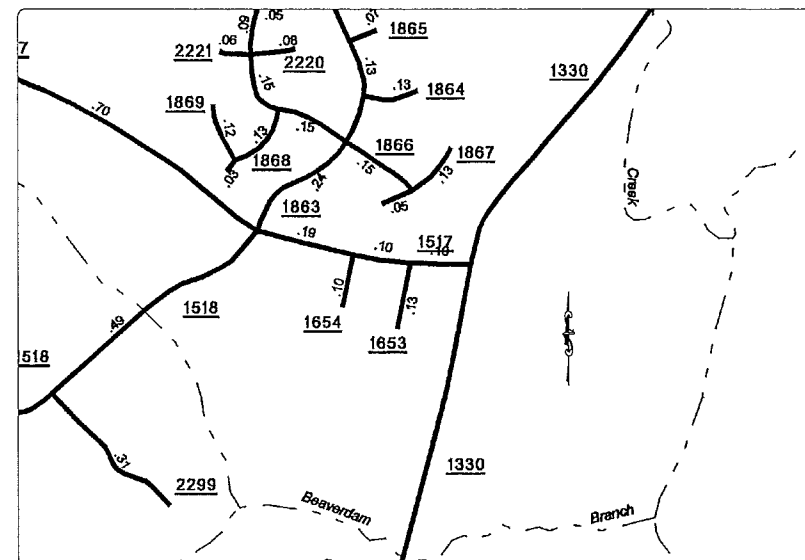


TIP PROJECT...

CONTRACT:



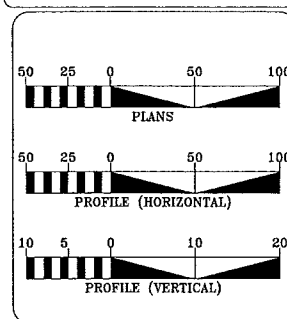
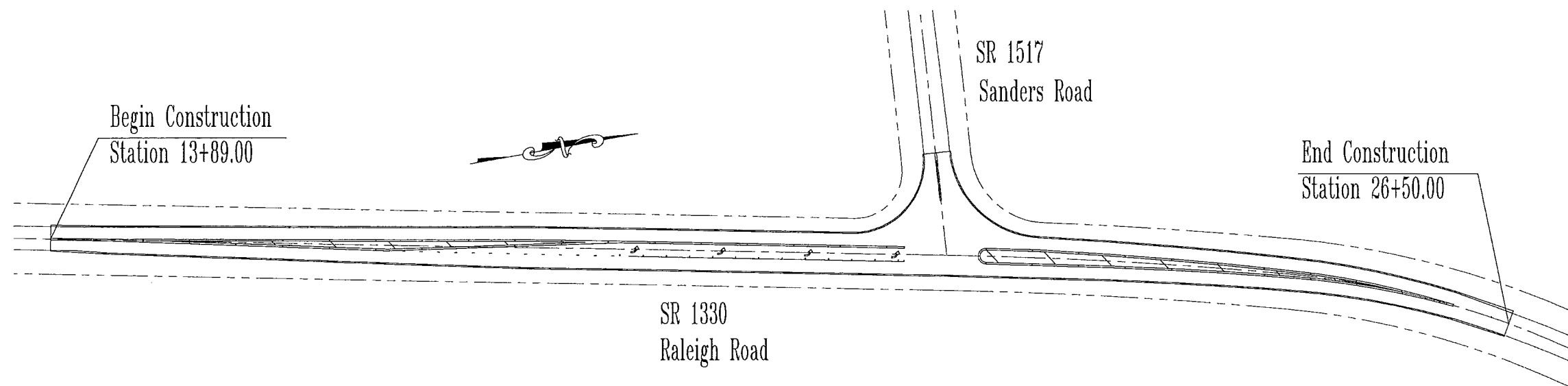
VICINITY MAP
PLEASANT GROVE TOWNSHIP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

LOCATION: SR 1330 (RALEIGH ROAD) @
SR 1517 (SANDERS ROAD)

TYPE OF WORK: GRADING, DRAINAGE, BASE,
PAVING, AND EROSION CONTROL.

[illegible]

DESIGN DATA

```

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

```

PROJECT LENGTH

Length Roadway	0.24 Miles
Length Structure	0.00 Miles
TOTAL LENGTH	0.24 Miles

Prepared for the Office of:
DIVISION OF HIGHWAYS
509 Ward Boulevard Wilson, NC 27895

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

J. C. Cauley, PLS
PROJECT ENGINEER

S. S. Sanderson, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____

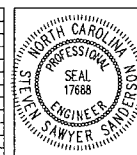
ROADWAY DESIGN
ENGINEER

SIGNATURE: _____

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

[illegible]

11-5-2012

DESIGNED	SSS
DRAWN	SSS
CHECKED	SSS
PROJ. ENG.	SSS



**SANDERSON
ENGINEERING**

2485 WENDELL BOULEVARD
P.O. BOX 2016 WENDELL, NC 27591
919-366-2016 267-363-7254 FAX
C-2218 Engineering and Land Planning

SR 1330 (Raleigh Road) @
SR 1517 (Sanders Road)

Left Turn Lane
Cover Sheet

DATE: Sept 2012
SE PROJ. # 12-016
DWG FILE # 12-016

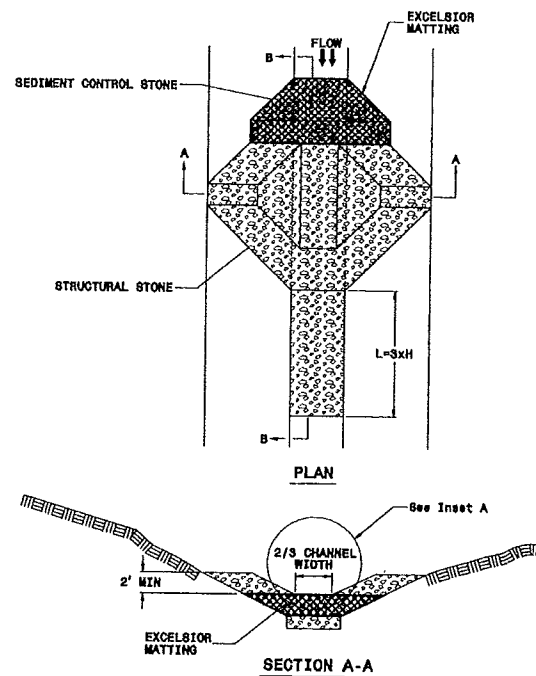
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VERTICAL:
1"=10'

SHEET NO.

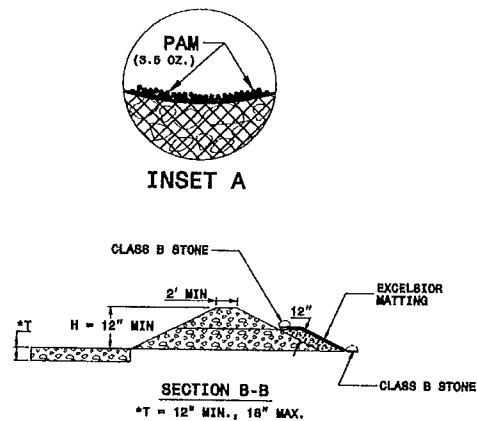
1

4

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM) DETAIL



NOTE
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR
MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM)
TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL
EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



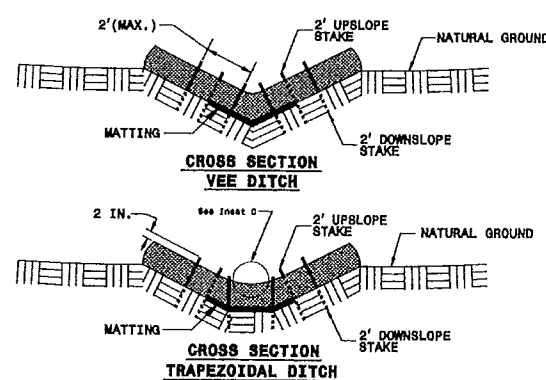
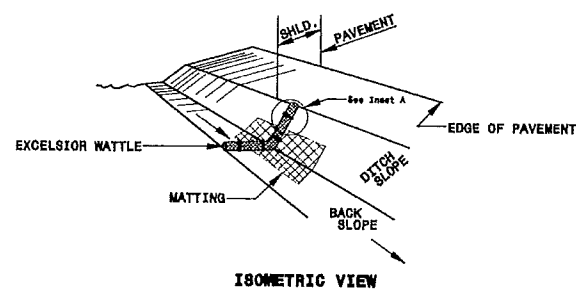
Erosion and Sediment Control Measures

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1630.02	Silt Basin Type-B	
1632.03	Rock Inlet Sediment Trap Type-C	□
1633.01	Temporary Rock Silt Check Type-A	
1633.02	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	

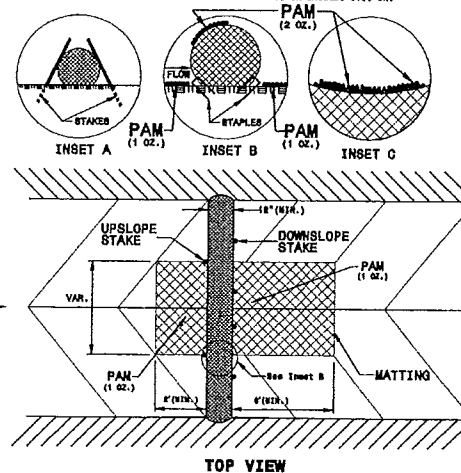
SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 60' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

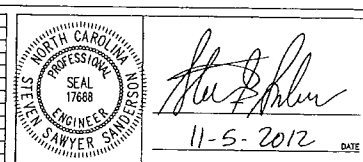


NOTES:
USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT PASS AROUND
WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE
TO WEDGE WATTLE TO BOTTOM OF DITCH.
PROVIDE STAPLES MADE OF 0.185 IN. DIAMETER STEEL WIRE FORMED INTO A
U SHAPE NOT LESS THAN 12" IN LENGTH.
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE
AND AT EACH END TO SECURE IT TO THE SOIL.
INSTALL MATTING IN ACCORDANCE WITH SECTION 1601 OF THE STANDARD SPECIFICATIONS.
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT
LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT
TO BE APPLIED TO EACH WATTLE.
INITIALLY APPLY 3 OUNCES OF ANIONIC OR NEUTRALIZED CATIONIC PAM OVER WATTLE WHERE
WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY
PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

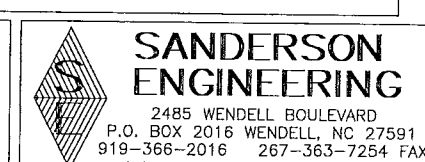


- PIPE INSTALLATION GUIDELINES
- INSTALL PIPES IN DRY WORK AREA.
 - INSTALL PIPES AFTER INSTALLATION OF DEWATERING MEASURES OF
THE WORK AREA.
 - HANDLE WATER FLOWING THROUGH AREA WITH ACCEPTABLE BMP'S.
- EROSION CONTROL SCHEDULE
- INSTALL EROSION CONTROL MEASURES ACCORDING TO PLANS IN ALL OUTLETS
AND AT OTHER DISCHARGE POINTS AFTER GRADING AND BEFORE GRASSING
BEGINS.
 - CLEAN AND CLEAR OUTFALL DITCHES LEAVING SLOPES AT AN ANGLE THAT
CAN BE OBTAINED BY TERTIATION. THESE MAY REQUIRE STAKE SEED AND
MULCH.
 - BEGIN GRADING OF ROADWAY DITCHES. PLACE EROSION CONTROL MEASURES
ALONG ROADWAY DITCHES AS GRADING PROGRESSES.
 - SEED AND MULCH ALL DISTURBED AREAS AS SOON AS ANY PHASE OF GRADING
IS COMPLETED.
 - CLEAN AND/OR REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AFTER ANY
IDENTIFIABLE RAPIDLY GROWING (OR AS OTHERWISE NOTED), TREES MEASURES
SHOULD BE MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.

REV.	DESCRIPTION	DATE



DESIGNED: SSS
DRAWN: SSS
CHECKED: SSS
PROJ. ENG.: SSS



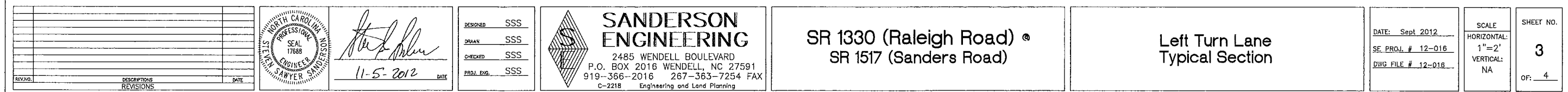
SR 1330 (Raleigh Road) @
SR 1517 (Sanders Road)

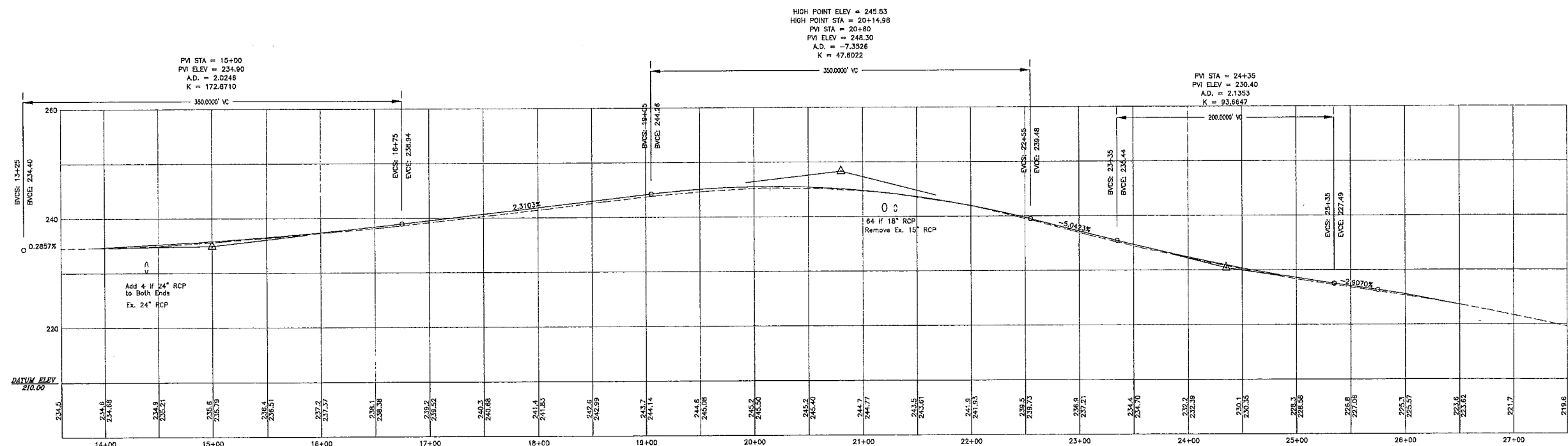
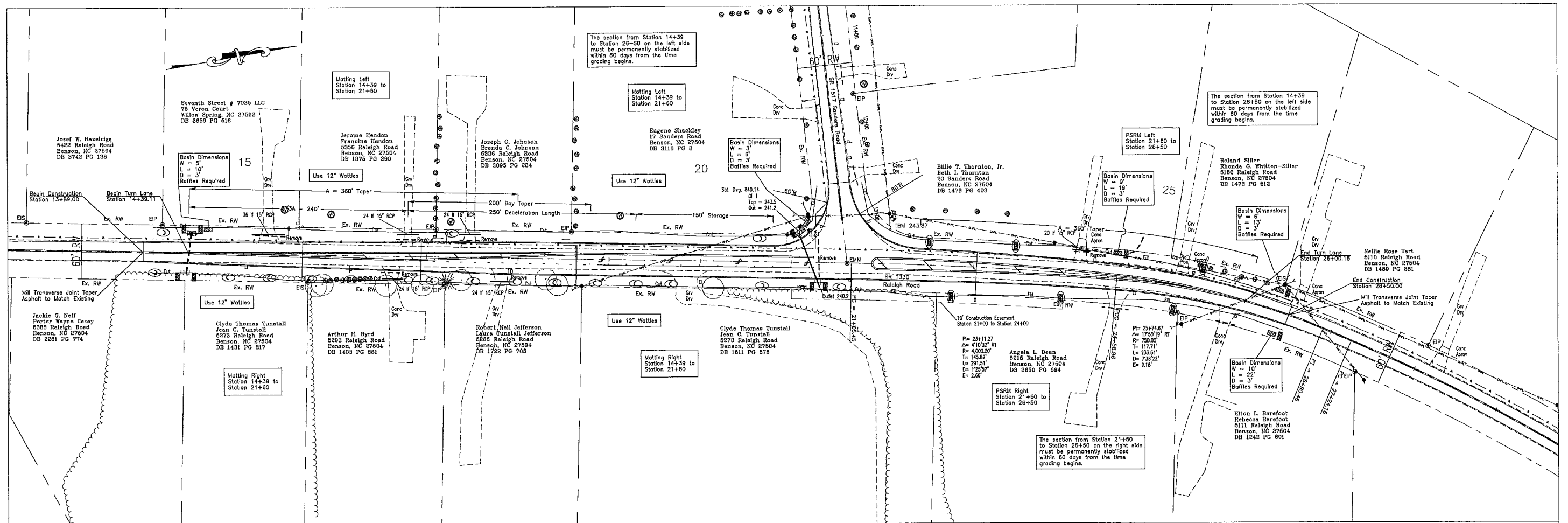
Left Turn Lane
Erosion Control Details

DATE: Sept 2012
SE PROJ. # 12-016
DWG FILE # 12-016

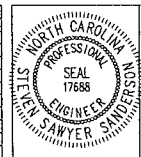
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1"=2'
VERTICAL:
NA

SHEET NO.
2
OF: 4





REV.	DESCRIPTION	DATE



11-5-2012 DATE

DESIGNED	SSS
DRAWN	SSS
CHECKED	SSS
PROJ. ENG.	SSS



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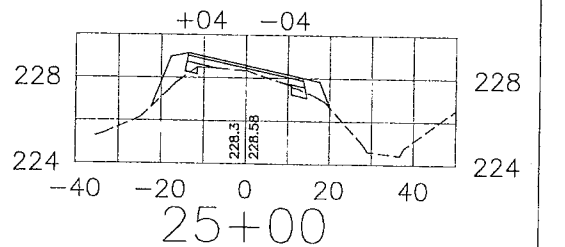
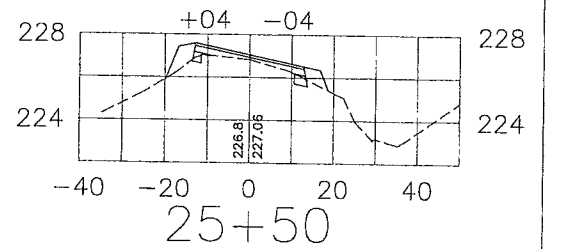
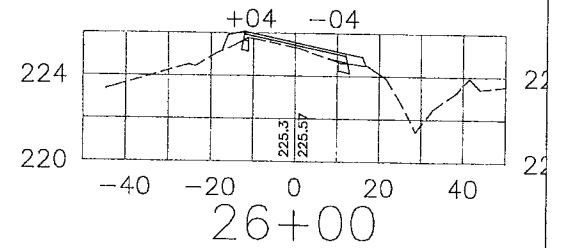
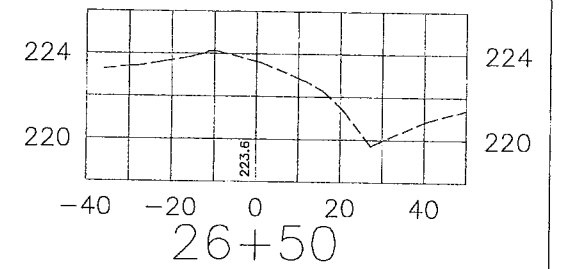
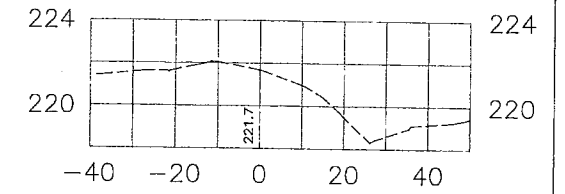
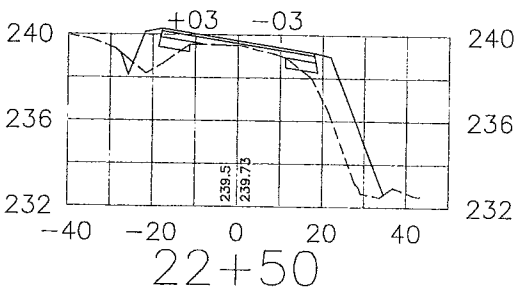
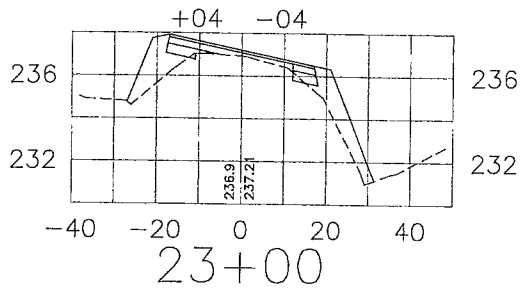
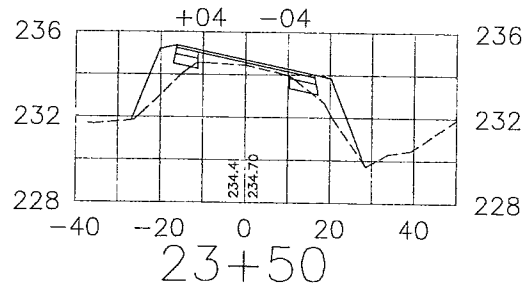
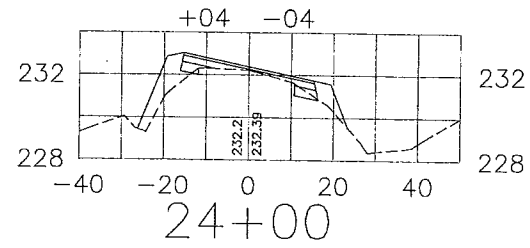
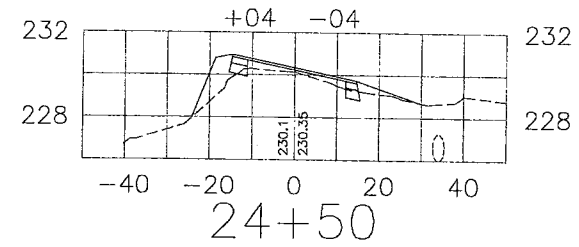
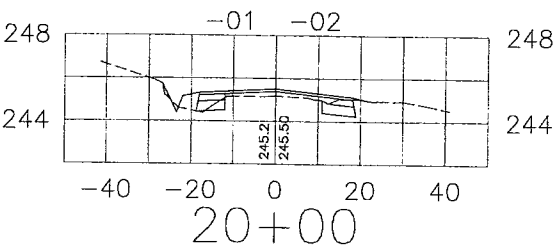
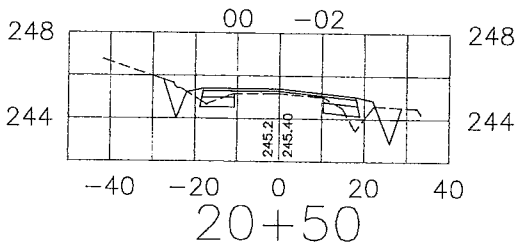
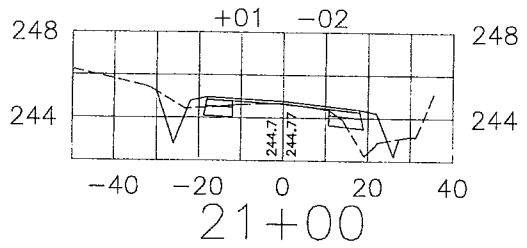
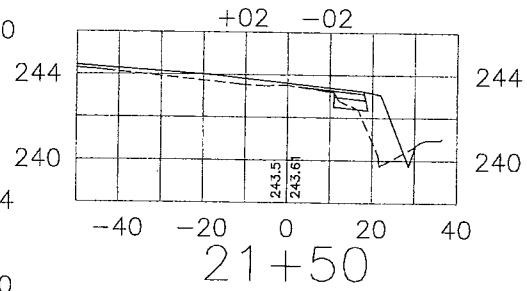
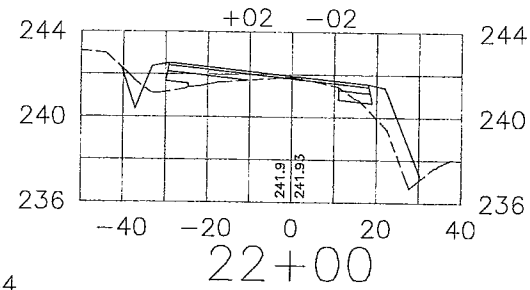
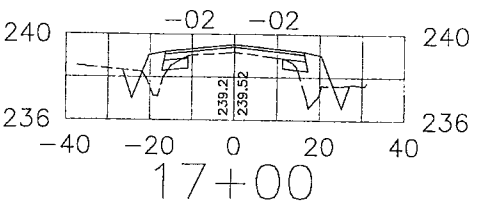
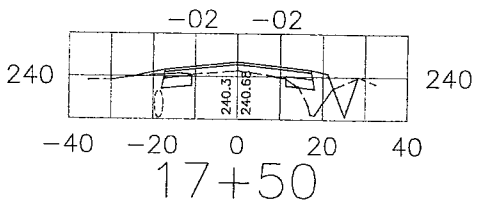
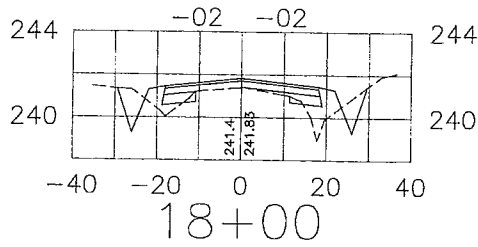
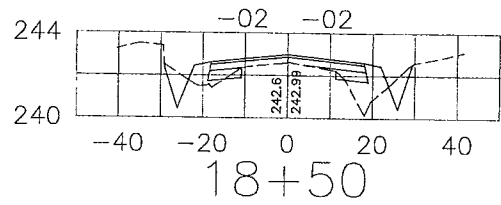
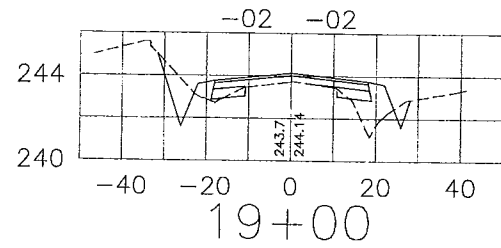
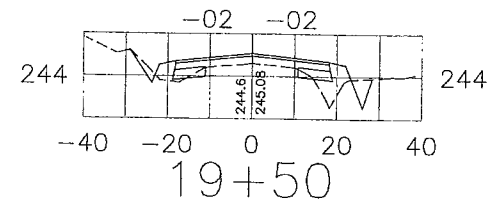
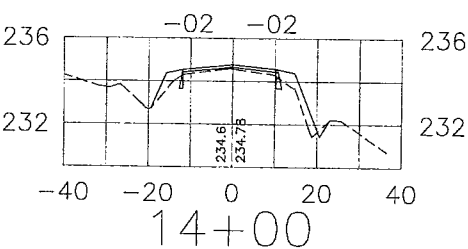
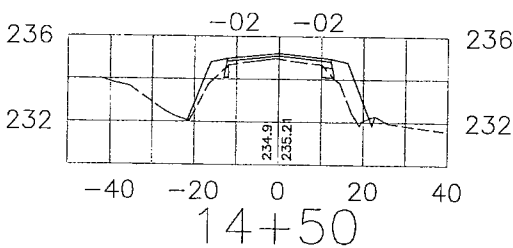
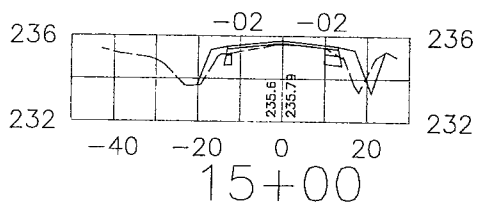
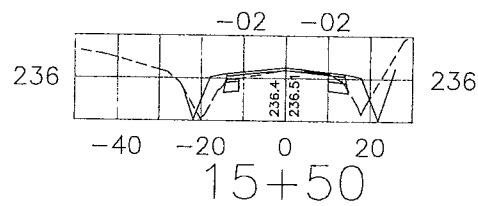
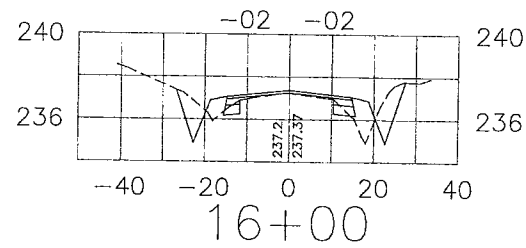
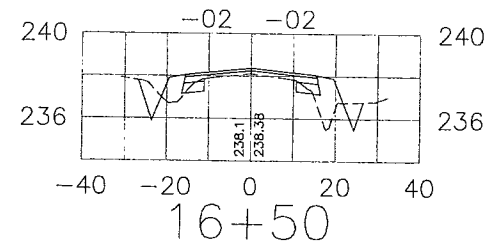
SR 1330 (Raleigh Road) @
SR 1517 (Sanders Road)

Left Turn Lane
Plan - Profile

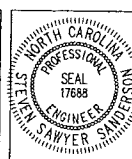
DATE: Sept 2012
SE PROJ. # 12-016
DWG FILE # 12-016

SCALE
HORIZONTAL:
1"=50'
VERTICAL:
1"=10'

SHEET NO.
4
OF: 4



REV	DESCRIPTION	DATE



Steven Sawyer
11-5-2012

DESIGNED SSS
DRAWN SSS
CHECKED SSS
PROJ. ENG. SSS

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P.O. BOX 2016 WENDELL, NC 27591
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C-221B Engineering and Land Planning

SR 1330 (Raleigh Road) ®
SR 1517 (Sanders Road)

Left Turn Lane
Cross Sections

DATE: Sept 2012
SE PROJ. # 12-016
DWG FILE # 12-016

SCALE
HORIZONTAL: 1"=20'
VERTICAL: 1"= 4'

SHEET NO.
X1
OF: 1