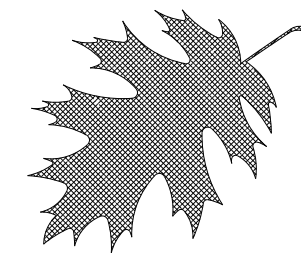
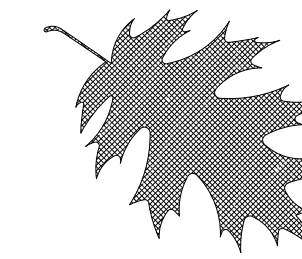


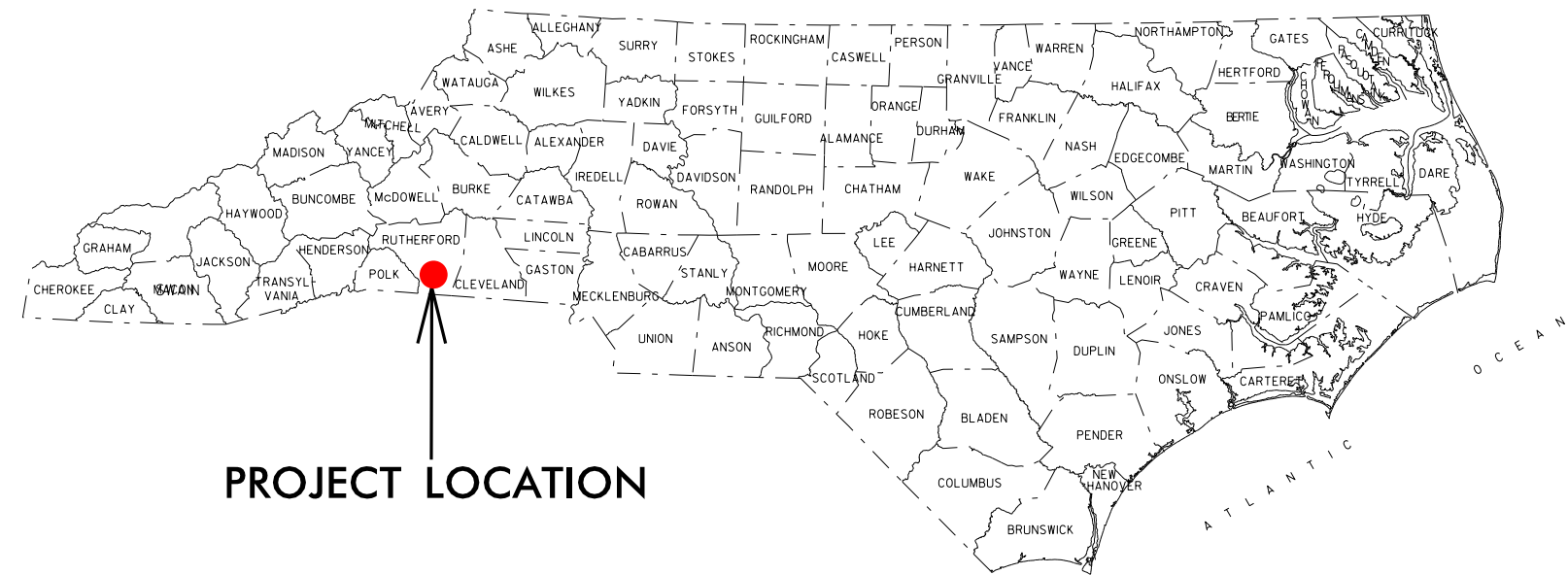
PROJECT: Rutherford County, Forest City – US 74 and US 221 Alt. Interchange



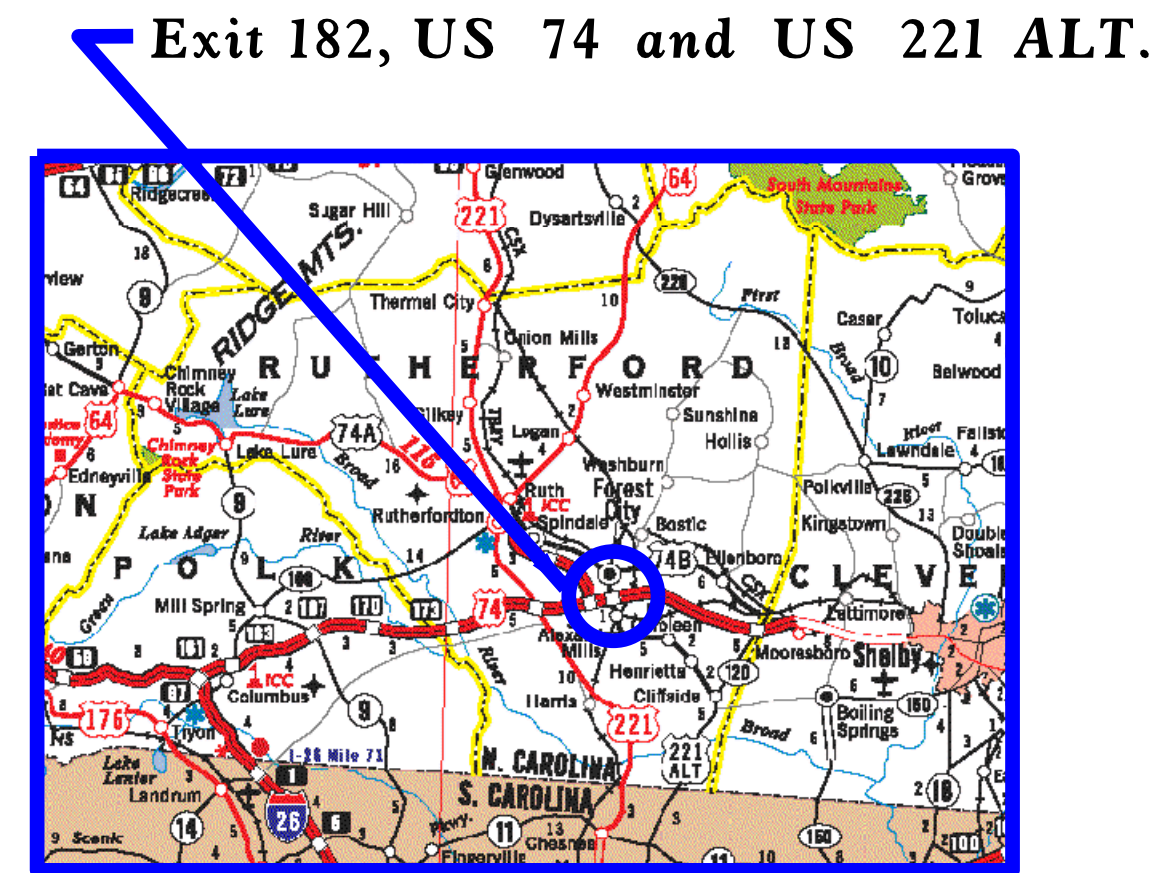
PROPOSED HIGHWAY LANDSCAPE DEVELOPMENT PROJECT



T.I.P. #	STATE PROJECT W.B.S. #	SHEET #	SHEET # TOTAL
ER-5600MA	46305.3.40	1	5
FED. PROJ. #	DESCRIPTION		DIVISION
STBG-0074(207)	US 74 & US 221 Alt. Forest City Rutherford County		13



PROJECT LOCATION



Vicinity Map

Summary of Quantities

Plant Materials							
Quantity	Key	Unit	Botanical Name	Common Name	Furnish	ASNS	Spacing
14	CF	Each	<i>Cornus florida</i> 'Appalachian Spring'	Appalachian Spring Flowering Dogwood	1 1/2 - 2" Cal., B&B, Heavily Branched	1.2.4	As shown
16	CR	Each	<i>Chionanthus retusus</i> 'China Snow'	China Snow Chinese Fringetree	2 - 2 1/2" Cal., Standard, B&B, Straight Trunk	1.2.4	As shown
27	IL	Each	<i>Ilex</i> x 'Liberty' PP#12009	Liberty Red Holly	7-8', B&B, Heavy, Branched to Ground	1.2.4	As shown
49	LM	Each	<i>Lagerstroemia</i> x 'Muskogee'	Muskogee Crape myrtle	12-14', 3 to 5 stemmed tree form, B&B, No branches below 4', Matched Specimens	1.2.3	40' OC
5	NS	Each	<i>Nyssa sylvatica</i> 'Wildfire'	Wildfire Black Gum	2 - 2 1/2" Cal., B&B, Straight Trunk	1.2.2	As shown
5	QN	Each	<i>Quercus nuttallii</i>	Nuttall Oak	2 - 2 1/2" Cal., B&B, Straight Trunk	1.2.2	As shown
1728	PV	Each	<i>Panicum virgatum</i> 'Shenandoah'	Shenandoah Switchgrass	#1 Cont., Must be fully rooted into this container with full top growth and weed free	12.1.3	3' OC
3043	SS	Each	<i>Schizachyrium scoparium</i> 'The Blues'	The Blues Little Bluestem	#1 Cont., Must be fully rooted into this container with full top growth and weed free	12.1.3	2' OC
Other Items							
Quantity		Unit	Item Description				
3836		SY	Post-emergent Herbicidal Treatment for Plant Beds				
3836		SY	Pre-emergent Herbicidal Treatment for Plant Beds				
558		CY	Mulch for Planting				
64		M/G	Water for Planting				
1700		LF	Ornamental Wood Fence				
1		LS	Clearing and Grubbing				
0.9		Acre	Seeding and Mulching (Turf)				
42		EA	Select Tree Removal				
150		CY	Topsoil (for Backfill)				
1		LS	Tree Clean-up				
12		EA	Monthly Establishment Work Cycle				

CONVENTIONAL SYMBOLS

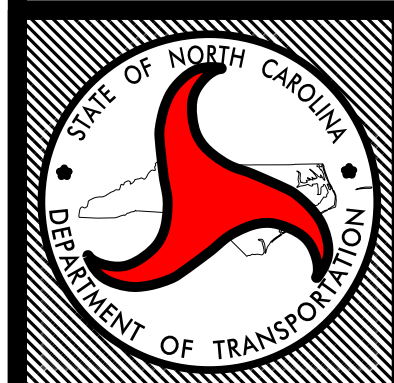
County Line.....	-----
City or Town Line.....	-----
Exist. Right of Way Line Marker.....	-----▲-----
Prop. Right of Way Line Marker (By Others).....	-----▲-----
Prop Right of Way Line Marker (By Contract).....	-----▲-----
Exist. Control of Access Line.....	-----○-----
Prop. Control of Access Line.....	-----○-----
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:

-Title, Description and Summary of Quantities
-Planting Details
-Vegetation Removal and Clean-up Plan
-Fence Plan and Details
-Planting Plan

PREPARED BY: CSM
 PRELIMINARY DESIGN DATE: August, 2016
 FINAL DESIGN DATE: June 27, 2017

US 74 and US 221 Alt.
 Forest City

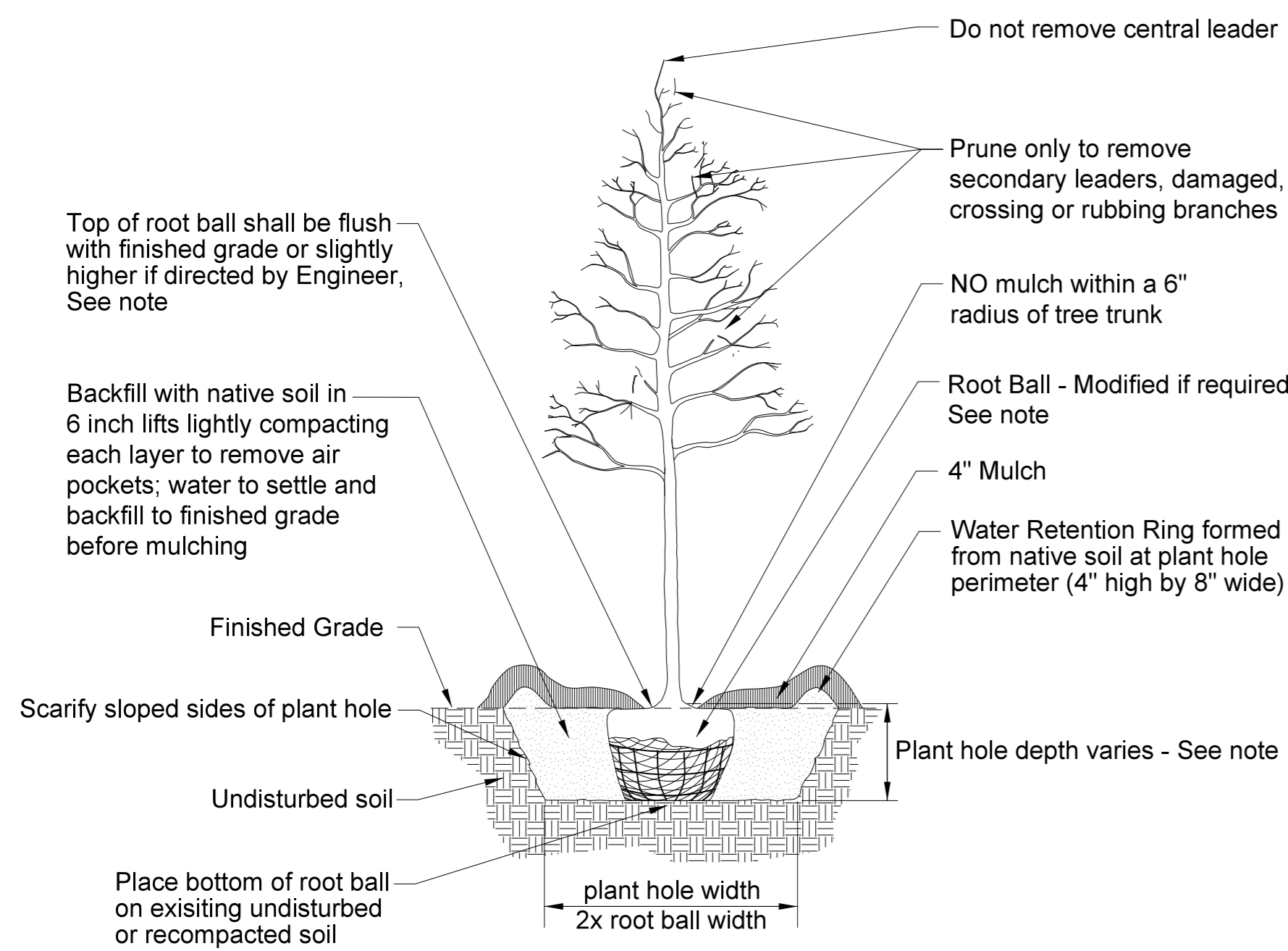


STATE OF
NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION

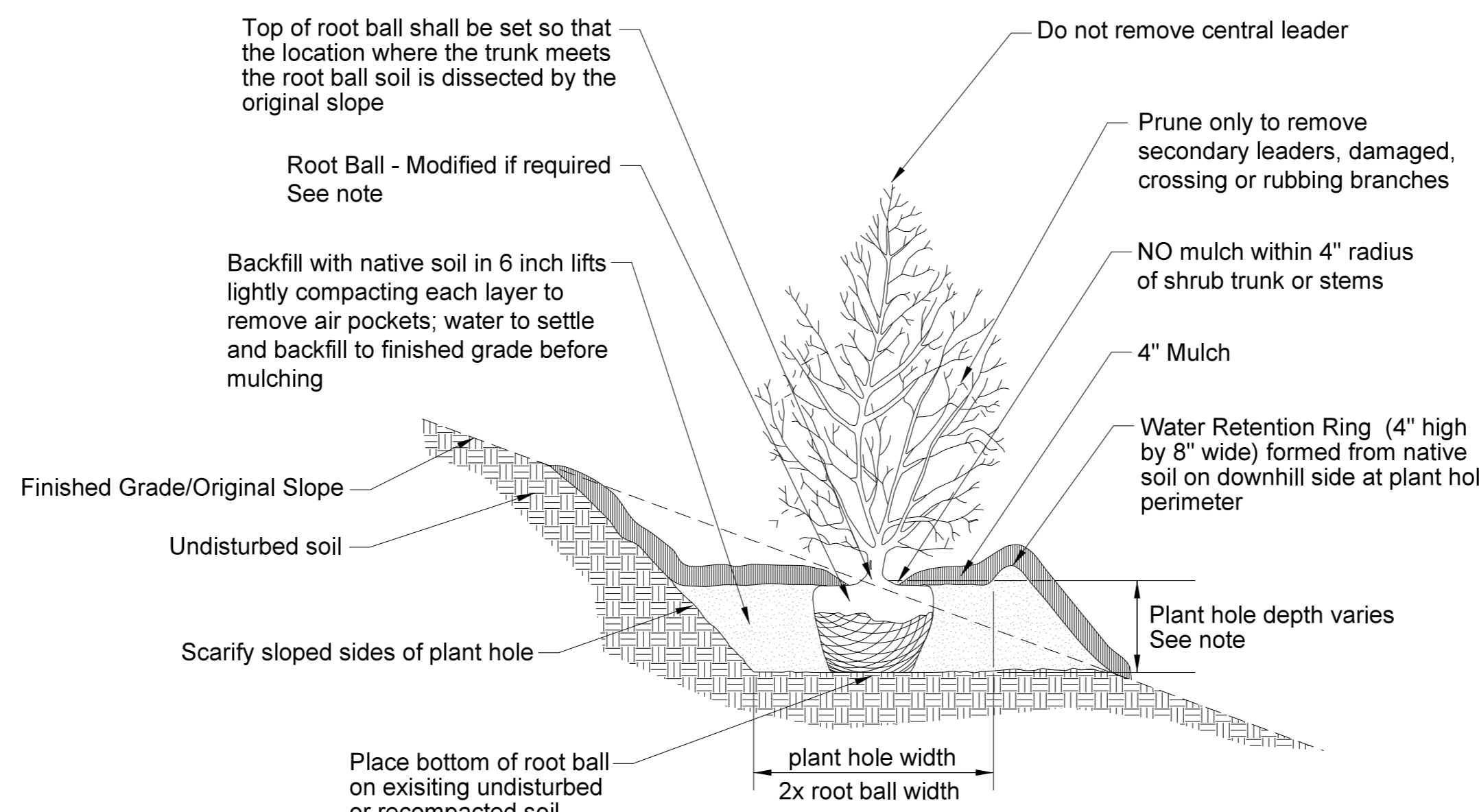
LOCATION: US 74 and US 221 Alt.(S. Broadway St.) – Forest City
 TYPE of WORK: Landscaping
 COUNTY: Rutherford County

DIVISION
 13

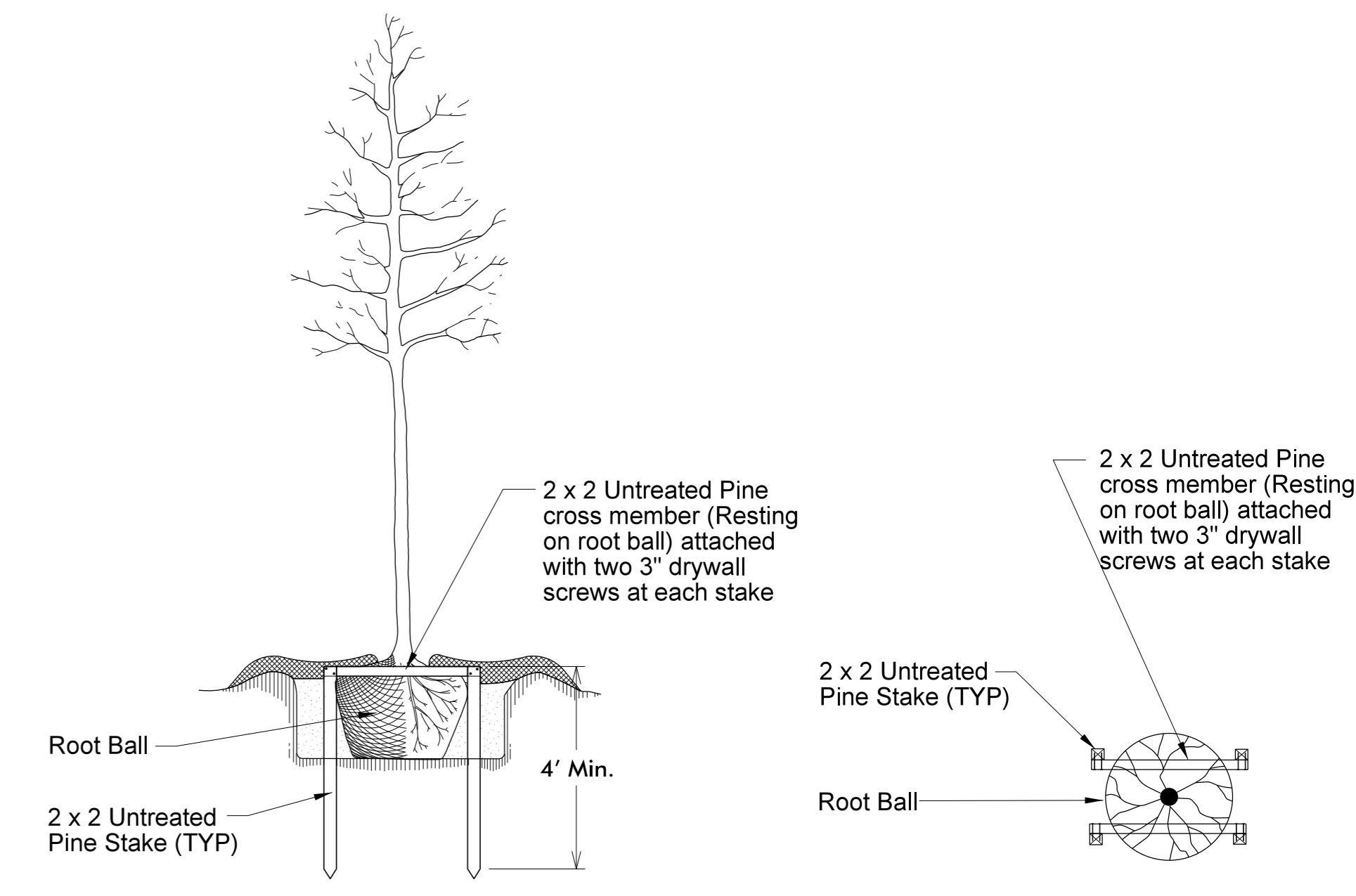
2004 American Standard for Nursery Stock
 2012 NCDOT STANDARD SPECIFICATIONS
 PREPARED IN THE OFFICE OF:
 NCDOT- ROADSIDE ENVIRONMENTAL UNIT
 LANDSCAPE DESIGN & DEVELOPMENT SECTION
 1557 MAIL SERVICE CENTER
 RALEIGH NC 27699 919-707-2920



Tree or Shrub Planting Detail (Level Ground)



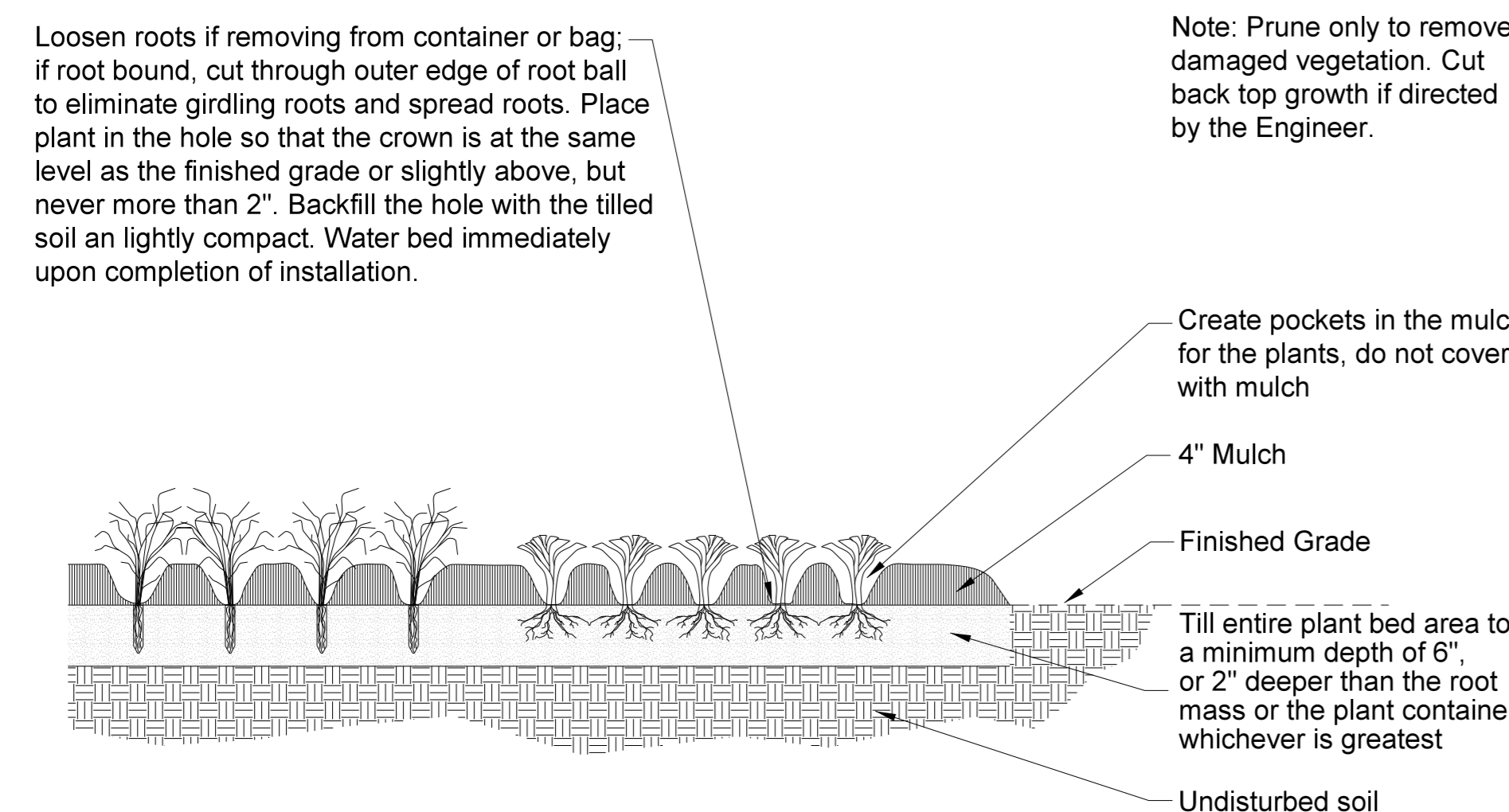
Tree or Shrub Planting Detail (Level Ground)



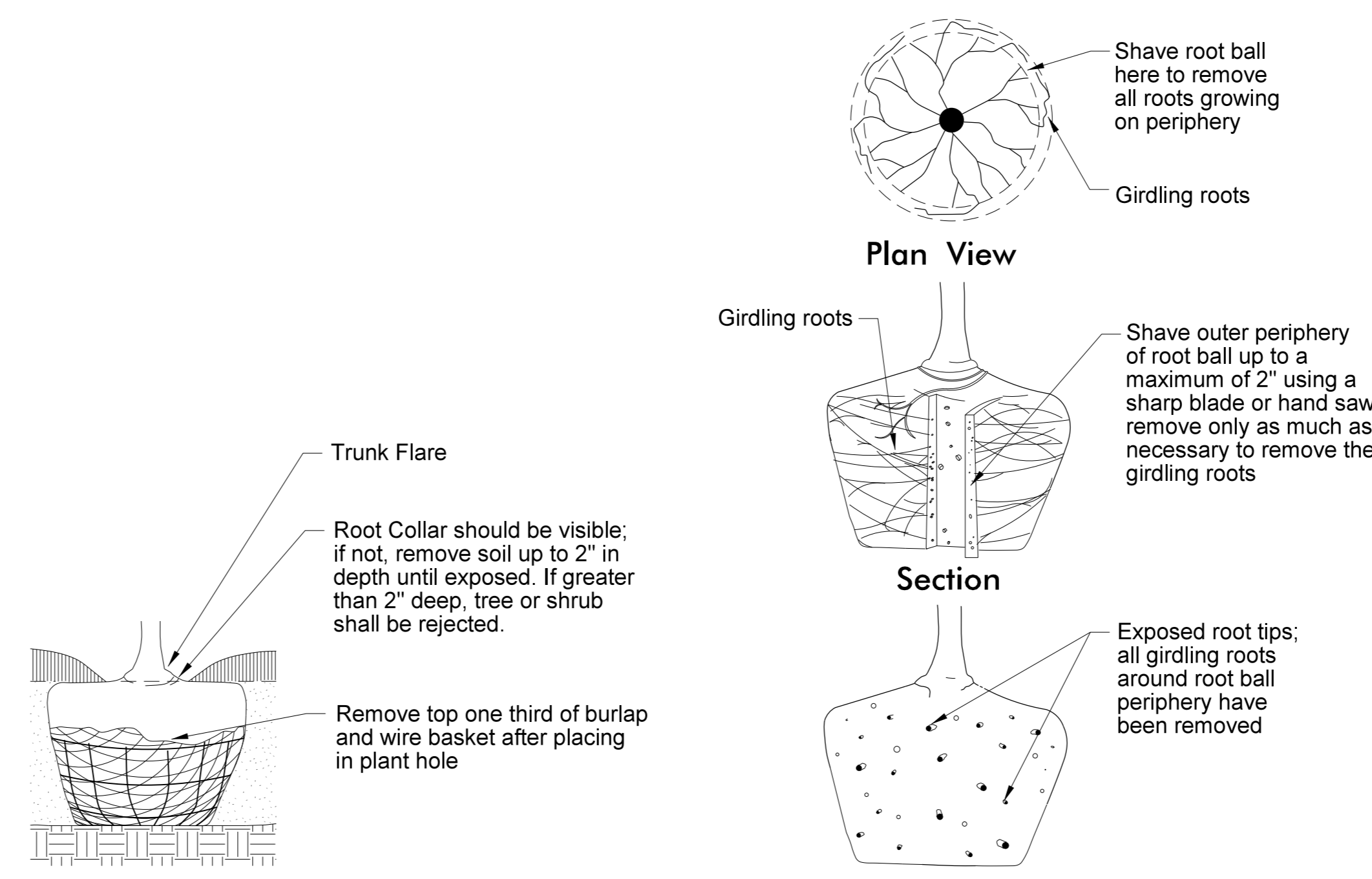
Section

Plan View

Root Ball Staking Detail Trees or Shrubs 8' or Taller



Plant Bed Detail (Herbaceous Perennials, Ornamental Grasses, Groundcovers, Vines, Bulbs, Corms and Tubers) (Small Containers or Bare Root)



Section

Root Ball Depth /Root Collar

Section

Root Ball Shaving

*Inspect all plants to locate root collar prior to acceptance. Plants with root collar depth greater than 2" from the top of the root ball shall be rejected.

*Inspect and perform for all plants that exhibit girdling root systems. Root ball shaving may be done just prior to or after placing in planting hole.

Root Ball Modification Details Balled and Burlapped or Container

Planting Detail Notes:

- See Standard Specifications for Plant Bed preparation and herbicidal treatment.
- Plant hole width shall be a minimum of 2 times the diameter of the container or the root ball. Plant hole depth shall be equal to the final depth of the root ball after any modifications. The root ball shall be set on undisturbed soil or re-compacted soil and the root collar shall be visible.
- In average to well drained soils, the root collar shall be set level with the surrounding finished grade. If planting in heavy clay or otherwise poorly draining soils, the Engineer may require the root ball to be slightly higher than the surrounding finished grade.
- Fertilizer shall be applied at time of planting. Fertilizer shall be a slow release pellet or tablet. Formulation shall be approved by engineer in field. Rates shall be per manufacturer's recommendations and approved by engineer in field. Thoroughly mix with backfill, topsoil or scarified soil.
- Backfill plant hole with native soil unless soil is determined to be unacceptable. Remove rocks greater than 3 inches, foreign materials and construction debris from backfill material. If native soil cannot be used, use soil with properties similar to that in the area and approved by the Engineer.
- Do not place mulch within 4" of tree or shrub trunk. Root collar should be visible.
- When a mulched bed is adjacent to a guardrail run mulch to front edge of guardrail.
- Pruning shall be done as indicated on detail and as directed by the Engineer. Any pruning necessary shall follow current standard arboricultural practices and the International Society of Arboriculture recommendations.
- Trees or large shrubs shall be root ball staked if needed and at the direction of the Engineer. Any substitutions of material or method must be approved by the Engineer prior to installation.
- All trees and shrubs shall be planted in an upright, plumb position. If a tree or shrub needs to be straightened, it shall be dug and replanted in correct position.
- All plant material tags and/or flagging tape shall be removed from all plants prior to final acceptance of the project.

Drawings are not to scale

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ENGINEER
 REU
Conkie Morgan
 DESIGNER
 LANDSCAPE

US 74 AND US 221 ALTERNATE,
 SOUTH BROADWAY STREET INTERCHANGE
 LANDSCAPE ENHANCEMENT
 FOREST CITY - RUTHERFORD COUNTY

SHEET DESCRIPTION:	LANDSCAPE DEVELOPMENT PLANS	PROJECT: US 74 & US 221 ALT FOREST CITY	SHEET NUMBER 2
	PLANTING DETAILS	DIVISION AND COUNTY: DIVISION 13 - RUTHERFORD	TOTAL SHEETS 5
		PRELIMINARY DESIGN DATE : AUGUST, 2016	
		FINAL DESIGN DATE : JUNE 27, 2017	



PERFORM CLEARING AND GRUBBING IN AREA INDICATED OR TO RIGHT OF WAY FENCE AS DIRECTED BY THE ENGINEER IN THE FIELD. IMMEDIATELY UPON COMPLETION SEED EACH AREA TO ESTABLISH VEGETATIVE COVER.

- KEY**
- ✓ TREES TO BE RETAINED
 - ✗ TREES TO BE REMOVED
 - ▨ CLEARING AND GRUBBING

NOTE:

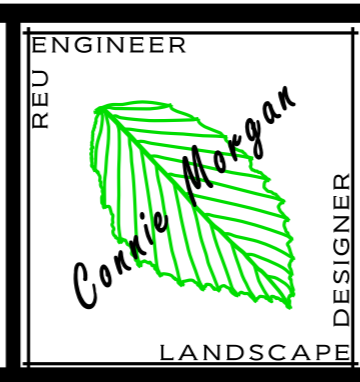
ALL TREES TO BE RETAINED SHALL BE TAGGED IN THE FIELD. ALL TREES WITHIN THE WORK ZONE THAT ARE NOT TAGGED SHALL BE REMOVED. ANY DISCREPANCY BETWEEN THOSE SHOWN TO BE RETAINED ON THE PLAN AND THOSE TAGGED IN THE FIELD SHALL BE RESOLVED BY THE ENGINEER ON SITE.

ALL TREES TO BE RETAINED SHALL RECEIVE 'CLEAN-UP' PRUNING TO REMOVE BASAL SPROUTS AND SEEDED TREES AROUND TRUNK; TO LIFT CANOPY TO A TOTAL GROUND TO LOWER BRANCH CLEARANCE OF 15 FEET FOR SHADE TREES (ORNAMENTAL TREES SHALL BE AS DIRECTED IN THE FIELD); TO CORRECT STRUCTURE AND TO CLEAN CANOPY.

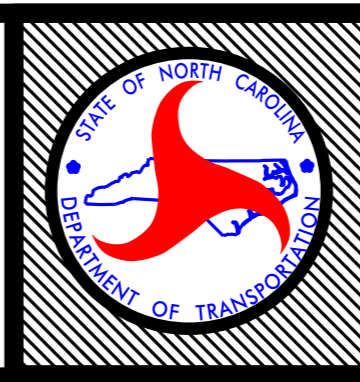
EACH AREA OF CLEARING AND GRUBBING SHALL BE ACCOMPLISHED ON THE SAME DAY THAT IT IS BEGUN.



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**US 74 AND US 221 ALTERNATE,
 SOUTH BROADWAY STREET INTERCHANGE
 LANDSCAPE ENHANCEMENT
 FOREST CITY - RUTHERFORD COUNTY**

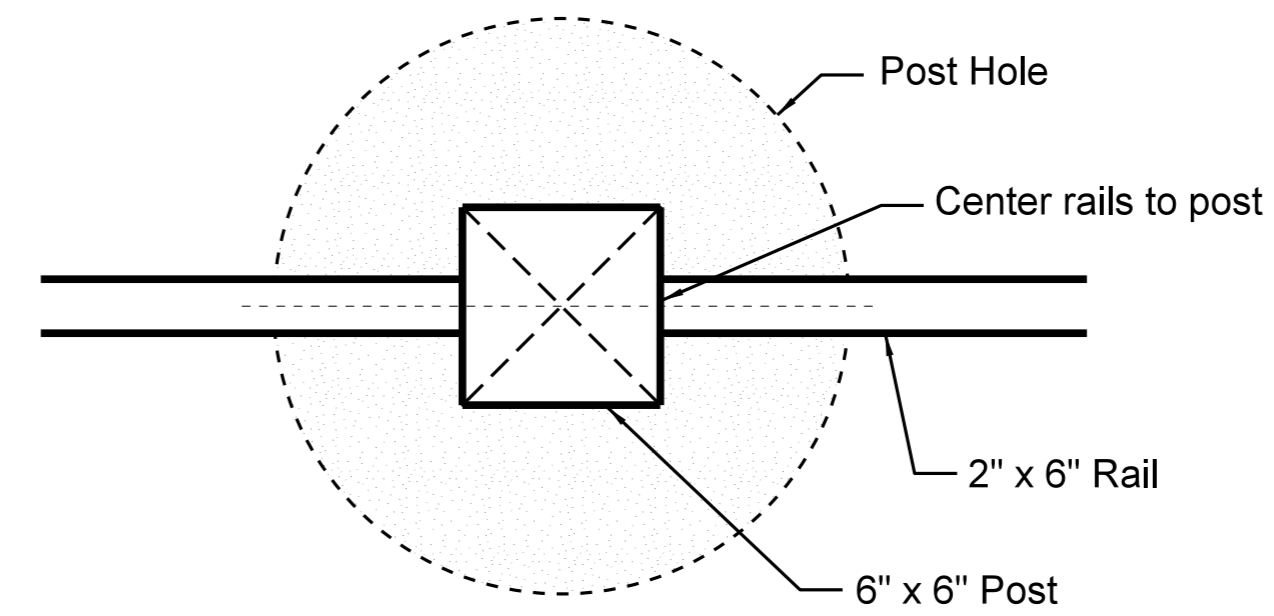


LANDSCAPE DEVELOPMENT PLANS

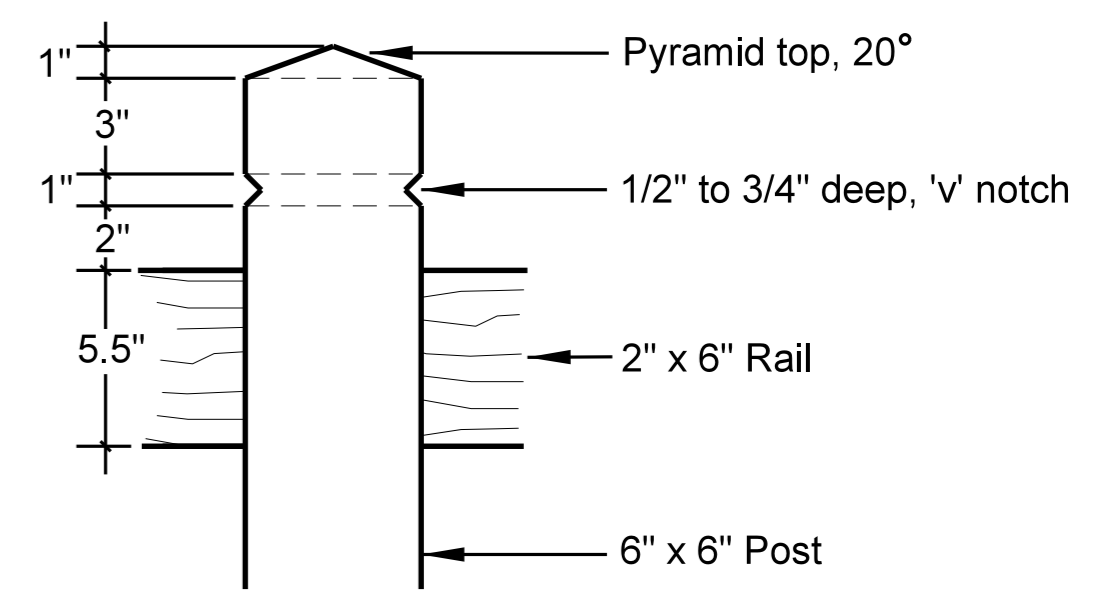
**VEGETATION REMOVAL AND
 CLEAN-UP PLAN**

PROJECT: **US 74 & US 221 ALT FOREST CITY**
 DIVISION AND COUNTY: **DIVISION 13 - RUTHERFORD**
 PRELIMINARY DESIGN DATE: **AUGUST, 2016**
 FINAL DESIGN DATE: **JUNE 27, 2017**

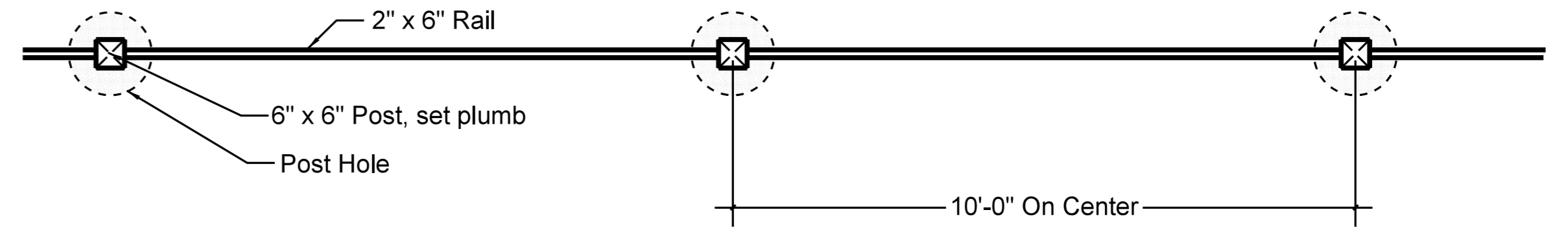
SHEET NUMBER: **3**
 TOTAL SHEETS: **5**



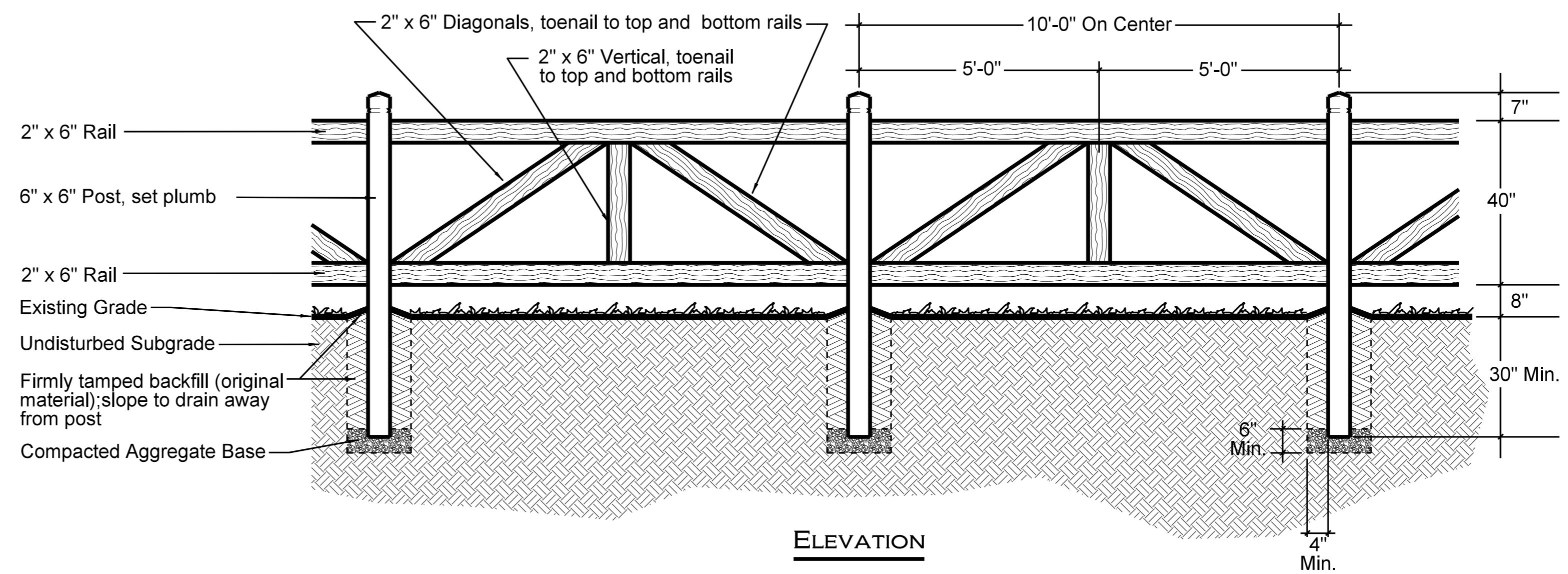
RAIL TO POST DETAIL



POST TOP DETAIL



PLAN VIEW

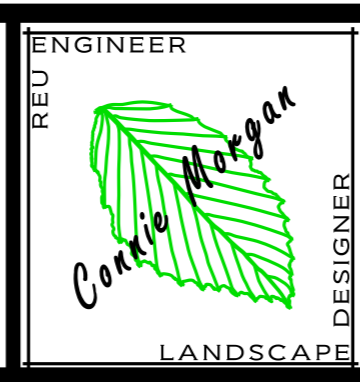


ELEVATION

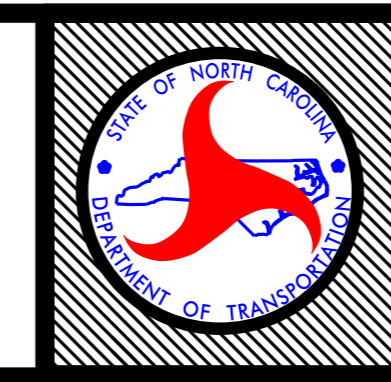
- Notes:
- Fence post locations to be staked in the field by the contractor and approved by the engineer prior to installation. The engineer may field adjust the fence location slightly or the engineer may omit a section of fence rail to avoid disturbing existing trees to be retained.
 - All post, rails, diagonal and vertical members shall be rough sawn, MCQ pressure treated, Southern Yellow Pine. All sizes given are nominal.
 - All fasteners shall be hot dipped galvanized ring shank or spiral shank flat head nails. Nails shall be a minimum of 3 1/2" in length.
 - All connections shall be toenailed, a minimum of two at each connection. Toe-nails shall be driven at an angle of 30 degrees with the member and started approximately 1/3 the length of the nail from the member end. Do not toenail from the top surface of a member.
 - Aggregate base shall be #78 (pea sized) crushed and washed granite.



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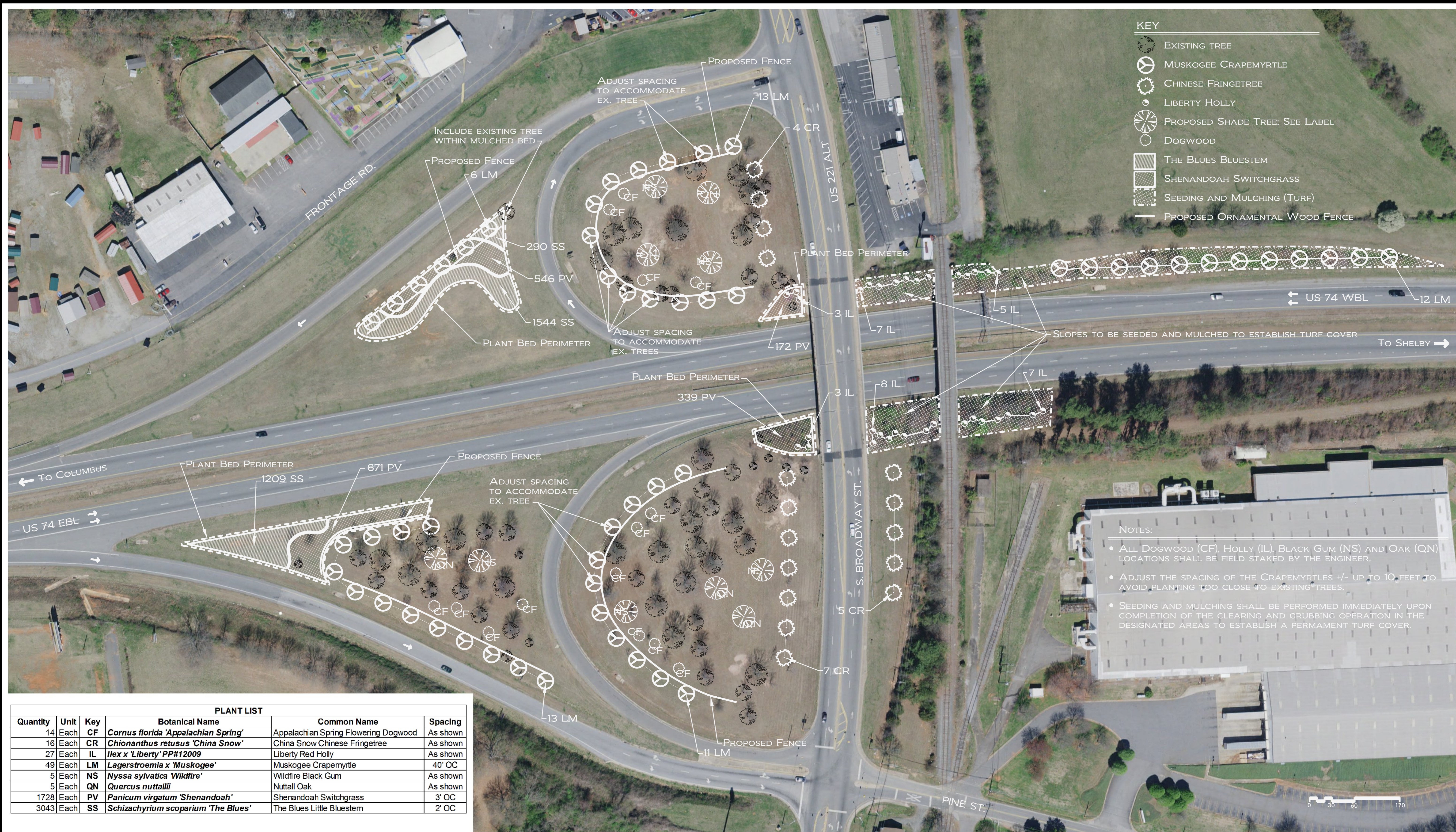


US 74 AND US 221 ALTERNATE,
 SOUTH BROADWAY STREET INTERCHANGE
 LANDSCAPE ENHANCEMENT
 FOREST CITY - RUTHERFORD COUNTY



SHEET DESCRIPTION:
 LANDSCAPE DEVELOPMENT PLANS
 FENCE PLAN AND DETAILS

PROJECT: US 74 & US 221 ALT FOREST CITY	SHEET NUMBER 4
DIVISION AND COUNTY: DIVISION 13 - RUTHERFORD	TOTAL SHEETS 5
PRELIMINARY DESIGN DATE: AUGUST, 2016	
FINAL DESIGN DATE: JUNE 27, 2017	



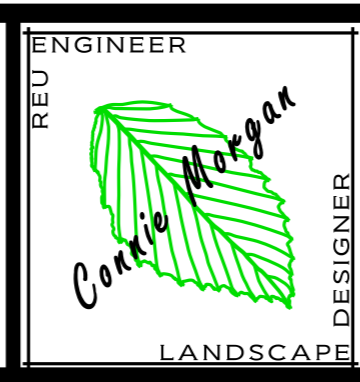
- KEY**
- EXISTING TREE
 - MUSKOGEE CRAPEMYRTLE
 - CHINESE FRINGETREE
 - LIBERTY HOLLY
 - PROPOSED SHADE TREE: SEE LABEL
 - DOGWOOD
 - THE BLUES BLUESTEM
 - SHENANDOAH SWITCHGRASS
 - SEEDING AND MULCHING (TURF)
 - PROPOSED ORNAMENTAL WOOD FENCE

- NOTES:**
- ALL DOGWOOD (CF), HOLLY (IL), BLACK GUM (NS) AND OAK (QN) LOCATIONS SHALL BE FIELD STAKED BY THE ENGINEER.
 - ADJUST THE SPACING OF THE CRAPEMYRTLES +/- UP TO 10 FEET TO AVOID PLANTING TOO CLOSE TO EXISTING TREES.
 - SEEDING AND MULCHING SHALL BE PERFORMED IMMEDIATELY UPON COMPLETION OF THE CLEARING AND GRUBBING OPERATION IN THE DESIGNATED AREAS TO ESTABLISH A PERMANENT TURF COVER.

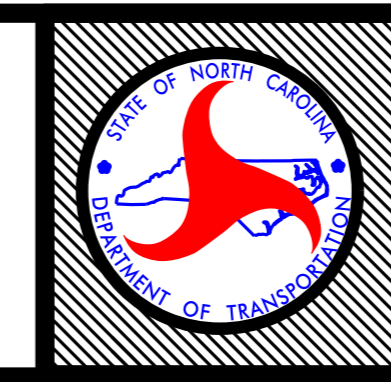
PLANT LIST					
Quantity	Unit	Key	Botanical Name	Common Name	Spacing
14	Each	CF	<i>Cornus florida</i> 'Appalachian Spring'	Appalachian Spring Flowering Dogwood	As shown
16	Each	CR	<i>Chionanthus retusus</i> 'China Snow'	China Snow Chinese Fringetree	As shown
27	Each	IL	<i>Ilex</i> x 'Liberty' PP#12009	Liberty Red Holly	As shown
49	Each	LM	<i>Lagerstroemia</i> x 'Muskogee'	Muskogee Crapemyrtle	40' OC
5	Each	NS	<i>Nyssa sylvatica</i> 'Wildfire'	Wildfire Black Gum	As shown
5	Each	QN	<i>Quercus nuttallii</i>	Nuttall Oak	As shown
1728	Each	PV	<i>Panicum virgatum</i> 'Shenandoah'	Shenandoah Switchgrass	3' OC
3043	Each	SS	<i>Schizachyrium scoparium</i> 'The Blues'	The Blues Little Bluestem	2' OC



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**US 74 AND US 221 ALTERNATE,
 SOUTH BROADWAY STREET INTERCHANGE
 LANDSCAPE ENHANCEMENT
 FOREST CITY - RUTHERFORD COUNTY**



SHEET DESCRIPTION:

LANDSCAPE DEVELOPMENT PLANS
 PLANTING PLAN

PROJECT:
US 74 & US 221 ALT FOREST CITY
 DIVISION AND COUNTY:
DIVISION 13 - RUTHERFORD
 PRELIMINARY DESIGN DATE: **AUGUST, 2016**
 FINAL DESIGN DATE: **JUNE 27, 2017**

SHEET NUMBER
5
 TOTAL SHEETS
5