

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- 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 (SMMP) 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 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 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 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.
- 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 WATER 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 COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOBBED PRIOR TO INSTALLATION OF THE CONTROL MEASURES.
- 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 WASTES 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, UNCONTAMINATED GROUNDWATER 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 COVERINGS 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 APPEARANCES 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.
- 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, DCA VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND THE 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 **WVIO ENGINEERING GROUP, INC.**, DATED MARCH 2023 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 (SMMP), 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

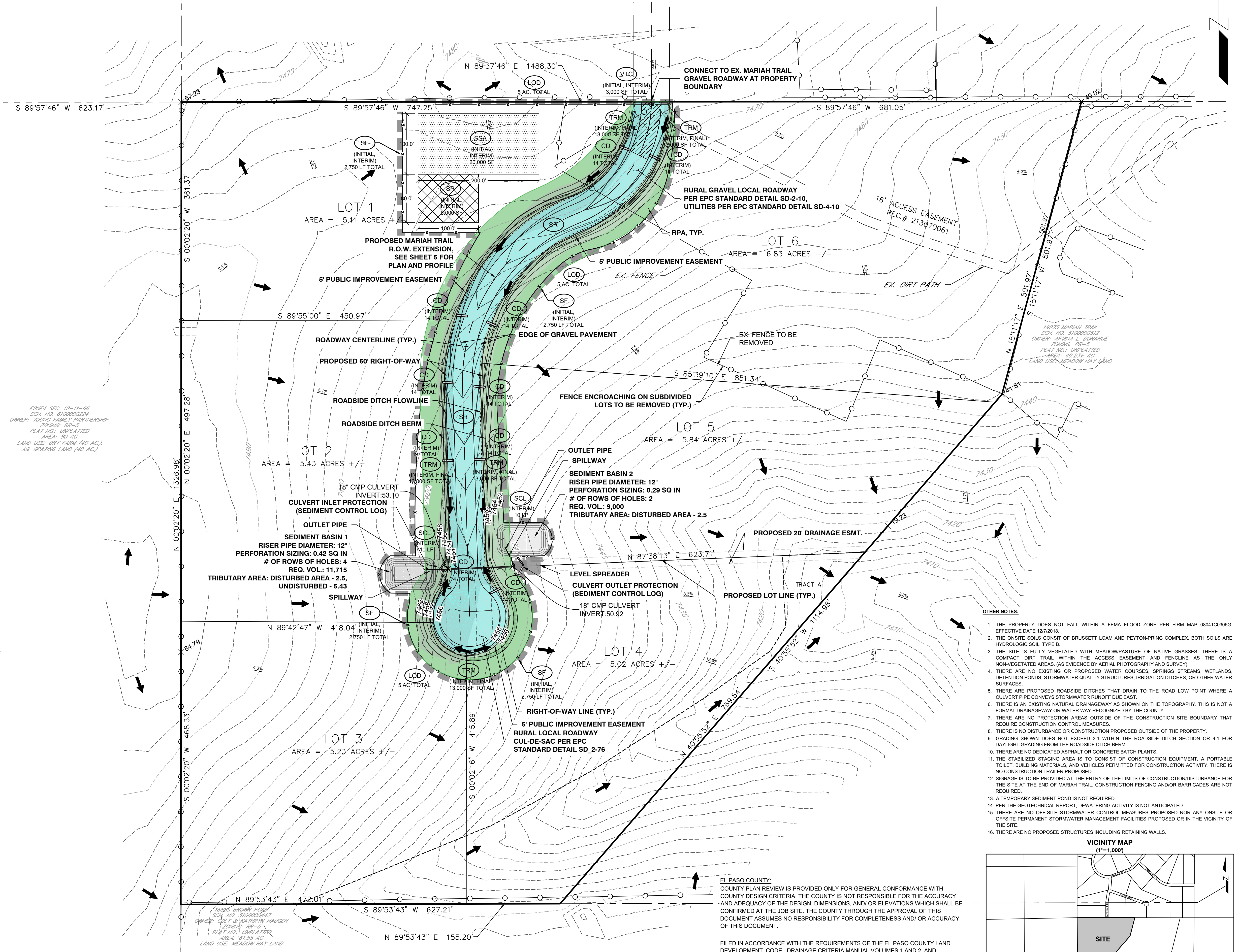
# GRADING AND EROSION CONTROL PLAN

## MARIAH TRAIL FILING NO. 1

A PORTION OF THE NORTHWEST QUARTER OF SECTION 7,  
TOWNSHIP 11 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,  
PASO COUNTY, COLORADO.



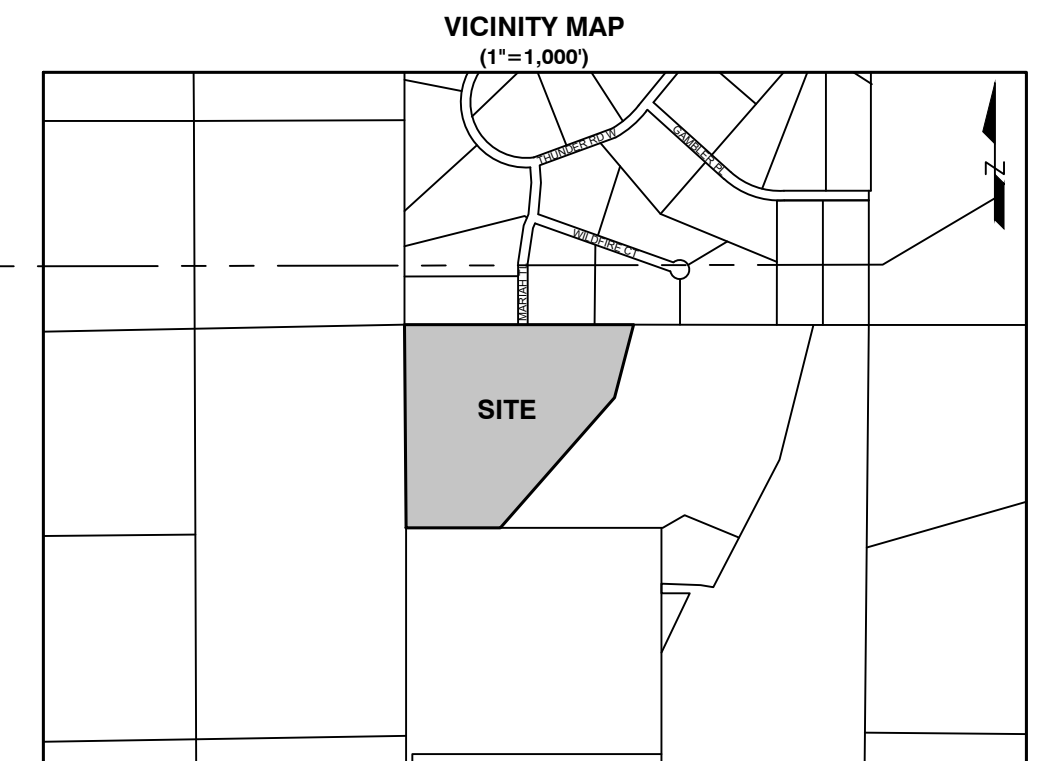
( IN FEET )  
1 inch = 80 ft.



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.

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.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE. DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.  
IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.



**LEGEND**

PROPERTY BOUNDARY LINE  
EXISTING CONTOURS  
PROPOSED CONTOURS  
DRAINAGE FLOW ARROWS

**GRADING AND EROSION CONTROL LEGEND**

CUT (1.12 AC, 4,108 CY)  
FILL (1.58 AC, 13,851 CY)

LOD LIMITS OF CONSTRUCTION (LIMITS OF DISTURBANCE)  
VTC VEHICLE TRACKING CONTROL  
SP STOCK PILE AREA  
SSA STABILIZED STAGING AREA  
SM SEEDING AND MULCHING  
CD CHECK DAM  
SCL SEDIMENT CONTROL LOG  
TRM TURF REINFORCEMENT MAT  
SF SILT FENCE  
SR SURFACE ROUGHENING

- OTHER NOTES:**
- THE PROPERTY DOES NOT FALL WITHIN A FEMA FLOOD ZONE PER FIRM MAP 08041C0305G, EFFECTIVE DATE 12/7/2018.
  - THE ON-SITE SOILS CONSIST OF BRUSSETT LOAM AND PEYTON-PRING COMPLEX. BOTH SOILS ARE HYDROLOGIC SOIL TYPE B.
  - THE SITE IS FULLY VEGETATED WITH MEADOW/PASTURE OF NATIVE GRASSES. THERE IS A COMPACT DIRT TRAIL WITH THE ACCESS EASEMENT AND FENCELINE AS THE ONLY NON-VEGETATED AREAS. (AS EVIDENCE BY AERIAL PHOTOGRAPHY AND SURVEY)
  - THERE ARE NO EXISTING OR PROPOSED WATER COURSES, SPRINGS, STREAMS, WETLANDS, DETENTION PONDS, STORMWATER QUALITY STRUCTURES, IRRIGATION DITCHES, OR OTHER WATER SURFACES.
  - THERE ARE PROPOSED ROADSIDE DITCHES THAT DRAIN TO THE ROAD LOW POINT WHERE A CULVERT PIPE CONVEYS STORMWATER RUNOFF DUE EAST.
  - THERE IS AN EXISTING NATURAL DRAINAGEWAY AS SHOWN ON THE TOPOGRAPHY. THIS IS NOT A FORMAL DRAINAGEWAY OR WATER WAY RECOGNIZED BY THE COUNTY.
  - THERE ARE NO PROTECTION AREAS OUTSIDE OF THE CONSTRUCTION SITE BOUNDARY THAT REQUIRE CONSTRUCTION CONTROL MEASURES.
  - THERE IS NO DISTURBANCE OR CONSTRUCTION PROPOSED OUTSIDE OF THE PROPERTY.
  - GRADING SHOWN DOES NOT EXCEED 3:1 WITHIN THE ROADSIDE DITCH SECTION OR 4:1 FOR DAYLIGHT GRADING FROM THE ROADSIDE DITCH BERM.
  - THERE ARE NO DEDICATED ASPHALT OR CONCRETE BATCH PLANTS.
  - THE STABILIZED STAGING AREA IS TO CONSIST OF CONSTRUCTION EQUIPMENT, A PORTABLE TOILET, BUILDING MATERIALS, AND VEHICLES PERMITTED FOR CONSTRUCTION ACTIVITY. THERE IS NO CONSTRUCTION TRAILER PROPOSED.
  - STORAGE IS TO BE PROVIDED AT THE ENTRY OF THE LIMITS OF CONSTRUCTION/DISTURBANCE FOR THE SITE AT THE END OF MARIAH TRAIL. CONSTRUCTION FENCING AND/OR BARRICADES ARE NOT REQUIRED.
  - A TEMPORARY SEDIMENT POND IS NOT REQUIRED.
  - PER THE GEOTECHNICAL REPORT, DEWATERING ACTIVITY IS NOT ANTICIPATED.
  - THERE ARE NO OFF-SITE STORMWATER CONTROL MEASURES PROPOSED NOR ANY ON-SITE OR OFF-SITE PERMANENT STORMWATER MANAGEMENT FACILITIES PROPOSED OR IN THE VICINITY OF THE SITE.
  - THERE ARE NO PROPOSED STRUCTURES INCLUDING RETAINING WALLS.

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**PROJECT NAME:**  
MARIAH TRAIL FILING NO. 1

**PROJECT LOCATION:**  
LOTS 1-6, MARIAH TRAIL SUBDIVISION FILING NO. 1  
EL PASO COUNTY, COLORADO

**CLIENT:**  
MR. THOMAS KIRK

**CONTACT INFO:**  
THOMAS KIRK  
19205 MARIAH TRAIL  
COLORADO SPRINGS, CO  
80908-1123

**PROFESSIONAL SEAL:**

**DATE:** 05/01/23  
**DESCRIPTION:** SUBMITTAL 1

08/04/23 SUBMITTAL 2

**JOB #:** 100678

**DRAWN BY:** CDS  
**REVIEWED BY:** CDS  
**PROJ. MNGR.:** CDS

**PLAN SET:**  
MAJOR SUBDIVISION CONSTRUCTION DRAWINGS

**SHEET TITLE:**  
GRADING AND EROSION CONTROL PLAN

**SHEET NO.:**  
GEC-1

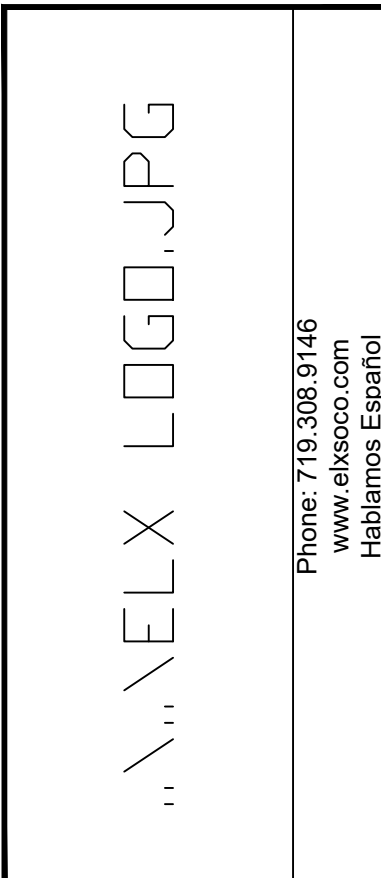
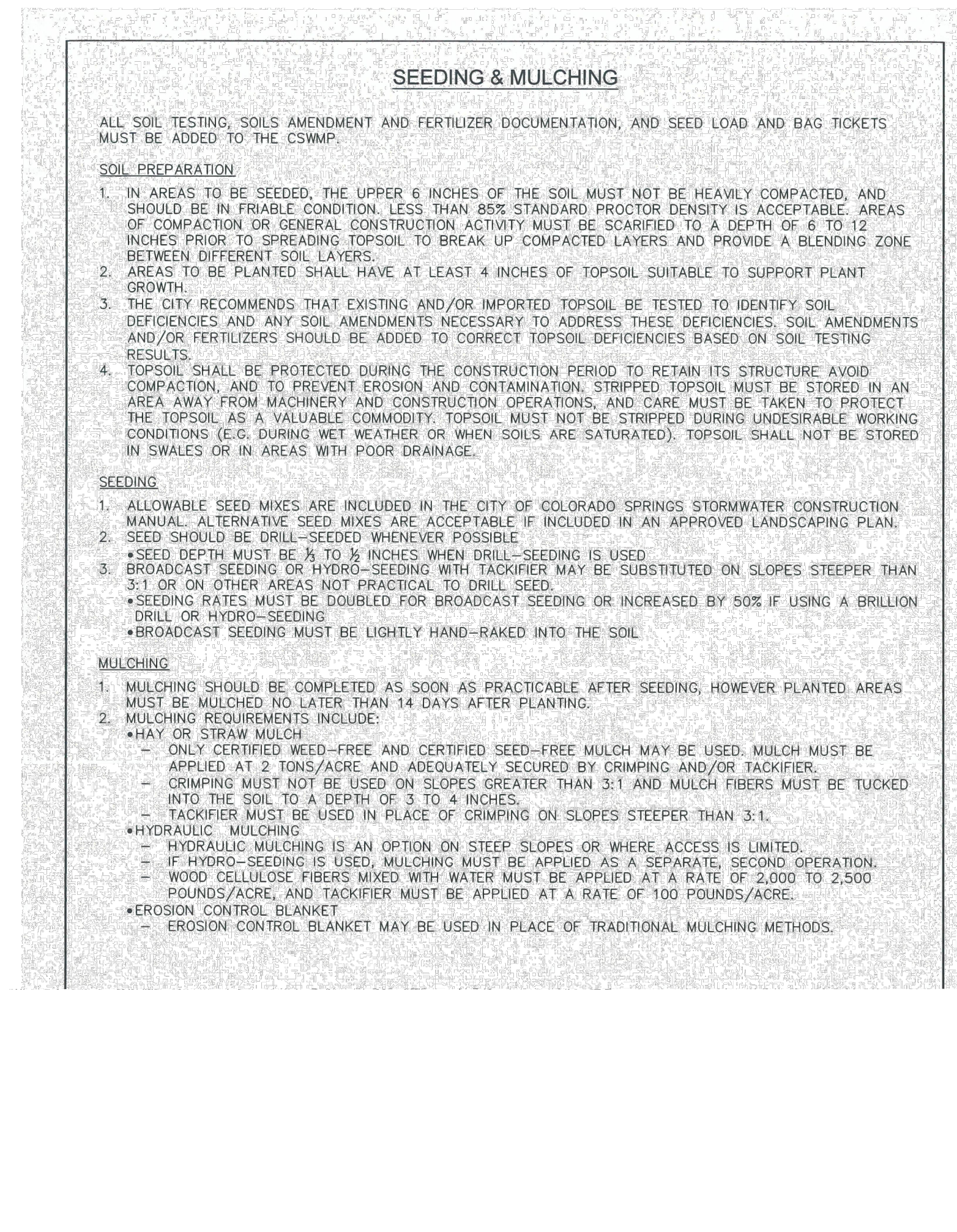
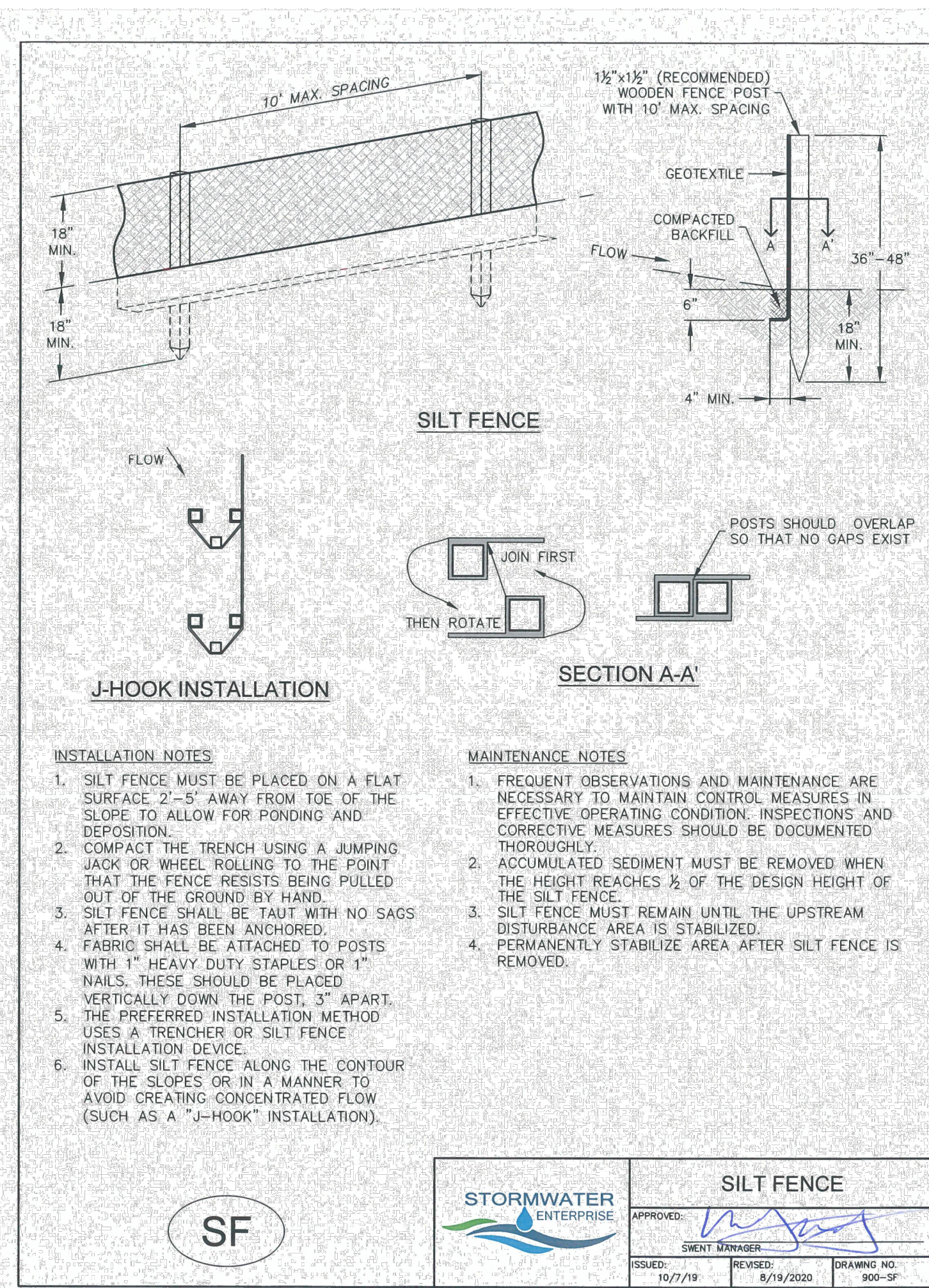
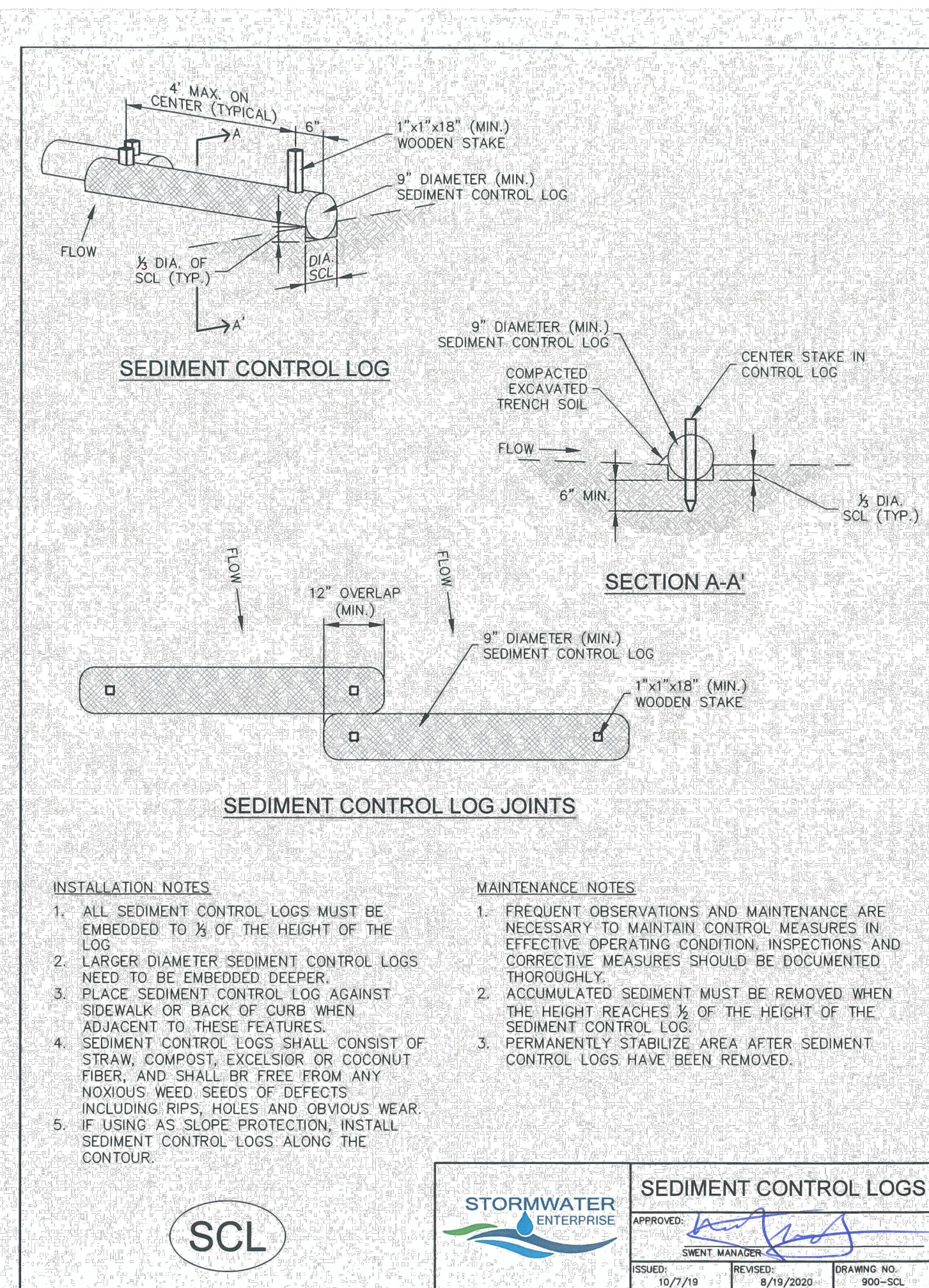
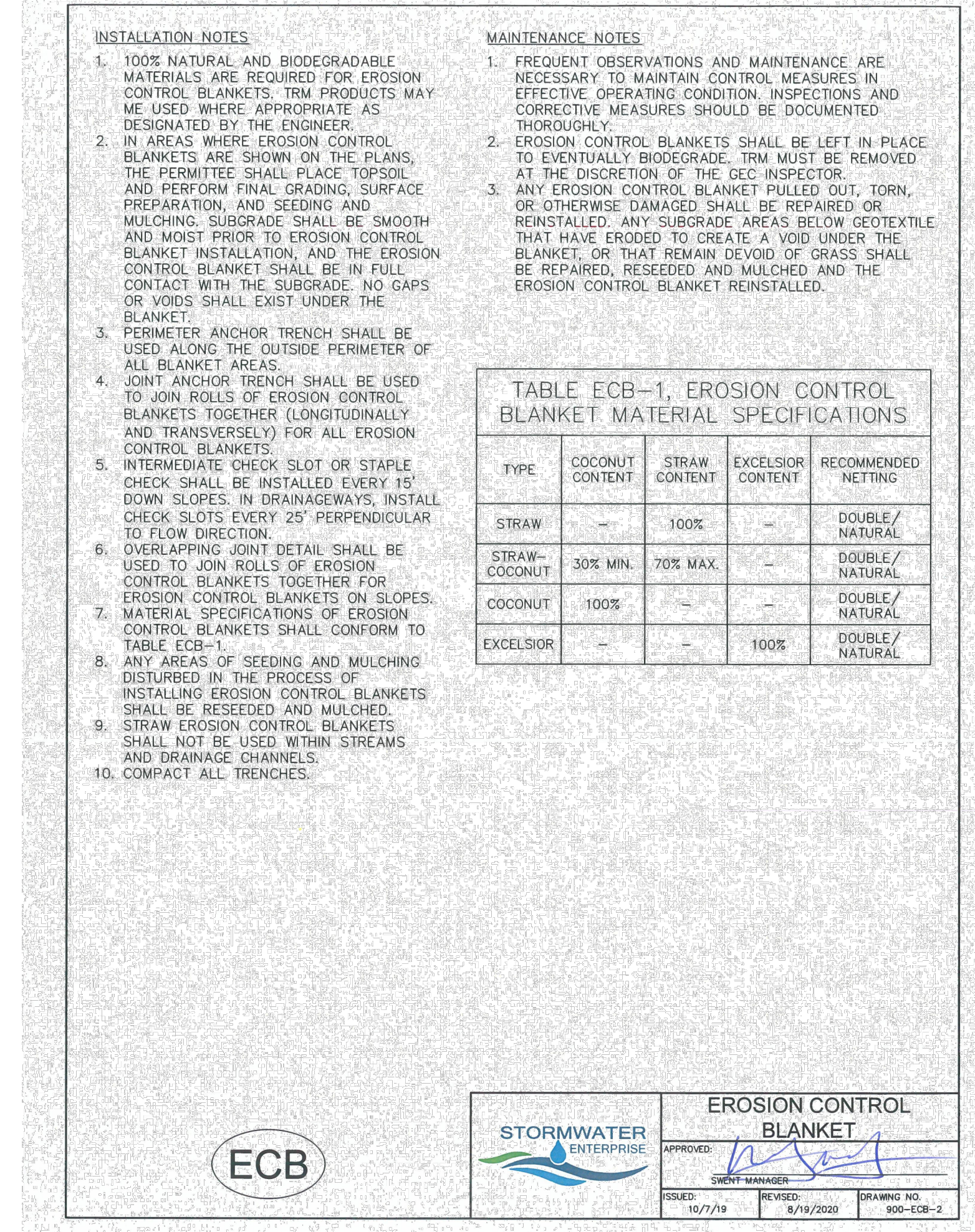
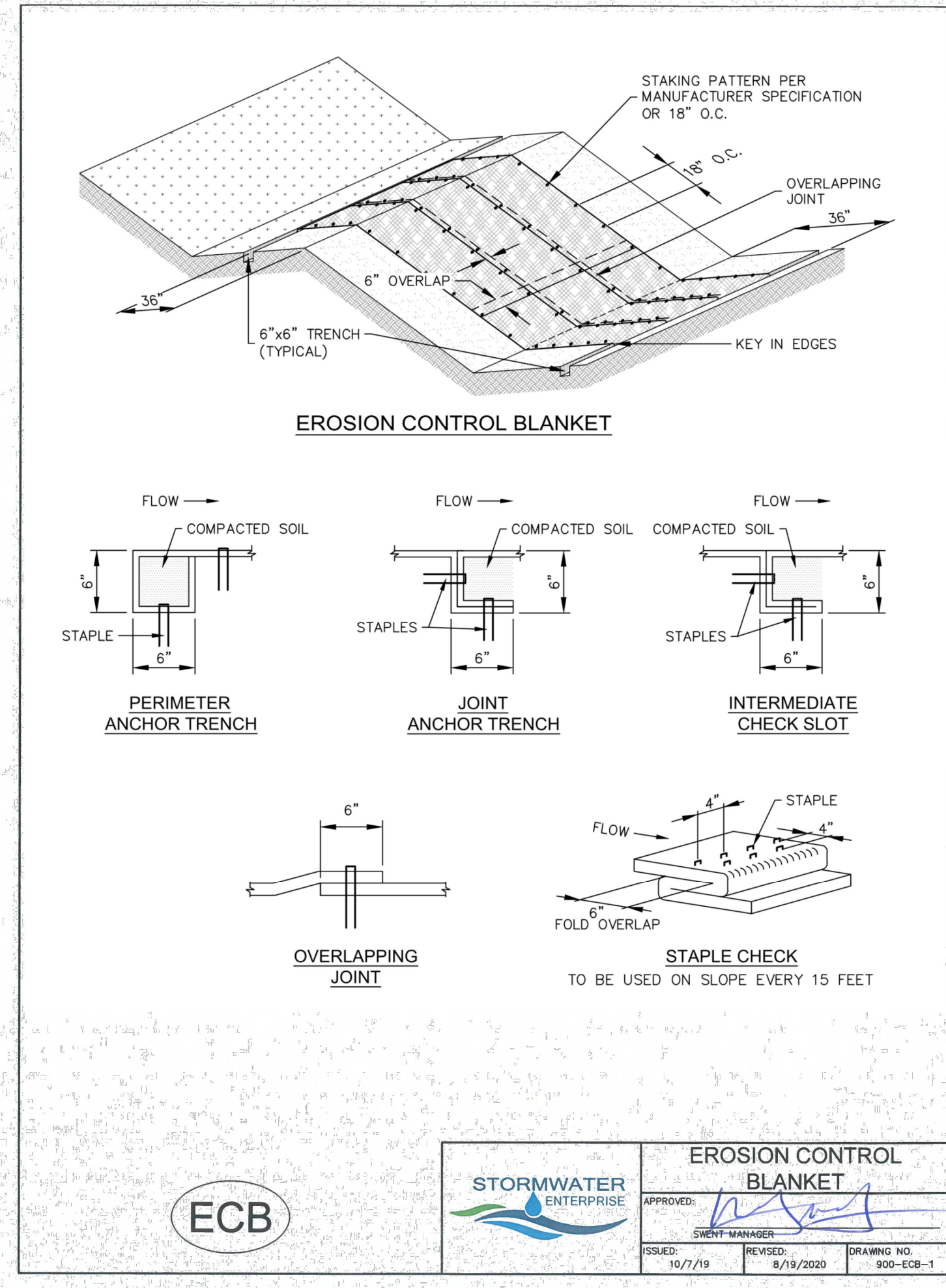
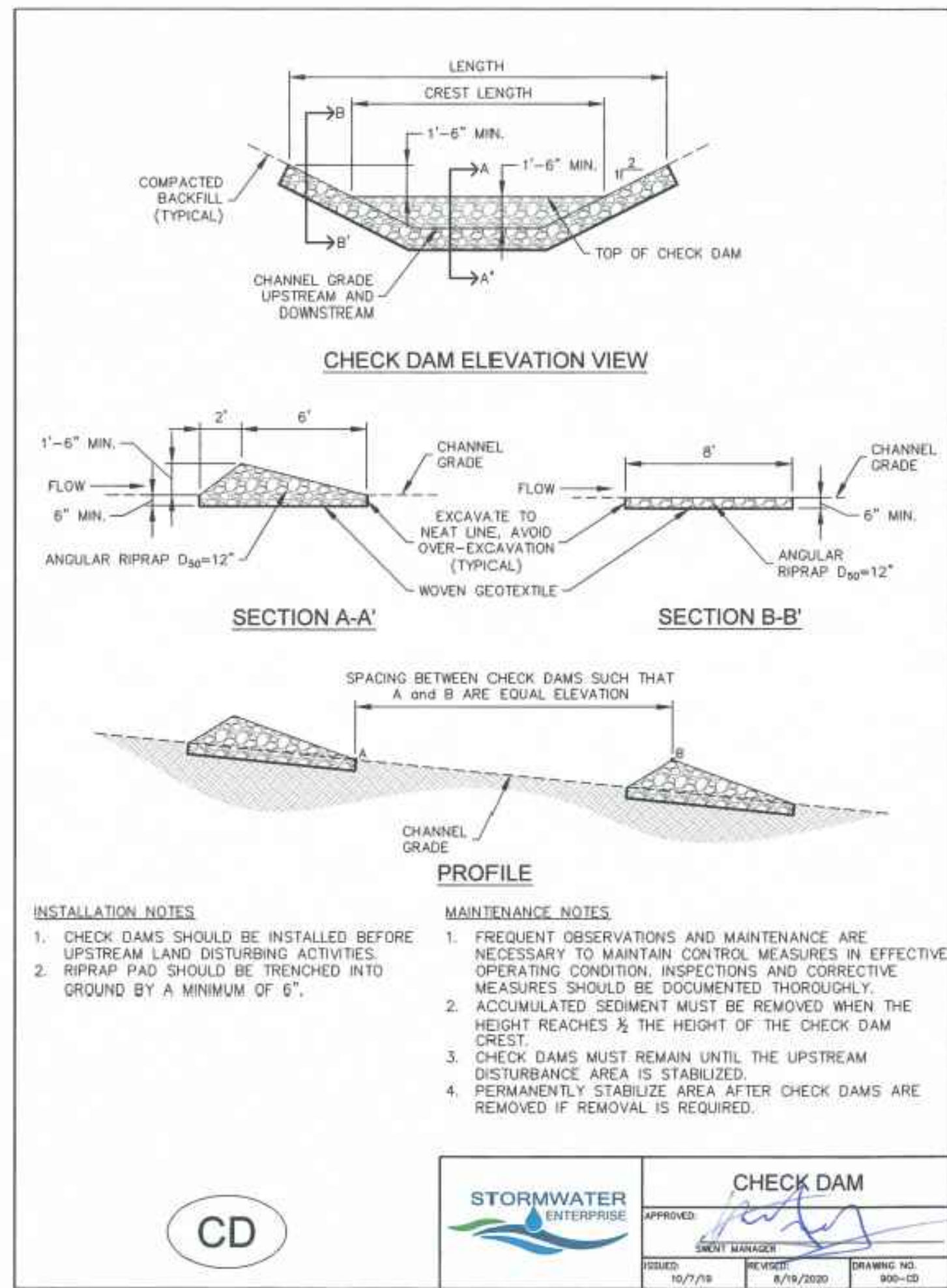
**OWNER SIGNATURE (THOMAS KIRK, JR.)** \_\_\_\_\_ **DATE** \_\_\_\_\_

**ENGINEER OF RECORD SIGNATURE (CARLOS SERRANO, PE)** \_\_\_\_\_ **DATE** \_\_\_\_\_

**COUNTY ENGINEER/ECM ADMINISTRATOR** \_\_\_\_\_ **DATE** \_\_\_\_\_

PCD FIL. NO.: SF-2315





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**PROJECT NAME:**

MARIAH TRAIL  
 FILING NO. 1

**PROJECT LOCATION:**

LOTS 1-6, MARIAH TRAIL  
 SUBDIVISION  
 FILING NO. 1  
 EL PASO COUNTY, COLORADO

**CLIENT:**

MR. THOMAS KIRK

**CONTACT INFO:**

THOMAS KIRK  
 19205 MARIAH TRAIL  
 COLORADO SPRINGS, CO  
 80908-1123

**PROFESSIONAL SEAL:**

DATE:	DESCRIPTION:
05/01/23	SUBMITTAL 1
08/04/23	SUBMITTAL 2

JOB #: 100678

DRAWN BY: CDS

REVIEWED BY: CDS

PROJ. MNGR.: CDS

PLAN SET:

MAJOR SUBDIVISION CONSTRUCTION DRAWINGS

SHEET TITLE:

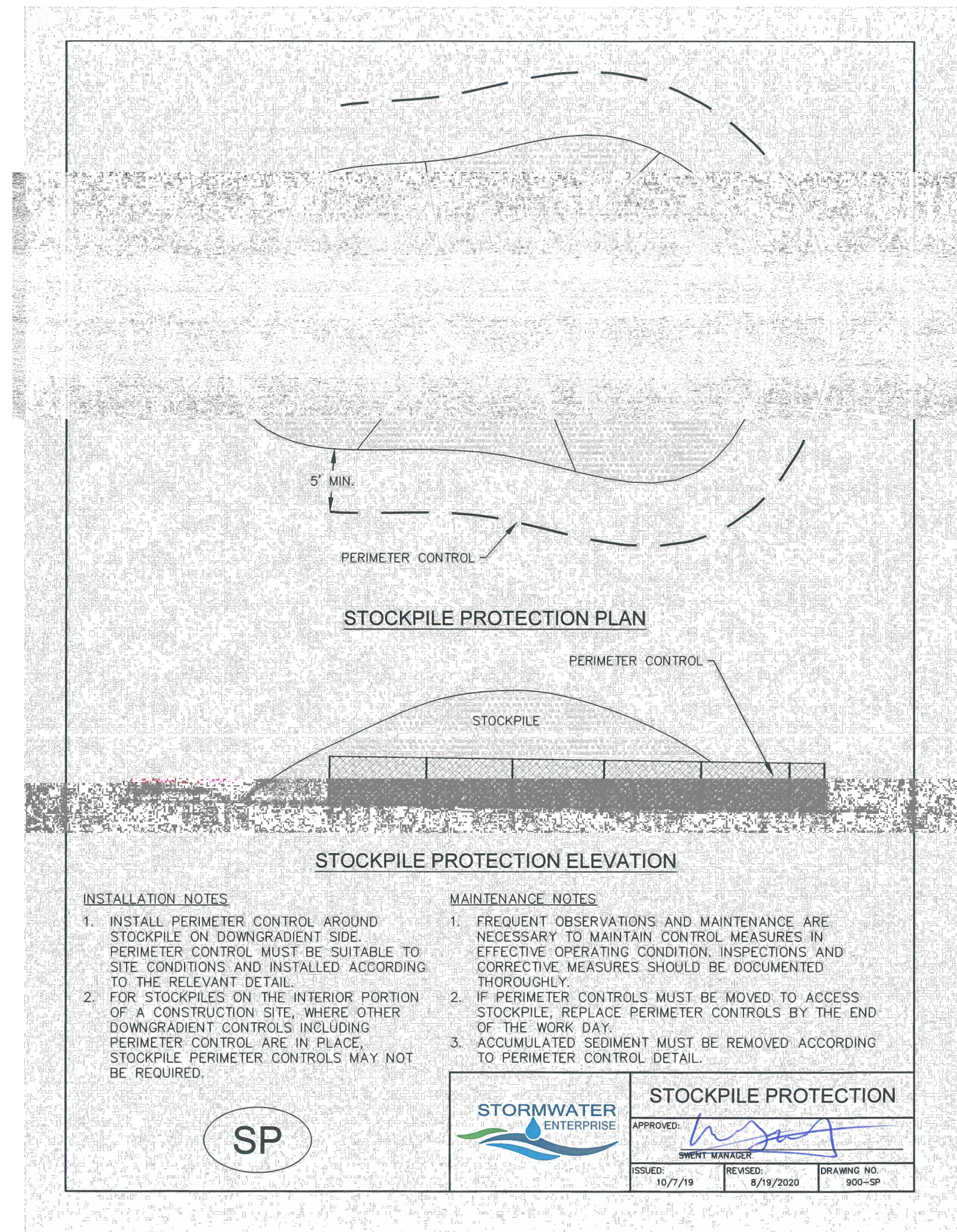
GRADING AND EROSION CONTROL DETAILS

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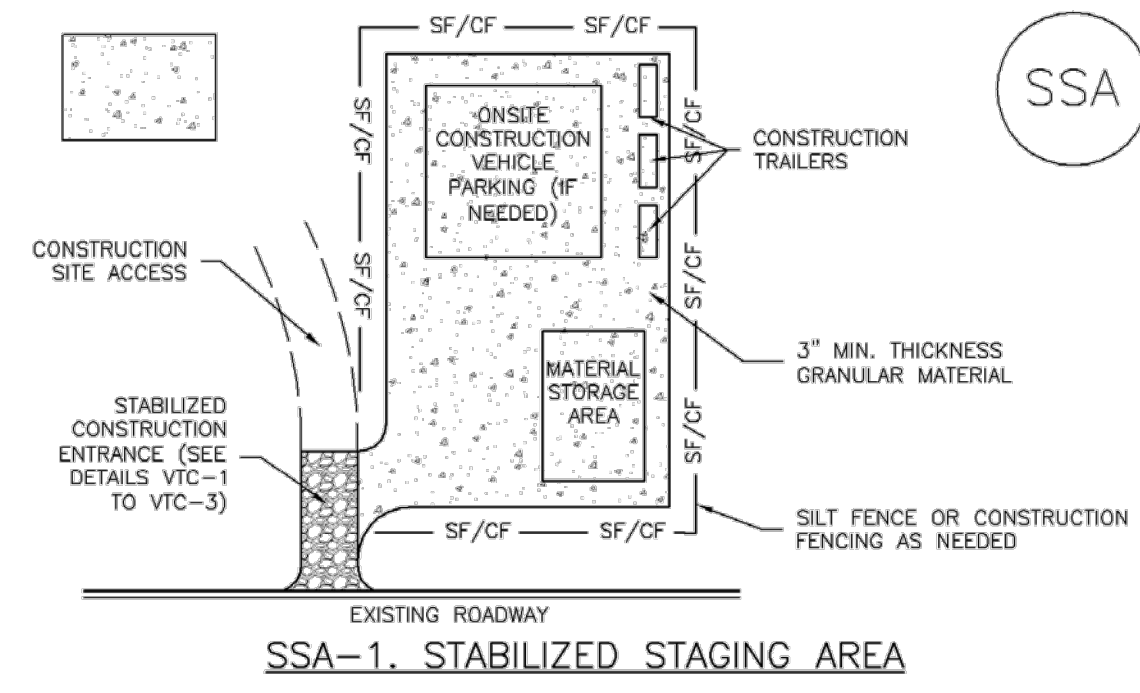
GEC-2

Phone: 719.308.9146  
 1000 N. Tejon  
 Highlands, Colorado





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



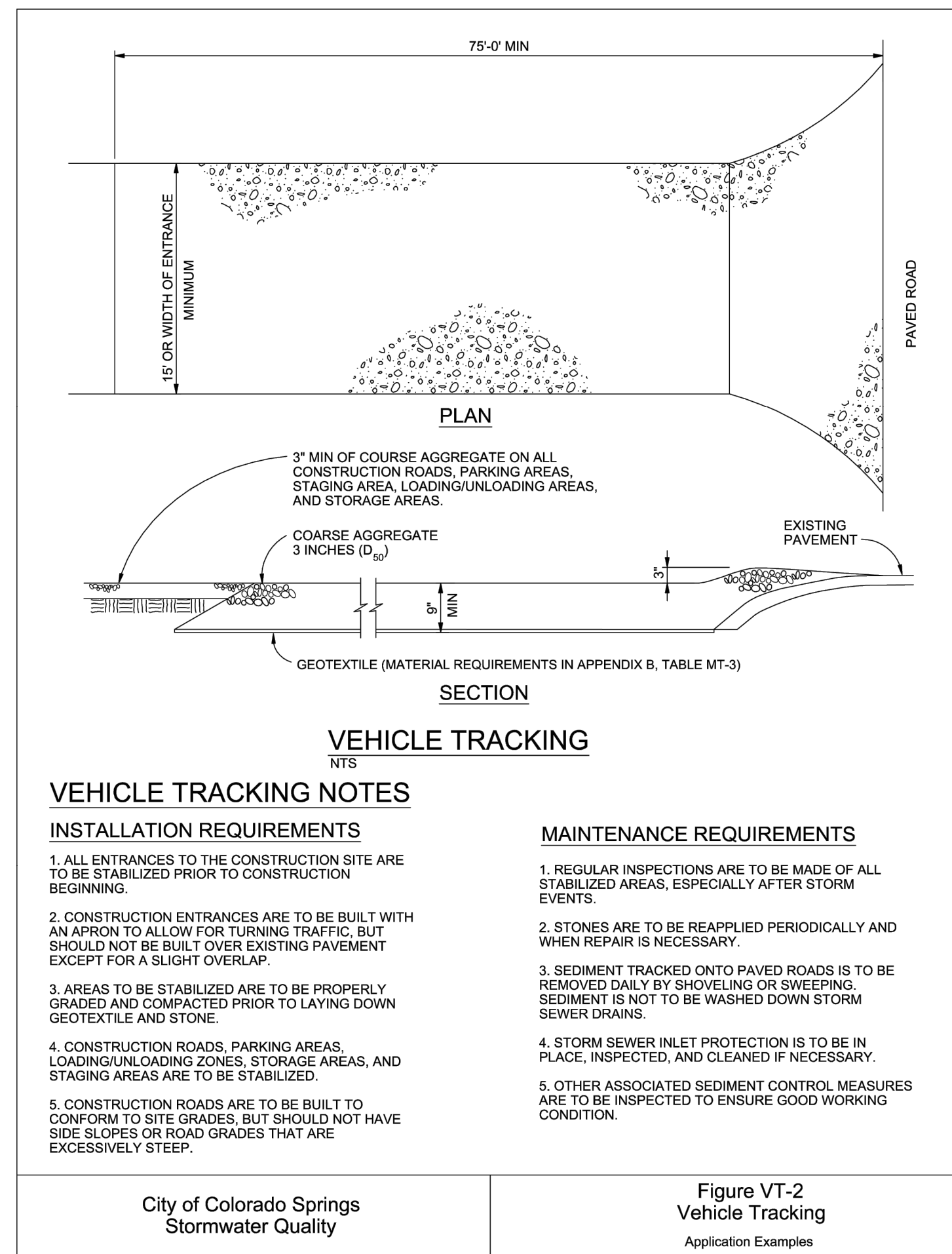
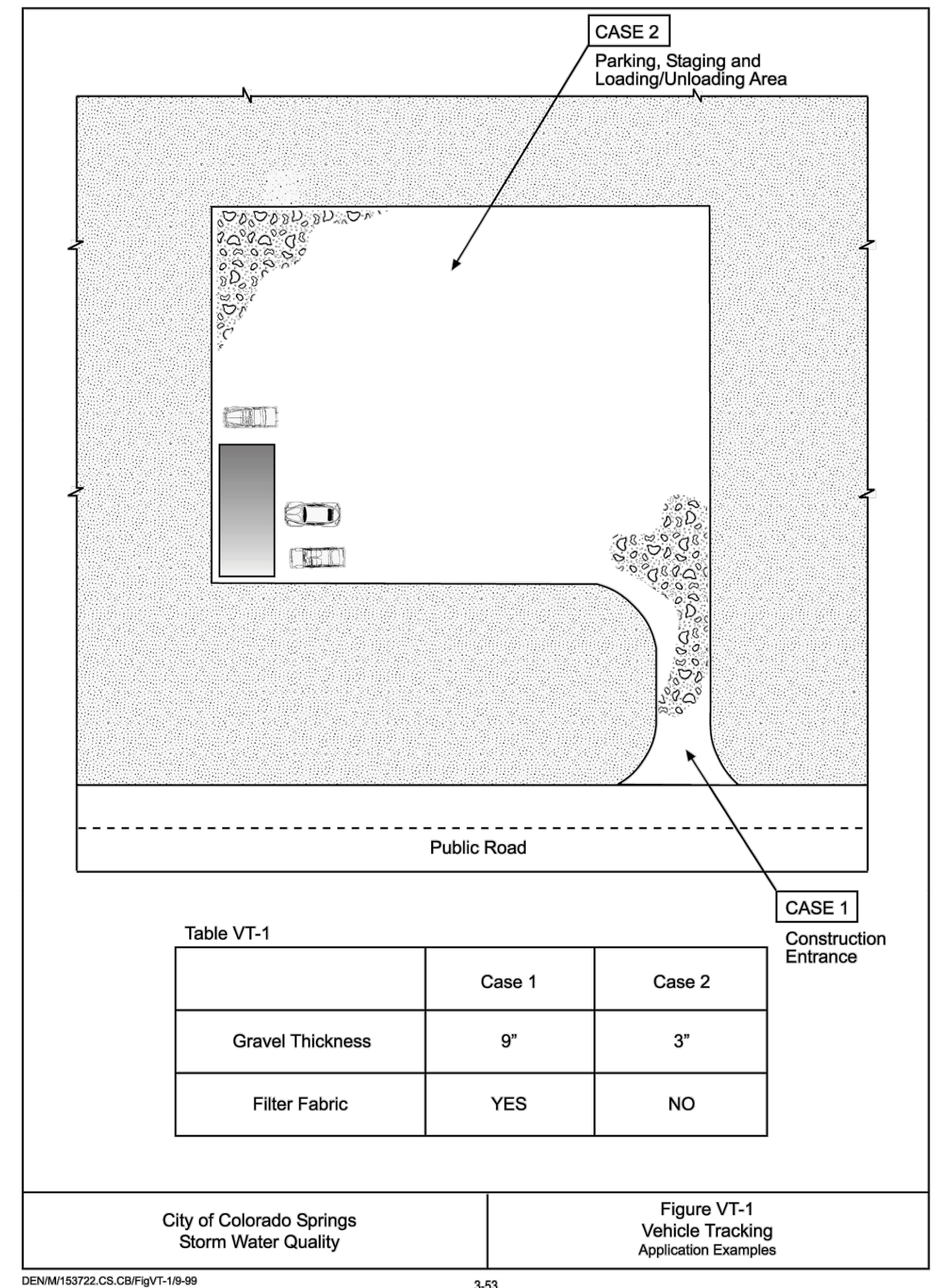
- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR LOCATION OF STAGING AREA(S). CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
  - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
  - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
  - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
  - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
  - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- STABILIZED STAGING AREA MAINTENANCE NOTES**
- 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 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.
  - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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

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

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
  - 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, SEED, AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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



**SEDIMENT BASIN 1 - POND A INITIAL PHASE**

**SEDIMENT BASIN STAGE-STORAGE CALCULATIONS**

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft.	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft.	Proration Enter Vol. in Cu-Ft	Proration Enter Vol. in Acre-Ft	Elev. ft.
7455.0	1675								
7456.0	2212		1,937		1,937	0.044			
7457.0	2806		2,503		4,441	0.102			
7458.0	3457		3,126		7,566	0.174	5,858	0.134	7,457.55
7459.0	4164		3,805		11,371	0.261	11,715	0.269	7,459.08
7460.0	4164		4,164		15,535	0.357			

**COLUMN 1**

ORIFICE 1-1 7,457.55

ORIFICE 2-1 7,457.88

ORIFICE 3-1 7,458.21

ORIFICE 4-1 7,458.54

**SED Basin riser pipe orifice calculations**

A<sub>0</sub> = area per row of orifices spaced on 4" centers (in<sup>2</sup>)

V = 0.1345 design volume (acre feet) \* <15 ac.

T<sub>0</sub> = 72 time to drain the prescribed volume (hrs) (Typically 72 hours for EURV)

H = 1.532 depth of volume (ft)

S = 0.0001 Trickle channel slope (ft/ft) [Use 0.0001 for flat slope]

S = 0%

A<sub>0</sub> = 0.4154 in<sup>2</sup> **0.4141 in<sup>2</sup>**

Dia = 0.73 in **\*EXCEEDS 1", USE TWO COLUMNS @ A<sub>0</sub>=0.61 in<sup>2</sup>**

**SEDIMENT VOLUME CALCULATIONS**

Disturbed area-acres	2.500	Acres	
Undisturbed area-acres	5.430	Acres	
Total Area-acres	7.930	Acres	
Sediment volume	11,715	cu-ft	0.2699 Acres-ft
Volume below lowest hole	5,858	cu-ft	0.1345 Acres-ft
Volume above lowest hole	5,858	cu-ft	0.1345 Acres-ft
Total Volume	11,715	cu-ft	0.2699 Acres-ft

**Note:** Enter values in highlighted cells only.

**SEDIMENT BASIN 2 - POND B INITIAL PHASE**

**SEDIMENT BASIN STAGE-STORAGE CALCULATIONS**

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft.	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft.	Proration Enter Vol. in Cu-Ft	Proration Enter Vol. in Acre-Ft	Elev. Cu-Ft
7451.0	2212								
7452.0	2806		2,503		2,503	0.057	4,500		7,452.64
7453.0	3457		3,126		5,629	0.129	4,500		7,452.70
7454.0	4164		3,805		9,434	0.217			

**COLUMN 1**

ORIFICE 1-1 7,452.64

ORIFICE 2-1 7,452.97

**SED Basin riser pipe orifice calculations**

A<sub>0</sub> = area per row of orifices spaced on 4" centers (in<sup>2</sup>)

V = 0.1033 design volume (acre feet) \* <15 ac.

T<sub>0</sub> = 72 time to drain the prescribed volume (hrs) (Typically 72 hours for EURV)

H = 0.064 depth of volume (ft)

S = 0.0001 Trickle channel slope (ft/ft) [Use 0.0001 for flat slope]

S = 0%

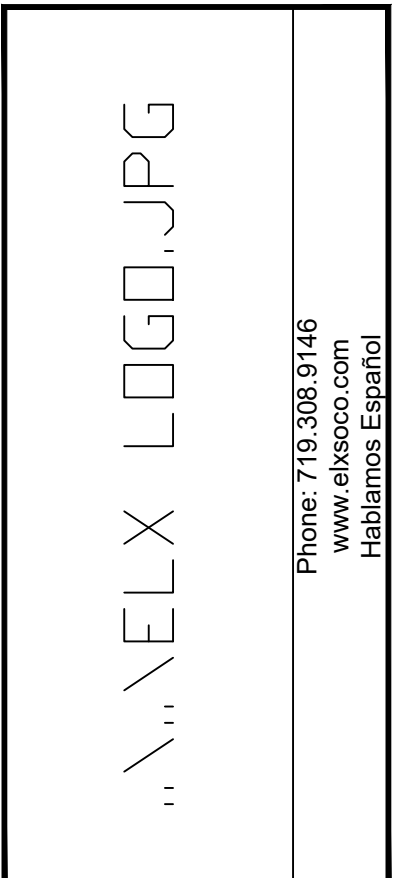
A<sub>0</sub> = 0.2885 in<sup>2</sup> **0.2876 in<sup>2</sup>**

Dia = 0.61 in **\*EXCEEDS 1", USE TWO COLUMNS @ A<sub>0</sub>=3.05 in<sup>2</sup>**

**SEDIMENT VOLUME CALCULATIONS**

Disturbed area-acres	2.500	Acres	
Undisturbed area-acres	0.000	Acres	
Total Area-acres	2.500	Acres	
Sediment volume	9,000	cu-ft	0.2066 Acres-ft
Volume below lowest hole	4,500	cu-ft	0.1033 Acres-ft
Volume above lowest hole	4,500	cu-ft	0.1033 Acres-ft
Total Volume	9,000	cu-ft	0.2066 Acres-ft

**Note:** Enter values in highlighted cells only.



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**PROJECT NAME:**  
MARIAH TRAIL  
FILING NO. 1

**PROJECT LOCATION:**  
LOTS 1-6, MARIAH TRAIL  
SUBDIVISION  
FILING NO. 1  
EL PASO COUNTY, COLORADO

**CLIENT:**  
MR. THOMAS KIRK

**CONTACT INFO:**  
THOMAS KIRK  
19205 MARIAH TRAIL  
COLORADO SPRINGS, CO  
80908-1123

**PROFESSIONAL SEAL:**

**DATE:** 05/01/23  
**DESCRIPTION:** SUBMITTAL 1

08/04/23 SUBMITTAL 2

JOB #: 100678

DRAWN BY: CDS  
REVIEWED BY: CDS  
PROJ. MNGR.: CDS

**PLAN SET:**  
MAJOR SUBDIVISION  
CONSTRUCTION DRAWINGS

**SHEET TITLE:**  
GRADING AND EROSION CONTROL  
DETAILS

**SHEET NO.:**  
GEC-3