A TRACT OF LAND BEING A PORTION THE SOUTHEAST QUARTER OF SECTION 21. A PORTION OF THE SOUTHWEST QUARTER OF SECTION 22. A PORTION OF THE NORTHWEST QUARTER OF SECTION 27 AND A PORTION OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING DESCRIBED AS FOLLOWS:

THE EAST LINE OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6^{1H} PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MONUMENTED AT THE SOUTHERLY END BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED ACCORDINGLY, "PLS 30087," AND BEING MONUMENTED AT THE NORTHERLY END BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED ACCORDINGLY, "PLS 30087," BEING ASSUMED TO BEAR N00°52'26"W, A DISTANCE OF 5,290.17 FEET.

COMMENCING AT THE NORTHWEST CORNER OF SECTION 27, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 61H PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO; THENCE N89°38'06"E A DISTANCE OF 602.59 FEET TO THE POINT OF BEGINNING; THENCE S32°03'23"E A DISTANCE OF 447.39 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 07°12'46", A RADIUS OF 1,300.00 FEET A DISTANCE OF 163.65 FEET TO A POINT ON CURVE; THENCE S45°55'49"W A DISTANCE OF 1,166.50 FEET; THENCE N89°47'08"W A DISTANCE OF 88.92 FEET TO THE SOUTHEAST CORNER OF THE NORTH HALF OF THE NORTH HALF OF SECTION 28; THENCE N89°47'08"W, ON THE SOUTH LINE OF THE NORTH HALF OF THE NORTH HALF OF SAID SECTION 28, A DISTANCE OF 1,127.53 FEET; THENCE N00°12'52"E; A DISTANCE OF 11.41 FEET; THENCE N89°44'32"W A DISTANCE OF 289.10 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 61°56'07", A RADIUS OF 290.00 FEET A DISTANCE OF 313.48 FEET TO A POINT OF TANGENT; THENCE N27°48'24"W A DISTANCE OF 779.86 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 08°00'18", A RADIUS OF 2,050.00 FEET A DISTANCE OF 286.41 FEET TO A POINT OF TANGENT; THENCE N19°48'06"W A DISTANCE OF 438.38 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 29°29'59", A RADIUS OF 950.00 FEET, A DISTANCE OF 489.12 FEET TO A POINT OF TANGENT; THENCE N49°18'05"W A DISTANCE OF 29.46 FEET; THENCE N38°44'17"E A DISTANCE OF 100.06 FEET; THENCE S53°13'21"E A DISTANCE OF 159.27 FEET; THENCE S60°22'39"E A DISTANCE OF 211.52 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS \$22°55'07"W HAVING A DELTA OF 26°23'43"E. A RADIUS OF 1.668.20 FEET A DISTANCE OF 768.52 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S46°15'00"W HAVING A DELTA OF 12°10'43", A RADIUS OF 1,363.49 FEET A DISTANCE OF 289.82 FEET TO A POINT ON CURVE; THENCE S31°44'28"E A DISTANCE OF 23.97 FEET; THENCE N65°27'05"E A

DISTANCE OF 122.04 FEET; THENCE S72°44'18"E A DISTANCE OF 15.00 FEET1 28.4 TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE OT THE RIGHT WHOSE CENTER BEARS S72°44'18"E HAVING A DELTA OF 76°32'04", A RADIUS OF 60.00 FEET A; DISTANCE OF 80.15 FEET TO A POINT ON CURVE; THENCE N28°43'11"E A DISTANCE OF 325.08 FEET; THENCE N14°14'45"W A DISTANCE OF 65.01 FEET; THENCE N54°32'52"W A DISTANCE OF 5.87 FEET; THENCE N06°45'50"W A DISTANCE OF 66.21 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 29°56'47", A RADIUS OF 142.50 FEET A DISTANCE OF 74.48 FEET TO A POINT OF TANGENT; THENCE N23°10'57"E A DISTANCE OF 204.59 FEET; THENCE N19°42'45"E A DISTANCE OF 111.00 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE WHOSE CENTER BEARS N19°42'45"E HAVING A DELTA OF 22°06'06", A RADIUS OF 839.00 FEET A DISTANCE OF 323.64 FEET TO A POINT OF ON CURVE; THENCE N87°36'38"E A DISTANCE OF 202.47 FEET TO A POINT OF CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 28°38"49", A RADIUS OF 1,306.00 FEET A DISTANCE OF 652.98 FEET TO A POINT ON CURVE; THENCE N76°41'58"E A DISTANCE OF 55.78 FEET; THENCE S58°18'02"E A DISTANCE OF 185.25 FEET; THENCE S13°18'02"E A DISTANCE OF 76.12 FEET; THENCE S30°22'37"W A DISTANCE OF 119.64 FEET TO A POINT ON CURVE; THENCE ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS \$30°22'37"W A DELTA OF 27°34'01", A RADIUS OF 700.00 FEET A DISTANCE OF 336.79 FEET TO A POINT OF TANGENT; THENCE S32°03'23"E A DISTANCE OF 15.72 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 4,478,988 SQUARE FEET OR 102.823 ACRES, MORE OR LESS.

FLOODPLAIN NOTES:

THIS PROPERTY IS LOCATED WITHIN A DESIGNED FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY MAP NUMBERS '08041C0556G' AND '08041C0552G' EFFECTIVE DATE 7, 2018.

THE EXISTING FLOODPLAIN BOUNDARIES WILL BE REVISED VIA A LOMR MODELING THE PROPOSED IMPROVEMENTS TO ESTABLISH FLOOD ELEVATIONS AND THEN PROCESSED THROUGH TO FEMA TO ESTABLISH ZONE AE FLOODPLAIN LIMITS. NO GRADING WILL TAKE PLACE WITHIN THE EXISTING FLOODPLAIN LIMITS UNTIL THE CLOMR HAS BEEN APPROVED.

THOSE LOTS EITHER PARTIALLY OR ENTIRELY LOCATED WITHIN THE CURRENT FLOODPLAIN SHALL NOT BE PLATTED UNTIL THE FLOODPLAIN BOUNDARY REVISION PROCESS IS COMPLETED EFFECTIVELY REMOVING THE FLOODPLAIN LIMITS FROM THESE LOTS.

THE SUBMITTAL AND REVIEW OF THE FLOODPLAIN REVISION OCCUR INDEPENDENTLY OF THESE EARLY GRADING AND CONTROL PLANS AND SHALL BE APPROVED PRIOR TO THE PLATTING OF ANY LOTS CURRENTLY LOCATED WITHIN FLOODPLAIN BOUNDARIES.

NO STRUCTURES OR SOLID FENCES ARE PERMITTED WITHIN THE DESIGNATED FLOODPLAIN AREA.

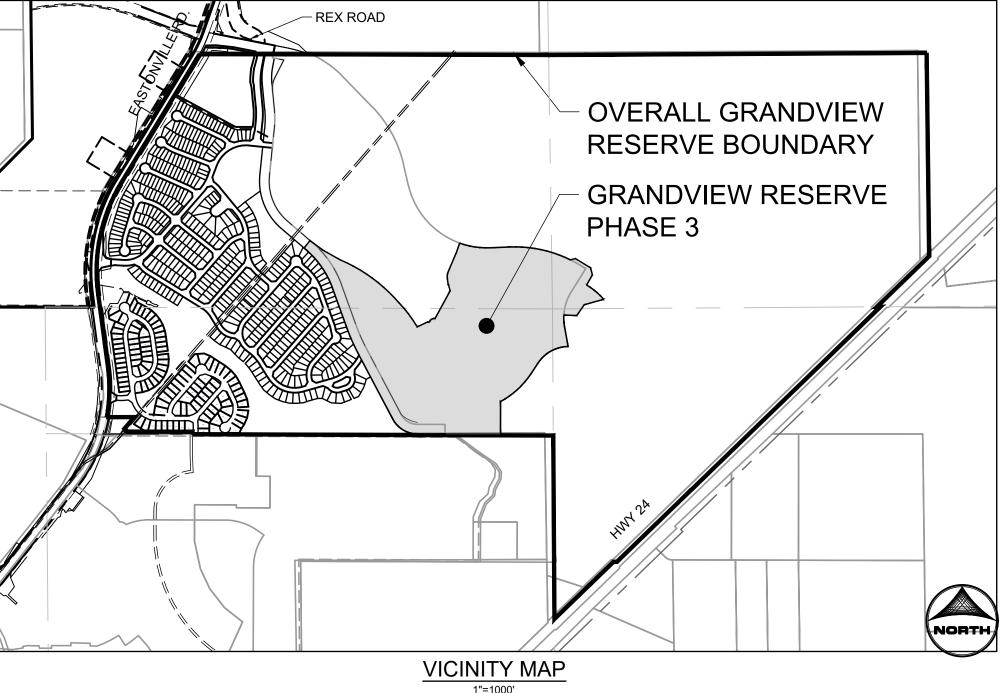
GEOTECH NOTE:

THE FOLLOWING CONCLUSIONS/RECOMMENDATIONS FROM THE SOILS REPORT ARE UTILIZED IN THE GRADING DESIGN OF THIS PLAN SET; 3:1 MAXIMUM PERMISSIBLE SLOPE, DEWATERING IS REQUIRED IF GROUNDWATER IS DISCOVERED DURING GRADING, THE PROPERTY DOES NOT FALL WITHIN A GEOLOGICAL HAZARD AREA.

DEWATERING OPERATIONS ARE TO BE AS FOLLOWS: DEWATERING OPERATIONS SHALL DISCHARGE TO TEMPORARY SEDIMENT BASINS, GROUNDWATER IS THE ONLY ALLOWABLE DISCHARGE (NO NON-STORMWATER IS TO BE DISCHARGED).

e to the project being within the Upper Black Squirrel Drainage Basin, please add the

e Upper Black Squirrel Creek (UBSC) Groundwater Management District requires that groundwater discharged to the surface or into an underdrain system must be ated back into the ground. It is the developer's responsibility to comply with the SC district requirements.



SHEET INDEX

2 - TYPICAL SECTION

3 - 9 - EARLY GRADING & EROSION CONTROL PLANS 10 - 14 - DETAILS

PROJECT CONTACTS:

9555 S. KINGSTON COURT, STE 200 ENGLEWOOD, CO 80112

DEVELOPER: D.R. HORTON ENGLEWOOD, CO 80112 PH. 303.503.4903

PLANNER/LANDSCAPE ARCHITECT: HR GREEN DEVELOPMENT. LLC 1975 RESEARCH PARKWAY, STE 230 COLORADO SPRINGS, CO 80920

CIVIL ENGINEER: HR GREEN DEVELOPMENT, LLC. COLORADO SPRINGS, CO 80920 ATTN: KEN HUHN

MELODY HOMES, INC., A DELAWARE CORPORATION.

9555 S. KINGSTON COURT

ATTN: PHIL STUEPFERT

1975 RESEARCH PARKWAY, STE 230

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

TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING 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

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

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 CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM

3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCITING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE

RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OF 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 PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR,

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

ENGINEER, AND THE EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO

ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.

COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.

REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE

9. ALL PERMANENT STORMWATER FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OF FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION

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

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OF WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL ARES DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF

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

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

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

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

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

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

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

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

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

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S) SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRED ADEQUATE SECONDARY PROTECTION TO CONTAIN AL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS.

ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES. 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT

CONTROL MEASURES. 24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND

THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS RULES OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS. 26. PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

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

28. THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY CTL THOMPSON AND SHALL BE CONSIDERED A PART OF THESE PLANS. 29. AT LEAST (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE

OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART, FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

ENGINEER'S STATEMENT

DEVELOPER'S/OWNER'S STATEMENT THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING

DEVELOPER/OWNER SIGNATURE: ______ DATE: _____ NAME OF DEVELOPER/OWNER: ______ PHONE: _____

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.

KENNETH M. HUHN. P.E. DATE KHUHN@HRGREEN.COM COLORADO P.E. 0054022

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.

JOSH PALMER, P.E. DATE COUNTY ENGINEER/ECM ADMINISTRATOR

NOT FOR CONSTRUCTION LAND USE REVIEW FILE NO: PUDSP-241

BAR IS ONE INCH ON DRAWN BY: <u>DLH</u> JOB DATE: 3/21/24 OFFICIAL DRAWINGS APPROVED: KMH JOB NUMBER: <u>201662.2</u> IF NOT ONE INCH, CAD DATE: <u>10/16/2024</u> ADJUST SCALE ACCORDINGLY CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Cover_EarlyGEC

NO. DATE BY REVISION DESCRIPTION



AND EROSION CONTROL PLAN.

HR GREEN - COLORADO SPRINGS 1975 RESEARCH PKWY SUITE 230 COLORADO SPRINGS CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

GRANDVIEW RESERVE - PHASE 3

D.R. HORTON EL PASO COUNTY, CO

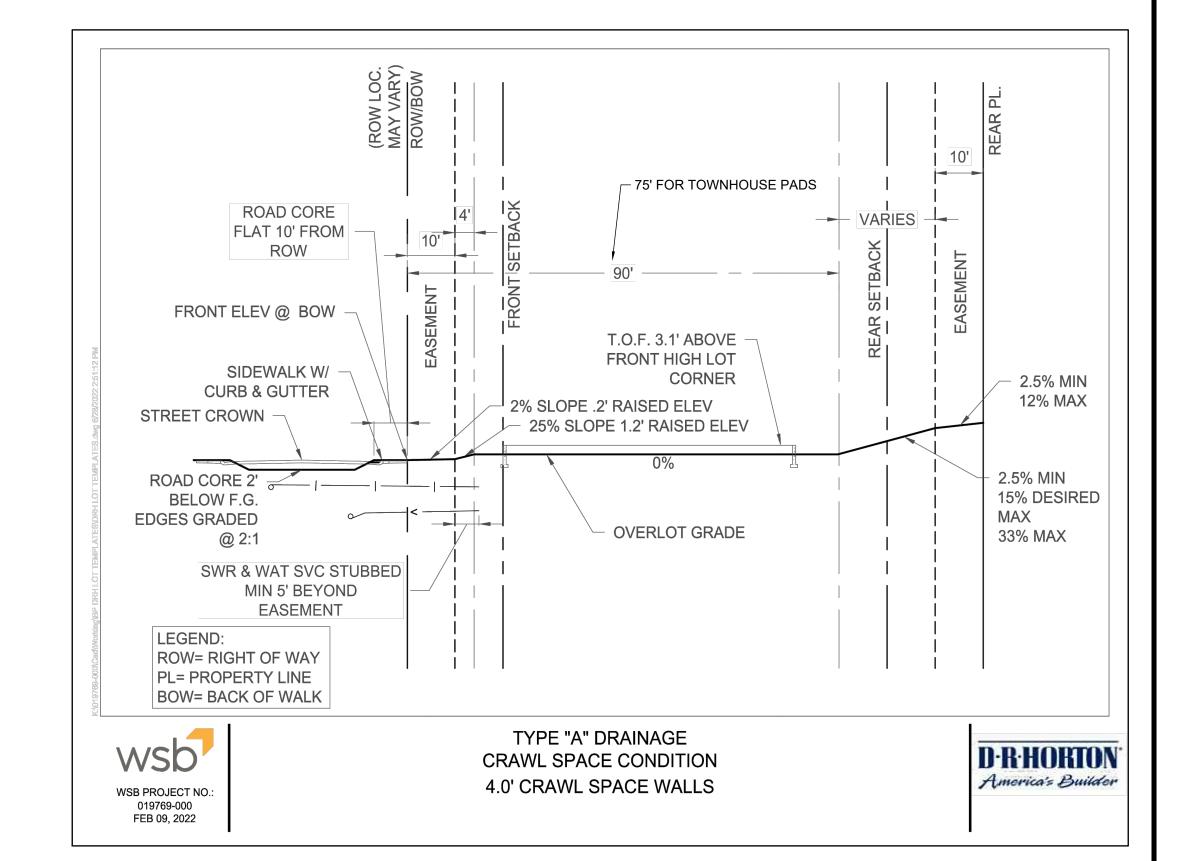


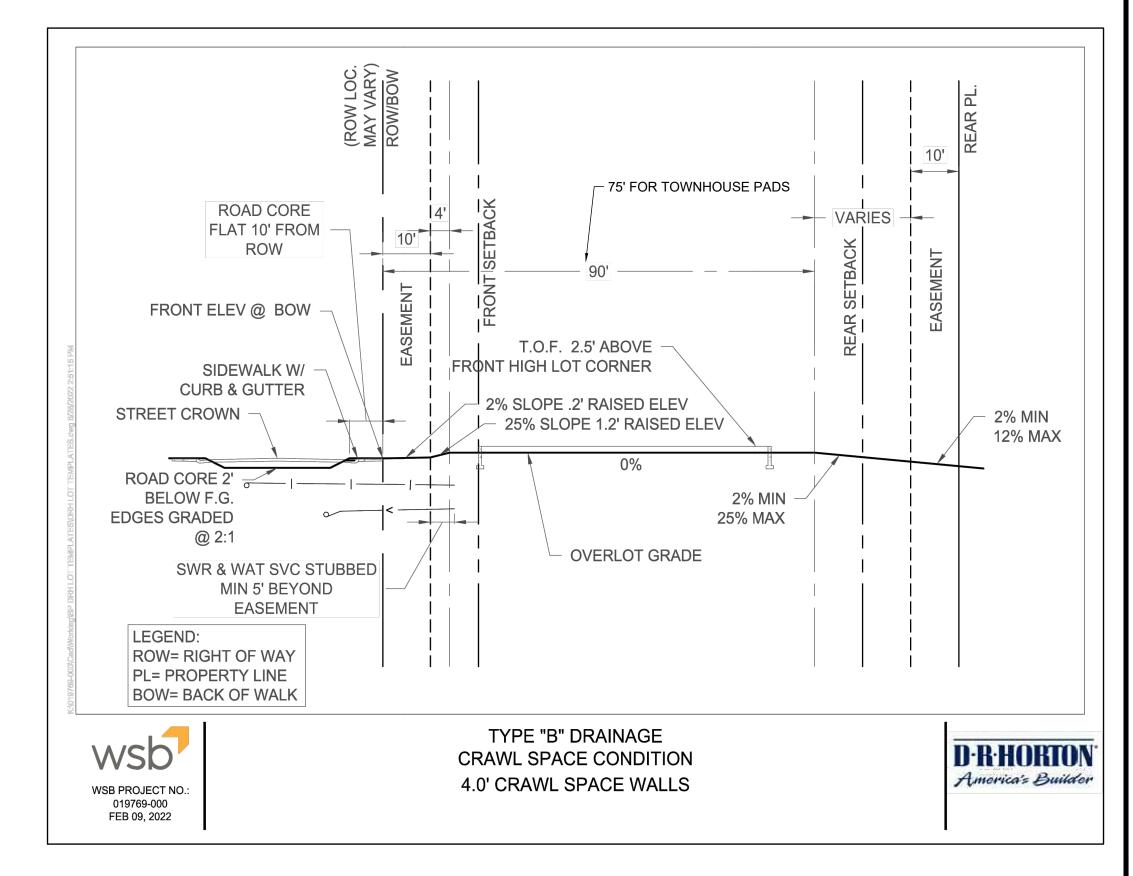
EARLY GRADING & EROSION CONTROL PLANS

COVER

SHEET

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO





NOT FOR CONSTRUCTION LAND USE REVIEW FILE NO: PUDSP-241

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NO. DATE BY REVISION DESCRIPTION

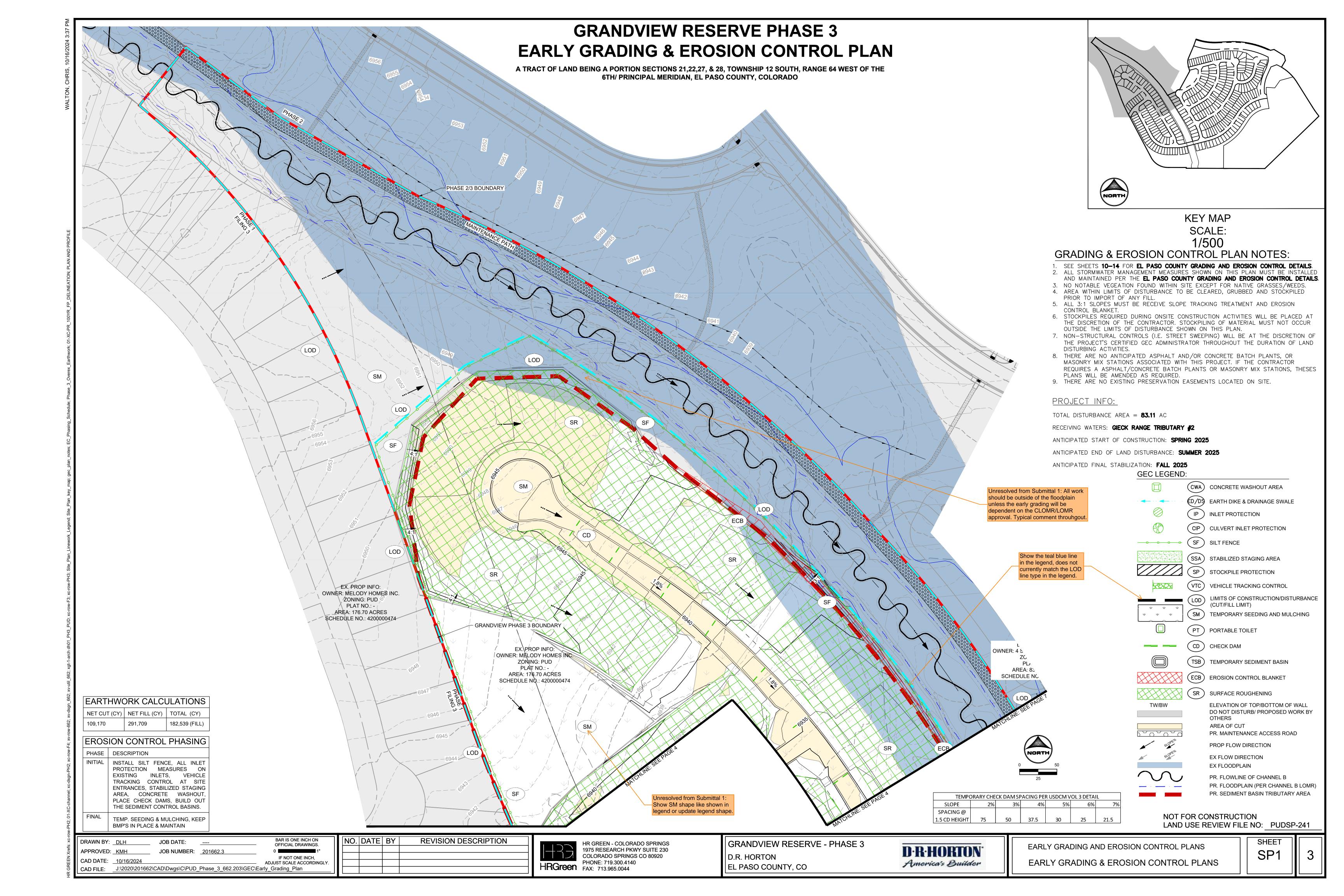


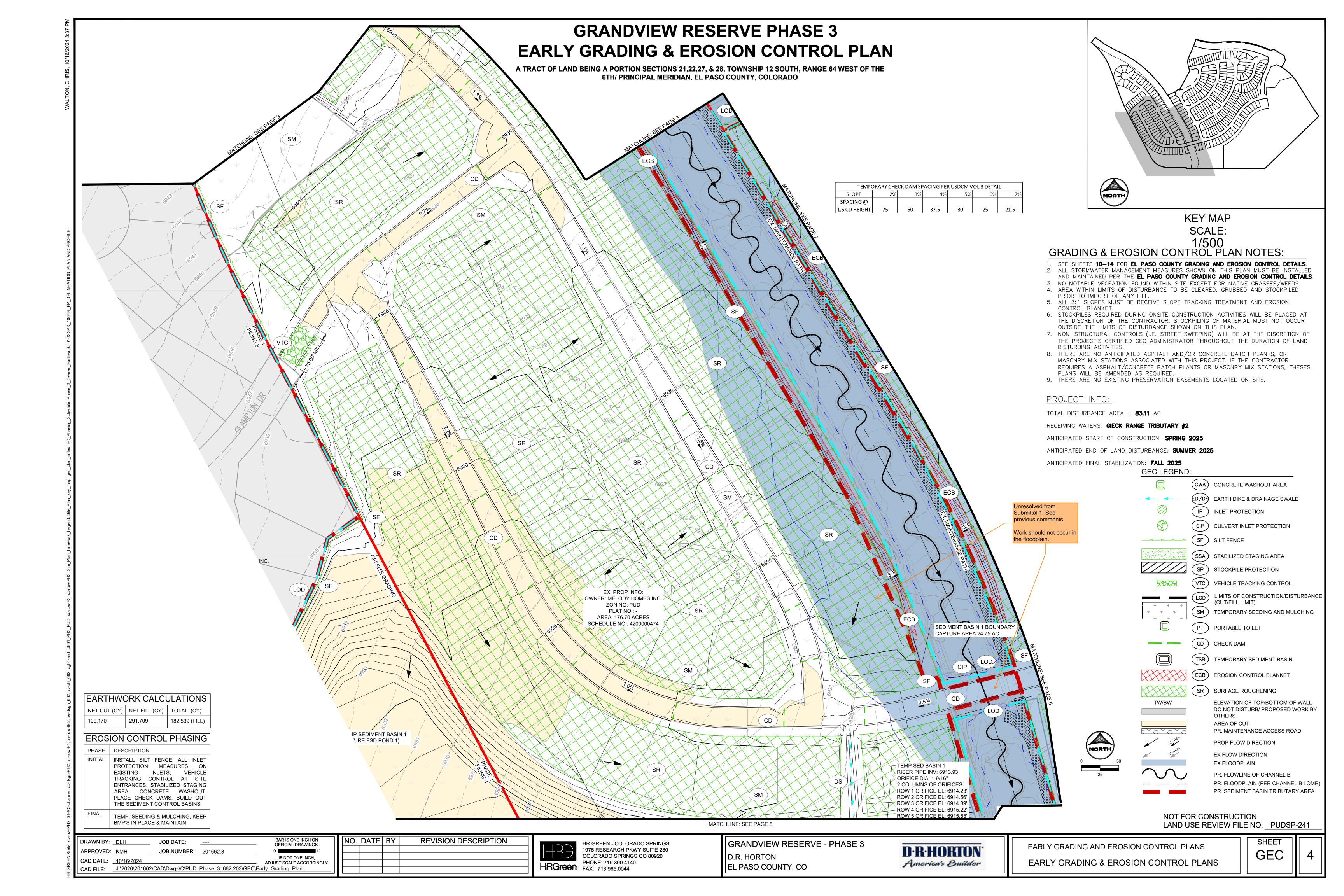
HR GREEN - COLORADO SPRINGS 1975 RESEARCH PKWY SUITE 230 COLORADO SPRINGS CO 80920 HRGreen PHONE: 719.300.4140 FAX: 713.965.0044

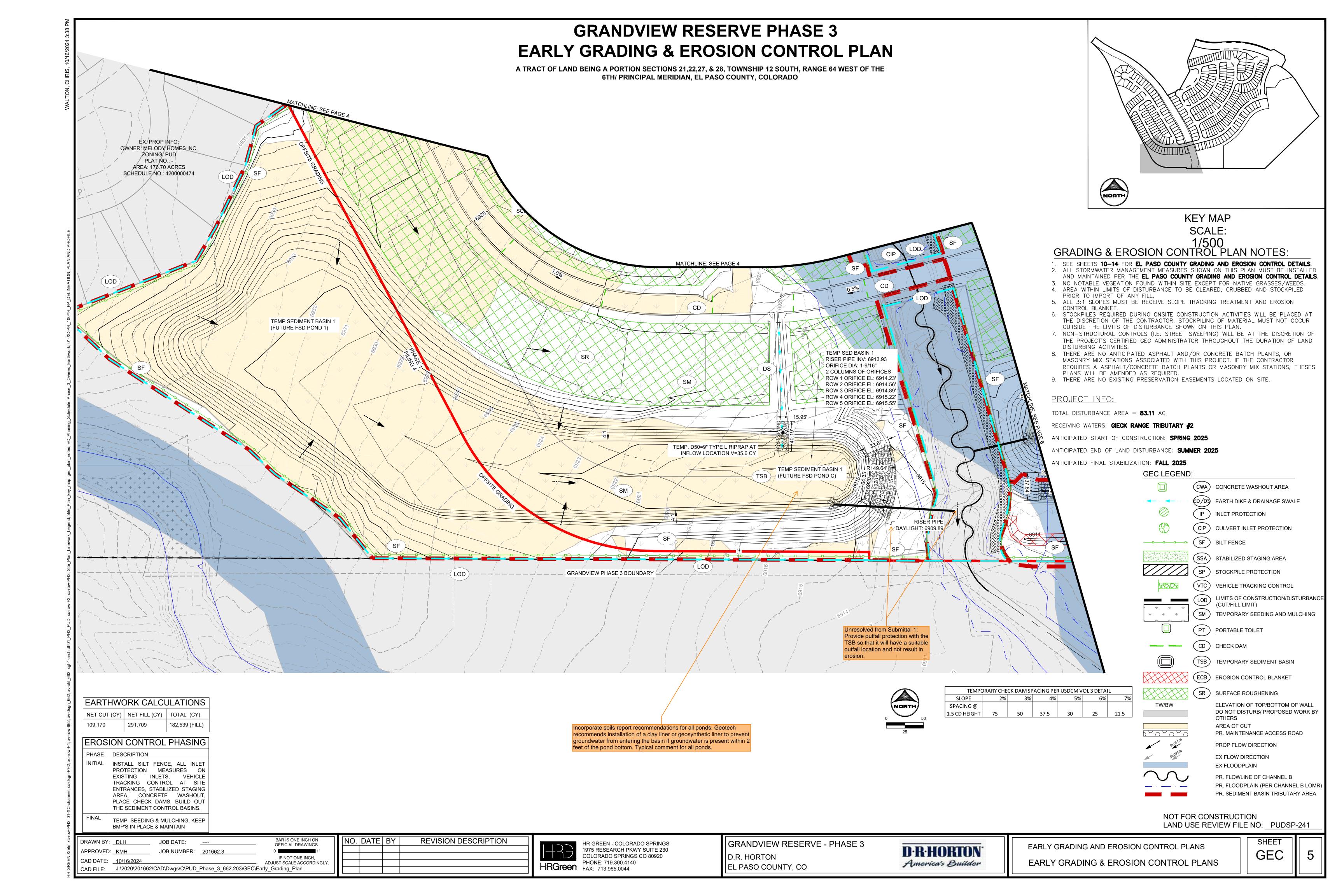
GRANDVIEW RESERVE - PHASE 3 D.R. HORTON EL PASO COUNTY, CO

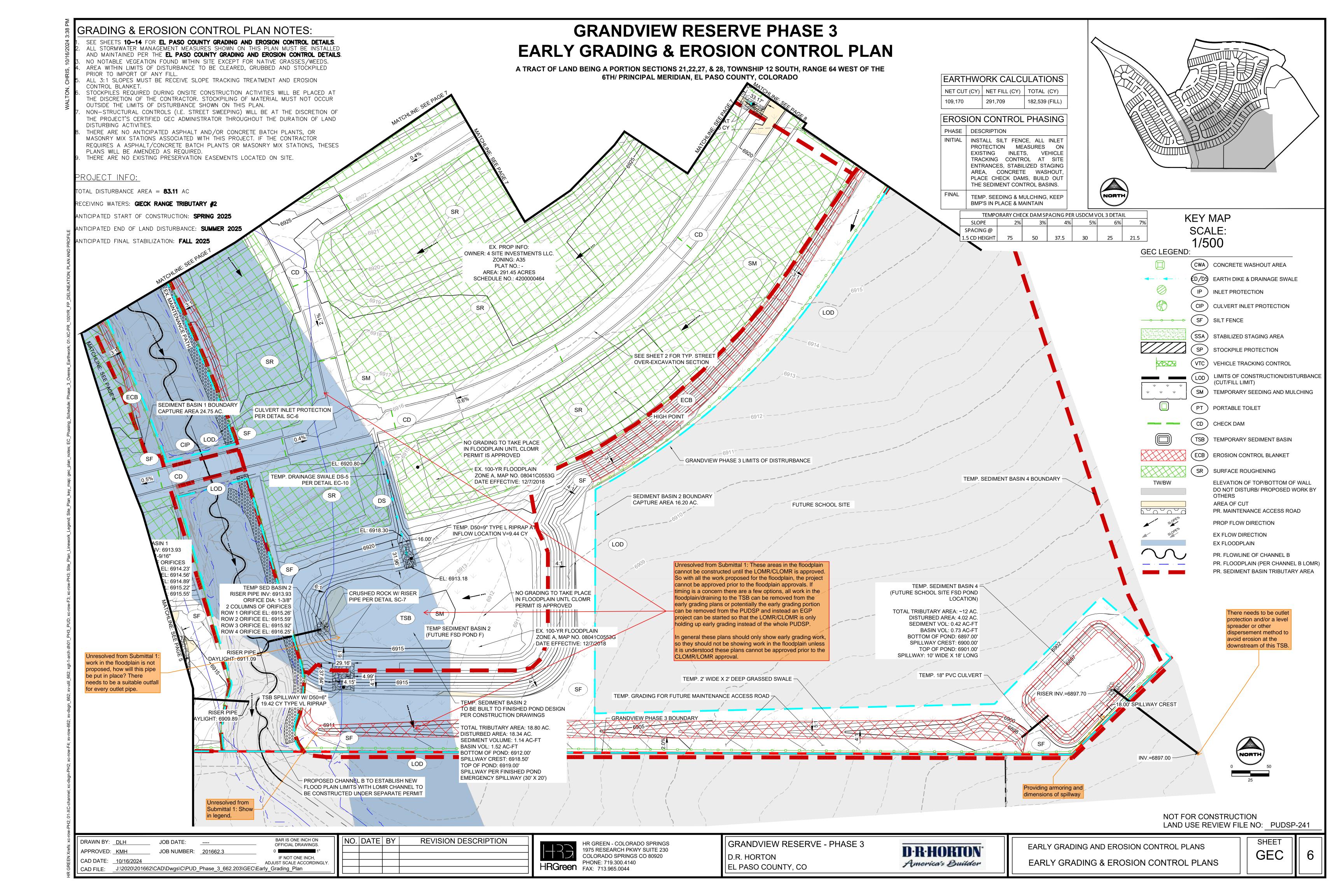
D·R·HORTON America's Builder

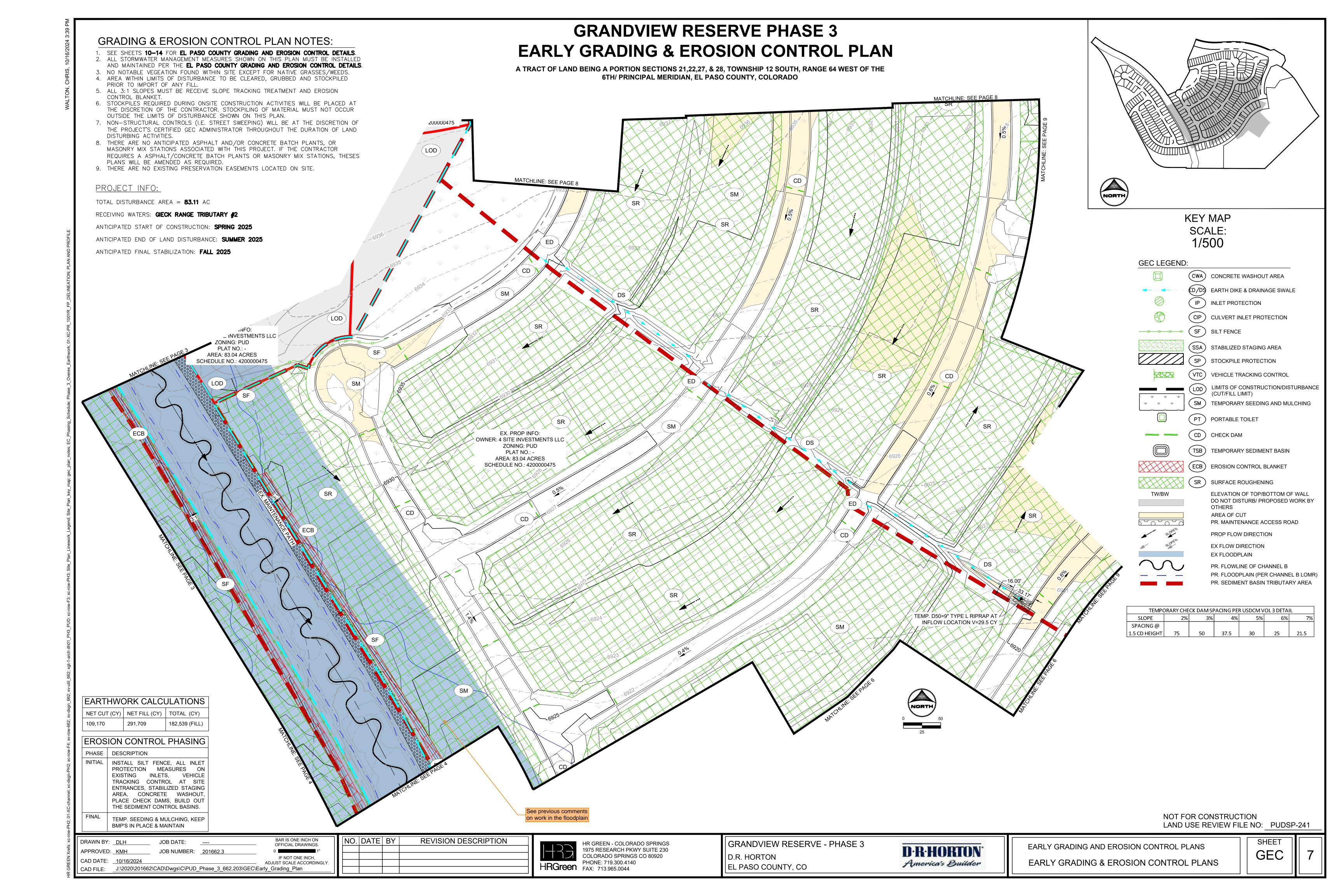
EARLY GRADING & EROSION CONTROL PLANS NOTES AND TYPICAL SECTIONS







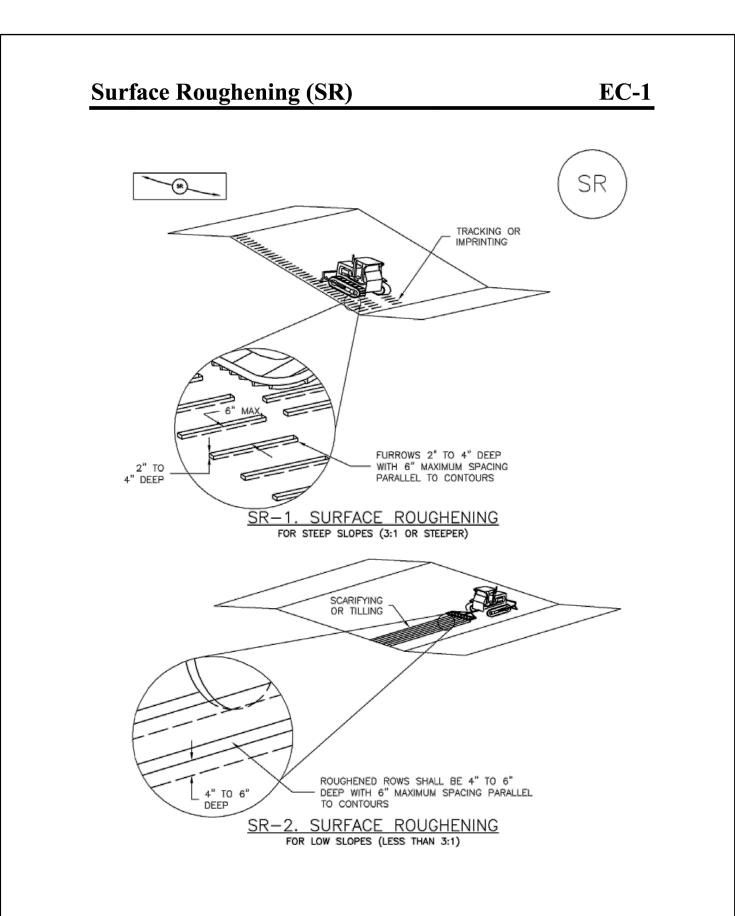




GRANDVIEW RESERVE PHASE 3 EARLY GRADING & EROSION CONTROL PLAN A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO FLOODPLAIN PER EL PASO COUNTY STUDY **KEY MAP** SCALE: FLOODPLAIN PER HR GREEN STUDY 1/500 PHASE 3 BOUNDARY GEC LEGEND: CWA CONCRETE WASHOUT AREA EARTH DIKE & DRAINAGE SWALE (IP) INLET PROTECTION GRANDVIEW PHASE 3 BOUNDARY CIP CULVERT INLET PROTECTION EX. PROP INFO: OWNER: 4 SITE INVESTMENTS LLC. SF SILT FENCE SM CD ZONING: A35 PLAT NO.: -(SSA) STABILIZED STAGING AREA AREA: 291.45 ACRES SCHEDULE NO.: 4200000464 STOCKPILE PROTECTION CD) (VTC) VEHICLE TRACKING CONTROL EX. PROP INFO: LIMITS OF CONSTRUCTION/DISTURBANCE OWNER: 4 SITE INVESTMENTS LLC. (CUT/FILL LIMIT) ZONING: A35 TEMPORARY SEEDING AND MULCHING AREA: 291.45 ACRES SCHEDULE NO.: 4200000464 PT PORTABLE TOILET SEDIMENT BASIN 3 BOUNDARY CD CHECK DAM CAPTURE AREA 28.71 AC. (TSB) TEMPORARY SEDIMENT BASIN EL: 6921.13 ECB EROSION CONTROL BLANKET EX. PROP INFO: OWNER: 4 SITE INVESTMENTS LLC. SEE SHEET 2 FOR TYP. STREET (SR) SURFACE ROUGHENING OVER-EXCAVATION SECTION ZONING: A35 PLAT NO.: -**ELEVATION OF TOP/BOTTOM OF WALL** AREA: 291.45 ACRES SR DO NOT DISTURB/ PROPOSED WORK BY SCHEDULE NO.: 4200000464 OTHERS CD AREA OF CUT PR. MAINTENANCE ACCESS ROAD PROP FLOW DIRECTION EX FLOW DIRECTION CD EX FLOODPLAIN PR. FLOWLINE OF CHANNEL B PR. FLOODPLAIN (PER CHANNEL B LOMR) PR. SEDIMENT BASIN TRIBUTARY AREA CD EX. PROP INFO: **)WNER: MELODY HOMES INC GRADING & EROSION CONTROL PLAN NOTES:** ZONING: PUD PLAT NO.: -AREA: 83.04 ACRES SEE SHEETS 10-14 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS. 3CHEDULE NO.: 4200000475 2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE **EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS**. 3. NO NOTABLE VEGEATION FOUND WITHIN SITE EXCEPT FOR NATIVE GRASSES/WEEDS. 4. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL. (CWA) ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN. MATCHLINE: SEE PAGE 7 7. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES. EARTHWORK CALCULATIONS 8. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR NET CUT (CY) | NET FILL (CY) | TOTAL (CY) REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES 182,539 (FILL) PLANS WILL BE AMENDED AS REQUIRED. 9. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE. EROSION CONTROL PHASING PROJECT INFO: CD PHASE DESCRIPTION INITIAL | INSTALL SILT FENCE, ALL INLET TOTAL DISTURBANCE AREA = **83.11** AC PROTECTION MEASURES ON EXISTING INLETS, VEHICLE RECEIVING WATERS: GIECK RANGE TRIBUTARY #2 TRACKING CONTROL AT SITE ENTRANCES, STABILIZED STAGING ANTICIPATED START OF CONSTRUCTION: SPRING 2025 AREA, CONCRETE WASHOUT, TEMPORARY CHECK DAM SPACING PER USDCM VOL 3 DETAIL PLACE CHECK DAMS, BUILD OUT ANTICIPATED END OF LAND DISTURBANCE: SUMMER 2025 SLOPE 4% THE SEDIMENT CONTROL BASINS. ANTICIPATED FINAL STABILIZATION: FALL 2025 NOT FOR CONSTRUCTION TEMP. SEEDING & MULCHING, KEEP 50 37.5 1.5 CD HEIGHT LAND USE REVIEW FILE NO: PUDSP-241 BMP'S IN PLACE & MAINTAIN NO. DATE BY REVISION DESCRIPTION DRAWN BY: <u>DLH</u> JOB DATE: SHEET GRANDVIEW RESERVE - PHASE 3 HR GREEN - COLORADO SPRINGS OFFICIAL DRAWINGS. EARLY GRADING AND EROSION CONTROL PLANS D·R·HORTON 1975 RESEARCH PKWY SUITE 230 APPROVED: KMH JOB NUMBER: <u>201662.3</u> GEC COLORADO SPRINGS CO 80920 D.R. HORTON IF NOT ONE INCH, CAD DATE: <u>10/16/2024</u> EARLY GRADING & EROSION CONTROL PLANS PHONE: 719.300.4140 America's Builder ADJUST SCALE ACCORDINGLY HRGreen FAX: 713.965.0044 EL PASO COUNTY, CO CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_Grading_Plan

GRANDVIEW RESERVE PHASE 3 GRADING & EROSION CONTROL PLAN NOTES: SEE SHEETS 10-14 FOR **EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS**. **EARLY GRADING & EROSION CONTROL PLAN** . ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS. 5. NO NOTABLE VEGEATION FOUND WITHIN SITE EXCEPT FOR NATIVE GRASSES/WEEDS. A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 4. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL. 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO 5. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET. 6. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN. 7. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES. 8. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES PLANS WILL BE AMENDED AS REQUIRED. 9. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE. PROJECT INFO: TOTAL DISTURBANCE AREA = 83.11 AC RECEIVING WATERS: GIECK RANGE TRIBUTARY #2 **KEY MAP** ANTICIPATED START OF CONSTRUCTION: SPRING 2025 SCALE: ANTICIPATED END OF LAND DISTURBANCE: SUMMER 2025 1/500 ANTICIPATED FINAL STABILIZATION: FALL 2025 TEMPORARY CHECK DAM SPACING PER USDCM VOL 3 DETAIL GEC LEGEND: (CWA) CONCRETE WASHOUT AREA 50 37.5 1.5 CD HEIGHT 75 (ED/D) EARTH DIKE & DRAINAGE SWALE TEMP SEDIME IP) INLET PROTECTION (FUTURE FSD PC (CIP) CULVERT INLET PROTECTION SM (SF) SILT FENCE (SSA) STABILIZED STAGING AREA (SP) STOCKPILE PROTECTION EX. PROP INFO: OWNER: 4 SITE INVESTMENTS LLC. VTC) VEHICLE TRACKING CONTROL ZONING: A35 CD PLAT NO.: -(LOD) LIMITS OF CONSTRUCTION/DISTURBANCE **AREA: 291.45 ACRES** (CUT/FILL LIMIT) SCHEDULE NO.: 4200000464 (SM) TEMPORARY SEEDING AND MULCHING (PT) PORTABLE TOILET **SEDIMENT BASIN 3 BOUNDARY** CAPTURE AREA 28.71 AC. (CD) CHECK DAM TEMP. EARTH DIKE DIVERSION TEMPORARY SEDIMENT BASIN EL: 6919.18 (LOD) BERM TO BE DRIVEN AROUND (ECB) EROSION CONTROL BLANKET (SR) SURFACE ROUGHENING **ELEVATION OF TOP/BOTTOM OF WALL** TEMP. DRAINAGE SWALE DS-5 PER DETAIL EC-10 DO NOT DISTURB/ PROPOSED WORK BY OTHERS AREA OF CUT PR. MAINTENANCE ACCESS ROAD CD PROP FLOW DIRECTION EX FLOW DIRECTION PROPOSED ROUND ABOUT TO BE OVER EXCAVATED 2.00' EX FLOODPLAIN TEMP. DRAINAGE SWALE DS-5 BELOW PAVEMENT SURFACE PER DETAIL EC-10 PR. FLOWLINE OF CHANNEL B EL: 6914.42 TEMP. EARTH DIKE DIVERSION PR. FLOODPLAIN (PER CHANNEL B LOMR) BERM TO BE DRIVEN AROUND PR. SEDIMENT BASIN TRIBUTARY AREA Unresolved from Submittal TEMP. D50=9" TYPE L RIPRAP AT SEDIMENT BASIN 3 BOUNDARY + 1: Show grading for temp INFLOW LOCATION V=9.44 CY TEMP SED BASIN 3 CAPTURE AREA 28.71 AC. earth dike and berm. RISER PIPE INV: 6911.08 RISER PIPE EX. PROP INFO: ORIFICE DIA: 1-11/16" DAYLIGHT: 6905.00 OWNER: 4 SITE INVESTMENTS LLC. 2 COLUMNS OF ORIFICES **ZONING: A35** ROW 1 ORIFICE EL: 6912.41' PLAT NO.: -ROW 2 ORIFICE EL: 6912.74' 📙 AREA: 291.45 ACRES ROW 3 ORIFICE EL: 6913.07' 🚣 CRUSHED ROCK W/ RISER SCHEDULE NO.: 4200000464 ROW 4 ORIFICE EL: 6913.40' PIPE PER DETAIL SC-7 TEMP SEDIMENT BASIN 3 (FUTURE FSD POND R) **EROSION CONTROL PHASING** SM PHASE | DESCRIPTION INSTALL SILT FENCE, ALL INLET TSB) PROTECTION MEASURES ON 14.29 CY TYPE VL RIPRAP EXISTING INLETS, VEHICLE TRACKING CONTROL AT SITE ENTRANCES, STABILIZED STAGING TEMP. SEDIMENT BASIN 3 EX. PROP INFO: AREA, CONCRETE WASHOUT, TO BE RECONSTRUCTED PER FUTURE OWNER: 4 SITE INVESTMENTS LLC. PLACE CHECK DAMS, BUILD OUT POND CONSTRUCTION DRAWINGS ZONING: A35 THE SEDIMENT CONTROL BASINS. PLAT NO.: -TOTAL TRIBUTARY AREA: 28.71 AC. AREA: 291.45 ACRES TEMP. SEEDING & MULCHING, KEEP DISTURBED AREA: 28.52 AC. SCHEDULE NO.: 4200000464 BMP'S IN PLACE & MAINTAIN SEDIMENT VOLUME: 1.77 AC-FT EARTHWORK CALCULATIONS BASIN VOL: 2.37 AC-FT BOTTOM OF POND: 6909.50' NET CUT (CY) | NET FILL (CY) | TOTAL (CY) SPILLWAY CREST: 6914.00' TOP OF POND: 6914.50' 182,539 (FILL) SPILLWAY PER FINISHED POND EMERGENCY SPILLWAY (30' X 20') Verify this is a suitable outfall. There is no erosion protection and GRANDVIEW PHASE 3 LOD BOUNDARY the runoff is going from a concentrated flow location to a location that is historically sheet flow (or appears that way). Also this is showing work in the floodplain which cannot be completed until the ND USE REVIEW FILE NO: PUDSP-241 NO. DATE BY REVISION DESCRIPTION DRAWN BY: <u>DLH</u> JOB DATE: **GRANDVIEW RESERVE - PHASE 3** HR GREEN - COLORADO SPRINGS OFFICIAL DRAWINGS. EARLY GRADING AND EROSION CONTROL PLANS D·R·HORTON 1975 RESEARCH PKWY SUITE 230 JOB NUMBER: <u>201662.3</u> APPROVED: KMH **GEC** COLORADO SPRINGS CO 80920 D.R. HORTON IF NOT ONE INCH, America's Builder **EARLY GRADING & EROSION CONTROL PLANS** PHONE: 719.300.4140 HRGreen FAX: 713.965.0044 EL PASO COUNTY, CO CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_Grading_Plan

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO



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.

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

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

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

SURFACE ROUGHENING MAINTENANCE NOTES

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

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Temporary and Permanent Seeding (TS/PS)

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species ^a (Common name)	Growth Season ^b	Pounds of Pure Live Seed (PLS)/acre ^c	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	1/2
5. Millet	Warm	3 - 15	1/2 - 3/4
6. Winter wheat	Cool	20–35	1 - 2
7. Winter barley	Cool	20–35	1 - 2
8. Winter rye	Cool	20–35	1 - 2
9. Triticale	Cool	25–40	1 - 2

Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

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January 2021

Temporary and Permanent Seeding (TS/PS)

Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses

	(Numbers in	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	Warm	Cool	Warm	Cool	
January 1–March 15			✓	✓	
March 16–April 30		1,2,3	✓	✓	
May 1–May 15			✓		
May 16–June 30	5				
July 1–July 15	5				
July 16–August 31					
September 1–September 30		6, 7, 8, 9			
October 1–December 31			✓	✓	

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the USDCM Volume 2 Revegetation Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

January 2021

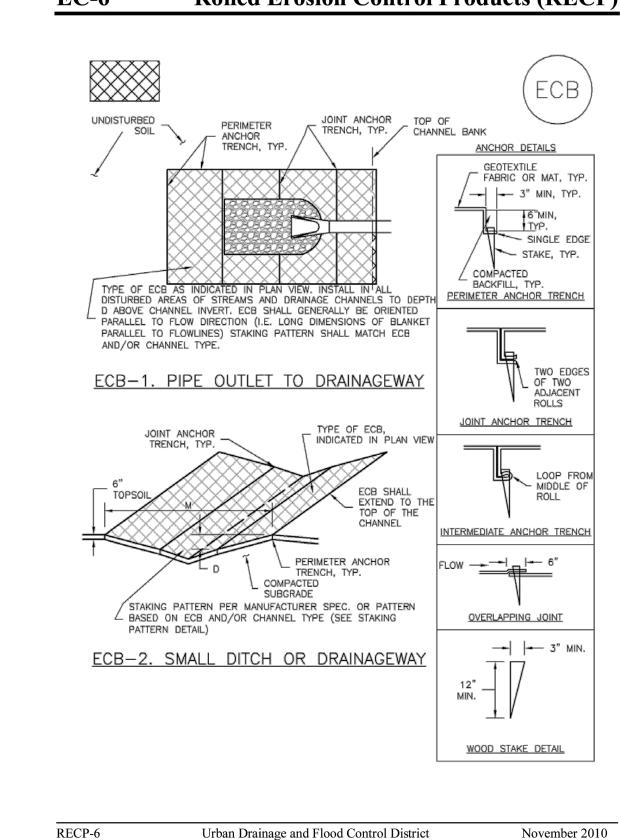
Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 TS/PS-5

Rolled Erosion Control Products (RECP)

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

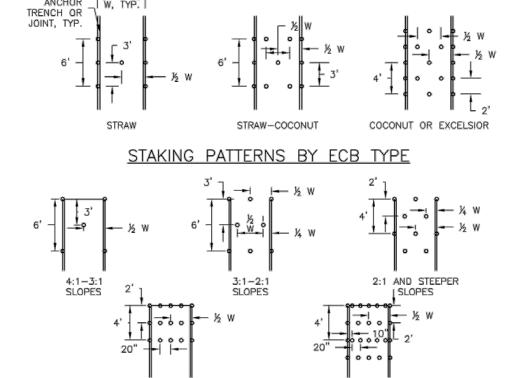
November 2010



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STAGGER OVERLAPS DIVERSION DITCH OVERLAPPING JOINT STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN TYPE (SEE STAKING PATTERN DETAIL) ECB-3. OUTSIDE OF DRAINAGEWAY

Rolled Erosion Control Products (RECP)



STAKING PATTERNS BY SLOPE OR CHANNEL TYPE

LOW FLOW CHANNEL

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HIGH FLOW CHANNEL

Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

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

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

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

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

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 DRANAGE CHANNEL. **ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS				

Urban Drainage and Flood Control District

EL PASO COUNTY, CO

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Rolled Erosion Control Products (RECP)

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

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,

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)

November 2010

DETAILS

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NOT FOR CONSTRUCTION LAND USE REVIEW FILE NO: PUDSP-24

DRAWN BY: <u>DLH</u> JOB DATE: 3/18/2024 OFFICIAL DRAWINGS. APPROVED: KMH JOB NUMBER: 201662.3 IF NOT ONE INCH, CAD DATE: 10/16/2024 ADJUST SCALE ACCORDINGLY CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_GEC_Details

NO.|DATE|BY **REVISION DESCRIPTION**



HR GREEN - COLORADO SPRINGS 1975 RESEARCH PKWY SUITE 230 COLORADO SPRINGS CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

RECP-7

November 2010

EC-6

GRANDVIEW RESERVE - PHASE 3 D.R. HORTON

D·R·HORTON America's Builder

EARLY GRADING & EROSION CONTROL PLANS

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN. EL PASO COUNTY. COLORADO

Concrete Washout Area (CWA) MM-1

CWA MAINTENANCE NOTES

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

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

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

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

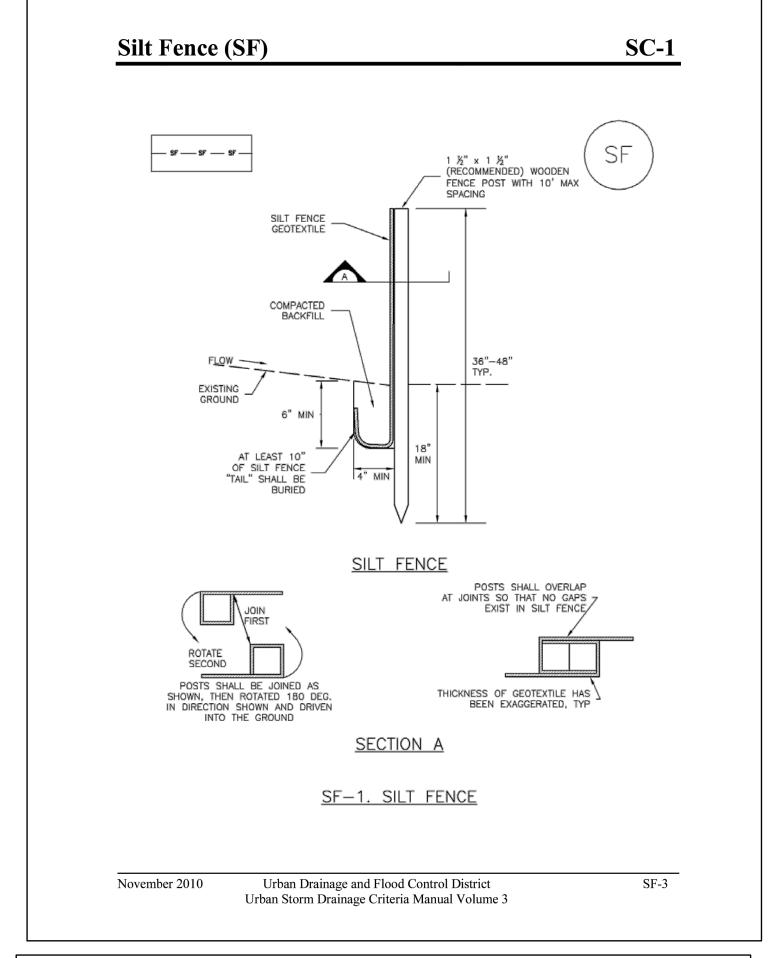
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED. 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD) NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

Urban Drainage and Flood Control District CWA-4 Urban Storm Drainage Criteria Manual Volume 3

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Stockpile Management (SP) MM-2STOCKPILE SILT FENCE (SEE SF DETAIL FOR INSTALLATION REQUIREMENTS) STOCKPILE PROTECTION PLAN SILT FENCE (SEE SF DETAIL FOR INSTALLATION REQUIREMENTS) SECTION A SP-1. STOCKPILE PROTECTION STOCKPILE PROTECTION INSTALLATION NOTES 1. SEE PLAN VIEW FOR:
-LOCATION OF STOCKPILES.
-TYPE OF STOCKPILE PROTECTION. 2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS. 3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS), USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS). 4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED. November 2010 Urban Drainage and Flood Control District SP-3 Urban Storm Drainage Criteria Manual Volume 3

MM-2 Stockpile Management (SM) STOCKPILE PROTECTION MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. STOCKPILE PROTECTION MAINTENANCE NOTES 4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY. 5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED. NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3



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

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

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.

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

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

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

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.

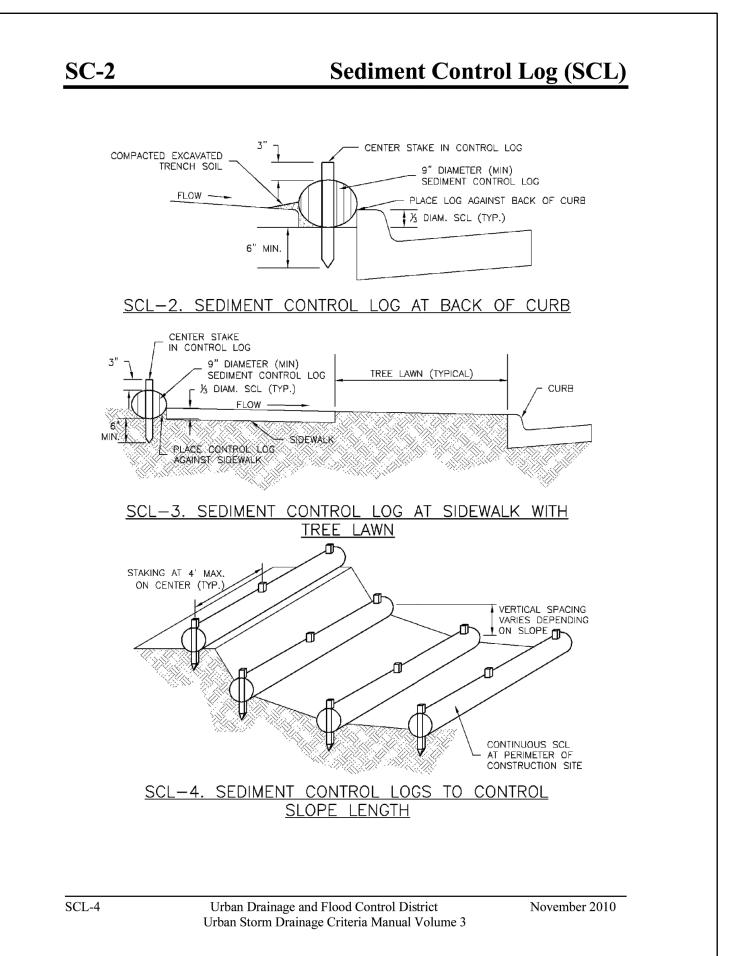
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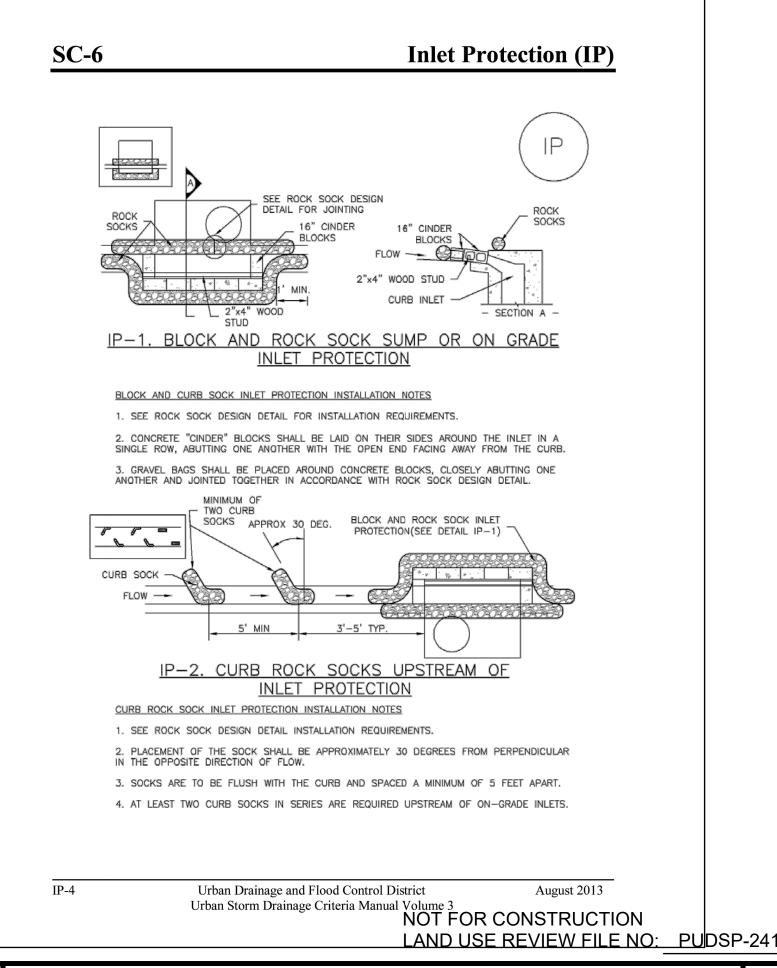
SF-4

Urban Storm Drainage Criteria Manual Volume 3

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SC-2 **Sediment Control Log (SCL)** 1½" × 1½" × 18" (MIN) WOODEN STAKE SEDIMENT CONTROL LOG CENTER (TYP.) DIAMETER SEDIMENT CONTROL LOGS MAY NEED TO BE EMBEDDED DEEPER. SEDIMENT CONTROL LOG - CENTER STAKE IN CONTROL LOG COMPACTED EXCAVATED " DIAMETER (MIN) TRENCH SOIL SEDIMENT CONTROL LOG · ½ DIAM. SCL (TYP.) SECTION A 12" OVERLAP -WOODEN STAKE 9" DIAMETER (MIN) <u>SEDIMENT CONTROL LOG JOINTS</u> SCL-1. SEDIMENT CONTROL LOG November 2010 Urban Drainage and Flood Control District SCL-3 Urban Storm Drainage Criteria Manual Volume 3





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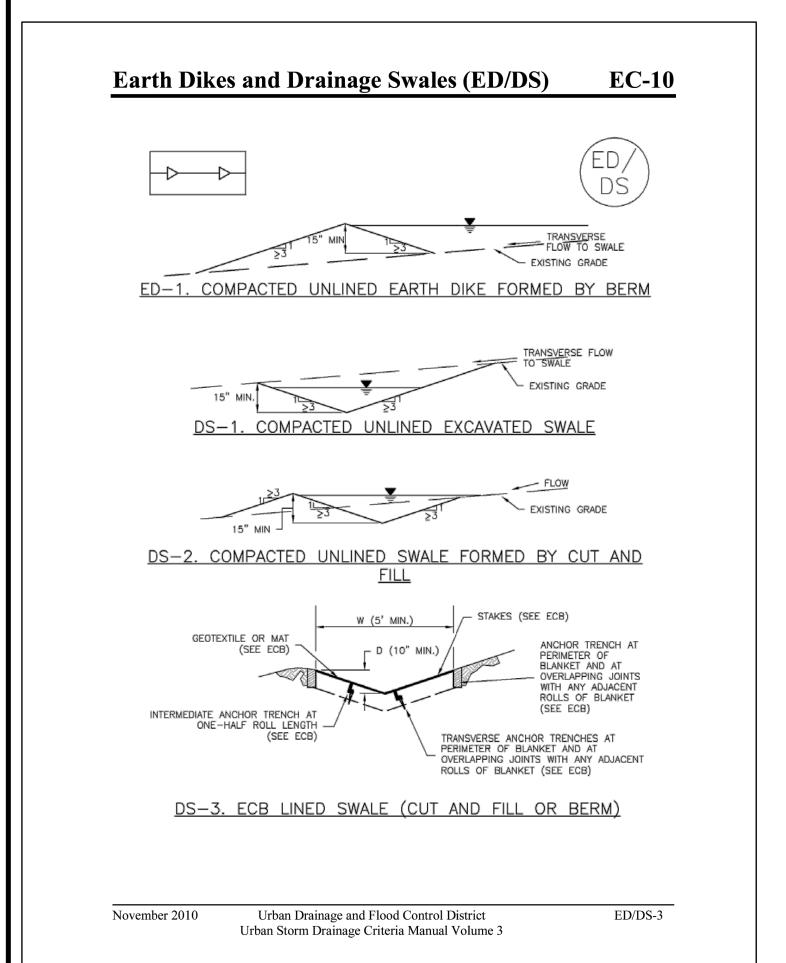
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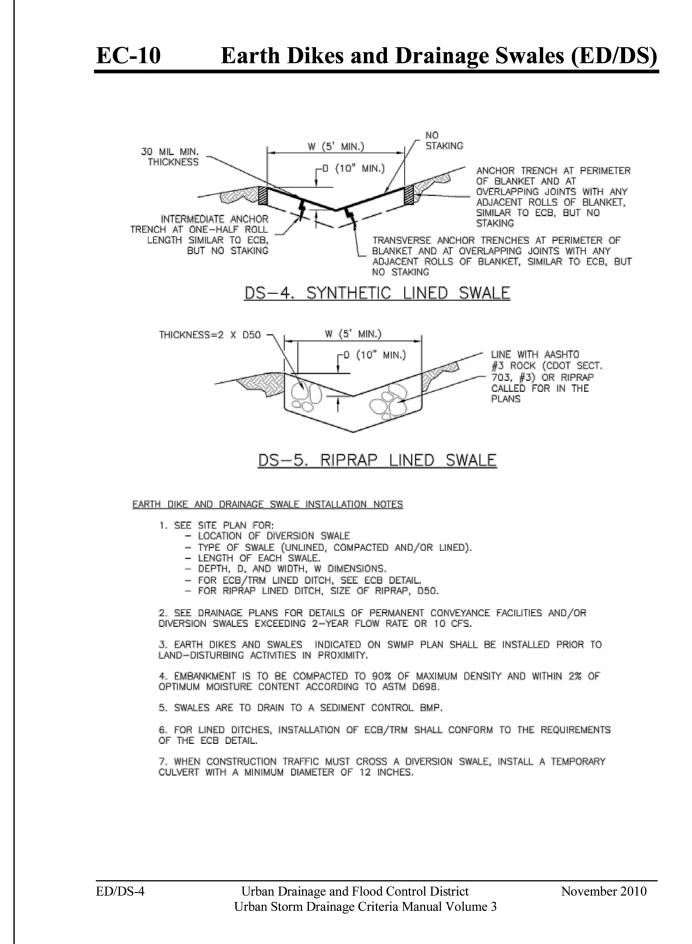
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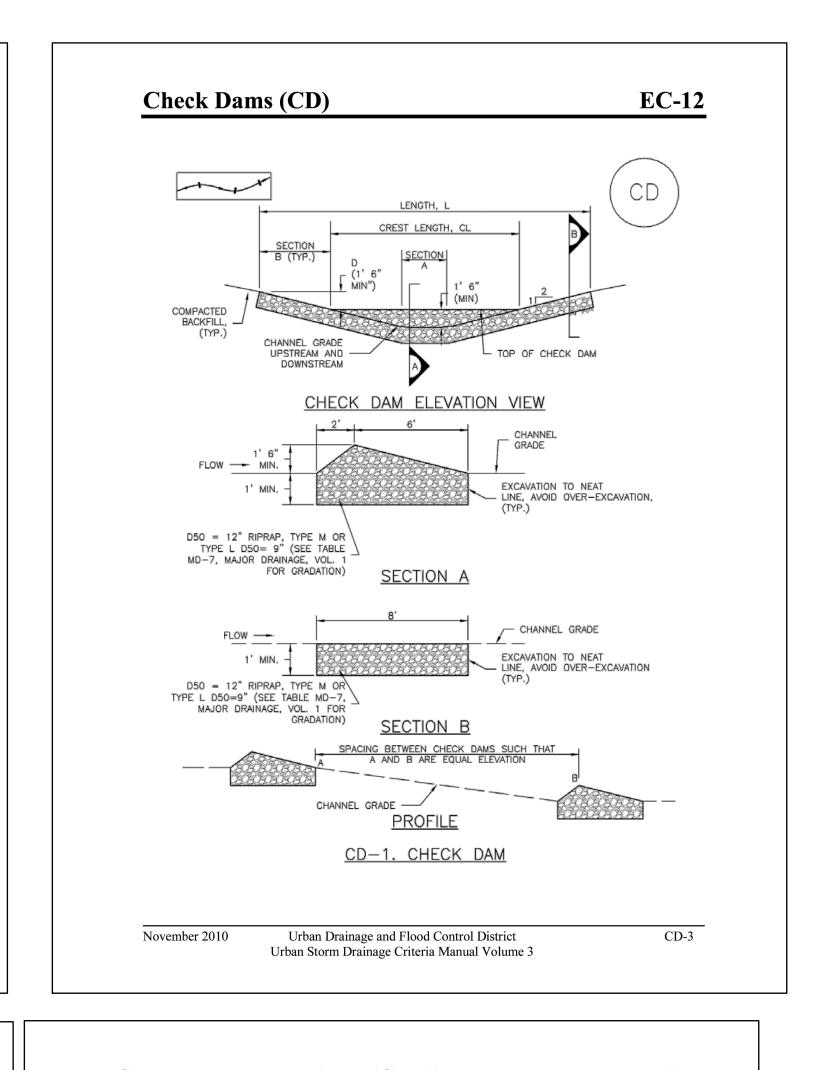
EARLY GRADING & EROSION CONTROL PLANS DETAILS

A TRACT OF LAND BEING A PORTION SECTIONS 21,22,27, & 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH/ PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO









EC-12 Check Dams (CD)

CHECK DAM INSTALLATION NOTES

 SEE PLAN VIEW FOR:
 --LOCATION OF CHECK DAMS. -CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM). -LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).

2. CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES. 3. RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12")

4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'. 5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER

CHECK DAM 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

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

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN ½ OF THE HEIGHT OF THE CREST. 5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS

STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, 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

CD-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

November 2010

EC-12 Check Dams (CD) ALTERNATIVE TO STEPS ON BANKS ABOVE CREST: DEFORM GABIONS AS NECESSARY TO ALIGN TOP OF GABIONS WITH GROUND SURFACE: AVOID GAPS BETWEEN GABIONS

CREST LENGTH, CL HEIGHT 1'6" 🗍 ► SECURED TO ADJACENT GABION

REINFORCED CHECK DAM ELEVATION VIEW

ENCLOSED IN GABION COMPACTED BACKFILL GEOTEXTILE BLANKET SECTION A

REINFORCED CHECK DAM INSTALLATION NOTES

 SEE PLAN VIEW FOR:
 -LOCATIONS OF CHECK DAMS. -CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM). -LENGTH (L), CREST LENGTH (CL), AND DEPTH (D). 2. CHECK DAMS INDICATED ON THE SWMP SHALL BE INSTALLED PRIOR TO AN UPSTREAM

3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 41/2" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT SECTION.

4. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1' 6". 5. GEOTEXTILE BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1' 6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

CD-2. REINFORCED CHECK DAM

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 **EC-12** Check Dams (CD)

REINFORCED CHECK DAM 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.

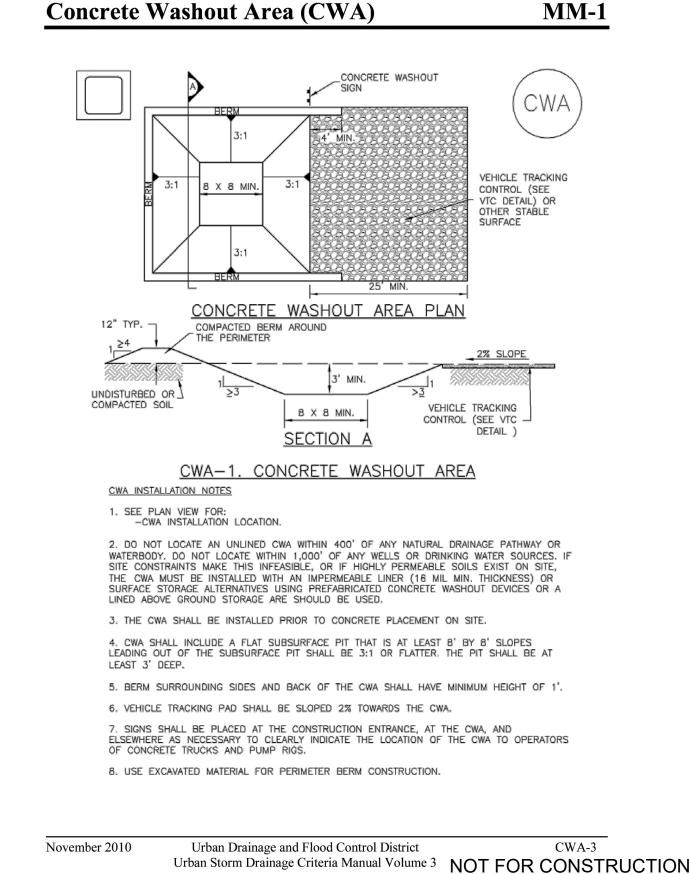
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED CHECK DAMS SHALL BE REMOVED AS NEEDED TO MAINTAIN THE EFFECTIVENESS OF BMP, TYPICALLY WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST.

5. REPAIR OR REPLACE REINFORCED CHECK DAMS WHEN THERE ARE SIGNS OF DAMAGE SUCH AS HOLES IN THE GABION OR UNDERCUTTING. 6. REINFORCED CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED

AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 7. WHEN REINFORCED CHECK DAMS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, AND COVERED WITH A GEOTEXTILE BLANKET,

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD) NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



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CD-6

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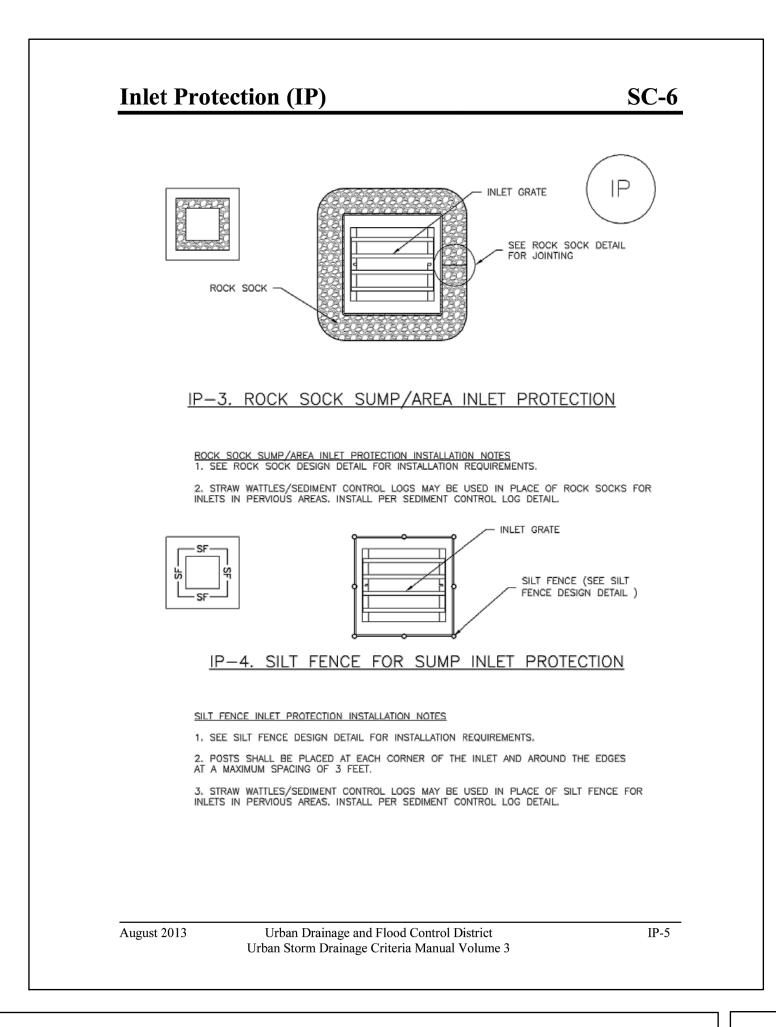
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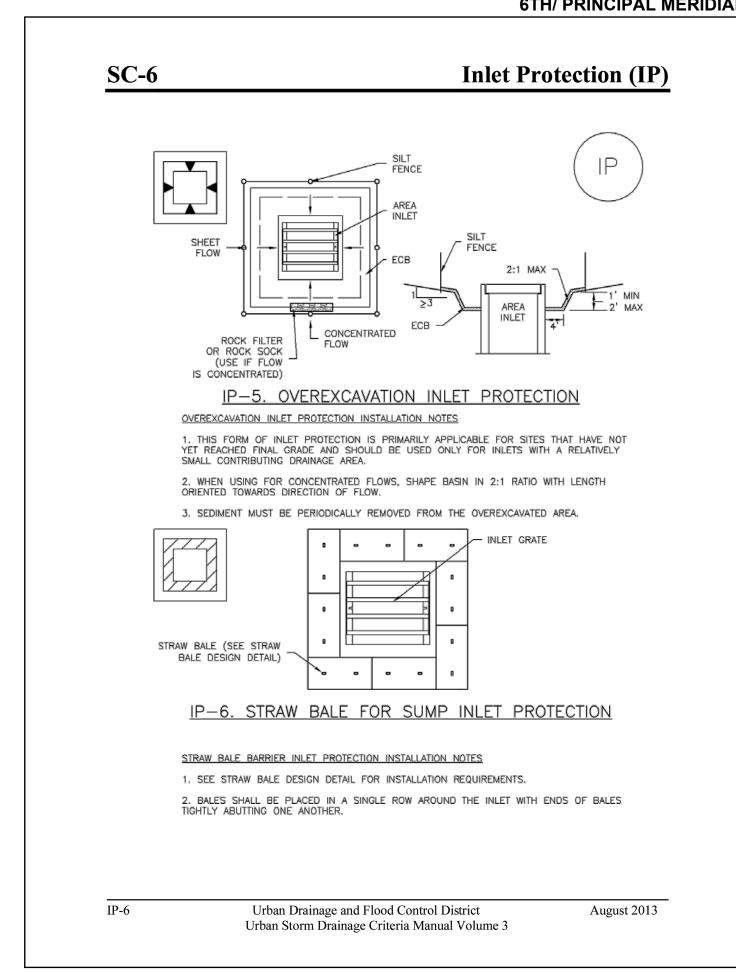
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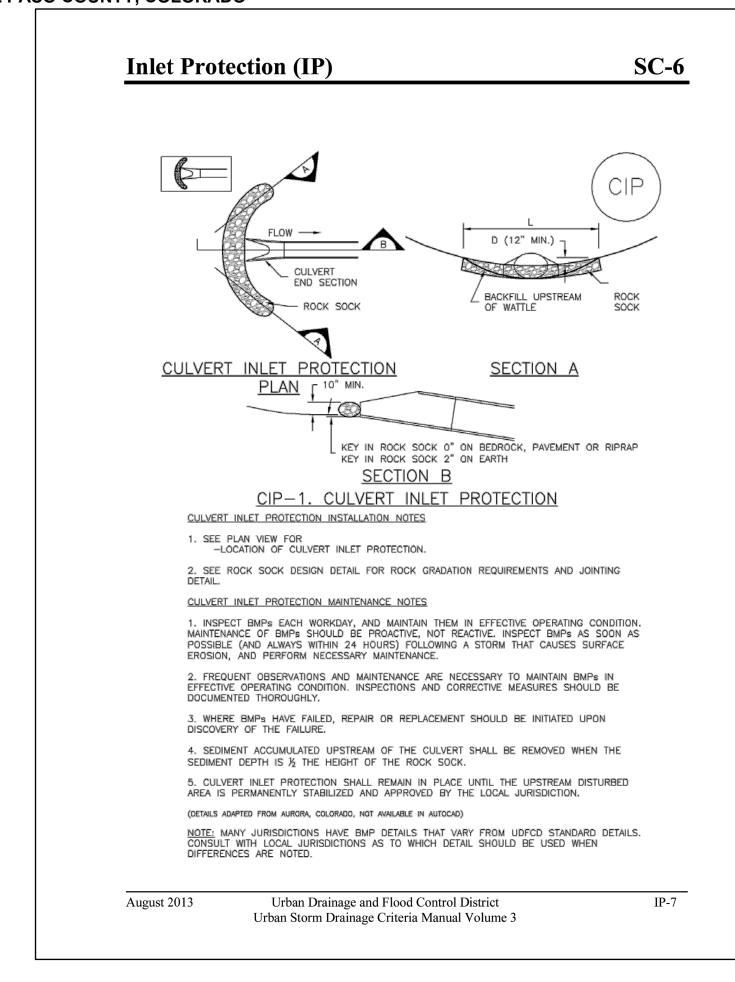
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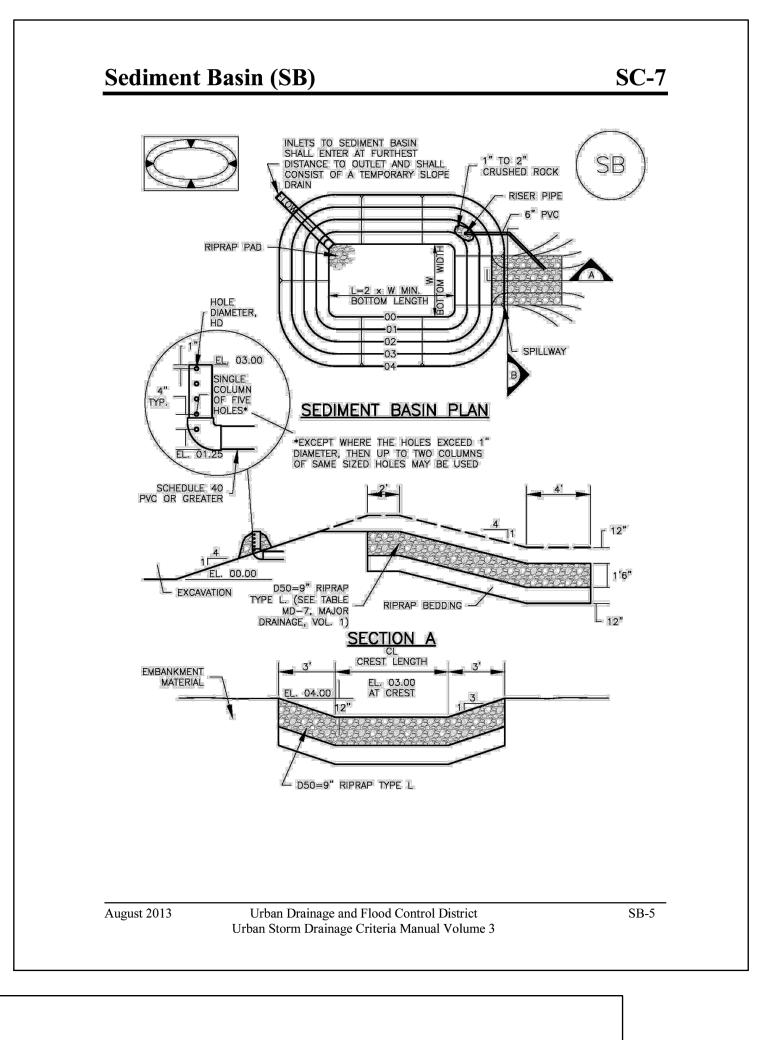
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Sediment Basin (SB)

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 2 3 4 5 6 7 8 9 10 11 12 13 14 15	12 ½ 21 28 33 ½ 38 ½ 43 47 ¼ 51 55 58 ¼ 61 64 67 ½ 70 ½ 73 ¼	2 3 5 6 8 9 11 12 13 15 16 18 19 21 22	%22 13/6 13/6 9/6 21/32 21/32 21/32 21/32 21/32 15/16 31/32 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

SEDIMENT BASIN INSTALLATION NOTES

 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 2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA

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.

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

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August 2013

Sediment Basin (SB)

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

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.

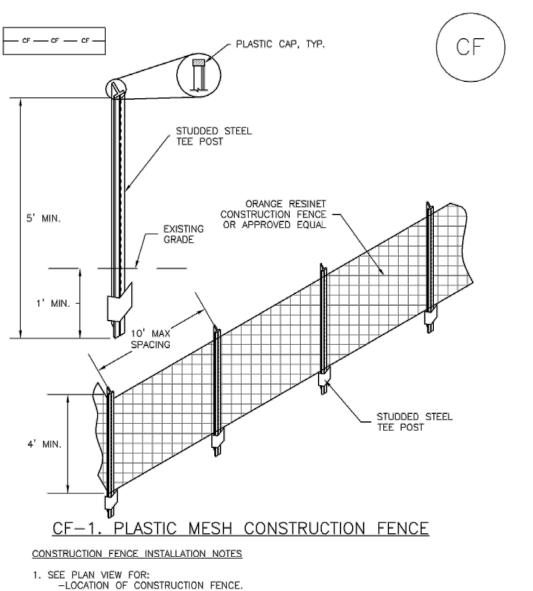
6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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(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

SM-3 Construction Fence (CF)



2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH, METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY. 4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

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EL PASO COUNTY, CO

November 2010

Construction Fence (CF)

CONSTRUCTION FENCE MAINTENANCE NOTES

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

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

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

4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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DETAILS

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SM-3

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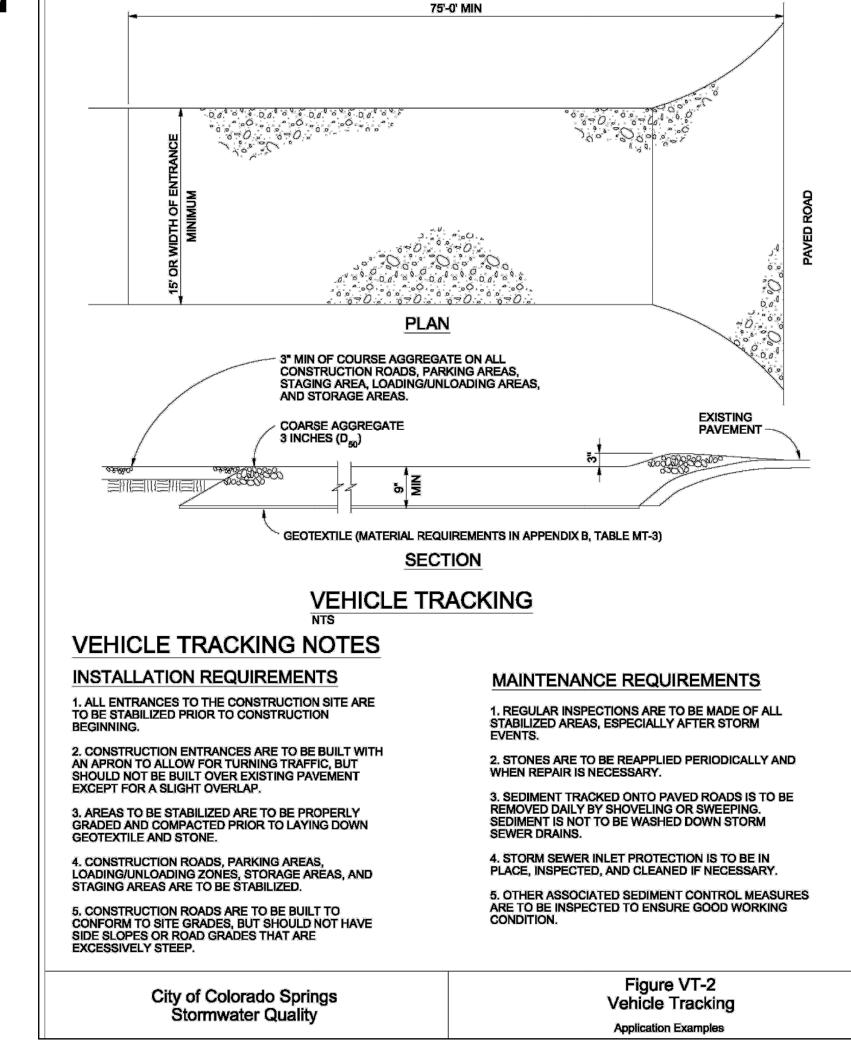
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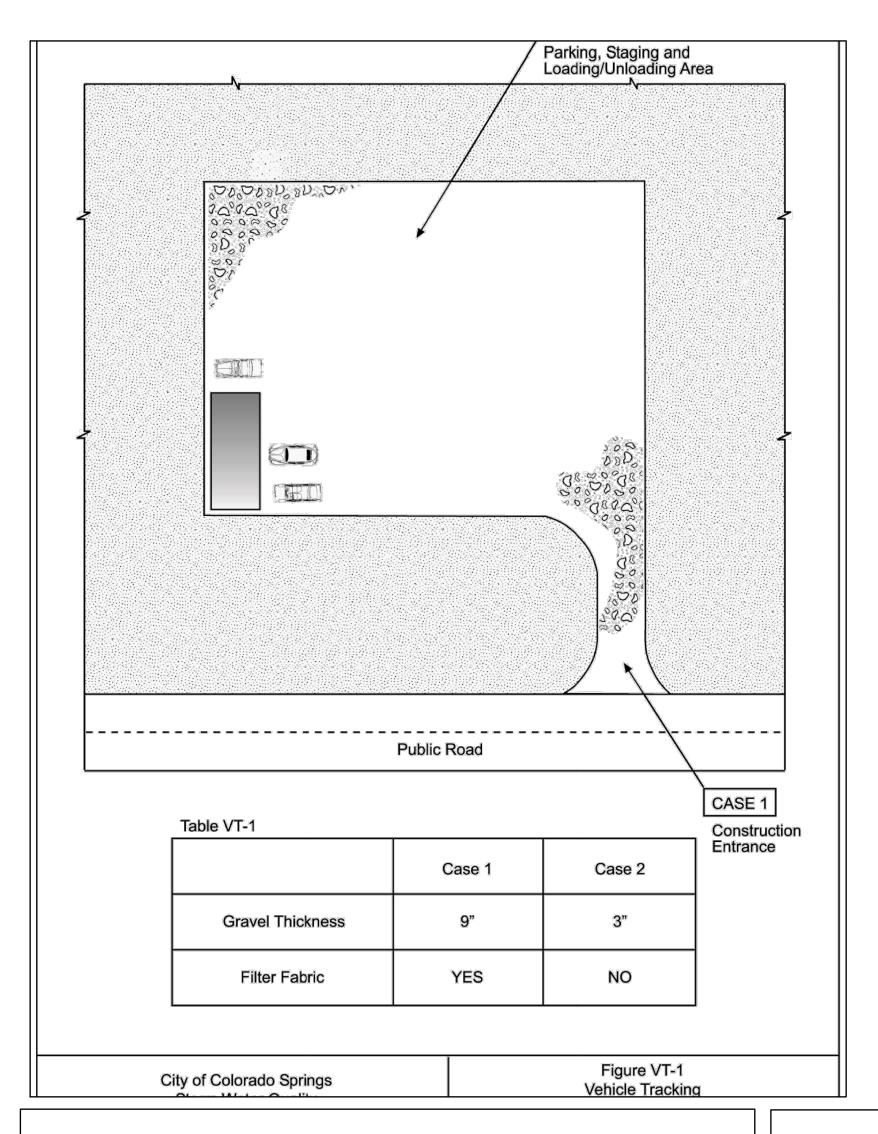
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EARLY GRADING & EROSION CONTROL PLANS

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Stabilized Staging Area (SSA) SM-6 SM-6

SSA-3

— SF/CF —— SF/CF — ONSITE CONSTRUCTION CONSTRUCTION NEEDED) CONSTRUCTION SITE ACCESS 3" MIN. THICKNESS GRANULAR MATERIAL AREA CONSTRUCTION ENTRANCE (SEE DETAILS VTC-1 TO VTC-3) SILT FENCE OR CONSTRUCTION — SF/CF — FENCING AS NEEDED

SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL

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 5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT

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

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.

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Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 **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. ${
m \underline{NOTE}}:$ 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)

TOPSOIL LAYER AND SEED AND MULCH -AS REQUIRED BY PLANS AND SPECIFICATIONS FINISHED GRADE DESIGN RIPRAP GRADE -- SOIL RIPRAP. 4"-6" (TYP. MIX SOIL AND RIPRAP COMPLETELY (SEE NOTES) II BEDING ☐ PREPARE COMPACTED SUBGRADE PER SPECIFICATIONS

SOIL RIPRAP EMBANKMENT PROTECTION WITH BEDDING TYP. SECTION

TYPE M RIPRAP INTERMEDIATE PERCENT ROCK DIMENSION PASSING (%) 70-100 50-70 35-50

*TYPE L RIPRAP D50=6". D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT 2-10

*TYPE L RIPRAP D50=12" D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

RIPRAP NOTES.

SOIL RIPRAP DETAILS ARE APPLICABLE TO SLOPED AREAS REFER TO THE SITE PLAN ACTUAL LOCATION AND LIMITS. MIX UNIFORMLY 65% RIPRAP BY VOLUME WITH 35% OF APPROVED

SOIL BY VOLUME PRIOR TO PLACEMENT. 3. PLACE STONE-SOIL MIX TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS AND GRADE. COMPACT AND LEVEL TO ELIMINATE

ALL VOIDS AND ROCKS PROJECTING ABOVE DESIGN RIPRAP TOP GRADE. 4. CRIMP OR TACKIFY MULCH OR USE APPROVED HYDROMULCH AS CALLED

FOR IN THE PLANS AND SPECIFICATIONS. 5. ROCK SHALL BE HARD, DURABLE, ANGULAR IN SHAPE, AND FREE

FROM CRACKS, OVERBURDEN, SHALE, AND ORGANIC MATTER. NEITHER BREADTH NOR THICKNESS OF A SINGLE STONE SHOULD BE LESS THAN ONE-THIRD ITS LENGTH, AND ROUNDED STONE SHOULD BE

AVOIDED. THE ROCK SHOULD SUSTAIN A LOSS OF NOT MORE THAN 40% AFTER 500 REVOLUTIONS IN AN ABRASION TEST (LOS ANGELES MACHINEASTM C-535-69) AND SHOULD SUSTAIN A LOSS OF NOT MORE THAN 10% AFTER 12 CYCLES OF FREEZING AND THAWING (AASHTO TEST 103 FOR LEDGE ROCK PROCEDURE A).

ROCK HAVING A MINIMUM SPECIFIC GRAVITY OF 2.65 IS PREFERRED; HOWEVER, IN NO CASE SHOULD ROCK HAVE A SPECIFIC GRAVITY LESS

PERCENT

PASSING (%)

DETAILS

2-10

TYPE L RIPRAP

	14111041
INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
15 12	70-100
9	50-70 35-50
3	2-10

*TYPE L RIPRAP D50=9": D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE VI	L RIPRAP

INTERMEDIATE ROCK DIMENSION (IN .)	PERCENT PASSING (%)
12	70-100
9	50-70
6	35-50
2	2-10

EL PASO COUNTY, CO

70-100 30 50-70 24 35-50

(IN .)

INTERMEDIATE

ROCK DIMENSION

TYPE H RIPRAP

*TYPE L RIPRAP D50=18" D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE VH RIPRAP		
INTERMEDIATE	PERCENT	
ROCK DIMENSION	PASSING	
(IN .)	(%)	
41	70-100	
33	50-70	
24	35-50	
9	2-10	

*TYPE L RIPRAP D50=24" D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

> NOT FOR CONSTRUCTION LAND USE REVIEW FILE NO: PUDSP-241

BAR IS ONE INCH ON DRAWN BY: <u>DLH</u> JOB DATE: 3/18/2024 OFFICIAL DRAWINGS. APPROVED: KMH JOB NUMBER: <u>201662.3</u> IF NOT ONE INCH, CAD DATE: <u>10/16/2024</u> ADJUST SCALE ACCORDINGLY CAD FILE: J:\2020\201662\CAD\Dwgs\C\PUD_Phase_3_662.203\GEC\Early_GEC_Details

NO. DATE BY REVISION DESCRIPTION

SSA-4



Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

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GRANDVIEW RESERVE - PHASE 3 D.R. HORTON

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EARLY GRADING & EROSION CONTROL PLANS