

**STANDARD EL PASO COUNTY GRADING & EROSION CONTROL PLAN NOTES**

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- 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.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- 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 PRE-CONSTRUCTION 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.
- 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.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO INSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHODS IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNATED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION. FINAL STABILIZATION IS ACHIEVED IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS. ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIALS OR UNLINED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK ACT (33 USC 1344). IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME 1 AND THE ECM APPENDIX C, ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY \_\_\_\_\_ N/A \_\_\_\_\_ AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION, THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP) OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION  
WQCD - PERMITS  
1300 CHERRY CREEK DRIVE SOUTH  
EL PASO COUNTY, COLORADO 80521  
ATTN: PERMITS UNIT

THE LOCATION OF EXISTING UTILITIES DEPICTED ON THIS PLAN ARE SHOWN ACCORDING TO AVAILABLE RECORDS, SURFACE EVIDENCE AND THE RECOLLECTIONS/BEST KNOWLEDGE OF THE OWNER AND DESIGN TEAM. ELECTRIC UTILITY LOCATION IS NOT POSSIBLE. BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED. EXERCISE CAUTION DURING EXCAVATION OPERATIONS.

**STANDARD EL PASO COUNTY CONSTRUCTION PLAN NOTES**

- 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.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- 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:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - CDOT M & S STANDARDS
- 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.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ON-SITE AND OFF-SITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 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.
- 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.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PCD AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PCD, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN APPROVAL FROM THE DESIGN ENGINEER, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

**STANDARD EL PASO COUNTY SIGNING AND STRIPING NOTES**

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
- 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.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- ALL STREET NAME SIGNS SHALL HAVE "C" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND COLLECTOR ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH 1/4" WHITE BORDER THAT IS NOT RECESSED.
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 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 SLPBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- ALL LIMIT (NEE) STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 1/25 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.
- ALL LONGITUDINAL STREET SIGNS 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.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT OF TRANSPORTATION PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

**GENERAL GRADING NOTES**

- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS AND/OR SURFACE EVIDENCE. THE LOCATION OF ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND LOCATIONS HAVE NOT BEEN PERFORMED. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING UTILITIES AND FACILITIES SHOULD BE CONSIDERED APPROXIMATE. ALL UTILITIES SHALL BE LOCATED PRIOR TO ANY EARTH WORK OR DIGGING (1-800-922-1987). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL SUBSURFACE UTILITY OWNERS PRIOR TO BEGINNING WORK TO DETERMINE LOCATION OF UTILITY FACILITIES.
- EXISTING CONDITIONS SHALL BE VERIFIED BY THE GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION. M.V.E., INC. OR THE ENGINEER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR USE OF THIS GRADING PLAN FOR ANY OTHER PURPOSE THAN OVER LOT GRADING OPERATIONS.
- ALL WEEDS, TRASH, DEBRIS, RUBBLE, BROKEN ASPHALT, ORGANIC MATERIAL (EXCLUDING TOPSOIL) AND REUSE, OR ANY OTHER MATERIAL WHICH WOULD NOT BE DETERMINED AS FILL MATERIAL OR INCAPABLE OF SUPPORTING THE BUILDING, VEHICULAR AND/OR OVERBURDEN LOADS TO BE IMPOSED SHALL BE CLEARED, GRUBBED OR EXCAVATED AS THE CASE MAY DICTATE PRIOR TO GRADING AND SHALL BE REMOVED FROM SITE AND DISPOSED OF LEGALLY.
- CONTOUR INTERVAL FOR EXISTING AND PROPOSED CONTOUR LINES IS 1.0'.
- PROPOSED CONTOURS SHOWN ARE FINISH GRADES AND READ TO TOP OF PAVEMENT AND FINISH SOIL GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT GRADED AREAS FROM, AND AS NECESSARY RESTORE TO GRADE, ANY RUTS, WASHES OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HEREON. UNTIL GRADING WORK IS ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL ENDEAVOR NOT TO DISTURB EXISTING AREAS. THE CONTRACTOR SHALL RESTORE TO THE ORIGINAL CONDITION, ADJACENT (OFF-SITE) PROPERTY DISTURBED BY HIS OPERATIONS.
- THE GENERAL CONTRACTOR SHALL STRIP TOPSOIL FROM CONSTRUCTION AREAS AND STOCKPILE TOPSOIL AT AREA SHOWN ON THIS PLAN. PLACE TOPSOIL WITH APPROPRIATE CARE FOR PROTECTION AND IN A MANNER SO AS TO NOT CONFLICT WITH OTHER TRADES AND CONSTRUCTION PROCESS.
- ALL GRADING SHALL BE DONE TO INSURE POSITIVE DRAINAGE AWAY FROM FOUNDATIONS AND STRUCTURES.
- FINISHED GRADE OF ALL PERVIOUS EARTH SURFACES THAT CONTACT FOUNDATION WALLS SHALL BE A MINIMUM OF 6" BELOW ANY UNTREATED WOOD MATERIAL OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- PERVIOUS EARTH SURFACES SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 4" IN 10 FEET (5%) FOR THE FIRST 10 FEET ADJACENT TO THE FOUNDATION OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- CONCRETE OR OTHER IMPERVIOUS SURFACES THAT CONTACT FOUNDATION WALLS SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 1/4" PER FOOT (2.0%) OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- ANY FILL MATERIAL REQUIRED TO BRING GRADES UP TO PROPOSED ELEVATIONS SHALL BE PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING TOPSOIL THROUGHOUT THE LAWN AND PLANTING AREAS ACCORDING TO APPROVED LANDSCAPE PLANS, BY OTHERS.
- THE NATURE OF WORK PROPOSED BY THIS PLAN IS GRADING AND THE EXTENT OF SAID PROPOSED GRADING IS SHOWN BY THE EXISTING AND PROPOSED CONTOURS HEREON.
- CONTRACTOR SHALL USE MECHANICAL METHODS TO GO FROM THE EXISTING TO PROPOSED CONTOURS IN ACCORDANCE WITH THIS GRADING PLAN. QUALITY CONTROL OF SOILS AND GRADING OPERATION WILL BE AS DIRECTED BY OWNERS GEOTECHNICAL ENGINEER. ALL NEW CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY IS TO CONFORM TO THE SPECIFICATIONS OF EL PASO COUNTY.
- ALL NEW CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY IS TO CONFORM TO THE SPECIFICATIONS OF EL PASO COUNTY.
- ALL STORM DRAIN OUTSIDE OF THE PUBLIC RIGHT-OF-WAY SHALL BE HOPE WITH SMOOTH INTERIOR AND CORRUGATED EXTERIOR WITH PVC FITTINGS. ALL STORM DRAIN INLETS SHALL BE PRE-CAST. ALL STORM DRAIN CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL BE PLACED IN ACCORDANCE WITH EL PASO COUNTY SPECIFICATIONS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING HELD PRIOR TO CONSTRUCTION WITH EPC-PCD, ENGINEER, AND CONTRACTOR IN ATTENDANCE.
- CONTRACTOR IS RESPONSIBLE FOR ALL OF HIS OPERATIONS ON THE SITE. CONTRACTOR SHALL OBSERVE ALL SAFETY AND OSHA REGULATIONS DURING CONSTRUCTION OPERATIONS. TRENCH WIDTHS AND SLOPE ANGLES SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND ACCORDING TO SAFETY AND OSHA REGULATIONS.

# GRADING & EROSION CONTROL PLAN

## FOR

# ELLCOTT SCHOOL ADDITION - 2 BUILDINGS

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 14 SOUTH, RANGE 62 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

**LEGEND**

-----	PROPERTY LINE	-----	INDEX CONTOUR
-----	EASEMENT LINE - PUBLIC UTILITY & DRAINAGE 10' FRONT, 5' SIDE, 7' REAR (TYP)	-----	INTERMEDIATE CONTOUR
-----	LOT LINE	-----	CONCRETE AREA
-----	BUILDING SETBACK LINE	-----	GRAVEL AREA
-----	ADJACENT PROPERTY LINE	-----	CURB AND GUTTER
-----	EXISTING INDEX CONTOUR	-----	BUILDING/ BUILDING OVERHANG
-----	EXISTING INTERMEDIATE CONTOUR	-----	DECK
-----	CONCRETE AREA	-----	RETAINING WALL - SOLID/ ROCK
-----	GRAVEL AREA	-----	SIGN
-----	CURB AND GUTTER	-----	BOLLARD
-----	BUILDING/ BUILDING OVERHANG	-----	WOOD FENCE
-----	DECK	-----	CHAIN LINK FENCE
-----	RETAINING WALL - SOLID/ ROCK	-----	BARBED WIRE FENCE
-----	SIGN	-----	TREE (EVERGREEN/DECIDUOUS)
-----	BOLLARD	-----	SHRUB
-----	TOP OF WALL/GRADE AT BOTTOM OF WALL	-----	ROCK
-----	TOP OF CURB/FLOWLINE	-----	FLOW DIRECTION
-----	SPOT ELEVATION	-----	
-----	FINISHED FLOOR ELEVATION	-----	
-----	FF = 5986.00	-----	
-----	TOP OF WALL/GRADE AT BOTTOM OF WALL	-----	
-----	TOP OF CURB/FLOWLINE	-----	
-----	SPOT ELEVATION	-----	
-----	FINISHED FLOOR ELEVATION	-----	
-----	FF = 5986.00	-----	
-----	TOP OF WALL/GRADE AT BOTTOM OF WALL	-----	
-----	TOP OF CURB/FLOWLINE	-----	
-----	SPOT ELEVATION	-----	
-----	FINISHED FLOOR ELEVATION	-----	
-----	FF = 5986.00	-----	
-----	TOP OF WALL/GRADE AT BOTTOM OF WALL	-----	
-----	TOP OF CURB/FLOWLINE	-----	
-----	SPOT ELEVATION	-----	
-----	FINISHED FLOOR ELEVATION	-----	
-----	FF = 5986.00	-----	

P.B., PG. (PLAT BOOK, PAGE)

**COMPANIES AND AGENCIES**

**OWNER**  
ELLCOTT SCHOOL DISTRICT NO 22  
322 S ELLICOTT HIGHWAY,  
CALHAN, CO 80808  
(719) 683-2700

**DEVELOPER**  
ED GREEN CONSTRUCTION  
1180 TRANSIT DR.  
COLORADO SPRINGS, CO 80903  
(719) 475-0922

**ENGINEER**  
M.V.E., INC.  
1903 LELAY STREET, STE 200  
COLORADO SPRINGS, CO 80909  
(719) 635-5736

**EL PASO COUNTY PLANNING**  
EPC PLANNING AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
(719) 520-6300

**STREETS AND RIGHTS-OF-WAY**  
EPC DEPARTMENT OF PUBLIC WORKS  
3275 AKERS DRIVE  
COLORADO SPRINGS, CO 80922  
(719) 520-6460

**SITE DATA**  
TAX SCHEDULE NO.  
2418000018  
2418000019  
CURRENT ADDRESS  
399 S ELLICOTT HWY,  
CALHAN, CO 80808

**CONSTRUCTION SCHEDULE**  
GRADING & OTHER EARTH DISTURBANCES:  
FALL, 2022 - SPRING, 2023

**FLOODPLAIN STATEMENT**  
FINAL STABILIZATION:  
FALL, 2023

NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA (SFHA) AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS - MAP NUMBER 08041C089G, EFFECTIVE DECEMBER 7, 2018.

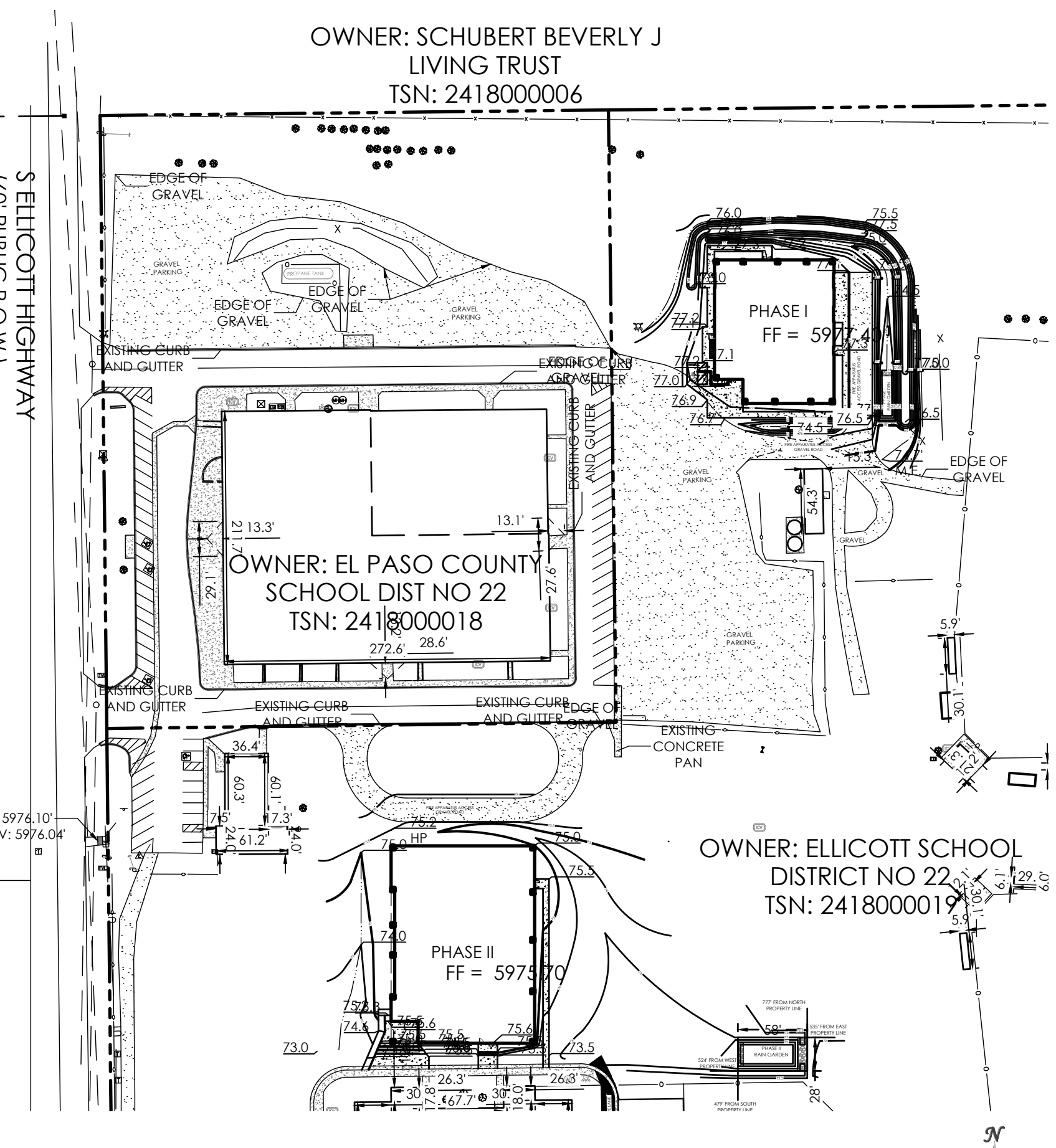
**CONSTRUCTION ACTIVITY PERMIT**

EARTHMOVING ACTIVITY MORE THAN ONE ACRE, BUT LESS THAN TWENTY-FIVE ACRES, WILL REQUIRE A CONSTRUCTION ACTIVITY PERMIT FROM EL PASO COUNTY PUBLIC HEALTH.



**SHEET INDEX**

SHEET	TITLE	DRAWING
<b>GRADING &amp; EROSION CONTROL PLAN SET</b>		
C1.1	COVER SHEET	61183-GEC-CS
C1.2	PHASE I GRADING PLAN	61183-GEC-GP-I
C1.3	PHASE I EROSION CONTROL PLAN	61183-GEC-EC-I
C1.4	PHASE II GRADING PLAN	61183-GEC-GP-II
C1.5	PHASE II EROSION CONTROL PLAN	61183-GEC-EC-II
C1.6	EROSION CONTROL DETAILS 1	61183-GEC-ED1
C1.7	EROSION CONTROL DETAILS 2	61183-GEC-ED2
C1.8	BMP AREA ID	61183-BMP-AEA



**SITE MAP**  
SCALE 1"=100'

**OWNER/DEVELOPER STATEMENT**

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

SCHOOL DISTRICT BOARD OF EDUCATION PRESIDENT \_\_\_\_\_ DATE \_\_\_\_\_  
ELLCOTT SCHOOL DISTRICT NO 22

**DESIGN ENGINEER'S STATEMENT**

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

DAVID R. GORMAN, P.E. COLORADO NO. 31672 DATE \_\_\_\_\_  
FOR AND ON BEHALF OF M.V.E., INC.

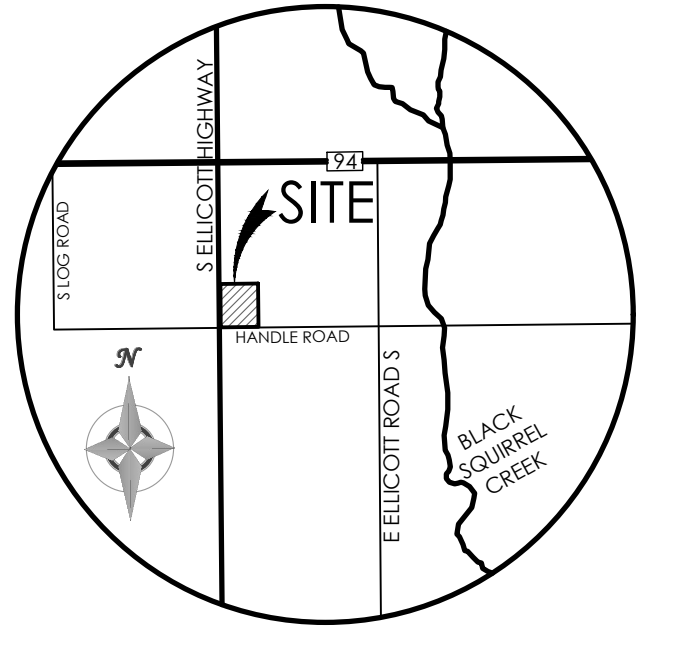
**EL PASO COUNTY**

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, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

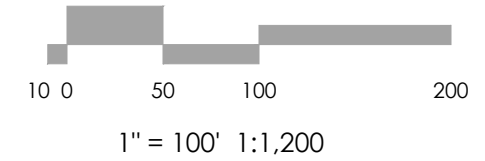
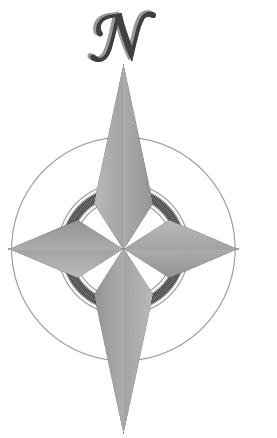
IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF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

JOSHUA PALMER, P.E. DATE \_\_\_\_\_  
COUNTY ENGINEER / ECM ADMINISTRATOR

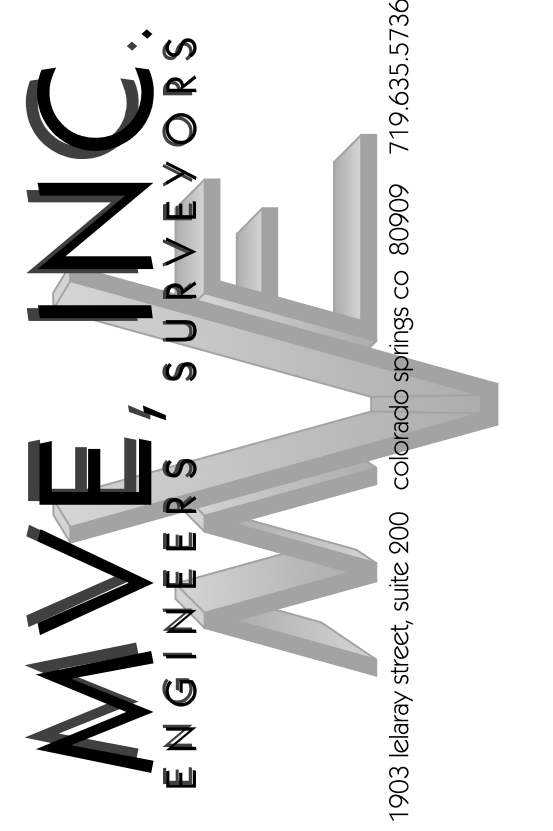


**VICINITY MAP**  
NOT TO SCALE

BENCHMARK  
THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY AND PROVIDED BY CLARK LAND SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE NAVD 88 VERTICAL DATUM.



1" = 100' 1:1,200



**REVISIONS**

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

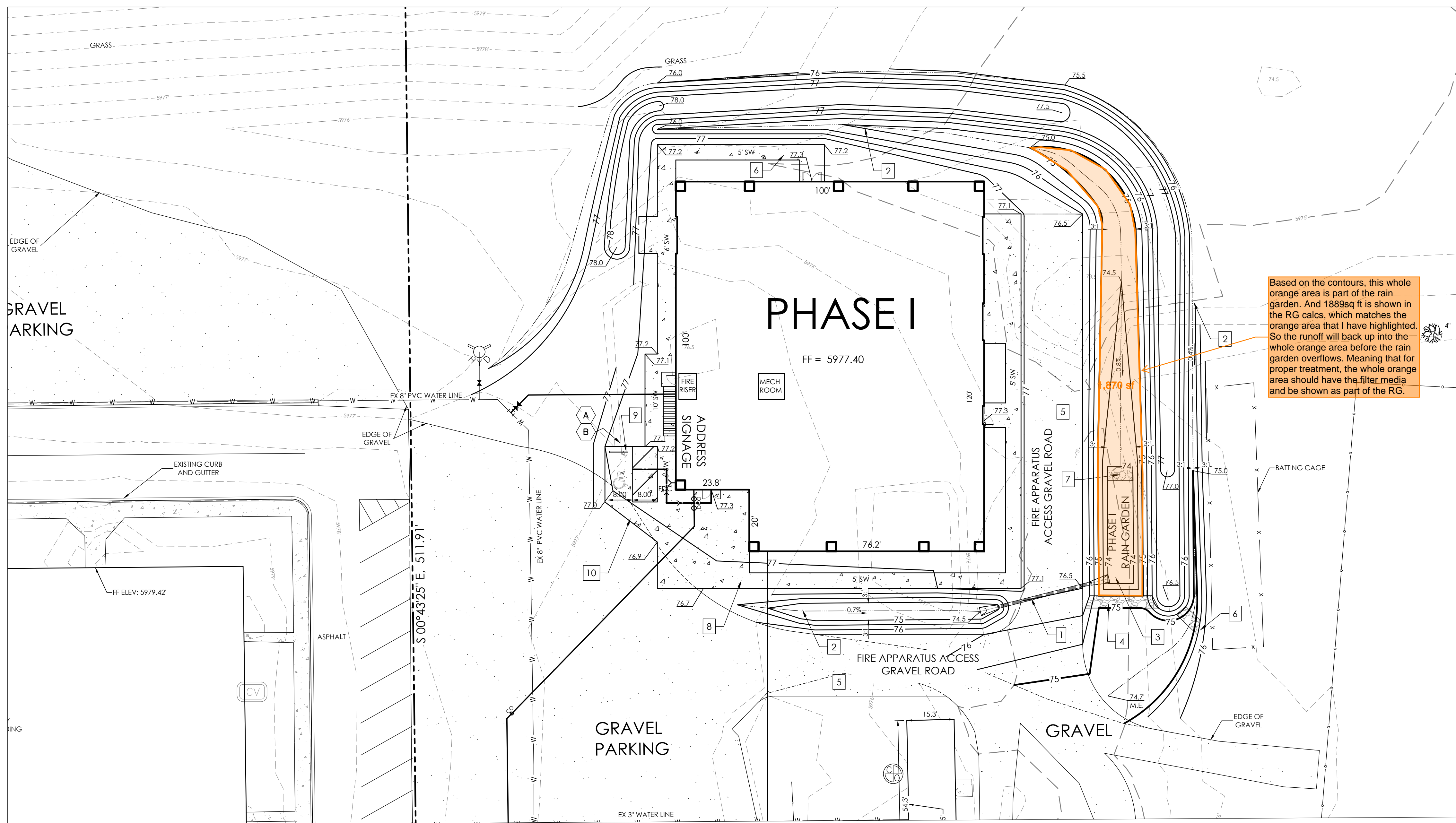
**ELLCOTT SCHOOL ADDITION 2 BLDGS**

**GRADING & EROSION CONTROL PLAN COVER SHEET**

**C1.1** MVE PROJECT 61183  
MVE DRAWING GEC-CS

**NOVEMBER 28, 2022**  
**SHEET 1 OF 7**





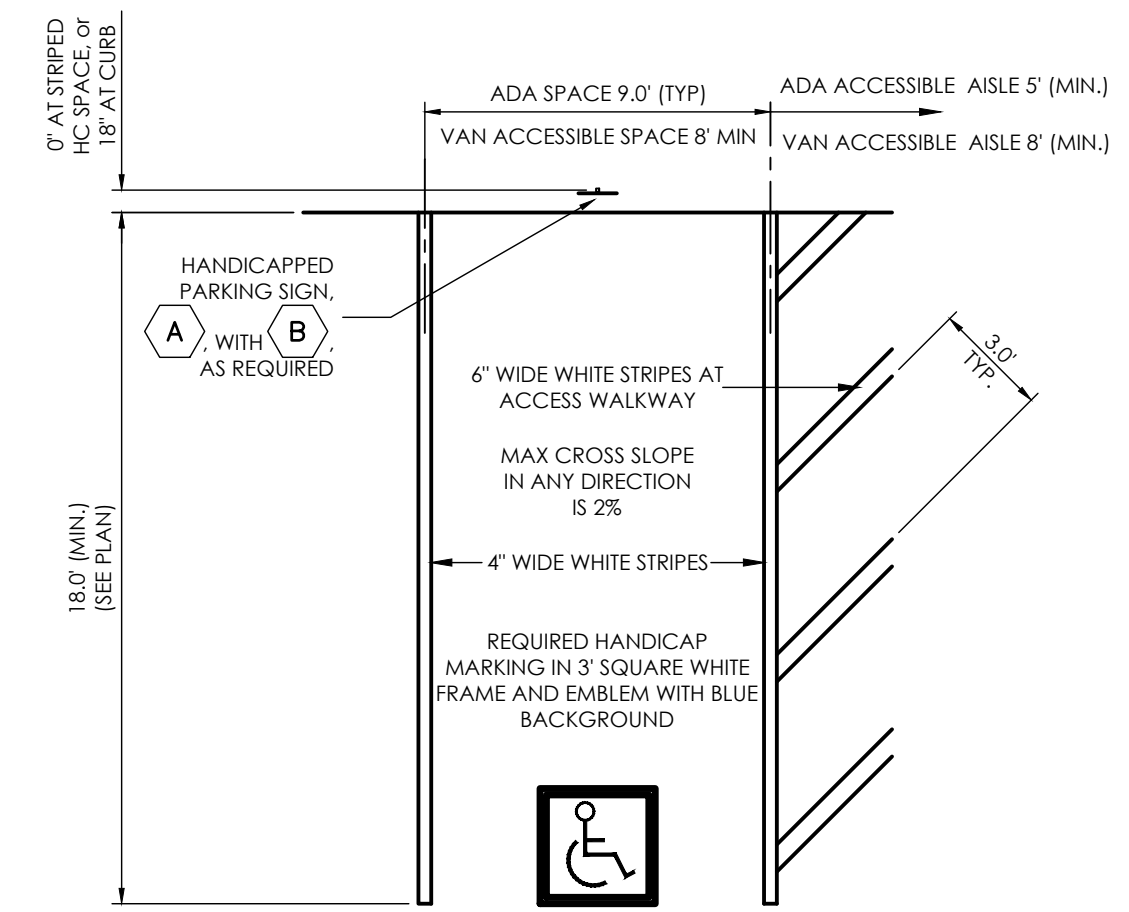
**MAP NOTES**

1. THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED AND PROVIDED BY CLARK LAND SURVEYING INC.
2. ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS MAP ARE FROM UTILITY MAIN RECORD MAPS AND UTILITY SERVICE LOCATION MAPS. THE LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED.



1. TYPOGRAPHY TO BE HELVETICA MEDIUM
2. ALL PRIMARY SIGNS TO BE MOUNTED ON METAL SIGN POST: 7'-0" ABOVE FINISH GRADE TO BOTTOM OF SIGN-TYP. ADDITIONAL PLACARD SIGNS SHALL BE MOUNTED AT LEAST 6'-0" ABOVE FINISH GRADE TO BOTTOM OF SIGN-TYP.
3. MOUNT HANDICAP SIGNAGE ON BUILDING.

**SITE SIGNAGE LEGEND**  
SCALE 1" = 1'



**TYPICAL HANDICAP PARKING SPACE**  
SCALE 1" = 5'

**RAIN GARDEN, SPECIFICATIONS, NOTES & REFERENCES:**  
 REFERENCE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD), URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3, SECTION T-3. FOR FULL SET OF RAIN GARDEN DETAILS AND SPECIFICATIONS AS IDENTIFIED.  
**GROWING MEDIA** - BY WEIGHT, USE 3-5% ORGANIC MATERIAL: 95-97% GROWING MEDIA SAND)  
 • ORGANIC MATERIAL - LOOSELY PACKED, SHREDDED MULCH - AGED 6 MONTHS (MIN.)  
 • GROWING MEDIA SAND - PER SOIL MATERIAL GRADATION TABLE  
 • pH - 4.8-7.5  
 • NITROGEN - 15 ppm (MAX)  
 • PHOSPHORUS - 15 ppm (MAX)  
 • SALINITY - 6 mmhos/cm (MAX)  
**VEGETATION** - SELECT PLANTS THAT ARE DROUGHT RESISTANT AND THRIVE IN SANDY SOIL. OPTIONAL: USE NATIVE SEED MIX PER RAIN GARDEN SEED MIX TABLE. AGGRESSIVE WEED CONTROL PROCEDURES WILL HELP THE DESIRED VEGETATION TO BECOME ESTABLISHED.  
**CONCENTRATED INFLOW** - PER CONCENTRATED INFLOW DETAIL.

STANDARD SIEVE SIZE	% PASSING	GROWING MEDIA <sup>1,2</sup>	RAIN GARDEN SEED MIX TABLE <sup>3</sup> (SOURCE: UDFCD BIORETENTION (RGI) TABLE B-3)	
			COMMON NAME	LB/AC PLS <sup>2</sup>
1-1/2"			SAND BLUESTEM	3.5
3/4"			SIDEOATS GRAMA	3
NO. 4	100		PRAIRIE SANDREED	3
NO. 10	85-100		INDIAN RICEGRASS	3
NO. 50			SWITCHGRASS	4
NO. 100			WESTERN WHEATGRASS	3
NO. 200	80-90		LITTLE BLUESTEM	3
NO. 230	3-17		ALKALI SACATON	3
			SAND DROPSPEED	3
			TOTAL	27.5

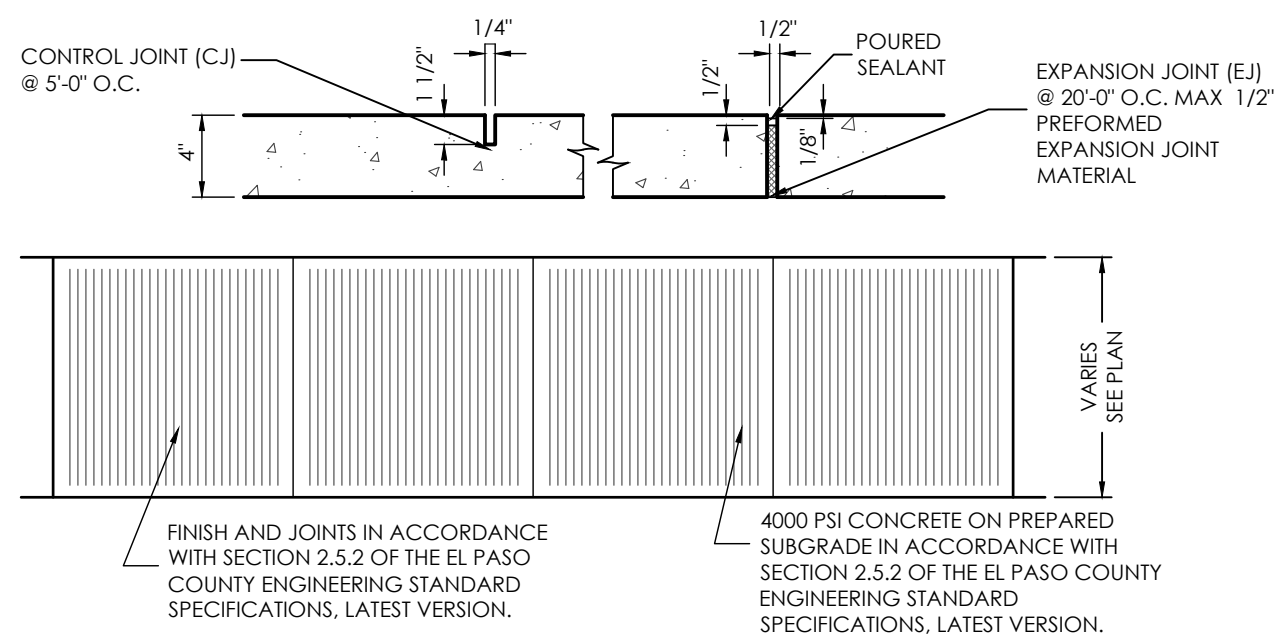
RAIN GARDEN ONLY  
LESS THAN 1.5% ORGANIC MATERIAL

SEE UDFCD TABLE B-3 FOR SCIENTIFIC NAMES AND WILDFLOWER MIX OPTION  
<sup>1</sup>PS = PURE LIVE SEED

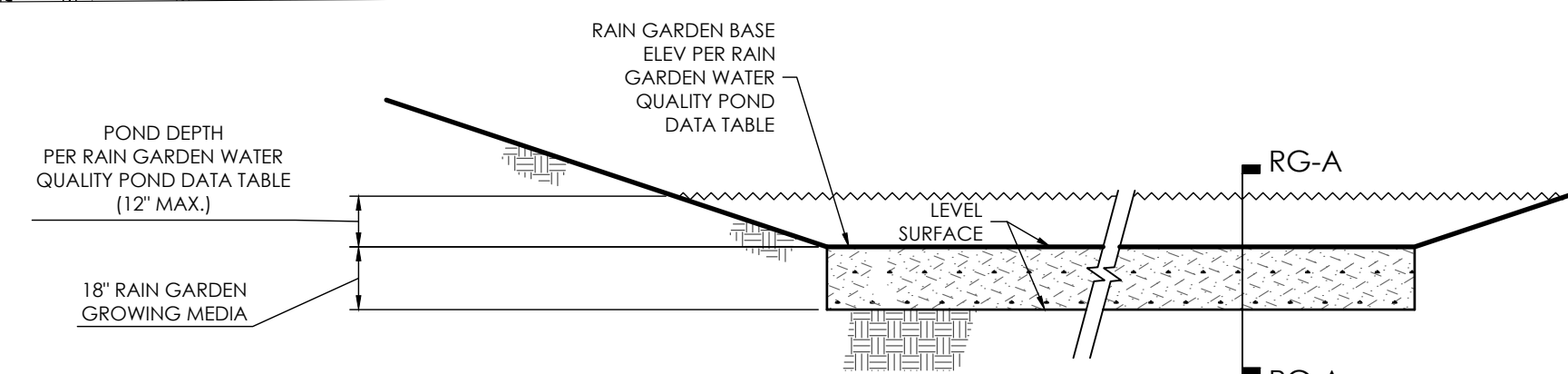
**SITE PLAN SPECIFIC NOTES**

1. INSTALL 43 LF 12" HDPE PIPE W/ FES @ 1.16% FES INV IN = 74.5' FES INV OUT = 74.0'
2. INSTALL GRASS SWALE. SEE DETAIL ON THIS SHEET.
3. INSTALL RAIN GARDEN. SEE DETAIL ON THIS SHEET.
4. INSTALL RIP-RAP SPILLWAY. SEE DETAIL ON THIS SHEET.
5. INSTALL 4" CDOT CLASS 5 OR 4 AGGREGATE BASE COURSE, MIN L HVHEM VALUE OF 84, MOISTURE TREATED TO WITHIN 2% OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% (±3%) MAX DRY DENSITY - MOD. PROCTOR (ASTM D1557/AASHTO T-180)
6. INSTALL TYPE VL RIP-RAP LEVEL SPREADER. (SEE DETAIL)
7. INSTALL RIP-RAP. SEE CONCENTRATED IN-FLOW DETAIL.
8. INSTALL CONCRETE SIDEWALK 4" THICK (SEE DETAIL ON THIS SHEET)
9. INSTALL CONCRETE PARKING STOP BLOCKS
10. INSTALL CONCRETE PARKING AREA 6" THICK (SEE DETAIL ON THIS SHEET)

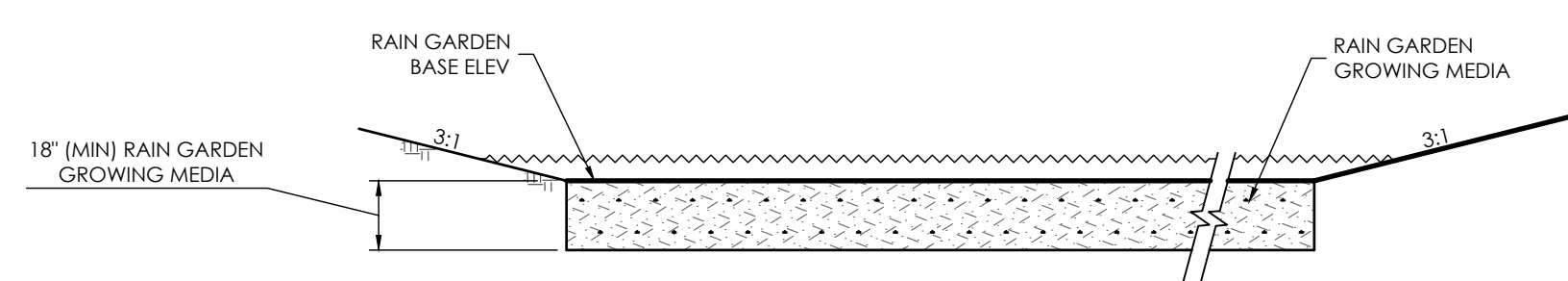
- A) HANDICAP PARKING SIGN (SEE DETAILS ON THIS SHEET)
- B) HANDICAP VAN PARKING SIGN (SEE DETAILS ON THIS SHEET)



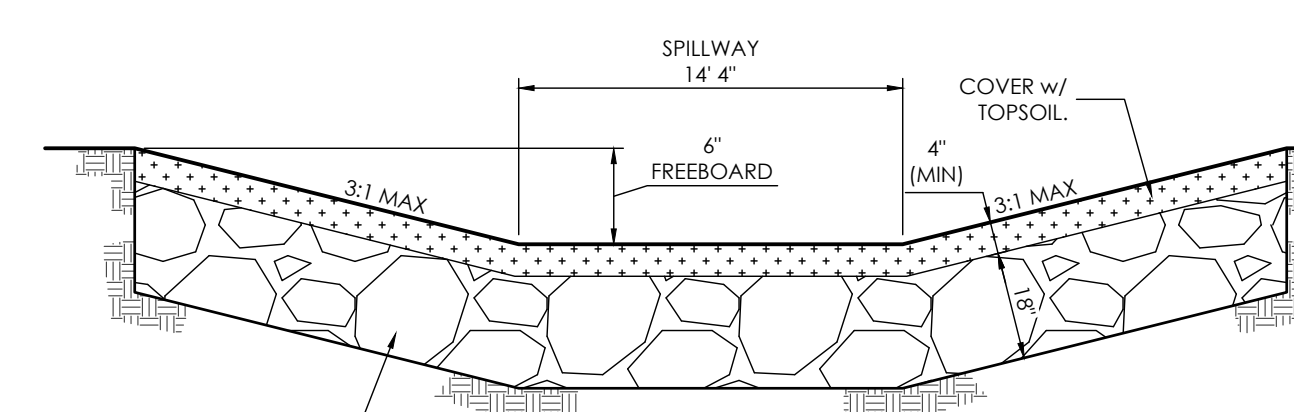
**TYPICAL SIDEWALK DETAIL**  
SCALE 1" = 4.0'



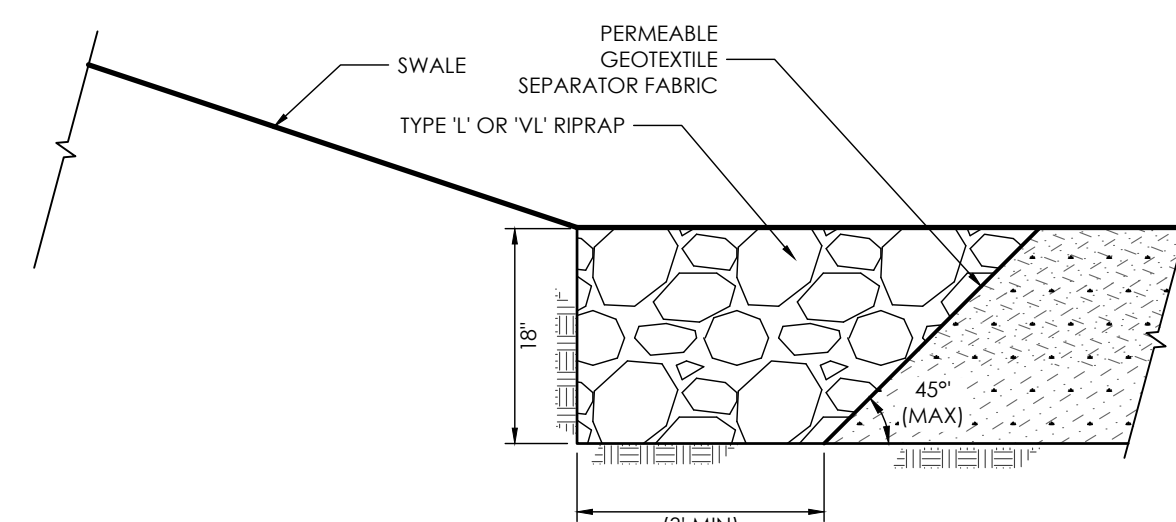
**PHASE I RAIN GARDEN DETAIL**  
SCALE: NTS



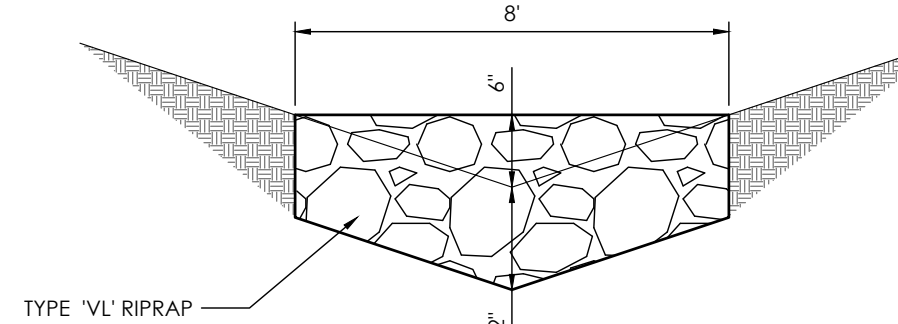
**SECTION 'RG-A'**  
SCALE: NTS



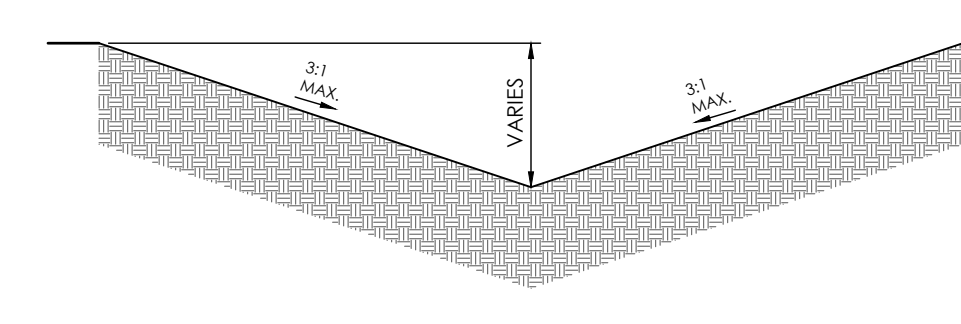
**SPILLWAY DETAIL**  
SCALE: NTS



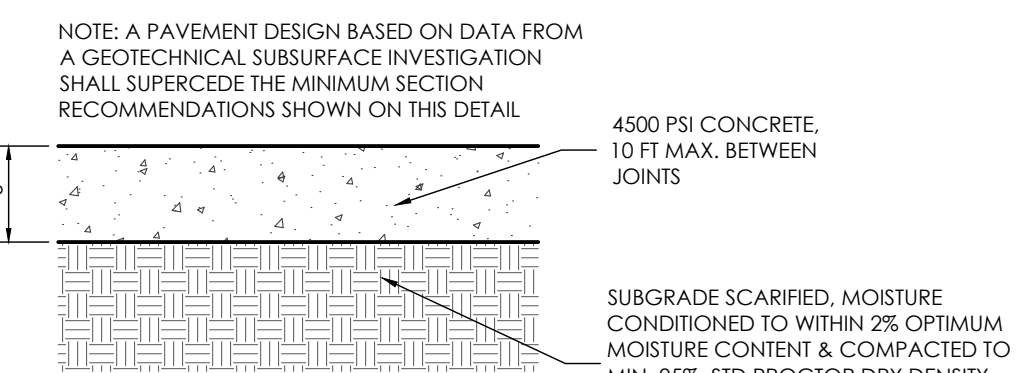
**CONCENTRATED IN-FLOW DETAIL**  
SCALE: NTS



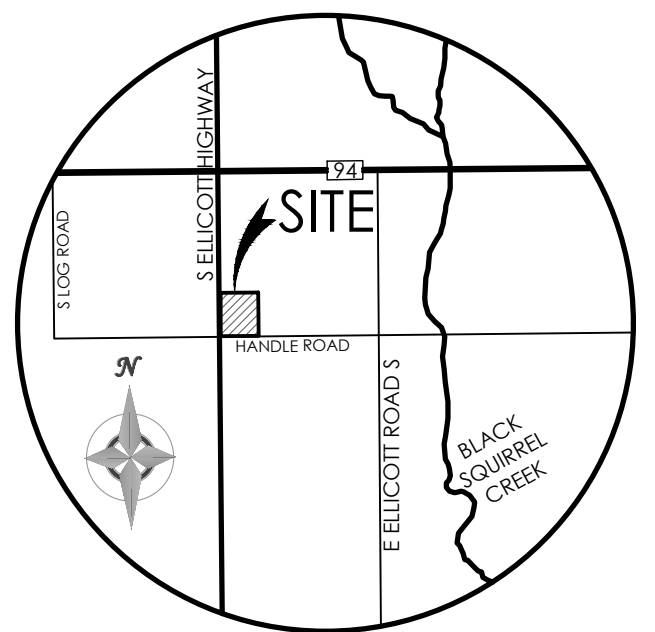
**RIPRAP LEVEL SPREADER DETAIL**  
SCALE 1" = NTS



**TYPICAL SWALE**  
SCALE 1" = 1.0'

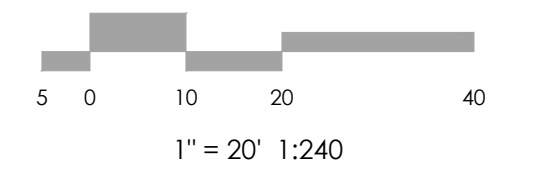
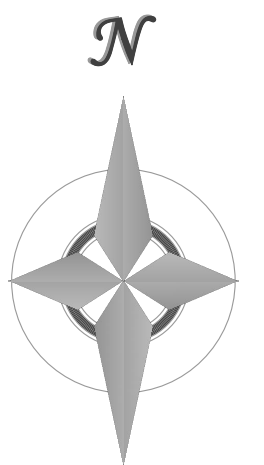


**PAVEMENT SECTION**  
**VEHICLE TRAFFIC AREAS (CONCRETE)**  
SCALE 1" = 1.0'



**VICINITY MAP**  
NOT TO SCALE

BENCHMARK  
THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY AND PROVIDED BY CLARK LAND SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE NAVD 88 VERTICAL DATUM.



1" = 20' 1:240

**MVE, INC.**  
ENGINEERS & SURVEYORS  
1903 Library Street, Suite 200 Colorado Springs, CO 80909 719.635.5736

REVISIONS

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**ELLICOTT SCHOOL**  
ADDITION 2 BLDGS

**PHASE I**  
GRADING PLAN

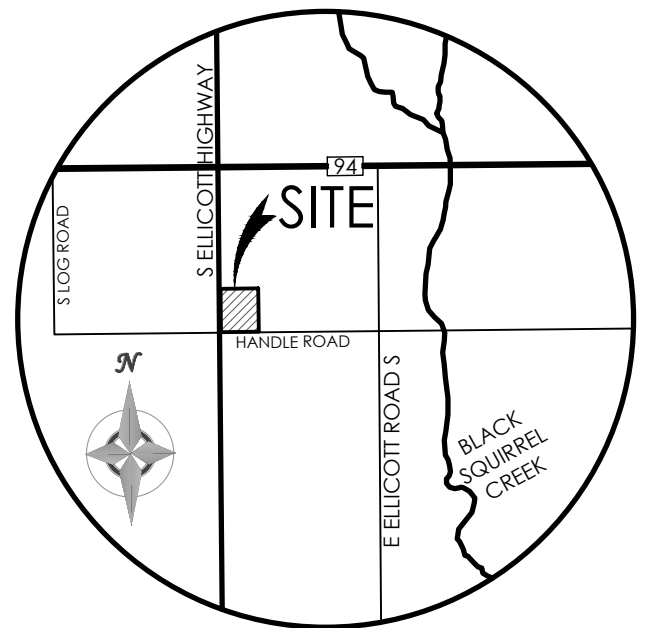
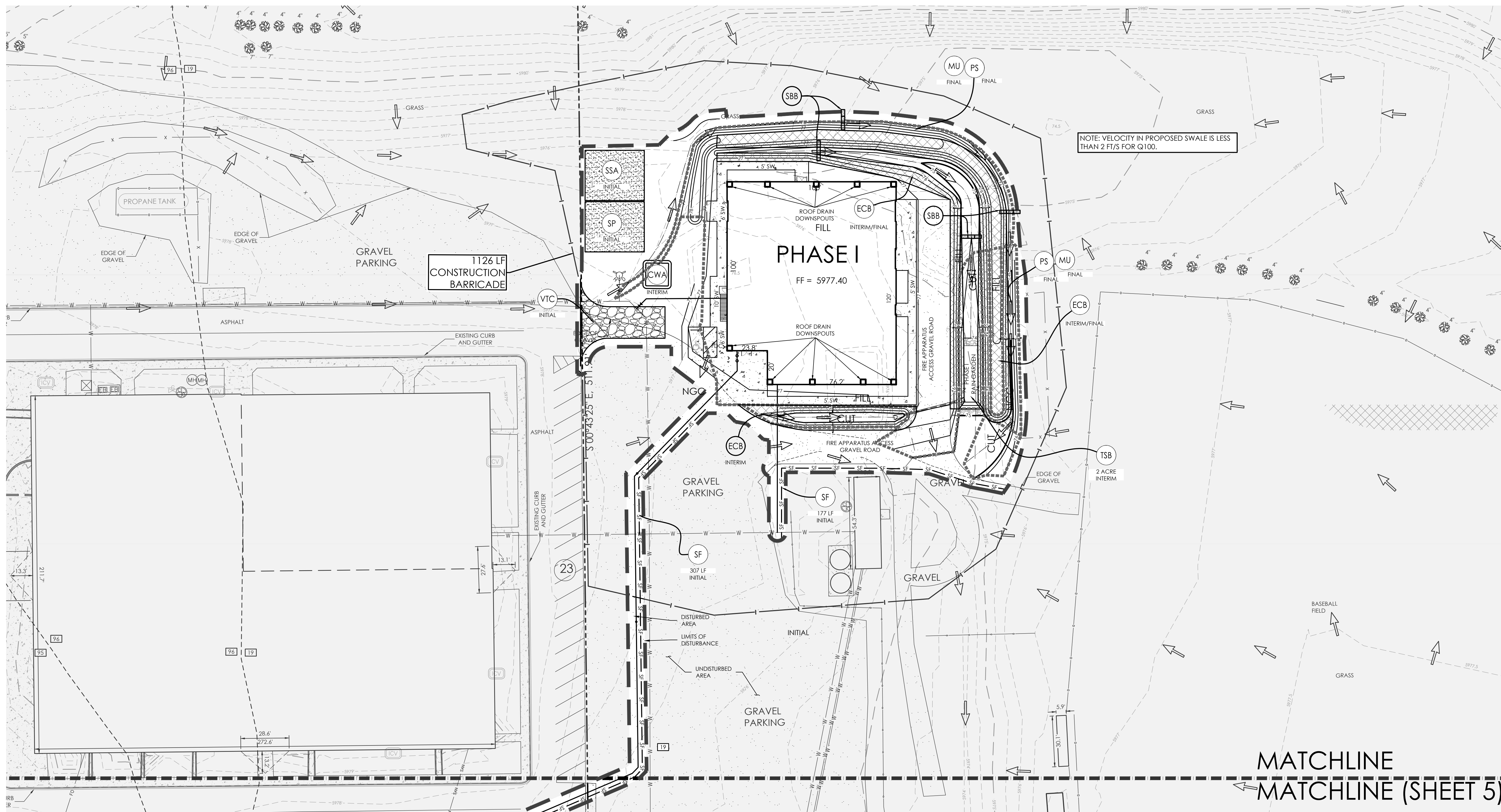
C1.2 MVE PROJECT 61183

MVE DRAWING GEC-GP-I

NOVEMBER 28, 2022  
SHEET 2 OF 7

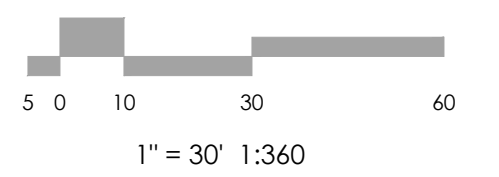
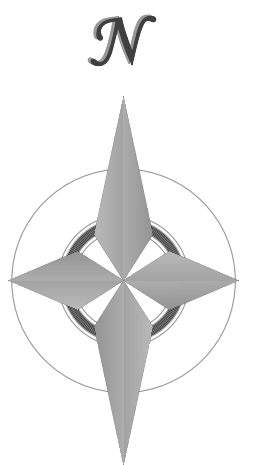
PCD FILE # PPR2250





VICINITY MAP  
NOT TO SCALE

BENCHMARK  
THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED AND PROVIDED BY CLARK LAND SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE NAVD 88 VERTICAL DATUM.



**MVE, INC.**  
ENGINEERS / SURVEYORS

1903 Leamy Street, Suite 200 Colorado Springs, CO 80909 719.635.5726

REVISIONS

MATCHLINE  
MATCHLINE (SHEET 5)

**BMP LEGEND**

MAP SYMBOL	KEY	DESCRIPTION
	CWA	CONCRETE WASHOUT AREA
	SF	SILT FENCE
	SCL	SEDIMENT CONTROL LOG
	VTC	VEHICLE TRACKING CONTROL
	IP	INLET PROTECTION
	RS	ROCK SOCK
	SSA	STABILIZED STAGING AREA
	SP	STOCKPILE PROTECTION
	SBB	STRAW BALE BARRIER

		CONSTRUCTION FENCE
	ECB	EROSION CONTROL BLANKET
	TSB	TEMPORARY SEDIMENT BASIN
		LIMITS OF CONSTRUCTION SITE BOUNDARIES
		LIMITS OF CUT/FILL/NO GRADE CHANGE
		LIMITS OF SOIL TYPE
		FLOW ARROW
	PS	PERMANENT SEEDING
	MU	MULCHING

FOR PERMANENT SEEDING, PLEASE SEE NATIVE SEED ESTABLISHMENT SECTION OF ALTERNATIVE LANDSCAPE PLAN

HYDROLOGIC SOIL GROUP	
MAP UNIT NUMBER	DESCRIPTION
19	COLUMBINE GRAVELLY SANDY LOAM
95	TRUCKTON LOAMY SAND
96	TRUCKTON SANDY LOAM

NOTE:  
CONTRACTOR TO INSTALL CONSTRUCTION BARRICADE AS SHOWN ON THIS PLAN.

**SOIL DATA**

PRIMARY SOIL DESCRIPTION	COLUMBINE GRAVELLY SANDY LOAM	PRIMARY SOIL DESCRIPTION	TRUCKTON LOAMY SAND	PRIMARY SOIL DESCRIPTION	TRUCKTON SANDY LOAM
PERMEABILITY	VERY RAPID	PERMEABILITY	MODERATELY RAPID	PERMEABILITY	MODERATELY RAPID
SURFACE RUNOFF	VERY LOW	SURFACE RUNOFF	LOW	SURFACE RUNOFF	VERY LOW
HAZARD OF EROSION	SLIGHT/MODERATE	HAZARD OF EROSION	MODERATE/HIGH	HAZARD OF EROSION	MODERATE
HYDROLOGIC SOIL GROUP	A	HYDROLOGIC SOIL GROUP	A	HYDROLOGIC SOIL GROUP	A

**OTHER DATA**

LAT/LONG COORDS: 38°49'34.17"N / 104°23'08.48"W

VEGETATION:  
EXISTING: NATIVE PRAIRIE GRASSES AND WEEDS IN AVERAGE CONDITION, 80% COVERAGE

PROPOSED: PLANTINGS & RESEEDING PER LANDSCAPE PLAN

PHASE I APPROX. EARTHWORK QUANTITIES:  
100 CY CUT, 1050 CY FILL

BATCH PLANTS: NONE

DEWATERING: NONE

RETAINING WALLS: NONE

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

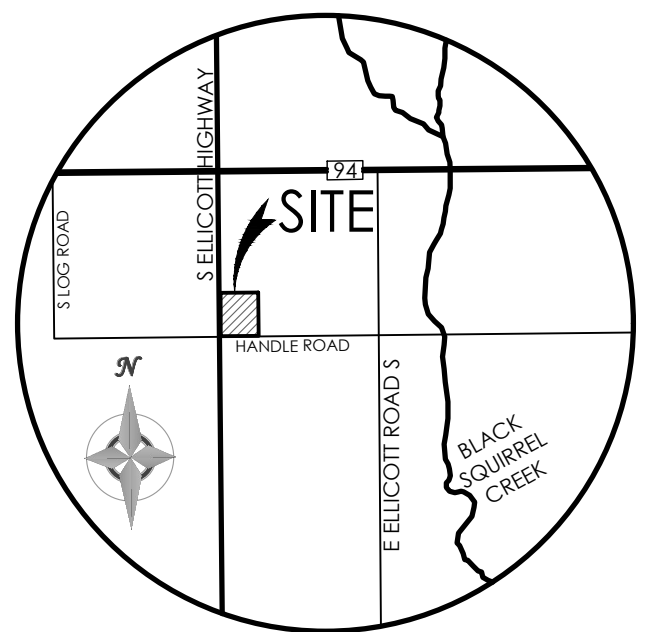
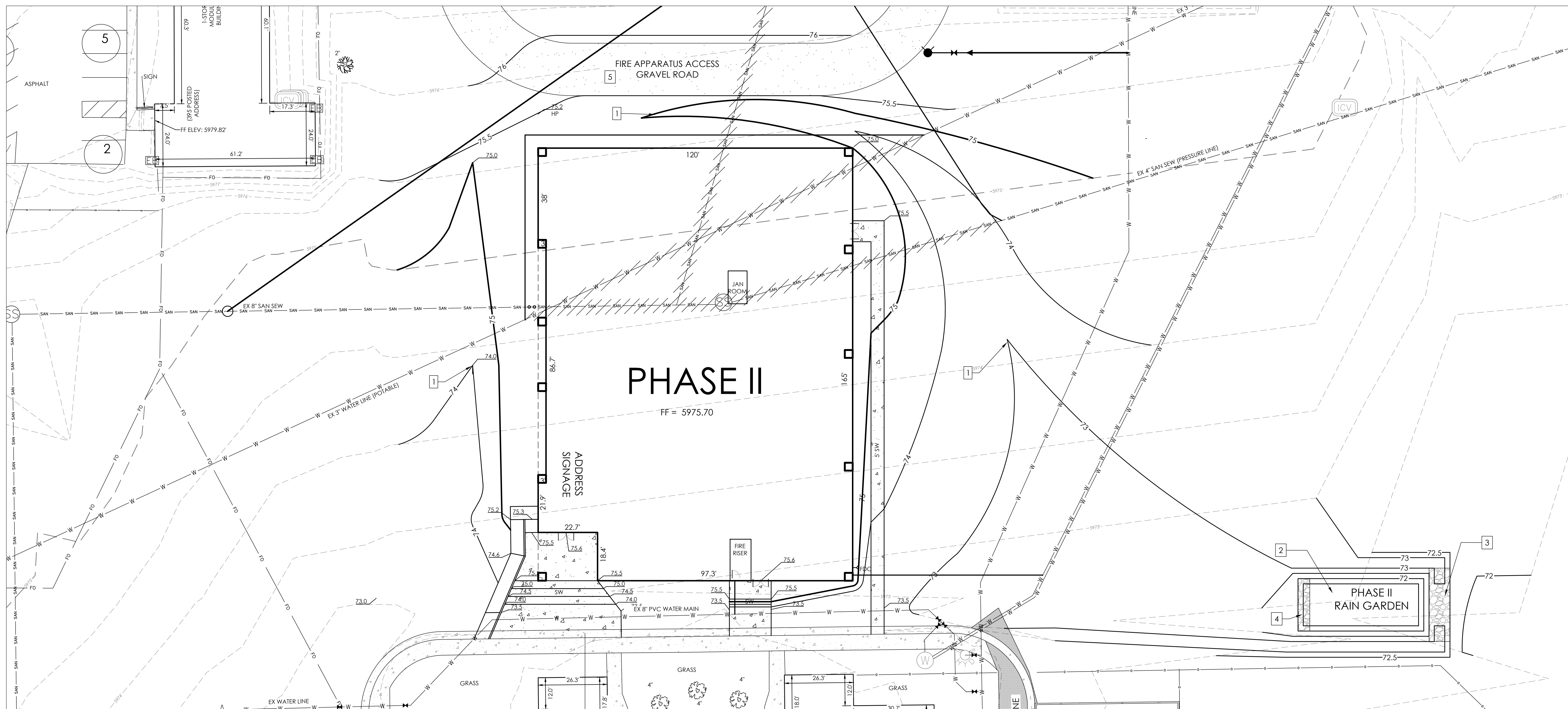
ELLICOTT SCHOOL  
ADDITION 2 BLDGS

PHASE I EROSION  
CONTROL PLAN

C1.3 MVE PROJECT 61183  
MVE DRAWING GEC-EC-I

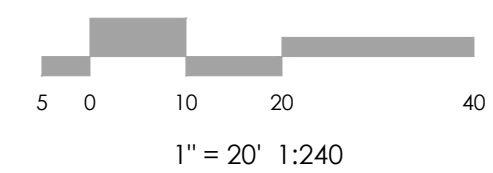
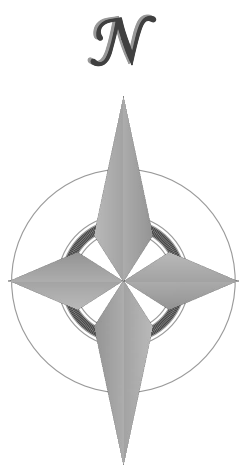
NOVEMBER 28, 2022  
SHEET 3 OF 7

PCD FILE # PPR2250



VICINITY MAP  
NOT TO SCALE

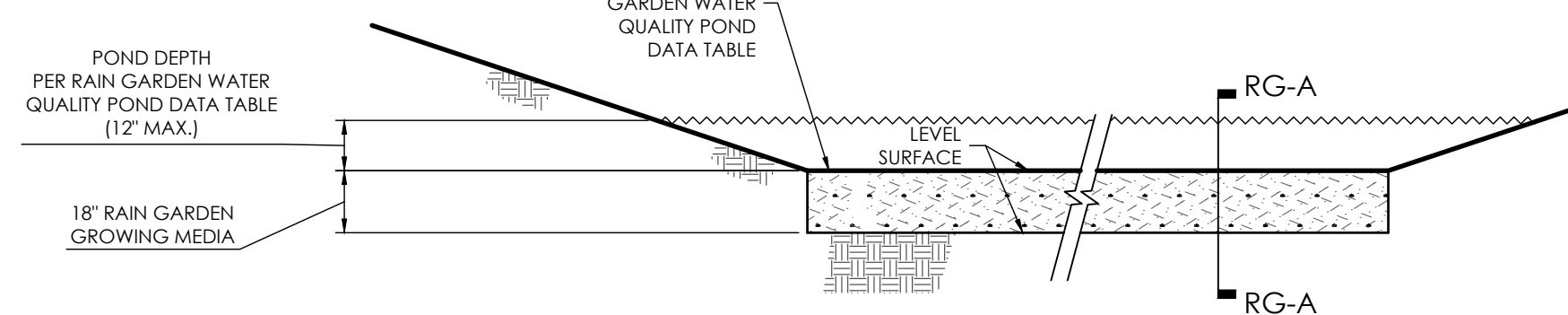
BENCHMARK  
THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY AND PROVIDED BY CLARK LAND SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE NAVD 88 VERTICAL DATUM.



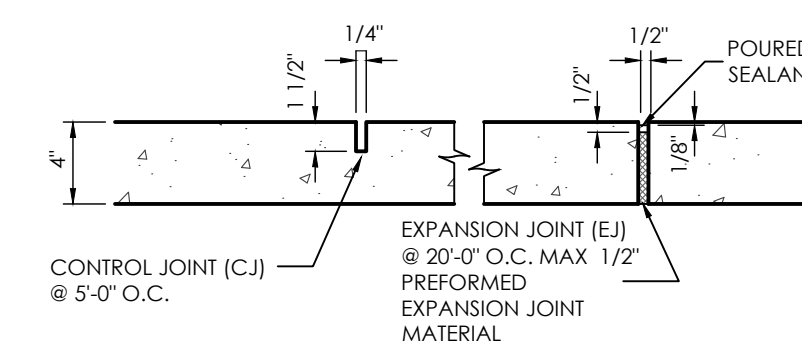
**SITE PLAN SPECIFIC NOTES**

- 1 INSTALL GRASS SWALE. SEE DETAIL ON THIS SHEET.
- 2 INSTALL RAIN GARDEN. SEE DETAIL ON THIS SHEET.
- 3 INSTALL RIP-RAP SPILLWAY. SEE DETAIL ON THIS SHEET.
- 4 INSTALL RIP-RAP. SEE CONCENTRATED IN-FLOW DETAIL.
- 5 INSTALL 6" CDOT CLASS 5 OR 6 AGGREGATE BASE COURSE, MIN L HVEEM VALUE OF 84, MOISTURE TREATED TO WITHIN 2% OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% (±3%) MAX DRY DENSITY - MOD. PROCTOR (ASTM D1557/AASHTO T-180)

**RAIN GARDEN SPECIFICATIONS, NOTES & REFERENCES:**  
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 - **GROWING MEDIA** (BY WEIGHT, USE 3-5% ORGANIC MATERIAL; 95-97% GROWING MEDIA SAND)  
 • ORGANIC MATERIAL - LOOSELY PACKED, SHREDED MULCH - AGED 6 MONTHS (MIN)  
 • GROWING MEDIA SAND - PER SOIL MATERIAL GRADATION TABLE  
 • pH - 6.8-7.5  
 • NITROGEN - 15 ppm (MAX)  
 • PHOSPHORUS - 15 ppm (MAX)  
 • SALINITY - 6 mmhos/cm (MAX)  
 - **VEGETATION** - SELECT PLANTS THAT ARE DROUGHT RESISTANT AND THRIVE IN SANDY SOIL. OPTIONAL: USE NATIVE SEED MIX PER RAIN GARDEN SEED MIX TABLE. AGGRESSIVE WEED CONTROL PROCEDURES WILL HELP THE DESIRED VEGETATION TO BECOME ESTABLISHED.  
 - **CONCENTRATED INFLOW** - PER CONCENTRATED INFLOW DETAIL.



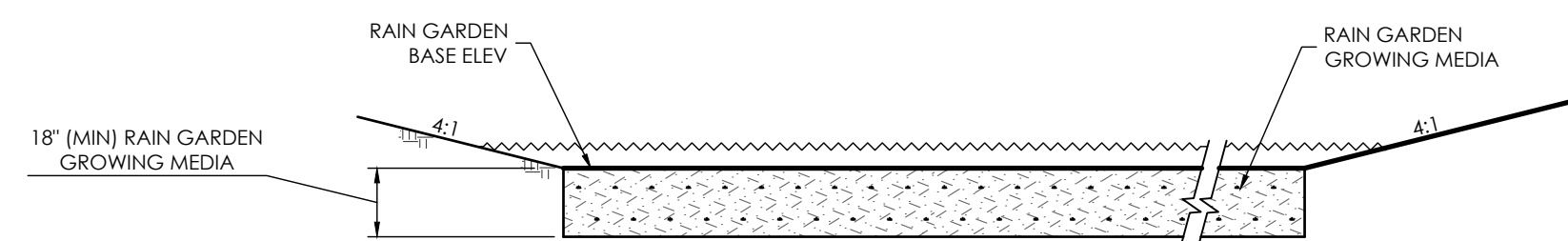
PHASE II RAIN GARDEN DETAIL  
SCALE: NTS



TYPICAL SIDEWALK DETAIL  
SCALE 1" = 4.0'

**MAP NOTES**

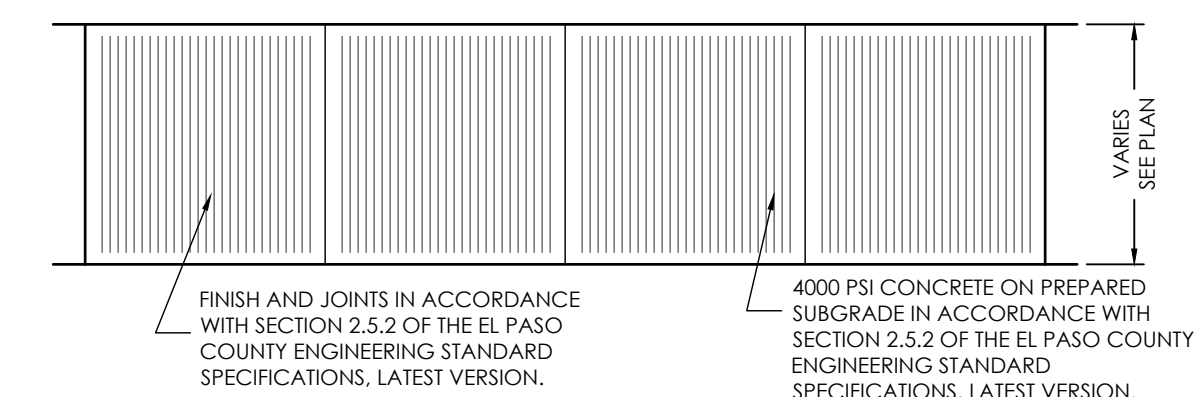
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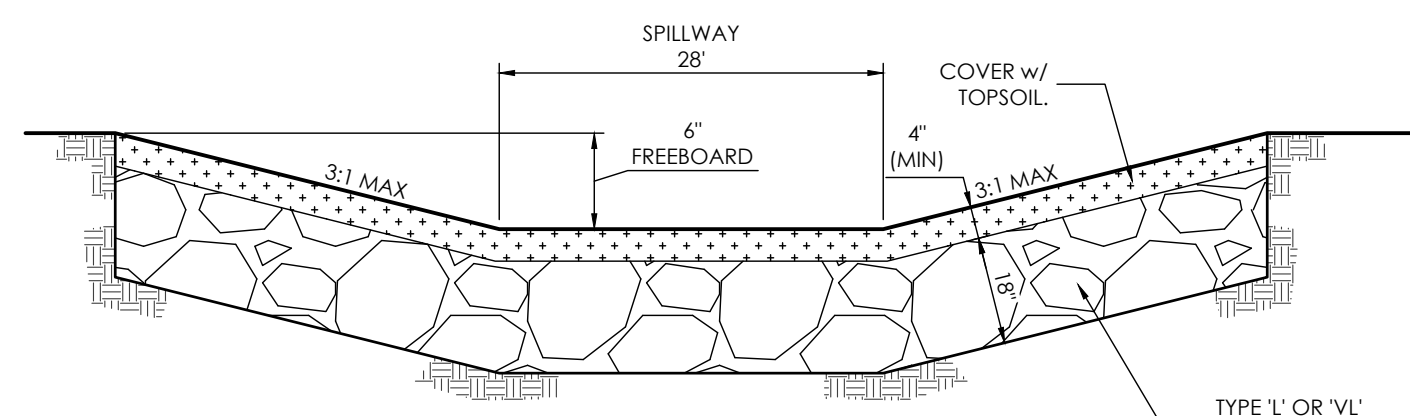
SECTION 'RG-A'  
SCALE: NTS

STANDARD SIEVE SIZE	% PASSING GROWING MEDIA <sup>1,2</sup>	RAIN GARDEN SEED MIX TABLE <sup>1</sup> <small>(SOURCE: UDFCD BORETHERION (RG) TABLE B-3)</small>	
		COMMON NAME	LB/AC PLS <sup>2</sup>
1-1/2"		SAND BLUESTEM	3.5
3/4"		SIDEOTS GRAMA	3
NO. 4	100	PRAIRIE SANDREED	3
NO. 10	85-100	INDIAN RICEGRASS	3
NO. 50		SWITCHGRASS	4
NO. 100		WESTERN WHEATGRASS	3
NO. 200	80-90	LITTLE BLUESTEM	3
NO. 230	3-17	ALKALI SACATON	3
		SAND DROPSSEED	3
		TOTAL	27.5

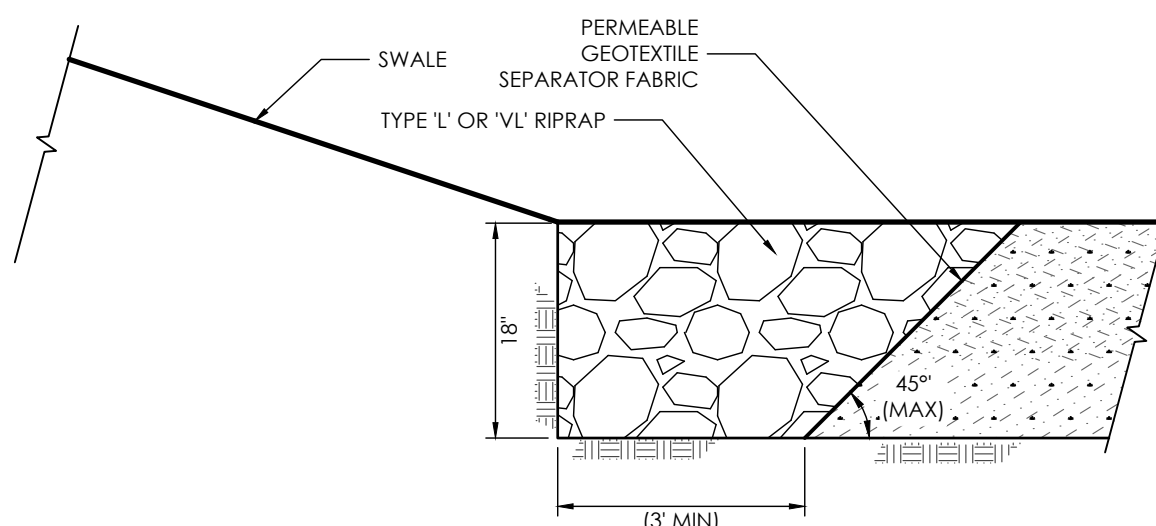
<sup>1</sup>RAIN GARDEN ONLY  
<sup>2</sup>LESS THAN 1.5% ORGANIC MATERIAL  
SEE UDFCD TABLE B-3 FOR SCIENTIFIC NAMES AND WILDFLOWER MIX OPTION  
<sup>3</sup>PLS = PURE LIVE SEED



TYPICAL SWALE  
SCALE 1" = 4.0'



SPILLWAY DETAIL  
SCALE: NTS



CONCENTRATED IN-FLOW DETAIL  
SCALE: NTS

REVISIONS

DESIGNED BY  
DRAWN BY  
CHECKED BY  
AS-BUILTS BY  
CHECKED BY

ELLICOTT SCHOOL  
ADDITION 2 BLDGS

PHASE II  
GRADING PLAN

C1.4 MVE PROJECT 61183  
MVE DRAWING GEC-GP-II

NOVEMBER 28, 2022  
SHEET 4 OF 7

PCD FILE # PPR2250



MATCHLINE (SHEET 3)  
MATCHLINE

1433 LF  
CONSTRUCTION  
BARRICADE

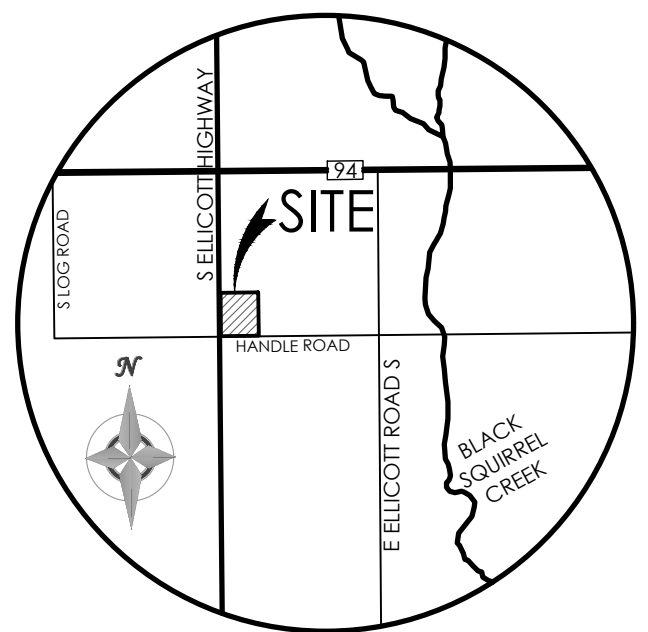
FILL  
PHASE II  
FF = 5975.70

PHASE II  
RAIN GARDEN  
CUT

**BMP LEGEND**

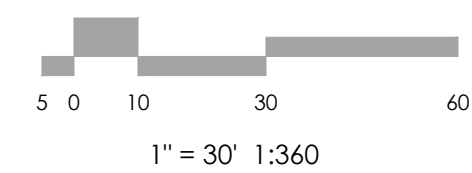
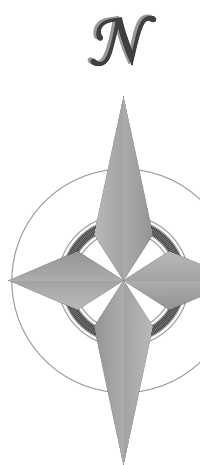
MAP SYMBOL	KEY	DESCRIPTION
	CWA	CONCRETE WASHOUT AREA
	SF	SILT FENCE
	SCL	SEDIMENT CONTROL LOG
	VTC	VEHICLE TRACKING CONTROL
	IP	INLET PROTECTION
	RS	ROCK SOCK
	SSA	STABILIZED STAGING AREA
	SP	STOCKPILE PROTECTION
	SBB	STRAW BALE BARRIER
		CONSTRUCTION FENCE
	ECB	EROSION CONTROL BLANKET
	TSB	TEMPORARY SEDIMENT BASIN
		LIMITS OF CONSTRUCTION SITE BOUNDARIES
		LIMITS OF CUT/FILL/NO GRADE CHANGE
		LIMITS OF SOIL TYPE
		FLOW ARROW
	PS	PERMANENT SEEDING
	MU	MULCHING

FOR PERMANENT SEEDING, PLEASE SEE NATIVE SEED ESTABLISHMENT SECTION OF ALTERNATIVE LANDSCAPE PLAN. SYMBOLS SHOWN IN LEGEND SHALL BE USED BY SWMP ADMINISTRATOR TO ANNOTATE ANY CHANGES AND/OR ADDITIONS TO THIS PLAN.



VICINITY MAP  
NOT TO SCALE

BENCHMARK  
THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED AND PROVIDED BY CLARK LAND SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE NAVD 88 VERTICAL DATUM.



REVISIONS

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

ELLICOTT SCHOOL  
ADDITION 2 BLDGS

PHASE II EROSION  
CONTROL PLAN

C1.5 MVE PROJECT 61183  
MVE DRAWING GEC-EC-II

NOVEMBER 28, 2022  
SHEET 5 OF 7

**OTHER DATA**

LAT/LONG COORDS: 38°49'34.17"N / 104°23'08.48"W"

VEGETATION:  
EXISTING: NATIVE PRAIRIE GRASSES AND WEEDS IN AVERAGE CONDITION, 80% COVERAGE

PROPOSED: PLANTINGS & RESEEDING PER LANDSCAPE PLAN

PHASE II APPROX. EARTHWORK QUANTITIES:  
900 CY FILL, 0 CY CUT

BATCH PLANTS: NONE

DEWATERING: NONE

RETAINING WALLS: NONE

**SOIL DATA**

PRIMARY SOIL DESCRIPTION  
COLUMBINE GRAVELLY SANDY LOAM  
PERMEABILITY  
VERY RAPID  
SURFACE RUNOFF  
VERY LOW  
HAZARD OF EROSION  
SLIGHT/MODERATE  
HYDROLOGIC SOIL GROUP  
A

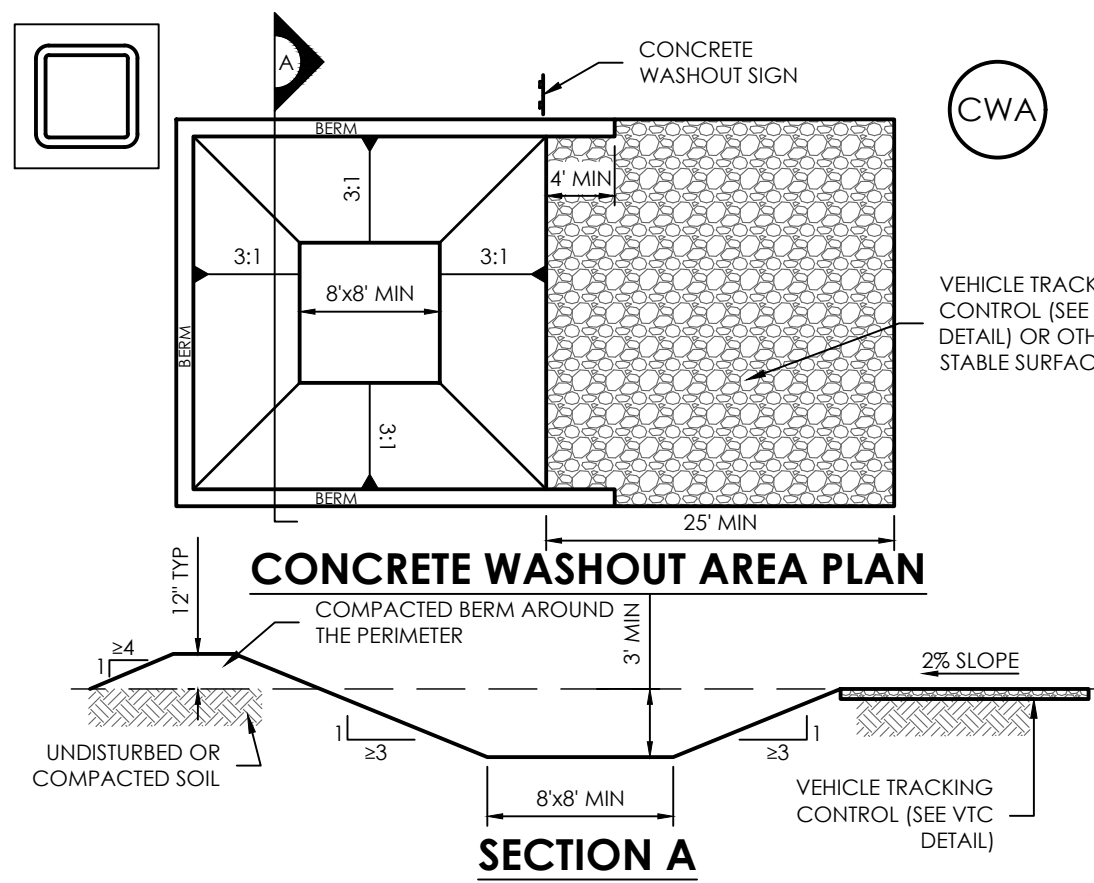
PRIMARY SOIL DESCRIPTION  
TRUCKTON LOAMY SAND  
PERMEABILITY  
MODERATELY RAPID  
SURFACE RUNOFF  
LOW  
HAZARD OF EROSION  
MODERATE/HIGH  
HYDROLOGIC SOIL GROUP  
A

PRIMARY SOIL DESCRIPTION  
TRUCKTON SANDY LOAM  
PERMEABILITY  
MODERATELY RAPID  
SURFACE RUNOFF  
VERY LOW  
HAZARD OF EROSION  
MODERATE  
HYDROLOGIC SOIL GROUP  
A

NOTE:  
CONTRACTOR TO INSTALL CONSTRUCTION BARRICADE AS SHOWN ON THIS PLAN.

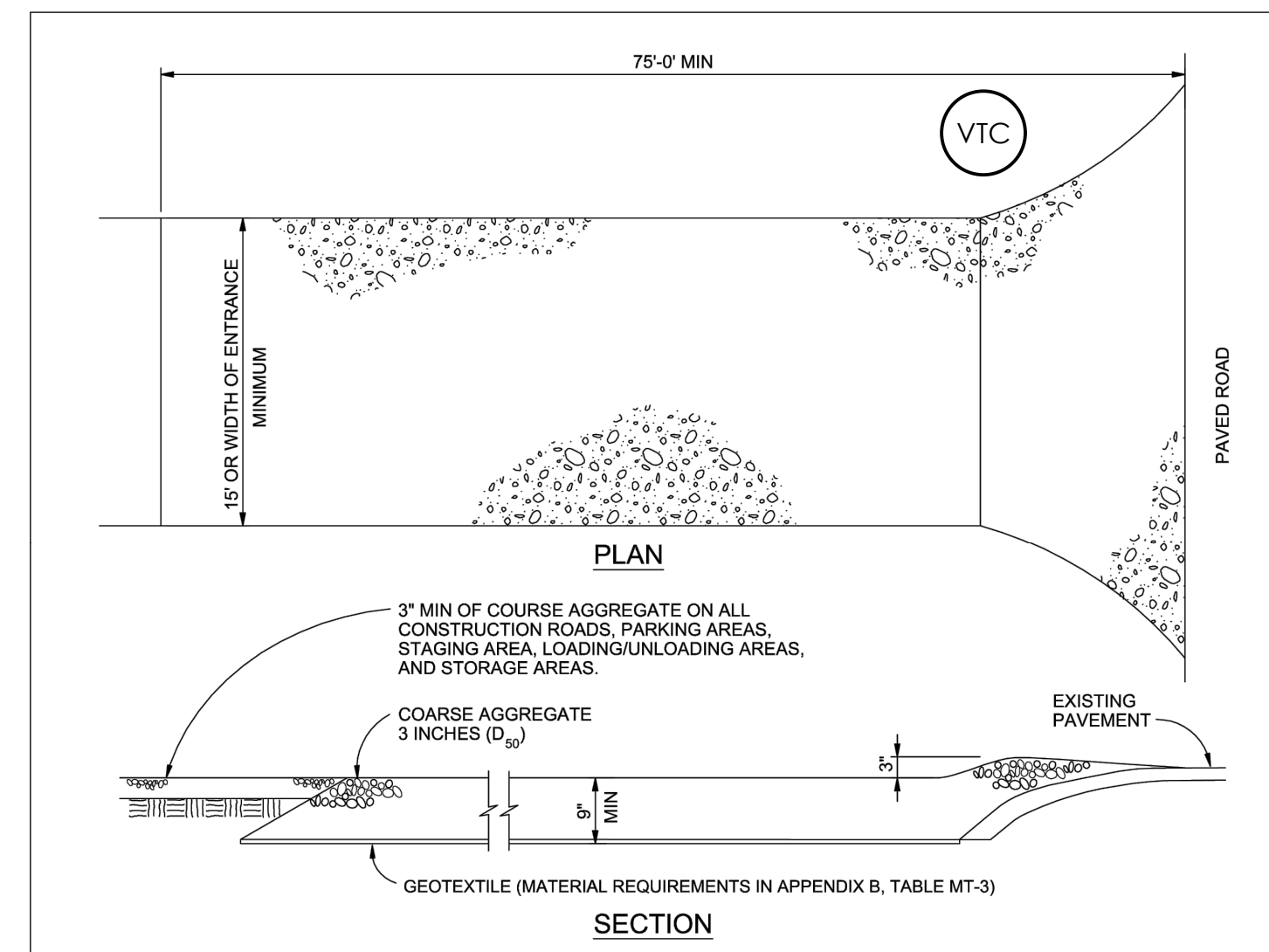
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**CWA-1. CONCRETE WASHOUT AREA**

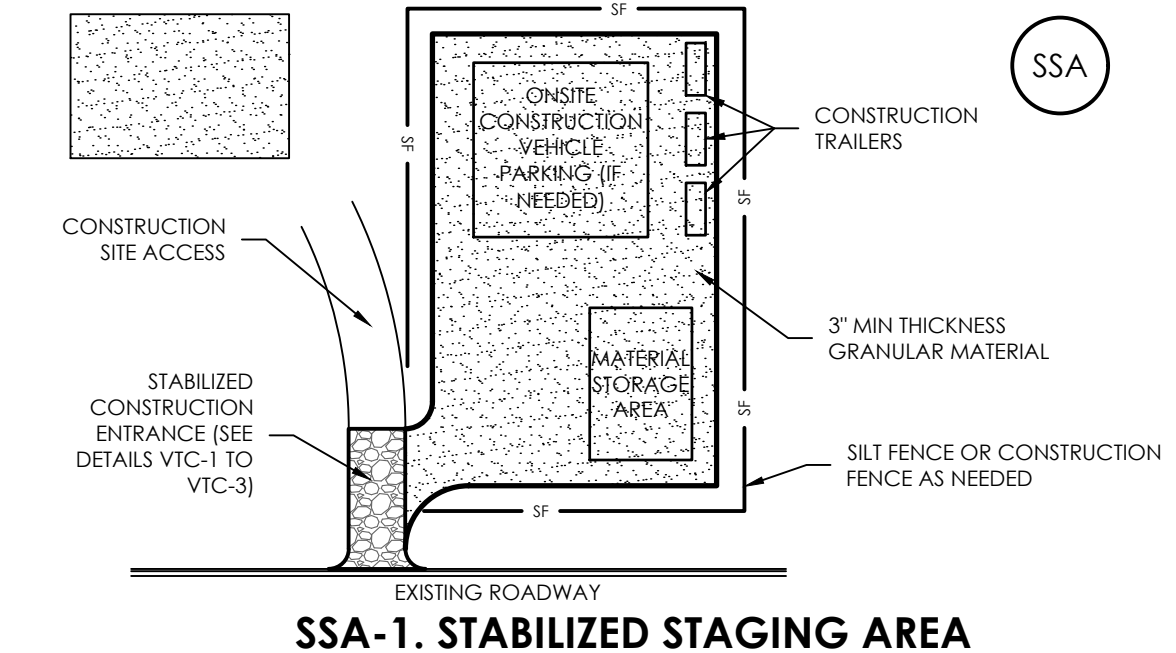
- CWA INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION(S) OF CWA INSTALLATION LOCATION.
  - DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (1.6 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE AREA SHOULD BE USED.
  - THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
  - CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
  - VEHICLE TRACKING PDS SHALL BE SLOPED 2% TOWARDS THE CWA.
  - SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
  - USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.
- CWA MAINTENANCE NOTES**
- 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.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
  - CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
  - THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
  - WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



**VEHICLE TRACKING**

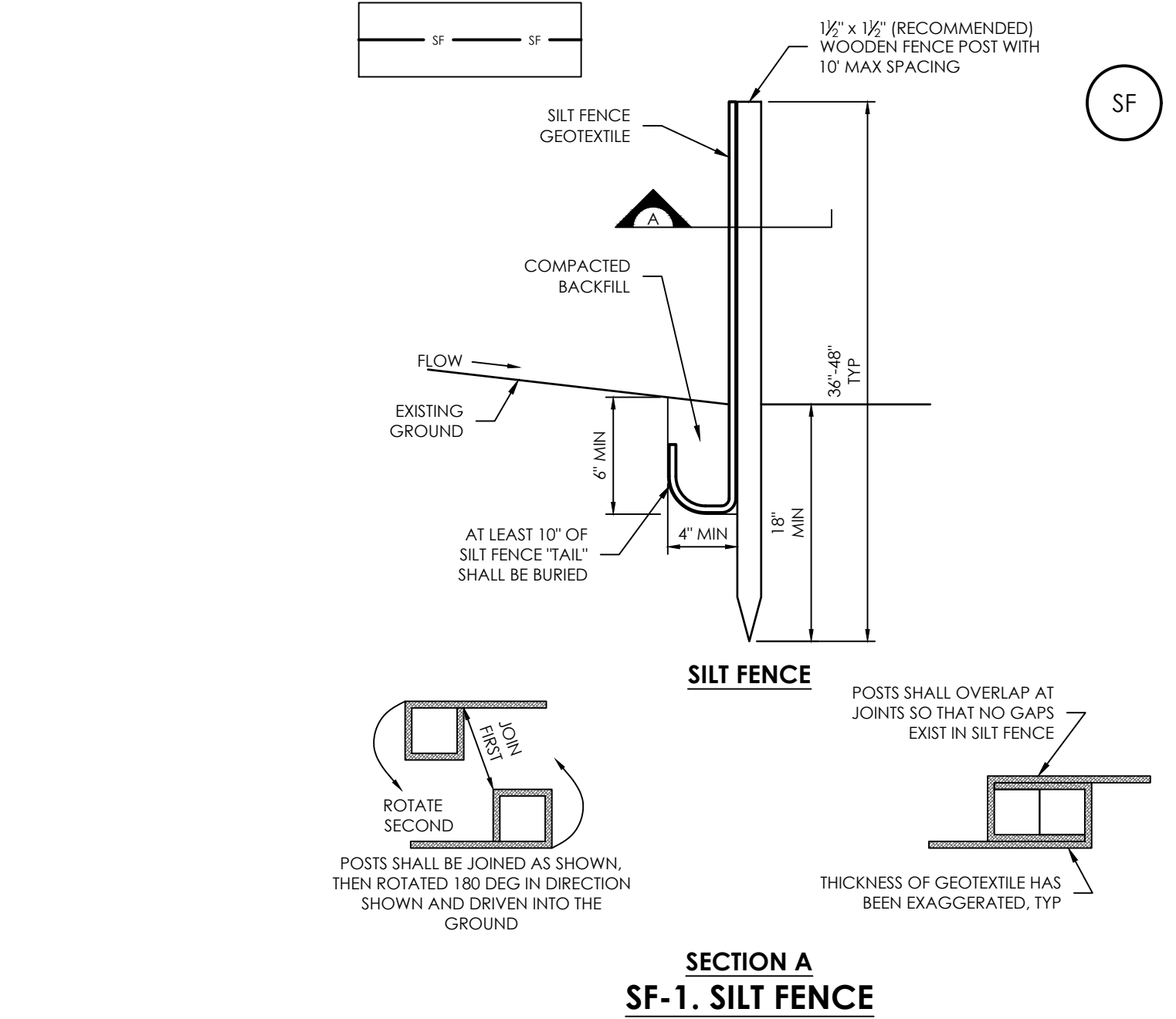
- INSTALLATION REQUIREMENTS**
- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
  - CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
  - AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
  - CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
  - 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**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
  - STONES ARE TO BE REPLACED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
  - SEDIMENT TRACKED ON PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
  - STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
  - 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



**SSA-1. STABILIZED STAGING AREA**

- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION(S) OF STAGING AREA(S).
    - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
  - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
  - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
  - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
  - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF CDOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 4" (MINUS) ROCK.
  - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- STABILIZED CONSTRUCTION ENTRANCE EXIT MAINTENANCE NOTES**
- 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.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
  - STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
  - 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 TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.



**SF-1. SILT FENCE**

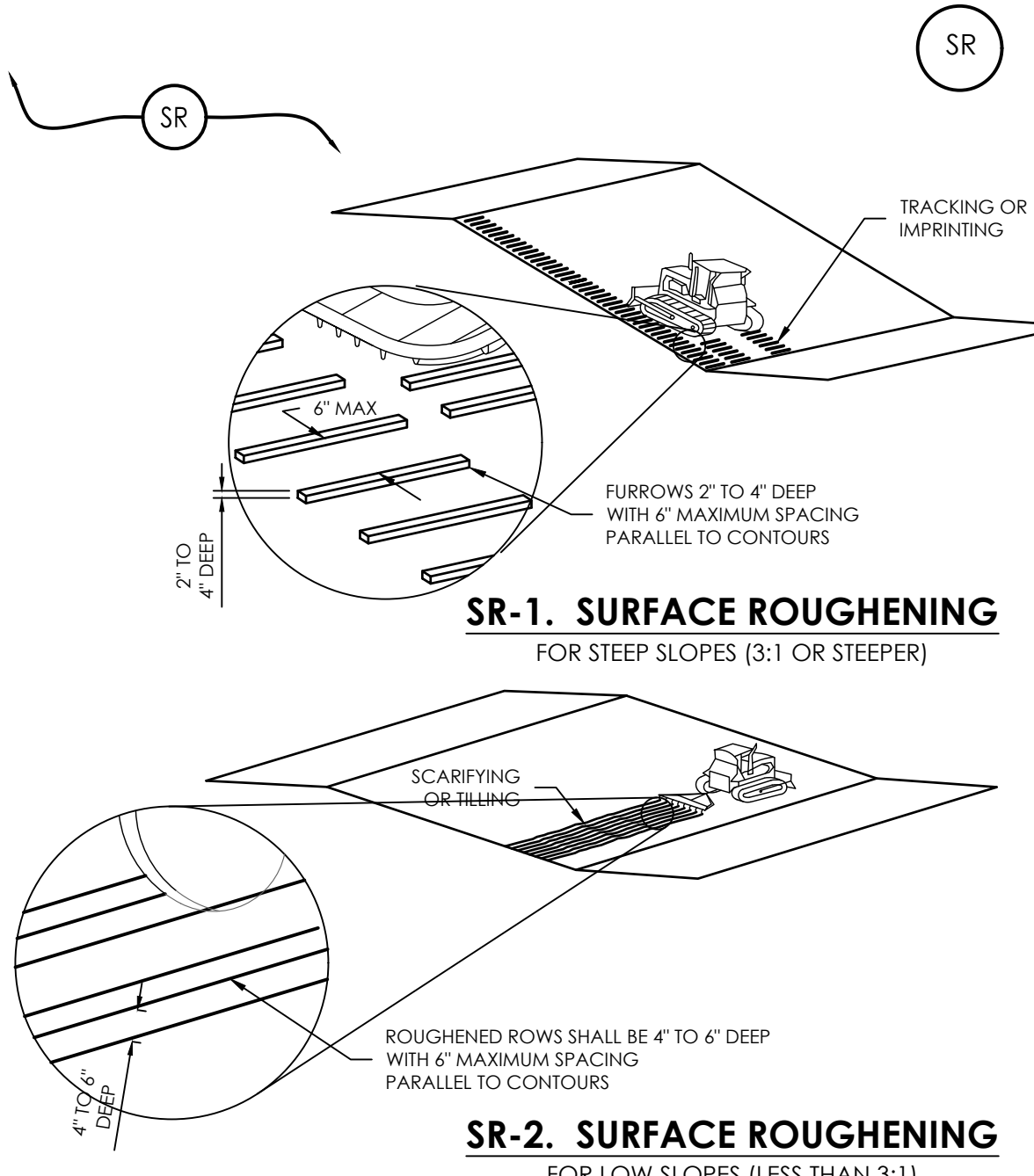
- SILT FENCE INSTALLATION NOTES**
- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
  - A UNIFORM 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.
  - 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.
  - 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.
  - 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.
  - 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').
  - SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- SILT FENCE MAINTENANCE NOTES**
- 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.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - 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".
  - REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
  - 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.
  - WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

**MULCHING SPECIFICATIONS**

- INSTALLATION REQUIREMENTS:**
- ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDING AREAS ARE TO BE MULCHED WITHIN 24 HOURS AFTER SEEDING.
  - MATERIALS USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED-FREE LONG STEMMED FIELD OR MARSH HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEE FREE FORAGE CERTIFICATION PROGRAM.
  - HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL. GRAVEL CAN ALSO BE USED.
  - MULCH IS TO BE APPLIED EVENLY AT A RATE OF 2 TONS PER ACRE.
  - MULCH IS TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED ON SMALL AREAS WITH STEEP SLOPES), OR WITH A TACKIFIER.
  - HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.
- MAINTENANCE REQUIREMENTS:**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL MULCHED AREAS.
  - MULCH IS TO BE REPLACED IMMEDIATELY IN THOSE AREAS IT HAS BEEN REMOVED, AND IF NECESSARY THE AREA SHOULD BE RESEEDED.

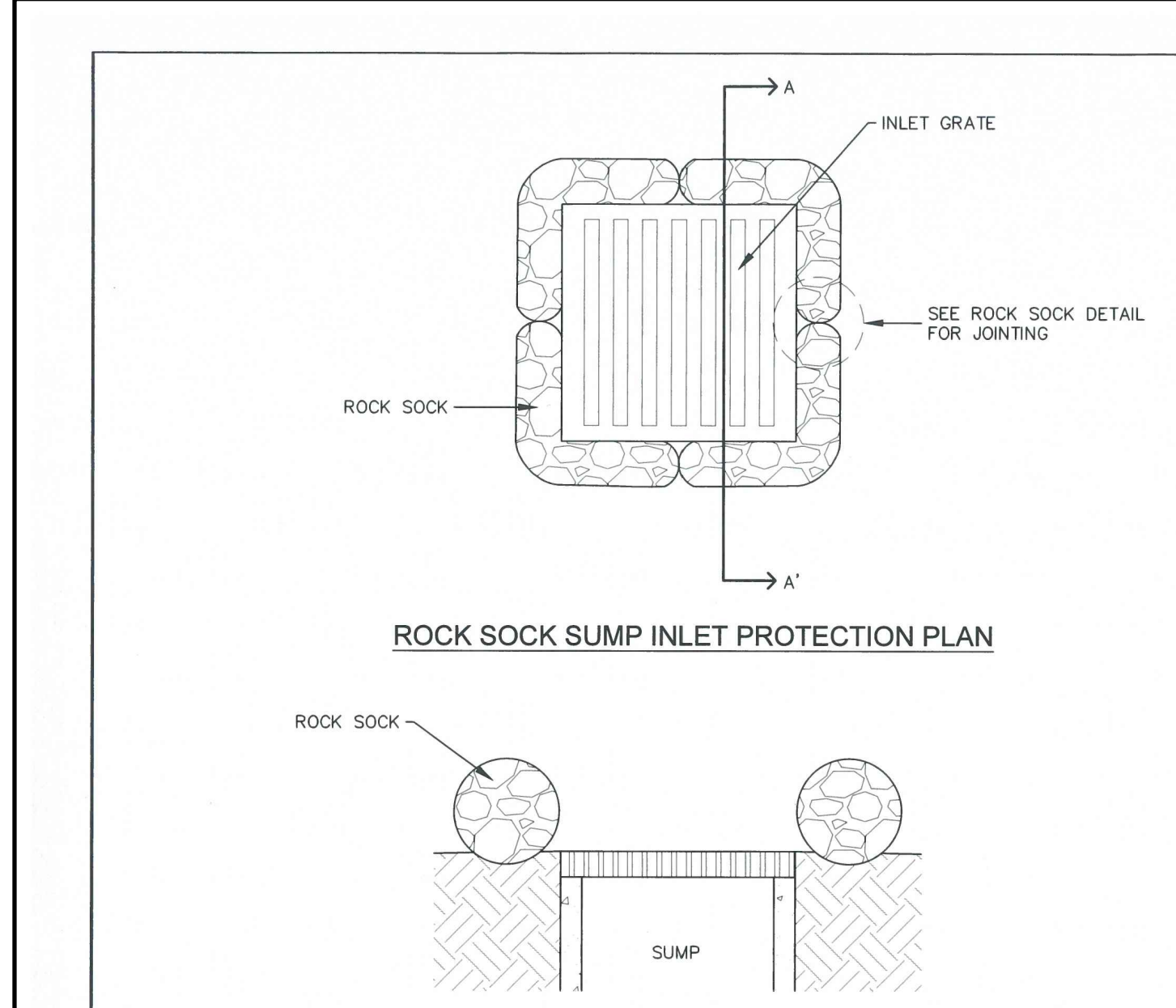
**PERMANENT SEEDING**

- NATIVE SEED ESTABLISHMENT AS PER ALTERNATIVE LANDSCAPE PLAN**
- INITIAL PLANTING**
- STOCKPILED TOPSOIL SHOULD BE SPREAD EVENLY OVER ALL AREAS TO RECEIVE NATIVE SEED. SEED BED IS TO BE WEED-FREE. SPECIFIED SOIL AMENDMENTS SHOULD BE SPREAD AND INCORPORATED INTO TOP 6" OF SOIL. SEED BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS LARGER THAN 1" IN DIAMETER. ANY AREAS THAT THE CONTRACTOR BELIEVES TO BE SUSCEPTIBLE TO EROSION ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO SEEDING. THE SPECIFIED SEED MIX IS TO BE APPLIED BY HYDRO-MULCH SEEDING AT THE RATE SPECIFIED. SEED IS TO BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 15. SEED SHALL NOT BE SOWN IF GROUND IS IN A FROZEN STATE. SPECIFIED EROSION CONTROL BLANKET IS TO BE INSTALLED IMMEDIATELY AFTER SEEDING. BLANKET SHALL BE LAID AND SECURED WITH 6" METAL STAPLES AS PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO PROVIDE INCIDENTAL WATERING OF ALL SEEDING AREAS THREE TIMES A WEEK DURING GROWING SEASON FOR A MINIMUM OF 8 WEEKS, OR UNTIL ESTABLISHED AND MEETING COVERAGE REQUIREMENTS. MOWING MAY BE NECESSARY DURING THE FIRST GROWING SEASON TO KEEP INVASIVE WEEDS FROM SETTING SEEDS. CONTRACTOR IS RESPONSIBLE FOR KEEPING BROADLEAF WEEDS UNDER CONTROL FOR 12 MONTHS AFTER INITIAL SEEDING AND IS ALSO RESPONSIBLE FOR OVER SEEDING BARE AREAS UNTIL SPECIFIED NATIVE GRASSES COVER ALL AREAS AND AREAS WITHOUT SPECIFIED NATIVE GRASS DO NOT EXCEED 6" X 6".
- OVER SEEDING**
- SIX WEEKS AFTER THE INITIAL SEEDING DURING THE FIRST GROWING SEASON AND/OR DURING THE SPRING OF THE SECOND GROWING SEASON CONTRACTOR IS TO REPAIR ANY ERODED AREAS AND OVER SEED ALL BARE NATIVE GRASS AREAS. CONTRACTOR IS TO USE SPECIFIED SEED MIX BY BROADCAST AND RAKING INTO TOP 1/2" TO 1" OF SOIL. INCIDENTAL WATERING IS TO BE PROVIDED TO ESTABLISH OVER-SEEDED AREAS. BROADLEAF WEEDS ARE TO BE KEPT UNDER CONTROL BY MANUALLY PULLING OR CUTTING WEEDS OR SPRAYING OF BROADLEAF WEED HERBICIDE. HERBICIDE AND APPLICATION SHALL CONFORM TO ALL APPLICABLE LAWS OF THE STATE OF COLORADO AND MANUFACTURER'S INSTRUCTIONS.
- EXISTING UTILITIES NOTE**
- THE LOCATION OF EXISTING UTILITIES DEPICTED ON THIS PLAN ARE SHOWN ACCORDING TO AVAILABLE RECORDS, SURFACE EVIDENCE AND THE RECOLLECTIONS/BEST KNOWLEDGE OF THE OWNER AND DESIGN TEAM. ELECTRIC UTILITY LOCATION IS NOT POSITIVE. BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED. EXERCISE CAUTION DURING EXCAVATION OPERATIONS.



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

- SURFACE ROUGHENING INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION(S) OF SURFACE ROUGHENING.
  - 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.
  - AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.
  - DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILTING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.
  - A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.
- SURFACE ROUGHENING MAINTENANCE NOTES**
- 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.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
  - IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
  - IN AREAS NOT SEEDED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER HILL EROSION.



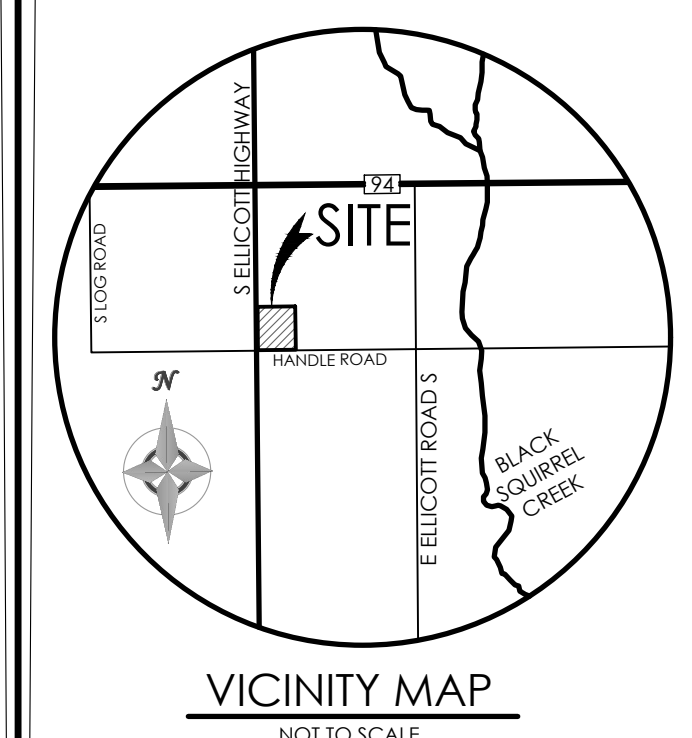
**ROCK SOCK SUMP INLET PROTECTION PLAN**

- INSTALLATION NOTES**
- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
  - SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.
  - CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.
- MAINTENANCE NOTES**
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
  - ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
  - PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

STORMWATER ENTERPRISE SUMP INLET PROTECTION IP-2

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISED: 8/19/2020 DRAWING NO: 900-IP-2

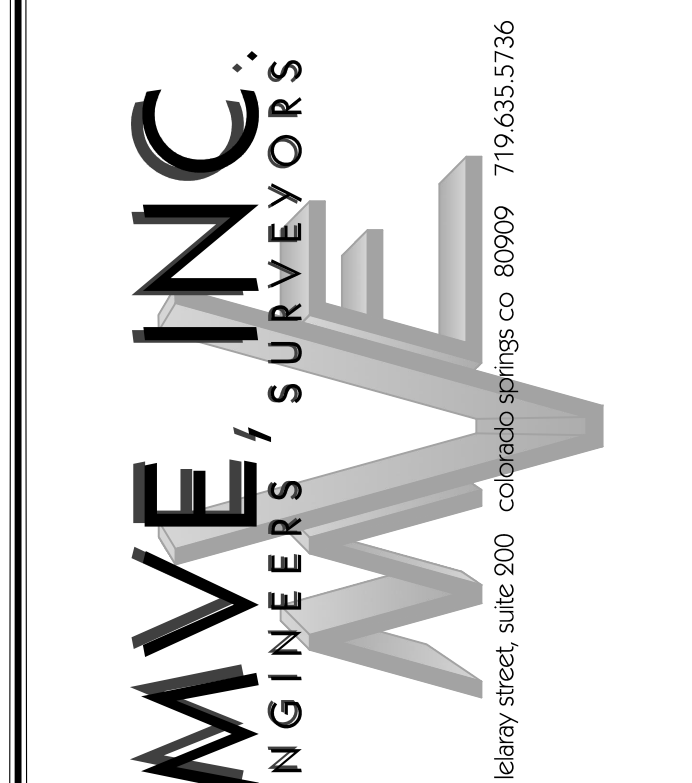


VICINITY MAP NOT TO SCALE

BENCHMARK

**MVE, INC.**  
ENGINEERS & SURVEYORS

1903 Leary Street, Suite 200 Colorado Springs, CO 80909 719.635.5726



**ROCK SOCK SECTION**

- ROCK SOCK INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
    - LOCATION(S) OF ROCK SOCKS.
  - CRUSHED ROCK SHALL BE 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1/2" MINUS).
  - WIRE MESH SHALL BE FABRICATED OF 10 GAUGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/2".
  - 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.
  - SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.
- ROCK SOCK MAINTENANCE NOTES**
- 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.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
  - SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
  - ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
  - WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

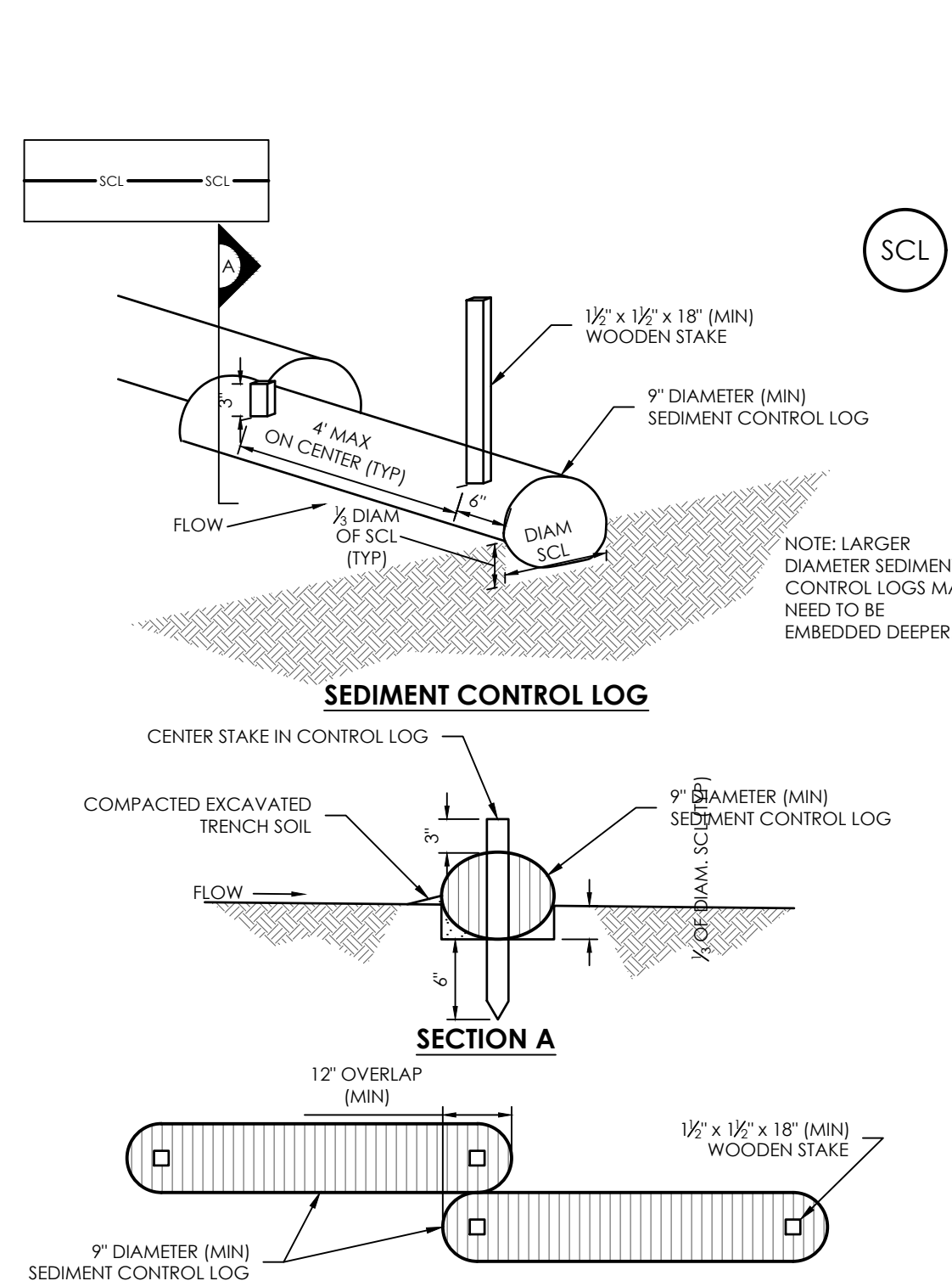
**GRADATION TABLE**

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0 - 15
3/8"	0 - 5

MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

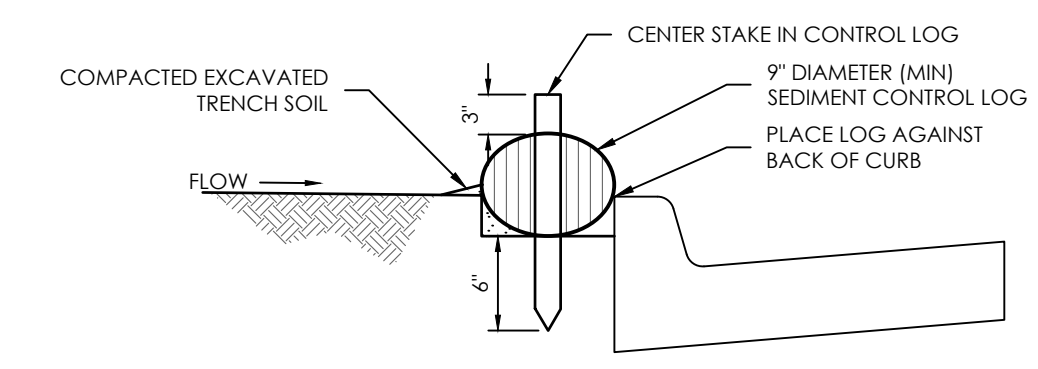




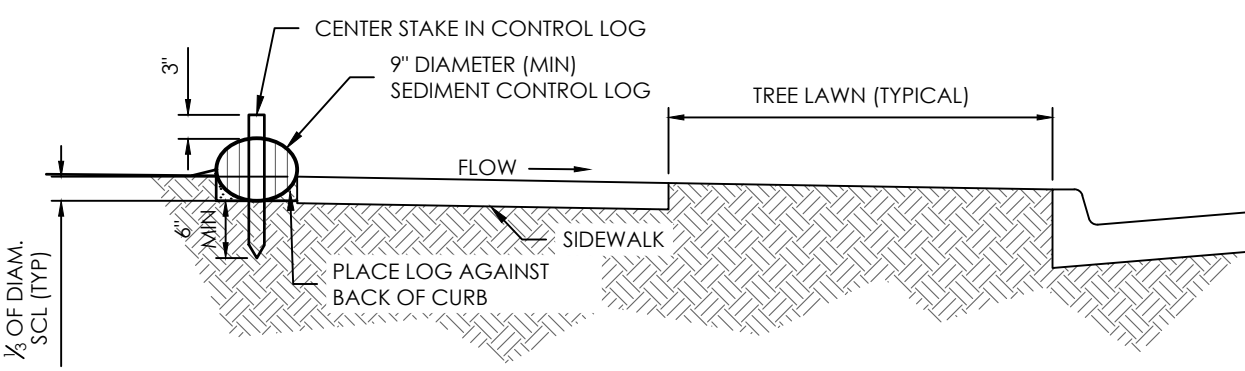
SCL-1. SEDIMENT CONTROL LOG

SEDIMENT CONTROL LOG INSTALLATION NOTES:

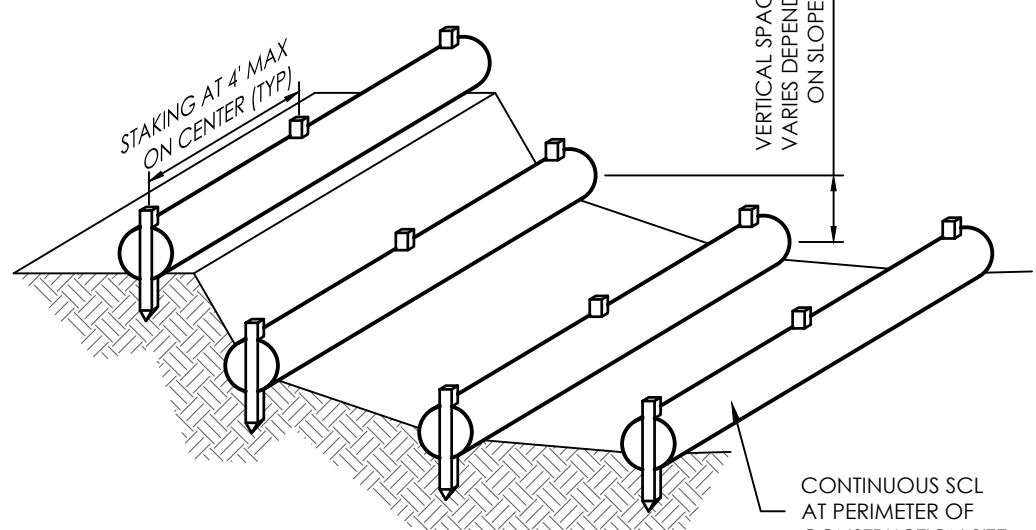
1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSDOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING.
6. THE UP-HILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3' OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.



SCL-2. SEDIMENT CONTROL LOG AT BACK OF CURB



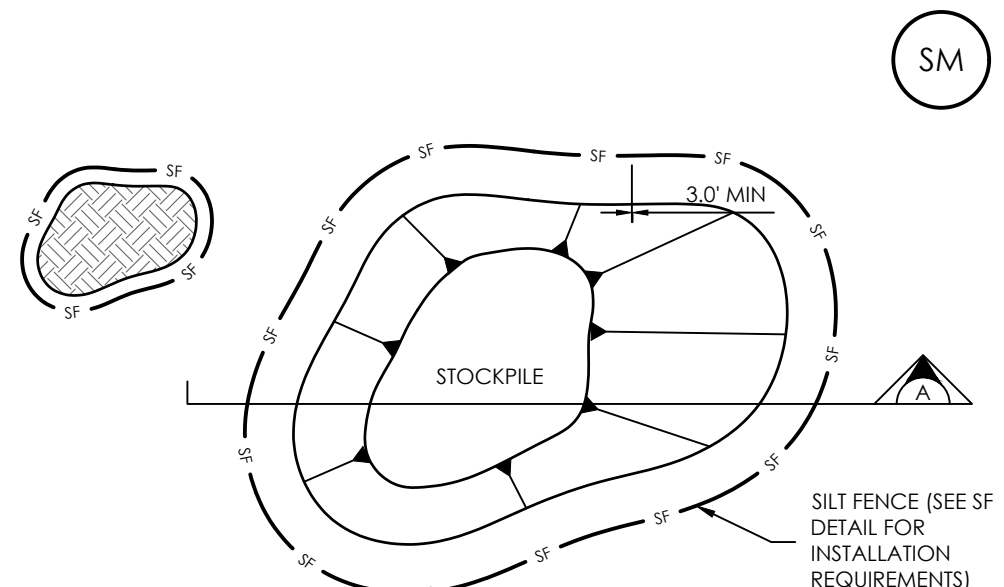
SCL-3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN



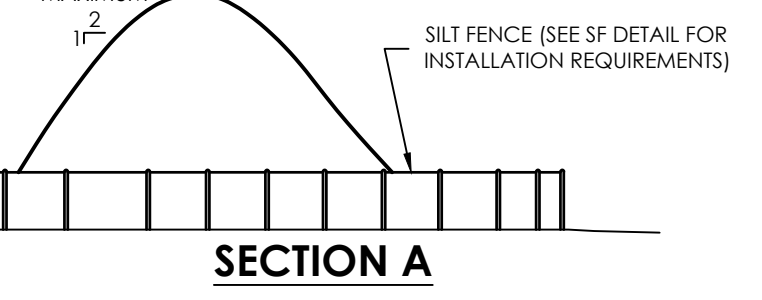
SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG MAINTENANCE NOTES:

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



SM STOCKPILE PROTECTION PLAN



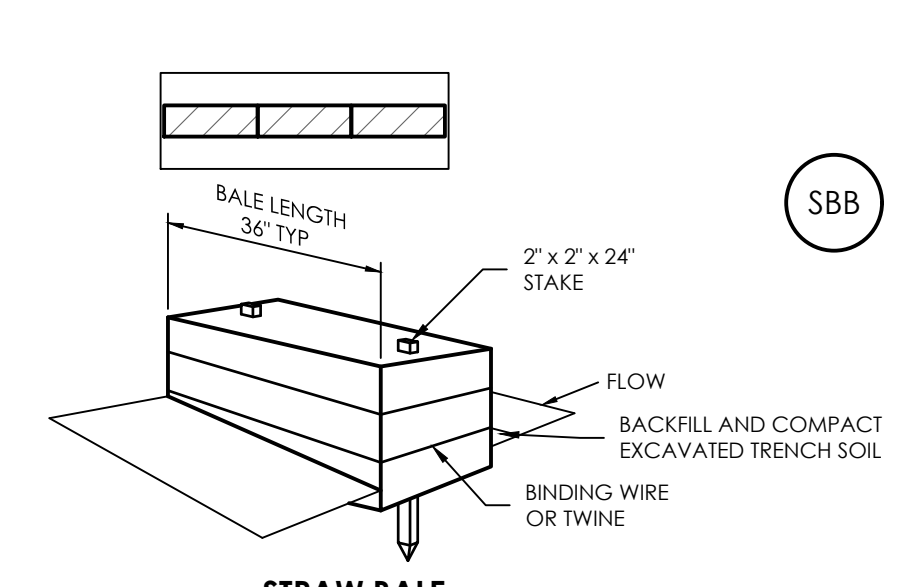
SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES:

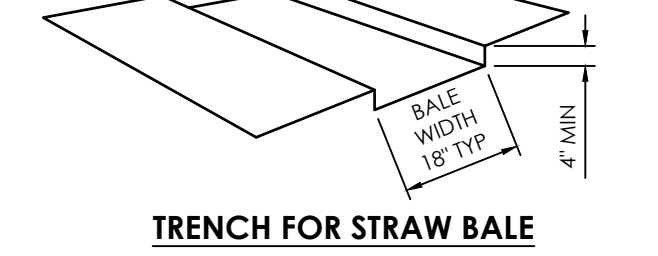
1. SEE PLAN VIEW FOR:
  - LOCATION OF STOCKPILES.
  - TYPE OF STOCKPILE PROTECTION.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADEMENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES:

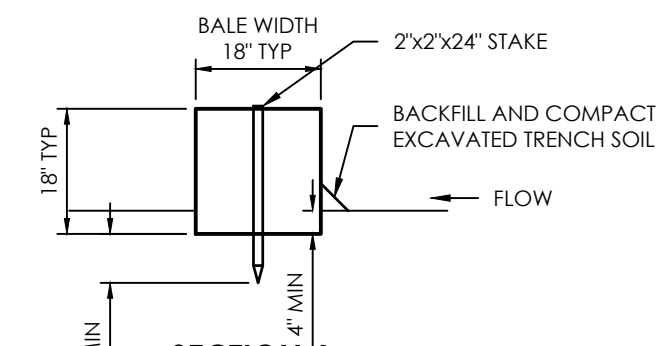
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONLY AFTER THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.



SBB STRAW BALE



TRENCH FOR STRAW BALE



SECTION A SBB - STRAW BALE BARRIER

STRAW BALE INSTALLATION NOTES:

1. SEE PLAN VIEW FOR:
  - LOCATION(S) OF STRAW BALES.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY ABUTTING ONE ANOTHER.
5. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
6. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALES. ALL EXCAVATED SOIL SHALL BE PLACED ON THE UP-HILL SIDE OF THE STRAW BALES) AND COMPACTED.
7. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

STRAW BALE 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 STRAW BALE BARRIER SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE STRAW BALE BARRIER.
5. STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
6. WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

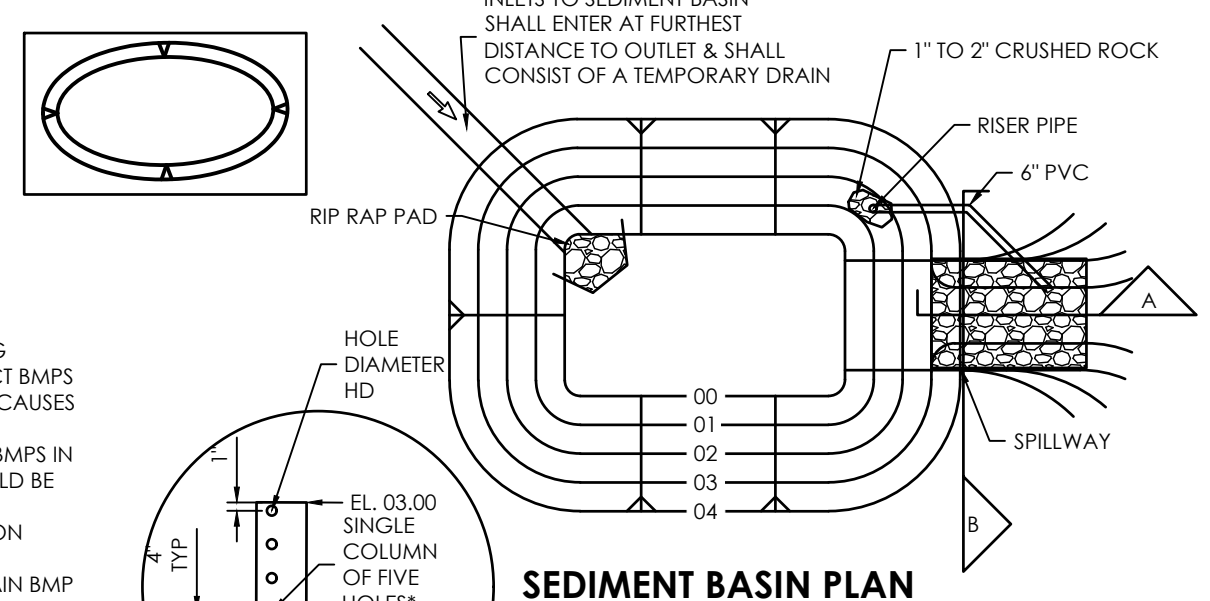
UPSTREAM DRAINAGE AREA (ROUNDED TO NEAREST ACRE), (AC)	BASIN BOTTOM WIDTH (W), (FT)	SPILLWAY CREST LENGTH (CL), (FT)	HOLE DIAMETER (HD), (IN)
1	12 1/2	2	9/32
2	21	3	13/16
3	28	5	1/2
4	33 1/2	6	9/16
5	38 1/2	8	21/32
6	43	9	21/32
7	47 1/4	11	25/32
8	51	12	27/32
9	55	13	7/8
10	58 1/4	15	15/16
11	61	16	31/32
12	64	18	1
13	67 1/2	19	1 1/16
14	70 1/2	21	1 1/8
15	73 1/4	22	1 3/16

SEDIMENT BASIN MAINTENANCE NOTES:

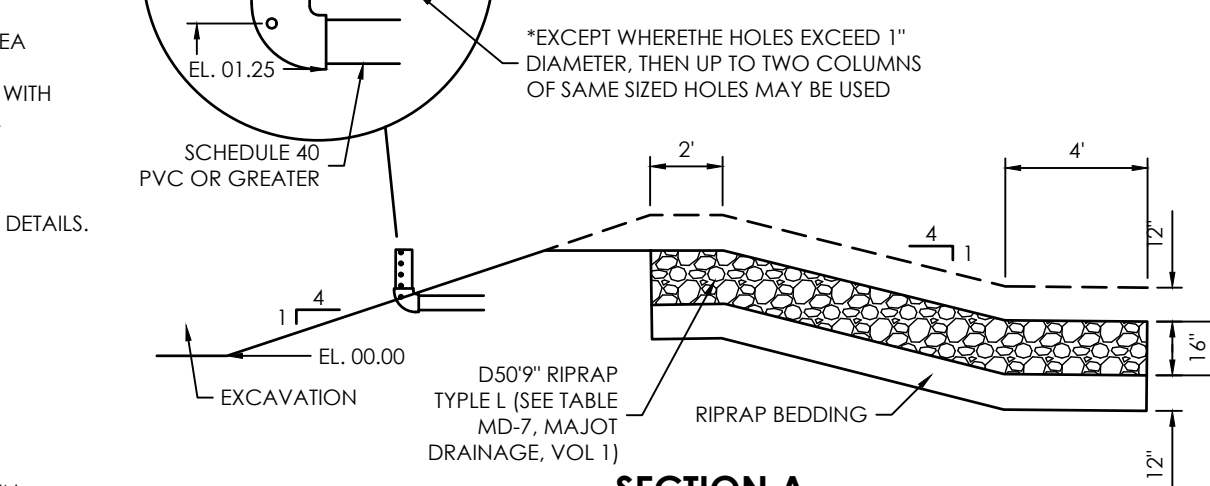
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS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

SEDIMENT BASIN INSTALLATION NOTES:

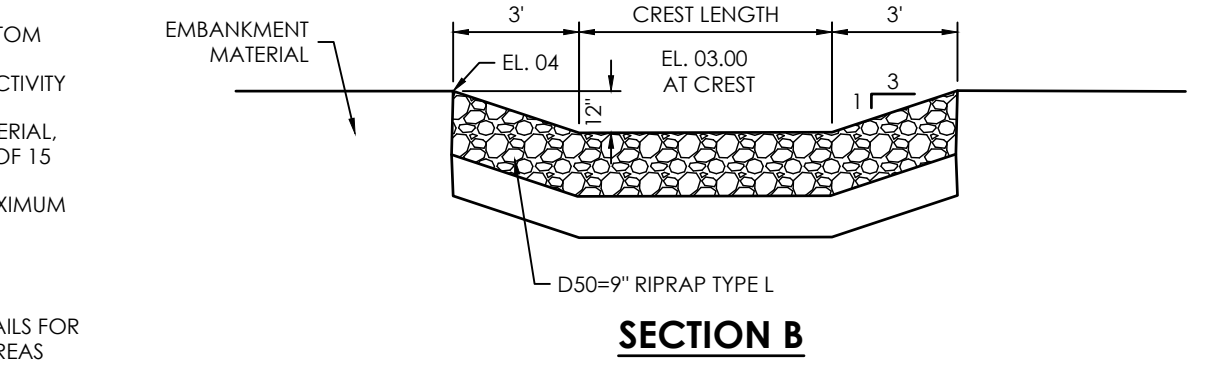
1. SEE PLAN VIEW FOR:
  - LOCATION OF SEDIMENT BASIN.
  - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
  - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
  - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS 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 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 0698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASINS) FOR DRAINAGE AREAS LESS THAN 1.5 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASINS) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 1.5 ACRES.



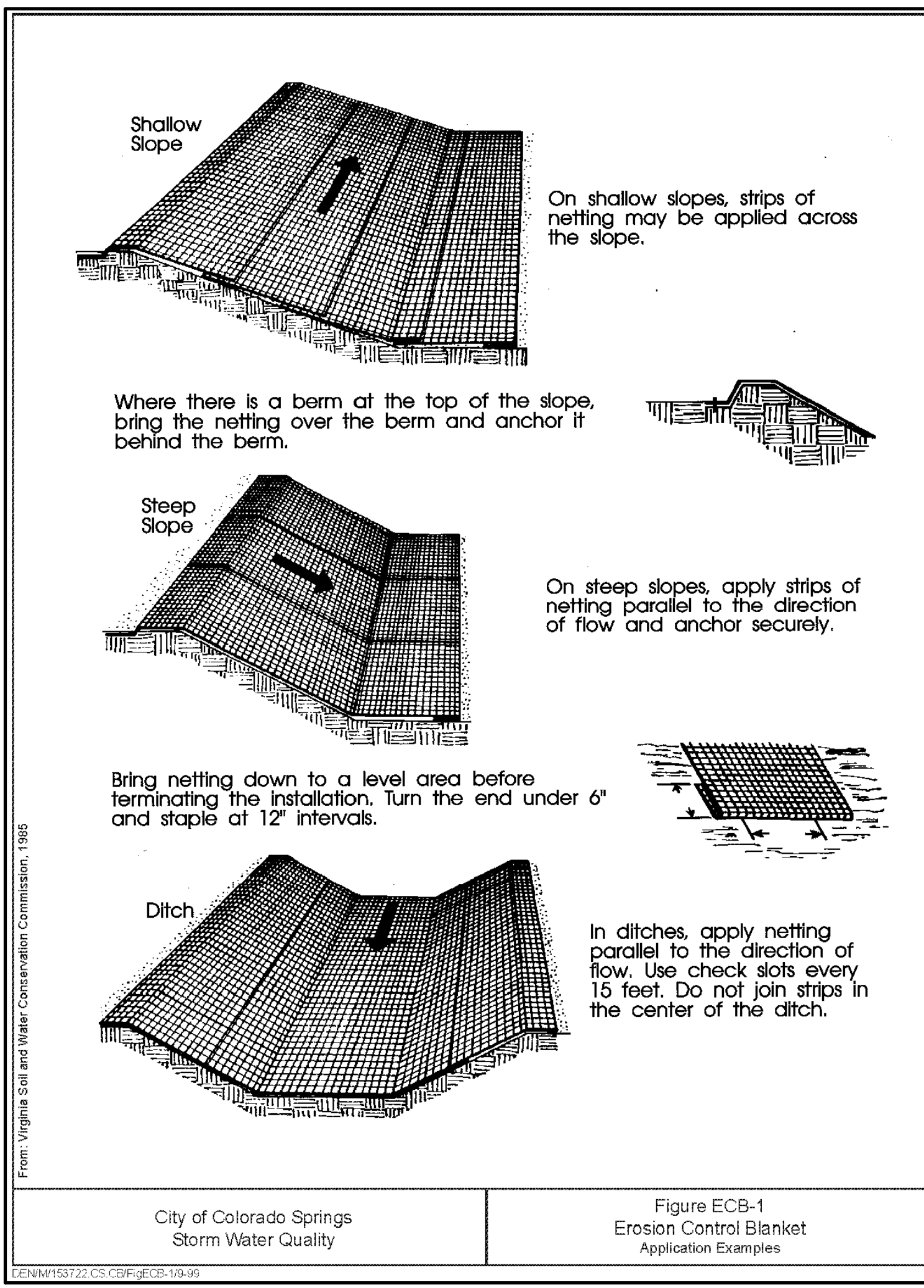
SEDIMENT BASIN PLAN



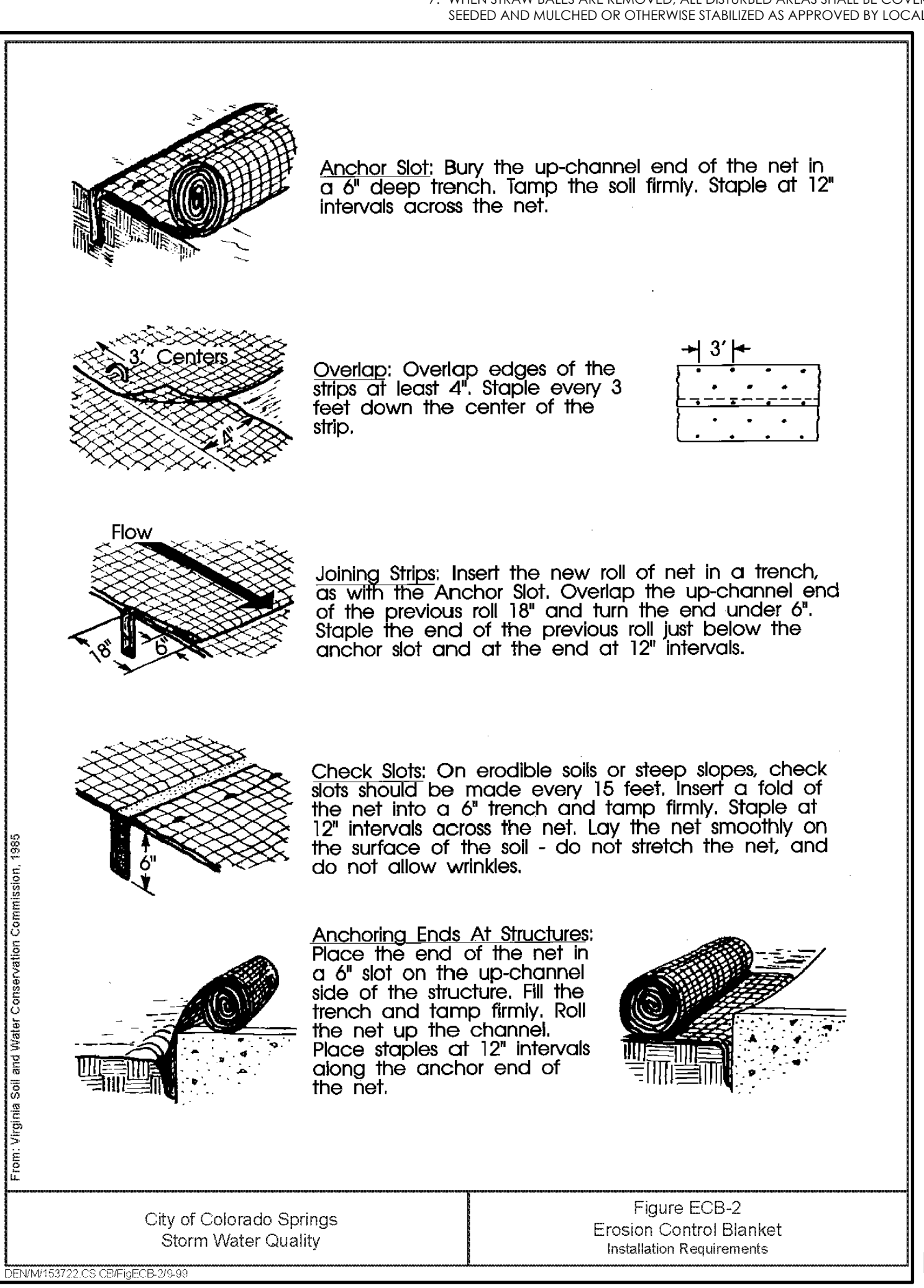
SECTION A



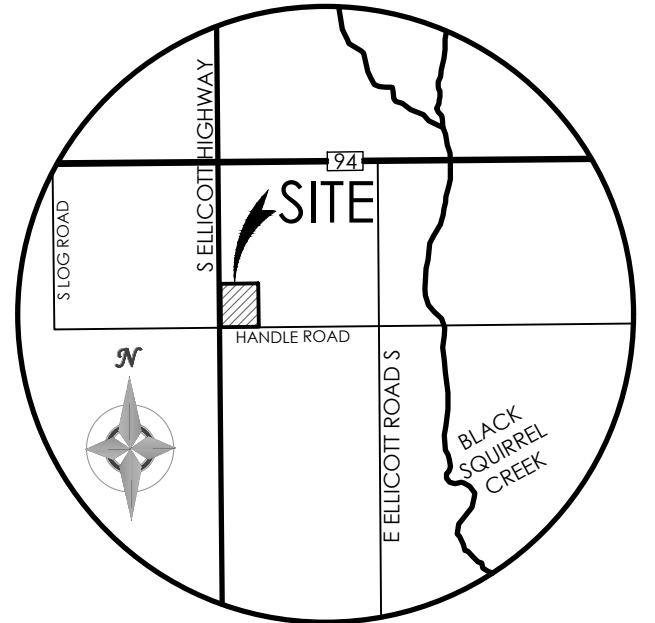
SECTION B



City of Colorado Springs Storm Water Quality Figure ECB-1 Erosion Control Blanket Application Examples

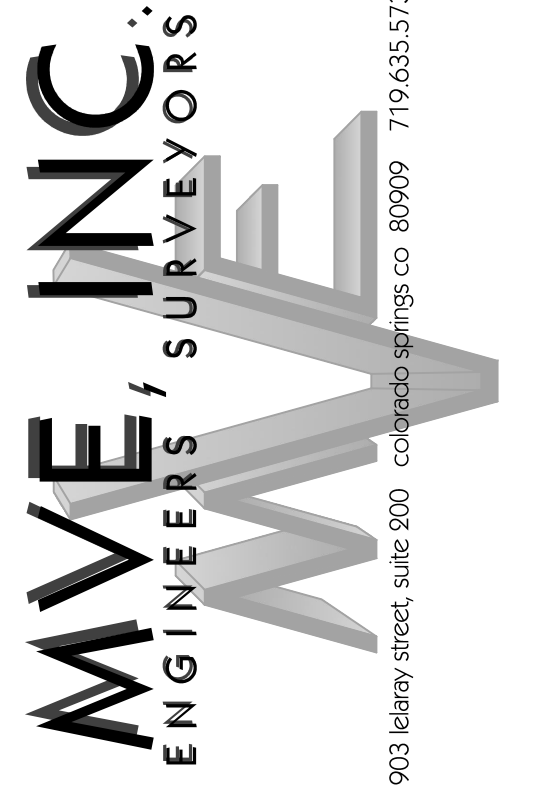


City of Colorado Springs Storm Water Quality Figure ECB-2 Erosion Control Blanket Installation Requirements



VICINITY MAP NOT TO SCALE

BENCHMARK



REVISIONS

DESIGNED BY  
DRAWN BY  
CHECKED BY  
AS-BUILTS BY  
CHECKED BY

ELLICOTT SCHOOL ADDITION 2 BLDGS

GRADING & EROSION CONTROL PLAN EROSION DETAILS 2

C1.7 MVE PROJECT 61183 MVE DRAWING GEC-ED2

NOVEMBER 28, 2022 SHEET 7 OF 7

PCD FILE # PPR-22-050