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Grandview Reserve Lift Station

El Paso County No. PPR2421

Prepared For (Applicant/Owner):

D.R. Horton

Prepared By:

HR Green Development, LLC

GRANDVIEW FILING 2 WATER AND WASTEWATER CONSTRUCTION DOCUMENTS COUNTY OF EL PASO, STATE OF COLORADO **GRADING AND EROSION CONTROL PLAN**

GENERAL CONSTRUCTION NOTES:

- CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE CALL SERVICE 811 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- 2. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO 3 THE CONTRACTOR FOR INTERFERENCE OR DELAY CAUSED BY REPAIRS FOR DAMAGED UTILITIES.
- WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE 4. CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION, CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.
- 6. CONTRACTOR MUST COORDINATE WORK WITH UTILITY COMPANY AND 10. CONTRACTOR TO MAINTAIN A MAXIMUM CONSTRUCTION EASEMENT

CITY/WHMD/OWNER PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ECT. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.

- CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS, AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
- SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.
- 9. STORM SEWERS, CULVERTS, AND DITCHES: CONTRACTOR SHALL MONITOR THE WEATHER AND MAINTAIN STORM WATER FLOW AT ALL TIMES AND SHALL SCHEDULE REMOVALS SUCH THAT WET WEATHER AND RAIN EVENTS WILL NOT CREATE DAMAGING BACKUPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERTING AND/OR BYPASS PUMPING AS NECESSARY TO FACILITATE CONSTRUCTION. THE COST FOR MAINTAINING, DIVERTING, OR PUMP STORM FLOWS SHALL BE INCIDENTAL TO THE PROJECT.
- WIDTH OF 24 FEET.

EL PASO COUNTY GRADING AND EROSION CONTROL SHEETS:

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION. CONTAMINATION. OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED. THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER, CONTROL MEASURES FOR ALL SLOPES CHANNELS DITCHES AND DISTURBED LAND AREAS SHALL BE INSTALLED. IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN FEFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- 8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. 24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR FOLIIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- 9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS ANY PROPOSED CHANGES THAT FEFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE 27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP, NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS. INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER. SUCH WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED OF SLOPES STEEPER THAN 3:1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE
- REGULATORY REQUIREMENTS NO CONSTRUCTION DEBRIS TREE SLASH BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED. DUMPED. OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET 17 ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN, CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATEI Y
- 19 THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK 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.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE 21 STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST. ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- 25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS
- 26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND
- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON DATED MARCH 14, 2022 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION. FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP) OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

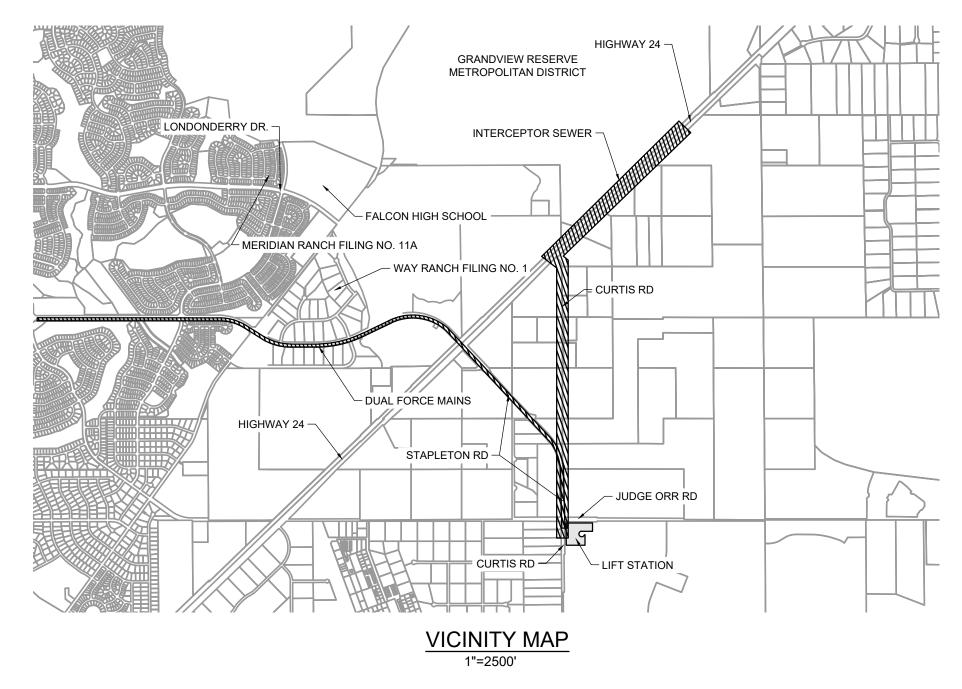
ATTN: PERMITS UNIT

SEND MUD MAT SPECIFICATION TO MIKAYLA HARTFORD AT

MIKAYLAHARTFORD@ELPASO.COM TO ENSURE MUD MAT USE IS ACCEPTABLE IN EL PASO COUNTY

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JULY 2023



SHEET INDEX

INITIAL-INTERIM EROSION CONTRO
FINAL EROSION CONTROL
CIVIL DETAILS
CIVIL DETAILS
CIVIL DETAILS

SHEET NO.

C110 C111 C500 C501 C502

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

8.

- 1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL 7. PASO COUNTY ENGINEERING CRITERIA MANUAL
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT BEFORE BEGINNING CONSTRUCTION, 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 SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE
- FOLLOWING a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
- b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
- c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD
- SPECIFICATIONS FOR ROAD AND 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. THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

- (PCD) INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.

CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.

- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED 9. AND APPROVED BY DSD.
- 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.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- 14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE 15. 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.

PROJECT CONTACTS:

OWNER/DEVELOPER

D.R. HORTON 9555 S. KINGSTON COURT, SUITE 200 ENGELWOOD, CO 80112 TELE: (303) 488-0061 EMAIL: RHILLEN@DRHORTON.COM AND BAREID1@DRHORTON.COM

APPLICANT HR GREEN

5613 DTC PARKWAY | SUITE 950 GREENWOOD VILLAGE, CO 80111 TELE:(720) 602-4999 ATTN: GREGORY PANZA P.E. EMAIL: GPANZA@HRGREEN.COM

CIVIL ENGINEER HR GREEN

5613 DTC PARKWAY | SUITE 950 GREENWOOD VILLAGE, CO 80111 TELE: (720) 602-4999 ATTN: GREGORY PANZA P.E. EMAIL: GPANZA@HRGREEN.COM

GEOTECHNICAL ENGINEER COMPANY: CTL | THOMPSON ADDRESS: 5170 MARK DABLING BLVD COLORADO SPRINGS, CO 80918

TELE: (719) 528-8300 ATTN: JEFF JONES

TRAFFIC ENGINEER COLORADO SPRINGS, CO 80909 TELE: &719) 633-2868 ATTN: JEFFREY C. HODSON, P.E.

EMAIL: LSC@LSCTRANS.COM SURVEYOR

EDWARD-JAMES SURVEYING, INC. 926 ELKTON DRIVE COLORADO SPRINGS, CO 80907 TELE: (719) 576-1216 ATTN: JONATHAN W. TESSIN EMAIL: JTESSIN@EJSURVEYING.COM

APPROVALS:

ENGINEER'S THIS GRADING AND THE BEST OF MY KI THE COUNTY FOR (NEGLIGENT ACTS, E

ENGINEER OF RECORD SIGNATURE

PLAN.

OWNER'S SIGNATURE

COUNTY PROJECT E

	HRGreen.com	D.R. HORTON - GRANDVIEW RESERVE SANITARY SEWER LIFT STATION DESIGN & PERMITTING SERVICES EL PASO COUNTY PEYTON, CO	D·R·HORTO America's Builde
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ATTN: RILEY HILLEN, PE AND BRYAN REID, PE

EMAIL: COLORADOSPRINGS@CTLTHOMPSON.COM

LSC TRANSPORTATION CONSULTANTS INC. 2504 EAST PIKES PEAK AVENUE, SUITE 304

UTILITY CONTACTS

GRANDVIEW RESERVE METROPOLITAN DISTRICT 1272 KELLY JOHNSON BLVD. SUITE 100 COLORADO SPRINGS, CO 80921 TELE: (719 499-8416 ATTN: PAUL HOWARD EMAIL: PAULINFINITY1@MSN.COM

WASTEWATER / WATER WOODMEN HILLS METRO DISTRICT 8046 EASTONVILLE ROAD FALCON, CO 80831 TELE: (719) 495-2500 CONTACT: CODY RITTER EMAIL: CODY@WHMD.ORG

ELECTRIC / FIBER MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN RD. FALCON, CO 80831 TELE: (800) 388-9881 ATTN: GINA PERRY EMAIL: GINA.P@MVEA.COOP

NATURAL GAS BLACK HILLS ENERGY 198 COUNTY LINE RD. PALMER LAKE, CO 80133 TELE: (719) 332-5856 ATTN: BOB SWATEK EMAIL: BOB.SWATEK@BLACKHILLSCORP.COM

FALCON FIRE PROTECTION DISTRICT 7030 OLD MERIDIAN RD. FALCON, CO 80831 TELE: (719) 495-4050 ATTN: TRENT HARWIG EMAIL: THARWIG@FALCONFIREPD.ORG

COMMUNICATIONS CENTURY LINK ZAYO USWEST

STATEMENT (FOR STANDALONE GEC PLAN):	
EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO	
NOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY	
GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY	
ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.	

DATE

OWNER'S STATEMENT (FOR STANDALONE GEC PLAN):

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

DATE

EL PASO COUNTY (STANDALONE GEC PLAN):

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. II 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.

NGINEER	SIGNATURE

DATE

PCD# - PPR2421

[S1]

SHEET

EROSION AND GRADING CONTROL PLANS

COVER SHEET

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

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
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- 4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED. THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT 5. COULD CONTRIBUTE POLLUTANTS TO STORMWATER, CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- 8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER, SUCH WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES

- STEEPER THAN 3:1.
- NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- 18.
- 19. APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 20. ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 21
- FACILITIES.
- OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OR REGULATIONS SHALL APPLY.
- ACCESS POINTS.

- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CONSIDERED A PART OF THESE PLANS.
- 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

SEND MUD MAT SPECIFICATION TO MIKAYLA HARTFORD AT MIKAYLAHARTFORD@ELPASO.COM TO ENSURE MUD MAT USE IS ACCEPTABLE IN EL PASO COUNTY.

DRAWN BY:	ACH	JOB DATE:	7/18/2024	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	NO.	DATE	BY	REVISION DESCRIPTION
APPROVED	: <u>GLP</u>	JOB NUMBER:	201662.07	0 1"				
CAD DATE:	9/13/2024			IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.				
CAD FILE:		7\CAD\Dwgs\C\Lif	t_Station\Elpaso county_LS	_Cover_GESC				
					-			

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

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

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

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

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

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

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES,

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

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

AND SHALL BE

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR

PERMANENT SEED SPECS

SPECIAL SEED MIX #1 - TBD SPECIAL ON PRIVATE LAND - LANDOWNER WILL WATER. 2. SEE LEGEND AND EROSION CONTROL DETAILS FOR SEED MIX/TYPE.

LEGEND

	EXISTING	PROPOSED
MATCHLINE		
PHASELINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
ASSUMED EASEMENT	· · ·	
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		<u> </u>
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV	TV	TV
		U
U.G. ELECTRIC		-
OVERHEAD ELECTRIC		OE
FIBER OPTIC	— — FO—	
GAS MAIN	GAS GAS GAS	— GAS — GAS -
SANITARY SEWER		
STORM DRAIN		
TELEPHONE	UT	UT
WATER MAIN	////////////////////////////////	W
SWALE	· · · · ·	• 🖛 • • 🖛 • • 🖛 •
TRAIL		
CURB & GUTTER	=======================================	
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		
DRAINAGE		
	EXISTING	
DRAINAGE DRAINAGE BASIN	EXISTING	
	EXISTING	
	EXISTING	
DRAINAGE BASIN	EXISTING	I.D. AREA
DRAINAGE BASIN	EXISTING	()
DRAINAGE BASIN	EXISTING	()
DRAINAGE BASIN BASIN TAG	EXISTING	()
DRAINAGE BASIN BASIN TAG DESIGN POINT	EXISTING	()
DRAINAGE BASIN BASIN TAG	EXISTING	()
DRAINAGE BASIN BASIN TAG DESIGN POINT	EXISTING	()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT	EXISTING	()
DRAINAGE BASIN BASIN TAG DESIGN POINT		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT GRAVEL		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT GRAVEL 100 YR FLOOD PENDING		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT GRAVEL 100 YR FLOOD		()
DRAINAGE BASIN BASIN TAG DESIGN POINT ASPHALT GRAVEL 100 YR FLOOD PENDING		()

D.R. HORTON - GRANDVIEW RESERVE SANITARY SEWER LIFT STATION DESIGN & PERMITTING SERVICES EL PASO COUNTY PEYTON, CO



STORM SEWER

MANHOLE STORM INLET FLARED END SECTION RIPRAP	EXISTING ST	
SANITARY SEWER		
CLEAN OUT	Y	۲
MANHOLE	S	S
PLUG	C	2
WATER		
FIRE HYDRANT	V	۲
FIRE DEPT. CONNECTION	FDC	
GATE VALVE	н	н
MANHOLE	Ŵ	W
METER	(WIM) X	(WM) X
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DRY UTILITIES ELECTRIC METER ELECTRIC PEDESTAL ELECTRICAL CABINET ELECTRIC VAULT FIBER OPTIC PULL BOX FIBER OPTIC MANHOLE FIBER OPTIC PEDESTAL FIBER OPTIC SIGN FIBER OPTIC VAULT GAS METER GAS SIGN GAS VAULT TELEPHONE CABINET TELEPHONE MANHOLE TELEPHONE SIGNAL/MAST TELEPHONE SIGN TELEPHONE PEDESTAL TRANSFORMER LIGHT POLE FIBER OPTIC VAULT

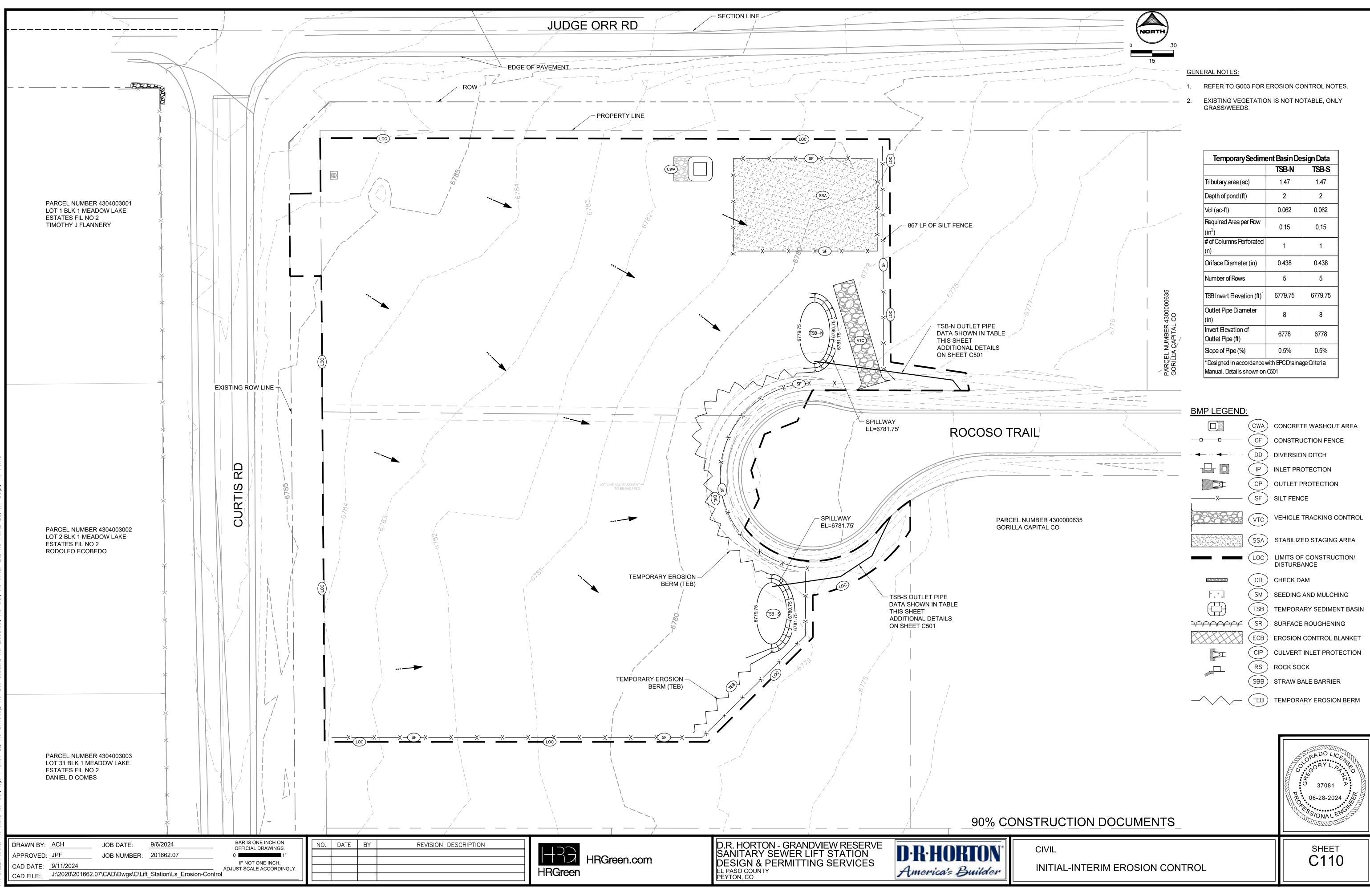
MISCELLANEOUS

SIGN BOLLLARD ACCESSIBLE PARKING



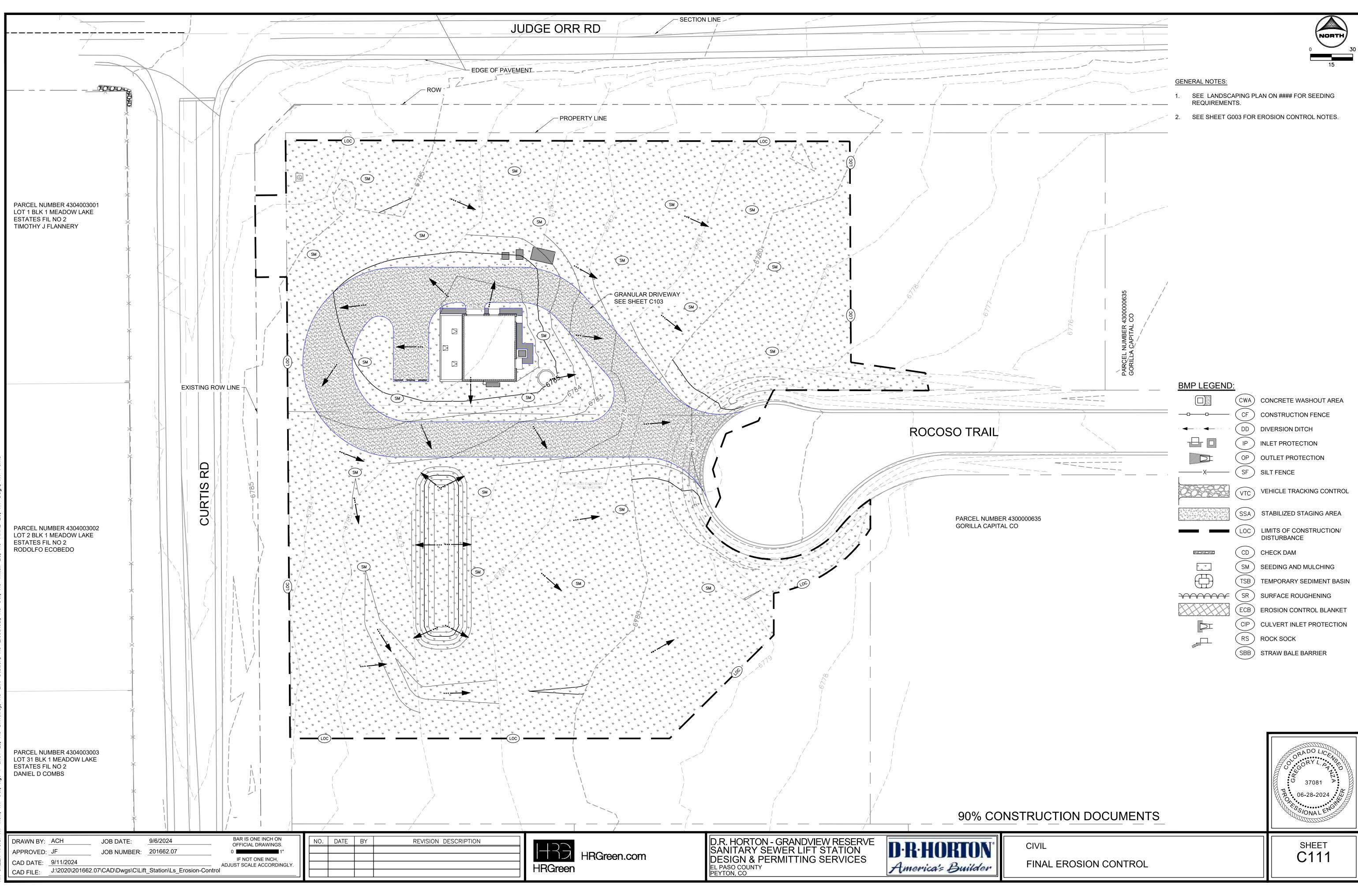
CONSTRUCTION DOCUMENTS

GENERAL NOTES

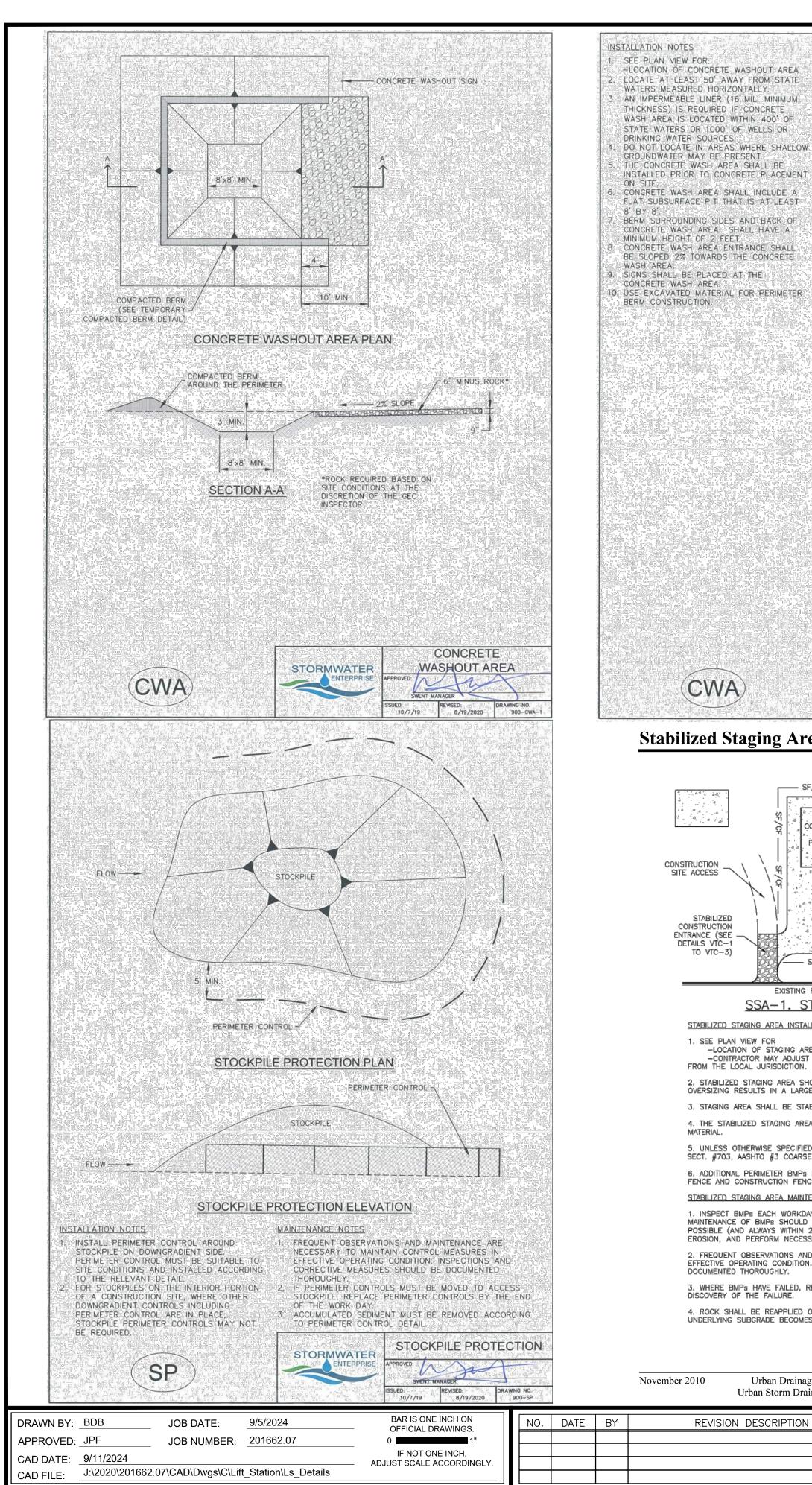


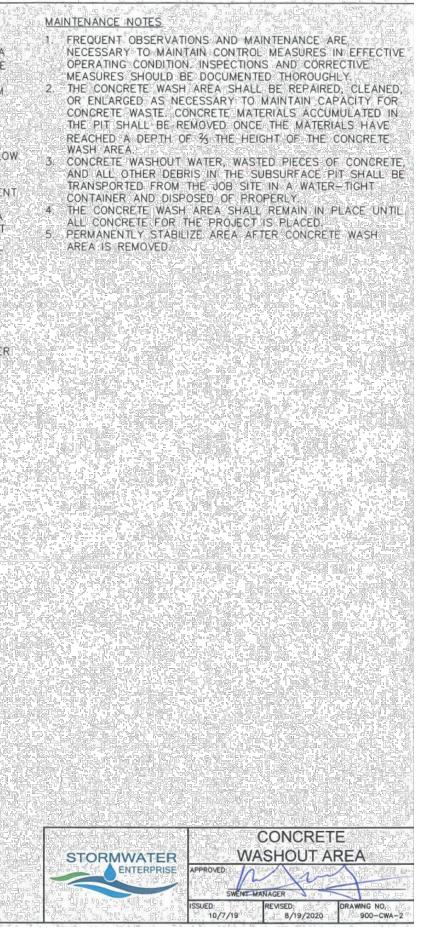


Temporary Sediment Basin Design Data				
	TSB-N	TSB-S		
Tributary area (ac)	1.47	1.47		
Depth of pond (ft)	2	2		
Vol (ac-ft)	0.062	0.062		
Required Area per Row (in ²)	0.15	0.15		
# of Columns Perforated (n)	1	1		
Oriface Diameter (in)	0.438	0.438		
Number of Rows	5	5		
TSB Invert Elevation $(ft)^1$	6779.75	6779.75		
Outlet Pipe Diameter (in)	8	8		
Invert Bevation of Outlet Pipe (ft)	6778	6778		
Sope of Pipe (%)	0.5%	0.5%		
*Designed in accordance with EPCDrainage Oriteria Manual. Details shown on C501				



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Stabilized Staging Area (SSA)

STABILIZED

1. SEE PLAN VIEW FOR

DOCUMENTED THOROUGHLY.

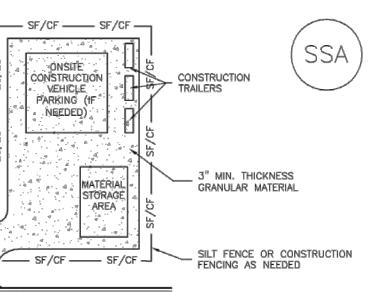
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CONSTRUCTION

DETAILS VTC-1 TO VTC-3)

MATERIAL.

SM-6



EXISTING ROADWAY SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

-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

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

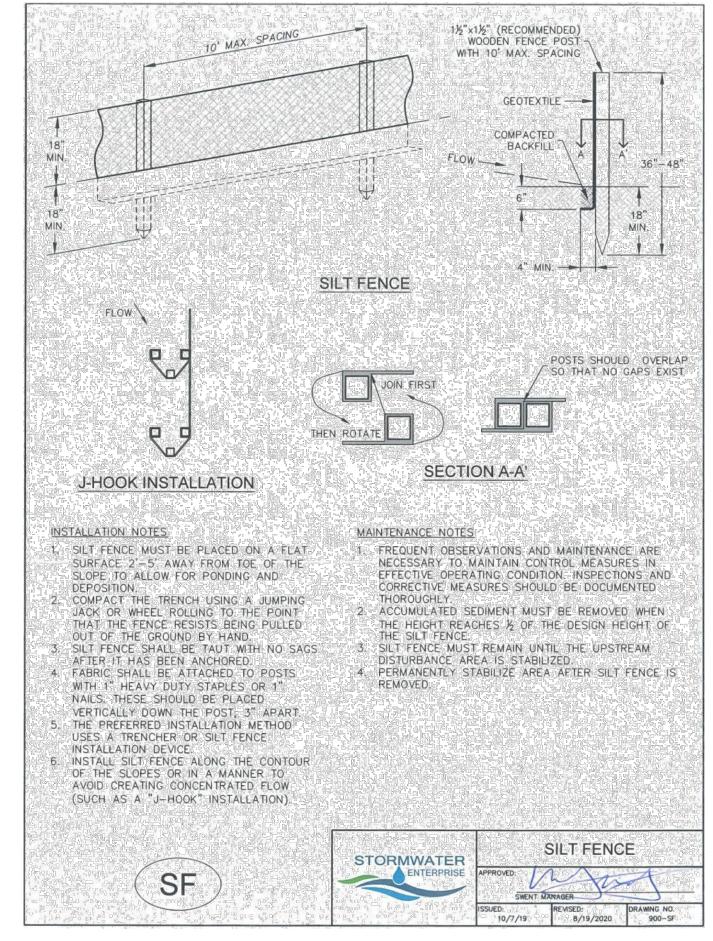
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING. STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

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



SM-6

Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

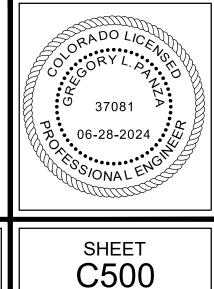
NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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

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

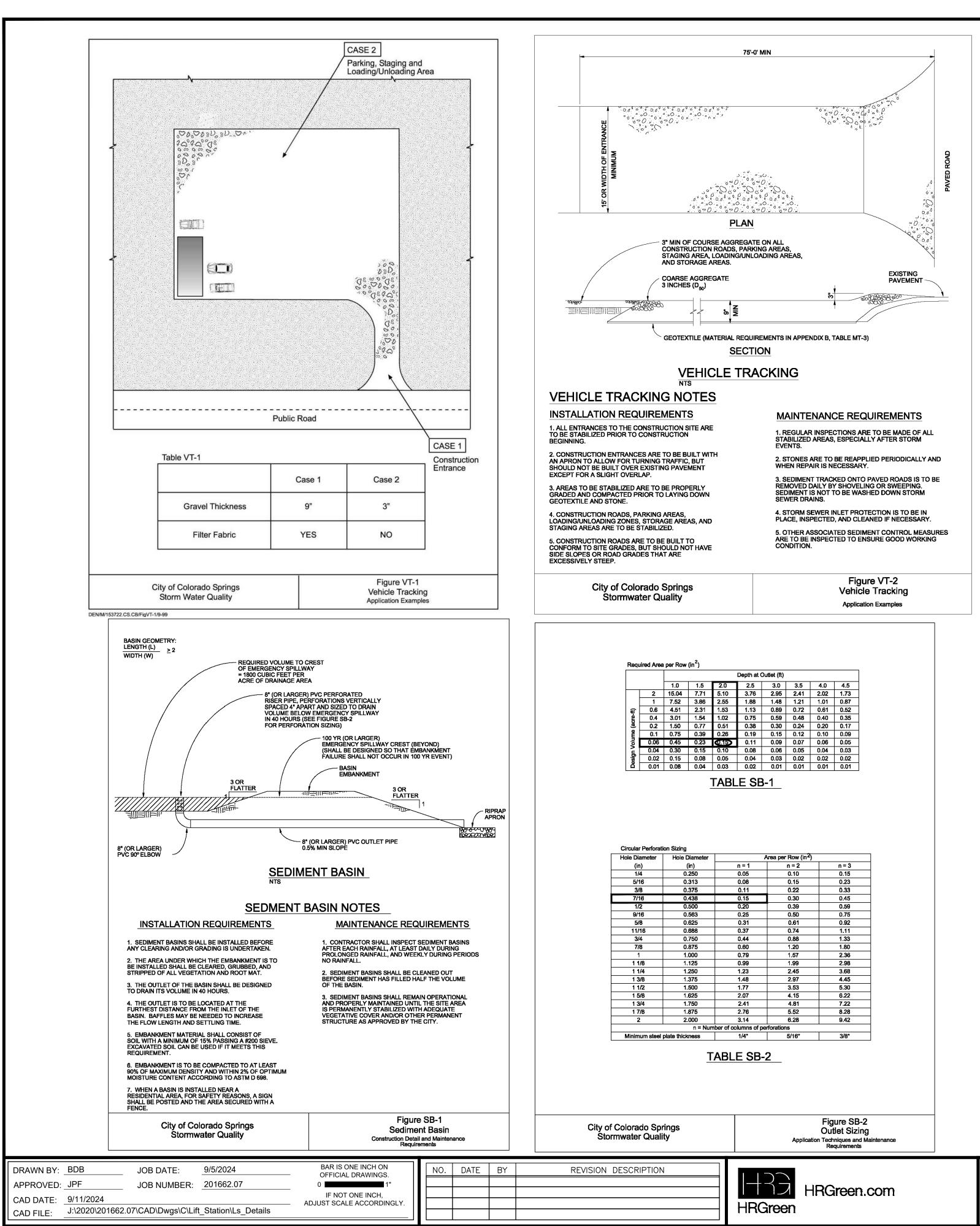
Urban Drainage and Flood Cont Urban Storm Drainage Criteria Mar		SSA-3	SSA-4	Urban Drainage and Flood Control Distr Urban Storm Drainage Criteria Manual Vo	
ON DESCRIPTION	HRGreen	IRGreen.com	SANITARY	ON - GRANDVIEW RESERVE SEWER LIFT STATION PERMITTING SERVICES	D·R·HORTON America's Builder

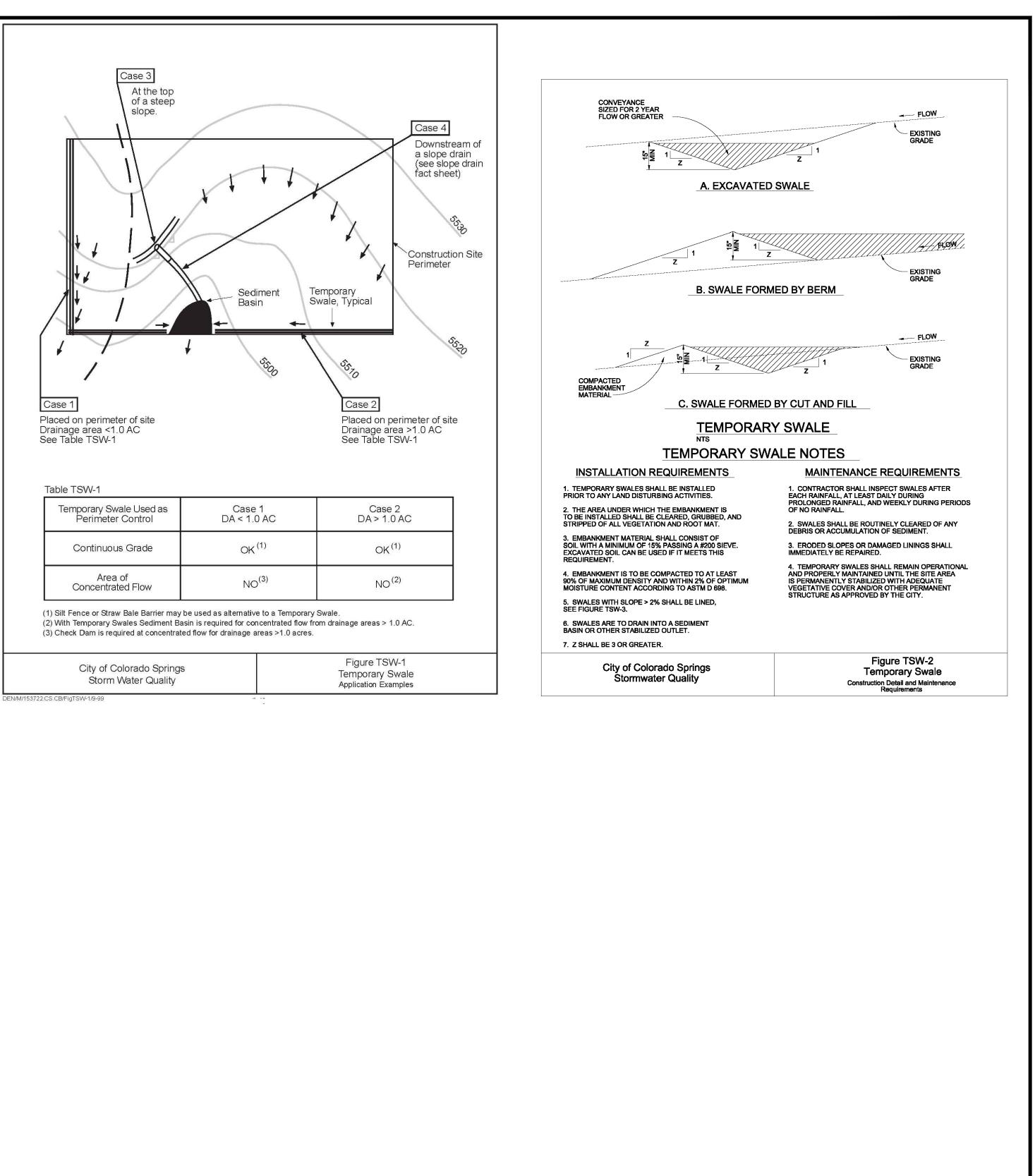
SEEDING & MULCHING	
ALL SOL TESTING, SOLS AMENDMENT AND FERTILIZER DOCUMENTATION, AN MUST BE ADDED TO THE CSWMP.	ND SEED LOAD AND BAG TICKETS
SOIL PREPARATION	
 IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOLE MUST N SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCT OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCAR INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAY BETWEEN DIFFERENT SOIL LAYERS. 	OR DENSITY IS ACCEPTABLE AREAS IFIED TO A DEPTH OF 6 TO 12
2 AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL GROWTH	SUITABLE TO SUPPORT PLANT
3 THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS TH AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIE RESULTS.	HESE DEFICIENCIES. SOIL AMENDMENTS
4 TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION STRIPP AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND THE TOPSOIL AS A VALUABLE COMMODITY TOPSOIL MUST NOT BE STR CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURA IN SWALES OR IN AREAS WITH POOR DRAINAGE.	ED TOPSOIL MUST BE STORED IN AN CARE MUST BE TAKEN TO PROTECT
<u>SEEDING</u>	
 ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SP MANUAL ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE SEED DEPTH MUST BE ½ TO ½ INCHES WHEN DRILL-SEEDING IS USED BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUE 3.1. OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INC DRILL OR HYDRO-SEEDING BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL 	AN APPROVED LANDSCAPING PLAN BSTITUTED ON SLOPES STEEPER THAN REASED BY 50% IF USING A BRILLION
 MULCHING MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING MULCHING REQUIREMENTS INCLUDE: HAY OR STRAW MULCH ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH I APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIME CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 A INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES ST HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHEF IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AS A EROSION CONTROL BLANKET EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITION 	MAY BE USED MULCH MUST BE PING AND/OR TACKIFIER ND MULCH FIBERS MUST BE TUCKED EEPER THAN 3:1 RE ACCESS IS LIMITED. SEPARATE, SECOND OPERATION AT A RATE OF 2,000 TO 2,500 100 POUNDS/ACRE
	SEEDING & MULCHING
	SWENT MANAGER
	10/7/19 8/19/2020 DKAMING NO.



90% CONSTRUCTION DOCUMENTS

CIVIL **CIVIL DETAILS**





Temporary Swale Used as Perimeter Control	Case 1 DA < 1.0 AC	Case 2 DA > 1.0 AC
Continuous Grade	OK ⁽¹⁾	0K ⁽¹⁾
Area of Concentrated Flow	NO ⁽³⁾	NO ⁽²⁾

City of Colorado Springs	
Storm Water Quality	

Temporary Swale
Application Examples

	1.625	2.07	4.15	6.22				
	1.750	2.41	4.81	7.22				
	1.875	2.76	5.52	8.28				
	2.000	3.14 per of columns of per	6.28	9.42				
etaal	plate thickness	1/4"	5/16"	3/8"				
	<u>T</u> /	ABLE SB-2	2					
Spi Juali	ings ty		Applicatio	Figure SB-2 Outlet Sizing n Techniques and Mai Requirements	intenance			
ΓΙΟΝ		HRG		RGreen.c	com	D.R. HORTON - GRANDVIEW RESERVE SANITARY SEWER LIFT STATION DESIGN & PERMITTING SERVICES EL PASO COUNTY PEYTON, CO	D·R·HORTON America's Builder	



90% CONSTRUCTION DOCUMENTS

CIVIL **CIVIL DETAILS**

SHEET C501

Grandview Lift Station - Grading and Erosion Control Plans - Submital 1 Comment Response							
Page	Comments	Author	Date	HR Green Resp			
C110	label street name	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C110	GEC Checklist Items H and M. If "limits of disturbance" and "construction boundary" are the same, change to "limits of construction/disturbance" or otherwise show as separate line types for each on the legend and figure.	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C110	Show proposed diversion ditches/swales to convey runoff to TSB. Provide details of temporary sediment basin including riser pipe diameter and perforation sizing, number of rows of holes, required volume, location of outlet pipe and spillway, and tributary area to the sediment basin. And provide contours for sediment basin.	Glenn Reese - EPC Sto	7/29/2024	Swales and TSB nov			
C110	break SF within VTC	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C110	Provide details for all temp BMPs that are shown on these GEC Plans	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C110	Include Title Sheet from SDP in this GEC Plan submittal. Because the GEC Plan must be submitted separately than a Site Development Plan (SDP) doc. GEC Checklist Item "b" - label adjacent parcels/lots. GEC Checklist Item "i" - Make a note about the condition/type of existing vegetation. GEC Checklist Item "p" - please delineate areas of cut/fill (so include Sheet C102 from SDP)	Glenn Reese - EPC Sto	7/29/2024	Title sheet included vegetation added. (submittal)			
C110	Show southern limits of LOC. It goes off of the sheet here.	Glenn Reese - EPC Sto	7/29/2024	Corrected			
C110	On the PBMP Applicability Form, it was stated that a WQ treatment facility is necessary for the lift station. But no PBMP is shown on these plans. Please show the PBMP and provide supporting details and calcs (calcs to be submitted in the form of a Drainage Letter with narrative). If a PBMP is required you will need some or all of these docs (depending on which type of PBMP): - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure (proof of submittal only) - O&M Manual - Private Detention Basin / Stormwater Quality BMP Maintenance Agreement [download from PCD website] - SDI Form or MHFD_Detention Calcs	Glenn Reese - EPC Sto	7/29/2024	A WQ treatment fac updated. WQ treatr development. Refer facility.			
C110	provide this sheet for review	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C110	This two page GEC Plan is just for the Lift Station area. But my comments are mostly typical and can be applied to the other 3 sectors of this project.	Glenn Reese - EPC Sto	7/29/2024	Acknowledged			
C111	Show southern limits of LOC. It goes off of the sheet here.	Glenn Reese - EPC Sto	7/29/2024	Corrected			
C111	Quantify how much of this area of disturbance is excluded from WQ treatment vs how much is not. Example table provided to the right.	Glenn Reese - EPC Sto	7/29/2024	The entire area of d treatment facility. F WQ treatment deta			

sponse

now shown on initial/interim erosion control sheets

ded. Adjacent parcels/lots labeled. Note about existing d. Cut/fill areas shown on Sheet C102 (included with

facility will not be located on the lift station site. PMBP form eatment for the site will be migitated by the Saddlehorn efer to ESQCP #SF234 for details about the WQ treatment

f disturbance is to be treated by the Saddlehorn WQ /. Refer to ESQCP #SF234 for details about quantities and etails.



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Grandview Reserve On Site Sanitary Sewer

El Paso County No. PPR2421

Prepared For (Applicant/Owner):

D.R. Horton

Prepared By:

HR Green Development, LLC

HORIZONTAL CONTROL

MODIFIED COORDINATE SYSTEM - SEE SHEETS IN DRAWINGS

VERTICAL DATUM NAVD88

GRANDVIEW RESERVE METROPOLITAN DISTRICT ON SITE SANITARY SEWER COUNTY PLAN **CONSTRUCTION DOCUMENTS**

SHEET INDEX

CD: GENERAL G000 COVER SHEET G101 GENERAL NOTES G102 LEGEND G103 SURVEY COORDINATES CD: SANITARY SEWER C100 **OVERALL SITE PLAN & HORIZONTAL ALIGNMENT** C101 PLAN AND PROFILES STA. 1+00 TO STA 12+50 C102 PLAN AND PROFILES STA. 12+50 TO STA 24+50 C103 PLAN AND PROFILES STA. 24+50 TO STA 36+50 C105 PLAN AND PROFILES STA. 48+50 TO STA 53+00 C104 PLAN AND PROFILES STA. 36+50 TO STA 48+50 CD: EROSION CONTROL C300 GRADING AND EROSION CONTROL NOTES C301 **EROSION CONTROL INITIAL-INTERIM PLAN** C302 **EROSION CONTROL INITIAL-INTERIM PLAN** C303 **EROSION CONTROL INITIAL-INTERIM PLAN** C304 EORSION CONTROL FINAL PLANS C305 EORSION CONTROL FINAL PLANS C306 EORSION CONTROL FINAL PLANS C307 EORSION CONTROL DETAILS C308 EORSION CONTROL DETAILS C309 EORSION CONTROL DETAILS CD: DETAILS C701 DETAILS

PROJECT CONTACTS:

OWNER/DEVELOPER

D.R. HORTON 9555 S. KINGSTON COURT, SUITE 200 ENGELWOOD, CO 80112 TELE: (303) 488-0061 ATTN: RILEY HILLEN, PE AND BRYAN REID, PE EMAIL: RHILLEN@DRHORTON.COM AND BAREID1@DRHORTON.COM

APPLICANT HR GREEN 5613 DTC PARKWAY | SUITE 950 GREENWOOD VILLAGE, CO 80111 TELE:(720) 602-4999 ATTN: GREGORY PANZA P.E. EMAIL: GPANZA@HRGREEN.COM

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GEOTECHNICAL ENGINEER COMPANY: CTL | THOMPSON ADDRESS: 5170 MARK DABLING BLVD COLORADO SPRINGS, CO 80918 TELE: (719) 528-8300

ATTN: JEFF JONES EMAIL: COLORADOSPRINGS@CTLTHOMPSON.COM

TRAFFIC ENGINEER LSC TRANSPORTATION CONSULTANTS INC. 2504 EAST PIKES PEAK AVENUE, SUITE 304 COLORADO SPRINGS, CO 80909 TELE: &719) 633-2868 ATTN: JEFFREY C. HODSON, P.E. EMAIL: LSC@LSCTRANS.COM

SURVEYOR EDWARD-JAMES SURVEYING, INC. 926 ELKTON DRIVE COLORADO SPRINGS, CO 80907 TELE: (719) 576-1216 ATTN: JONATHAN W. TESSIN EMAIL: JTESSIN@EJSURVEYING.COM

UTILITY CONTACTS

WATER **GRANDVIEW RESERVE METROPOLITAN DISTRICT** 1272 KELLY JOHNSON BLVD. SUITE 100 COLORADO SPRINGS, CO 80921 TELE: (719 499-8416 ATTN: PAUL HOWARD EMAIL: PAULINFINITY1@MSN.COM

WASTEWATER / WATER WOODMEN HILLS METRO DISTRICT 8046 EASTONVILLE ROAD FALCON, CO 80831 TELE: (719) 495-2500 CONTACT: CODY RITTER EMAIL: CODY@WHMD.ORG

ELECTRIC / FIBER MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN RD. FALCON, CO 80831 TELE: (800) 388-9881 ATTN: GINA PERRY EMAIL: GINA.P@MVEA.COOP

NATURAL GAS BLACK HILLS ENERGY 198 COUNTY LINE RD. PALMER LAKE, CO 80133 TELE: (719) 332-5856 ATTN: BOB SWATEK EMAIL: BOB.SWATEK@BLACKHILLSCORP.COM

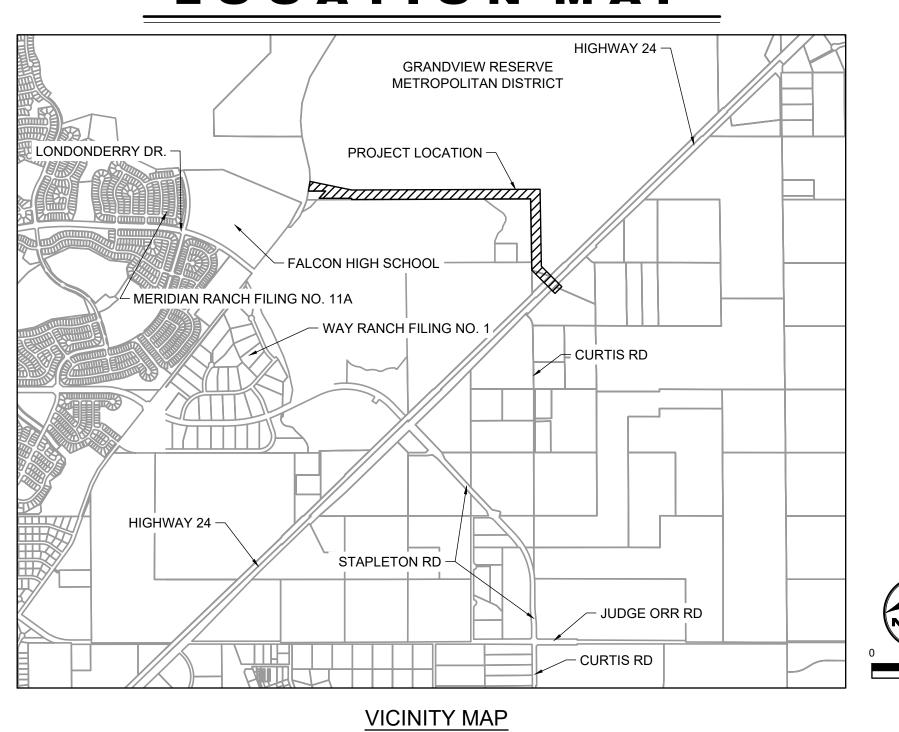
FIRE FALCON FIRE PROTECTION DISTRICT 7030 OLD MERIDIAN RD. FALCON, CO 80831 TELE: (719) 495-4050 ATTN: TRENT HARWIG EMAIL: THARWIG@FALCONFIREPD.ORG

COMMUNICATIONS CENTURY LINK ZAYO USWEST

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1975 RESEARCH PARKWAY, SUITE 230 | COLORADO SPRINGS, CO 80920 Phone: 719.300.4140 | Toll Free: 800.728.7805 | Fax: 713.965.0044 | HRGreen.com

AND EROSION CONTROL PLANS COUNTY OF EL PASO, STATE OF COLORADO LOCATION MAP



1"=2000'





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D.R. HORTON - GRANDVIEW RESERVE ON-SITE SANITARY SEWER **DESIGN & PERMITTING SERVICES** EL PASO COUNTY PEYTON, CO



REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITER FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/ OR ELEVATIONS THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO S AND/ OR ACCURACY OF THIS DOCUMENT.	WHICH SHALL BE
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CE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONS OM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT S ANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FE TY DEVELOPMENT DIRECTORS DISCRETION.	STARTED WITHIN THOSE 2
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APPROVALS:	
NHILLS METROPOLITAN DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPO ED ITS SCOPE OF REVIEW ACCORDINGLY.	NSIBILITY FOR THE DESIGN
WOODMEN HILLS METROPOLITAN DISTRICT WASTEWATER DESIGN APPROVAL:	
DATE: BY:	
PROJECT NO RORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STAN	DARDS AS DEFINED IN THE
GULATIONS FOR INSTALLATION OF WASTEWATER MAINS AND SERVICES SHALL RULE APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.	
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WOODMEN HILLS METROPOLITAN DISTRICT STANDARD NOTES: (SOME NOTES MAY NOT BE APPLICABLE TO PROJECT)

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT (WHMD, THE DISTRICT) SPECIFICATIONS.
- ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. 2. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED 'NOT VALID.'
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE 3. UNLESS OTHERWISE NOTED. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- ALL OVER-LOT GRADING MUST BE COMPLETED TO WITHIN ONE (1) FOOT OF FINAL GRADE PRIOR TO INSTALLATION OF WATER AND WASTEWATER INFRASTRUCTURE.
- ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
- DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES, AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT, AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
- ALL DUCTILE IRON PIPE LESS THAN TWELVE INCHES (12") AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE TWELVE INCHES (12") AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 300 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING.
- ALL PIPE MATERIAL, BACKFILL, AND INSTALLATION SHALL CONFORM TO THE APPLICABLE 8. SPECIFICATIONS OF THE DISTRICT, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES, AND THE GEOTECHNICAL ENGINEER
- COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES, AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- 10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD-VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- 11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- 12. BENDS, DEFLECTION, AND CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT TWENTY-FIVE FEET (25') INTERVALS ALONG CURVES TO ENSURE LOCATION OF PIPELINE CONSTRUCTION.
- 13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS. PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
- 14. ALL UNUSED, SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN 32. DISTRICT AS REQUESTED.
- 15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
- 16. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- 17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER, AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- 18. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINES) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
- 19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
- 20. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN METROPOLITAN DISTRICT:
 - PRIOR TO THE START OF CONSTRUCTION, A PRECONSTRUCTION MEETING IS REQUIRED A a) MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF WASTEWATER SYSTEM INSTALLATION NOTES THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR, AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRECONSTRUCTION MEETING. NO PRECONSTRUCTION MEETING CAN BE SCHEDULED BEFORE FOUR (4) SIGNED/APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
 - THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A b) MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- 22. TESTING OF FACILITIES:
 - a) THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
 - ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING b) REQUIREMENTS
 - TEST 100% OF ALL LINES.
 - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE

- APPROVED ON THE PLANS).
- CCTV INSPECTION.
- DISTRICT FOR REVIEW AND APPROVAL.
- 23. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF THE IMPROVEMENTS AT THE CONTRACTOR'S COST.
- 24.
- 25. ACCEPTANCE
 - LINES HAVE BEEN COMPLETED AND A WALK-THROUGH HAS OCCURRED.
- PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
- SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
- 29. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE

WATER SYSTEM INSTALLATION NOTES

- FIVE-AND-ONE-HALF (5.5) FEET.
- 31. ALL WATER VALVES ASSOCIATED WITH THE POTABLE WATER SYSTEM SHALL BE OPEN MARKERS AS APPLICABLE.
- REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY.
- 34 BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).
- 35. EXISTING LINES.
- WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.
- 37. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS:
 - DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
 - NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE b)
 - COMPLETED PRIOR TO USE OF THE FACILITY.
- RECORDED.

- BE APPROVED BY THE DISTRICT ON A CASE BY CASE BASIS
- APPROVED EQUAL, AND COATED.
- 40. ALL SEWER LINES MUST BE BEDDED WITH SQUEEGEE OR 3/4" CRUSHED ROCK.
- 41. COMMENCEMENT OF USE OF SEWER LINES AND/OR SYSTEMS:

c) ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS: ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING. ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO

> SEWER MAINS TO BE PRESSURE TESTED PRIOR TO CCTV INSPECTION ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE

ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMMENCEMENT OF SERVICE. THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE

FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.

a) THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE

b) A SECOND ACCEPTANCE MAY OCCUR ONCE THE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THROUGH OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).

26. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS

27. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT-INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE

28. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES, AND/OR SERVICES, CONSTRUCTION MUST HAVE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL

30. ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR APPROVED EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPTH OF

CLOCKWISE. ALL VALVES INSTALLED IN LANDSCAPED AREAS AND/OR NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL VALVES ASSOCIATED WITH THE RAW WATER SYSTEM SHALL BE OPEN COUNTERCLOCKWISE AND MARKED WITH CARSONITE

THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVICE STUB-OUTS FOR FUTURE DEVELOPMENT. ANY REQUIRED REALIGNMENT, HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER. FIRE HYDRANT LOCATION SHALL BE

33. FIRE HYDRANTS SHALL BE OPEN RIGHT WITH 7/8" X 7/8" SQUARE TAPERED ALONG WITH SERVICE CAPS. LUBRICATION TYPE: GREASE. ACCEPTABLE BRAND IS KENNEDY GUARDIAN (K81D, K81A, AND K81AM). EACH FIRE HYDRANT LOCATION SHALL ALSO BE USED AS TEST STATION.

ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN FIVE HUNDRED FEET (500') (VALVE

CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER LINE WITHOUT SHUTDOWN, OR ELSE NOTIFY THE DISTRICT OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO

36. IRRIGATION SERVICES SHALL HAVE A STOP-AND-WASTE CURB STOP VALVE INSTALLED ALONG

a) NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL PRESSURE TESTING, FLUSHING, BAC-T TESTING, AND COMPACTION TESTING, AND AS-BUILT

COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE

c) ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND

38. SANITARY SEWER LENGTHS ARE MH CENTER – MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR APPROVED EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED, INLINE PVC PUSH-ON WYES. SINGLE SADDLE TAP ALLOWED ON EXISTING MAINS. MULTIPLE SADDLE TAPS ON EXISTING MAINS MUST

39. ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RU116 - RUBR-NEK JOINT WRAP, OR

- a) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL THE COMPLETION OF ALL JET CLEANING, PRESSURE TESTING, VACUUM TESTING, CCTV INSPECTION, AND COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT
- b) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
- ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED. d) DOWNSTREAM PLUG CAN BE REMOVED ONCE THE FIRST LIFT OF ASPHALT IS DOWN AND
- THE ABOVE REQUIREMENTS ARE MET.

THE ABOVE GUIDELINES ARE SUBJECT TO CHANGE AT ANY TIME.

UTILITY NOTES

- 1. CONTRACTOR TO OBTAIN WORK IN THE ROW PERMIT FROM EL PASO COUNTY PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR TO POTHOLE AND VERIFY EXISTENCE OF OTHER UTILITIES WITHIN ANY PUBLIC RIGHT OF WAYS AND WITHIN EASEMENTS WHERE PROPOSED UTILITY IS LOCATED.
- 3. CONTRACTOR TO MAINTAIN 5.5' MINIMUM COVER ALL OVER WATER MAINS
- CONSTRUCTED. 4. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE
- INSTALLED IN CURB AND GUTTER OR CROSS PANS. 5. STANDARD WATER SERVICES LOCATIONS TO BE 10' FROM THE DOWNSTREAM
- PROPERTY LINE AND EXTENDED 10' TO THE UTILITY EASEMENT. 6. STANDARD WASTEWATER SERVICES TO BE IN A COMMON TRENCH WITH STANDARD
- WATER SERVICES. SHALL BE LOCATION A MINIMUM OF 30" FROM CENTER OF PIPE. SEE WOODMEN HILLS METRO DISTRICT STANDARD SPECIFICATIONS DETAIL W-13. STANDARD SERVICES SHALL BE MARKED WITH 2"X4" POST AT TERMINATION POINT FOR 7 LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED
- BLUE FOR WATER AND GREEN FOR SEWER. 8. CURB STOPS ARE NOT TO BE INSTALLED IN CONCRETE CURB, CROSS PANS, SIDEWALKS, OR DRIVEWAYS.
- 9. SEE PLANS FOR THE LOCATION OF STANDARD SERVICES ON CORNER LOTS

CAUTION - NOTICE TO CONTRACTOR

- 1. CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE CALL SERVICE 811 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- 2. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES. PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR 3
- INTERFERENCE OR DELAY CAUSED BY REPAIRS FOR DAMAGED UTILITIES. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.
- 6. CONTRACTOR MUST COORDINATE WORK WITH UTILITY COMPANY AND CITY/WHMD/OWNER PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ECT. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.
- CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS, AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY. UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
- 8. SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.
- STORM SEWERS, CULVERTS, AND DITCHES: CONTRACTOR SHALL MONITOR THE WEATHER AND MAINTAIN STORM WATER FLOW AT ALL TIMES AND SHALL SCHEDULE REMOVALS SUCH THAT WET WEATHER AND RAIN EVENTS WILL NOT CREATE DAMAGING BACKUPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERTING AND/OR BYPASS PUMPING AS NECESSARY TO FACILITATE CONSTRUCTION. THE COST FOR MAINTAINING, DIVERTING, OR PUMP STORM FLOWS SHALL BE INCIDENTAL TO THE PROJECT.
- 10. CONTRACTOR TO MAINTAIN A MAXIMUM CONSTRUCTION EASEMENT WIDTH OF 24 FEET.

DESIGN NOTES/SPECIFICATIONS

- 1. IN THE EVENT OF DISCREPANCIES, THE FOLLOWING IS THE ORDER OF PRECEDENCE FOR SPECIFICATIONS, FOLLOW WHAT IS MOST STRINGENT: HR GREEN OVER WHMD OVER CSU OVER EPC OVER CDOT
- 1.1. SPECIFICATIONS PERTAINING TO UTILITIES: WHMD, SUPPLEMENTED BY CSU. 1.2. SPECIFICATIONS PERTAINING TO RIGHT OF WAY AND SURFACING RESTORATION: EPC, SUPPLEMENTED BY CDOT.

2. CONTRACTOR SHALL UTILIZE THE SITE ACCESS AND STAGING AREAS AS IDENTIFIED IN THE DRAWINGS OR OTHERWISE CONTRACTOR SHALL OBTAIN APPROVAL ON OTHER SITES AND ACCESSES 3. CONTRACTOR SHALL STAY WITHIN THE CONSTRUCTION EASEMENTS AND/OR ROAD RIGHT OF WAY. DAMAGES OUTSIDE OF DESIGNATED AREAS SHALL BE REPAIRED/REMEDIED AT CONTRACTOR'S EXPENSE. ADDITIONAL AGREEMENTS OBTAINED BY THE CONTRACTOR SHALL NOT HOLD THE OWNER/ENGINEER RESPONSIBLE FOR ANY DAMAGES/GRIEVANCES.

4. REMOVALS AND REPLACEMENT

- 4.1. ALL ITEMS NOTED FOR REMOVAL AND REPLACEMENT SHALL BE REPLACED IN KIND. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR SHALL COORDINATE AND CONFIRM WITH RESPECTIVE ENTITIES IF EXISTING CONDITIONS WOULD ALLOW FOR SALVAGE AND RESET
- 4.2. DAMAGED PAVEMENT FROM CONSTRUCTION ACTIVITIES SHALL BE REMEDIED TO EPC'S APPROVAL AT
- CONTRACTOR'S EXPENSE. PAVEMENT/ROADWAY TYPICAL SECTIONS FOR RESTORATION - CONTRACTOR SHALL FIELD VERIFY AND MATCH 4.3. EXISTING. ROADWAY REPLACEMENT/PATCHING/CONSTRUCTION SHALL COMPLY TO SPECIFICATIONS OF EPC, CDOT, OR RESPECTIVE AGENCY WITH JURISDICTION OVER THE ROAD

5. GRAVITY SEWER

- 5.1. FOLLOW REQUIREMENTS PER WHMD STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED IN DRAWINGS. 5.2. ALL PIPES FOR THE PROJECT SHALL BE AS SPECIFIED IN DRAWINGS.
 - INSTALL SEWER BEDDING PER "TYPICAL TRENCH DETAIL" ON SHEET C701
- TO PREVENT BUOYANCY, EACH MANHOLE LIP WIDTH SHALL BE A MINIMUM OF 3" WIDE ALL AROUND THE 5.4. MANHOLE RISERS, ALSO REFER TO STANDARD DETAIL WW-2 FOR ADDITIONAL REQUIREMENTS.

6. PERMITS

5.3.

- 6.1. OWNER IS RESPONSIBLE FOR WETLAND/NATION WIDE PERMIT, ESQCP, APPROVAL FROM CDPHE, AND OBTAINING EASEMENTS
- ALL PERMITS REQUIRED FOR CONSTRUCTION, NOT PROVIDED, SHALL BE OBTAINED BY THE CONTRACTOR. 6.2. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION, SUBMITTAL, FEES, AND ALL OTHER ITEMS ASSOCIATED WITH PERMITTING. THE FOLLOWING ANTICIPATED PERMIT LIST IS NOT ALL INCLUSIVE:
- 6.2.1. NPDES AND DEWATERING PERMITS
- 6.2.2. EPC ROW USE AND CONSTRUCTION PERMITS FLOODPLAIN DEVELOPMENT PERMIT 6.2.3.

7. TRAFFIC CONTROL

- 7.1. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL PLAN, COORDINATION WITH ALL IMPACTED PARTIES (CDOT, EPC, ADJACENT LANDOWNERS, ETC) MODIFICATIONS, AND MAINTENANCE. MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES, WHERE POSSIBLE.
- 7.2. CONTRACTOR SHALL CONTACT EPC 2 WEEKS BEFORE CONSTRUCTION BEGINS TO ALLOW PUBLIC NOTIFICATION OF ROAD CLOSURES, IF APPLICABLE. CONTRACTOR SHALL COORDINATE CLOSURE DURATION AND PROCESS WITH ALL ENTITIES INVOLVED/IMPACTED. 7.3. CONTRACTOR SHALL COORDINATE MAILBOXES/DELIVERIES WITH THE LOCAL DELIVERIES SERVICES DURING
- CONSTRICTION ACTIVITIES DISTURBANCE OF MAILBOXES AND ROAD ACCESSES.

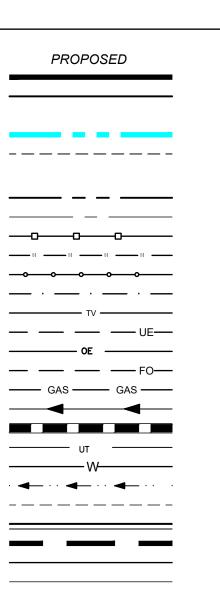
8. AS-BUILTS

8.1. CONTRACTOR SHALL PROVIDE A THIRD PARTY INSPECTOR TO MAP IN POINTMAN THE ALIGNMENT AND DEPTH OF THE PIPE INSTALLED ACROSS THE ENTIRE WIDTH OF THE RIGHT-OF- WAY. 8.2. CONTRACTOR SHALL KEEP RECORD OF CHANGES TO DESIGN AND PROVIDE AS-BUILT DRAWING SET/CAD DRAWINGS TO OWNER.

LEGEND

MATCH LINE PHASE LINE SECTION LINE PROPERTY LINE EASEMENT LINE ASSUMED EASEMENT RIGHT OF WAY CENTERLINE CHAIN LINK FENCE WOODEN FENCE ROD IRON FENCE GUARDRAIL CABLE TV U.G. ELECTRIC OVERHEAD ELECTRIC FIBER OPTIC GAS MAIN SANITARY SEWER STORM DRAIN TELEPHONE WATER MAIN SWALE TRAIL CURB & GUTTER DRAINAGE BASIN INDEX CONTOUR INTER. CONTOUR 100-YR FLOODPLAIN FLOODWAY

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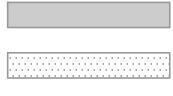
100 YR FLOOD

PENDING 100 YR FLOOD WETLANDS

DRAWN BY: <u>ELC</u>

APPROVED: <u>GP</u>

CAD DATE: <u>9/11/2024</u>



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STORM SEWER

STORM INLET FLARED END SECTION RIPRAP

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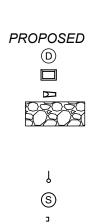
PLUG

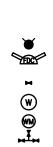
FIRE HYDRANT FIRE DEPT. CONNECTION GATE VALVE MANHOLE METER TEE REDUCER

DRY UTILITIES ELECTRIC METER ELECTRIC PEDESTAL ELECTRICAL CABINET ELECTRIC VAULT FIB FIF

ELECTRIC VAULT	ZVL
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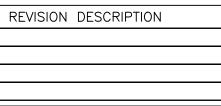
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D.R. HORTON - GRANDVIEW RESERVE ON-SITE SANITARY SEWER DESIGN & PERMITTING SERVICES EL PASO COUNTY PEYTON, CO

CIVIL	SHEET
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LEGEND	

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL SHEETS: PERMANENT SEED SPECS 16 CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC 2 REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS. INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- 4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- 5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER, CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- 7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- 8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS, ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

- 19. APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 20. ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 21.
- FACILITIES.
- OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OR REGULATIONS SHALL APPLY.
- ACCESS POINTS.

- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CONSIDERED A PART OF THESE PLANS.
 - 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

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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.

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

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

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

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

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

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES,

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

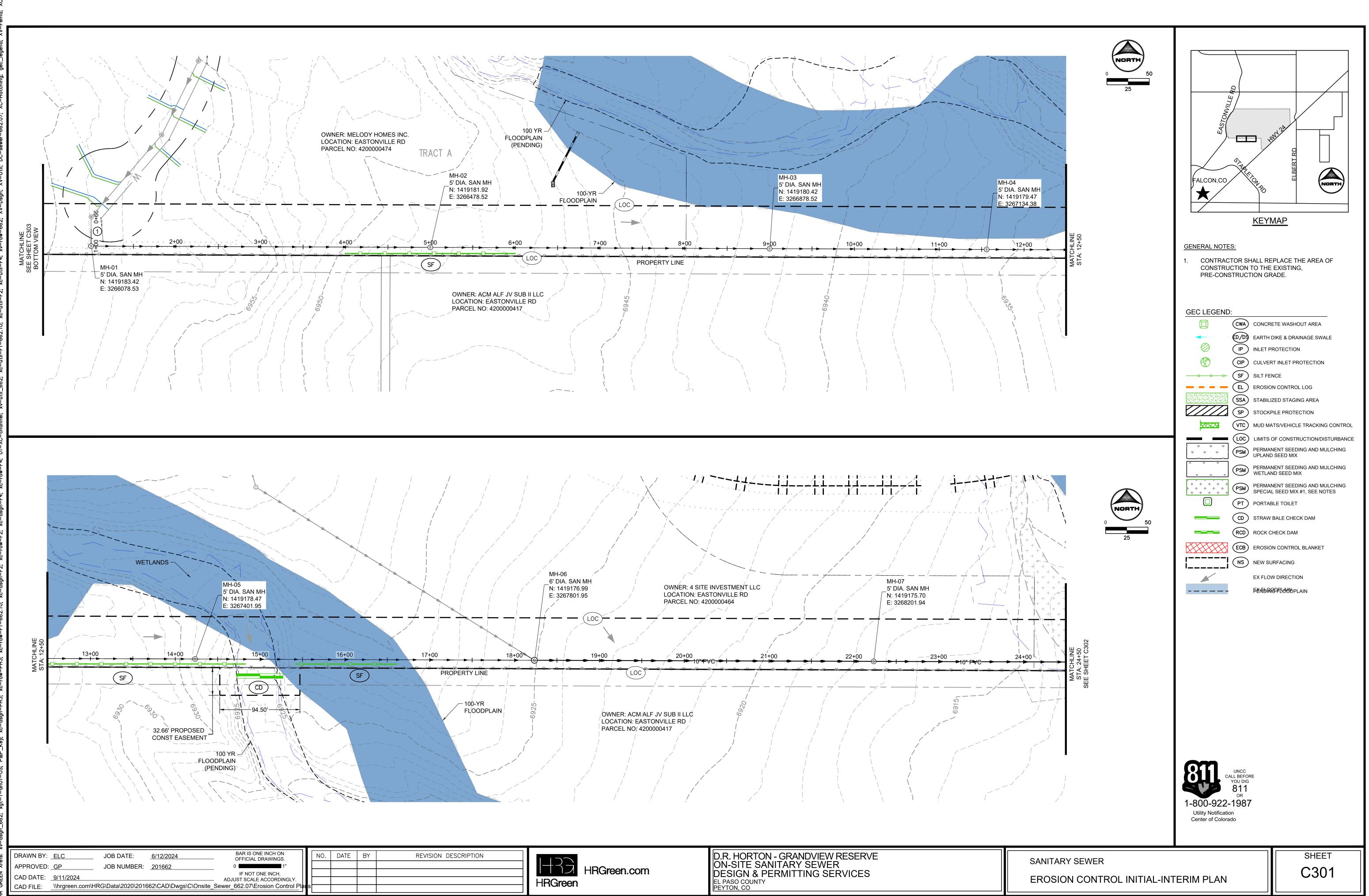
27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

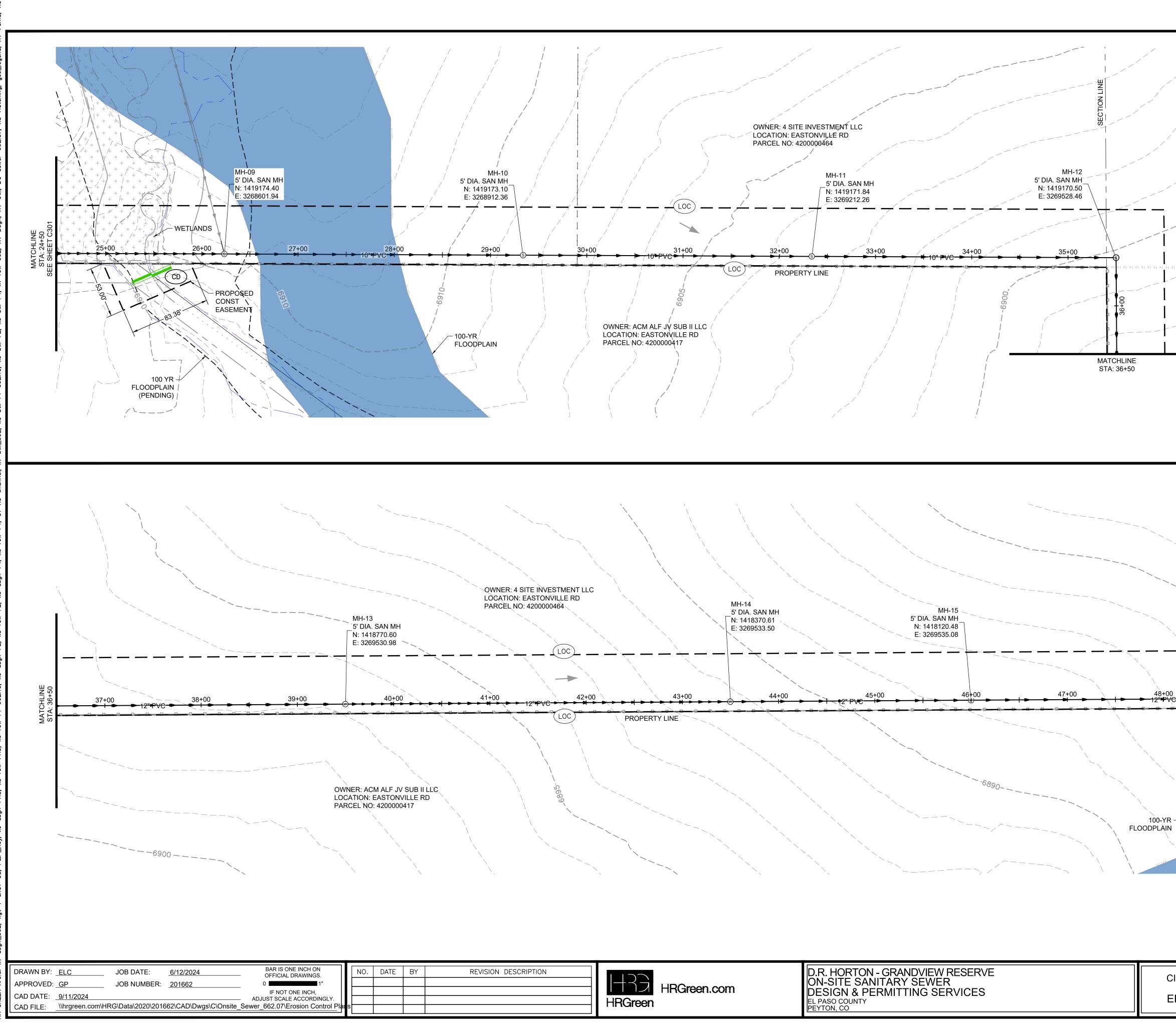
AND SHALL BE

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR

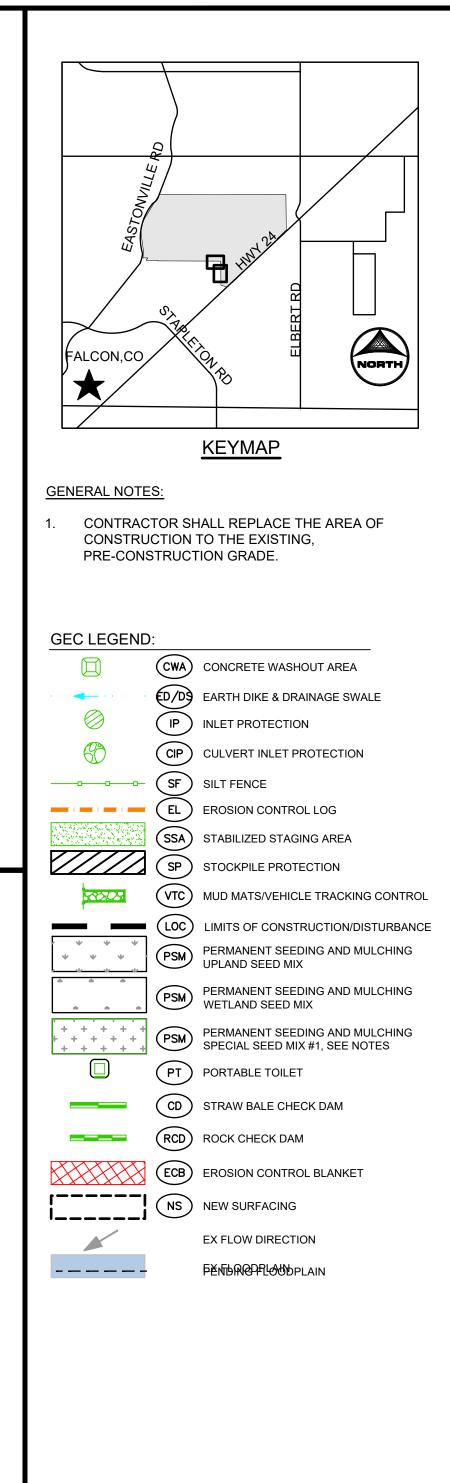
1. SPECIAL SEED MIX #1 - TBD SPECIAL ON PRIVATE LAND - LANDOWNER WILL WATER 2. SEE LEGEND AND EROSION CONTROL DETAILS FOR SEED MIX/TYPE.

CIVIL	
GRADING AND EROSION CONTROL NOTES	









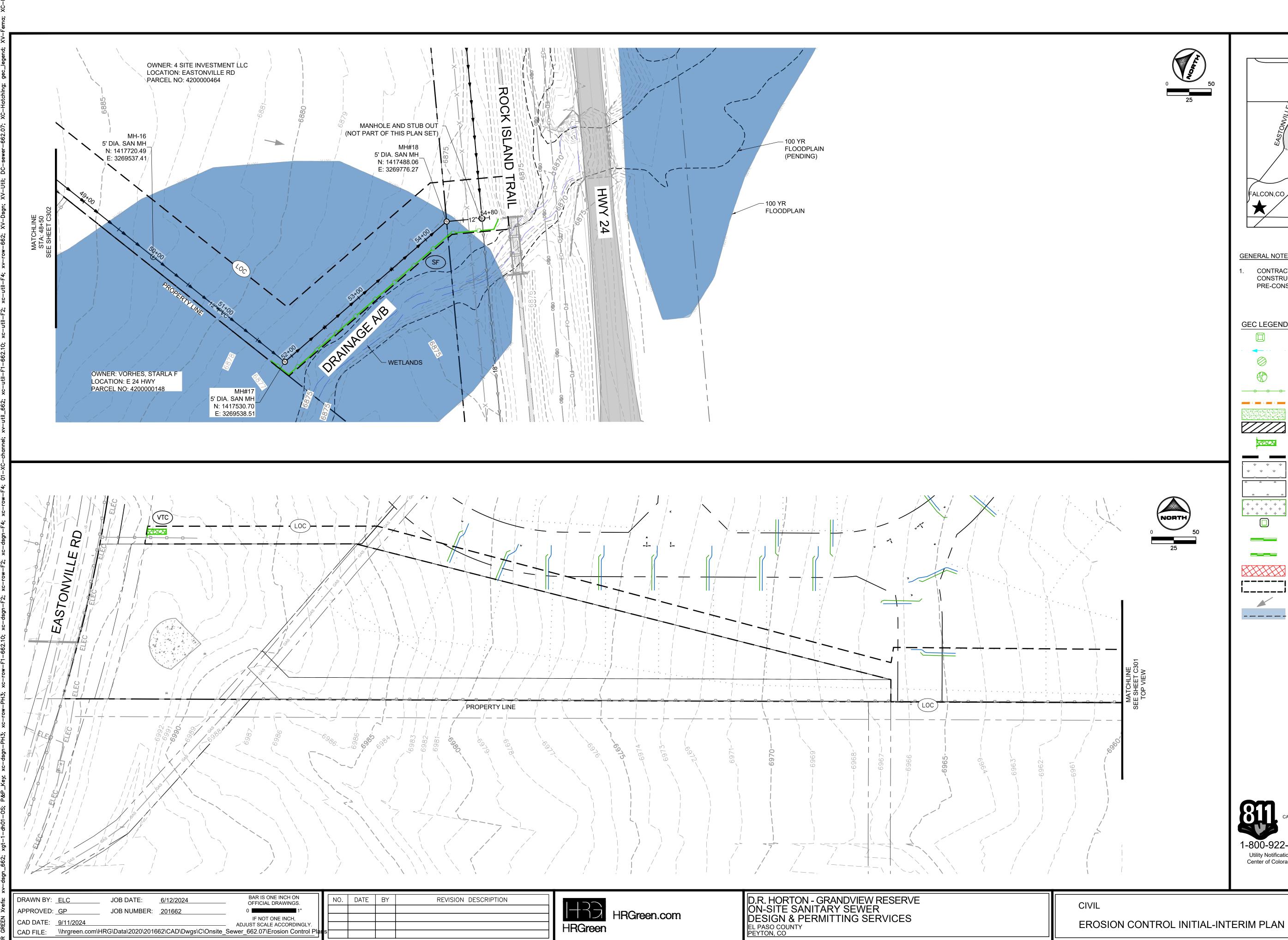


CIVIL EROSION CONTROL INITIAL-INTERIM PLAN

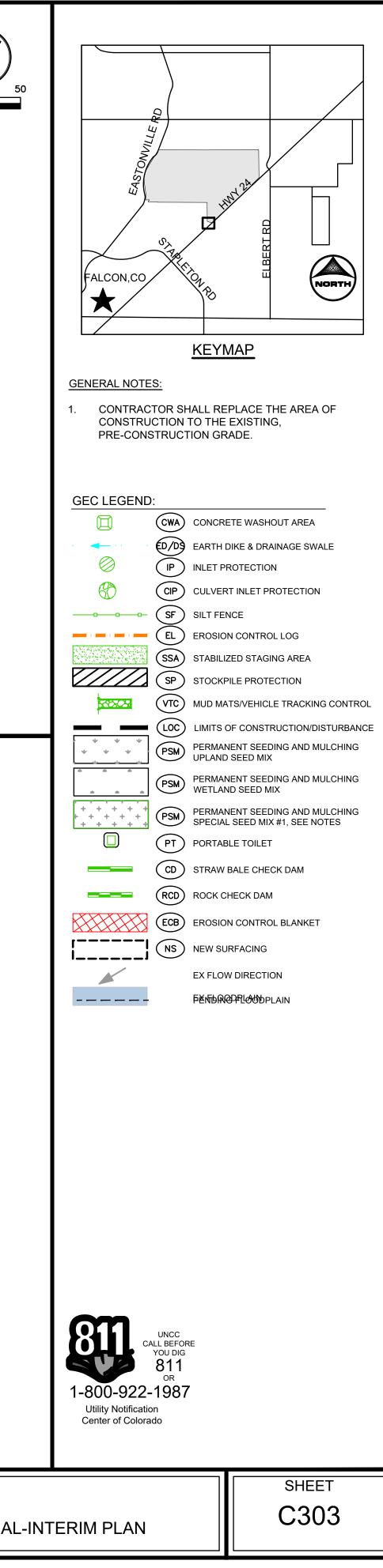
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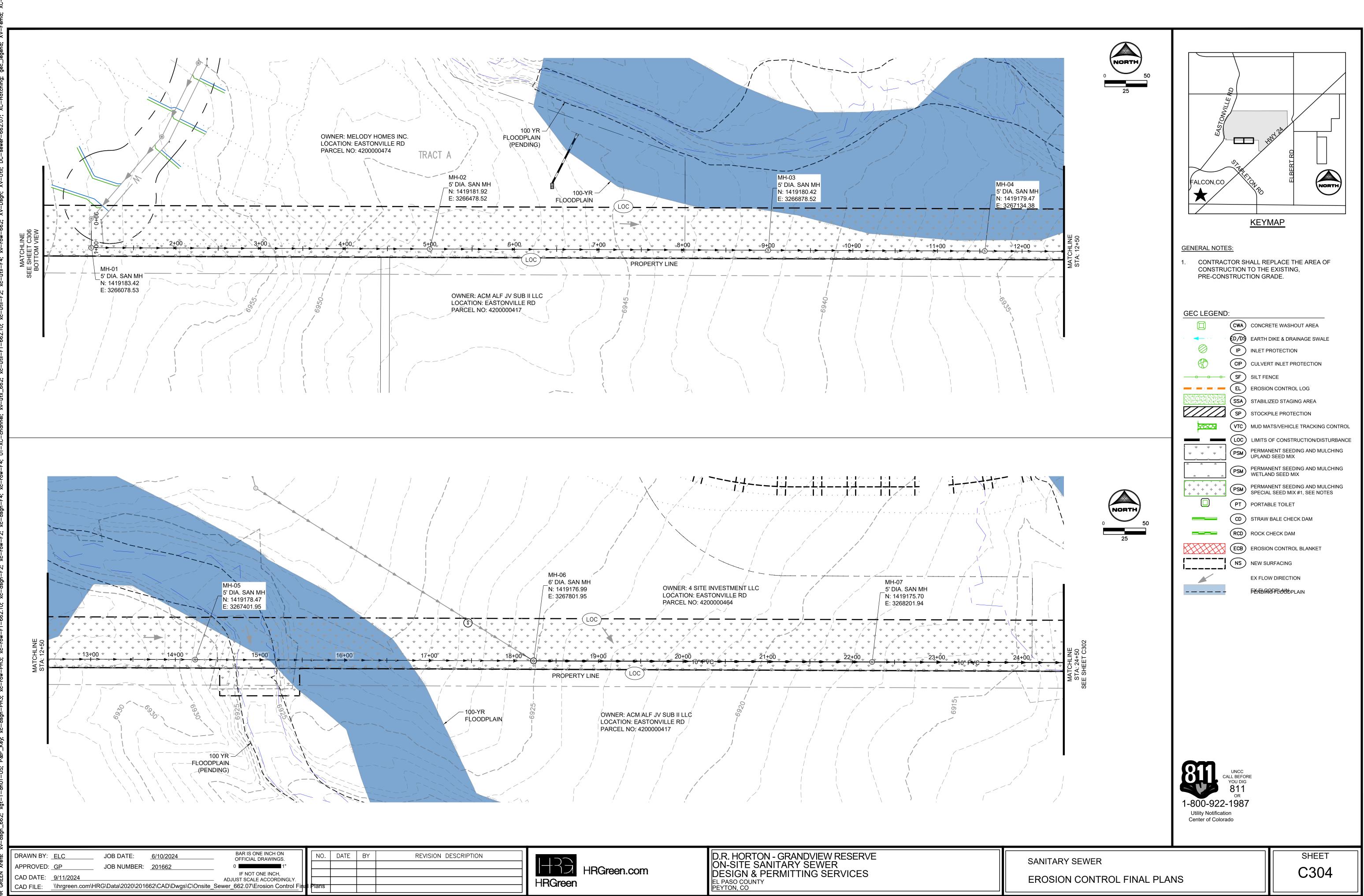
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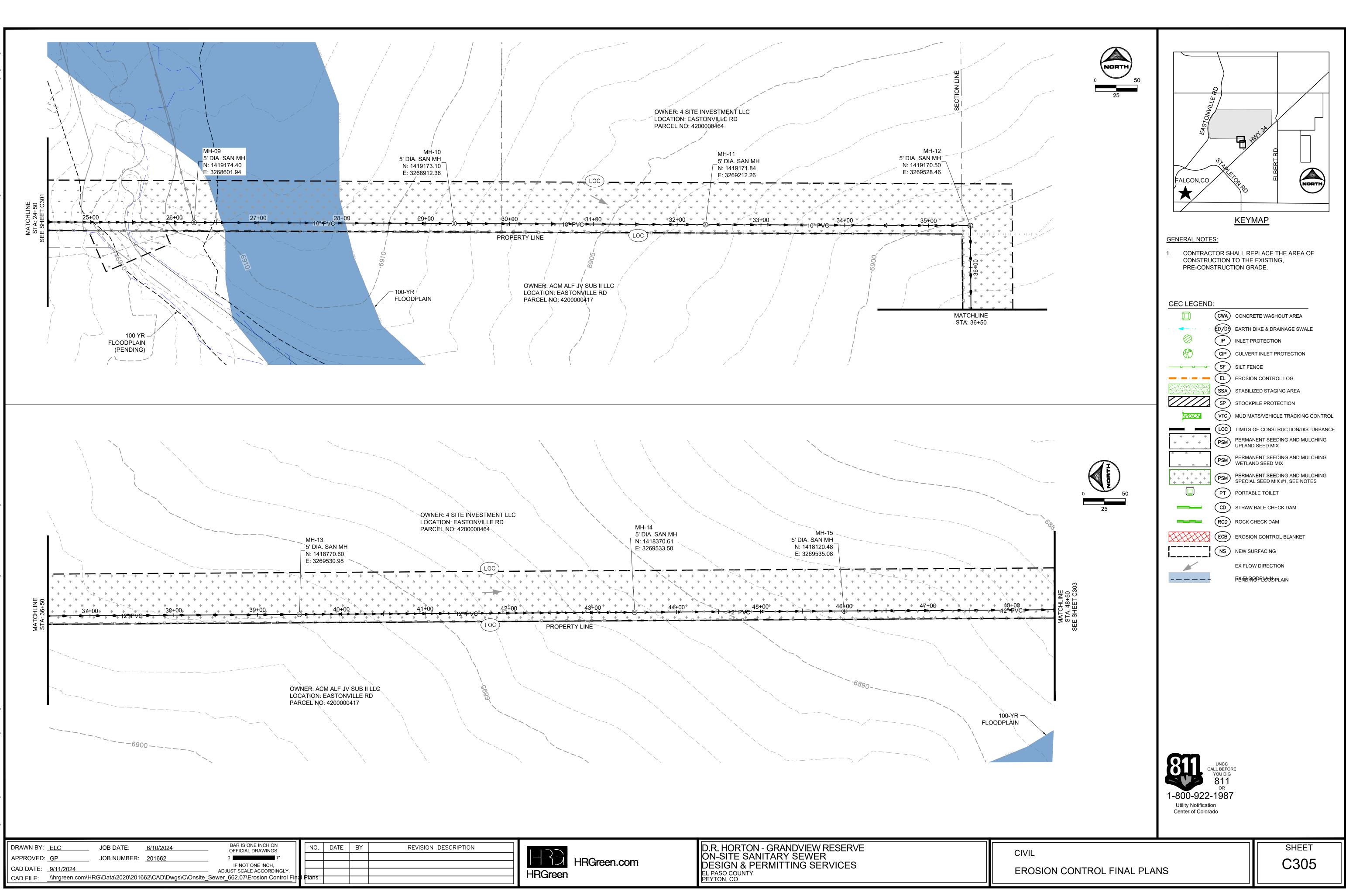
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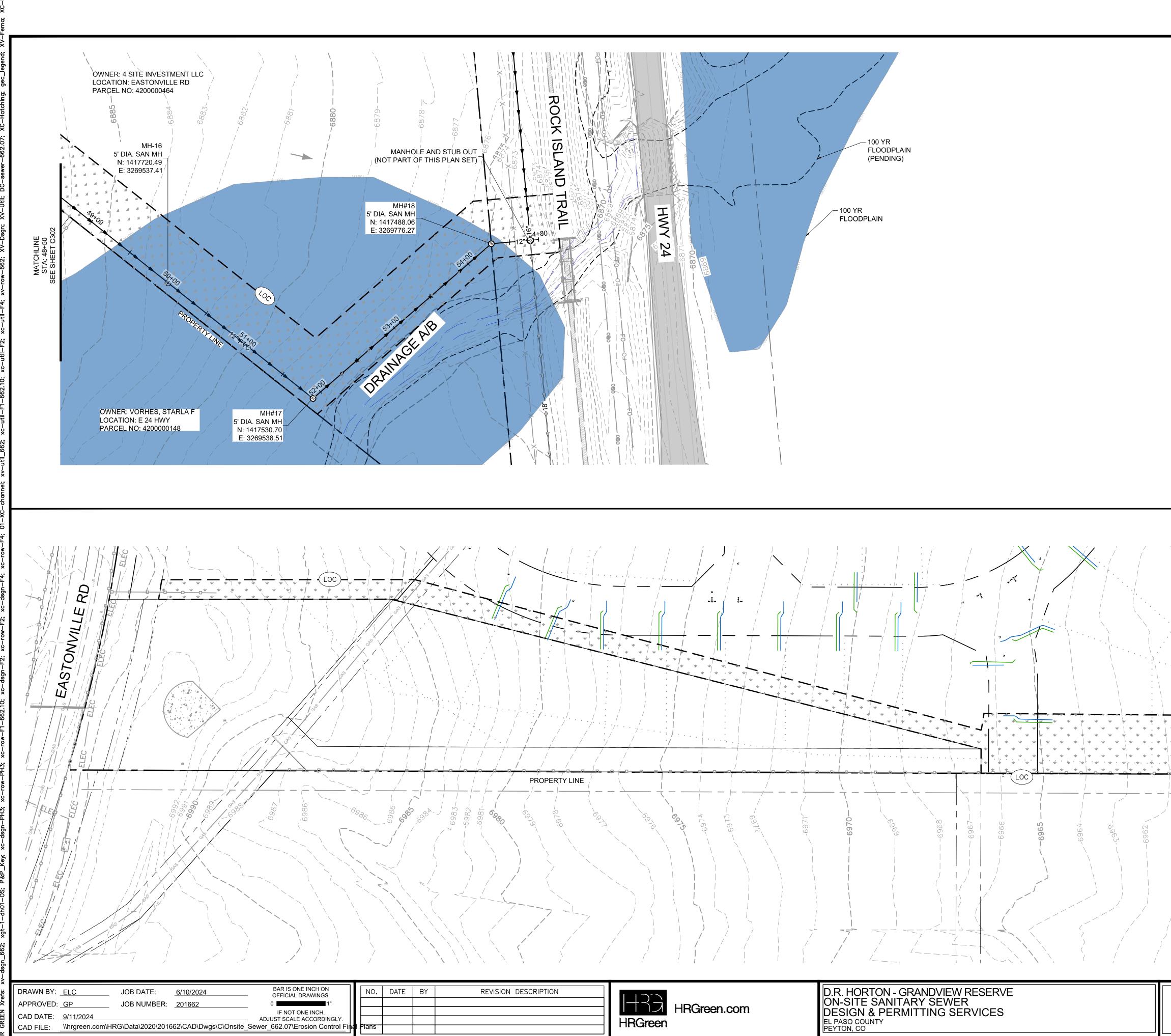


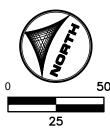


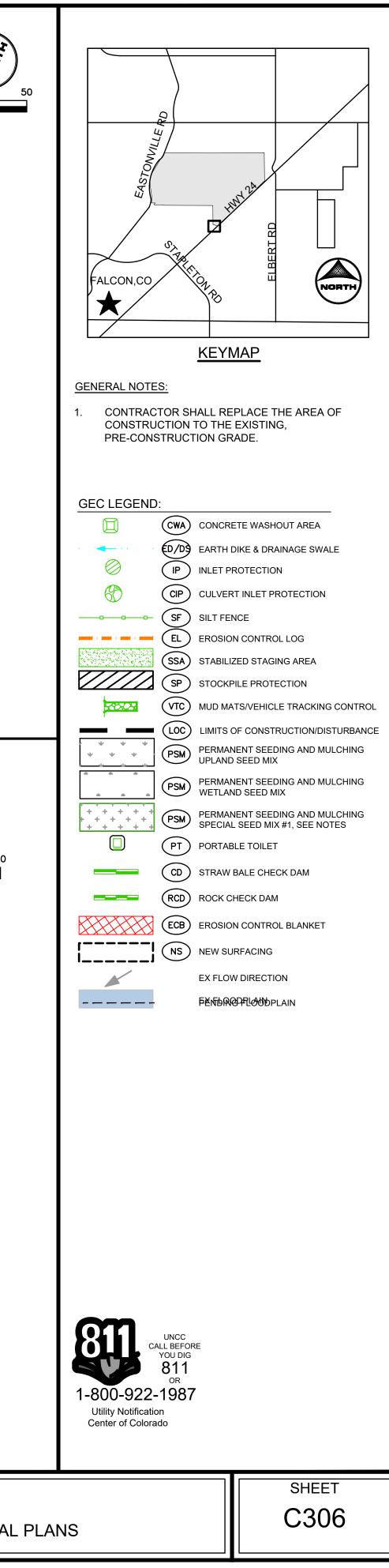






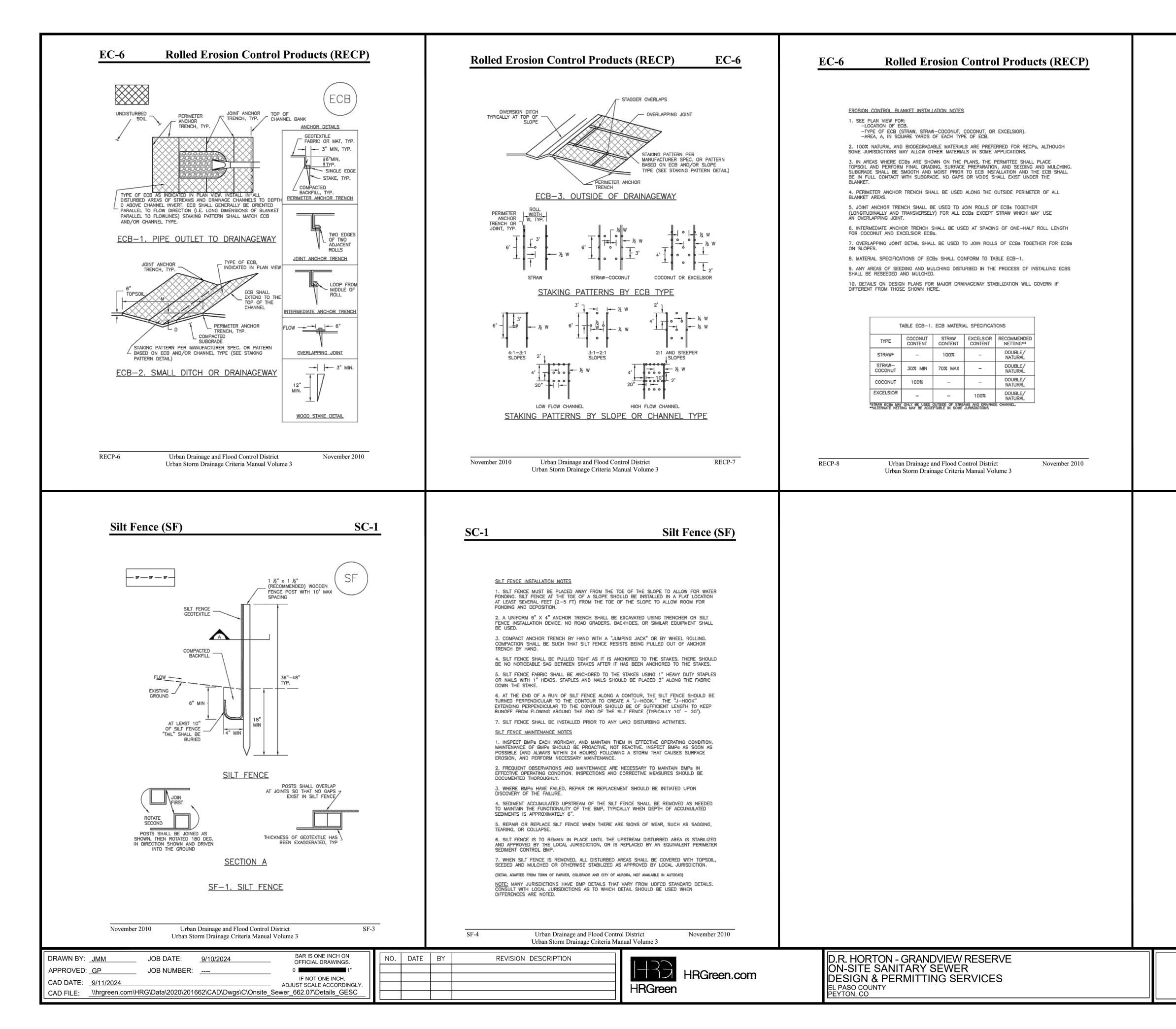






EROSION CONTROL FINAL PLANS

CIVIL



Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

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

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

November 2010

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-9

CIVIL
EROSION CONTROL DETAILS

	SM-3 Construction Fence (CF)	Construction Fence (CF) SM-3	Surface Roughening (SR) EC-1
$\frac{1}{10000000000000000000000000000000000$	CONTRUCTION FERCE SHOWN SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE CONTRUCTION FERCE SHOWN SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE CONTRUCTION FERCE SHOWN SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE CONTRUCTION FERCE SHOWN SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION OF STEEL THE POSTS SHOLL BE UTURED TO SHOP CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE COMPOSED OF ORMEL, CONTRUCTION FERCE 1. SCIENTION FERCE SHALL BE SCIENTION FERCE 2. CONTRUCTION FERCE SHALL BE SCIENTION FERCE 2. CONTRUCTION FERCE SHALL BE SCIENTION FERCE 3. SCIENTION FERCE SHALL BE SCIENTION FERCE SHALL BE SCIENTION FERCE 3. SCIENTION FERCE SHALL BE SCIENTION FERCE 3. SCIENTION FERCE SHALL BE SCIENTION FERCE 3.	 INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. FREQUENT OBSERVATIONS AND MAINTENANCE. FREQUENT OBSERVATIONS AND MAINTENANCE. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. MOTE: 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. 	TROCHING OF MPRINTING THE STAND OF THE ST
Auto Auto Auto Auto Auto Auto Auto	CF-2 Urban Drainage and Flood Control District November 2010		November 2010 Urban Drainage and Flood Control District SR-3
UPL = Uplands – Almost always occurs in uplands. 13-70 Urban Drainage and Flood Control District January 2016 Urban Storm Drainage Criteria Manual Volume 2	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text></text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>		
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Chapter 13

Revegetation

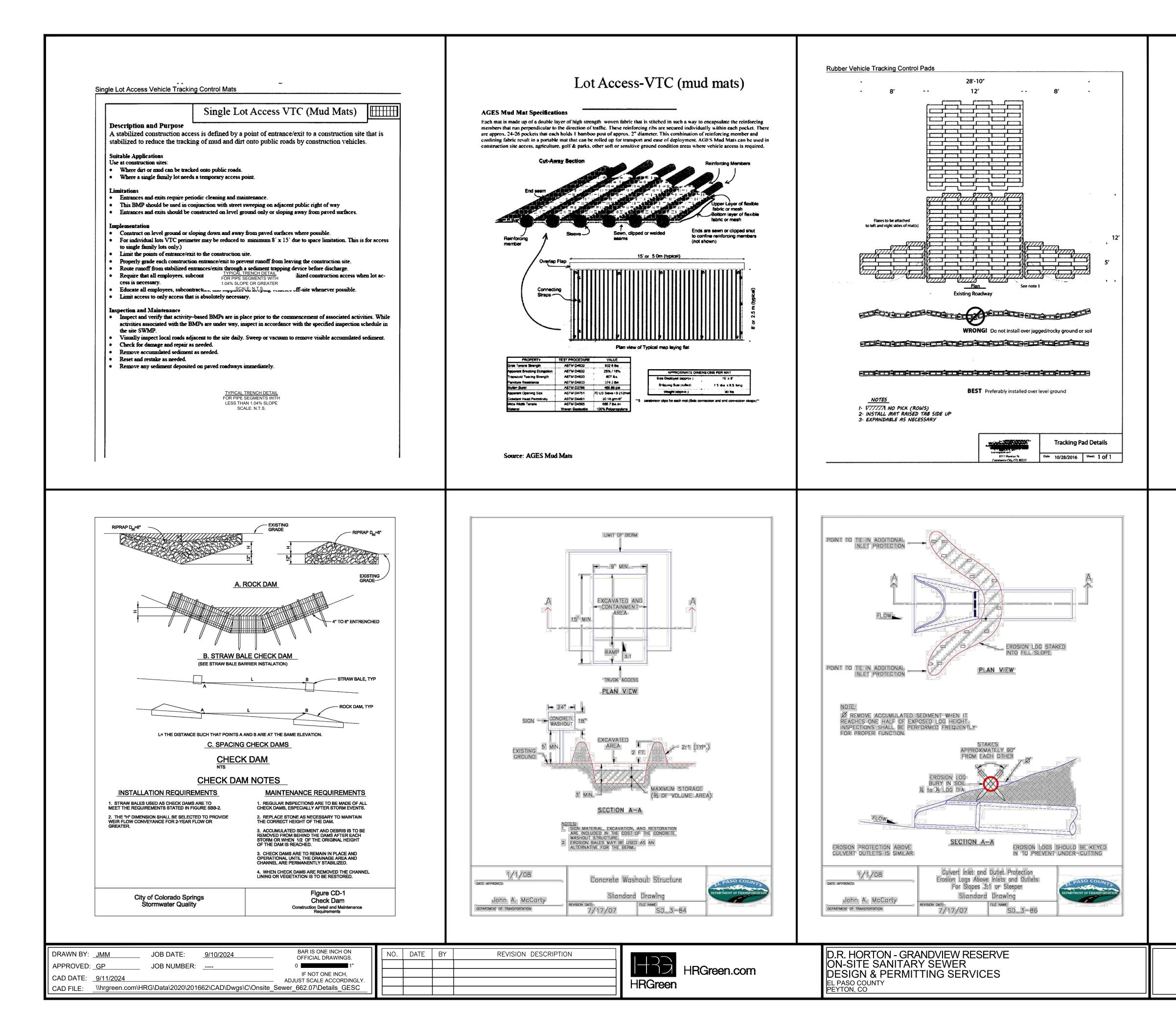
Table A-3. Upland/transitional area seed mix – alkali soil

Common Name	Scientific Name	Growth Season	Growth Form	% Mix	Lb/ac (PLS ¹)
Blue grama	20	1.5			
Sideoats grama	Bouteloua curtipendula	Warm	Sod	15	4.7
Slender wheatgrass	Elymus trachycaulus	Cool	Bunch	15	5.7
Alkali sacaton	Sporobolus airoides	Warm	Sod/Bunch	15	0.5
Inland saltgrass	Distichlis spicata	Warm	Sod	15	1.7
Western wheatgrass	Pascopyrum smithii	Cool	Sod	10	5.5
Sand dropseed	Sporobolus cryptandrus	Warm	Bunch	10	0.1
TOTAL PLS POUN	100	19.7			

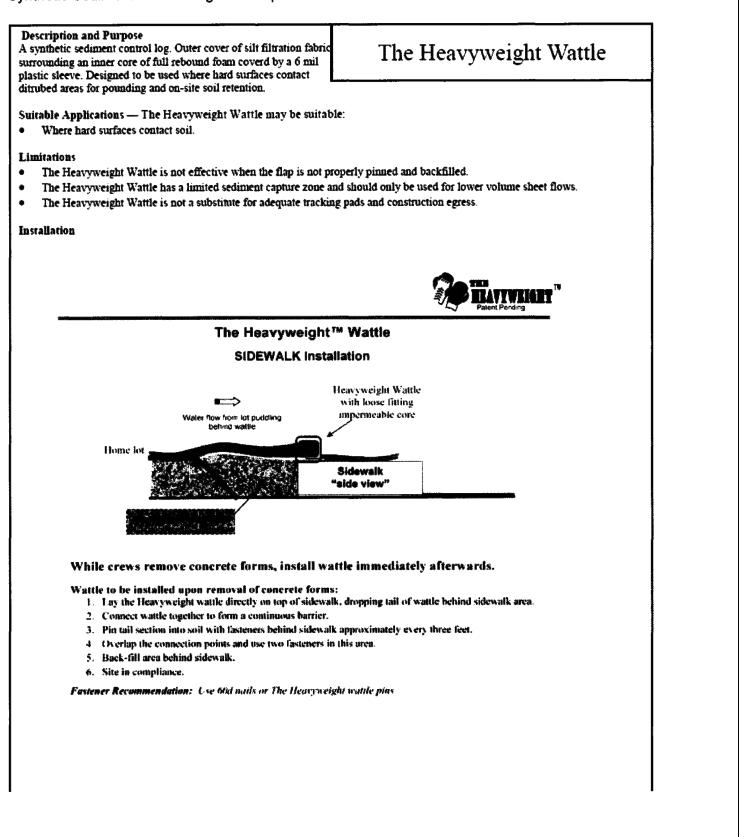
January 2016

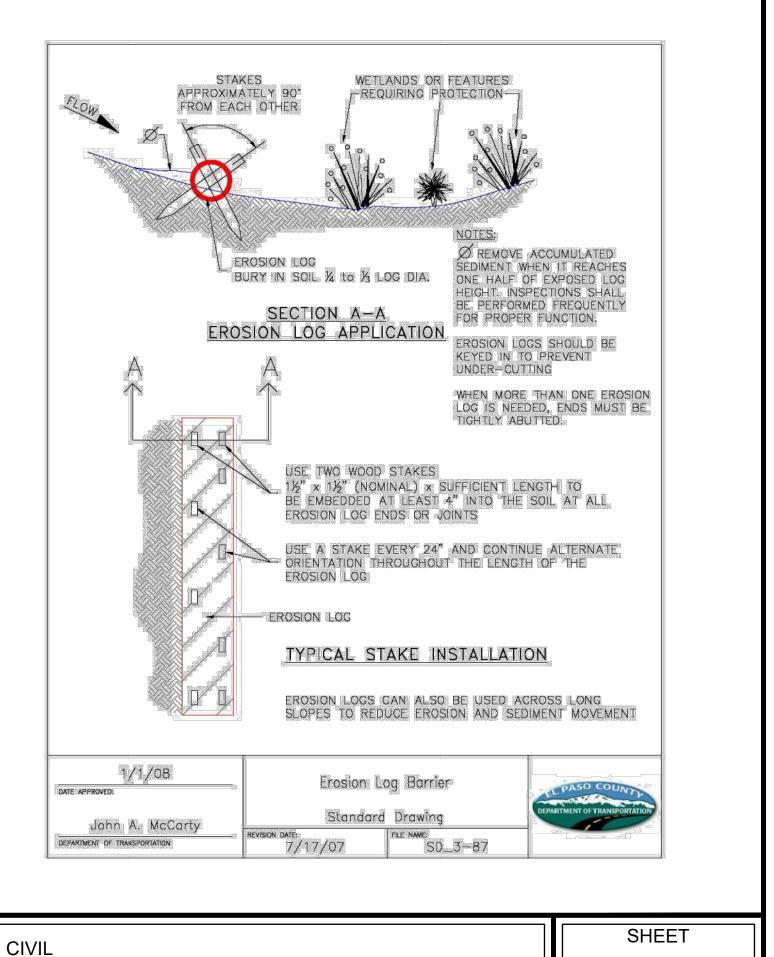
Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 2 13-67

CIVIL
EROSION CONTROL DETAILS









EROSION CONTROL DETAILS



▶ HRGREEN.COM

Grandview Reserve Interceptor Sewer

El Paso County No. PPR2421

Prepared For (Applicant/Owner): D.R. Horton

Prepared By: HR Green Development, LLC HORIZONTAL CONTROL MODIFIED COORDINATE SYSTEM - SEE SHEETS IN DRAWINGS

VERTICAL DATUM NAVD88

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SANITARY SEWER: FUTURE - NOT FOR CONSTRUCTION

C200	FUTURE - OVERALL SITE PLAN
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C203	FUTURE - GRAVITY LINE
C204	FUTURE - GRAVITY LINE
C205	FUTURE - GRAVITY LINE

C107 GRAVITY LINE PLAN AND PROFILE

PROJECT CONTACTS:

OWNER/DEVELOPER

D.R. HORTON 9555 S. KINGSTON COURT, SUITE 200 ENGELWOOD, CO 80112 TELE: (303) 488-0061 ATTN: RILEY HILLEN, PE AND BRYAN REID, PE EMAIL: RHILLEN@DRHORTON.COM AND BAREID1@DRHORTON.COM

APPLICANT HR GREEN 5613 DTC PARKWAY | SUITE 950 GREENWOOD VILLAGE, CO 80111 TELE:(720) 602-4999 ATTN: GREGORY PANZA P.E. EMAIL: GPANZA@HRGREEN.COM

CIVIL ENGINEER HR GREEN 5613 DTC PARKWAY | SUITE 950 GREENWOOD VILLAGE, CO 80111 TELE: (720) 602-4999 ATTN: GREGORY PANZA P.E. EMAIL: GPANZA@HRGREEN.COM

GEOTECHNICAL ENGINEER COMPANY: CTL | THOMPSON ADDRESS: 5170 MARK DABLING BLVD COLORADO SPRINGS, CO 80918 TELE: (719) 528-8300

ATTN: JEFF JONES EMAIL: COLORADOSPRINGS@CTLTHOMPSON.COM

TRAFFIC ENGINEER LSC TRANSPORTATION CONSULTANTS INC. 2504 EAST PIKES PEAK AVENUE, SUITE 304 COLORADO SPRINGS, CO 80909 TELE: &719) 633-2868 ATTN: JEFFREY C. HODSON, P.E. EMAIL: LSC@LSCTRANS.COM

SURVEYOR EDWARD-JAMES SURVEYING, INC. 926 ELKTON DRIVE COLORADO SPRINGS, CO 80907 TELE: (719) 576-1216 ATTN: JONATHAN W. TESSIN EMAIL: JTESSIN@EJSURVEYING.COM

EROSION CONTROL

300	GRADING AND EROSION CONTROL NOTES
301	EROSION CONTROL INITIAL-INTERIM PLAN
302	EROSION CONTROL INITIAL-INTERIM PLAN
303	EROSION CONTROL INITIAL-INTERIM PLAN
304	EROSION CONTROL INITIAL-INTERIM PLAN
305	EROSION CONTROL FINAL PLAN
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307	EROSION CONTROL FINAL PLAN
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309	EROSION CONTROL DETAILS
310	EROSION CONTROL DETAILS
311	EROSION CONTROL DETAILS

DETAILS C701 DETAILS C702 DETAILS

UTILITY CONTACTS

WATER **GRANDVIEW RESERVE METROPOLITAN DISTRICT** 1272 KELLY JOHNSON BLVD. SUITE 100 COLORADO SPRINGS, CO 80921 TELE: (719 499-8416 ATTN: PAUL HOWARD EMAIL: PAULINFINITY1@MSN.COM

WASTEWATER / WATER WOODMEN HILLS METRO DISTRICT 8046 EASTONVILLE ROAD FALCON, CO 80831 TELE: (719) 495-2500 CONTACT: CODY RITTER EMAIL: CODY@WHMD.ORG

ELECTRIC / FIBER MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN RD. FALCON, CO 80831 TELE: (800) 388-9881 ATTN: GINA PERRY EMAIL: GINA.P@MVEA.COOP

NATURAL GAS BLACK HILLS ENERGY 198 COUNTY LINE RD. PALMER LAKE, CO 80133 TELE: (719) 332-5856 ATTN: BOB SWATEK EMAIL: BOB.SWATEK@BLACKHILLSCORP.COM

FIRE FALCON FIRE PROTECTION DISTRICT 7030 OLD MERIDIAN RD. FALCON, CO 80831 TELE: (719) 495-4050 ATTN: TRENT HARWIG EMAIL: THARWIG@FALCONFIREPD.ORG

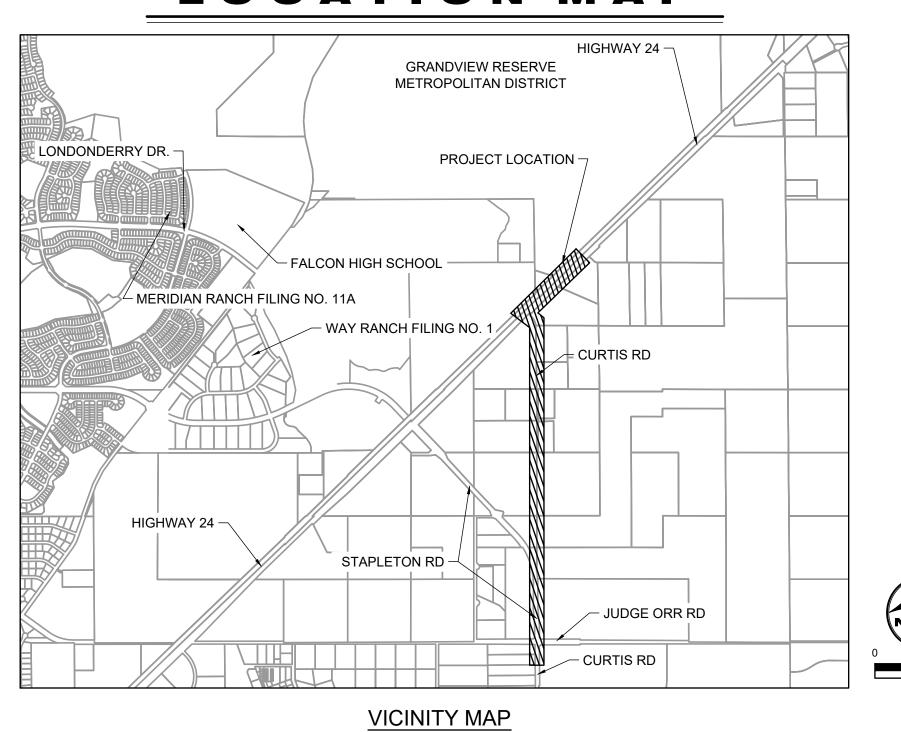
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1975 RESEARCH PARKWAY, SUITE 230 | COLORADO SPRINGS, CO 80920 Phone: 719.300.4140 | Toll Free: 800.728.7805 | Fax: 713.965.0044 | HRGreen.com

GRANDVEW RESERVE METROPOLITAN DISTRICT INTERCEPTOR SEWER COUNTY PLAN RESPONSIBLE **CONSTRUCTION DOCUMENTS** FILED IN ACCC

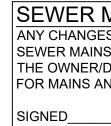
AND EROSION CONTROL PLANS COUNTY OF EL PASO, STATE OF COLORADO LOCATION MAP



1"=2000'







DBA_____



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

GRANDVIEW RESERVE M.D. -INTERCEPTOR SEWER D.R. HORTON EL PASO COUNTY, CO



EL PASO

COL	JN	TY:

RESPONSIBL CONFIRMED	N REVIEW IS PROVIDED ONLY FOR GENERAL CONFO E FOR THE ACCURACY AND ADEQUACY OF THE DES AT THE JOB SITE. THE COUNTY THROUGH THE APPF ESS AND/ OR ACCURACY OF THIS DOCUMENT.	GIGN, DIMENSIONS, AND/ OR ELEV	ATIONS WHICH SHALL BE
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JOSHUA PAL COUNTY ENG	MER, P.E. E INEER / ECM ADMINISTRATOR	DATE	
THESE DETA SPECIFICATIO DRAINAGE, G CONFORMITY SPECIFICATIO ARE CORREC	ER'S STATEMENT (FOR GEC PLAN LED PLANS AND SPECIFICATIONS WERE PREPARED ONS HAVE BEEN PREPARED ACCORDING TO THE CF RADING AND EROSION CONTROL PLANS AND SPEC WITH APPLICABLE MASTER DRAINAGE PLANS AND ONS MEET THE PURPOSES FOR WHICH THE PARTIC OT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I A ACTS, ERRORS OR OMISSIONS ON MY PART IN PREP	O UNDER MY DIRECTION AND SUPP RITERIA ESTABLISHED BY THE COU IFICATIONS, AND SAID PLANS AND MASTER TRANSPORTATION PLAN ULAR ROADWAY AND DRAINAGE F ACCEPT RESPONSIBILITY FOR AN	ERVISION. SAID PLANS AND JNTY FOR DETAILED ROADWAY, SPECIFICATIONS ARE IN S. SAID PLANS AND ACILITIES ARE DESIGNED AND (LIABILITY CAUSED BY ANY
GREG PANZA FOR AND ON	, P.E. #37081 L BEHALF OF HR GREEN, INC.	DATE	
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OWNER'S SIC	INATURE E	DATE	
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ANY CHANGE SEWER MAIN THE OWNER/	MAIN EXTENSIONS: S OR ALTERATIONS AFFECTING THE GRADE, ALIGN S OR OTHER APPURTENANCE SHOWN ON THIS DRA DEVELOPER SHALL BE RESPONSIBLE FOR ALL OPEI ND SERVICES FROM THE DATE OF APPROVAL UNTIL	WING SHALL BE THE RESPONSIBI RATIONAL DAMAGES AND DEFECT	LITY OF THE OWNER/DEVELOPER.
PRINT NAME		5,112	
ADDRESS			
DISTRIC	T APPROVALS:		
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	WOODMEN HILLS METROPOLITAN DISTRICT		
	WASTEWATER DESIGN APPROVAL: DATE:		
	PROJECT NO		
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	EGULATIONS FOR INSTALLATION OF WASTEWATER APPROVAL EXPIRES 180 DAYS FROM DESIGN A		
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WOODMEN HILLS METROPOLITAN DISTRICT STANDARD NOTES: (SOME NOTES MAY NOT BE APPLICABLE TO PROJECT)

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT (WHMD, THE DISTRICT) SPECIFICATIONS.
- ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. 2. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED 'NOT VALID.'
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE 3. UNLESS OTHERWISE NOTED. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- ALL OVER-LOT GRADING MUST BE COMPLETED TO WITHIN ONE (1) FOOT OF FINAL GRADE PRIOR TO INSTALLATION OF WATER AND WASTEWATER INFRASTRUCTURE.
- ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
- DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES, AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT, AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
- ALL DUCTILE IRON PIPE LESS THAN TWELVE INCHES (12") AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE TWELVE INCHES (12") AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 300 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING.
- ALL PIPE MATERIAL, BACKFILL, AND INSTALLATION SHALL CONFORM TO THE APPLICABLE 8. SPECIFICATIONS OF THE DISTRICT, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES, AND THE GEOTECHNICAL ENGINEER
- COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES, AND MANHOLES, ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- 10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD-VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- 11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- 12. BENDS, DEFLECTION, AND CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT TWENTY-FIVE FEET (25') INTERVALS ALONG CURVES TO ENSURE LOCATION OF PIPELINE CONSTRUCTION.
- 13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS. PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
- 14. ALL UNUSED, SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN 32. DISTRICT AS REQUESTED.
- 15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
- 16. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- 17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER, AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- 18. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINES) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
- 19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
- 20. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN METROPOLITAN DISTRICT:
 - PRIOR TO THE START OF CONSTRUCTION, A PRECONSTRUCTION MEETING IS REQUIRED A a) MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF WASTEWATER SYSTEM INSTALLATION NOTES THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR, AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRECONSTRUCTION MEETING. NO PRECONSTRUCTION MEETING CAN BE SCHEDULED BEFORE FOUR (4) SIGNED/APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
 - THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A b) MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- 22. TESTING OF FACILITIES:
 - a) THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
 - ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING b) REQUIREMENTS
 - TEST 100% OF ALL LINES.
 - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE

- APPROVED ON THE PLANS).
- CCTV INSPECTION.
- DISTRICT FOR REVIEW AND APPROVAL.
- 23. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF THE IMPROVEMENTS AT THE CONTRACTOR'S COST.
- 24. FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL
- 25. ACCEPTANCE
 - LINES HAVE BEEN COMPLETED AND A WALK-THROUGH HAS OCCURRED.
 - b) A SECOND ACCEPTANCE MAY OCCUR ONCE THE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THROUGH OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).
- PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
- SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
- 29. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE

WATER SYSTEM INSTALLATION NOTES

- FIVE-AND-ONE-HALF (5.5) FEET.
- 31. ALL WATER VALVES ASSOCIATED WITH THE POTABLE WATER SYSTEM SHALL BE OPEN MARKERS AS APPLICABLE.
- REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY
- 34 BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).
- 35 EXISTING LINES.
- 36. WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.
- 37. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS:
 - DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
 - NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE b)
 - COMPLETED PRIOR TO USE OF THE FACILITY.
 - RECORDED.

- BE APPROVED BY THE DISTRICT ON A CASE BY CASE BASIS
- APPROVED EQUAL, AND COATED.
- 40. ALL SEWER LINES MUST BE BEDDED WITH SQUEEGEE OR 3/4" CRUSHED ROCK.
- 41. COMMENCEMENT OF USE OF SEWER LINES AND/OR SYSTEMS:

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c) ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS: ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING. ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO

> SEWER MAINS TO BE PRESSURE TESTED PRIOR TO CCTV INSPECTION ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE

ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMMENCEMENT OF SERVICE. THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE

COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.

a) THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE

26. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS

27. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT-INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE

28. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES, AND/OR SERVICES, CONSTRUCTION MUST HAVE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL

30. ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR APPROVED EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPTH OF

CLOCKWISE. ALL VALVES INSTALLED IN LANDSCAPED AREAS AND/OR NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL VALVES ASSOCIATED WITH THE RAW WATER SYSTEM SHALL BE OPEN COUNTERCLOCKWISE AND MARKED WITH CARSONITE

THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVICE STUB-OUTS FOR FUTURE DEVELOPMENT. ANY REQUIRED REALIGNMENT, HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER. FIRE HYDRANT LOCATION SHALL BE

33. FIRE HYDRANTS SHALL BE OPEN RIGHT WITH 7/8" X 7/8" SQUARE TAPERED ALONG WITH SERVICE CAPS. LUBRICATION TYPE: GREASE. ACCEPTABLE BRAND IS KENNEDY GUARDIAN (K81D, K81A, AND K81AM). EACH FIRE HYDRANT LOCATION SHALL ALSO BE USED AS TEST STATION.

ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN FIVE HUNDRED FEET (500') (VALVE

CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER LINE WITHOUT SHUTDOWN, OR ELSE NOTIFY THE DISTRICT OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO

IRRIGATION SERVICES SHALL HAVE A STOP-AND-WASTE CURB STOP VALVE INSTALLED ALONG

a) NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL PRESSURE TESTING, FLUSHING, BAC-T TESTING, AND COMPACTION TESTING, AND AS-BUILT

COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE

c) ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND

38. SANITARY SEWER LENGTHS ARE MH CENTER – MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 26 OR PS 115 PVC OR APPROVED EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED, INLINE PVC PUSH-ON WYES. SINGLE SADDLE TAP ALLOWED ON EXISTING MAINS. MULTIPLE SADDLE TAPS ON EXISTING MAINS MUST

39. ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RU116 - RUBR-NEK JOINT WRAP, OR

- a) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL THE COMPLETION OF ALL JET CLEANING, PRESSURE TESTING, VACUUM TESTING, CCTV INSPECTION, AND COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT
- b) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
- ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED. d) DOWNSTREAM PLUG CAN BE REMOVED ONCE THE FIRST LIFT OF ASPHALT IS DOWN AND
- THE ABOVE REQUIREMENTS ARE MET.

THE ABOVE GUIDELINES ARE SUBJECT TO CHANGE AT ANY TIME.

UTILITY NOTES

- 1. CONTRACTOR TO OBTAIN WORK IN THE ROW PERMIT FROM EL PASO COUNTY PRIOR TO CONSTRUCTION
- 2. CONTRACTOR TO POTHOLE AND VERIFY EXISTENCE OF OTHER UTILITIES WITHIN ANY PUBLIC RIGHT OF WAYS AND WITHIN EASEMENTS WHERE PROPOSED UTILITY IS LOCATED.
- 3. CONTRACTOR TO MAINTAIN 5.5' MINIMUM COVER ALL OVER WATER MAINS
- CONSTRUCTED. 4. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE
- INSTALLED IN CURB AND GUTTER OR CROSS PANS. 5. STANDARD WATER SERVICES LOCATIONS TO BE 10' FROM THE DOWNSTREAM
- PROPERTY LINE AND EXTENDED 10' TO THE UTILITY EASEMENT. 6. STANDARD WASTEWATER SERVICES TO BE IN A COMMON TRENCH WITH STANDARD WATER SERVICES. SHALL BE LOCATION A MINIMUM OF 30" FROM CENTER OF PIPE. SEE
- WOODMEN HILLS METRO DISTRICT STANDARD SPECIFICATIONS DETAIL W-13. 7. STANDARD SERVICES SHALL BE MARKED WITH 2"X4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED
- BLUE FOR WATER AND GREEN FOR SEWER. 8. CURB STOPS ARE NOT TO BE INSTALLED IN CONCRETE CURB, CROSS PANS, SIDEWALKS, OR DRIVEWAYS.
- 9. SEE PLANS FOR THE LOCATION OF STANDARD SERVICES ON CORNER LOTS

CAUTION - NOTICE TO CONTRACTOR

- 1. CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE CALL SERVICE 811 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- 2. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- 3. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR INTERFERENCE OR DELAY CAUSED BY REPAIRS FOR DAMAGED UTILITIES.
- 4. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD, REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
- 5. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.
- 6. CONTRACTOR MUST COORDINATE WORK WITH UTILITY COMPANY AND CITY/WHMD/OWNER PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ECT. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.
- 7. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS, AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
- 8. SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING, SURVEYOR MUST VERIFY ALL BENCHMARK. BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.
- 9. STORM SEWERS, CULVERTS, AND DITCHES: CONTRACTOR SHALL MONITOR THE WEATHER AND MAINTAIN STORM WATER FLOW AT ALL TIMES AND SHALL SCHEDULE REMOVALS SUCH THAT WET WEATHER AND RAIN EVENTS WILL NOT CREATE DAMAGING BACKUPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERTING AND/OR BYPASS PUMPING AS NECESSARY TO FACILITATE CONSTRUCTION. THE COST FOR MAINTAINING, DIVERTING, OR PUMP STORM FLOWS SHALL BE INCIDENTAL TO THE PROJECT.
- 10. CONTRACTOR TO MAINTAIN A MAXIMUM CONSTRUCTION EASEMENT WIDTH OF 24 FEET.





DESIGN NOTES/SPECIFICATIONS

1. IN THE EVENT OF DISCREPANCIES, THE FOLLOWING IS THE ORDER OF PRECEDENCE FOR SPECIFICATIONS, FOLLOW WHAT IS MOST STRINGENT: HR GREEN OVER WHMD OVER CSU OVER EPC OVER CDOT. 1.1. SPECIFICATIONS PERTAINING TO UTILITIES: WHMD, SUPPLEMENTED BY CSU.

1.2. SPECIFICATIONS PERTAINING TO RIGHT OF WAY AND SURFACING RESTORATION: EPC, SUPPLEMENTED BY CDOT.

2. CONTRACTOR SHALL UTILIZE THE SITE ACCESS AND STAGING AREAS AS IDENTIFIED IN THE DRAWINGS OR OTHERWISE CONTRACTOR SHALL OBTAIN APPROVAL ON OTHER SITES AND ACCESSES. 3. CONTRACTOR SHALL STAY WITHIN THE CONSTRUCTION EASEMENTS AND/OR ROAD RIGHT OF WAY. DAMAGES OUTSIDE OF DESIGNATED AREAS SHALL BE REPAIRED/REMEDIED AT CONTRACTOR'S EXPENSE. ADDITIONAL AGREEMENTS OBTAINED BY THE CONTRACTOR SHALL NOT HOLD THE OWNER/ENGINEER RESPONSIBLE FOR ANY DAMAGES/GRIEVANCES.

4. REMOVALS AND REPLACEMENT

- 4.1. ALL ITEMS NOTED FOR REMOVAL AND REPLACEMENT SHALL BE REPLACED IN KIND. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR SHALL COORDINATE AND CONFIRM WITH RESPECTIVE ENTITIES IF EXISTING CONDITIONS WOULD ALLOW FOR SALVAGE AND RESET.
- 4.2. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING ON EACH PROPERTY THAT NEEDS FENCING TO BE REMOVED AND REPLACED TO INSTALL PROPOSED UTILITIES.
- 4.3. DAMAGED PAVEMENT FROM CONSTRUCTION ACTIVITIES SHALL BE REMEDIED TO EPC'S APPROVAL AT CONTRACTOR'S EXPENSE.
- ROADWAY REPLACEMENT/PATCHING/CONSTRUCTION SHALL COMPLY TO SPECIFICATIONS OF EPC, CDOT, OR 4.4 RESPECTIVE AGENCY WITH JURISDICTION OVER THE ROAD. PAVEMENT/ROADWAY TYPICAL SECTIONS FOR RESTORATION - CONTRACTOR SHALL FIELD VERIFY, IF EXISTING 4.5.
- SECTION DIFFERS FROM BELOW, MATCH EXISTING. 4.1.1. STAPLETON RD FROM JUDGE ORR TO HWY 24: 6.5" HMA (IN MULTIPLE LIFTS NO THICKER THAN 3") OVER 12" THICK CLASS 6 BASE COURSE; MIN. 2% CROSS SLOPE FROM CROWN; 4" TOP SOIL ON SIDE SLOPES
- ROCK ISLAND TRAIL: 4" LIMESTONE CRUSHER FINES SURFACING OVER PREPARED SUBGRADE 4.1.2 4.1.3. OTHER CROSSINGS: MATCH EXISTING SECTION

5. PERMITS

- 5.1. OWNER IS RESPONSIBLE FOR WETLAND/NATION WIDE PERMIT, ESQCP, APPROVAL FROM CDPHE, AND **OBTAINING EASEMENTS**
- 5.2. ALL PERMITS REQUIRED FOR CONSTRUCTION, NOT PROVIDED, SHALL BE OBTAINED BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION, SUBMITTAL, FEES, AND ALL OTHER ITEMS ASSOCIATED WITH PERMITTING. THE FOLLOWING ANTICIPATED PERMIT LIST IS NOT ALL INCLUSIVE: NPDES AND DEWATERING PERMITS 5.2.1.
- CDOT UTILITY CROSSING AND ROW USE PERMITS 5.2.2.
- 5.2.3. EPC ROW USE AND CONSTRUCTION PERMITS 5.2.4. FLOODPLAIN DEVELOPMENT PERMIT

6. TRAFFIC CONTROL

- 6.1. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL PLAN, COORDINATION WITH ALL IMPACTED PARTIES (CDOT, EPC, ADJACENT LANDOWNERS, ETC) MODIFICATIONS, AND MAINTENANCE. MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES, WHERE POSSIBLE.
- CONTRACTOR SHALL CONTACT EPC PARKS 2 WEEKS BEFORE CONSTRUCTION BEGINS TO ALLOW PUBLIC 6.2. NOTIFICATION OF ROCK ISLAND TRAIL CLOSURE. CONTRACTOR SHALL COORDINATE TRAIL CLOSURE
- DURATION AND PROCESS WITH ALL ENTITIES INVOLVED/IMPACTED. CONTRACTOR SHALL COORDINATE MAILBOXES/DELIVERIES WITH THE LOCAL DELIVERIES SERVICES DURING 6.3. CONSTRICTION ACTIVITIES DISTURBANCE OF MAILBOXES AND ROAD ACCESSES.

7. AS-BUILTS

- 7.1. CONTRACTOR SHALL PROVIDE A THIRD PARTY INSPECTOR TO MAP IN POINTMAN THE ALIGNMENT AND DEPTH OF THE PIPE INSTALLED ACROSS THE ENTIRE WIDTH OF THE RIGHT-OF-WAY OF HWY 24. 7.2. CONTRACTOR SHALL KEEP RECORD OF CHANGES TO DESIGN AND PROVIDE AS-BUILT DRAWING SET/CAD
- DRAWINGS TO OWNER.
- 8. GRAVITY SEWER
- 8.1. FOLLOW REQUIREMENTS PER WHMD STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED IN DRAWINGS. 8.2. ALL PIPES FOR THE PROJECT SHALL BE AS SPECIFIED IN DRAWINGS.
- 8.3. INSTALL SEWER BEDDING PER "TYPICAL TRENCH DETAIL" ON SHEET C701.
- 8.4. INSTALL CASING PIPE PER "CASING PIPE DETAIL" ON SHEET C701.
- 8.5. METER MANHOLE REQUIREMENTS INCLUDES, BUT ARE NOT LIMITED TO ITEMS BELOW:
- FURNISH AND INSTALL NON-CONTACT RADAR FLOW METER, RAVEN-EYE2, BY FLOW-TRONIC AND FLOW 851 SENSOR, IFQ MONITOR, BY FLOW-TRONIC.
- INSTALL PER MANUFACTURERS' RECOMMENDATIONS. 8.5.2.
- 8.5.3. MOUNT MONITOR NEXT TO MANHOLE ENCLOSED IN A FREE-STANDING NEMA 4X CABINET
- CONNECT TO WHMD EXISTING SCADA SYSTEM. 8.5.4.
- CONNECT TO POWER SOURCE. 8.5.5.
- ALL MATERIALS, ACCESSORIES, LABOR, AND EQUIPMENT REQUIRED TO PROVIDE A FULLY FUNCTIONING 8.5.6. AND CONNECTED TO SYSTEM FLOW MEASUREMENT SHALL BE PROVIDED. 8.6. TO PREVENT BUOYANCY, EACH MANHOLE LIP WIDTH IS SPECIFY BELOW AND ALSO REFER TO STANDARD DETAIL WW-2.

MH #	Diameter (in)	MH Lip (in)
MH-101	60	3
MH-102	60	4
MH-103	60	4
MH-104	60	4
MH-105	60	4
MH-106	60	3
MH-107	60	3
MH-108	60	3
MH-109	60	3
MH-110	60	3
MH-111	60	3
MH-112	60	3
MH-113	60	3
MH-114	60	3
MH-115	60	3
MH-116	60	3
MH-117	60	3
MH-118	60	3
MH-120	60	3
MH-121	60	3
MH-122	72	3
MH-123	72	3
MH-124	72	3
MH-126	72	3
MH-127	72	4
MH-128	72	4

PRELIMINARY DESIGN NOT FOR CONSTRUCTION

CONSTRUCTION DOCUMENTS

GENERAL NOTES

SHEET G00⁻

LEGEND

MATCH LINE PHASE LINE SECTION LINE PROPERTY LINE EASEMENT LINE ASSUMED EASEMENT RIGHT OF WAY CENTERLINE CHAIN LINK FENCE WOODEN FENCE ROD IRON FENCE GUARDRAIL CABLE TV U.G. ELECTRIC OVERHEAD ELECTRIC FIBER OPTIC GAS MAIN SANITARY SEWER STORM DRAIN TELEPHONE WATER MAIN SWALE TRAIL CURB & GUTTER DRAINAGE BASIN INDEX CONTOUR INTER. CONTOUR 100-YR FLOODPLAIN FLOODWAY

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OFFICIAL DRAWINGS.

IF NOT ONE INCH,

ADJUST SCALE ACCORDINGLY

NO. | DATE | BY

EDGE OF WETLANDS

DRAINAGE

DRAINAGE BASIN

BASIN TAG

DESIGN POINT

ASPHALT

GRAVEL

100 YR FLOOD

PENDING 100 YR FLOOD WETLANDS

DRAWN BY: JMM

APPROVED: GP

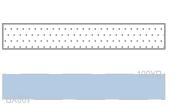
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7/17/2024



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CLEAN OUT MANHOLE

STORM SEWER

FLARED END SECTION

SANITARY SEWER

MANHOLE

RIPRAP

PLUG

METER

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EXISTING

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WATER FIRE HYDRANT FIRE DEPT. CONNECTION GATE VALVE MANHOLE

DRY UTILITIES ELECTRIC METER ELECTRIC PEDESTAL ELECTRICAL CABINET

ELECTRIC VAULT
FIBER OPTIC PULL BOX
FIBER OPTIC MANHOLE
FIBER OPTIC PEDESTAL
FIBER OPTIC SIGN
FIBER OPTIC VAULT
GAS METER
GAS SIGN
GAS VAULT
TELEPHONE CABINET
TELEPHONE MANHOLE
TELEPHONE SIGNAL/MAST
TELEPHONE SIGN
TELEPHONE PEDESTAL
TRANSFORMER
LIGHT POLE
FIBER OPTIC VAULT

MISCELLANEOUS SIGN

DESIGN NOTES/SPECIFICATIONS (CONTINUED)

9. CORROSION PROTECTIVE LINING SPECIFICATIONS FOR MANHOLES - EPOXY LINER

QUALITY ASSURANCE

- A.1. ALL COATINGS SHALL CONFORM TO OSHA REQUIREMENTS FOR ALLOWABLE EXPOSURE TO LEAD AND OTHER HAZARDOUS SUBSTANCES.
- MANUFACTURER SHALL BE A COMPANY THAT SPECIALIZES IN PRODUCING HIGH QUALITY INDUSTRIAL A.2.
- COATING MATERIALS. A.3. APPLICATOR: COMPANY THAT HAS SUCCESSFULLY COMPLETED COATING SYSTEMS APPLICATIONS SIMILAR IN MATERIAL AND EXTENT TO THOSE INDICATED. APPLICATOR SHALL BE ABLE TO SUPPLY SUITABLE EQUIPMENT TO PREPARE THE SURFACES AND APPLY THE PROTECTIVE COATING SYSTEM SPECIFIED WITHIN THIS ARTICLE.
- A.4. SINGLE SOURCE RESPONSIBILITY: PROVIDE COATING MATERIAL AND THINNERS PRODUCED BY THE SAME MANUFACTURER FOR EACH SYSTEM ON ALL SURFACES OF THE MANHOLE BENCH.
- FIELD PAINTING PRE-APPLICATION MEETING: HOLD A PRE-APPLICATION MEETING BEFORE THE START OF Α5 FIELD SURFACE PREPARATION AND COATING APPLICATION. REQUIRE ATTENDANCE OF PARTIES DIRECTLY AFFECTING WORK OF THIS SPECIAL PROVISION, INCLUDING THE ENGINEER, APPLICATOR, INSPECTOR, AND COATING MANUFACTURER'S REPRESENTATIVE. REVIEW THE SPECIFICATIONS TO INSURE EACH PARTY'S RESPONSIBILITIES ARE UNDERSTOOD. SUBJECTS TO BE DISCUSSED ARE: ENVIRONMENTAL REQUIREMENTS PROTECTION OF SURFACES NOT SCHEDULED TO BE COATED, SURFACE PREPARATION, APPLICATION, REPAIR, FIELD QUALITY CONTROL, CLEANING, PROTECTION OF COATING SYSTEMS, COORDINATION WITH OTHER WORK AND ANY OTHER AREAS OF CONCERN EXPRESSED AT THE MEETING.
- DUST AND CONTAMINANTS: SCHEDULE COATING WORK TO AVOID EXCESSIVE DUST AND AIRBORNE A.6. CONTAMINANTS. PROTECT WORK AREAS FROM EXCESSIVE DUST AND AIRBORNE CONTAMINANTS DURING COATING APPLICATION AND CURING.
- A. WARRANTY: FULL WARRANTY AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR TWO YEARS AFTER SUBSTANTIAL COMPLETION, INCLUDING ALL PARTS, LABOR, AND EXPENSES

B. PRODUCTS

B.1. MANUFACTURERS: ITW POLYMER COATINGS, MAINSTAY, RAVEN, OR SAUEREISEN

B.2. GENERAL:

- APPLICATION METHOD SHALL BE DESIGNED AND INSTALLED USING TECHNIQUE RECOMMENDED BY THE B.2.1. MANUFACTURER.
- B.2.2. COLORS SHALL BE AS SELECTED BY ENGINEER
- UNLESS OTHERWISE NOTED, ITW POLYMERS COATINGS PRODUCTS ARE IDENTIFIED IN THIS EPOXY LINER B.2.3. SYSTEM TO ESTABLISH QUALITY AND TYPE DESIRED. B.2.4. SYSTEM THICKNESS OR COVERAGE RATE IS RECOMMENDED BY ITW POLYMERS COATINGS. IF OTHER
 - MANUFACTURERS ARE USED, MANUFACTURER REQUIREMENTS SHALL BE FOLLOWED, BUT IN NO CASE SHALL THICKNESS OR COVERAGE RATE BE LESS THAN ITW POLYMERS COATINGS.
- B.3. PROPERTIES-MEET THE FOLLOWING:

PROPERTY	TEST METHOD	PERFORMANCE
COMPRESSIVE STRENGTH	H ASTM C579	12,870 PSI
TENSILE STRENGTH	ASTM D638	6,690 PSI
FLEXURAL STRENGTH	ASTM D580	12,443 PSI
BOND STRENGTH	ASTM D4541	450 PSI
B.3.1. VOLUME OF	F SOLIDS: 100%	

B.4. SURFACE PREPARATION:

CONCRETE SURFACES SHALL BE ABRASIVE BLASTED IN ACCORDANCE WITH SSPC-SP13 TO PRODUCE A B.4.1 CLEAN AND ROUGHENED SURFACE FINISH. ALTERNATIVE SURFACE PREPARATION METHODS INCLUDE WET GRIT BLASTING, AND HIGH OR ULTRA-HIGH PRESSURE WATER JETTING.

- B.4.2. ALL LOOSE SURFACE CONTAMINATION SHALL BE COMPLETELY REMOVED BY VACUUMING OR HIGH PRESSURE WATER WASHING. THE SUBSTRATE MUST BE VISIBLY DRY BEFORE PROCEEDING. ANY SPECIFIC AREA THAT IS NOT VISIBLY DRY OR IS EXPERIENCING WATER PENETRATION (I.E., GROUND WATER SEEPAGE) SHALL BE SURFACE-DRIED UTILIZING FORCED AIR HEATING OR DEHUMIDIFICATION UNITS. MOISTURE VAPOR TRANSMISSION SHOULD BE 3 POUNDS OR LESS PER 1000 SQUARE FEET OVER A 24 HOUR TIME PERIOD, AS CONFIRMED THROUGH A CALCIUM CHLORIDE TEST PER ASTM E-1907. QUANTITATIVE RELATIVE HUMIDITY (RH) TESTING, ASTM F-2170, SHOULD CONFIRM CONCRETE RH **RESULTS BELOW 75%.**
- PROVIDE A SURFACE PROFILE OF ICRI CSP-3 TO ICRI CSP-5. B.4.3.

B.5. SYSTEM:

- B.5.1. CONCRETE RESURFACING: ROUGH CONCRETE, SPALLED CONCRETE OR CONCRETE SURFACES WITH VOIDS AND/OR BUG HOLES MUST BE RESURFACED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATION.
- B.5.2. PRIMER COAT: 1 COAT/125 TO 175 SQUARE FEET PER GALLON (SFPG) "POLYSPEC MMP PRIMER,
- TRANSPARENT AMBER" BY ITW POLYMERS COATINGS. B.5.3.
- INTERMEDIATE COAT: 1 COAT/40.0 TO 60.0 DRY FILM THICKNESS (MILS/COAT) "TUFFREZ 240, GRAY" BY ITW POLYMERS COATINGS.
- TOP COAT: 1 COAT/40.0 TO 60.0 DRY FILM THICKNESS (MILS/COAT) "TUFFREZ 240, GRAY" BY ITW B.5.4. POLYMERS COATINGS.

B.6. THINNING AND MIXING:

- EPOXY LINER MATERIALS SHALL BE MIXED WITH A POWER MIXER OF SUFFICIENT SIZE TO ENSURE B.6.1. COMPLETE DISPERSION OF PIGMENTS AND BLENDING OF REACTIVE COMPONENTS.
- EPOXY LINER MATERIALS SHALL NOT BE THINNED UNLESS SPECIFICALLY ALLOWED BY THE B.6.2.

MANUFACTURER'S RECOMMENDATIONS.

B.7. EPOXY INSTALLATION

AT INSTALLATION
EXAMINATION:
EXAMINE AREAS AND CONDITIONS UNDER WHICH THE EPOXY LINER SYSTEM IS TO BE APPLIED.
NOTIFY CONTRACTOR AND ENGINEER OF AREAS OR CONDITIONS THAT ARE NOT ACCEPTABLE. DO
NOT BEGIN SURFACE PREPARATION OR APPLICATION UNTIL UNACCEPTABLE AREAS OR CONDITIONS
HAVE BEEN CORRECTED.
PROTECT SURROUNDING AREAS AND SURFACES NOT SCHEDULED TO BE COATED FROM DAMAGE
DURING SURFACE PREPARATION AND APPLICATION OF EPOXY LINER SYSTEM. IMMEDIATELY REMOVE
EPOXY LINER SYSTEM THAT FALL ON SURROUNDING AREAS AND SURFACES NOT SCHEDULED TO BE
COATED.
ALL EPOXY LINER MATERIALS SHALL BE MIXED AND APPLIED AT TEMPERATURES IN ACCORDANCE
WITH THESE SPECIFICATIONS AND THE MANUFACTURER'S RECOMMENDATION.
 EPOXY LINER MATERIALS SHALL NOT BE APPLIED IN INCLEMENT WEATHER CONDITIONS.
 AMBIENT TEMPERATURES MUST BE BETWEEN 40°F AND 85°F DURING APPLICATION OF EPOXY
LINER MATERIALS. RELATIVE HUMIDITY MUST BE BELOW 85%.
 THE MINIMUM SUBSTRATE TEMPERATURE AT THE TIME OF APPLICATION SHALL BE 45°F. THE
MAXIMUM SUBSTRATE TEMPERATURE AT THE TIME OF APPLICATION SHALL BE 100°F.
4. AT THE TIME OF APPLICATION, THE SUBSTRATE TEMPERATURE MUST BE AT LEAST 5°F ABOVE
THE DEW POINT.
5. DURING APPLICATION, THE SUBSTRATE TEMPERATURE MUST BE DECLINING.
ADEQUATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY LIGHT UP ALL AREAS TO BE WORKED ON

ADEQUATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY LIGHT UP ALL AREAS TO BE WORKED ON WITHOUT INCLUSION OF SHADOW AREAS. ADEQUATE LIGHTING SHALL BE CONSIDERED A MINIMUM OF 20 FOOT CANDLES IN ALL AREAS IN WHICH WORK OR INSPECTION PROCESSES ARE OCCURRING.

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HRGree

REVISION DESCRIPTION



BOLLLARD ACCESSIBLE PARKING

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B.7.1.5.	EPOXY LINER MATERIALS SHALL NOT BE APPLIED WINDY CONDITIONS. CONTRACTOR SHALL ENSURE WINDBLOWN MATTER IS PREVENTED FROM CONTAMINATING FRESHLY COATED SURFACES.
B.7.1.6.	KEEP CONTAINERS CLOSED WHEN NOT IN USE TO AVOID CONTAMINATION.
B.7.1.7.	DO NOT USE MIXED EPOXY LINER MATERIALS BEYOND POT LIFE LIMITS.
B.7.1.8.	APPLY MULTIPLE COATS WITHIN MANUFACTURER'S RECOMMENDED RECOAT TIMEFRAME.
B.7.1.9.	USE APPLICATION EQUIPMENT, TOOLS, PRESSURE SETTINGS, AND TECHNIQUES IN ACCORDANCE
D.7.1.0.	WITH MANUFACTURER'S INSTRUCTIONS.
B.7.1.10.	UNIFORMLY APPLY EPOXY LINER MATERIALS AT SPREADING RATE REQUIRED TO ACHIEVE SPECIFIED
D.7.1.10.	DFT.
B.7.1.11.	APPLY EPOXY LINER MATERIALS TO BE FREE OF FILM DEFECTS THAT WOULD ADVERSELY AFFECT
D.7.1.11.	PERFORMANCE OF THE LINER SYSTEM.
	EPAIRS:
B.7.2.1.	DAMAGED MATERIALS: REPAIR OR REPLACE DAMAGED MATERIALS AND SURFACES NOT SCHEDULED TO BE COATED.
B.7.2.2.	DAMAGED LINER SYSTEM: REPAIR DAMAGED EPOXY LINER MATERIALS.
B.7.2.2.1.	REPAIRS SHALL BE MADE WITH THE EPOXY LINER SYSTEM, SURFACE PREPARATION, AND COAT THICKNESS SPECIFIED IN ARTICLE 120141A.02, A.
B.7.2.2.2.	COMPLETE REPLACEMENT OF THE EPOXY LINER MAY BE REQUIRED BY ENGINEER IF THE
0.1.2.2.2.	DAMAGED OR UNSATISFACTORY AREA EXCEEDS 2% OF THE TOTAL COATED SURFACE AREA.
B.7.2.2.3.	PRIOR TO ANY REPAIR WORK, THE SURFACE SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP
D.1.2.2.3.	1.
B.7.2.2.4.	INTACT AREAS AROUND THE DAMAGED AREA SHALL BE FEATHERED BY EITHER HAND SANDING,
D.7.2.2.4.	POWER TOOL CLEANING, OR ABRASIVE BLAST CLEANING PRIOR TO THE APPLICATION OF THE
	EPOXY LINER.
	LINER SYSTEM DEFECTS: COMPLETELY REPLACE THE DEFECTIVE EPOXY LINER WITH THE EPOXY
B.7.2.3.	
	LINER SYSTEM, SURFACE PREPARATION, AND COAT THICKNESS SPECIFIED IN ARTICLE 120141A.02, A.
	NG EQUIPMENT AND PROCEDURES
	ROVIDE ON THE PROJECT SITE, TESTING EQUIPMENT NECESSARY TO TEST THE FOLLOWING.
	QUIPMENT SHALL BE IN CALIBRATION AND PROPER WORKING ORDER. EQUIPMENT SHALL BE USED IN
	CCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS OR AS DIRECTED BY THE ENGINEER. THE
	IGINEER SHALL BE NOTIFIED OF TIME OF TESTING SO THAT HE MIGHT BE PRESENT TO WITNESS
	STING. KEEP A DAILY LOG OF ENVIRONMENTAL CONDITIONS, WORK SCHEDULE, AND ANY OTHER
	RTINENT INFORMATION. THE LOG SHALL BE TURNED OVER TO THE ENGINEER AT THE END OF THE
	ROJECT TO BE INCLUDED IN THE PERMANENT RECORD. PROVIDE QUALIFIED PERSONNEL TO PERFORM
TH	IE FOLLOWING TESTING:
B.8.1.1.	MONITORING AMBIENT TEMPERATURE.
B.8.1.2.	DETECTING OIL OR WATER IN COMPRESSED AIR.
B.8.1.3.	DETERMINING DEGREE OF CLEANLINESS FOR BLAST CLEANED SURFACES.
B.8.1.4.	MEASURING NON-VISIBLE CONTAMINANTS ON CONCRETE SURFACES.
B.8.1.5.	MEASURING CONCRETE SURFACE PROFILE.
B.8.1.6.	MONITORING THE MIXING AND THINNING OF EPOXY LINER MATERIALS.
B.8.1.7.	MEASURING WET FILM THICKNESS OF EPOXY LINER MATERIALS.
B.8.1.8.	MEASURING EPOXY LINER MATERIAL ADHESION USING PORTABLE ADHESION TESTERS
	(DESTRUCTIVE TEST TO BE PERFORMED ONLY WHEN REQUIRED).

B.8.1.9. DISCONTINUITY OR HOLIDAY TESTING OF EPOXY LINER MATERIALS. B.8.1.10. TESTING FOR CURE OF EPOXY LINER MATERIALS

PRELIMINARY DESIGN NOT FOR CONSTRUCTION

CONSTRUCTION DOCUMENTS

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

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- 3. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- 4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT 5. COULD CONTRIBUTE POLLUTANTS TO STORMWATER, CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- 7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- 9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS. INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER, SUCH WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES

- STEEPER THAN 3:1.

- 19. APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 20. ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 21.
- FACILITIES.
- OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OR REGULATIONS SHALL APPLY.
- ACCESS POINTS.

- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CONSIDERED A PART OF THESE PLANS.
- 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

SEND MUD MAT SPECIFICATION TO MIKAYLA HARTFORD AT MIKAYLAHARTFORD@ELPASO.COM TO ENSURE MUD MAT USE IS ACCEPTABLE IN EL PASO COUNTY.

DRAWN BY: <u>ACH</u> JOB DATE: <u>5/14/2024</u>	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	NO.	DATE	ΒY	REVISION DESCRIPTION	
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16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

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

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

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

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

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

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES,

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

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

AND SHALL BE

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR

PERMANENT SEED SPECS

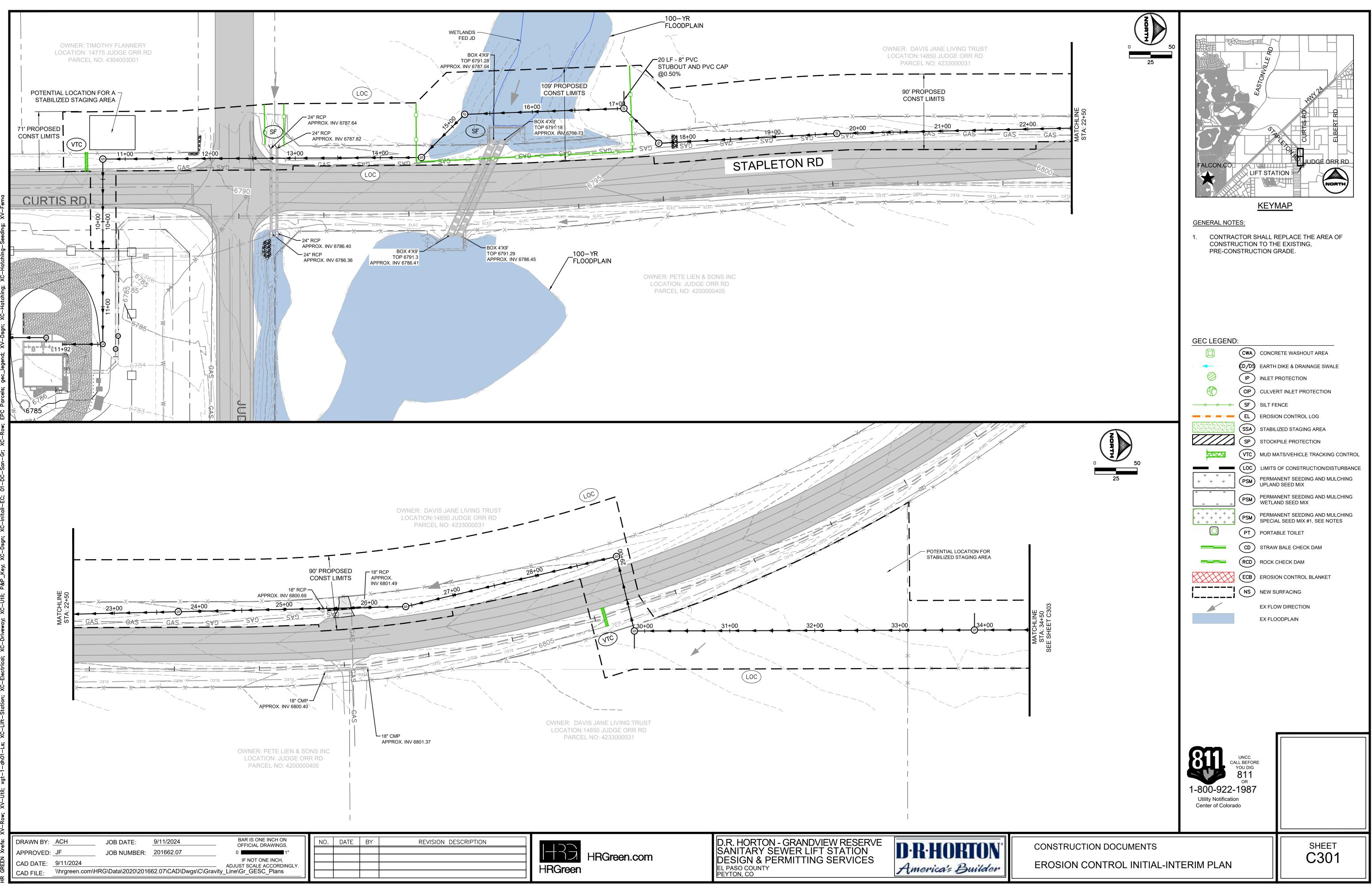
SPECIAL SEED MIX #1 - TBD SPECIAL ON PRIVATE LAND - LANDOWNER WILL WATER. 2. SEE LEGEND AND EROSION CONTROL DETAILS FOR SEED MIX/TYPE.

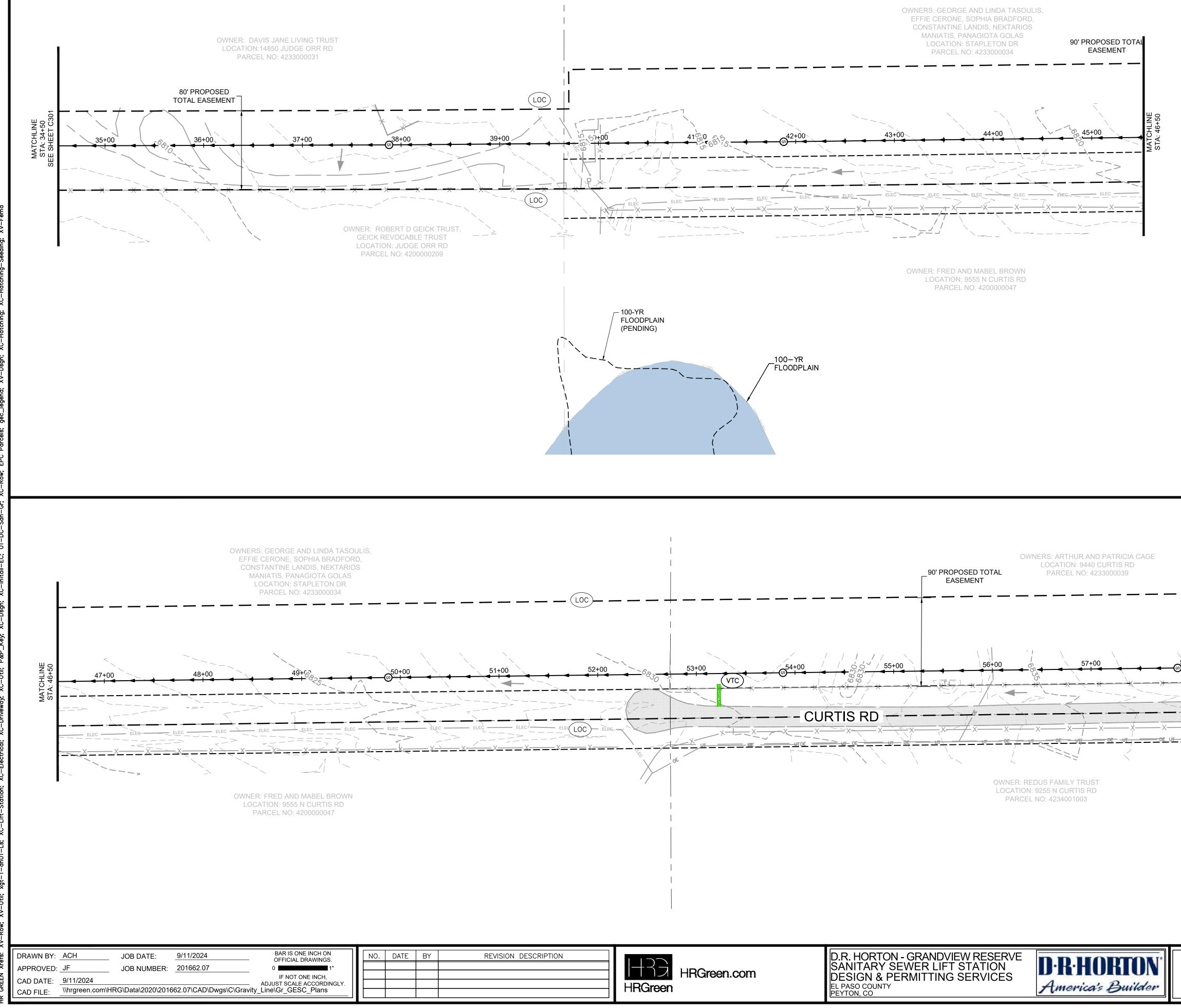


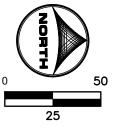
CONSTRUCTION DOCUMENTS
GRADING AND EROSION CONTROL NOTES

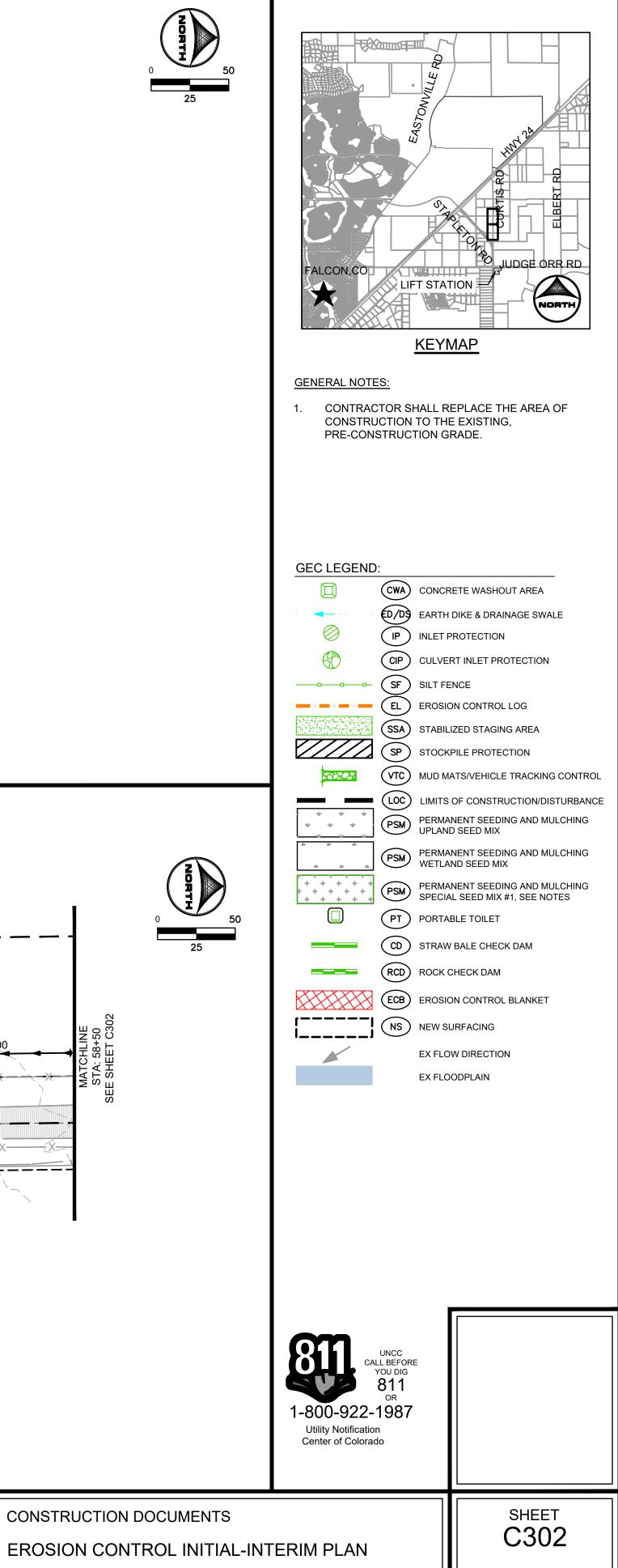
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PRELIMINARY DESIGN NOT FOR CONSTRUCTION

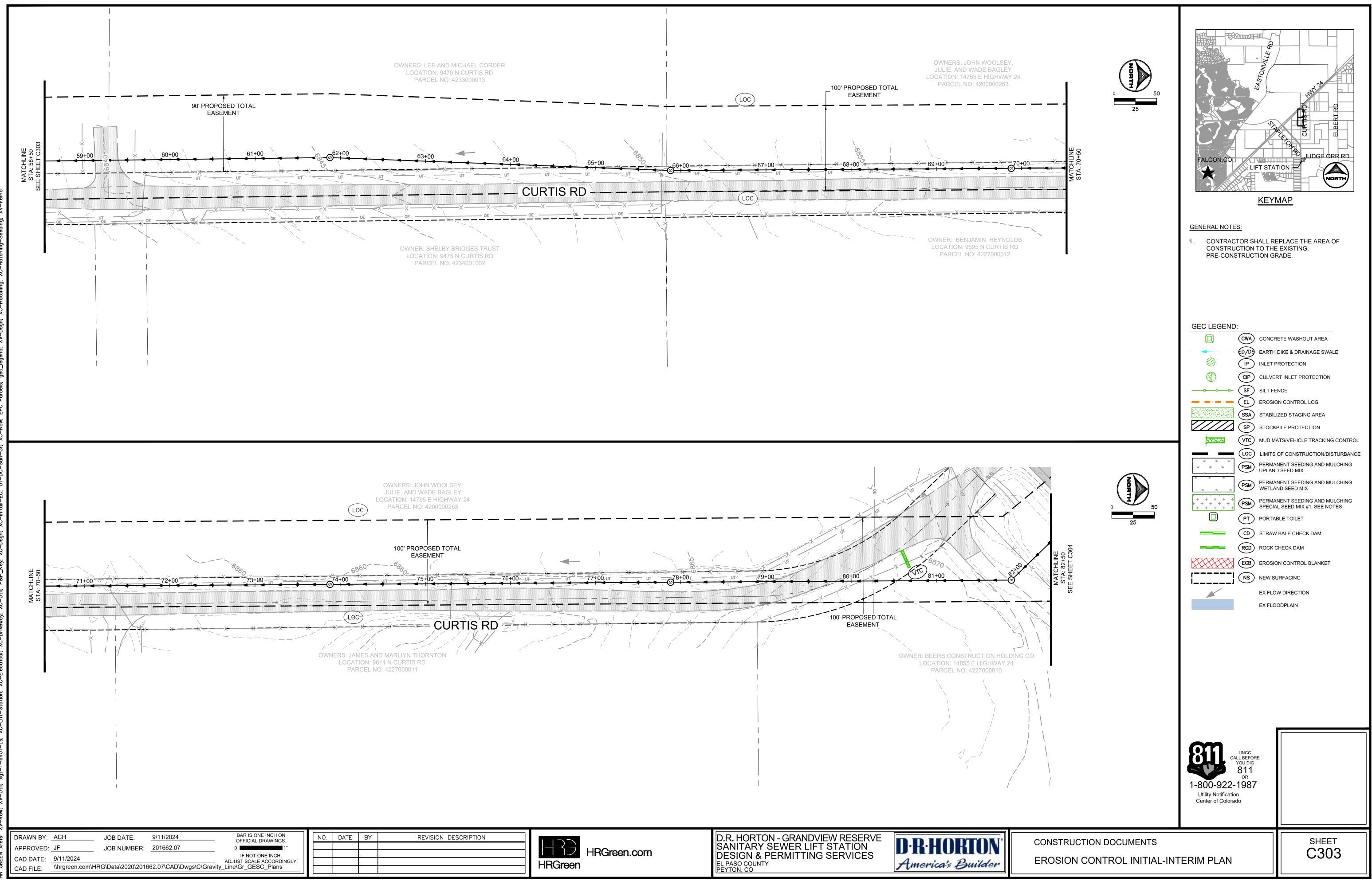


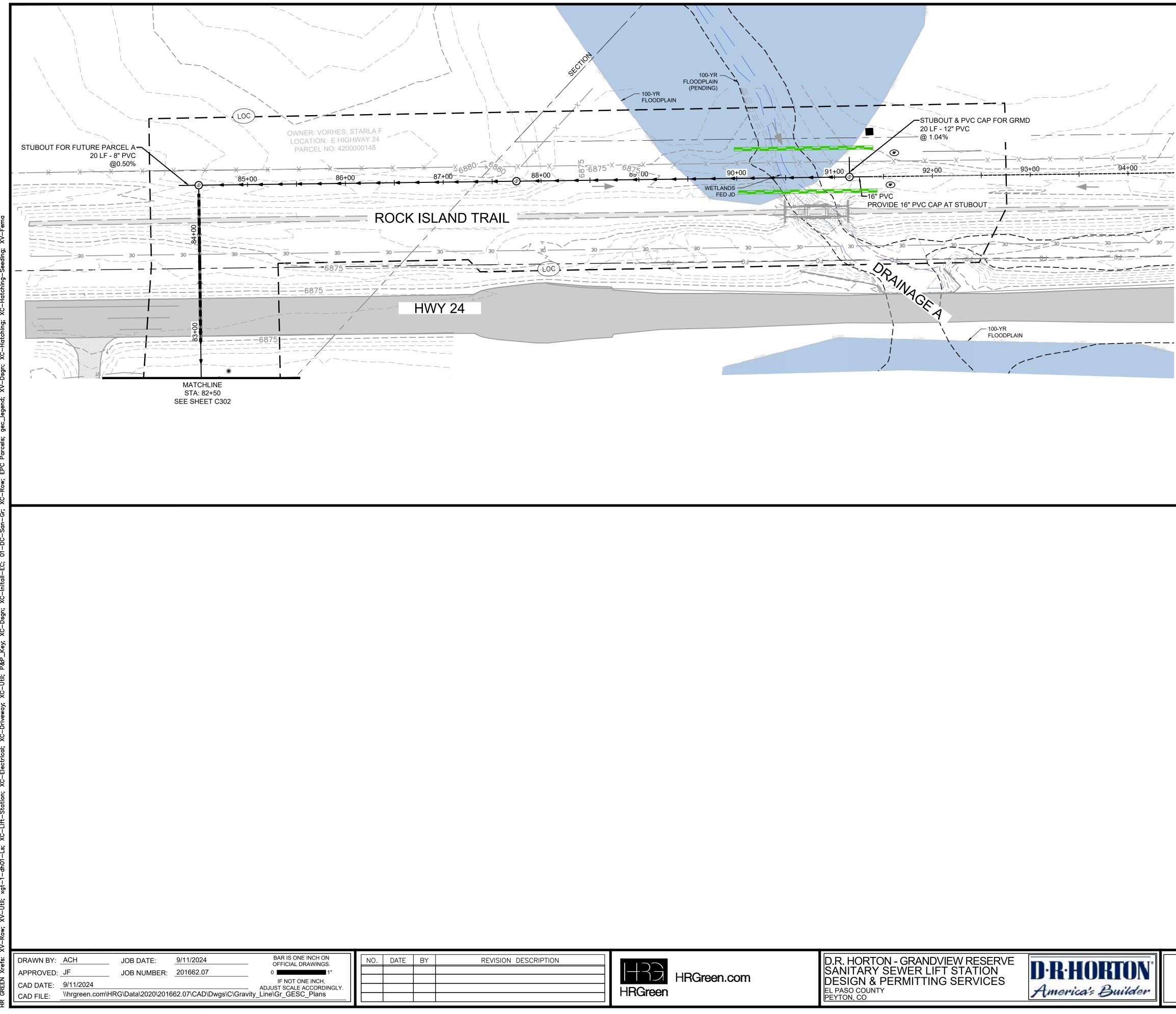


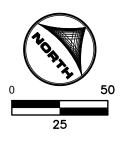




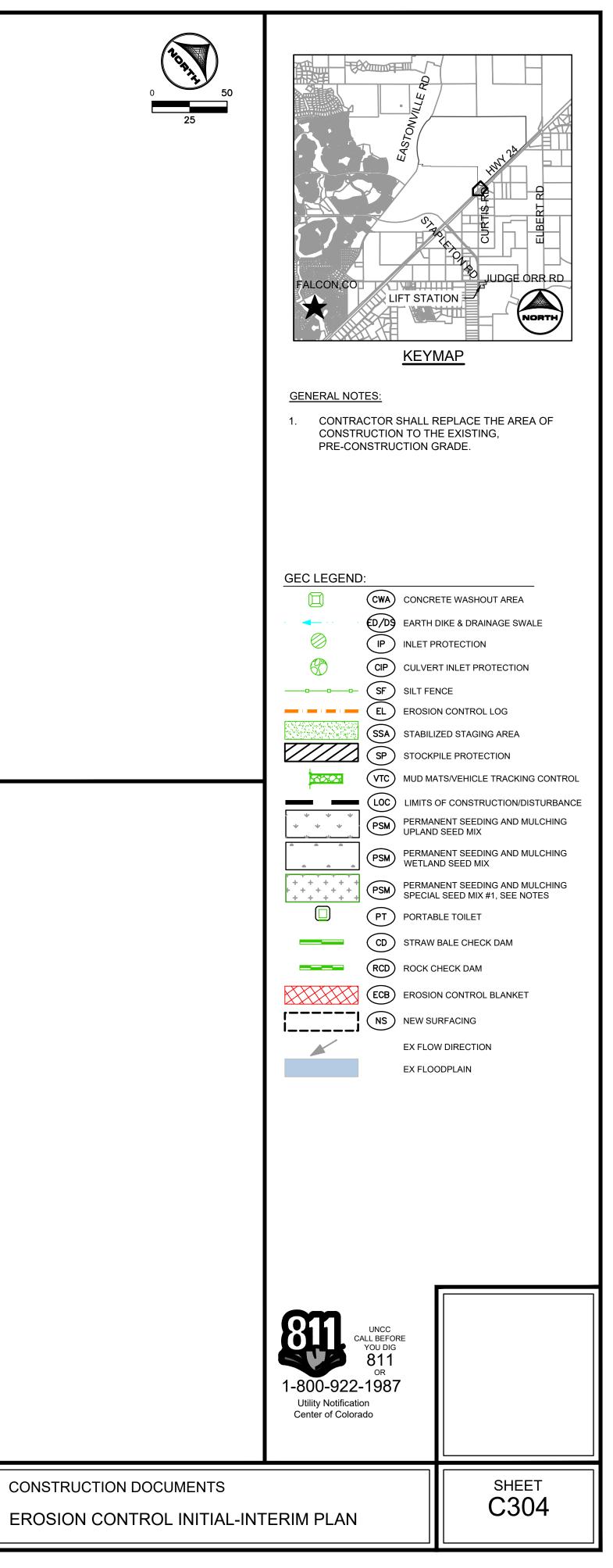
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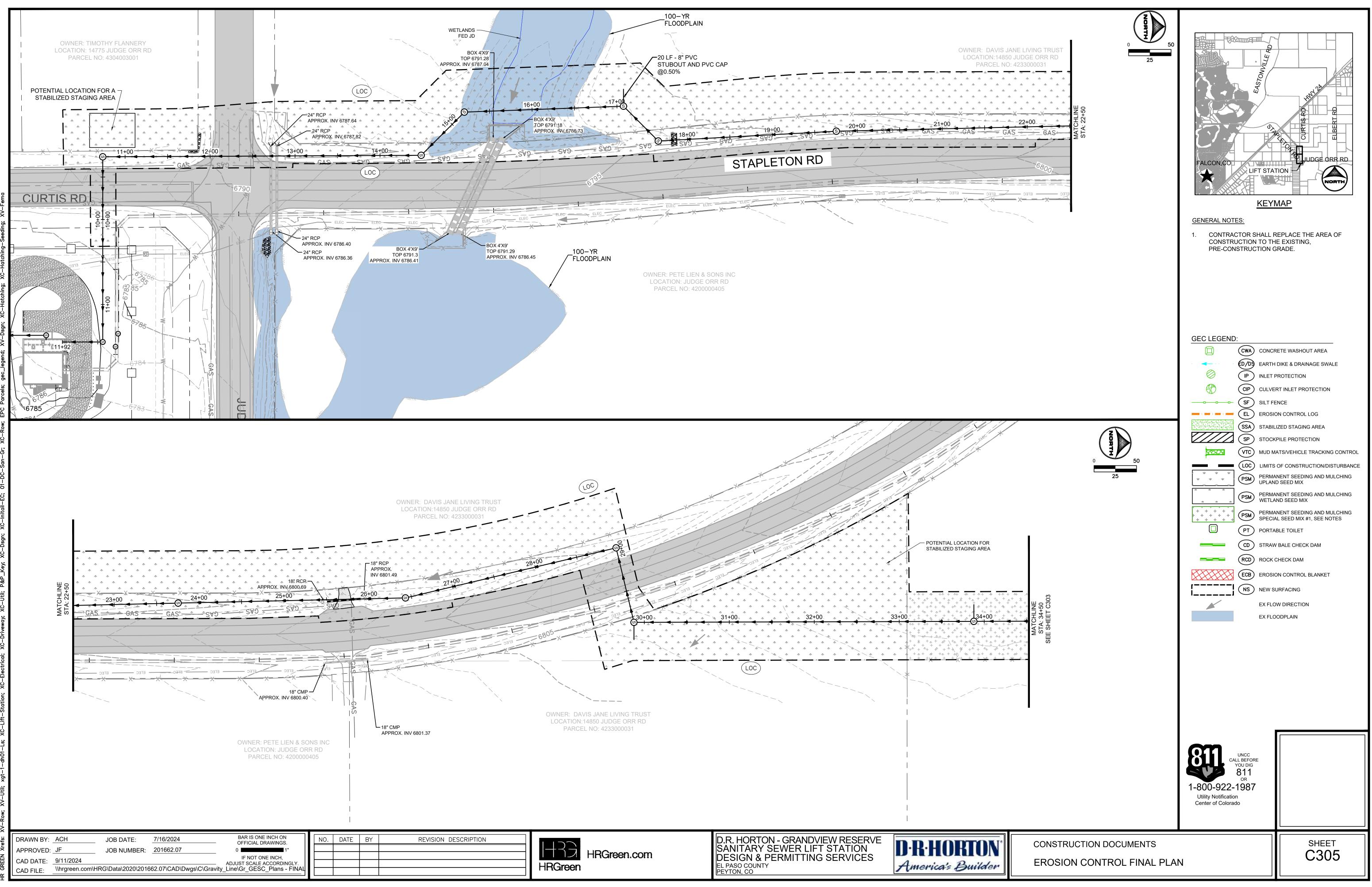


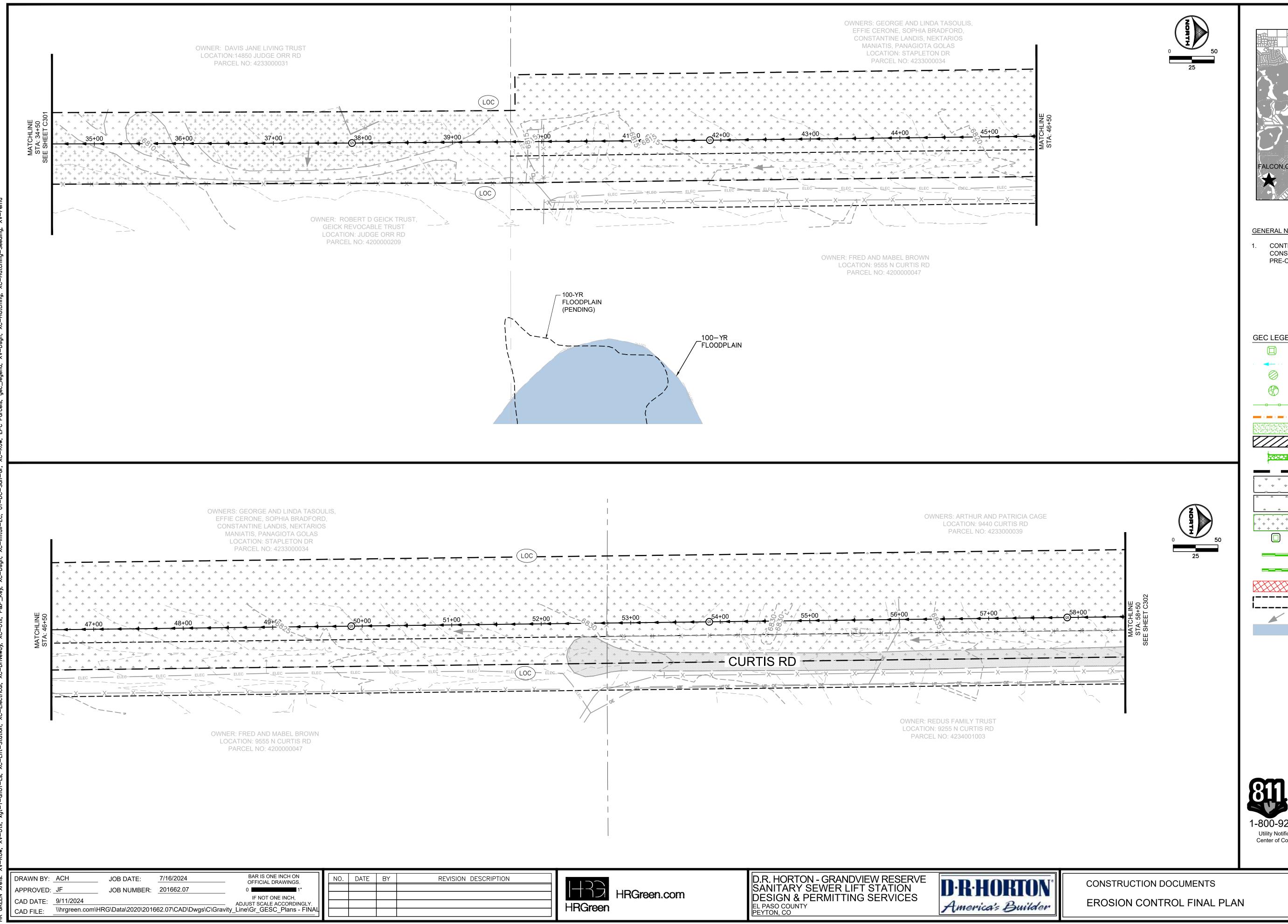


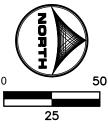


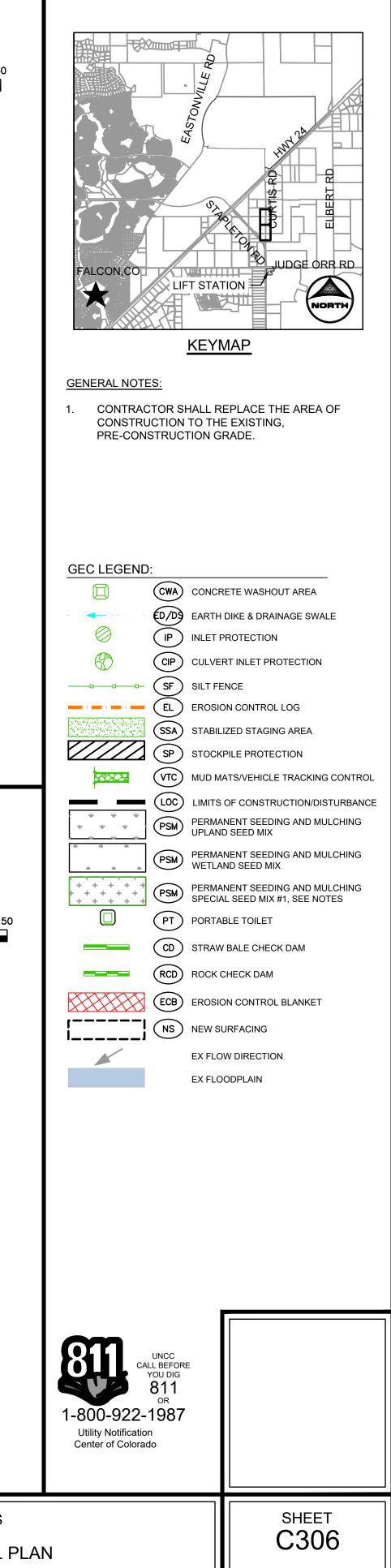
CONSTRUCTION DOCUMENTS

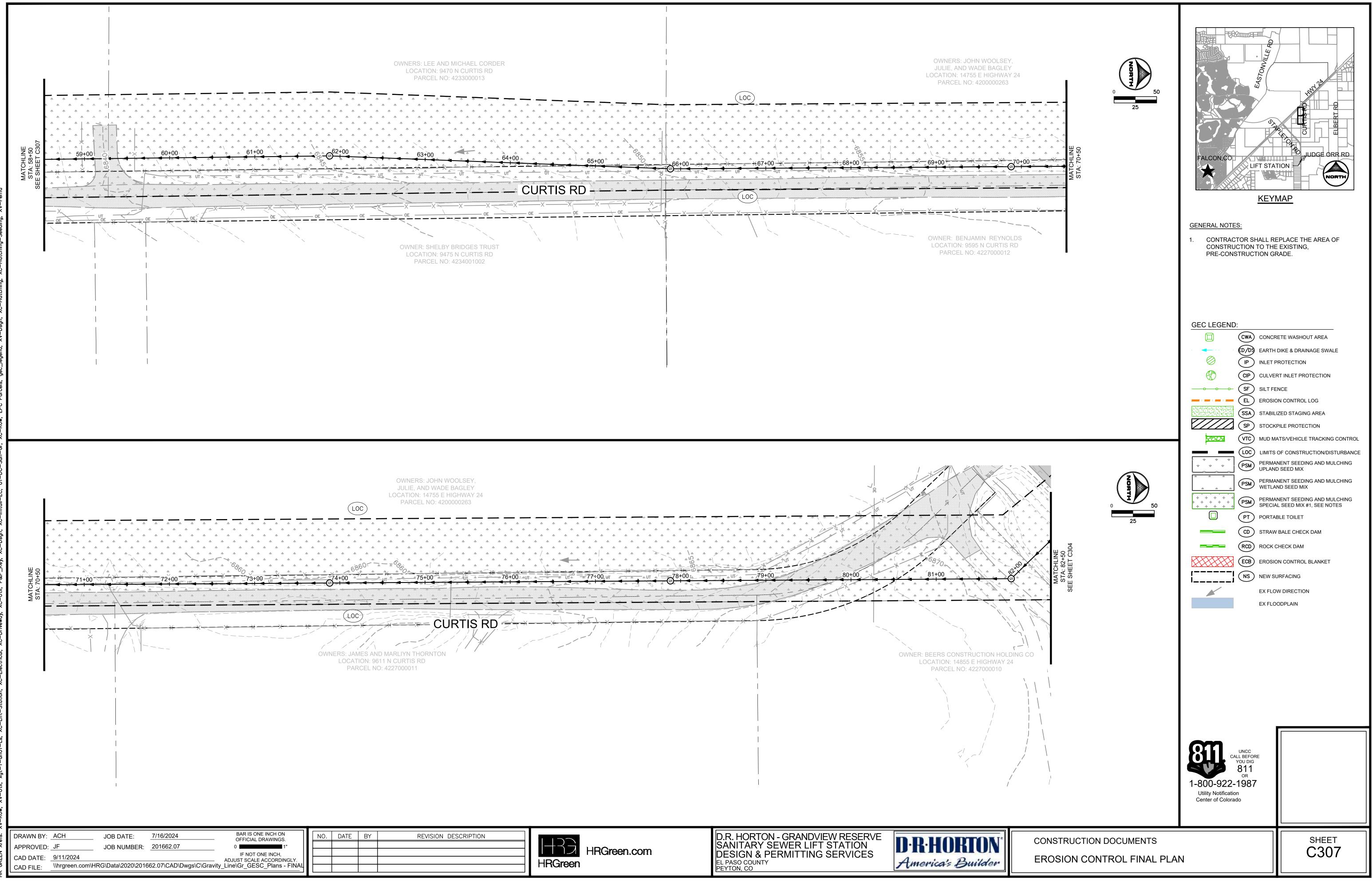


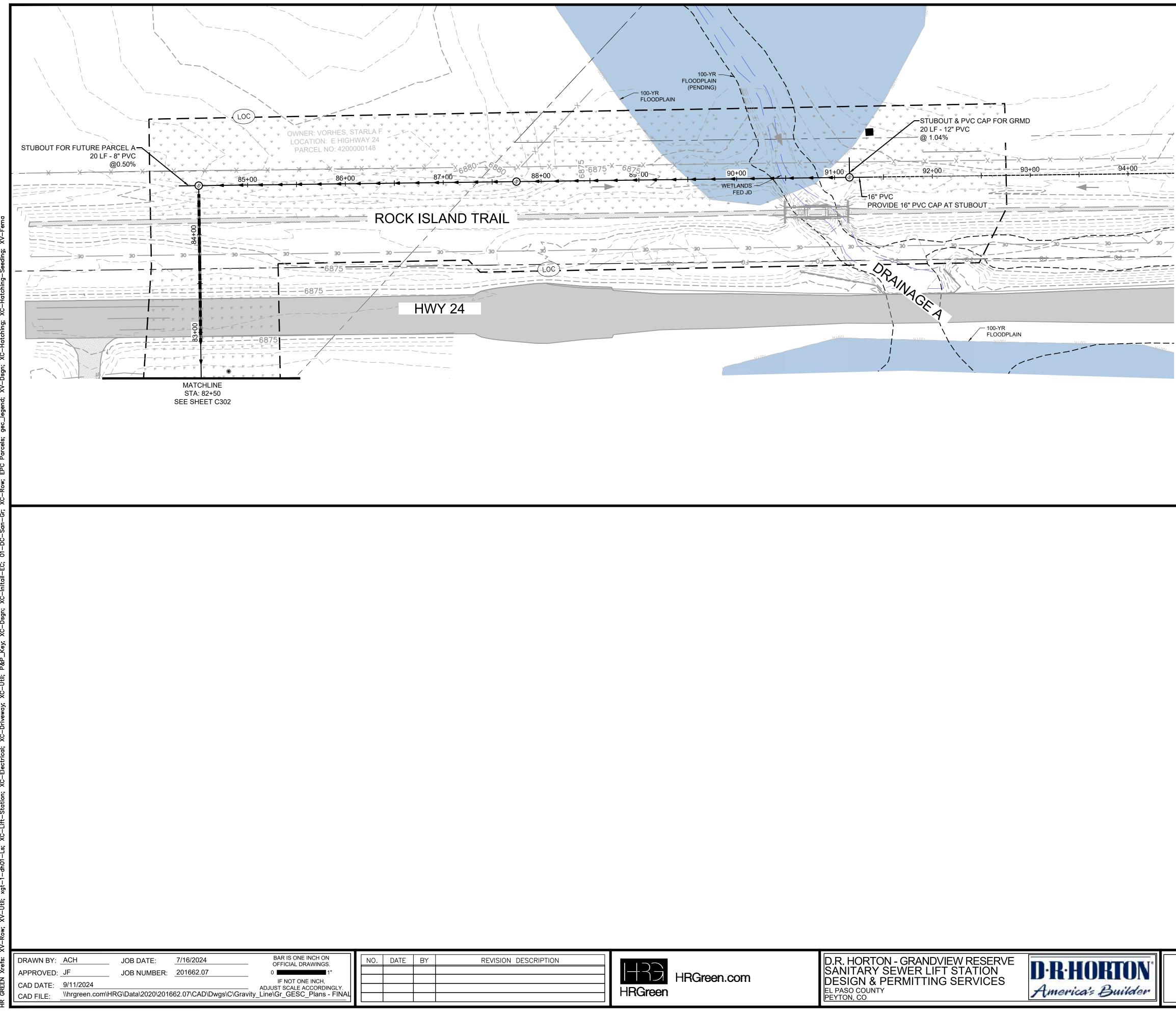


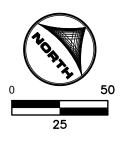




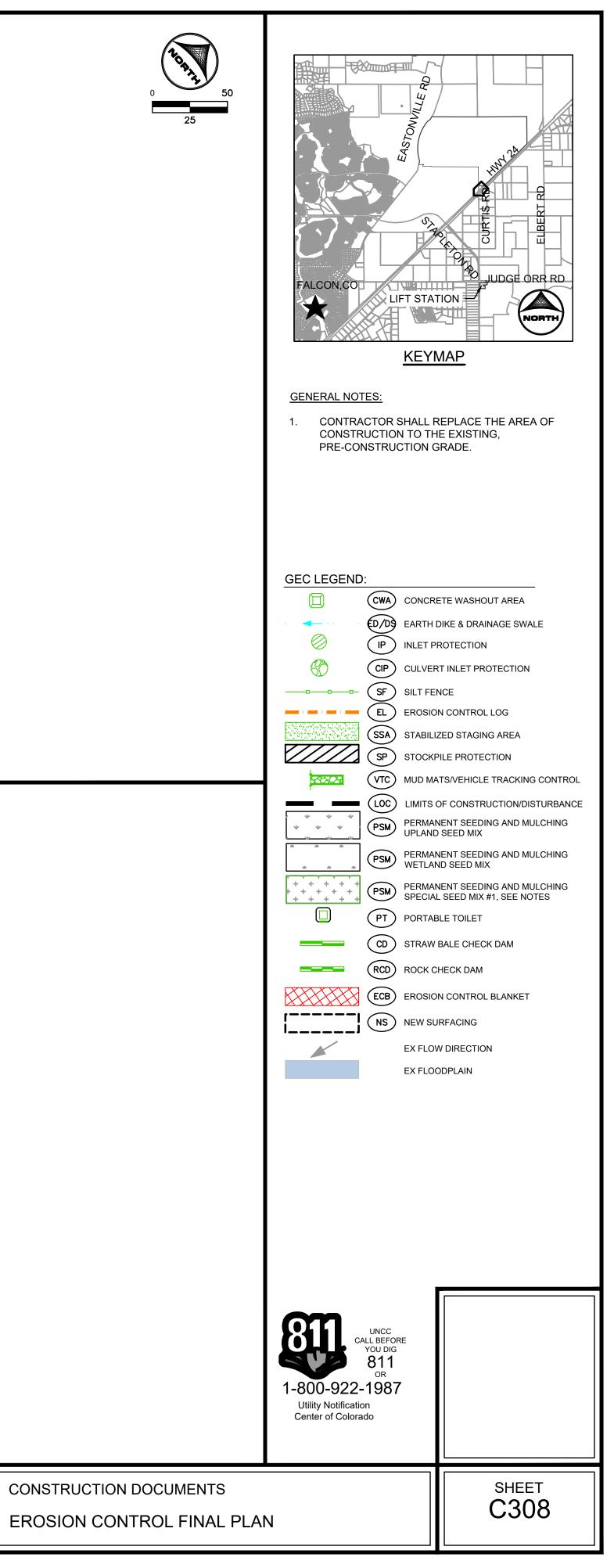


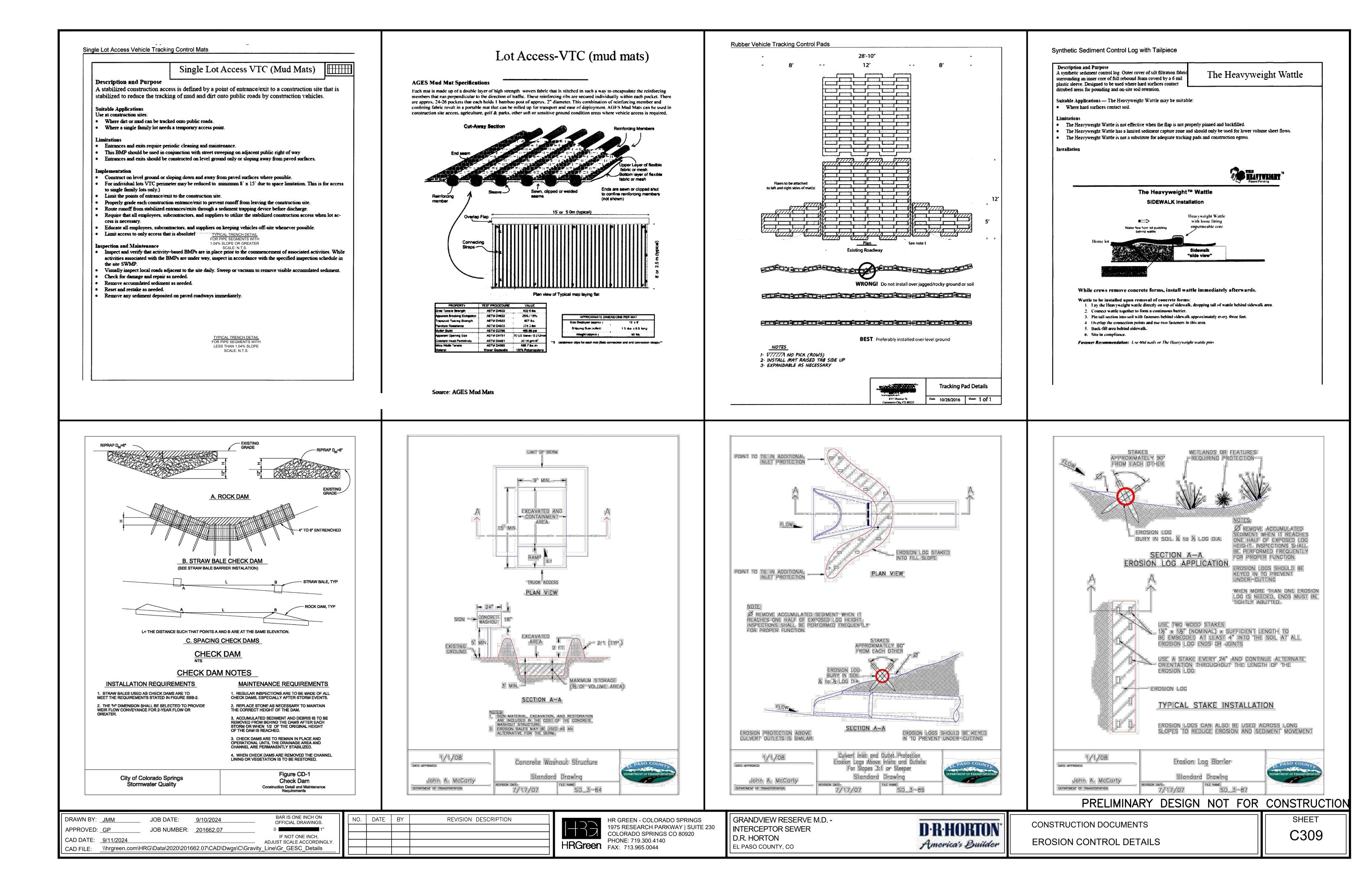


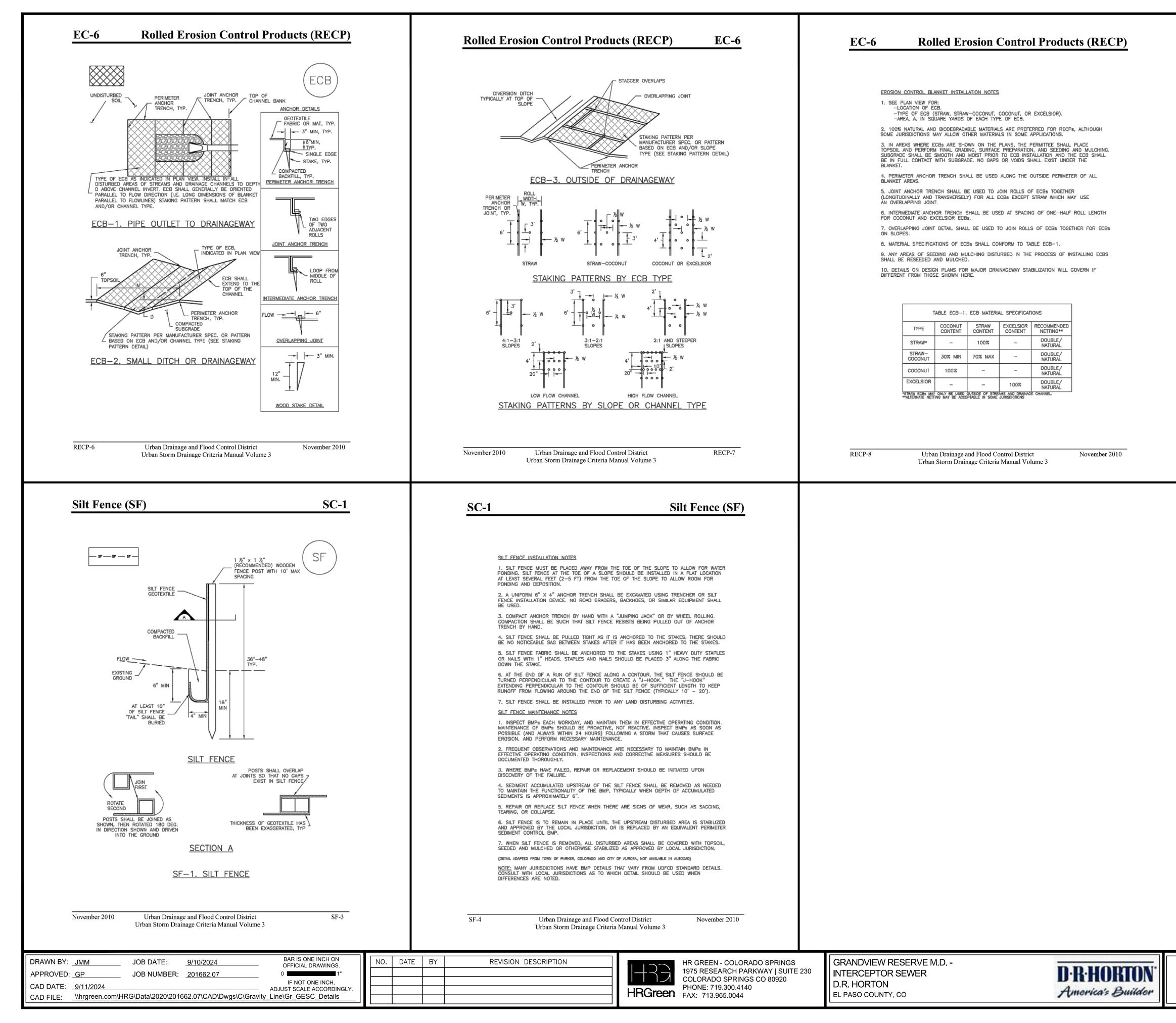




CONSTRUCTION DOCUMENTS







Rolled Erosion Control Products (RECP)	EC-6
EROSION CONTROL BLANKET MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATIN MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE, INSPECT BMPs POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN E EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SH DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED DISCOVERY OF THE FAILURE. 4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQU REMOVED BY THE LOCAL JURISDICTION. 5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED REINSTALED. ANY SUBGRADE AREAS BLOW THE GEOTEXTILE THAT HAVE ERODE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED RESEDED AND MULCHED AND THE ECB REINSTALLED. NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STAND CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED W DIFFERENCES ARE NOTED. (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE	AS SOON AS SURFACE BMPs IN OULD BE UPON JESTED TO BE D OR ED TO CREATED EPAIRED, MARD DETAILS. (HEN
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	RECP-9
	ARY DESIGN CONSTRUCTION
CONSTRUCTION DOCUMENTS EROSION CONTROL DETAILS	SHEET C310

CF CF CF		uction Fence (CF)	Construction Fence (CF)	SM
CONSTRUCTION 1. SEE PLAN -LOCATION	PLASIIC CAP, TYP. STUDDED STEEL ORANGE RESINET CONSTRUCTION FENCE OR APPROVED EQUAL 10' MAX SPACING ORANGE RESINET OR APPROVED EQUAL OR APPROVED EQUAL OR APPROVED EQUAL NEXTED AND A CONSTRUCTION NEXTED AND A CONSTRUCTION NEXTED A CONSTRUCTION FENCE.		CONSTRUCTION FENCE MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATI MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE, INSPECT BMP POSSIBLE, AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUS EROSION, AND PERFORM NECESSARY MAINTENANCE. ARE NECESSARY TO MAINTAIN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES S DOCUMENTED THOROUGHUR. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATE DISCOVERY OF THE FAILURE. 4. CONSTRUCTION FENCES SHALL BE REPAIRED OR REPLACED WHEN THERE AN DAMAGE SUCH AS RIPS OR SAGS, CONSTRUCTION FENCES IS TO REMAIN IN P UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JU 5. WHENC CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSO INSTALLATION, MAINTENANCE, AND/O'R REMOVED, ALL DISTURBED AREAS ASSO INSTALLATION, MAINTENANCE, MAD/O'R REMOVED, ALL BENDED AS APPROVED B JURISBICTION. NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDPCD STAI CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED DIFFERENCES ARE NOTED. (BETML RAMPTED FROM TOWN OF PARKER, COLORMOD, NOT AVAILABLE IN AUTOCAU)	PS AS SOON AS ES SURFACE N BMPS IN SHOULD BE ED UPON RE SIGNS OF PLACE UNTIL THE JRISDICTION. DCIATED WITH THE IVERED WITH BY LOCAL
ACTIVITIES. 3. CONSTRUC THAT IS AT L 4. STUDDED 3 MAXIMUM SPA 5. CONSTRUC BOTTOM OF E F-2	TION FENCE SHOWN SHALL BE INSTALLED PRIOR TO TION FENCE SHALL BE COMPOSED OF ORANGE, CON EAST 4' HIGH. METAL POSTS SHOULD HAVE A PLAST STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT CING FOR STEEL TEE POSTS SHALL BE 10'. TION FENCE SHALL BE SECURELY FASTENED TO THE ACH POST. Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volum	NTRACTOR-GRADE MATERIAL STIC CAP FOR SAFETY. THE CONSTRUCTION FENCE. E TOP, MIDDLE, AND November 2010 me 3	November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	C
Revegetation Wetland Native See	d Mixes Table A-8. Wetland seed mix – loamy to sa	Chapter 13		
(Red Common Name	Scientific Name Growth Season Growth Form	g wetland areas.)		
American Sloughgrass	Grasses and Herbaceous Species	15 OBL 0.8		
Prairie cordgrass Switchgrass	Spartina pectinataWarmSodPanicum virgatumWarmSod/Bunch			
Western wheatgrass	Pascopyrum smithiiCoolSodGlyceria striataCoolSod	10 FACU 5.5 10 OBL 3.3		
Fowl mannagrass	Scirpus acutus Juncus balticus	10 OBL 1.6 10 OBL 0.1		
Fowl mannagrass Hardstem bulrush Baltic rush		10 OBL 1.0		
Fowl mannagrass Hardstem bulrush	Eleocharis palustris Wildflowers			
Fowl mannagrass Hardstem bulrush Baltic rush	Eleocharis palustris	2.5 FACW 0.1 2.5 FAC 0.5		
Fowl mannagrass Hardstem bulrush Baltic rush Creeping spikerush Blue vervain Nuttall's sunflower TOTAL PLS POUNT	Eleocharis palustris Wildflowers Wildflowers Wildflowers Verbena hastata Helianthus nuttallii PS/ACRE If broadcast seeding, double the rate Table A-9. Wetland seed mix – clay and al	2.5 FAC 0.5 100 19.8		
Fowl mannagrass Hardstem bulrush Baltic rush Creeping spikerush Blue vervain Nuttall's sunflower TOTAL PLS POUNT	Eleocharis palustris Wildflowers Wildflowers Wildflowers Verbena hastata Image: Second State of State	2.5 FAC 0.5 100 19.8 alkali soils and areas.) wth % Wetland Indicator* (PLS ¹)		
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Revegetation

Chapter 13

Appendix A. Seed Mix Tables

Upland Native Seed Mixes (drill seed rates)

Table A-1. Upland area seed mix – loamy to clay soils

Common Name	ame Scientific Name		Growth Form	% Mix	Lb/ac (PLS ¹)
	Grasse	s			
Blue grama	Bouteloua gracilis	Warm	Sod	25	1.8
Sand dropseed	Sporobolus cryptandrus	Warm	Bunch	20	0.2
Sideoats grama	Bouteloua curtipendula	Warm	Sod	20	6.3
Western wheatgrass	Pascopyrum smithii	Cool	Sod	15	8.2
Buffalograss	Bouteloua dactyloides	Warm	Sod	10	10.7
Inland saltgrass	1 saltgrass Distichlis spicata		Sod	5	0.6
	Herbaceous/Wi	ildflowers			
Pasture sage	Artemisia frigida			1	0.01
Blanket flower	Gaillardia aristata			1	0.5
Prairie coneflower	Ratibida columnifera			1	0.1
Purple prairieclover	Dalea (Petalostemum) purpurea			1	0.3
Blue flax	Linum lewisii			1	0.4
TOTAL PLS POUND	S/ACRE			100	29.11

Table A-2. Unland area seed mix – sandy soil

		Growth	Growth	% Mix	Lb/ac	
Common Name	on Name Scientific Name Season		Form		(PLS ¹)	
	Gras	sses				
Switchgrass	Panicum virgatum	Warm	Sod/Bunch	15	2.3	
Prairie sandreed	Calamovilfa longifolia	Warm	Sod	10	2.2	
Sideoats grama	Bouteloua curtipendula	Warm	Sod	10	3.1	
Blue grama	Bouteloua gracilis	Warm	Sod	10	0.7	
Indian ricegrass	Oryzopsis hymenoides	Cool	Bunch	10	4.3	
Western wheatgrass	Pascopyrum smithii	Cool	Sod	10	5.5	
Little bluestem	Schizachyrium scoparium	Warm	Bunch	10	2.3	
Sand dropseed	Sporobolus cryptandrus	Warm	Bunch	10	0.1	
Green needlegrass	s Stipa viridula		Bunch	10	3.3	
	Herbaceous/	Wildflowers	•			
Pasture sage	Artemisia frigida	·		1	0.1	
Blanket flower	Gaillardia aristata			2	0.9	
	Maceranthera			2	0.2	
Tansy aster	tanacetifolia					
TOTAL PLS POUN	DS/ACRE			100	25	

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Table A-3. Upland/transitional area seed mix – alkali soil

Common Name	Scientific Name	Growth Season	Growth Form	% Mix	Lb/ac (PLS ¹)
Blue grama	Bouteloua gracilis	Warm	Sod	20	1.5
Sideoats grama	Bouteloua curtipendula	Warm	Sod	15	4.7
Slender wheatgrass	Elymus trachycaulus	Cool	Bunch	15	5.7
Alkali sacaton	Sporobolus airoides	Warm	Sod/Bunch	15	0.5
Inland saltgrass	Distichlis spicata	Warm	Sod	15	1.7
Western wheatgrass	Pascopyrum smithii	Cool	Sod	10	5.5
Sand dropseed	Sporobolus cryptandrus	Warm	Bunch	10	0.1
TOTAL PLS POUN	DS/ACRE		100	19.7	

 1 PLS = Pure Live Seed – If broadcast seeding, double the rate

January 2016

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 2 13-67

PRELIMINARY DESIGN NOT FOR CONSTRUCTION

CONSTRUCTION DOCUMENTS EROSION CONTROL DETAILS SHEET

C311



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Grandview Reserve Dual Force Mains

El Paso County No. PPR2421

Prepared For (Applicant/Owner): D.R. Horton

Prepared By: HR Green Development, LLC

HORIZONTAL CONTROL

MODIFIED COORDINATE SYSTEM - SEE SHEETS IN DRAWINGS

VERTICAL DATUM NAVD88

SHEET INDEX

GENERAL

- G000 COVER SHEET G001 GENERAL NOTES G002 LEGEND
- G003 SURVEY CONTROL PLAN G004 SURVEY COORDINATES

SANITARY PLAN AND PROFILE

C100	OVERALL SITE PLAN & HORIZONTAL ALIGNMENT DAT
C101	FORCE MAIN PLAN AND PROFILE
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C103	FORCE MAIN PLAN AND PROFILE
C104	FORCE MAIN PLAN AND PROFILE
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C113	FORCE MAIN PLAN AND PROFILE
C114	FORCE MAIN PLAN AND PROFILE
C115	FORCE MAIN PLAN AND PROFILE

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C419 EROSION CONTROL DETAILS

- C503 DETAILS
- C701 STANDARD DETAILS

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NATURAL GAS BLACK HILLS ENERGY 198 COUNTY LINE RD. PALMER LAKE, CO 80133 TELE: (719) 332-5856 ATTN: BOB SWATEK EMAIL: BOB.SWATEK@BLACKHILLSCORP.COM

FIRE FALCON FIRE PROTECTION DISTRICT 7030 OLD MERIDIAN RD. FALCON, CO 80831 TELE: (719) 495-4050 ATTN: TRENT HARWIG EMAIL: THARWIG@FALCONFIREPD.ORG

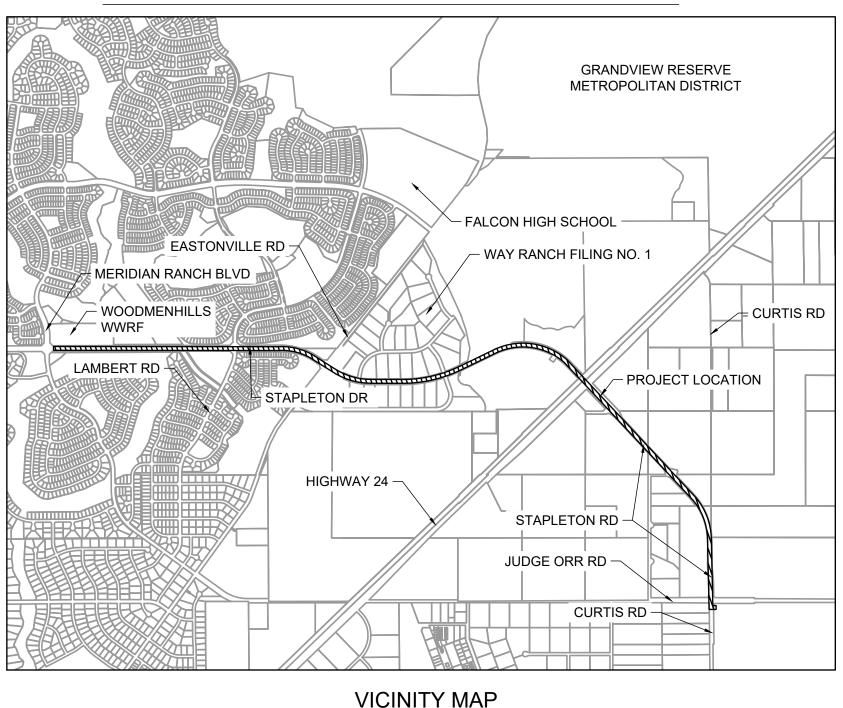
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AND EROSION CONTROL PLANS COUNTY OF EL PASO, STATE OF COLORADO

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WOODMEN HILLS METROPOLITAN DISTRICT STANDARD NOTES: (SOME NOTES MAY NOT BE APPLICABLE TO PROJECT)

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT (WHMD, THE DISTRICT) SPECIFICATIONS.
- ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. 2. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED 'NOT VALID.'
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE NOTED. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- ALL OVER-LOT GRADING MUST BE COMPLETED TO WITHIN ONE (1) FOOT OF FINAL GRADE PRIOR TO INSTALLATION OF WATER AND WASTEWATER INFRASTRUCTURE.
- ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
- DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES, AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT, AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
- ALL DUCTILE IRON PIPE LESS THAN TWELVE INCHES (12") AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE TWELVE INCHES (12") AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO (2) NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 300 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING.
- ALL PIPE MATERIAL, BACKFILL, AND INSTALLATION SHALL CONFORM TO THE APPLICABLE 8. SPECIFICATIONS OF THE DISTRICT, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES, AND THE GEOTECHNICAL ENGINEER
- COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES, AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- 10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD-VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- 11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- 12. BENDS, DEFLECTION, AND CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT TWENTY-FIVE FEET (25') INTERVALS ALONG CURVES TO ENSURE LOCATION OF PIPELINE CONSTRUCTION.
- 13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS. PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
- 14. ALL UNUSED, SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN 32. DISTRICT AS REQUESTED.
- 15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
- 16. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- 17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER, AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- 18. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINES) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
- 19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
- 20. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN METROPOLITAN DISTRICT:
 - PRIOR TO THE START OF CONSTRUCTION, A PRECONSTRUCTION MEETING IS REQUIRED A a) MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF WASTEWATER SYSTEM INSTALLATION NOTES THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR, AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRECONSTRUCTION MEETING. NO PRECONSTRUCTION MEETING CAN BE SCHEDULED BEFORE FOUR (4) SIGNED/APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
 - THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A b) MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- 22. TESTING OF FACILITIES:
 - THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM a) OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
 - ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING b) REQUIREMENTS
 - TEST 100% OF ALL LINES.
 - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE

	APPROVED ON THE PLANS).
c)	ALL SANITARY SEWER FACILITIES AF
	ALL LINES SHALL BE JET CLEA

- CCTV INSPECTION.
- DISTRICT FOR REVIEW AND APPROVAL.
- 23. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF THE IMPROVEMENTS AT THE CONTRACTOR'S COST.
- 24.
- 25. ACCEPTANCE
 - LINES HAVE BEEN COMPLETED AND A WALK-THROUGH HAS OCCURRED.
- PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
- SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
- 29. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE

WATER SYSTEM INSTALLATION NOTES

- FIVE-AND-ONE-HALF (5.5) FEET.
- 31. ALL WATER VALVES ASSOCIATED WITH THE POTABLE WATER SYSTEM SHALL BE OPEN MARKERS AS APPLICABLE.
- REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY
- 34 BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).
- 35 EXISTING LINES.
- 36. WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.
- 37. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS:
 - DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
 - NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE b)
 - COMPLETED PRIOR TO USE OF THE FACILITY.
 - RECORDED.

- BE APPROVED BY THE DISTRICT ON A CASE BY CASE BASIS
- APPROVED EQUAL, AND COATED.
- 40. ALL SEWER LINES MUST BE BEDDED WITH SQUEEGEE OR 3/4" CRUSHED ROCK.
- 41. COMMENCEMENT OF USE OF SEWER LINES AND/OR SYSTEMS:

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RE TO MEET THE FOLLOWING TESTING REQUIREMENTS: ANED PRIOR TO VACUUM OR PRESSURE TESTING. ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO

SEWER MAINS TO BE PRESSURE TESTED PRIOR TO CCTV INSPECTION ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE

ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMMENCEMENT OF SERVICE. THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE

FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.

a) THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE

b) A SECOND ACCEPTANCE MAY OCCUR ONCE THE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THROUGH OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).

26. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS

27. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT-INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE

28. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES, AND/OR SERVICES, CONSTRUCTION MUST HAVE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL

30. ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR APPROVED EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPTH OF

CLOCKWISE. ALL VALVES INSTALLED IN LANDSCAPED AREAS AND/OR NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL VALVES ASSOCIATED WITH THE RAW WATER SYSTEM SHALL BE OPEN COUNTERCLOCKWISE AND MARKED WITH CARSONITE

THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVICE STUB-OUTS FOR FUTURE DEVELOPMENT. ANY REQUIRED REALIGNMENT, HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER. FIRE HYDRANT LOCATION SHALL BE

33. FIRE HYDRANTS SHALL BE OPEN RIGHT WITH 7/8" X 7/8" SQUARE TAPERED ALONG WITH SERVICE CAPS. LUBRICATION TYPE: GREASE. ACCEPTABLE BRAND IS KENNEDY GUARDIAN (K81D, K81A, AND K81AM). EACH FIRE HYDRANT LOCATION SHALL ALSO BE USED AS TEST STATION.

ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN FIVE HUNDRED FEET (500') (VALVE

CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER LINE WITHOUT SHUTDOWN, OR ELSE NOTIFY THE DISTRICT OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO

IRRIGATION SERVICES SHALL HAVE A STOP-AND-WASTE CURB STOP VALVE INSTALLED ALONG

a) NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL PRESSURE TESTING, FLUSHING, BAC-T TESTING, AND COMPACTION TESTING, AND AS-BUILT

COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE

c) ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND

38. SANITARY SEWER LENGTHS ARE MH CENTER – MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR APPROVED EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED, INLINE PVC PUSH-ON WYES. SINGLE SADDLE TAP ALLOWED ON EXISTING MAINS. MULTIPLE SADDLE TAPS ON EXISTING MAINS MUST

39. ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RU116 - RUBR-NEK JOINT WRAP, OR

- a) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL THE COMPLETION OF ALL JET CLEANING, PRESSURE TESTING, VACUUM TESTING, CCTV INSPECTION, AND COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT
- b) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
- ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED. DOWNSTREAM PLUG CAN BE REMOVED ONCE THE FIRST LIFT OF ASPHALT IS DOWN AND
- THE ABOVE REQUIREMENTS ARE MET.

THE ABOVE GUIDELINES ARE SUBJECT TO CHANGE AT ANY TIME.

UTILITY NOTES

- 1. CONTRACTOR TO OBTAIN WORK IN THE ROW PERMIT FROM EL PASO COUNTY PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR TO POTHOLE AND VERIFY EXISTENCE OF OTHER UTILITIES WITHIN ANY PUBLIC RIGHT OF WAYS AND WITHIN EASEMENTS WHERE PROPOSED UTILITY IS LOCATED.
- 3. CONTRACTOR TO MAINTAIN 5.5' MINIMUM COVER ALL OVER WATER MAINS
- CONSTRUCTED
- 4. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE INSTALLED IN CURB AND GUTTER OR CROSS PANS. STANDARD WATER SERVICES LOCATIONS TO BE 10' FROM THE DOWNSTREAM
- PROPERTY LINE AND EXTENDED 10' TO THE UTILITY EASEMENT. 6. STANDARD WASTEWATER SERVICES TO BE IN A COMMON TRENCH WITH STANDARD WATER SERVICES. SHALL BE LOCATION A MINIMUM OF 30" FROM CENTER OF PIPE. SEE
- WOODMEN HILLS METRO DISTRICT STANDARD SPECIFICATIONS DETAIL W-13. STANDARD SERVICES SHALL BE MARKED WITH 2"X4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED
- BLUE FOR WATER AND GREEN FOR SEWER. 8. CURB STOPS ARE NOT TO BE INSTALLED IN CONCRETE CURB, CROSS PANS, SIDEWALKS, OR DRIVEWAYS.
- 9. SEE PLANS FOR THE LOCATION OF STANDARD SERVICES ON CORNER LOTS

CAUTION - NOTICE TO CONTRACTOR

- CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE CALL SERVICE 811 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- 2. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- 3. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR INTERFERENCE OR DELAY CAUSED BY REPAIRS FOR DAMAGED UTILITIES.
- 4. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.
- CONTRACTOR MUST COORDINATE WORK WITH UTILITY COMPANY AND CITY/WHMD/OWNER PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ECT. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.
- CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS, AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
- 8. SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.
- STORM SEWERS, CULVERTS, AND DITCHES: CONTRACTOR SHALL MONITOR THE WEATHER 9. AND MAINTAIN STORM WATER FLOW AT ALL TIMES AND SHALL SCHEDULE REMOVALS SUCH THAT WET WEATHER AND RAIN EVENTS WILL NOT CREATE DAMAGING BACKUPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERTING AND/OR BYPASS PUMPING AS NECESSARY TO FACILITATE CONSTRUCTION. THE COST FOR MAINTAINING, DIVERTING, OR PUMP STORM FLOWS SHALL BE INCIDENTAL TO THE PROJECT.
- 10. CONTRACTOR TO MAINTAIN A MAXIMUM CONSTRUCTION EASEMENT WIDTH OF 24 FEET.





DESIGN NOTES/SPECIFICATIONS

- 1. IN THE EVENT OF DISCREPANCIES, THE FOLLOWING IS THE ORDER OF PRECEDENCE FOR SPECIFICATIONS, FOLLOW WHAT IS MOST STRINGENT: HR GREEN OVER WHMD OVER CSU OVER EPC OVER CDOT
- 1.1. SPECIFICATIONS PERTAINING TO UTILITIES: WHMD, SUPPLEMENTED BY CSU. 1.2. SPECIFICATIONS PERTAINING TO RIGHT OF WAY AND SURFACING RESTORATION: EPC, SUPPLEMENTED BY CDOT

2. CONTRACTOR SHALL UTILIZE THE SITE ACCESS AND STAGING AREAS AS IDENTIFIED IN THE DRAWINGS OR OTHERWISE CONTRACTOR SHALL OBTAIN APPROVAL ON OTHER SITES AND ACCESSES 3. CONTRACTOR SHALL STAY WITHIN THE CONSTRUCTION EASEMENTS AND/OR ROAD RIGHT OF WAY. DAMAGES OUTSIDE OF DESIGNATED AREAS SHALL BE REPAIRED/REMEDIED AT CONTRACTOR'S EXPENSE. ADDITIONAL AGREEMENTS OBTAINED BY THE CONTRACTOR SHALL NOT HOLD THE OWNER/ENGINEER RESPONSIBLE FOR ANY DAMAGES/GRIEVANCES.

4. REMOVALS AND REPLACEMENT

- 4.1. ALL ITEMS NOTED FOR REMOVAL AND REPLACEMENT SHALL BE REPLACED IN KIND. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR SHALL COORDINATE AND CONFIRM WITH RESPECTIVE ENTITIES IF EXISTING CONDITIONS WOULD ALLOW FOR SALVAGE AND RESET
- 4.2. DAMAGED PAVEMENT FROM CONSTRUCTION ACTIVITIES SHALL BE REMEDIED TO EPC'S APPROVAL AT
- CONTRACTOR'S EXPENSE. 4.3. ROADWAY REPLACEMENT/PATCHING/CONSTRUCTION SHALL COMPLY TO SPECIFICATIONS OF EPC, CDOT, OR RESPECTIVE AGENCY WITH JURISDICTION OVER THE ROAD.
- 4.4. PAVEMENT/ROADWAY TYPICAL SECTIONS FOR RESTORATION CONTRACTOR SHALL FIELD VERIFY, IF EXISTING SECTION DIFFERS FROM BELOW, MATCH EXISTING.
- STAPLETON RD FROM JUDGE ORR TO HWY 24: 6.5" HMA (IN MULTIPLE LIFTS NO THICKER THAN 3") OVER 12" 4.4.1. THICK CLASS 6 BASE COURSE; MIN. 2% CROSS SLOPE FROM CROWN; 4" TOP SOIL ON SIDE SLOPES STAPLETON RD FROM HWY 24 TO EASTONVILLE RD: 8" HMA (IN MULTIPLE LIFTS NO THICKER THAN 3") OVER 4.4.2. PREPARED SUBGRADE; MIN. 2% CROSS SLOPE FROM CROWN; MATCH EXISTING DEPTH OF TOP SOIL ON
- SIDE SLOPES 4.4.3. STAPLETON DR FROM EASTONVILLE RD TO MERIDIAN RANCH BLVD: 6.5" HMA (IN MULTIPLE LIFTS NO THICKER THAN 3") OVER 12" THICK CLASS 6 BASE COURSE: MIN. 2% CROSS SLOPE FROM CROWN: 4" TOP SOIL ON SIDE SLOPES
- 4.4.4. EASTONVILLE RD CROSSING: 5" HMA OVER 10" ABC CLASS 6
- 4.4.5. OTHER ROAD CROSSINGS: MATCH EXISTING SECTION

5. DUAL FORCE MAIN

- FOLLOW REQUIREMENTS PER WHMD STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED IN DRAWINGS. 5.2. ALL PIPES FOR THE PROJECT SHALL BE C900 DR14, UNLESS SPECIFIED OTHERWISE IN DRAWINGS. ALL FITTINGS SHALL BE DUCTILE IRON. PROVIDE PE WRAP AND CATHODIC PROTECTION AT EACH FITTING. 5.3.
- INSTALL BEDDING PER "TYPICAL TRENCH DETAIL" ON SHEET C701.
- INSTALL CASING PIPE PER "CASING PIPE DETAIL" ON SHEET C701.
- AT-GRADE TEST STATIONS SHALL BE CP GLEN METAL WITH LOCKING LIDS. CLEAN OUTS SHALL BE PER DETAIL ON SHEET CXXX.

6. PERMITS

5.4.

5.5.

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- 6.1. OWNER IS RESPONSIBLE FOR WETLAND/NATION WIDE PERMIT, ESQCP, APPROVAL FROM CDPHE, AND **OBTAINING EASEMENTS**
- ALL PERMITS REQUIRED FOR CONSTRUCTION, NOT PROVIDED, SHALL BE OBTAINED BY THE CONTRACTOR. 6.2 CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION, SUBMITTAL, FEES, AND ALL OTHER ITEMS ASSOCIATED WITH PERMITTING. THE FOLLOWING ANTICIPATED PERMIT LIST IS NOT ALL INCLUSIVE:
- NPDES AND DEWATERING PERMITS 6.2.1.
- 6.2.2. CDOT UTILITY CROSSING AND ROW USE PERMITS EPC ROW USE AND CONSTRUCTION PERMITS 6.2.3.
- FLOODPLAIN DEVELOPMENT PERMIT 6.2.4.

7. TRAFFIC CONTROL

- 7.1. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL PLAN, COORDINATION WITH ALL IMPACTED PARTIES (CDOT, EPC, ADJACENT LANDOWNERS, ETC) MODIFICATIONS, AND MAINTENANCE. MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES, WHERE POSSIBLE.
- 7.2. CONTRACTOR SHALL CONTACT EPC 2 WEEKS BEFORE CONSTRUCTION BEGINS TO ALLOW PUBLIC NOTIFICATION OF ROAD CLOSURES. CONTRACTOR SHALL COORDINATE CLOSURE DURATION AND PROCESS WITH ALL ENTITIES INVOLVED/IMPACTED.
- 7.3. CONTRACTOR SHALL COORDINATE MAILBOXES/DELIVERIES WITH THE LOCAL DELIVERIES SERVICES DURING CONSTRICTION ACTIVITIES DISTURBANCE OF MAILBOXES AND ROAD ACCESSES.

8. AS-BUILTS

8.1. CONTRACTOR SHALL PROVIDE A THIRD PARTY INSPECTOR TO MAP IN POINTMAN THE ALIGNMENT AND DEPTH OF THE PIPE INSTALLED ACROSS THE ENTIRE WIDTH OF THE RIGHT-OF-WAY OF HWY 24. CONTRACTOR SHALL KEEP RECORD OF CHANGES TO DESIGN AND PROVIDE AS-BUILT DRAWING SET/CAD DRAWINGS TO OWNER.

CDPHE DESIGN REVIEW DOCUMENT SUBMITTAL NOT FOR CONSTRUCTION

CONSTRUCTION DOCUMENTS

GENERAL NOTES

LEGEND

MATCH LINE PHASE LINE SECTION LINE PROPERTY LINE EASEMENT LINE ASSUMED EASEMENT RIGHT OF WAY CENTERLINE CHAIN LINK FENCE WOODEN FENCE ROD IRON FENCE GUARDRAIL CABLE TV U.G. ELECTRIC OVERHEAD ELECTRIC FIBER OPTIC GAS MAIN SANITARY SEWER STORM DRAIN TELEPHONE WATER MAIN SWALE TRAIL CURB & GUTTER DRAINAGE BASIN INDEX CONTOUR INTER. CONTOUR 100-YR FLOODPLAIN FLOODWAY

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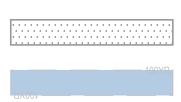
DESIGN POINT

ASPHALT

GRAVEL

100 YR FLOOD

PENDING 100 YR FLOOD WETLANDS



EXISTING

_ _ _ _ _

METER TEE REDUCER

STORM SEWER

FLARED END SECTION

SANITARY SEWER

MANHOLE

RIPRAP

CLEAN OUT

MANHOLE

WATER

FIRE HYDRANT

GATE VALVE

MANHOLE

FIRE DEPT. CONNECTION

PLUG

STORM INLET

EXISTING

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EVL

DRY UTILITIES
ELECTRIC METER
ELECTRIC PEDESTAL
ELECTRICAL CABINET
ELECTRIC VAULT
FIBER OPTIC PULL BOX
FIBER OPTIC MANHOLE
FIBER OPTIC PEDESTAL
FIBER OPTIC SIGN
FIBER OPTIC VAULT
GAS METER
GAS SIGN
GAS VAULT
TELEPHONE CABINET
TELEPHONE MANHOLE

TELEPHONE SIGN

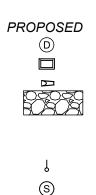
TRANSFORMER LIGHT POLE

FIBER OPTIC VAULT

SIGN

-\/ Œ FO FO FVL ex (T) TELEPHONE SIGNAL/MAST T ្សា TELEPHONE PEDESTAL T -Q-

BAR IS ONE INCH ON OFFICIAL DRAWINGS. JOB DATE: <u>9/4/2024</u> DRAWN BY: <u>JMM</u> NO. DATE BY REVISION DESCRIPTION) JOB NUMBER: <u>201662.07</u> APPROVED: <u>GP</u> IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. CAD DATE: <u>9/11/2024</u>







MISCELLANEOUS

BOLLLARD ACCESSIBLE PARKING -0- Θ 6







CONSTRUCTION DOCUMENTS

LEGEND

SHEET G002

CDPHE DESIGN REVIEW DOCUMENT SUBMITTAL NOT FOR CONSTRUCTION

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

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- 3. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED. THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT 5. COULD CONTRIBUTE POLLUTANTS TO STORMWATER, CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- 7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- 9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS. INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER, SUCH WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES

- STEEPER THAN 3:1.

- 18.
- 19. APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 20. ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 21.
- FACILITIES.
- OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OR REGULATIONS SHALL APPLY.
- ACCESS POINTS.

- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CONSIDERED A PART OF THESE PLANS.
- 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

SEND MUD MAT SPECIFICATION TO MIKAYLA HARTFORD AT MIKAYLAHARTFORD@ELPASO.COM TO ENSURE MUD MAT USE IS ACCEPTABLE IN EL PASO COUNTY.

DRAWN BY: <u>JMM</u> JOB DATE: <u>1/11/2024</u>	BAR IS ONE INCH ON — OFFICIAL DRAWINGS.	NO.	DATE	BY	REVISION DESCRIPTION	
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16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

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

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

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

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

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

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES,

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

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

AND SHALL BE

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION. FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR

PERMANENT SEED SPECS

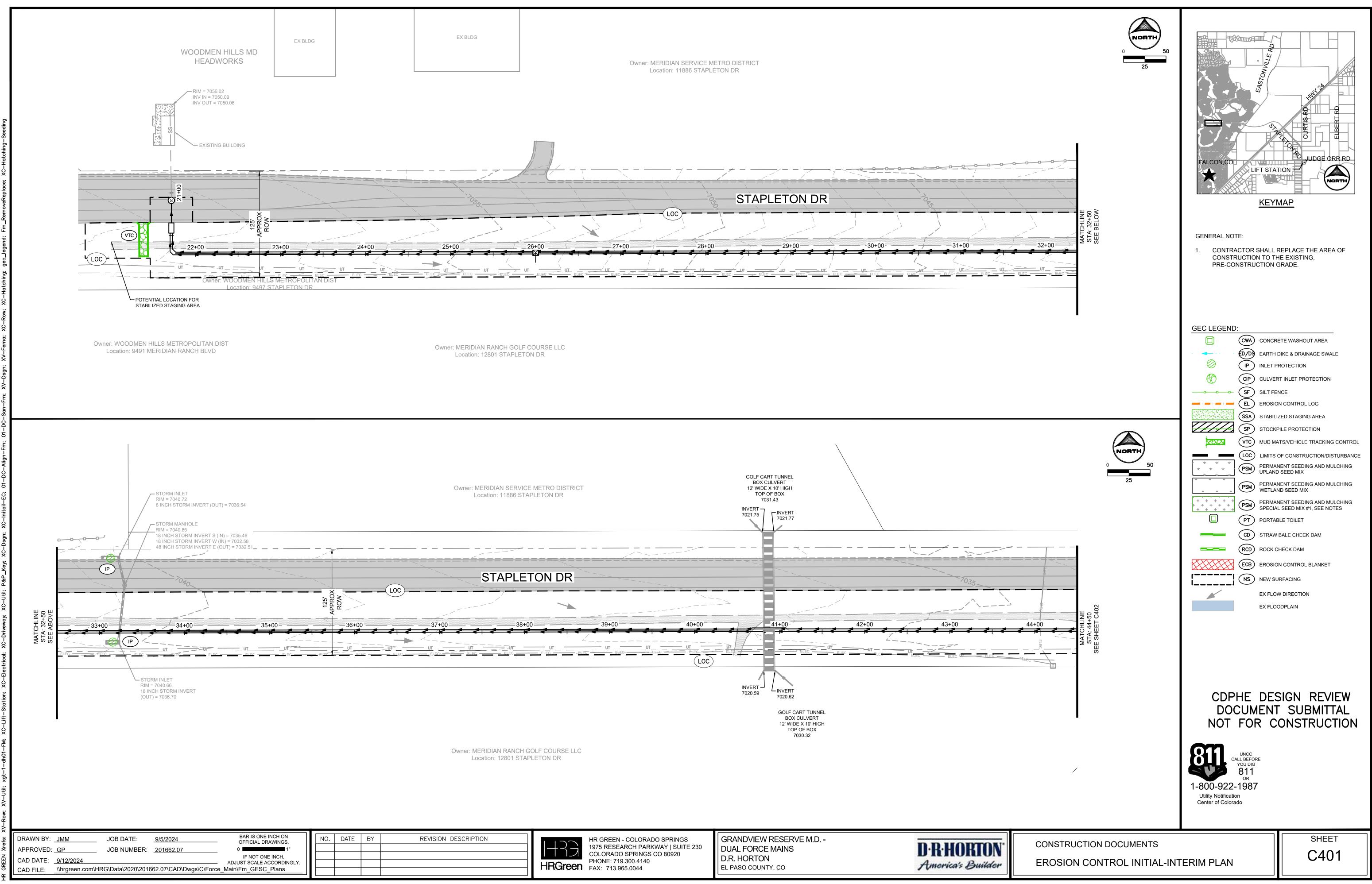
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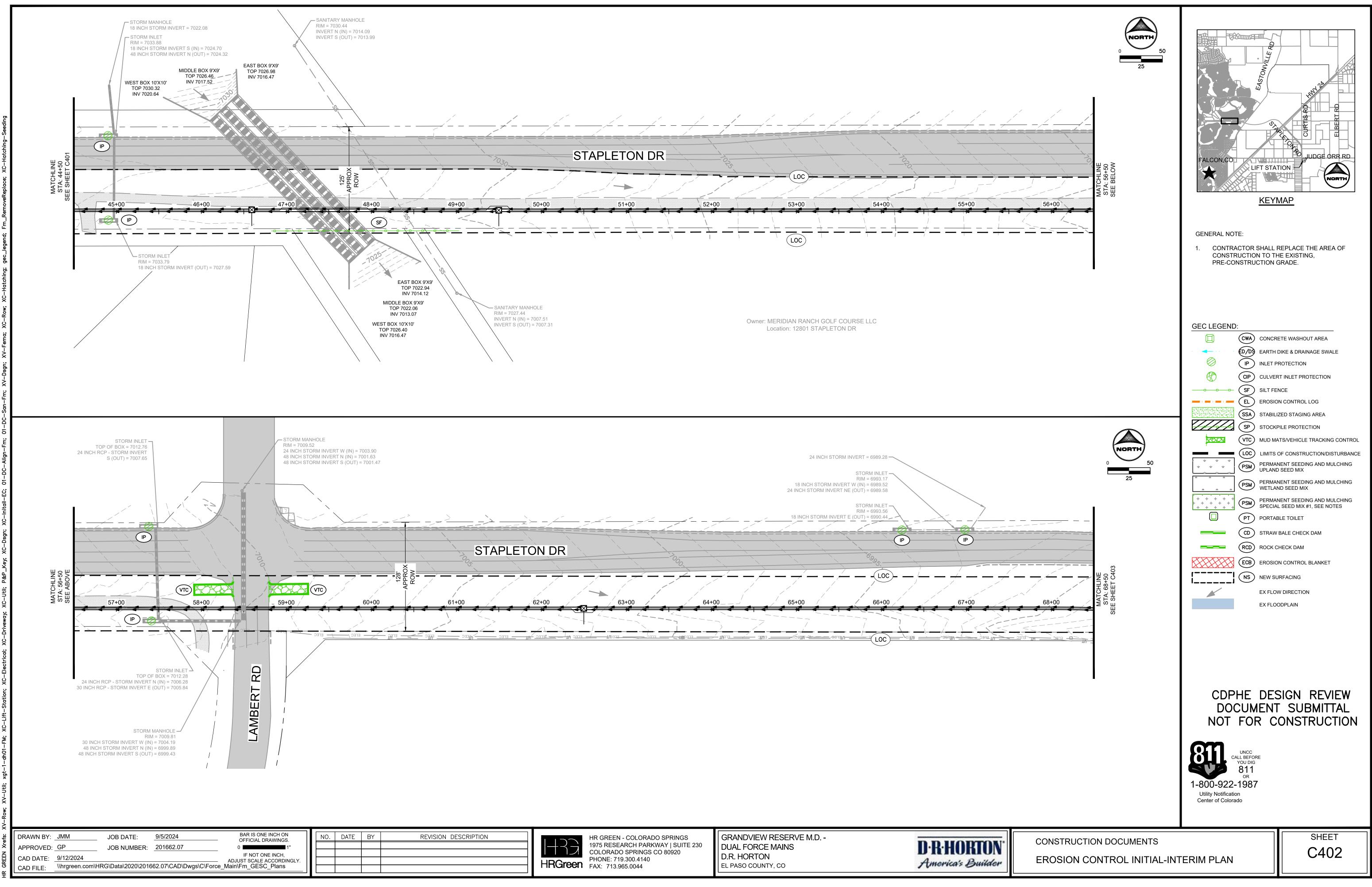


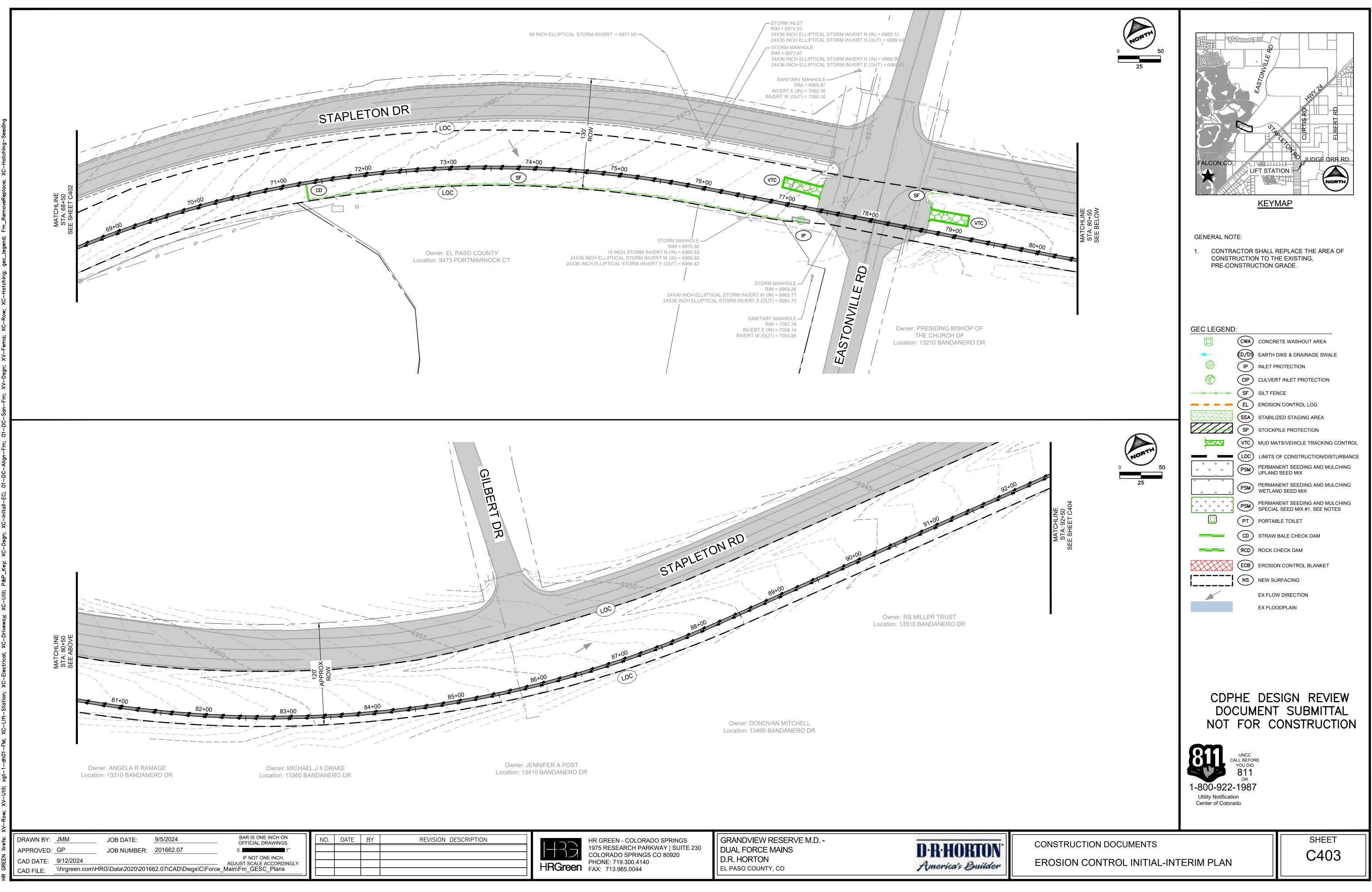
CONSTRUCTION DOCUMENTS
GRADING AND EROSION CONTROL NOTES

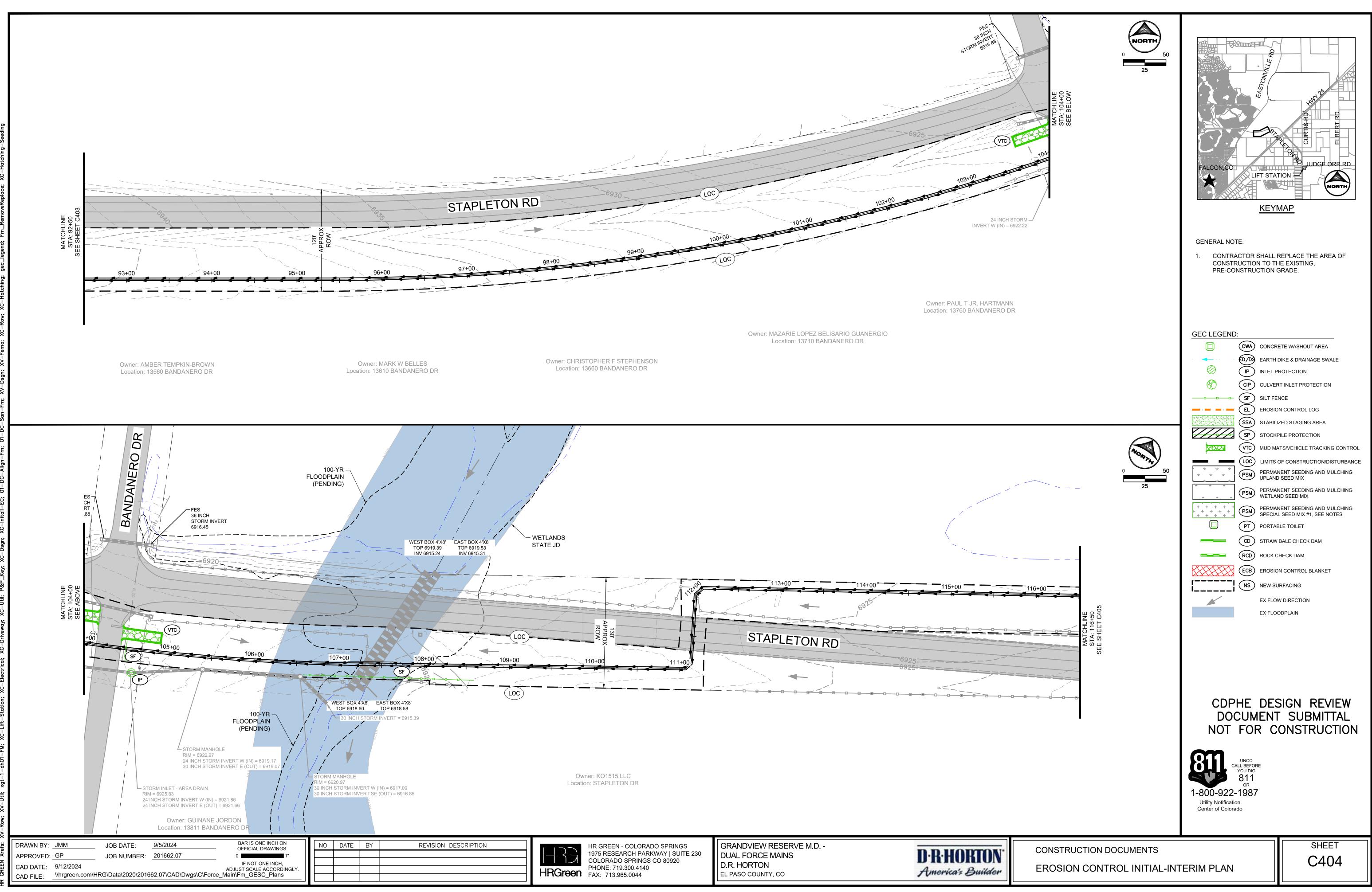
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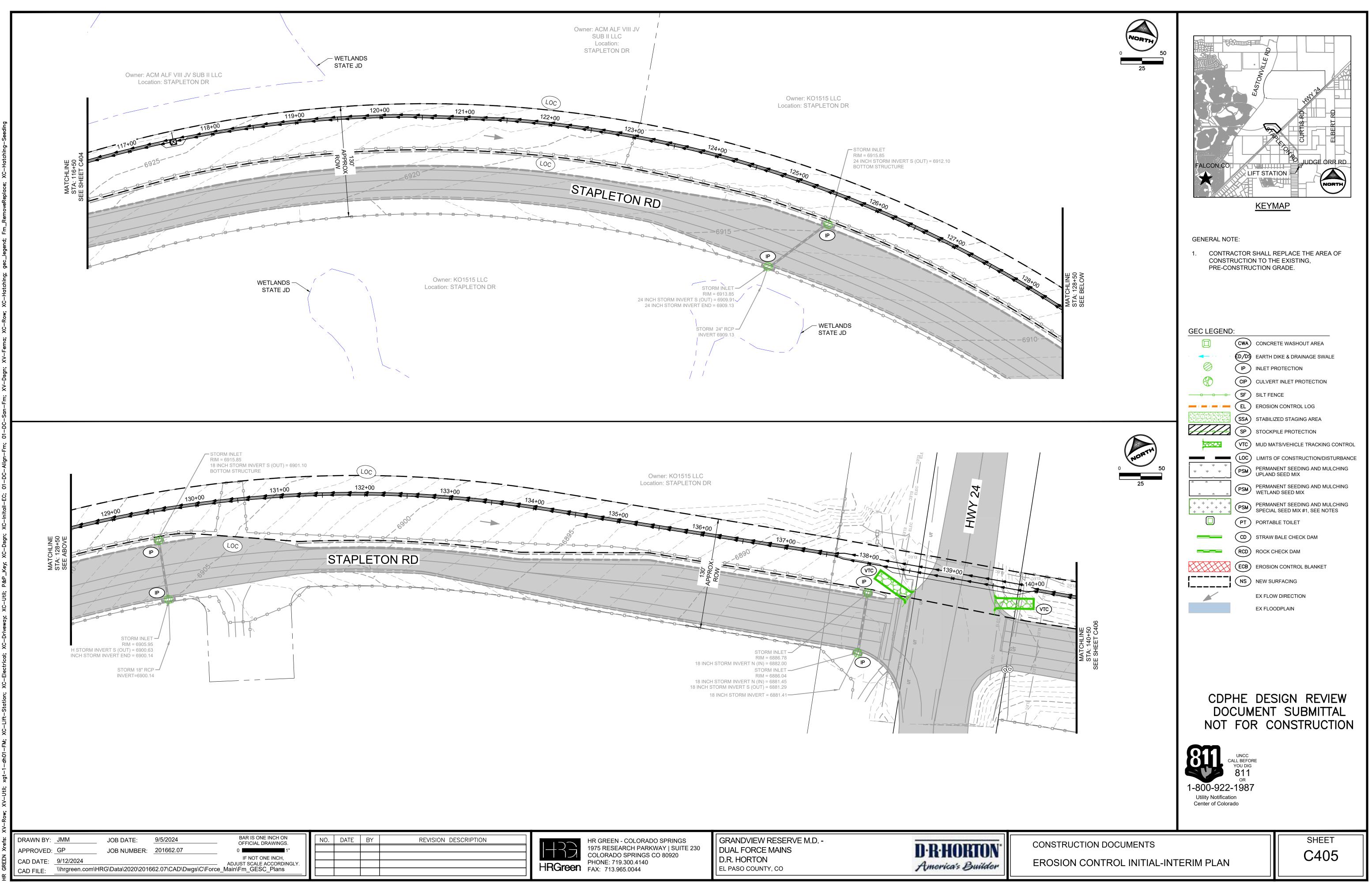
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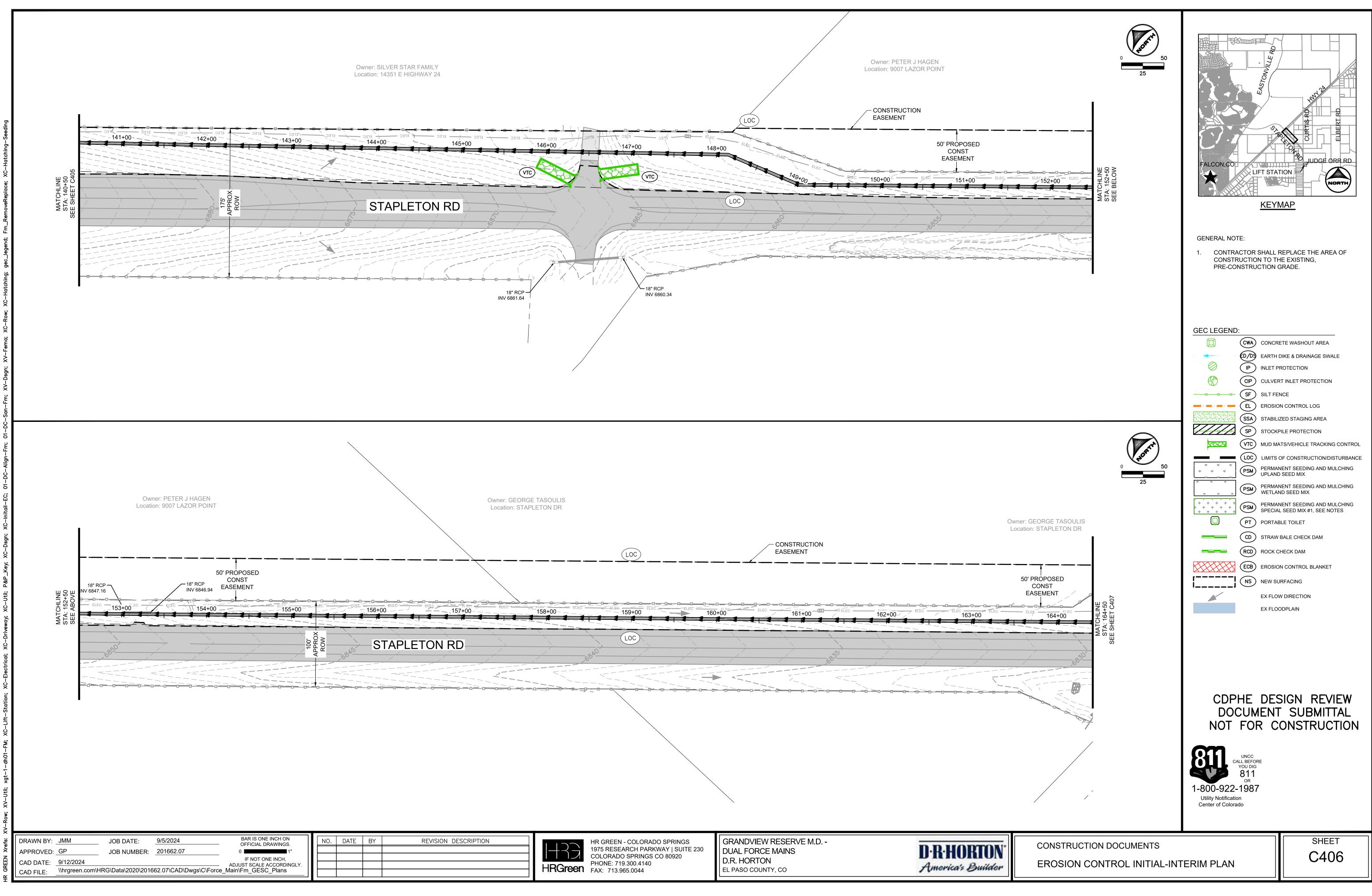


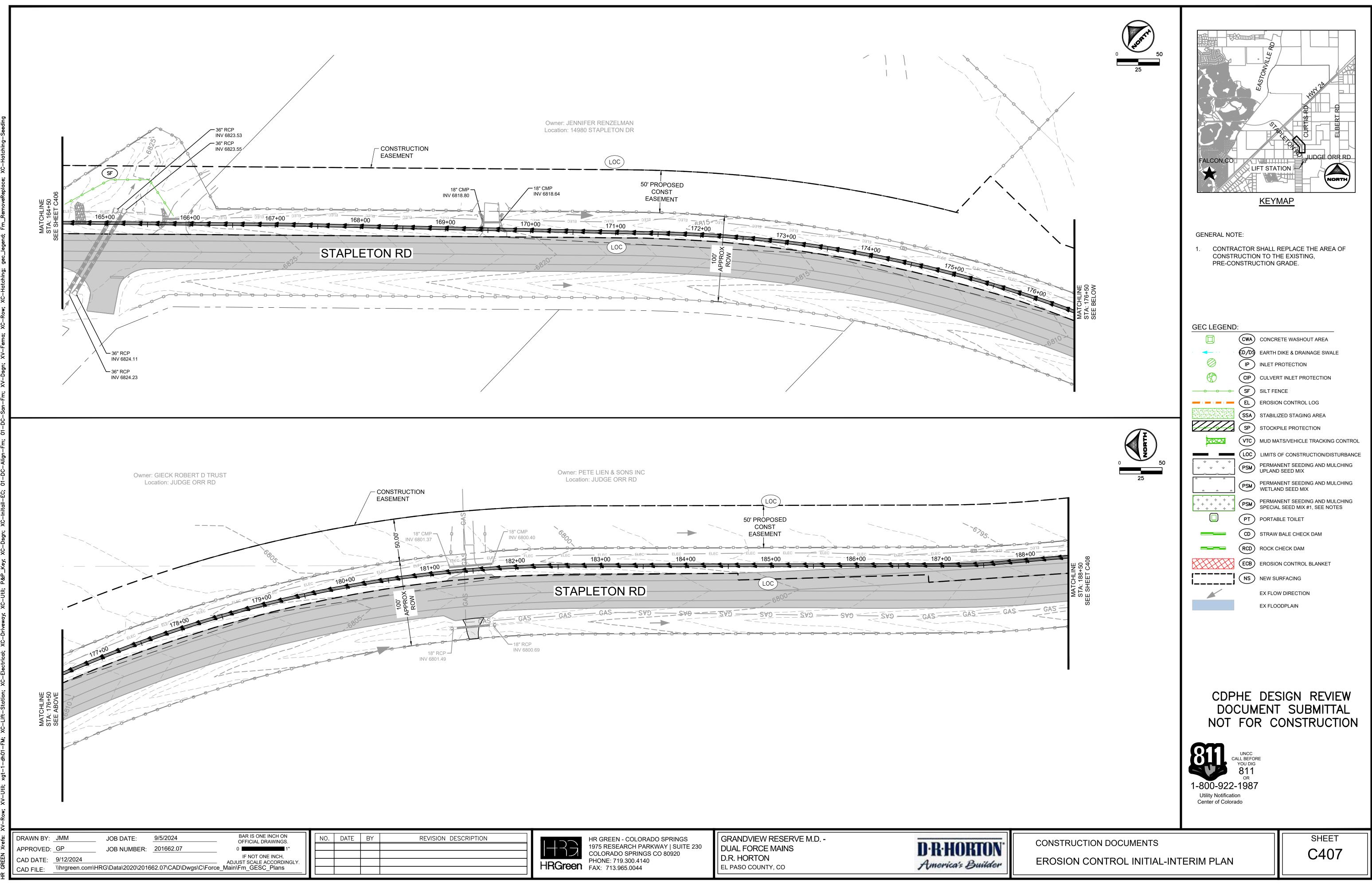




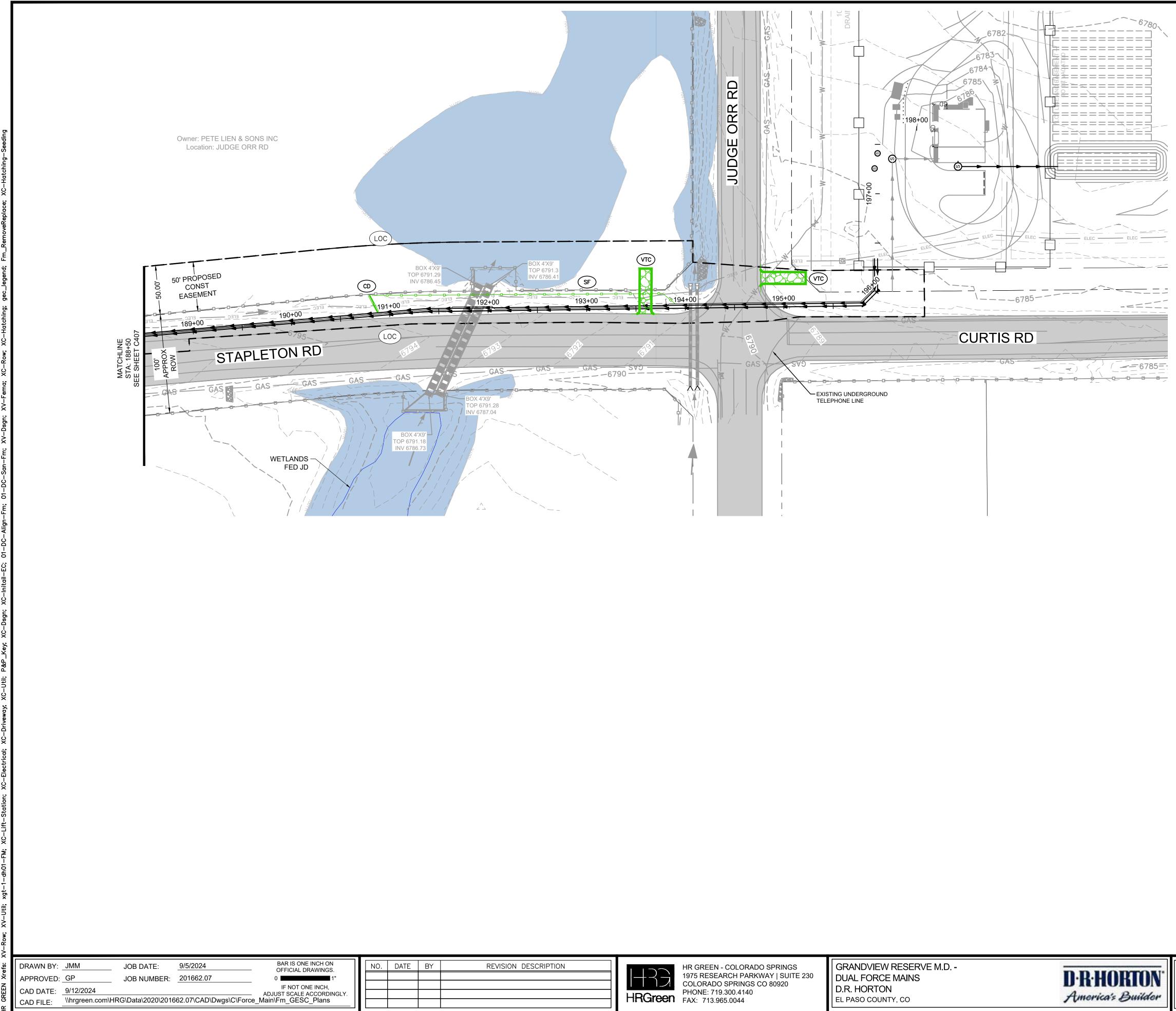


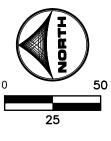


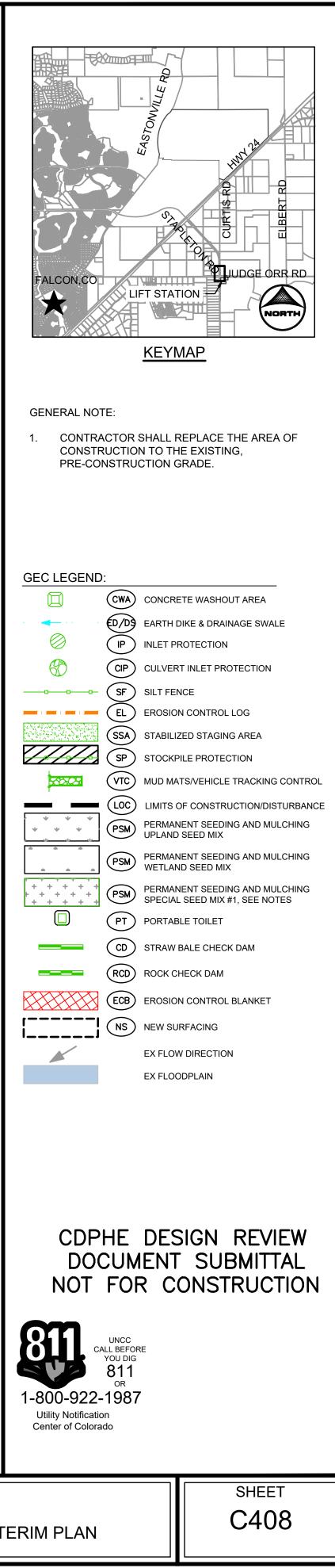




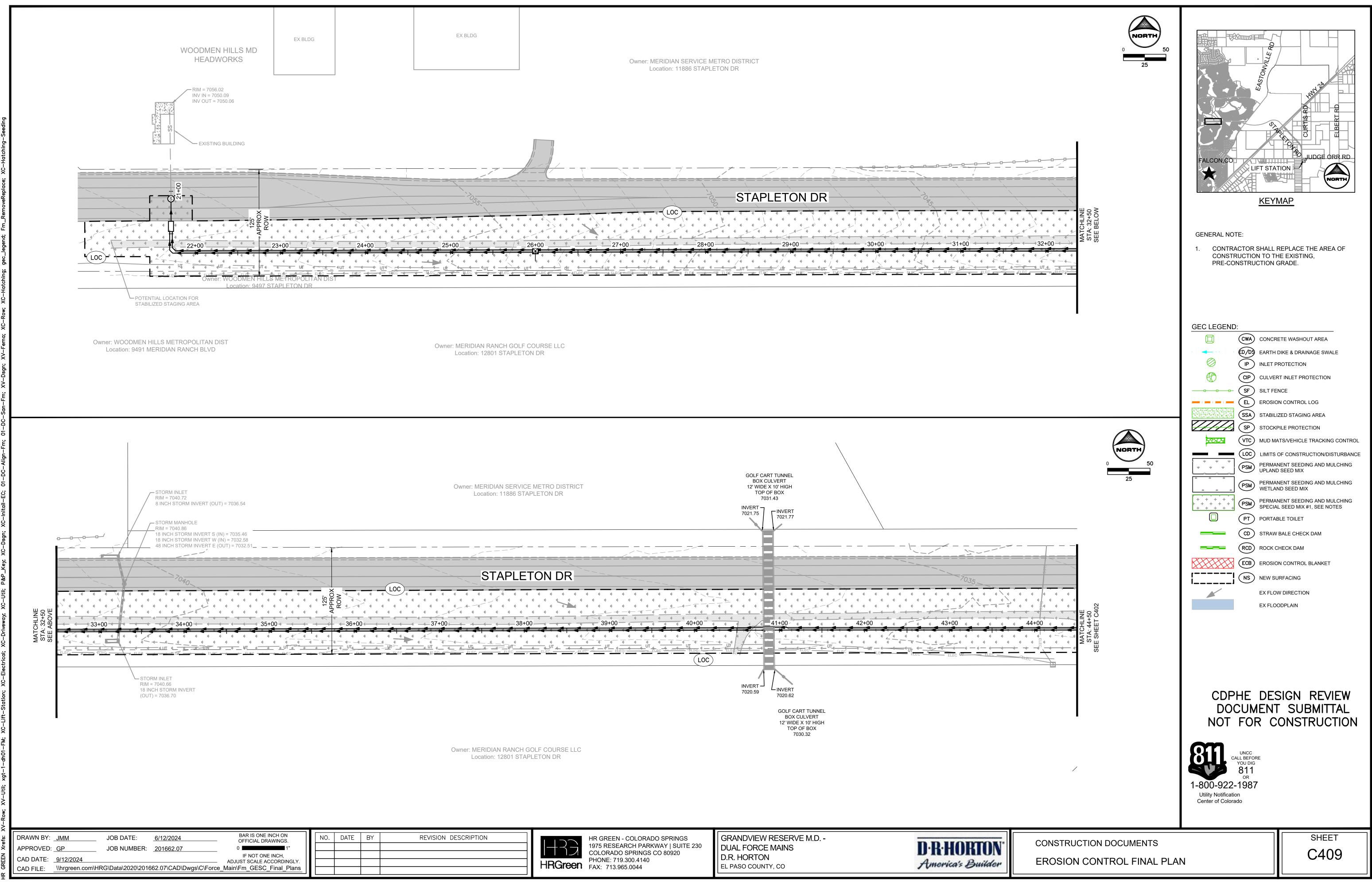
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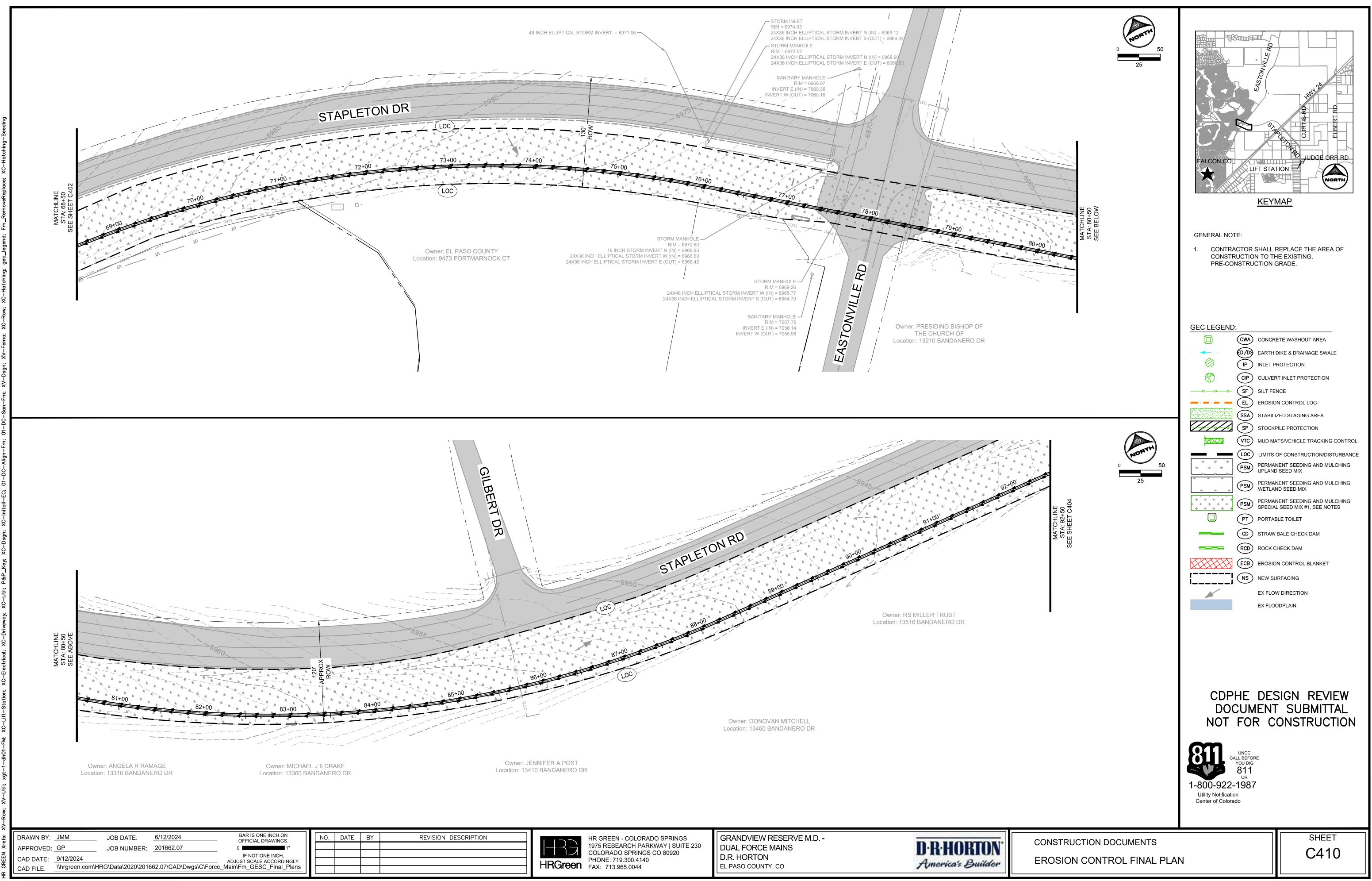


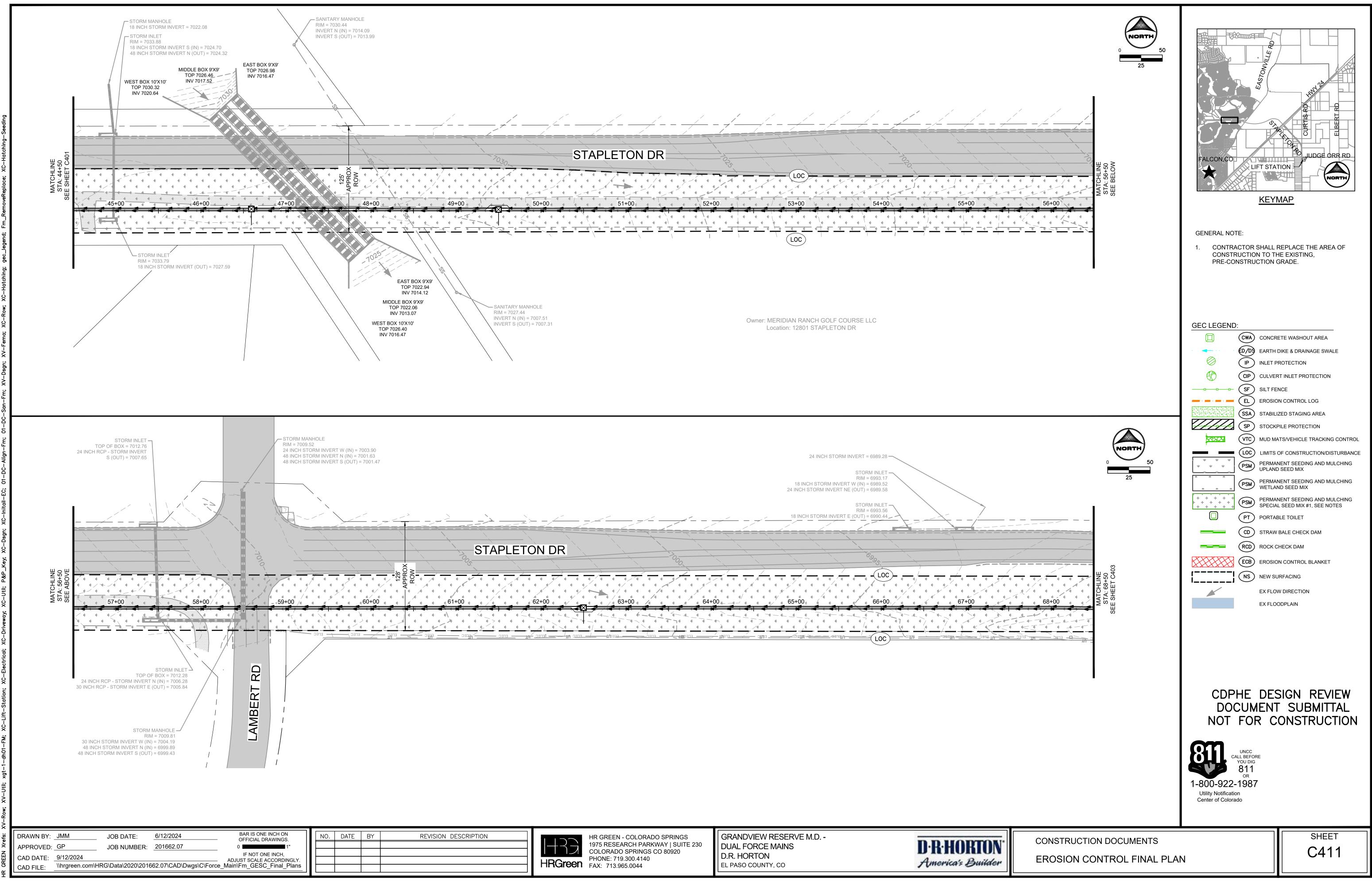


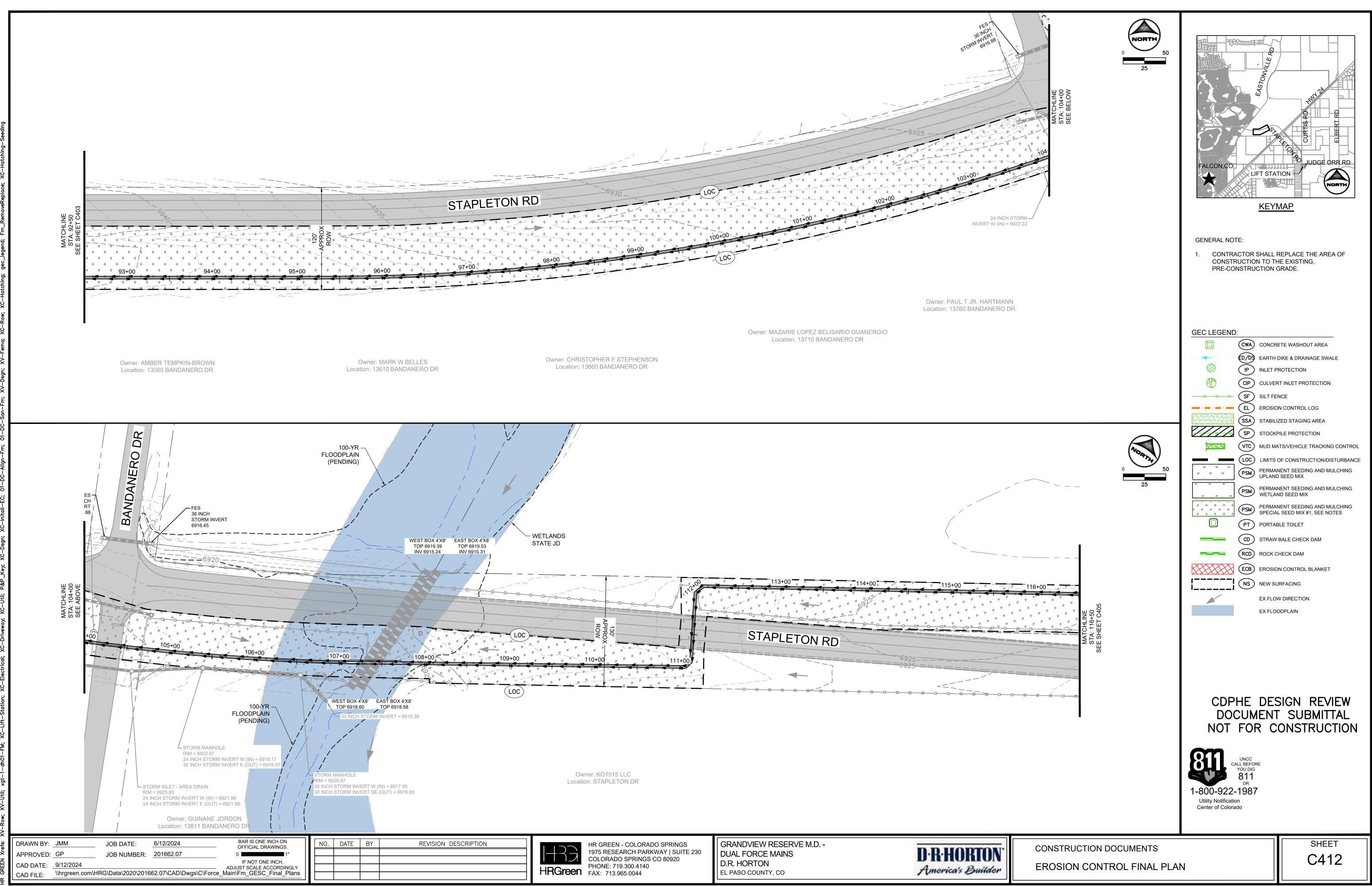


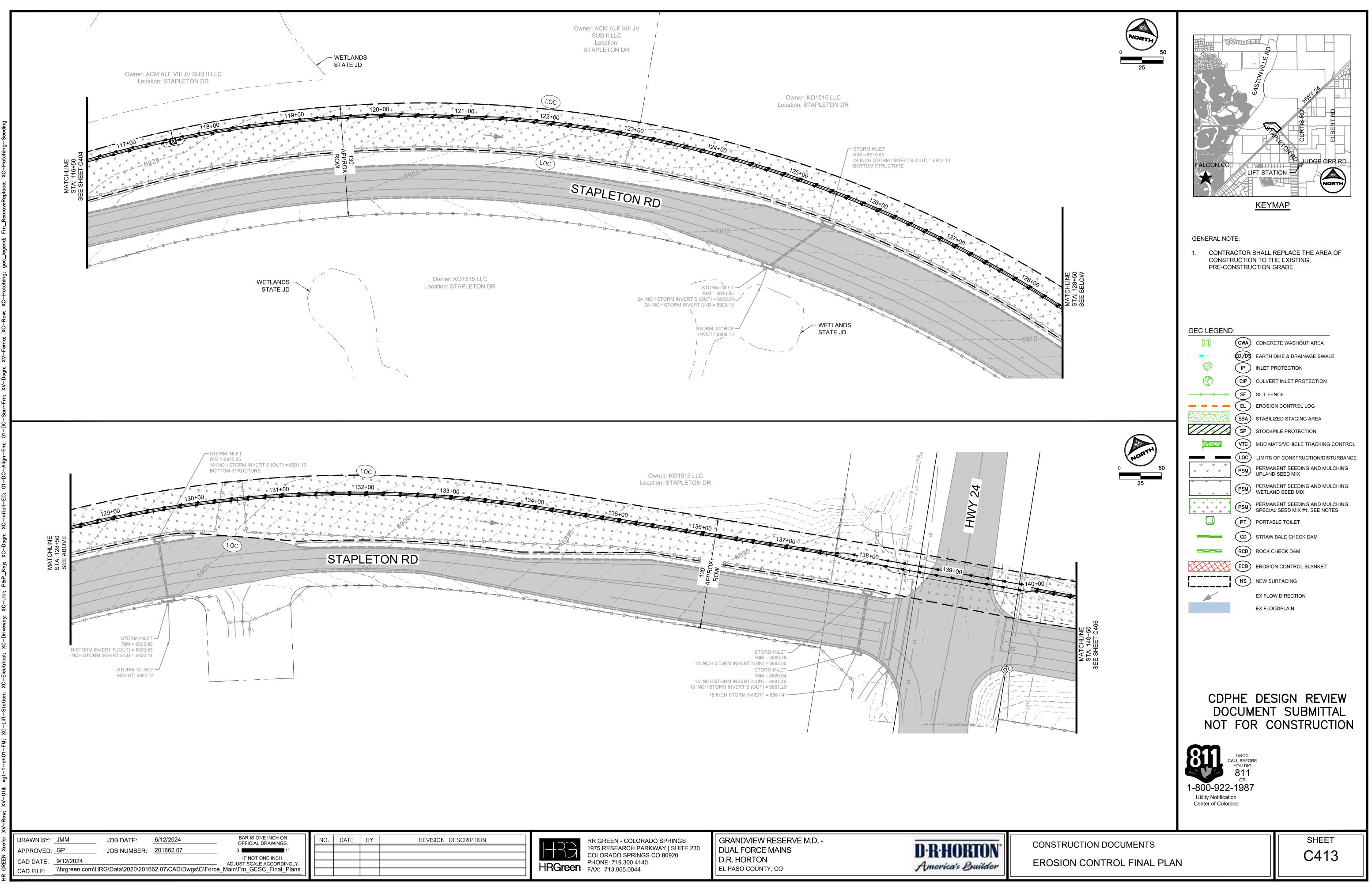
CONSTRUCTION DOCUMENTS EROSION CONTROL INITIAL-INTERIM PLAN

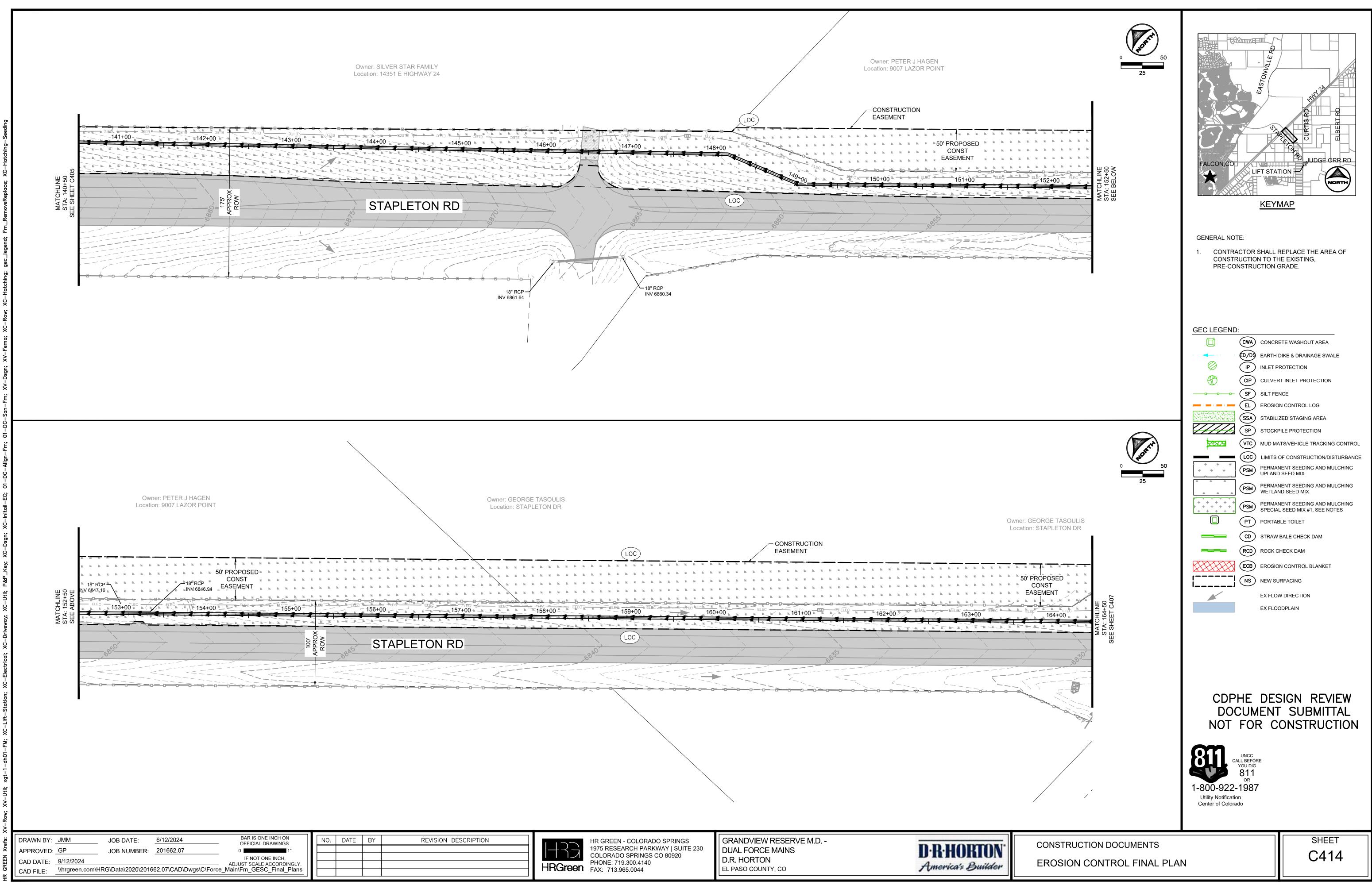


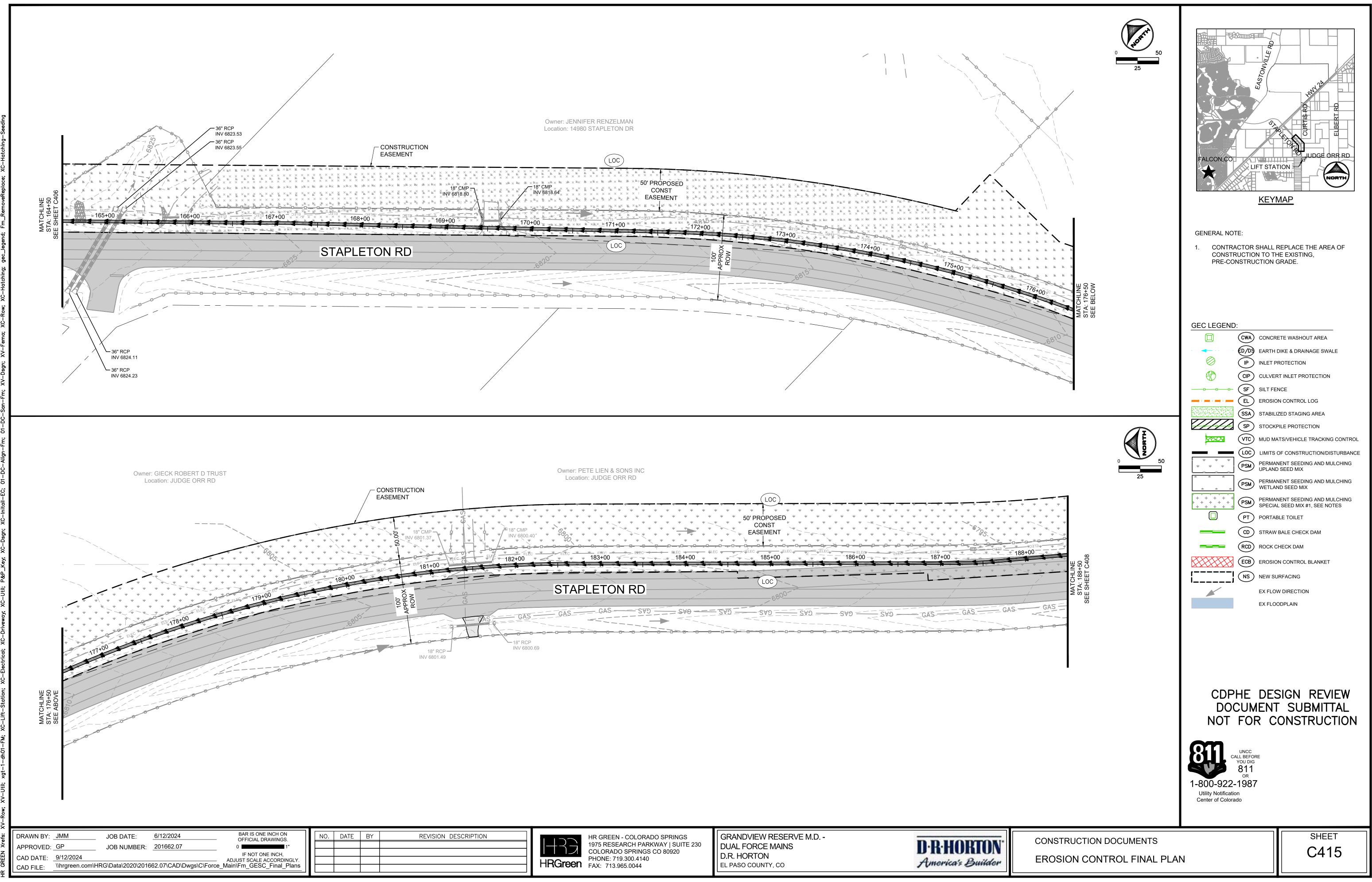




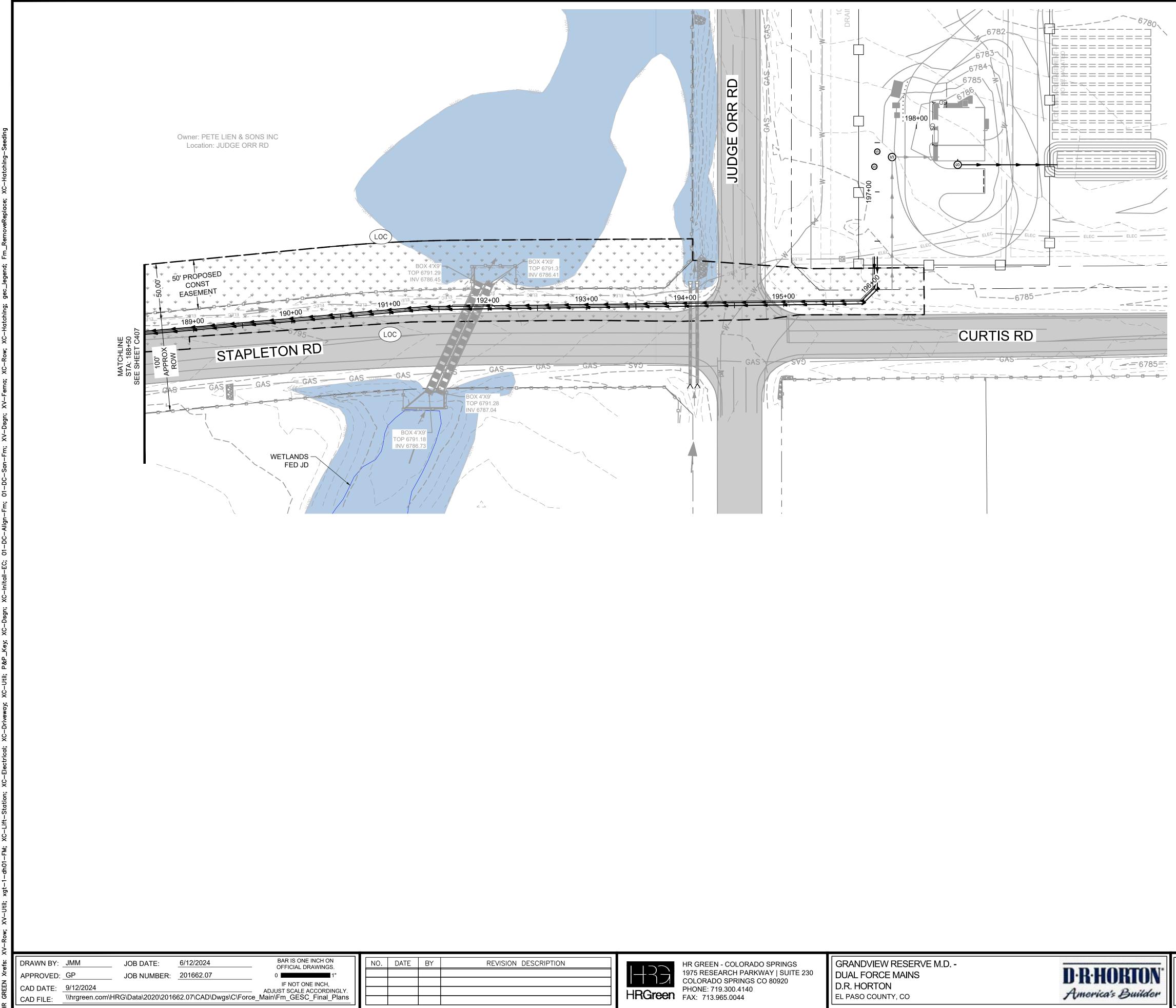


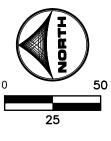


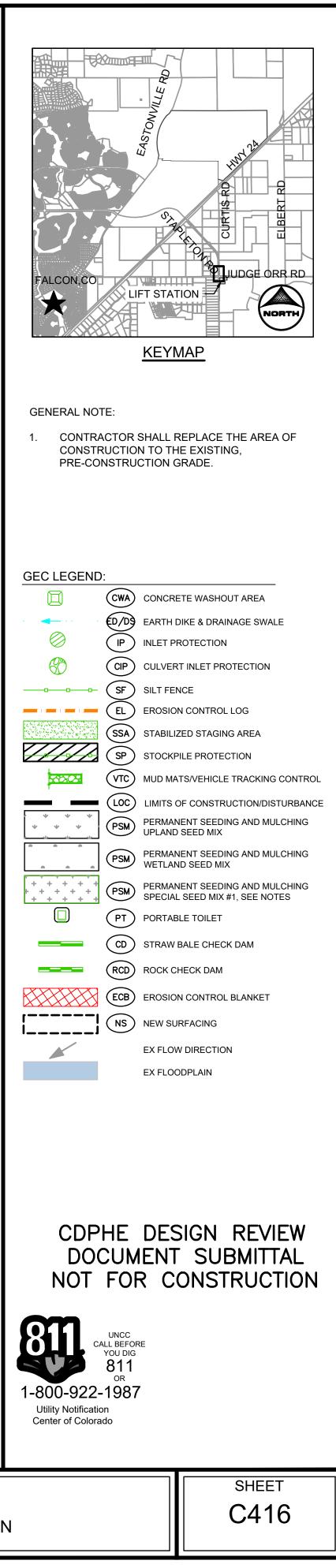




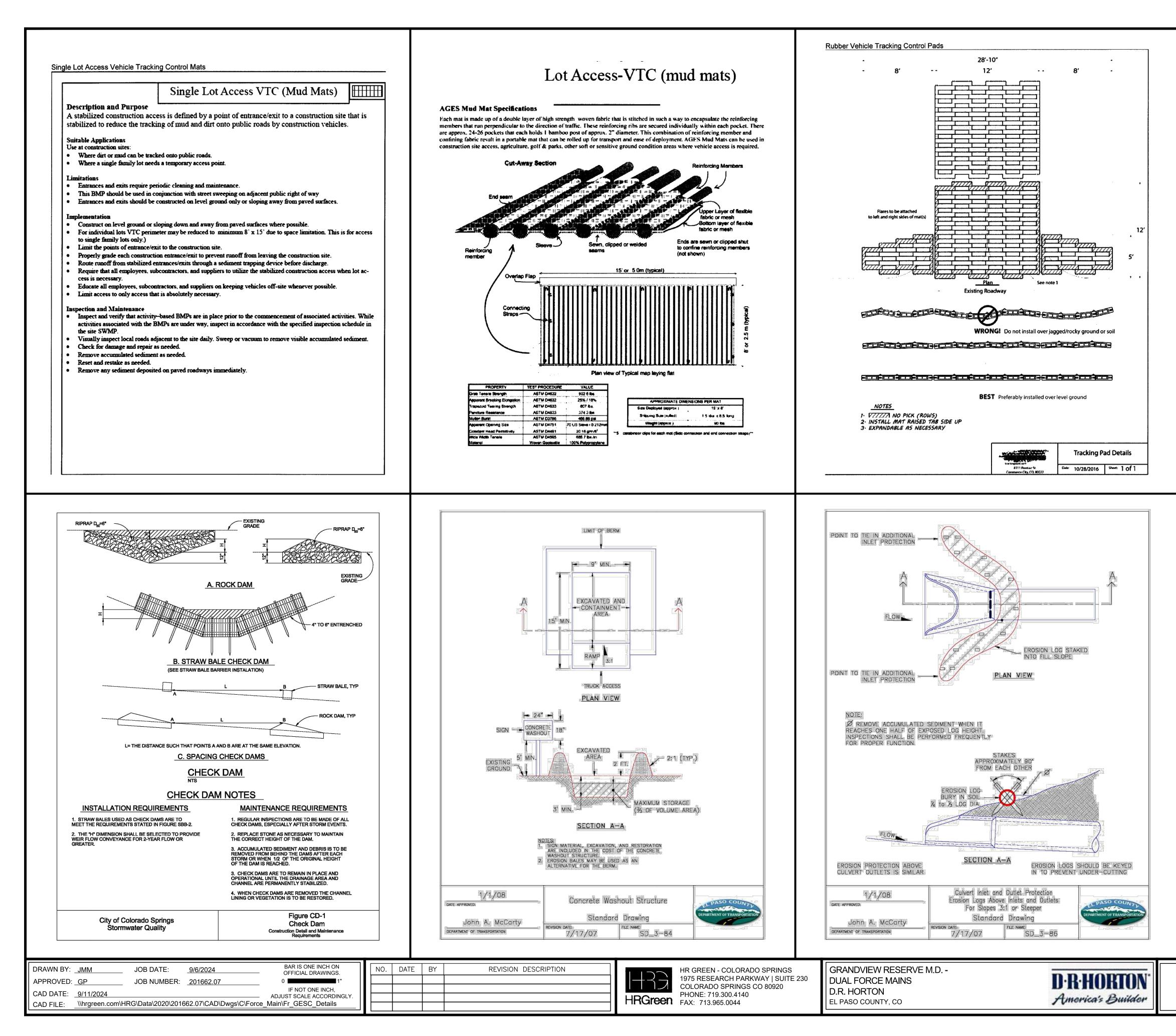
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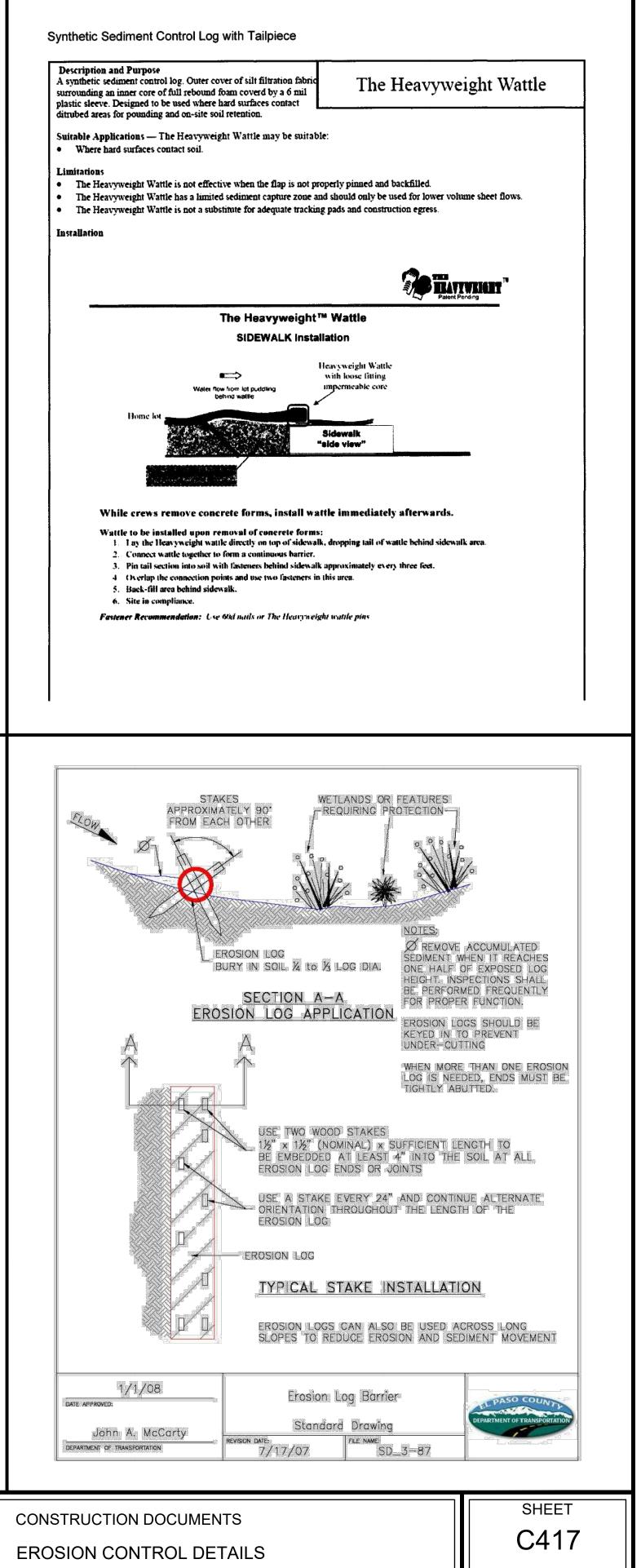


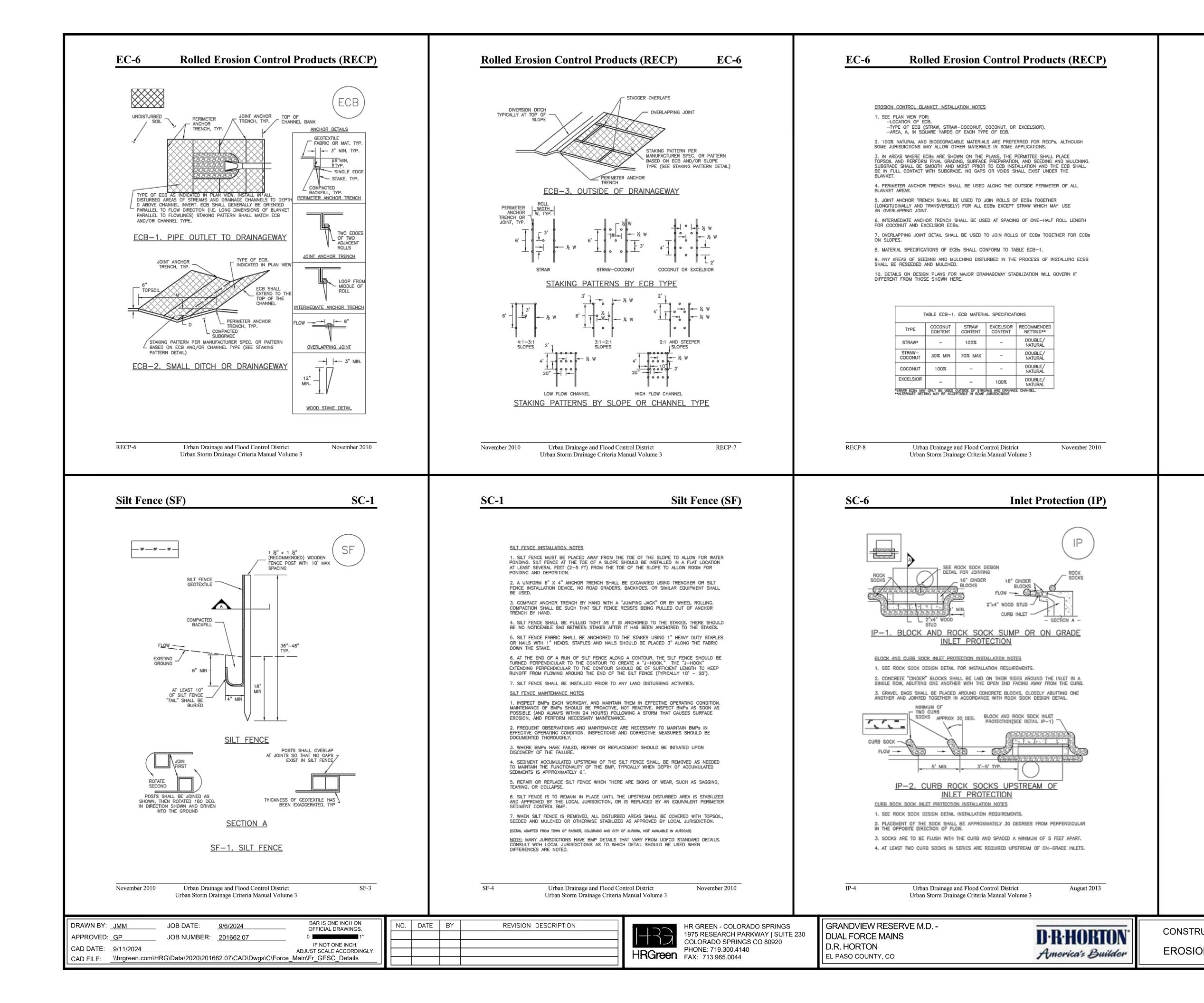




CONSTRUCTION DOCUMENTS EROSION CONTROL FINAL PLAN







Rolled Erosion Control Products (RECP)

EC-6

EROSION	CONTROL	BLANKET	MAINTENANCE	NOTES

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

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

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

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

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

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

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

November 2010

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

RECP-9

SC-6

Inlet Protection (IP)

	GENERAL INLET PROTECTION INSTALLATION NOTES			
	 SEE PLAN VIEW FOR: -LOCATION OF INLET PROTECTION. -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6) 			
	2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FINSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.			
	 MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WH DIFFERENCES ARE NOTED. 			
	INLET PROTECTION MAINTENANCE NOTES			
	1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs A POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES EROSION, AND PERFORM NECESSARY MAINTENANCE.	S SOON AS		
	2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BR EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHO DOCUMENTED THOROUGHLY.			
	3. WHERE ${\tt BMPs}$ have failed, repair or replacement should be initiated u discovery of the failure.	IPON		
	4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVE NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUMI 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ½ OF THE I STRAW BALES.	E REACHES		
	5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER INLET PROTECTION IN STREETS.			
	6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.			
	(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)			
	NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDA CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WH DIFFERENCES ARE NOTED.			
	NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, O METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE AR PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFOD NEITHER ENI DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFA BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED IN THE MANUFACTURER'S DETAILS.	E MANY DORSES NOR I CTURER MUST		
	NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALE PROTECTION, CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE IN PROTECTION IS ACCEPTABLE.			
IP-8	Urban Drainage and Flood Control District	August 2013		
	Urban Storm Drainage Criteria Manual Volume 3	1100000 2012		
	DOCUMENTS	SHEET		
JCTION DOCUMENTS		C418		
N CON	TROL DETAILS			

SM-3 Construction Fence (CF)	Construction Fence (CF) SM-3	Revegetation Chapter 13
Image: construction feaction CF Image: construction feaction CF	CONSTRUCTION FERCE MANTENANCE MOTES 1. INFERENT BINE SCALE BERNARTING AND MANTAIN THEM IN EFFECTIVE OPERATING CONDITION, MARTINE SCALE (MAD AUWYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CURSES SUBFACE EROSON, AND FERROM RECESSARY MANTENANCE. 2. FREQUENT OBSTRUCTIONS AND MANTENANCE ARE INCESSARY TO MANTAIN BINE IN EFFECTIVE OPERATION RECESSARY MANTENANCE. 3. WHERE BURN-HAVE CONDITION, INSPECTIONS AND CONCECTIVE MASSURES SUBFACE INSOURCE TO THE FALLARE. 4. CONSTRUCTION FERCE SHALL BE REPARED OR REPLACED WHEN THERE ARE STONS OF DAMAGE SUCH AS REPG OR BAGS. CONSTRUCTION FERCE IS TO REMAIN IN FLACE UNTIL THE UNSTRUCTION FERCE SHALL BE REPARED OR REPLACED WHEN THERE ARE STONS OF DAMAGE SUCH AS REPG OR BAGS. CONSTRUCTION FERCE IS TO REMAIN IN FLACE UNTIL THE UNSTRUCTION FERCES SHALL BE REPARED OR REPLACED WHEN THERE ARE STONS OF DAMAGE SUCH AS REPG OR REAS. CONSTRUCTION FERCE IS TO REMAIN IN FLACE UNTIL THE UNSTRUCTION FERCES AND REPORE REMOVED, ALL DISTURBED AREA ASSOCIATED WITH THE HISTILLATION, MANTENIACE, MARC REMOVAD, ALL DISTURBED AREA ASSOCIATED WITH THE HISTILLATION, MANTENIACE, AND DETAIL THAT YAMY FROM UNFOLD SET TO BE CONSULT WITH JOCAL JURGED TORS FOR BENED OR THERMES AND DETAILES. CONSULT WITH JOCAL JURGED TORS ARE TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE REVORED. (DELE MARY JURGED/ONS HAVE IND DETAIL THAT YAMY FROM UNFOLD SET MODADO DIFFERENCES ARE REVORED. (DELE MARY JURGED/ONS HAVE IND DETAIL THAT YAMY FROM UNFOLD SET MODADO DIFFERENCES ARE REVORED. (DELE MARY JURGED/ONS HAVE IND DETAIL THAT YAMY FROM UNFOLD SET MODADO DIFFERENCES ARE REVORED. (DELE MARY JURGED/ONS HAVE IND DETAIL THAT YAMY FROM UNFOLD SET MODADO DIFFERENCES ARE REVORED.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND CF-2 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3 November 2010 Revegetation Chapter 13 Wetland Native Seed Mixes	November 2010 Urban Drainage and Flood Control District CF-3 Urban Storm Drainage Criteria Manual Volume 3	Tansy aster tanacetifolia TOTAL PLS POUNDS/ACRE 100 'PLS = Pure Live Seed – If broadcast seeding, double the rate 13-66 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 2
Table A-8. Wethand seed mix – loamy to sandy soils(Recommended for detention ponds and less eroding wethand areas.) $\overline{Vommon Name}$ Scientific NameGrowth Season% FormWethand Indicator*Lb/ac (PLS') $\overline{Merican Sloughgrass}$ Beckmannia syzigachneCoolSod15OBL0.8Prairie cordgrassSpartina pectinataWarmSod/Buch15FACW4.6SwitchgrassPancinum virgatumWarmSod/Buch15FACU5.5Fowl mannagrassGlyceria striataCoolSod10OBL3.3Hardstem bulrushScirpus acutus10OBL1.61.6Baltic rushJuncus balticus10OBL1.61.0Creeping spikerushEleocharis palustris10OBL0.11.0Utatal's sunflowerHelianthus mutalliti2.5FACW0.11.0Nutal's sunflowerHelianthus mutalliti2.5FACW0.51.0Total PLS POUNDS/ACRE10019.81.91.91.9Labe A-9. Wethan seed mix – Clay and alkali soils(Recommended for detention ponds and wetland areas)		
Common NameScientific NameGrowth SeasonGrowth Form $\frac{9}{Mix}$ Wetland Indicator* $Lb/ac(PLS')$ Grasses and Herbaccous SpeciesAlkali sacatonSporobolus airoidesWarmBunch10FAC0.4Inland saltgrassDistichlis spicataWarmSod10FACW1.2Nuttall's alkaligrassDistichlis spicataWarmSod10FACW1.2Nuttall's alkaligrassDistichlis spicataWarmSod10FACW3.0Slender wheatgrassSpartina pectinataWarmSod10FACU3.8Western wheatgrassPascopyrum smithiiCoolSod10FACU5.5Fowl managrassGlyceria striataCoolSod10OBL3.3Hardstem bulrushScirpus acutus10OBL1.6Baltic rushJuncus balticus10OBL1.0TOTAL PLS POUNDS/ACRE20.120.1'PLS = Pure Live Seed - If broadcast seeding, double the rateNote:Widflowers species not recommended for clay or alkali soils.Wetand Indicator Key for Tables A-8 and A-9!FAC =Facultative - Equally occurs in both wetlands and uplands.FACU = Facultative Upland - Occurs mostly in wetlands, but can occur in wetlands about 1/3 of the time.FAC =Facultative Wetlands - Occurs mostly in wetlands, but can occur in uplands about 1/3 of the time.FAC =Obligate Wetlands - Almost always occurs in wetlands.UPL =Uplands		
Urban Storm Drainage Criteria Manual Volume 2 DRAWN BY: JMM JOB DATE: 9/6/2024 BAR IS ONE INCH ON OFFICIAL DRAWINGS. APPROVED: GP JOB NUMBER: 201662.07 0 1"	NO. DATE BY REVISION DESCRIPTION HR GREEN - COLORADO SPRING 1975 RESEARCH PARKWAY SUIT COLORADO SPRINGS CO 80920	S TE 230 GRANDVIEW RESERVE M.D DUAL FORCE MAINS
CAD DATE: 9/11/2024 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. CAD FILE: \\hrgreen.com\HRG\Data\2020\201662.07\CAD\Dwgs\C\Force_Main\Fr_GESC_Details	HRGreen PHONE: 719.300.4140 FAX: 713.965.0044 FAX: 713.965.0044	DUAL FORCE MAINS D.R. HORTON EL PASO COUNTY, CO

Chapter 13

Revegetation

Table A-3. Upland/transitional area seed mix – alkali soil

Common Name	Scientific Name	Growth Season	Growth Form	% Mix	Lb/ac (PLS ¹)
Blue grama	Bouteloua gracilis	Warm	Sod	20	1.5
Sideoats grama	Bouteloua curtipendula	Warm	Sod	15	4.7
Slender wheatgrass	Elymus trachycaulus	Cool	Bunch	15	5.7
Alkali sacaton	Sporobolus airoides	Warm	Sod/Bunch	15	0.5
Inland saltgrass	Distichlis spicata	Warm	Sod	15	1.7
Western wheatgrass	Pascopyrum smithii	Cool	Sod	10	5.5
Sand dropseed	Sporobolus cryptandrus	Warm	Bunch	10	0.1
TOTAL PLS POUNDS/ACRE				100	19.7

 1 PLS = Pure Live Seed – If broadcast seeding, double the rate

January 2016

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CONSTRUCTION DOCUMENTS
EROSION CONTROL DETAILS