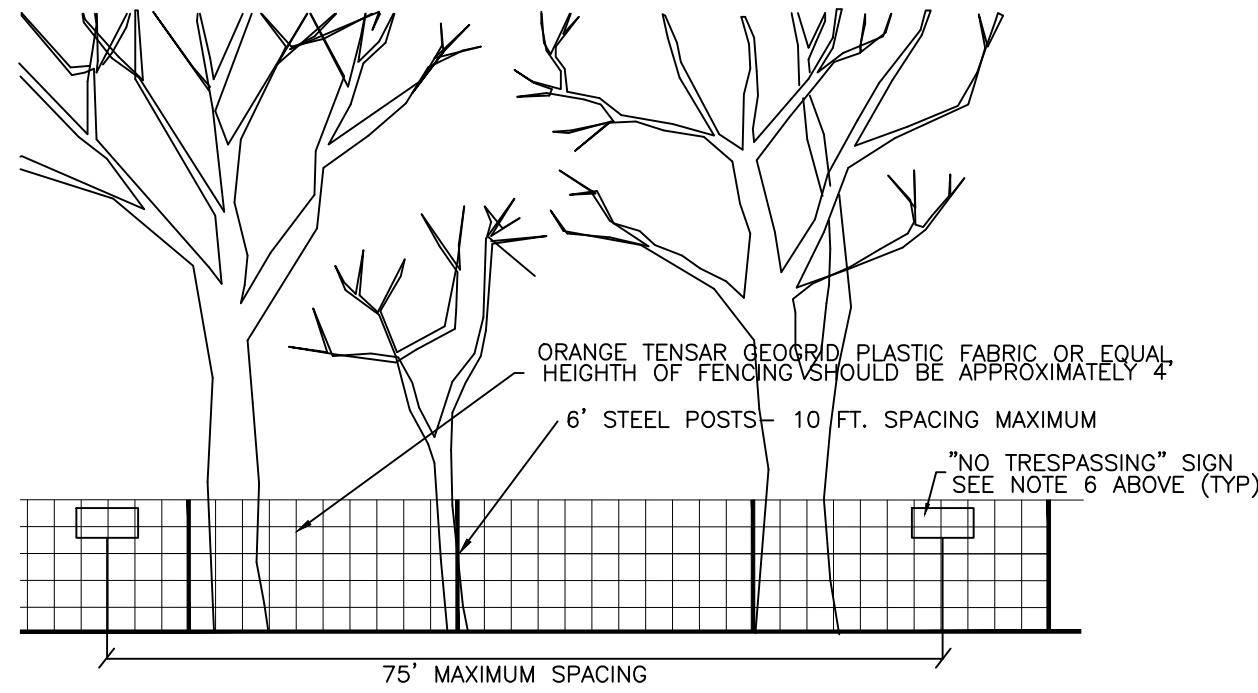
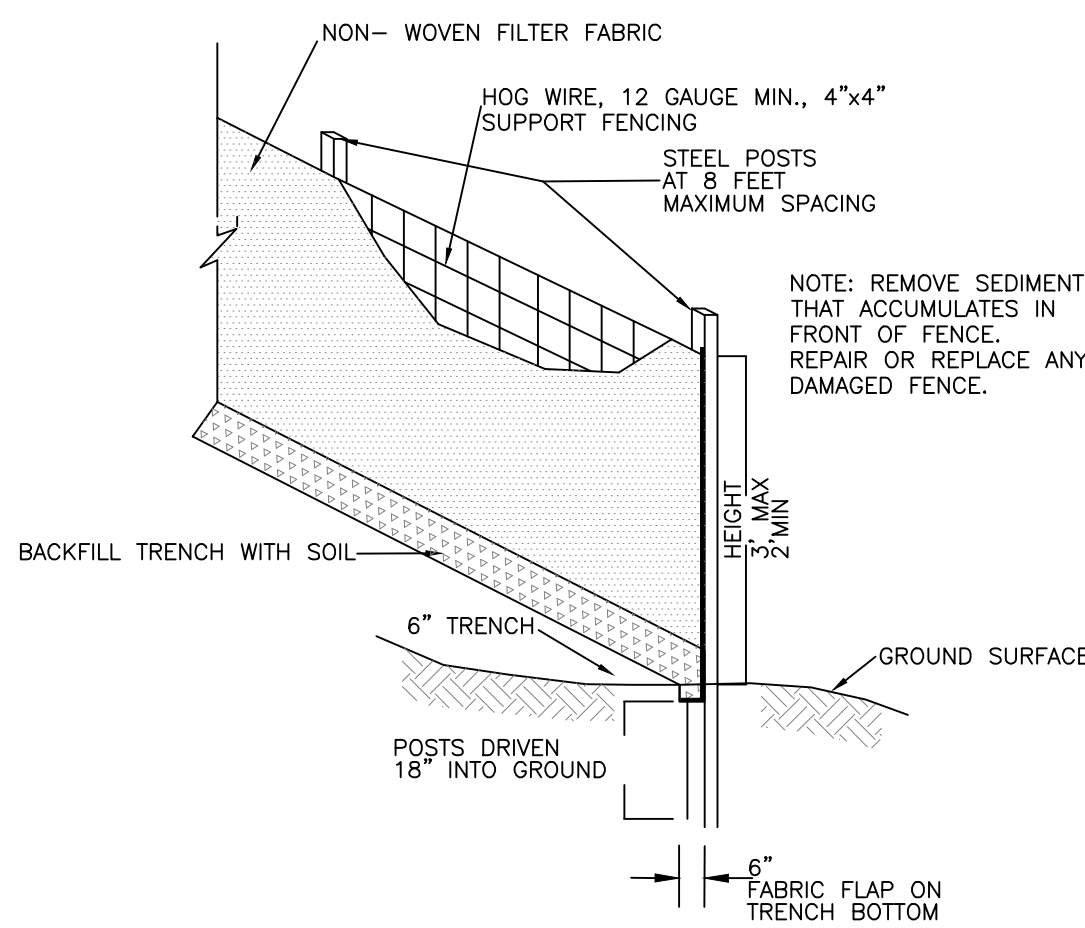


#### NOTES:

1. MOVE FENCE OR REMOVE TREE IF MORE THAN 20% OF A TREE'S CRITICAL ROOT AREA IS UNPROTECTED.
2. ROOT PRUNE TREES TO REMAIN WHERE CONSTRUCTION ACTIVITIES WILL SEVER ROOTS.
3. ANY TREE ROOTS EXPOSED BY CONSTRUCTION SHALL BE SEVERED CLEANLY WITH A PRUNING TOOL.
4. DO NOT DISPOSE OF ANY CHEMICALS OR REMOVE SOIL OUTSIDE THE LIMITS OF WORK.
5. WHEN INSTALLING NEW LANDSCAPE PLANTS, DO NOT DRIVE EQUIPMENT UPON OR DISTURB THE SOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
6. SIGNAGE MUST BE PLACED ON TREE PROTECTION FENCING WITH A MINIMUM MINIMUM SPACING OF 75' O.C., TO READ "TREE PROTECTION AREA - NO TRESPASSING WITHIN THE FENCE".



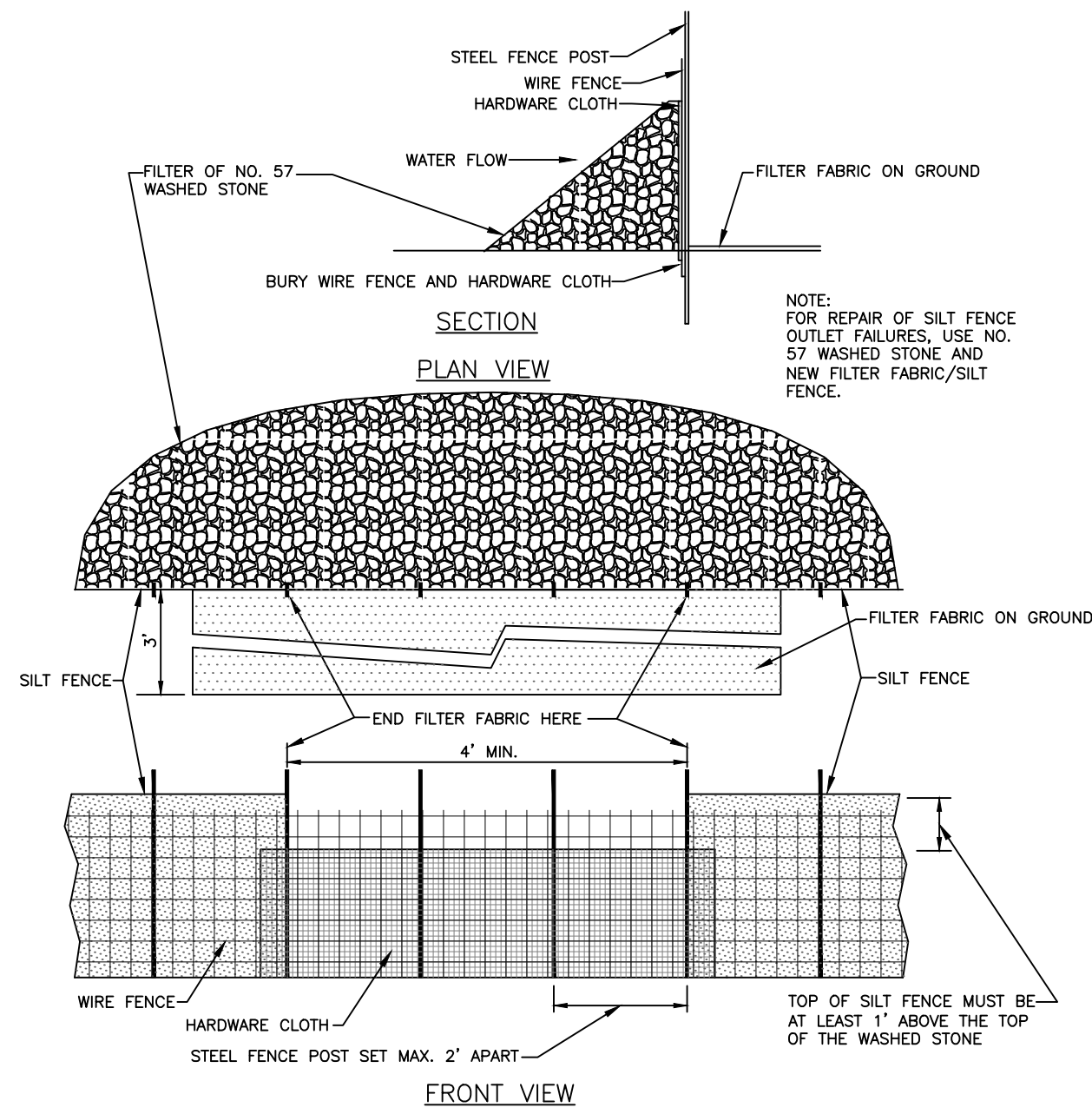
#### 1/CD-4.1 TREE PROTECTION FENCING SCALE: NTS



#### MAINTENANCE

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

#### 2/CD-4.1 SILT FENCE SCALE: NTS



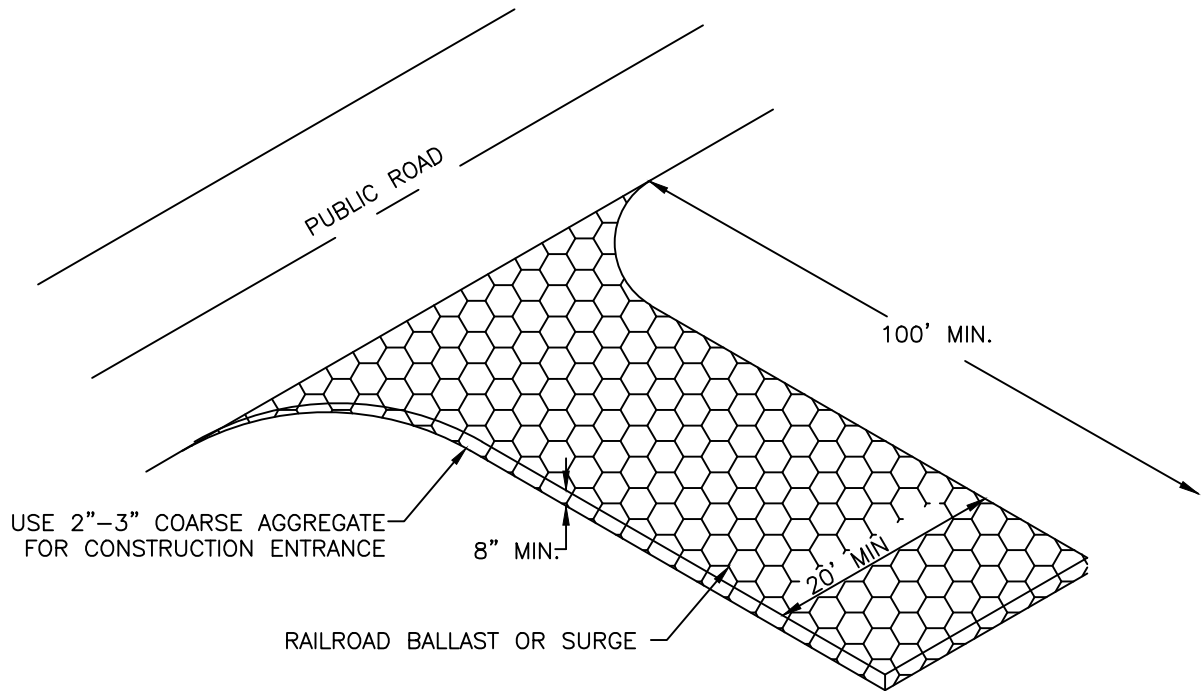
**MAINTENANCE**  
INSPECT SILT FENCE OUTLETS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS AS NEEDED.

REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.

WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY.

BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. STABILIZE AREAS AROUND THE OUTLET.

#### 3/CD-4.1 SILT FENCE OUTLET SCALE: NTS



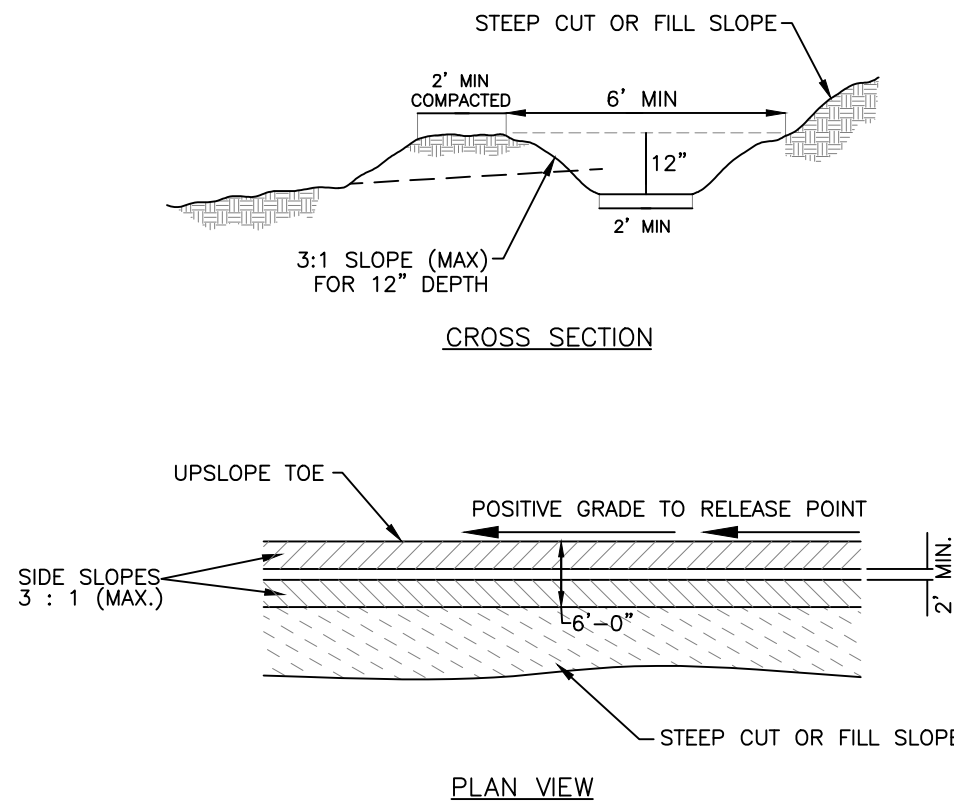
#### CONSTRUCTION SPECIFICATIONS

1. AVOID CURVES IN PUBLIC ROADS AND STEEP SLOPES. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM FOUNDATION AREA. GRADE AND CROWN FOUNDATION FOR POSITIVE DRAINAGE.
2. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6 TO 8 INCHES HIGH WITH 3:1 SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FT FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.
3. PLACE NON-WOVEN GEO-TEXTILE FABRIC ON GRADED FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.
4. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
5. INSTALL PIPE UNDER PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

**MAINTENANCE:**  
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC REMOVAL AND REPLACEMENT OF STONE, AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

#### 4/CD-4.1 CONSTRUCTION ENTRANCE SCALE: NTS

SCHEDULE				
OUTLET	WIDTH b (ft)	Slope (%)	Lining	
DITCH 1	0	4.2	N/A	SC250

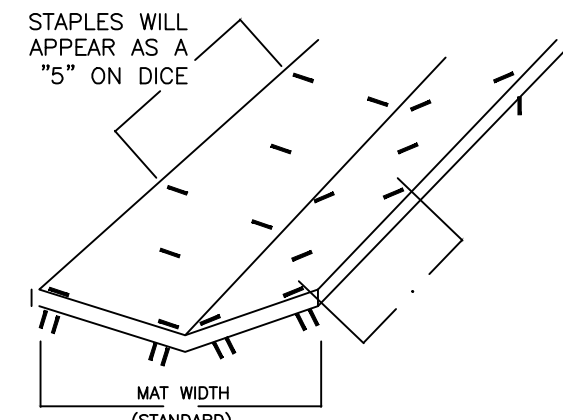


STABILIZE TEMPORARY DIVERSION DITCH WITH TEMPORARY SEEDING AND EROSION CONTROL BLANKET

AFTER CONSTRUCTION, TEMPORARY DIVERSION DITCHES WILL BE FILLED IN AND STABILIZED

#### 5/CD-4.1 TEMPORARY DIVERSION DITCH SCALE: NTS

EROSION CONTROL BLANKET (TO BE INSTALLED AS SHOWN AND AS DIRECTED BY ENGINEER. PAYMENT TO BE AT THE UNIT PRICE NAMED IN THE CONTRACT)



USE 4 STAPLES ACROSS AT THE START OF EACH ROLL AND CONTINUE TO STAPLE THROUGHOUT THE LENGTH AT 4 FT. INTERVALS

IN AREAS WITH HIGH WATER VELOCITY, STAPLES SHOULD BE ON FOOT CENTERS.

#### 6/CD-4.1 EROSION CONTROL BLANKET SCALE: NTS

#### INSTALLATION

1. REMOVE OUTER WRAPPING.
2. LOCATE BEGINNING OF ROLL WITH STARTER SHEET.
3. MAKE SURE NETTING APPEARS ON TOP OF THE BLANKET WHEN BEING UNROLLED.
4. STAPLE BLANKET SECURELY TO SOIL AS APPLIED.

#### INSTRUCTIONS

THE EROSION CONTROL BLANKET SHOULD BE INSTALLED OVER A PROPERLY PREPARED, FERTILIZED, AND SEEDED AREA. WHEN THE BLANKET IS UNROLLED, THE NETTING SHOULD BE ON TOP AND THE BLANKET IN CONTACT WITH THE SOIL OVER THE ENTIRE AREA. IT IS NOT NECESSARY TO OVERLAP, DIG CHECK SLOTS, ANCHOR DITCHES, OR BURY THE ENDS OF THE BLANKETS.

THE STAPLES SHOULD BE DRIVEN VERTICALLY INTO THE GROUND. EACH BLANKET SHALL BE STAPLED AT EACH EDGE AND ALTERNATELY SPACED IN THE CENTER OF EACH BLANKET. USE A COMMON ROW OF STAPLES AT THE SEAM FORMED BY TWO ADJOINING BLANKETS. USE FOUR STAPLES AT THE BEGINNING AND END OF EACH BLANKET.

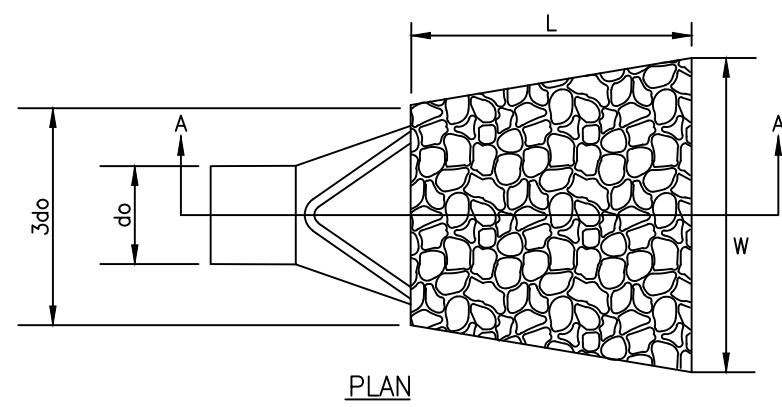
IN DITCHES, THE BLANKETS SHOULD BE APPLIED IN THE DIRECTION OF WATER FLOW, BUTTED SHUPLY AT ENDS AND SIDES AND STAPLED IN PLACE. WHEN USING TWO OR MORE BLANKETS SIDE BY SIDE, DO NOT PLACE A SEAM FORMED BY EDGES OF ADJOINING BLANKETS DIRECTLY IN THE CENTER OF THE WATER FLOW.

STAPLES SHOULD BE SPACED NO MORE THAN FOUR FEET APART DOWN THE LENGTH OF THE BLANKET. APPROXIMATELY 90 TO 95 STAPLES REQUIRED FOR EACH BLANKET.

STAPLES: THE STAPLES SHALL BE MADE OF WIRE, .091" IN DIAMETER OR GREATER, "U" SHAPED WITH LEGS 6" IN LENGTH AND A 1" CROWN. SIZE AND GAUGE OF STAPLES USED WILL VARY WITH SOIL CONDITIONS.

THE STAPLES SHALL BE DRIVEN VERTICALLY INTO THE GROUND, SPACED APPROXIMATELY TWO (2) LINEAL YARDS APART, ON EACH SIDE, AND ONE ROW IN THE CENTER ALTERNATELY SPACED BETWEEN EACH SIDE. (60 STAPLES ON EACH BLANKET). USE A COMMON ROW OF STAPLES ON ADJOINING BLANKETS.

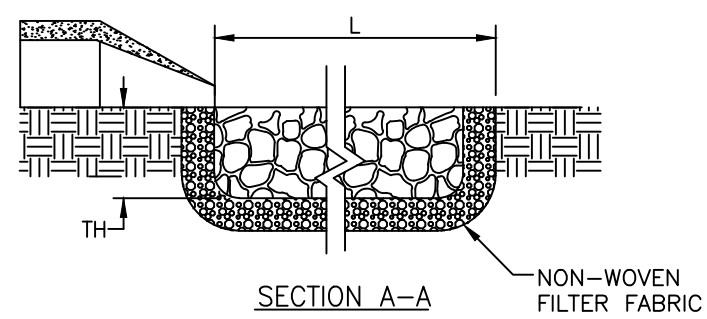
MAINTENANCE: INSPECT AT LEAST WEEKLY AND AFTER EACH RAIN OF 1/2" OR MORE. GOOD GROUND CONTACT WITH BLANKET MUST BE MAINTAINED. ANY AREAS FOUND DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED. REPAIR ANY ERODED AREAS IF FOUND. MONITOR UNTIL GROUND COVER IS ESTABLISHED.



#### NOTES:

1. L IS THE LENGTH OF THE RIPRAP APRON.
2. TH=1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK WHICHEVER IS LESS.
4. A NON-WOVEN FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL CONFORMANCE. FILTER FABRIC SHALL CONFORM TO AASHTO M-288 STANDARDS.
5. SEE SCHEDULE FOR RIPRAP SIZE, WIDTH, & LENGTH.

SCHEDULE				
OUTLET	L(ft)	W(ft)	TH(in)	STONE
EX FES1	10.0	7.8	26	CL I



#### 7/CD-4.1 RIP RAP APRON SCALE: NTS

FALL/WINTER/SPRING TEMPORARY COVER				
Lime	10-10-10 Fertilizer	100 lbs/1000 sf	25 lbs/1000 sf	2 lbs/1000 sf
Oat Seed	Rye Grain Seed	100 lbs/1000 sf	1 lbs/1000 sf	100 lbs/1000 sf
Straw Mulch *				
SUMMER TEMPORARY COVER				
Lime	10-10-10 Fertilizer	100 lbs/1000 sf	15 lbs/1000 sf	1 lbs/1000 sf
Brown Top Millet Seed	Straw Mulch *	100 lbs/1000 sf		
SPRING/FALL PERMANENT COVER				
Lime	10-10-10 Fertilizer	100 lbs/1000 sf	25 lbs/1000 sf	8 lbs/1000 sf
Improved Turf Type Fine Fescue Seed	Straw Mulch *	100 lbs/1000 sf		
SUMMER PERMANENT COVER				
GRASS	PLANTING DATE	SEEDS	SPRINGS	STOLONS
BERMUDAGRASS	APRIL-JULY	1-2	.75	3-5
BERMUDAGRASS(HYBRID)	APRIL-JULY	-	.75	3-5
CENTIPEDGRASS	MARCH-JULY	.25-.50	.75	-
ST.AUGUSTINEGRASS	APRIL-JULY	-	1.0	-
TALL FESCUE	SEPT.-OCT.15	6	-	-
ZOYIAGRASS	MAY-JULY	.50-1.0	.25	3-5

1. OPTIMUM DATE OF PLANTING. SEEDING BEYOND THESE DATES INCREASES THE CHANCE OF FAILURE.
2. POUNDS PER 1000 SQ.FT.
3. BUSHELS PER 1000 SQ.FT.

Seedbed Preparation: Remove rocks, stumps, roots, etc. Apply lime and fertilizer then rip the soil 4 to 6 inches to mix the nutrients into the soil and to loosen and roughen it to receive seed.

Seed Temporary cover to stabilize temporary sedimentation control measures and other accomplished. If planting season is not suitable for installation of permanent cover, Contractor shall install temporary cover suitable for that season and reuse with permanent grass at earliest possible date.

\* Anchor straw mulch by applying an asphalt binder emulsion at a rate of 10 gallons per 1000 SF, or install jute, paper or twine netting or excelsior mats staked to ground according to the manufacturer's instructions.

#### 8/CD-4.1 SEEDING SCHEDULE SCALE: NTS

Ground Stabilization*		
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches, and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HWQ Zones)

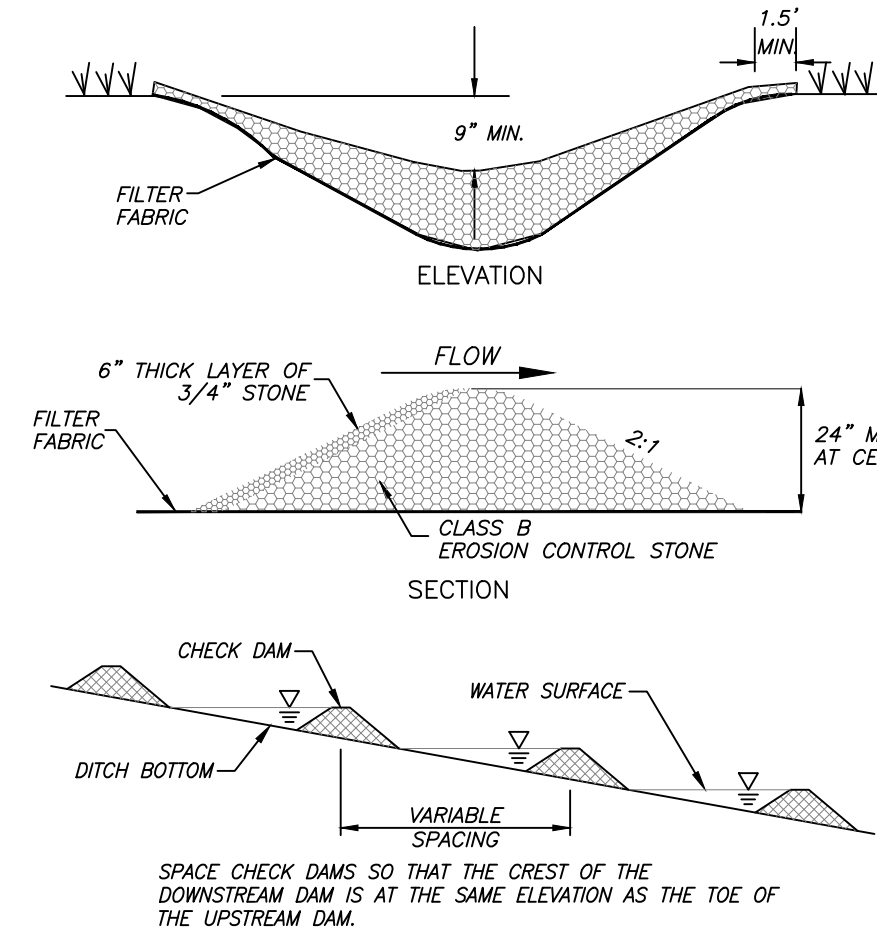
\* "Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable" (Section 11.B(2)(b))

#### STABILIZATION TIME TABLE

1. All permanent dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3:1 shall be provided with temporary or permanent stabilization with groundcover as soon as practicable but within 7 calendar days from last land-disturbing activity.
2. All other disturbed areas shall be provided with temporary or permanent stabilization with groundcover as soon as practicable but in any event within 14 calendar days from last land-disturbing activity.

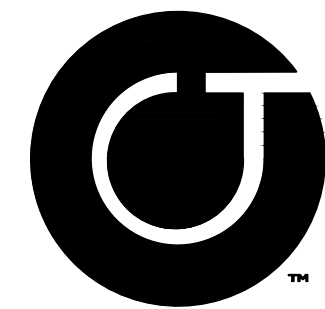
"EXPOSED" AREAS INCLUDE, BUT ARE NOT LIMITED TO:

- AREAS CLEARED FOR ROADWAY CONSTRUCTION.
- AREAS CLEARED ON RESIDENTIAL BUILDING LOTS.
- DRAINAGE EASEMENTS AND OPEN DRAINAGE CHANNELS.
- SEDIMENT AND EROSION CONTROL MEASURES (SEDIMENT TRAPS, DIVERSION DITCHES, ETC.) AND THE AREAS ADJACENT TO SUCH MEASURES.



**MAINTENANCE**  
INSPECT CHECK DAMS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE CHECK DAMS. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. REMOVE AND REPLACE STONE AS NECESSARY. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL CHECK DAM MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

#### 9/CD-4.1 ROCK CHECK DAM SCALE: NTS



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Project

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0830-06-48-8582

CJT Job Number: 1707

Drawn: VIC/PBR  
Checked: VIC  
Date: 07/02/2018  
Revisions:

CONSTRUCTION DRAWINGS

NOT RELEASED FOR CONSTRUCTION

Sheet Title

**EROSION CONTROL DETAILS**

Sheet Number

CD-4.1