THIS AND ANY OTHER ELECTRONIC MEDIA COUNTERPART IS AN INSTRUMENT OF SERVICE PREPARED BY MERRICK AND COMPANY FOR A DEFINED PROJECT. MODIFICATION OF ANY ITEM CONTAINED ON ANY OTHER MEDIA COUNTERPART BY ANYONE OTHER THAN THE ENGINEER OF RECORD FOR THE PROJECT IS PROHIBITED. REUSE OF ANY ITEM CONTAINED ON ANY OTHER MEDIA COUNTERPART ON ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE IS PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF MERRICK AND COMPANY. ANY REUSE, MODIFICATION OR ANY ITEM CONTAINED ON ANY OTHER MEDIA COUNTERPART SHALL BE AT THE SOLE RISK OF THE USER AND COMPANY SHALL BE AT THE SOLE RISK FOR THE UNAUTHORIZED USER WITHOUT LIABILITY OR LOSS EXPOSURE TO MERRICK AND COMPANY.

PPR-20-008

MOUNTAIN VIEW ACADEMY - PRE-DEVELOPMENT SITE GRADING AND EROSION CONTROL PLAN

TRACT H, CLAREMONT RANCH - SECTION 4, FILING NO. 4
LOCATED IN THE NORTHEAST QUARTER OF SECTION 4
TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN
COUNTY OF EL PASO, STATE OF COLORADO
7.88 ACRES

PROPERTY DESCRIPTION PER SURVEY:

TRACT H, CLAREMONT RANCH-SECTION 4 FILING NO. 4, COUNTY OF EL PASO, STATE OF COLORADO.

BENCHMARK:

ELEVATIONS ARE BASED UPON THE FIMS MONUMENT BL05, A 3-1/4" DIA. CAP MARKED "BL05" IN A RANGE BOX. ELEVATION = 6158.40 NAVD29 DATUM.

BASIS OF BEARING:

BEARINGS ARE ASSUMED AND ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 4, AS BEARING S89°13'38"W BETWEEN THE NORTHEAST CORNER OF SAID SECTION 4, BEING A 2" DIA. STEEL PIPE WITH A 2-1/2" ALUMINUM CAP STAMPED LS# 17664 AND THE NORTH QUARTER CORNER OF SAID SECTION 4, BEING A FOUND #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED, LS# 4842.

PROJECT DIRECTORY

WATER AND SEWER DISTRICT

CHEROKEE METROPOLITAN DISTRICTS
6250 PALMER PARK BOULEVARD
COLORADO SPRINGS, CO 80915
JEFF MUNGER
P: 719-597-5080

PUBLIC WORKS DEPARTMENT

EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRING, CO 80922
SCOT CUTHBERTSON
P: 719-520-6460

FIRE

FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDIAN ROAD
PEYTON, CO 80831
TRENT HARWIG
P: 719-495-4050

PLANNING DEPARTMENT

EL PASO COUNTY PLANNING & COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
LINDSAY DARDEN
P: 719-520-6302
GILBERT LaFORCE, P.E.
P: 719-520-7945

OWNER/DEVELOPER

NATIONAL HERITAGE ACADEMIES
3850 BROADMOOR SE
GRAND RAPIDS, MI 49512
JACQUES SOUMIS
P: 616-285-1589

CIVIL ENGINEER

MERRICK & COMPANY
5970 GREENWOOD PLAZA BLVD.
GREENWOOD VILLAGE, CO 80111
SCOTT ZIMMERMANN, P.E.
P:303-353-3637

SURVEYOR

MERRICK & COMPANY
5970 GREENWOOD PLAZA BLVD.
GREENWOOD VILLAGE, CO 80111
JOHN A. WILHELM
P: 303-353-3505

ABBREVIATIONS:

EX	EXISTING
STM	STORM
RCP	REINFORCED CONCRETE PIPE
SRVC	SERVICE
O.D.	OUTSIDE DIAMETER
W/	WITH
ELEC	ELECTRIC
DIP	DUCTILE IRON PIPE
STL	STEEL
BFP	BACK FLOW PREVENTER
T/P	TOP OF PIPE
ROW	RIGHT-OF-WAY
KB	KICK BLOCK
TYP	TYPICAL
RP	REDUCED PRESSURE
WTR	WATER
SAN	SANITARY
SWR	SEWER

500' 0 250' 500' 1000'
1" = 500' HOR.

SHEET INDEX

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LEGEND:

	PROPOSED FIRE HYDRANT
W	PROPOSED FIRE HYDRANT LINE
W	PROPOSED DOMESTIC WATER LINE
W	PROPOSED 6" WATER LINE
W	PROPOSED FIRE LINE
	PROPOSED TEE FITTING
	PROPOSED 90° FITTING
	PROPOSED 45° FITTING
	PROPOSED 22.5° FITTING
	PROPOSED 11.25° FITTING
	PROPOSED VALVE
W	PROPOSED METER IN MANHOLE
	PROPOSED STORM INLET
XFRM	ELECTRIC TRANSFORMER
	EXISTING FIRE HYDRANT
	EXISTING VALVE
W	EXISTING 12" WATER LINE
W	EXISTING 8" WATER LINE
W	EXISTING 6" WATER LINE
W	EXISTING FIRE HYDRANT LINE
	EX TEE FITTING
	EX 90° FITTING
	EX 45° FITTING
	EX 22.5° FITTING
	EX 11.25° FITTING
	EASEMENT
	LOT LINE
	COURTYARD FENCE
	ELECTRIC LIGHT POLE
S	PROPOSED SANITARY MANHOLE
SS	PROPOSED SANITARY
	SIGN STEEL POST
T	TELEPHONE BOX
UT	EXISTING PHONE
UE	EXISTING ELECTRIC
SS	EXISTING SANITARY SEWER
G	EXISTING GAS
	EXISTING STORM SEWER
OH	EXISTING OVERHEAD ELECTRIC LINE
S	EXISTING SANITARY MANHOLE
	EXISTING ELECTRIC POLE
	EXISTING INLET
	EXISTING STORM MANHOLE

DESIGN 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.

05/01/2020
KRISTOFER K. WIEST, P.E. #46080 DATE

OWNER/DEVELOPER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

5/1/20
JOE SPRYS DATE
CHARTER DEVELOPMENT COMPANY, LLC
3850 BROADMOOR SE
GRAND RAPIDS, MI 49512

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.
COUNTY ENGINEER /
ECM ADMINISTRATOR

Approved
By: Elizabeth Nijkamp
Date:05/12/2020
El Paso County Planning & Community Development

Know what's below. Call before you dig.

PCD PROJECT NUMBER: EGP 202

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NATIONAL HERITAGE ACADEMIES®

REV	REVISION DESCRIPTION	DATE	CHND	CHKD	APPR
0	FOR CONSTRUCTION	5/1/2020			

TITLE:
MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING AND EROSION CONTROL PLAN
COVER

PE STAMP
COLORADO LICENSED 46080 KRISTOFER K. WIEST ENGINEER
05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 3/19/2020
SHEET PGP-1
1 of 14

File Location: Q:\DEN\Projects\0399-00 Mountain View Academy\Design\CDs\Civil\Preliminary Grading Plan\COVER.dwg Plot Date:5/1/2020 9:10 AM Last Saved By: SZIMMERMANN

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GENERAL NOTES:

1. ALL CONTRACTORS AND SUBCONTRACTORS SHALL HAVE A SET OF APPROVED CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
2. THE OWNER SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE LOCAL ENTITY'S INSPECTOR AT ALL TIMES.
3. THE PROJECT PLANS AND SPECIFICATIONS AS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, FOR AND ON BEHALF OF MERRICK AND COMPANY, REPRESENT THE FINAL CONSTRUCTION DOCUMENTS FOR THIS PROJECT. THE USE OF ANY ELECTRONIC OR OTHER MEDIA PURPORTING TO REPRESENT THE FINAL CONSTRUCTION DOCUMENTS FOR THIS PROJECT SHALL NOT BE RELIED UPON AS FINAL CONSTRUCTION DOCUMENTS. SHOULD THERE BE A CONFLICT BETWEEN SEALED DRAWINGS AND ELECTRONIC OR OTHER MEDIA FILES, THE SEALED DRAWINGS SHALL GOVERN. EACH USER OF ANY ELECTRONIC OR OTHER MEDIA WAIVES AND RELEASES MERRICK FROM ALL ACTIONS, CLAIMS, DAMAGES, ACTIONS, OBLIGATIONS AND LIABILITIES OF ANY KIND OR NATURE WITH RESPECT TO THE ELECTRONIC OR OTHER MEDIA FILES.
4. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
5. THE PROJECT PLANS AND SPECIFICATIONS ARE INTENDED TO PROVIDE THE COMPLETED PROJECT IN A COMPLETE AND OPERABLE CONDITION. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND PROVIDE ALL LABOR NECESSARY TO COMPLETE THE PROJECT IN A NEAT AND WORKMANLIKE MANNER, INCLUDING ALL INCIDENTALS NECESSARY TO COMPLETE THE WORK, WITHOUT ADDITIONAL COST TO THE OWNER.
6. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS. EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE OWNER'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS.
7. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER OR HIS DESIGNATED REPRESENTATIVE MAY CAUSE THE WORK TO BE DEEMED UNACCEPTABLE.
8. MERRICK & COMPANY IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK. MERRICK WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. WHEN APPLICABLE, THE OWNER SHALL HAVE ONSITE AT ALL TIMES, EACH OF THE FOLLOWING:
   - 9.a. THE NOTICE OF INTENT (NOI)
   - 9.b. BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE FOLDER
   - 9.c. UP TO DATE STORMWATER MANAGEMENT PLAN (SWMP) THAT ACCURATELY REPRESENTS CURRENT FIELD CONDITIONS
   - 9.d. ONE (1) SIGNED COPY OF THE APPROVED PLANS
   - 9.e. ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS
   - 9.f. A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB.
10. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE EL PASO COUNTY STANDARDS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE MOST RESTRICTIVE STANDARD SHALL APPLY.
11. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE LOCAL ENTITY.
12. DO NOT SCALE DRAWINGS. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE DESIGNER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
13. THE BOUNDARY AND TOPOGRAPHIC INFORMATION ON THESE PLANS IS TAKEN FROM FIELD SURVEYS PREPARED BY MERRICK & CO, DATED SEPTEMBER 20, 2019.
14. THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT FOR MOUNTAIN VIEW ACADEMY PREPARED BY TERRACON CONSULTANTS, INC., DATED NOVEMBER 8, 2019.
15. THE CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE WORK AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. A COPY OF ALL PERMITS SHALL BE MAINTAINED ON-SITE AT ALL TIMES.
16. AFTER ACCEPTANCE BY THE LOCAL ENTITY, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE.
17. THESE PUBLIC IMPROVEMENT CONSTRUCTION PLANS SHALL BE VALID FOR A PERIOD OF THREE YEARS FROM THE DATE OF APPROVAL BY THE LOCAL ENTITY ENGINEER. USE OF THESE PLANS AFTER THE EXPIRATION DATE WILL REQUIRE A NEW REVIEW AND APPROVAL PROCESS BY THE LOCAL ENTITY PRIOR TO COMMENCEMENT OF ANY WORK SHOWN IN THESE PLANS.
18. NO WORK MAY COMMENCE WITHIN ANY IMPROVED PUBLIC RIGHT-OF-WAY UNTIL A RIGHT-OF-WAY PERMIT OR DEVELOPMENT CONSTRUCTION PERMIT IS OBTAINED, IF APPLICABLE. THE OWNER SHALL SUBMIT A CONSTRUCTION TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH MUTCD, TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY, (LOCAL ENTITY, COUNTY OR STATE), FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.
19. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF ALL PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AT ALL TIMES, AND IS NOT LIMITED TO NORMAL WORKING HOURS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH REGULATIONS.
20. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE OWNER SHALL CONTACT THE DESIGNER AND THE LOCAL ENTITY ENGINEER IMMEDIATELY.
21. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
22. THERE SHALL BE NO WORK PERFORMED ON WEEKENDS OR HOLIDAYS, UNLESS ACCEPTED AND APPROVED IN WRITING AND IN ADVANCE BY THE OWNER, ENGINEER, AND LOCAL JURISDICTION.
23. MAINTAIN EMERGENCY VEHICLE ACCESS TO AND THROUGH THE PROJECT SITE AT ALL TIMES.
24. ACCESS TO PRIVATE PROPERTY AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR TO PROVIDE ALTERNATIVE MEANS OF INGRESS AND EGRESS TO PRIVATE PROPERTY AND BUSINESS LOCATIONS AS NECESSARY TO PROVIDE FOR THE TIMELY COMPLETION OF THE PROJECT.
25. THE CONTRACTOR SHALL CALL THE NATIONWIDE UTILITY CONTACT NUMBER (811) OR LOCAL UTILITY LOCATE SERVICE, TO REQUEST LOCATES OF ALL UNDERGROUND UTILITIES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITY.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES, INCLUDING DEPTH. THE TYPE, SIZE, LOCATION AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND ARE NOT RELIABLE FOR CONSTRUCTION PURPOSES. THE UTILITIES SHOWN ON THE PLANS ARE FROM THE BEST AVAILABLE INFORMATION AND MAY NOT INCLUDE ALL UTILITIES THAT EXIST ON THE PROJECT SITE. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK BEFORE COMMENCING NEW CONSTRUCTION. THE OWNER SHALL BE RESPONSIBLE FOR UNKNOWN UNDERGROUND UTILITIES.
27. APPROXIMATE WHEN SHOWN ON THE DRAWINGS. ALL UTILITY INSTALLATIONS WITHIN OR ACROSS THE ROADBED OF NEW RESIDENTIAL ROADS MUST BE COMPLETED PRIOR TO THE FINAL STAGES OF ROAD CONSTRUCTION. FOR THE PURPOSES OF THESE STANDARDS, ANY WORK EXCEPT C/G ABOVE THE SUBGRADE IS CONSIDERED FINAL STAGE WORK. ALL SERVICE LINES MUST BE STUBBED TO THE PROPERTY LINES AND MARKED SO AS TO REDUCE THE EXCAVATION NECESSARY FOR BUILDING CONNECTIONS.
28. A STATE CONSTRUCTION DEWATERING WASTEWATER DISCHARGE PERMIT IS REQUIRED IF DEWATERING IS REQUIRED IN ORDER TO INSTALL UTILITIES OR BEFORE WATER IS DISCHARGED INTO A STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES.
29. THE OWNER SHALL COORDINATE AND COOPERATE WITH THE LOCAL ENTITY, AND ALL UTILITY COMPANIES INVOLVED, WITH REGARD TO RELOCATIONS, ADJUSTMENTS, EXTENSIONS AND REARRANGEMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE OWNER SHALL BE RESPONSIBLE FOR CONTACTING, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE AS WELL AS THE UTILITY COMPANIES. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF THE WATER LINES AND DRY UTILITIES.
30. NO WORK MAY COMMENCE WITHIN ANY PUBLIC STORM WATER, SANITARY SEWER OR POTABLE WATER SYSTEM UNTIL THE OWNER NOTIFIES THE UTILITY PROVIDER. NOTIFICATION SHALL BE A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF ANY WORK. AT THE DISCRETION OF THE WATER UTILITY PROVIDER, A PRE-CONSTRUCTION MEETING MAY BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORK.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONSTRUCTION AND FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR ANY UTILITY CROSSINGS REQUIRED.
32. THE CONTRACTOR SHALL VERIFY SITE CONDITIONS, EXISTING TOPOGRAPHIC DATA, AND LOCATIONS OF ALL UTILITIES PRIOR TO INITIATING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES ON THE PROJECT SITE. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES, WHETHER SHOWN OR NOT ON THE PROJECT PLANS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES FOUND PRIOR TO INITIATING ANY WORK.
33. ANY DISRUPTION IN UTILITIES SHALL BE COORDINATED AT LEAST 48 HOURS IN ADVANCE WITH THE UTILITY OWNER, PROJECT OWNER, EMERGENCY PROVIDERS, ALL IMPACTED LOCAL RESIDENTS, AND IMPACTED BUSINESS OWNERS. METHOD OF NOTIFICATION SHALL BE SUBJECT TO APPROVAL OF THE PROJECT OWNER AND AFFECTED UTILITY.
34. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF SURFACE CONDITIONS DISTURBED BY CONSTRUCTION ACTIVITIES TO THE SATISFACTION OF THE OWNER, PROPERTY OWNER, AFFECTED UTILITY, AND/OR LOCAL JURISDICTION. ALL SURFACE AND UTILITY RESTORATION SHALL BE REPLACED WITH LIKE KIND, SIZE, AND TYPE OF IMPROVEMENT THAT EXISTED PRIOR TO INITIATING CONSTRUCTION AT NO ADDITIONAL EXPENSE TO THE PROJECT OWNER.
35. OVERLOT GRADING CONSTRUCTION MUST COMPLY WITH THE STATE OF COLORADO PERMITTING PROCESS FOR "STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY." CONTACT THE COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT, WATER QUALITY CONTROL DIVISION, PHONE (303) 692-3500.
36. PAVING SHALL NOT START UNTIL A SOILS REPORT AND PAVEMENT DESIGN IS ACCEPTED BY THE LOCAL ENTITY ENGINEER AND SUBGRADE COMPACTION TESTS ARE TAKEN AND ACCEPTED BY THE LOCAL ENTITY ENGINEER.
37. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING SOILS TESTS WITHIN THE PUBLIC RIGHT- OF-WAY AFTER RIGHT OF WAY GRADING AND ALL UTILITY TRENCH WORK IS COMPLETE. IF THE FINAL SOILS/PAVEMENT DESIGN REPORT DOES NOT CORRESPOND WITH THE RESULTS OF THE ORIGINAL GEOTECHNICAL REPORT, THE OWNER SHALL BE RESPONSIBLE FOR A RE-DESIGN OF THE SUBJECT PAVEMENT SECTION OR, THE OWNER MAY USE THE LOCAL ENTITY'S DEFAULT PAVEMENT THICKNESS SECTION(S). REGARDLESS OF THE OPTION USED, ALL FINAL SOILS/PAVEMENT DESIGN REPORTS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER. THE FINAL REPORT SHALL BE SUBMITTED TO THE INSPECTOR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO PLACEMENT OF BASE AND ASPHALT. PLACEMENT OF BASE AND ASPHALT SHALL NOT OCCUR UNTIL THE ENGINEERING DIVISION APPROVES THE FINAL REPORT.
38. ALL ROAD CONSTRUCTION IN AREAS DESIGNATED AS WILD FIRE HAZARD AREAS SHALL BE DONE IN ACCORDANCE WITH THE CONSTRUCTION CRITERIA AS ESTABLISHED IN THE WILD FIRE HAZARD AREA MITIGATION REGULATIONS IN FORCE AT THE TIME OF FINAL PLAT APPROVAL.
39. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO VARIOUS FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
40. TRAFFIC CONTROL STANDARDS FOR THIS PROJECT SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. A TRAFFIC CONTROL PLAN APPROVED BY THE LOCAL ENTITY EXERCISING JURISDICTION SHALL BE OBTAINED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
41. THE OWNER SHALL SUBMIT A CONSTRUCTION TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH MUTCD, TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY. (LOCAL ENTITY, COUNTY OR STATE), FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.
42. SAW CUT ALL JOINTS IN EXISTING PAVEMENTS. SAW CUT JOINTS IN CURB AND GUTTER SECTIONS SHALL BE CONTINUOUS THROUGH THE CURB HEAD.
43. INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES PRIOR TO INITIATING ANY WORK ON THE PROJECT SITE. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.
44. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION AND AT AREAS WITH DISTURBED SOIL, ON- OR OFF-SITE, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE OWNER, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING. TO MITIGATE EROSION, THE OWNER SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3 - BEST MANAGEMENT PRACTICES, AS PUBLISHED BY THE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD).
45. THE OWNER SHALL BE RESPONSIBLE FOR INSURING THAT NO MUD OR DEBRIS SHALL BE TRACKED ONTO THE EXISTING PUBLIC STREET SYSTEM. MUD AND DEBRIS MUST BE REMOVED BY THE END OF EACH WORKING DAY BY AN APPROPRIATE MECHANICAL METHOD (I.E. MACHINE BROOM SWEEP, LIGHT DUTY FRONT-END LOADER, ETC.) OR AS APPROVED BY THE LOCAL ENTITY STREET INSPECTOR.
46. ALL WASTE MATERIALS SHALL BE PROPERLY DISPOSED OF IN AN APPROVED LANDFILL PERMITTED TO ACCEPT THAT PARTICULAR TYPE OF WASTE.
47. WHERE CONFLICTS EXIST BETWEEN GENERAL NOTES AND THE NOTES OF SPECIFIC GOVERNING JURISDICTIONS, THE GREATER STANDARD OR REQUIREMENT SHALL PREVAIL. WHERE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS AND THE NOTES OR REQUIREMENTS OF SPECIFIC GOVERNING JURISDICTIONS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER IMMEDIATELY AND REQUEST CLARIFICATION.

EL PASO COUNTY GRADING AND EROSION CONTROL PLANS 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 DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-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 DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) 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 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 COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED 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 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 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 MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION 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 BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
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 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, TRASH, ROCK, 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 ONSITE 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 ONSITE 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 ACCESS 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 EARTHWORK EQUIPMENT AND WIND.
28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY TERRACON CONSULTANTS, INC. 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 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 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

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TITLE:
MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING AND EROSION CONTROL PLAN
GENERAL NOTES

PE STAMP
COLORADO LICENSED PROFESSIONAL ENGINEER
KRISTOFER KYLE WIEST
46080
05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 3/19/2020
SHEET PGP-2

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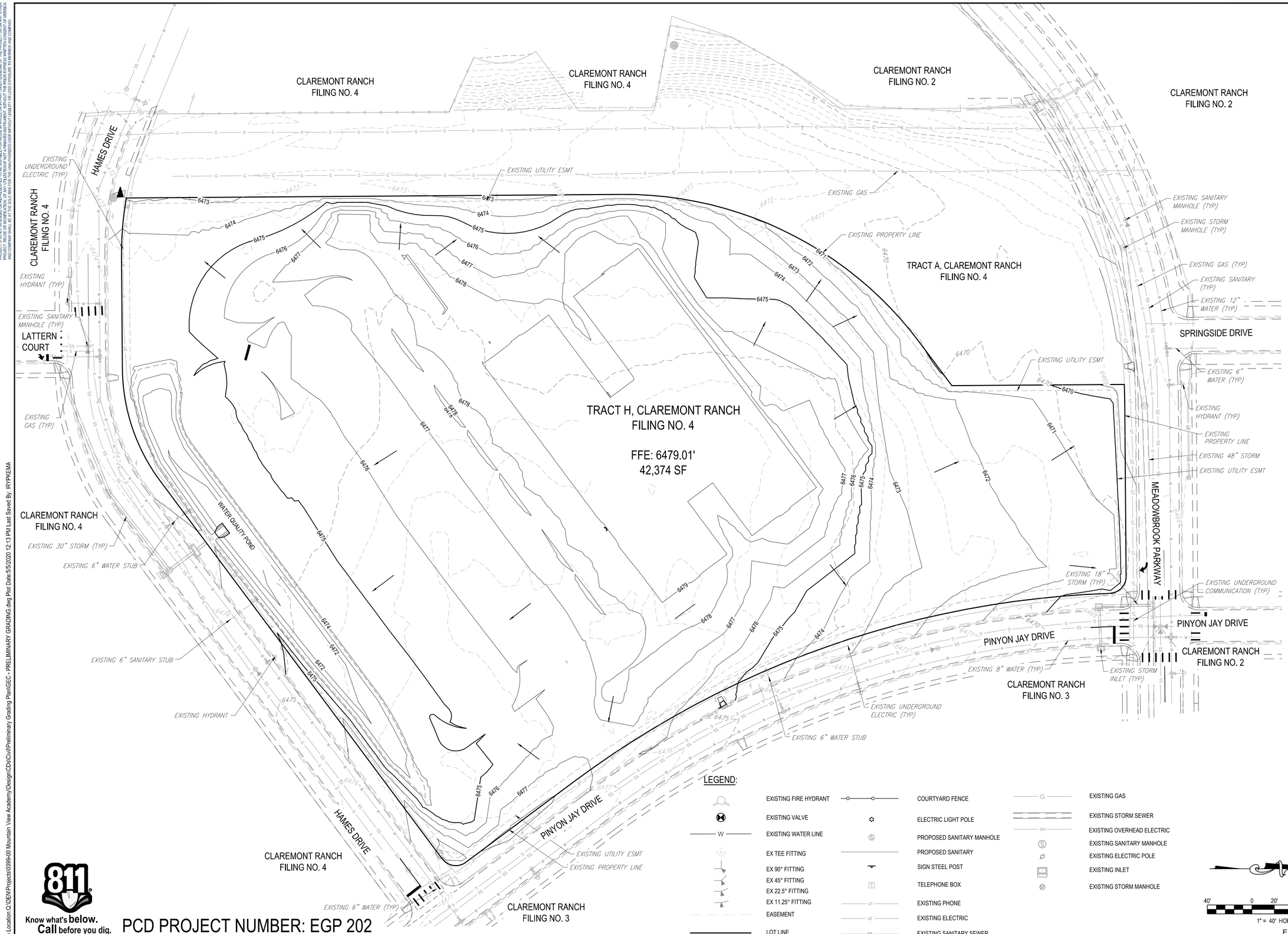

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PRE-DEVELOPMENT SITE GRADING AND EROSION CONTROL PLAN
PRE-DEVELOPMENT GRADING PLAN

PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER 46080 — 05/01/2020 — FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 3/19/2020
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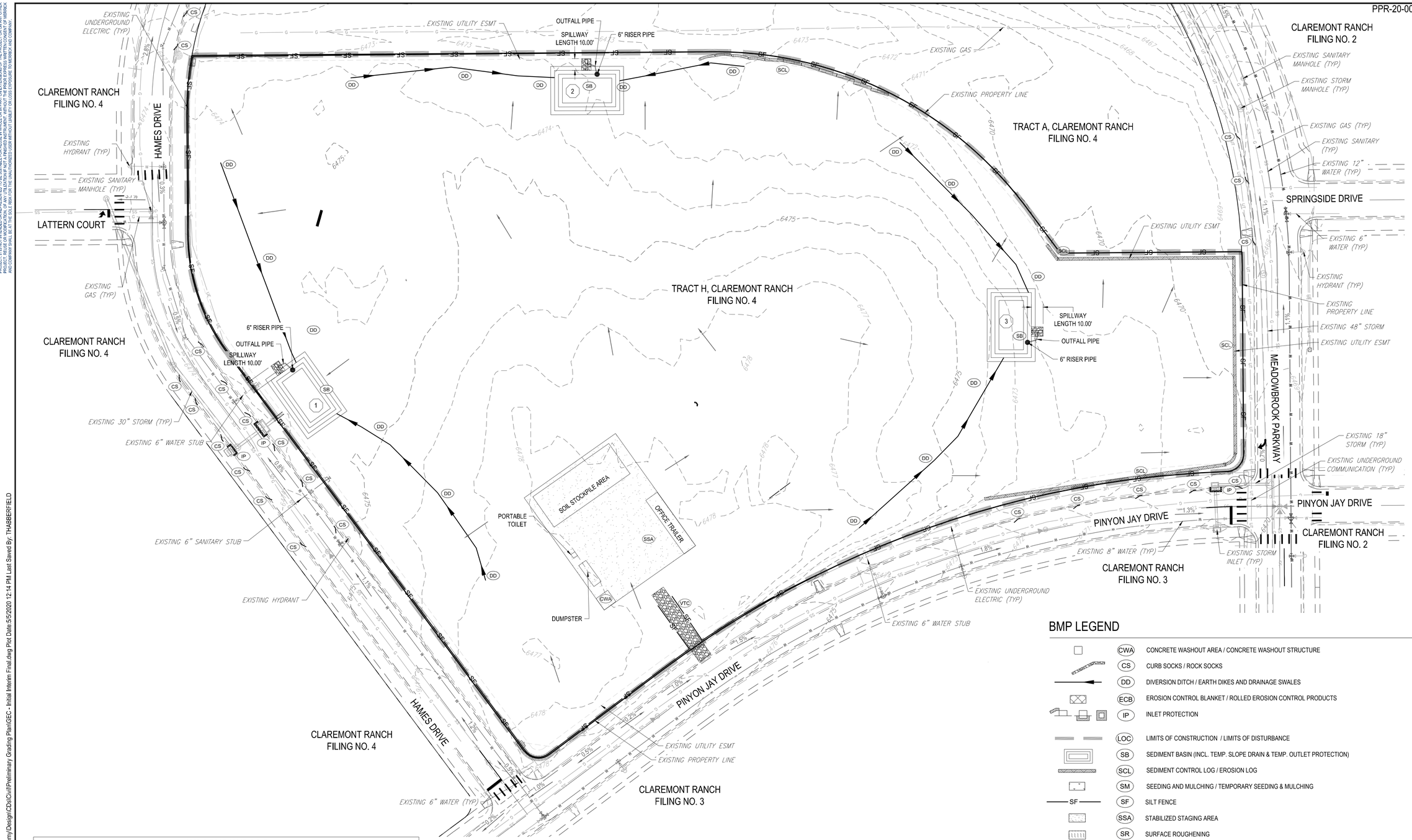

SEDIMENT BASIN DIMENSIONS					
BASIN ID	DRAINAGE ACRES	BOTTOM DIMENSIONS (FT)	SPILLWAY WIDTH (FT)	COLUMNS	HOLE DIAMETER (IN)
1	1.68	42 X 21	2	1	13/16
2	1.97	42 X 21	2	1	13/16
3	1.14	42 X 21	2	1	13/16

BMP LEGEND

CWA	CONCRETE WASHOUT AREA / CONCRETE WASHOUT STRUCTURE
CS	CURB SOCKS / ROCK SOCKS
DD	DIVERSION DITCH / EARTH DIKES AND DRAINAGE SWALES
ECB	EROSION CONTROL BLANKET / ROLLED EROSION CONTROL PRODUCTS
IP	INLET PROTECTION
LOC	LIMITS OF CONSTRUCTION / LIMITS OF DISTURBANCE
SB	SEDIMENT BASIN (INCL. TEMP. SLOPE DRAIN & TEMP. OUTLET PROTECTION)
SCL	SEDIMENT CONTROL LOG / EROSION LOG
SM	SEEDING AND MULCHING / TEMPORARY SEEDING & MULCHING
SF	SILT FENCE
SSA	STABILIZED STAGING AREA
SR	SURFACE ROUGHENING
VTC	VEHICLE TRACKING CONTROL

NOTES:

1. EXISTING VEGETATION CONSISTS ENTIRELY OF NATIVE GRASSES AND WEED SPECIES.
2. SURFACE ROUGHENING WILL BE UTILIZED IN ALL TEMPORARILY INACTIVE AREAS WITH DISTURBED SOILS.
3. EROSION CONTROL BLANKETS TO BE INSTALLED AT CONTRACTOR'S DISCRETION ON ALL DISTURBED SLOPES STEEPER THAN 4:1.
4. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED UPON PROJECT COMPLETION OR WITHIN 14 DAYS OF INACTIVITY.
5. CONTRACTOR MUST ADD LEGEND ITEMS IF ANY BMP'S ARE USED THAT ARE NOT ALREADY SHOWN IN THE BMP LEGEND.
6. NO DEDICATED ASPHALT/CONCRETE BATCH PLANTS WILL BE LOCATED ON SITE.
7. NO SURFACE WATERS EXIST ON SITE AND NO VEGETATIVE BUFFERS AROUND SURFACE WATERS WILL NEED TO BE MAINTAINED DURING CONSTRUCTION.

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1" = 40' HOR.

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INITIAL GEC

PE STAMP

COLORADO LICENSED PROFESSIONAL ENGINEER 46080 05/01/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399

DATE: 03/19/2020

SHEET: PGP-4

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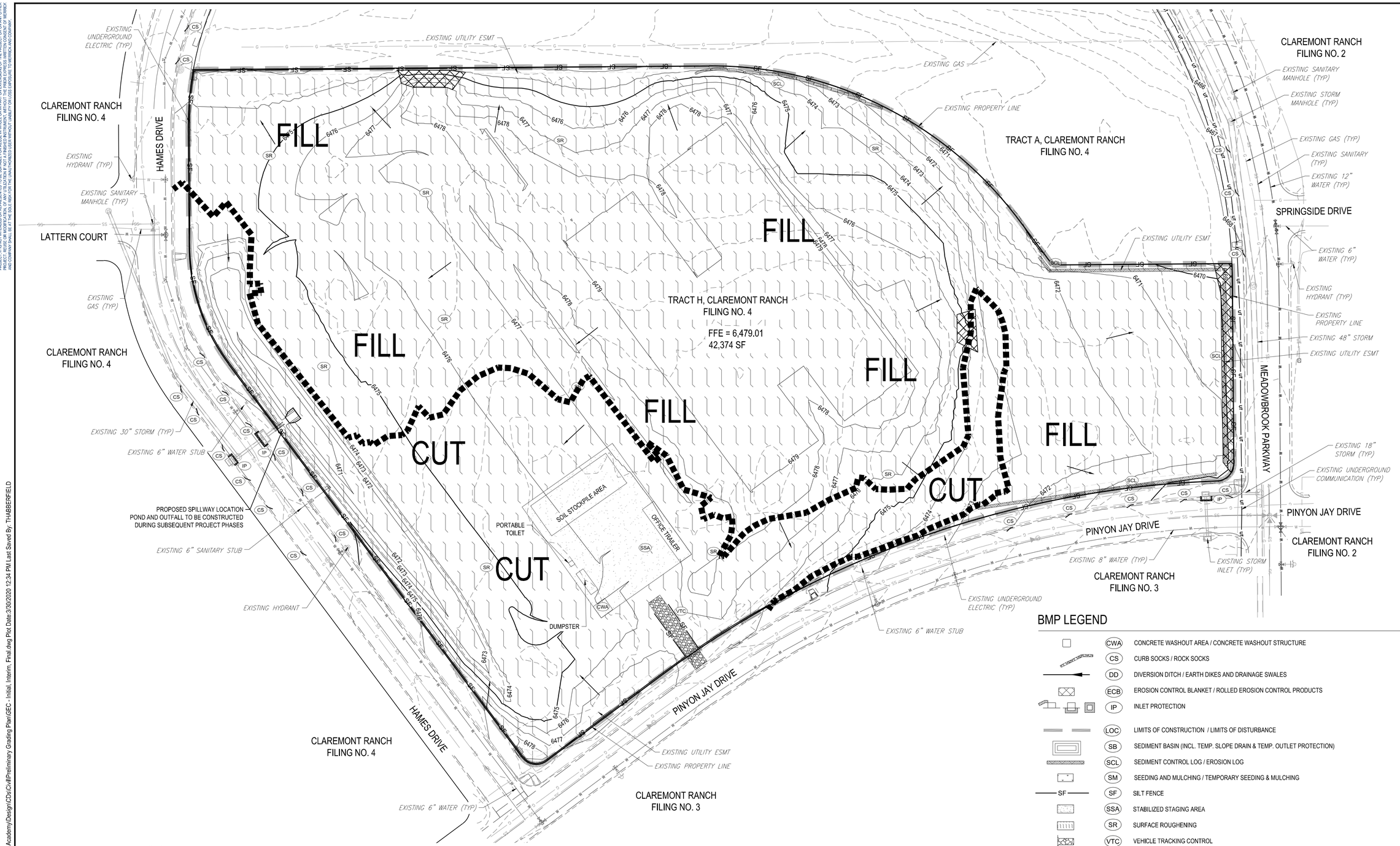

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BMP LEGEND

	CWA	CONCRETE WASHOUT AREA / CONCRETE WASHOUT STRUCTURE
	CS	CURB SOCKS / ROCK SOCKS
	DD	DIVERSION DITCH / EARTH DIKES AND DRAINAGE SWALES
	ECB	EROSION CONTROL BLANKET / ROLLED EROSION CONTROL PRODUCTS
	IP	INLET PROTECTION
	LOC	LIMITS OF CONSTRUCTION / LIMITS OF DISTURBANCE
	SB	SEDIMENT BASIN (INCL. TEMP. SLOPE DRAIN & TEMP. OUTLET PROTECTION)
	SCL	SEDIMENT CONTROL LOG / EROSION LOG
	SM	SEEDING AND MULCHING / TEMPORARY SEEDING & MULCHING
SF	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
	SR	SURFACE ROUGHENING
	VTC	VEHICLE TRACKING CONTROL

CUT / FILL LEGEND

	CUT / FILL BOUNDARY LINE
CUT	AREA OF CUT AGAINST EXISTING GROUND
FILL	AREA OF FILL AGAINST EXISTING GROUND

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JOB NUMBER: 65120399
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BMP LEGEND

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5. CONTRACTOR MUST ADD LEGEND ITEMS IF ANY BMP'S ARE USED THAT ARE NOT ALREADY SHOWN IN THE BMP LEGEND.
6. ALL PERIMETER BMP'S AND ECB'S TO REMAIN IN PLACE UNTIL FINAL STABILIZATION IS COMPLETED.
7. SSA MAY REMAIN IN PLACE DEPENDING ON THE TIMELINE OF SUBSEQUENT CONSTRUCTION PHASES.
8. NO DEDICATED ASPHALT/CONCRETE BATCH PLANTS WILL BE LOCATED ON SITE.
9. NO SURFACE WATERS EXIST ON SITE AND NO VEGETATIVE BUFFERS AROUND SURFACE WATERS WILL NEED TO BE MAINTAINED DURING CONSTRUCTION.

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FINAL GEC

RE STAMP:
COLORADO LICENSED PROFESSIONAL ENGINEER 46080 MARK WEBER
05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 03/19/2020
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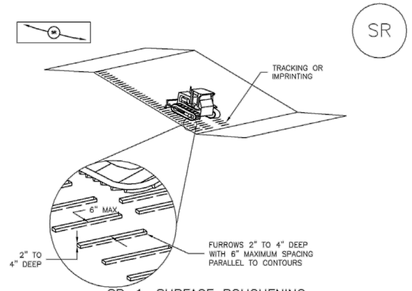
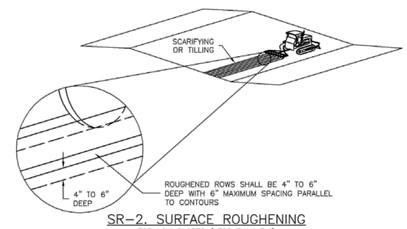
Surface Roughening (SR) EC-1



SR–1. SURFACE ROUGHENING
FOR STEEP SLOPES (3:1 OR STEEPER)



SR–2. SURFACE ROUGHENING
FOR LOW SLOPES (LESS THAN 3:1)

EC-1 Surface Roughening (SR)

SURFACE ROUGHENING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF SURFACE ROUGHENING.

2. SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.

3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.

4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

5. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.

SURFACE ROUGHENING 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 REPLACE UPON DISCOVERY OF THE FAILURE.

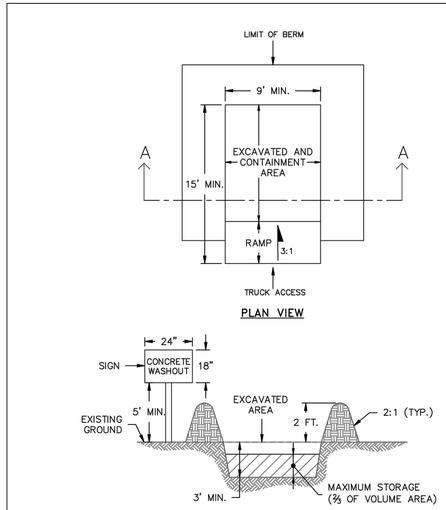
4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

5. IN NON–TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.

6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE–ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL EROSION.

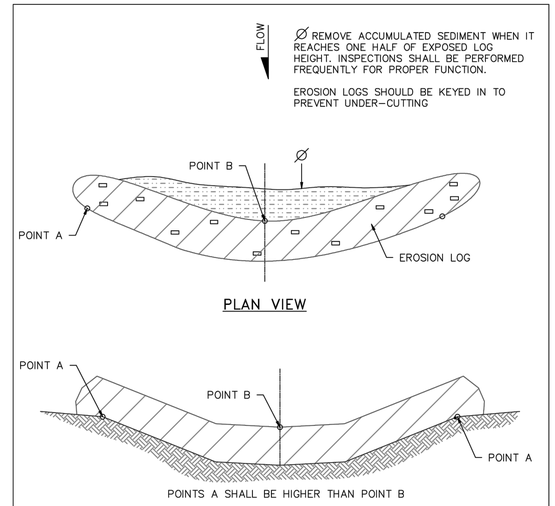
(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.



NOTES:
1. SIGN MATERIAL, EXCAVATION, AND RESTORATION ARE INCLUDED IN THE COST OF THE CONCRETE WASHOUT STRUCTURE.
2. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Concrete Washout Structure Standard Drawing REVISION DATE: 7/17/07	FILE NAME: SD_3–84



ELEVATION
EROSION LOG DETAIL DITCH INSTALLATION
NOTE: EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.

1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Erosion Log Check Dams Standard Drawing REVISION DATE: 7/17/07	FILE NAME: SD_3–85

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TITLE:
MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING PLAN
GEC DETAILS

PE STAMP: COLORADO LICENSED JOHN A. McCARTY 46080 SENIOR ENGINEER TECHNICAL SERVICES 03/21/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 03/20/2020
SHEET: PGP-7
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Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common[a] Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alakali Soil Seed Mix					
Alkali sacaton	*Sporobolus airoides*	Cool	Bunch	1,750,000	0.25
Basin wildrye	*Elymus cinereus*	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Jose tall wheatgrass	*Agropyron elongatum 'Jose'*	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.75**
Fertile Loamy Soil Seed Mix					
Ephriam crested wheatgrass	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	2.0
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	7.0
Total					**15.5**
High Water Table Soil Seed Mix					
Meadow foxtail	*Alopecurus pratensis*	Cool	Sod	900,000	0.5
Redtop	*Agrostis alba*	Warm	Open sod	5,000,000	0.25
Reed canarygrass	*Phalaris arundinacea*	Cool	Sod	68,000	0.5
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Pathfinder switchgrass	*Panicum virgatum 'Pathfinder'*	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	*Agropyron elongatum 'Alkar'*	Cool	Bunch	79,000	5.5
Total					**10.75**
Transition Turf Seed Mix[c]					
Ruebens Canadian bluegrass	*Poa compressa 'Ruebens'*	Cool	Sod	2,500,000	0.5
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	*Lolium perenne 'Citation'*	Cool	Sod	247,000	3.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Total					**7.5**

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	*Bouteloua gracilis*	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	*Schizachyrium scoparium 'Camper'*	Warm	Bunch	240,000	1.0
Prairie sandreed	*Calamovilfa longifolia*	Warm	Open sod	274,000	1.0
Sand dropseed	*Sporobolus cryptandrus*	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**10.25**
Heavy Clay, Rocky Foothill Seed Mix					
Ephriam crested wheatgrass[d]	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	*Agropyron intermedium 'Oahe'*	Cool	Sod	115,000	5.5
Vaughn sideoats grama[e]	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.5**

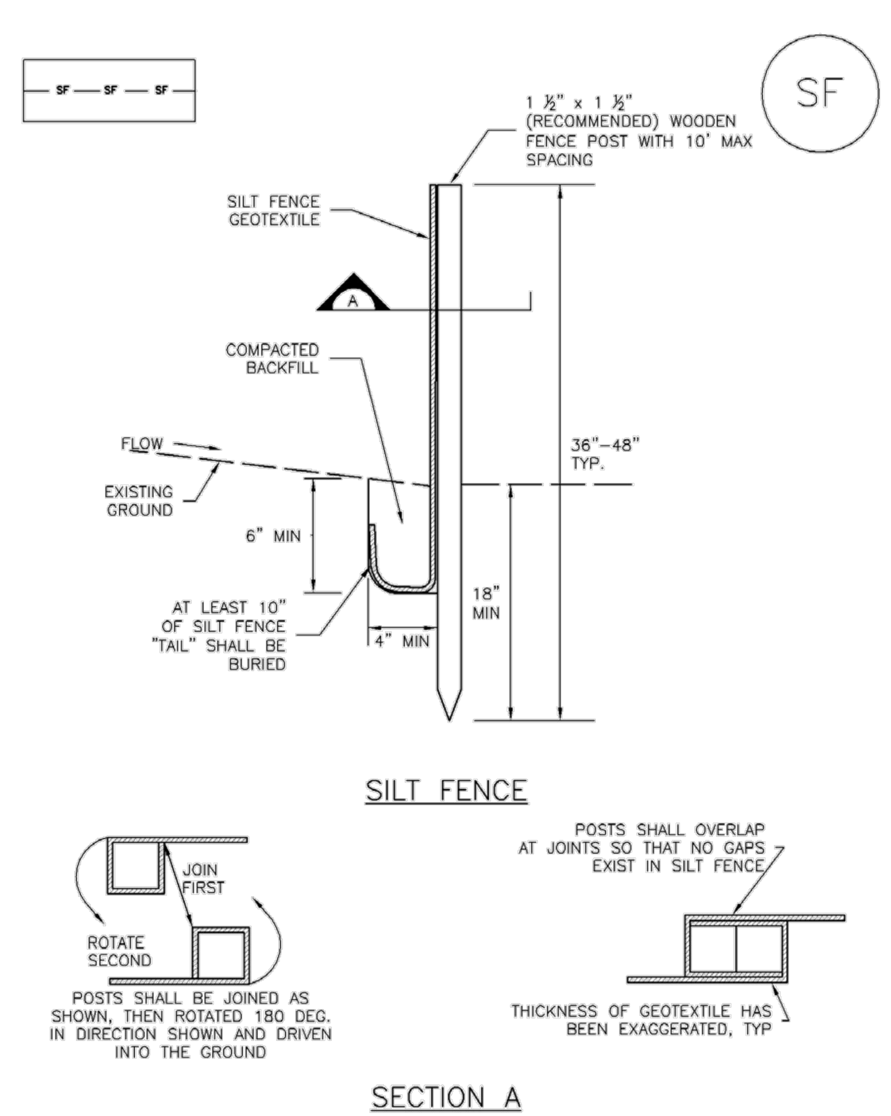
[a] All of the above seeding mixes and rates are based on drill seeding followed by crimped hay or straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

[b] See Table TS/PS-3 for seeding dates.

[c] If site is to be irrigated, the transition turf seed rates should be doubled.

[d] Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

[e] Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.



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.

(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.

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GEC DETAILS

PE STAMP
COLORADO LICENSED PROFESSIONAL ENGINEER KRISTOFER KYLE WIEST 46080
05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 03/20/2020
SHEET PGP-8
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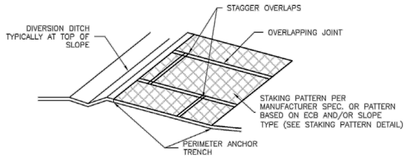
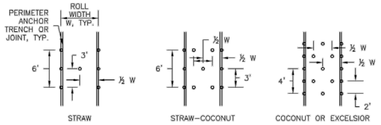
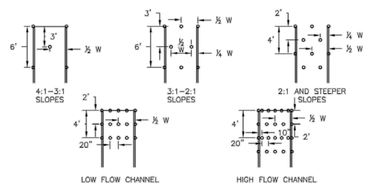
Rolled Erosion Control Products (RECP) EC-6



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.

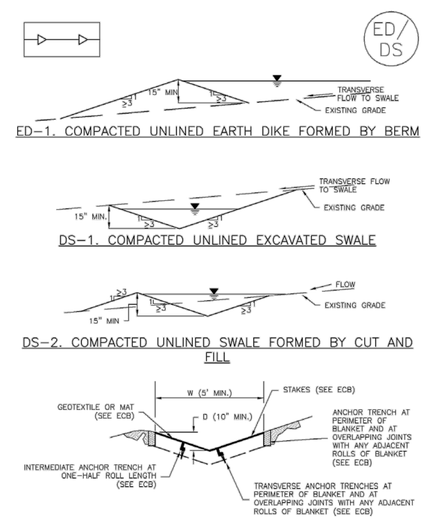
4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

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)

Earth Dikes and Drainage Swales (ED/DS) EC-10



ED–1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM

DS–1. COMPACTED UNLINED EXCAVATED SWALE

DS–2. COMPACTED UNLINED SWALE FORMED BY CUT AND FILL

DS–3. ECB LINED SWALE (CUT AND FILL OR BERM)

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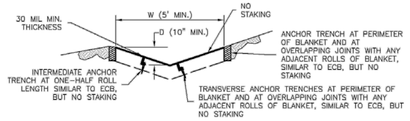
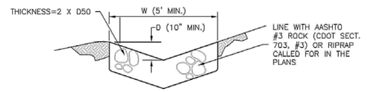


DS-4. SYNTHETIC LINED SWALE



DS-5. RIPRAP LINED SWALE

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

1. SEE SITE PLAN FOR:
   - LOCATION OF DIVERSION SWALE
   - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED).
   - LENGTH OF EACH SWALE.
   - DEPTH, D, AND WIDTH, W DIMENSIONS.
   - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL.
   - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.

2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.

3. EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.

4. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.

5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.

6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.

7. WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

EARTH DIKE AND DRAINAGE SWALE 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.

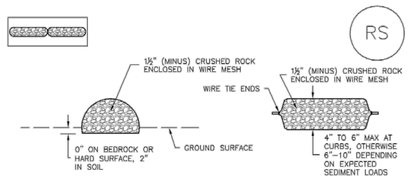
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

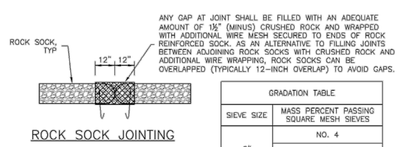
5. WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, 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.



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

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.

PCD PROJECT NUMBER: EGP 202

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NATIONAL HERITAGE ACADEMIES

REV	REVISION DESCRIPTION	DATE	CHND	CHKD	APPR

TITLE: MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING PLAN
GEC DETAILS

PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER 46080 03/21/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 03/20/2020
SHEET PGP-10
10 of 14

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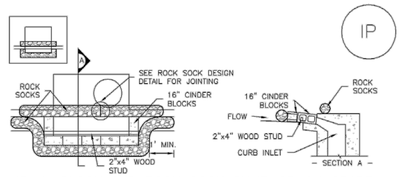


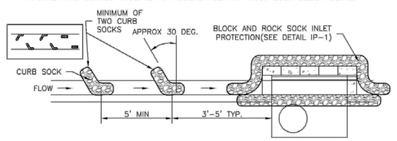
IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

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.

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.

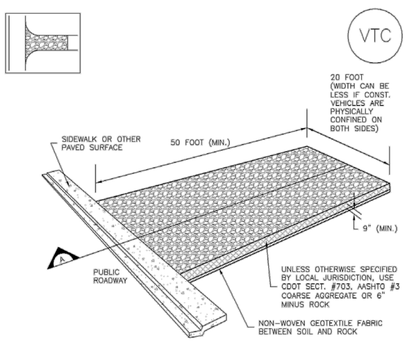
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

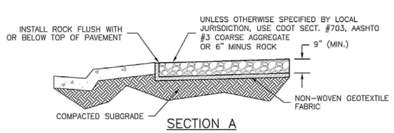
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.





VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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)

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TITLE:
MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING PLAN
GEC DETAILS

PE STAMP: COLORADO LICENSED, KYLE K. WEST, 46080, PROFESSIONAL ENGINEER, 05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 03/20/2020
SHEET PGP-11
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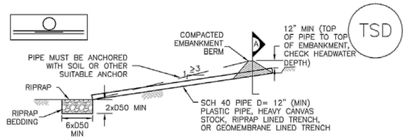
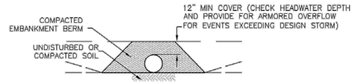
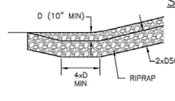
Temporary Slope Drains (TSD) EC-7



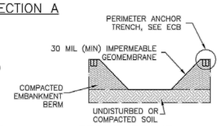
TEMPORARY SLOPE DRAIN PROFILE



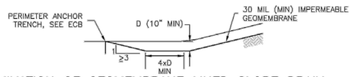
SECTION A



TERMINATION OF RIPRAP LINED SLOPE DRAIN



GEOMEMBRANE LINED SLOPE DRAIN



TERMINATION OF GEOMEMBRANE LINED SLOPE DRAIN

TSD-1. TEMPORARY SLOPE DRAIN PROFILE

EC-7 Temporary Slope Drains (TSD)

SLOPE DRAIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION AND LENGTH OF SLOPE DRAIN
   –PIPE DIAMETER, D, AND RIPRAP SIZE, D50.

2. SLOPE DRAIN SHALL BE DESIGNED TO CONVEY PEAK RUNOFF FOR 2–YEAR 24–HOUR STORM AT A MINIMUM. FOR LONGER DURATION PROJECTS, LARGER MAY BE APPROPRIATE.

3. SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES.

4. SLOPE DRAINS INDICATED SHALL BE INSTALLED PRIOR TO UPGRADIENT LAND–DISTURBING ACTIVITIES.

5. CHECK HEADWATER DEPTHS FOR TEMPORARY AND PERMANENT SLOPE DRAINS. DETAILS SHOW MINIMUM COVER; INCREASE AS NECESSARY FOR DESIGN HEADWATER DEPTH.

6. RIPRAP PAD SHALL BE PLACED AT SLOPE DRAIN OUTFALL.

7. ANCHOR PIPE BY COVERING WITH SOIL OR AN ALTERNATE SUITABLE ANCHOR MATERIAL.

SLOPE DRAIN 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. INSPECT INLET AND OUTLET POINTS AFTER STORMS FOR CLOGGING OR EVIDENCE OF OVERTOPPING. BREACHES IN PIPE OR OTHER CONVEYANCE SHALL BE REPAIRED AS SOON AS PRACTICABLE IF OBSERVED.

5. INSPECT RIPRAP PAD AT OUTLET FOR SIGNS OF EROSION. IF SIGNS OF EROSION EXIST, ADDITIONAL ARMORING SHALL BE INSTALLED.

6. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED, MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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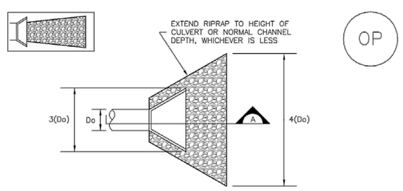
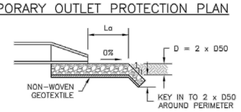
EC-8 Temporary Outlet Protection (TOP)



TEMPORARY OUTLET PROTECTION PLAN



SECTION A

TABLE OP–1. TEMPORARY OUTLET PROTECTION SIZING TABLE

PIPE DIAMETER, Do (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5 5	5 10	4 6
12	5 10	10 13	4 6
18	10 20 30 40	10 16 23 26	6 9 12 16
24	30 40 50 60	16 26 26 30	9 9 12 16

OP–1. TEMPORARY OUTLET PROTECTION

Temporary Outlet Protection (TOP) EC-8

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF OUTLET PROTECTION.
   –DIMENSIONS OF OUTLET PROTECTION.

2. DETAIL IS INTENDED FOR PIPES WITH SLOPE ≤ 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.

3. TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND 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.

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(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

PCD PROJECT NUMBER: EGP 202

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REV	REVISION DESCRIPTION	DATE	CHKD	APPR

TITLE:
MOUNTAIN VIEW ACADEMY
PRE-DEVELOPMENT SITE GRADING PLAN
GEC DETAILS

PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER 46080 03/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 03/20/2020
SHEET PGP-12
12 of 14

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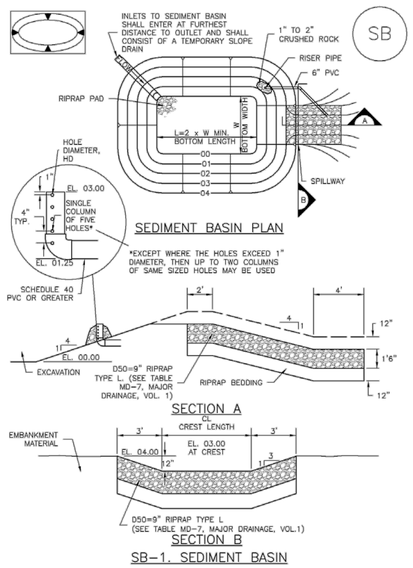

SB-1. SEDIMENT BASIN

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	23/32
6	43	9	25/32
7	47 ¼	11	29/32
8	51	12	27/32
9	55	13	¾
10	58 ¼	15	15/16
11	61	16	23/32
12	64	18	7
13	67 ½	19	1 1/16
14	70 ½	21	1 ⅛
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.

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GEC DETAILS

PE STAMP: COLORADO LICENSED, TODD K. KNIGHT, 46080, PROFESSIONAL ENGINEER, 05/01/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 03/20/2020
SHEET: PGP-13
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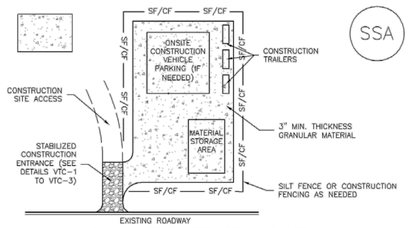
Stabilized Staging Area (SSA) SM-6



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.

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.

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