

See Sheet 1-A For Index of Sheets
 See Sheet 1-B For Conventional Symbols
 See Sheets 1-C and 1-D for Survey Control Sheets

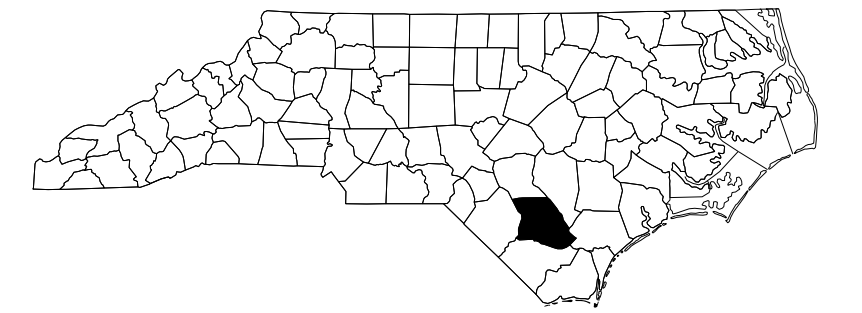
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

BLADEN COUNTY

LOCATION: NC 87 AT US 701 INTERSECTION

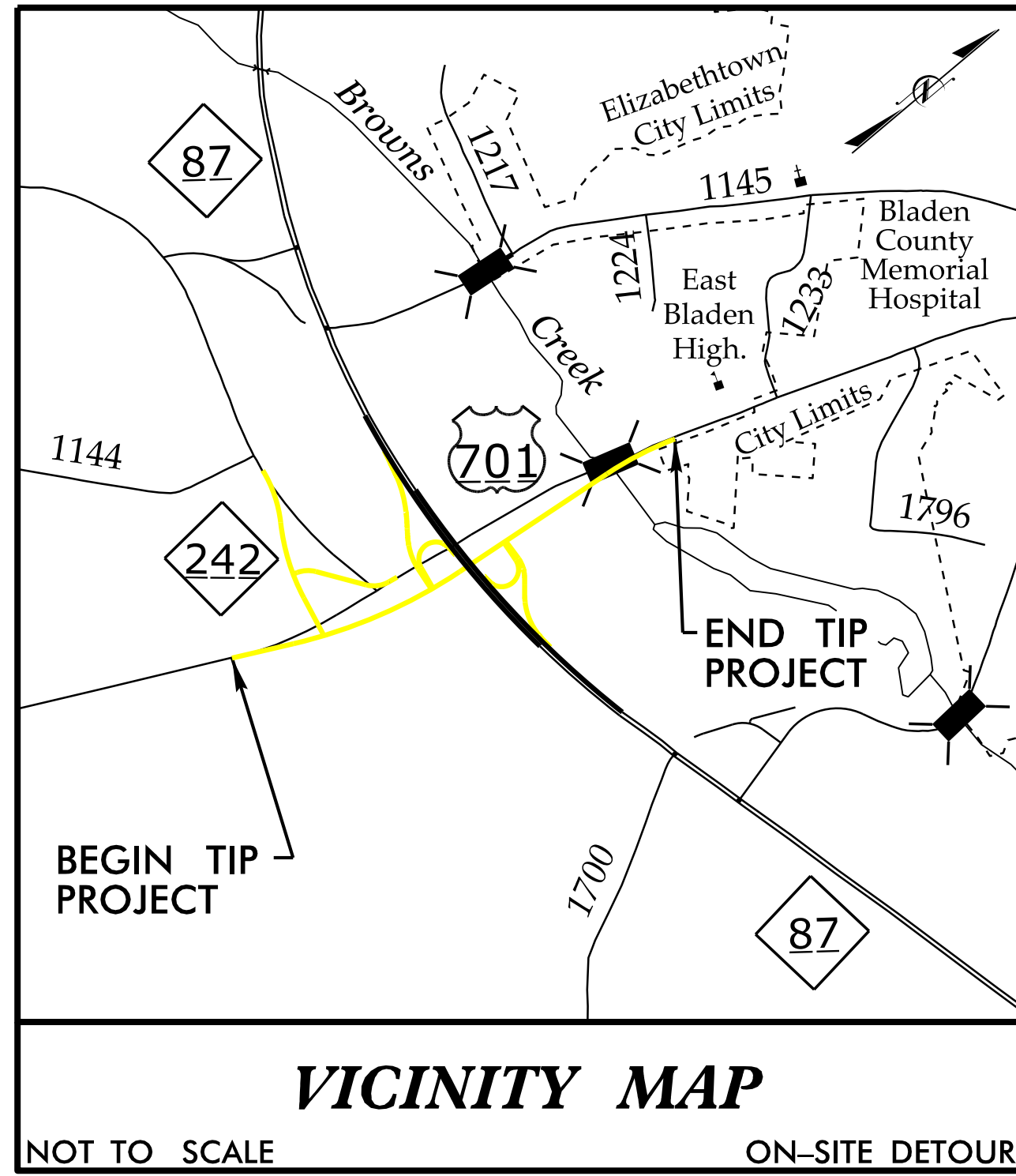
TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4903	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
40226.1.1	NHF-0087(15)	P.E.	
40226.2.FS1	NHF-0087(15)	RIGHT OF WAY	
40226.2.UFS1	NHF-0087(15)	UTILITIES	



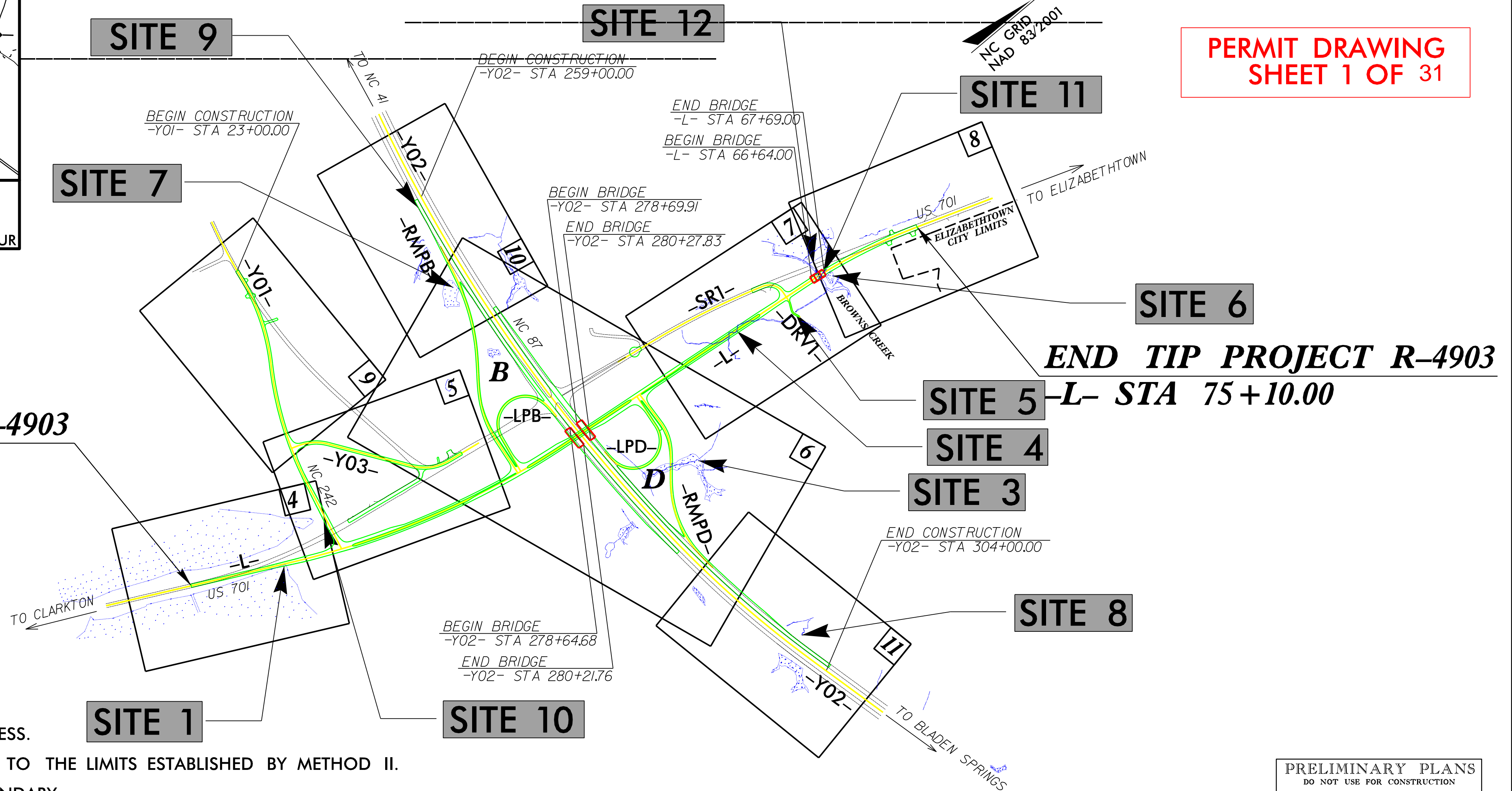
PERMIT DRAWING
 SHEET 1 OF 31

CONTRACT: TIP PROJECT: R-4903



WETLAND AND SURFACE WATER IMPACTS PERMIT

BEGIN TIP PROJECT R-4903
 -L- STA 16+60.00

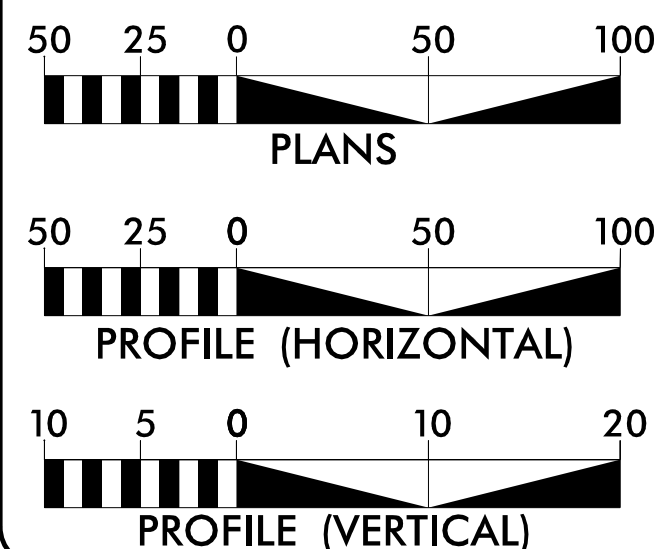


NOTES:

1. A PORTION OF THIS PROJECT IS CONTROLLED ACCESS.
2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
3. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARY.

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

ADT 2014 = 11,700
 ADT 2034 = 17,600
 K = 11 %
 D = 60 %
 T = 14 % *
 V = 50 MPH
 * TTST = 9% DUAL 5%
 FUNC CLASS =
 RURAL MINOR ARTERIAL
 REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT R-4903 = 1.088 MILES
 LENGTH OF STRUCTURE TIP PROJECT R-4903 = 0.020 MILES
 TOTAL LENGTH OF TIP PROJECT R-4903 = 1.108 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 SEPTEMBER 30, 2013

LETTING DATE:
 DECEMBER 16, 2014

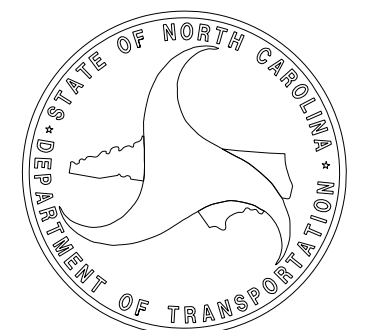
GARY LOVERING, PE
 PROJECT ENGINEER

SUSAN C. LANCASTER, PE
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
 ROADWAY DESIGN ENGINEER

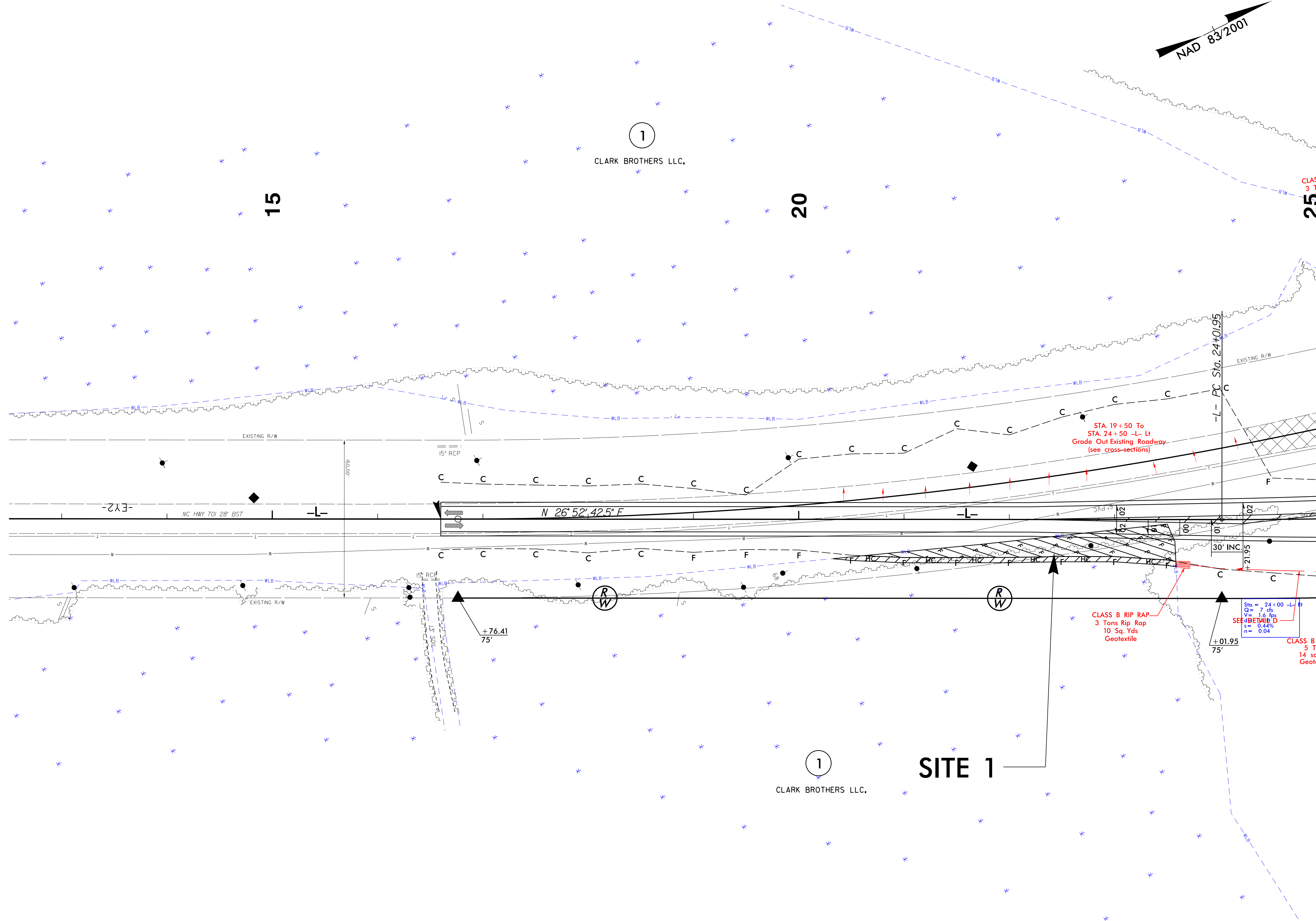
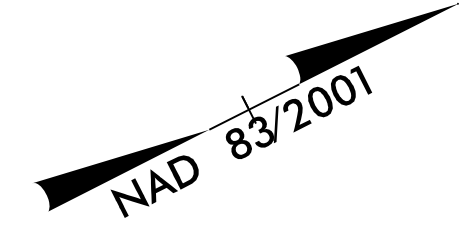
SIGNATURE: _____ P.E.



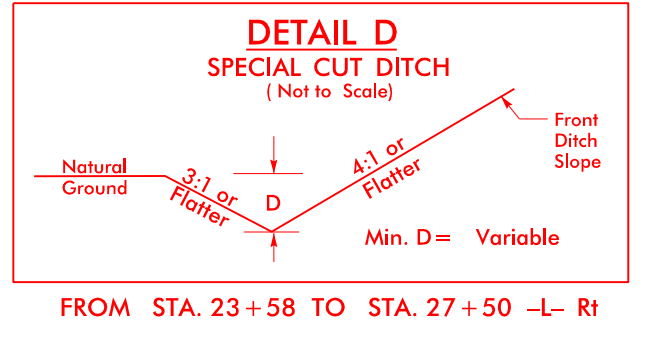
11/26/2013 amkeeter R:\Hydraulics\PERMITS_Environmental\Drawings\R4903_Hyd_prm_wet_TSH.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-4903	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

**PERMIT DRAWING
SHEET 2 OF 31**



MATCH LINE -L- STA. 25 + 50 SEE SHEET 5



F F	DENOTES FILL IN WETLAND
HC HC	DENOTES HAND CLEARING

REVISIONS

2/17/2014
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8/17/99

PROJECT REFERENCE NO. R-4903	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 3 OF 31

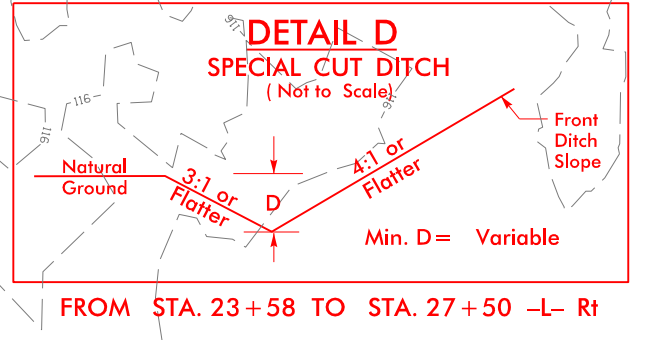
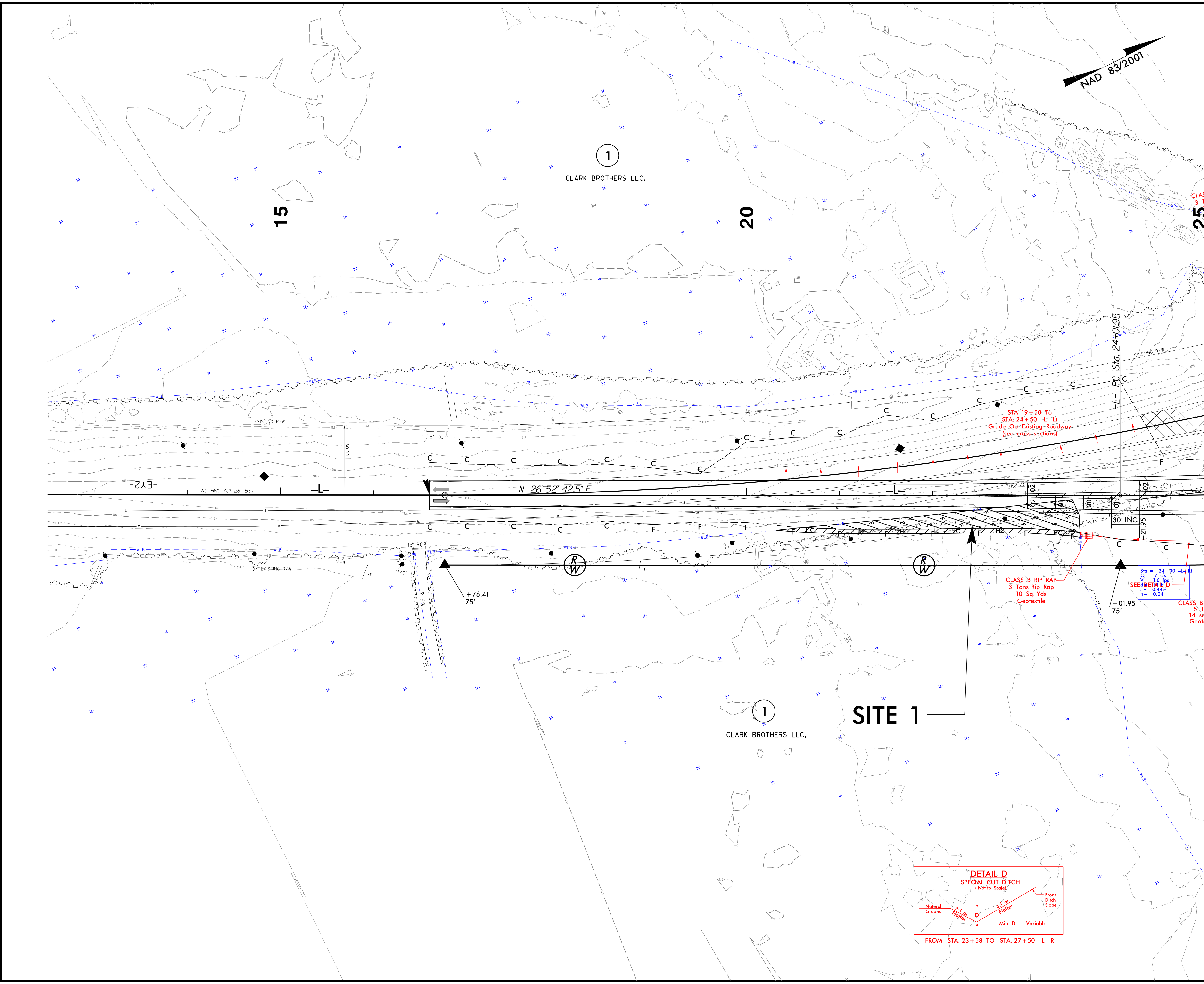
CLASS B RIP RAP
3 Tons Rip Rap
10 Sq. Yds
Geotextile

CLASS B RIP RAP
3 Tons Rip Rap
3 Sq. Yds
Geotextile

CLASS B RIP RAP
5 Tons
14 sq. yds
Geotextile

Sta = 24+00 -L- R-
Q = 7.0 cfs
V = 1.6 fps
S = 0.44%
n = 0.04

MATCH LINE -L- STA. 25+50 SEE SHEET 5



F F	DENOTES FILL IN WETLAND
HC HC	DENOTES HAND CLEARING

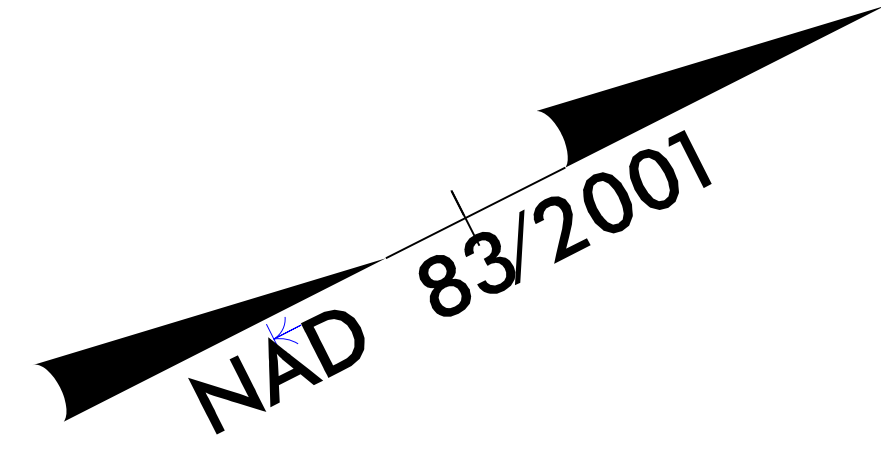
REVISIONS

2/7/2014
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8/17/99

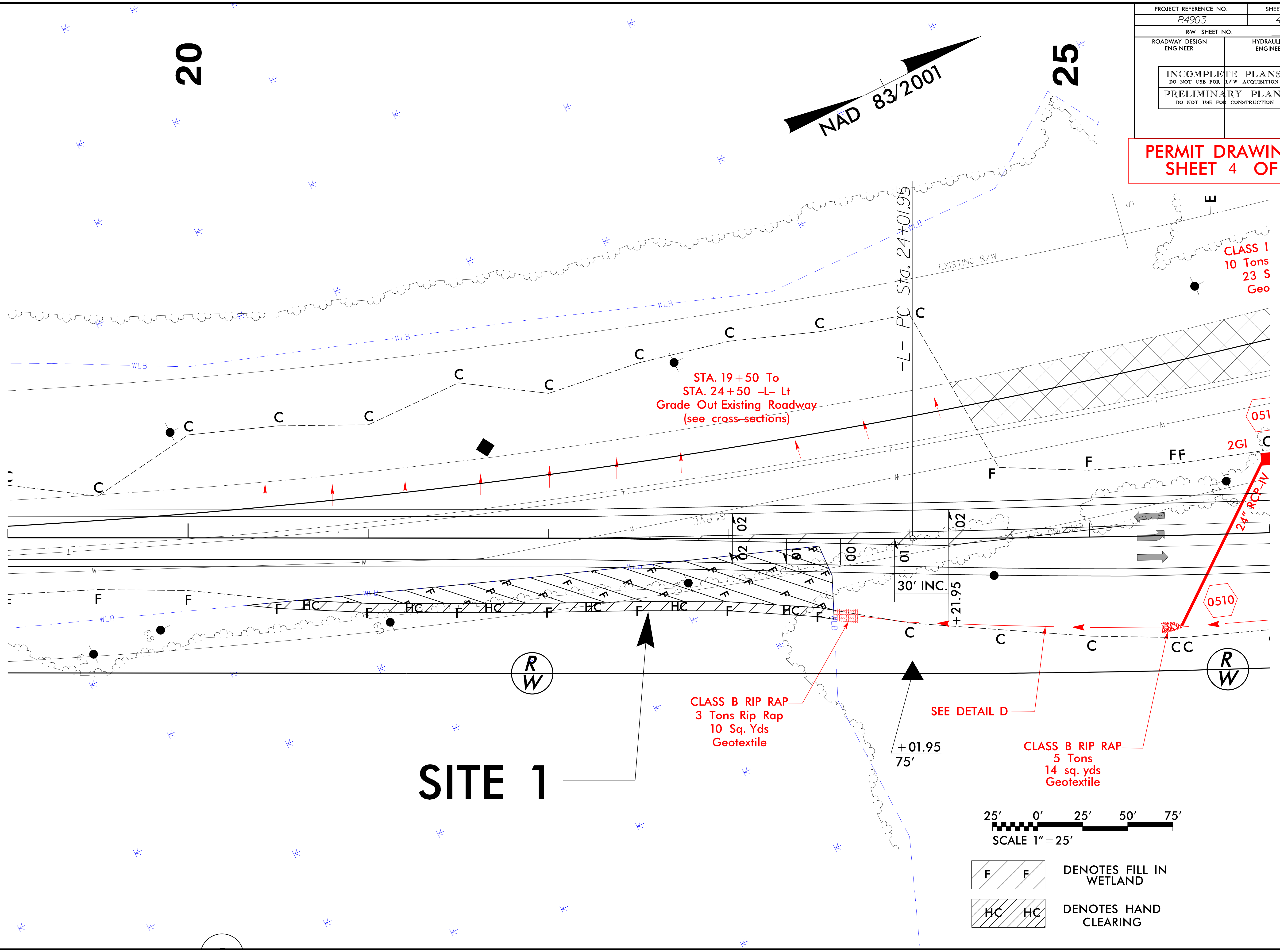
PROJECT REFERENCE NO. R4903	SHEET NO. 4A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

**PERMIT DRAWING
SHEET 4 OF 31**



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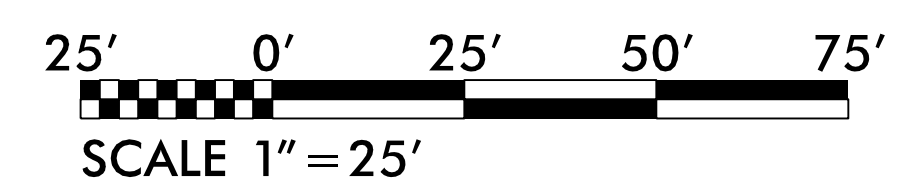


STA. 19+50 To
STA. 24+50 -L- Lt
Grade Out Existing Roadway
(see cross-sections)

CLASS 1
10 Tons
23 S
Geo

CLASS B RIP RAP
3 Tons Rip Rap
10 Sq. Yds
Geotextile

CLASS B RIP RAP
5 Tons
14 sq. yds
Geotextile



F / F	DENOTES FILL IN WETLAND
HC / HC	DENOTES HAND CLEARING

REVISIONS

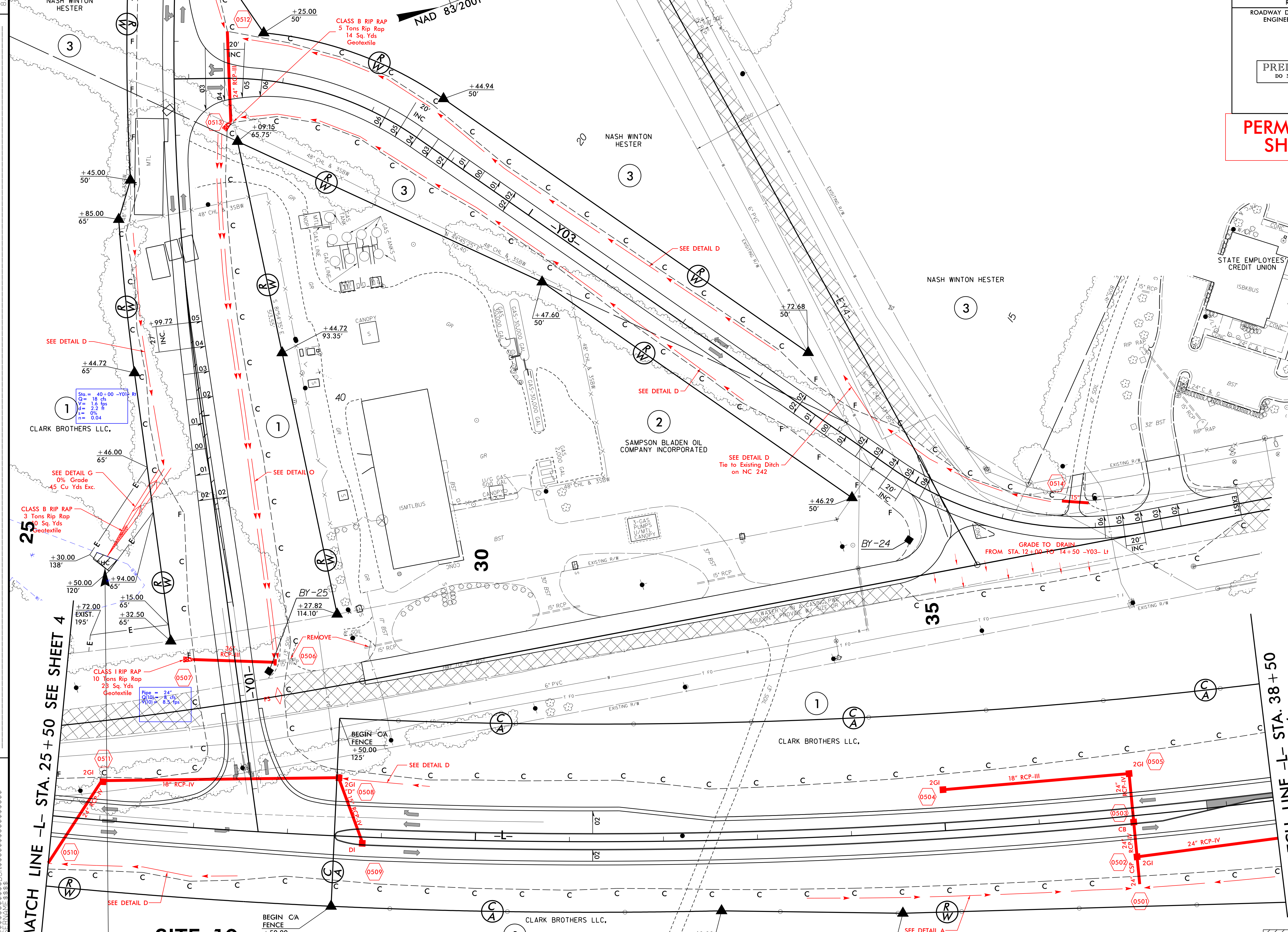
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 \$\$\$\$\$\$DATE\$\$\$\$\$\$

SITE 1

PROJECT REFERENCE NO.	SHEET NO.
R-4903	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 6 OF 31

MATCH LINE -Y01- STA. 35+50.00 SEE SHEET 9

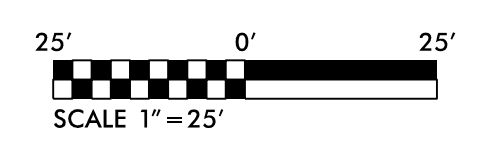


2/17/2014
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 REVISIONS
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MATCH LINE -L- STA. 25+50 SEE SHEET 4

MATCH LINE -L- STA. 38+50
SEE SHEET 6

SITE 10

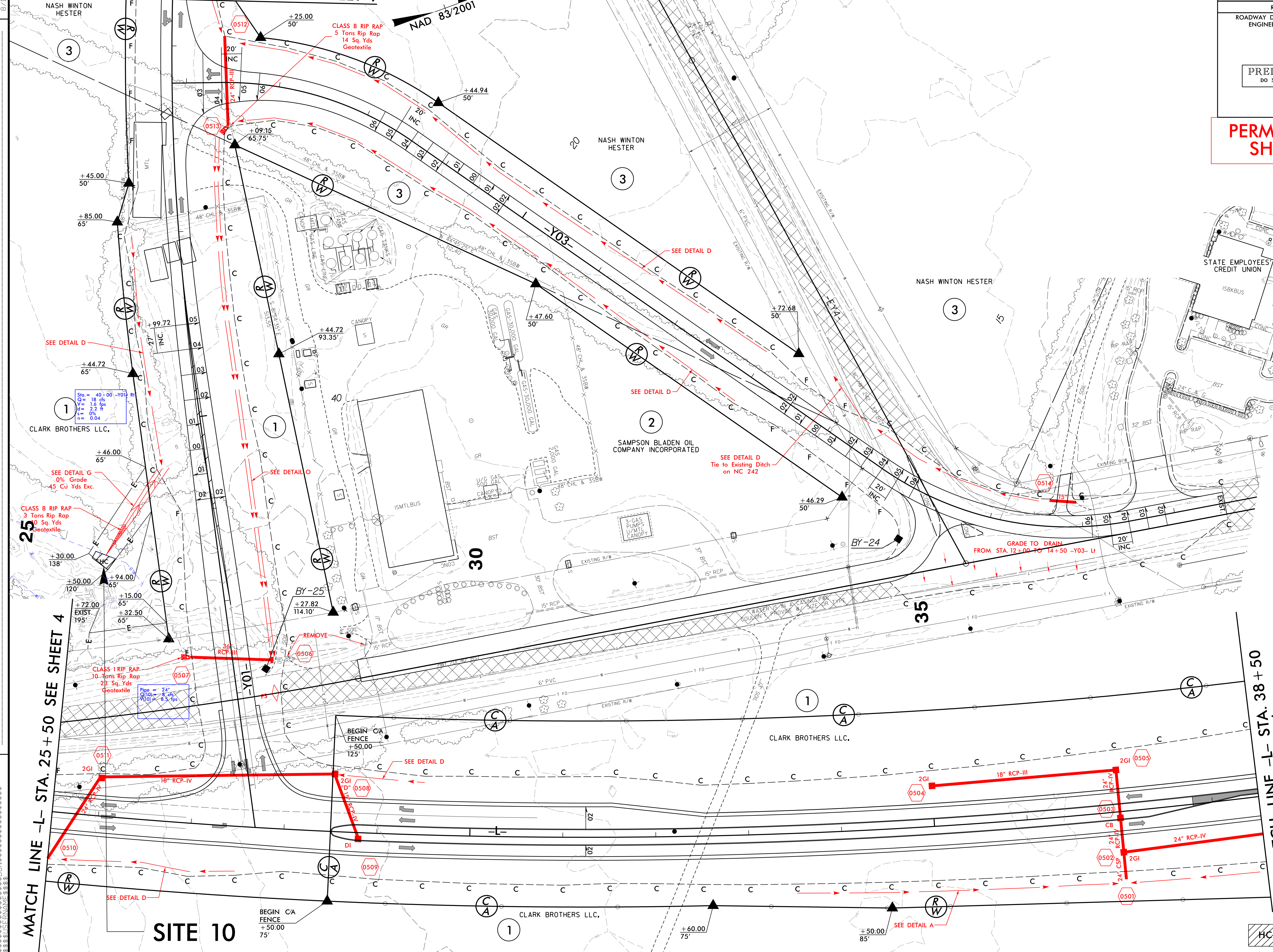


HC HC DENOTES HAND CLEARING

PROJECT REFERENCE NO.	SHEET NO.
R-4903	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 7 OF 31

MATCH LINE -Y01- STA. 35+50.00 SEE SHEET 9



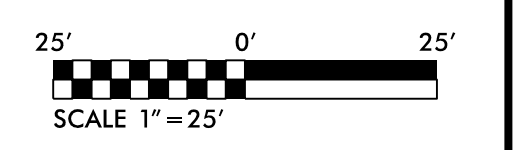
REVISIONS

2/17/2014
amk/eefer
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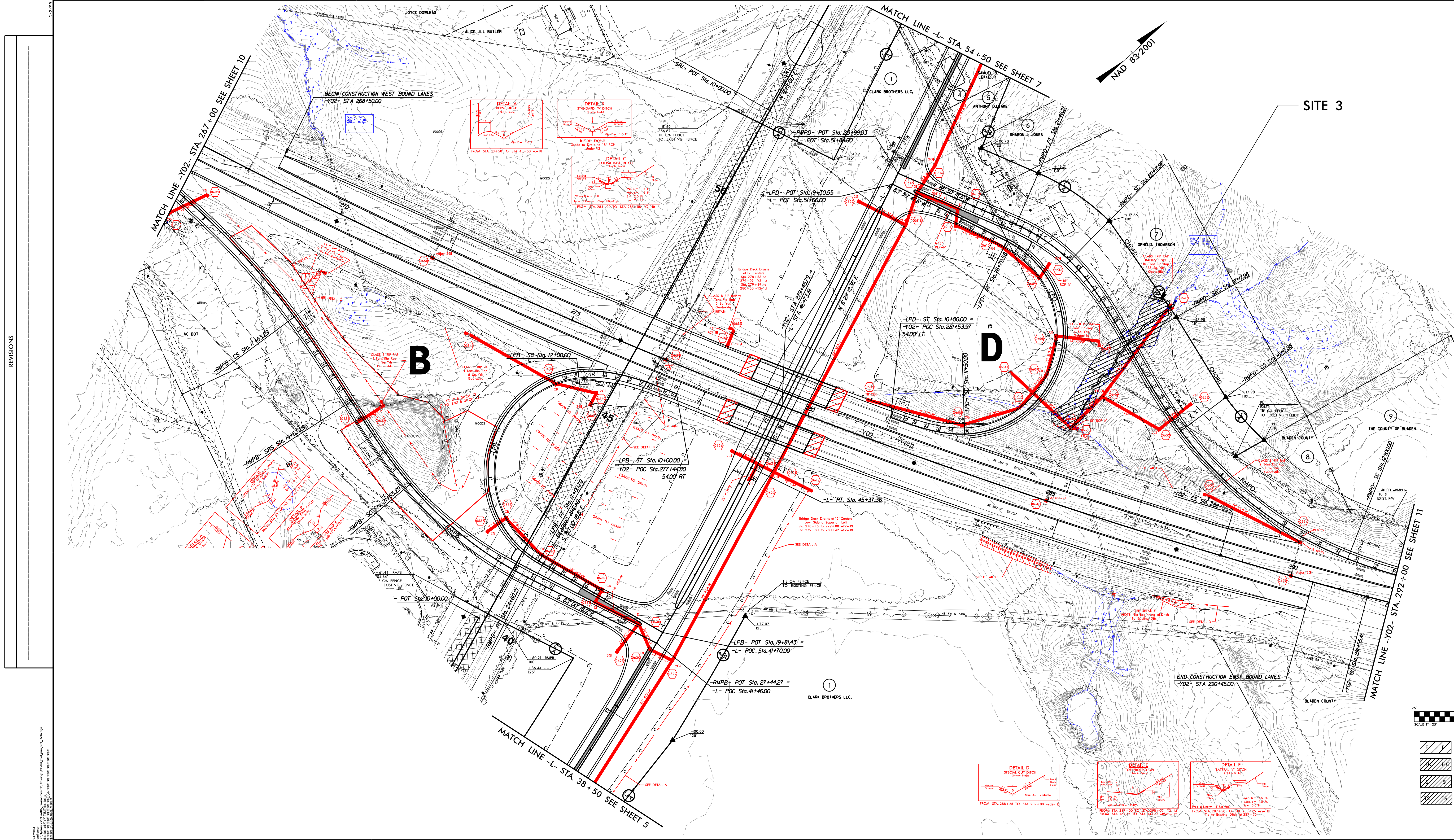
MATCH LINE -L- STA. 25+50 SEE SHEET 4

MATCH LINE -L- STA. 38+50
SEE SHEET 6

SITE 10



HC HC DENOTES HAND CLEARING



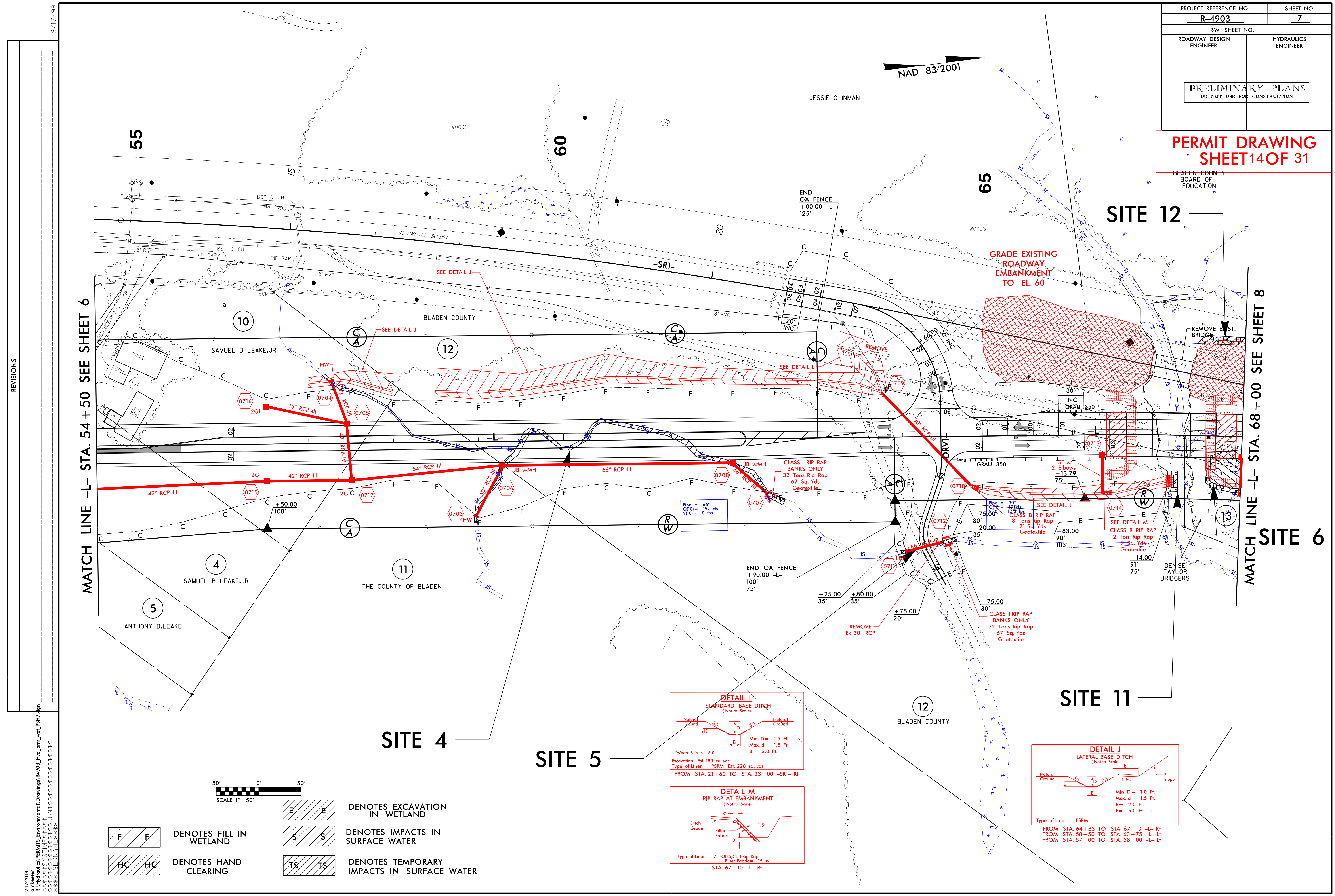
REVISIONS

50 25 0 50 100
GRAPHIC SCALE
PLANS

- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**PERMIT DRAWING
SHEET 14 OF 31**

BLADEN COUNTY
BOARD OF
EDUCATION

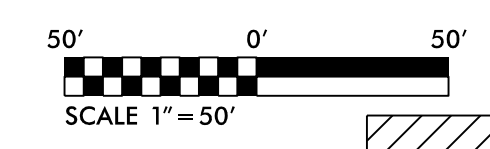


MATCH LINE -L- STA. 54+50 SEE SHEET 6

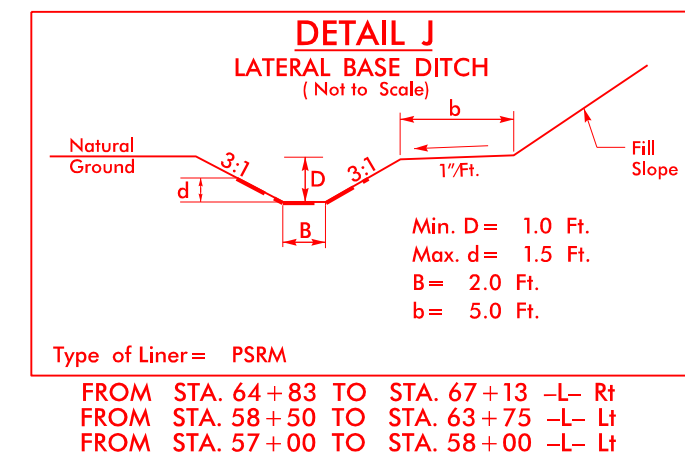
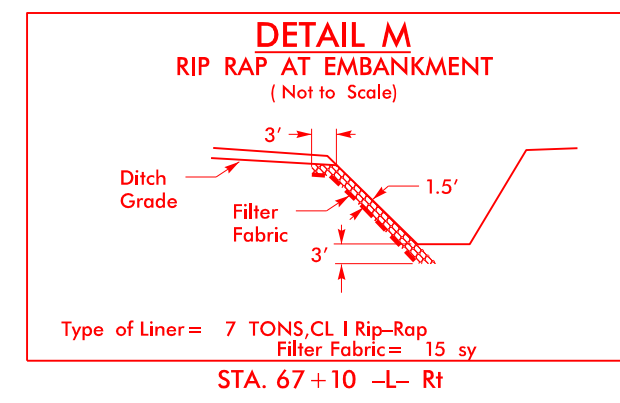
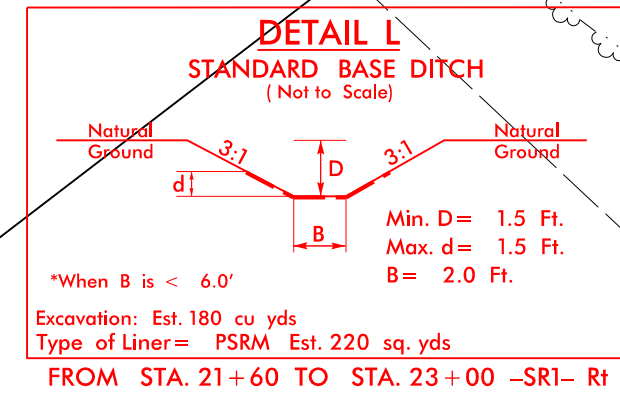
MATCH LINE -L- STA. 68+00 SEE SHEET 8

REVISIONS

2/17/2014
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|--|-------------------------|--|--|
| | DENOTES FILL IN WETLAND | | DENOTES EXCAVATION IN WETLAND |
| | DENOTES HAND CLEARING | | DENOTES IMPACTS IN SURFACE WATER |
| | | | DENOTES TEMPORARY IMPACTS IN SURFACE WATER |



NAD 83/2001

JESSIE O INMAN

BLADEN COUNTY

BLADEN COUNTY

SITE 4

SITE 5

SITE 11

SITE 12

SITE 6

55

60

65

10

12

11

4

5

SAMUEL B LEAKE, JR

THE COUNTY OF BLADEN

ANTHONY D. LEAKE

SAMUEL B LEAKE, JR

REMOVE EXIST. BRIDGE

DENSE TAYLOR BRIDGERS

GRADE EXISTING ROADWAY EMBANKMENT TO EL. 60

END C/A FENCE +00.00 -L- 125'

END C/A FENCE +90.00 -L- 100' 75'

REMOVE EX 30\"/>

CLASS I RIP RAP BANKS ONLY 32 Tons Rip Rap 67 Sq. Yds Geotextile

CLASS B RIP RAP 8 Tons Rip Rap 21 Sq. Yds Geotextile

CLASS I RIP RAP BANKS ONLY 32 Tons Rip Rap 67 Sq. Yds Geotextile

CLASS B RIP RAP 2 Ton Rip Rap 7 Sq. Yds Geotextile

CLASS I RIP RAP BANKS ONLY 32 Tons Rip Rap 67 Sq. Yds Geotextile

SEE DETAIL J

SEE DETAIL J

SEE DETAIL L

SEE DETAIL L

SEE DETAIL M

SEE DETAIL M

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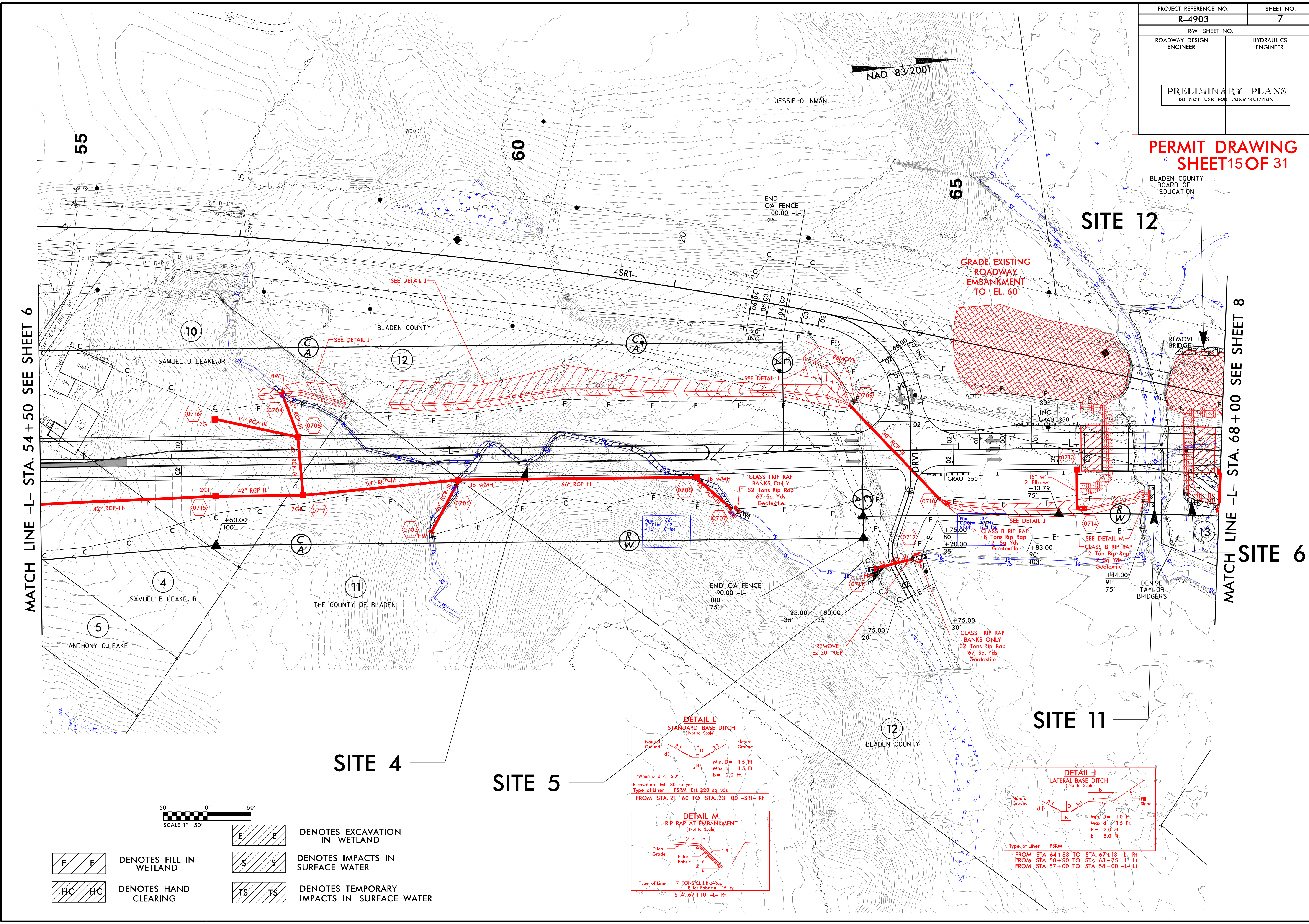
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PROJECT REFERENCE NO. R-4903	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 15 OF 31

BLADEN COUNTY
BOARD OF
EDUCATION

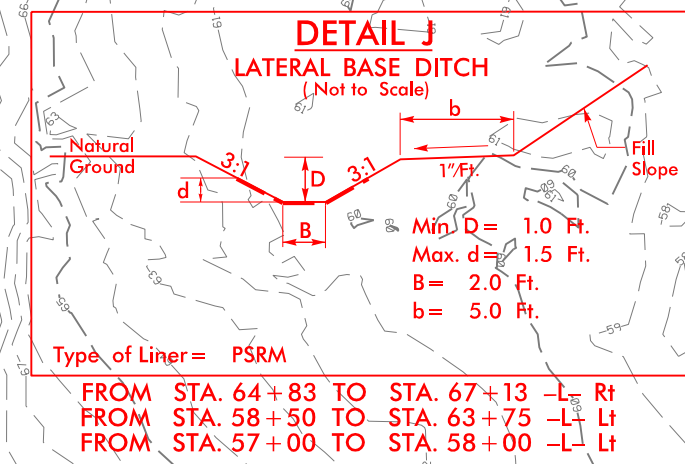
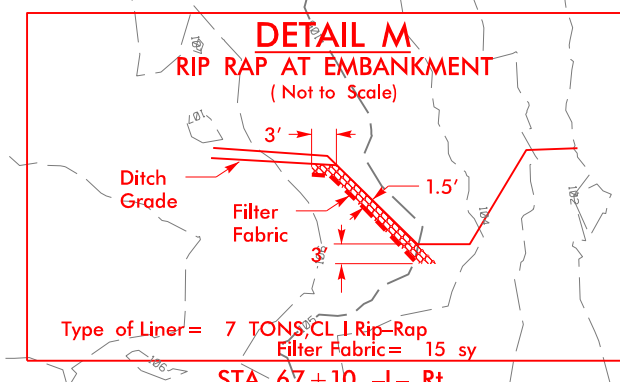
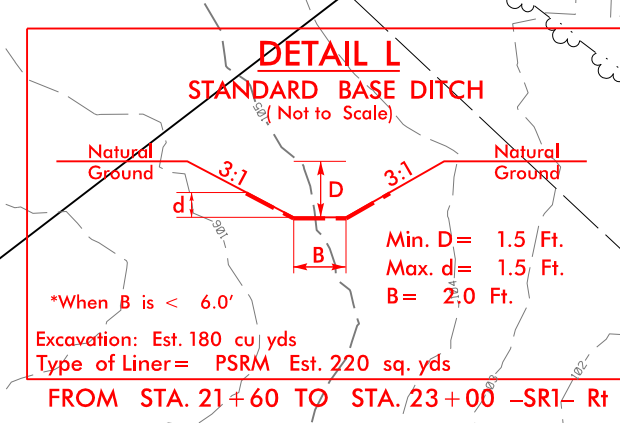


MATCH LINE -L- STA. 54+50 SEE SHEET 6

MATCH LINE -L- STA. 68+00 SEE SHEET 8

50' 0' 50'
SCALE 1" = 50'

	DENOTES EXCAVATION IN WETLAND
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES HAND CLEARING
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS

2/7/2014
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8/17/99