

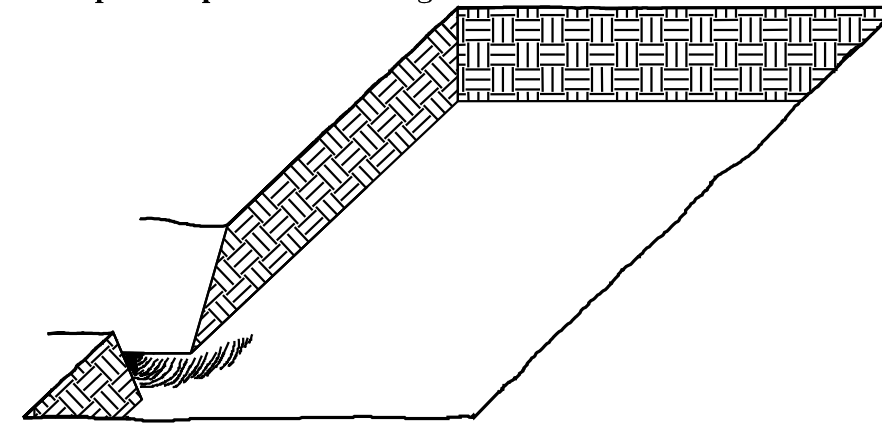
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2579BA	RF-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

PLANTING DETAILS

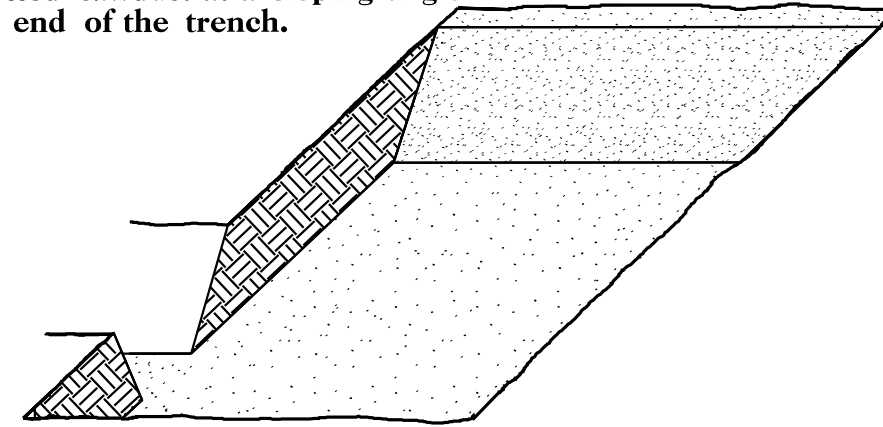
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

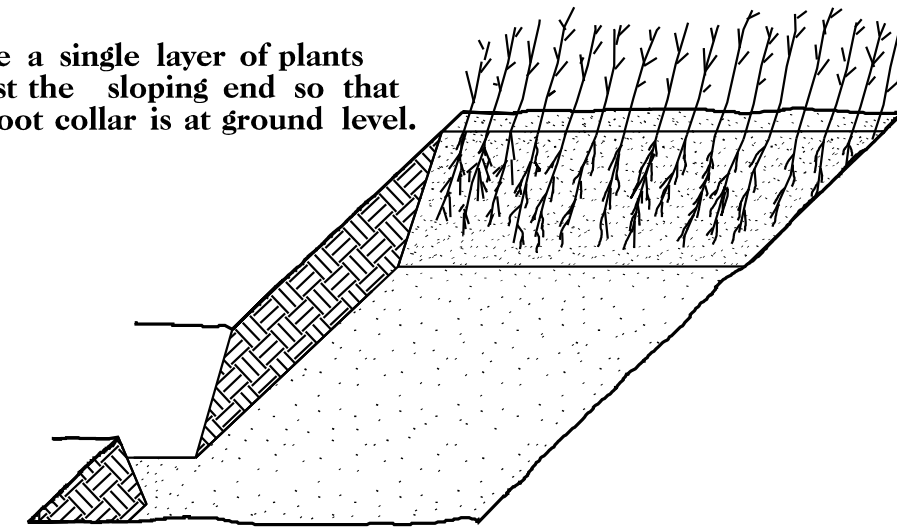
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



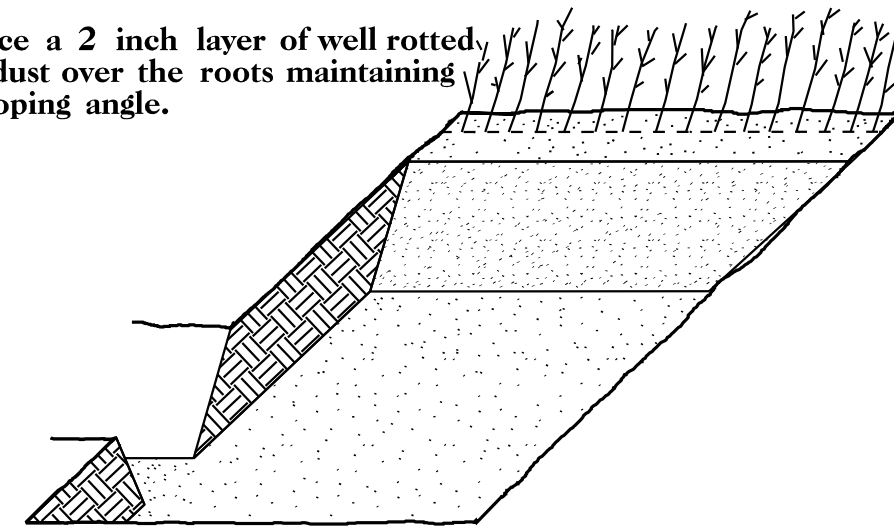
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

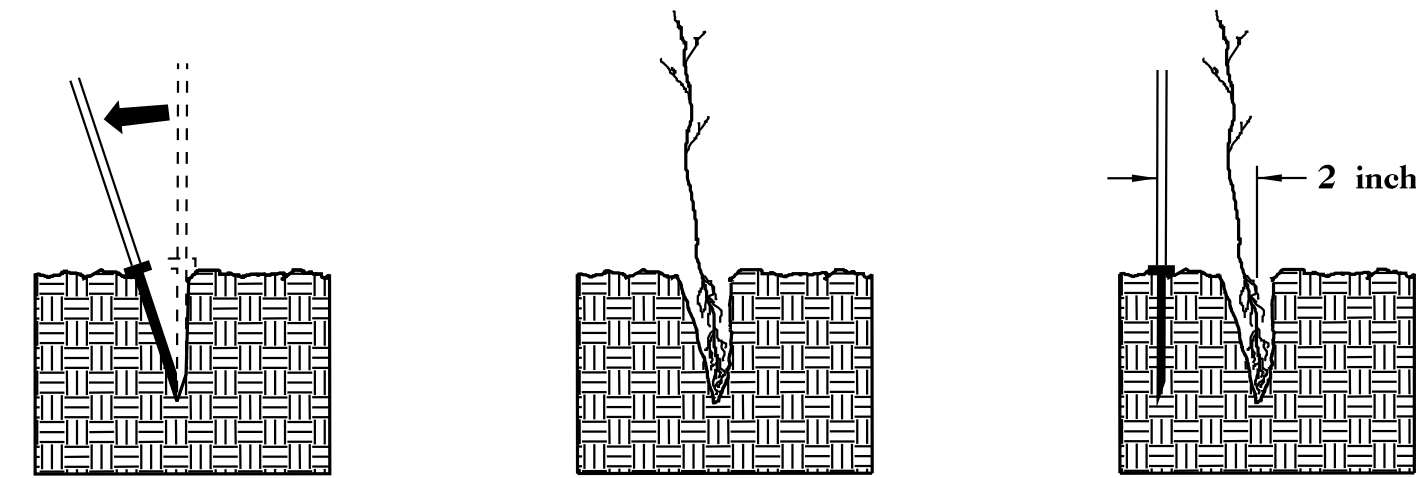


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

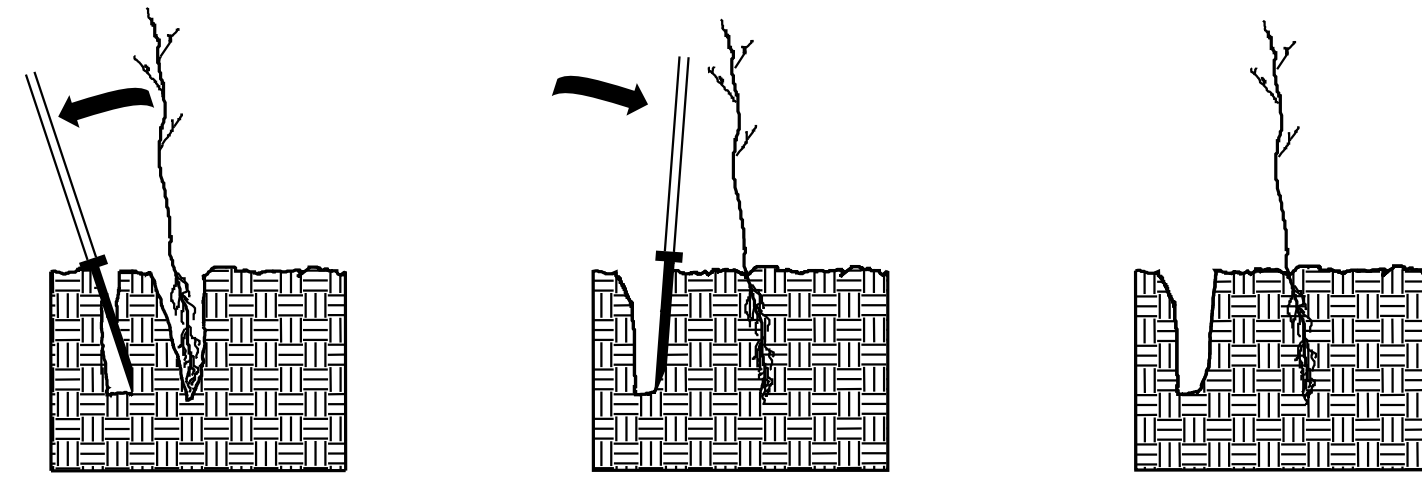


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

DIBBLE PLANTING METHOD USING THE KBC PLANTING BAR



1. Insert planting bar as shown and pull handle toward planter.
2. Remove planting bar and place seedling at correct depth.
3. Insert planting bar 2 inches toward planter from seedling.



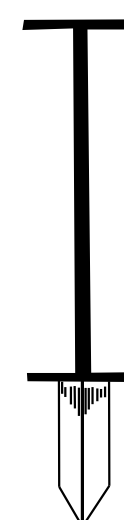
4. Pull handle of bar toward planter, firming soil at bottom.
5. Push handle forward firming soil at top.
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

REFORESTATION

- TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

25%	LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in - 18 in BR
25%	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in - 18 in BR
25%	FRAXINUS PENNSYLVANICA	GREEN ASH	12 in - 18 in BR
25%	BETULA NIGRA	RIVER BIRCH	12 in - 18 in BR

REFORESTATION DETAIL SHEET

N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

PLANTING ZONE DESCRIPTIONS AND NOTES

ZONE 1 - LIVE STAKE PLANTINGS

LOCATION DESCRIPTION:
LOWER GRADED BANKS LOCATED BETWEEN NORMAL WATER ELEVATION AND BANKFULL ELEVATION.

APPLICATION:

1. AMEND SOIL AS DESCRIBED IN SPECIAL CONDITIONS. SOIL AMENDMENT (TOPSOIL) SHALL BE SUITABLE FOR STREAM BANK APPLICATION, SO THAT AMENDMENTS ARE RESISTANT TO FREQUENT WATER INUNDATION.
2. APPLY TEMPORARY SEED AND PERMANENT SEED MIXTURES PER TABLE 2 THIS SHEET AND THE SPECIAL PROVISIONS.
3. APPLY WHEAT STRAW MULCH PER GENERAL NOTES THIS SHEET AND THE SPECIAL PROVISIONS.
4. INSTALL COIR FIBER MATTING PER THE COIR FIBER MATTING DETAIL ON ALL NEWLY GRADED STREAM BANK SLOPES.
5. INSTALL LIVE STAKE PLANTINGS IN ACCORDANCE WITH TABLE 1, LIVE STAKE DETAIL THIS SHEET, AND THE SPECIAL PROVISIONS.

ZONE 2 - RIPARIAN PLANTINGS

LOCATION DESCRIPTION:
AREAS ABOVE BANKFULL.

APPLICATION:

1. AMEND SOIL AS DESCRIBED IN SPECIAL CONDITIONS. SOIL AMENDMENT (TOPSOIL) SHALL BE SUITABLE FOR STREAM BANK APPLICATION, SO THAT AMENDMENTS ARE RESISTANT TO FREQUENT WATER INUNDATION.
2. APPLY TEMPORARY SEED AND PERMANENT SEED MIXTURES PER TABLE 2 THIS SHEET AND THE SPECIAL PROVISIONS.
3. APPLY WHEAT STRAW MULCH PER GENERAL NOTES THIS SHEET AND THE SPECIAL PROVISIONS.
4. INSTALL COIR FIBER MATTING ON ALL NEWLY GRADED OR DISTURBED SLOPES STEEPER THAN 1%.
5. INSTALL BARE ROOT PLANTINGS IN ACCORDANCE WITH TABLE 1, BARE ROOT DETAIL THIS SHEET, AND THE SPECIAL PROVISIONS.

ZONE 3 - RIPARIAN PLANTINGS W/O BARE ROOTS

LOCATION DESCRIPTION:
AREAS ABOVE BANKFULL WHERE SEEDING ONLY OCCURS AND NO BARE ROOTS ARE TO BE PLANTED. THIS INCLUDES BERMS AND NEAR THE PRECAST GRAVITY WALL.

APPLICATION:

1. AMEND SOIL AS DESCRIBED IN SPECIAL CONDITIONS. SOIL AMENDMENT (TOPSOIL) SHALL BE SUITABLE FOR STREAM BANK APPLICATION, SO THAT AMENDMENTS ARE RESISTANT TO FREQUENT WATER INUNDATION.
2. APPLY TEMPORARY SEED AND PERMANENT SEED MIXTURES PER TABLE 2 THIS SHEET AND THE SPECIAL PROVISIONS.
3. APPLY WHEAT STRAW MULCH PER GENERAL NOTES THIS SHEET AND THE SPECIAL PROVISIONS.
4. INSTALL COIR FIBER MATTING ON ALL NEWLY GRADED OR DISTURBED SLOPES STEEPER THAN 1%.

TABLE 1: TREES AND SHRUBS PLANTING TABLE ⁴

SCIENTIFIC NAME	COMMON NAME	TYPE ¹	MIN/MAX COMPOSITION OF EACH ZONE	PLANT SPACING	
				FEET ON CENTER ²	NUMBER PER 1 ACRE ³
ZONE 1					
<i>Salix nigra</i>	Black Willow	LS	20/50	2-3	10890
<i>Sambucus canadensis</i>	Elderberry	LS	20/50		
<i>Cornus amomum</i>	Silky Dogwood	LS	20/50		
ZONE 2					
<i>Betula nigra</i>	River Birch	B	10/30	6-10	680
<i>Cornus amomum</i>	Silky Dogwood	B	10/30		
<i>Platanus occidentalis</i>	Sycamore	B	10/30		
<i>Liriodendron tulipifera</i>	Yellow poplar	B	10/30		
<i>Quercus lyrata</i>	Overcup Oak	B	10/30		
<i>Quercus phellos</i>	Willow Oak	B	10/30		
<i>Quercus michauxii</i>	Swamp Chestnut Oak	B	10/30		

1. LS = LIVE STAKE, B = BARE ROOT SEEDLING
 2. AVERAGE FEET ON CENTER SPACING
 3. AVERAGE NUMBER PER 1 ACRE OF PLANTING ZONE
 4. PLANT SPECIES TO BE PLANTED BASED ON AVAILABILITY

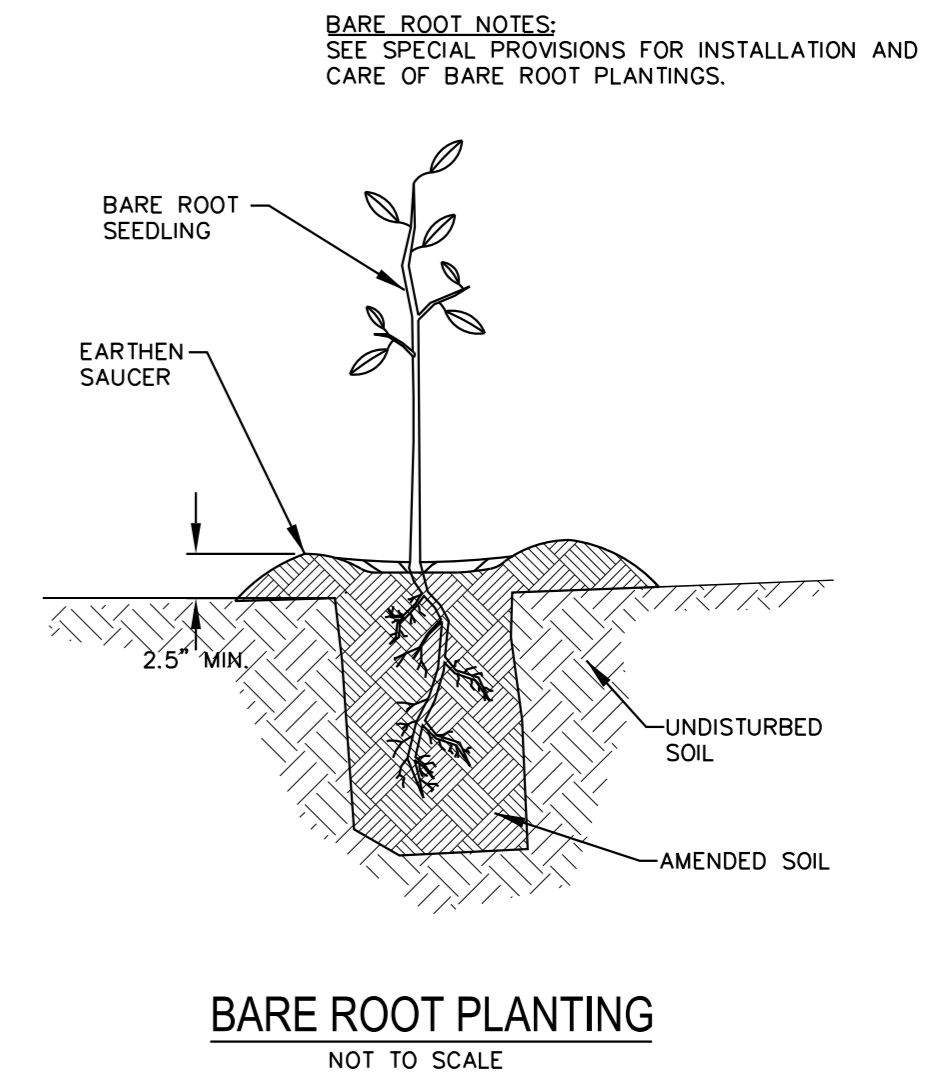
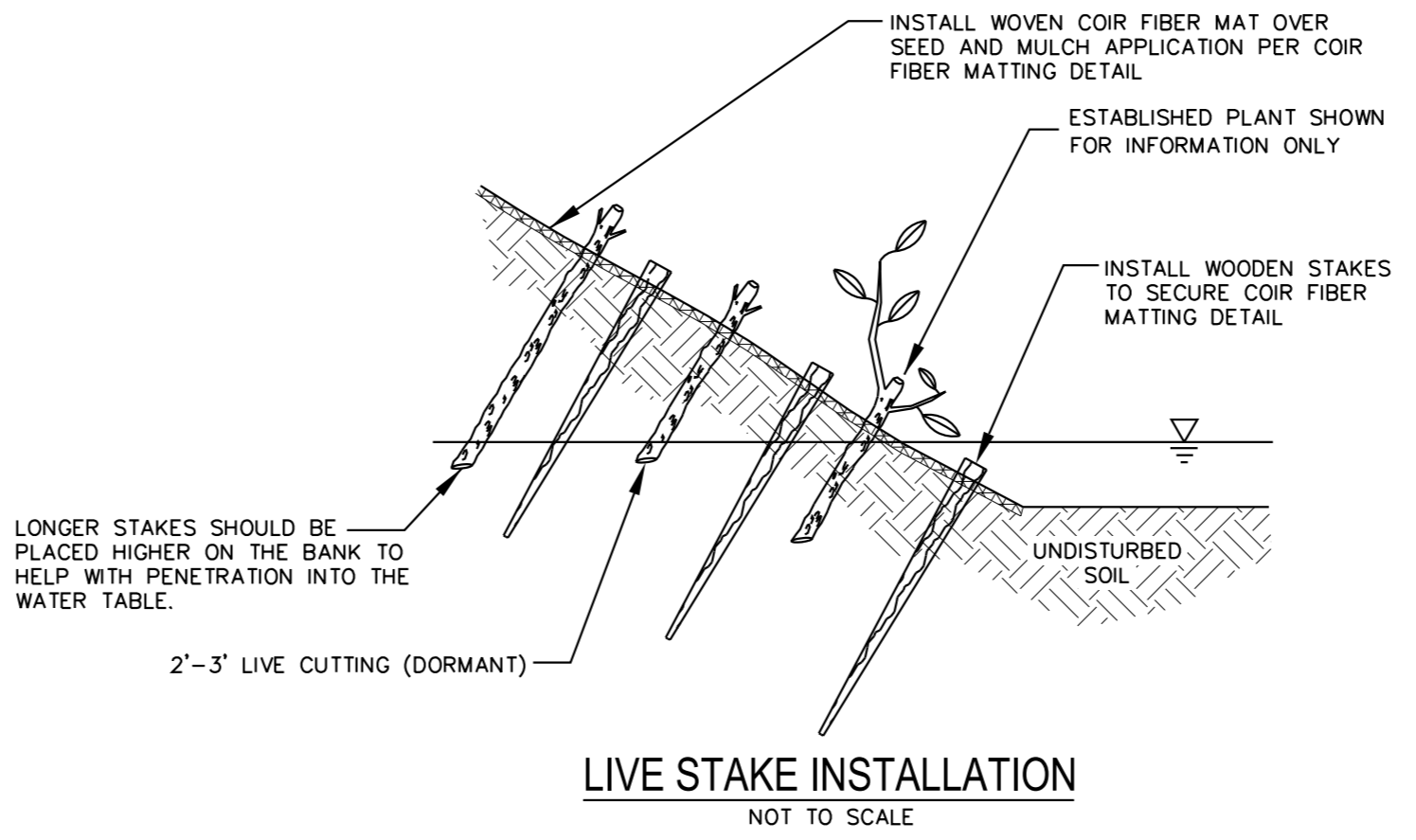
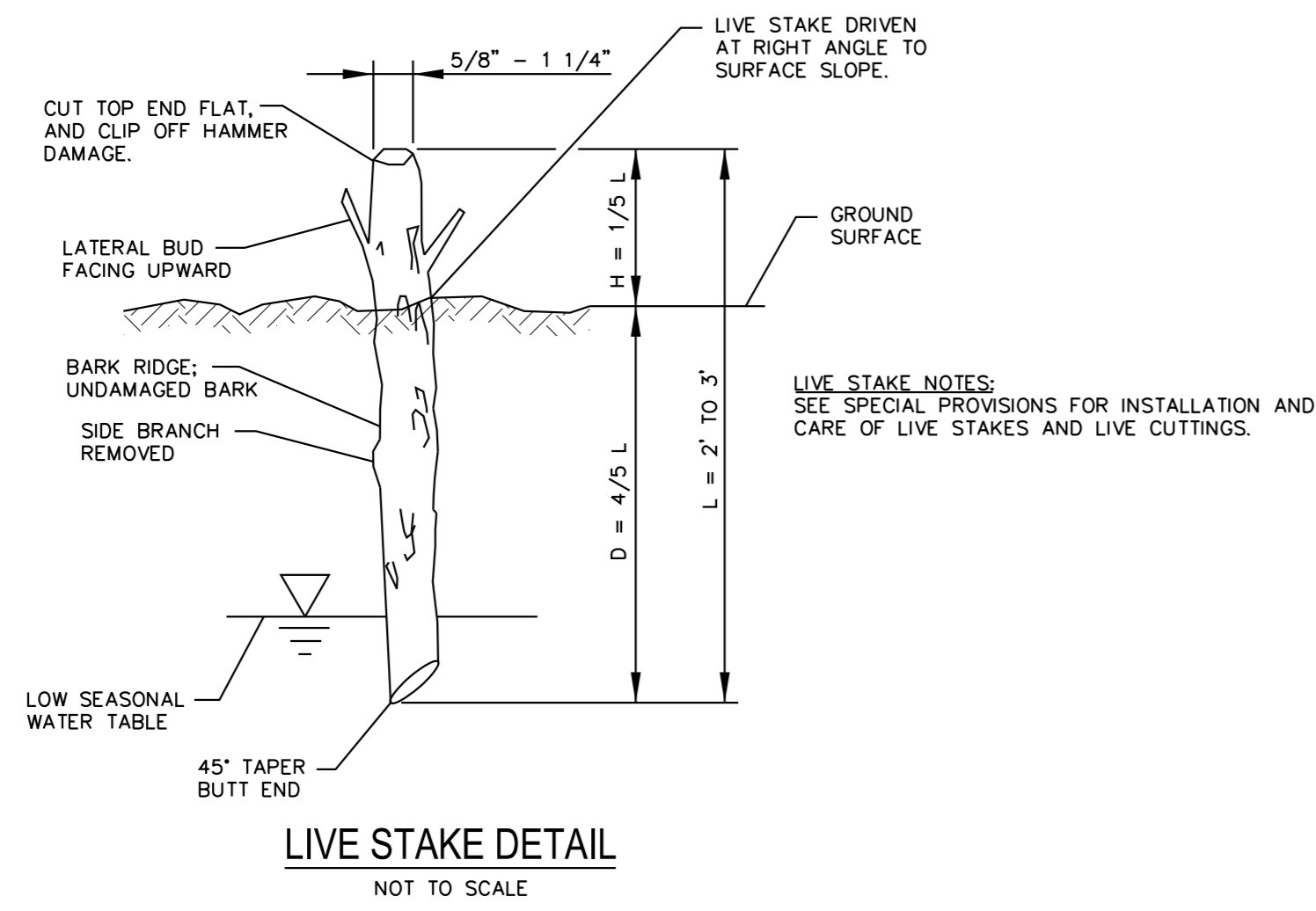
GENERAL NOTES

TEMPORARY PLANTING AND PERMANENT SEEDING SHALL OCCUR IMMEDIATELY AFTER CONSTRUCTION TO STABILIZE AREAS OF BARE SOIL. PERMANENT PLANTINGS SHALL BE COMPLETED BETWEEN NOVEMBER 15 AND MARCH 1. HOWEVER, PLANTING MAY OCCUR OUTSIDE THIS WINDOW AS APPROVED BY DESIGN ENGINEER.

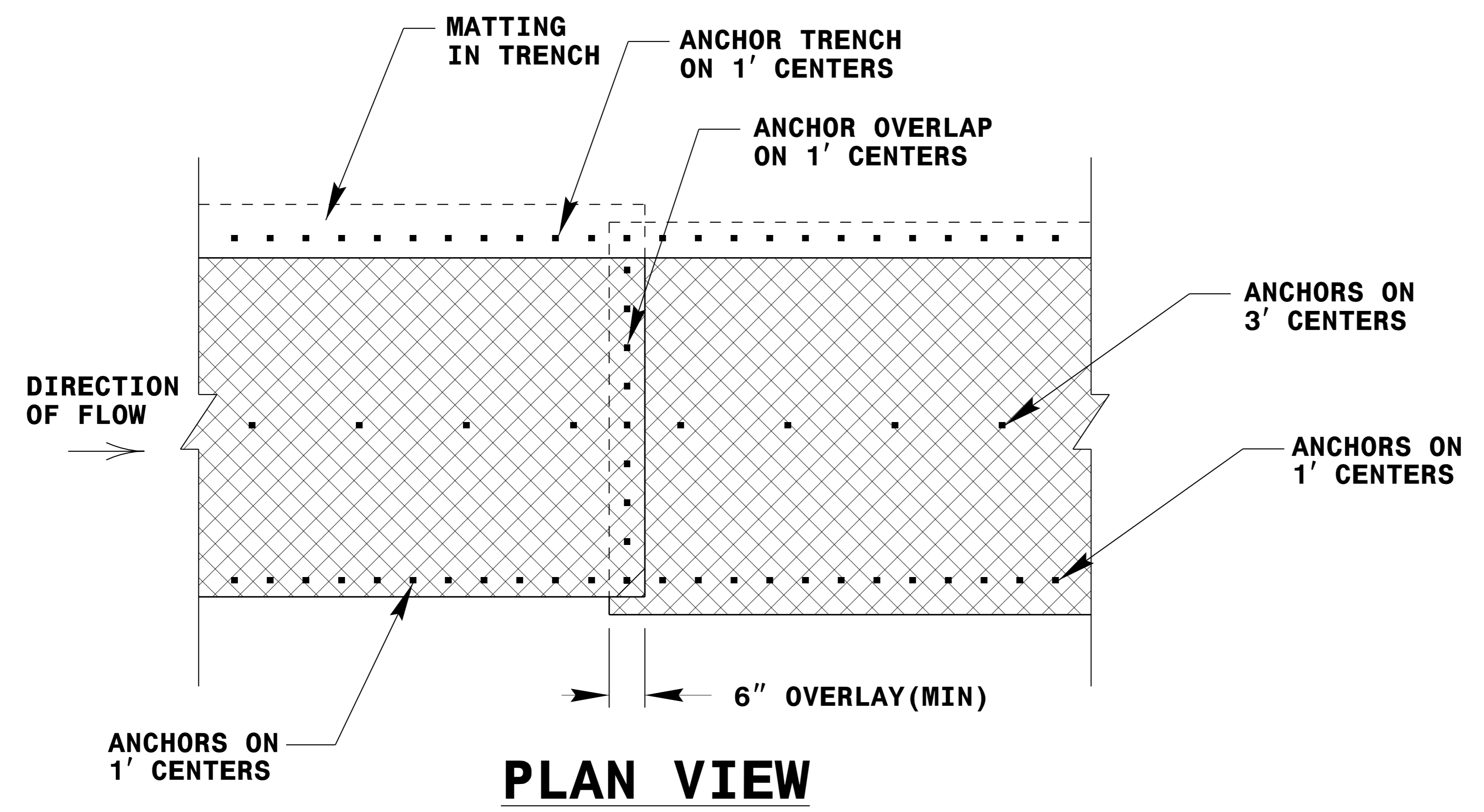
*SEE NCDOT SPECIAL PROVISION FOR STABILIZATION REQUIREMENTS FOR TEMPORARY SEED MIX, FERTILIZER APPLICATION RATES, AND OTHER PLANTING DETAILS.

TABLE 2: PERMANENT SEED MIXTURE ¹

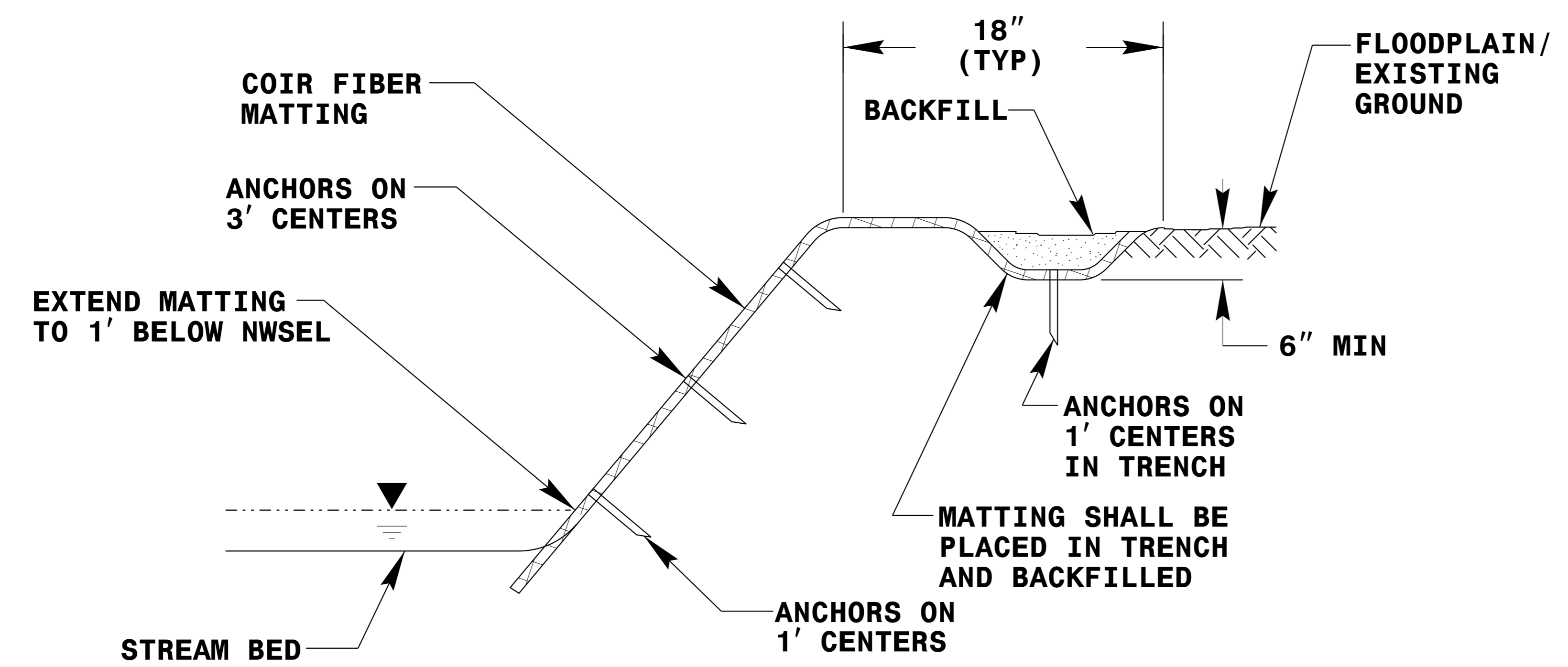
COMMON NAME	LBS/ACRE
AUGUST 1 - JUNE 1	
Creeping Red Fescue	18
Big Bluestem	8
Indiangrass	6
Switchgrass	4
Rye Grain	35
*Fertilizer	500
Limestone	4000
MAY 1 - SEPTEMBER 1	
Creeping Red Fescue	18
Big Bluestem	8
Indiangrass	6
Switchgrass	4
German or Browntop Millet	25
*Fertilizer	500
Limestone	4000



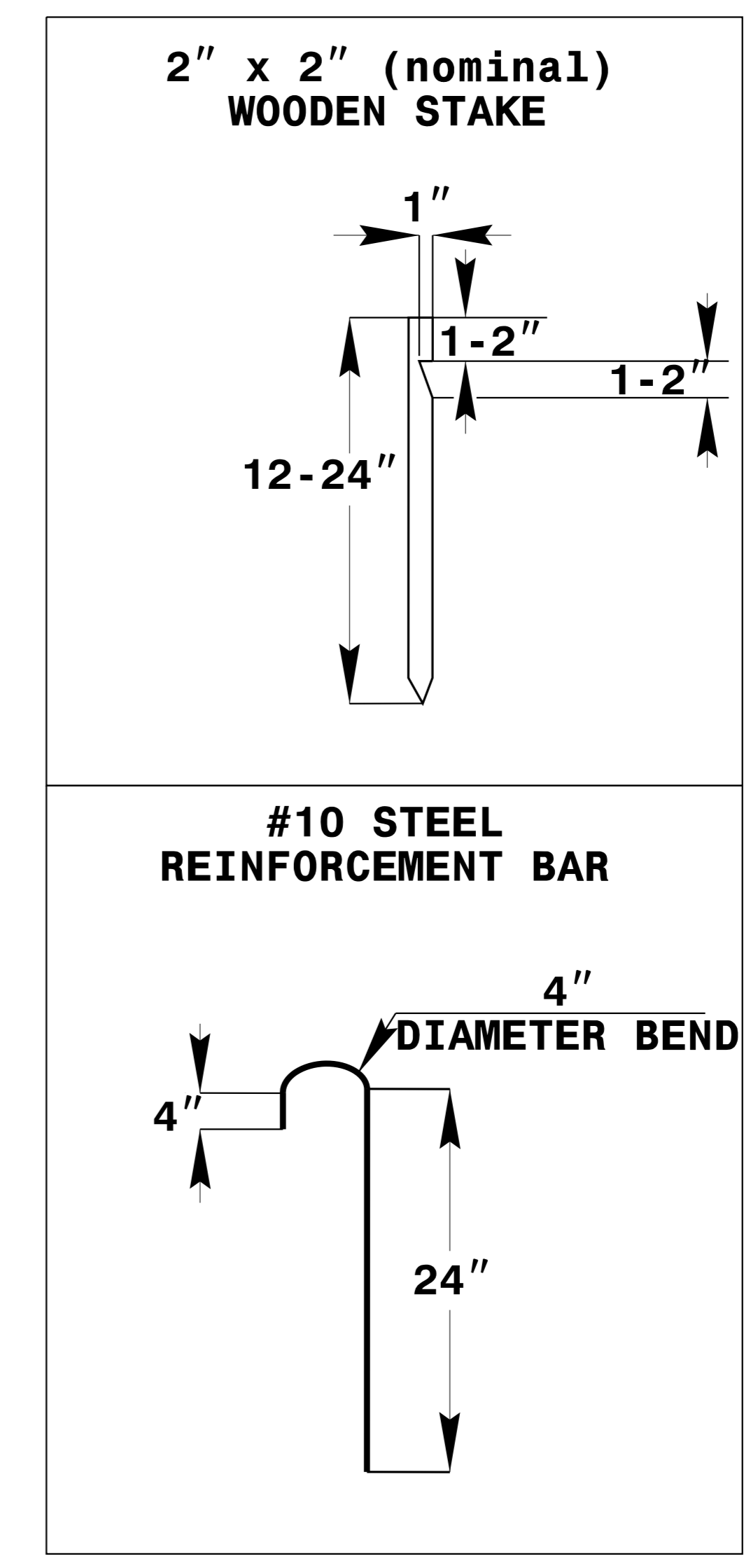
STREAMBANK REFORESTATION DETAIL SHEET 1 OF 2



PLAN VIEW



TYPICAL CROSS SECTION



ANCHOR OPTIONS

COIR FIBER MATTING DETAIL

NOT TO SCALE