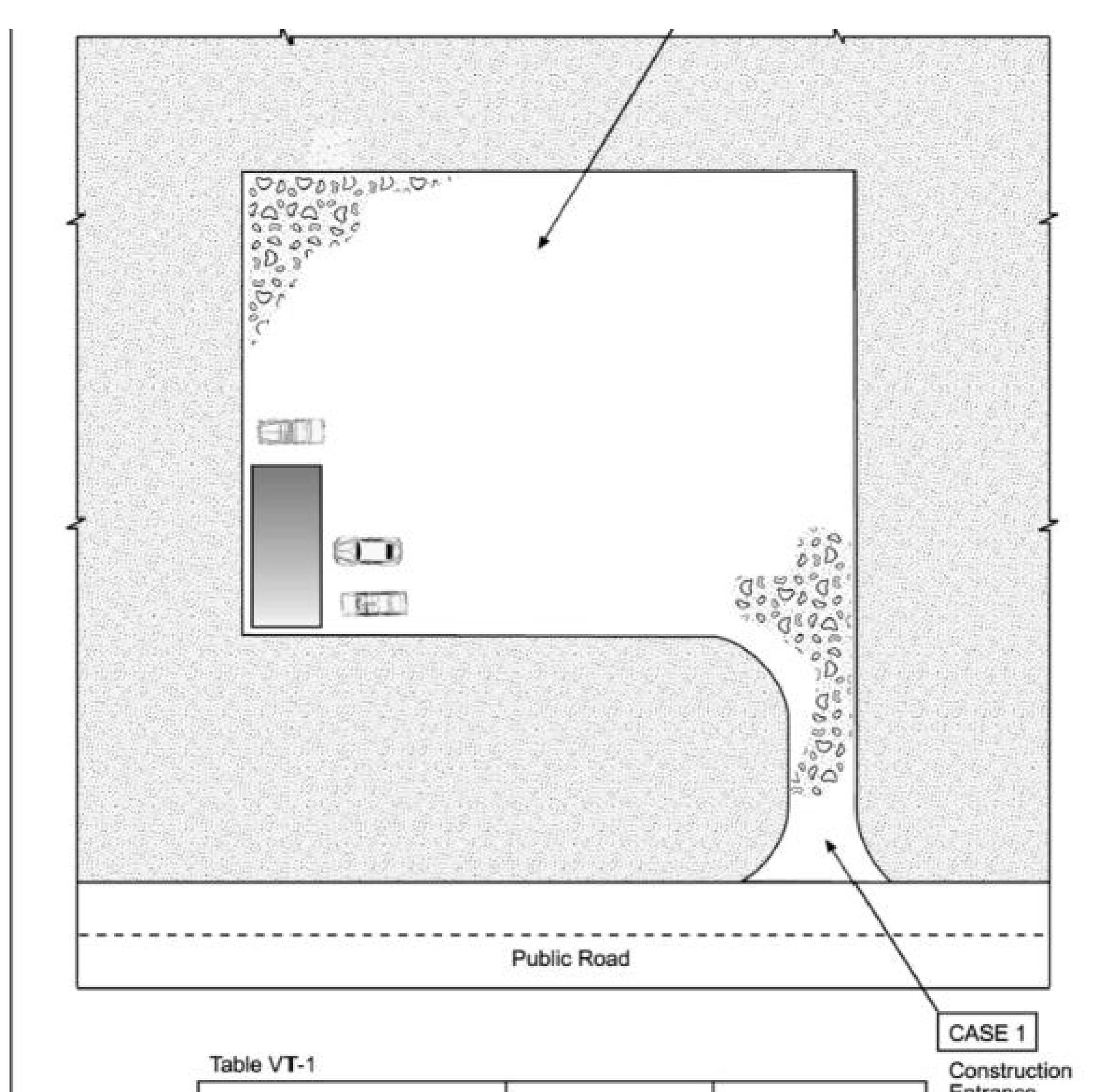
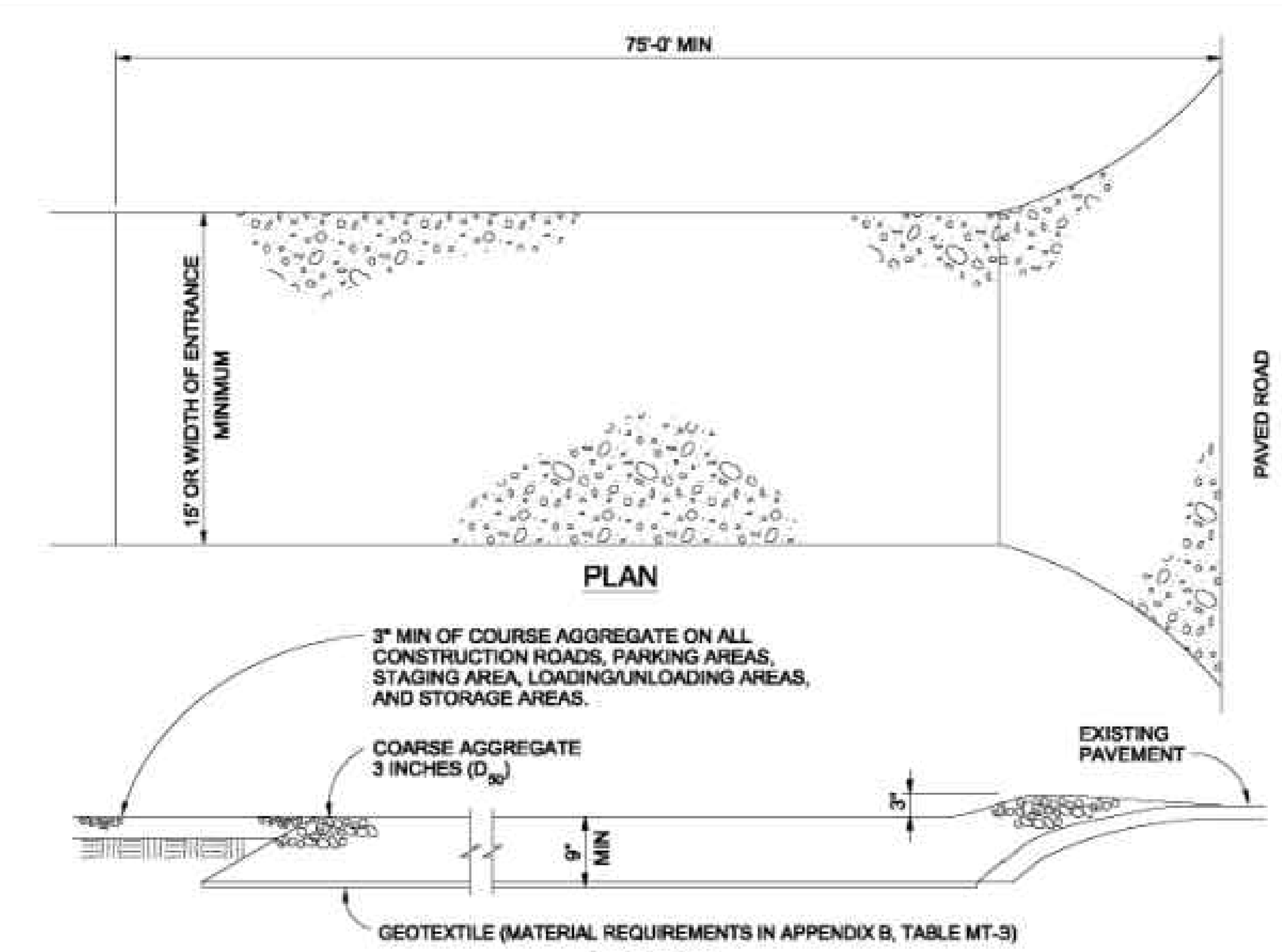


Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

City of Colorado Springs
Storm Water Quality

Figure VT-1
Vehicle Tracking
Application Examples



VEHICLE TRACKING

NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.

2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.

3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.

4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.

5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs
Stormwater Quality

Figure VT-2
Vehicle Tracking
Application Examples

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
RMG ARCHITECTS ENGINEERS
Architectural, Structural, Forensics
Geotechnical, Materials Testing, Civil, Planning
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SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO

NOT FOR CONSTRUCTION
FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL DETAILS 3
PROJECT STATUS: DESIGN DEVELOPMENT

ENG: DGW
DRAWN: TPT
CHECKED: DGW
DATE: 08/12/2022

#	REVISION	DATE
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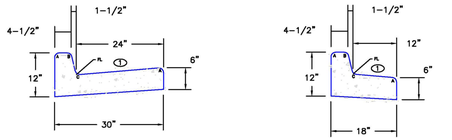
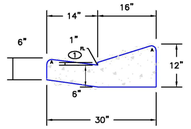
JOB NO. 180649
SHEET NO. C-11 of 12

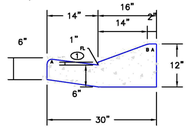


EPC TYPE A
(REVERSE SLOPE OF PAN FOR SPILL CURB)

EPC TYPE B



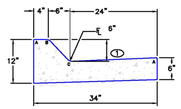
EPC TYPE C
(REVERSE SLOPE OF PAN FOR SPILL CURB)



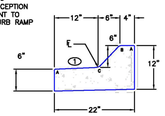
EPC OPTIONAL TYPE C

LEGEND FOR RADII	
A	1/8" TO 1/4"
B	1-1/2"
C	1-1/2" TO 3"

① – GUTTER CROSS SLOPES SHALL BE 1/2 IN./FT. WHEN DRAINING AWAY FROM CURB AND 1 IN./FT. WHEN DRAINING TOWARD CURB (WITH EXCEPTION TO IMMEDIATELY ADJACENT TO CURB RAMPS – SEE CURB RAMP STANDARDS FOR SLOPE REQUIREMENTS).



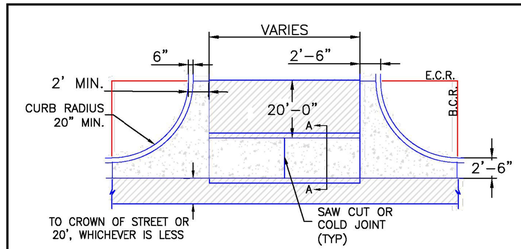
EPC TYPE D
(6" RAMP CURB)



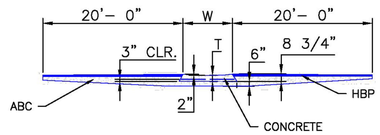
EPC TYPE E
(6" RAMP CURB)

SCALE: NOT TO SCALE

DATE APPROVED:	Typical Curb and Gutter Details Standard Drawing	
6/23/20	REVISION DATE: 6/23/20	FILE NAME: SD_2-20
Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS		



PLAN VIEW



SECTION A–A

NOTES

1. W – WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, AND 10' FOR ARTERIAL ROADS.

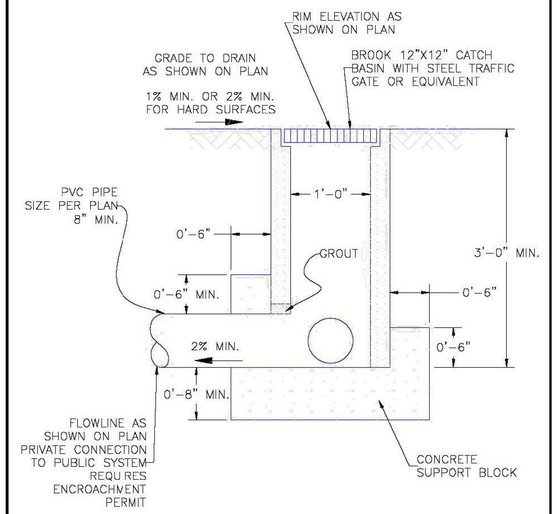
2. T – SQUARED–OFF RETURN TO BE POURED MONOLITHICALLY, 8" PCC FOR LOCAL ROADS, 9" FOR COLLECTORS WITH 6x6 – 4.4 W.W.F. OR #4 REINFORCING BAR @ 18" EACH WAY.

3. ▨ = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).

4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

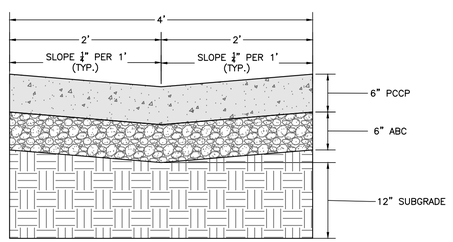
SCALE: NOT TO SCALE

DATE APPROVED:	Typical Cross Pan Layout Detail Standard Drawing	
8/11/11	REVISION DATE: 12/8/15	FILE NAME: SD_2-26
André P. Brackin DEPARTMENT OF TRANSPORTATION		



SCALE: NOT TO SCALE

DATE APPROVED:	Grate Inlet for Common Areas (guidance) Standard Drawing	
8/11/11	REVISION DATE: 11/10/04	FILE NAME: SD_3-8
André P. Brackin DEPARTMENT OF TRANSPORTATION		



CONCRETE DRAINAGE PAN
NOT TO SCALE

PCD FILE NO PPR-21-036

ROCKY MOUNTAIN GROUP
ARCHITECTS RMG ENGINEERS
Geotechnical
Materials Testing
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Architectural
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NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

SHEET NAME: EROSION CONTROL DETAILS 4

PROJECT STATUS: DESIGN DEVELOPMENT

ENG:	DGW
DRAWN:	TPT
CHECKED:	DGW
DATE	08/12/2022

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JOB NO. 180649

SHEET NO. C-12 of 12