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PPR-20-008

MOUNTAIN VIEW ACADEMY - CIVIL CONSTRUCTION DOCUMENTS

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
2103 MEADOWBROOK PARKWAY
COLORADO SPRINGS, COLORADO, 80951

LEGEND:

- PROPOSED FIRE HYDRANT
- 6" F — PROPOSED FIRE HYDRANT LINE
- 6" W — PROPOSED 6" WATER LINE
- PROPOSED TEE FITTING
- PROPOSED 90° FITTING
- PROPOSED 45° FITTING
- PROPOSED 22.5° FITTING
- PROPOSED 11.25° FITTING
- PROPOSED VALVE
- PROPOSED METER IN MANHOLE
- PROPOSED STORM INLET
- XFRM — ELECTRIC TRANSFORMER
- EXISTING FIRE HYDRANT
- EXISTING VALVE
- W — EXISTING WATER 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
- PROPOSED SANITARY MANHOLE
- SS — PROPOSED SANITARY
- SIGN STEEL POST
- TELEPHONE BOX
- UT — EXISTING PHONE
- UE — EXISTING ELECTRIC
- SS — EXISTING SANITARY SEWER
- G — EXISTING GAS
- EXISTING STORM SEWER
- OH — EXISTING OVERHEAD ELECTRIC LINE
- EXISTING SANITARY MANHOLE
- EXISTING ELECTRIC POLE
- EXISTING INLET
- ST — EXISTING STORM MANHOLE

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

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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.

APPROVED
Engineering Department

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

10/18/2020 2:14:16 PM
dsdmjamp
EPC Planning & Community Development Department

DATE

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.

KRISTOFER K. WIEST, P.E. #46080

09/16/2020
DATE

OWNER/DEVELOPER'S STATEMENT:

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

JACQUES SOUMIS
NATIONAL HERITAGE ACADEMIES
3850 BROADMOOR SE
GRAND RIGHTS, MI 49512

9/22/202
DATE

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
VERT	VERTICAL

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

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 CUTHBERTSON, P.E.
P:303-353-3637

SURVEYOR

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

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

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.

PCD File No. PPR208

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NATIONAL HERITAGE ACADEMIES®

REV	REVISION DESCRIPTION	DATE	CHND	CHKD	APPR
0	ISSUED FOR CONSTRUCTION	9/16/2020			

TITLE: MOUNTAIN VIEW ACADEMY
CIVIL CONSTRUCTION DOCUMENTS
COVER SHEET

PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER KRISTOFER K. WIEST 46080 09/16/2020 FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 4/24/2020
SHEET: C0.0
1 of 35

File Location:Q:\DEN\Projects\0399-00 Mountain View Academy\Design\CDs\Civil\Phase II\on-site\COVER.dwg Plot Date:9/16/2020 3:55 PM Last Saved By: IRYPKEMA

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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.

STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   - 3.a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   - 3.b. CITY OF COLORADO SPRING/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   - 3.c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   - 3.d. CDOT M&S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIES IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA.
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

SIGNING AND STRIPING NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS."
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS:

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGREDATION 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 ME

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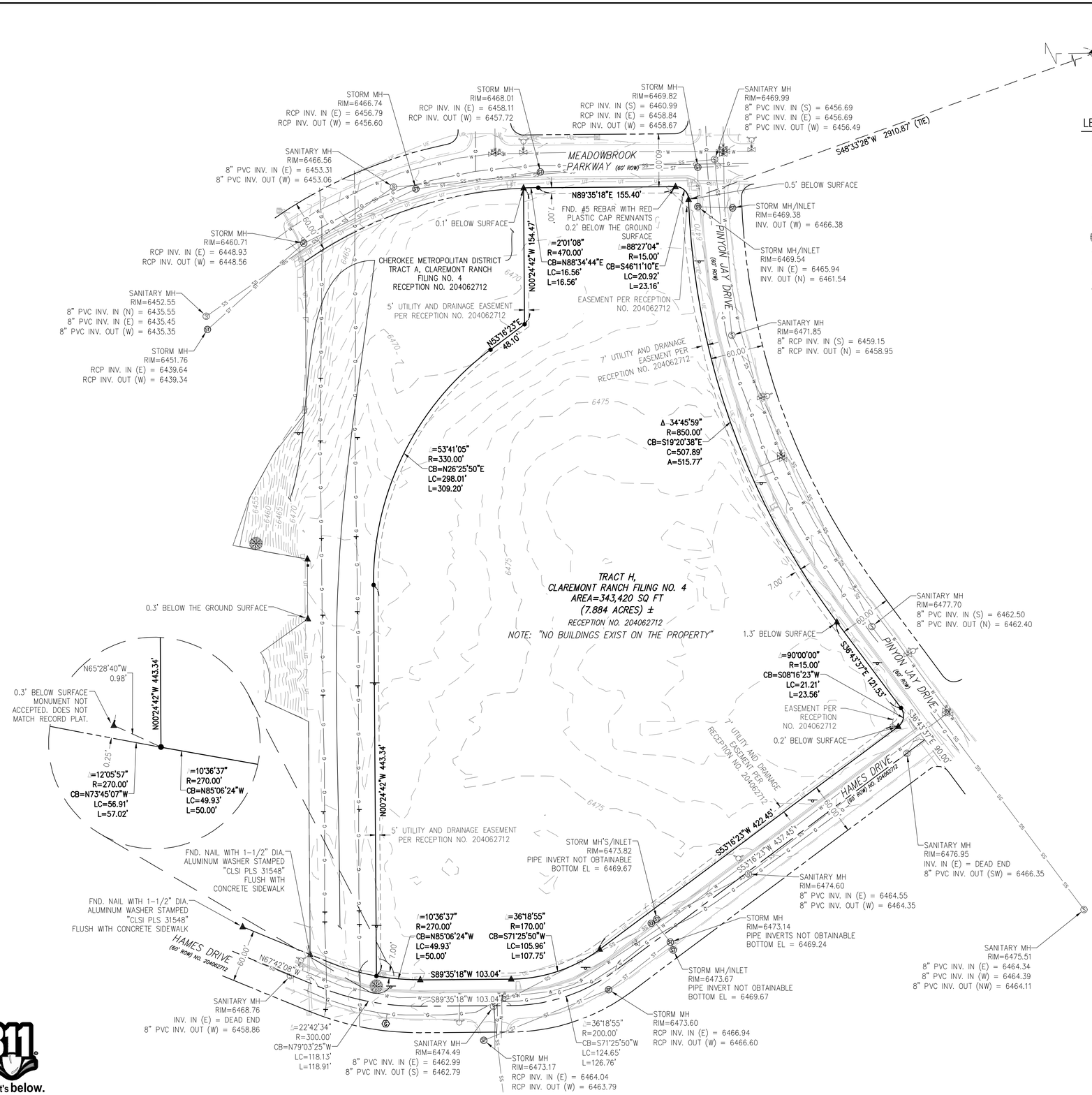

LEGEND

	ELECTRIC TRANSFORMER	UE	UNDERGROUND ELECTRIC LINES
	GAS METER	UT	UNDERGROUND TELEPHONE LINES
	GAS MARKER POST	G G	UNDERGROUND GAS LINE
	SANITARY MANHOLE	SS	UNDERGROUND SANITARY SEWER LINE
	STORM MANHOLE	ST	UNDERGROUND STORM LINE
	DECIDUOUS TREE	W W	UNDERGROUND WATER LINE
	WATER FIRE HYDRANT		ALIQUOT/SECTION LINE
	WATER VALVE		PROPERTY BOUNDARY LINE
	SIGN		WOOD FENCE
	TELEPHONE PEDESTAL		WIRE FENCE
	MAIL BOX		FLOWLINE
	FENCE POST (WOOD)		TOP BACK OF CURB

MONUMENT LEGEND

- ALIQUOT CORNER AS DESCRIBED
- FOUND #5 REBAR WITH 1-1/4" DIA. ALUMINUM CAP FLUSH WITH SURFACE STAMPED: "MATRIX PLS 32822", UNLESS OTHERWISE NOTED
- SET #5 REBAR WITH 2" ALUMINUM CAP FLUSH WITH SURFACE STAMPED: "MERRICK & CO. PLS 37043", UNLESS OTHERWISE NOTED

60' 0 30' 60' 120'
1" = 60' HOR.

EPC 10/18/2020

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File Location Q:\DEN\Projects\0399-00 Mountain View Academy\Design\CDs\Civil\Phase II\on-site\EXISTING CONDITIONS (ALTA).dwg Plot Date:9/16/2020 3:33 PM Last Saved By: IRYPKEMA

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REV	REVISION DESCRIPTION	DATE	CHND	CHKD	APPR
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TITLE
MOUNTAIN VIEW ACADEMY
CIVIL CONSTRUCTION DOCUMENTS
EXISTING CONDITIONS PLAN

PE STAMP
COLORADO LICENSED
IRYNA PYKEMA
46080
PROFESSIONAL ENGINEER
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 02/07/2020
SHEET C1.0
4 of 35

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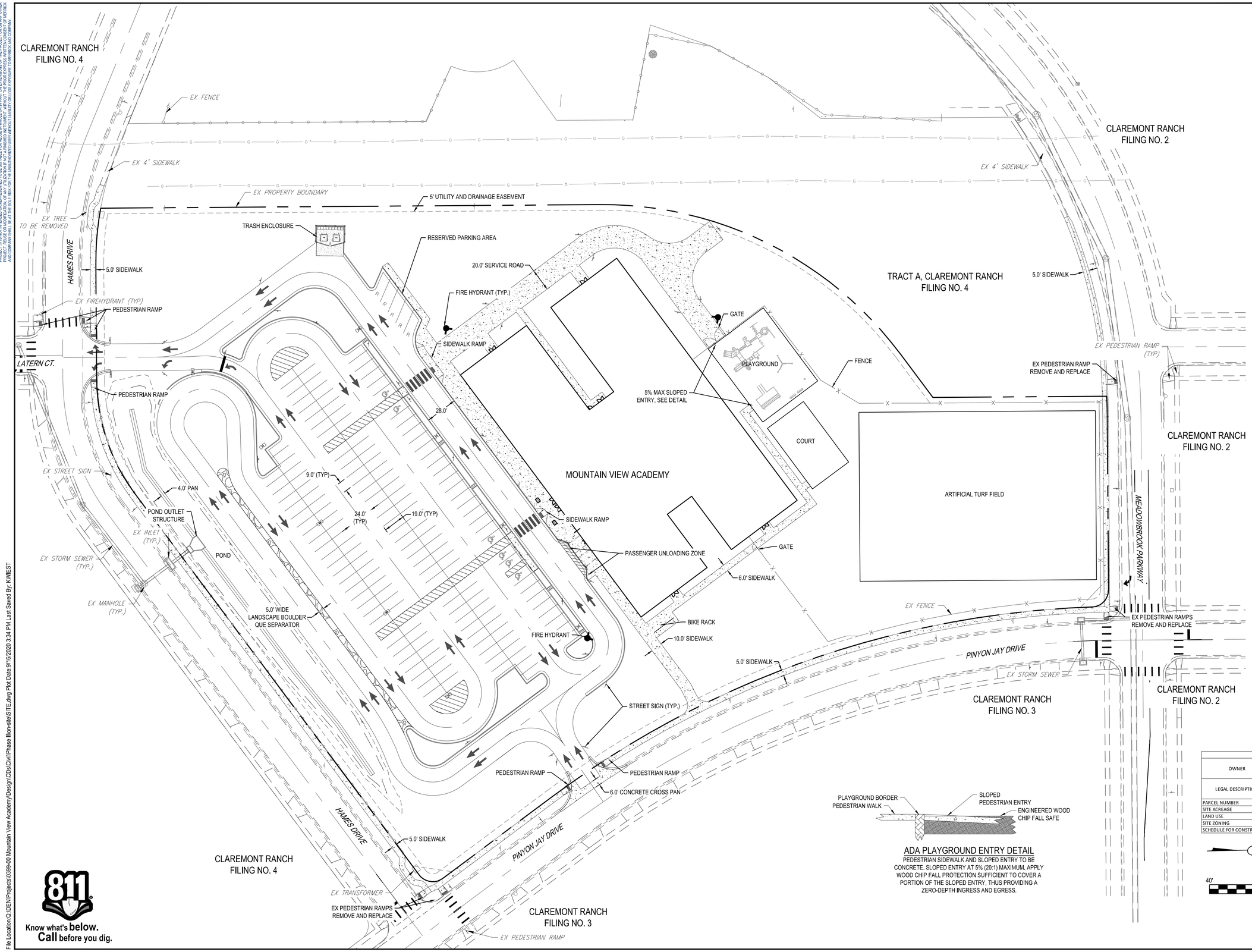

PARKING TABULATION:
SITE AREA = 7.88 ACRES
BUILDING AREA = 42,374
REQUIRED PARKING = 68
PROVIDED PARKING = 167
REQUIRED STACKING/QUEUING = 4,269'
PROVIDED STACKING/QUEUING = 4,276'

SITE DATA	
OWNER	NATIONAL HERITAGE ACADEMIES 3850 BROADMOOR SE GRAND RAPIDS, MI 49512
LEGAL DESCRIPTION	TRACT H, CLAREMONT RANCH - SECTION 4, FILING NO. 4
PARCEL NUMBER	5404121002
SITE ACREAGE	7.88
LAND USE	SCHOOL
SITE ZONING	PUD CAD-O
SCHEDULE FOR CONSTRUCTION	2020

EPC 10/18/2020

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REV	REVISION DESCRIPTION	DATE	CHKD	APPR
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TITLE:
MOUNTAIN VIEW ACADEMY
CIVIL CONSTRUCTION DOCUMENTS
SITE PLAN

PE STAMP
COLORADO LICENSED KYLE WEST 46080 PROFESSIONAL ENGINEER
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 02/07/2020
SHEET C2.0
5 of 35

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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.

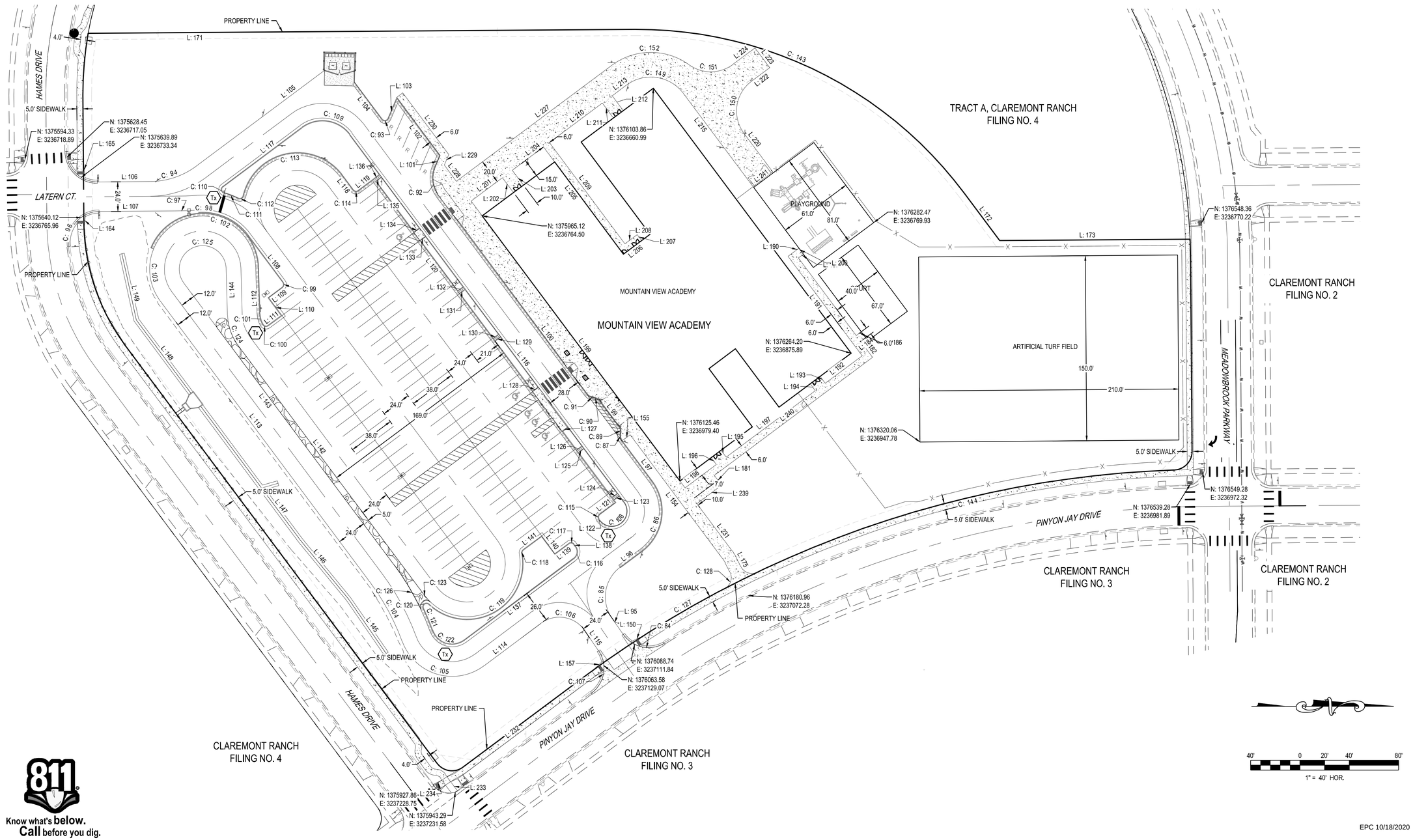
LEGEND

DENOTES THE USE OF SPILL CURB

(Tx) **TRANSITION CURB, CATCH TO SPILL**

NOTES:

1. ALL CURB AND GUTTER IS CATCH CURB, UNLESS OTHERWISE NOTED.
2. ALL CURB AND GUTTER IS 6" VERTICAL CURB WITH 2" GUTTER.
3. ALL DIMENSIONS ARE TO FLOWLINE AS APPLICABLE, UNLESS OTHERWISE NOTED.



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TITLE:

MOUNTAIN VIEW ACADEMY

CIVIL CONSTRUCTION DOCUMENTS

HORIZONTAL CONTROL PLAN

PE STAMP: COLORADO LICENSED, IRYNA YPKEMA, 46080, 09/16/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399

DATE: 02/07/2020

SHEET: C2.1

6 of 35

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LINE TABLE

LINE #	BEARING	LENGTH	START NORTHING EASTING	END NORTHING EASTING
L: 95	S55° 36' 06"W	16.22'	1376079.345 3237103.747	1376070.179 3237090.360
L: 96	S36° 43' 35"E	21.60'	1376094.373 3237036.400	1376077.058 3237049.318
L: 97	S53° 16' 25"W	40.77'	1376103.016 3236979.421	1376078.635 3236946.744
L: 99	S53° 16' 25"W	25.00'	1376075.556 3236935.092	1376060.606 3236915.054
L: 100	S53° 16' 25"W	201.59'	1376049.913 3236909.083	1375929.364 3236747.511
L: 101	S66° 43' 35"E	9.81'	1375930.548 3236715.653	1375926.670 3236724.669
L: 102	S53° 16' 25"W	57.74'	1375930.548 3236715.653	1375896.023 3236669.379
L: 103	S66° 43' 35"E	17.90'	1375896.023 3236669.379	1375888.951 3236685.820
L: 104	S53° 16' 25"W	37.83'	1375883.791 3236686.429	1375861.171 3236656.112
L: 105	S36° 43' 35"E	129.78'	1375837.370 3236646.549	1375733.350 3236724.157
L: 106	N0° 24' 42"W	43.02'	1375653.108 3236736.970	1375696.129 3236736.661
L: 107	N0° 24' 42"W	61.29'	1375654.490 3236760.961	1375715.783 3236760.520
L: 108	S53° 16' 25"W	47.68'	1375803.818 3236818.372	1375775.307 3236780.159
L: 109	S36° 43' 35"E	14.02'	1375803.207 3236822.571	1375791.967 3236830.957
L: 110	S53° 16' 25"W	18.00'	1375802.750 3236845.370	1375791.986 3236830.943
L: 111	S36° 43' 35"E	13.96'	1375802.750 3236845.370	1375791.558 3236853.720
L: 112	S88° 16' 25"W	37.99'	1375784.562 3236844.279	1375783.417 3236806.311
L: 113	S53° 16' 25"W	284.96'	1375874.376 3237061.773	1375703.973 3236833.380
L: 114	S36° 43' 35"E	57.73'	1376012.655 3237094.875	1375966.384 3237129.397
L: 115	S55° 36' 06"W	19.78'	1376059.409 3237117.112	1376048.233 3237100.789
L: 116	S53° 16' 25"W	371.65'	1376080.173 3236996.464	1375857.926 3236698.585
L: 117	S36° 43' 35"E	79.99'	1375818.740 3236692.887	1375754.628 3236740.721
L: 118	S53° 16' 25"W	15.00'	1375860.405 3236743.714	1375851.435 3236731.691
L: 119	S36° 43' 35"E	16.00'	1375877.427 3236734.756	1375864.603 3236744.324
L: 120	S53° 16' 25"W	325.00'	1376072.972 3236996.846	1375878.623 3236736.359
L: 121	S36° 43' 35"E	16.00'	1376072.972 3236996.846	1376060.148 3237006.414
L: 122	S53° 16' 25"W	1.00'	1376060.136 3237011.414	1376059.538 3237010.613
L: 123	N36° 43' 35"W	6.00'	1376071.477 3236994.843	1376076.286 3236991.255
L: 124	N36° 43' 35"W	6.00'	1376070.281 3236993.240	1376075.090 3236989.652
L: 125	N36° 43' 35"W	6.00'	1376042.773 3236956.371	1376047.582 3236952.783
L: 126	N36° 43' 35"W	6.00'	1376041.577 3236954.768	1376046.386 3236951.180
L: 127	N36° 43' 35"W	6.00'	1376029.916 3236939.138	1376034.725 3236935.550
L: 128	N36° 43' 35"W	6.00'	1376005.996 3236907.078	1376010.805 3236903.490
L: 129	N36° 43' 35"W	6.00'	1375975.200 3236865.801	1375980.009 3236862.213
L: 130	N36° 43' 35"W	6.00'	1375974.004 3236864.198	1375978.813 3236860.610
L: 131	N36° 43' 35"W	6.00'	1375946.496 3236827.329	1375951.305 3236823.741
L: 132	N36° 43' 35"W	6.00'	1375945.300 3236825.726	1375950.109 3236822.138
L: 133	N36° 43' 35"W	6.00'	1375914.503 3236784.449	1375919.312 3236780.861
L: 134	N36° 43' 35"W	6.00'	1375909.719 3236778.037	1375914.528 3236774.449
L: 135	N36° 43' 35"W	6.00'	1375878.623 3236736.359	1375883.432 3236732.771

LINE TABLE

LINE #	BEARING	LENGTH	START NORTHING EASTING	END NORTHING EASTING
L: 136	N36° 43' 35"W	6.00'	1375877.427 3236734.756	1375882.236 3236731.168
L: 137	S36° 43' 35"E	72.49'	1376039.259 3237041.962	1375981.158 3237085.311
L: 138	S53° 16' 25"W	2.50'	1376040.983 3237032.566	1376039.488 3237030.563
L: 139	S36° 43' 35"E	14.00'	1376035.289 3237029.952	1376024.068 3237038.324
L: 140	S53° 16' 25"W	18.00'	1376024.068 3237038.324	1376013.304 3237023.897
L: 141	S36° 43' 35"E	18.84'	1376013.304 3237023.897	1375998.206 3237035.162
L: 142	S53° 16' 25"W	253.00'	1375918.383 3237072.260	1375767.090 3236869.480
L: 143	S53° 16' 25"W	284.96'	1375893.612 3237047.421	1375723.209 3236819.029
L: 144	S88° 16' 25"W	37.99'	1375758.574 3236845.062	1375757.429 3236807.094
L: 145	N55° 20' 25"E	53.93'	1375856.632 3237075.012	1375887.302 3237119.371
L: 146	N50° 41' 19"E	60.92'	1375818.035 3237027.875	1375856.632 3237075.012
L: 147	N53° 18' 59"E	135.84'	1375736.883 3236918.935	1375818.035 3237027.875
L: 148	N53° 18' 59"E	73.23'	1375684.680 3236848.857	1375728.426 3236907.582
L: 149	N77° 43' 16"E	34.06'	1375677.437 3236815.581	1375684.680 3236848.857
L: 150	N26° 35' 55"W	12.26'	1376085.438 3237109.964	1376096.402 3237104.475
L: 154	N53° 16' 25"E	124.88'	1376085.047 3236941.960	1376159.727 3237042.054
L: 155	N36° 43' 35"W	8.00'	1376078.635 3236946.744	1376085.047 3236941.960
L: 157	N42° 11' 56"W	12.21'	1376054.020 3237133.494	1376063.064 3237125.293
L: 164	N84° 29' 17"W	11.84'	1375642.292 3236775.417	1375643.430 3236763.629
L: 165	N84° 55' 35"E	16.57'	1375641.782 3236718.518	1375643.247 3236735.020
L: 171	S0° 24' 42"E	443.34'	1376088.994 3236613.358	1375645.665 3236616.544
L: 172	S53° 16' 23"W	48.10'	1376384.622 3236784.560	1376355.858 3236746.009
L: 173	S0° 24' 42"E	154.47'	1376539.088 3236783.450	1376384.622 3236784.560
L: 175	S63° 24' 25"W	8.43'	1376174.760 3237048.873	1376170.987 3237041.336
L: 181	S53° 16' 25"W	10.00'	1376159.251 3236982.887	1376153.271 3236974.872
L: 182	S53° 16' 25"W	16.00'	1376281.594 3236879.130	1376272.026 3236866.306
L: 184	N36° 43' 35"W	5.00'	1376272.026 3236866.306	1376276.034 3236863.316
L: 185	S53° 16' 25"W	6.00'	1376276.034 3236863.316	1376272.446 3236858.507
L: 186	S36° 43' 35"E	5.00'	1376272.446 3236858.507	1376268.438 3236861.497
L: 187	N36° 43' 35"W	5.00'	1376221.496 3236798.580	1376225.503 3236795.590
L: 190	S36° 43' 35"E	11.00'	1376221.915 3236790.781	1376213.099 3236797.359
L: 191	N53° 16' 25"E	100.50'	1376213.099 3236797.359	1376273.197 3236877.909
L: 192	S36° 43' 35"E	37.36'	1376273.197 3236877.909	1376243.250 3236900.253
L: 193	S53° 16' 25"W	7.00'	1376243.250 3236900.253	1376239.064 3236894.643
L: 194	N53° 16' 25"E	7.00'	1376231.049 3236900.623	1376235.235 3236906.233
L: 195	S53° 16' 25"W	7.00'	1376163.000 3236960.128	1376158.814 3236954.517
L: 196	N53° 16' 25"E	7.00'	1376150.799 3236960.497	1376154.985 3236966.108
L: 197	S36° 43' 35"E	90.13'	1376235.235 3236906.233	1376163.000 3236960.128
L: 198	S36° 43' 35"E	31.61'	1376154.985 3236966.108	1376129.646 3236985.013
L: 199	S53° 16' 25"W	290.13'	1376129.646 3236985.013	1375956.152 3236752.478

LINE TABLE

LINE #	BEARING	LENGTH	START NORTHING EASTING	END NORTHING EASTING
L: 200	S53° 16' 25"W	6.00'	1376225.503 3236795.590	1376221.915 3236790.781
L: 201	N36° 43' 35"W	31.61'	1375956.152 3236752.478	1375981.491 3236733.573
L: 202	N53° 16' 25"E	15.00'	1375981.491 3236733.573	1375990.461 3236745.595
L: 203	S53° 16' 25"W	15.00'	1375998.476 3236739.615	1375989.506 3236727.593
L: 204	N36° 43' 35"W	31.61'	1375989.506 3236727.593	1376014.845 3236708.687
L: 205	N53° 16' 25"E	108.33'	1376014.845 3236708.687	1376079.628 3236795.516
L: 206	N36° 39' 26"W	18.45'	1376079.628 3236795.516	1376094.427 3236776.503
L: 207	S53° 31' 45"W	6.00'	1376094.427 3236784.503	1376090.861 3236779.678
L: 208	S36° 39' 26"E	12.47'	1376090.861 3236779.678	1376080.853 3236787.125
L: 209	S53° 16' 25"W	102.34'	1376080.853 3236787.125	1376019.654 3236705.099
L: 210	N36° 43' 35"W	53.51'	1376019.654 3236705.099	1376062.543 3236673.100
L: 211	N53° 16' 25"E	15.00'	1376062.543 3236673.100	1376071.512 3236685.123
L: 212	S53° 16' 25"W	15.00'	1376079.527 3236679.143	1376070.558 3236667.120
L: 213	N36° 43' 35"W	14.36'	1376070.558 3236667.120	1376082.071 3236658.530
L: 215	N53° 16' 25"E	95.12'	1376128.254 3236665.246	1376185.138 3236741.489
L: 220	S53° 16' 25"W	40.00'	1376201.168 3236729.529	1376177.249 3236697.469
L: 222	N36° 43' 35"W	18.58'	1376183.354 3236655.484	1376198.249 3236644.371
L: 223	S53° 16' 25"W	20.00'	1376198.249 3236644.371	1376186.289 3236628.341
L: 224	S36° 43' 35"E	22.40'	1376186.289 3236628.341	1376168.336 3236641.735
L: 227	S36° 43' 35"E	157.10'	1376070.111 3236642.500	1375944.192 3236736.448
L: 228	S53° 16' 25"W	16.45'	1375944.192 3236736.448	1375934.352 3236723.260
L: 229	N66° 43' 35"W	9.24'	1375934.352 3236723.260	1375938.002 3236714.774
L: 230	S53° 16' 25"W	62.35'	1375938.002 3236714.774	1375900.715 3236664.797
L: 231	S53° 16' 25"W	47.71'	1376167.742 3237036.074	1376139.213 3236997.837
L: 232	S36° 43' 37"E	122.65'	1376049.896 3237142.752	1375951.596 3237216.094
L: 233	N53° 16' 23"E	9.45'	1375939.520 3237223.126	1375945.172 3237230.702
L: 234	N34° 26' 38"W	8.03'	1375925.782 3237226.495	1375932.406 3237221.952
L: 239	N36° 43' 35"W	25.00'	1376139.213 3236997.837	1376159.251 3236982.887
L: 240	N36° 43' 35"W	160.10'	1376153.271 3236974.872	1376281.594 3236879.130
L: 241	S36° 43' 35"E	61.00'	1376234.030 3236705.011	1376185.138 3236741.489

CURVE TABLE

CURVE #	LENGTH	DELTA	RADIUS	CRD LENGTH	CRD BEARING	START NORTHING EASTING	END NORTHING EASTING
C: 84	37.65'	86° 17' 03"	25.00'	34.19	N12° 27' 35"E	1376079.345 3237103.747	1376112.730 3237111.124
C: 85	45.90'	87° 40' 18"	30.00'	41.56	S80° 33' 45"E	1376076.993 3237049.367	1376070.179 3237090.360
C: 86	63.62'	90° 00' 00"	40.50'	57.28	N81° 43' 35"W	1376094.373 3237036.400	1376102.615 3236979.720
C: 87	6.31'	48° 11' 23"	7.50'	6.12	N77° 22' 06"E	1376076.895 3236941.067	1376078.234 3236947.043
C: 89	6.31'	48° 11' 23"	7.50'	6.12	S77° 22' 06"W	1376076.895 3236941.067	1376075.556 3236935.092
C: 90	6.31'	48° 11' 23"	7.50'	6.12	S29° 10' 43"W	1376060.606 3236915.054	1376055.259 3236912.069
C: 91	6.31'	48° 11' 23"	7.50'	6.12	N29° 10' 43"E	1376049.913 3236909.083	1376055.259 3236912.069
C: 92	18.93'	48° 11' 39"	22.50'	18.37	N89° 10' 35"E	1375927.130 3236724.867	1375927.394 3236743.238
C: 93	6.28'	120° 00' 00"	3.00'	5.20	N6° 43' 35"W	1375883.791 3236686.429	1375888.951 3236685.820
C: 94	39.93'	36° 18' 53"	63.00'	39.27	N18° 34' 09"W	1375696.129 3236736.661	1375733.350 3236724.157
C: 96	19.89'	48° 08' 40"	23.67'	19.31	N73° 36' 02"W	1375631.215 3236789.120	1375636.665 3236770.599
C: 97	19.35'	3° 33' 14"	312.00'	19.35	N2° 11' 19"W	1375715.783 3236760.520	1375735.118 3236759.782
C: 98	45.95'	57° 14' 21"	46.00'	44.07	S24° 39' 14"W	1375775.307 3236780.159	1375735.257 3236761.777
C: 99	4.71'	90° 00' 00"	3.00'	4.24	N81° 43' 35"W	1375803.207 3236822.571	1375803.818 3236818.372
C: 100	4.93'	94° 05' 46"	3.00'	4.39	N10° 19' 17"E	1375787.237 3236852.933	1375791.558 3236853.720
C: 101	9.17'	30° 54' 14"	17.00'	9.06	N72° 49' 17"E	1375784.562 3236844.279	1375787.237 3236852.933
C: 102	122.48'	155° 56' 56"	45.00'	88.02	S10° 17' 57"W	1375783.417 3236806.311	1375696.811 3236790.573
C: 103	44.32'	59° 03' 04"	43.00'	42.38	N82° 47' 57"E	1375698.661 3236791.333	1375703.973 3236833.380
C: 104	54.66'	16° 39' 31"	188.00'	54.47	S61° 36' 10"W	1375900.281 3237109.687	1375874.376 3237061.773
C: 105	80.05'	106° 39' 31"	43.00'	68.98	N16° 36' 10"E	1375900.281 3237109.687	1375966.384 3237129.397
C: 106	40.29'	92° 19' 42"	25.00'	36.07	S9° 26' 15"W	1376048.233 3237100.789	1376012.655 3237094.875
C: 107	38.34'	87° 52' 20"	25.00'	34.69	N80° 27' 44"W	1376053.660 3237151.325	1376059.409 3237117.112
C: 108	39.27'	180° 00' 00"	12.50'	25.00	N36° 43' 35"W	1376060.136 3237011.414	1376080.173 3236996.464
C: 109	47.12'	90° 00' 00"	30.00'	42.43	S8° 16' 25"W	1375859.529 3236697.389	1375817.544 3236691.284
C: 110	6.69'	127° 42' 11"	3.00'	5.39	N79° 25' 19"E	1375754.628 3236740.721	1375755.617 3236746.015
C: 111	12.48'	11° 10' 32"	64.00'	12.46	S21° 09' 29"W	1375767.240 3236750.514	1375755.617 3236746.015
C: 112	5.43'	103° 47' 05"	3.00'	4.72	N25° 08' 47"W	1375767.240 3236750.514	1375771.514 3236748.508
C: 113	102.35'	130° 18' 44"	45.00'	81.67	S11° 52' 58"E	1375851.435 3236731.691	1375771.514 3236748.508
C: 114	4.71'	90° 00' 00"	3.00'	4.24	N8° 16' 25"E	1375860.405 3236743.714	1375864.603 3236744.324
C: 115	4.71'	90° 00' 00"	3.00'	4.24	S81° 43' 35"E	1376060.148 3237006.414	1376059.538 3237010.613
C: 116	11.00'	90° 00' 00"	7.00'	9.90	N81° 43' 35"W	1376039.558 3237042.363	1376040.983 3237032.566
C: 117	4.71'	90° 00' 00"	3.00'	4.24	S8° 16' 25"W	1376039.488 3237030.563	1376035.289 3237029.952
C: 118	3.35'	64° 03' 20"	3.00'	3.18	S68° 45' 15"E	1375998.206 3237035.162	1375997.053 3237038.128
C: 119	113.25'	144° 11' 44"	45.00'	85.64	S28° 41' 03"E	1375997.053 3237038.128	1375921.921 3237079.234
C: 120	8.31'	158° 43' 37"	3.00'	5.90	S35° 57' 00"E	1375921.921 3237079.234	1375917.147 3237082.696
C: 121	19.59'	5° 14' 44"	214.00'	19.59	N67° 18' 34"E	1375917.147 3237082.696	1375924.702 3237100.766
C: 122	31.65'	106° 39' 31"	17.00'	27.27	N16° 36' 10"E	1375924.702 3237100.766	1375950.836 3237108.558
C: 123	7.40'	9° 51' 36"	43.00'	7.39	N48° 20' 37"E	1375918.383 3237072.260	1375923.295 3237077.782
C: 124	26.27'	35° 00' 00"	43.00'	25.86	N70° 46' 25"E	1375758.574 3236845.062	1375767.090 3236869.480
C: 125	71.30'	215° 00' 00"	19.00'	36.24	S19° 13' 35"E	1375757.429 3236807.094	1375723.209 3236819.029

CURVE TABLE

CURVE #	LENGTH	DELTA	RADIUS	CRD LENGTH	CRD BEARING	START NORTHING EASTING	END NORTHING EASTING
C: 126	61.64'	16° 39' 31"	212.00'	61.42	S61° 36' 10"W	1375922.823 3237101.452	1375893.612 3237047.421
C: 127	86.90'	5° 51' 26"	850.00'	86.86	S30° 31' 16"E	1376161.507 3237066.688	1376086.684 3237110.799
C: 128	15.53'	89° 00' 02"	10.00'	14.02	S72° 05' 34"E	1376165.818 3237053.349	1376161.507 3237066.688
C: 143	309.20'	53° 41' 05"	330.00'	298.01	S26° 25' 50"W	1376355.858 3236746.009	1376088.994 3236613.358
C: 144	361.24'	24° 21' 00"	850.00'	358.53	S13° 25' 07"E	1376536.761 3236970.214	1376188.022 3237053.415
C: 149	51.84'	90° 00' 00"	33.00'	46.67	N8° 16' 25"E	1376082.071 3236658.530	1376128.254 3236665.246
C: 150	47.12'	90° 00' 00"	30.00'	42.43	N81° 43' 35"W	1376177.249 3236697.469	1376183.354 3236655.484
C: 151	37.99'	72° 33' 38"	30.00'	35.50	S0° 26' 47"E	1376168.336 3236641.735	1376132.833 3236642.012
C: 152	67.12'	72° 33' 38"	53.00'	62.72	S0° 26' 47"E	1376132.833 3236642.012	1376070.111 3236642.500

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REV	REVISION DESCRIPTION	DATE	CHN	CHKD	APPR
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TITLE:
MOUNTAIN VIEW ACADEMY
CIVIL CONSTRUCTION DOCUMENTS
HORIZONTAL CONTROL PLAN TABLES

RE-STAMP:
COLORADO LICENSED
JAMES KEVIN YPKEMA
46080
PROFESSIONAL ENGINEER
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 02/07/2020
SHEET: C2.2

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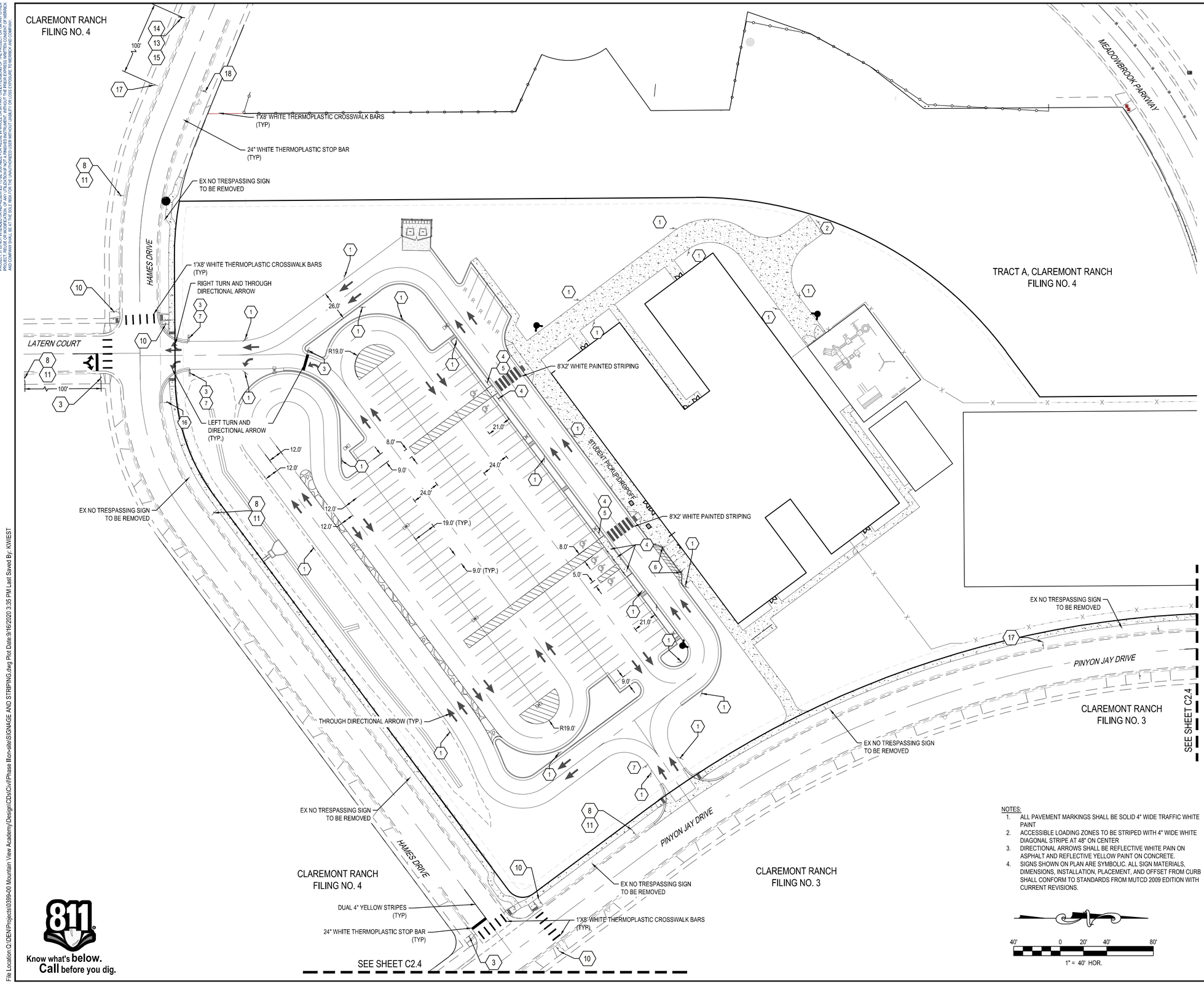

LEGEND

1	R7-1 (SP) (12"X18")	NO PARKING FIRE LANE
2	R7-1 (SP) (12"X18")	NO PARKING FIRE LANE
3	R1-1 (30"X30")	STOP
4	R7-8 (12"X18")	RESERVED PARKING
5	R7-8 P (12"X9")	VAN ACCESSIBLE
6	(12"X18")	PASSENGER LOADING ZONE ONLY
7	R5-1 (24"X24")	DO NOT ENTER R5-1
8	S1-1 (36"X36")	S1-1
9	W16-6P (24"X12")	W16-6P OR W16-6P
10	S4-3P* (12"X4") R1-6 (12"X36")	SCHOOL STATE LAW TO WITHIN CROSSWALK R1-6
11	W16-9P (24"X12")	AHEAD
12	W16-7PL (24"X12")	
13	R2-1 (24"X30")	SPEED LIMIT 20 R2-1
14	S4-3P (24"X8")	SCHOOL S4-3
15	S4-1P (24"X8")	2:30-3:30 P.M. 2:30-3:30 P.M. S4-1
16	R3-1 (RIGHT) (24"X24"	R3-1
17	R2-10 (24"X30")	BEGIN HIGHER FINES ZONE R2-10
18	R2-11 (24"X30")	END HIGHER FINES ZONE R2-11

NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE SOLID 4" WIDE TRAFFIC WHITE PAINT
2. ACCESSIBLE LOADING ZONES TO BE STRIPED WITH 4" WIDE WHITE DIAGONAL STRIPE AT 48" ON CENTER
3. DIRECTIONAL ARROWS SHALL BE REFLECTIVE WHITE PAIN ON ASPHALT AND REFLECTIVE YELLOW PAINT ON CONCRETE.
4. SIGNS SHOWN ON PLAN ARE SYMBOLIC. ALL SIGN MATERIALS, DIMENSIONS, INSTALLATION, PLACEMENT, AND OFFSET FROM CURB SHALL CONFORM TO STANDARDS FROM MUTCD 2009 EDITION WITH CURRENT REVISIONS.

40' 0 20' 40' 80'

1" = 40' HOR.

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REV	REVISION DESCRIPTION	DATE	CHKD	APPR
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TITLE:

MOUNTAIN VIEW ACADEMY

CIVIL CONSTRUCTION DOCUMENTS

SIGNAGE AND STRIPING

PE STAMP: COLORADO LICENSED KYLE WESTERMAN 46080 PROFESSIONAL ENGINEER — 09/16/2020 — FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399

DATE: 02/07/2020

SHEET: C2.3

8 of 35

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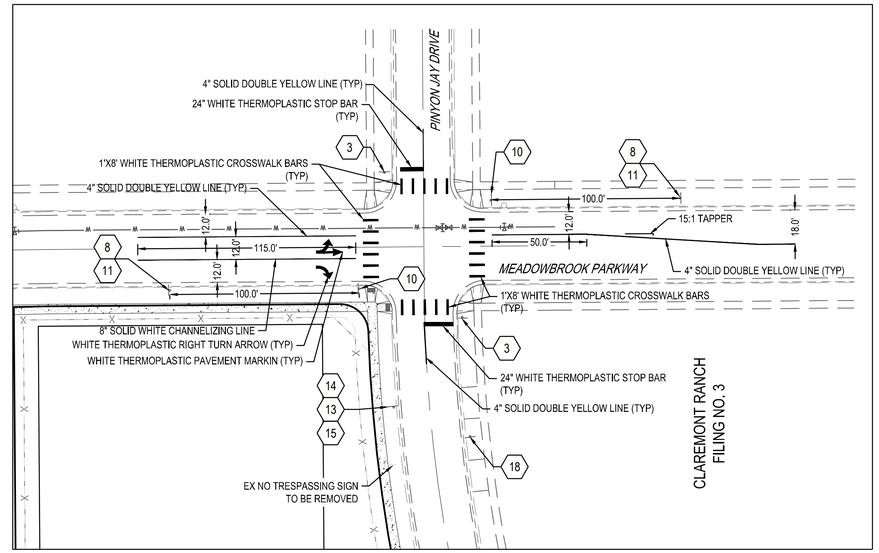
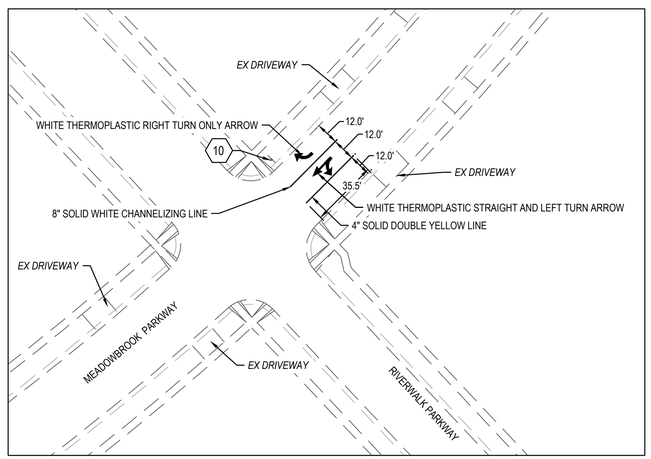
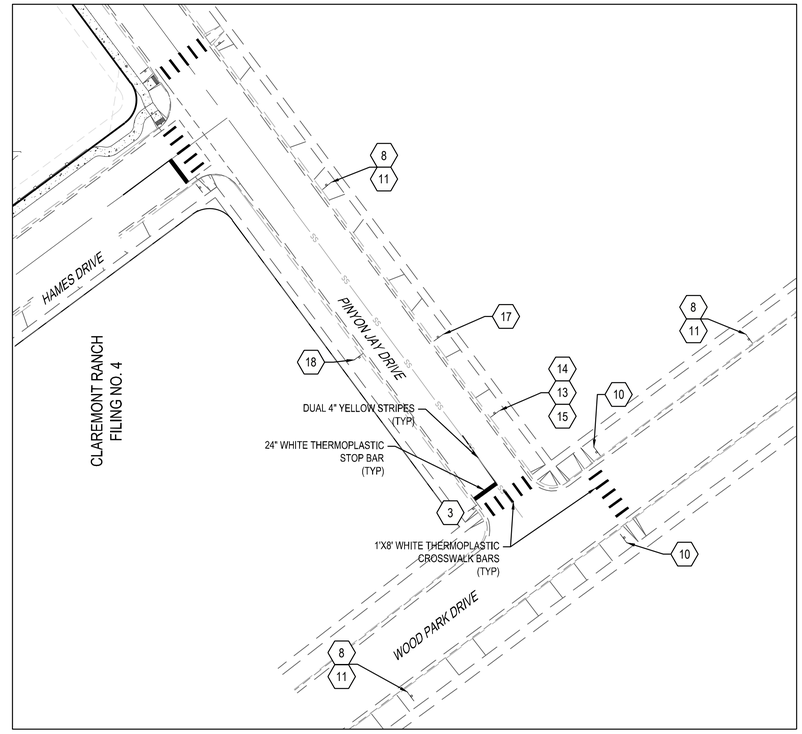
PINYON JAY DRIVE & MEADOWBROOK PARKWAY INTERSECTION SIGN PLAN



RIVERWALK PARKWAY & MEADOWBROOK PARKWAY INTERSECTION SIGN PLAN



PINYON JAY DRIVE & WOOD PARK DRIVE INTERSECTION SIGN PLAN



LEGEND

1	R7-1 (SP) (12"X18")	NO PARKING FIRE LANE
2	R7-1 (SP) (12"X18")	NO PARKING FIRE LANE
3	R1-1 (30"X30")	STOP
4	R7-8 (12"X18")	RESERVED PARKING
5	R7-8 P (12"X9")	VAN ACCESSIBLE
6	(12"X18")	PASSENGER LOADING ZONE ONLY
7	R5-1 (24"X24")	DO NOT ENTER R5-1
8	S1-1 (36"X36")	S1-1
9	W16-6P (24"X12")	W16-6P
10	S4-3P* (12"X4") R1-6 (12"X36")	SCHOOL STATE LAW TO WITHIN CROSSWALK R1-6
11	W16-9P (24"X12")	AHEAD
12	W16-7PL (24"X12")	
13	R2-1 (24"X30")	SPEED LIMIT 20
14	S4-3P (24"X8")	SCHOOL
15	S4-1P (24"X8")	7:30–8:30 AM 2:30–3:30 P.M. S4-1
16	R3-1 (RIGHT) (24"X24")	R3-1
17	R2-10 (24"X30")	BEGIN HIGHER FINES ZONE R2-10
18	R2-11 (24"X30")	END HIGHER FINES ZONE R2-11

40' 0 20' 40' 80'

1" = 40' HOR. EPC 10/18/2020

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TITLE:

MOUNTAIN VIEW ACADEMY

CIVIL CONSTRUCTION DOCUMENTS

SIGNAGE AND STRIPING

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FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399

DATE: ----

SHEET: C2.4

9 of 35

File Location: Q:\DEN\Projects\0399-00 Mountain View Academy\Design\CDs\Civil\Phase II\on-site\SIGNAGE AND STRIPING OFF SITE.dwg Plot Date:9/16/2020 3:36 PM Last Saved By: KWIEST

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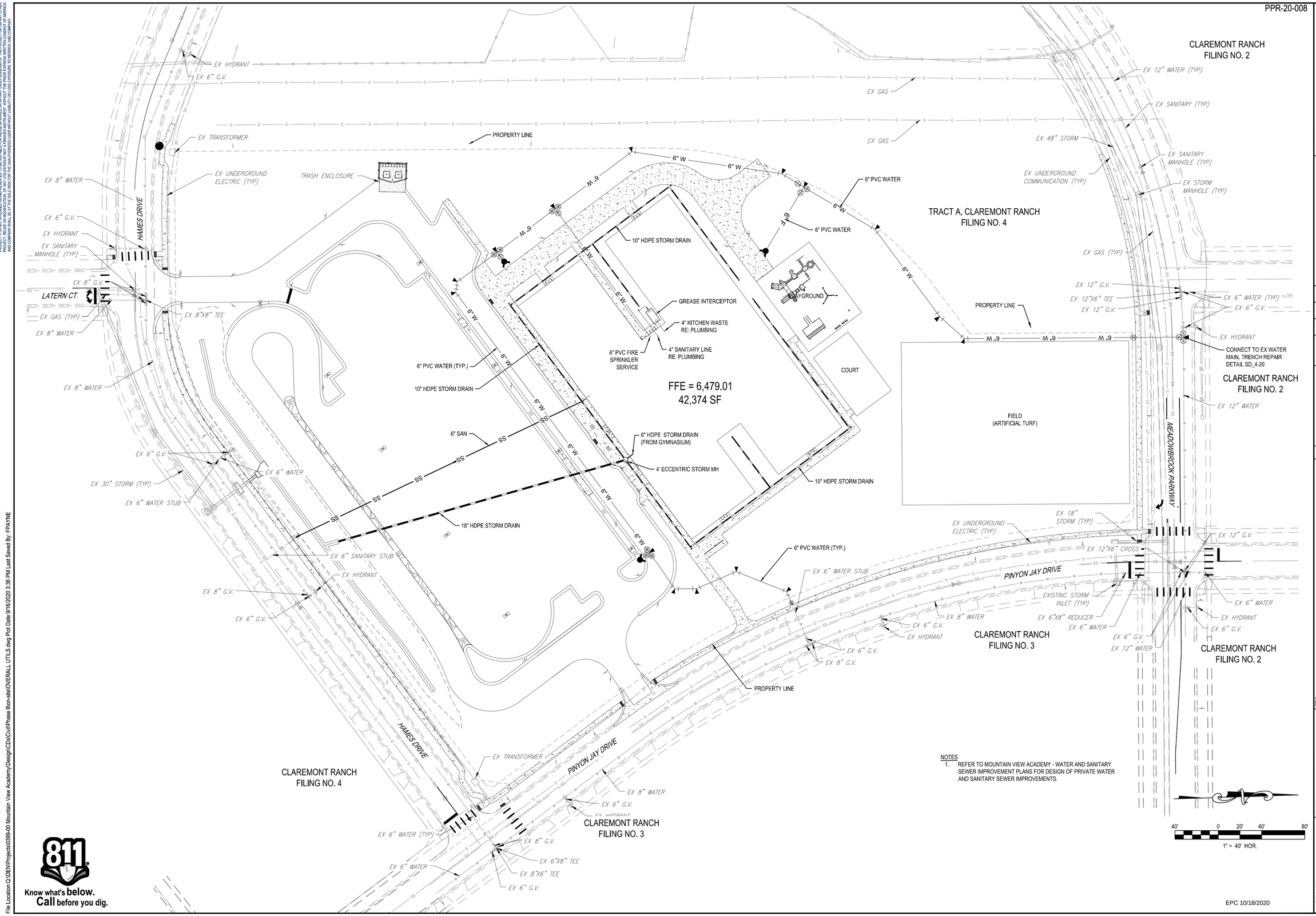

NOTES
1. REFER TO MOUNTAIN VIEW ACADEMY - WATER AND SANITARY SEWER IMPROVEMENT PLANS FOR DESIGN OF PRIVATE WATER AND SANITARY SEWER IMPROVEMENTS.

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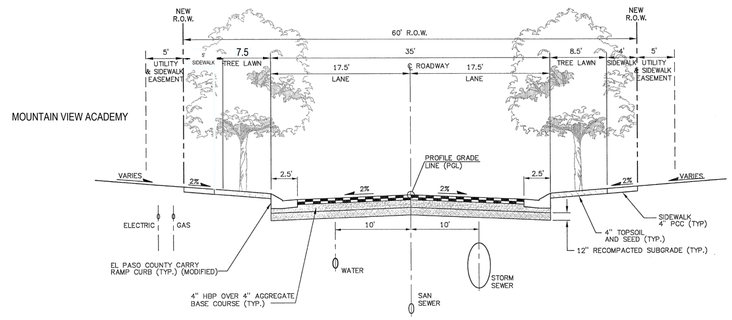
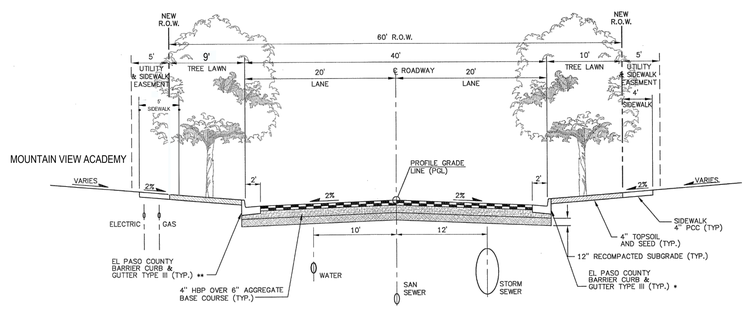
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 02/07/2020
SHEET: C2.5
10 of 35



URBAN LOCAL TYPICAL SECTION

PINYON JAY DRIVE
HAMES DRIVE
Section based PCD File No. PUD02005



URBAN COLLECTOR TYPICAL SECTION

MEADOWBROOK PARKWAY
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KYLE PYKEMA
46080
PROFESSIONAL ENGINEER
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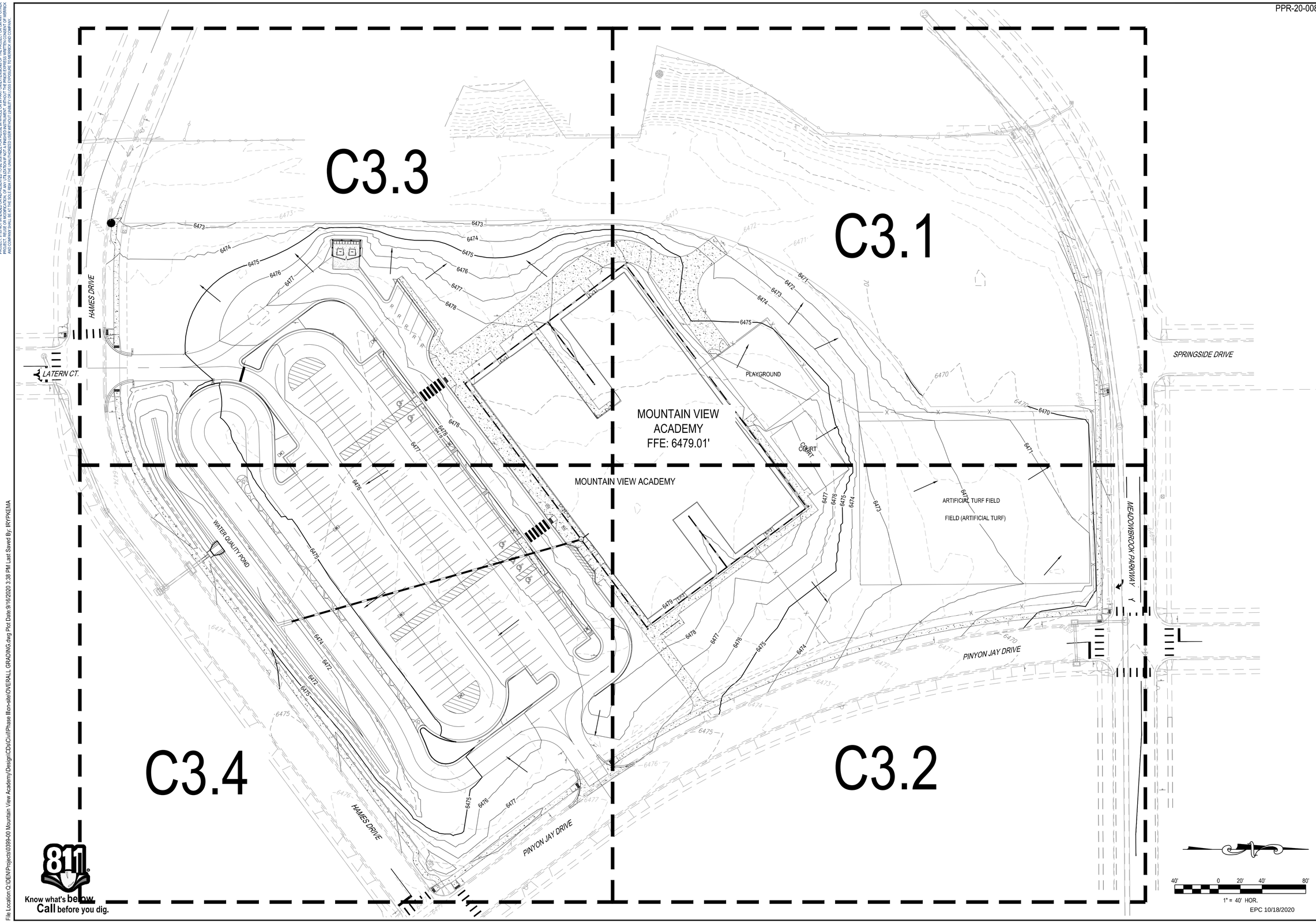

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OVERALL GRADING PLAN

PE STAMP

COLORADO LICENSED PROFESSIONAL ENGINEER 46080 NATHAN E. SCHLUETER 09/16/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399

DATE 02/07/2020

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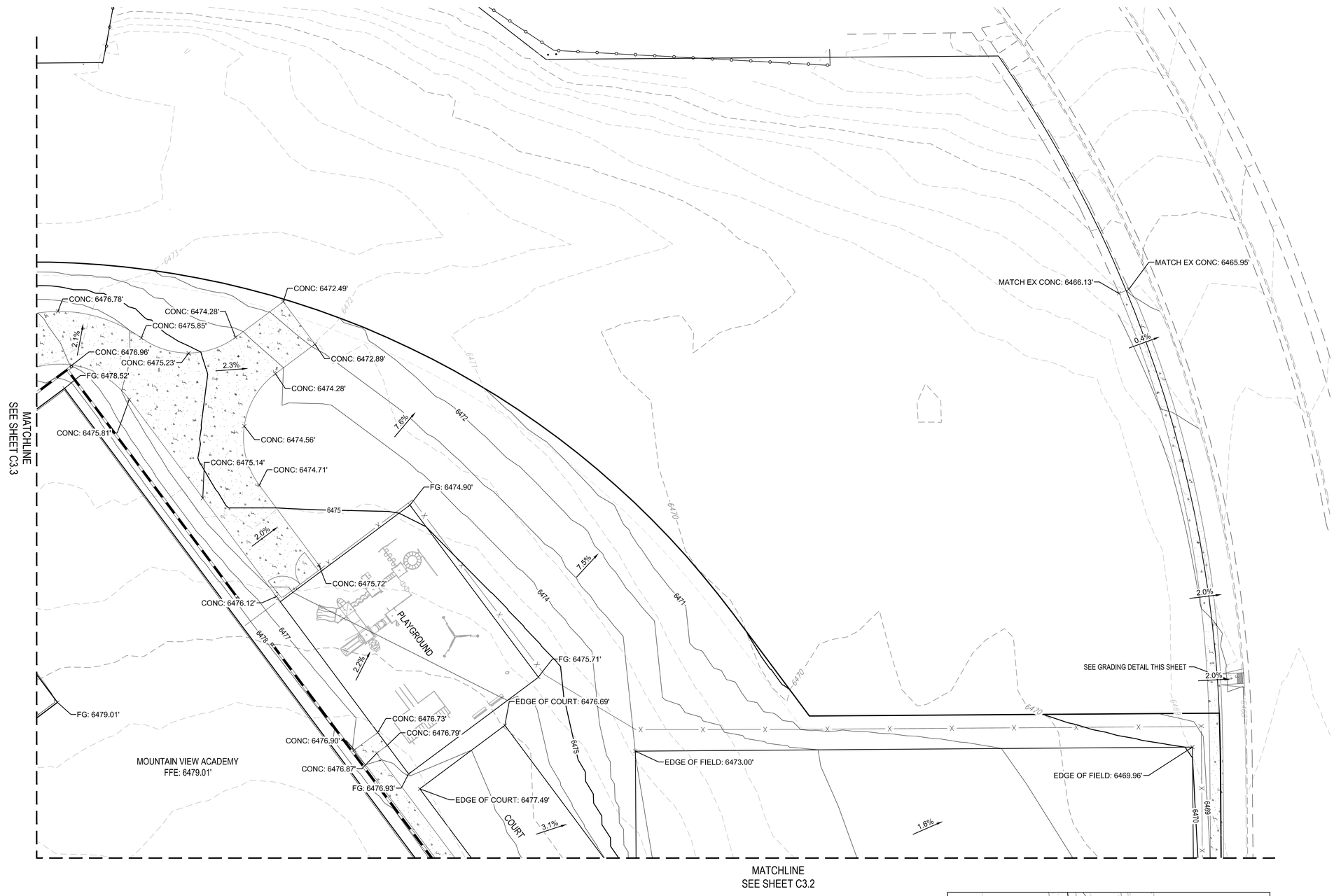

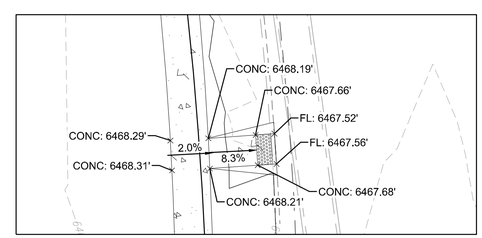

GRADING DETAIL
1" = 10'

20' 0 10' 20' 40'
1" = 20' HOR.

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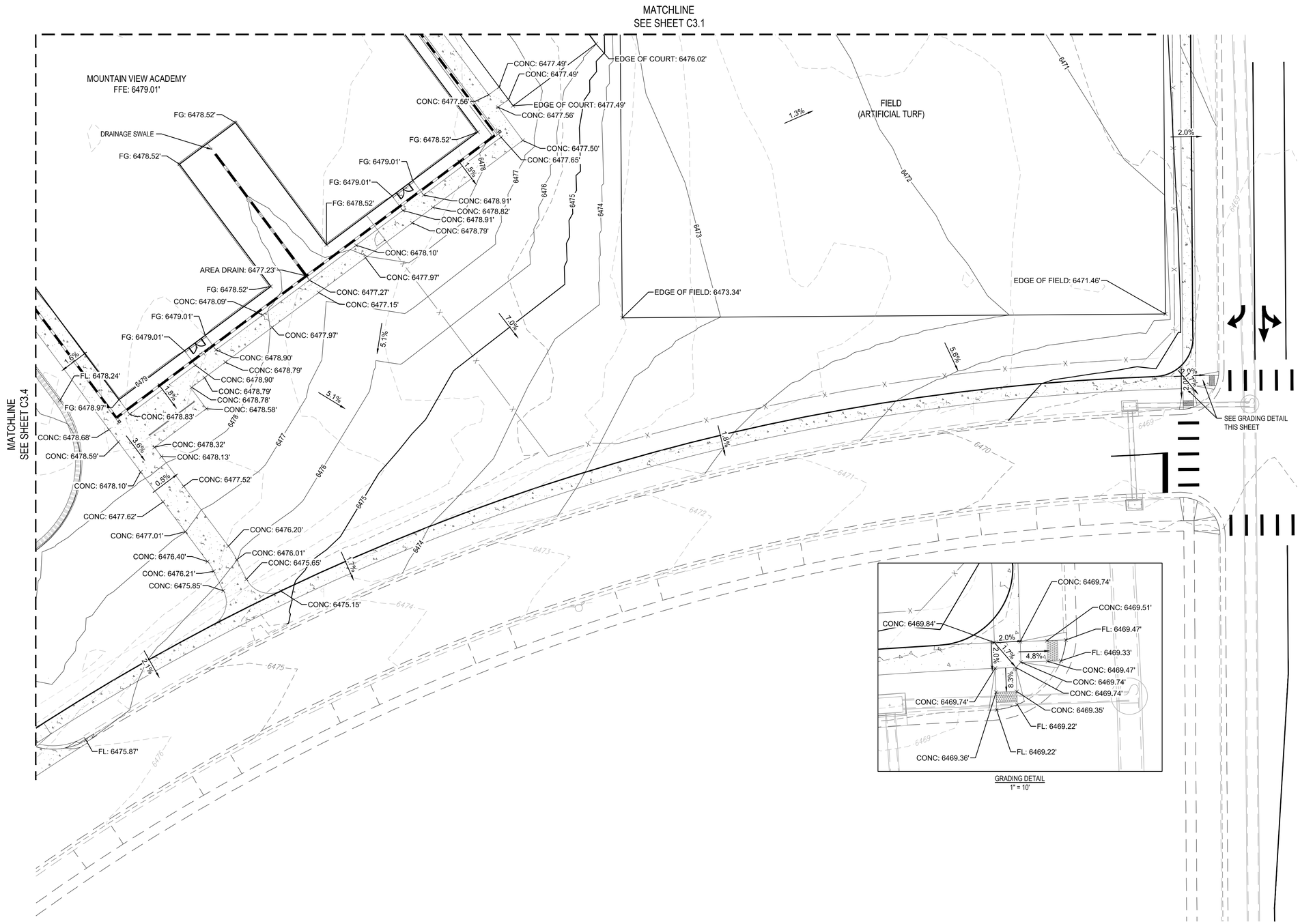

GRADING DETAIL
1" = 10'

LEGEND

DENOTES THE USE OF SPILL CURB

20' 0 10' 20' 40'
1" = 20' HORIZ.

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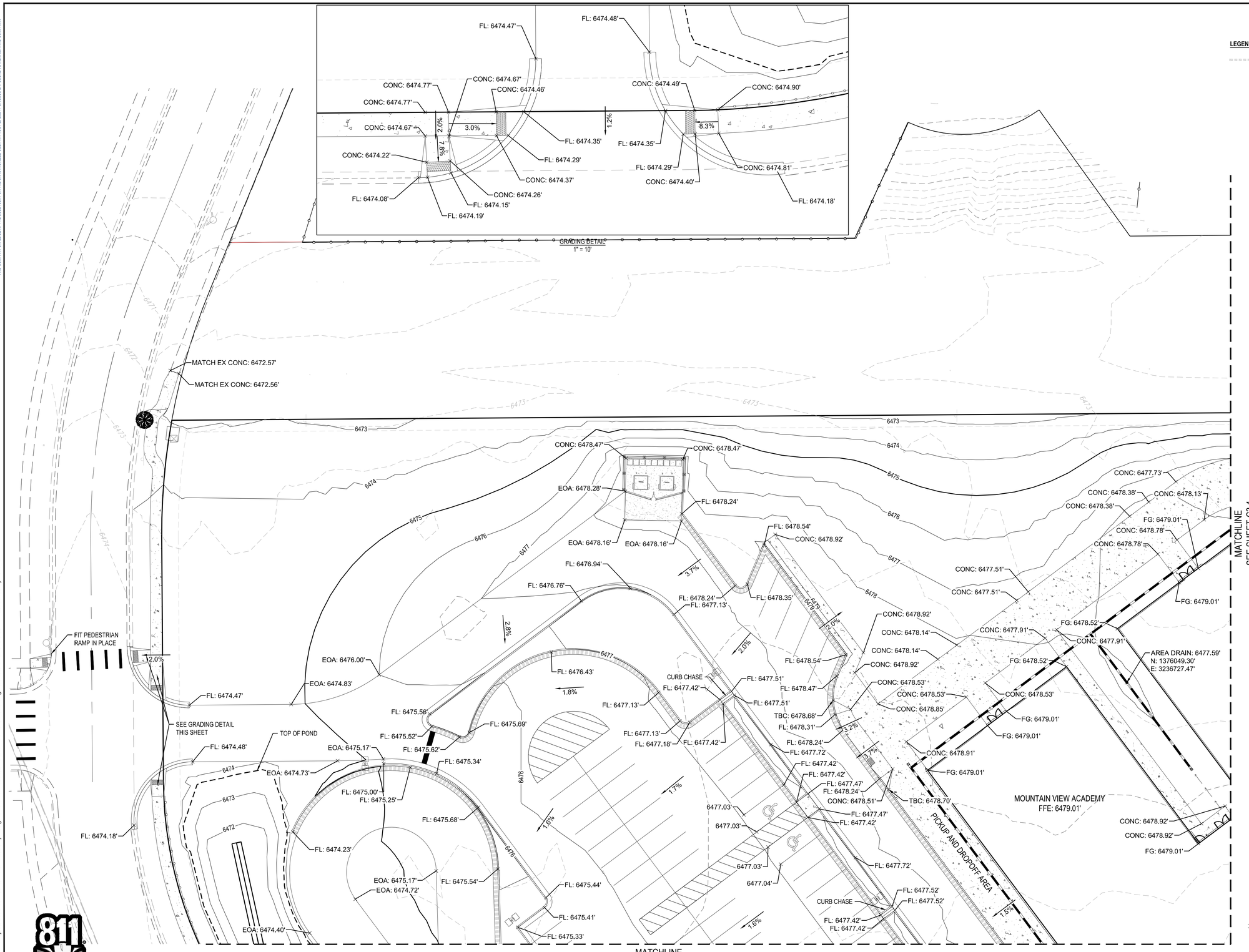

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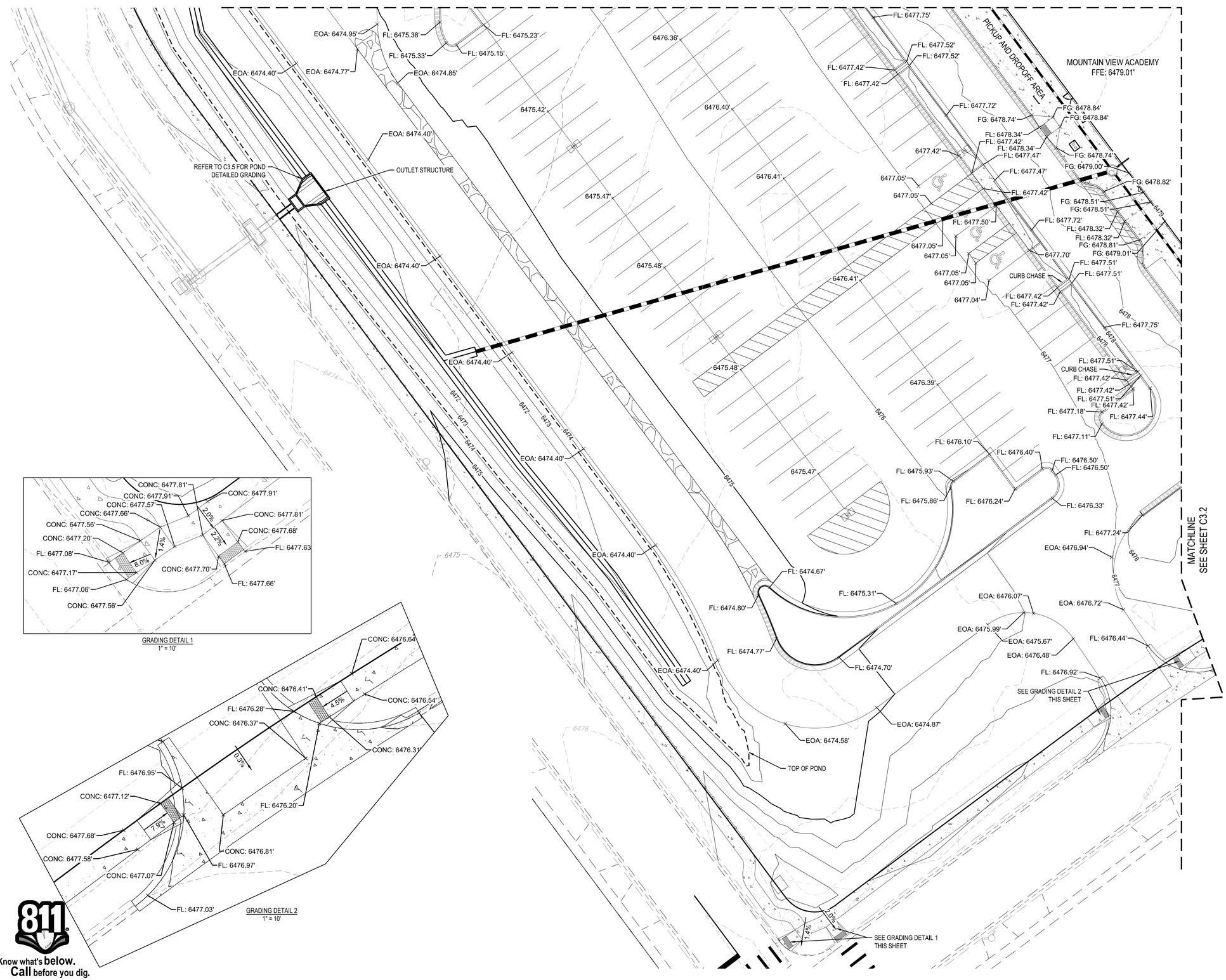

LEGEND

DENOTES THE USE OF SPILL CURB

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DETAIL GRADING PLAN

PE STAMP

COLORADO LICENSED PROFESSIONAL ENGINEER 46080 PAUL CHRISTOPHER KWIEST

09/16/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399

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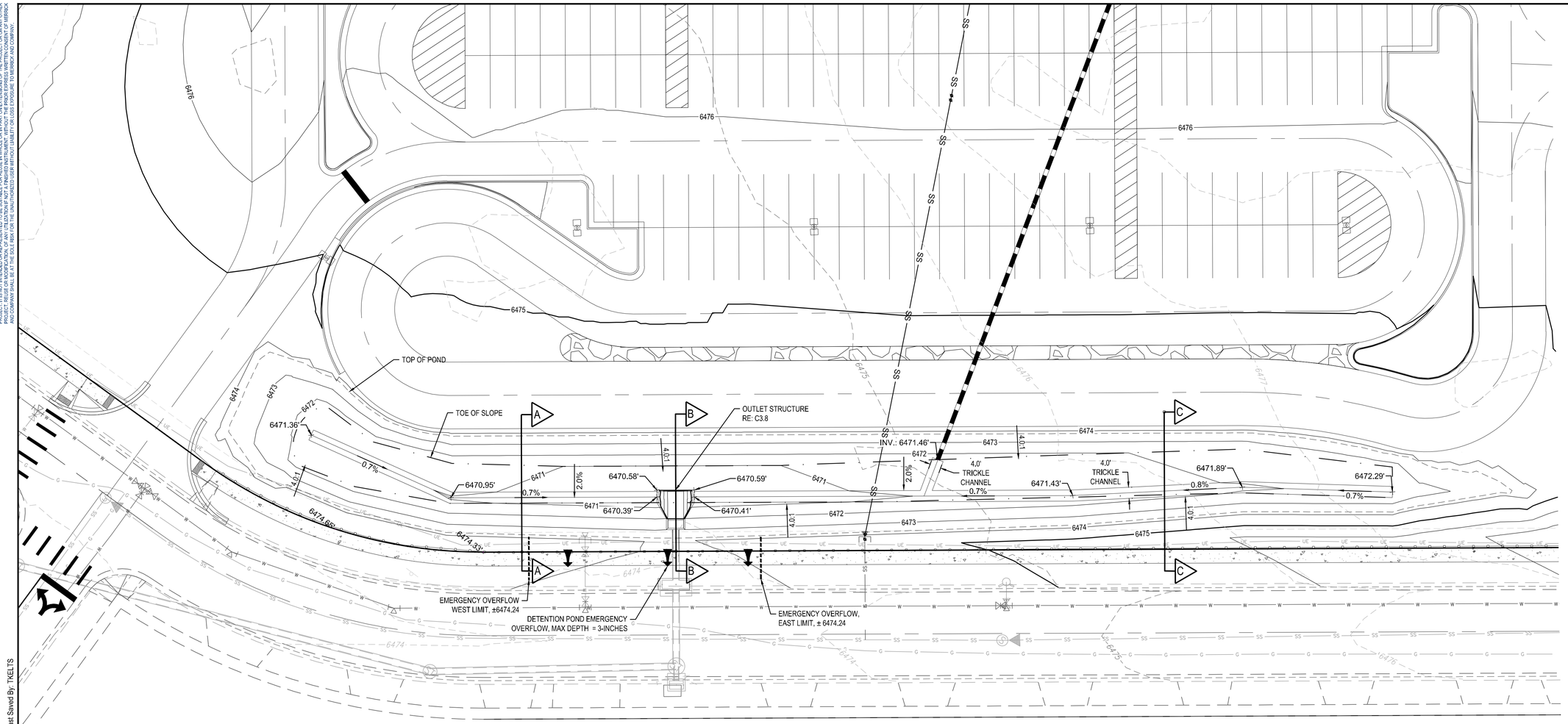

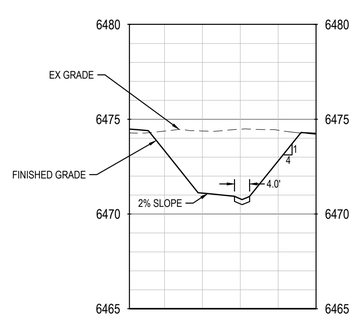

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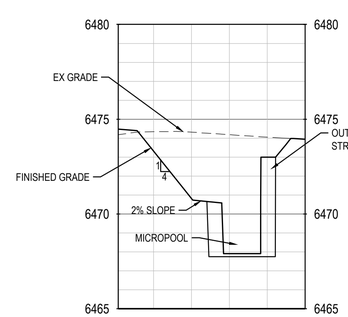

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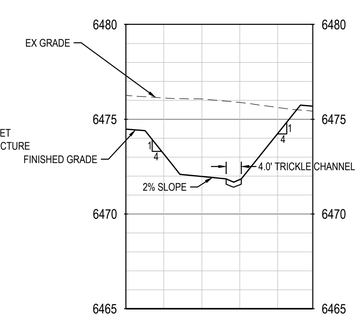
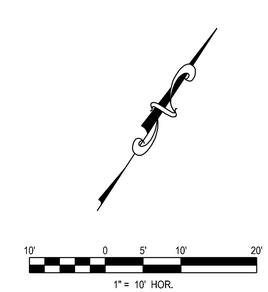


SECTION C-C



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POND GRADING PLAN

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JOB NUMBER: 65120399
DATE: 02/07/2020
SHEET: C3.5
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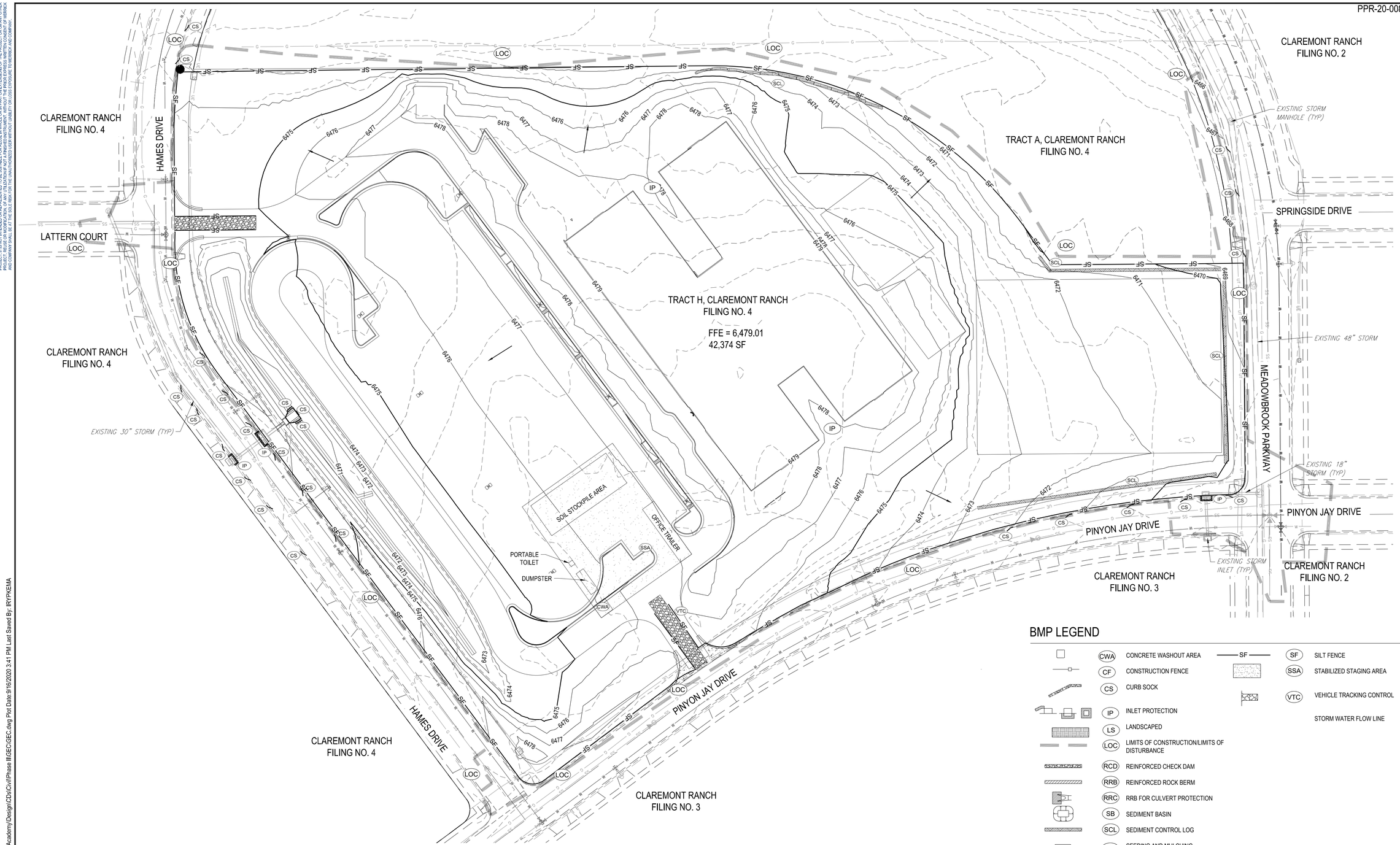

BMP LEGEND

CWA	CONCRETE WASHOUT AREA	SF	SILT FENCE
CF	CONSTRUCTION FENCE	SSA	STABILIZED STAGING AREA
CS	CURB SOCK	VTC	VEHICLE TRACKING CONTROL
IP	INLET PROTECTION		STORM WATER FLOW LINE
LS	LANDSCAPED		
LOC	LIMITS OF CONSTRUCTION/LIMITS OF DISTURBANCE		
RCD	REINFORCED CHECK DAM		
RRB	REINFORCED ROCK BERM		
RRC	RRB FOR CULVERT PROTECTION		
SB	SEDIMENT BASIN		
SCL	SEDIMENT CONTROL LOG		
SM	SEEDING AND MULCHING		

NOTES:

1. EXISTING VEGETATION CONSISTS ENTIRELY OF NATIVE GRASSES AND WEED SPECIES.
2. SEE GEC PLAN SET (EGP-20-002) FOR INITIAL GEC AND CUT/FILL AREAS.
3. SURFACE ROUGHENING WILL BE PERFORMED IN ALL TEMPORARILY INACTIVE AREAS WITH DISTURBED SOILS.
4. EROSION CONTROL BLANKETS TO BE INSTALLED AT CONTRACTOR'S DISCRETION ON ALL DISTURBED SLOPES STEEPER THAN 4:1.
5. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED UPON PROJECT COMPLETION OR WITHIN 14 DAYS OF INACTIVITY.
6. ALL BMP'S TO REMAIN IN PLACE UPON PROJECT COMPLETION.

40' 0 20' 40' 80'

1" = 40' HOR.

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INTERIM GEC

PE STAMP

COLORADO LICENSED PROFESSIONAL ENGINEER 46080

09/16/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399

DATE: 02/07/2020

SHEET: C3.6

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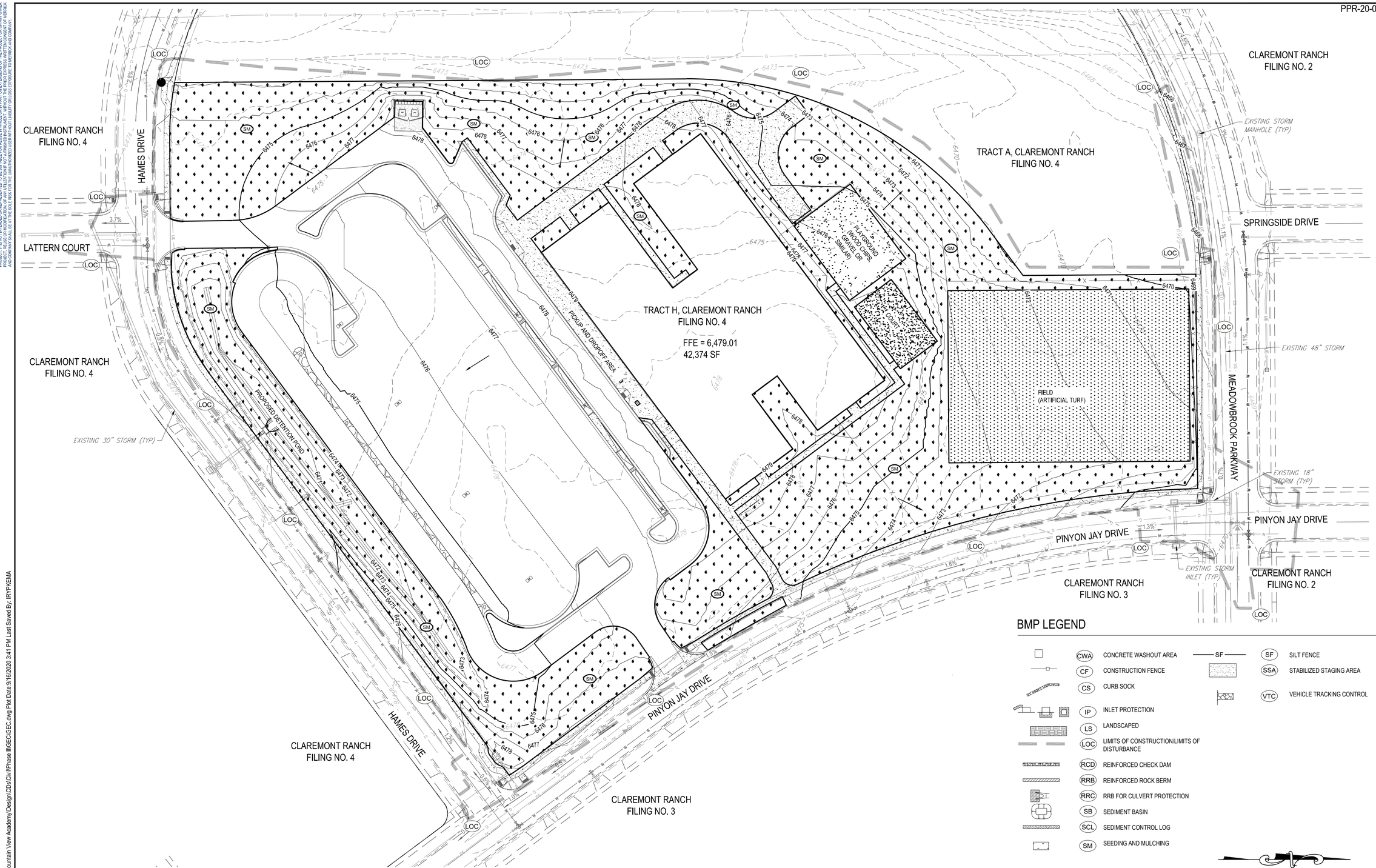

BMP LEGEND

CWA	CONCRETE WASHOUT AREA	SF	SILT FENCE
CF	CONSTRUCTION FENCE	SSA	STABILIZED STAGING AREA
CS	CURB SOCK	VTC	VEHICLE TRACKING CONTROL
IP	INLET PROTECTION		
LS	LANDSCAPED		
LOC	LIMITS OF CONSTRUCTION/LIMITS OF DISTURBANCE		
RCD	REINFORCED CHECK DAM		
RRB	REINFORCED ROCK BERM		
RRC	RRB FOR CULVERT PROTECTION		
SB	SEDIMENT BASIN		
SCL	SEDIMENT CONTROL LOG		
SM	SEEDING AND MULCHING		

40' 0 20' 40' 80'
1" = 40' HOR.

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2. SEE GEC PLAN SET (EGP-20-002) FOR INITIAL GEC.
3. SURFACE ROUGHENING WILL BE PERFORMED IN ALL TEMPORARILY INACTIVE AREAS WITH DISTURBED SOILS.
4. EROSION CONTROL BLANKETS TO BE INSTALLED AT CONTRACTOR'S DISCRETION ON ALL DISTURBED SLOPES STEEPER THAN 4:1.
5. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED UPON PROJECT COMPLETION OR WITHIN 14 DAYS OF INACTIVITY.
6. ALL BMP'S TO REMAIN IN PLACE UPON PROJECT COMPLETION.

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JOB NUMBER: 65120399
DATE: 02/07/2020
SHEET: C3.7
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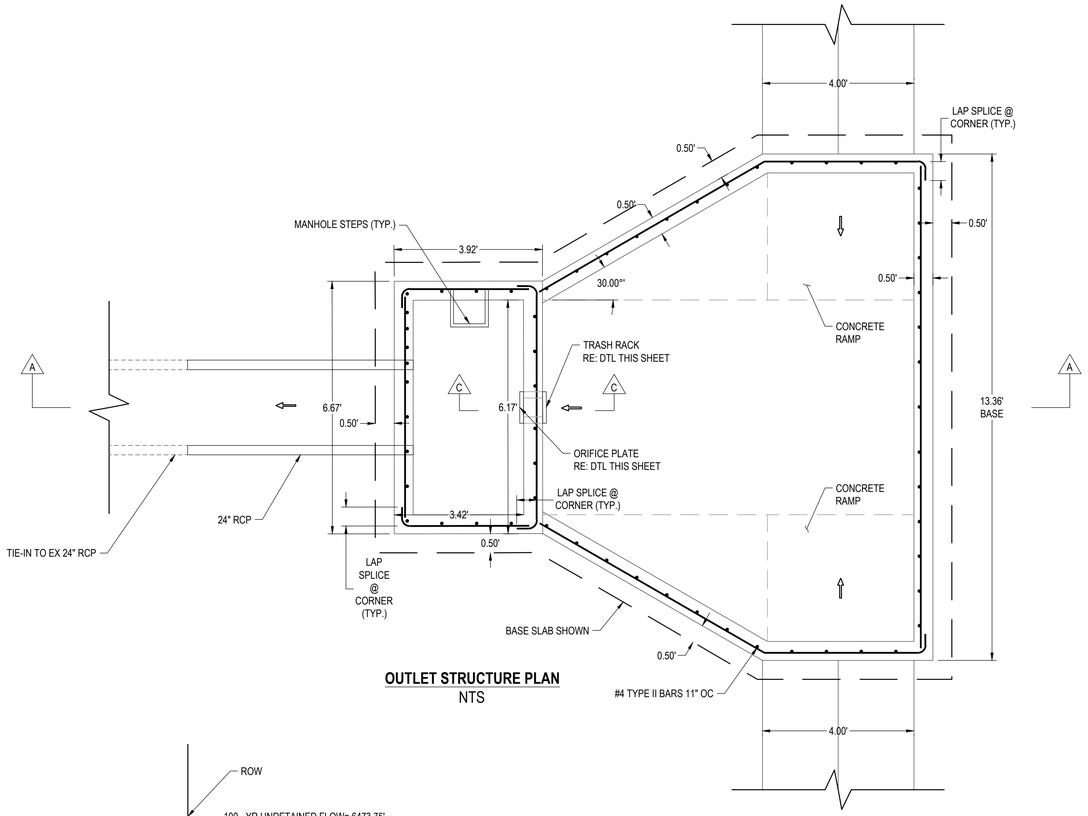
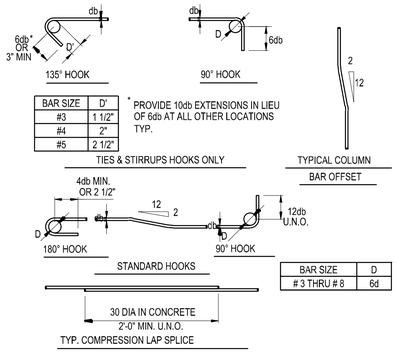


OUTLET STRUCTURE PLAN
NTS



BAR SIZE	D'
#3	1 1/2"
#4	2"
#5	2 1/2"

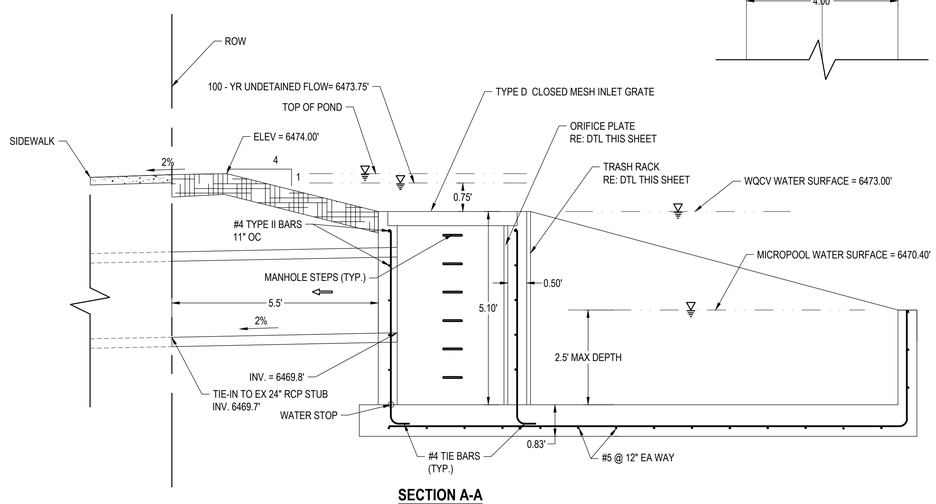
* PROVIDE 10db EXTENSIONS IN LIEU OF 6db AT ALL OTHER LOCATIONS TYP.

TIES & STIRRUPS HOOKS ONLY

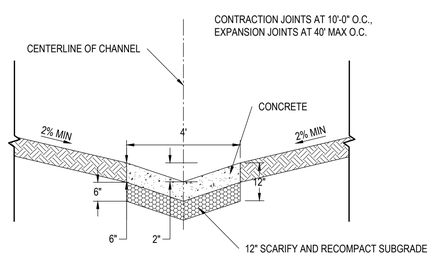
BAR SIZE	D
# 3 THRU # 8	6d

BAR DESCRIPTION AND LOCATION IN STRUCTURE	CONCRETE STRENGTH psi	BAR SIZE / LAP CLASS	#4 A	#4 B	#5 A	#5 B	#6 A	#6 B
BAR WITH SPACING > 2"db CLEAR COVER > db OR BEAM & COLUMN BARS WITH SPACING > db CLEAR COVER > DB	4500	TOP	2'-0"	2'-7"	2'-6"	3'-2"	2'-11"	3'-10"
		BOTTOM	1'-6"	2'-0"	1'-11"	2'-6"	2'-3"	2'-11"
OTHER CASES	4500	TOP	2'-11"	3'-10"	3'-8"	4'-9"	4'-5"	4'-9"
		BOTTOM	2'-3"	2'-11"	2'-10"	3'-8"	3'-5"	4'-5"

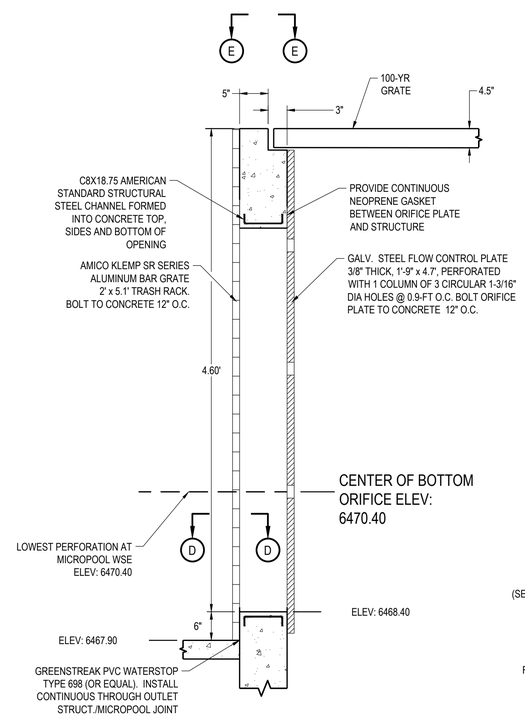
NOTES:
1. USE THIS TABLE FOR BAR SPLICES UNLESS SPECIFICALLY DETAILED AND DIMENSIONED ON PLANS.
2. FOR TENSION DEVELOPMENT LENGTHS "Ld", USE CLASS "B" SPLICE LENGTHS.
3. ALL SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE ON PLANS.
4. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW BAR.
5. BOTTOM BARS ARE ALL VERTICAL BARS, ALL HORIZONTAL WALL REINFORCEMENT, AND HORIZONTAL REINFORCEMENT WITH LESS THAN 12" OF CONCRETE CAST BELOW BAR.
6. COVER DESIGNATES CLEAR CONCRETE COVER FROM SPLICED BAR TO FACE OF MEMBER, SPACING DESIGNATES CLEAR DIMENSION BETWEEN SPLICED BARS.
7. STAGGER CONTINUOUS FOOTING BOTTOM SPLICES AT LEAST 6'-0" FROM SPLICES IN OTHER BOTTOM REINFORCEMENT; STAGGER SPICES FOR TOP REINFORCEMENT SIMILARLY.



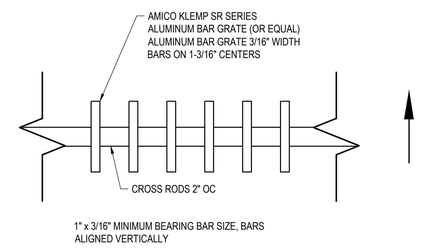
SECTION A-A
NTS



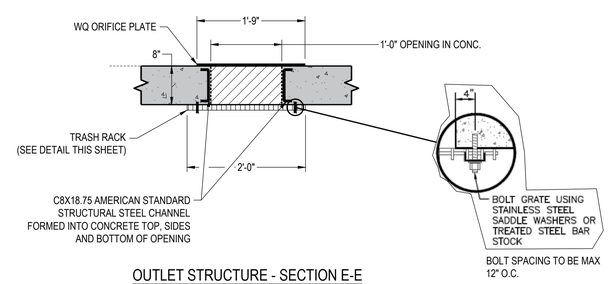
CONCRETE TRICKLE CHANNEL DETAIL
N.T.S.



OUTLET STRUCTURE - SECTION C-C
N.T.S



OUTLET STRUCTURE - SECTION D-D
N.T.S.



OUTLET STRUCTURE - SECTION E-E
N.T.S.

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TITLE:
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CIVIL CONSTRUCTION DOCUMENTS
DRAINAGE DETAILS

PE STAMP
COLORADO LICENSED KYLE WIEST 46080 PROFESSIONAL ENGINEER
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 02/07/2020
SHEET C3.8
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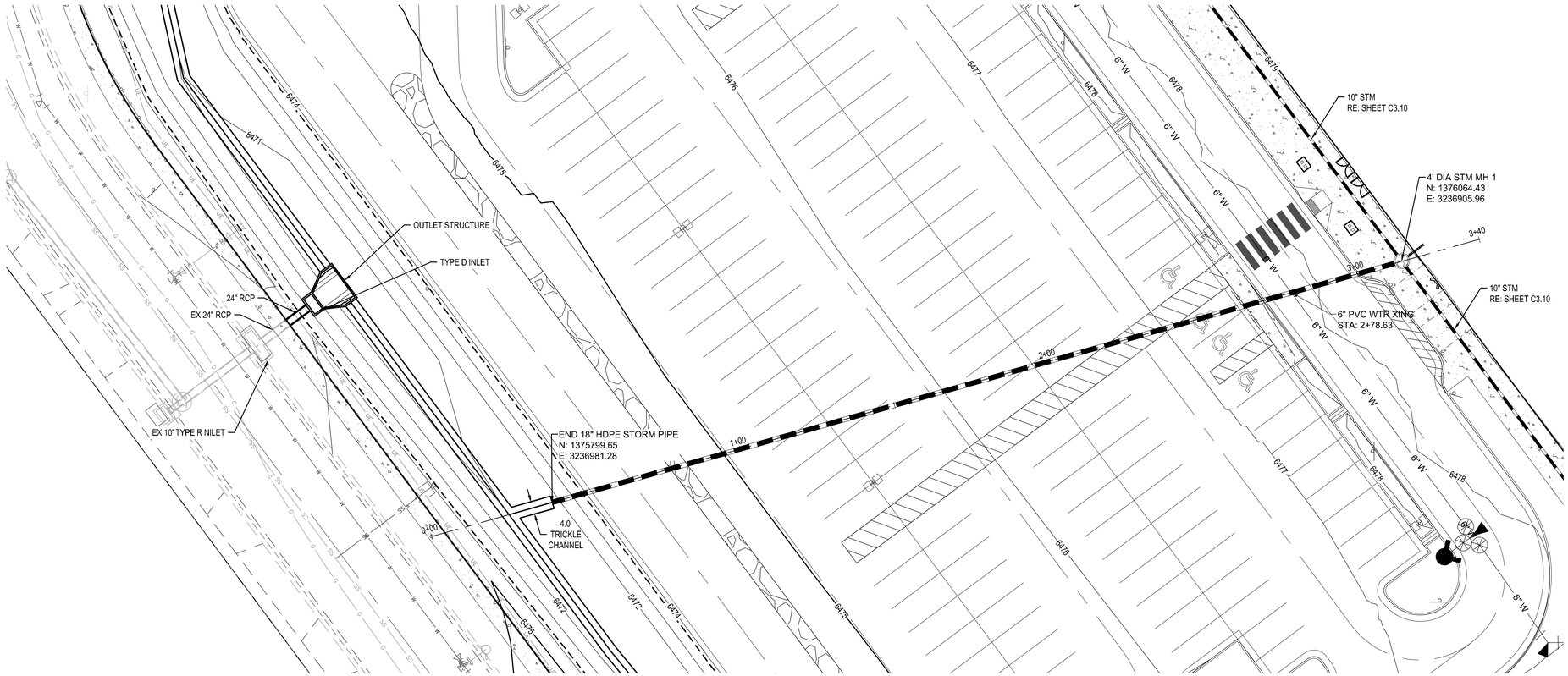
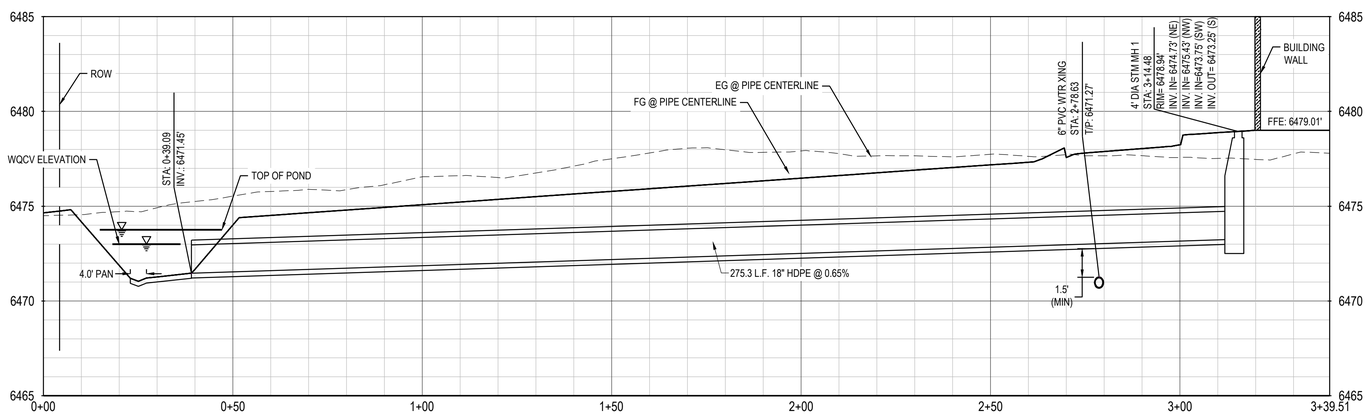
PPR-20-008



STORM



40' 0 20' 40' 80'

1" = 40' HOR.

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STORM PLAN AND PROFILE

PE STAMP

COLORADO LICENSED
EDWARD M. PAYNE
46080
REGISTERED PROFESSIONAL ENGINEER

09/16/2020

FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
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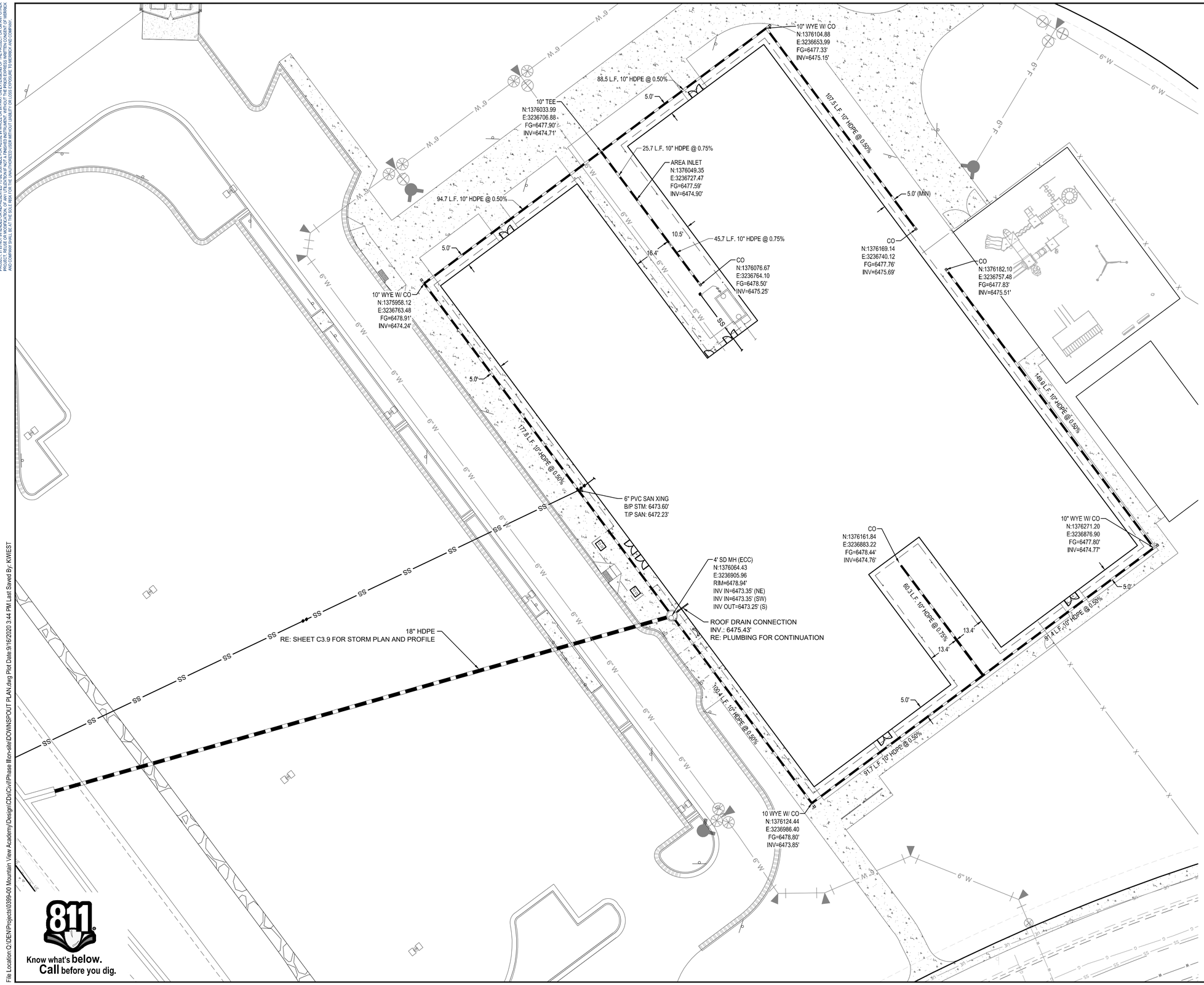

LEGEND

1. CONTRACTOR TO COORDINATE ROOF DRAIN LOCATIONS WITH ARCH/MEP PLANS, THEN FIELD VERIFY DOWN SPOUT LOCATIONS AND CONNECT TO STORM SEWER.
2. AREA DRAINS TO BE 10" DOME NYPOPLAST GRATE INLET.

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MOUNTAIN VIEW ACADEMY
CIVIL CONSTRUCTION DOCUMENTS
ROOF DRAIN PLAN

PE STAMP
COLORADO LICENSED
KYLE WIEST
46080
PROFESSIONAL ENGINEER
09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 02/07/2020
SHEET C3.10
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File Location: Q:\DEN\Projects\0399-00 Mountain View Academy\Design\CDs\Civil\Phase II\on-site\DOWNSPOUT PLAN.dwg Plot Date:9/16/2020 3:44 PM Last Saved By: KWIEST

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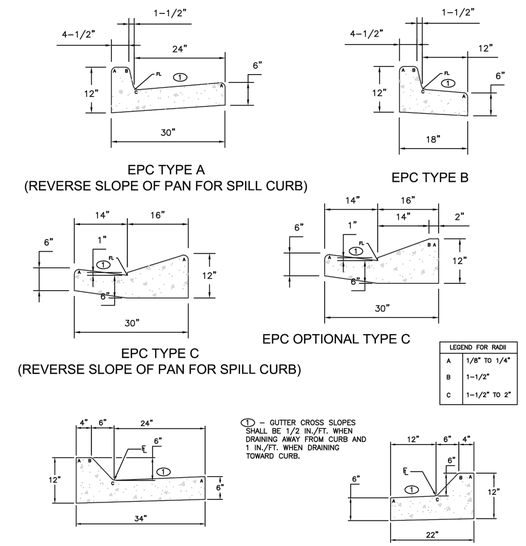
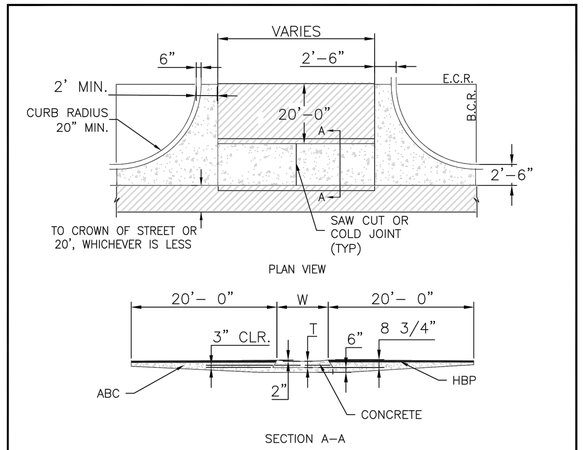


SCALE: NOT TO SCALE

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



NOTES

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

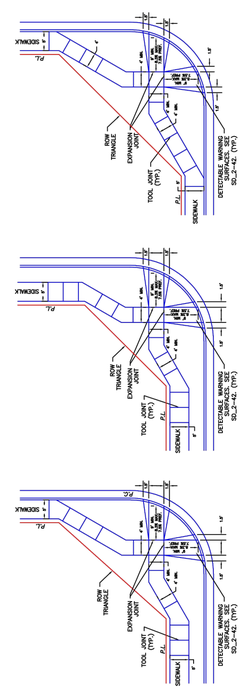
2. T – SQUARED-OFF RETURN TO BE POURED MONOLITHICALLY, 8" PCC FOR LOCAL ROADS, 9" FOR COLLECTORS WITH 6x6 – 4.4 W.W.F. OR #4 REINFORCING BAR @ 18" EACH WAY.

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

4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

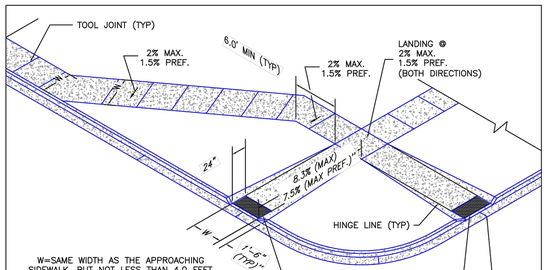
SCALE: NOT TO SCALE

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	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



SCALE: NOT TO SCALE

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



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 PUSHBUTON 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 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Pedestrian Curb Ramp Detail Standard Drawing REVISION DATE: 6/23/20 FILE NAME: SD_2-41	DEPARTMENT OF PUBLIC WORKS

EPC 10/18/2020

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TITLE: MOUNTAIN VIEW ACADEMY
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STANDARD DETAILS

PE STAMP: COLORADO LICENSED KYLE A. WIEST 46080 PROFESSIONAL ENGINEER 10/06/2020 FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 04/24/2020
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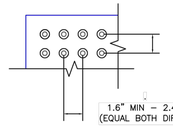
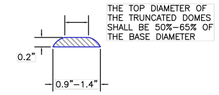
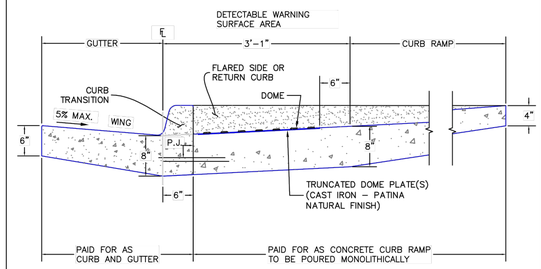
TRUNCATED DOME DETAILS



DOME SPACING



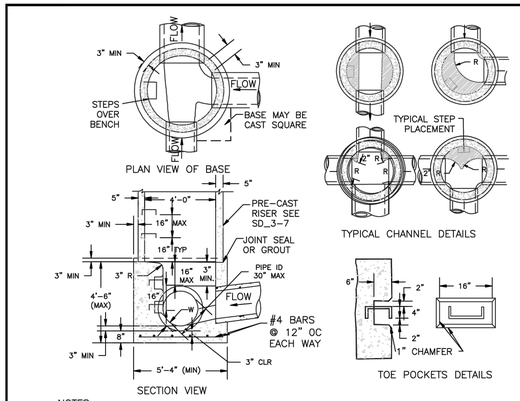
ELEVATION VIEW



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 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Detectable Warning Surface Details Standard Drawing REVISION DATE: 6/23/20 FILE NAME: SD_2–42	DEPARTMENT OF PUBLIC WORKS



NOTES

1. TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.

2. VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.

3. EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.

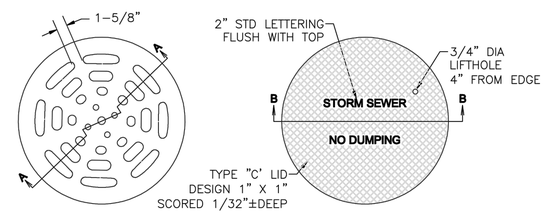
4. PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.

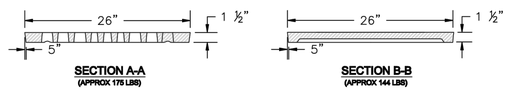
5. BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., ½" PER FOOT. MIN.).

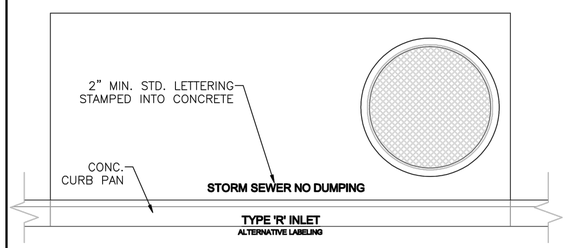
6. FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1., ½" PER FT. MIN.) . FLOOR SHALL BE SHAPED AND CHANNELED; SEE DETAILS THIS SHEET.

SCALE: NOT TO SCALE

DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Storm Sewer Manhole Detail Type II Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3–2	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

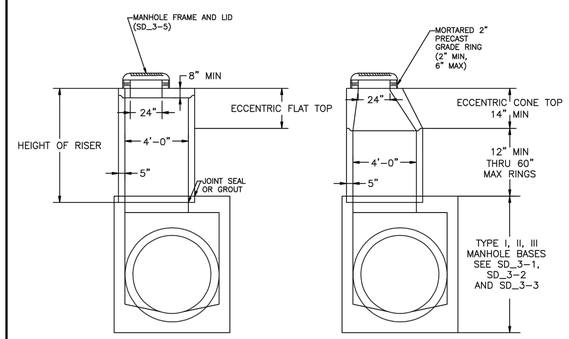






SCALE: NOT TO SCALE

9/16/10 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Storm Sewer Manhole Details Standard Drawing REVISION DATE: 9/16/10 FILE NAME: SD_3–5	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS APPLICABLE TO THE PROJECT.
2. PRECAST RISERS SHALL CONFORM TO ASTM C478.
3 STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS SHALL BE CAST IRON OR EXTRUDED ALUMINUM, 1000 LB CAPACITY, 12" WIDE WITH NON–SKID GROOVES AND DROP FRONT ON SAFETY NOSES, IN ACCORDANCE WITH APPROVED OSHA REQUIREMENTS.

SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Storm Sewer Manhole Riser and Cover Detail Standard Drawing REVISION DATE: 11/23/04 FILE NAME: SD_3–7	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

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TITLE:
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STANDARD DETAILS

PE STAMP: COLORADO LICENSED, KYLE WEST, 46080, PROFESSIONAL ENGINEER, 10/06/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 04/24/2020
SHEET: 4.1
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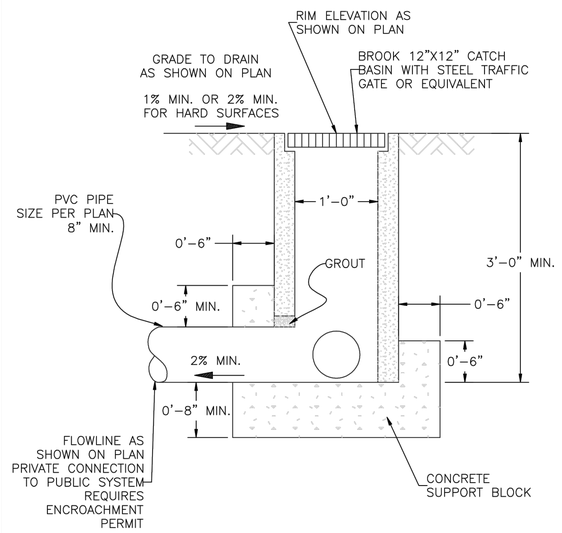
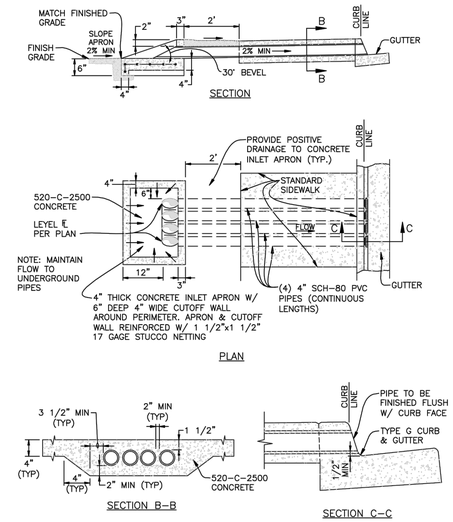


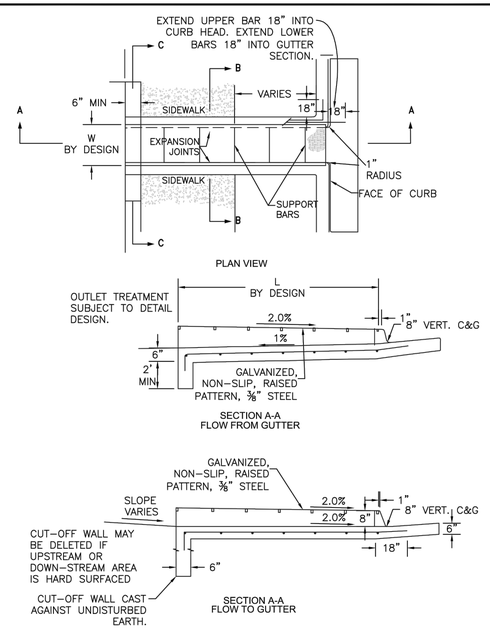
SCALE: NOT TO SCALE

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	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



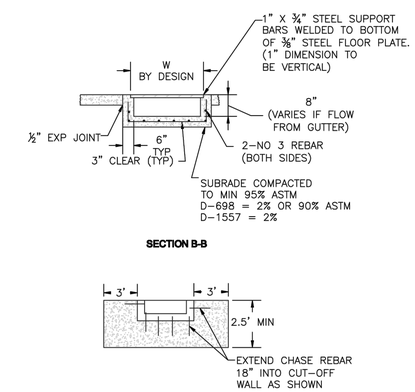
SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Sidewalk Underdrain With Curb Outlet Detail Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3-24	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Curb Opening with Drainage Chase Detail 1 of 2 Standard Drawing REVISION DATE: 12/8/15 FILE NAME: SD_3-25	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Curb Opening with Drainage Chase Detail 2 of 2 Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3-25A	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

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DATE 04/24/2020
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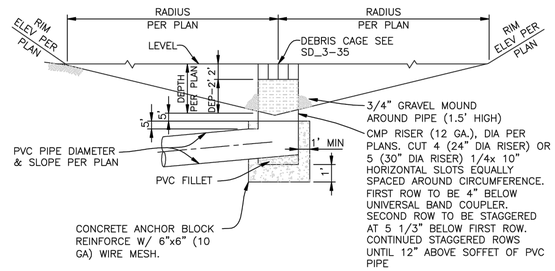
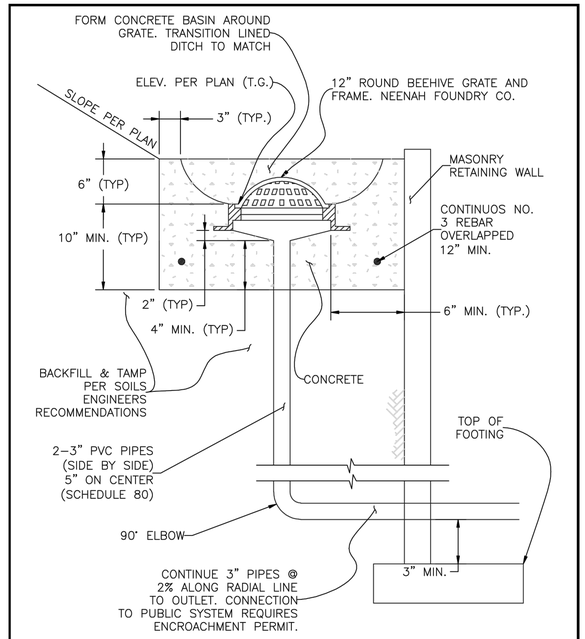


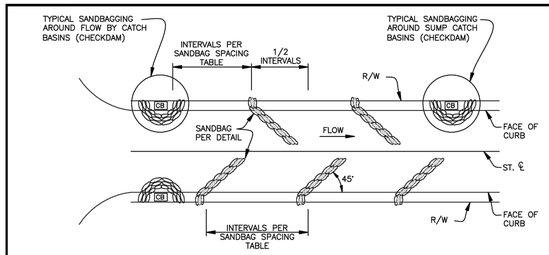
SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Desilting Basin Outlet Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3-30	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

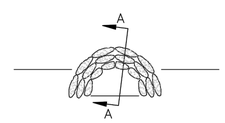


SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Beehive Grate Detail (guidance) Standard Drawings REVISION DATE: 11/10/04 FILE NAME: SD_3-48	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

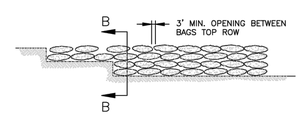


TYPICAL STREET SANDBAGGING DETAIL
NO SCALE



SANDBAG CHECKDAM
NO SCALE

SECTION A-A
NO SCALE

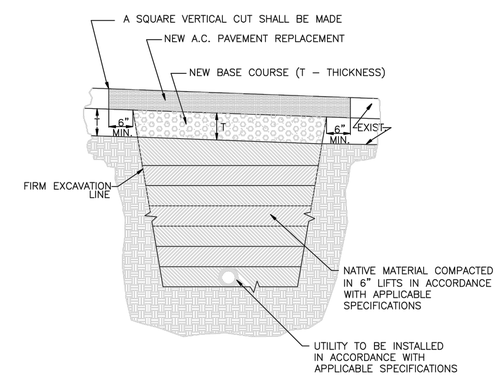


TYPICAL SANDBAG DETAIL
NO SCALE

SECTION B-B
NO SCALE

SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Temporary Street Sandbag Detail and Section Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_3-60	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



NOTES:

1. THIS DETAIL MAY BE USED FOR PAVEMENT CUTS LESS THAN 200 SQ. FT.

2. EXISTING PAVEMENT MAY BE ROUGH CUT INITIALLY IN CONJUNCTION WITH TRENCHING.

3. A SQUARE VERTICAL CUT SHALL BE MADE IN THE EXISTING A.C. PAVEMENT AFTER PLACEMENT OF BACKFILL PRIOR TO PAVEMENT REPLACEMENT.

4. THICKNESS OF NEW A.C. PAVEMENT REPLACEMENT SHALL MATCH EXISTING (4" MIN.)

5. THICKNESS OF NEW BASE COURSE SHALL BE MINIMUM OF 6" OR EQUAL TO EXISTING, WHICHEVER IS GREATER.

SCALE: NOT TO SCALE

8/11/11 DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Utility Trench Repair Detail Asphalt Pavement Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_4-20	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

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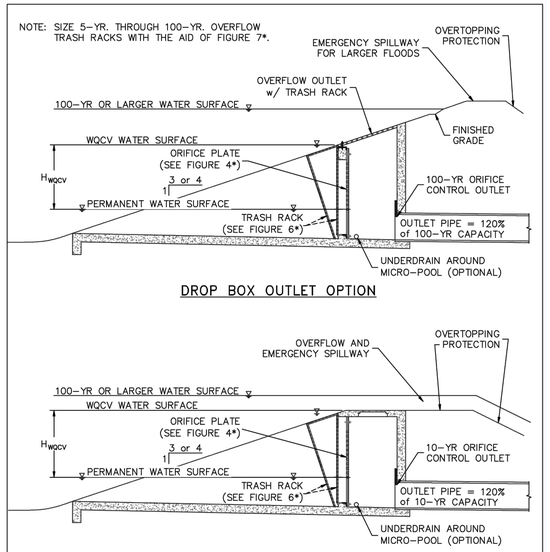
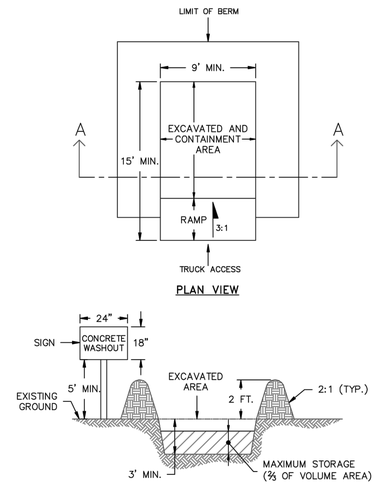


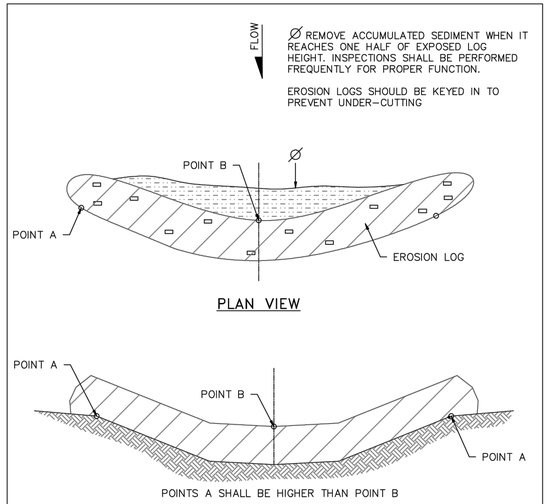
*FIGURES 4, 6 and 7 ARE IN THE CITY OF COLORADO SPRINGS ENGINEERING DIVISION'S DRAINAGE CRITERIA MANUAL, VOLUME 2.

1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Typical WQCV Outlet Structure Profiles Including 100–Year Detention Standard Drawing REVISION DATE: 7/16/07 FILE NAME: SD_3–83	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

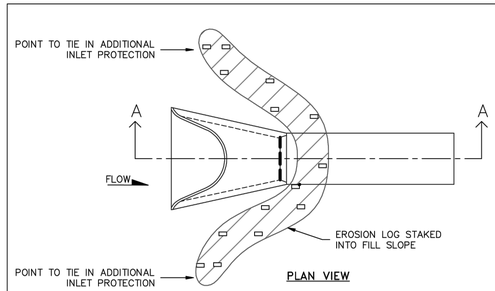


NOTES:
1. SIGN MATERIAL, EXCAVATION, AND RESTORATION ARE INCLUDED IN THE COST OF THE CONCRETE WASHOUT STRUCTURE.
2. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

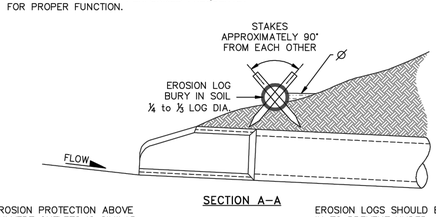
1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Concrete Washout Structure Standard Drawing REVISION DATE: 7/17/07 FILE NAME: SD_3–84	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



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	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



NOTE:
Ø REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF EXPOSED LOG HEIGHT. INSPECTIONS SHALL BE PERFORMED FREQUENTLY FOR PROPER FUNCTION.



EROSION PROTECTION ABOVE CULVERT OUTLETS IS SIMILAR

EROSION LOGS SHOULD BE KEYED IN TO PREVENT UNDER–CUTTING

1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Culvert Inlet and Outlet Protection Erosion Logs Above Inlets and Outlets For Slopes 3:1 or Steeper Standard Drawing REVISION DATE: 7/17/07 FILE NAME: SD_3–86	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

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SEAL: COLORADO LICENSED PROFESSIONAL ENGINEER 46080 09/15/2020 FOR AND ON BEHALF OF MERRICK & COMPANY

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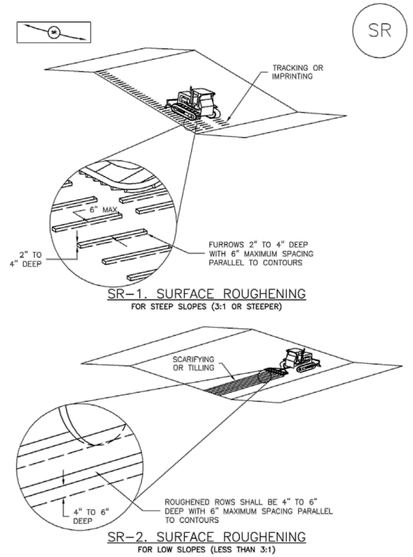
Surface Roughening (SR) EC-1



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.

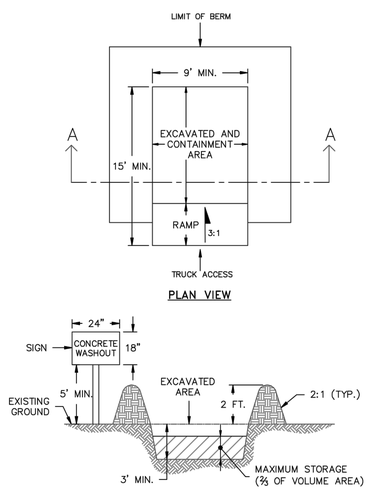
4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

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.



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1/1/08 DATE APPROVED: John A. McCarty DEPARTMENT OF TRANSPORTATION	Concrete Washout Structure Standard Drawing	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION
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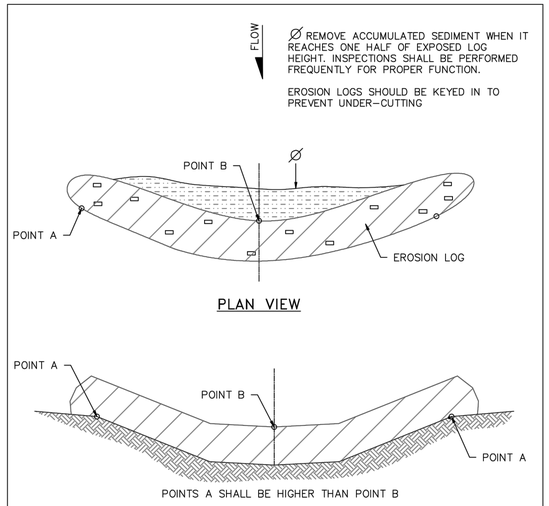

NOTE: EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.

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

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EC-2 Temporary and Permanent Seeding (TS/PS)

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**

Temporary and Permanent Seeding (TS/PS) EC-2

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.

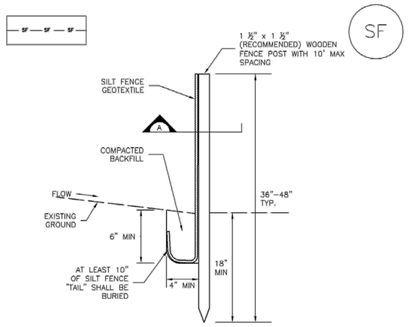
[b] See Table TS/PS-3 for seeding dates.

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

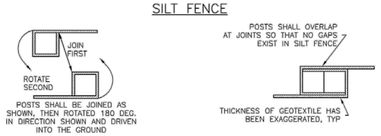
[d] Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

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

Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF–1. SILT FENCE

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

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

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

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

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

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

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

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

SILT FENCE MAINTENANCE NOTES

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

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

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

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

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

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

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

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

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

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PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER KEVIN WIEST 46080 — 09/16/2020 — FOR AND ON BEHALF OF MERRICK & COMPANY

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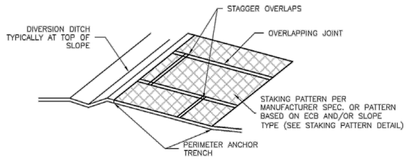
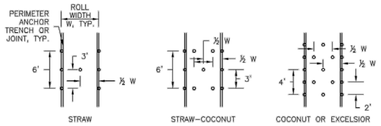
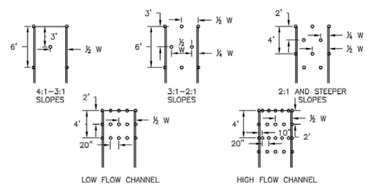
Rolled Erosion Control Products (RECP) EC-6



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.

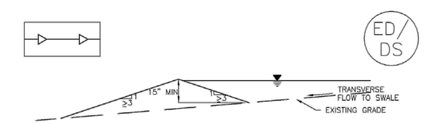
4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

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.

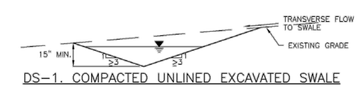
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

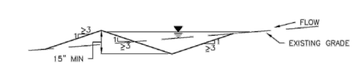
Earth Dikes and Drainage Swales (ED/DS) EC-10



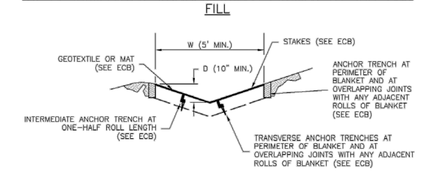
ED-1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM



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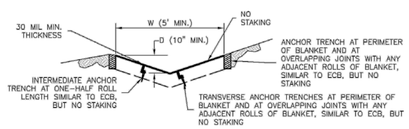
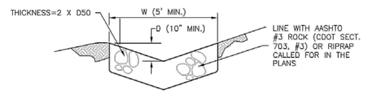
EC-10 Earth Dikes and Drainage Swales (ED/DS)



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

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.

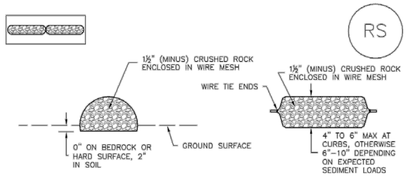
4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

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.

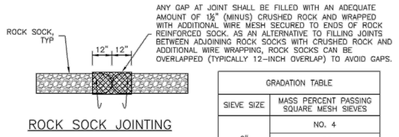
(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.

SC-5 Rock Sock (RS)



ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO MA3. 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 (RS) SC-5

ROCK SOCK MAINTENANCE NOTES

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

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

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

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

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

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

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

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

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

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

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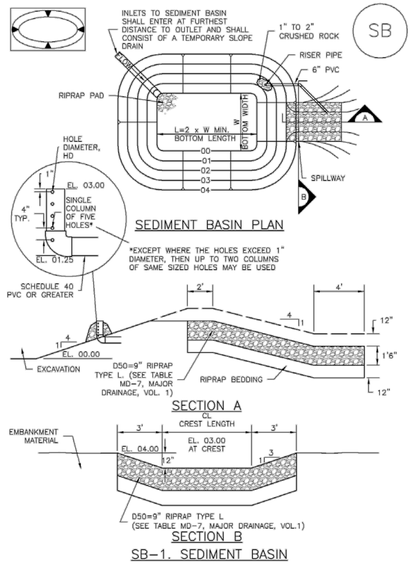
Sediment Basin (SB) SC-7



SB-1. SEDIMENT BASIN

SC-7 Sediment Basin (SB)

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	11/16
11	61	16	25/32
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 (SB) SC-7

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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PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER 46080 09/16/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER 65120399
DATE 03/20/2020
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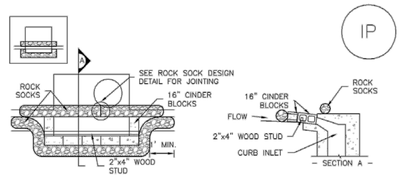
SC-6 Inlet Protection (IP)



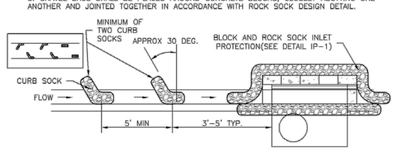
IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

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.

Inlet Protection (IP) SC-6

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.

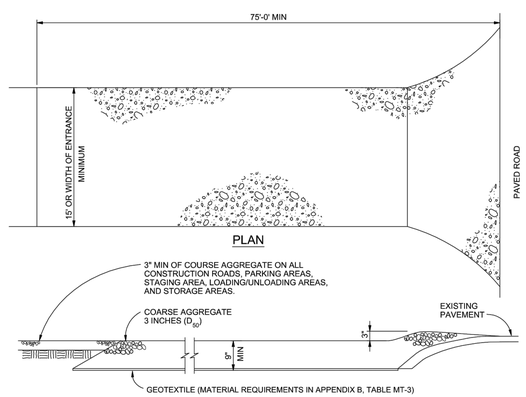
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(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.



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

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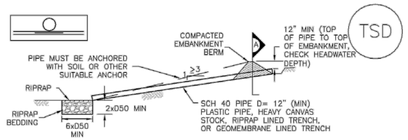
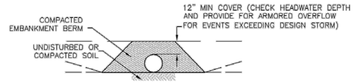
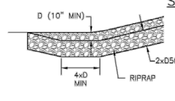
Temporary Slope Drains (TSD) EC-7



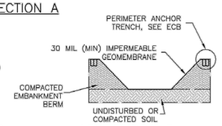
TEMPORARY SLOPE DRAIN PROFILE



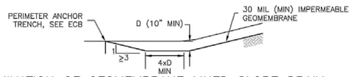
SECTION A



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.

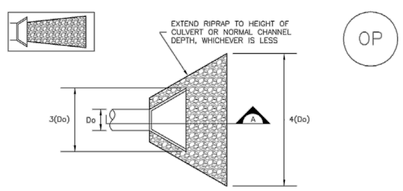
5. INSPECT RIPRAP PAD AT OUTLET FOR SIGNS OF EROSION. IF SIGNS OF EROSION EXIST, ADDITIONAL ARMORING SHALL BE INSTALLED.

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.

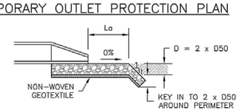
(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.

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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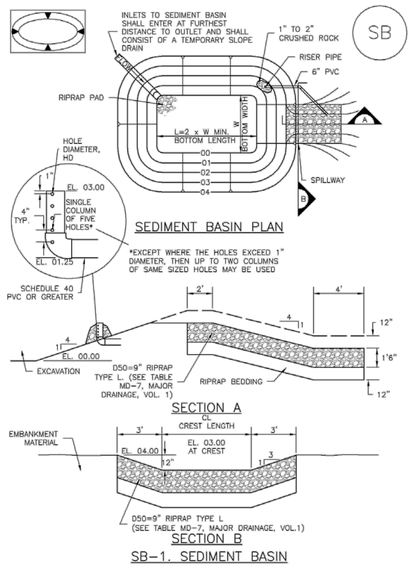
Sediment Basin (SB) SC-7



SB-1. SEDIMENT BASIN

SC-7 Sediment Basin (SB)

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Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
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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 (SB) SC-7

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.

EPC 10/18/2020

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TITLE: MOUNTAIN VIEW ACADEMY
CD SET
GEC DETAILS 7

PE STAMP: COLORADO LICENSED PROFESSIONAL ENGINEER KYLE WIEST 46080 10/06/2020
FOR AND ON BEHALF OF MERRICK & COMPANY

JOB NUMBER: 65120399
DATE: 03/20/2020
SHEET: C4.11
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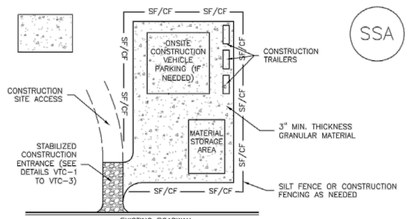
Stabilized Staging Area (SSA) SM-6



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.

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

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FOR AND ON BEHALF OF MERRICK & COMPANY

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