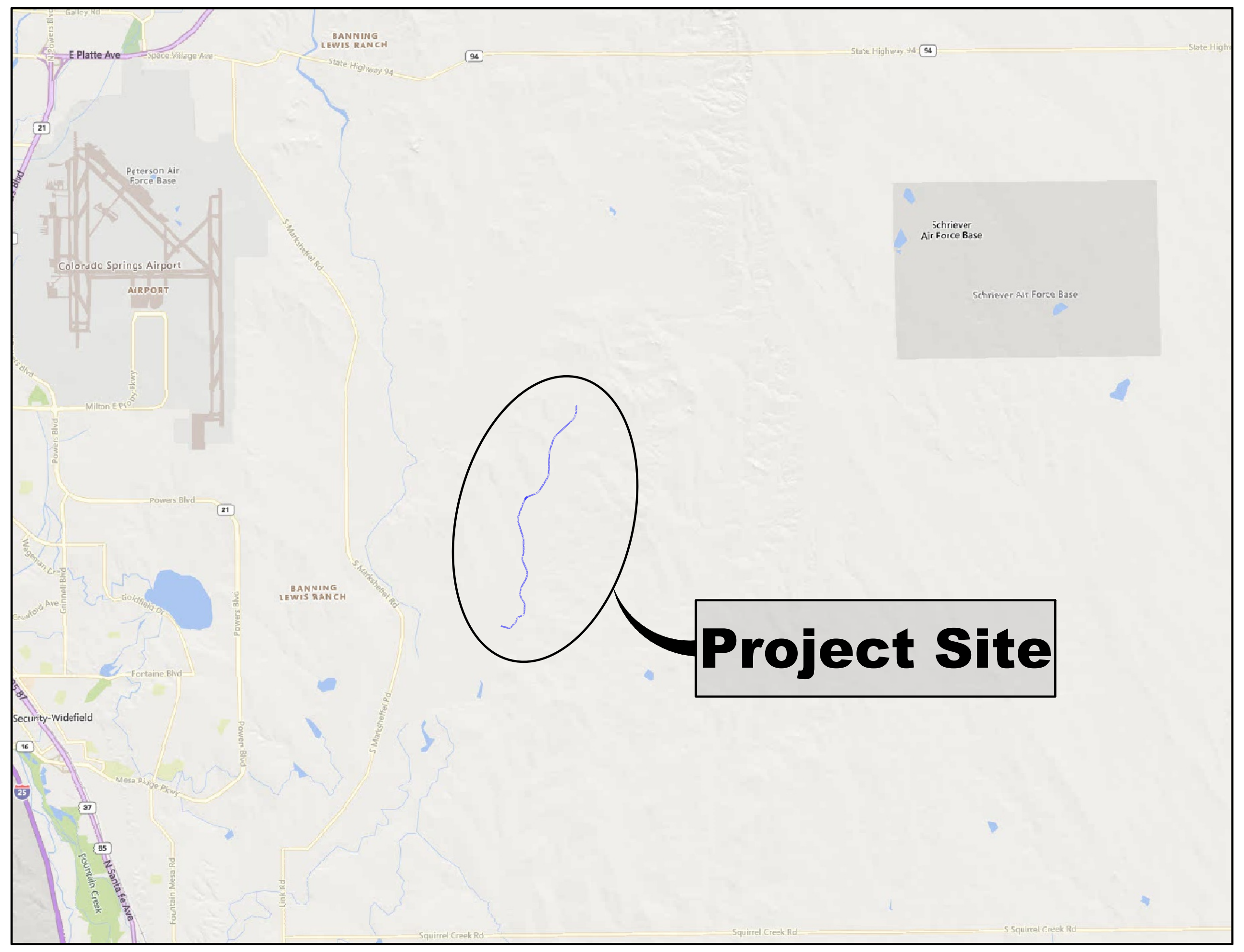
ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
100% DESIGN GEC PLANS
THE LANDHUIS COMPANY
INITIAL & INTERIM MODIFICATION GRADING AND EROSION CONTROL PLAN
MAY 2026

MATRIX PROJECT No. 21.1129.009



VICINITY MAP

N.T.S.

VERTICAL DATUM: THE ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

HORIZONTAL DATUM: THE COORDINATES FOR THIS PROJECT ARE NAD83/2011 COLORADO STATE PLANE CENTRAL ZONE GRID COORDINATES.

AERIAL PHOTO: PROVIDED BY NEAR MAP AERIAL MAPPING SERVICES

BENCHMARK STATEMENT: THE BENCHMARK USED FOR THIS SURVEY IS FIMS MONUMENT NUMBER 202. A U.S. GEOLOGICAL SURVEY BRASS CAP STAMPED '11 HA 1947' IN A CONCRETE PAD, LOCATED ALONG DRENNAN ROAD, APPROXIMATELY 0.5 MILES EAST OF MARKSHEFFEL ROAD, APPROXIMATELY 200 FEET EAST OF A BRIDGE. THE MARK IS 32 FEET NORTH OF THE PAVEMENT, 23 FEET EAST OF A NORTH TO SOUTH FENCE LINE, AND 2 FEET NORTHEAST OF A POWER POLE."

PROPERTY INFORMATION: PARCEL LINES AND PROPERTY OWNERSHIP INFORMATION SHOWN WERE PROVIDED BY AN ALTA SURVEY.

LOCATION MAP

SCALE: 1" = 2,000'

SHEET INDEX

TS01	TITLE SHEET	01
TS02	SIGNATURE PAGE	02
GN01-GN02	GENERAL NOTES	03-04
EC01	PLAN OVERVIEW	05
EC02-EC08	GRADING & EROSION CONTROL PLANS	06-12
DT01-DT03	TYPICAL EROSION CONTROL DETAILS	13-15

SEE PAGE 2 FOR APPROVAL SIGNATURES.

REFERENCE DRAWINGS

Rolling Hills MDDP topo
X-1129-MDG22x34

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-ECTS01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:20:14 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

THE LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

TITLE SHEET

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB

SCALE
HORIZ. 1" = 2,000'
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 01 OF 15

DRAWING No. TS01

CITY OF COLORADO SPRINGS

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. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

PRINTED NAME: ______________________ DATE: __________

PHONE NUMBER: ______________________

SEAL

OWNER'S STATEMENT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING CONSTRUCTION CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

OWNER'S SIGNATURE: ______________________ DATE: __________

NAME OF OWNER: ______________________ PHONE: __________

TITLE: ______________________ EMAIL: __________

CONTRACTOR'S STATEMENT

I WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN/CSWMP INCLUDING CONSTRUCTION CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

NAME OF CONTRACTOR: ______________________

AUTHORIZED SIGNATURE: ______________________ DATE: __________

TITLE: ______________________

PHONE NUMBER: ______________________

ADDRESS: ______________________

EMAIL ADDRESS: ______________________

CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL REVIEW

THIS GRADING AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH CITY CODE. THIS PLAN IS REVIEWED IN ACCORDANCE WITH THE STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

______________________ DATE: __________

FOR THE SWENT MANAGER

NOTES: ______________________

____

EL PASO COUNTY

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY, AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

______________________ __________

ENGINEER OF RECORD SIGNATURE DATE

OWNER'S STATEMENT

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

______________________ __________

THE LANDHUIS COMPANY DATE
212 N WAHSACH AVE, SUITE 301
COLORADO SPRINGS, CO 80903

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 DIRECTOR'S DISCRETION.

______________________ __________

JOSHUA J. PALMER, PE DATE
COUNTY ENGINEER / ECM ADMINISTRATOR

REFERENCE DRAWINGS

Rolling Hills MDDP topo
X-1129-MDG22x34

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-ECTS01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:20:18 AM

THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

THE LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

SIGNATURE PAGE

DESIGNED BY: TKM
DRAWN BY: EAL
CHECKED BY: AJS

SCALE
HORIZ. N/A
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 02 OF 15

DRAWING No.
TS02

811 Know what's below. Call before you dig.

STANDARD GEC PLAN NOTES - CITY OF COLORADO SPRINGS

1. NO CLEARING, GRADING, EXCAVATION, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE ALLOWED (EXCEPT FOR WORK DIRECTLY RELATED TO THE INSTALLATION OF INITIAL CONTROL MEASURES) UNTIL A CITY GEC PERMIT HAS BEEN ISSUED.
2. ALL LAND DISTURBING ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH AND THE APPROVED GEC PLAN AND CSWMP.
3. INITIAL CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES TAKING PLACE. AN INITIAL SITE INSPECTION WILL NOT BE SCHEDULED UNTIL A CITY GEC PERMIT HAS BEEN “CONDITIONALLY APPROVED.” CALL CITY STORMWATER INSPECTIONS, 385-5980, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE AN INITIAL INSPECTION AND OBTAIN FULL PERMIT APPROVAL.
4. INDIVIDUALS SHALL COMPLY WITH THE “COLORADO WATER QUALITY CONTROL ACT” (TITLE 25, ARTICLE 8, CRS) AND THE “CLEAN WATER ACT” (33 USC 1344), INCLUDING REGULATIONS PROMULGATED AND CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE CITY'S MS4 PERMIT, STORMWATER CONSTRUCTION MANUAL. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
5. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
6. ALL CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSEOUT.
7. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS OR ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
8. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER 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. CONSTRUCTION CONTROL MEASURES MAY BE REQUIRED BY THE GEC INSPECTOR IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G., ESTIMATED TIME OF EXPOSURE, SEASON OF THE YEAR, ETC.).
9. ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
10. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES.
11. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF INTO THE STORM SEWER SYSTEM AT ANY TIME.
12. SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT ALL STORAGE, EQUIPMENT FUELING, AND EQUIPMENT SERVICING AREAS SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITY. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.
13. SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED AS SOON AS POSSIBLE AFTER DISCOVERY.
14. NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
15. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER FINAL GRADING OR FINAL LAND DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS SHALL BE ROUGHENED, MULCHED, TACKIFIED, OR STABILIZED WITH TARPS WITHIN FOURTEEN (14) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED, UNLESS AN ALTERNATIVE STABILIZATION MEASURE IS ACCEPTED AT THE INSPECTOR'S DISCRETION. ALL TEMPORARY CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.
16. THE GEC PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE STORMWATER ENTERPRISE SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY'S ACCEPTANCE OF THE PLAN, THE CONSTRUCTION SITE IS IDLE FOR TWELVE (12) CONSECUTIVE MONTHS, A CHANGE IN PROPERTY OWNERSHIP OCCURS, THE PLANNED DEVELOPMENT CHANGES, OR ANY OTHER MAJOR MODIFICATIONS ARE PROPOSED AS DEFINED IN THE STORMWATER CONSTRUCTION MANUAL.
17. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR UTILITY RIGHT OF-WAY WITHOUT WRITTEN APPROVAL FROM THE UTILITY OWNER. CITY ACCEPTANCE OF THE GEC PLAN AND CSWMP DOES NOT SATISFY THIS REQUIREMENT. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS SHALL BE AT THE APPLICANT'S EXPENSE.
18. APPLICANT REPRESENTS AND WARRANTS THAT THEY HAVE THE LEGAL AUTHORITY TO GRADE AND/OR CONSTRUCT IMPROVEMENTS ON ADJACENT PROPERTY. THE CITY HAS NOT REVIEWED THE DEVELOPER'S AUTHORITY TO MODIFY ADJACENT PROPERTY. AN APPROVED GEC PERMIT DOES NOT PROVIDE APPROVAL FOR THE APPLICANT TO PERFORM WORK ON ADJACENT PROPERTY.

STANDARD GEC PLAN NOTES - EL PASO COUNTY

1. 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 (EPC) STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE (LDC), THE ENGINEERING CRITERIA MANUAL (ECM), THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME 1 AND 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
2. A PRECONSTRUCTION MEETING BETWEEN THE PERMIT HOLDER(S) AND EL PASO COUNTY SHALL BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES. IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER(S) TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF. NO LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES BEYOND THE INSTALLATION OF THE INITIAL CONSTRUCTION CONTROL MEASURES (CCMS), AS INDICATED ON THE APPROVED GEC PLAN OR CDS WITH GEC PLANS, MAY OCCUR PRIOR TO RECEIVING A NOTICE TO PROCEED (NTP) ISSUED BY THE ECM ADMINISTRATOR. FAILURE TO OBTAIN A NOTICE TO PROCEED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES MAY RESULT IN AN IMMEDIATE STOP WORK ORDER (SWO).
3. CONSTRUCTION CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. STORMWATER RUNOFF FROM ALL DISTURBED AREAS AND SOIL STORAGE AREAS MUST UTILIZE OR FLOW TO ONE OR MORE CCM(S) TO MINIMIZE EROSION OR SEDIMENT IN THE DISCHARGE. THE CCM(S) MUST CONTAIN OR FILTER FLOWS IN ORDER TO PREVENT THE BYPASS OF FLOWS WITHOUT TREATMENT AND MUST BE APPROPRIATE FOR STORMWATER RUNOFF FROM DISTURBED AREAS AND FOR THE EXPECTED FLOW RATE, DURATION, AND FLOW CONDITIONS (E.G., SHEET OR CONCENTRATED FLOW).
4. ALL CCMS SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED. THE QUALIFIED STORMWATER MANAGER (QSM) SHALL ASSESS THE ADEQUACY OF CCMS AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CCMS ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CCMS.
5. PRIOR TO CONSTRUCTION THE PERMIT HOLDER(S) SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
6. MANAGEMENT OF THE STORMWATER MANAGEMENT PLAN (SWMP) DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QSM. THE SWMP SHALL BE LOCATED ON-SITE OR DIGITALLY ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES AND MUST BE IMPLEMENTED AS WRITTEN FROM THE START OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS ACHIEVED. THE QSM SHALL AMEND THE SWMP WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE SITE WHICH WOULD REQUIRE THE IMPLEMENTATION OF NEW OR REVISED CCMS OR IF THE SWMP PROVES TO BE INEFFECTIVE IN CONTROLLING POLLUTANTS IN STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY OR WHEN CCMS ARE NO LONGER NECESSARY AND ARE REMOVED. THE QSM SHALL MAINTAIN A RECORD OF AMENDMENTS MADE TO THE SWMP THAT INCLUDES THE DATE AND IDENTIFICATION OF THE CHANGES.
7. 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 RECEIVING WATER UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED. IN ADDITION TO MAINTAINING 50 HORIZONTAL FEET OF PRE-EXISTING VEGETATION UPGRADIENT OF A RECEIVING WATER (UNLESS INFEASIBLE AND APPROVED), THE PERMIT HOLDER(S) MUST INSTALL CCMS UPGRADIENT OF THE VEGETATIVE BUFFER.
8. TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
9. EROSION CONTROL BLANKET (ECB) OR OTHER APPROVED CONTROL MEASURE(S) SHALL BE USED ON SLOPES STEEPER THAN 3:1.
10. VEHICLE TRACKING CONTROLS (VTC) MUST BE IMPLEMENTED TO MINIMIZE VEHICLE TRACKING OF SEDIMENT FROM DISTURBED AREAS. VTCS MUST INCLUDE A STRUCTURE CONTROL MEASURE (E.G., TRACKING PAD) AND MAY INCLUDE A NON-STRUCTURAL CONTROL MEASURE (E.G., SWEEPING). MATERIAL TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
11. ANY TEMPORARY OR PERMANENT CONTROL MEASURE 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.
12. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER, PERMANENT CONTROL MEASURES (PCMS), OR DITCHES EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
13. ALL PCMS SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PCMS MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
14. SOIL COMPACTION MUST BE MINIMIZED IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED OR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION PCMS SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF SOIL COMPACTION DOES OCCUR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER OR IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED, DECOMPACTION OF THE SOIL MUST BE COMPLETED PRIOR TO PLANTING OR INSTALLATION OF THE PCM(S). AN INFILTRATION TEST MUST BE CONDUCTED FOR ALL INFILTRATION PCMS AND THE INFILTRATION TEST RESULTS SUBMITTED TO EL PASO COUNTY PRIOR TO PRELIMINARY ACCEPTANCE (PA).
15. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND PERMANENT STABILIZATION METHODS ARE COMPLETE. WHEN USING VEGETATIVE COVER AS A PERMANENT STABILIZATION METHOD, THE VEGETATION SHALL BE EVENLY DISTRIBUTED PERENNIAL VEGETATION AND OF THE VARIETY AND SPECIES FOUND IN THE COUNTY-APPROVED SEED MIXES OR IN THE APPROVED GEC PLAN. VEGETATION COVERAGE SHALL BE, AT A MINIMUM, EQUAL TO 70% OF WHAT WOULD HAVE BEEN PROVIDED BY NATIVE VEGETATION IN A LOCAL, UNDISTURBED AREA OR ADEQUATE REFERENCE SITE. ALL TEMPORARY CCMS SHALL BE REMOVED UPON FINAL STABILIZATION AND PRIOR TO STORMWATER PERMIT TERMINATION.
16. 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.
17. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO BE DISCHARGED OFFSITE OR TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR CONTROL MEASURES. CONCRETE WASHOUT AREAS 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.
18. DURING CONSTRUCTION DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITEIN ACCORDANCE WITH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT’S (CDPHE) LOW RISK DISCHARGE GUIDANCE POLICY FOR DISCHARGES OF UNCONTAMINATED GROUNDWATER TO LAND. IF CONSTRUCTION DEWATERING OPERATIONS ARE UNABLE TO MEET ALL CRITERIA, CONDITIONS, AND CONTROL MEASURE REQUIREMENTS OF THE LOW RISK DISCHARGE GUIDANCE POLICY, A COLORADO DISCHARGE PERMIT SYSTEM (CDPS) GENERAL PERMIT COG080000 WILL BE REQUIRED.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTE FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
20. THE PERMIT HOLDER(S) 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.
21. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER’S LABELS.
22. 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. APPROPRIATE CMS SHALL BE UTILIZED BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
23. BULK STORAGE (I.E., INDIVIDUAL CONTAINERS OF 55 GALLONS OR GREATER) OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT, OR EQUIVALENT PROTECTION, TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM, OR OTHER FACILITIES.
24. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
25. ON AREAS OF EXPOSED SOIL, MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES. WATER APPLICATION MUST BE CONDUCTED IN A MANNER TO PREVENT DISCHARGE OFFSITE UNLESS AUTHORIZED BY A CDPS OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
26. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
27. FOR SITES WHERE A SOILS REPORT IS REQUIRED, THE APPROVED SOILS REPORT FOR THIS SITE SHALL BE CONSIDERED A PART OF THESE PLANS.
28. PERMIT HOLDER(S) 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, DRAINAGE CRITERIA MANUAL VOLUME 2, AND ENGINEERING CRITERIA MANUAL. ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS MUST BE OBTAINED PRIOR TO CONSTRUCTION. 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.
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE OR LESS THAN 1 ACRE AND PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT WOULD DISTURB 1 OR MORE ACRES, THE PERMIT HOLDER(S) SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE (COR400000 PERMIT) TO THE CDPHE WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A SWMP, OF WHICH THIS GEC PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

REFERENCE DRAWINGS

X-1129-MDG22x34

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-GN01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: 5/8/2026 8:20 AM

THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

GENERAL NOTES

DESIGNED BY: JDH
DRAWN BY: TKM
CHECKED BY: JTB

SCALE
HORIZ. N/A
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 03 OF 15

DRAWING No. GN01

Know what's below. Call before you dig.

NOTES ON WORKING IN WATERWAYS

- CONSTRUCTION VEHICLES SHOULD BE KEPT OUT OF A WATERWAY TO THE MAXIMUM EXTENT PRACTICABLE.
- WHERE IN-CHANNEL WORK IS NECESSARY, STEPS SUCH AS TEMPORARY CHANNEL DIVERSIONS MUST BE TAKEN TO STABILIZE THE WORK AREA AND CONTROL EROSION DURING CONSTRUCTION.
- WHERE AN ACTIVELY-FLOWING WATERCOURSE MUST BE CROSSED REGULARLY BY CONSTRUCTION VEHICLES, A TEMPORARY CROSSING SHOULD BE PROVIDED. THREE PRIMARY METHODS ARE AVAILABLE: (1) A CULVERT CROSSING, (2) TEMPORARY BRIDGE, AND (3) A STREAM FORD. SEE THE TEMPORARY STREAM CROSSING FACT SHEETS.
- WHERE AN ACTIVELY-FLOWING WATERCOURSE MUST BE CROSSED REGULARLY BY CONSTRUCTION VEHICLES, A TEMPORARY CROSSING SHOULD BE PROVIDED. THREE PRIMARY METHODS ARE AVAILABLE: (1) A CULVERT CROSSING, (2) TEMPORARY BRIDGE, AND (3) A STREAM FORD. SEE THE TEMPORARY STREAM CROSSING FACT SHEETS.
- A PERMIT IS REQUIRED FOR PLACEMENT OF FILL IN A WATERWAY UNDER SECTION 404 OF THE CLEAN WATER ACT. THE LOCAL OFFICE OF THE USACE SHOULD BE CONTACTED CONCERNING THE REQUIREMENTS FOR OBTAINING A 404 PERMIT. IN ADDITION, A PERMIT FROM USFWS MAY BE NEEDED IF THREATENED OR ENDANGERED SPECIES ARE OF CONCERN IN THE WORK AREA. TYPICALLY, THE USFWS ISSUES ARE ADDRESSED IN CONJUNCTION WITH THE 404 PERMIT IF ONE IS REQUIRED. A FLOODPLAIN DEVELOPMENT PERMIT AND OTHER LOCAL PERMITS MAY ALSO BE REQUIRED.
- WHEN WORK TAKES PLACE WITHIN A CHANNEL, A TEMPORARY WATER DIVERSION TO BYPASS THE WORK AREA IS TYPICALLY REQUIRED. SEE THE DIVERSION CHANNEL/DITCH BMP FACT SHEET FOR CRITERIA AND DESIGN DETAILS.
- TO THE EXTENT PRACTICAL, CONSTRUCTION IN A WATERWAY SHOULD BE SEQUENCED TO BEGIN AT THE MOST DOWNSTREAM POINT AND WORK PROGRESSIVELY UPSTREAM INSTALLING REQUIRED CHANNEL AND GRADE CONTROL FACILITIES.
- COMPLETE WORK IN SMALL SEGMENTS, EXPOSING AS LITTLE OF THE CHANNEL AT A TIME AS PRACTICAL. KEEP EQUIPMENT OPERATORS CONTAINED IN IMMEDIATE WORK AREA AND AVOID EXCESSIVE COMPACTING OF THE SOIL SURFACE BECAUSE IT INHIBITS REVEGETATION.
- WHERE FEASIBLE, IT IS BEST TO PERFORM IN-CHANNEL WORK BETWEEN OCTOBER 1 AND MARCH 31 IN COLORADO. THIS IS THE PERIOD WHEN THE CHANCES OF FLASH FLOODS AND FLOWS HIGHER THAN THE 2-YEAR FLOOD PEAK FLOWS ARE LESS LIKELY.
- DURING THE PROCESS OF CUT AND FILL, AVOID LETTING SIDE-CAST OR WASTE MATERIAL ENTER WATERWAYS OR PLACING IT ON UNSTABLE AREAS. INSTEAD, EFFICIENTLY MOVE EXCAVATED MATERIAL TO AREAS NEEDING FILL OR TO A STOCKPILE. FOR STREAM RESTORATION/STABILIZATION PROJECTS, CONSULTING WITH A FLUVIAL GEOMORPHOLOGIST ON STREAM STABILITY ISSUES MAY BE PRUDENT.

GRADING NOTES:

1. FINISH GRADES: FINISHED GRADE ELEVATION SHALL BE ESTABLISHED FROM THE PROPOSED CONTOURS SHOWN ON THE GRADING PLANS. DEPTHS AND DIMENSIONS SHOWN ON THE PLAN, SECTIONS, AND PROFILES SUPERSEDE PROPOSED CONTOURS SHOWN ON THE GRADING PLANS. ACCEPTABLE GRADING TOLERANCES ARE +/- 0.20 FEET OUTSIDE OF THE BANKFULL CHANNEL AND +/- 0.10 FEET WITHIN THE BANKFULL CHANNEL.

2. FILL MATERIAL: MATERIALS USED FOR FILL OR EMBANKMENT CONSTRUCTION SHALL CONSIST OF APPROVED GRANULAR SOIL MATERIAL ACQUIRED FROM PROJECT EXCAVATIONS OR FROM OFF-SITE SOURCES. EXCAVATED WEATHERED AND UNWEATHERED BED ROCK MATERIALS SHALL NOT BE USED AS FILL MATERIAL UNLESS OTHERWISE APPROVED. FROZEN MATERIALS SHALL NOT BE USED IN CONSTRUCTION OF EMBANKMENTS. EXCESS EXCAVATED NATIVE SOILS WHICH ARE NOT USED AS EMBANKMENT OR BACKFILL SHALL BE STOCKPILED AS DIRECTED BY THE OWNER.

   a. SUITABLE ON-SITE AND IMPORTED FILL MATERIAL SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

Standard Sieve Size	Percent Passing	
	Embankment Fill Material	Channel Fill Material
3 inch	100	100
No. 200	5-20	5-20
Liquid Limit	30 or less	Not Plastic
Plasticity Index	10 or less	Not Plastic

   b. IN-PLACE MOISTURE DENSITY TESTS WILL BE PERFORMED TO ENSURE THAT FILL COMPLIES WITH CITY OF COLORADO SPRINGS STANDARDS.

RECEIVING WATERS:

EAST FORK JIMMY CAMP CREEK IS A TRIBUTARY OF JIMMY CAMP CREEK, PART OF THE LARGER FOUNTAIN CREEK WATERSHED.

THIS WORK IS NOT LOCATED WITHIN THE CITY OF COLORADO SPRINGS STREAMSIDE OR HILLSIDE OVERLAY.

EXISTING 100-YEAR FEMA FLOODPLAIN SHOWN IN THE DESIGN PLANS.

THE EROSION CONTROL PLAN PRESENTED IN THESE DRAWINGS SERVES AS A MINIMUM FOR THE REQUIREMENTS OF EROSION CONTROL DURING CONSTRUCTION. THE CONTRACTOR HAS THE ULTIMATE RESPONSIBILITY FOR DEVELOPING AN ADEQUATE EROSION CONTROL PLAN THAT IS COMPATIBLE WITH THEIR PLAN FOR EXECUTING THE WORK AND FOR PROVIDING ADEQUATE EROSION CONTROL AND WATER QUALITY THROUGHOUT THE DURATION OF THE PROJECT. THEREFORE, IF THE PROVIDED PLAN IS NOT WORKING SUFFICIENTLY TO PROTECT THE PROJECT AREAS, THEN THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES AS REQUIRED TO OBTAIN THE REQUIRED PROTECTION.

DEWATERING / FLOW DIVERSION IS NOT SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS REGARDING DEWATERING / FLOW DIVERSION MEANS AND METHODS.

TEMPORARY SEDIMENT PONDS NOT SHOWN. IF REQUIRED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS REGARDING SEDIMENT PONDS MEANS AND METHODS.

IF ADDITIONAL STAGING AREAS, STOCKPILES, OR CONCRETE WASHOUT AREAS ARE REQUIRED, THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE REGULATIONS. ADDITIONAL AREAS MUST NOT RESULT IN ADDITIONAL LAND DISTURBANCE.

SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.

SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.

TOTAL LIMITS OF DISTURBANCE: 159.2 AC.
ANTICIPATED CONSTRUCTION: WINTER 2026
ANTICIPATED FINAL STABILIZATION: 2027

NON-STRUCTURAL CONTROL MEASURES INCLUDE:
- SEASONAL PLANTING CONSIDERATIONS
- LIMITING OF DISTURBED AREAS

NOTE:

THE FOLLOWING ITEMS ARE NOT APPLICABLE TO THESE PLANS:
- NO BUILD AREAS
- ASPHALT, CONCRETE BATCH PLANTS, AND/OR MASONARY MIX STATIONS
- PRESERVATION EASEMENTS

GENERAL GEC PLAN NOTES:
- PROPERTY LINES, PARCEL NUMBERS, AND PROPERTY OWNERSHIP SHOWN IN DESIGN PLANS ON SHEET EX01-02
- EXISTING VEGETATION IS NO NOTABLE SPECIES (GRASSES AND WEEDS).
- PROPOSED REVEGETATION AND EROSION CONTROL FABRIC EXTENTS PROVIDED IN THE DESIGN PLANS.
- EXISTING AND PROPOSED FEMA 100-YEAR FLOODPLAINS ARE SHOWN ON EX01-02 AND DR01-02, RESPECTIVELY
- THIS INCLUDES PHASE 1 OF STABILIZATION WORK ASSOCIATED WITH THIS DEVELOPMENT. ADDITIONAL PROJECT PHASING TO BE COMPLETED AT THE DISCRETION OF THE CONTRACTOR.

STANDARD SYMBOLS

— - — - —	CENTER LINE
— PL — PL —	PROPERTY LINE
∼ ∼ ∼	EXISTING CONTOURS: 2' AND 10' INTERVALS UNLESS OTHERWISE NOTED
∼∼∼	PROPOSED CONTOURS: 2' AND 10' INTERVALS UNLESS OTHERWISE NOTED
━━ ━ ━ ━━	LIMITS OF DISTURBANCE
━ ▪ ━ ▪ ━ ▪ ━	CONSTRUCTION ACCESS
— - - — - - —	ROW
- - - - - -	EASEMENT
—— X ——	FENCE
—— W ——	WATERLINE

LEGEND

▨	PROPOSED VOID-FILLED RIPRAP (SEE SHEET DT03 FOR DETAIL)
🟩	PROPOSED SOIL RIPRAP - BURIED WITH TOPSOIL & REVEGETATED
⬢	PROPOSED SCULPTED CONCRETE DROP STRUCTURE
▤	PROPOSED MAINTENANCE ACCESS ROAD/MULTI-USE TRAIL
▨	PROPOSED CONCRETE MAINTENANCE ACCESS ROAD/MULTI-USE TRAIL

FLOODPLAIN STATEMENT:THIS CHANNEL PORTION OF THE SITE IS LOCATED IN ZONE "AE" WHICH IS A DESIGNATED 100-YEAR FLOODPLAIN ON THE NFIP FLOOD INSURANCE RATE MAP FOR EL PASO COUNTY, COLORADO, PANEL NUMBERS 08041C0976G, 08041C0769G, DATED DECEMBER 7,2018. CLOMR 24-08-0597R HAS BEEN APPROVED FOR WORK WITHIN THE 100-YEAR FLOODPLAIN.

REFERENCE DRAWINGS
X-1129-MDG22x34

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-GN01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: 5/8/2026 8:20 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

GENERAL NOTES

DESIGNED BY: JDH
DRAWN BY: TKM
CHECKED BY: JTB

SCALE
HORIZ. N/A
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 04 OF 15

DRAWING No. GN02

REFERENCE DRAWINGS
X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:03 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
PLAN OVERVIEW

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB
SCALE
HORIZ. 1" = 250'
VERT. N/A
DATE ISSUED: MAY 2026
SHEET 05 OF 15
DRAWING No. EC01

Know what's below. Call before you dig.

EROSION CONTROL LEGEND:

▨	SSA	STABILIZED STAGING AREA
▨	SF	SILT FENCE
🟥	VTC	VEHICLE TRACKING CONTROL
▨	CD	CHECK DAM (SEE NOTE 4 BELOW)
▢	CWA	CONCRETE WASHOUT AREA
▬ ▪ ▪ ▬		LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▨		CONSTRUCTION ACCESS
🟧		AREA OF CUT
🟦		AREA OF FILL
←		FLOW DIRECTION ARROW

NOTES:
1. *SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.*
2. *SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.*
3. *ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.*
4. *CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.*

FOR CITY OF COLORADO SPRINGS REVIEW

CONTOUR INTERVALS ARE 1' AND 5'

REFERENCE DRAWINGS
X-1129-UTILITIES X-1129-MDG22x34 X-1129-PARCELS X-1129-PR STRUCT- PHASE 1 X-1129-LOD_LOWER X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:11 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 0+00 - 10+00

DESIGNED BY:	TKM	SCALE		DATE ISSUED:	MAY 2026	DRAWING No.	EC02
DRAWN BY:	RPD	HORIZ.	1" = 50'	SHEET	06 OF 15		
CHECKED BY:	JTB	VERT.	N/A				

811 Know what's below. Call before you dig.

EROSION CONTROL LEGEND:

- SSA STABILIZED STAGING AREA
- SF SILT FENCE
- VTC VEHICLE TRACKING CONTROL
- CD CHECK DAM (SEE NOTE 4 BELOW)
- CWA CONCRETE WASHOUT AREA
- LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
- CONSTRUCTION ACCESS
- 🟧 AREA OF CUT
- 🟦 AREA OF FILL
- ← FLOW DIRECTION ARROW

NOTES:

1. *SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.*
2. *SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.*
3. *ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.*
4. *CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.*

FOR CITY OF COLORADO SPRINGS REVIEW

REFERENCE DRAWINGS

X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

REVISIONS

No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:18 AM

THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 10+00 - 22+00

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB

SCALE
HORIZ. 1" = 50'
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 07 OF 15

DRAWING No. EC03

SHEET No. 08

FOR CITY OF COLORADO SPRINGS REVIEW

EROSION CONTROL LEGEND:

▨	SSA STABILIZED STAGING AREA	▬ · · ▬	LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▬	SF SILT FENCE	▮▮▮	CONSTRUCTION ACCESS
▨	VTC VEHICLE TRACKING CONTROL	🟧	AREA OF CUT
∨	CD CHECK DAM (SEE NOTE 4 BELOW)	🟦	AREA OF FILL
▢	CWA CONCRETE WASHOUT AREA	←	FLOW DIRECTION ARROW

NOTES:
1. *SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.*
2. *SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.*
3. *ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.*
4. *CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.*

REFERENCE DRAWINGS
X-1129-UTILITIES X-1129-MDG22x34 X-1129-PARCELS X-1129-PR STRUCT- PHASE 1 X-1129-LOD_LOWER X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:26 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 22+00 - 34+00

DESIGNED BY: TKM	SCALE		DATE ISSUED: MAY 2026	DRAWING No.
DRAWN BY: RPD	HORIZ.	1" = 50'		EC04
CHECKED BY: JTB	VERT.	N/A	SHEET 08 OF 15	

Know what's below. Call before you dig.

FOR CITY OF COLORADO SPRINGS REVIEW - END CITY REVIEW STA 40+00, BEGIN COUNTY REVIEW

EROSION CONTROL LEGEND:

▨	SSA	STABILIZED STAGING AREA
▨	SF	SILT FENCE
▨	VTC	VEHICLE TRACKING CONTROL
▨	CD	CHECK DAM (SEE NOTE 4 BELOW)
▨	CWA	CONCRETE WASHOUT AREA
▬ ▪ ▪ ▬		LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▨		CONSTRUCTION ACCESS
🟧		AREA OF CUT
🟦		AREA OF FILL
←		FLOW DIRECTION ARROW

NOTES:

1. SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.
2. SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.
3. ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.
4. CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

CONTOUR INTERVALS ARE 1' AND 5'

REFERENCE DRAWINGS

X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:35 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 34+00 - 48+50

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB

SCALE
HORIZ. 1" = 50'
VERT. N/A

DATE ISSUED: MAY 2026
SHEET 09 OF 15

DRAWING No.
EC05

SHEET No. 10

EROSION CONTROL LEGEND:

▨	SSA	STABILIZED STAGING AREA
▬	SF	SILT FENCE
▨	VTC	VEHICLE TRACKING CONTROL
⌄	CD	CHECK DAM (SEE NOTE 4 BELOW)
▢	CWA	CONCRETE WASHOUT AREA
━ · ━		LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▮ ▮ ▮		CONSTRUCTION ACCESS
🟧		AREA OF CUT
🟦		AREA OF FILL
←		FLOW DIRECTION ARROW

NOTES:
1. SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.
2. SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.
3. ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.
4. CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.

FOR EL PASO COUNTY REVIEW

Know what's below. Call before you dig.

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

CONTOUR INTERVALS ARE 1' AND 5'

REFERENCE DRAWINGS
X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:44 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 48+50 - 64+00

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB
SCALE
HORIZ. 1" = 50'
VERT. N/A
DATE ISSUED: MAY 2026
SHEET 10 *OF* 15
DRAWING No. EC06

FOR EL PASO COUNTY REVIEW

CONTOUR INTERVALS ARE 1' AND 5'

EROSION CONTROL LEGEND:

▨	SSA	STABILIZED STAGING AREA
▬	SF	SILT FENCE
▨	VTC	VEHICLE TRACKING CONTROL
⌵	CD	CHECK DAM (SEE NOTE 4 BELOW)
▢	CWA	CONCRETE WASHOUT AREA
▬ · ▬		LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▮ ▮ ▮		CONSTRUCTION ACCESS
🟧		AREA OF CUT
🟦		AREA OF FILL
←		FLOW DIRECTION ARROW

NOTES:
1. SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.
2. SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.
3. ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.
4. CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.

REFERENCE DRAWINGS
X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:21:54 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 64+00 - 79+00

DESIGNED BY: TKM	SCALE		DATE ISSUED:	MAY 2026	DRAWING No.
DRAWN BY: RPD	HORIZ.	1" = 50'			EC07
CHECKED BY: JTB	VERT.	N/A	SHEET	11 OF 15	

Know what's below. Call before you dig.

EROSION CONTROL LEGEND:

▦	SSA	STABILIZED STAGING AREA
▨	SF	SILT FENCE
▩	VTC	VEHICLE TRACKING CONTROL
∨	CD	CHECK DAM (SEE NOTE 4 BELOW)
▢	CWA	CONCRETE WASHOUT AREA
▬ · ▬		LIMITS OF DISTURBANCE / LIMITS OF CONSTRUCTION
▮ ▮ ▮ ▮		CONSTRUCTION ACCESS
🟧		AREA OF CUT
🟦		AREA OF FILL
←		FLOW DIRECTION ARROW

NOTES:

1. SEE EROSION CONTROL BLANKET AND REVEGETATION PLANS IN THE 100% FINAL DESIGN PLANS FOR FINAL EROSION CONTROL DETAILS.
2. SOIL STOCKPILES TO BE DETERMINED BY OWNER/ CONTRACTOR BASED ON DEVELOPMENT PHASING.
3. ALL EROSION CONTROL MEASURES SHOWN IN THESE PLANS ARE FOR THE INITIAL AND INTERIM PHASES.
4. CHECK DAMS NOT SHOWN ON PLAN FOR CLARITY. CONTRACTOR TO INSTALL CHECK DAMS PER DETAIL ON DT01.

FOR EL PASO COUNTY REVIEW

REFERENCE DRAWINGS

X-1129-UTILITIES
X-1129-MDG22x34
X-1129-PARCELS
X-1129-PR STRUCT- PHASE 1
X-1129-LOD_LOWER
X-1129.009-AERIAL

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT

FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-EC01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:22:03 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

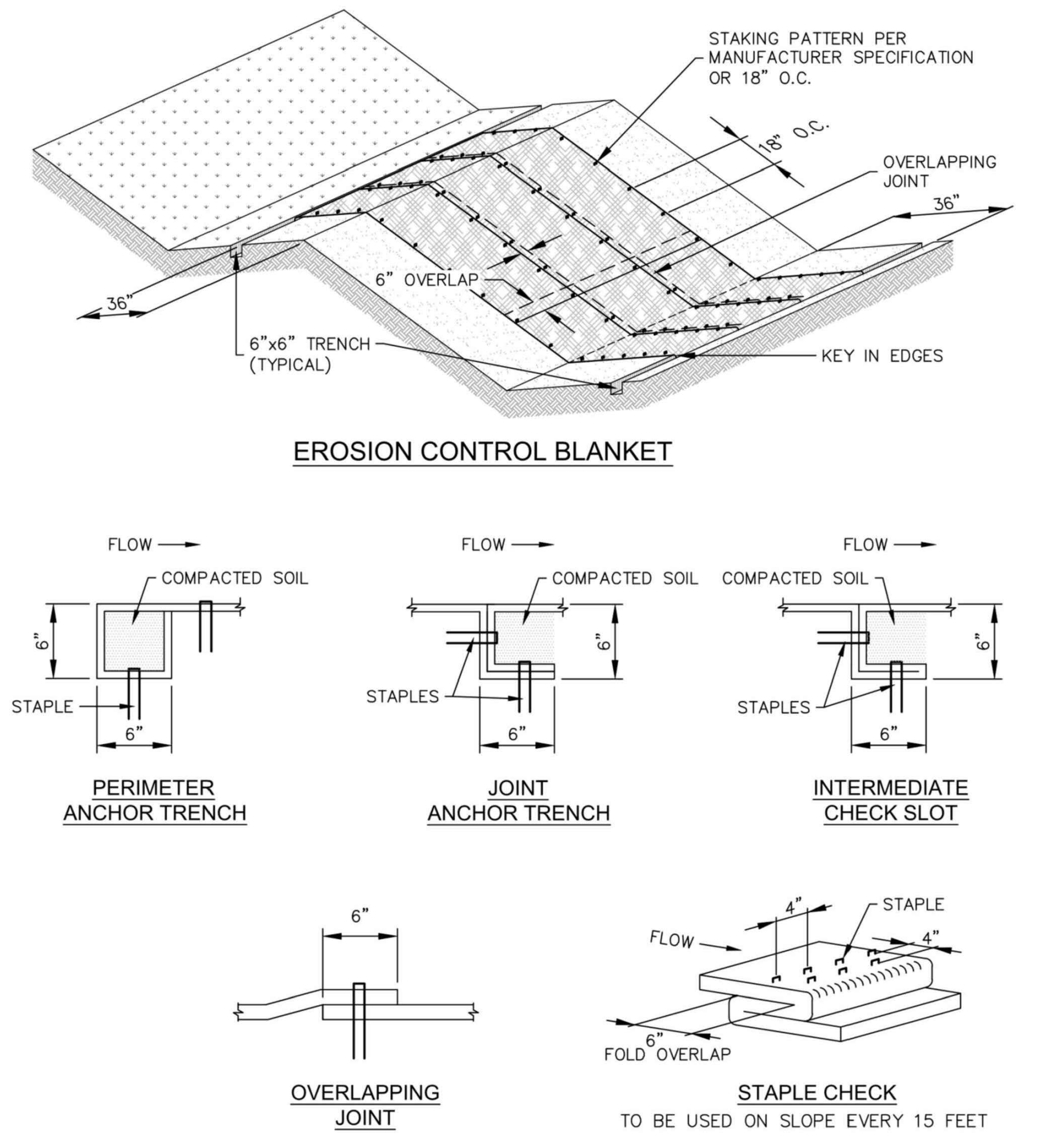
LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

INITIAL & INTERIM
GRADING & EROSION CONTROL PLANS
STA. 79+00 - 83+34.11

DESIGNED BY:	TKM	SCALE		DATE ISSUED: MAY 2026	DRAWING No.
DRAWN BY:	RPD	HORIZ.	1" = 50'		EC08
CHECKED BY:	JTB	VERT.	N/A	SHEET 12 OF 15	

811
Know what's below.
Call before you dig.



EROSION CONTROL BLANKET

PERIMETER ANCHOR TRENCH

JOINT ANCHOR TRENCH

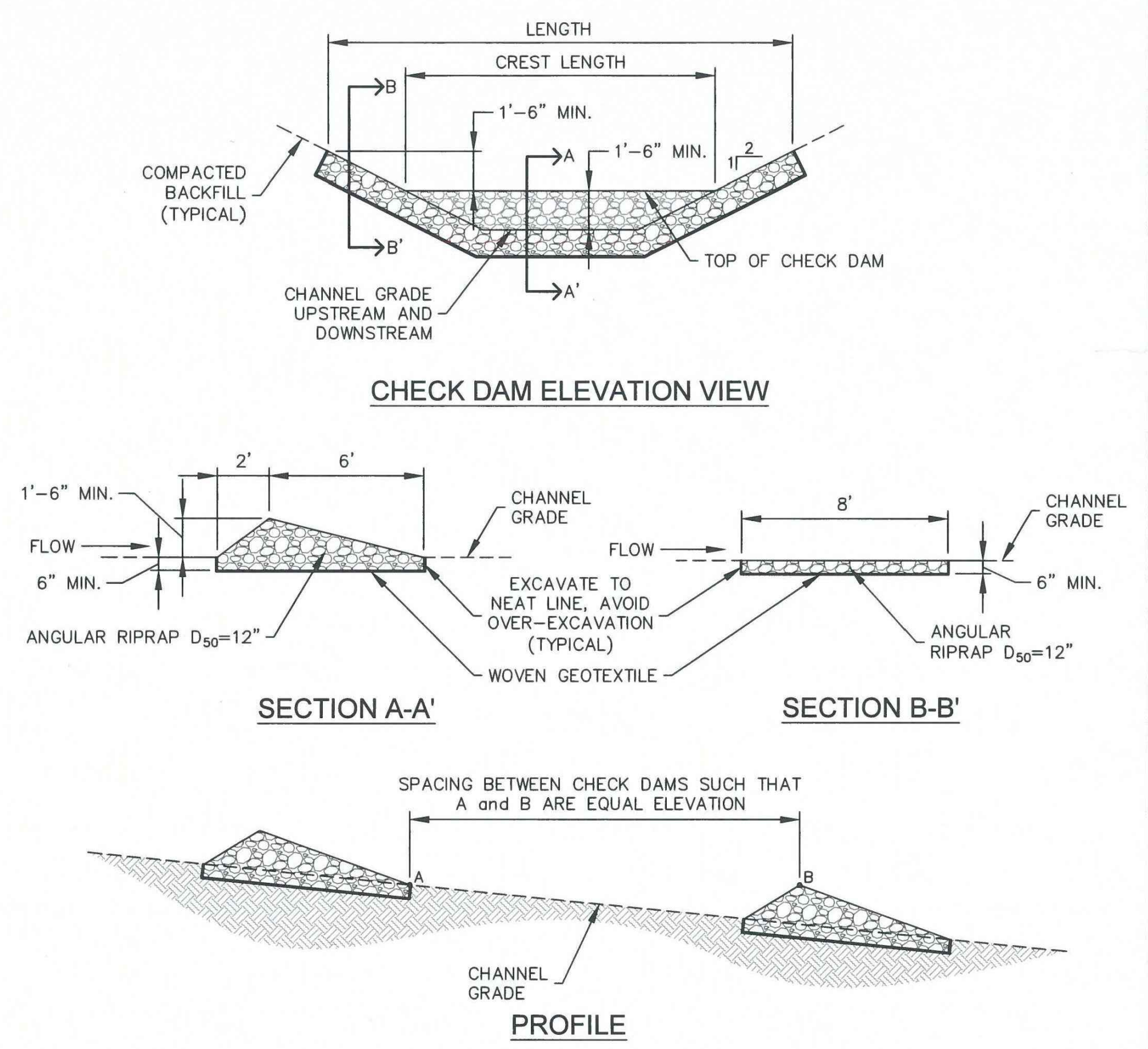
INTERMEDIATE CHECK SLOT

OVERLAPPING JOINT

STAPLE CHECK
TO BE USED ON SLOPE EVERY 15 FEET

ECB

STORMWATER ENTERPRISE
EROSION CONTROL BLANKET
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-ECB-1



CHECK DAM ELEVATION VIEW

SECTION A-A'

SECTION B-B'

PROFILE

INSTALLATION NOTES

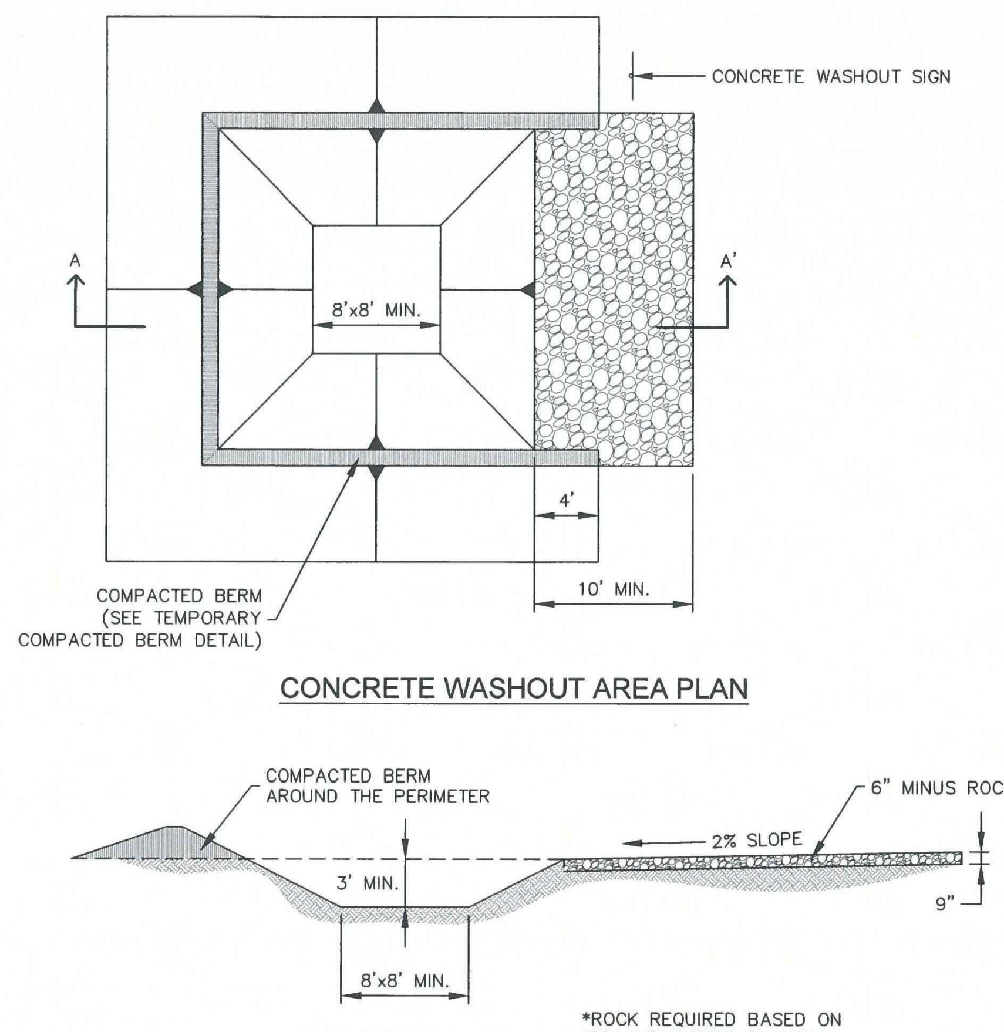
1. CHECK DAMS SHOULD BE INSTALLED BEFORE UPSTREAM LAND DISTURBING ACTIVITIES.
2. RIPRAP PAD SHOULD BE TRENCHED INTO GROUND BY A MINIMUM OF 6".

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ THE HEIGHT OF THE CHECK DAM CREST.
3. CHECK DAMS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER CHECK DAMS ARE REMOVED IF REMOVAL IS REQUIRED.

CD

STORMWATER ENTERPRISE
CHECK DAM
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-CD



CONCRETE WASHOUT AREA PLAN

SECTION A-A'

*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE GEC INSPECTOR

CWA

STORMWATER ENTERPRISE
CONCRETE WASHOUT AREA
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-CWA-1

INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF ⅔ THE HEIGHT OF THE CONCRETE WASH AREA.
3. 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.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

STORMWATER ENTERPRISE
CONCRETE WASHOUT AREA
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-CWA-2

INSTALLATION NOTES

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY ME USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS 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 EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

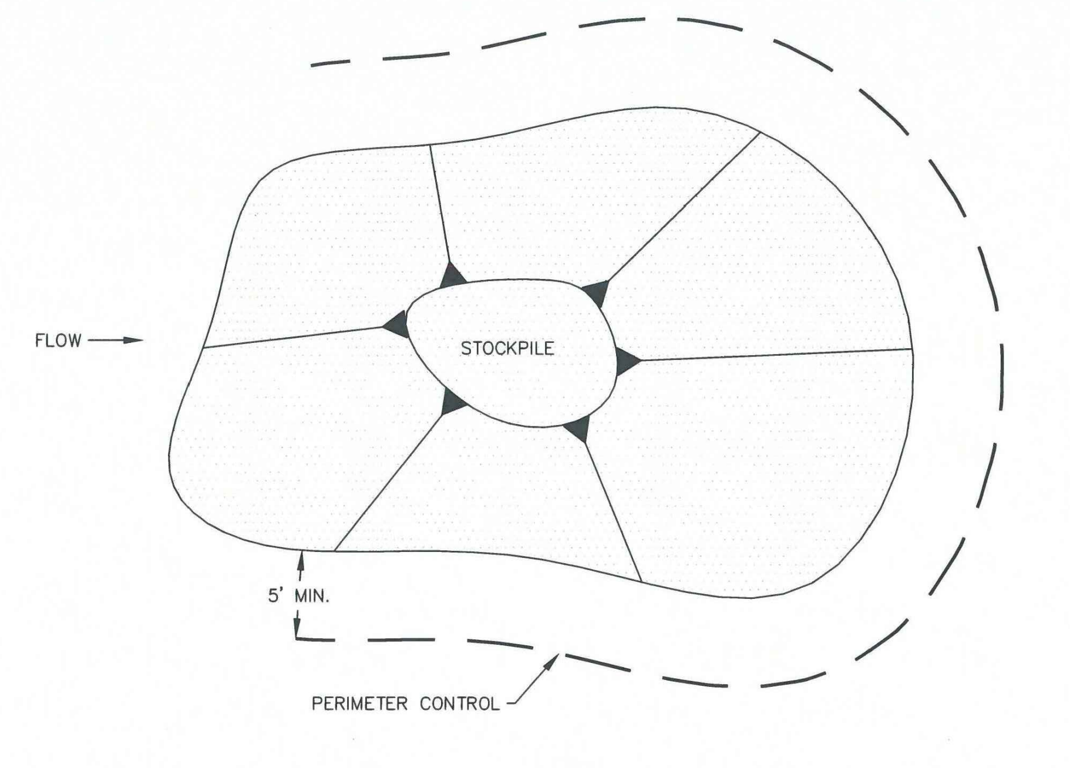
TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

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

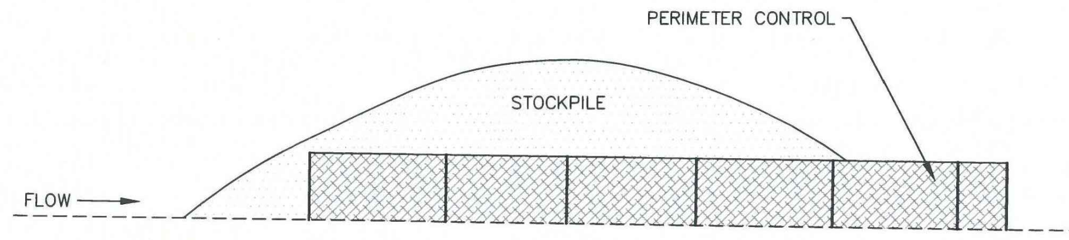
ECB

STORMWATER ENTERPRISE
EROSION CONTROL BLANKET
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-ECB-2

EROSION CONTROL BLANKET NOT FOR USE IN CREEK INVERT.



STOCKPILE PROTECTION PLAN



STOCKPILE PROTECTION ELEVATION

INSTALLATION NOTES

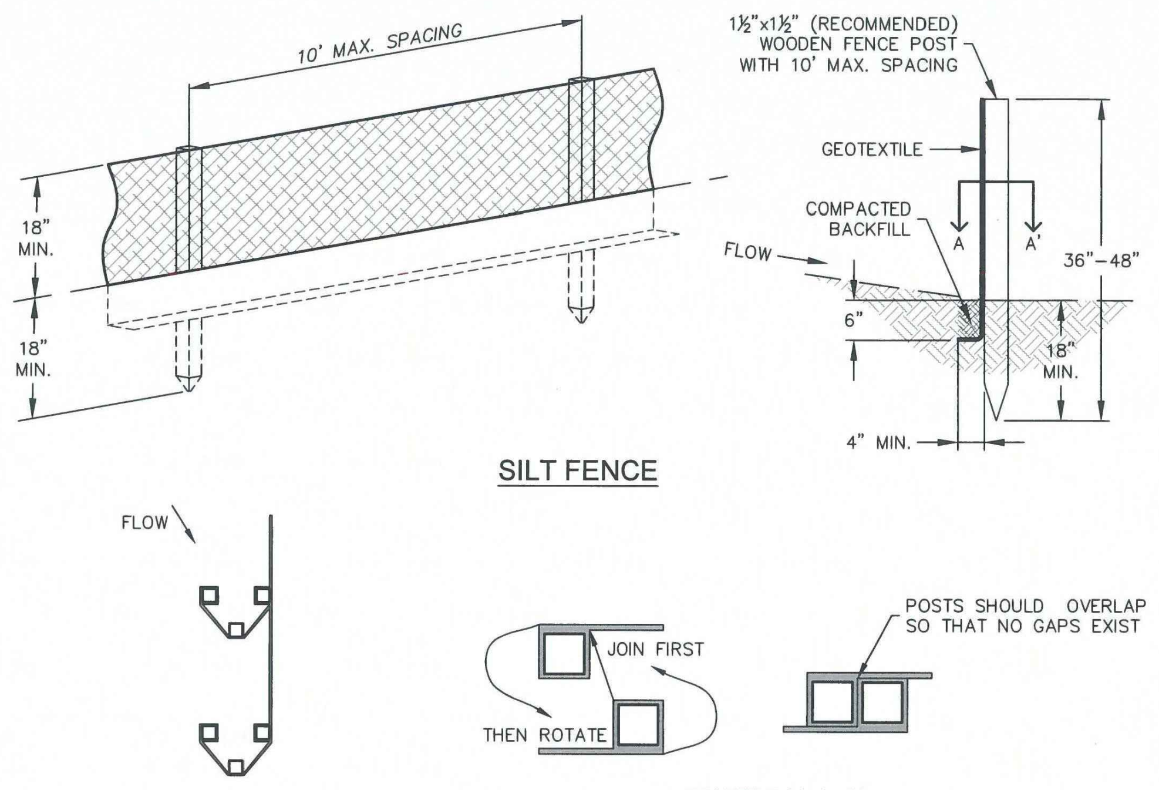
1. INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRADIENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
2. FOR STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS INCLUDING PERIMETER CONTROL ARE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

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
3. ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.

SP

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



SILT FENCE

J-HOOK INSTALLATION

SECTION A-A'

INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES

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

SF

STORMWATER ENTERPRISE
SILT FENCE
APPROVED:
SWENT MANAGER
ISSUED: 10/7/19
REVISED: 8/19/2020
DRAWING NO. 900-SF

REFERENCE DRAWINGS
X-1129-MDG22x34
X-069-EX-TOPO

REVISIONS

No.	DATE	DESCRIPTION	BY

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-ECDT01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:22:42 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

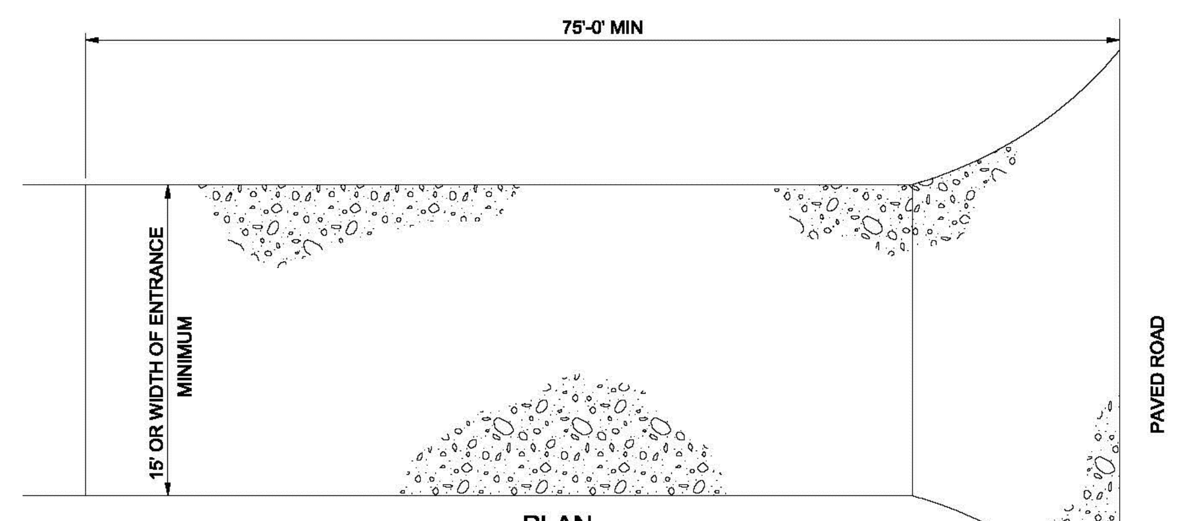
LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

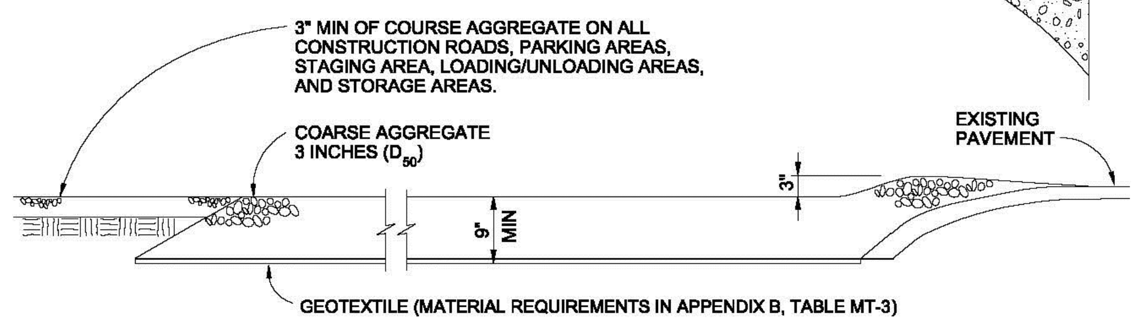
TYPICAL EROSION CONTROL DETAILS

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB
SCALE
HORIZ. N/A
VERT. N/A
DATE ISSUED: MAY 2026
SHEET 13 OF 15
DRAWING No. DT01

EL PASO COUNTY VEHICLE TRACKING DETAIL



PLAN



SECTION

VEHICLE TRACKING

NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

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

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

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

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

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

MAINTENANCE REQUIREMENTS

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

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

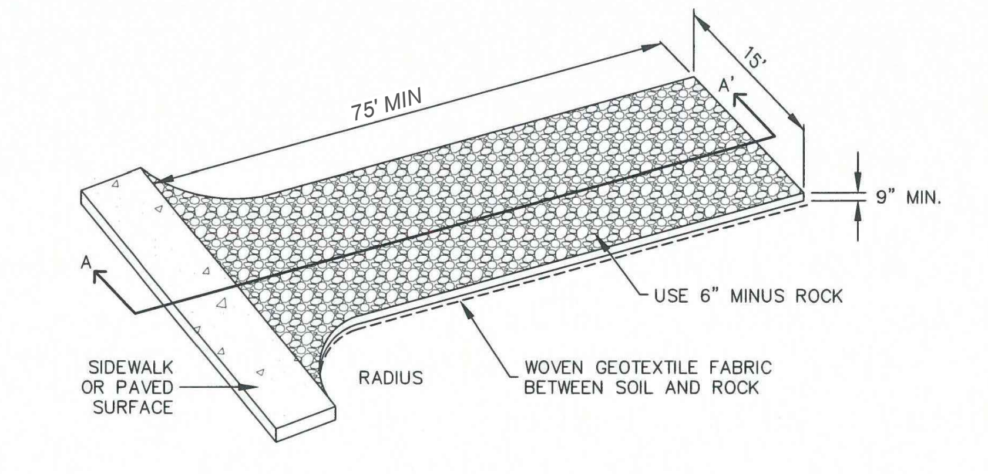
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

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

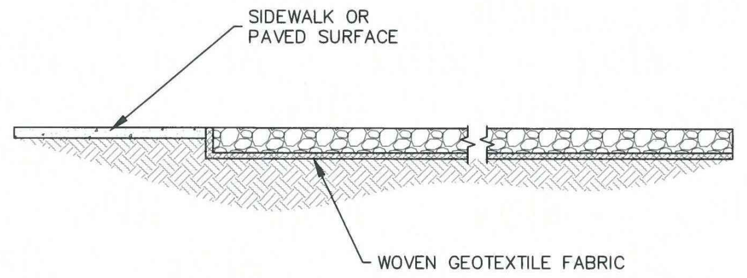
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality	Figure VT-2 Vehicle Tracking Application Examples

CITY OF COLORADO SPRINGS VEHICLE TRACKING DETAIL



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

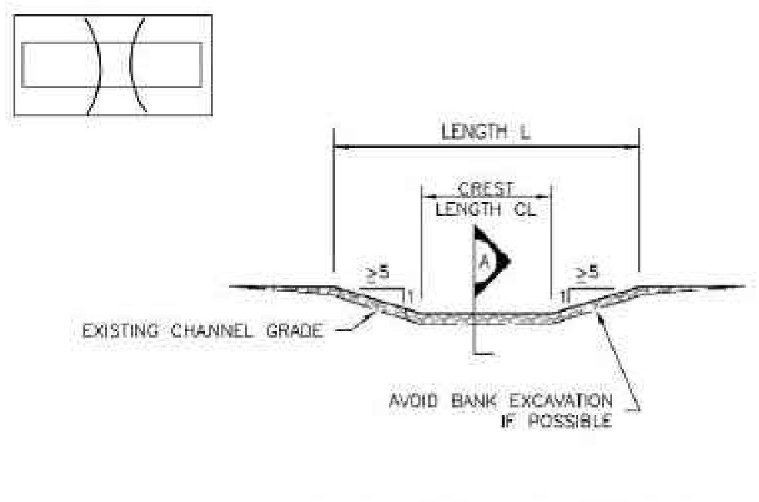
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

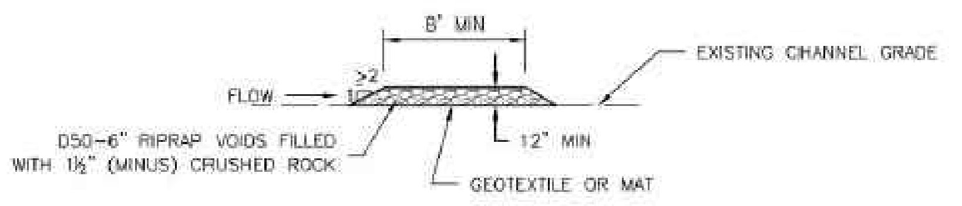
VTC

STORMWATER ENTERPRISE	VEHICLE TRACKING CONTROL		
	APPROVED: SWENT MANAGER		
	ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-VTC

SM-10 Temporary Stream Crossing (TSC)



FORD CROSSING SECTION



SECTION A

TSC-2. FORD CROSSING

TSC-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

SM-10 Temporary Stream Crossing (TSC)

TEMPORARY STREAM CROSSING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - –LOCATIONS OF TEMPORARY STREAM CROSSINGS.
   - –STREAM CROSSING TYPE (FORD, CULVERT, OR FLUME).
   - –FOR FORD CROSSING: LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
   - –FOR CULVERT CROSSING: LENGTH (L), CREST LENGTH (CL), CROSSING HEIGHT (H), DEPTH (D), CULVERT DIAMETER (CD), AND NUMBER, TYPE AND CLASS OR GAUGE OF CULVERTS.

2. TEMPORARY STREAM CROSSING DIMENSIONS, D50, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE PROMPTLY REPAIRED.

3. SEE MAJOR DRAINAGE CHAPTER FOR RIPRAP GRADATIONS.

4. WHERE FAILURE OF A STREAM CROSSING CAN RESULT IN SIGNIFICANT DAMAGE OR HARM IT MUST BE DESIGNED BY A STRUCTURAL ENGINEER.

TEMPORARY STREAM CROSSING 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. REMOVE SEDIMENT ACCUMULATED UPSTREAM OF CROSSING AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE CROSSING.

5. STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED AND SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.

6. WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE 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 DIFFERENCES ARE NOTED.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND CITY OF AURORA, COLORADO (vs. DSWC), NOT AVAILABLE IN AUTOCAD)

TSC-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

SEEDING & MULCHING

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

SOIL PREPARATION

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

SEEDING

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

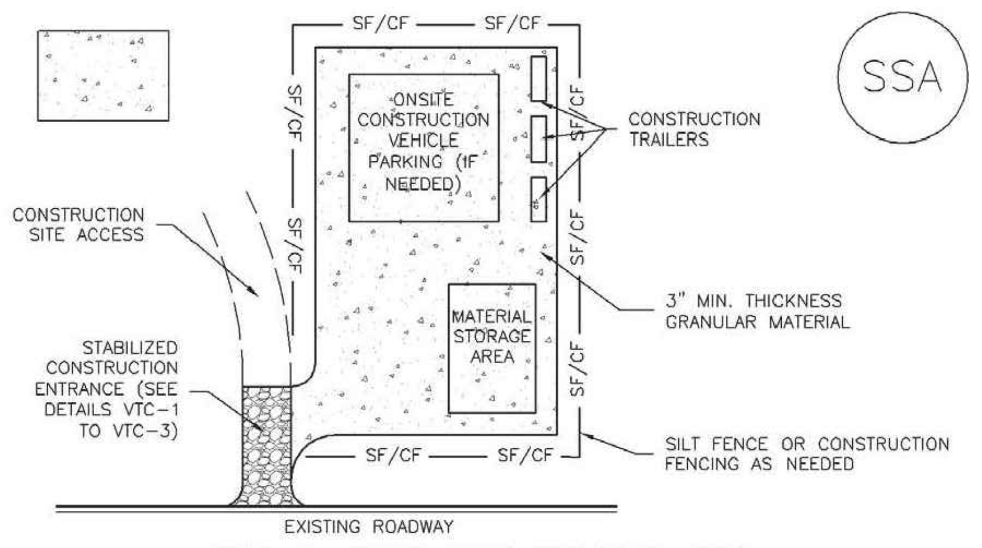
MULCHING

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

SM

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

Stabilized Staging Area (SSA) SM-6



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   - –LOCATION OF STAGING AREA(S).
   - –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

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

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SSA-3

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

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

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

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

SSA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

REFERENCE DRAWINGS
X-1129-MDG22x34
X-069-EX-TOPO

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-ECDT01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:22:45 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

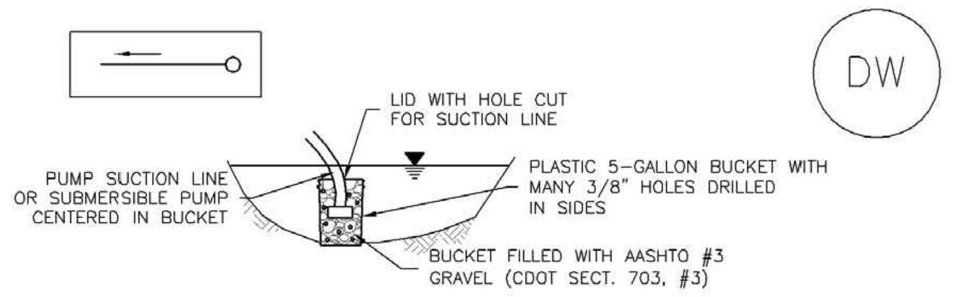
LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

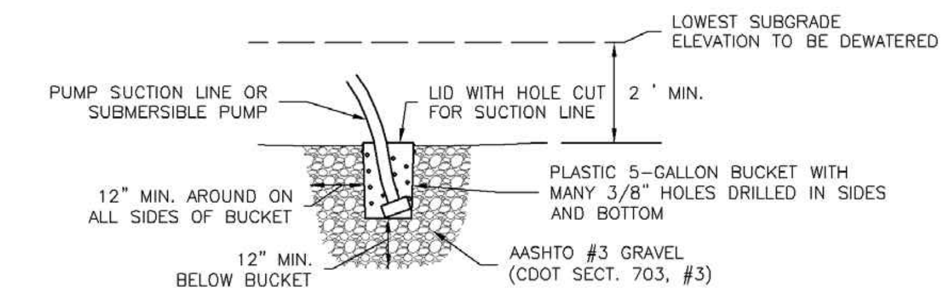
TYPICAL EROSION CONTROL DETAILS

DESIGNED BY:	TKM	SCALE		DATE ISSUED:	MAY 2026	DRAWING No.
DRAWN BY:	RPD	HORIZ.	N/A	SHEET	14 OF 15	DT02
CHECKED BY:	JTB	VERT.	N/A			

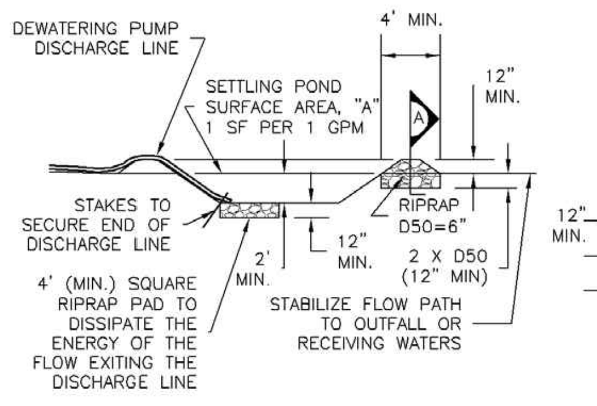
Know what's below. Call before you dig.



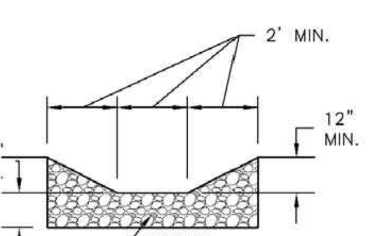
DW-1. DEWATERING POND ALREADY FILLED WITH WATER



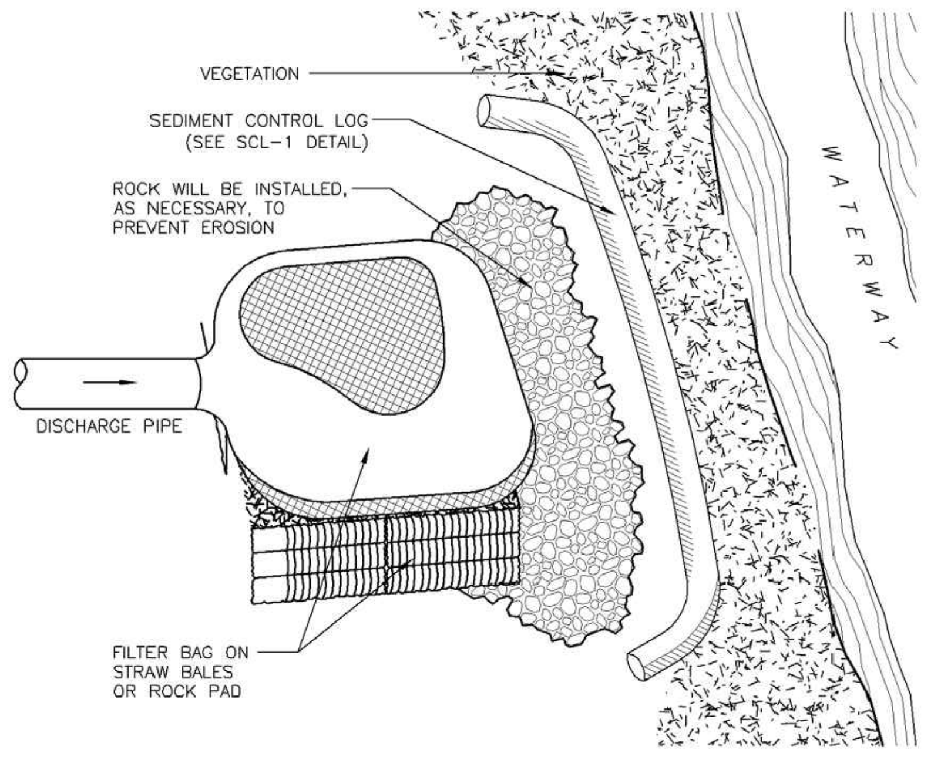
DW-2. DEWATERING SUMP FOR SUBMERSED PUMP



DW-3. SUMP DISCHARGE SETTLING BASIN



SETTLING BASIN SECTION A



DW-4. DEWATERING FILTER BAG

DEWATERING INSTALLATION NOTES

1. SEE PLAN VIEW FOR;
   - LOCATION OF DEWATERING EQUIPMENT.
   - TYPE OF DEWATERING OPERATION (DW-1 TO DW-4).

2. THE OWNER OR CONTRACTOR SHALL OBTAIN A CONSTRUCTION DISCHARGE (DEWATERING) PERMIT FROM THE STATE PRIOR TO ANY DEWATERING OPERATIONS DISCHARGING FROM THE SITE. ALL DEWATERING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT.

3. THE OWNER OR OPERATOR SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER AND MAINTAIN THE GROUNDWATER LEVEL A MINIMUM OF 2-FEET BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACK-FILLED TO FINAL GRADE.

DEWATERING INSTALLATION NOTES

4. DEWATERING OPERATIONS SHALL USE ONE OR MORE OF THE DEWATERING SUMPS SHOWN ABOVE, WELL POINTS, OR OTHER MEANS APPROVED BY THE LOCAL JURISDICTION TO REDUCE THE PUMPING OF SEDIMENT, AND SHALL PROVIDE A TEMPORARY SEDIMENT BASIN OR FILTRATION BMP TO REDUCE SEDIMENT TO ALLOWABLE LEVELS PRIOR TO RELEASE OFF SITE OR TO A RECEIVING WATER. A SEDIMENT BASIN MAY BE USED IN LIEU OF SUMP DISCHARGE SETTLING BASIN SHOWN ABOVE IF A 4-FOOT-SQUARE RIPRAP PAD IS PLACED AT THE DISCHARGE POINT AND THE DISCHARGE END OF THE LINE IS STAKED IN PLACE TO PREVENT MOVEMENT OF THE LINE.

DEWATERING 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. DEWATERING BMPs ARE REQUIRED IN ADDITION TO ALL OTHER PERMIT REQUIREMENTS.

5. TEMPORARY SETTLING BASINS SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE 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 DIFFERENCES ARE NOTED.

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

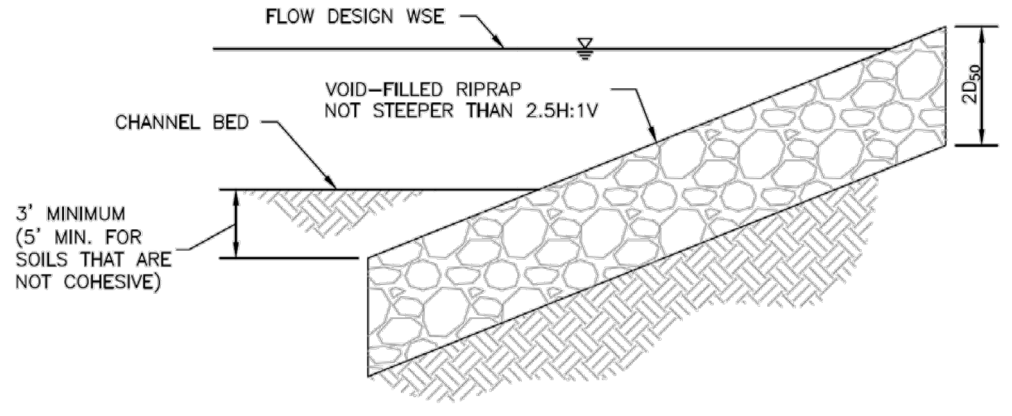
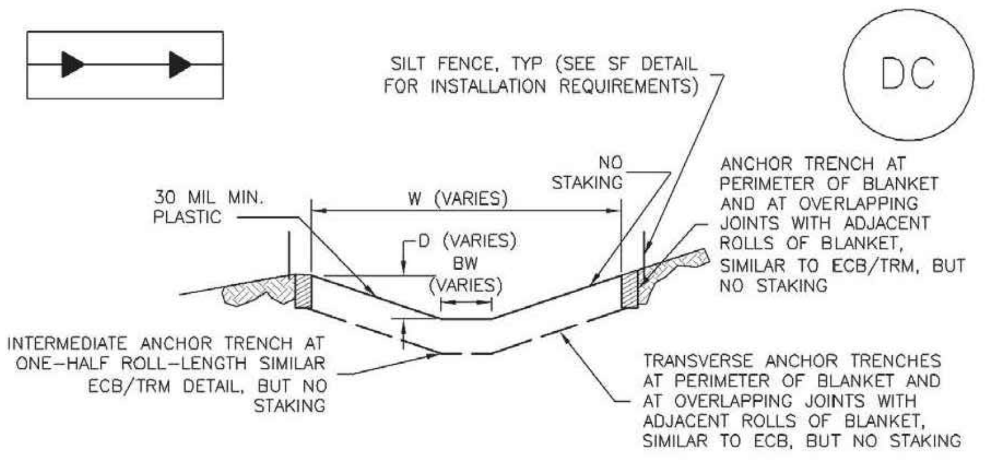


TABLE 1. MIX REQUIREMENTS FOR TYPE VL AND L VOID-FILLED RIPRAP (D_{50} = 6 TO 9 INCH)

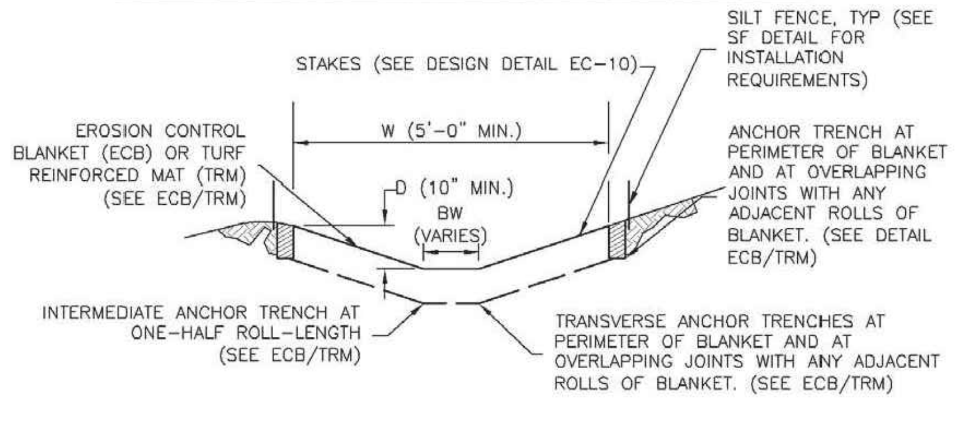
APPROPRIATE PROPORTIONS (BY VOLUME)	MATERIAL TYPE	MATERIAL DESCRIPTION
6 PARTS	RIPRAP	D_{50} = 6 INCH (TYPE VL) OR D_{50} = 9 INCH (TYPE L), SEE TABLE 3
1 PART	VOID-FILL MATERIAL	VTC (VEHICLE TRACKING CONTROL) ROCK (CRUSHED ROCK WITH 100% PASSING 4-INCH SIEVE, 50-70% PASSING 3-INCH SIEVE, 0-10% PASSING 2-INCH SIEVE)
1 PART	VOID-FILL MATERIAL	4-INCH MINUS PIT RUN SURGE (ROUND RIVER ROCK AND SAND, WELL GRADED, 90-100% PASSING 4-INCH SIEVE, 70-80% PASSING 1½-INCH SIEVE, 40-60% PASSING ⅜-INCH SIEVE, 10-30% PASSING #16 SIEVE)
1 PART	VOID-FILL MATERIAL	TYPE II BEDDING (CRUSHED ROCK WITH 100% PASSING 3-INCH SIEVE, 20-90% PASSING ¾-INCH SIEVE, 0-20% PASSING #4 SIEVE, 0-3% PASSING #200 SIEVE)
½ TO 1 PART	VOID-FILL MATERIAL	NATIVE TOPSOIL

VOID-FILLED RIPRAP PLACEMENT AND GRADATION

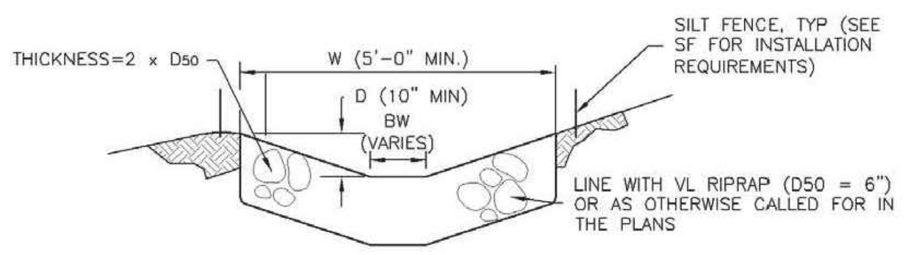
Figure 8-35. Void-filled riprap placement and gradation (part 1 of 3)



DC-1. PLASTIC LINED DIVERSION CHANNEL



DC-2. GEOTEXTILE OR MAT LINED DIVERSION CHANNEL



DC-3. RIPRAP LINED DIVERSION CHANNEL

CHANNEL DIVERSION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF DIVERSION CHANNEL
   - TYPE OF CHANNEL (UNLINED, GEOTEXTILE OR MAT LINED, PLASTIC LINE, OR RIPRAP LINED).
   - LENGTH OF EACH TYPE OF CHANNEL.
   - DEPTH, D, WIDTH, W, AND BOTTOM WIDTH, BW.
   - FOR RIPRAP LINED CHANNEL, SIZE OF RIPRAP, D50, SHALL BE SHOWN ON PLANS.

2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES.

3. DIVERSION CHANNELS INDICATED ON THE SWMP PLAN SHALL BE INSTALLED PRIOR TO WORK IN DOWNGRADIENT AREAS OR NATURAL CHANNELS.

4. FOR GEOTEXTILE OR MAT LINED CHANNELS, INSTALLATION OF GEOTEXTILE OR MAT SHALL CONFORM TO THE REQUIREMENTS OF DETAIL ECB, FOR PLASTIC LINED CHANNELS, INSTALLATION OF ANCHOR TRENCHES SHALL CONFORM TO THE REQUIREMENTS OF DETAIL ECB.

5. WHERE CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION CHANNEL, THE PERMITTEE SHALL INSTALL A TEMPORARY STREAM CROSSING CONFORMING TO THE REQUIREMENTS OF DETAIL TSC.

DIVERSION CHANNEL 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. DIVERSION CHANNELS ARE TO REMAIN IN PLACE UNTIL WORK IN THE DOWNGRADIENT AREA OR NATURAL CHANNEL IS NO LONGER REQUIRED. IF APPROVED BY LOCAL JURISDICTION DIVERSION CHANNEL MAY BE LEFT IN PLACE.

5. IF DIVERSION CHANNELS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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

TABLE 2. MIX REQUIREMENTS FOR TYPE M AND H VOID-FILLED RIPRAP (D_{50} = 12 TO 18 INCH)

APPROPRIATE PROPORTIONS (BY VOLUME)	MATERIAL TYPE	MATERIAL DESCRIPTION
6 PARTS	RIPRAP	D_{50} = 12-INCH (TYPE M) OR D_{50} = 18-INCH (TYPE H), SEE TABLE 3
2 PART	VOID-FILL MATERIAL	7-INCH MINUS CRUSHED ROCK SURGE (100% PASSING 7-INCH SIEVE, 80-100% PASSING 6-INCH SIEVE, 35-50% PASSING 3-INCH SIEVE, 10-20% PASSING 1½-INCH SIEVE)
1 PART	VOID-FILL MATERIAL	VTC (VEHICLE TRACKING CONTROL) ROCK (CRUSHED ROCK WITH 100% PASSING 4-INCH SIEVE, 50-70% PASSING 3-INCH SIEVE, 0-10% PASSING 2-INCH SIEVE)
1 PART	VOID-FILL MATERIAL	4-INCH MINUS PIT RUN SURGE (ROUND RIVER ROCK AND SAND, WELL GRADED, 90-100% PASSING 4-INCH SIEVE, 70-80% PASSING 1½-INCH SIEVE, 40-60% PASSING ⅜-INCH SIEVE, 10-30% PASSING #16 SIEVE)
1 PART	VOID-FILL MATERIAL	TYPE II BEDDING (CRUSHED ROCK WITH 100% PASSING 3-INCH SIEVE, 20-90% PASSING ¾-INCH SIEVE, 0-20% PASSING #4 SIEVE, 0-3% PASSING #200 SIEVE)
½ TO 1 PART	VOID-FILL MATERIAL	NATIVE TOPSOIL

TABLE 3. VOID-FILLED RIPRAP PLACEMENT AND GRADATION

RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D_{50}* (INCHES)
TYPE VL	70 - 100 50 - 70 35 - 50 2 - 10	12 9 6 2	6
TYPE L	70 - 100 50 - 70 35 - 50 2 - 10	15 12 9 3	9
TYPE M	70 - 100 50 - 70 35 - 50 2 - 10	21 18 12 4	12
TYPE H	70 - 100 50 - 70 35 - 50 2 - 10	30 24 18 6	18

*D_{50} = MEAN ROCK SIZE

NOTE: MIX ON SITE AND PRIOR TO PLACEMENT

Figure 8-35. Void-filled riprap placement and gradation (part 2 of 3)

VOID-FILLED RIPRAP PLACEMENT AND GRADATION NOTES:

1. WHERE "VOID-FILLED RIPRAP" IS DESIGNATED ON THE CONTRACT DRAWINGS, RIPRAP SHALL BE MIXED WITH THE MATERIALS AND ASSOCIATED PROPORTIONS LISTED IN TABLE 1 OR TABLE 2 TO FILL THE VOIDS OF THE RIPRAP.
2. THE MIX PROPORTIONS PROVIDED IN TABLE 1 AND TABLE 2 ARE APPROXIMATE AND ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER.
3. THE RIPRAP AND VOID-FILLED MATERIALS SHALL BE STOCKPILED SEPERATELY AND THOROUGHLY MIXED PRIOR TO PLACEMENT AND SHALL BE INSTALLED AND COMPACTED SO THAT A DENSE, INTERLOCKED LAYER OF RIPRAP AND VOID-FILL MATERIAL IS PROVIDED WITH RIPRAP VOIDS COMPLETELY FILLED. THE LOOSE MATERIAL SHALL BE PLACED IN A SINGLE LIFT OF SUFFICIENT HEIGHT SUCH THAT FINAL GRADE WILL BE ACHIEVED UPON COMPACTED. IF THE COMPACTED MATERIAL IS BELOW FINAL GRADE, PLACEMENT OF ONLY THE SMALLER VOID-FILL MATERIALS TO ACHIEVE FINAL GRADE IS NOT PERMITTED. IN SUCH CASES IT IS NECESSARY TO ADD MORE STANDARD SIZED VOID-FILLED RIPRAP AND REMIX THE ENTIRE THICKNESS OF ROCK TO ACHIEVE THE DESIGN SECTION. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF THE VOID-FILL MATERIALS. THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT FILLING THE VOIDS.
4. COMPACTION OF THE VOID-FILLED RIPRAP SHALL BE PERFORMED BY WHEEL ROLLING WITH HEAVY RUBBER-TIRED EQUIPMENT (E.G. FRONT END LOADER). THE MOISTURE CONTENT OF THE MIXTURE SHALL BE AT OPTIMUM CONDITIONS PRIOR TO COMPACTION AND WATER SHALL BE ADDED, AS NECESSARY, AT THE DIRECTION OF THE ENGINEER.
5. WHERE INDICATED ON THE DRAWINGS, A SURFACE LAYER OF MOIST TOPSOIL SHALL BE PLACED OVER THE VOID-FILLED RIPRAP. THE TOPSOIL SURFACE LAYER SHALL BE COMPACTED TO APPROXIMATELY 85% OF MAXIMUM DENSITY AND WITHIN TWO PERCENTAGE POINTS OF OPTIMUM MOISTURE IN ACCORDANCE WITH ASTM D698. TOPSOIL SHALL BE ADDED TO ANY AREAS THAT SETTLE.
6. ALL VOID-FILLED RIPRAP THAT IS BURIED WITH TOPSOIL SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY TOPSOIL PLACEMENT.

Figure 8-35. Void-filled riprap placement and gradation (part 3 of 3)

REFERENCE DRAWINGS
X-1129-MDG22x34
X-069-EX-TOPO

No.	DATE	DESCRIPTION	BY

REVISIONS

COMPUTER FILE MANAGEMENT
FILE NAME: S:\21.1129.009 Rolling Hills Floodplain and Permitting\Dwg\GESQC Plans\Phase 1\1129.009-ECDT01.dwg
CTB FILE: Matrix(black).ctb
PLOT DATE: May 8, 2026 8:22:49 AM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

100% DESIGN PLANS

NOTICE:
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW BECK, PE

THE LANDHUIS COMPANY

PREPARED BY:
Matrix
Excellence by Design

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 21.1129.009

LANDHUIS COMPANY

ROLLING MEADOWS-BULL HILL CHANNEL & FLOODPLAIN - PHASE 1
MODIFICATION GRADING AND EROSION CONTROL PLAN

TYPICAL EROSION CONTROL DETAILS

DESIGNED BY: TKM
DRAWN BY: RPD
CHECKED BY: JTB
SCALE
HORIZ. N/A
VERT. N/A
DATE ISSUED: MAY 2026
SHEET 15 OF 15
DRAWING No. DT03