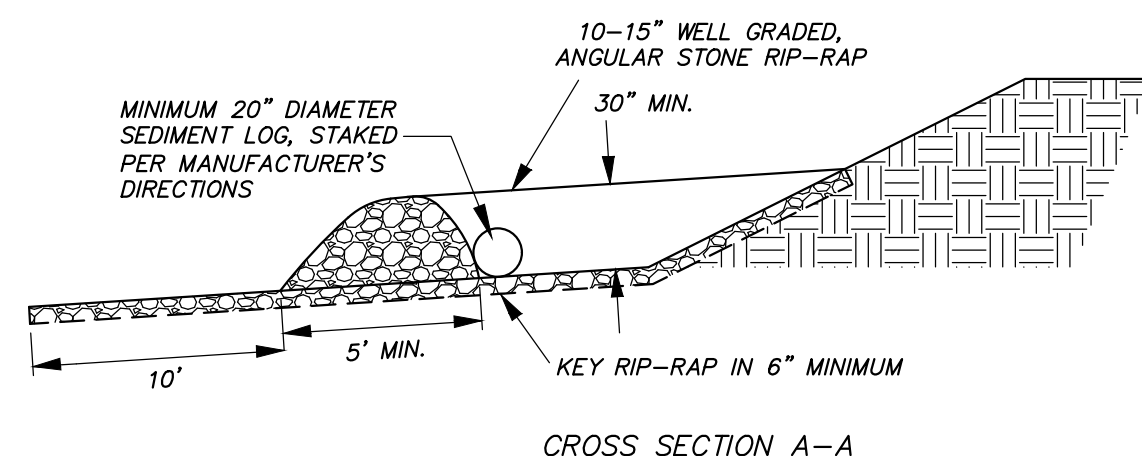


PERSPECTIVE VIEW



CROSS SECTION A-A

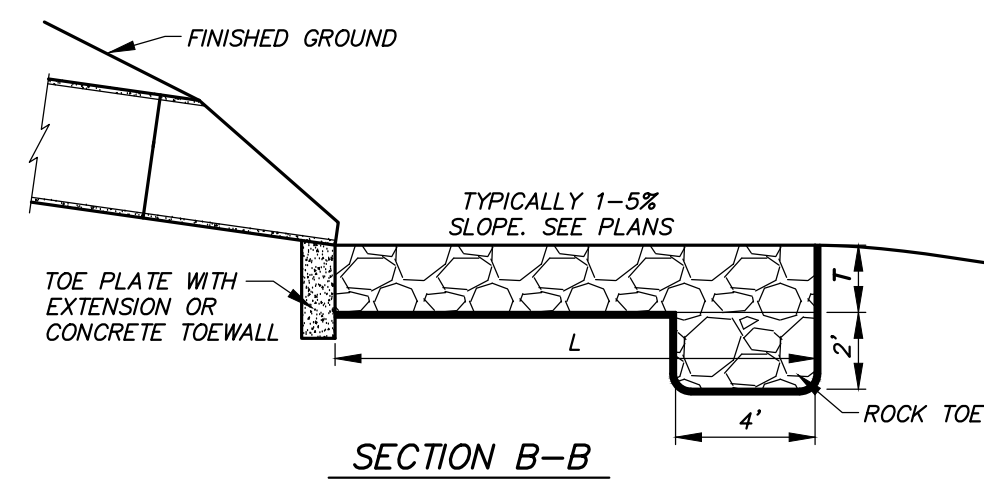
- NOTES:
1. KEY RIP-RAP INTO CHANNEL BANKS TO PREVENT FLOW AROUND DAM.
 2. THE MIDDLE OF THE RING SHALL BE THE LOWEST POINT SO THE STORM WATER FLOW IS DIRECTED OVER THE MIDDLE OF THE RING.
 3. THE DOWN GRADIENT SIDE SHALL BE AT A LOWER ANGLE TO ALLOW FOR ENERGY DISSIPATION OF THE STORM WATER FLOW OVER THE RING.
 4. SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE ROCK RING.
 5. REMOVE ONCE THE FINAL GRADING AND CHANNEL STABILIZATION IS APPLIED, UNLESS NOTED OTHERWISE.

ROCK FILTER RING

NOT TO SCALE

PIPE SIZE (in)	MAXIMUM PIPE SLOPE (%)	LENGTH L (ft)	BOTTOM BW MINIMUM (ft)	TOP WIDTH TW MINIMUM (ft)	THICKNESS T MINIMUM (ft)	D	E
12	3.50	12	4	8	1	2'-0"	18"
15	2.60	15	4	9	1	2'-6"	18"
18	2.00	16	4	10	1	3'-0"	18"
24	1.70	20	4	12	1	4'-0"	24"
30	1.40	24	6	16	2	5'-0"	24"
36	1.00	28	6	18	2	5'-6"	24"
42	0.80	32	6	20	2	6'-6"	24"
48	0.65	36	6	22	2	7'-0"	24"
54	0.55	40	8	26	2	7'-6"	36"
60	0.45	44	8	28	3	8'-0"	36"
72	0.40	48	8	32	3	9'-0"	36"

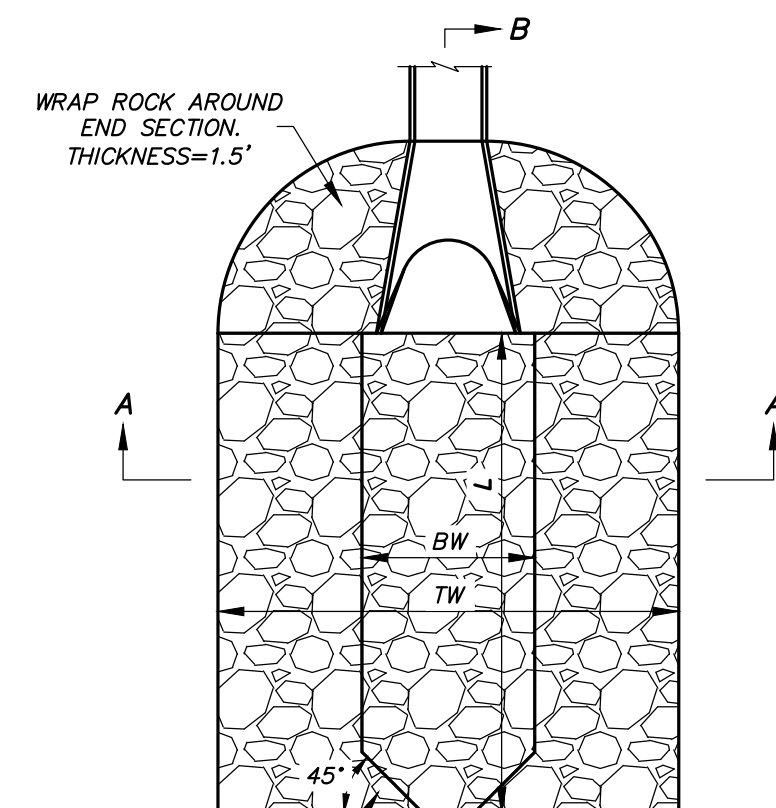
- NOTES:
1. RIP RAP SHALL BE MODOT TYPE 1 ROCK BLANKET. 40% OF THE MASS SHALL BE PIECES HAVING A VOLUME OF ONE CUBIC FOOT OR MORE. ROCK MUST BE ANGULAR, HARD, AND DURABLE.
 2. ROCK LINER FABRIC SHALL CONSIST OF A NON-WOVEN POLYPROPYLENE TYPE FABRIC: TENCATE MIRAFI 180N OR GEOTEX 801 OR APPROVED EQUAL.
 3. SEE SEPARATE FLARED END SECTION (FES) DETAIL.



SECTION B-B

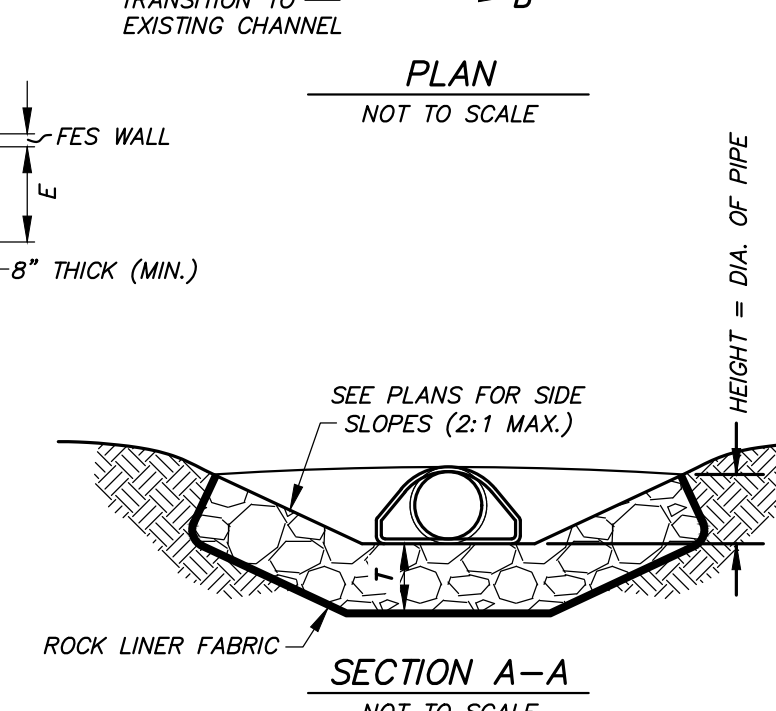
RIP RAP FOR FLARED END SECTIONS

NOT TO SCALE



PLAN

NOT TO SCALE



SECTION A-A

NOT TO SCALE

GENERAL SEEDING CAN BE USED FOR TEMPORARY OR PERMANENT STABILIZATION. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS (OR MORE FREQUENT IF REQUIRED BY THE STATE NPDES PERMIT) SHALL BE TEMPORARILY SEEDED AND WATERED. AREAS WHERE FINAL GRADING HAS BEEN COMPLETED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY SEEDED. TEMPORARY SEED MIXTURES ARE SPECIFIED BELOW. PERMANENT SEED MIXTURES SHALL BE SEEDED DURING SEASON SPECIFIED.

SEEDING MIXTURES SPECIFICATIONS

TYPE 1A, LAWN MIXTURE, SUNNY CONDITIONS

TYPE OF SEED	APPLICATION RATE (lb/acre)
KENTUCKY BLUEGRASS CULTIVAR	40
KENTUCKY BLUEGRASS CULTIVAR (NOT SAME VARIETY AS ABOVE)	40
KENTUCKY BLUEGRASS CULTIVAR (NOT SAME VARIETY AS ABOVE)	40
CREEPING RED FESCUE	15
CERTIFIED FINE-LEAFED PERENNIAL RYEGRASS	15
CERTIFIED FINE-LEAFED PERENNIAL RYEGRASS (NOT SAME VARIETY AS ABOVE)	15
TOTAL	165

TYPE 2, EROSION CONTROL MIXTURE

TYPE OF SEED	APPLICATION RATE (lb/acre)
KENTUCKY BLUEGRASS (MIX OF TWO CULTIVARS)	20
KENTUCKY 31 FESCUE	10
WESTERN WHEATGRASS	5
PERENNIAL RYEGRASS	15
TOTAL	60

TYPE 5, STABILIZING CROP (TEMPORARY)

TYPE OF SEED	APPLICATION RATE (lb/acre)
SPRING - FEBRUARY 1-MAY 20: WINTER RYE	1 BUSHEL
SPRING WHEAT OR OATS	1 BUSHEL
FESCUE, KENTUCKY 31 OR FAWN	45
ANNUAL LESPEDEZA	15
SUMMER - MAY 21-JULY 20: OATS OR SPRING WHEAT (OR COMBINATION)	2 BUSHELS
FESCUE, KENTUCKY 31 OR FAWN	45
ANNUAL LESPEDEZA	15
FALL - JULY 21-NOVEMBER 15: WINTER RYE	2 BUSHELS
FESCUE, KENTUCKY 31 OR FAWN	45
ANNUAL LESPEDEZA	15

MULCH SEEDED AREA WITH 2 TONS PER ACRE CLEAN GRAIN STRAW. ANCHOR STRAW WITH HYDRAULIC WOOD FIBER MULCH AT THE RATE OF 1000 LBS PER ACRE, OR 150-200 POUNDS OF ORGANIC MULCH TACKIFIER PER ACRE, OR USE NETTING.

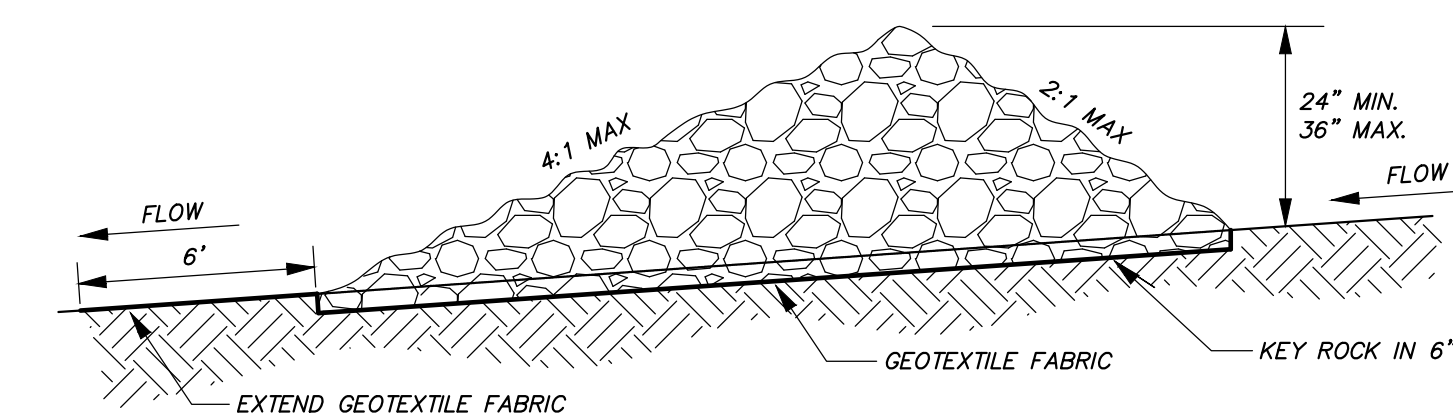
SEED BED PREPARATION (PERMANENT SEEDING)
SURFACE WATER CONTROL MEASURES SHALL BE IN PLACE. AREA TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL. TOTAL SEEDED PREPARED DEPTH SHOULD BE AT LEAST 4 INCHES. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS NEED TO BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH THE ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDED PREPARATION SHOULD BE AT FINISH GRADE AND BE REASONABLY SMOOTH AND UNIFORM.

IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME SHOULD BE ACCORDING TO SEEDING SPECIFICATIONS. IF SOIL TEST IS TAKEN, APPLY FERTILIZER AND LIME ACCORDING TO SOIL TEST REPORT. FERTILIZER AND LIME SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDED PREPARATION. WEIGHTS, SEED SPECIES AND PERCENTAGE OF PURITY AND GERMINATION MUST BE CHECKED PRIOR TO SEEDING.

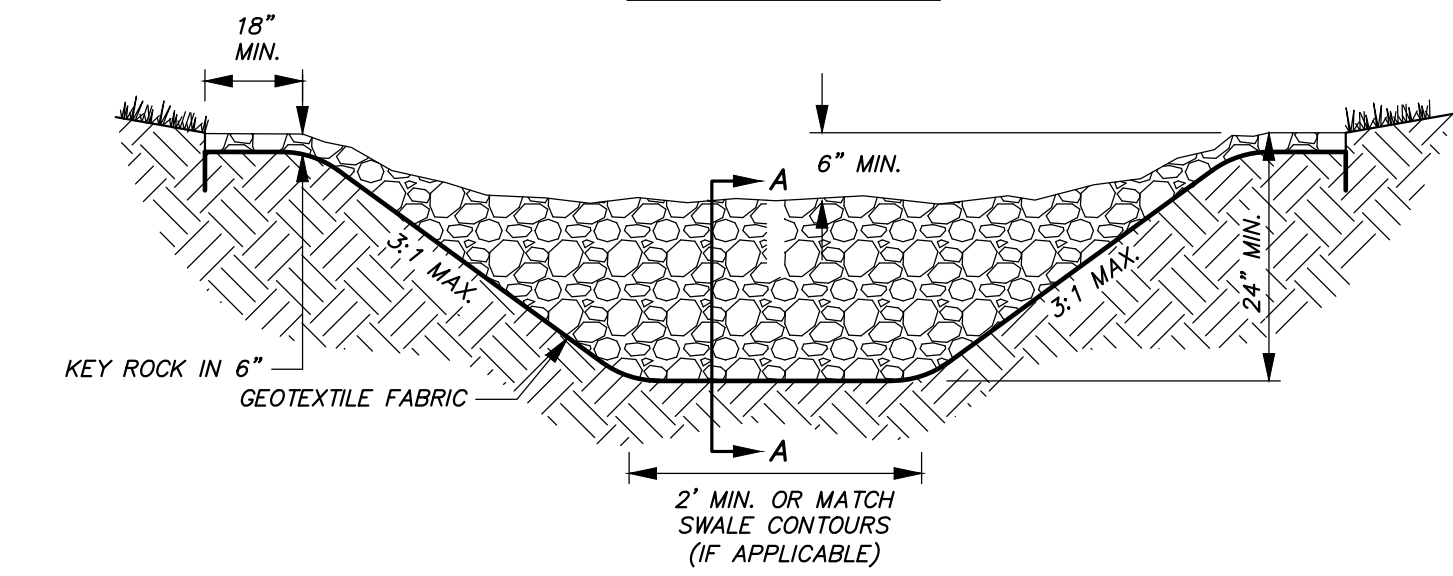
SEEDING SHALL BE ACCOMPLISHED IN TWO DIRECTIONS AND AT RIGHT ANGLES TO EACH OTHER. LAWN AREAS SHALL BE SEEDED AT THE RATE INDICATED ON THE DRAWINGS BY SOWING EVENLY WITH AN APPROVED MECHANICAL CULT-PACKER SEEDER TO COVER THE SEED AND FORM THE SEEDED BED IN ONE OPERATION. IF BROADCAST SEEDER IS USED THE SEEDING RATE SHALL BE TWO (2) TIMES THE DRILL RATE. IN INACCESSIBLE AREAS, THE SEED SHALL BE LIGHTLY RAKED WITH FLEXIBLE RAKES AND ROLLED WITH A WATER BALLAST ROLLER. AFTER ROLLING SEEDED AREAS ARE TO BE MULCHED ACCORDING TO SPECIFICATION. IF HYDROSEED OPERATION IS USED, SEEDING RATE SHALL BE FIVE (5) TIMES THE DRILL RATE INDICATED ON THE DRAWINGS.

IF SEEDING CAN NOT BE ACCOMPLISHED DUE TO SEASONAL CONSTRAINTS, APPLY STRAW MULCH AND TACKIFIER TO ALL SLOPES AND DISTURBED AREAS UNTIL PERMANENT SEEDING IS ALLOWED. IN THE EVENT SEEDING OCCURS OUT OF SEASON, MAINTENANCE SHALL OCCUR AND CONTINUE INTO THE FOLLOWING GROWING SEASON OR UNTIL A UNIFORM STAND OF THE SPECIFIED PERMANENT GRASSES HAVE BEEN ESTABLISHED AND THE SITE HAS REACHED 85% STABILIZATION. PERMANENT AND TEMPORARY SEEDING SHALL BE ACCOMPLISHED THROUGHOUT THE CONSTRUCTION PROCESS.

INSPECTION
INSPECT SEEDED AREAS FREQUENTLY. IF SEEDED AREAS FAIL TO GERMINATE, OR TO PROVIDE ADEQUATE GROUND COVERAGE, THE AREA SHALL BE RE-SEEDED UNTIL FINAL STABILIZATION IS ACHIEVED. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT MINIMUM EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS OF A RAINFALL EVENT OF GREATER THAN .5 INCHES OF RAIN DURING A 24-HOUR PERIOD (OR MORE FREQUENTLY IF REQUIRED BY THE STATE NPDES GENERAL PERMIT) THROUGHOUT CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED OR MORE FREQUENTLY IF REQUIRED BY STATE NPDES GENERAL PERMIT.



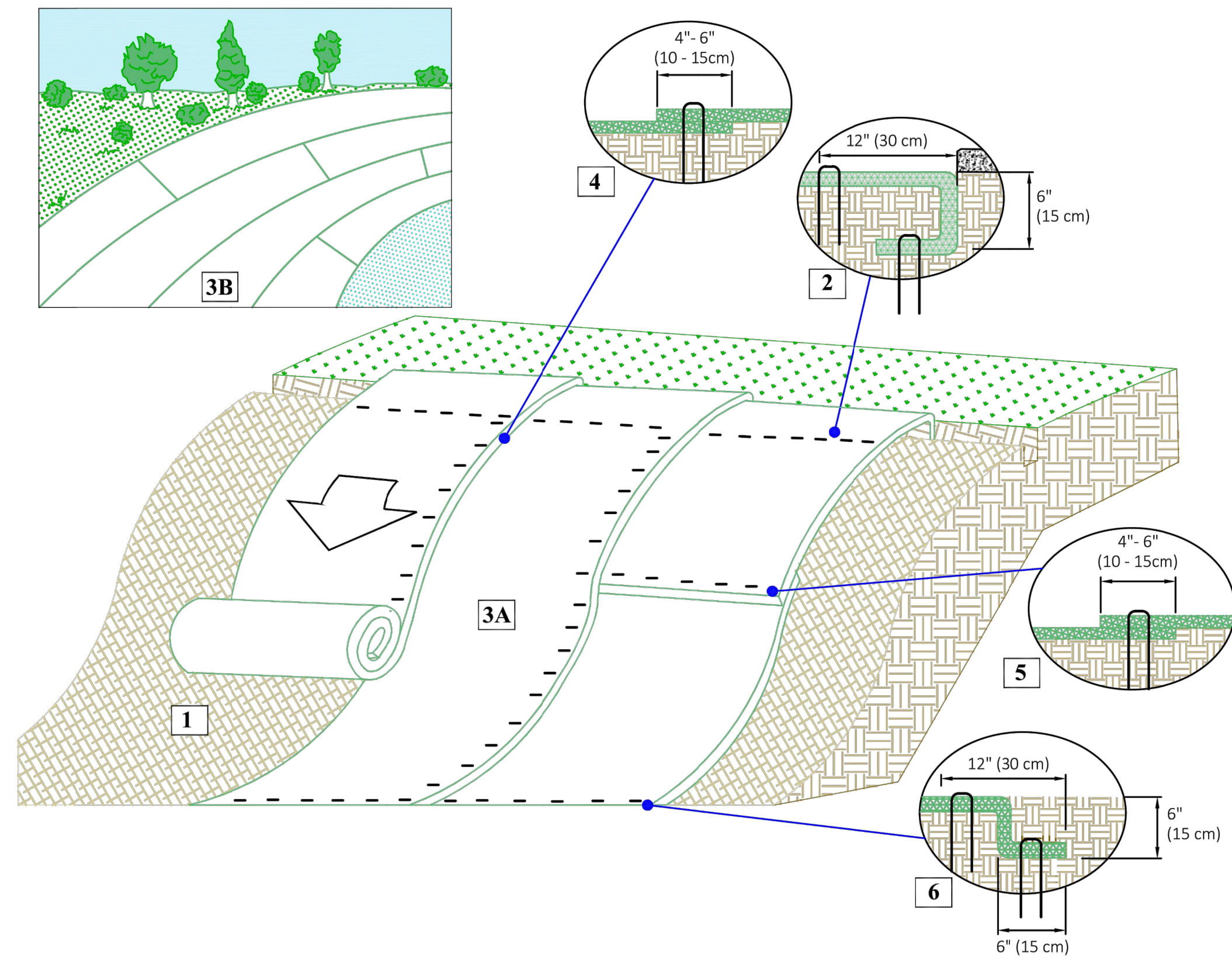
CROSS SECTION A-A



- NOTES:
1. CHECK DAMS SHALL BE PLACED SUCH THAT THE RESULTANT PONDING WILL NOT CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS.
 2. ROCK SHALL BE WELL-GRADED ANGULAR STONE, A D50 OF 3 INCH OR GREATER.
 3. CHECK DAMS SHALL BE UTILIZED DURING ROUGH GRADING AND SHALL BE REMOVED ONCE THE FINAL GRADING AND CHANNEL STABILIZATION IS APPLIED, UNLESS NOTED OTHERWISE.
 4. CHECK DAMS SHALL BE UNDERLAIN BY A NON-WOVEN POLYPROPYLENE GEOTEXTILE FABRIC TO EASE INSTALLATION AND REMOVAL. IT SHALL EXTEND 6 FEET BEYOND THE TOE OF THE CHECK DAM AS SHOWN.
 5. SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE CHECK DAM.
 6. KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW AROUND DAM.
 7. THE MIDDLE OF THE CHECK DAM SHALL BE THE LOWEST POINT SO THE STORM WATER FLOW IS DIRECTED OVER THE MIDDLE OF THE DAM.
 8. THE DOWN GRADIENT SIDE SHALL BE AT A LOWER ANGLE TO ALLOW FOR ENERGY DISSIPATION OF THE STORM WATER FLOW OVER THE CHECK DAM.

TEMPORARY ROCK CHECK DAM

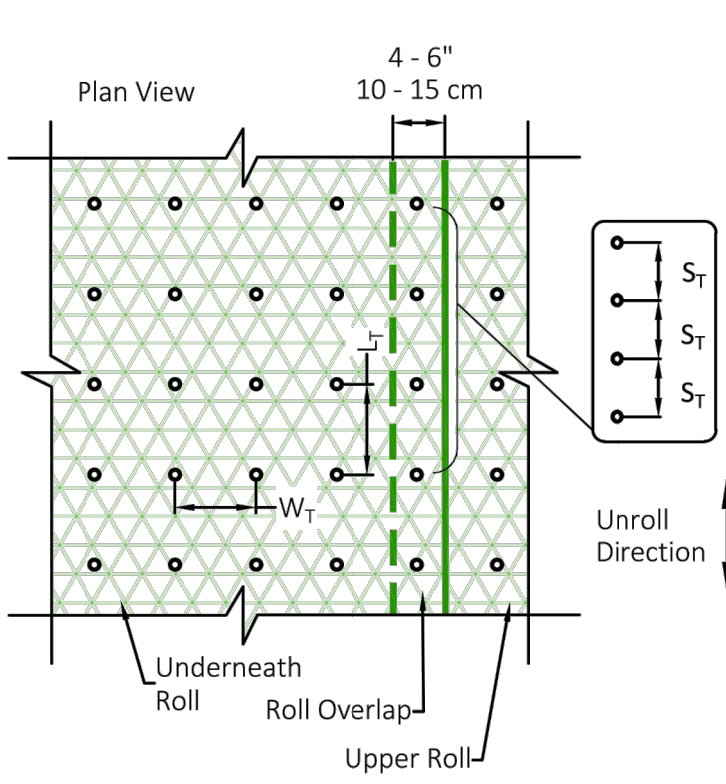
NOT TO SCALE



Instructions

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed. Ground surface must be free of debris, rocks, clay clods and raked smooth sufficient to allow intimate contact of the RECP with the soil over the entirety of the installation.
2. Begin at the top of the slope by anchoring the RECPs in a 6" (15 cm) deep x 6" (15 cm) wide trench. Anchor the RECPs with a row of staples/stakes/pins spaced at S_T apart in the bottom of the trench. Backfill and compact the trench after stapling and fold the roll over downslope. Secure RECPs over compacted soil with a row of staples/stakes/pins spaced at S_T apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes/pins in appropriate locations as shown in the staple pattern guide. RollMax RECPs and ECBs should utilize Staple Pattern C, TRMs and VMax materials should utilize Staple Pattern D.
4. The edges of parallel RECPs must be stapled with approximately 4" - 6" (10 - 15 cm) overlap.
5. Consecutive RECPs spliced down the slope must overlapped with the upstream mat atop the downstream mat (shingle style). The overlap should be 4" - 6" (10 - 15 cm).
6. At the terminal end, secure each mat across the width with a row of staples/stakes/pins spaced at S_T. If exposed to flow, foot traffic, wind uplift or other disruption, trench the terminal end in as shown in detail.
7. Fasteners should provide a minimum of twenty pounds of pullout resistance. Six-inch (10 cm) x one-inch (2.5 cm) eleven gauge staples are typically adequate. In loose soils, longer staples may be necessary, twist pins can provide the greatest pullout resistance. In hard or rocky soils, straight pins may be used where staples or twist pins are refused, provided the minimum pullout requirements are met. Bio-degradable fasteners shall not be used with VMax (TRM) or TMax (HPTRM) materials.

Staple Pattern Guide



Dimension	Staple Pattern	
	C	D
W _T	30" (75 cm)	24" (60 cm)
L _T	30" (75 cm)	20" (50 cm)
S _T	18" (45 cm)	18" (45 cm)
Nominal Frequency	1.7 / SY	3.0 / SY
Application	ECB (Degradable)	TRM (Permanent)

*Note: Staple Pattern A and B used prior to 8/2019 have been discontinued.