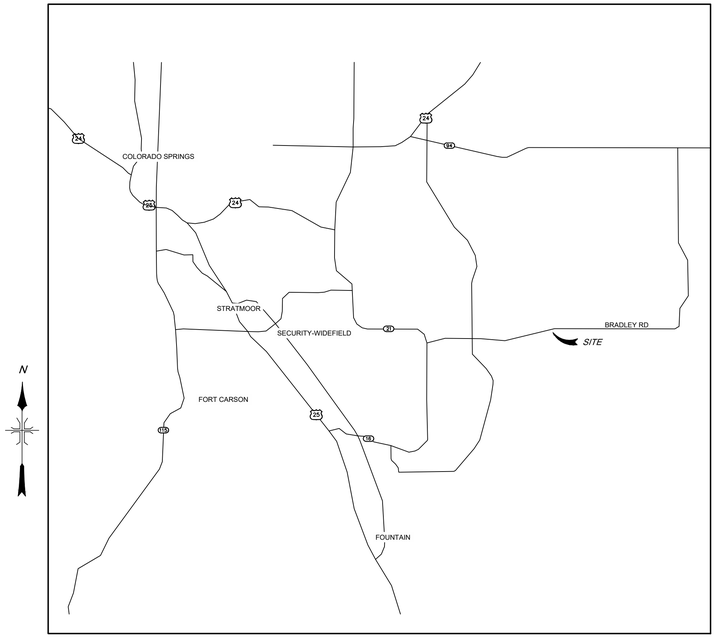
EPC STORMWATER REVIEW COMMENTS
IN ORANGE BOXES WITH BLACK TEXT



VICINITY MAP
N.T.S.

Site Coordinates (Lat/Long): 38.76473, -104.61765
Address: 11295 Bradley Rd, El Paso County, CO

TRI-STATE

Generation and Transmission
Association, Inc.

COORDINATE SYSTEM: Colorado State Plane Central Zone
SCALE FACTOR: 1.0003223877
VERTICAL DATUM = NAVD88
HORIZONTAL DATUM = NAD 83

NOTE:
ORIGINAL SITE COORDINATES HAVE BEEN ADJUSTED FROM GRID TO GROUND .

A HORIZONTAL ADJUSTMENT WAS MADE BY APPLYING A GROUND SCALE FACTOR OF 1.0003223877, WHICH IS EQUIVALENT TO A NORTHING OFFSET OF 432.070', AND AN EASTING OFFSET OF 1047.946',

A VERTICAL ADJUSTMENT OF +3.353' WAS APPLIED TO CONVERT VERTICAL DATUM FROM NGVD29.

Include Sheet Index

Rolling Meadows Substation
Construction of a New Electrical Substation
including Grading, Drainage, and Surface Improvements
El Paso County, Colorado

PCD FILE NO. TBD

Construction Plans prepared in cooperation with:

DEL-MONT CONSULTANTS, INC.
ENGINEERING ▼ SURVEYING
125 Colorado Ave.▼ Montrose, CO 81401 ▼ (970) 249-2251
www.del-mont.com ▼ service@del-mont.com

OWNER'S STATEMENT:

I, the owner/developer have read and will comply with the requirements of the grading and erosion control plan.

_____ _____
H. Steven Gray, Vice President Date
Tri-State Generation and Transmission Association, Inc.
1100 W. 116th Ave, Westminster, CO 80234

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. sad 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.

_____ 04-27-2026
David Schieldt, P.E. #47195 Date

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, P.E. Date
County Engineer Signature/ECM Administrator

PPR2619

No.	Date	Revision	M.F.
1			
2			
3			
4			
5			
6			
7			

Dwg. No. | Mfgr. | Drawing Title | Reference Drawings

ROLLING MEADOWS SUBSTATION
115/12.47kV
COVER SHEET

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn:	Date:
TMC	06/22/26
Appd: DWS	Date: 06/22/26

S1183-A-01-001

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

GENERAL NOTES:

1. THE OWNER (TSGT) WILL PROVIDE THE CONTRACTOR WITH DOCUMENTATION NECESSARY TO RECOVER THE SURVEY MONUMENTS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF CONSTRUCTION STAKING WITH THE RESIDENT PROJECT REPRESENTATIVE.
2. THE CONTRACTOR SHALL SCHEDULE WORK SUCH THAT THE DURATION OF IMPACT TO ADJACENT PUBLIC ROADS AND RIGHTS-OF-WAY IS MINIMIZED.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT HIS PERSONNEL AND SUBCONTRACTOR PERSONNEL ARE AWARE OF PROPER SAFETY PROCEDURES
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WATER NECESSARY FOR CONSTRUCTION.
5. THE CONTRACTOR SHALL INFORM THE OWNER OF DAILY WORK ACTIVITIES AND LOCATIONS IN GENERAL. THIS DAILY PLANNING SHALL INCLUDE A DISCUSSION OF SPECIFIC SAFETY MEASURES TO BE TAKEN DURING THE DAY'S WORK.
6. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER AND THE TESTING LABORATORY TO FACILITATE OWNER'S MANAGEMENT AND QUALITY CONTROL OF THE PROJECT CONSTRUCTION.
7. THE CIVIL WORKS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN PROJECT OFFICE, TOILET FACILITIES AND ALL OTHER NECESSARY BUILDINGS OR SHELTERS. THE OWNER WILL NOT PROVIDE ANY FACILITIES TO THE CONTRACTOR DURING CONSTRUCTION. ALL FACILITIES AND SERVICES FOR THE RESIDENT PROJECT REPRESENTATIVE(RPR) SHALL BE PROVIDED BY THE CIVIL WORKS CONTRACTOR AND SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS ON THIS PROJECT. THE CONTRACTOR SHALL PROVIDE LOCKABLE AND SEPARATE OFFICE SPACE FOR THE RPR; FAX MACHINE WITH SUPPLIES AND DEDICATED SERVICE, COPY MACHINE AND SUPPLIES, OFFICE DESK, FILING CABINETS, DRAFTING TABLE, MEETING TABLE, CHAIRS, ENTRANCE STEPS, AIR CONDITIONING/HEATING, AND INSIDE TOILET. TOILET FACILITIES SHALL BE MAINTAINED IN WORKING CONDITION BY THE CONTRACTOR AT ALL TIMES.
8. THE CONTRACTOR'S PROJECT MANAGER SHALL ATTEND ALL SCHEDULED ROUTINE PROGRESS MEETINGS DURING THE DURATION OF THE PROJECT, AND PROVIDE UPDATED SCHEDULES AS REQUESTED. WEEKLY PROGRESS MEETINGS ARE MANDATORY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL EXISTING UNDERGROUND UTILITIES AND STRUCTURES. THE CONTRACTOR WILL BE REQUIRED TO WORK WITH ALL DUE CAUTION IN THE AREAS OF THE LOCATED UNDERGROUND UTILITIES IN ORDER TO AVOID DAMAGING SAID UTILITIES. IN THE EVENT OF UTILITY DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING IMMEDIATE REPAIRS AND NOTIFICATION OF THE PROPER AUTHORITIES AND SERVICE PROVIDERS.
10. THE CONTRACTOR SHALL SUBMIT HIS CONSTRUCTION WORK SCHEDULE TO THE OWNER PROJECTING HIS UPCOMING WORK FOR THE NEXT THREE WEEKS. THE OWNER SHALL REVIEW THIS PLAN WEEKLY WITH THE CONTRACTOR SO THAT EVERYONE IS AWARE OF UPCOMING CONSTRUCTION EVENTS.
11. THE CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE CONSTRUCTION WORK AREA. THE CONTRACTOR SHALL PERFORM CLEAN-UP OPERATIONS ON A DAILY BASIS.
12. THE CONTRACTOR SHALL HAVE SUFFICIENT EQUIPMENT AND PERSONNEL ON SITE TO ACCOMPLISH EFFICIENT AND PROMPT CONSTRUCTION OF THE VARIOUS WORK ITEMS, INCLUDING WORK ON MORE THAN ONE WORK ITEM SIMULTANEOUSLY.
13. NO TRENCHES IN OR DIRECTLY ADJACENT TO OPERATIONAL PAVEMENT SHALL REMAIN OPEN OVERNIGHT OR WHEN THE CONTRACTOR FINISHES WORK FOR THE DAY IN THE AREA. TRENCHES NOT BACKFILLED SHALL BE COVERED WITH STEEL PLATES TO ALLOW FOR SAFE PASSAGES BY VEHICLES ACROSS THE TRENCH, IF APPROVED BY THE OWNER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES NOT DESIGNATED FOR RECONSTRUCTION OR REPLACEMENT, AT HIS EXPENSE.
15. DAMAGE TO EXISTING PAVEMENTS DUE TO MOVING OR USAGE OF HEAVY EQUIPMENT OR THE TRANSPORT OF MATERIALS TO OR ON THE SITE SHALL BE REPAIRED TO EQUAL OR BETTER QUALITY BY THE CONTRACTOR AT HIS EXPENSE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE REPAIR OF ANY DAMAGE TO UNDERGROUND CABLES ENCOUNTERED.
17. ALL ABOVE GROUND AND GROUND LEVEL ELECTRICAL RELATED APPURTENANCES (I.E., LIGHTS, CABLE BOXES, CABLE AND/OR DUCT MARKERS, TELEPHONE PEDESTALS, UTILITY POLES, CONDUIT, ETC.) SHALL BE PROTECTED AT ALL TIMES. ANY DAMAGE DONE TO SAID APPURTENANCES BY THE CONTRACTOR SHALL BE REPAIRED TO LIKE QUALITY AT THE CONTRACTOR'S EXPENSE. THE REPAIRS SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER'S PROJECT MANAGER, AND ANY RESPONSIBLE UTILITY PROVIDER.
18. CONSTRUCTION WORKERS WILL NOT BE ALLOWED TO ESTABLISH OVERNIGHT RESIDENCE ON THE PREMISES. ALL CONSTRUCTION WORKERS SHALL LEAVE THE CONSTRUCTION SITE AT THE END OF THEIR WORK PERIOD.
19. WORK CANNOT COMMENCE UNTIL:
   19.1. THE CONTRACTOR'S STORMWATER MANAGEMENT PERIMETER CONTROLS INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AND DISCHARGE POINT CONTROLS ARE IN PLACE.
   19.2. ALL SAFETY EQUIPMENT FOR PERSONNEL AND CONSTRUCTION EQUIPMENT IS IN PLACE AND OPERABLE.
20. A COMPLETE PROJECT SCHEDULE IS TO BE SUBMITTED WITHIN 10 DAYS OF NOTICE TO PROCEED.
21. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND RESTRICTIONS FOR SERVICING AND MAINTAINING EQUIPMENT AND DISPOSAL OF USED LUBRICANTS, ETC.

EMBANKMENT AND GRADING NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING EXISTING PAVEMENT THAT MUST REMAIN IN SERVICE. DAMAGE MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
2. DESIGN CONTOURS AND SPOT ELEVATIONS SHOWN IN PLANS REPRESENT FINAL FINISHED SURFACE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ESTIMATED QUANTITIES OF EXCAVATION AND EMBANKMENT IN THESE PLANS WERE CALCULATED BASED ON THE REMOVAL OF 6" OF TOPSOIL WITH AN ASSUMED SETTLEMENT OF 0%.
4. QUANTITIES OF EXCAVATION AND EMBANKMENT TO BE MEASURED AND PAID FOR WILL BE BASED ON THE PLAN QUANTITIES ON THIS SHEET. THE METHOD OF COMPUTATION FOR QUANTITIES, WAS BASED ON A PRISMOIDAL VOLUMETRIC COMPUTATION VALIDATED THROUGH AVERAGE END AREA OF CROSS SECTIONS WITH ALLOWANCE FOR MATERIAL DEFORMATION THROUGH THE PROCESS OF EXCAVATION AND PLACEMENT .
5. EXCAVATED ROCK (8" DIAMETER AND GREATER) MAY BE USED ONLY IN LOWER LEVELS OR OUTER PORTIONS OF FILLS, NOT LIKELY TO RECEIVE TRAFFIC, SUBJECT TO THE OWNER'S APPROVAL. THE MAXIMUM ALLOWABLE SIZE OF MATERIAL IN THE TOP 6" OF SUBGRADE IS 4" DIAMETER.
6. EARTHEN EMBANKMENTS AND TRENCH BACKFILL SHALL BE PLACED IN ACCORDANCE WITH TSGT SPECIFICATIONS.
7. SOIL MATERIAL, OTHER THAN TOPSOIL, FOUND UNFIT FOR USE IN THE CONSTRUCTION OF EMBANKMENTS SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE.
8. EXPOSED SUBGRADE SHALL BE SCARIFIED AND RECOMPACTED TO THE DEPTH REQUIREMENTS IN THE PROJECT SPECIFICATIONS, PRIOR TO BEGINNING PLACEMENT OF EMBANKMENT LIFTS AND BASE MATERIAL. RECOMPACTION SHALL COMPLY WITH THE COMPACTION REQUIREMENTS IN THE PROJECT SPECIFICATIONS.
9. OVERALL ACCESS ROAD EXCAVATION AND EXCAVATION OF THE DETENTION POND ARE INCLUDED IN THE UNCLASSIFIED EXCAVATION QUANTITY.
10. APPROPRIATE GRADING SHALL BE DONE AROUND EACH END OF CULVERTS AND HEADWALLS TO INSURE THAT RUNOFF IS PROPERLY CHANNELED INTO AND OUT OF THE CULVERTS.
11. THE GRADES AND SLOPES FOR THE CONSTRUCTION REPRESENTED IN THESE PLANS ARE NECESSARY TO PROVIDE FOR THE PROPER DRAINAGE AND UTILITY OF THE SITE. CONTRACTOR SHALL PROVIDE FOR ACCURATE AND CONSISTENT MEASUREMENT OF ELEVATIONS TO ACHIEVE THE GRADES NOTED IN THESE PLANS.
12. RIP RAP MATERIAL AND PLACEMENT SHALL BE IN COMPLIANCE WITH TSGT SPECIFICATIONS.
13. CONTRACTOR SHALL REMOVE TOPSOIL IN AREAS DESIGNATED BY TSGT AS STOCKPILE LOCATIONS PRIOR TO STOCKPILING MATERIALS OTHER THAN TOPSOIL.

TOPSOIL NOTES:

1. ORGANIC MATERIAL IS PRESENT IN THE TOP 6" OF THE SITE. THIS MATERIAL IS NOT CONSIDERED TO BE ACCEPTABLE AS STRUCTURAL EMBANKMENT. EARTHEN MATERIAL WITH ORGANIC CONTAMINATION SHALL BE CONSIDERED TOPSOIL.
2. TOPSOIL MATERIAL REMOVED FROM THE CONSTRUCTION AREAS ON THE SITE SHALL BE STOCKPILED ON-SITE FOR RE-USE IN TOPSOIL PLACEMENT AFTER OVERALL GRADING IS COMPLETE. EXCESS TOPSOIL MATERIAL REMAINING AFTER CONSTRUCTION SHALL BE SPREAD OVER BORROW AREAS ON-SITE OR HAULED OFF.
3. TOPSOIL SHALL BE REMOVED TO A MINIMUM DEPTH OF 6" IN THE AREA OF THE SWITCH YARD, COMMUNICATIONS YARD, FENCE APRONS, POND BERM AREA, AND ACCESS DRIVEWAYS. THE CONTRACTOR SHALL VERIFY WITH THE OWNER THAT THE EXPOSED MATERIAL IS AN ACCEPTABLE SUBGRADE. AS NECESSARY AND DIRECTED BY THE OWNER, THE CONTRACTOR SHALL REMOVE ADDITIONAL MATERIAL TO ESTABLISH AN ACCEPTABLE SUBGRADE SURFACE.

DEMOBILIZATION NOTES:

1. CONDITIONS OF THE PROJECT AREA UPON COMPLETION OF THE JOB SHALL BE AS GOOD AS OR BETTER THAN THE CONDITIONS PRIOR TO STARTING WORK, IN ADDITION TO THE WORK ITEMS LISTED.
2. THE PROJECT AREA SHALL BE FREE OF ANY CONTRACTOR STOCKPILE MATERIALS UPON COMPLETION OF THE JOB UNLESS OTHERWISE DIRECTED BY THE OWNER.
3. UPON COMPLETION OF THE PROJECT, ALL OF THE HAUL ROUTES SHALL BE PROPERLY CLEANED TO PREVENT OBSTRUCTION AND/OR CAUSE INCONVENIENCE TO NORMAL REGULAR TRAFFIC. ALL TEMPORARY HAUL ROUTES SHALL BE REMOVED AND BROUGHT BACK TO ORIGINAL CONDITION OR BETTER. ALL RUTTED AREAS SHALL BE GRADED SMOOTH. SEEDING SHALL BE APPLIED AS INCIDENTAL.
4. THE JOB TRAILER, ALL OF THE CONSTRUCTION EQUIPMENT, AND ANY FACILITIES TEMPORARILY PLACED ON SITE FOR THE PROJECT SHALL BE REMOVED FROM THE SITE.
5. ANY PROPERTIES BELONGING TO THE OWNER SHALL BE RETURNED TO THE OWNER.
6. PROPER DRAINAGE (NO LOCALIZED PONDING) SHALL BE MAINTAINED, PRIOR TO, DURING AND AFTER MOBILIZATION.
7. DEMOBILIZATION SHALL BE DONE TO THE SATISFACTION OF THE OWNER.
8. DEMOBILIZATION SHALL BE DONE IN A MANNER THAT WILL NOT CAUSE ANY INCONVENIENCE TO SITE OPERATIONS OR THE CONTINUED CONSTRUCTION OF THE OTHER APPURTENANCES ON THE SITE.
9. ANY DAMAGE TO PROPERTIES DURING DEMOBILIZATION SHALL BE REPAIRED AND PAID FOR AT THE CONTRACTOR'S EXPENSE.
10. SAFETY REGULATIONS SHALL BE OBSERVED AT ALL TIMES DURING DEMOBILIZATION.
11. THE COST FOR DEMOBILIZATION SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM FOR MOBILIZATION.

GRADING AND EROSION CONTROL NOTES

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-SITE IN 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

STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PAS COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE CONSTRUCTION, LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS, AND THE SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING HE FOLLOWING
   a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIAL MANUAL, VOLUME 1 & 2
   c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
   d. CDOT M&S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATION FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATION NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPERS' RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW THE EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL NE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERING-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA.
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.
16. EL PASO COUNTY DOES NOT OWN AND IS NOT RESPONSIBLE FOR THE UNDERDRAINS OR GROUNDWATER DISCHARGE SYSTEMS SHOWN ON THE PLANS ASSUMES NO LIABILITY FOR WATER RIGHTS ADMINISTRATION BY APPROVING THESE PLANS. MAINTENANCE AND WATER RIGHTS ARE THE RESPONSIBILITY OF THE DEVELOPER.

TABLE OF ESTIMATED QUANTITIES

UNIT NO.	BID UNIT	NAME AND DESCRIPTION OF CONSTRUCTION ASSEMBLY UNIT	NO. OF UNITS	U.O.M.	AS-CONSTRUCTED NO. OF UNITS
1	M-08.01	EXCAVATION (IN-SITU VOLUME)	1,125	CY	
2	M-08.02	EMBANKMENT, COMPACTED, COMPLETE, IN PLACE	1,828	CY	
3	M-08.06	IMPORT AND INSTALL 3" THICK SURFACE AGGREGATE (YARD)	649	CY	
4	M-08.07	IMPORT AND INSTALL 8" THICK MODIFIED CLASS 5 BASE MATERIAL, COMPACTED, COMPLETE, IN PLACE (YARD)	1,731	CY	
5	M-08.07.1	IMPORT AND INSTALL 12" THICK CLASS 5 BASE MATERIAL, COMPACTED, COMPLETE, IN PLACE (DRIVEWAY)	827	CY	
6	M-08.09	GEOTEXTILE FABRIC UNDERLAYER (DRIVEWAY)	2,479	SY	
7	M-08.10	D50=6" RIP RAP RUN-DOWN ARMORING, INCL. UNDERLINER, COMPLETE IN PLACE (POND SPILLWAY & SOUTH SWALE)	98	SY	
8	M-08.15	SITE RESTORATION (6" TOPSOIL)	2,300	CY	
9	M-08.16	SEEDING	3.50	AC	
10	M-08.26	18" CLASS III REINFORCED CONCRETE PIPE (POND OUTLET), COMPLETE IN PLACE	46	LF	
11	M-08.26E	FLARED END SECTION FOR 18" CLASS III REINFORCED CONCRETE PIPE CULVERT	1	EA	
12	M-08.32	8" PERFORATED ADS N-12 PIPE (SUBDRAIN). COMPLETE, IN PLACE	180	LF	
13	M-08.33	12" PERFORATED ADS N-12 PIPE (SUBDRAIN). COMPLETE, IN PLACE	350	LF	
14	M-08.33.1	12" NON-PERFORATED ADS N-12 PIPE (SUBDRAIN). COMPLETE, IN PLACE	50	LF	
15	M-08.34	15" PERFORATED ADS N-12 PIPE (SUBDRAIN). COMPLETE, IN PLACE	211	LF	
16	M-08.34.1	15" NON-PERFORATED ADS N-12 PIPE (SUBDRAIN). COMPLETE, IN PLACE	80	LF	
17	M-08.42	CONCRETE WASHOUT	1	EA	
18	M-08.48	GRADE, PROCESS AND COMPACT EXISTING SURFACE AND SUB-SURFACE MATERIAL	27,895	SY	
19	M-08.50	BOLLARD, (4) PER VEHICLE CROSSING	4	EA	
20	M-08.52	EROSION CONTROL BMP INSTALLATION AND MAINTENANCE FOR DURATION OF PROJECT	1	LS	
21	M-08.53	WATER TRUCK FOR DUST MITIGATION	1	EA	
22	M-08.56	6' CONCRETE TRICKLE CHANNEL (DETENTION POND), COMPLETE, IN PLACE	200	LF	
23	M-08.57	DETENTION POND CONCRETE OUTLET STRUCTURE, COMPLETE, IN PLACE	1	EA	
24	M-08.58	CLEANOUT (SUBDRAIN), COMPLETE, IN PLACE.	6	EA	
25	N-08.02	CHAIN LINK FENCE W/ VINYL SLATS, COMPLETE, IN PLACE (SUBSTATION YARD)	1,006	LF	
26	N-08.08	30' WIDE CHAIN LINK FABRIC GATE (2-15' GATES, SUBSTATION YARD), COMPLETE, IN PLACE	2	EA	
27	N-08.11	BARBED WIRE PROPERTY PERIMETER FENCE, COMPLETE IN PLACE	2461	LF	
28	N-08.12	32' WIDE METAL VEHICLE GATE FOR PROPERTY PERIMETER FENCE (2-16' GATES), COMPLETE IN PLACE	1	EA	

COORDINATE SYSTEM: Colorado State Plane Central Zone
SCALE FACTOR: 1.0003223877
VERTICAL DATUM = NAVD88
HORIZONTAL DATUM = NAD 83

NOTE:
ORIGINAL SITE COORDINATES HAVE BEEN ADJUSTED FROM GRID TO GROUND .

A HORIZONTAL ADJUSTMENT WAS MADE BY APPLYING A GROUND SCALE FACTOR OF 1.0003223877, WHICH IS EQUIVALENT TO A NORTHING OFFSET OF 432.070', AND AN EASTING OFFSET OF 1047.946',

A VERTICAL ADJUSTMENT OF +3.353' WAS APPLIED TO CONVERT VERTICAL DATUM FROM NGVD29.

Reference Drawings		
Drawing Title	Mfgr.	Dwg. No.

No.	Revision	Date	Dwn.	Appd.	M.F.
1					
2					
3					
4					
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6					
7					

ROLLING MEADOWS SUBSTATION
115/12.47kV
CONSTRUCTION NOTES AND CIVIL CONSTRUCTION QUANTITIES

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy® Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn: TMC Date: 06/22/26
Appd: DWS Date: 06/22/26

S1183-A-01-002

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

PARCEL NO. 5500000385
MURRAY FOUNTAIN LLC

Label road, include road classification & ROW width

EXISTING EDGE OF ASPHALT

RIGHT-OF-WAY

PARCEL NO. TBD
TR-STATE GENERATION & TRANSMISSION, INC.

PARCEL NO. 5500000325
EAGLE DEVELOPMENT COMPANY

PARCEL NO. 5500000324
EAGLE DEVELOPMENT COMPANY

PROPOSED ℄

Darken boundary line so easier to see

EXISTING ℄, TYP.

PARCEL NO. 5500000326
EAGLE DEVELOPMENT COMPANY

LEGEND

5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
x x	EXISTING FENCE
	EXISTING EDGE OF ASPHALT
G	FUTURE GAS LINE
	PROPERTY LINE
	EASEMENT LINE
	RIGHT-OF-WAY LINE

NOTE:

1. COORDINATE SYSTEM: Colorado State Plane Central Zone
   SCALE FACTOR = 1.0003223877
   VERTICAL DATUM = NAVD88
   HORIZONTAL DATUM = NAD 83

1" = 60'

Scale in feet

60' 0 60' 120'

No.	Date	Revision	Dwn.	Appd.	M.F.
7					
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5					
4					
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1					

Dwg. No. | Mfgr. | Drawing Title: Reference Drawings

ROLLING MEADOWS SUBSTATION

115/12.47kV

EXISTING CONDITIONS

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM | Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn: TMC	Date: 06/22/26
Appd: DWS	Date: 06/22/26

S1183-A-01-003

PATH: \\DMS1A\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

Label roads, include road classifications & ROW widths

60' FROM EDGE OF PAVEMENT

65'

32'

32' VEHICLE GATE

First 50' of any connection to a public road needs to be paved

BARBED WIRE PROPERTY FENCE

NOTE: SHADED LINEWORK REPRESENTS FUTURE DEVELOPMENT BY OTHERS.

Does this facility plan to be in operation prior to the future development being completed? If so, then show/discuss how access is achieved prior to future road construction,

R50'

25'

27'

297'

70'

227'

Label gates

236'

128'

309'

108'

SD

DETENTION POND SEE SHEET S1183-A-01-007

FENCE GROUNDING, SEE NOTE 5

42'

10'

Label all radius's

LEGEND

5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
	EXISTING FENCE
	BASELINE
5800	PROPOSED INDEX CONTOUR
5796	PROPOSED INTERMEDIATE CONTOUR
SD	PROPOSED SUBDRAIN
	PROPOSED GRADE BRAKE LINE
x x x	PROPOSED SUBSTATION FENCE
	PROPOSED DRAINAGE FLOWLINE
	PROPOSED RIPRAP
	PROPOSED SUBDRAIN CLEANOUT

NOTE:

1. THE HORIZONTAL LOCATION FOR THE CONTROL POINT AT THE INTERSECTION OF THE TWO BASELINES IS FIXED. LOCATIONS FOR OTHER CONTROL POINTS MAY BE ADJUSTED ALONG THE BASELINE AS NECESSARY TO PROVIDE FOR CLEAR LINES OF SIGHT AROUND EXISTING VEGETATION TO REMAIN.
2. SURVEYOR SHALL SET THE CONTROL POINTS OUTSIDE THE SUBSTATION SECURITY FENCE IN-THE-FIELD, AND REPORT THE COORDINATES AND ELEVATIONS TO THE OWNER'S AUTHORIZED TECHNICAL REPRESENTATIVE (OATR).
3. COORDINATE SYSTEM: COLORADO STATE PLANE CENTRAL ZONE
   SCALE FACTOR = 1.0003223877
   VERTICAL DATUM = NAVD88
   HORIZONTAL DATUM = NAD 83
4. SHADED LINEWORK REPRESENTS FUTURE DEVELOPMENT BY OTHERS.
5. GROUND SUBSTATION FENCE 20' FROM OUTER OVERHEAD TRANSMISSION LINES, (4) LOCATIONS

TRUE NORTH 2°13.5'

PLAN NORTH

1" = 40'

Scale in feet

40' 0 40' 80'

No.	Date	Dwn.	Appd.	Revision	M.F.
7					
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Dwg. No. | Mfgr. | Drawing Title

Reference Drawings

ROLLING MEADOWS SUBSTATION

115/12.47kV

SITE LAYOUT

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn: TMC	Date: 06/22/26
Appd: DWS	Date: 06/22/26

S1183-A-01-004

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

Label roads, include road classifications & ROW widths

Add contour labels

Label slopes

Provide riprap rundown from end of swale to pond forebay

Ensure design calculations are provided for both swales

Label cleanouts and area inlets

Label HP where flows split

Label slope

Add linetype to legend

Label level spreader

Provide slopes

Add additional contour labels in this area

Show existing site conditions as they are. Before this PPR, there was EGP26XX which includes a roadways, TSB, borrow pit, and temp ditches.

NOTE: ACCESS DRIVE TIE-IN ELEVATION IS BASED ON EXISTING CONDITIONS SURVEYED 01/13/2026. FUTURE RE-GRADING MAY BE NECESSARY TO ACCOMMODATE CHANGES TO FUTURE ROAD ELEVATION.

FENCE GROUNDING, SEE NOTE 4

EDB-1 SEE SHEET S1183-A-01-007 FOR DETAILED GROUNG

LEGEND

Add linetype

5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
	EXISTING FENCE
	BASELINE
5800	PROPOSED INDEX CONTOUR
5796	PROPOSED INTERMEDIATE CONTOUR
SD	PROPOSED SUBDRAIN
	PROPOSED GRADE BRAKE LINE
x x	PROPOSED SUBSTATION FENCE
	PROPOSED DRAINAGE FLOWLINE
	PROPOSED RIPRAP
	PROPOSED SUBDRAIN CLEANOUT

NOTE:

1. THE HORIZONTAL LOCATION FOR THE CONTROL POINT AT THE INTERSECTION OF THE TWO BASELINES IS FIXED. LOCATIONS FOR OTHER CONTROL POINTS MAY BE ADJUSTED ALONG THE BASELINE AS NECESSARY TO PROVIDE FOR CLEAR LINES OF SIGHT AROUND EXISTING VEGETATION TO REMAIN.
2. SURVEYOR SHALL SET THE CONTROL POINTS OUTSIDE THE SUBSTATION SECURITY FENCE IN-THE-FIELD, AND REPORT THE COORDINATES AND ELEVATIONS TO THE OWNER'S AUTHORIZED TECHNICAL REPRESENTATIVE (OATR).
3. COORDINATE SYSTEM: COLORADO STATE PLANE CENTRAL ZONE
   SCALE FACTOR = 1.0003223877
   VERTICAL DATUM = NAVD88
   HORIZONTAL DATUM = NAD 83
4. GROUND SUBSTATION FENCE 20' FROM OUTER OVERHEAD TRANSMISSION LINES, (4) LOCATIONS

TRUE NORTH 2°13.5' PLAN NORTH

1" = 30'

Scale in feet

30' 0 30' 60'

No.	Date	Revision	M.F.
7			
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Dwg. No. | Mfgr. | Reference Drawings | Drawing Title

ROLLING MEADOWS SUBSTATION

115/12.47kV

GRADING PLAN

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

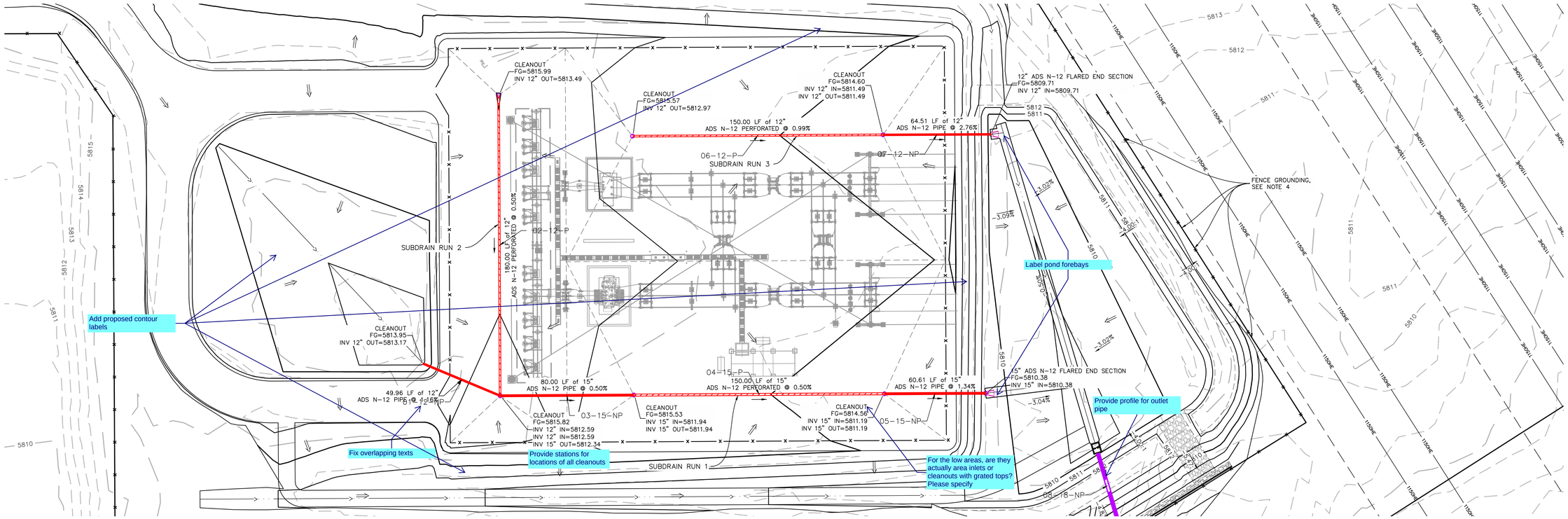
UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

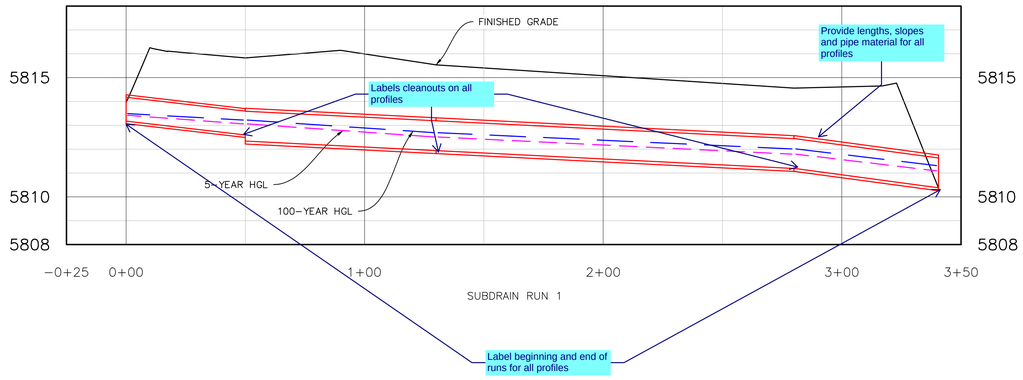
TRI-STATE Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

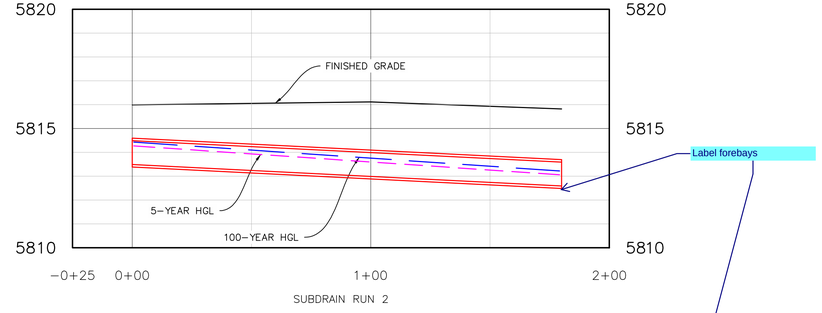
Dwn:	Date:
TMC	06/22/26
Appd:	Date:
DWS	06/22/26

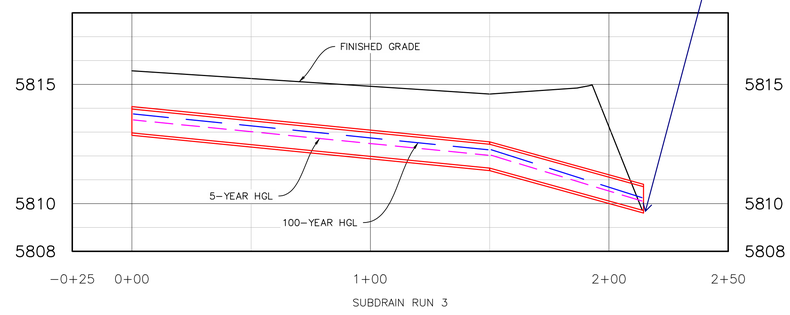
S1183-A-01-005

PATH: \\DMS14\Projects\Active Projects\2024\240228-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg









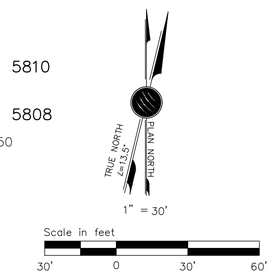
LEGEND

5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
	EXISTING FENCE
	BASELINE
5800	PROPOSED INDEX CONTOUR
5796	PROPOSED INTERMEDIATE CONTOUR
SD	PROPOSED SUBDRAIN
	PROPOSED GRADE BRAKE LINE
x x x	PROPOSED SUBSTATION FENCE
	PROPOSED DRAINAGE FLOWLINE
	PROPOSED RIPRAP
O	PROPOSED SUBDRAIN CLEANOUT
	PROPOSED 5-YEAR HGL
	PROPOSED 100-YEAR HGL

NOTE:

1. THE HORIZONTAL LOCATION FOR THE CONTROL POINT AT THE INTERSECTION OF THE TWO BASELINES IS FIXED. LOCATIONS FOR OTHER CONTROL POINTS MAY BE ADJUSTED ALONG THE BASELINE AS NECESSARY TO PROVIDE FOR CLEAR LINES OF SIGHT AROUND EXISTING VEGETATION TO REMAIN.
2. SURVEYOR SHALL SET THE CONTROL POINTS OUTSIDE THE SUBSTATION SECURITY FENCE IN-THE-FIELD, AND REPORT THE COORDINATES AND ELEVATIONS TO THE OWNER'S AUTHORIZED TECHNICAL REPRESENTATIVE (OATR).
3. COORDINATE SYSTEM: COLORADO STATE PLANE CENTRAL ZONE
   SCALE FACTOR = 1.0003223877
   VERTICAL DATUM = NAVD88
   HORIZONTAL DATUM = NAD 83
4. GROUND SUBSTATION FENCE 20' FROM OUTER OVERHEAD TRANSMISSION LINES, (4) LOCATIONS

Indicate or add note that system is private.



No.	Date	Revision	M.F.
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3			
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1			

Dwg. No. | Mfgr. | Reference Drawings | Drawing Title

ROLLING MEADOWS SUBSTATION

115/12.47kV

SUBDRAIN PLANS

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM | Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
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303-452-6111

Dwn: TMC	Date: 06/22/26
Appd: DWS	Date: 06/22/26

S1183-A-01-006

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

Label all pond facilities with relevant information.
- Trickle channel with width
- Forebays
- Maintenance road
- Spillway
- Outlet

Fix overlapping text

Provide spot elevations

Label what this top elevation is

Access road should be able to reach to pond bottom

Provide spot elevations

Provide riprap rundown

Label slope (x:1)

Show & label outlet protection

Show maintenance roadway in planview

EMERGENCY SPILLWAY
SEE SHEET S1174-A-01-009

FG 5811.10

D60 = 6" RIPRAP
D50

D60 = 6" RIPRAP
D50

NOTE: THE DESIGN INTENT OF THIS OUTLET IS TO EVENTUALLY BE EXTENDED AND TIE-IN TO AN UNDERGROUND SUBDRAIN ON THE NEIGHBORING SUBDIVISION.

FL 5808.35

OUTLET STRUCTURE
SEE SHEET S1174-A-01-010

6' CONCRETE TRICKLE CHANNEL
SEE SHEET S1183-A-01-010

FL 5811.39

FL 5811.03

199.19'

6'

12'

4.00:1

4.85:1

3.03%

0.50%

-3.04%

-3.69%

5812

5811

5810

08-18-NP

SD

LEGEND

5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
	EXISTING FENCE
	BASELINE
5800	PROPOSED INDEX CONTOUR
5796	PROPOSED INTERMEDIATE CONTOUR
SD	PROPOSED SUBDRAIN
	PROPOSED GRADE BRAKE LINE
x x x	PROPOSED SUBSTATION FENCE
	PROPOSED DRAINAGE FLOWLINE
	PROPOSED RIPRAP
	PROPOSED SUBDRAIN CLEANOUT

NOTE:

1. THE HORIZONTAL LOCATION FOR THE CONTROL POINT AT THE INTERSECTION OF THE TWO BASELINES IS FIXED. LOCATIONS FOR OTHER CONTROL POINTS MAY BE ADJUSTED ALONG THE BASELINE AS NECESSARY TO PROVIDE FOR CLEAR LINES OF SIGHT AROUND EXISTING VEGETATION TO REMAIN.

2. SURVEYOR SHALL SET THE CONTROL POINTS OUTSIDE THE SUBSTATION SECURITY FENCE IN-THE-FIELD, AND REPORT THE COORDINATES AND ELEVATIONS TO THE OWNER'S AUTHORIZED TECHNICAL REPRESENTATIVE (OATR).

3. COORDINATE SYSTEM: COLORADO STATE PLANE CENTRAL ZONE
SCALE FACTOR = 1.0003223877
VERTICAL DATUM = NAVD88
HORIZONTAL DATUM = NAD 83

TRUE NORTH
L=76.5°
PLANN NORTH

1" = 10'

Scale in feet
10' 0 10' 20'

No.	Date	Revision	M.F.
1			
2			
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4			
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7			

Dwg. No. | Mfgr. | Reference Drawings | Drawing Title

ROLLING MEADOWS SUBSTATION

115/12.47kV

EDB-1 GRADING

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

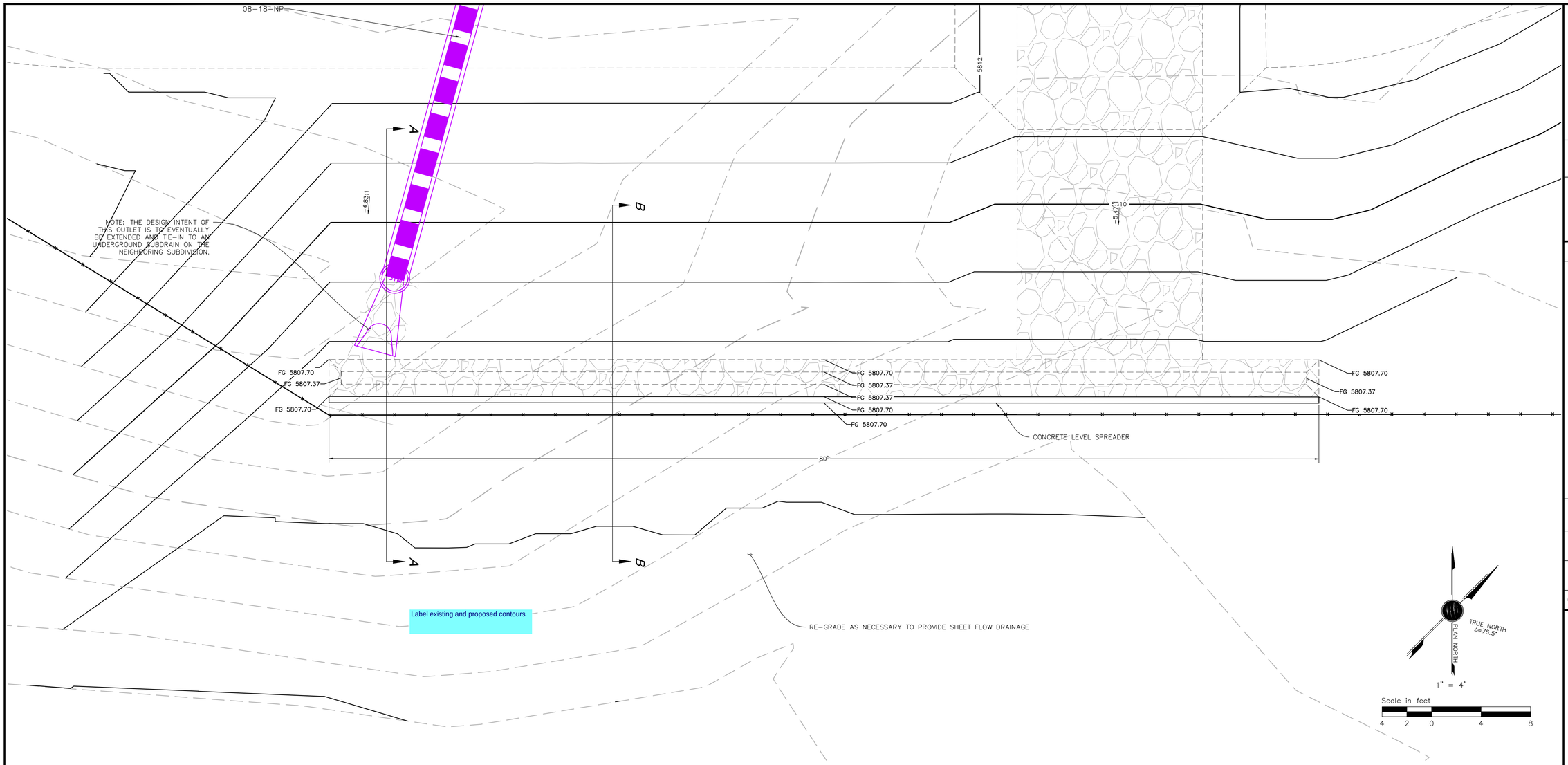
UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn:	Date:
TMC	06/22/26
Appd:	Date:
DWS	06/22/26

S1183-A-01-007

PATH: \\DMS1A\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

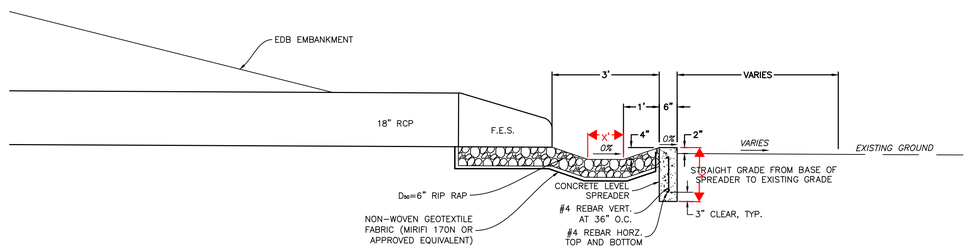


LEGEND

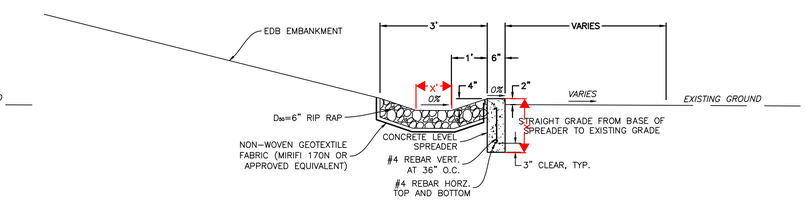
5800	EXISTING INDEX CONTOUR
5796	EXISTING INTERMEDIATE CONTOUR
ohe	EXISTING OVERHEAD POWER LINE
	EXISTING FENCE
	BASELINE
5800	PROPOSED INDEX CONTOUR
5796	PROPOSED INTERMEDIATE CONTOUR
SD	PROPOSED SUBDRAIN
	PROPOSED GRADE BRAKE LINE
x x x	PROPOSED SUBSTATION FENCE
	PROPOSED DRAINAGE FLOWLINE
	PROPOSED RIPRAP
O	PROPOSED SUBDRAIN CLEANOUT

NOTE:

1. THE HORIZONTAL LOCATION FOR THE CONTROL POINT AT THE INTERSECTION OF THE TWO BASELINES IS FIXED. LOCATIONS FOR OTHER CONTROL POINTS MAY BE ADJUSTED ALONG THE BASELINE AS NECESSARY TO PROVIDE FOR CLEAR LINES OF SIGHT AROUND EXISTING VEGETATION TO REMAIN.
2. SURVEYOR SHALL SET THE CONTROL POINTS OUTSIDE THE SUBSTATION SECURITY FENCE IN-THE-FIELD, AND REPORT THE COORDINATES AND ELEVATIONS TO THE OWNER'S AUTHORIZED TECHNICAL REPRESENTATIVE (OATR).
3. COORDINATE SYSTEM: COLORADO STATE PLANE CENTRAL ZONE
   SCALE FACTOR = 1.0003223877
   VERTICAL DATUM = NAVD88
   HORIZONTAL DATUM = NAD 83



SECTION A-A
CONCRETE LEVEL SPREADER SECTION
N.T.S.



SECTION B-B
CONCRETE LEVEL SPREADER SECTION
N.T.S.

No.	Date	Revision	M.F.
1			
2			
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Dwg. No. | Mfgr. | Drawing Title: Reference Drawings

ROLLING MEADOWS SUBSTATION
115/12.47kV

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

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Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

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Appd:	Date:
DWS	06/22/26

S1183-A-01-008

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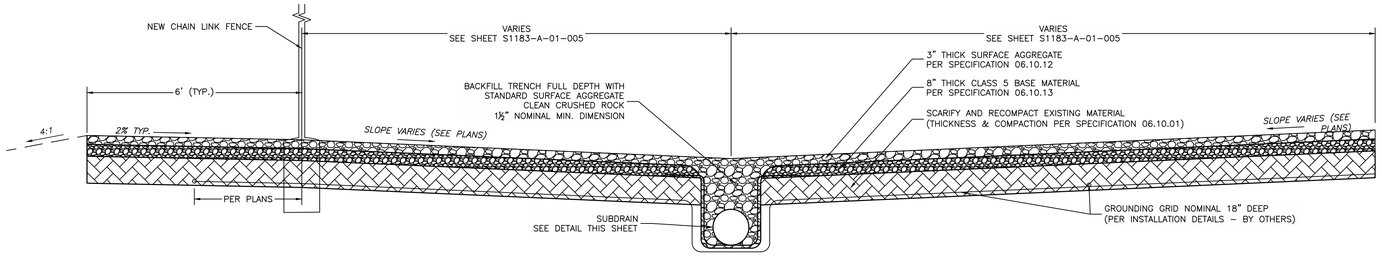
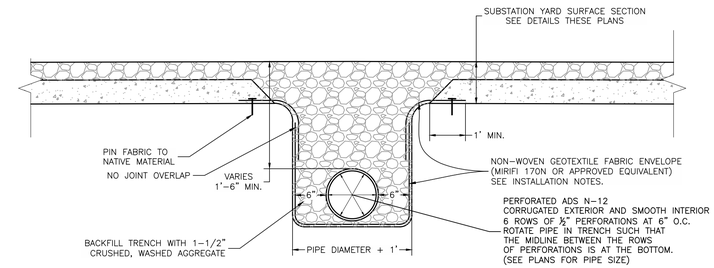
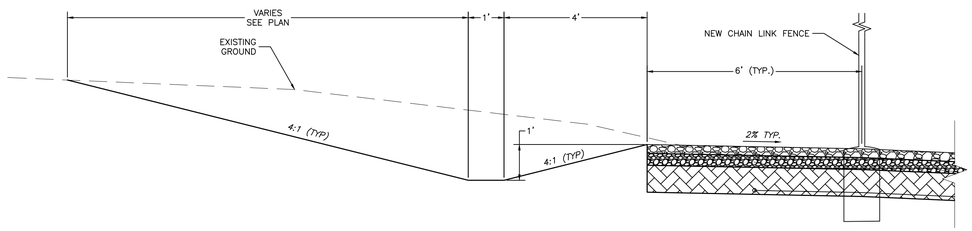


TYPICAL INTERIOR SUBDRAIN & YARD SECTION
N.T.S.

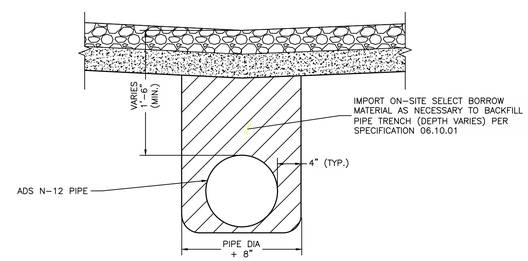
PIPE, AGGREGATE, & FABRIC INSTALLATION NOTES:
1. *LAY FABRIC IN TRENCH PRIOR TO PLACEMENT OF AGGREGATE.*
2. *INSTALL PERFORATED PIPE TO DESIGN GRADES WITH PERFORATIONS PER DETAIL.*
3. *BACKFILL TO DESIGN SURFACE GRADES AND ELEVATIONS WITH 1½" CRUSHED AGGREGATE PER SPECIFICATIONS.*



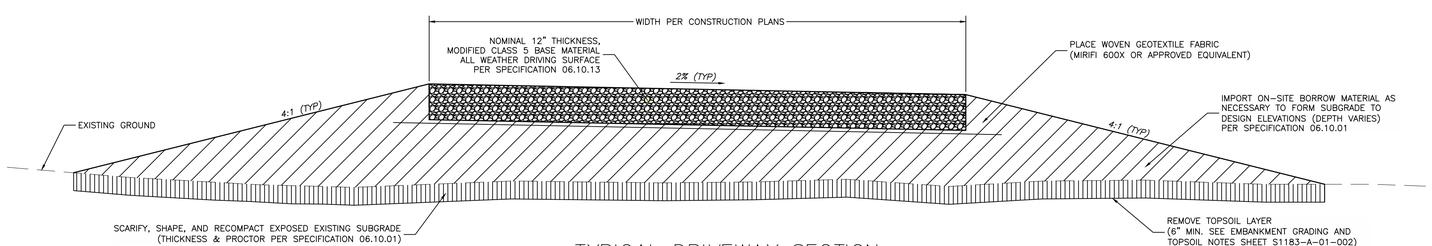
TYPICAL PERFORATED SUBDRAIN DETAIL
N.T.S.



TYPICAL SWALE SECTION A–A
N.T.S.



TYPICAL SOLID SUBDRAIN DRAIN DETAIL
N.T.S.



TYPICAL DRIVEWAY SECTION
N.T.S.

Provide driveway section for paved portion (first 50' of drive)

No.	Date	Dwn.	Appd.	Revision	M.F.	Dwg. No.	Mfgr.	Drawing Title
7								
6								
5								
4								
3								
2								
1								Reference Drawings

ROLLING MEADOWS SUBSTATION
115/12.47kV
CIVIL DETAILS

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

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Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
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303-452-6111

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Appd: DWS	Date: 06/22/26

S1183-A-01-009

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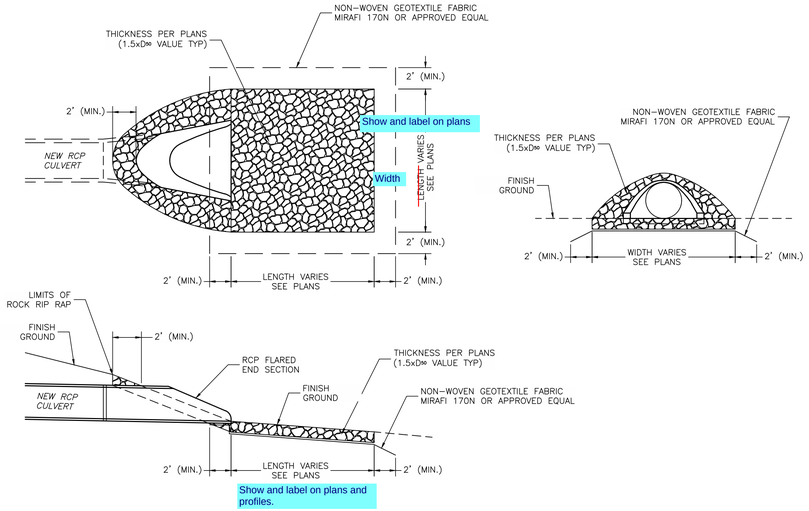
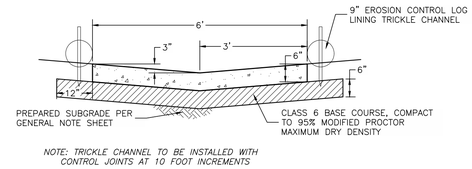


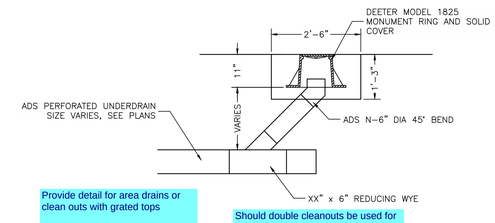
Show and label on plans and profiles.

RCP CULVERT OUTLET DETAIL
N.T.S.



NOTE: TRICKLE CHANNEL TO BE INSTALLED WITH CONTROL JOINTS AT 10 FOOT INCREMENTS

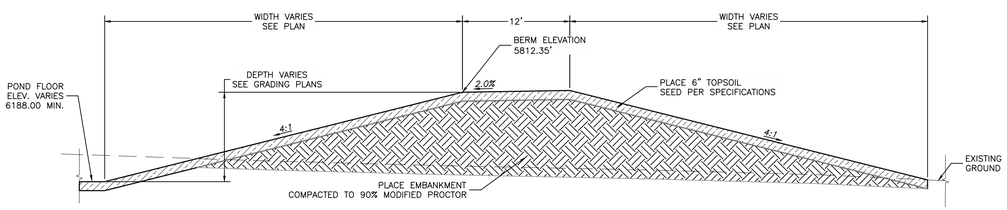
6' TRICKLE CHANNEL
N.T.S.



Provide detail for area drains or clean outs with grated tops

Should double cleanouts be used for the interior portions of the subdrain system?

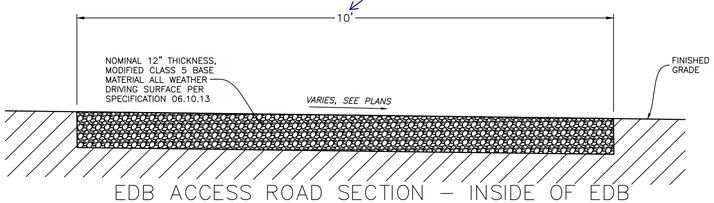
TYPICAL CLEANOUT DETAIL
N.T.S.



TYPICAL POND BERM SECTION
N.T.S.

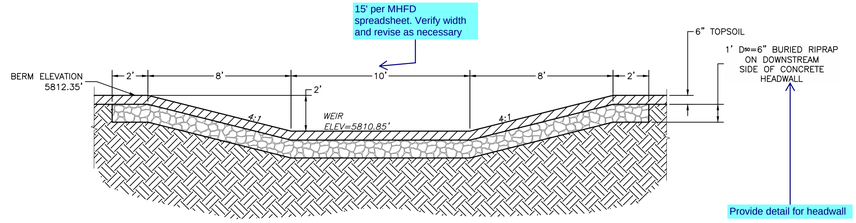
Maintenance roadway to be a 15-foot minimum. It may be acceptable to design the access road with a narrower width, greater slope, and without extending it to forebay(s) and outlet structure if the anticipated maintenance vehicles and equipment can still safely access the pond and reach structures. Properly document this in the Pond O&M manual.

Minimum width of access road is 15'



EDB ACCESS ROAD SECTION – INSIDE OF EDB
N.T.S.

15' per MHFD spreadsheet. Verify width and revise as necessary



Provide detail for headwall

DETENTION BERM EMERGENCY SPILLWAY DETAIL
N.T.S.

Provide profile through emergency spillway

No.	Date	Revision	M.F.
1			
2			
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Dwg. No. | Mfgr. | Drawing Title: Reference Drawings

ROLLING MEADOWS SUBSTATION
115/12.47kV
DRAINAGE DETAILS

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

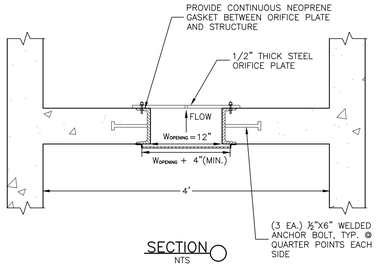
UPDATED BY: WLUDGATE 6/19/2026 9:37 AM | Contract: 4713

PATH: \\DMS1A\Projects\Active Projects\2024\240228-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

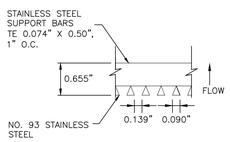
TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn:	Date:
TMC	06/22/26
Appd: DWS	Date: 06/22/26

S1183-A-01-010

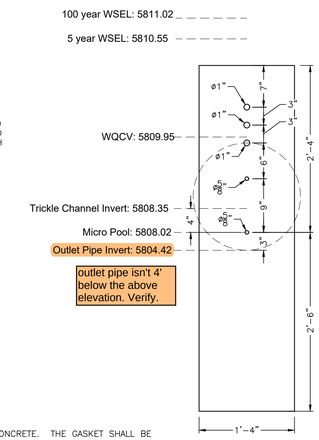


SECTION
NTS



R VALUE = (NET OPEN AREA)/(GROSS RACK AREA) = 0.60

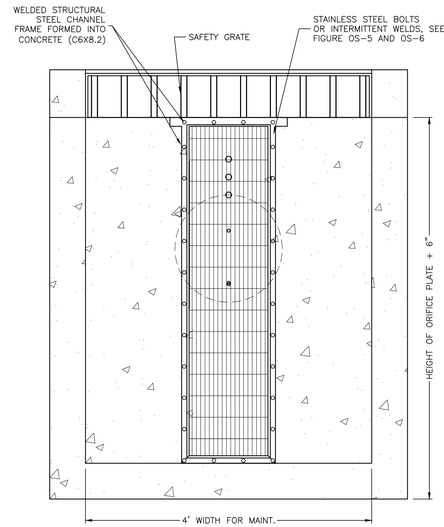
SECTION
NTS



outlet pipe isn't 4' below the above elevation. Verify.

ORIFICE PLATE

Provide restrictor plate detail.



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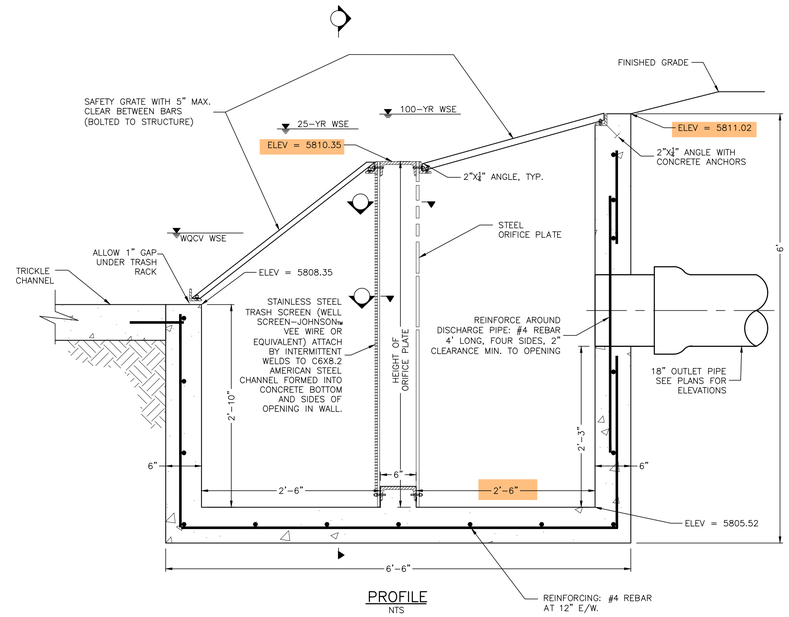


PROFILE
NTS

Provide detail for restrictor plat, as shown on MHFD spreadsheet

ORIFICE PLATE NOTES:

1. PROVIDE CONTINUOUS NEOPRENE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE. THE GASKET SHALL BE MADE OF 1/4-INCH THICK, 60 DUROMETER EPDM RUBBER IN A CONTINUOUS SHEET THE SIZE OF THE ORIFICE PLATE. THE SHEET SHALL BE PLACED BETWEEN THE ORIFICE PLATE AND THE CONCRETE WALL, WITH THE WIDTH OF THE OVERLAP BETWEEN THE PLATE AND THE CONCRETE. OPENINGS SHALL BE CUT INTO THE SHEET CORRESPONDING TO THE PLATE BOLT HOLES AND THE CONCRETE WALL OPENING. CUTS MADE EITHER BY THE CONTRACTOR IN THE FIELD OR BY THE MANUFACTURER. OR EQUIVALENT GASKET APPROVED BY EPC. NOTE THAT CAULK IS NOT AN APPROVED EQUIVALENT AND WILL NOT BE ACCEPTED BY EPC.
2. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.

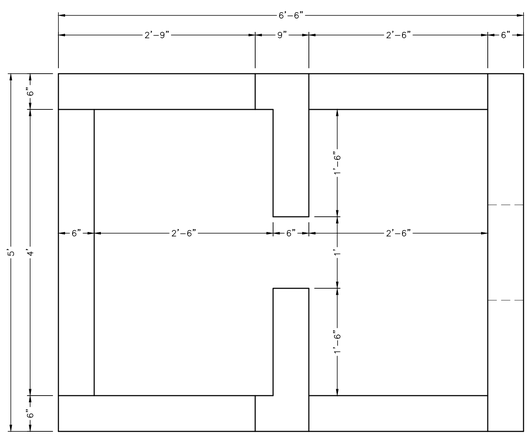
WQCV TRASH RACKS:

1. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. TRASH RACK OPEN AREAS ARE FOR SPECIFIED TRASH RACK MATERIALS. TOTAL TRASH RACK SIZE MAY NEED TO BE ADJUSTED FOR MATERIALS HAVING DIFFERENT OPEN AREA/GROSS AREA RATIO (R VALUE).
3. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

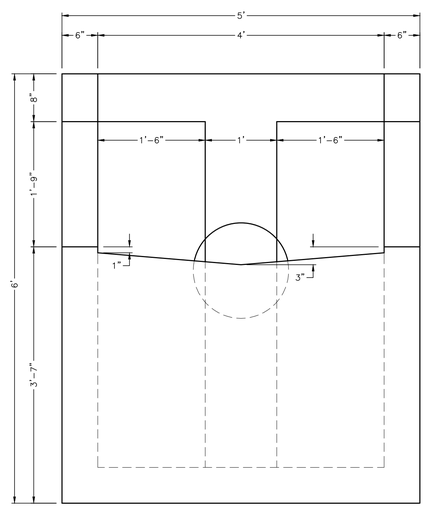
OVERFLOW SAFETY GRATES:

1. ALL SAFETY GRATES SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
2. SAFETY GRATES SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL GRATES SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
3. SAFETY GRATES SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
4. STRUCTURAL DESIGN OF SAFETY GRATES SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

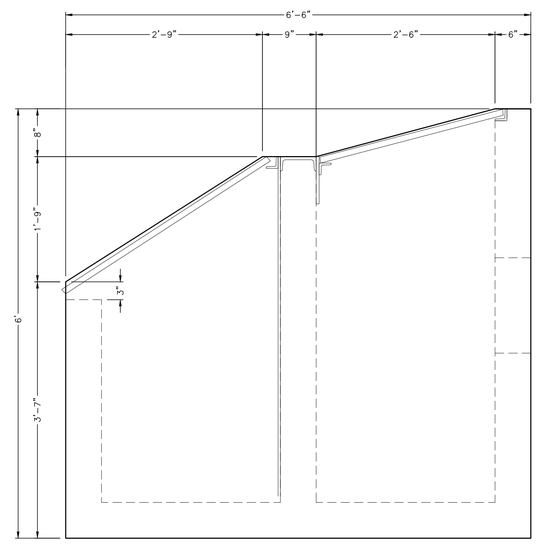
ORIFICE PLATE AND TRASH RACK DETAILS AND NOTES



CONCRETE OUTLET STRUCTURE
TOP VIEW
N.T.S.



CONCRETE OUTLET STRUCTURE
FRONT VIEW
N.T.S.



CONCRETE OUTLET STRUCTURE
SIDE VIEW
N.T.S.

No.	Date	Revision	Appd.	Dwn.	M.F.
7					
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Dwg. No. | Mfgr. | Reference Drawings | Drawing Title

ROLLING MEADOWS SUBSTATION
115/12.47kV
OUTLET STRUCTURE DETAILS

TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM | Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
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303-452-6111

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TMC	06/22/26
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DWS	06/22/26

S1183-A-01-011

PATH: \\DMS1A\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF CONSTRUCTION / DISTURBANCE
- TOE OF FILL SLOPE
- TOP OF CUT SLOPE
- SF — EXISTING SILT FENCE (INITIAL– PREVIOUSLY INSTALLED BY OTHERS)
- TB — EXISTING TOPSOIL BERM (INITIAL – PREVIOUSLY INSTALLED BY OTHERS)
- ST — SEDIMENT TRAP (INITIAL/INTERIM)
- VEG — SEEDING (FINAL)
- GRV — GRAVEL (FINAL)
- T/P — TRACKING PAD (INITIAL/INTERIM)
- CONC. WASH-OUT — CONCRETE WASHOUT (WITH LOCATION SIGN)

GEC Checklist Item X - Provide details for these BMPs even if they were installed by others. If maintenance on them is needed during construction having the details for them would be needed.

- ohe — EXISTING OVERHEAD POWER LINE
- EXISTING SILT FENCE
- EXISTING CULVERT
- EXISTING UTILITY POLE
- EXISTING GUY ANCHOR
- 5800 — EXISTING INDEX CONTOUR
- 5796 — EXISTING INTERMEDIATE CONTOUR
- EXISTING DRAINAGE FLOWLINE
- SD — PROPOSED SUBDRAIN LINE
- PROPOSED FENCE
- PROPOSED CULVERT
- 5800 — PROPOSED INDEX CONTOUR
- 5796 — PROPOSED INTERMEDIATE CONTOUR
- PROPOSED DRAINAGE FLOWLINE
- PROPOSED DRAINAGE FLOW ARROW
- EXISTING DRAINAGE FLOW ARROW

NOTES:

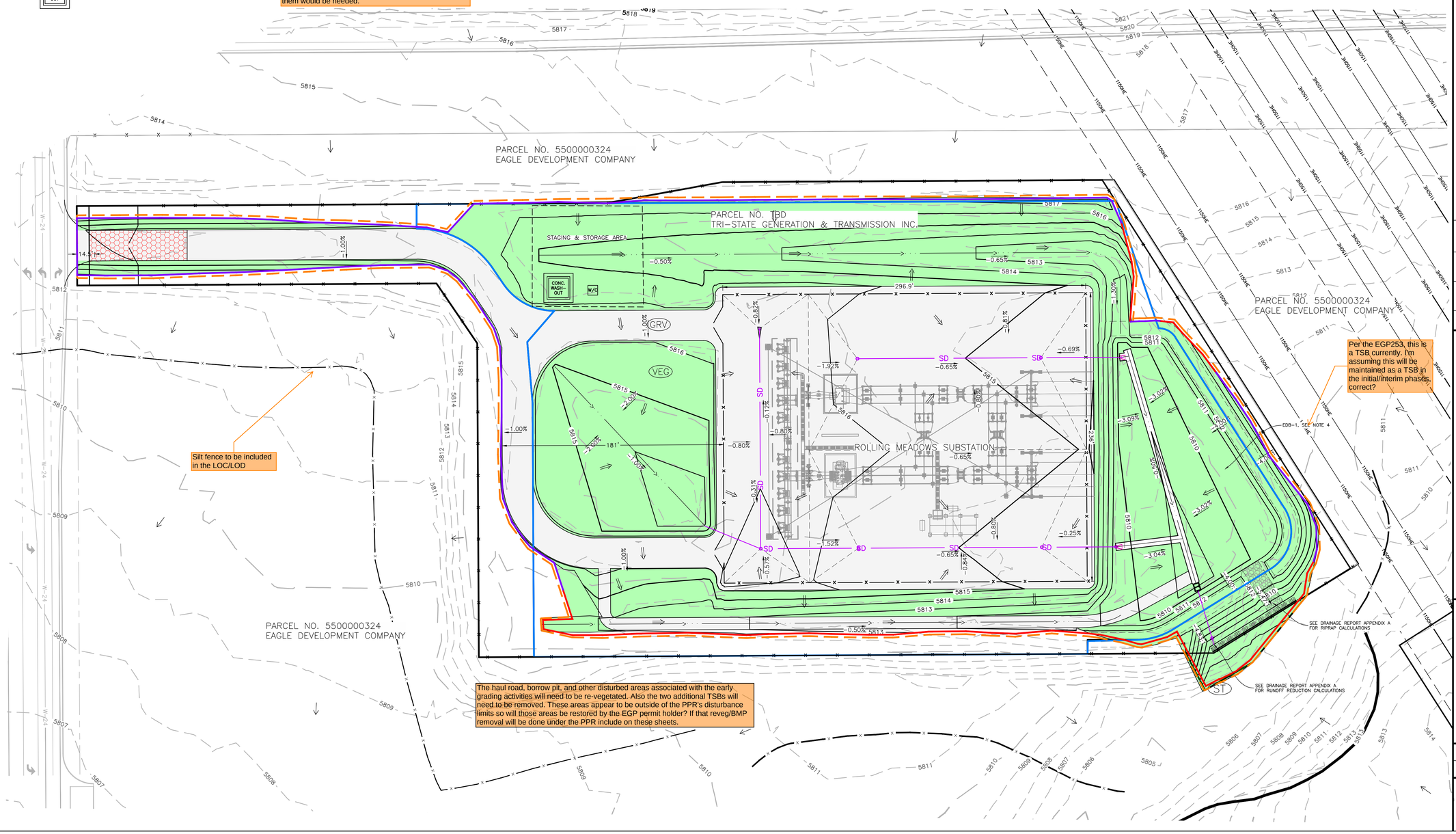
1. EXISTING VEGETATION CONSISTS OF NATIVE GRASSES AND WEEDS AT 30–60% GROUND COVER.
2. NO BATCH PLANTS WILL BE UTILIZED ON SITE.
3. NO PART OF THE SITE LIES WITHIN THE FEMA 100 YEAR FLOODPLAIN.
4. CONCRETE OUTLET STRUCTURE MUST BE INSTALLED IN ORDER TO USE DETENTION POND AS A TEMPORARY SEDIMENT POND DURING CONSTRUCTION.
5. SEEDING SHALL BE WEED–FREE HAY MULCH AT 5,000 LBS PER ACRE WHEN DISTRIBUTED UNIFORMLY. CONTRACTOR SHALL UTILIZE EL PASO COUNTY CONSERVATION DISTRICT'S NATIVE SHOTGUN MIX

see plan view comment

1" = 40'

Scale in feet

40' 0 40' 80'



Silt fence to be included in the LOC/LOD

Per the EGP253, this is a TSB currently. I'm assuming this will be maintained as a TSB in the initial/interim phases, correct?

The haul road, borrow pit, and other disturbed areas associated with the early grading activities will need to be re-vegetated. Also the two additional TSBs will need to be removed. These areas appear to be outside of the PPR's disturbance limits so will those areas be restored by the EGP permit holder? If that reveg/BMP removal will be done under the PPR include on these sheets.

No.	Date	Revision	Dwn.	Appd.	M.F.
7					
6					
5					
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Drawing Title: Reference Drawings

Mfgr.

Dwg. No.

ROLLING MEADOWS SUBSTATION

115/12.47kV

EROSION CONTROL PLAN

TRI–STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM | Contract: 4713

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg

TRI-STATE
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A Touchstone Energy Cooperative
1100 W. 116th Ave.
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Denver, Colorado 80233
303-452-6111

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TMC	06/22/26
Appd:	Date:
DWS	06/22/26

S1183-A-01-012

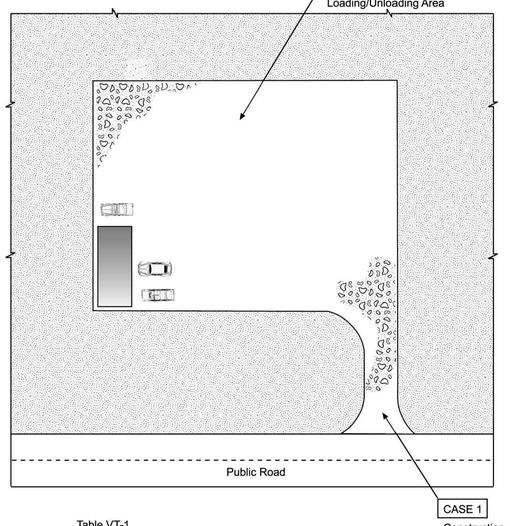


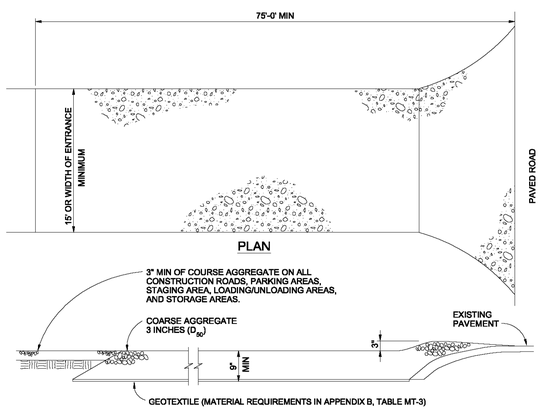
Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

City of Colorado Springs
Storm Water Quality

Figure VT-1
Vehicle Tracking
Application Examples

DEN/M/153722.CS.CB/FigVT-1/9-99



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.

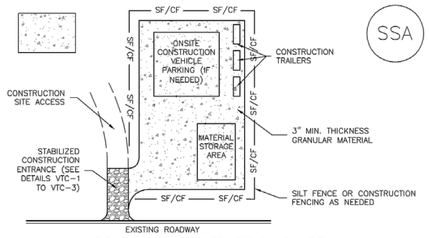
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

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

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.

NOTE: FOR RE-SEEDING, CONTRACTOR SHALL UTILIZE EL PASO COUNTY CONSERVATION DISTRICT'S NATIVE SHOTGUN MIX. CONTRACTOR SHALL UTILIZE BELOW TABLE FOR APPLICATION RATES.

DISTURBED AREAS SHALL BE MULCHED AFTER SEEDING WITH WEED-FREE HAY MULCH AT 5,000 LBS PER ACRE WHEN DISTRIBUTED UNIFORMLY.

Table 5-1. El Paso County Conservation District All-Purpose Mix for Upland, Transition and Permanent Control Measure Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	Pounds PLS		
				• Irrigated broadcast • Irrigated hydroseeded	• Non-irrigated broadcast • Non-irrigated hydroseeded • Irrigated drilled	• Non-irrigated drilled
				80 seeds/sq ft	40 seeds/sq ft	20 seeds/sq ft
Bluestem, big	*Andropogon gerardii*	Warm, sod	20	4.4	2.2	1.1
Grama, blue	*Bouteloua gracilis*	Warm, bunch	10	0.5	0.25	0.13
Green needlegrass[2]	*Nassella viridula*	Cool, bunch	10	2	1	0.5
Wheatgrass, western[2]	*Pascopyrum smithii*	Cool, sod	20	6.4	3.2	1.6
Grama, sideoats	*Bouteloua curtipendula*	Warm, bunch	10	2	1	0.5
Switchgrass[2]	*Panicum virgatum*	Warm, bunch/sod	10	0.8	0.4	0.2
Prairie sandreed	*Calimovilfa longifolia*	Warm, sod	10	1.2	0.6	0.3
Yellow indiangrass[2]	*Sorghastrum nutans*	Warm, sod	10	2	1	0.5
			Seed rate (lbs PLS/acre)	19.3	9.7	4.8

[1]For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.

[2]Species that will do well in the bottom of pond areas.

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.

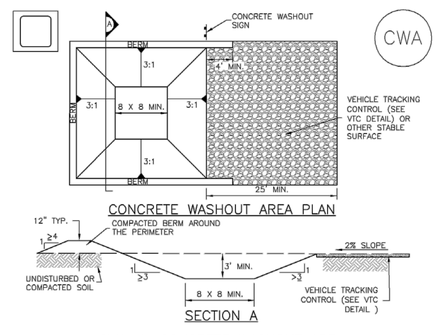
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

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)

Concrete Washout Area (CWA) MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

No.	Date	Revision	Appd.	Dwn.
7				
6				
5				
4				
3				
2				
1				

Dwg. No. | Mfgr. | Drawing Title: Reference Drawings | M.F.

ROLLING MEADOWS SUBSTATION
115/12.47kV
EROSION CONTROL DETAILS
TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INCORPORATED

UPDATED BY: WLUDGATE 6/19/2026 9:37 AM Contract: 4713

TRI-STATE
Generation and Transmission Association, Inc.
A Touchstone Energy Cooperative
1100 W. 116th Ave.
P.O. Box 33695
Denver, Colorado 80233
303-452-6111

Dwn: TMC Date: 06/22/26
Appd: DWS Date: 06/22/26

S1183-A-01-013

PATH: \\DMS14\Projects\Active Projects\2024\24028-TSGT Rolling Meadows Substation\Facility\Civil\Sheets\S1183-A-01-SHEETS.dwg