

09.08/2014

X:\P\032850000 R-2915A\Project Production\Hydraulics\PERMITS_Environmental\Drawings\R-2915A_rdy_tsh.dgn 5:56:36 PM

TIP PROJECT: R-2915A

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WATAUGA & ASHE COUNTIES

LOCATION: US 221 FROM US 421 IN WATAUGA COUNTY TO SR 1003 (IDLEWILD RD) IN ASHE COUNTY

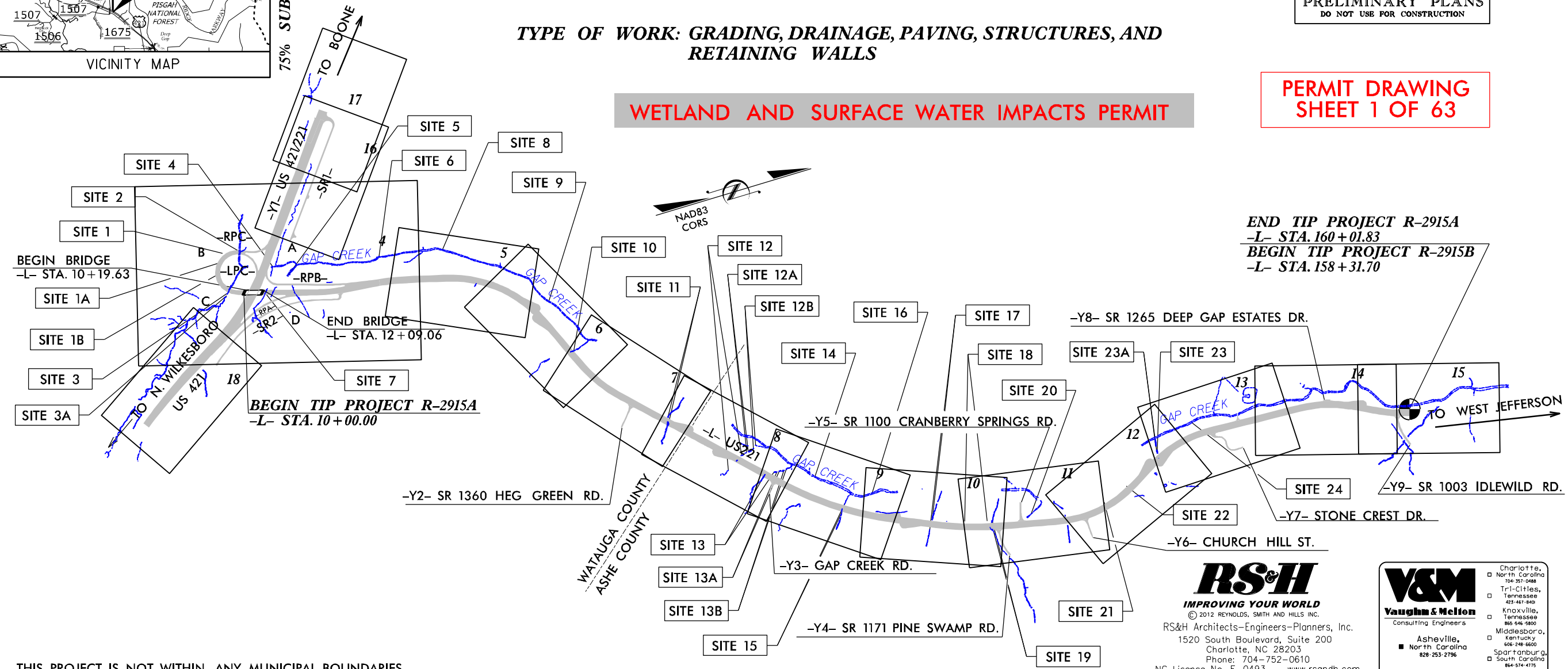
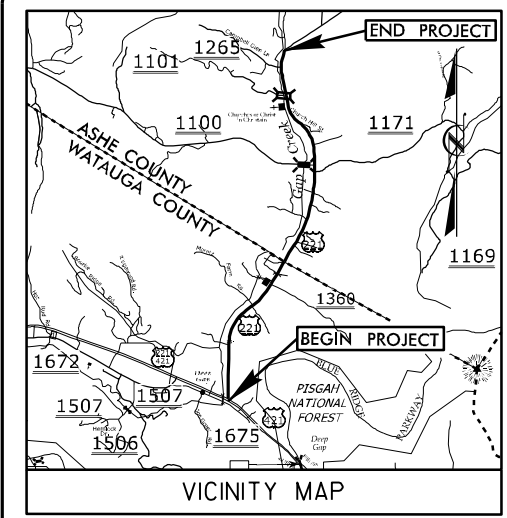
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, AND RETAINING WALLS

WETLAND AND SURFACE WATER IMPACTS PERMIT

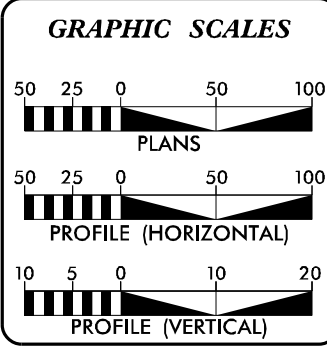
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2915A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34518.1.2	STP-0221 (13)	P.E.	
34518.2.2	STP-0221 (13)	RW & UTILITY	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING
SHEET 1 OF 63**



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III



DESIGN DATA

ADT 2015 =	11970
ADT 2035 =	20400
K =	10 %
D =	65 %
T =	9 %
V =	60 MPH

*(TTST 2%+ DUALS 7%)
FUNC CLASS =
RURAL ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2915A	=	2.805 MI.
LENGTH STRUCTURES TIP PROJECT R-2915A	=	0.036 MI.
TOTAL LENGTH OF TIP PROJECT R-2915A	=	2.841 MI.

Prepared in the Office of:
VAUGHN & MELTON
1318-F PATTON AVE.
ASHEVILLE NC, 28806
FOR NCDOT DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS	REECE SCHULER, PE PROJECT ENGINEER
RIGHT OF WAY DATE: SEPTEMBER 30, 2013	AARON CARVER, PE PROJECT DESIGN ENGINEER
LETTING DATE: JUNE 16, 2015	NCDOT CONTACT: BRENDA MOORE, PE

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

RS&H
IMPROVING YOUR WORLD
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RS&H Architects-Engineers-Planners, Inc.
1520 South Boulevard, Suite 200
Charlotte, NC 28203
Phone: 704-752-0610
NC License No. F-0493 www.rsandh.com

V&M
Vaughn & Melton
Consulting Engineers

Asheville, North Carolina
628-253-2796

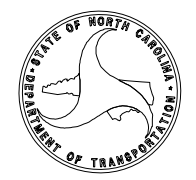
Charlotte, North Carolina
704-357-0488

Tri-Cities, Tennessee
423-467-8400

Knoxville, Tennessee
865-546-5800

Middlesboro, Kentucky
606-248-6600

Spartanburg, South Carolina
864-574-4775



09/05/09

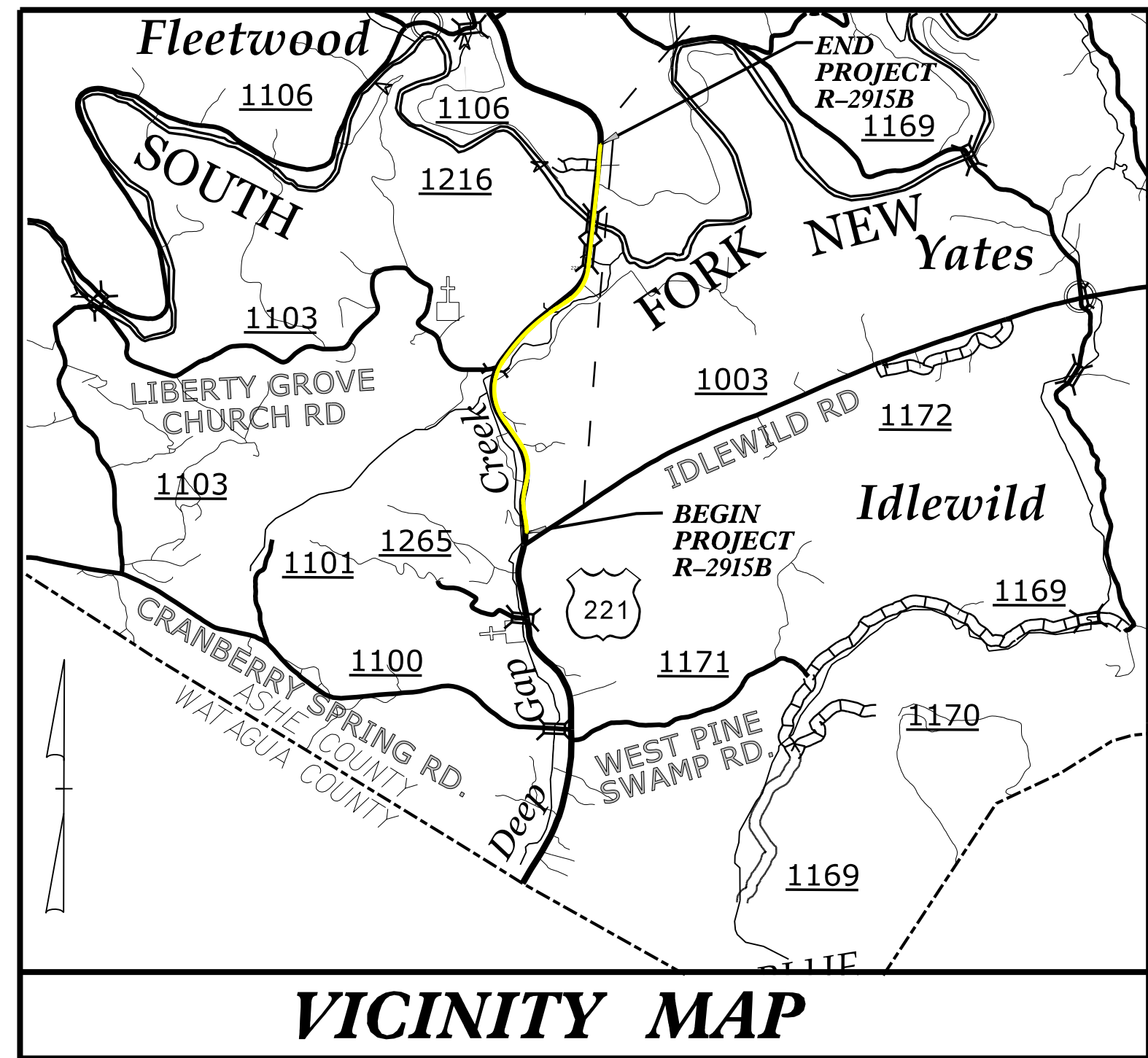
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ASHE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2915B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34518.1.3	STP-0221(40)	P.E.	
34518.2.FR2	STP-0221(40)	R /W	
34518.2.UFR2	STP-0221(40)	UTILITIES	

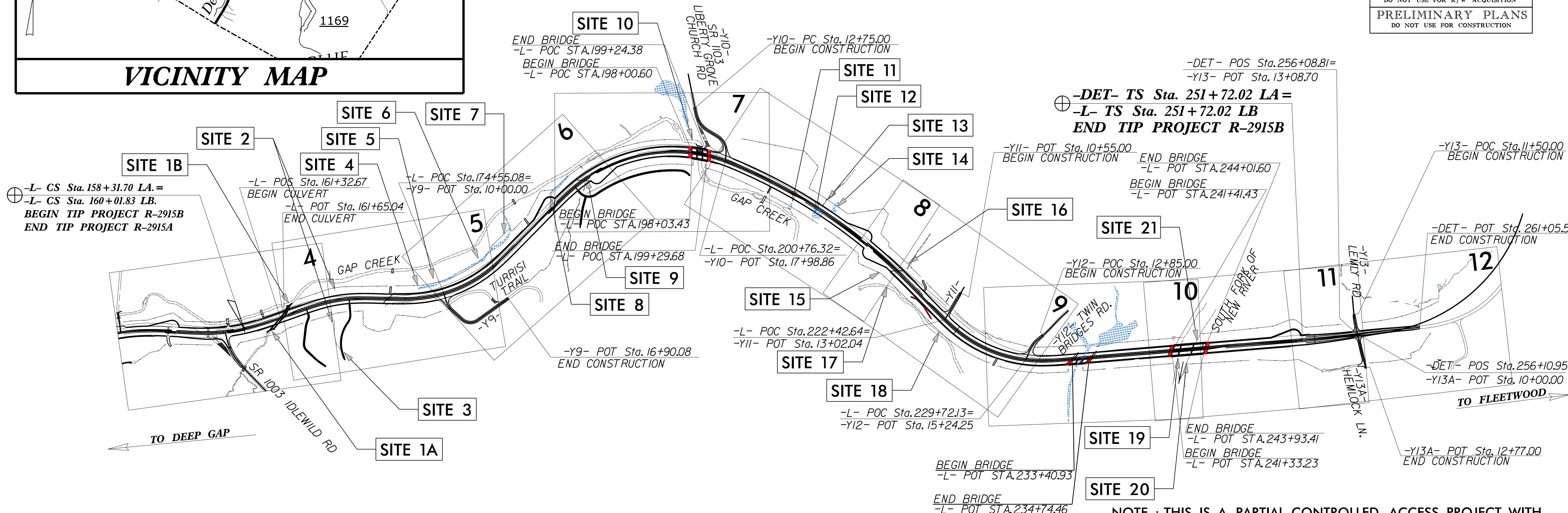
**PERMIT DRAWING
SHEET 1 OF 31**

TIP PROJECT: R-2915B



VICINITY MAP

**LOCATION: US 221 FROM SR 1003 (IDLEWILD ROAD)
TO NORTH OF SOUTH FORK NEW RIVER**
**TYPE OF WORK: GRADING, DRAINAGE, PAVING,
AND STRUCTURES**

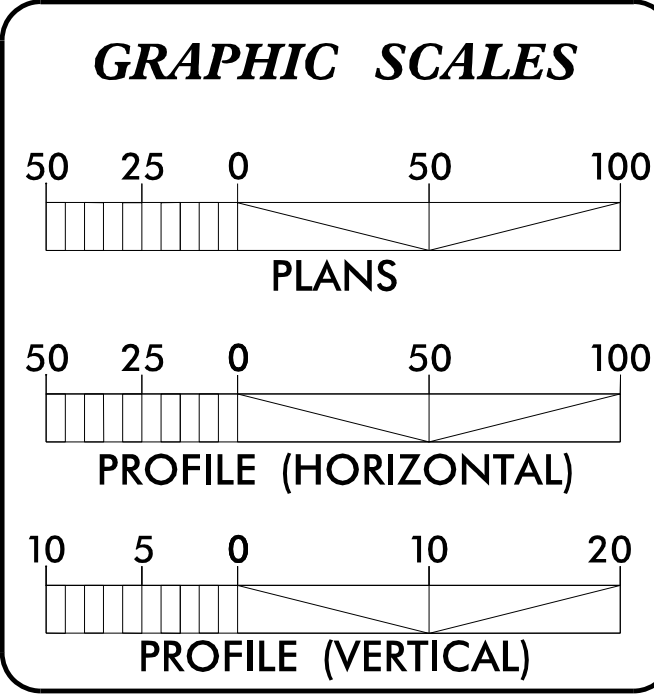


WETLAND AND SURFACE WATER IMPACTS PERMIT

NOTE : THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO ONE DRIVEWAY PER PARCEL.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

NCDOT CONTACT: BRENDA L. MOORE, P.E.

CONTRACT:



DESIGN DATA

ADT 2015 =	12,089
ADT 2035 =	20,204
DHV =	10 %
D =	65 %
T =	9 % *
V =	50 MPH
* TTST 2% DUAL 7%	
FUNC CLASS =	ARTERIAL
STATEWIDE TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2915B =	1.675 MILES
LENGTH STRUCTURE TIP PROJECT R-2915B =	0.094 MILES
TOTAL LENGTH TIP PROJECT R-2915B =	1.769 MILES

Prepared in the Office of:
CDM Smith
5400 Glenwood Avenue, Suite 300, Raleigh, NC 27612

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 30, 2013

LETTING DATE: JUNE 16, 2015

DOUGLAS B. SAUNDERS, P.E.
PROJECT ENGINEER

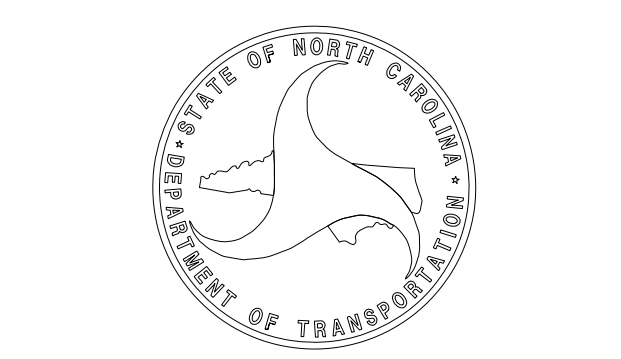
RICKY E. STATON
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

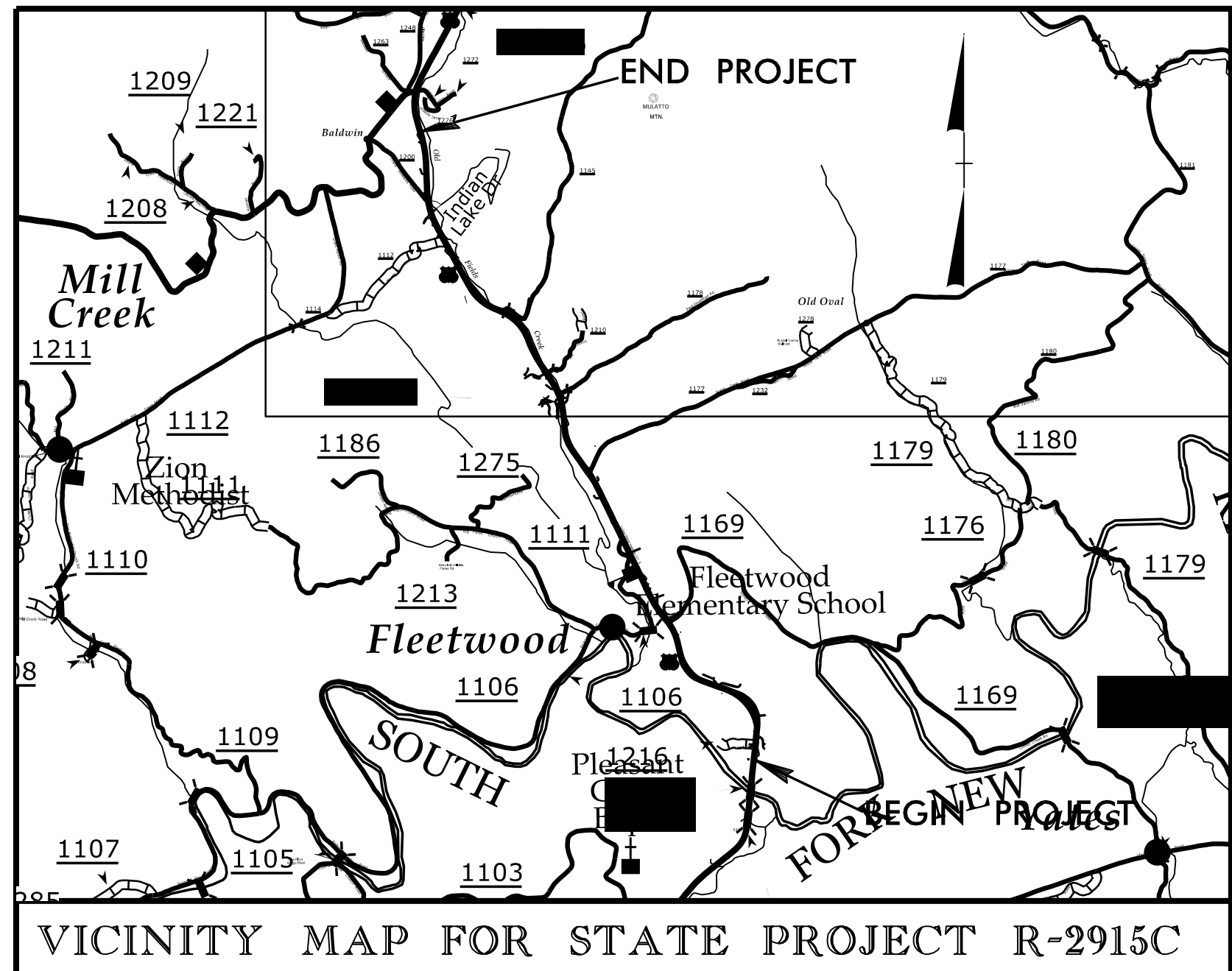


6/6/2014
R2915B-Hyd-prm_wet_psh_01.dgn
Belam

09/08/09

TIP PROJECT: R-2915C

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



25% SUBMITTAL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ASHE COUNTY

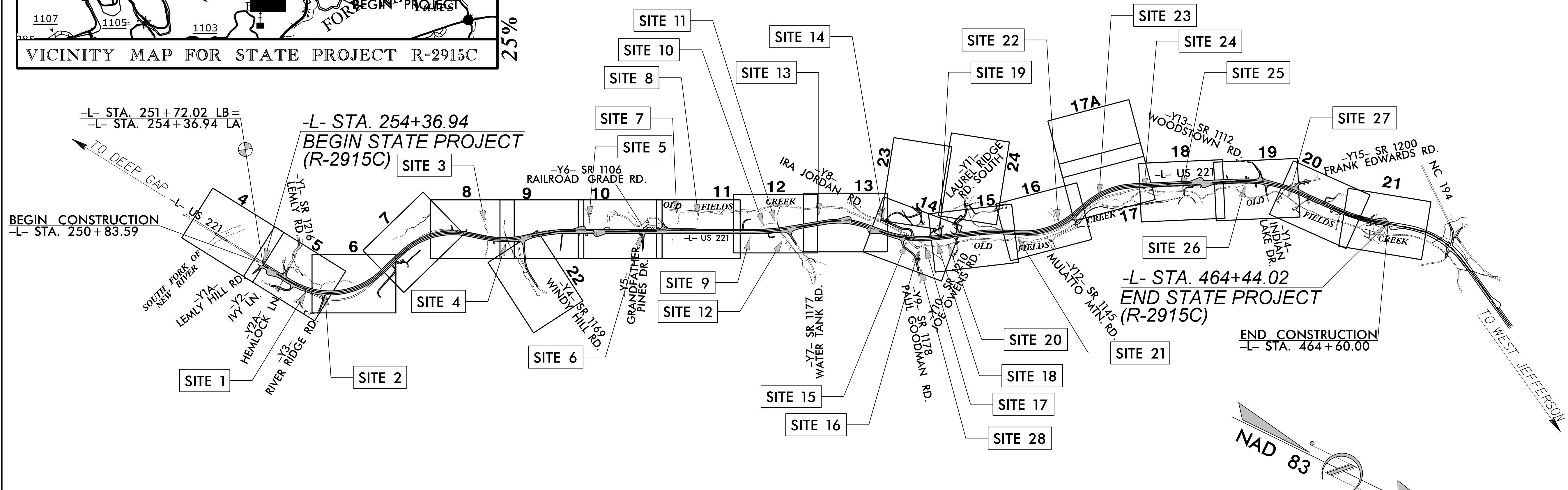
LOCATION: US 221 FROM NORTH OF SOUTH FORK NEW RIVER
TO SOUTH OF NC 194.

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND CULVERTS

WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2915C	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34518.1.4	STP-0221(41)	P.E.	

PERMIT DRAWING
SHEET 1 OF 33

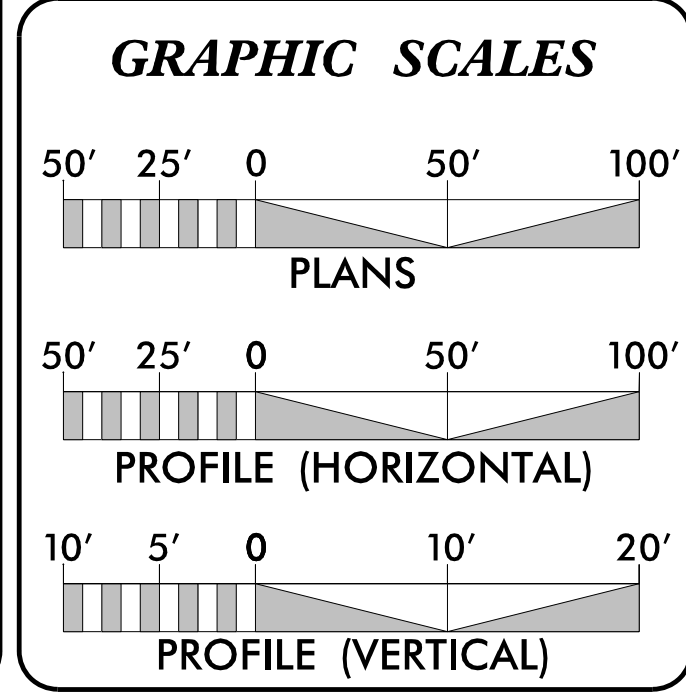


THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS SHOWN ON PLANS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD _____ . THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES. DESIGN EXCEPTION IS REQUIRED FOR 8% GRADE ALONG -L- STATION 254+36.94 TO -L- STATION 276+95.00.

PREPARED FOR
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, NC
PLANS COORDINATED BY:
Brenda L. Moore, PE - Project Engineer (NCDOT)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2017 =	12,743
ADT 2037 =	21,029
DHV =	9 %
D =	60 %
T =	9 % *
V =	60 MPH
* TTST =	2% DUAL 7%
FUNC CLASS =	RURAL ARTERIAL REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2915C =	3.979 Miles
TOTAL LENGTH TIP PROJECT R-2915C =	3.979 Miles

Prepared In the Office of:

LOCHNER
T. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
NC License Number F-0159
HNFB NC License Number C-1954

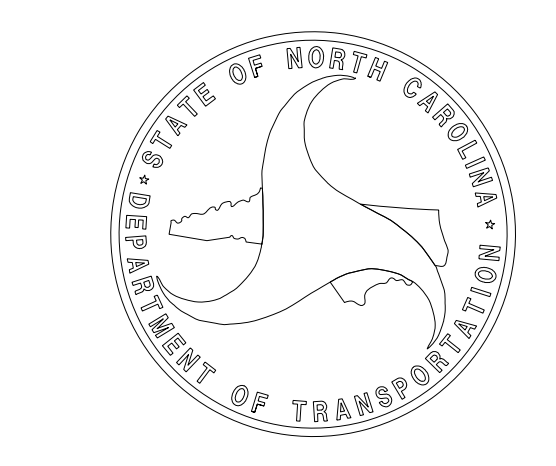
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: April 18, 2014	Stephen C. Browde, PE PROJECT ENGINEER
LETTING DATE: February 21, 2017	Bill Bollman PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

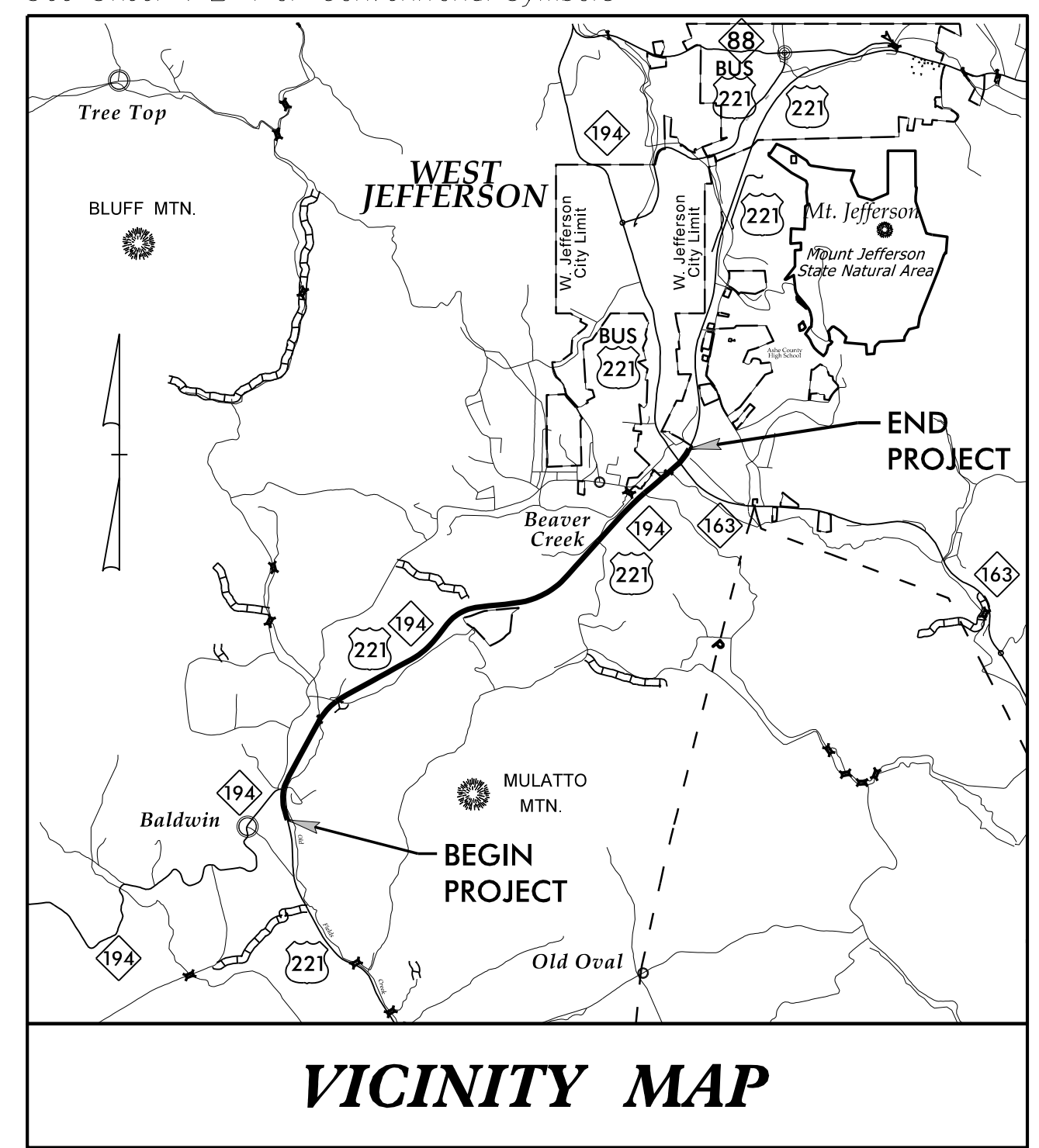


6/10/2014 R2915C_Hyd_prm_wet_psh_01.dgn

09/08/99
 1/15/2014 R2915D-Hyd-prm_wet_psh_01(tsh) jharvey

CONTRACT: TIP PROJECT: R-2915D

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



ROW PLANS

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
ASHE COUNTY

LOCATION: US 221 FROM SOUTH OF NC 194 TO US 221 BYPASS

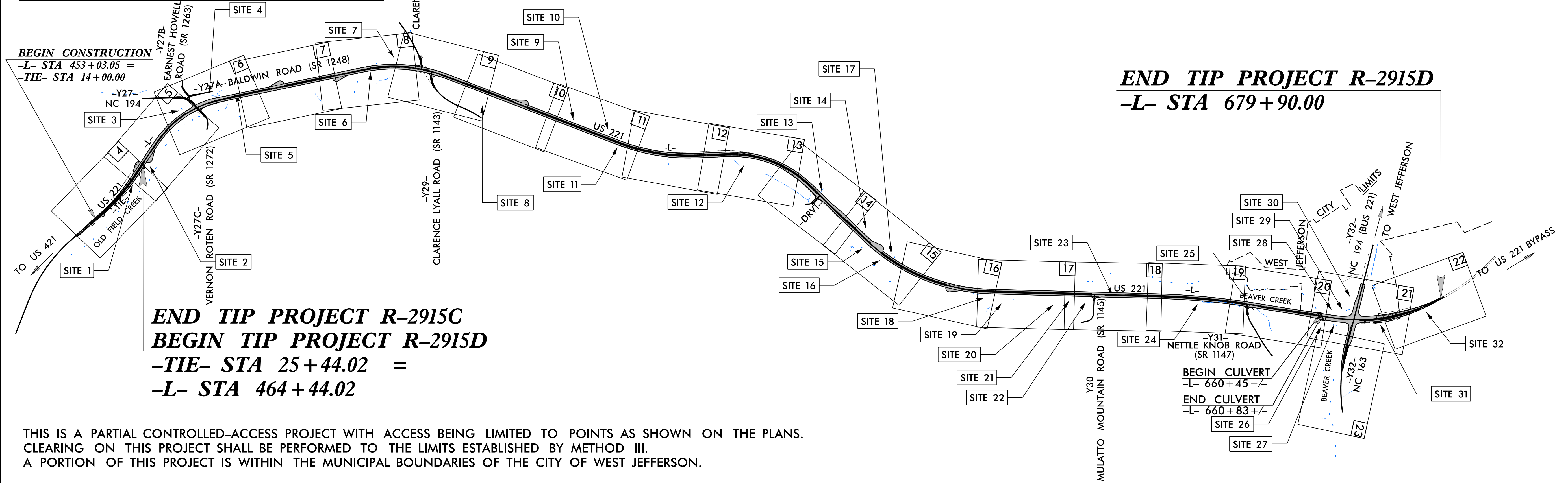
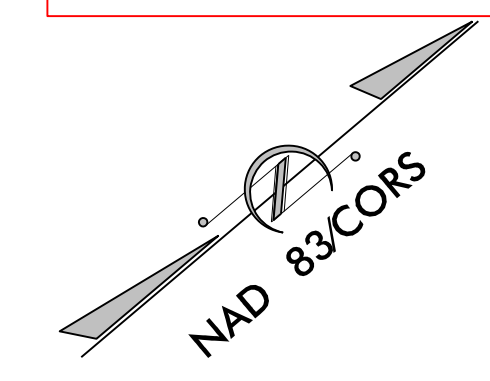
TYPE OF WORK: GRADING, PAVING, DRAINAGE, CURB AND GUTTER, SIGNALS, AND CULVERT

WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2915D	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34518.1.1	STP-0221(42)	P.E.	
34518.2.4	STP-0221(42)	RW,UTIL.	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING
SHEET 1 OF 52**

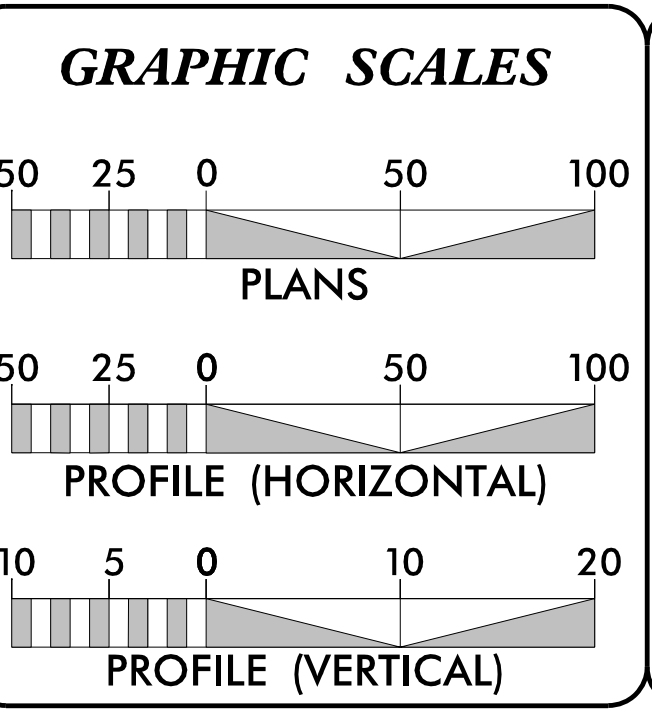


BEGIN CONSTRUCTION
-L- STA 453+03.05 =
-TIE- STA 14+00.00

END TIP PROJECT R-2915D
 -L- STA 679+90.00

END TIP PROJECT R-2915C
BEGIN TIP PROJECT R-2915D
 -TIE- STA 25+44.02 =
 -L- STA 464+44.02

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III. A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF WEST JEFFERSON.



DESIGN DATA

ADT 2015 =	14715
ADT 2035 =	25000
DHV =	9 %
D =	55 %
T =	9 % *
V =	60 MPH
* TTST =	2 DUAL 7
FUNC CLASS =	Major Collector
	Statewide Tier

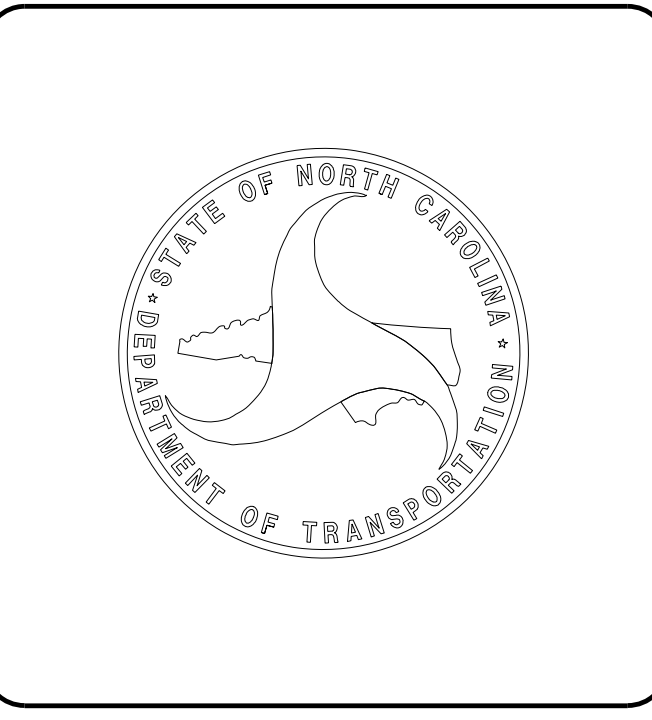
PROJECT LENGTH

LENGTH OF ROADWAY PROJECT R-2915D	=	4.290 MI
LENGTH OF STRUCTURE PROJECT R-2915D	=	0.007 MI
TOTAL LENGTH OF PROJECT R-2915D	=	4.297 MI

Prepared in the Office of: KCI Associates of N.C., P.A. 4601 Six Forks Road Landmark Center II, Suite 220 Raleigh, NC 27609 Phone (919) 783-9214 Fax (919) 783-9266	Plans Prepared For: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr. Raleigh NC, 27610
2012 STANDARD SPECIFICATIONS RIGHT OF WAY DATE: JULY 30, 2013 LETTING DATE: FEBRUARY 17, 2015	CHARLES L. FLOWE, P.E. PROJECT ENGINEER BARRY C. SMITH, P.E. PROJECT DESIGN ENGINEER
NCDOT CONTACT: BRENDA MOORE, PE PROJECT ENGINEER - ROADWAY DESIGN	

HYDRAULICS ENGINEER

P.E.
SIGNATURE: _____
ROADWAY DESIGN ENGINEER
SIGNATURE: _____
P.E.



09/08/2014

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2915E	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

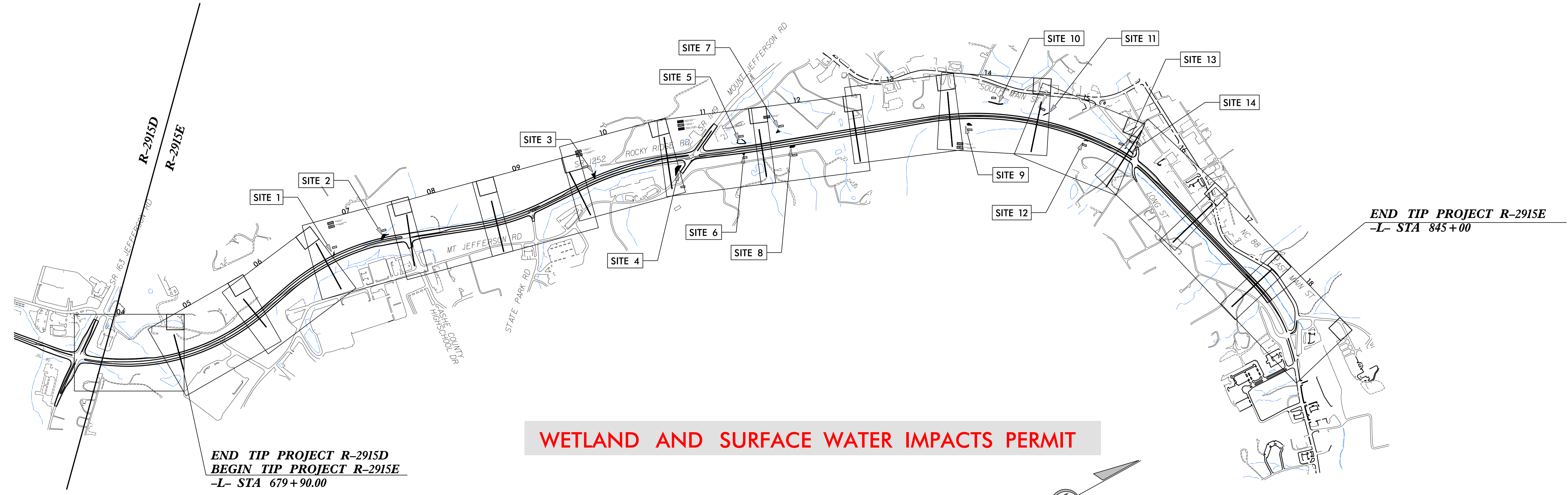
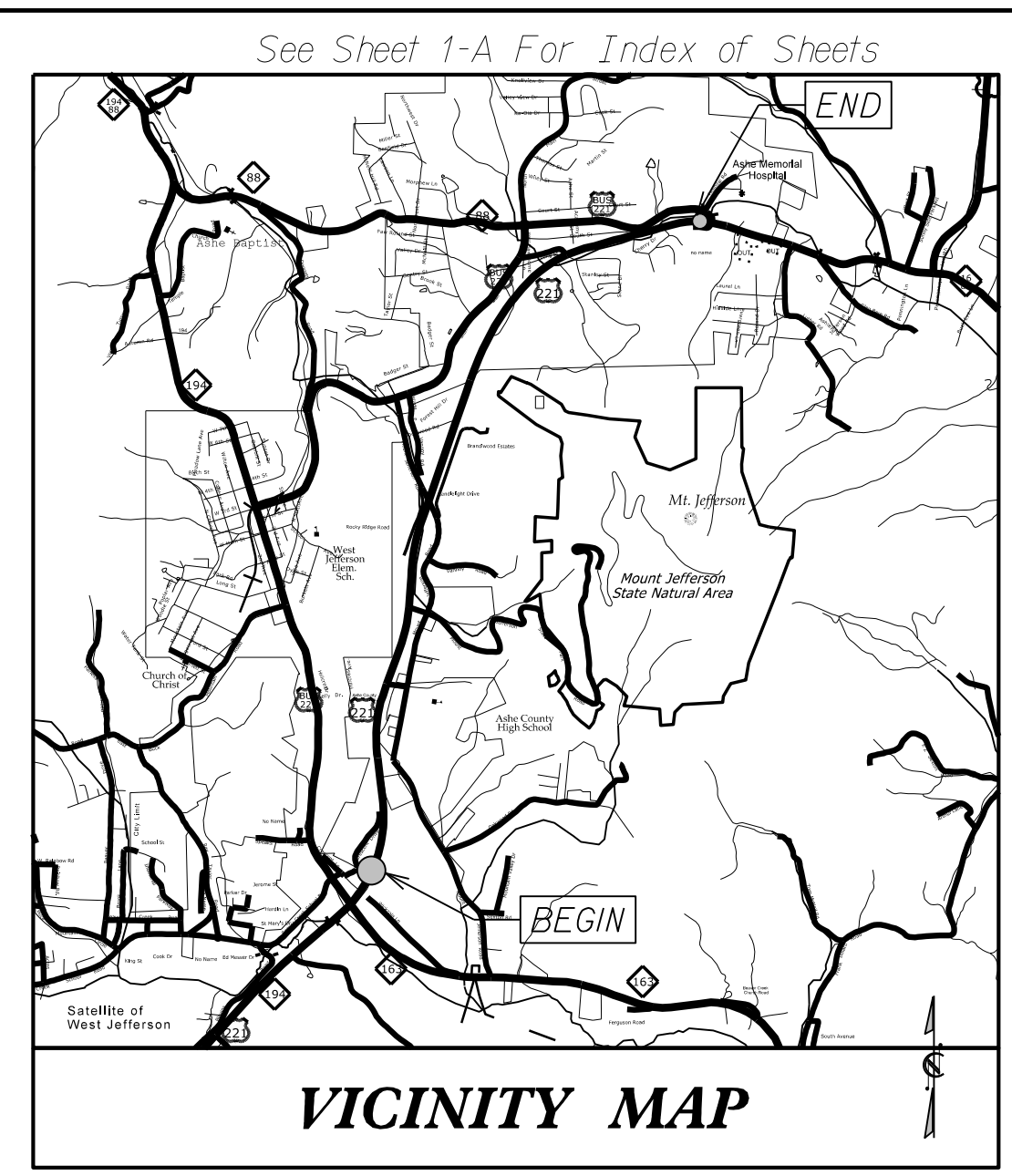
ASHE COUNTY

LOCATION: US 221 FROM NC 163 TO US 221 BUS

TYPE OF WORK: GRADING, PAVING, DRAINAGE, CURB AND GUTTER, SIGNALS, BRIDGE AND CULVERT

PERMIT DRAWING
SHEET 1 OF 16

CONTRACT: R-2915E



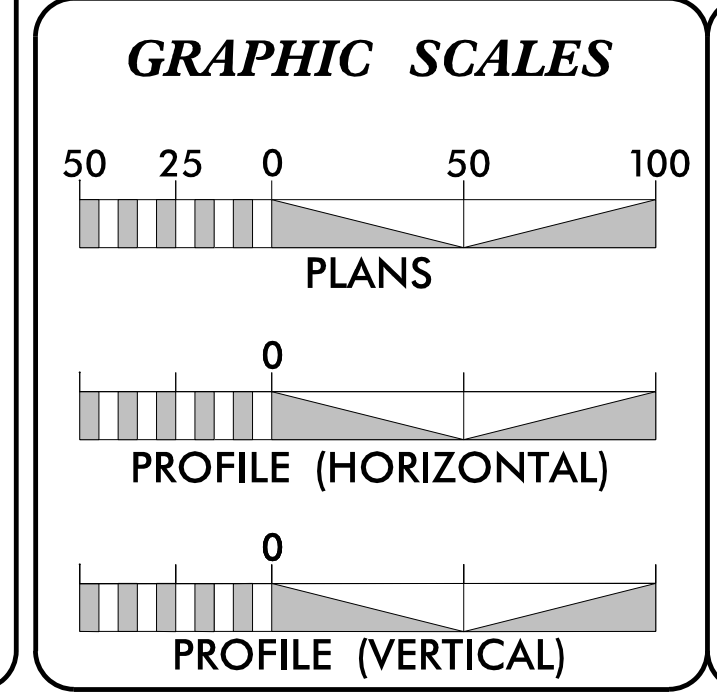
WETLAND AND SURFACE WATER IMPACTS PERMIT

END TIP PROJECT R-2915D
BEGIN TIP PROJECT R-2915E
-L- STA 679 + 90.00

END TIP PROJECT R-2915E
-L- STA 845 + 00

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III. A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF WEST JEFFERSON.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT =	
ADT =	
DHV =	%
D =	%
T =	% *
V =	MPH
* TTST =	DUAL
FUNC CLASS =	

TIER

PROJECT LENGTH

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: _____

PROJECT ENGINEER

LETTING DATE: _____

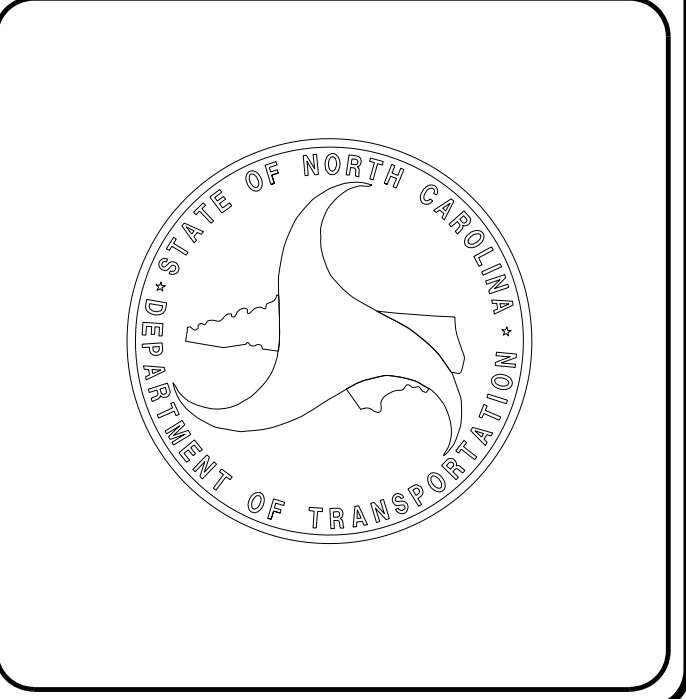
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



1/3/2014
R2915E-Hyd_prm_wet_psh_01
inrvey