

GRANDVIEW RESERVE DISTRICT WATER TREATMENT PLANT CONSTRUCTION DOCUMENTS

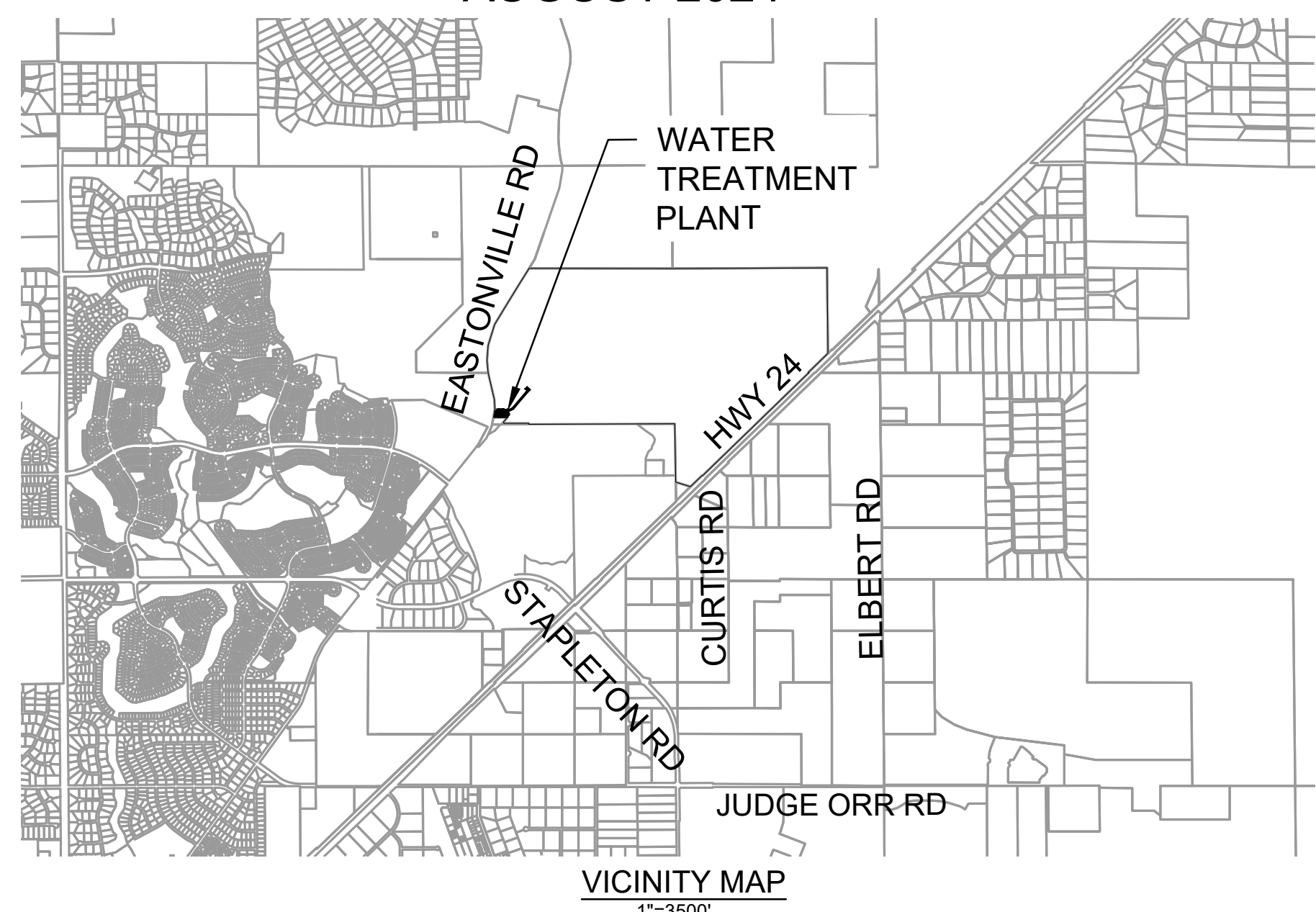
COUNTY OF EL PASO, STATE OF COLORADO

GRADING AND EROSION CONTROL PLAN

AUGUST 2024

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.
- 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 CONTRACTOR'S 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 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 POT-HOLING 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.
- 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.
- CONTRACTOR TO MAINTAIN A MAXIMUM CONSTRUCTION EASEMENT 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 (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO 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.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL EQUIVALENT AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR DISTURBED 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.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF CONSTRUCTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOADED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER, 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.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING 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, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK 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 STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- 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 ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- 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, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON DATED MARCH 14, 2022 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION, THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WOOD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT
- SEND MUD MAT SPECIFICATION TO MIKAYLA.HARTFORD@ELPASO.COM TO ENSURE MUD MAT USE IS ACCEPTABLE IN EL PASO COUNTY.
- 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

VICINITY MAP
1"=3500'
VERTICAL DATUM: NAVD88

BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED ACCORDINGLY, PLS 30067, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED ACCORDINGLY, PLS 30067, BEING ASSUMED TO BEAR N00°52'26"W, A DISTANCE OF 5290.17 FEET.

SHEET INDEX	SHEET NO.
CIVIL LEGENDS	C100
SITE GRADING PLAN	C104
INITIAL EROSION CONTROL	C116
INITIAL EROSION CONTROL	C117
FINAL EROSION CONTROL	C118
FINAL EROSION CONTROL	C119
CIVIL DETAILS	C500
CIVIL DETAILS	C501

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY DSD.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. (IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.)
- 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 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
8555 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) 633-2888
ATTN: JEFFREY C. HODSON, P.E.
EMAIL: LSC@LSCSTRANS.COM

SURVEYOR
EDWARD-JAMES SURVEYING, INC.
926 ELKTON DRIVE
COLORADO SPRINGS, CO 80907
TELE: (719) 576-1216
ATTN: JONATHAN W. TESSIN
EMAIL: JTSSIN@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: PAULFINITY1@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

APPROVALS:

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

ENGINEER OF RECORD SIGNATURE _____ 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 PLAN.

OWNER'S SIGNATURE _____ 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.

COUNTY PROJECT ENGINEER SIGNATURE _____ DATE _____

DRAWN BY: WML JOB DATE: 2022 BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: MNJ JOB NUMBER: 201662.06
CAD DATE: 8/12/2024 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.06\CAD\Drawings\ElPaso county_WTP_Cover_GESC

NO.	DATE	BY	REVISION DESCRIPTION



GRANDVIEW RESERVE
D.R. HORTON, CO
EL PASO COUNTY, COLORADO

EROSION AND GRADING CONTROL PLANS
COVER SHEET

SHEET NO.
TS1 01

LEGEND

	EXISTING	PROPOSED
MATCH LINE	---	---
PHASE LINE	---	---
SECTION LINE	---	---
PROPERTY LINE	---	---
EASEMENT LINE	---	---
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	---	---
EDGE OF WETLANDS	---	---
DRAINAGE		
DRAINAGE BASIN	---	---
BASIN TAG		I.D. AREA
DESIGN POINT		▲

	EXISTING	PROPOSED
STORM SEWER		
MANHOLE	⊕	⊕
STORM INLET	⊕	⊕
FLARED END SECTION	⊕	⊕
RIPRAP	⊕	⊕
SANITARY SEWER		
CLEAN OUT	⊕	⊕
MANHOLE	⊕	⊕
PLUG	⊕	⊕
WATER		
FIRE HYDRANT	⊕	⊕
FIRE DEPT. CONNECTION	⊕	⊕
GATE VALVE	⊕	⊕
MANHOLE	⊕	⊕
METER	⊕	⊕
TEE	⊕	⊕
REDUCER	⊕	⊕
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	⊕	⊕
BOLLARD	⊕	⊕
ACCESSIBLE PARKING	⊕	⊕

BMP LEGEND:

⊕	CWA	CONCRETE WASHOUT AREA
---	CF	CONSTRUCTION FENCE
---	DD	DIVERSION DITCH
⊕	IP	INLET PROTECTION
⊕	OP	OUTLET PROTECTION
---	SF	SILT FENCE
---	VTC	VEHICLE TRACKING CONTROL
---	SSA	STABILIZED STAGING AREA
---	LOC	LIMITS OF CONSTRUCTION /DISTURBANCE
---	CD	CHECK DAM
---	SM	SEEDING AND MULCHING
⊕	SB	SEDIMENT BASIN
---	SR	SURFACE ROUGHENING
---	ECB	EROSION CONTROL BLANKET
⊕	CIP	CULVERT INLET PROTECTION
---	RS	ROCK SOCK
---	SBB	STRAW BALE BARRIER

Xref: xref-1-dh01: Legend: Erosion_Control_Key

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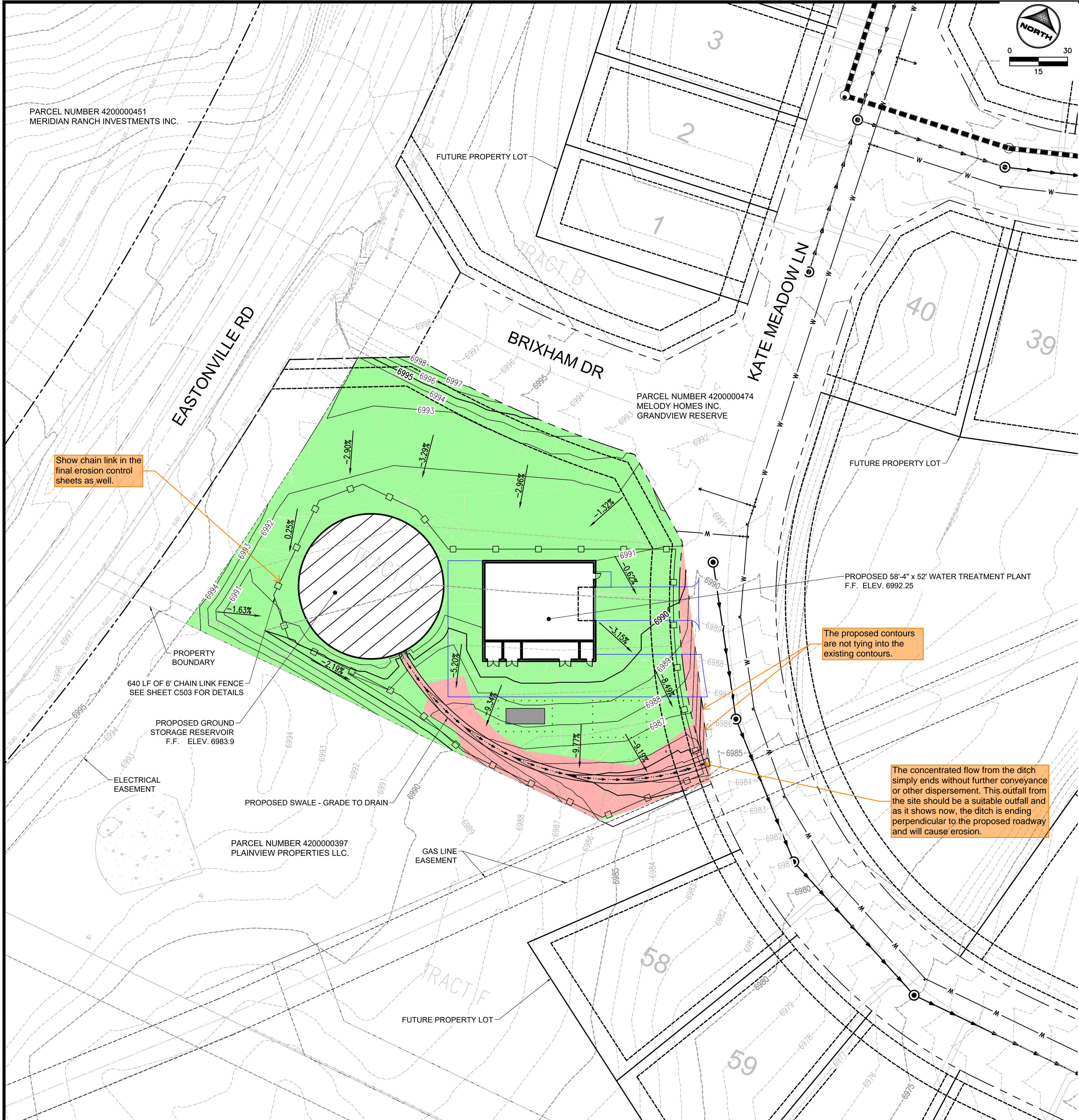
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CIVIL
CIVIL LEGENDS

SHEET
C100

xrefs: xgl-1-d101: xc--design; DWP KEY, Grading_Key, xc--design--grad; xc--util-F1--662.10; xc--row-F1--662.10; xc--dsgn-F1--662.10; xc--row-F1--662.10; xv--util--662; xv--row--662; xc--row--662; xc--dsgn--662.06_Eastonville_Seg_1; xc--design--util



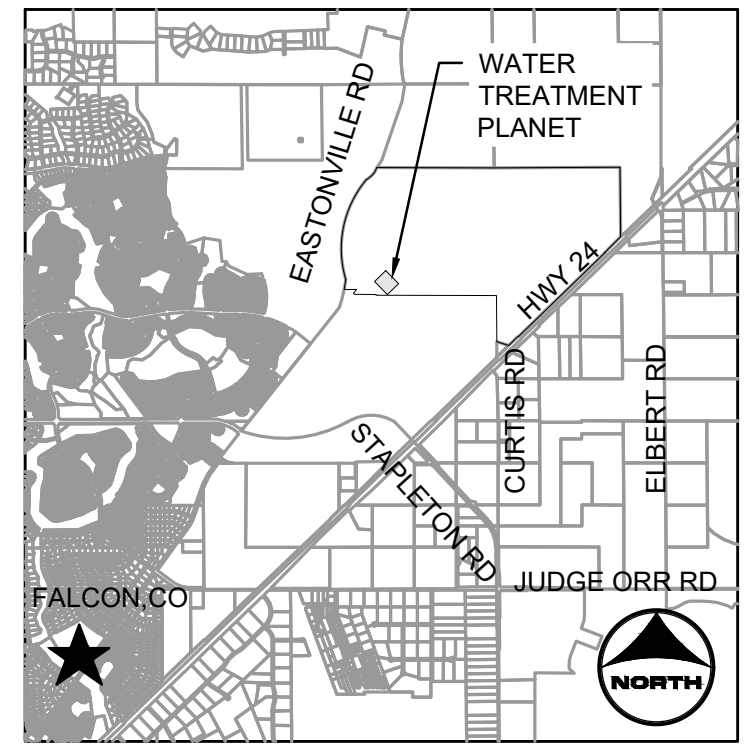
GENERAL NOTES:

(GENERAL NOTES CONTAIN EXCERPTS FROM THE GEOTECHNICAL REPORT THAT ARE IN NO WAY MEANT TO RELIEVE CONTRACTOR FROM INFORMATION CONTAINED IN THE GEOTECHNICAL REPORT.)

- 1. REFER TO SHEET S.000 FOR ADDITIONAL GEOTECHNICAL REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH SPECIFICATION SECTION 31 5000 FOR SUPPORTS AND PROTECTION.
3. CONTRACTOR SHALL COMPLY WITH TECHNICAL SPECIFICATIONS AND WOODMENHILLS METROPOLITAN DISTRICT WATER AND WASTEWATER STANDARD SPECIFICATIONS FOR DEWATERING, GRADING, EXCAVATION, FILL AND BACKFILL, AND TRENCHING. SEE GEOTECHNICAL INVESTIGATION REPORT FOR EARTHWORK RECOMMENDATIONS.
4. WATER LEVELS WERE OBSERVED WITHIN THE DEPTHS OF PLANNED EXCAVATION FOR THE PROPOSED STRUCTURES. DEWATERING WILL BE REQUIRED WHERE SEEPAGE IS ENCOUNTERED.
5. IN AREAS TO ACCEPT FILL, THE TOP 12 INCHES OF THE GROUND SURFACE SHALL BE SCARIFIED AND COMPACTED TO ELIMINATE A PLANE OF WEAKNESS ALONG THE CONTACT SURFACE.
6. GENERAL FILL MATERIAL TO COMPLY WITH WOODMENHILLS METROPOLITAN DISTRICT WATER AND WASTEWATER STANDARD SPECIFICATIONS AND SHALL BE FREE OF FOREIGN SUBSTANCE, DEBRIS, LARGE STONES, ROCKS, ROOTS, ORGANIC OR FROZEN MATERIAL, EXPANSIVE MATERIAL AND OTHER DELETERIOUS MATERIALS.
7. FILL SHALL NOT BE FROZEN AND SHALL NOT BE PLACED ON A FROZEN SURFACE. ALL COHESIVE SOILS USED AS FILL AT THIS SITE SHALL HAVE A MAXIMUM LIQUID LIMIT OF 45 AND A MAXIMUM PLASTICITY INDEX OF 20.
8. ENSURE THAT PREVIOUSLY COMPACTED LIFTS ARE SCARIFIED 2 INCHES DEEP PRIOR TO COMPACTING THE NEXT LIFT.
9. REMOVE, STOCKPILE, AND REPLACE NATIVE MATERIAL 8 INCHES (TOP SOIL) BELOW EXISTING SURFACE FOR ALL AREAS DISTURBED (NOT SURFACED WITH GRAVEL, RIPRAP, OR OTHER DESIGNATED MATERIALS) WITHIN THE LIMITS OF CONSTRUCTION.
10. SITE GRADING SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES AND FOUNDATIONS UNLESS NOTED OTHERWISE.
11. FENCING SHALL COMPLY WITH SPECIFICATION SECTION 32 3119. SEE TYPICAL DETAILS.

SITE DATA:

- PARCEL: 4200000474
• PROPERTY ADDRESS: PLAT #SF2311 TRACT C
• EXISTING ZONING: PUD, RR-2.5
• PARCEL SIZE: 176.7 ACRES
• LEGAL DESCRIPTION: A TRACT OF LAND BEING IN THE SOUTHWEST QUARTER OF SECTION 21, AND A PORTION OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, COLORADO
• EXISTING LAND USE IS UNDEVELOPED/NATURAL CONDITIONS
• WATER TREATMENT PLANT LOT AREA: 1.04 ACRES
• BUILDING: 3033 SF (7451 SF WITH TANK)
• PARKING WILL BE FOR MAINTENANCE ONLY
OPEN SPACE/LANDSCAPING - 73.1%
IMPERMEABLE SURFACE - 26.1%



PROJECT LEGEND: PROPERTY LINE, RIGHT-OF-WAY LINE, SECTION LINE, EDGE OF PAVEMENT, EXISTING FENCE, PROPOSED SANITARY MANHOLE, EXISTING MAJOR CONTOUR, EXISTING MINOR CONTOUR, PROPOSED MAJOR CONTOUR, PROPOSED ELECT. EQUIPMENT, PROPOSED DRIVEWAY, LIMITS OF CONSTRUCTION, CUT AREA, FILL AREA



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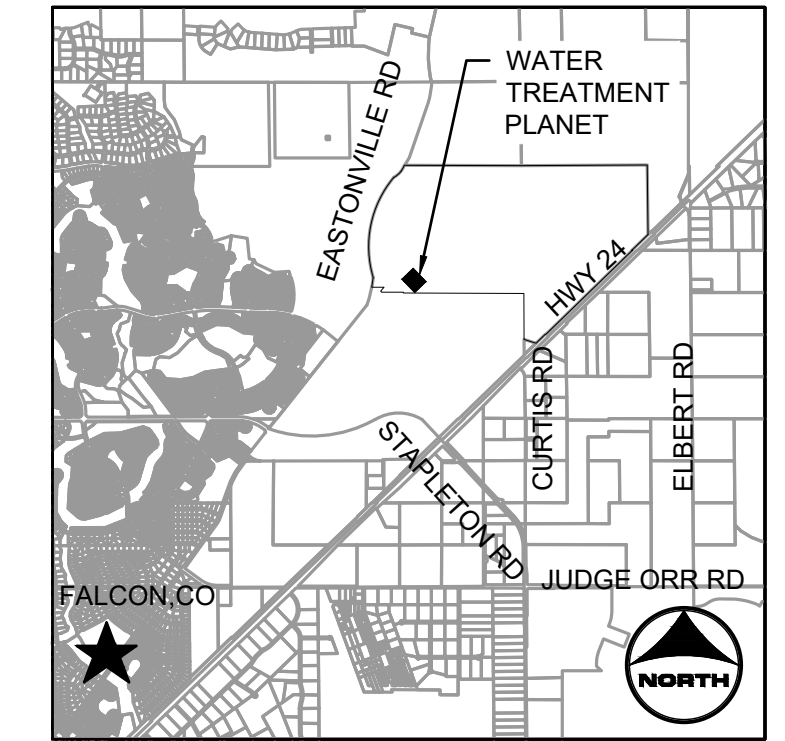
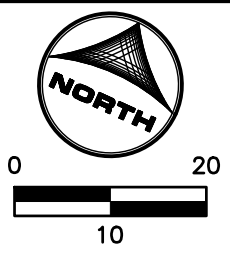
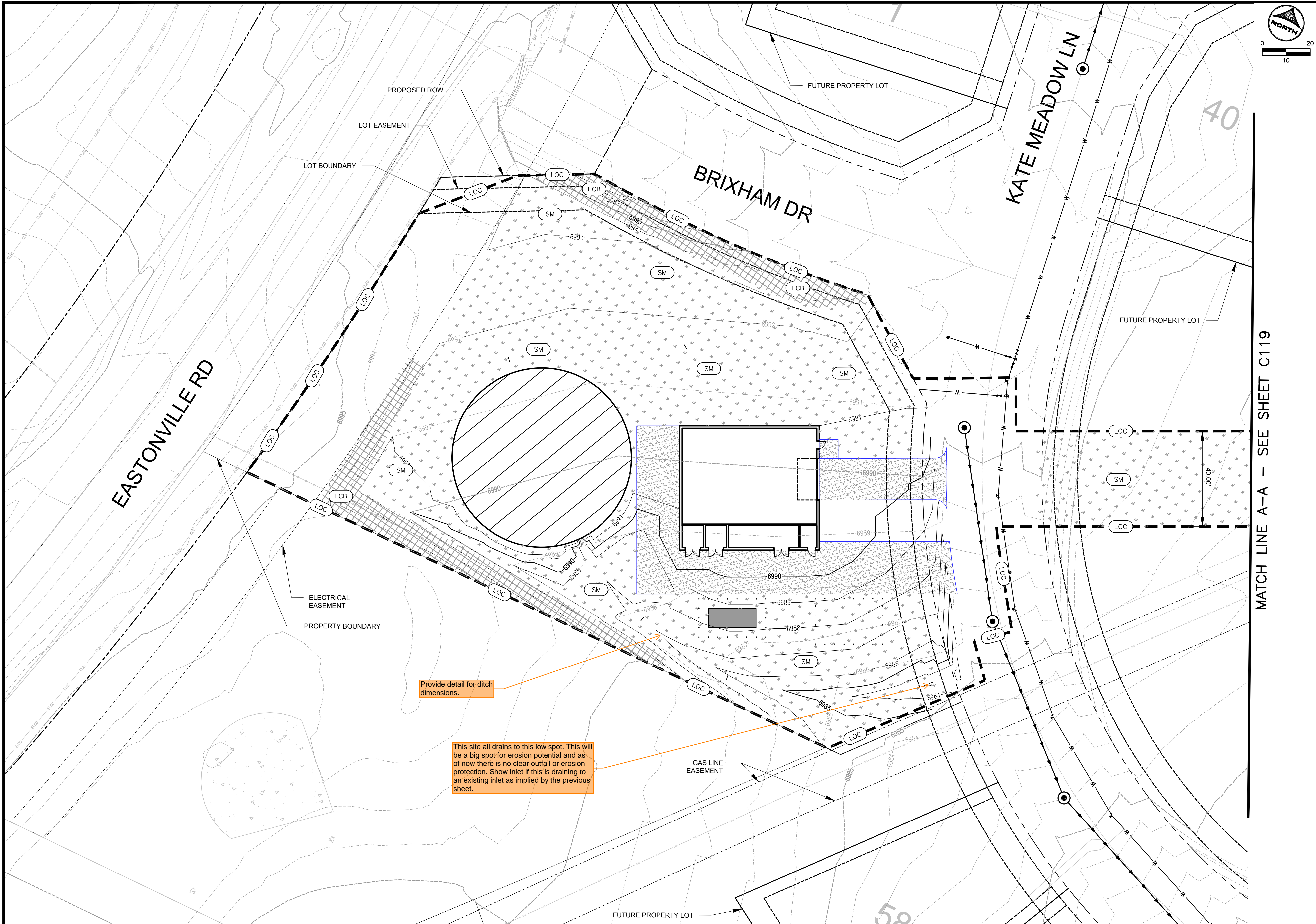
HRGreen logo and contact information: HR GREEN - COLORADO SPRINGS 1975 RESEARCH PARKWAY | SUITE 230 COLORADO SPRINGS CO 80920

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CIVIL SITE GRADING PLAN

SHEET C104

Xrefs: xgt-1-dh01; xc-design; OUP; Key; Erosion_Control_Key; Grading_Key; xv-uti_662; xv-row_662; xv-dsgn_662; xc-dsgn-F1-662.10; xc-uti-F1-662.10; xc-row-F1-662.10; xc-dsgn-662.08_Eastonville_Seg_1; xc-initia-ec; xc-final-ec



- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - - - SECTION LINE
 - - - EDGE OF PAVEMENT
 - - - EXISTING FENCE
 - ⊙ PROPOSED SANITARY MANHOLE
 - - - 5250 EXISTING MAJOR CONTOUR
 - - - 5250 EXISTING MINOR CONTOUR
 - - - 5250 PROPOSED MAJOR CONTOUR
 - ▨ PROPOSED ELECT. EQUIPMENT
 - ▨ PROPOSED DRIVEWAY
 - ▨ PROPOSED CHEMICAL TANK
- GENERAL NOTES:**
- SEE LANDSCAPING PLAN ON C115 FOR SEEDING REQUIREMENTS.
 - SEE SHEET G007 FOR EROSION CONTROL NOTES.
 - REFER TO GRANDVIEW RESERVE FILING NO. 1 FOR EROSION CONTROL FOR SEGMENT OF PROJECT COVERED BY THIS SHEET.

- BMP LEGEND:**
- CWA CONCRETE WASHOUT AREA
 - CF CONSTRUCTION FENCE
 - DD DIVERSION DITCH
 - IP INLET PROTECTION
 - OP OUTLET PROTECTION
 - SF SILT FENCE
 - ▨ VTC VEHICLE TRACKING CONTROL
 - ▨ SSA STABILIZED STAGING AREA
 - - - LOC LIMITS OF CONSTRUCTION /DISTURBANCE
 - CD CHECK DAM
 - SM SEEDING AND MULCHING
 - SB SEDIMENT BASIN
 - SR SURFACE ROUGHENING
 - ▨ ECB EROSION CONTROL BLANKET
 - CIP CULVERT INLET PROTECTION
 - RS ROCK SOCK
 - SBB STRAW BALE BARRIER



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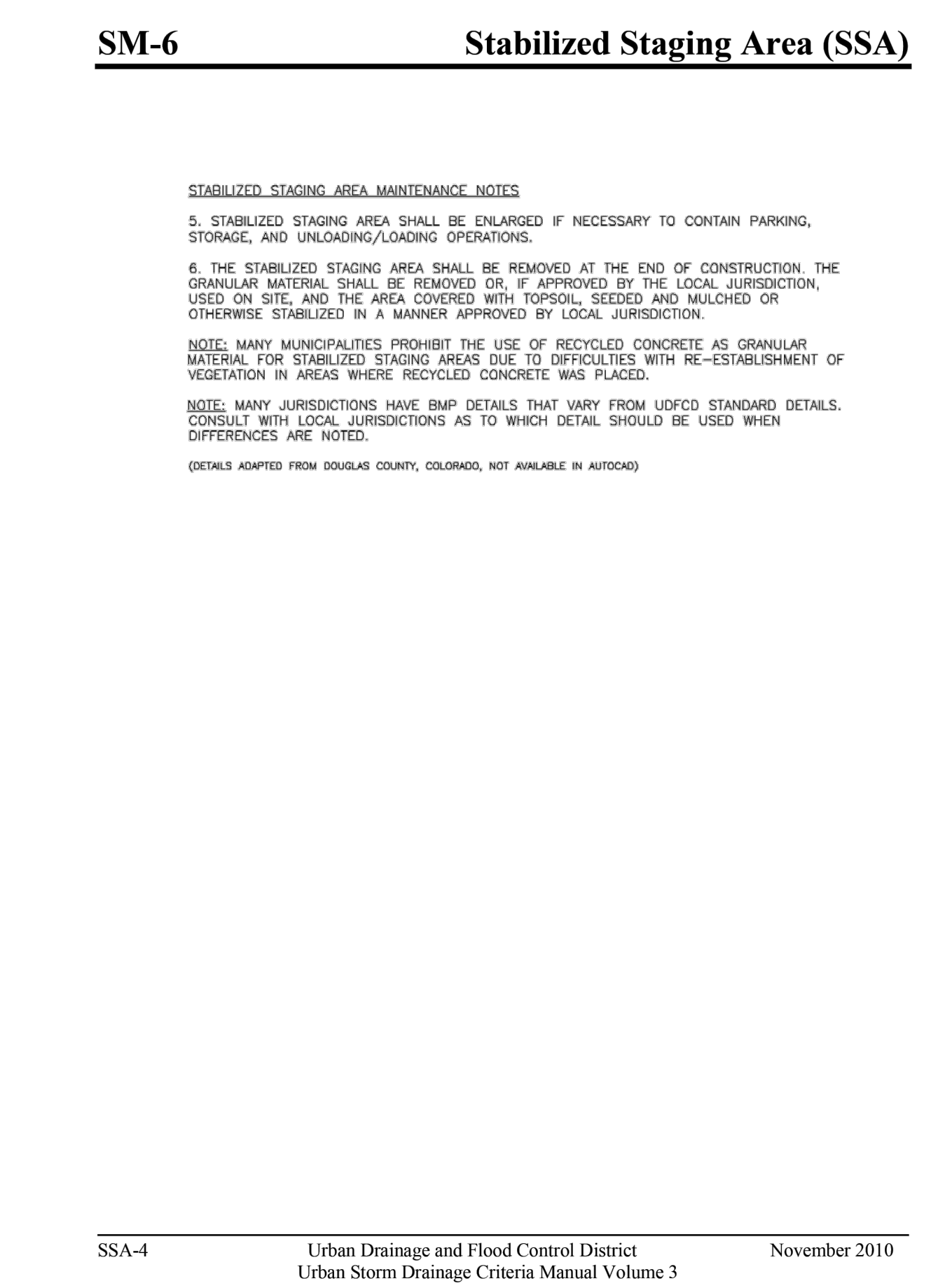
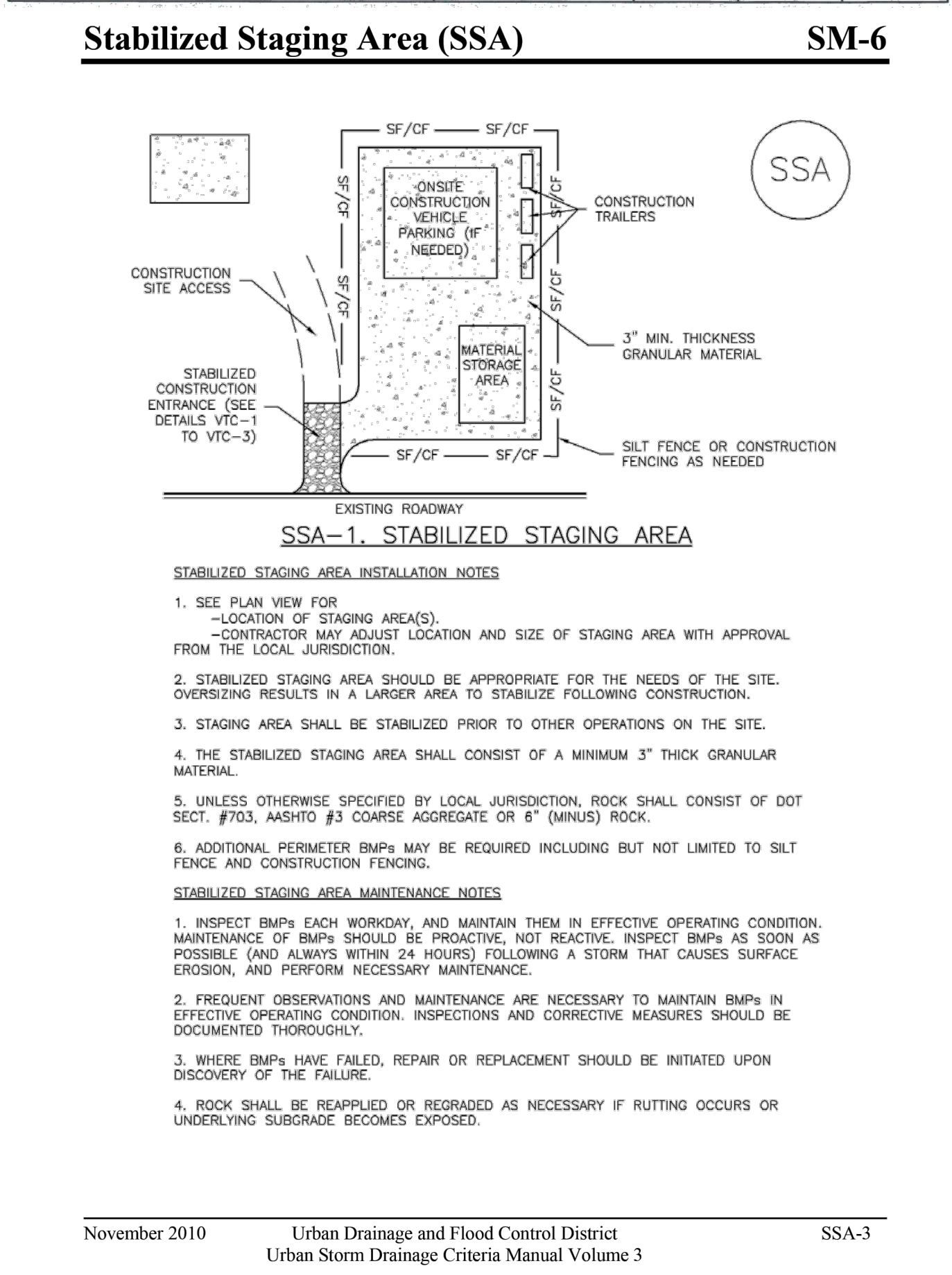
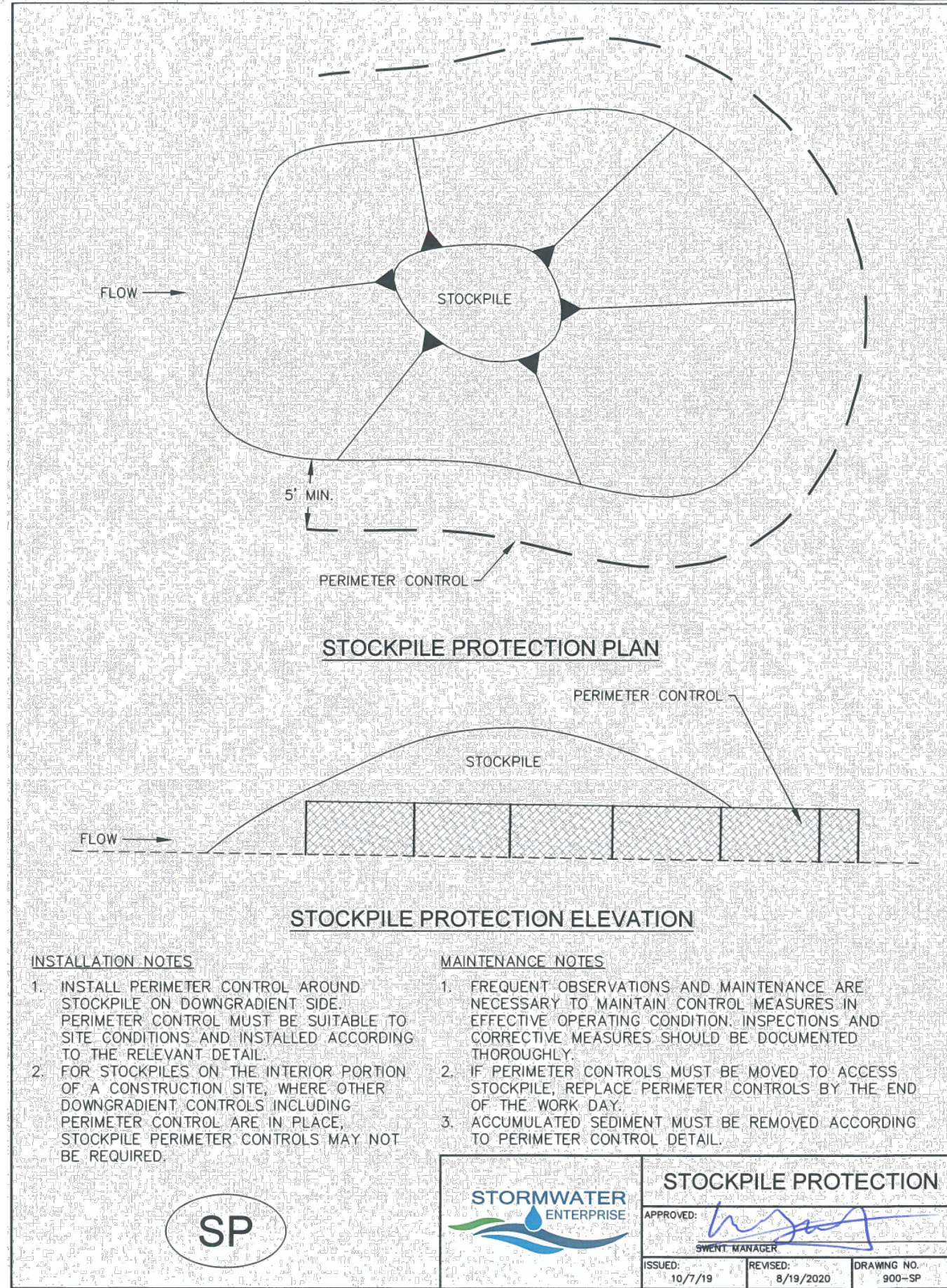
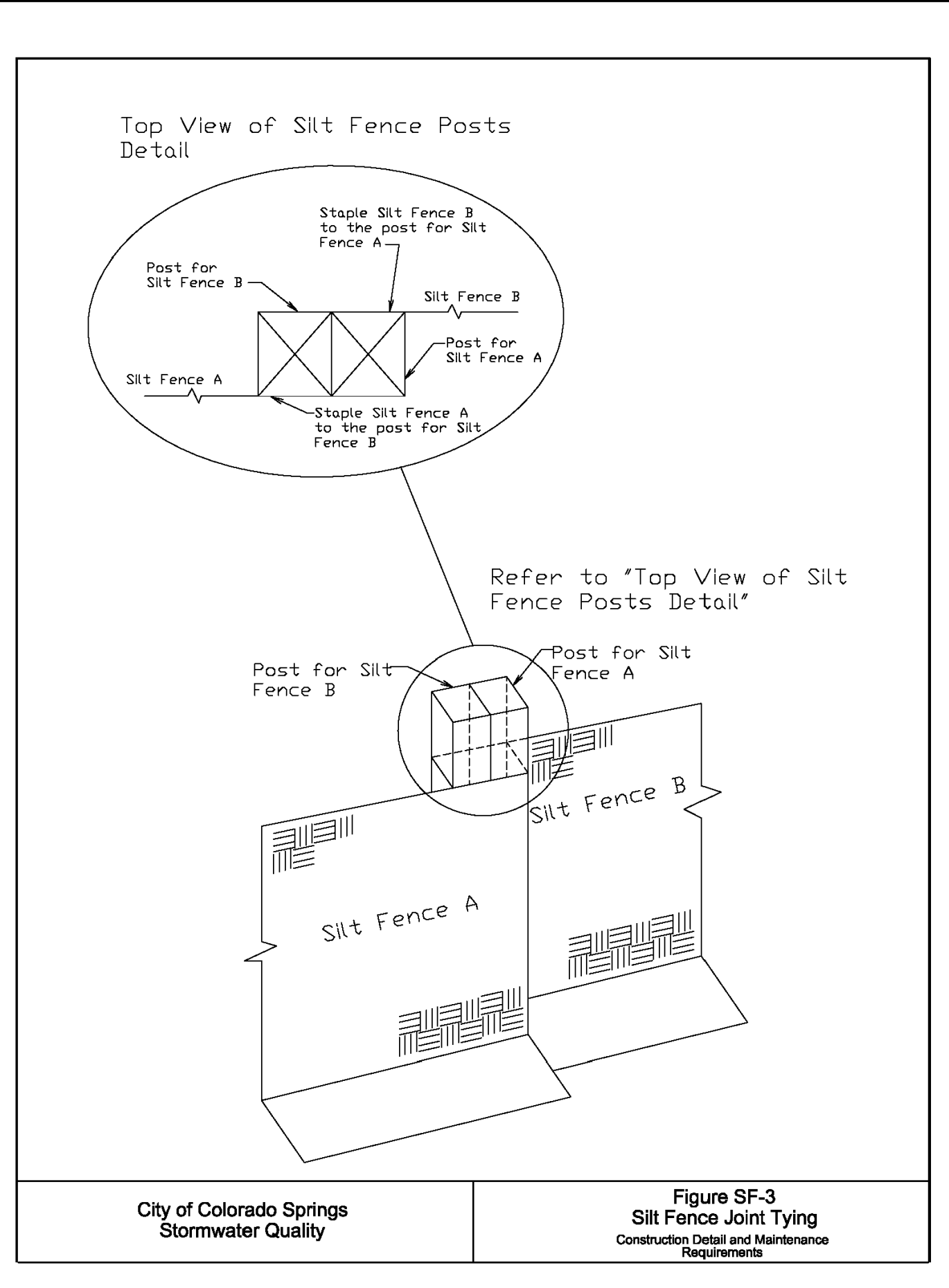
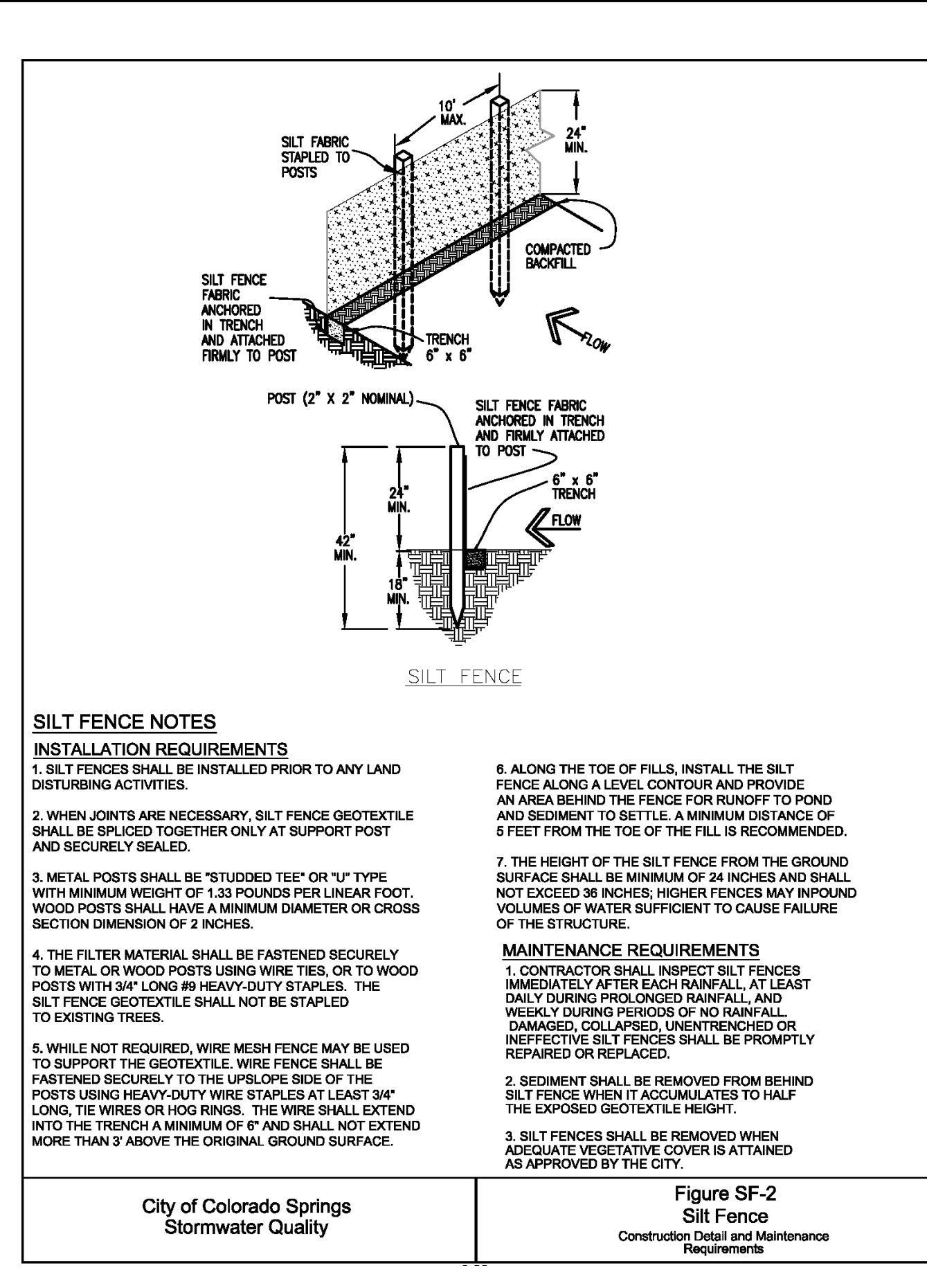
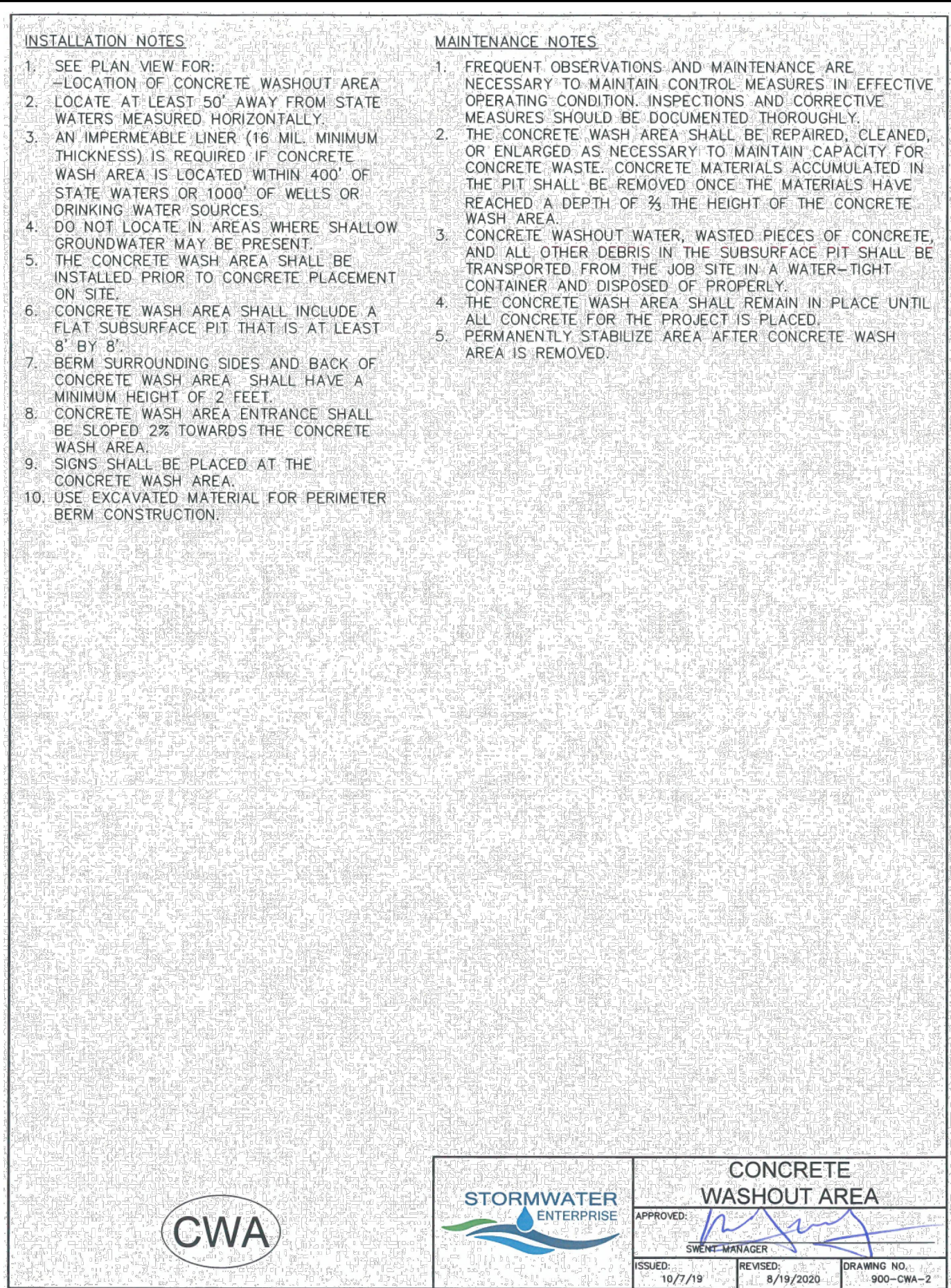
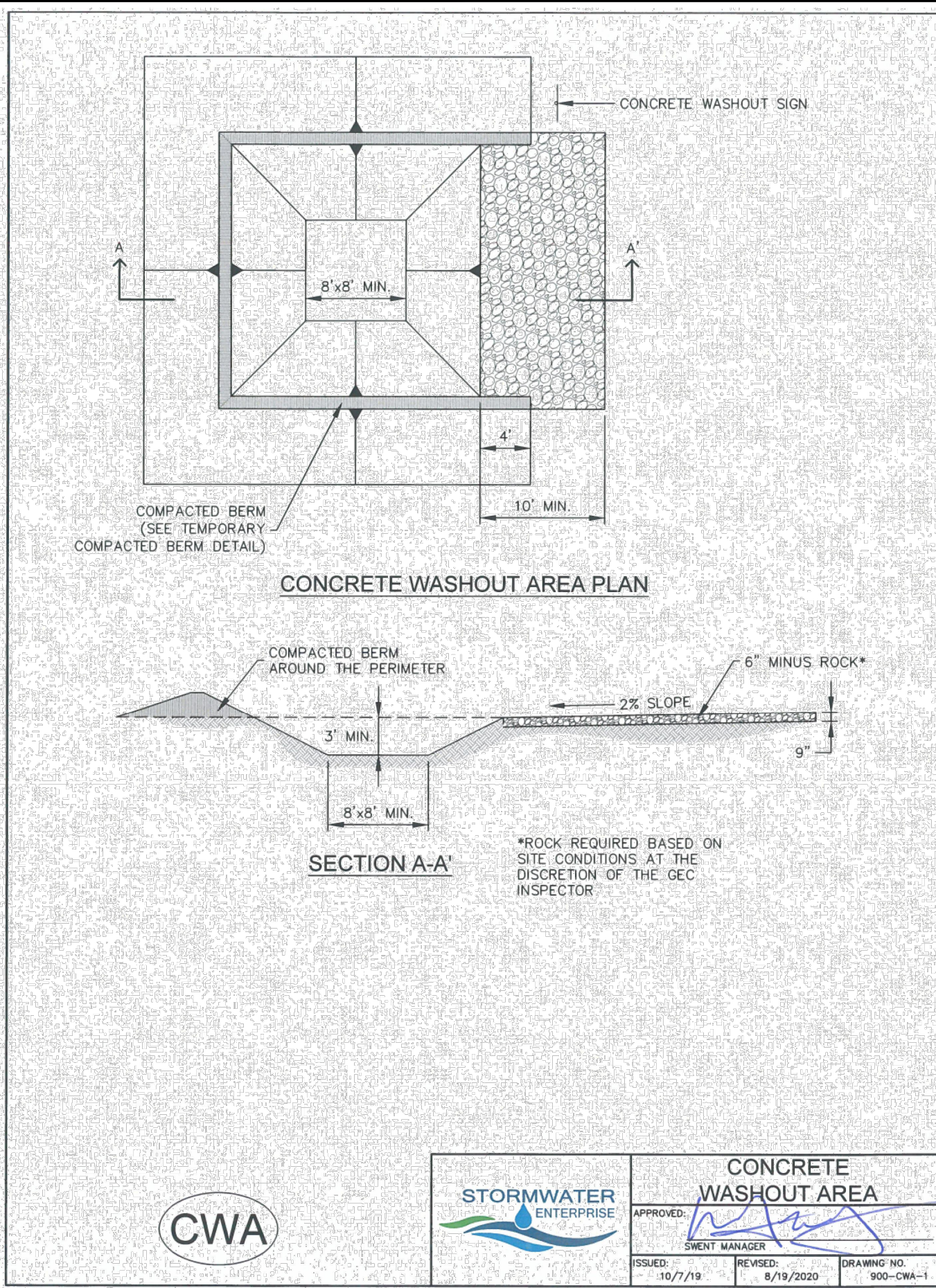
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SHEET
 C118



Provide details for all BMPs shown on legend or remove some of those BMPs on the legend. Diversion ditch, outlet protection, check dam, sediment basin, surface roughening, CIP, rock sock, and straw bale barrier details are all missing.

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GRANDVIEW RESERVE DISTRICT
WTP WELL WATER COLLECTION
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CIVIL
CIVIL DETAILS

SHEET
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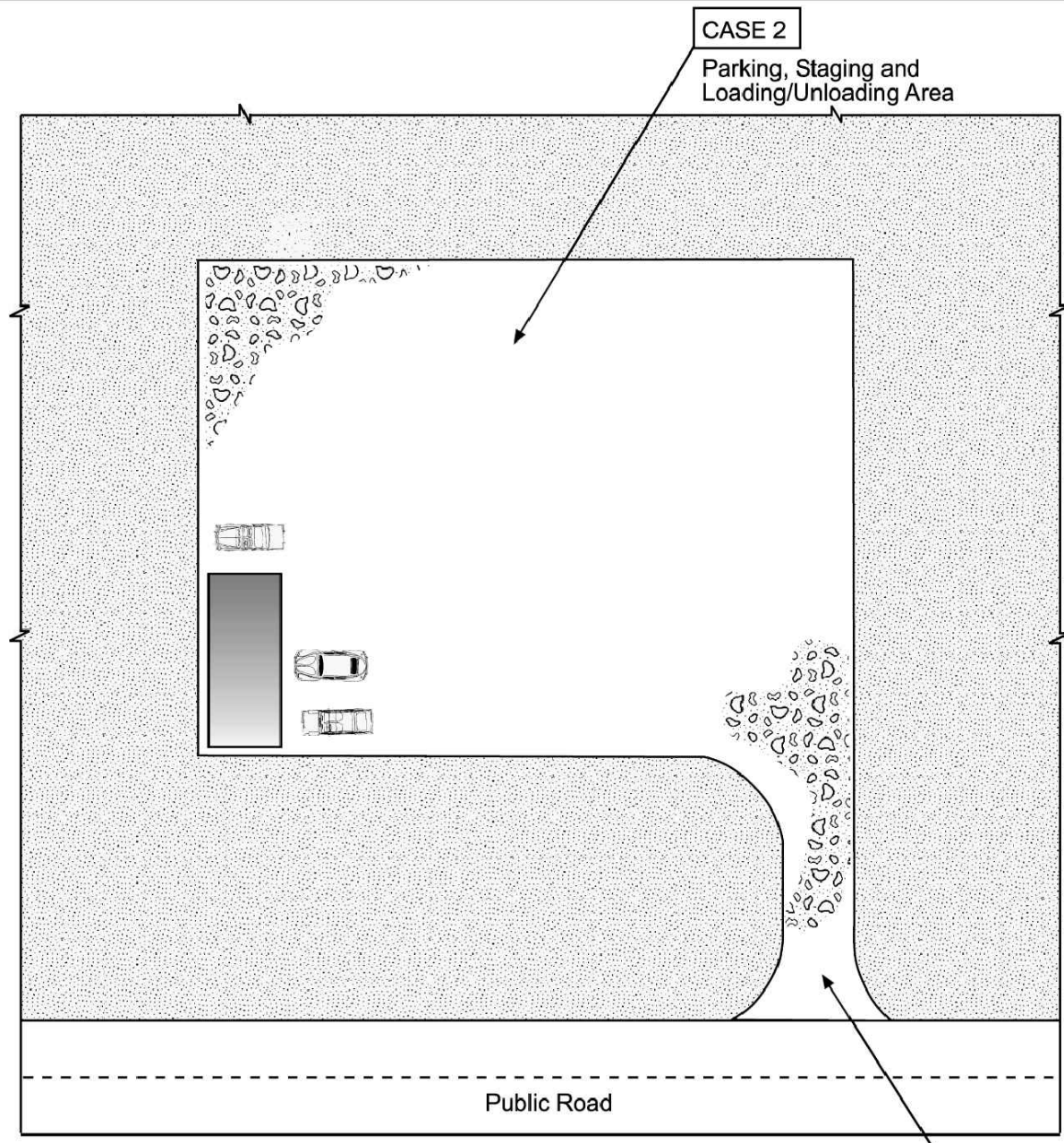
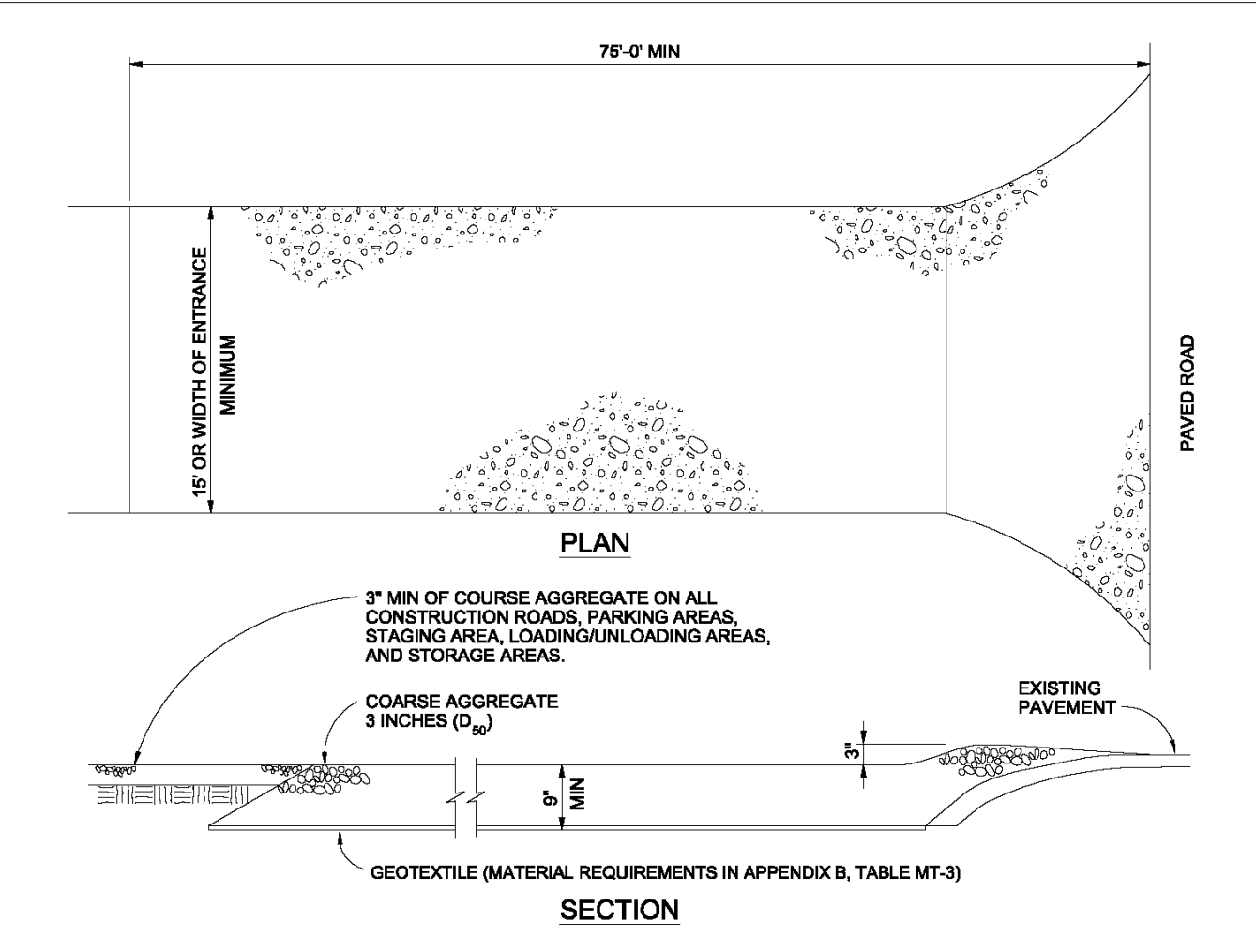


Table VT-1

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

City of Colorado Springs
Storm Water Quality

Figure VT-1
Vehicle Tracking
Application Examples



VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

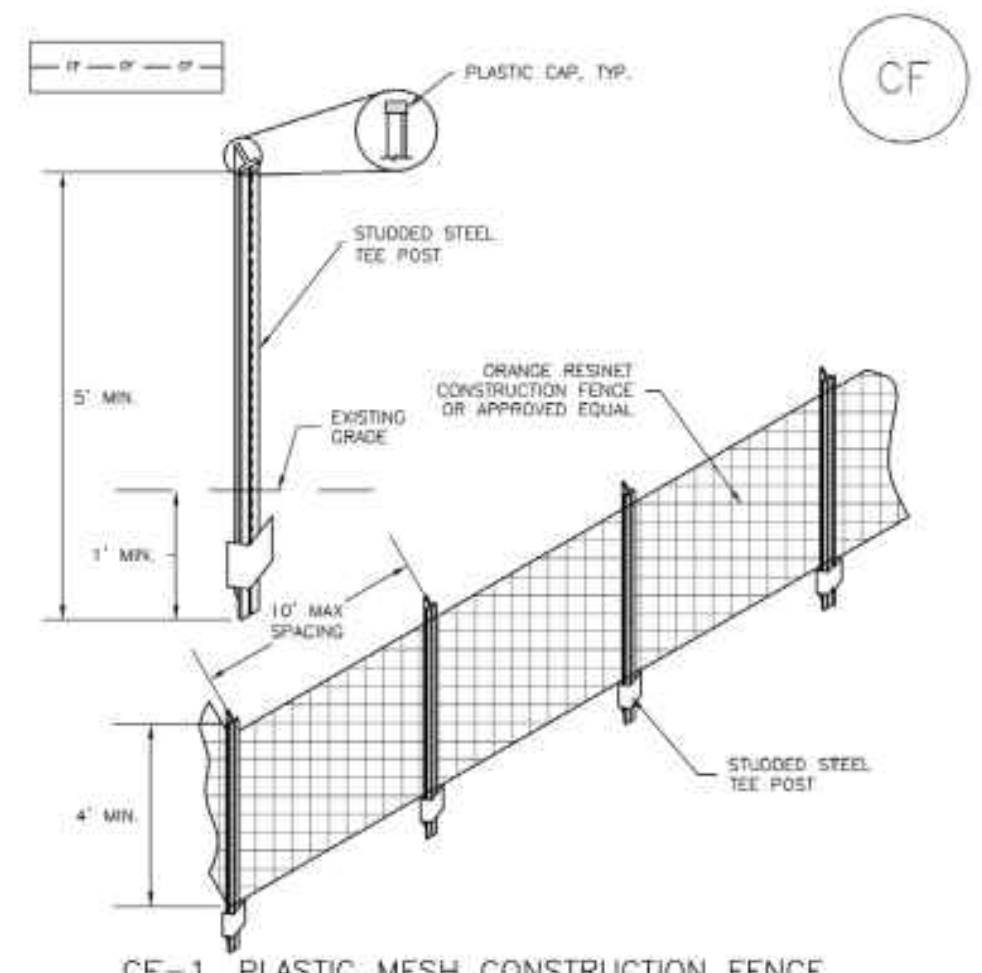
MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs
Stormwater Quality

Figure VT-2
Vehicle Tracking
Application Examples

SM-3 Construction Fence (CF)



CF-1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION OF CONSTRUCTION FENCE.
2. CONSTRUCTION FENCE SHOULD BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE.
5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

CF-2

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

November 2010

Construction Fence (CF) SM-3

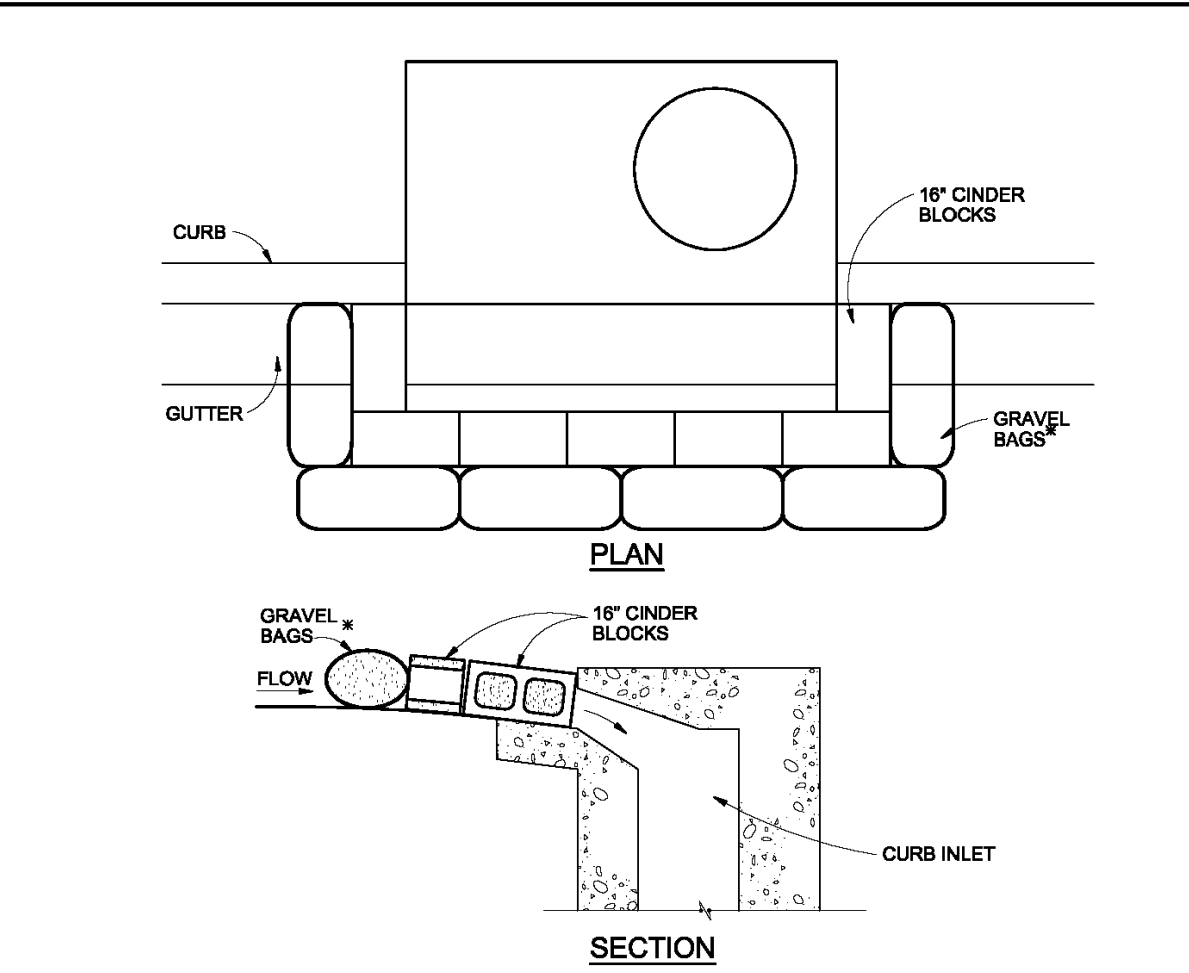
CONSTRUCTION FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH MONTH 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. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDLED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDC'S STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010

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

CF-3



BLOCK AND GRAVEL BAG CURB INLET PROTECTION

BLOCK AND GRAVEL BAG CURB INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. CONCRETE BLOCKS ARE TO BE LAID AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCK FACING OUTWARD.
3. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
4. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
5. BAGS ARE TO BE MADE OF 1/4" INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.

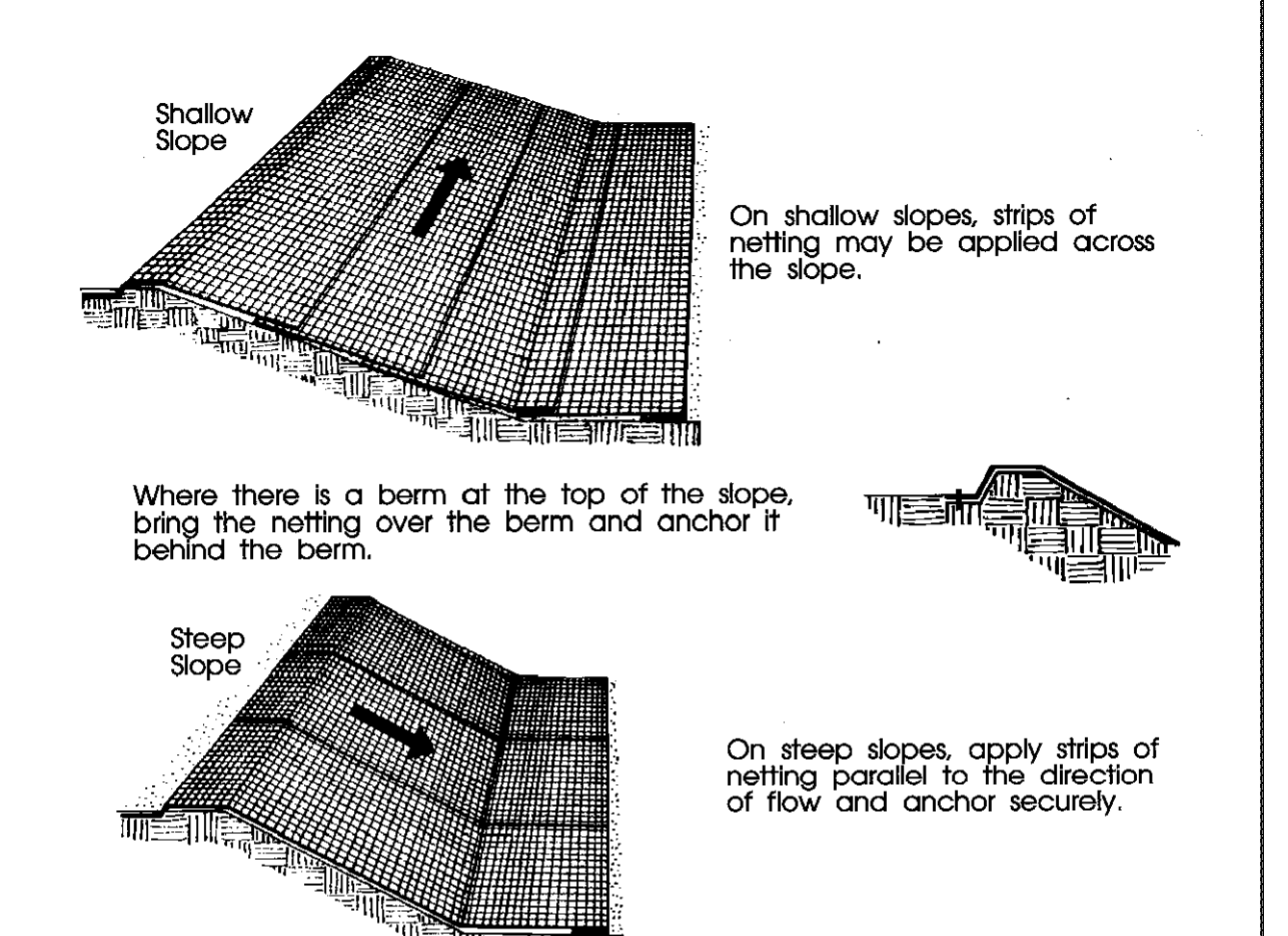
MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE NEGATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

* AN ALTERNATE 3/4" TO 1" GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.

City of Colorado Springs
Stormwater Quality

Figure IP-3
Block & Gravel Bag Curb Inlet Protection
Construction Detail and Maintenance
Requirements



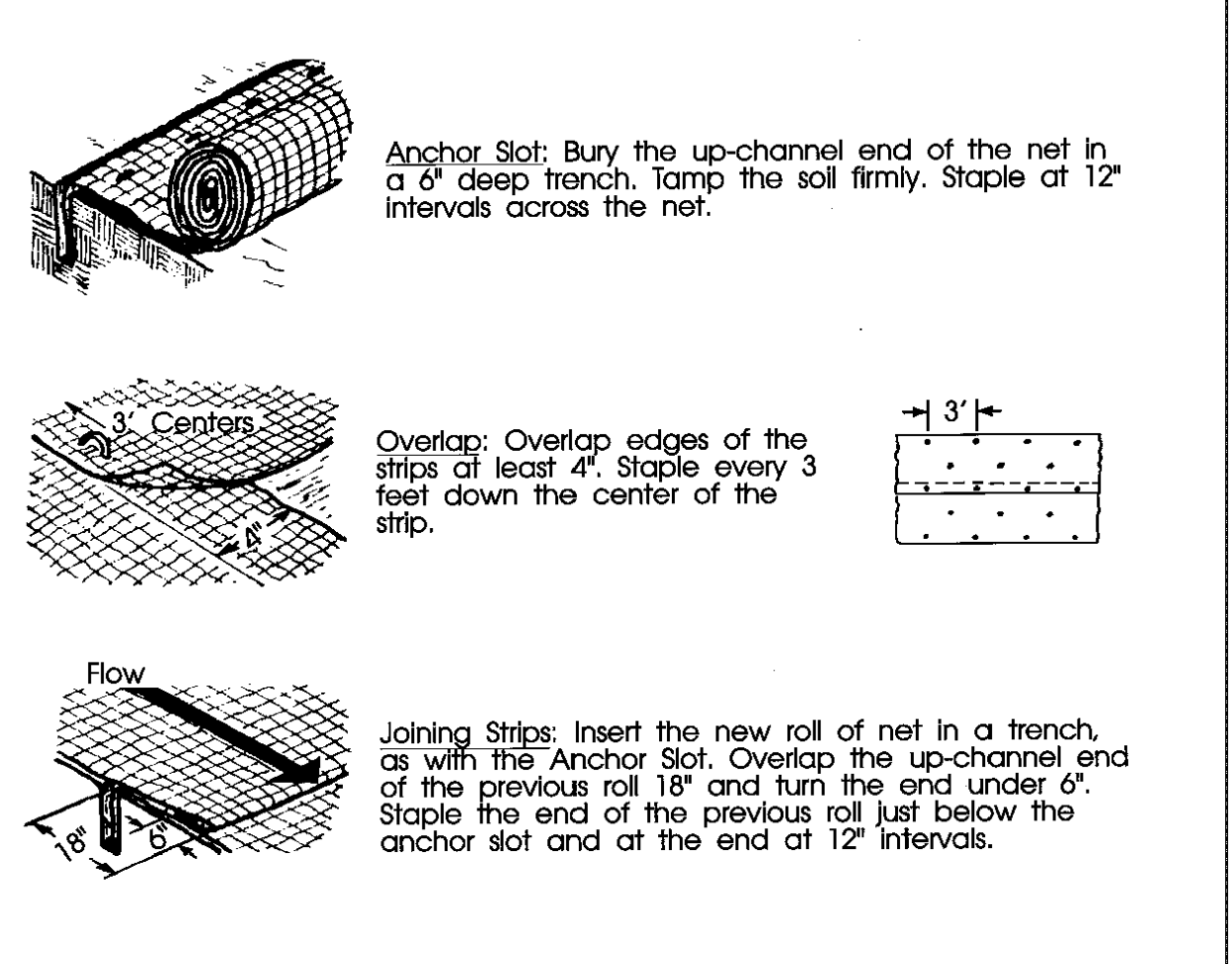
ECB-1 Erosion Control Blanket Installation Examples

Bring netting down to a level area before terminating the installation. Turn the end under 6" and staple at 12" intervals.

From: Virginia Soil and Water Conservation Commission, 1982

City of Colorado Springs
Storm Water Quality

Figure ECB-1
Erosion Control Blanket
Application Examples



ECB-2 Erosion Control Blanket Installation Requirements

From: Virginia Soil and Water Conservation Commission, 1982

City of Colorado Springs
Storm Water Quality

Figure ECB-2
Erosion Control Blanket
Installation Requirements

SEEDING & MULCHING

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

SOIL PREPARATION

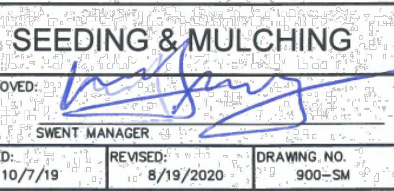
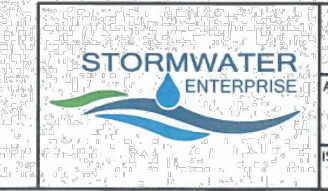
1. IN AREAS TO BE SEED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRAGILE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL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

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE.
 - * SEED DEPTH MUST BE 1/2 TO 3/4 INCHES WHEN DRILL-SEEDED IS USED.
3. BROADCAST SEEDING OR HYDRO-SEEDED WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
 - * SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLIANT DRILL OR HYDRO-SEEDED.
 - * BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

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



DRAWN BY: JES JOB DATE: _____
 APPROVED: JAS JOB NUMBER: _____
 CAD DATE: 8/8/2024 11:55:57 AM
 CAD FILE: J:\2020\201662.06\CAD\Dwgs\C\C501 - DETAILS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
 0" = 1"

IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

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

EL PASO COUNTY, COLORADO
 GRANDVIEW RESERVE DISTRICT
 WTP WELL WATER COLLECTION
 D.R. HORTON
 COLORADO

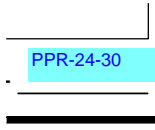
D-R HORTON
 America's Builder

CIVIL
 CIVIL DETAILS

SHEET
 C501

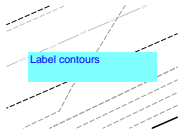
V1_Grading & Erosion Control Plan.pdf Markup Summary

CDurham (7)



Author: CDurham
Page Index: 1
Date: 10/24/2024 1:18:07 PM
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Layer:

PPR-24-30



Author: CDurham
Page Index: 5
Date: 10/24/2024 1:14:26 PM
Color: ■
Layer:

Label contours



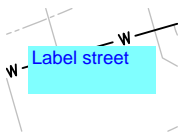
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Page Index: 5
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Label street



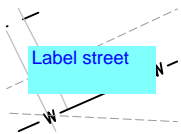
Author: CDurham
Page Index: 5
Date: 10/24/2024 1:14:42 PM
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Layer:

Label street



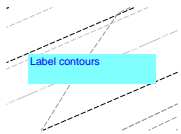
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Page Index: 7
Date: 10/24/2024 1:16:28 PM
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Layer:

Label street



Author: CDurham
Page Index: 7
Date: 10/24/2024 1:16:36 PM
Color: ■
Layer:

Label street




Author: CDurham
Page Index: 7
Date: 10/24/2024 1:16:47 PM
Color: ■
Layer:

Label contours


Author: Mikayla Hartford
Page Index: 1
Date: 10/28/2024 10:26:10 AM
Color: 
Layer:

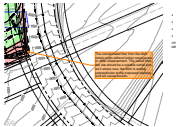


Author: Mikayla Hartford
Page Index: 3
Date: 10/28/2024 10:24:32 AM
Color: 
Layer:




The proposed contours are not tying into the existing contours.

Author: Mikayla Hartford
Page Index: 3
Date: 10/28/2024 4:53:27 PM
Color: 
Layer:




The concentrated flow from the ditch simply ends without further conveyance or other dispersement. This outfall from the site should be a suitable outfall and as it shows now, the ditch is ending perpendicular to the proposed roadway and will cause erosion.

Author: Mikayla Hartford
Page Index: 3
Date: 10/28/2024 4:51:45 PM
Color: 
Layer:



Show chain link in the final erosion control sheets as well.

Author: Mikayla Hartford
Page Index: 4
Date: 10/28/2024 10:43:30 AM
Color: 
Layer:

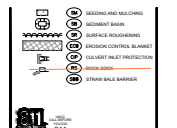


show inlet. No inlet is called out and no storm drain is shown except this per the legend is an inlet protection BMP

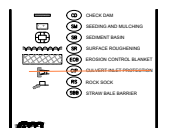
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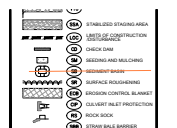
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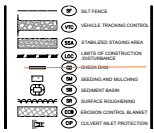


Author: Mikayla Hartford
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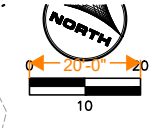


Author: Mikayla Hartford
Page Index: 4
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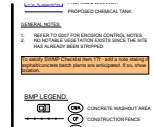


Author: Mikayla Hartford
 Page Index: 4
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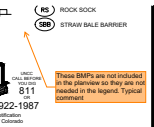
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20'-0"



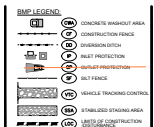
Author: Mikayla Hartford
 Page Index: 4
 Date: 10/28/2024 4:12:31 PM
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 Layer:

To satisfy SWMP Checklist Item 17f - add a note stating if asphalt/concrete batch plants are anticipated. If so, show location.



Author: Mikayla Hartford
 Page Index: 4
 Date: 10/28/2024 4:53:53 PM
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These BMPs are not included in the planview so they are not needed in the legend. Typical comment

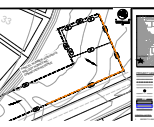


Author: Mikayla Hartford
 Page Index: 4
 Date: 10/28/2024 4:15:42 PM
 Color: ■
 Layer:



Author: Mikayla Hartford
 Page Index: 4
 Date: 10/28/2024 4:41:42 PM
 Color: ■
 Layer:

Many of these callouts reference "future" conditions. These grades are shown as existing but are clearly grading for future roadway grading. Is there an existing approved project? Please add a note acknowledging what the approved project number is for the other grading for the off-site areas this project ties into. If the project for the roadway grading is not approved yet, how will this site be constructed first?

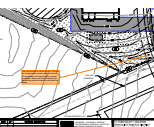


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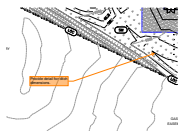
Author: Mikayla Hartford
 Page Index: 5
 Date: 10/28/2024 4:50:56 PM
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Runoff will leave this area of the LOC along this boundary. Suggest silt fence or other BMP to protect this portion of the site.



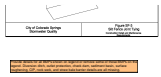
Author: Mikayla Hartford
 Page Index: 6
 Date: 10/28/2024 4:43:10 PM
 Color: ■
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This site all drains to this low spot. This will be a big spot for erosion potential and as of now there is no clear outfall or erosion protection. Show inlet if this is draining to an existing inlet as implied by the previous sheet.



Author: Mikayla Hartford
Page Index: 6
Date: 10/28/2024 4:42:24 PM
Color: ■
Layer:

Provide detail for ditch dimensions.



Author: Mikayla Hartford
Page Index: 8
Date: 10/28/2024 4:46:25 PM
Color: ■
Layer:

Provide details for all BMPs shown on legend or remove some of those BMPs on the legend. Diversion ditch, outlet protection, check dam, sediment basin, surface roughening, CIP, rock sock, and straw bale barrier details are all missing.