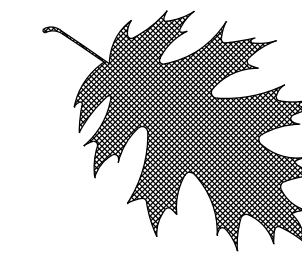
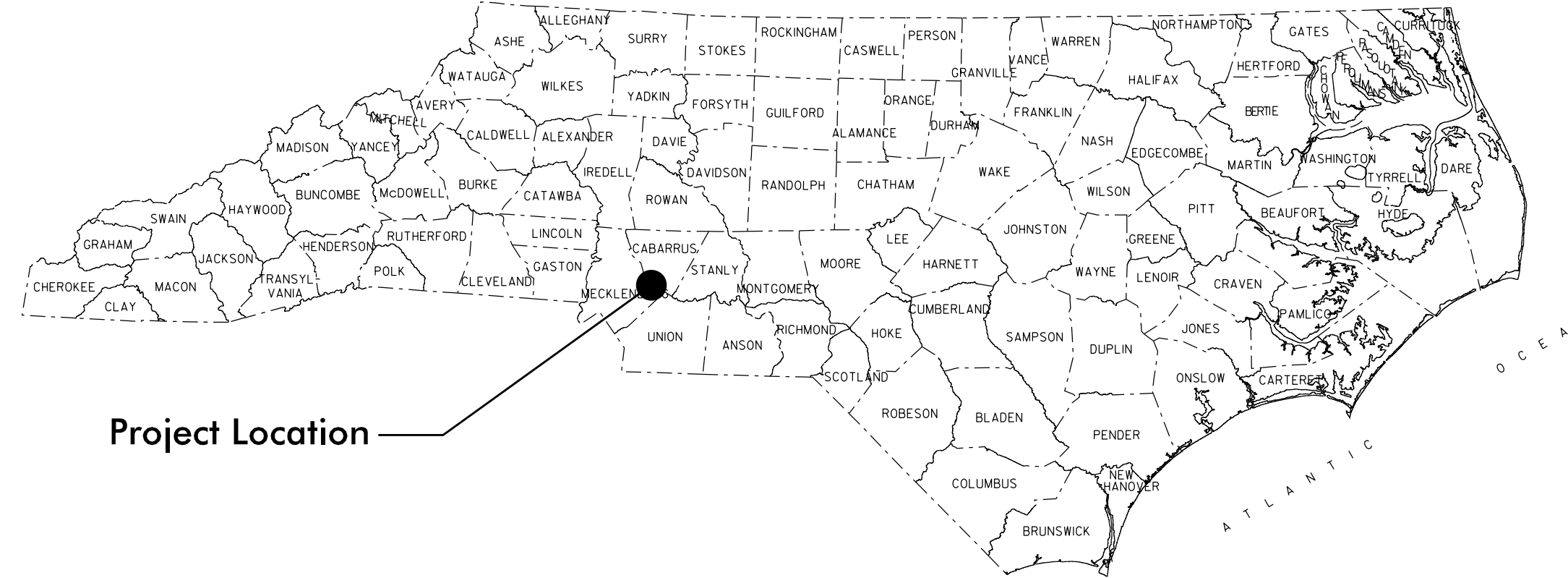
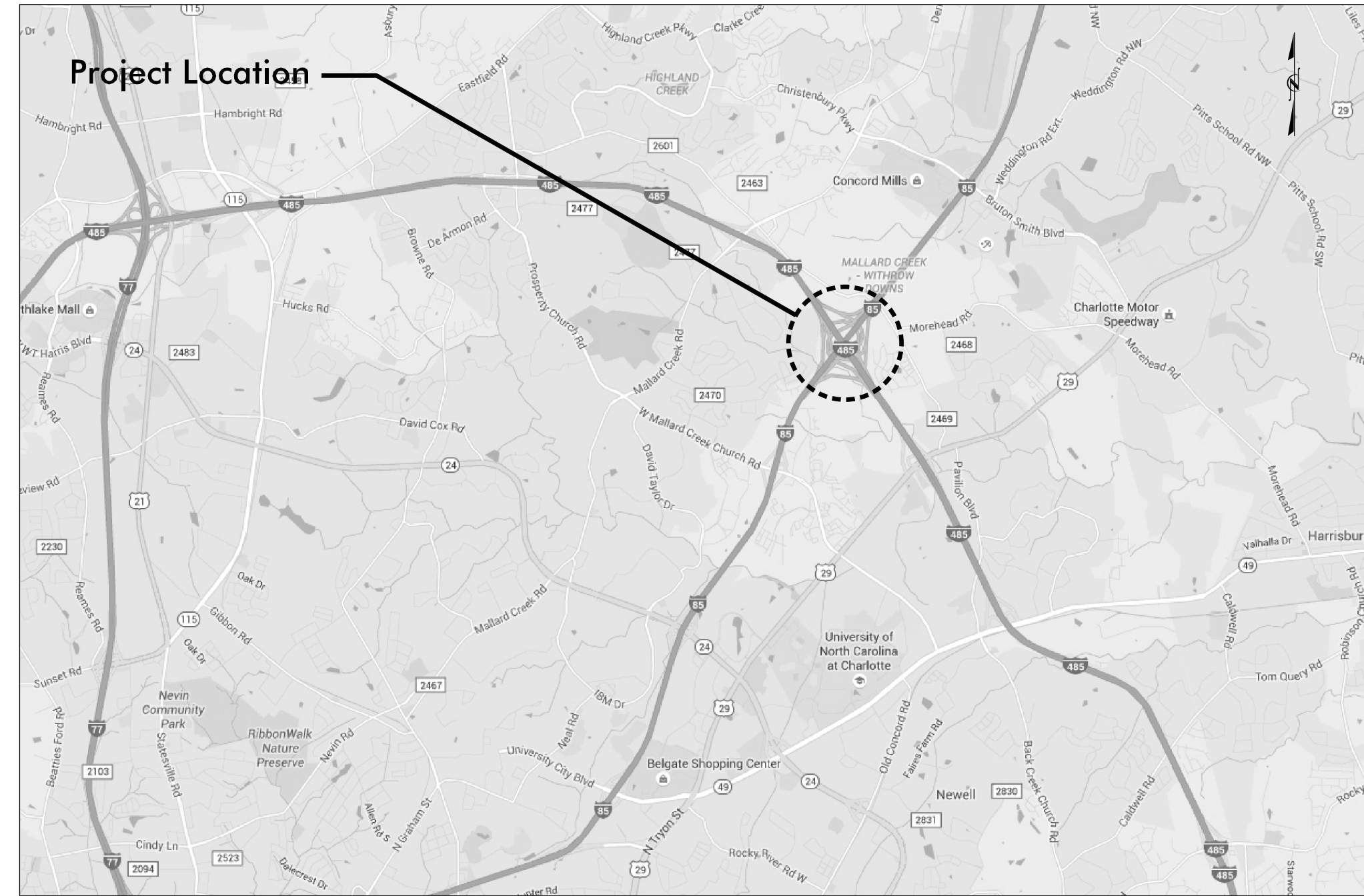


HIGHWAY LANDSCAPE DEVELOPMENT PROJECT



T.I.P. #	STATE PROJECT W.B.S. #	SHEET #	SHEET # TOTAL
R-2123CE	-----	L1	6
FED. PROJ. #	DESCRIPTION		DIVISION
-	TIP		10



Project Location

Summary of Quantities 1 year establishment

DES	SEC	QTY	UNIT	KEY	BOTANICAL NAME	COMMON NAME	SIZE	CALIPER	FURNISH	A.S.N.S.	REMARKS
Trees											
L	1670	4	ea	AB	<i>Acer buergerianum</i>	Trident Maple		2 1/2"	B&B	2.1	As shown
L	1670	15	ea	AO	<i>Acer rubrum</i> 'October Glory'	October Glory Red Maple		2 1/2"	B&B	2.1	As shown
L	1670	8	ea	BN	<i>Betula nigra</i> 'BNMTF Dura Heat'	Dura Heat® River Birch	12-14'		B&B	2.1	As shown
L	1670	21	ea	KP	<i>Koeleria paniculata</i>	Golden Rain Tree			#25	2.2	40' O.C.
L	1670	92	ea	LM	<i>Lagerstroemia indica</i> x <i>fauviei</i> 'Muskogee'	Muskogee Crape Myrtle	8-9'		#25	2.5	3-5 Stem; 30' O.C.
L	1670	91	ea	U	<i>Lagerstroemia indica</i> x <i>fauviei</i> 'Natchez'	Natchez Crape Myrtle	10-12'		#25	2.5	3-5 Stem; 30' O.C.
L	1670	35	ea	MG	<i>Magnolia grandiflora</i> 'Claudia Wannamaker'	Claudia Wannamaker Southern Magnolia	9-10'		B&B	2.2	As shown
L	1670	26	ea	ML	<i>Magnolia grandiflora</i> 'Little Gem'	Little Gem Magnolia	7-8'		B&B	2.2	As shown
L	1670	41	ea	MS	<i>Magnolia soulangeana</i> 'Alexandria'	Alexander Saucer Magnolia	7-8'		#25	2.4	40' O.C.
L	1670	40	ea	PC	<i>Pistacia chinensis</i>	Chinese Pistache		2 1/2"	B&B	2.1	45' O.C.
L	1670	14	ea	PK	<i>Prunus cerasifera</i> 'Krauter Vesuvius'	Krauter Vesuvius Purple Leaf Plum		1 3/4"	#25	2.3	40' O.C.
L	1670	25	ea	PO	<i>Prunus</i> x <i>'okame'</i>	Okame Cherry		1 3/4"	B&B	2.3	60' O.C.
L	1670	29	ea	QR	<i>Quercus rubra</i>	Northern Red oak		2 1/2"	B&B	2.1	60' O.C.
L	1670	15	ea	QP	<i>Quercus phellos</i>	Willow Oak		2"	B&B	2.1	As Shown
L	1670	5	ea	QN	<i>Quercus nuttallii</i>	Nuttall Oak		2"	B&B	2.1	As Shown
L	1670	49	ea	TD	<i>Taxodium distichum</i>	Baldcypress		2"	B&B	4.7	As Shown
L	1670	38	ea	TG	<i>Thuja plicata</i> 'Green Giant'	Green Giant Western Arborvitae		10-12'	B&B	4.7	15' O.C.
Reforestation Plants											
L	1670	7	pack	AP	<i>Aesculus pavia</i>	Red Buckeye	n/a	n/a	50 Bare Root/ pack	11.2	
L	1670	11	pack	AA	<i>Amelanchier arborea</i>	Serviceberry	n/a	n/a	50 Bare Root/ pack	11.2	
L	1670	14	pack	CC	<i>Cercis canadensis</i>	Eastern Red Bud	n/a	n/a	50 Bare Root/ pack	11.2	See Reforestation Detail
L	1670	11	pack	CS	<i>Cornus</i> sp.	Dogwood Tree	n/a	n/a	50 Bare Root/ pack	11.2	
L	1670	14	pack	JV	<i>Juniperus virginiana</i>	Eastern Red Cedar	n/a	n/a	50 Seedlings/ pack	11.2	
L	1670	7	pack	LS	<i>Lagerstroemia</i> sp.	Crape Myrtle	n/a	n/a	50 Bare Root/ pack	11.2	
L	1670	7	pack	RG	<i>Rhus glabra</i>	Smooth Sumac	n/a	n/a	50 Bare Root/ pack	11.2	
Other											
L	1670	6.5	acre		Reforestation						
L	1670	315	cuyd		Mulch						Depth of 4"
L	1670	34	m/g		Water for Planting						
L	1670	1700	sayd		Pre emergence Herbicidal Treatment						
L	1670	1700	sayd		Post emergence Herbicidal Treatment						

CONVENTIONAL SYMBOLS

County Line	-----
City or Town Line	-----
Exist. Right of Way Line Marker	-----▲-----
Prop. Right of Way Line Marker (By Others)	-----▲-----
Prop Right of Way Line Marker (By Contract)	-----▲-----
Exist. Control of Access Line	-----○-----
Prop. Control of Access Line	-----○-----
Property Line	-----
Easement Line	-----
Slope Stake Line	-----
Exist. Fence	-----
Prop. Woven Wire Fence	-----
Prop. Chain Link Fence	-----
Exist. Road	-----
Prop. Road	-----
Guardrail	-----
Survey Line	-----
Denotes Line Equality	-----
Bridge	-----
Culvert	-----
Railroad	-----
Woods	-----
Exist. Telephone Pole	-----
Prop. Telephone Pole	-----
Tower Pole and Line	-----
Exist. Power Pole	-----
Prop. Power Pole	-----
Sanitary Sewer Line	-----
Water Line	-----
Gas Line	-----
Picnic Shelter	-----
Regeneration	-----
Reforestation	-----

INDEX OF L SHEETS:

- L 1.0 - Title Sheet
- L 2.0 - Planting Details
- L 3.0 - Reforestation Details
- L 4.0 - Design Plan Quadrant 1
- L 5.0 - Design Plan Quadrant 2
- L 6.0 - Design Plan Quadrant 3

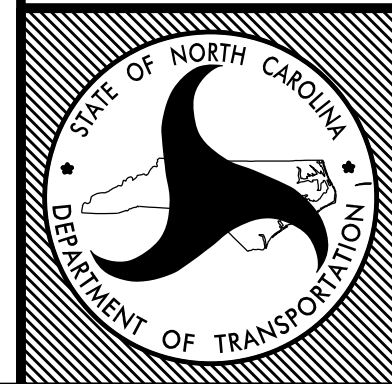
PREPARED BY: KC DATE: 06/2016

REVISIONS

DATE	DESCRIPTION

2014 American Standard for Nursery Stock
 2012 NCDOT STANDARD SPECIFICATIONS
 PREPARED IN THE OFFICE OF:
 NCDOT- ROADSIDE ENVIRONMENTAL UNIT
 LANDSCAPE DESIGN & DEVELOPMENT SECTION
 1557 MAIL SERVICE CENTER
 RALEIGH NC 27699 919-707-2920

I-85 & I-485 Interchange in Charlotte



STATE OF
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION

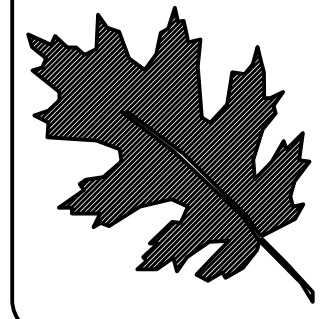
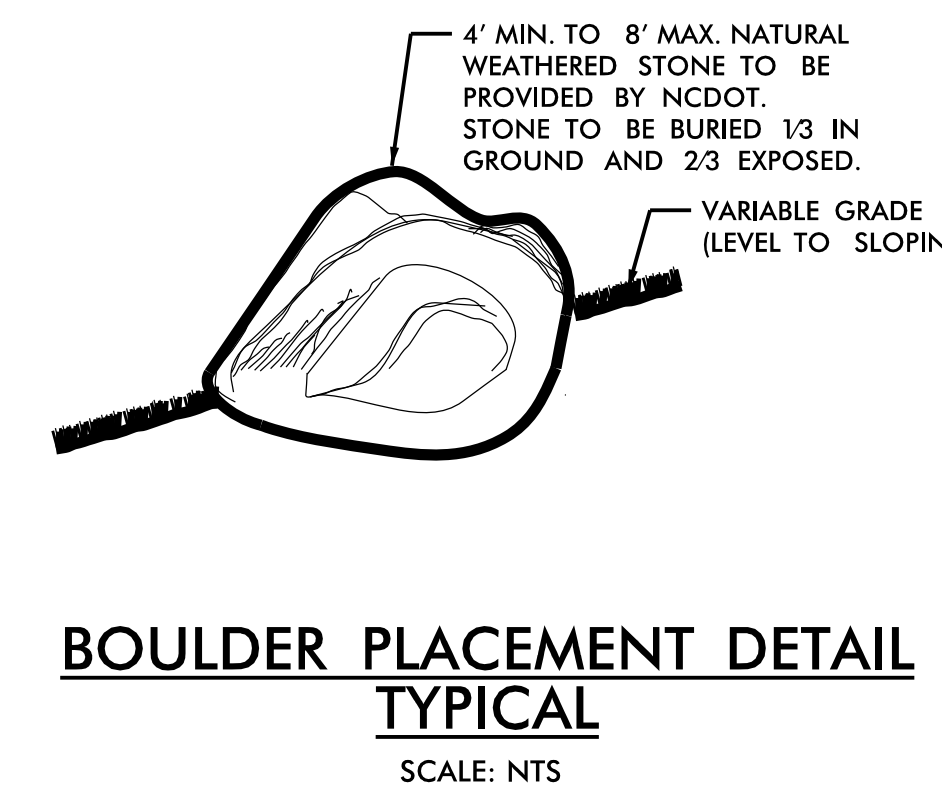
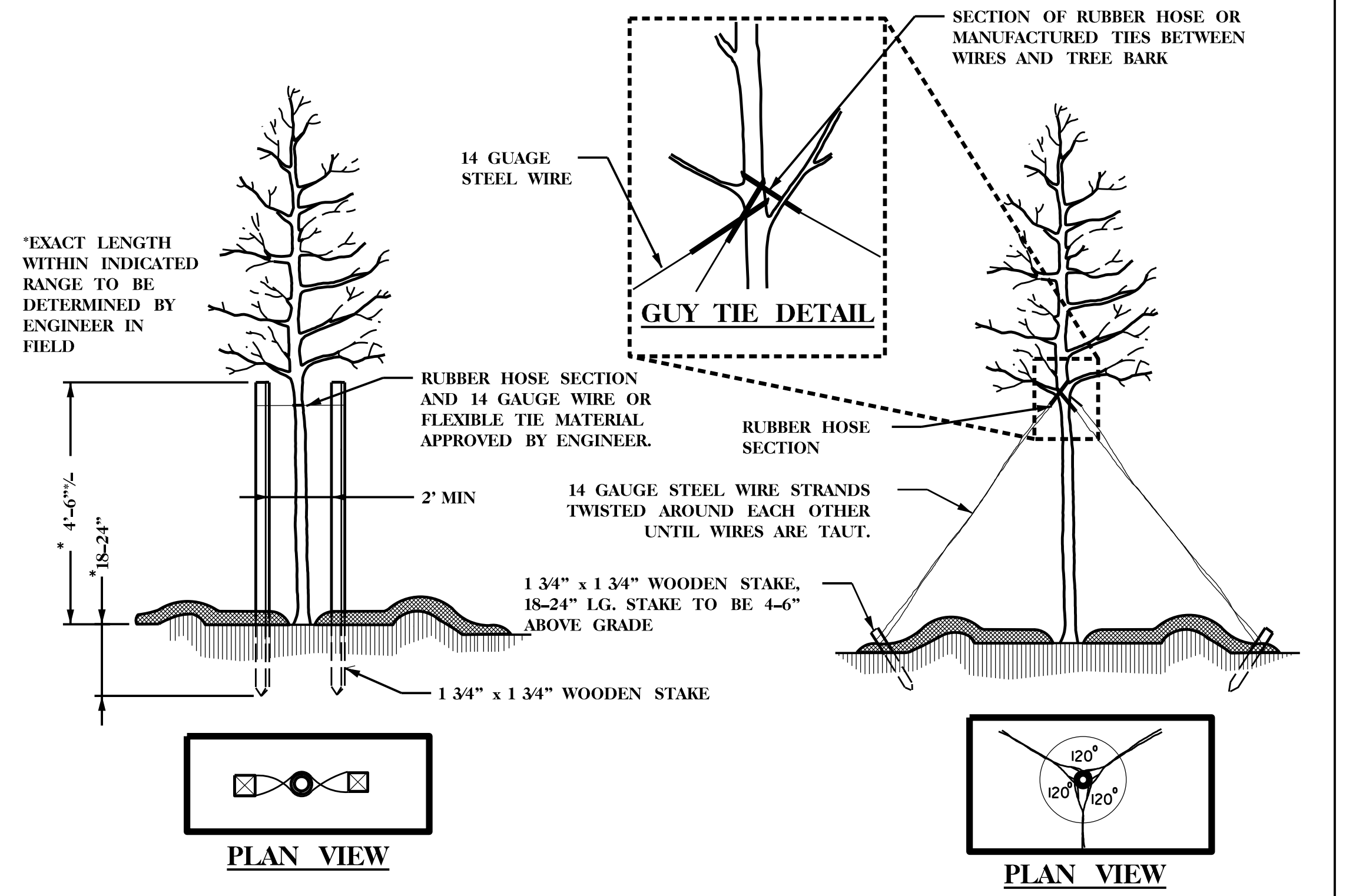
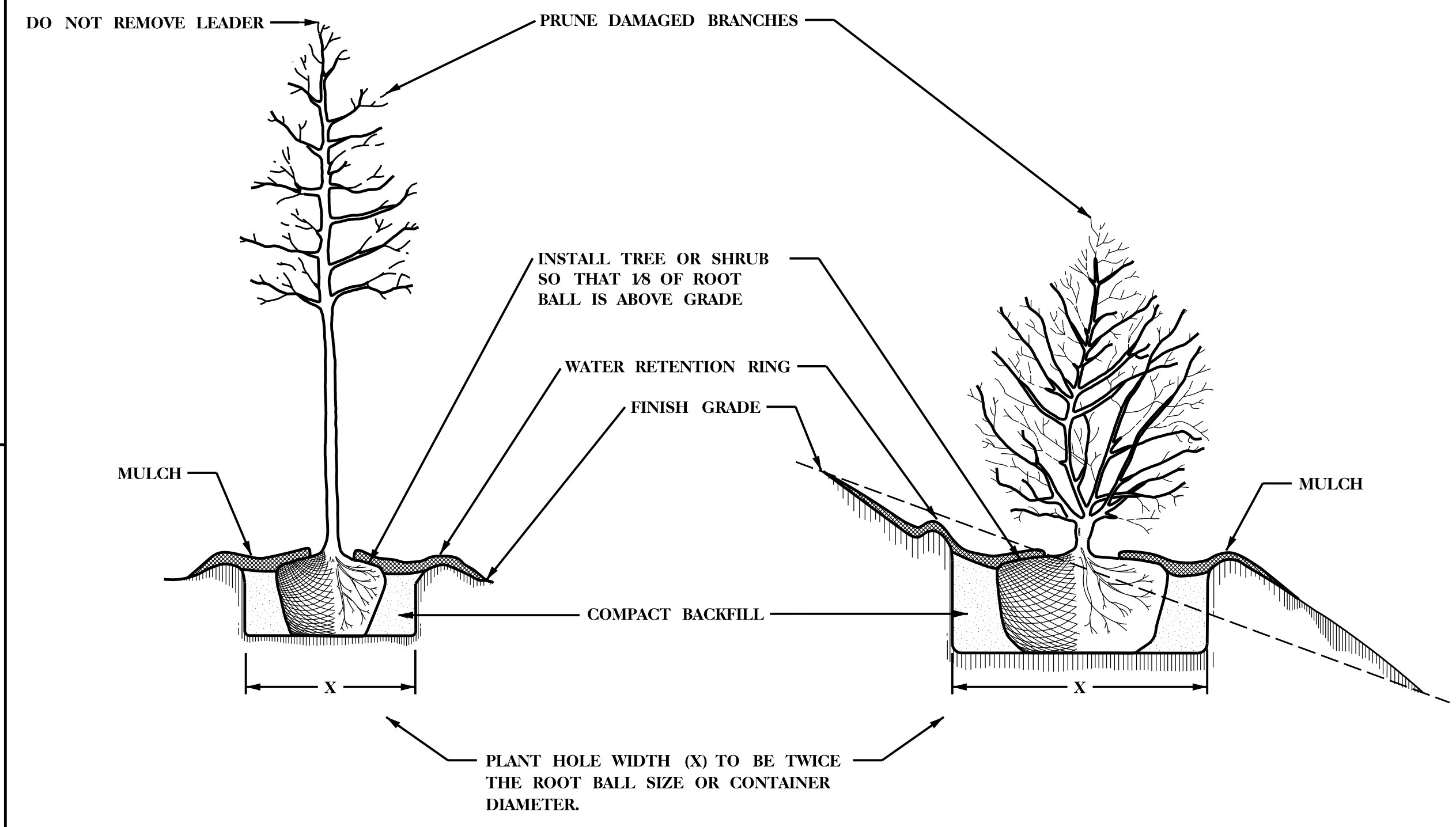
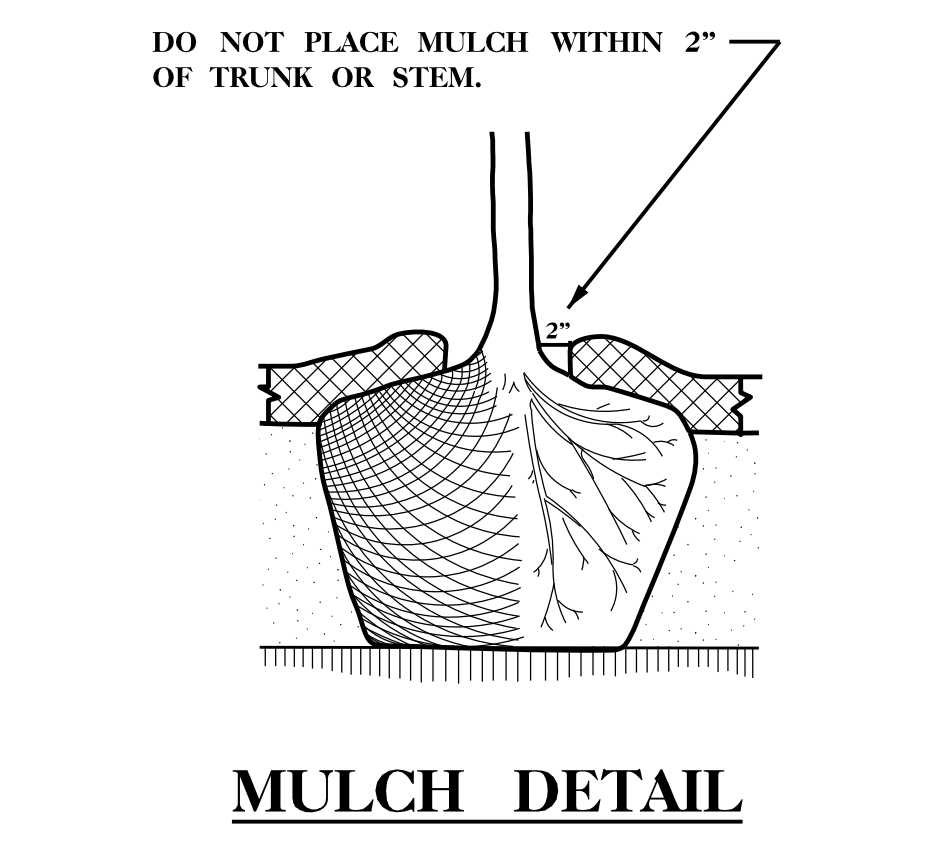
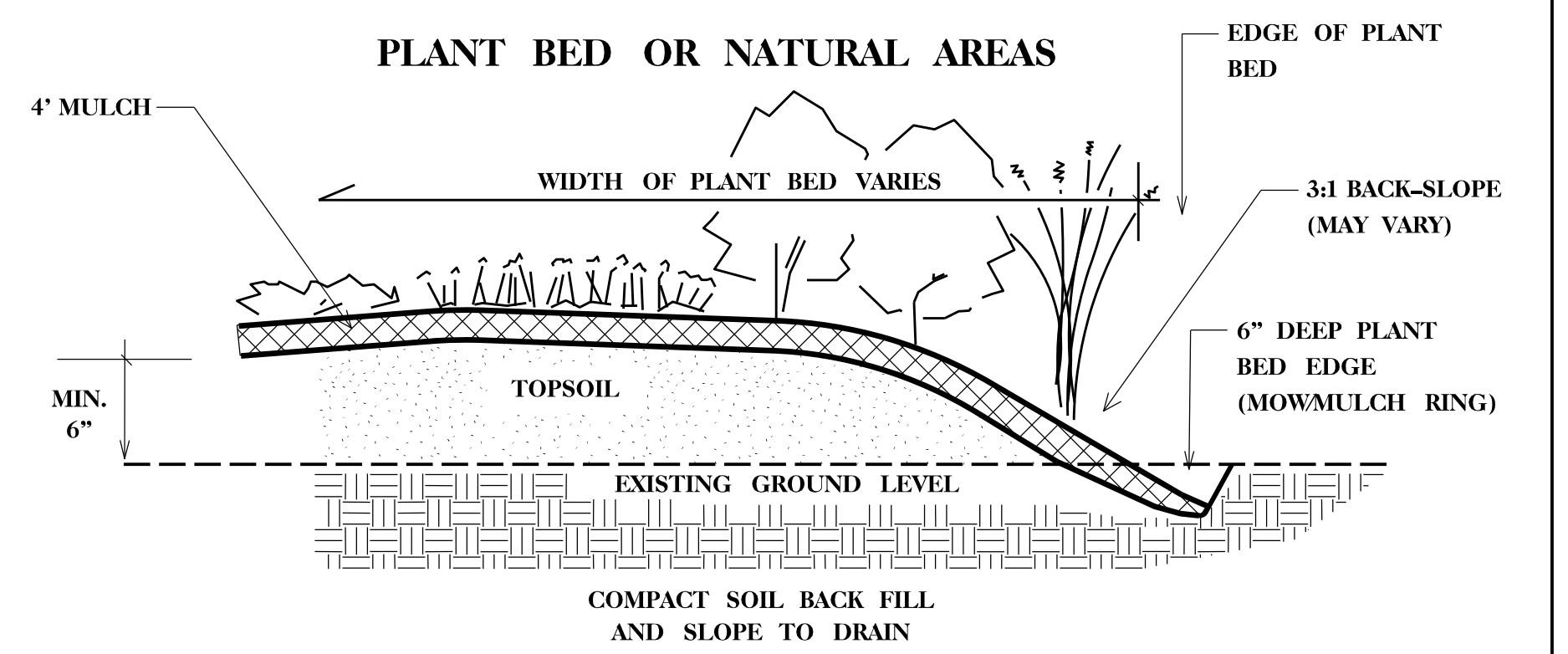
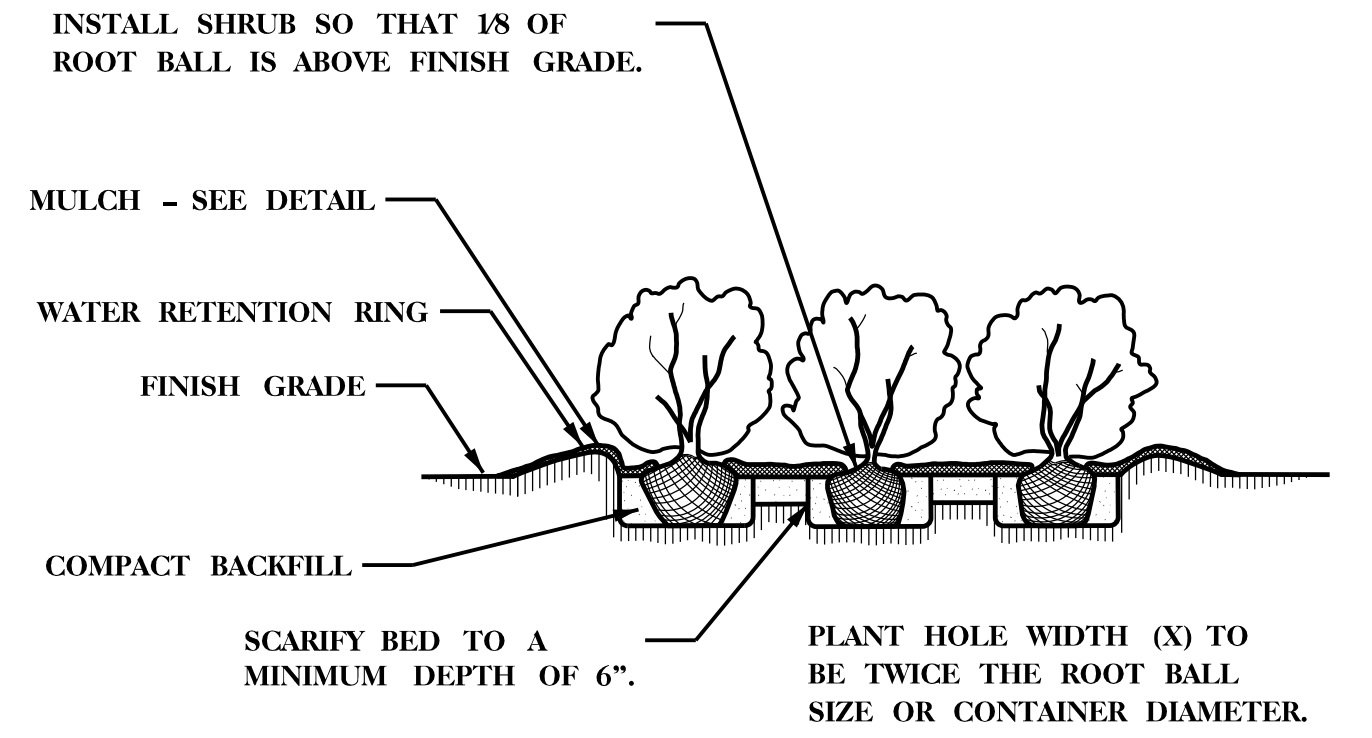
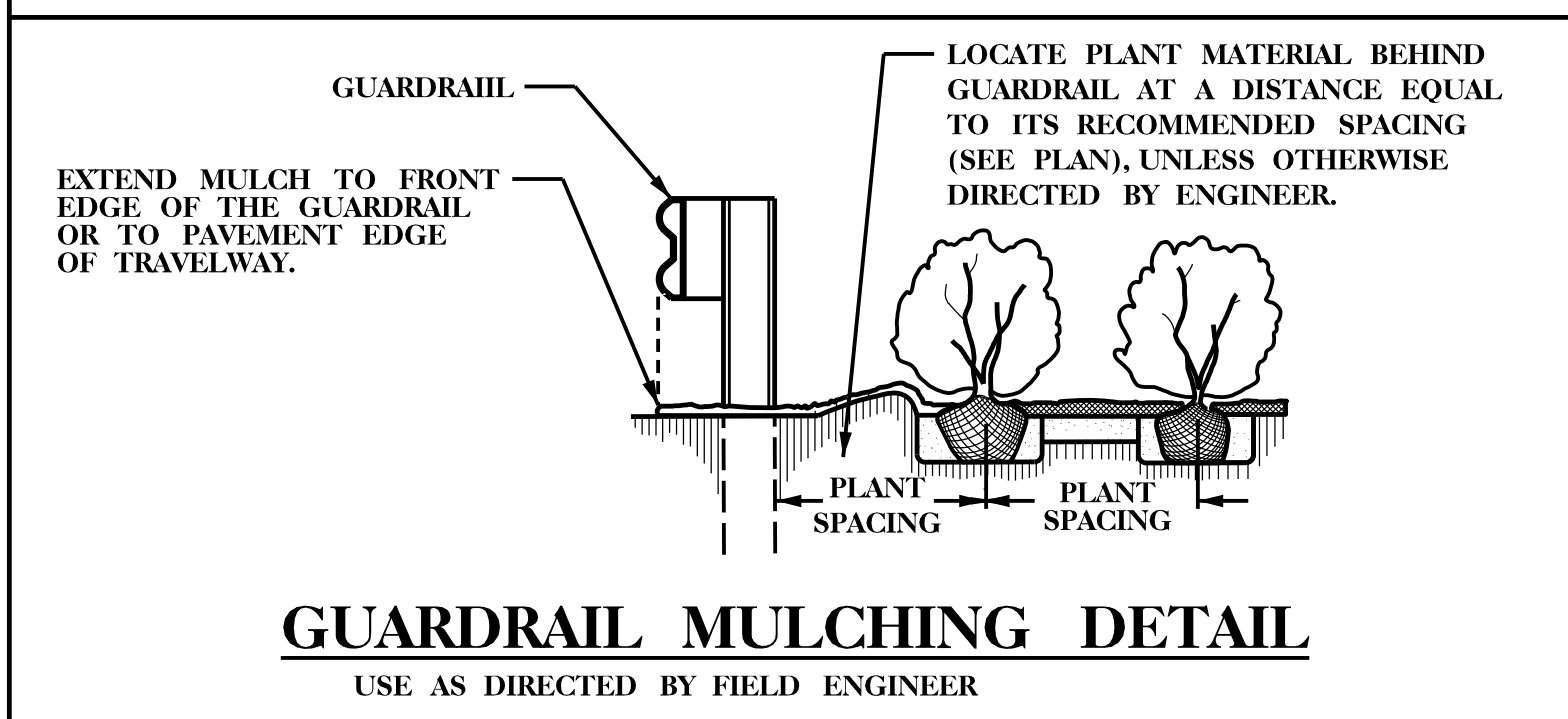
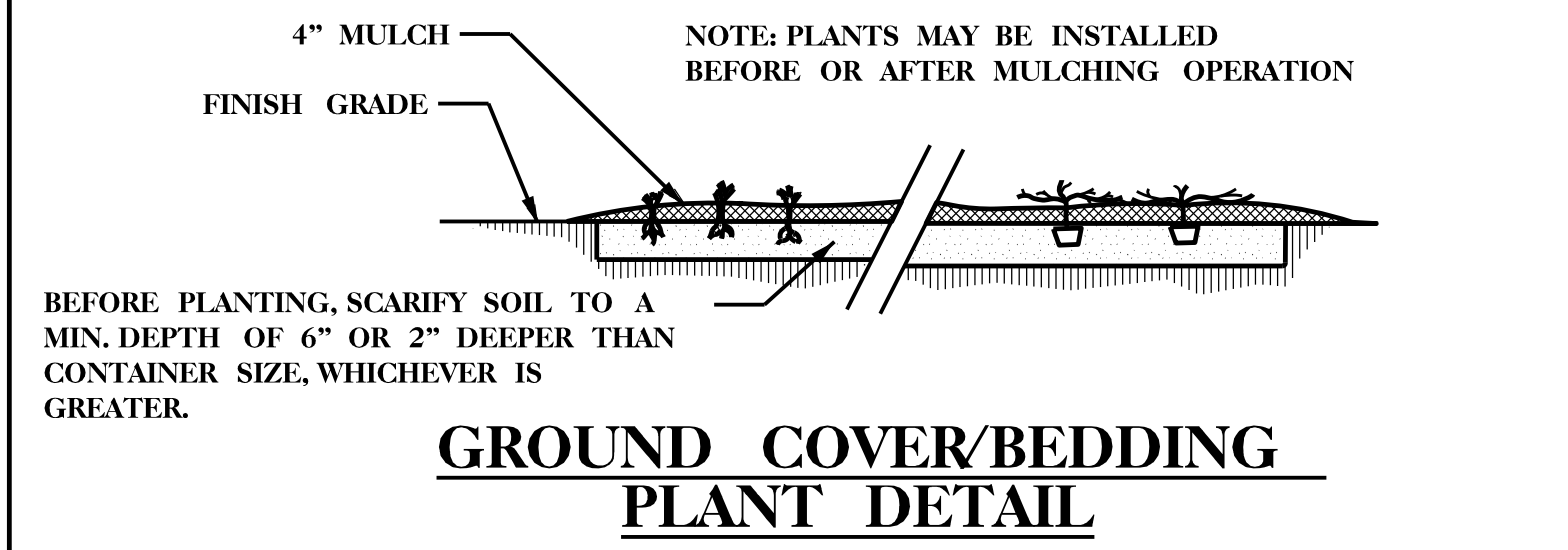
LOCATION: I-85 and I-485 Interchange

TYPE of WORK: T.I.P.

COUNTY: Mecklenburg County

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$SYSSERNAME\$\$\$\$\$

- NOTES:**
- SCHEDULE FOR PLANT HOLE SIZE: PLANT HOLE WIDTH (X) TO BE TWICE THE ROOT BALL SIZE OR CONTAINER DIAMETER.
 - SEE STANDARD SPECIFICATIONS FOR PLANT BED FUMIGATION AND HERBICIDAL TREATMENT.
 - APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLET OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
 - REMOVE WIRE BASKET AND FOLD BURLAP BACK FROM TOP OF ROOT BALL BEFORE BACKFILLING IS COMPLETE.
 - ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES AS SPECIFIED BY INTERNATIONAL SOCIETY OF ARBORICULTURE.
 - DO NOT ATTEMPT TO STRAIGHTEN A TREE THAT HAS BEEN PLANTED AT AN ANGLE WITH THE USE OF STAKING OR GUYING. DIG TREE AND REPLANT TO UPRIGHT POSITION.



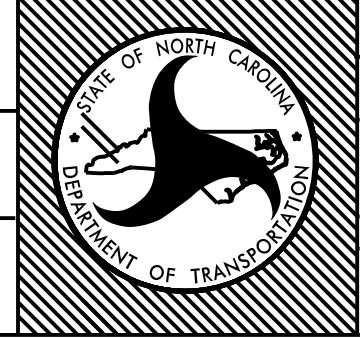
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
LANDSCAPE DESIGN & DEVELOPMENT
1557 MAIL SERVICE CENTER RALEIGH NC 27699-1557
PH: 919-707-2935 FAX: 919-715-2554
HTTP://WWW.NCDOT.ORG/DOH/OPERATIONS/DP_CHIEF_ENG/ROADSIDE/

I-85 & I-485 INTERCHANGE
MECKLENBURG COUNTY
TIP #: R-2123CE

REV. DESIGNER
Kyle Cooney

PREL. DESIGN DATE: MARCH 2016
CHECKED BY & DATE:
FINAL DESIGN DATE: JUNE 10, 2016

PLANTING DETAILS



T.I.P. # R-2123CE
WBS #
FED I.D. #
SHEET NO.: L-2 TOTAL SHEET NO.: 6

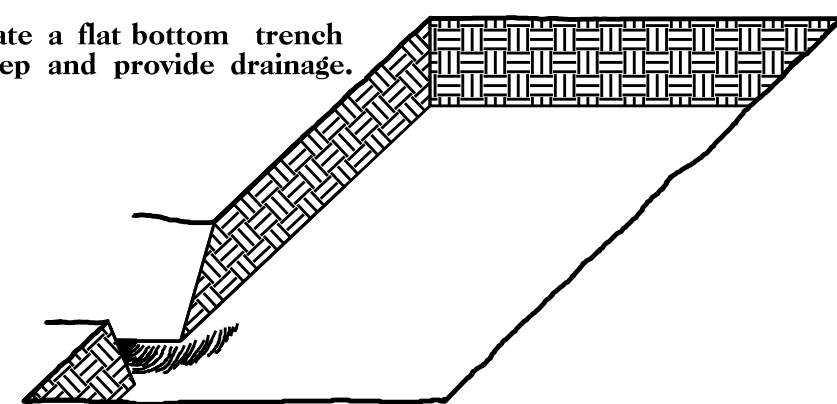
REFORESTATION DETAILS

SEEDLING / LINER BAREROOT PLANTING DETAIL

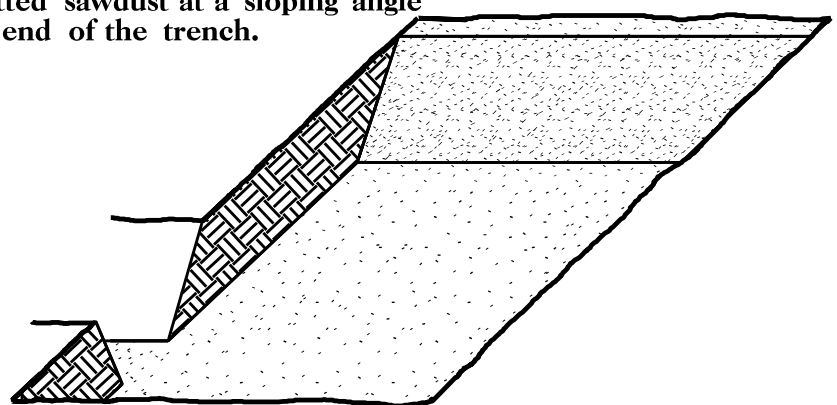
HEALING IN

1. Locate a healing-in site in a shady, well protected area.

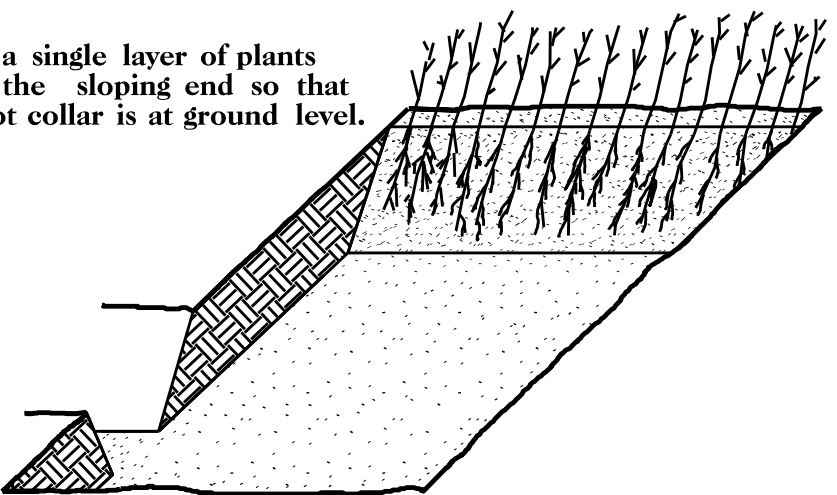
2. Excavate a flat bottom trench 12" deep and provide drainage.



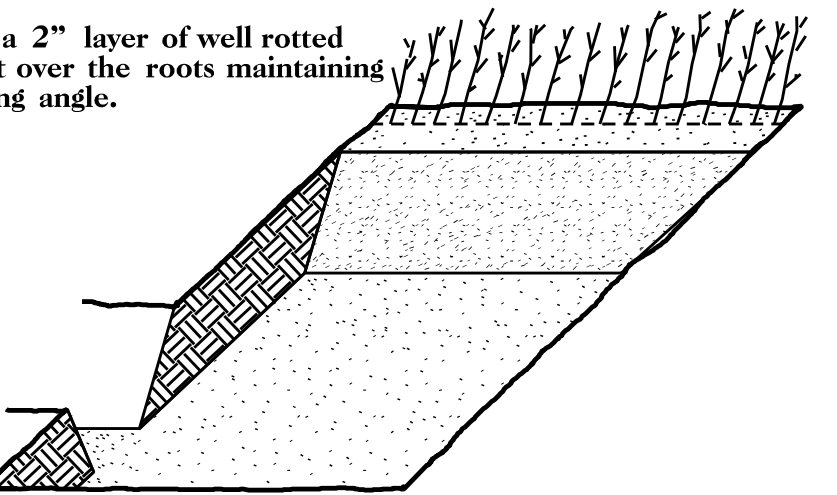
3. Backfill the trench with 2" well rotted sawdust. Place a 2" layer of well rotted sawdust at a sloping angle at one end of the trench.



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

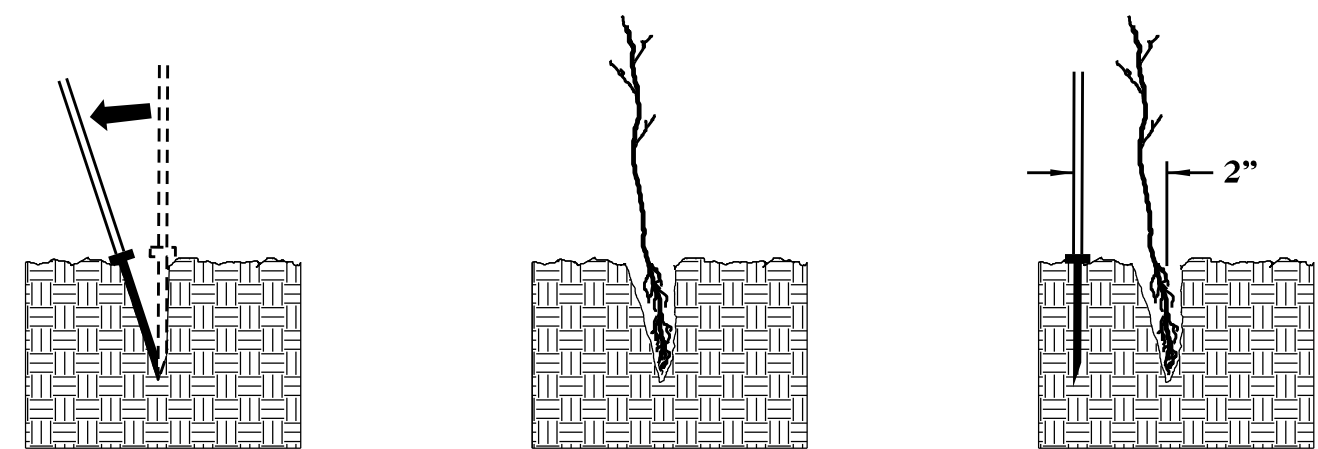


5. Place a 2" layer of well rotted sawdust over the roots maintaining a sloping angle.



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

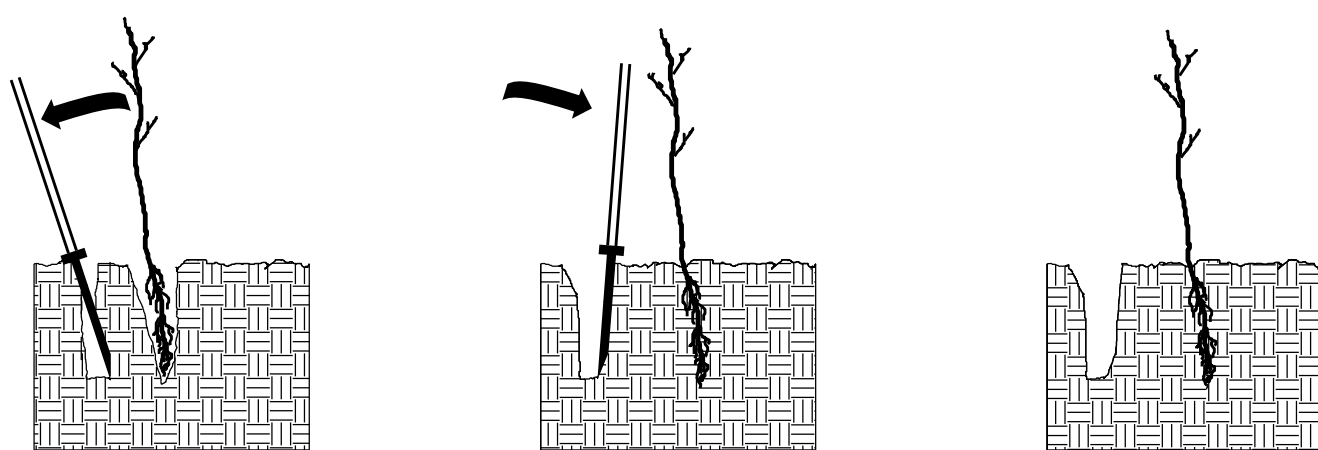
BAR PLANTING METHOD USING THE KBC PLANTING BAR



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" toward planter from seedling.

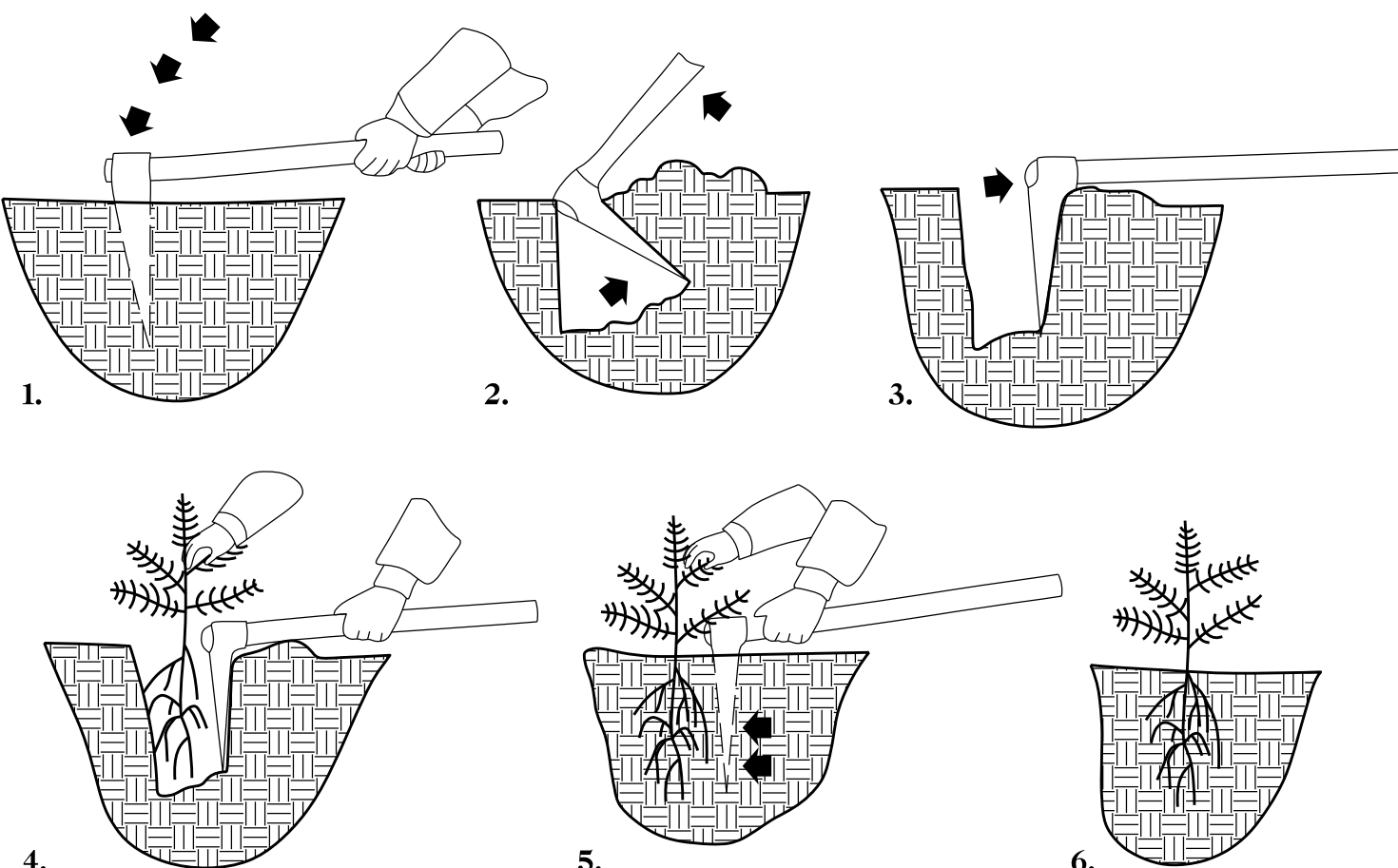


4. Pull handle of bar toward planter, firming soil at bottom.

5. Push handle forward firming soil at top.

6. Leave compaction hole open. Water thoroughly.

HOEDAD PLANTING METHOD USING A HOEDAD PLANTING BLADE



1.

2.

3.

4.

5.

6.

REFORESTATION SCHEDULE

EXACT AREAS TO BE REFORESTED WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. QUANTITIES GIVEN ARE ESTIMATES ONLY, ADJUST ACCORDING TO FIELD CONDITIONS.

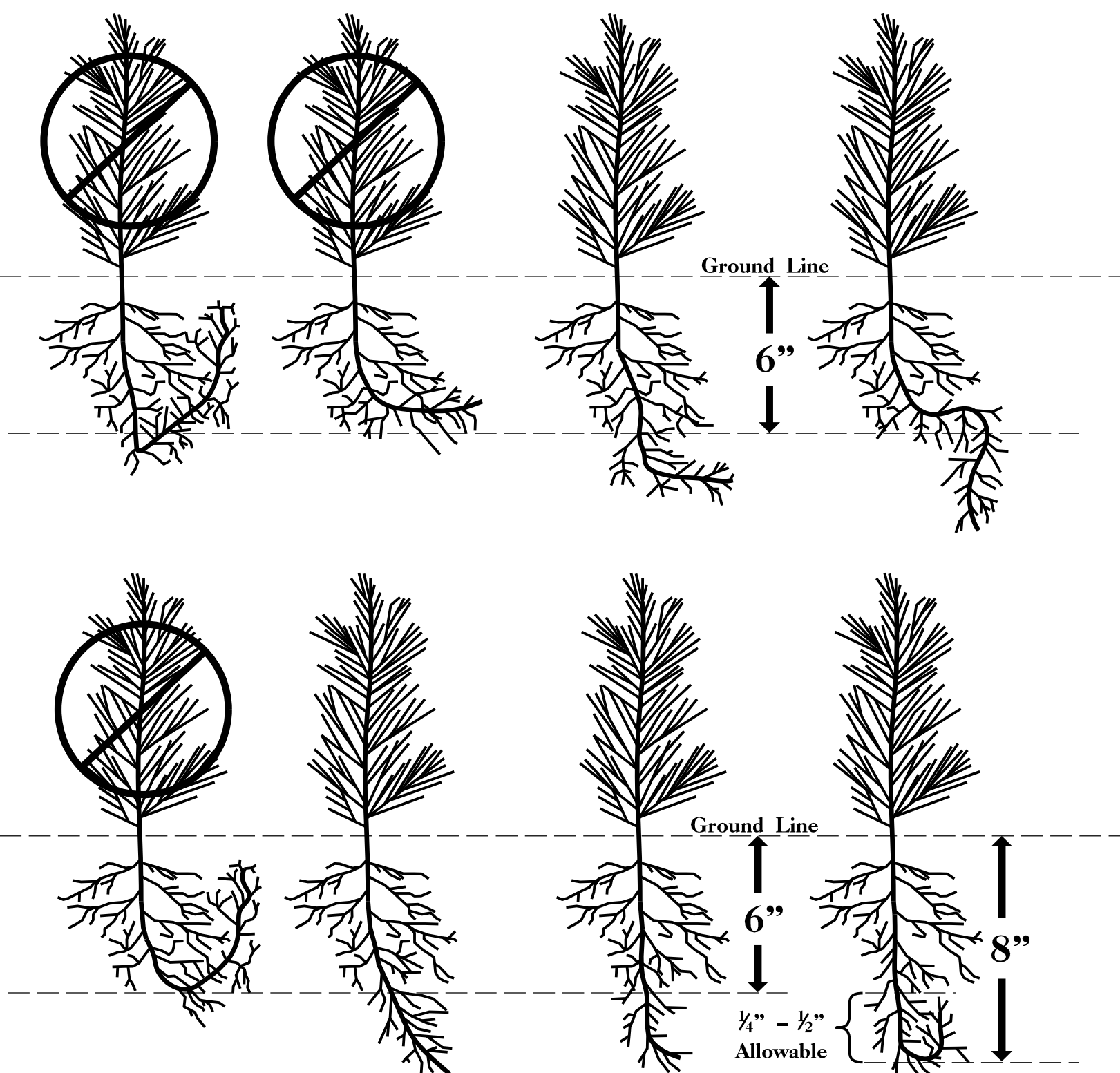
REFORESTATION - APPROXIMATELY 6.5 ACRES

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

Percent	Botanical Name	Common Name	Furnish	A.S.N.S
10%	<i>Aesculus pavia</i>	Red Buckeye	18 - 24" Seedling	11.2
15%	* <i>Amelanchier arborea</i>	Serviceberry	18 - 24" Seedling	11.2
20%	* <i>Cercis canadensis</i>	Eastern Red Bud	18 - 24" Seedling	11.2
15%	* <i>Cornus sp.</i>	Dogwood Tree	18 - 24" Seedling	11.2
20%	<i>Juniperus virginiana</i>	Eastern Red Cedar	18 - 24" Seedling	11.2
10%	<i>Lagerstroemia sp.</i>	Crape Myrtle	18 - 24" Seedling	11.2
10%	<i>Rhus glabra</i>	Smooth Sumac	18 - 24" Seedling	11.2

Plant 8' to 10' on center, averaging 9' on center. Space randomly. Approximately 544 plants per acre. Species with an * will be planted closer to the road edge of the reforested area.

PROPER PLANTING TECHNIQUES



PLANTING NOTES

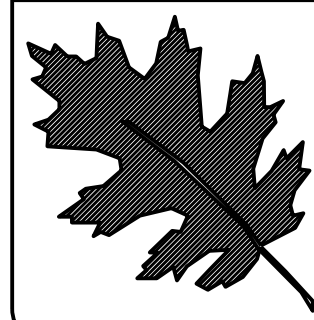
PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



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



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



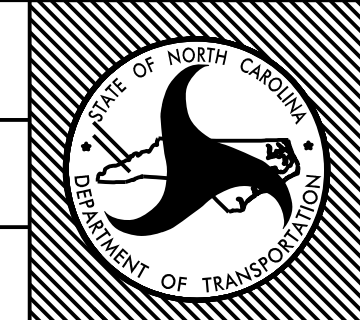
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
LANDSCAPE DESIGN & DEVELOPMENT
1557 MAIL SERVICE CENTER RALEIGH NC 27699-1557
PH: 919-707-2935 FAX: 919-715-2554
[HTTP://WWW.NCDOT.ORG/DOH/OPERATIONS/DP_CHIEF_ENG/ROADSIDE/](http://www.ncdot.org/DOH/OPERATIONS/DP_CHIEF_ENG/ROADSIDE/)

I-85 & I-485 INTERCHANGE
MECKLENBURG COUNTY
TIP #: R-2123CE

REV. DESIGNER
Kyle Cooney

SHEET DESCRIPTION:
PREL. DESIGN DATE: MARCH 2016
CHECKED BY & DATE:
FINAL DESIGN DATE: JUNE 10, 2016

REFORESTATION DETAILS



T.I.P. # R-2123CE

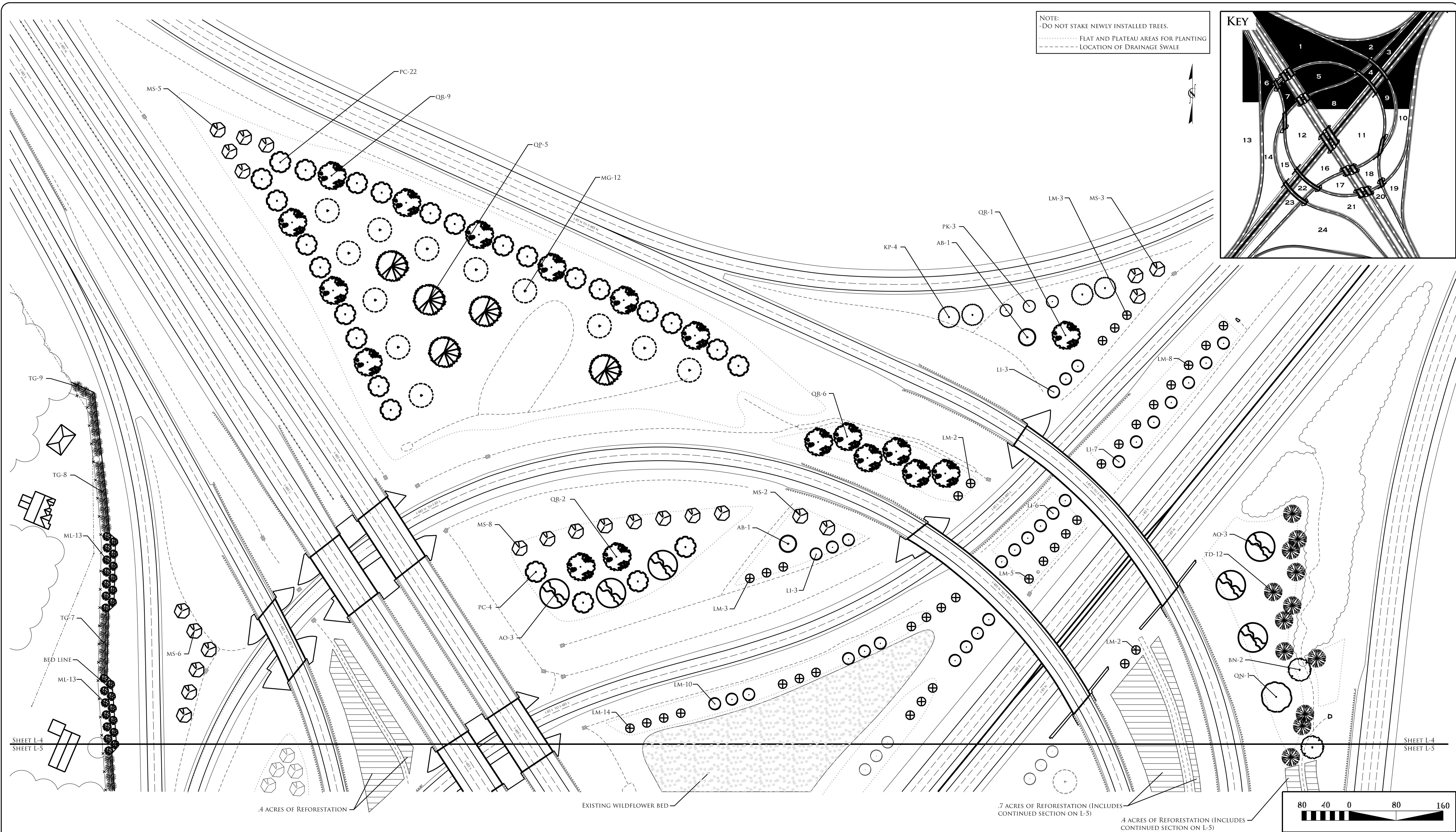
WBS #

FED I.D. #

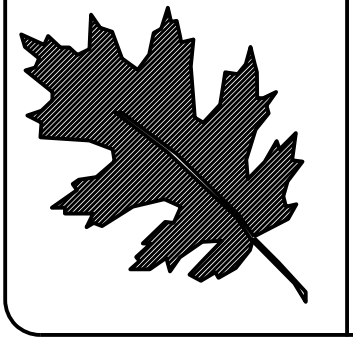
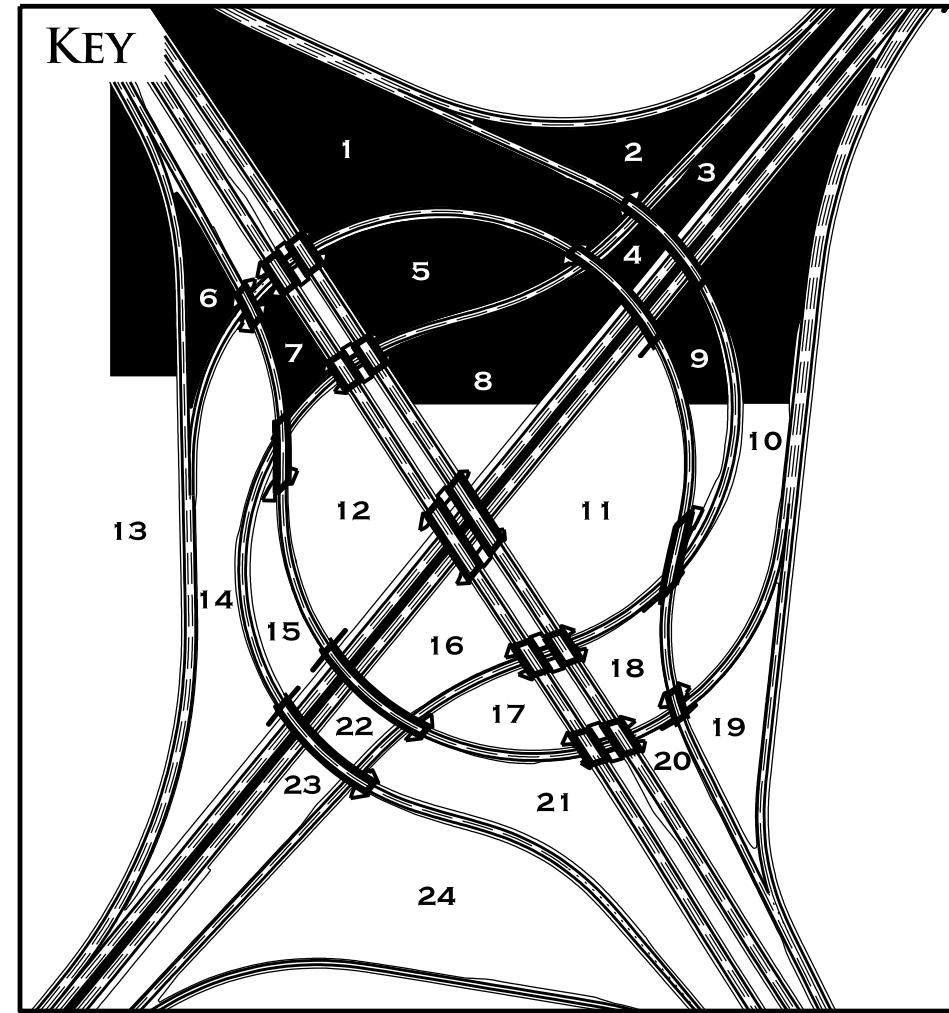
SHEET NO. TOTAL SHEET NO.:

L-3

6



NOTE:
 -DO NOT STAKE NEWLY INSTALLED TREES.
 -FLAT AND PLATEAU AREAS FOR PLANTING
 -LOCATION OF DRAINAGE SWALE



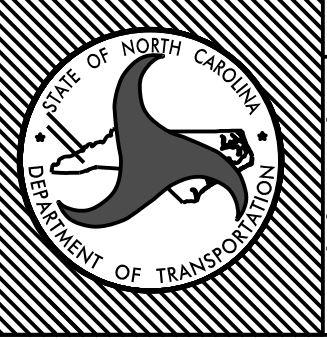
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
 LANDSCAPE DESIGN & DEVELOPMENT
 1557 MAIL SERVICE CENTER RALEIGH NC 27699-1557
 PH: 919-707-2935 FAX: 919-715-2554
[HTTP://WWW.NCDOT.ORG/DOH/OPERATIONS/DP_CHIEF_ENG/ROADSIDE/](http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/)

I-85 & I-485 INTERCHANGE
 MECKLENBURG COUNTY
 TIP #: R-2123CE

PREP. DESIGNER
Kyle Cooney

SHEET DESCRIPTION:
 PREL. DESIGN DATE: MARCH 2016
 CHECKED BY & DATE:
 FINAL DESIGN DATE: JUNE 10, 2016

PLANTING PLAN
 LANDSCAPE PLAN SHEET

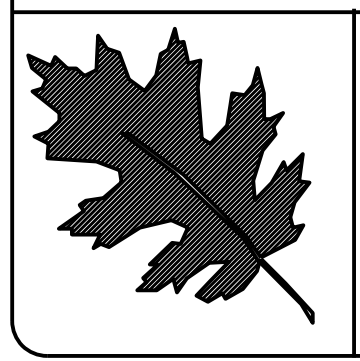
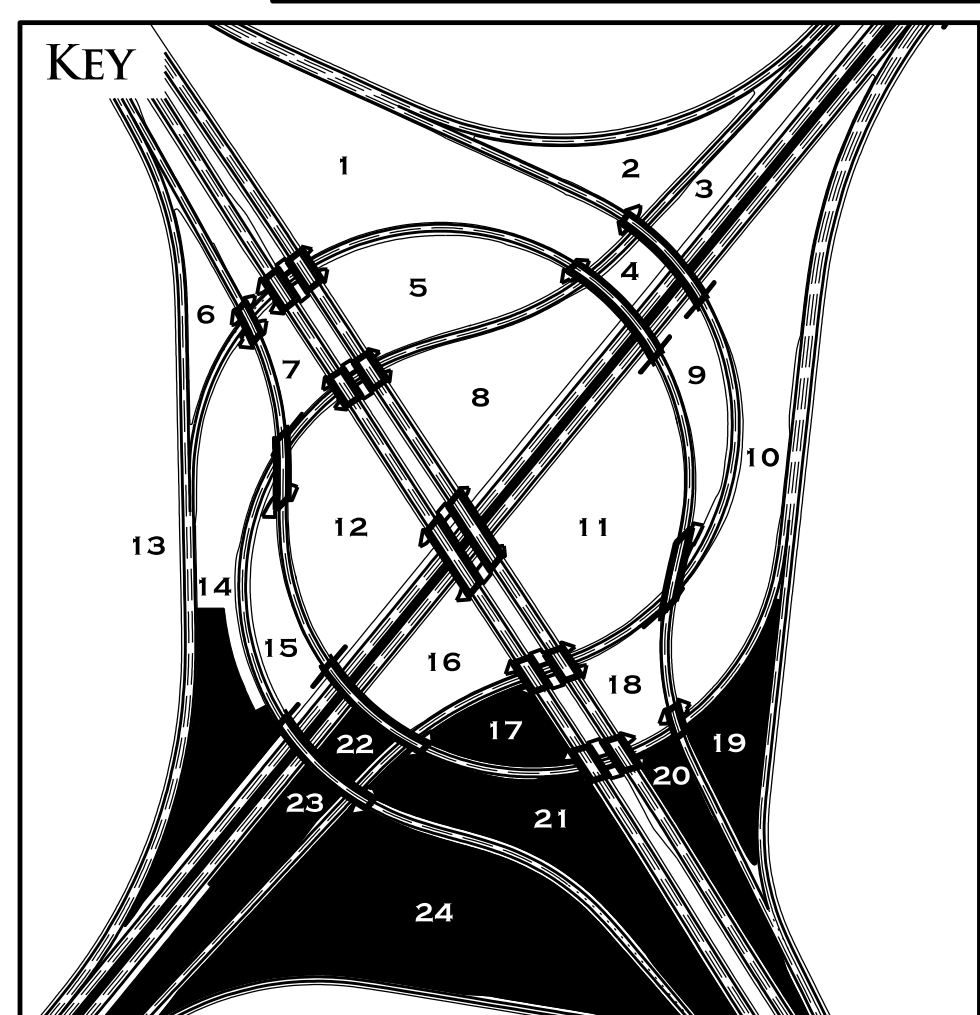
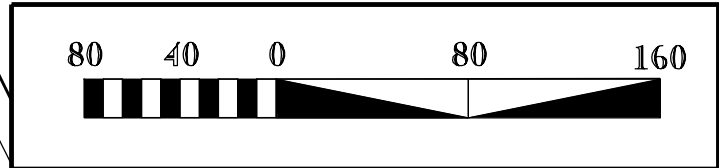


T.I.P. # R-2123CE
 WBS #
 FED I.D. #
 SHEET NO.: **L-4** TOTAL SHEET NO.: **6**





NOTE:
 -DO NOT STAKE NEWLY INSTALLED TREES.
 -FLAT AND PLATEAU AREAS FOR PLANTING
 -LOCATION OF DRAINAGE SWALE



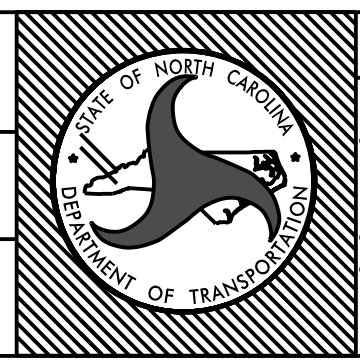
NCDOT - ROADSIDE ENVIRONMENTAL UNIT
 LANDSCAPE DESIGN & DEVELOPMENT
 1557 MAIL SERVICE CENTER RALEIGH NC 27699-1557
 PH: 919-707-2935 FAX: 919-715-2554
[HTTP://WWW.NCDOT.ORG/DOH/OPERATIONS/DP_CHIEF_ENG/ROADSIDE/](http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/)

I-85 & I-485 INTERCHANGE
 MECKLENBURG COUNTY
 TIP #: R-2123CE

REV. DESIGNER
Kyle Cooney

SHEET DESCRIPTION:
 PREL. DESIGN DATE: MARCH 2016
 CHECKED BY & DATE:
 FINAL DESIGN DATE: JUNE 10, 2016

PLANTING PLAN
 LANDSCAPE PLAN SHEET



T.I.P. # R-2123CE
 WBS #
 FED I.D. #
 SHEET NO.: **L-6** TOTAL SHEET NO.: **6**