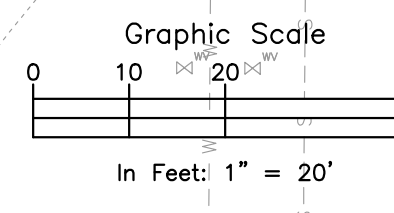
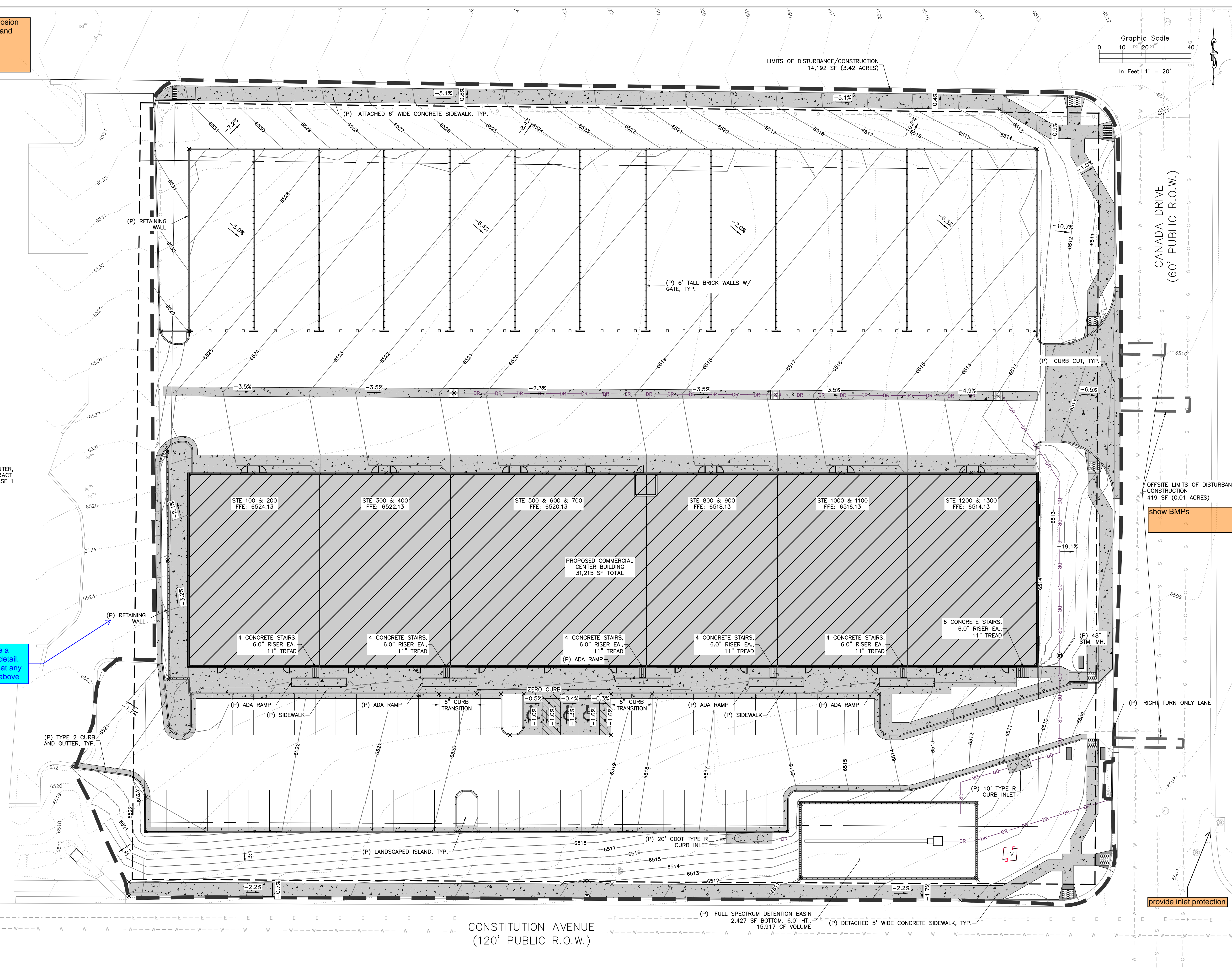


Show plan grading and erosion controls prior to concrete and building installation.



6805 BISMARCK ROAD
SCH: 5332309007
ZONING: CC CAD-0
PLAT NO. 7776
LOTS 1 & 2 NORTHCREST CENTER,
A VACATION & REPLAT OF TRACT
B NORTHCREST FIL NO 2 PHASE 1

Please provide a retaining wall detail. Please note that any retaining wall above



ROCKY MOUNTAIN GROUP
ARCHITECTS
Geotechnical
Materials Testing
Civil Planning
RMG
ENGINEERS
SOUTHERN COLORADO
2910 ALSTON BLUFFS PARKWAY, COLORADO SPRINGS, CO 80918
719-536-6600 WWW.ROCKYMOUNTAINENGINEERS.COM
Structural, Geotechnical, Drainage, Planning, Architectural, Electrical

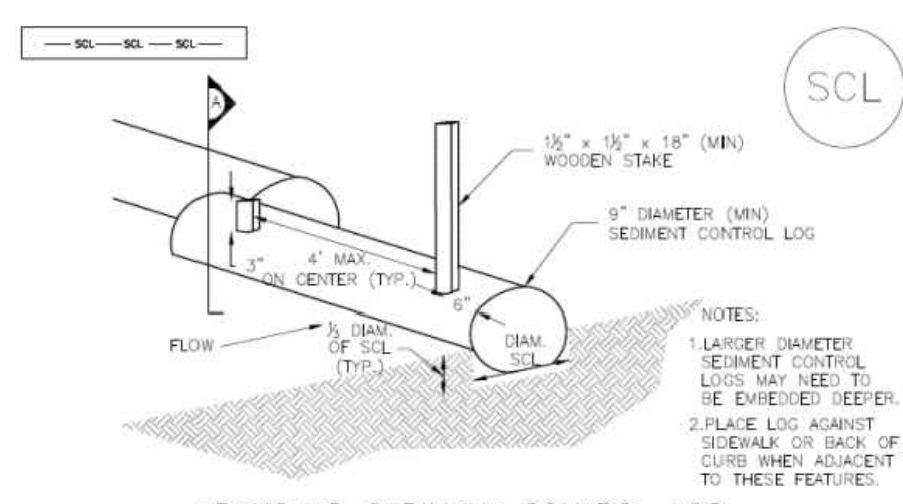
NOT FOR CONSTRUCTION
FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT
PETERSON ROAD AND CONSTITUTION AVENUE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

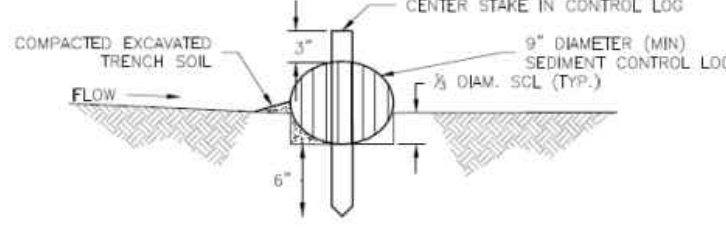
SHEET NAME
PRELIMINARY GRADING AND DRAINAGE
PROJECT STATUS
DESIGN DEVELOPMENT

ENG:	SAM	
DRAWN:	ASP	
CHECKED:	SAM	
DATE	06/18/2021	
#	REVISION	DATE
JOB NO.	180649	
SHEET NO.	C-02	
	of 4	

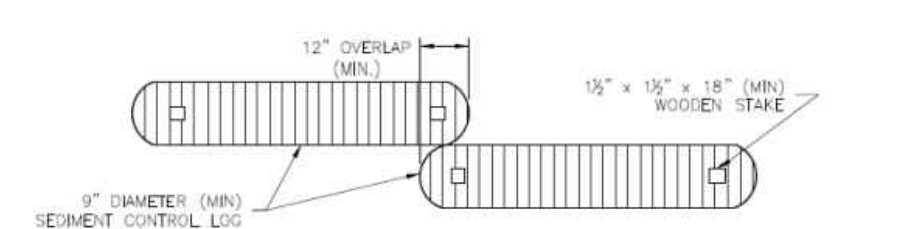
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TRENCHED SEDIMENT CONTROL LOG

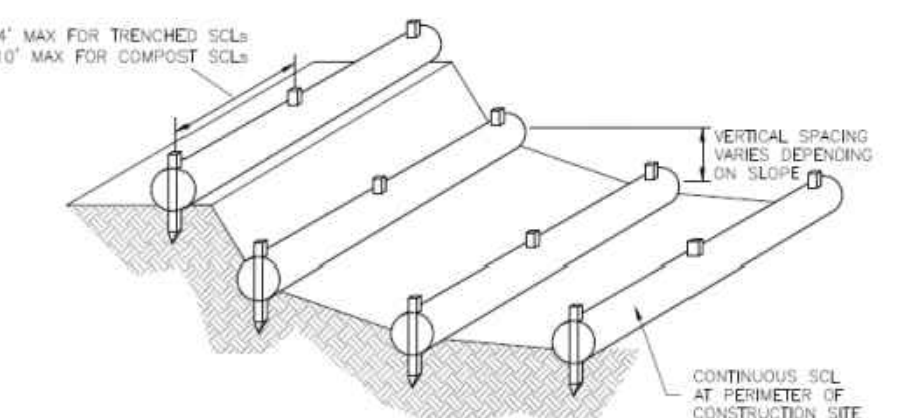


SECTION A
TRENCHED SEDIMENT CONTROL LOG



LOG JOINTS

SCL-1. TRENCHED SEDIMENT CONTROL LOG



SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG INSTALLATION NOTES

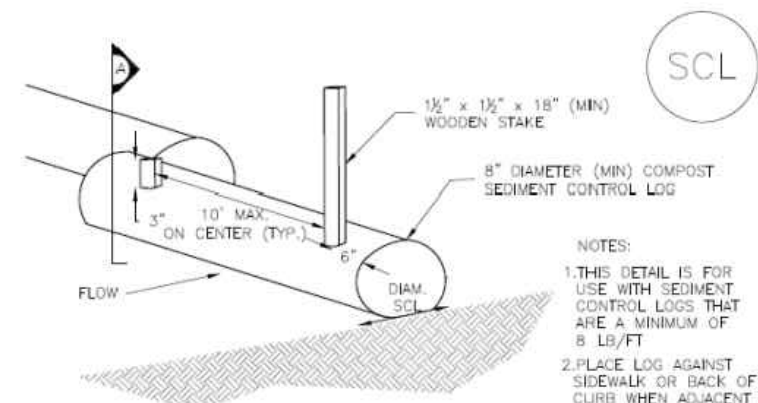
- SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
- SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE LAND-DISTURBING ACTIVITIES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
- SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.
- IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.
- THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.
- FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

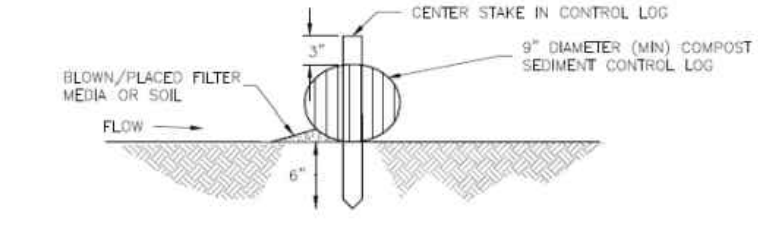
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS 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.
- SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED, IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

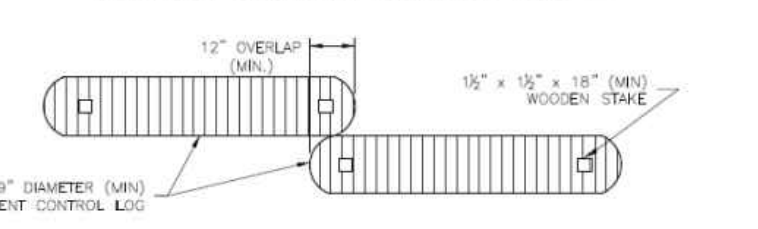
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

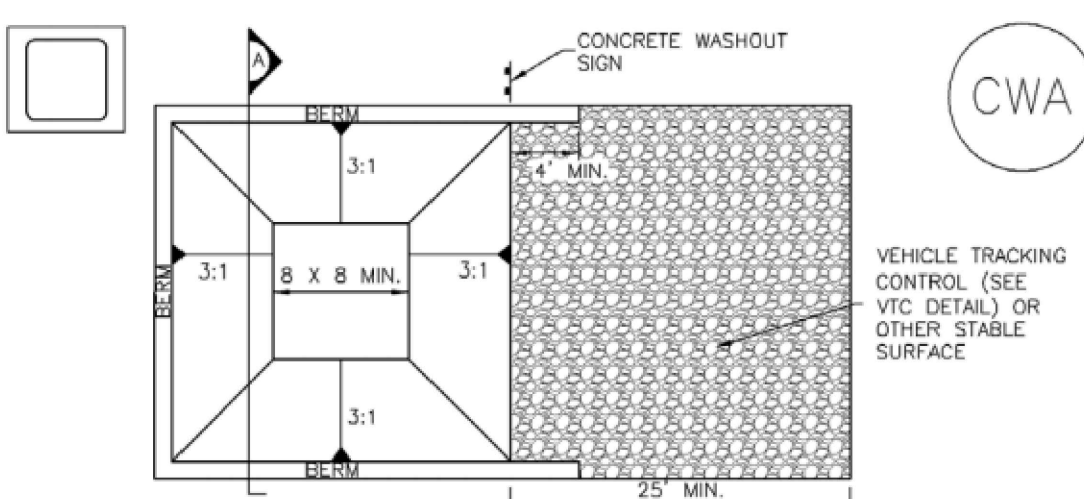


SECTION A
COMPOST SEDIMENT CONTROL LOG

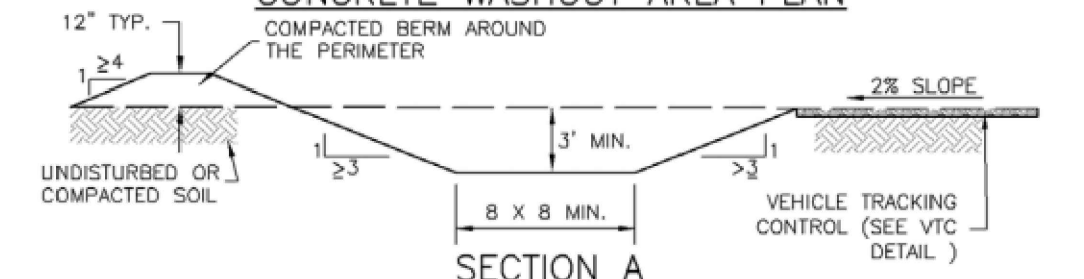


LOG JOINTS

SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



CONCRETE WASHOUT AREA PLAN



SECTION A

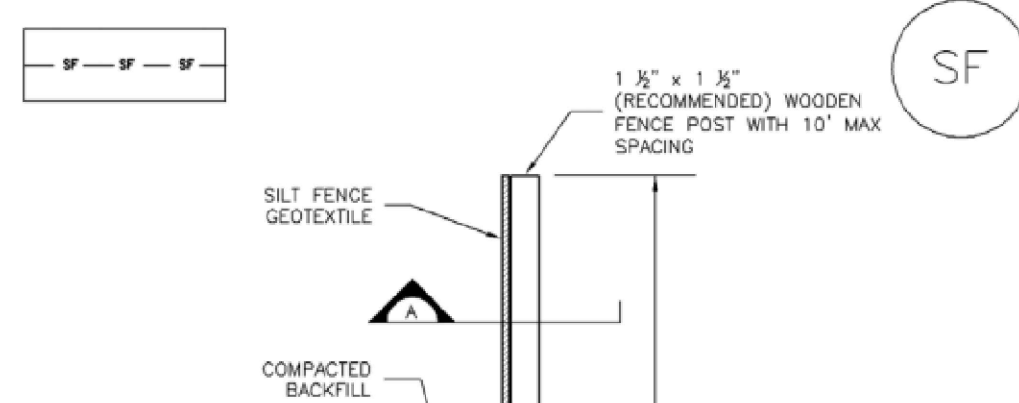
CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

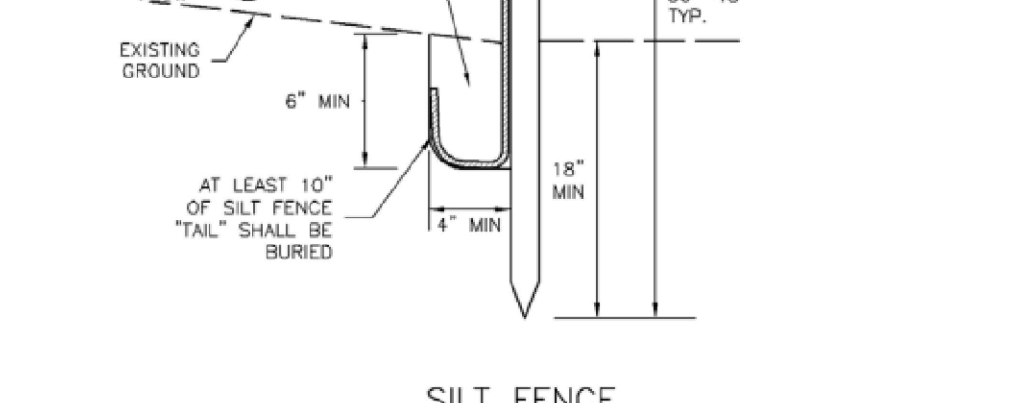
- SEE PLAN VIEW FOR CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS UNFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE AREA SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA 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.
- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

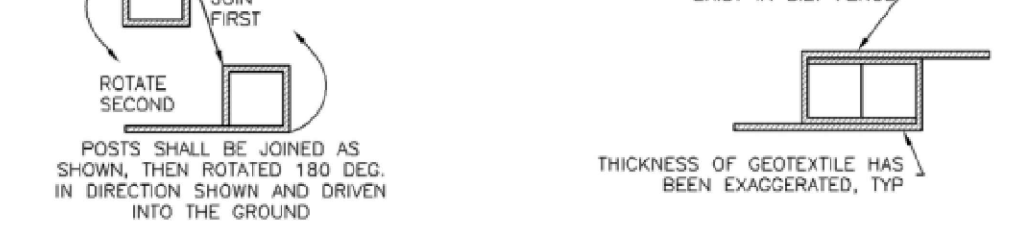


SILT FENCE



SECTION A

SF-1. SILT FENCE



POSTS SHALL BE JOINED AS SHOWN, THEN ROTATED 180 DEG. IN DIRECTION SHOWN AND DRIVEN INTO THE GROUND.

THICKNESS OF GEOTEXTILE HAS BEEN EXAGGERATED, TYP.

POSTS SHALL OVERLAP AT JOINTS SO THAT NO GAPS EXIST IN SILT FENCE.

ROTATE SECOND

AT LEAST 10" OF SILT FENCE "TAIL" SHALL BE BURIED

6" MIN

EXISTING GROUND

36"-48" TYP.

1 1/2" x 1 1/2" (RECOMMENDED) WOODEN FENCE POST WITH 10' MAX SPACING

SILT FENCE GEOTEXTILE

COMPACTED BACKFILL

UNDISTURBED SOIL

PERIMETER ANCHOR TRENCH, TYP.

TOP OF CHANNEL BANK

ANCHOR DETAILS

GEOTEXTILE FABRIC OR MAT, TYP.

3" MIN. TYP.

SHOULDER

STAKE, TYP.

COMPACTED BACKFILL

PERIMETER ANCHOR TRENCH

TWO EDGES OF TWO ADJACENT ROLLS

LOOP FROM MIDDLE OF ROLL

INTERMEDIATE ANCHOR TRENCH

FLOW

OVERLAPPING JOINT

3" MIN.

WOOD STAKE DETAIL

TYPE OF ECB AS INDICATED IN PLAN VIEW. INSTALL INITIAL DISTURBED AREAS OF STREAMS AND DRAINAGE CHANNELS TO (DEPTH D ABOVE CHANNEL INVERT. ECB SHALL GENERALLY BE ORIENTED PARALLEL TO FLOW DIRECTION (I.E. LONG DIMENSIONS OF BLANKET PARALLEL TO FLOWLINES) STAKING PATTERN SHALL MATCH ECB AND/OR CHANNEL TYPE.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

COMPACTED SURFACE

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

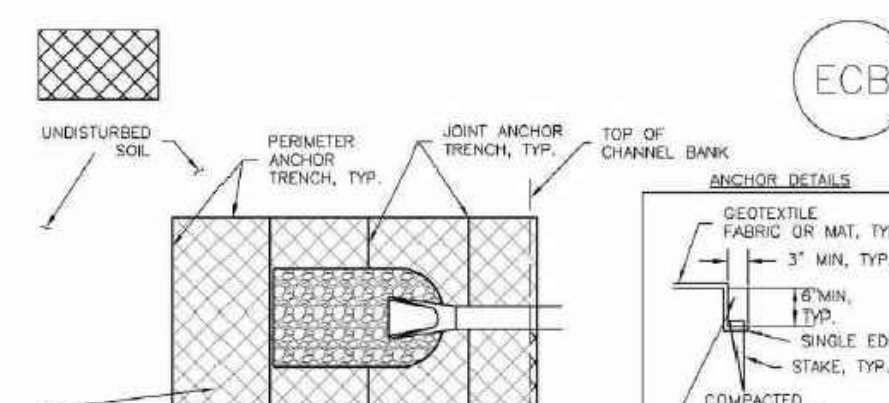
ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

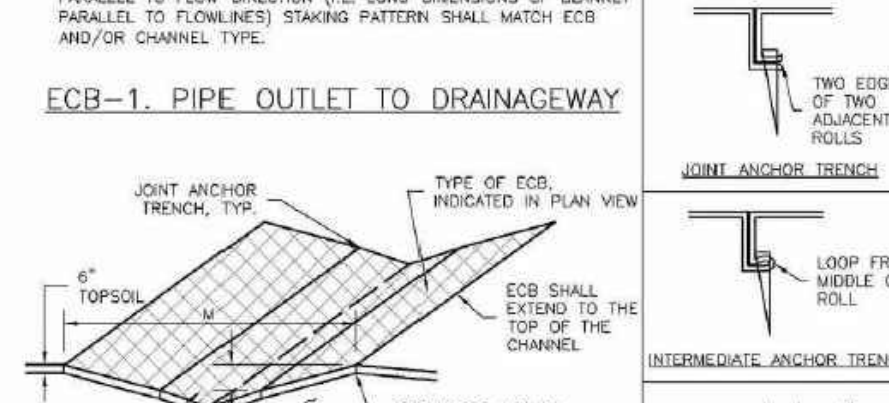
JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.



ECB-1. PIPE OUTLET TO DRAINAGEWAY



ECB-2. SMALL DITCH OR DRAINAGEWAY



STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

COMPACTED SURFACE

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

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STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

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ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN

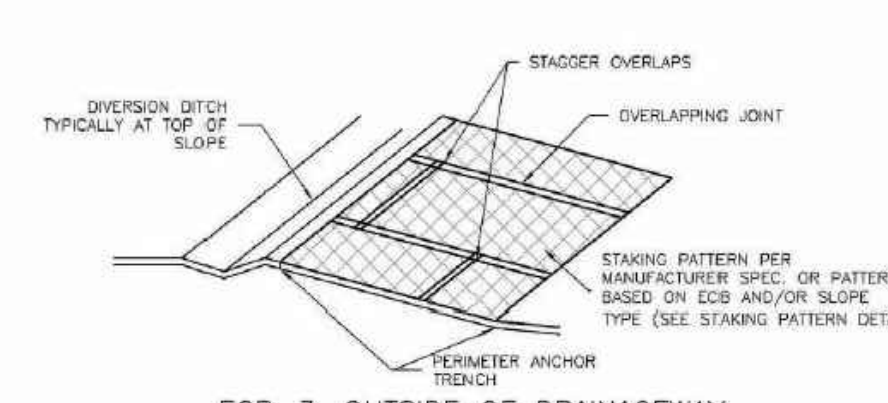
PERIMETER ANCHOR TRENCH, TYP.

ECB SHALL EXTEND TO THE TOP OF THE CHANNEL

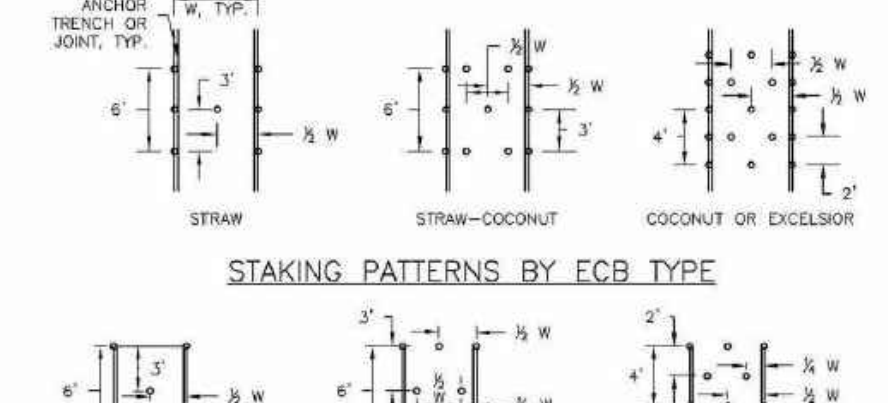
6" TOPSOIL

JOINT ANCHOR TRENCH, TYP.

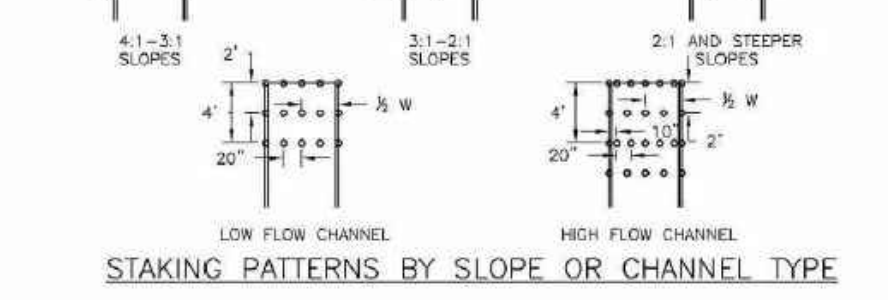
STAKING PATTERN PER MANUFACTURER SPEC. OR PATTERN



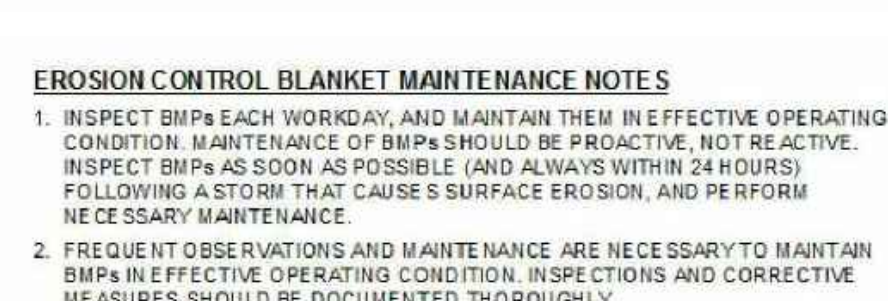
ECB-3. OUTSIDE OF DRAINAGEWAY



STAKING PATTERNS BY ECB TYPE



STAKING PATTERNS BY SLOPE OR CHANNEL TYPE



LOW FLOW CHANNEL

HIGH FLOW CHANNEL

EROSION CONTROL BLANKET INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF ECB.
 - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
 - AREA, A. IN SQUARE YARDS OF EACH TYPE OF ECB.
- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR ECBs.
- IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND UNDISTURBED PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
- INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
- MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEEDED AND MULCHED.
- DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

SILT FENCE 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.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

TABLE ECB-1. ECB MATERIAL SPECIFICATION				
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW*	-	100%	-	DOUBLE NATURAL
STRAW COCONUT	30% MIN	70% MAX	-	DOUBLE NATURAL
COCONUT	100%	-	-	DOUBLE NATURAL
EXCELSIOR	-	-	100%	DOUBLE NATURAL

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNELS

ROLLED EROSION CONTROL PRODUCTS



