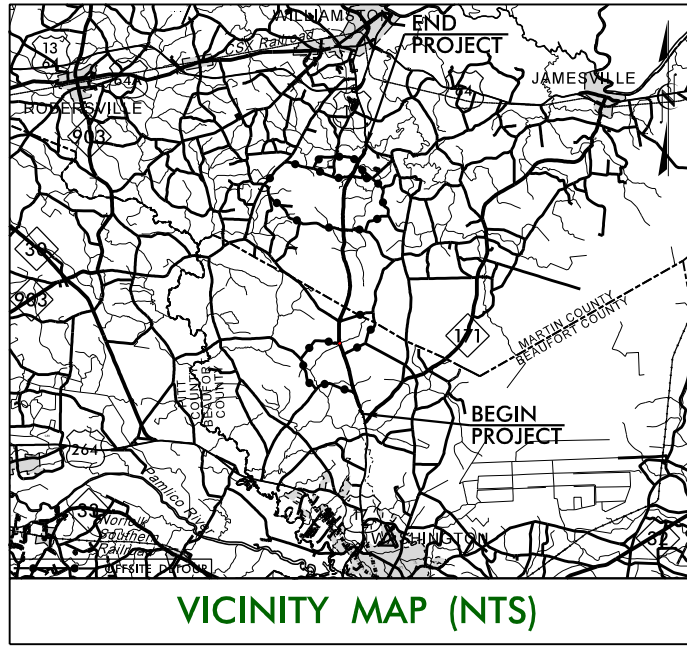


09/28/19

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

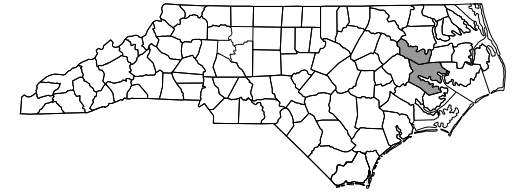
# BEAUFORT & MARTIN COUNTIES

LOCATION: US 17 FROM NORTH OF NC 171 TO EXISTING MULTI-LANES SOUTH OF WILLIAMSTON

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

## WETLAND AND STREAM IMPACTS

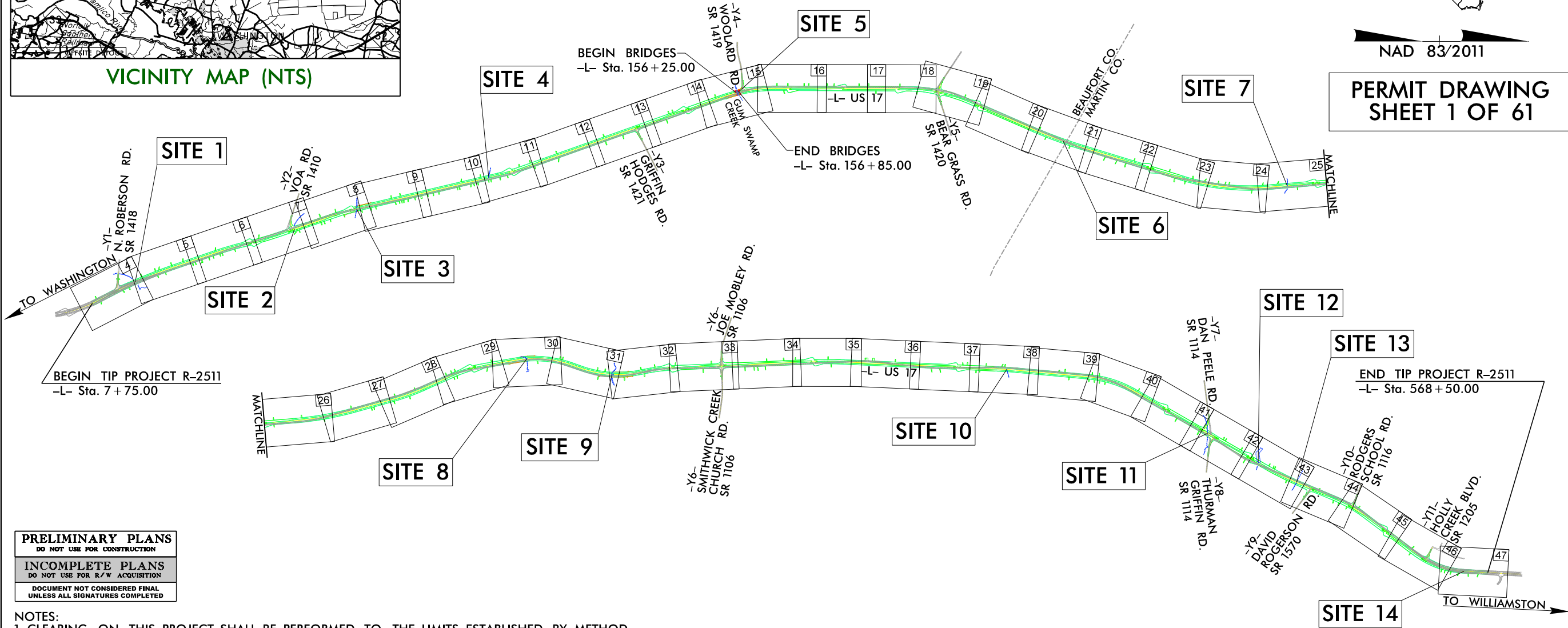
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2511	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35494.1.1	N/A	PE	



NAD 83/2011

PERMIT DRAWING SHEET 1 OF 61

TIP PROJECT: R-2511



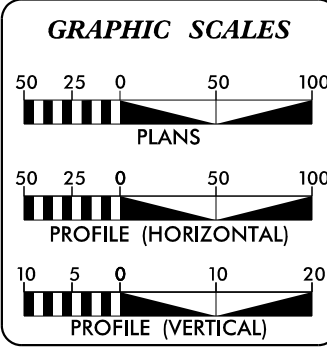
**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

- NOTES:
- CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD
  - THIS IS A PARTIALLY CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

CONTRACT:



**DESIGN DATA**

ADT 2020 =	9,164
ADT 2040 =	14,284
K =	5%
D =	60%
T =	13% *
V =	60 MPH
* TTST = 8% DUAL 5%	
FUNC CLASS = RURAL ARTERIAL	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT R-2511.....	10.609 miles
LENGTH STRUCTURE TIP PROJECT R-2511.....	0.011 miles
TOTAL LENGTH OF PROJECT R-2511.....	10.620 miles

PLANS PREPARED BY:  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE, SUITE 350  
RALEIGH, NORTH CAROLINA 27609  
NC LICENSE NO. F-0112  
1-888-521-4455 OR 919-878-9560

FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: December 20, 2018

LETTING DATE: June 16, 2020

NCDOT CONTACT: John Abel, Jr.  
PROJECT ENGINEER - DIVISION 1

Michael T. Merritt, P.E.  
PROJECT ENGINEER

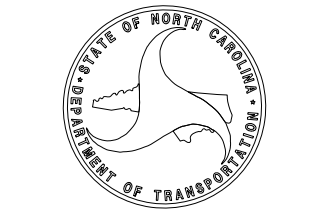
Scott D. Blevins, P.E.  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

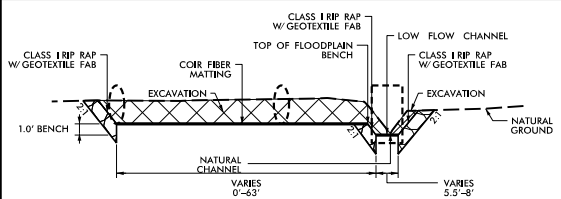
SIGNATURE: \_\_\_\_\_ P.E.



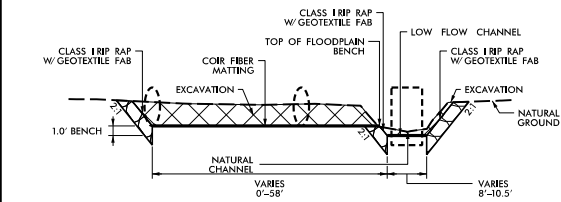
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8/17/99

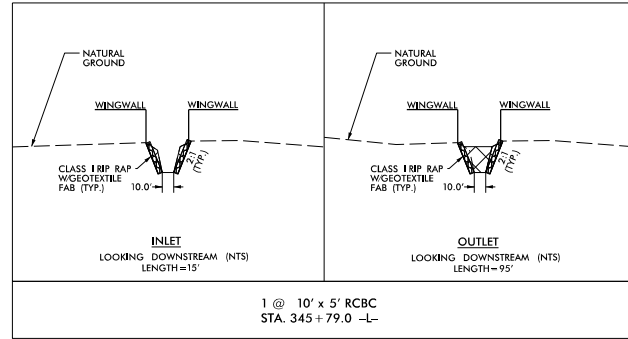


**INLET CHANNEL IMPROVEMENTS**  
LOOKING DOWNSTREAM (NTS)  
LENGTH=105'

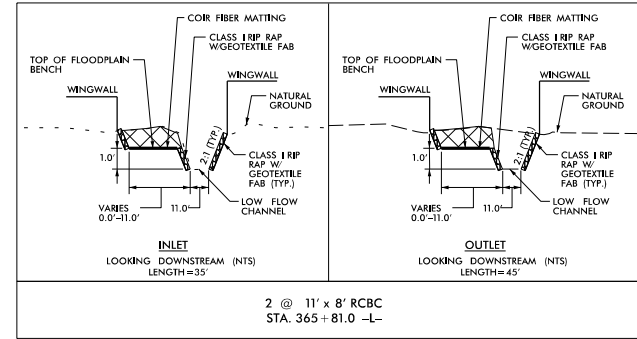


**OUTLET CHANNEL IMPROVEMENTS**  
LOOKING DOWNSTREAM (NTS)  
LENGTH=75'

1 @ 8' x 6' RCBC + (2) - 48" WELDED STEEL  
STA. 69 + 25.5 -L-



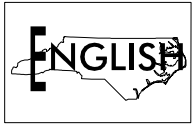
1 @ 10' x 5' RCBC  
STA. 345 + 79.0 -L-



2 @ 11' x 8' RCBC  
STA. 365 + 81.0 -L-

PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. <i>2D-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**PERMIT DRAWING  
SHEET 3 OF 61**



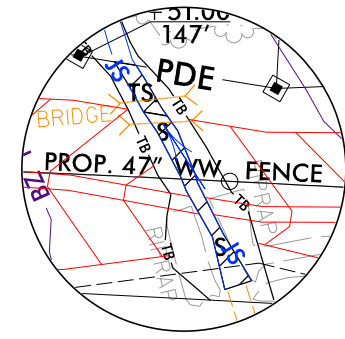
**PLANS PREPARED BY :**  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

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8/17/99  
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8/17/2016

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

### INSET A

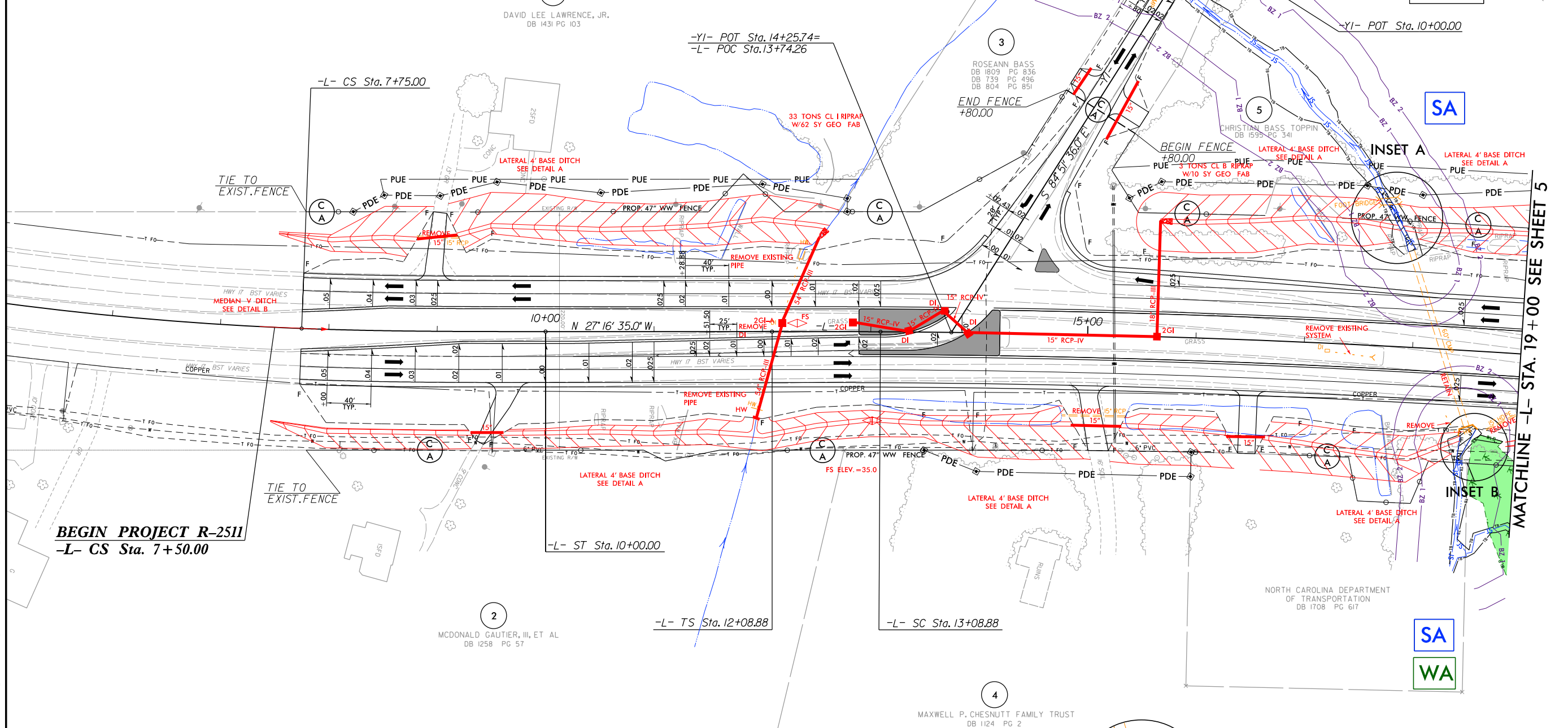


## PERMIT DRAWING SHEET 4 OF 61

ENGLISH

PROJECT REFERENCE NO. R-2511	SHEET NO. 4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

### SITE 1



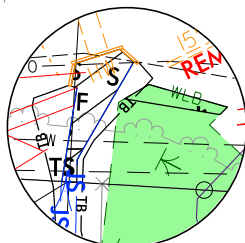
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MCDONALD GAUTIER, III, ET AL  
DB 1258 PG 57

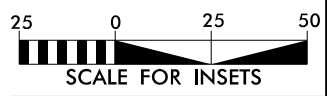
MAXWELL P. CHESNUTT FAMILY TRUST  
DB 1124 PG 2

NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DB 1708 PG 617

MATCHLINE -L- STA. 19+00 SEE SHEET 5



### INSET B

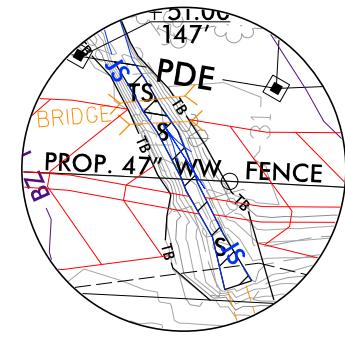


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8/17/2016

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

### INSET A



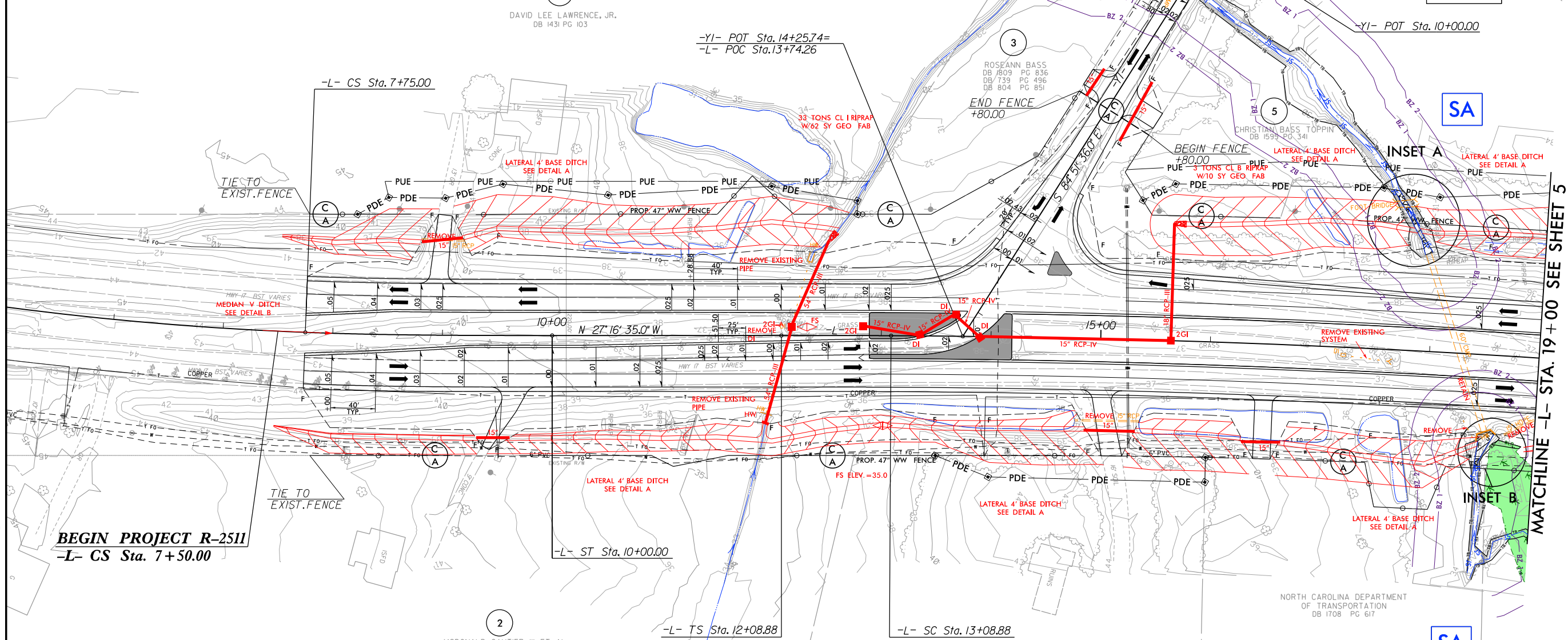
## PERMIT DRAWING SHEET 5 OF 61

ENGLISH



PROJECT REFERENCE NO. R-2511	SHEET NO. 4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

### SITE 1



**BEGIN PROJECT R-2511**  
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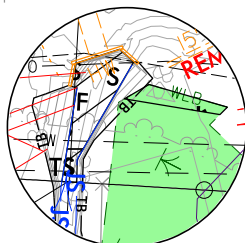
2  
MCDONALD GAUTIER, III, ET AL  
DB 1258 PG 57

4  
MAXWELL P. CHESNUTT FAMILY TRUST  
DB 1124 PG 2

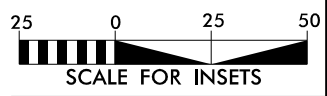
NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DB 1708 PG 617

SA  
WA

MATCHLINE -L- STA. 19+00 SEE SHEET 5



### INSET B



PLANS PREPARED BY:  
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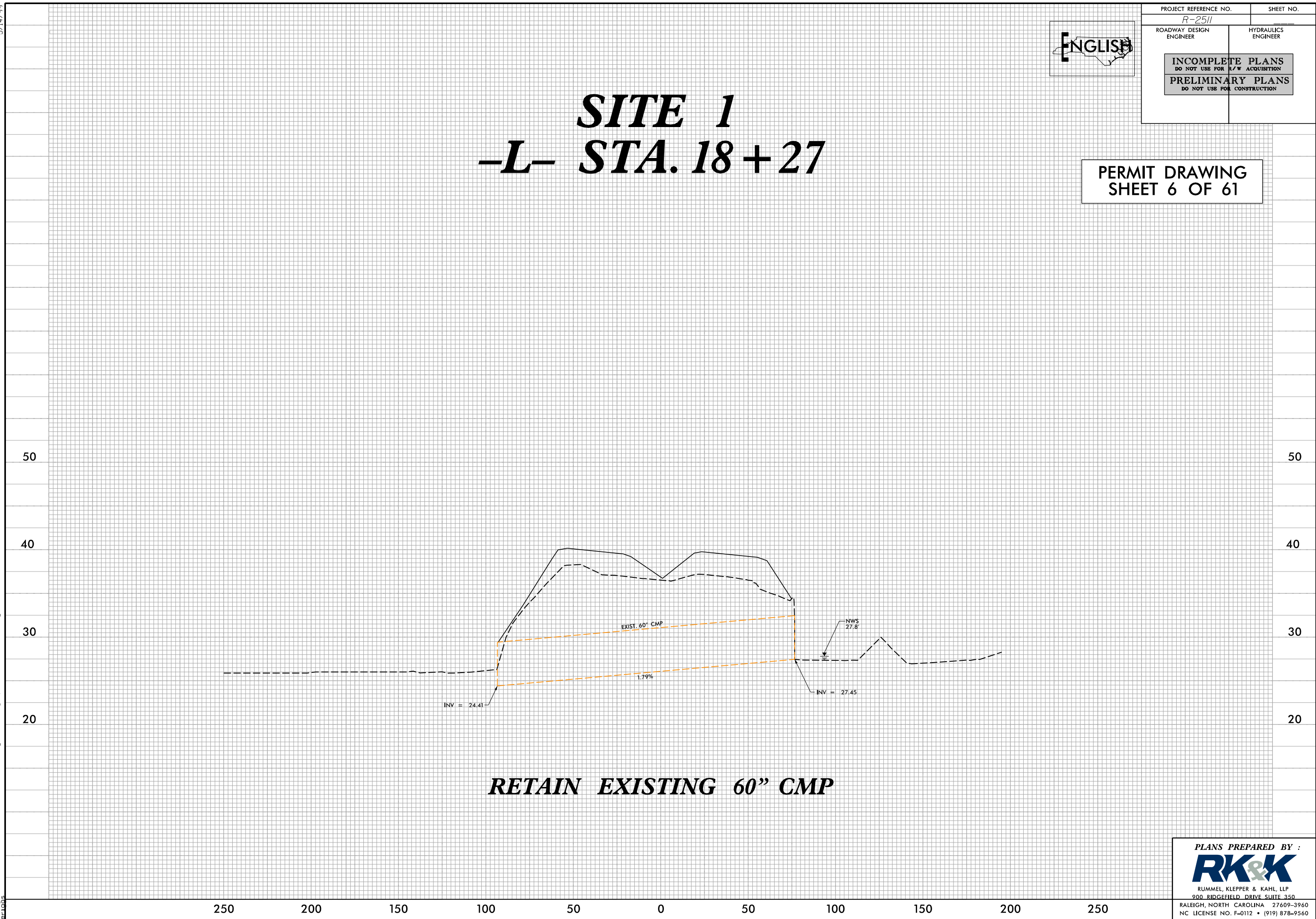
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<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

**ENGLISH**

# SITE 1

## -L- STA. 18+27

PERMIT DRAWING  
SHEET 6 OF 61



**RETAIN EXISTING 60" CMP**

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900 RIDGEFIELD DRIVE, SUITE 350  
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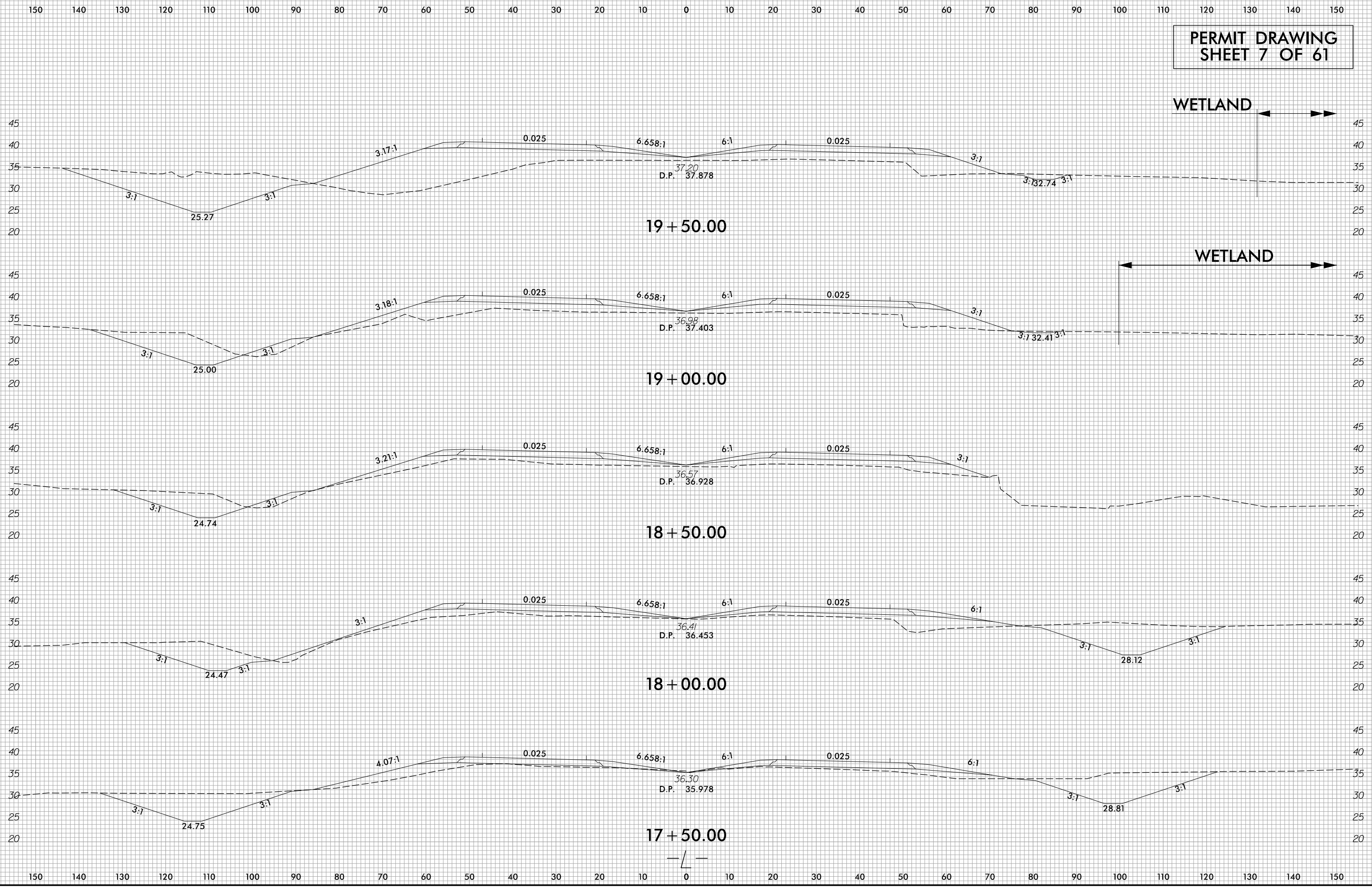
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PROJ. REFERENCE NO.  
R-2511





SHEET NO.  
X-4

**PERMIT DRAWING  
SHEET 7 OF 61**



9/17/2018  
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eng

8/17/99

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

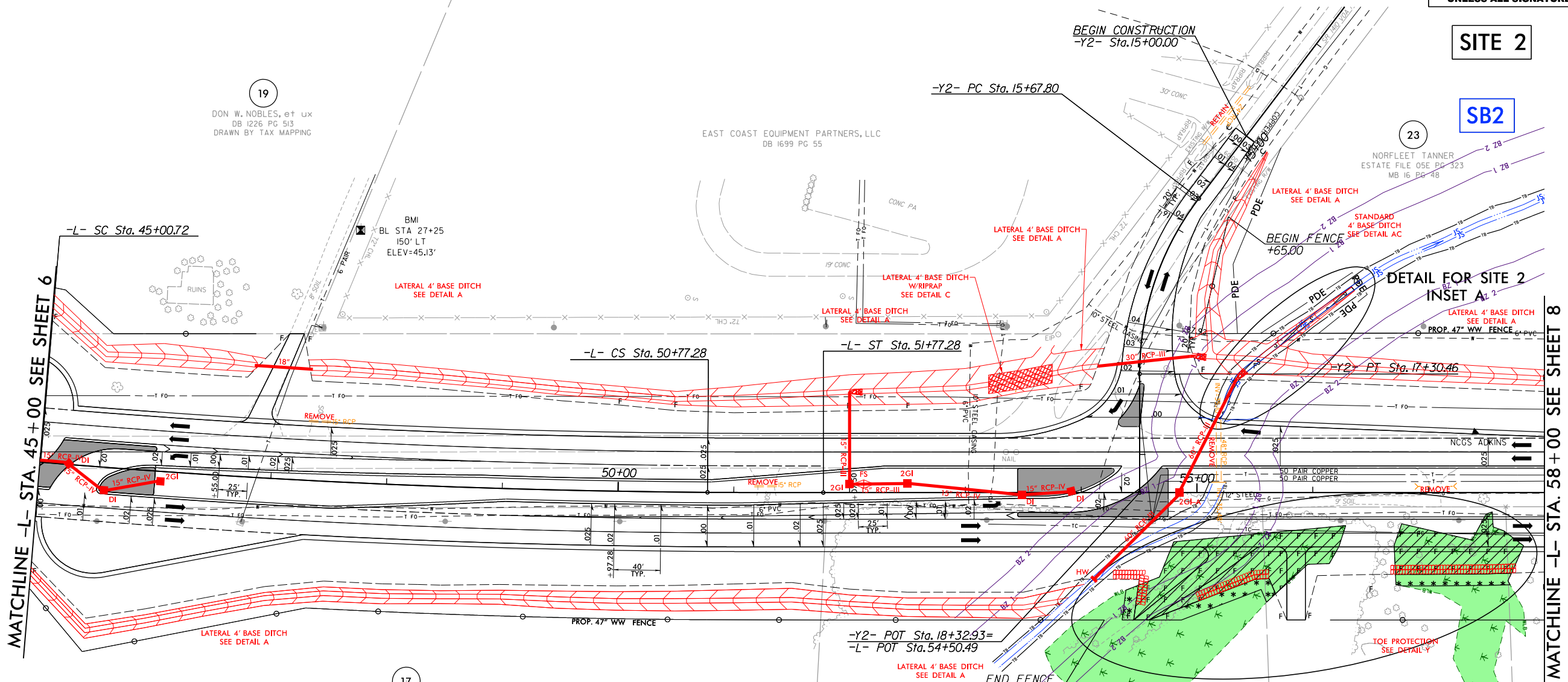
# PERMIT DRAWING SHEET 8 OF 61



PROJECT REFERENCE NO. R-2511	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

### SITE 2

### SB2



MATCHLINE -L- STA. 45+00 SEE SHEET 6

MATCHLINE -L- STA. 58+00 SEE SHEET 8

19  
DON W. NOBLES, et ux  
DB 1226 PG 513  
DRAWN BY TAX MAPPING

EAST COAST EQUIPMENT PARTNERS, LLC  
DB 1699 PG 55

BMI  
BL STA 27+25  
150' LT  
ELEV=45.13'

23  
NORFLEET TANNER  
ESTATE FILE 05E PG 323  
MB 16 PG 48

17  
JOSEPH DONALD ARNOLD  
DB 1300 PG 734  
TRACT FOUR (CHERRY TRACT II)

22  
EDWARD G. WARD HEIRS.  
DB 606 PG 252

20  
BILLY J. ARNOLD, et ux  
DB 1392 PG 845  
TRACT FOUR (CHERRY TRACT III)







PLANS PREPARED BY :  
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900 RIDGEFIELD DRIVE SUITE 350  
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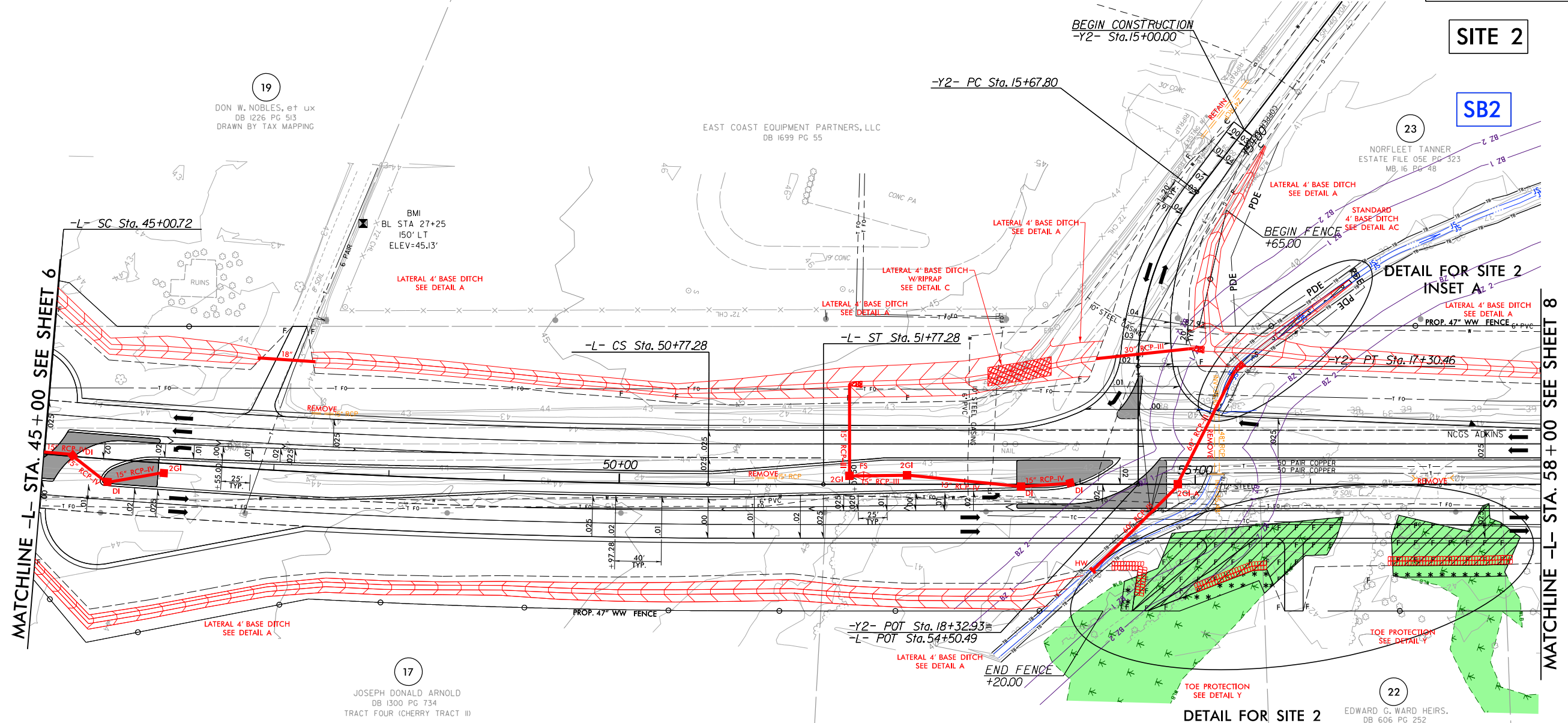
8/17/99

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

**PERMIT DRAWING  
SHEET 9 OF 61**

NAD 83/2011

PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**SITE 2**

**SB2**

23

NORFLEET TANNER  
ESTATE FILE 05E PG 323  
MB 16 PG 48

**DETAIL FOR SITE 2  
INSET A**

MATCHLINE -L- STA. 58+00 SEE SHEET 8

22

EDWARD G. WARD HEIRS.  
DB 606 PG 252

**DETAIL FOR SITE 2  
INSET B**

20

BILLY J. ARNOLD, et ux  
DB 1392 PG 845  
TRACT FOUR (CHERRY TRACT III)

17

JOSEPH DONALD ARNOLD  
DB 1300 PG 734  
TRACT FOUR (CHERRY TRACT III)

19

DON W. NOBLES, et ux  
DB 1226 PG 513  
DRAWN BY TAX MAPPING

BMI  
BL STA 27+25  
150' LT  
ELEV=45.13'





EAST COAST EQUIPMENT PARTNERS, LLC  
DB 1699 PG 55



**PLANS PREPARED BY :**  
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8/17/99

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

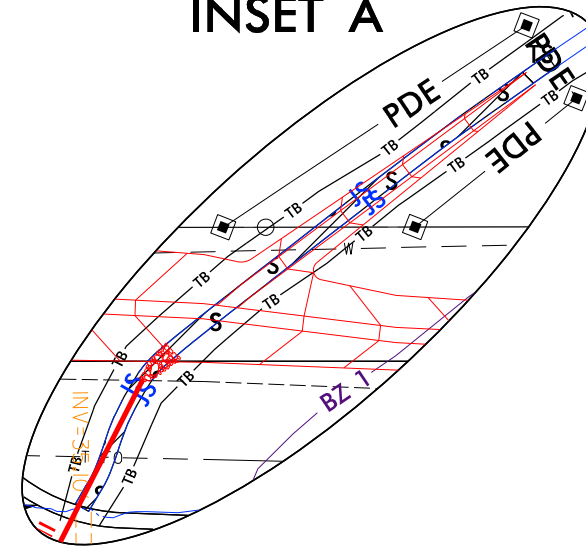
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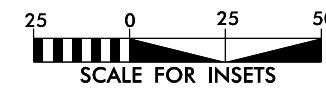
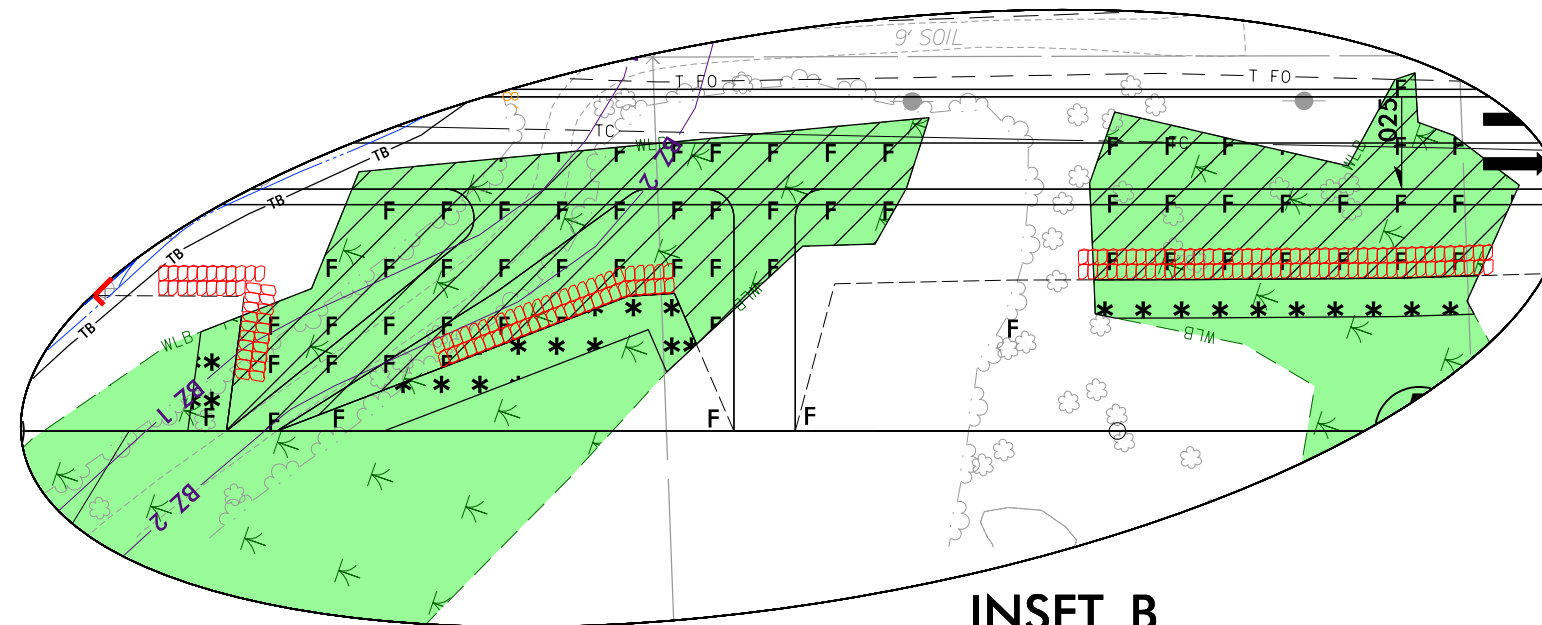
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	

**PERMIT DRAWING SHEET 10 OF 61**

### INSET A



### INSET B



PLANS PREPARED BY :

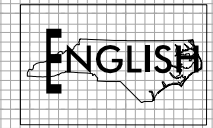


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5/14/99

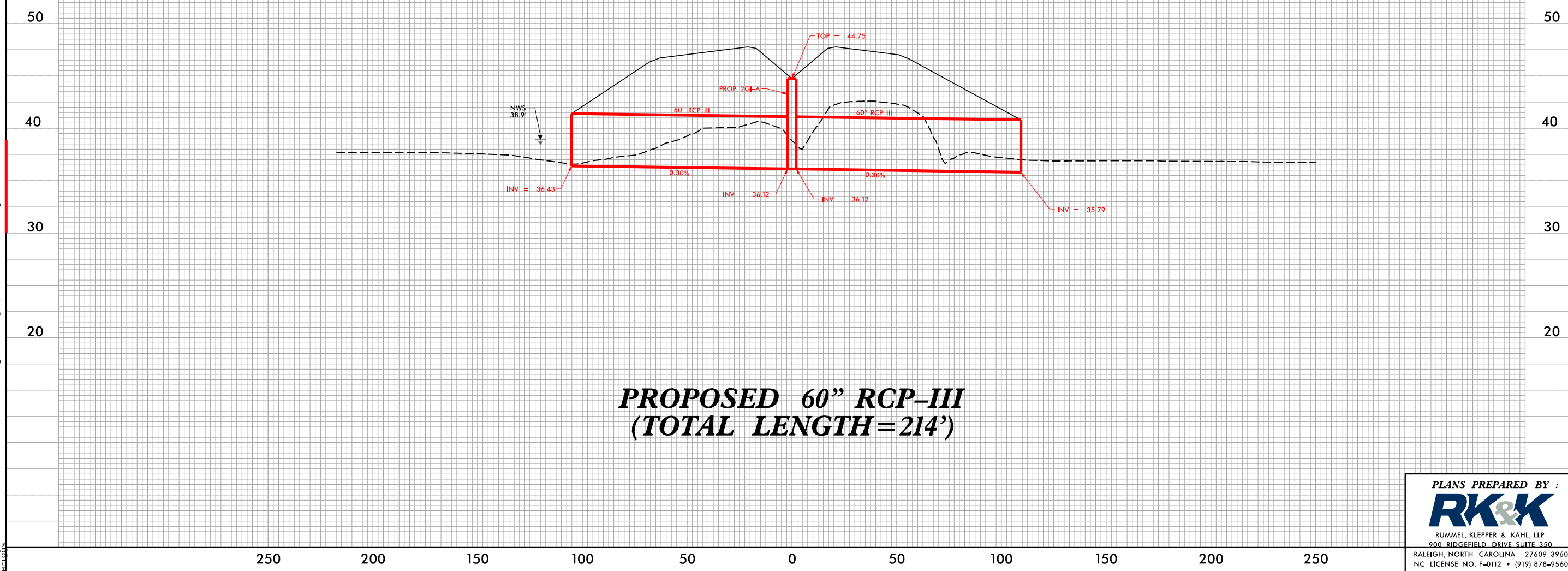
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 2

## -L- STA. 54+85

PERMIT DRAWING  
SHEET 11 OF 61



**PROPOSED 60" RCP-III**  
**(TOTAL LENGTH=214')**

**PLANS PREPARED BY :**  
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 900 RIDGEFIELD DRIVE SUITE 350  
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 NC LICENSE NO. F-0112 • (919) 878-9560

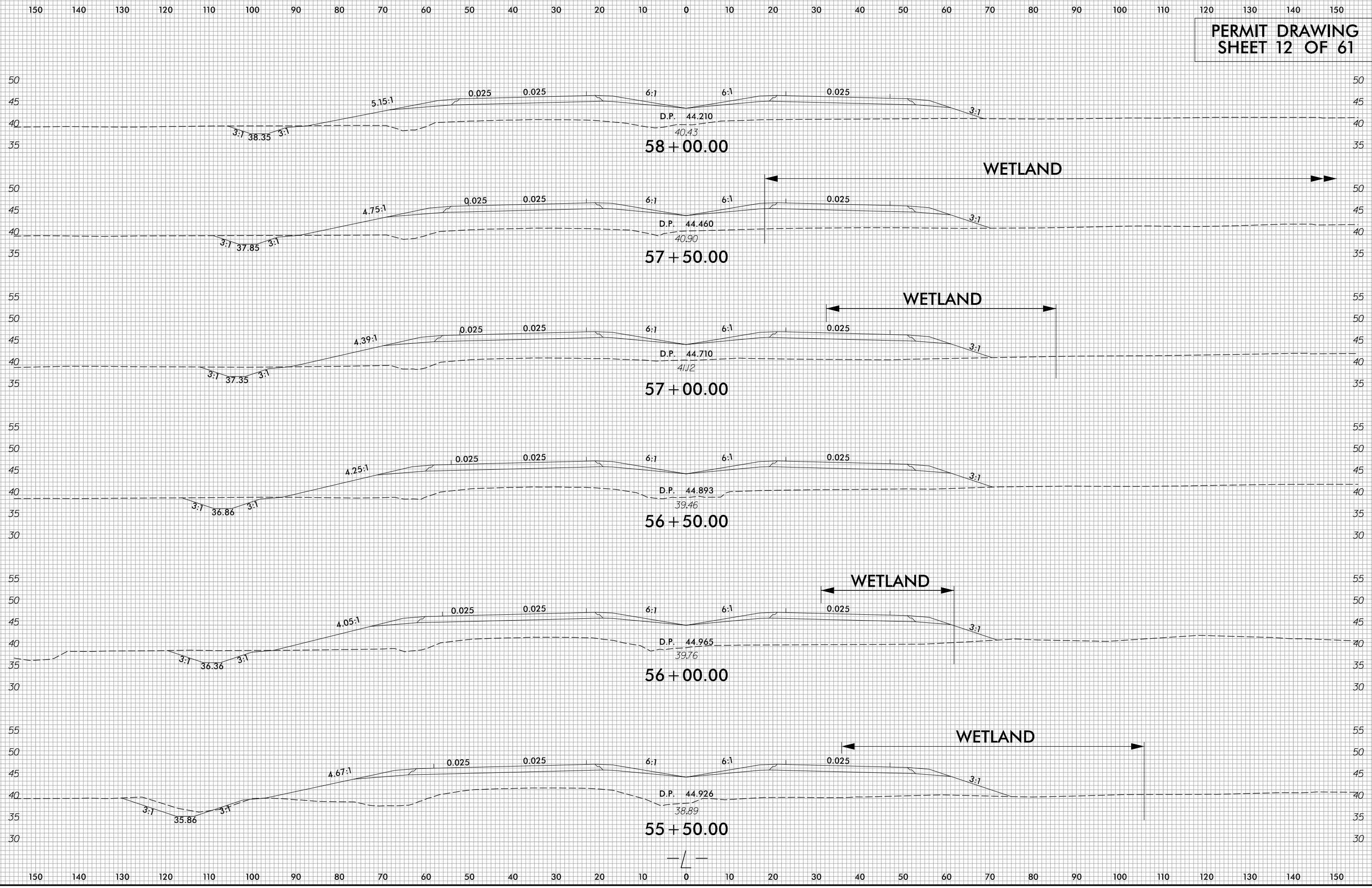
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6/23/16



PROJ. REFERENCE NO.	SHEET NO.
R-2511	X-17

**PERMIT DRAWING  
SHEET 12 OF 61**



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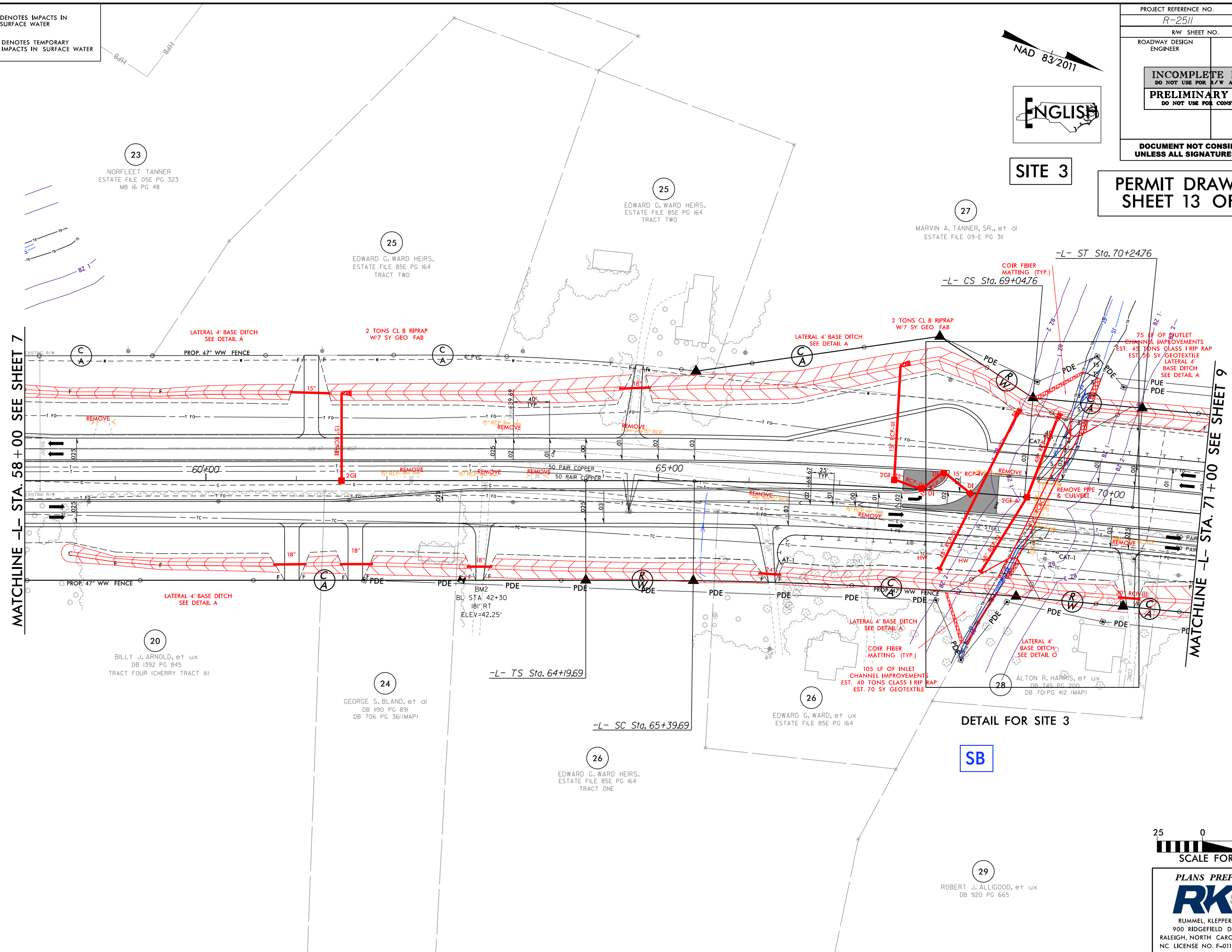
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DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 8
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SITE 3

PERMIT DRAWING  
SHEET 13 OF 61



SB



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8/17/2018

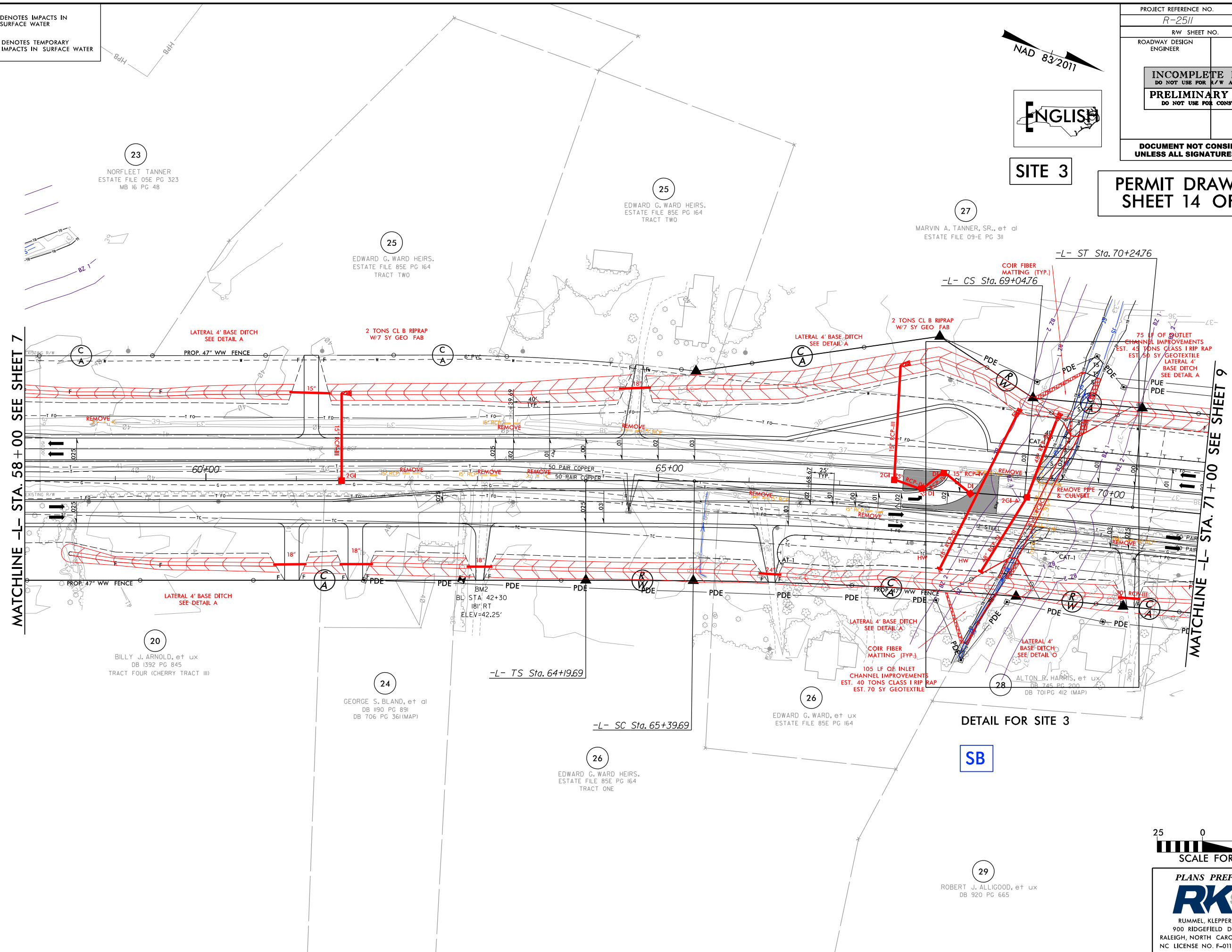
DENOTES IMPACTS IN SURFACE WATER  
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**SITE 3**

**PERMIT DRAWING**  
**SHEET 14 OF 61**





**SB**

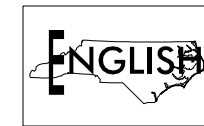


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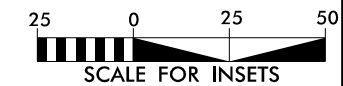
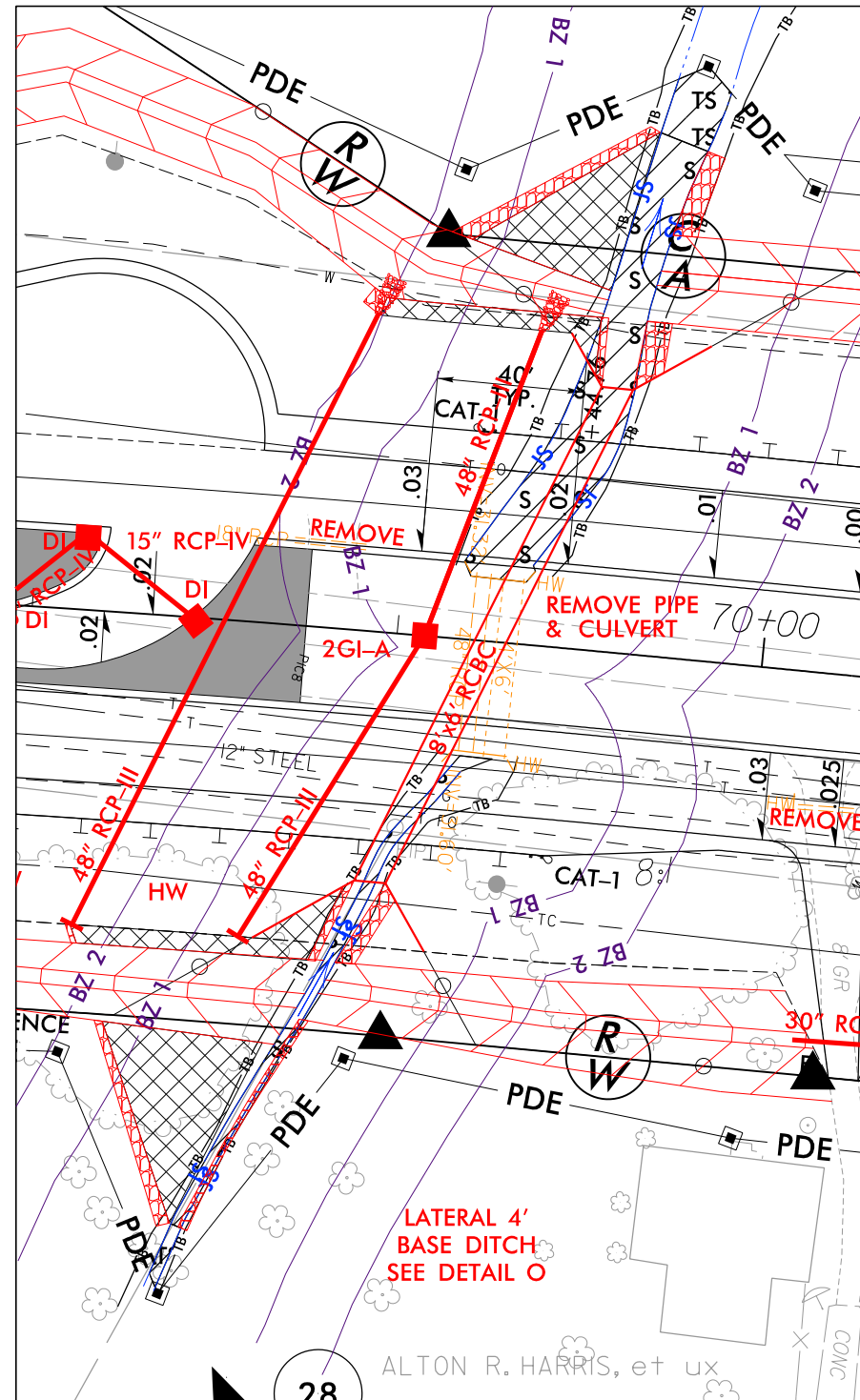
 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

# DETAIL FOR SITE 3



PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. <i>8</i>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 15 OF 61**



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PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

ENGLISH

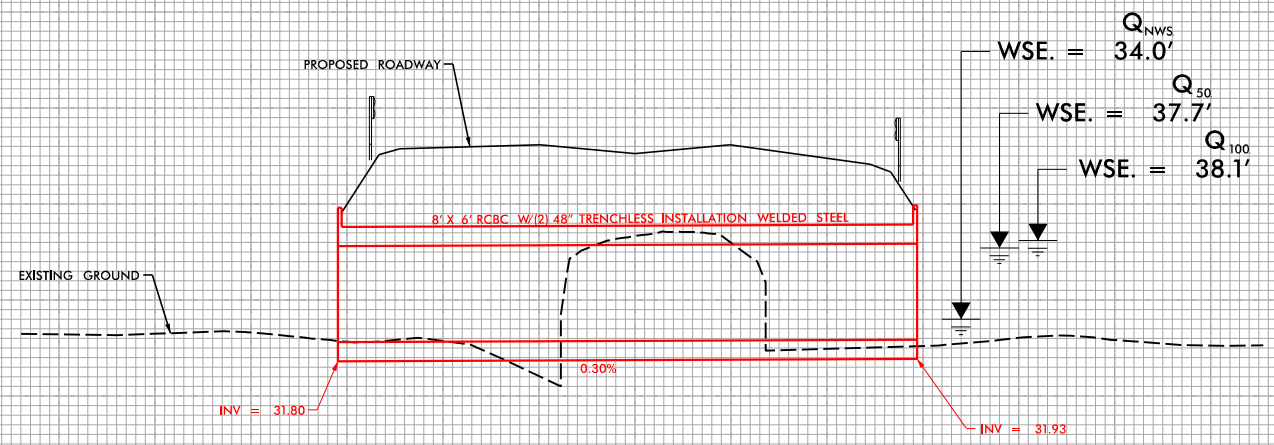
# SITE 3

## -L- STA. 69+25.5

PERMIT DRAWING  
SHEET 16 OF 61

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

**PROPOSED 8' X 6' RCBC (BURIED 1') W/  
(2)-48" TRENCHLESS INSTALLATION WELDED STEEL (NOT BURIED)  
(TOTAL LENGTH=190')**

250 200 150 100 50 0 50 100 150 200 250

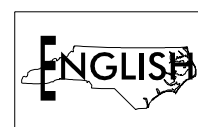
PLANS PREPARED BY :  
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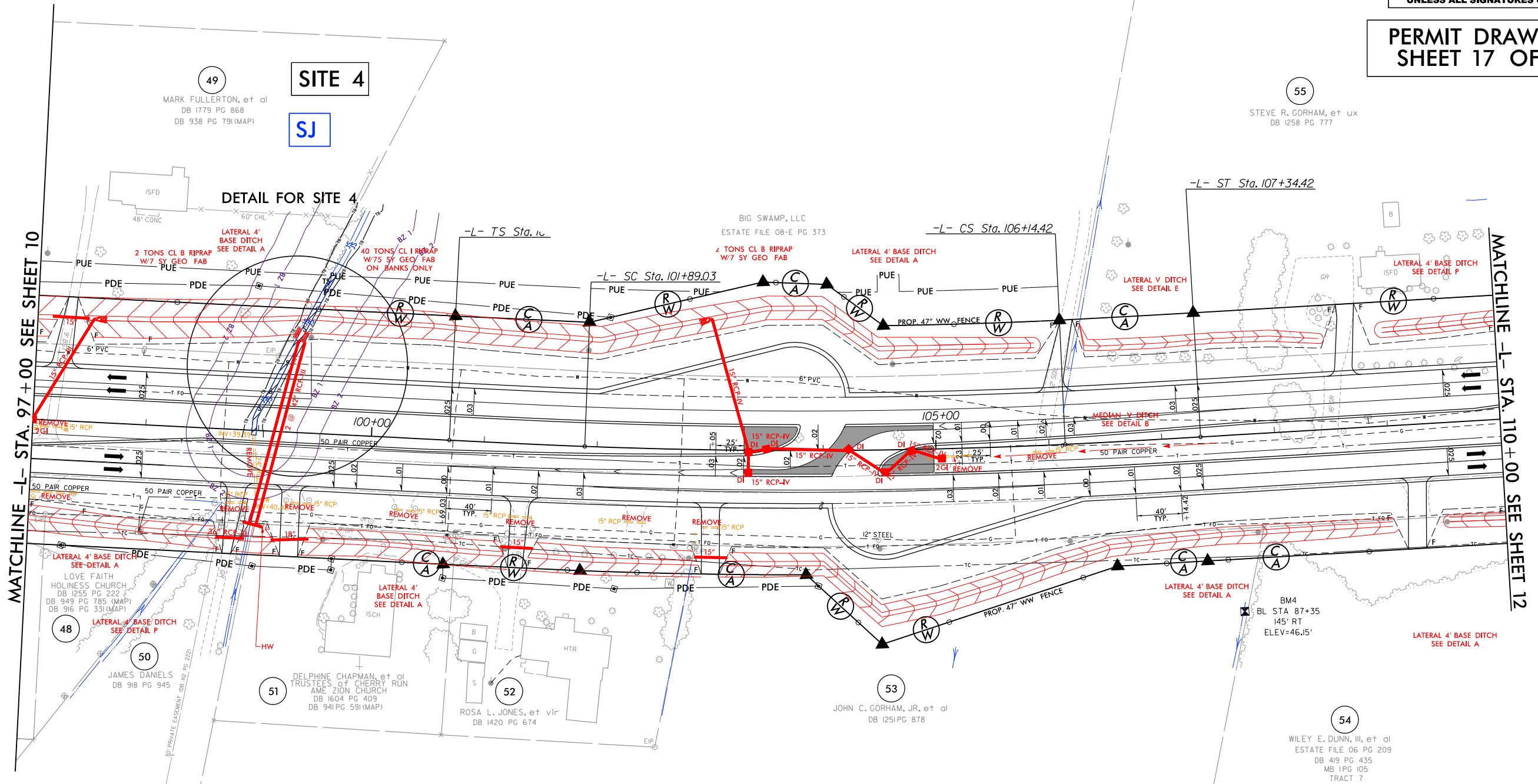
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 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

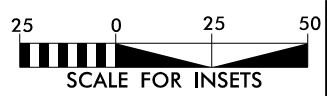



**PERMIT DRAWING**  
**SHEET 17 OF 61**



MATCHLINE -L- STA. 97+00 SEE SHEET 10

MATCHLINE -L- STA. 110+00 SEE SHEET 12



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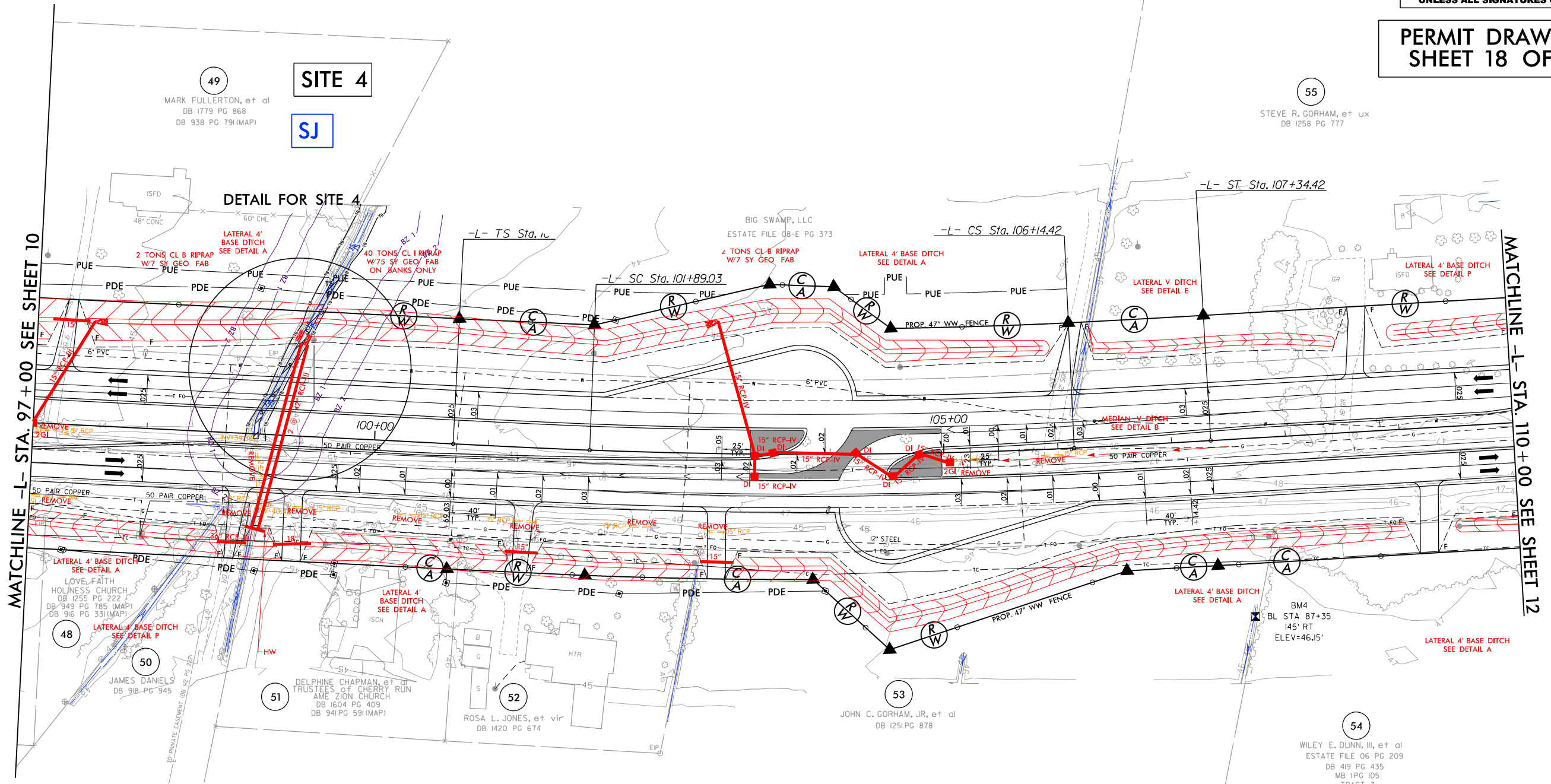
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8/17/2016

■ DENOTES IMPACTS IN SURFACE WATER  
■ DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 11
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
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# PERMIT DRAWING SHEET 18 OF 61





MATCHLINE -L- STA. 97+00 SEE SHEET 10

MATCHLINE -L- STA. 110+00 SEE SHEET 12



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 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

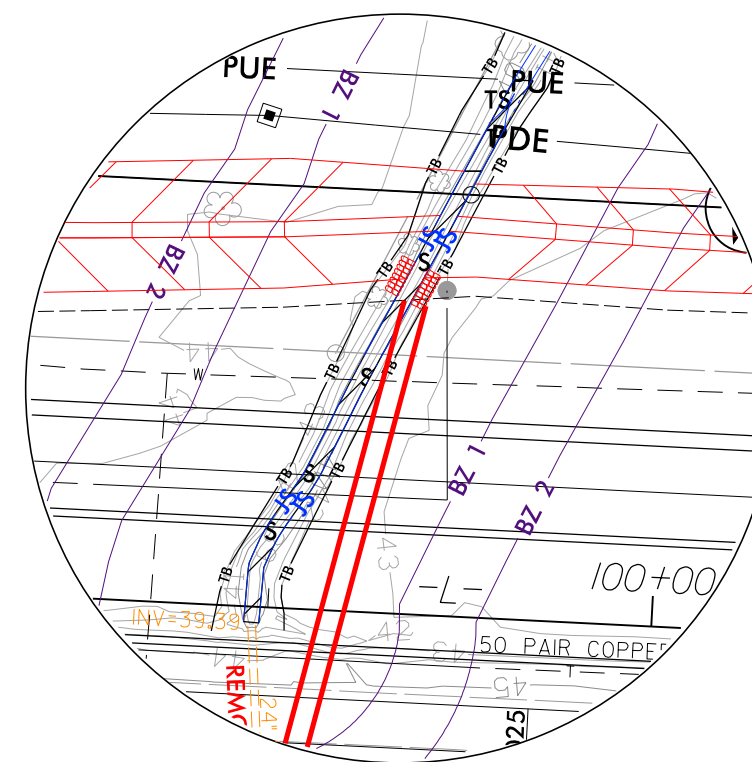
NAD 83/2011



PROJECT REFERENCE NO. R-2511	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

# DETAIL FOR SITE 4

PERMIT DRAWING  
SHEET 19 OF 61



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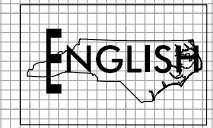
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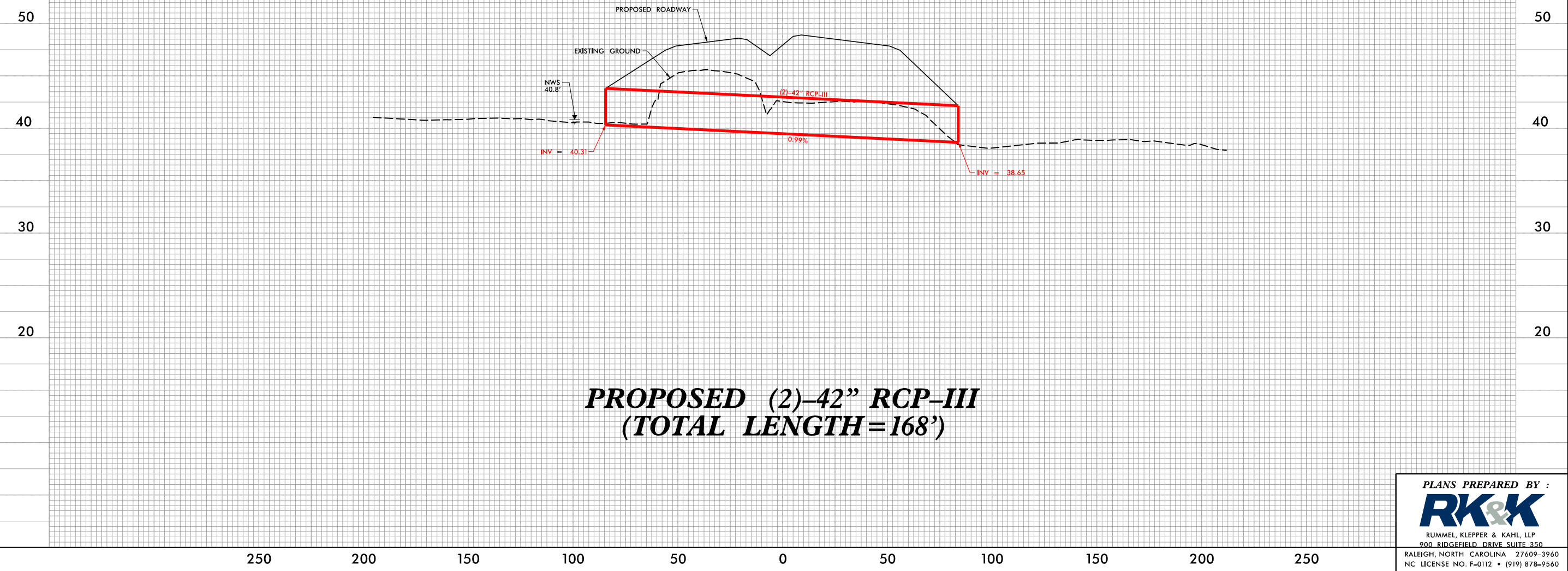
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 4

## -L- STA. 99+14





**PERMIT DRAWING**  
**SHEET 20 OF 61**



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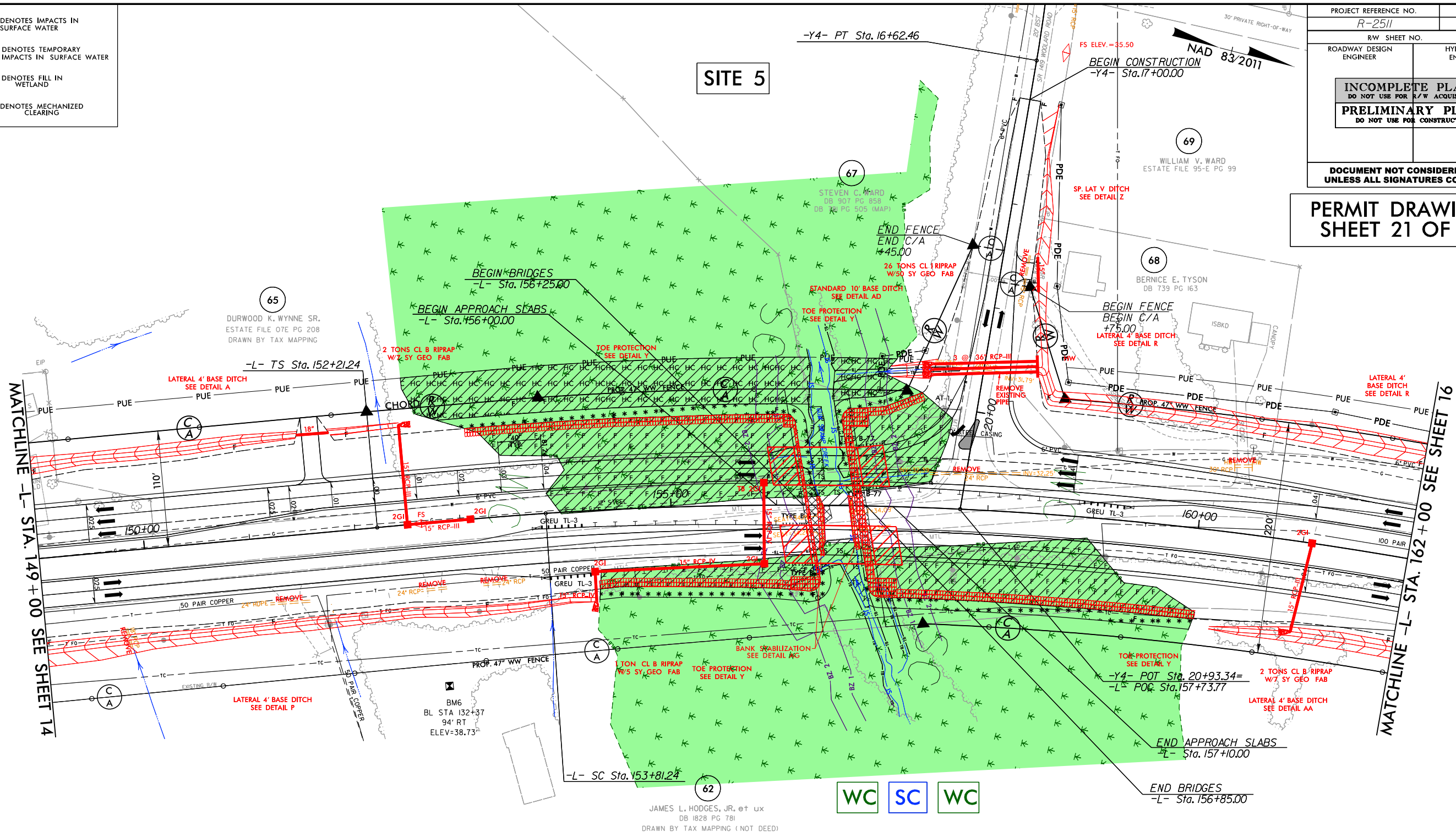
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-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. R-2511		SHEET NO. 15	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION			
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED			

## PERMIT DRAWING SHEET 21 OF 61







-L-		-Y4-	
PI Sta 153+27.91	PI Sta 158+92.32	PI Sta 15+62.34	
Os = 1° 20' 53.3"	Δ = 17° 05' 49.9" (RT)	Δ = 8° 56' 46.5" (RT)	
Ls = 160.00'	D = 1° 41' 06.6"	D = 4° 27' 31.7"	
LT = 106.67'	L = 1,014.57'	L = 200.64'	
ST = 53.34'	T = 511.08'	T = 100.53'	
	R = 3,400.00'	R = 1,285.00'	
	Se = 0.04	Se = 0.04	



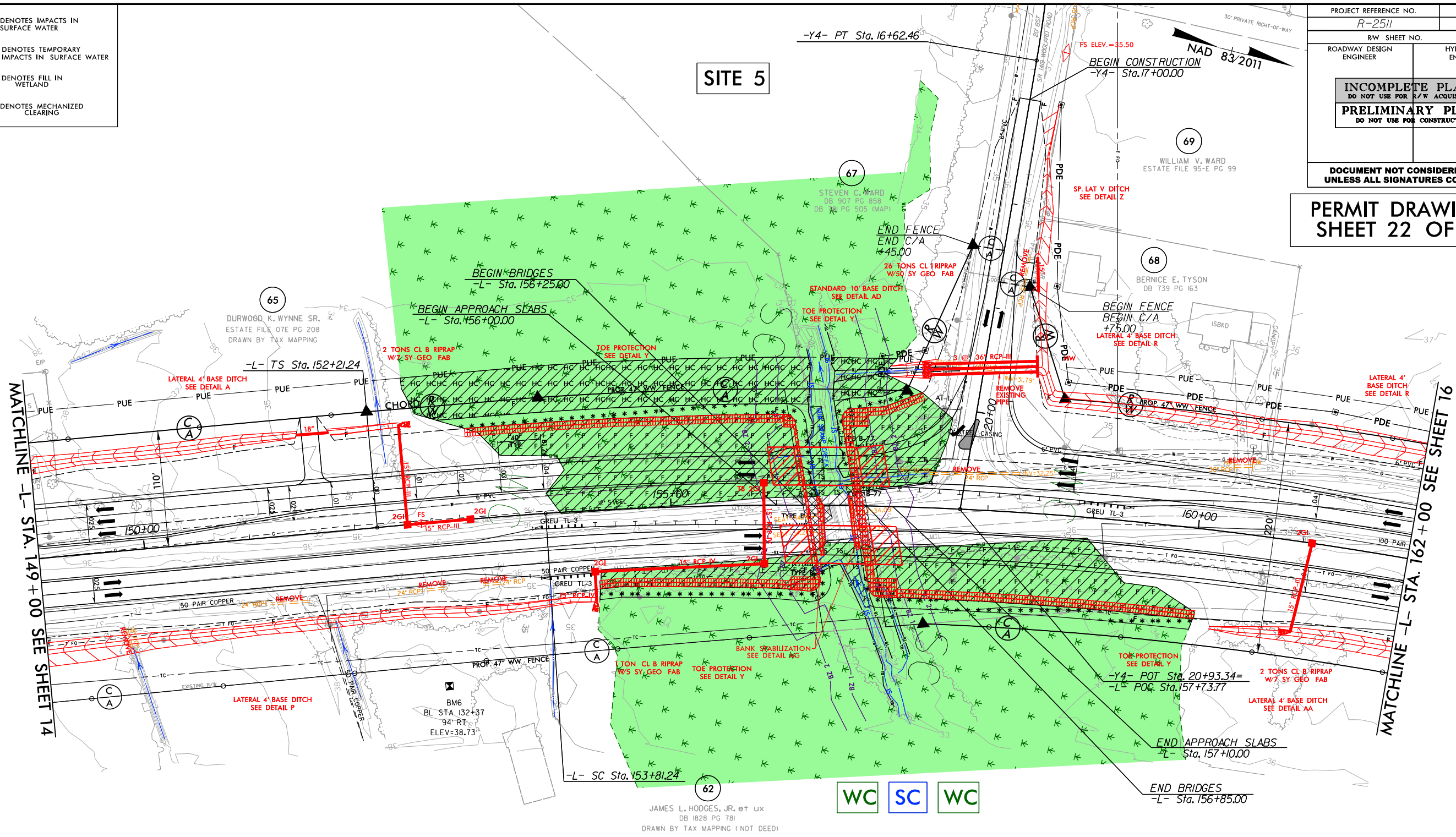
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-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. R-2511	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

## PERMIT DRAWING SHEET 22 OF 61



-L-		-Y4-	
PI Sta 153+27.91	PI Sta 158+92.32	PI Sta 15+62.34	
Os = 1' 20' 53.3"	Δ = 17' 05' 49.9" (RT)	Δ = 8' 56' 46.5" (RT)	
Ls = 160.00'	D = 1' 41' 06.6"	D = 4' 27' 31.7"	
LT = 106.67'	L = 1,014.57'	L = 200.64'	
ST = 53.34'	T = 511.08'	T = 100.53'	
	R = 3,400.00'	R = 1,285.00'	
	Se = 0.04	Se = 0.04	



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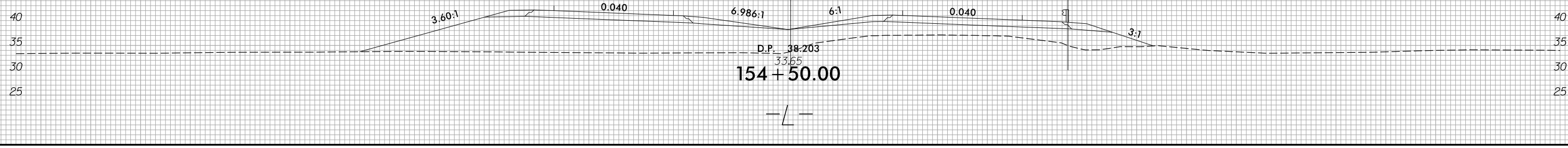
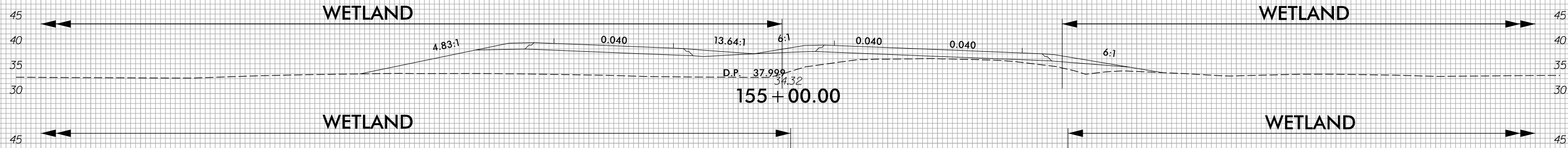
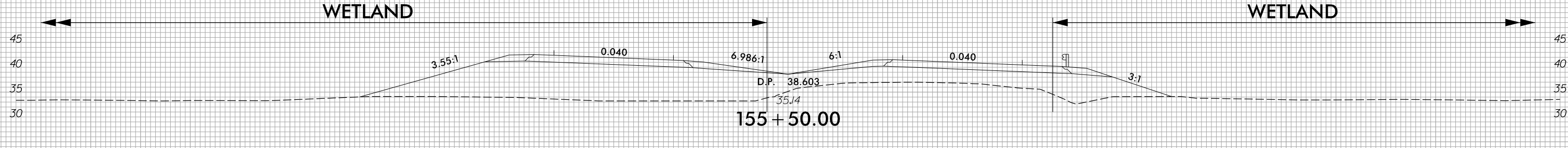
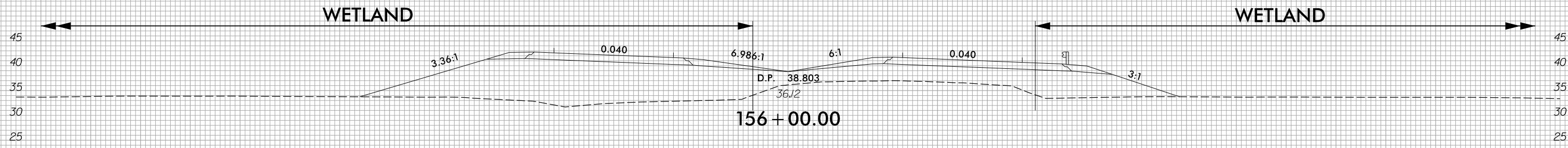
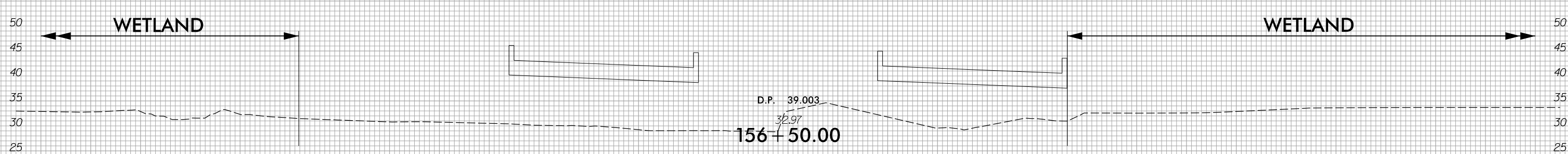
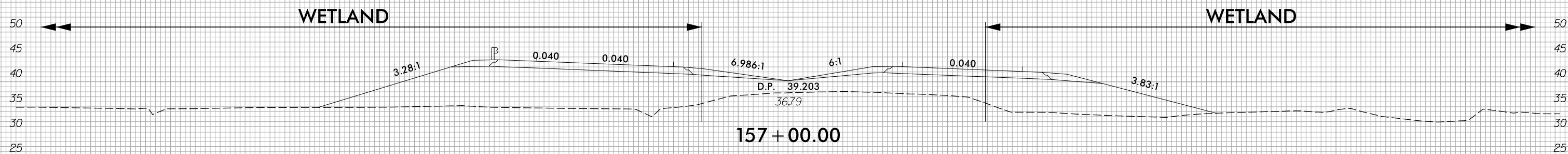


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R-2511

SHEET NO.  
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

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SHEET 24 OF 61**



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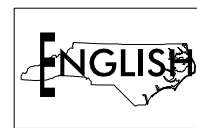


8/17/99

 DENOTES FILL IN WETLAND  
 DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. R-2511	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011

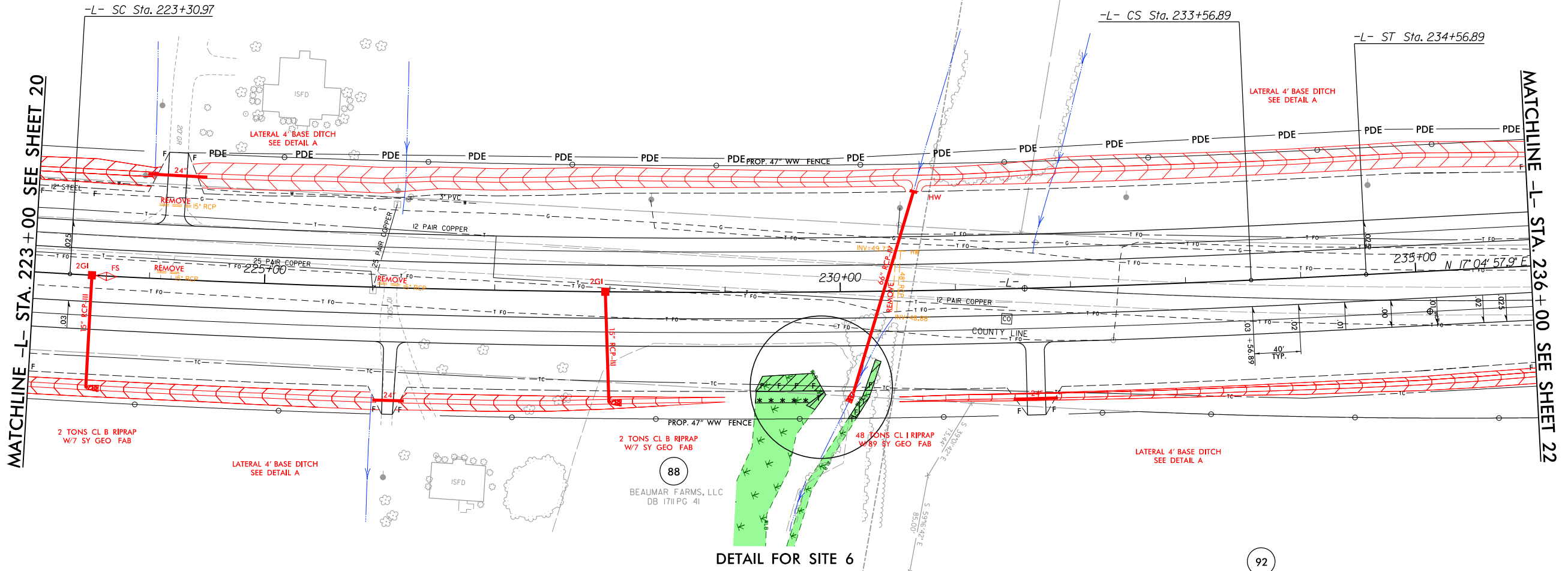
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**SHEET 25 OF 61**

90  
MILDRED W. LEE  
DB 1347 PG 25  
PARCEL 2

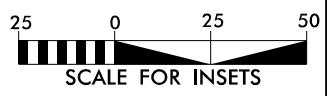
91  
KADER B. WARD, et al  
DB 0-21PG 173

88  
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92  
C.B. AYERS  
C/O DORA R. AYERS  
DB R-1PG 348



WD WD  
**SITE 6**





PLANS PREPARED BY :



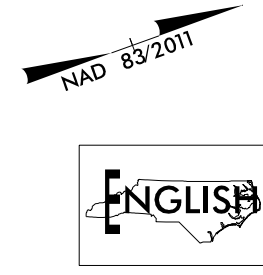
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 DENOTES FILL IN WETLAND  
 DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. R-2511	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



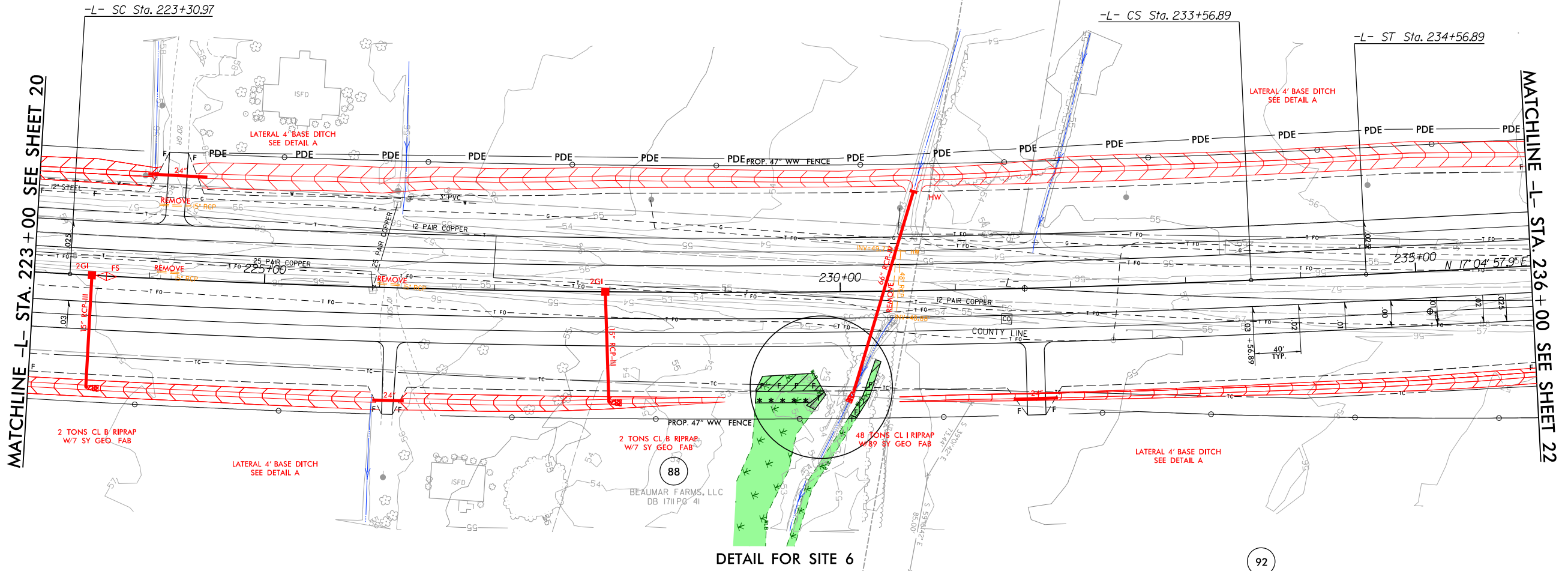
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**SHEET 26 OF 61**

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 DB 1347 PG 25  
 PARCEL 2

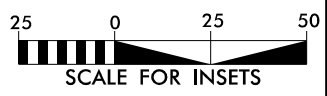
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 C/O DORA R. AYERS  
 DB R-1PG 348

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 BEAUMAR FARMS, LLC  
 DB 1711 PG 41





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**SITE 6**



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 DENOTES MECHANIZED CLEARING

NAD 83/2011

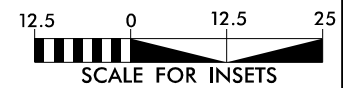
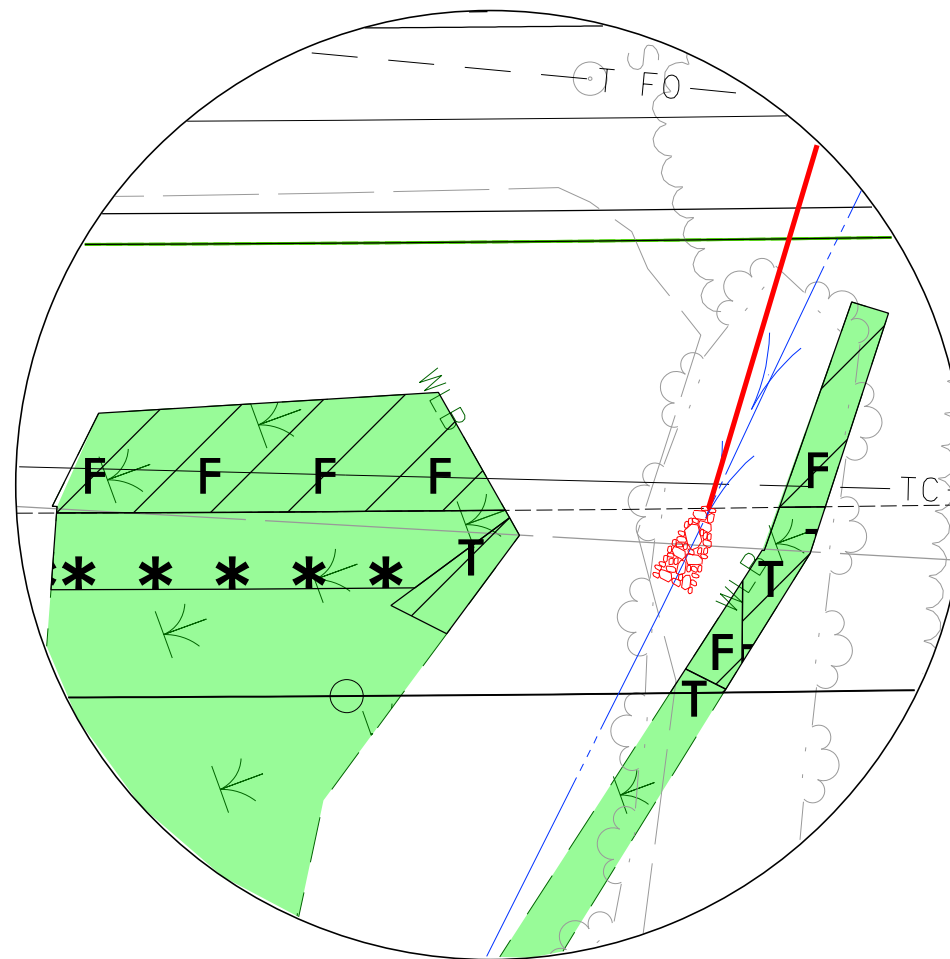


PROJECT REFERENCE NO. R-2511	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
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# DETAIL FOR SITE 6

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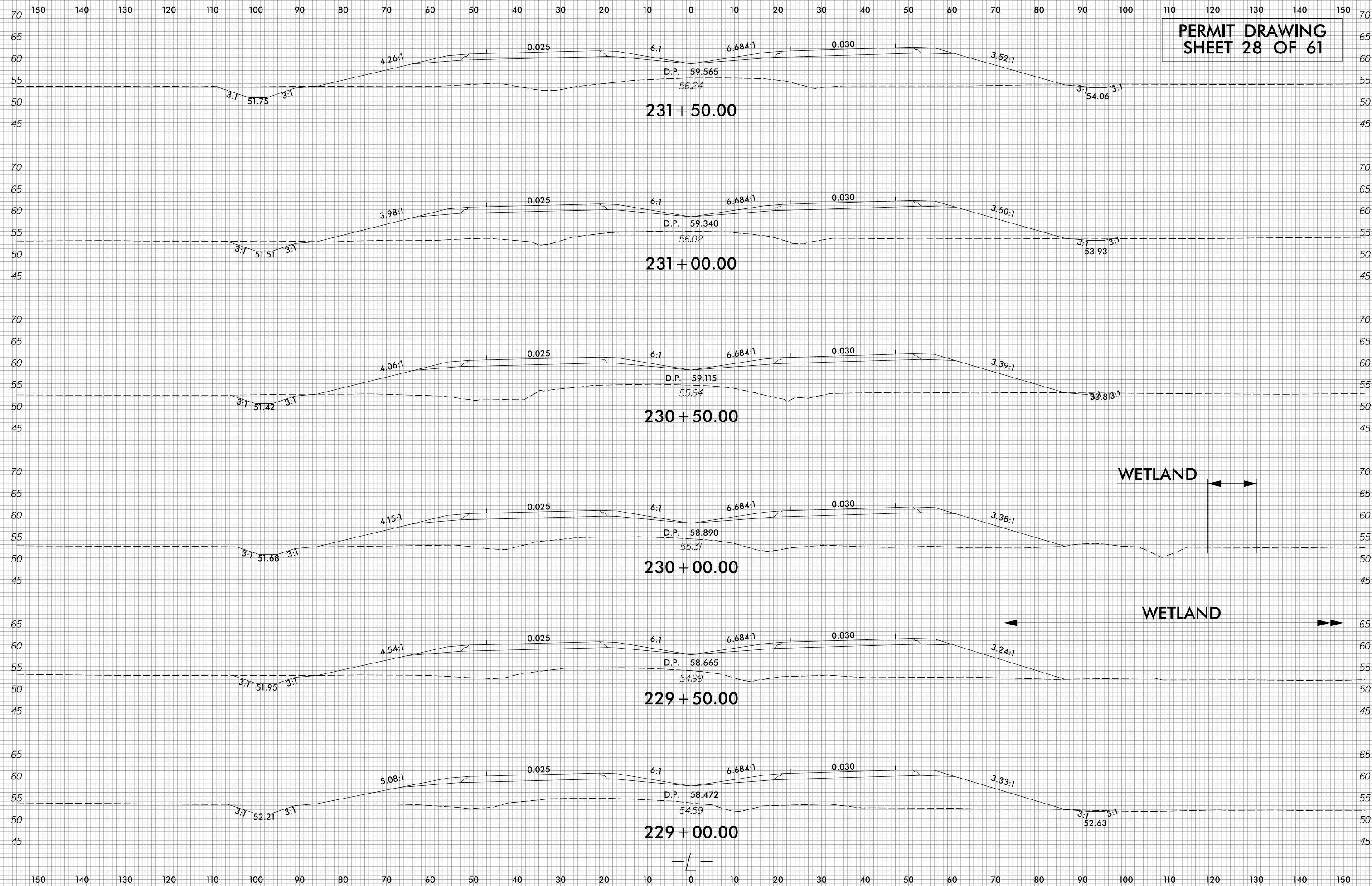
6/23/16



PROJ. REFERENCE NO.  
R-2511





SHEET NO.  
X-73

**PERMIT DRAWING  
SHEET 28 OF 61**



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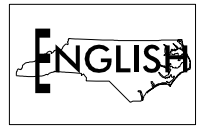
8/17/99

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

NAD 83/2011

PROJECT REFERENCE NO. R-2511	SHEET NO. 25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 29 OF 61**



MATCHLINE -L- STA. 275+00 SEE SHEET 24

MATCHLINE -L- STA. 288+00 SEE SHEET 26

**DETAIL FOR SITE 7**







PLANS PREPARED BY :

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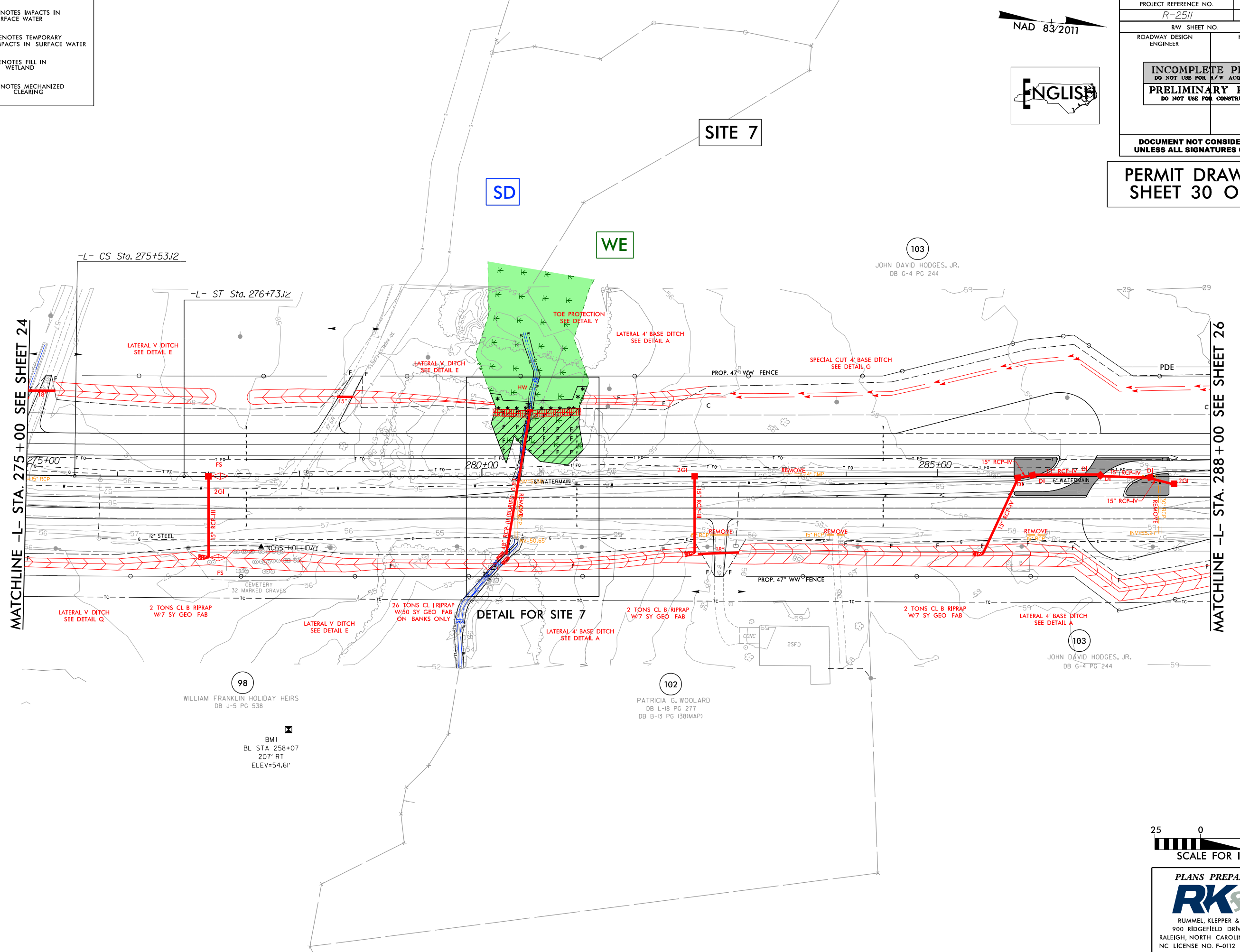
8/17/99

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

NAD 83/2011

PROJECT REFERENCE NO. R-2511	SHEET NO. 25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 30 OF 61**



MATCHLINE -L- STA. 275+00 SEE SHEET 24

MATCHLINE -L- STA. 288+00 SEE SHEET 26

**DETAIL FOR SITE 7**

98

WILLIAM FRANKLIN HOLIDAY HEIRS  
DB J-5 PG 538

BMI  
BL STA 258+07  
207' RT  
ELEV=54.61'

102

PATRICIA G. WOOLARD  
DB L-18 PG 277  
DB B-13 PG 138(MAP)

103

JOHN DAVID HODGES, JR.  
DB G-4 PG 244







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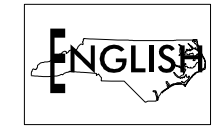
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8/17/99

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

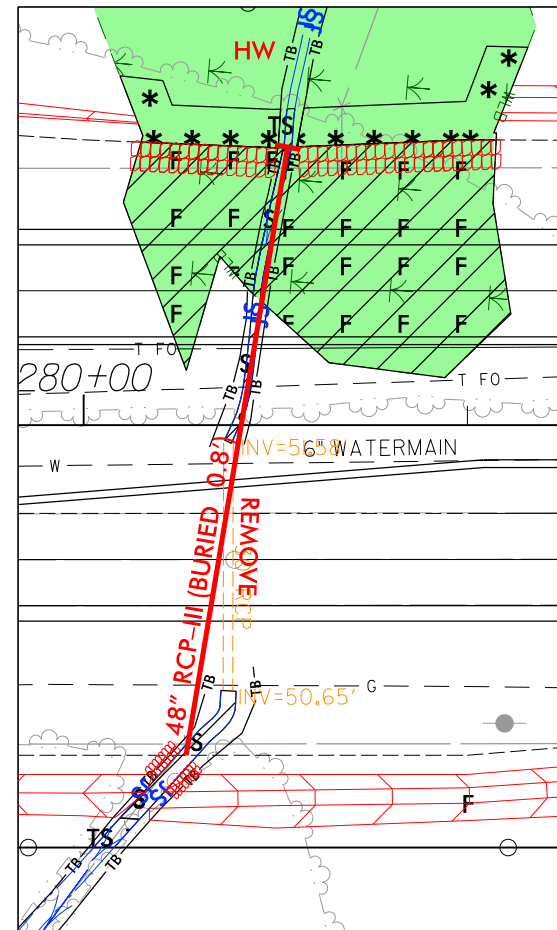
NAD 83/2011

PROJECT REFERENCE NO. R-2511	SHEET NO. 25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	



# DETAIL FOR SITE 7

PERMIT DRAWING  
SHEET 31 OF 61



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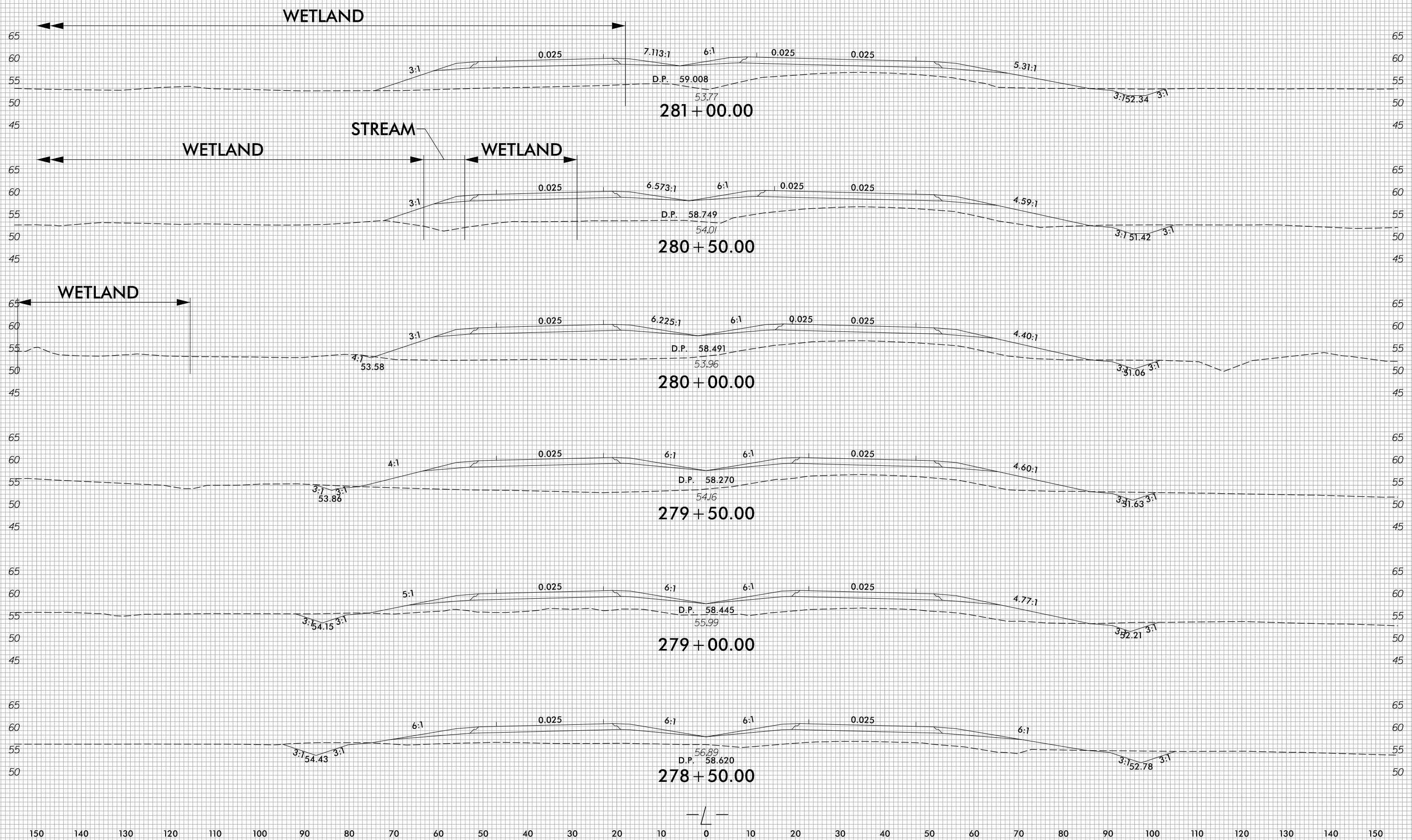
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PROJ. REFERENCE NO. R-2511 SHEET NO. X-89

# PERMIT DRAWING SHEET 32 OF 61






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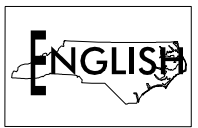
8/17/99

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

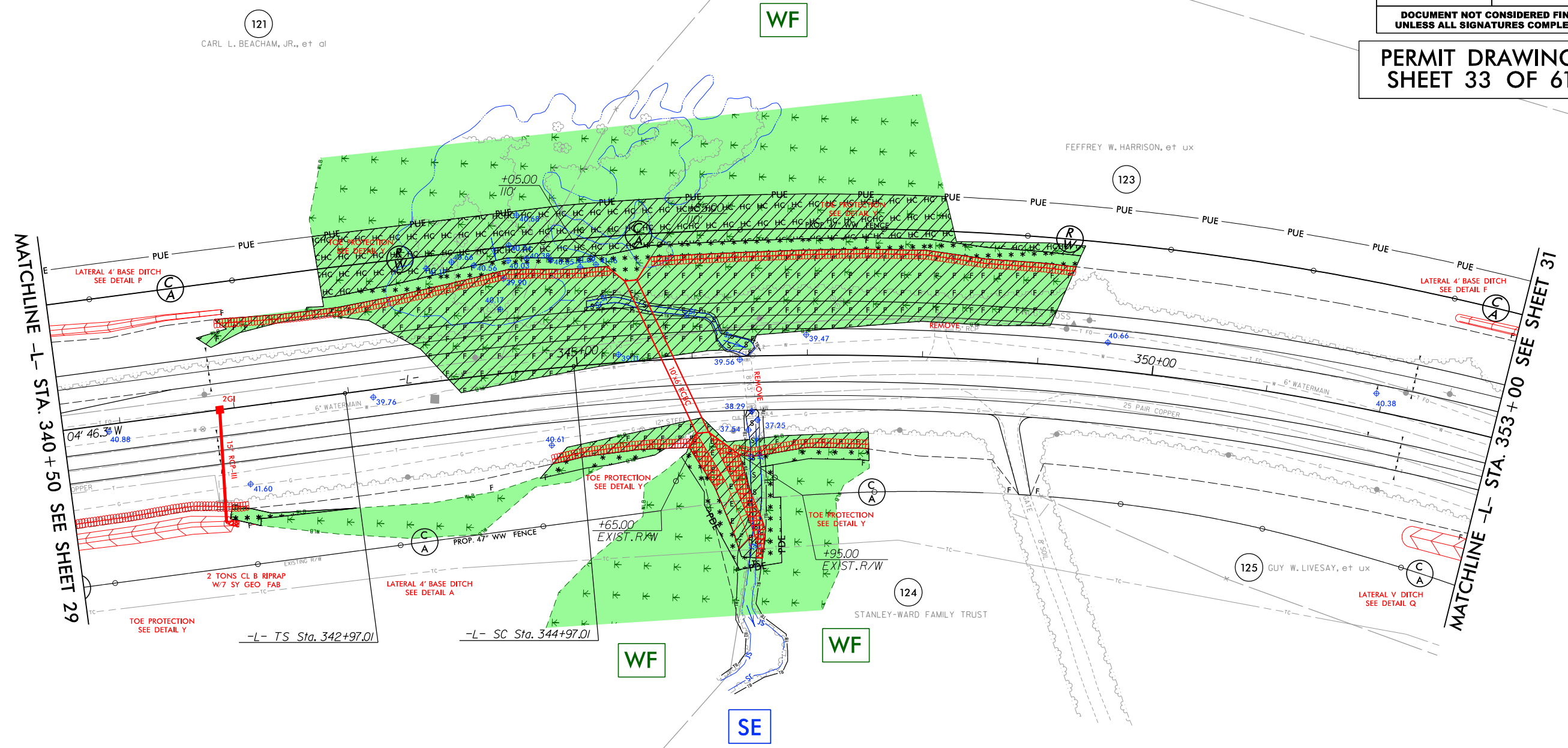
NAD 83/2011

PROJECT REFERENCE NO. R-2511	SHEET NO. 30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

SITE 8



PERMIT DRAWING  
SHEET 33 OF 61



MATCHLINE -L- STA. 340+50 SEE SHEET 29

MATCHLINE -L- STA. 353+00 SEE SHEET 31



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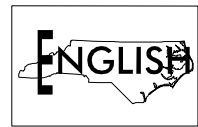
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8/17/99  
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8/17/2016

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

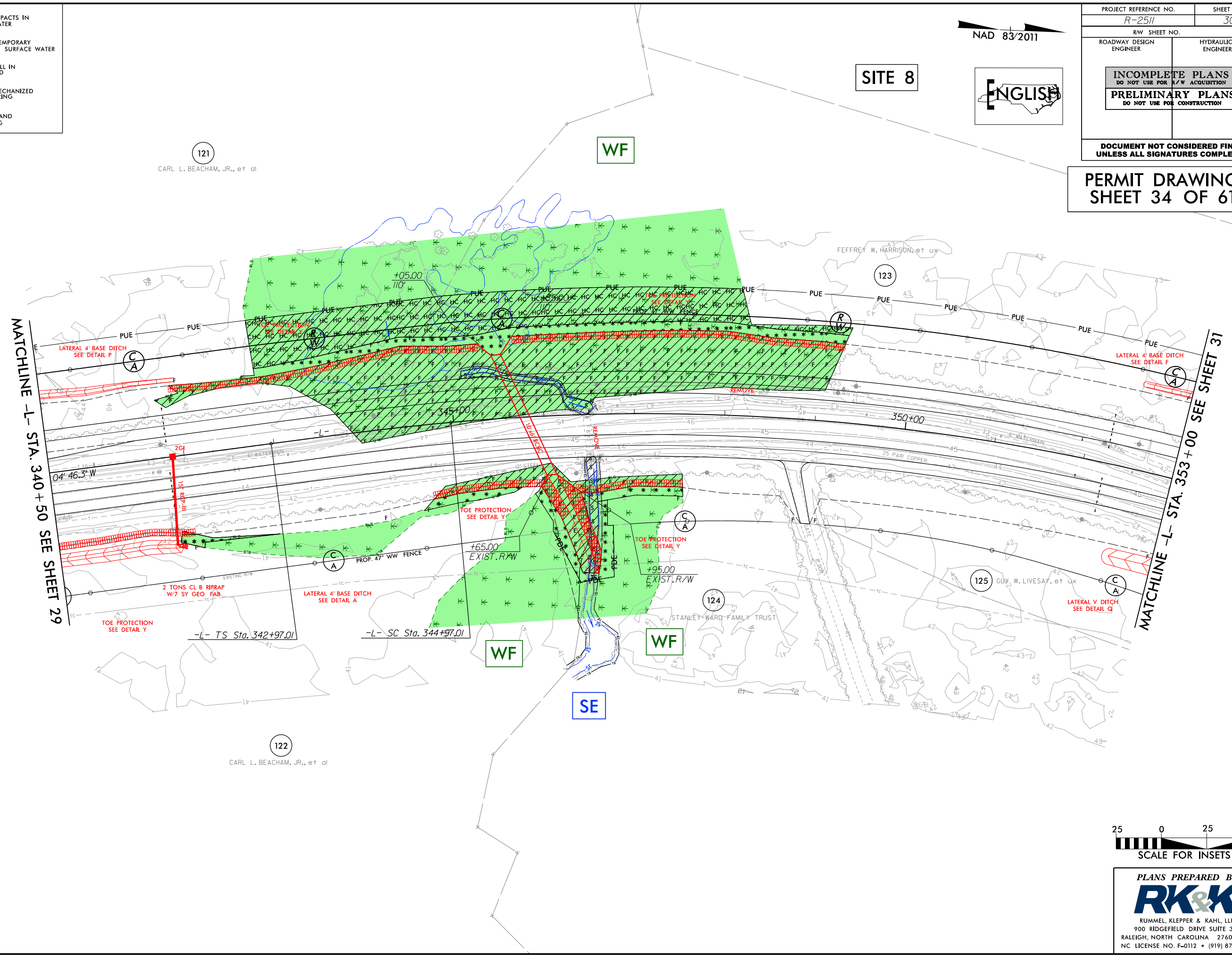
NAD 83/2011

SITE 8



PROJECT REFERENCE NO. R-2511	SHEET NO. 30
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

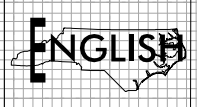
PERMIT DRAWING  
SHEET 34 OF 61



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5/14/99

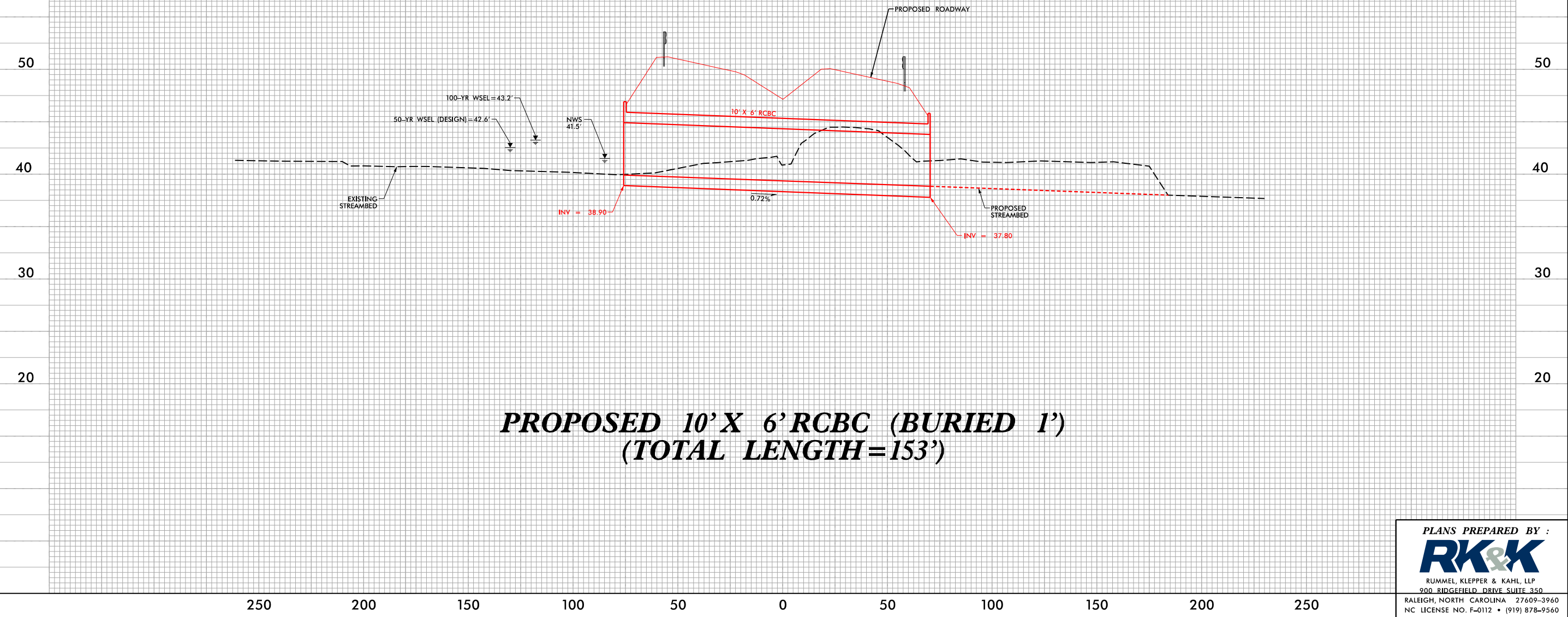
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 8

## -L- STA. 345 + 79.0

PERMIT DRAWING  
SHEET 35 OF 61



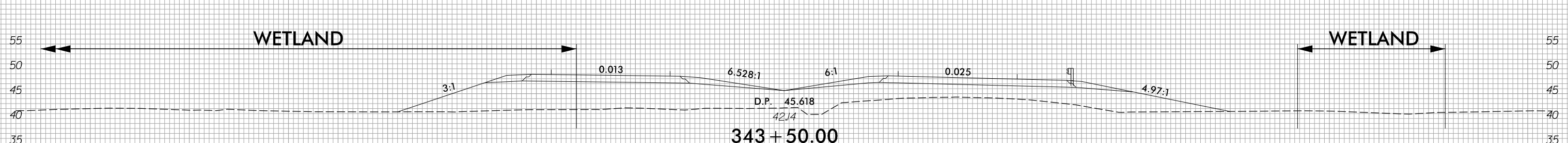
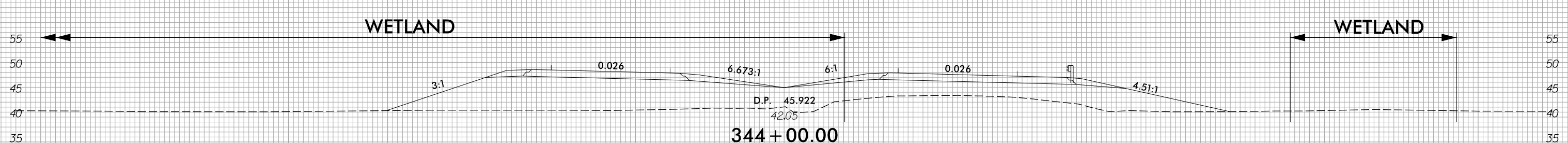
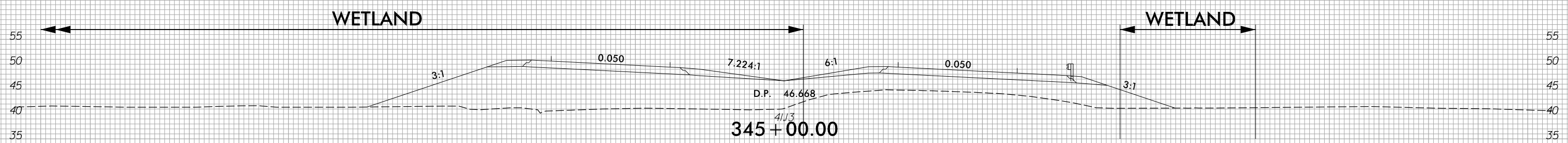
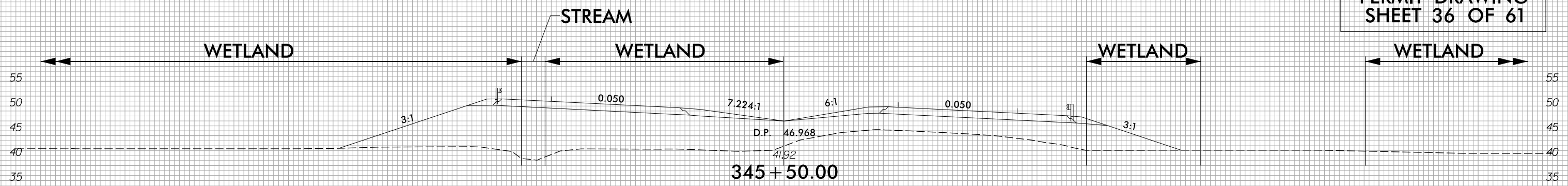
**PROPOSED 10' X 6' RCBC (BURIED 1')**  
**(TOTAL LENGTH = 153')**

**PLANS PREPARED BY :**  
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PERMIT DRAWING  
SHEET 36 OF 61



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8/17/09  
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8/17/2016

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

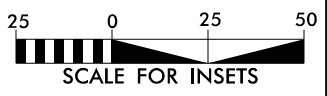
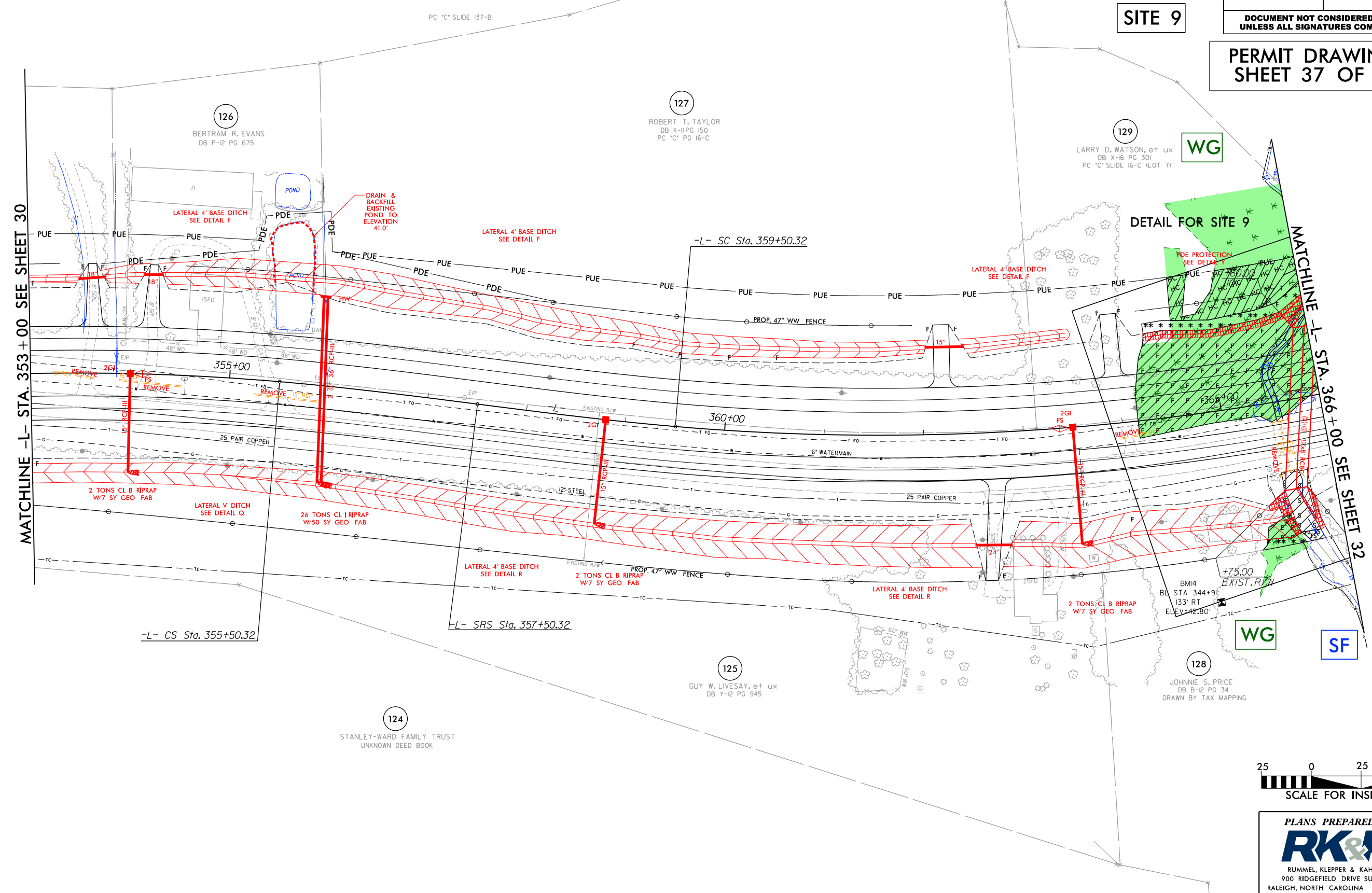
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011

ENGLISH

SITE 9





PERMIT DRAWING  
SHEET 37 OF 61



PLANS PREPARED BY :

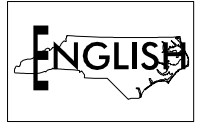
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
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8/17/99

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

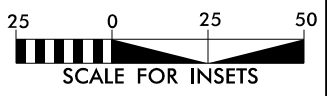
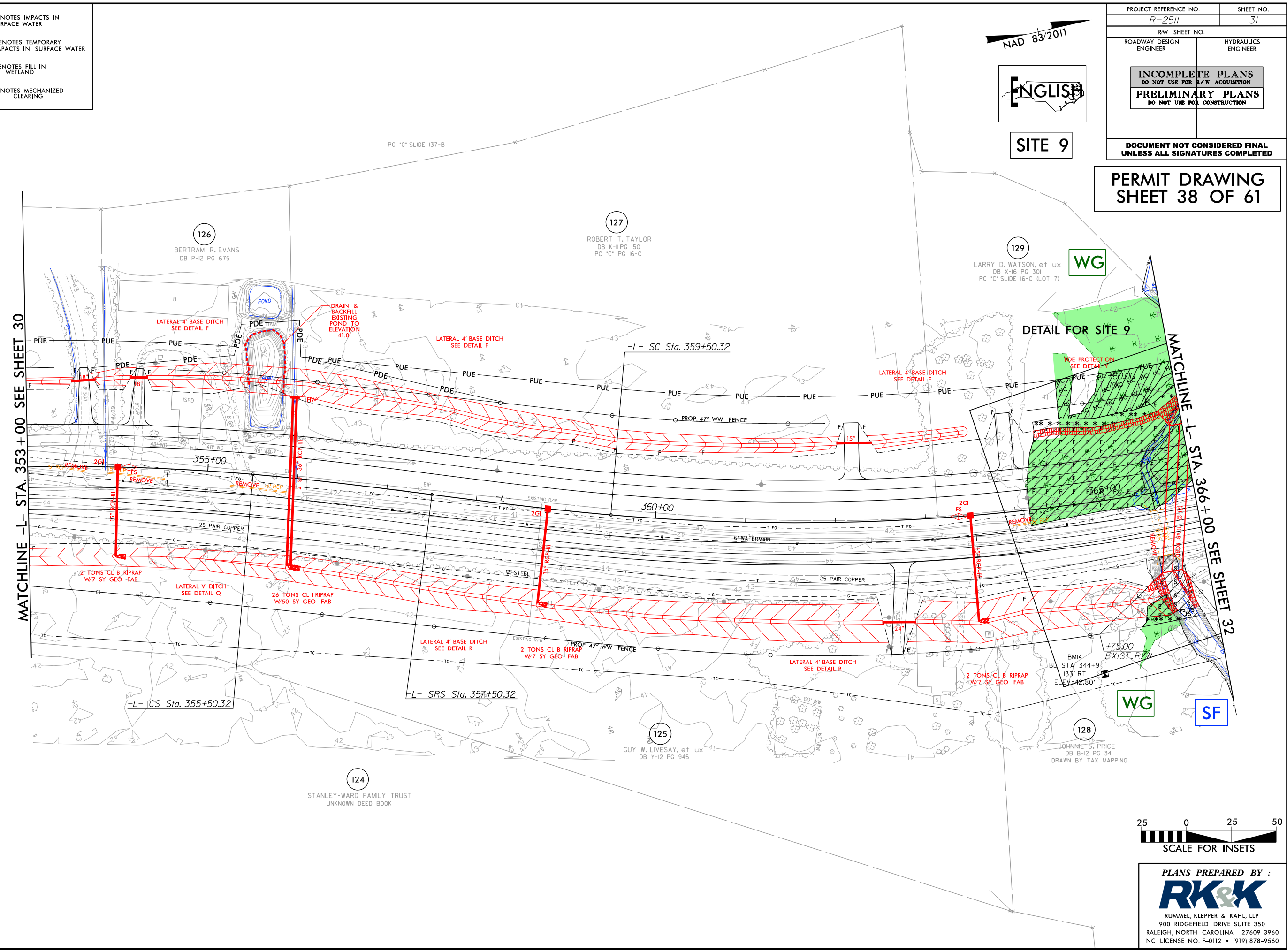
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011



SITE 9

PERMIT DRAWING  
SHEET 38 OF 61



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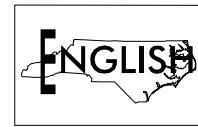
RUMMEL, KLEPPER & KAHL, LLP  
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 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

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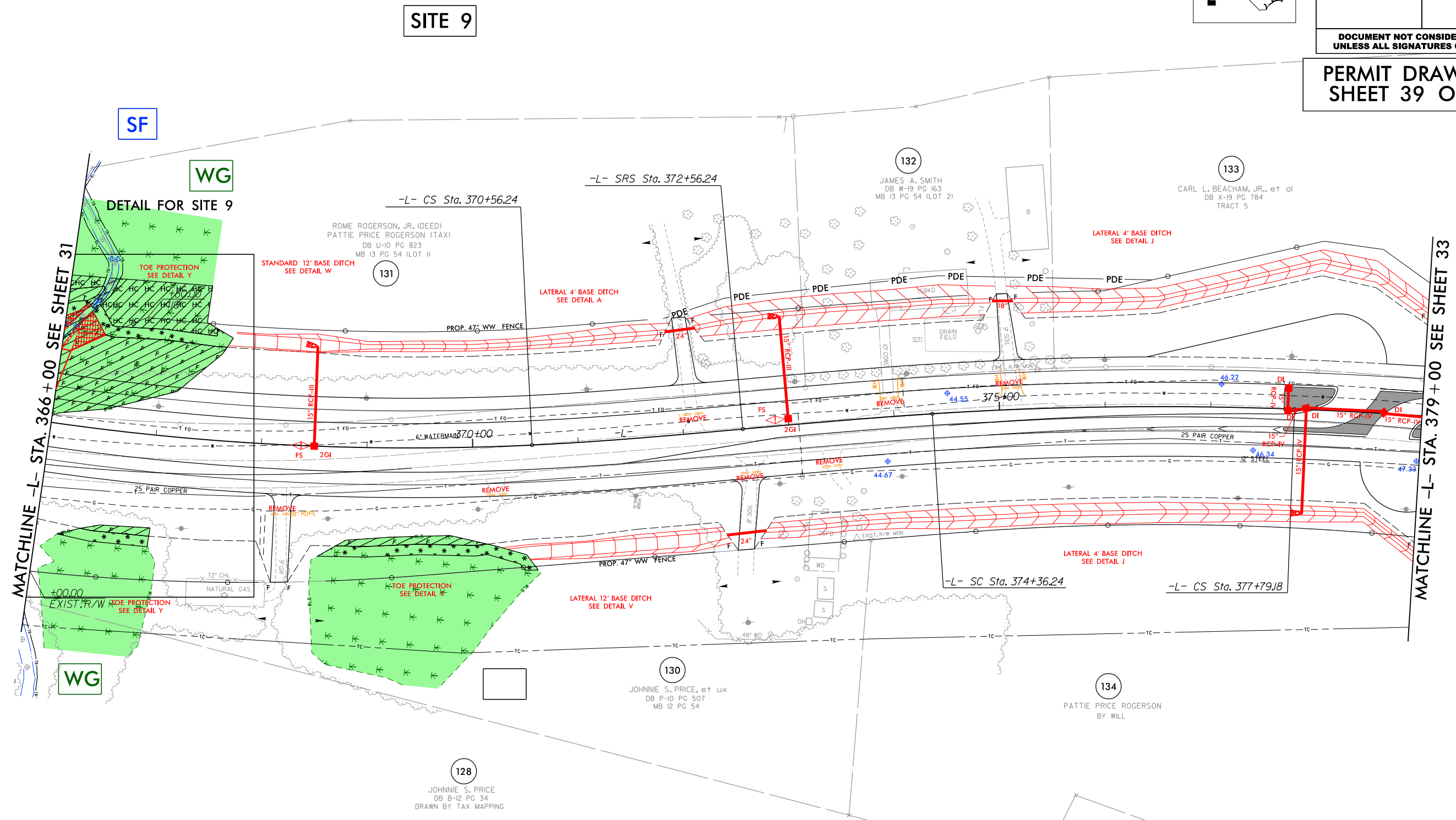
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING

NAD 83/2011



PROJECT REFERENCE NO. R-2511	SHEET NO. 32
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

# PERMIT DRAWING SHEET 39 OF 61



SCALE FOR INSETS

PEELE COTTAGE, LLC  
DB D-23 PG 21  
TRACK 2  
PC C SLIDE 37-A  
TRACK 1

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	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

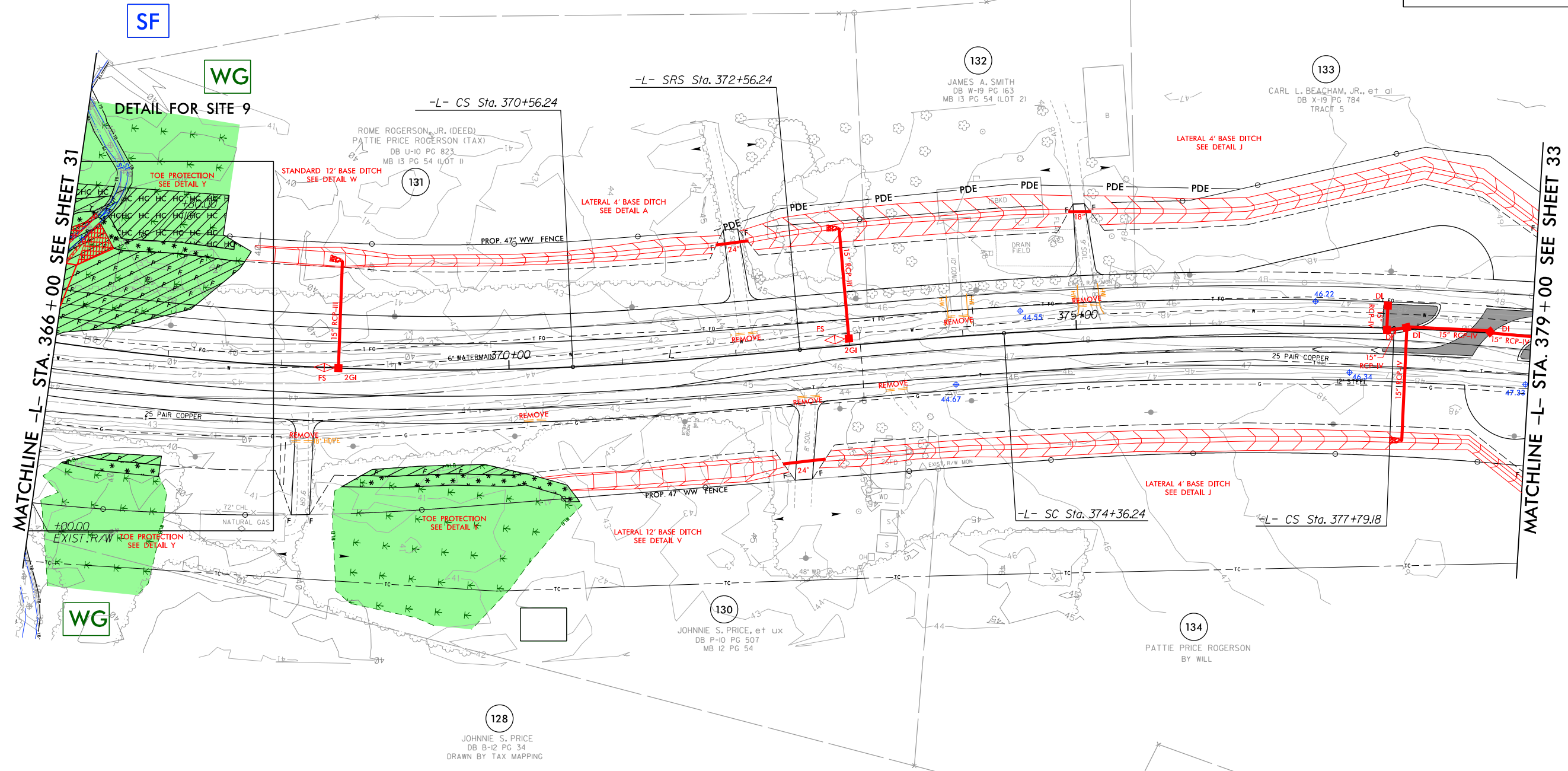
**SITE 9**

NAD 83/2011



PROJECT REFERENCE NO. R-2511	SHEET NO. 32
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 40 OF 61**



MATCHLINE -L- STA. 366 + 00 SEE SHEET 31

MATCHLINE -L- STA. 379 + 00 SEE SHEET 33



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PEELE COTTAGE, LLC  
 DB D-23 PG 21  
 TRACK 2  
 PC C SLIDE 37-A  
 TRACK 1

128  
 JOHNNIE S. PRICE  
 DB B-12 PG 34  
 DRAWN BY TAX MAPPING

130  
 JOHNNIE S. PRICE, et ux  
 DB P-10 PG 507  
 MB 12 PG 54






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 PATTIE PRICE ROGERSON  
 BY WILL

132  
 JAMES A. SMITH  
 DB W-19 PG 163  
 MB 13 PG 54 (LOT 2)

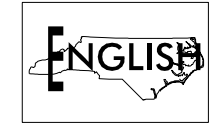
133  
 CARL L. BEACHAM, JR., et al  
 DB X-19 PG 784  
 TRACT 5



8/17/99

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES FILL IN WETLAND
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES MECHANIZED CLEARING

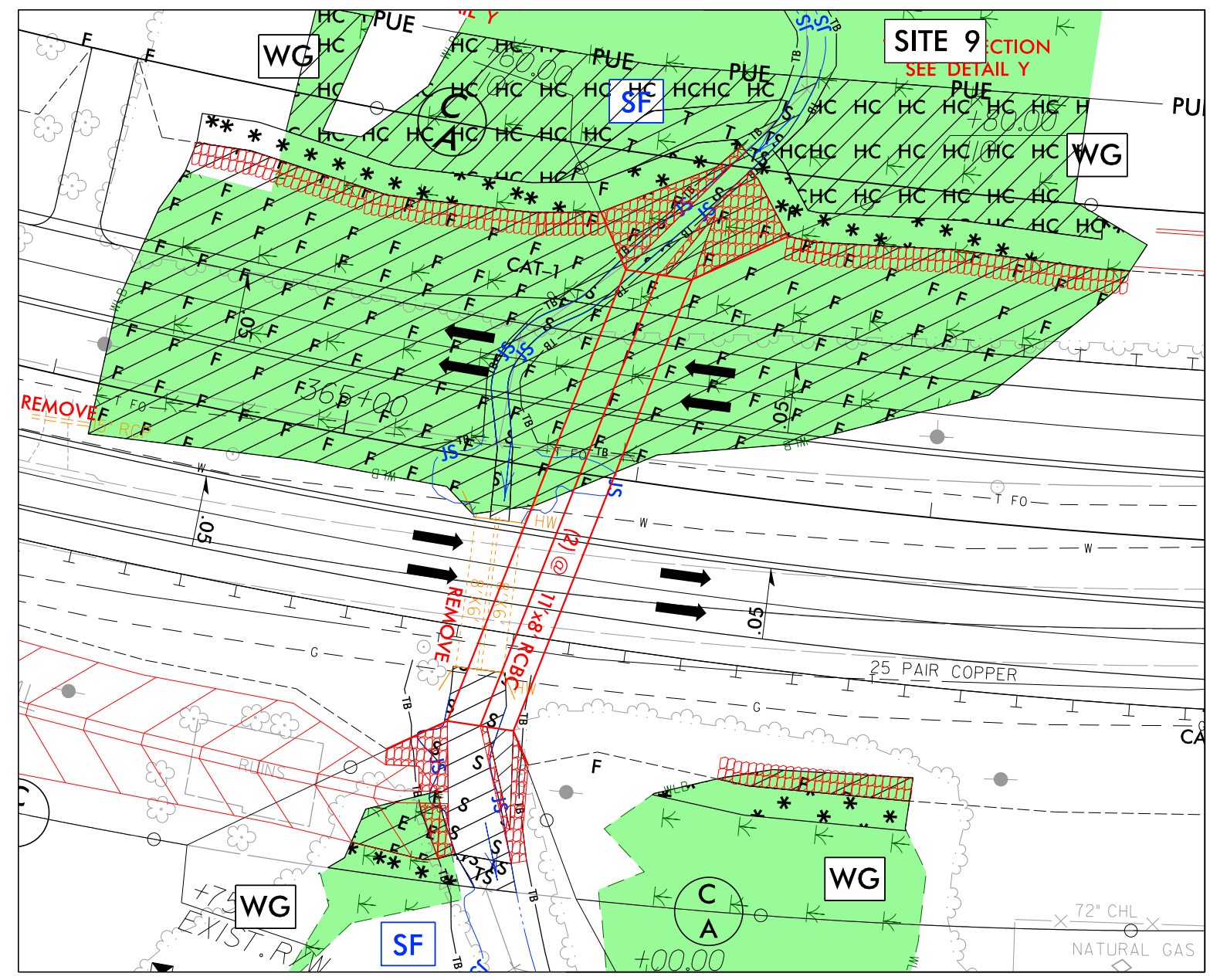
NAD 83/2011



PROJECT REFERENCE NO. R-2511	SHEET NO. 31A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

# DETAIL FOR SITE 9

## PERMIT DRAWING SHEET 41 OF 61



PLANS PREPARED BY :

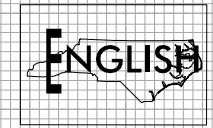
**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

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5/14/99

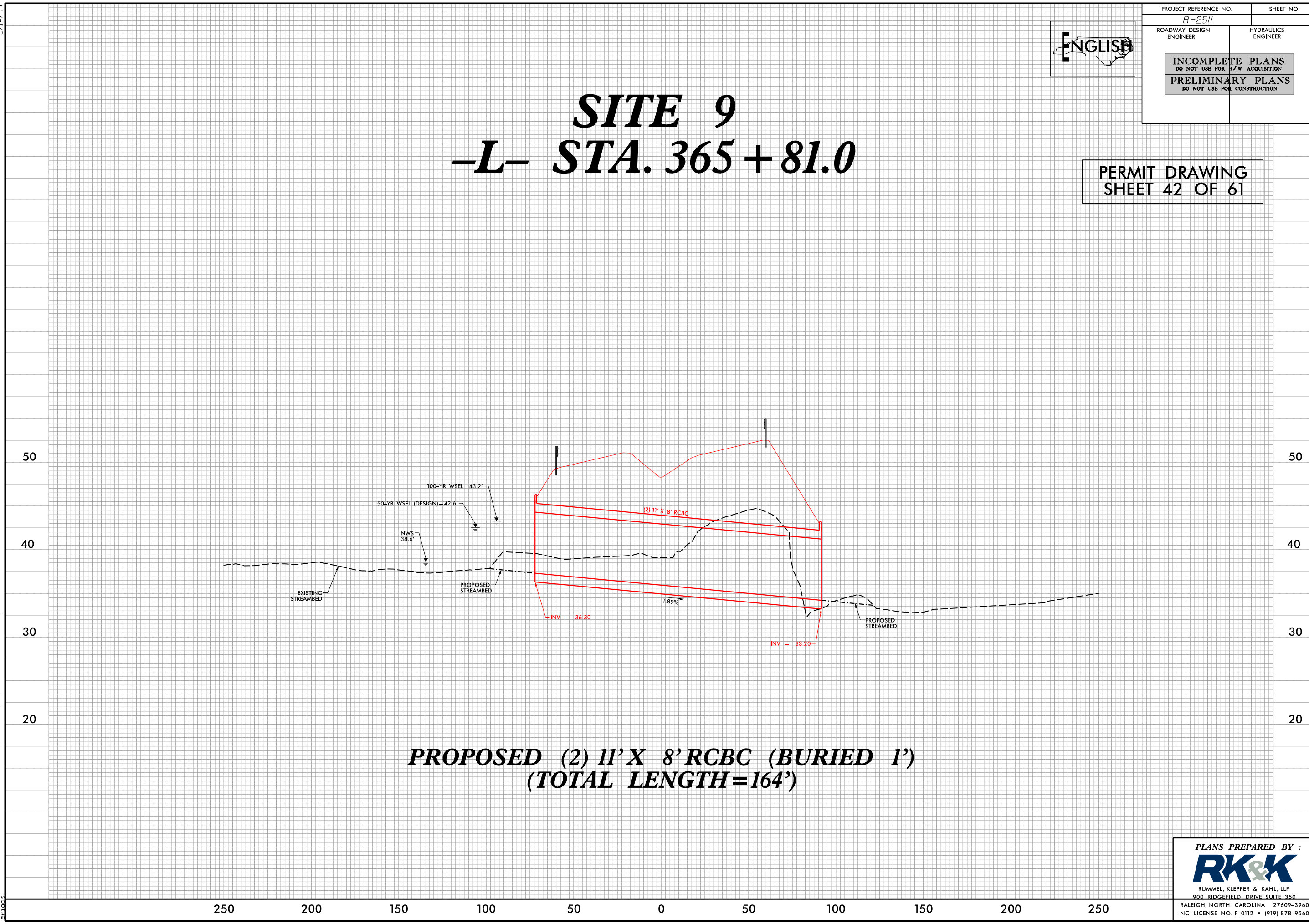
PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 9

## -L- STA. 365 + 81.0

PERMIT DRAWING  
SHEET 42 OF 61



**PROPOSED (2) 11' X 8' RCBC (BURIED 1')**  
**(TOTAL LENGTH = 164')**

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**PLANS PREPARED BY :**  
**RK&K**  
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 NC LICENSE NO. F-0112 • (919) 878-9560

6/23/16

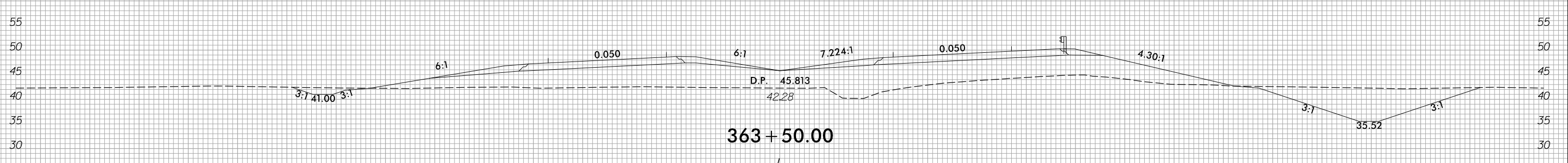
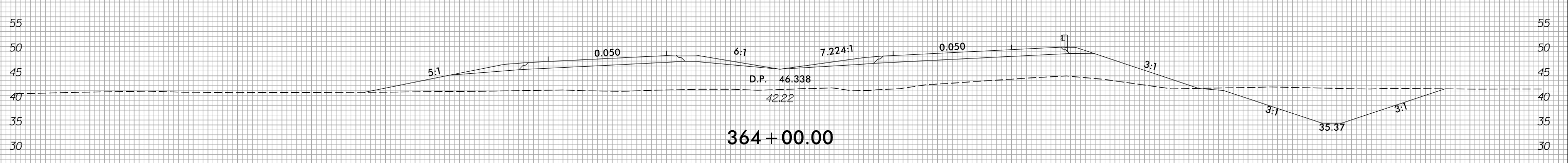
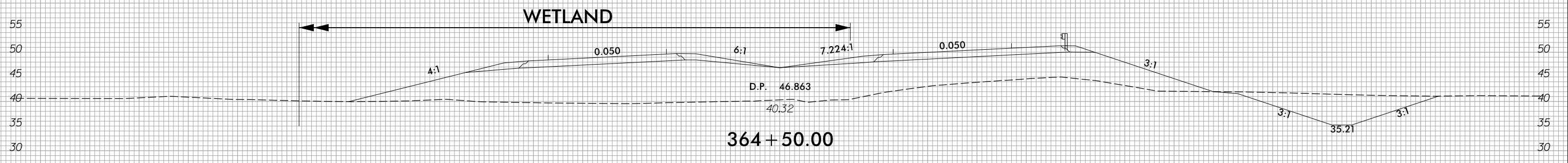
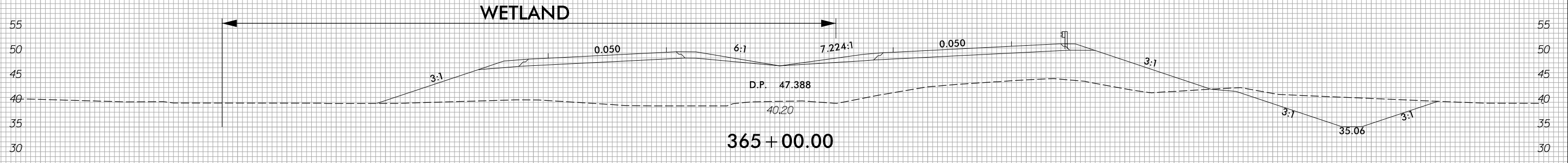
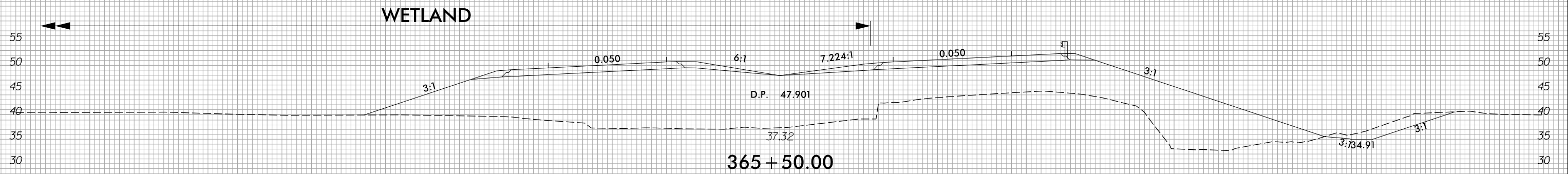


PROJ. REFERENCE NO.  
R-2511

SHEET NO.  
X-117

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



**PERMIT DRAWING  
SHEET 43 OF 61**



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

9/17/2018  
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Engg

8/17/99  
R:\H:\p\bu\cs\PERMITS\Environmental\Drawings\2511\_Hyd\_prm\_wet\_psh38.dgn  
8/17/2016  
ER1005

 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 83/2011

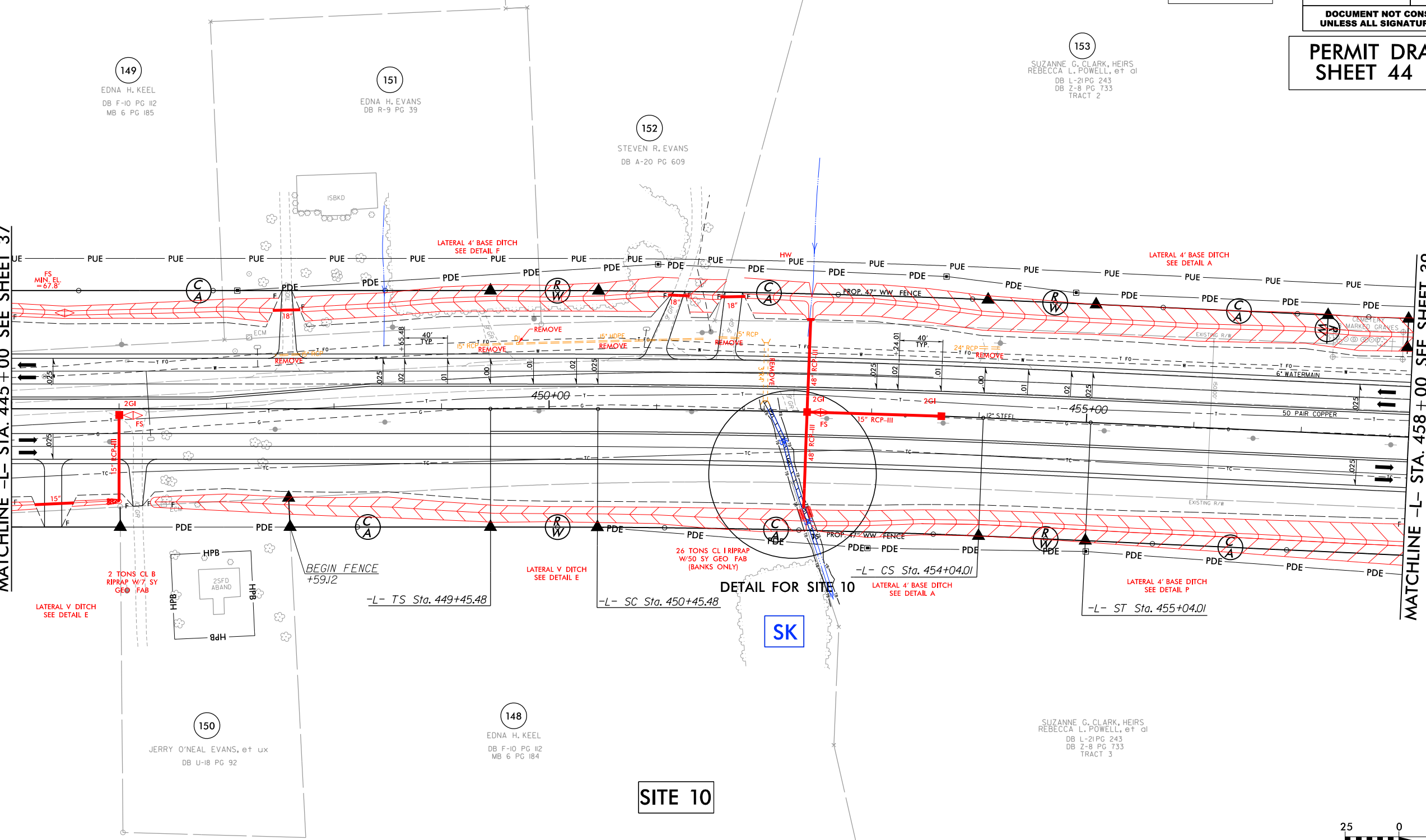


PROJECT REFERENCE NO. R-2511	SHEET NO. 38
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 44 OF 61**

MATCHLINE -L- STA. 445+00 SEE SHEET 37

MATCHLINE -L- STA. 458+00 SEE SHEET 39



149  
EDNA H. KEEL  
DB F-10 PG 112  
MB 6 PG 185

151  
EDNA H. EVANS  
DB R-9 PG 39

152  
STEVEN R. EVANS  
DB A-20 PG 609

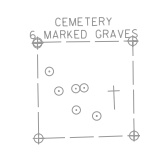
153  
SUZANNE G. CLARK, HEIRS  
REBECCA L. POWELL, et al  
DB L-21 PG 243  
DB Z-8 PG 733  
TRACT 2

150  
JERRY O'NEAL EVANS, et ux  
DB U-18 PG 92

148  
EDNA H. KEEL  
DB F-10 PG 112  
MB 6 PG 184



SUZANNE G. CLARK, HEIRS  
REBECCA L. POWELL, et al  
DB L-21 PG 243  
DB Z-8 PG 733  
TRACT 3

**SITE 10**



PLANS PREPARED BY :  
**RK&K**  
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NC LICENSE NO. F-0112 • (919) 878-9560

8/17/99

 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 83/2011

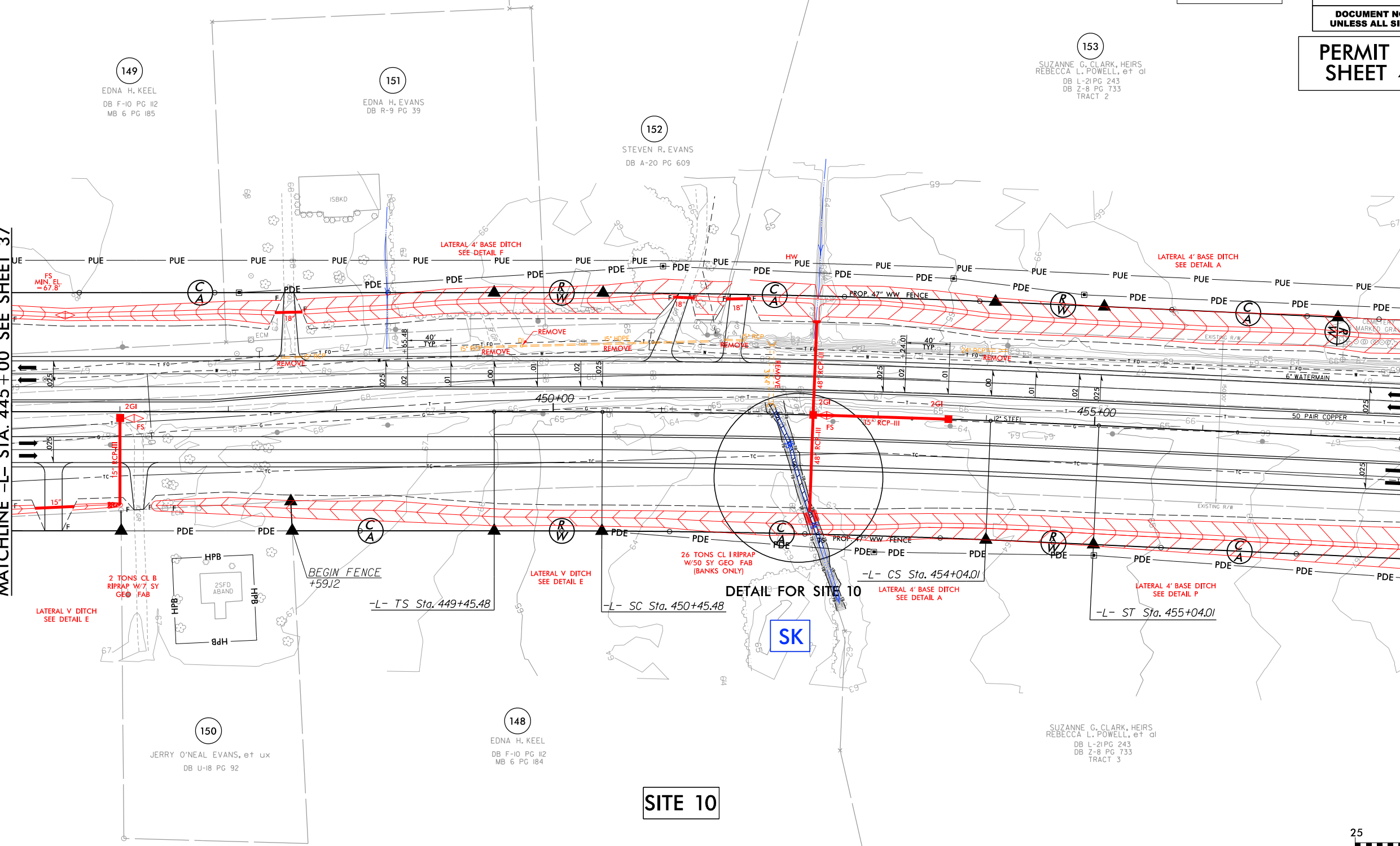


PROJECT REFERENCE NO. R-2511	SHEET NO. 38
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 45 OF 61**

MATCHLINE -L- STA. 445 + 00 SEE SHEET 37

MATCHLINE -L- STA. 458 + 00 SEE SHEET 39



149  
EDNA H. KEEL  
DB F-10 PG 112  
MB 6 PG 185

151  
EDNA H. EVANS  
DB R-9 PG 39

152  
STEVEN R. EVANS  
DB A-20 PG 609

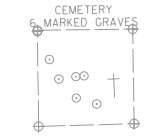
153  
SUZANNE G. CLARK, HEIRS  
REBECCA L. POWELL, et al  
DB L-21 PG 243  
DB Z-8 PG 733  
TRACT 2

150  
JERRY O'NEAL EVANS, et ux  
DB U-18 PG 92

148  
EDNA H. KEEL  
DB F-10 PG 112  
MB 6 PG 184

SUZANNE G. CLARK, HEIRS  
REBECCA L. POWELL, et al  
DB L-21 PG 243  
DB Z-8 PG 733  
TRACT 3

SITE 10





PLANS PREPARED BY :

**RK&K**

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8/17/99

 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

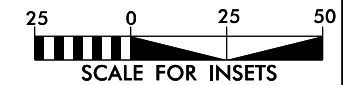
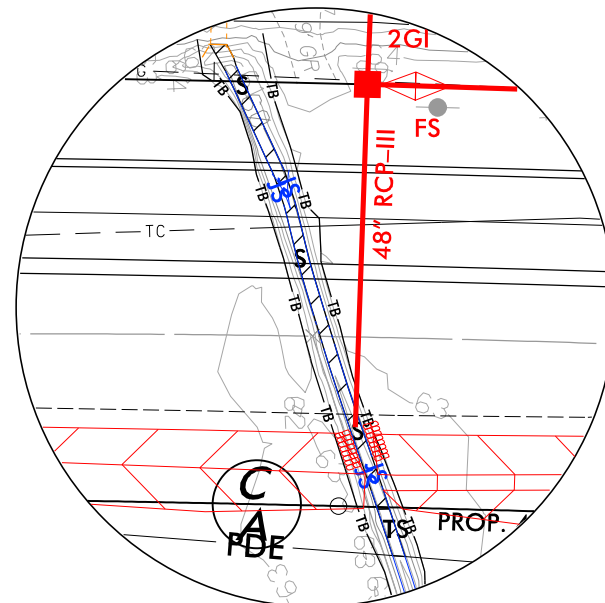
NAD 83/2011



PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. <i>38</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 40 OF 54**

# DETAIL FOR SITE 10



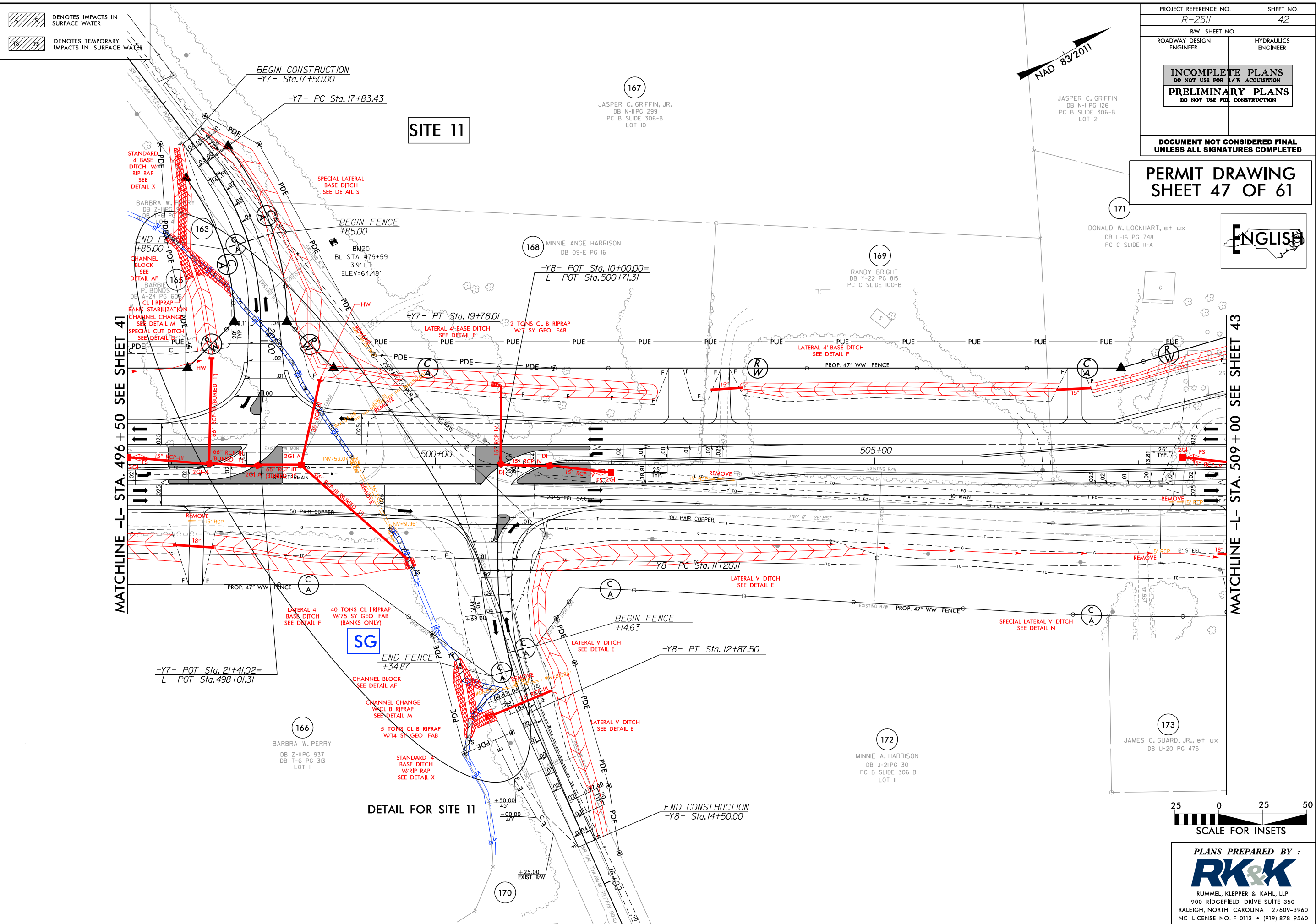
PLANS PREPARED BY :

**RK&K**

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8/17/99  
 R:\H:\p\builcs\PERMITS\_Environmental\Drawings\2511\_Hyd\_prm\_wet\_psh42.dgn  
 8/17/2016



DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 42
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
 SHEET 47 OF 61



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DONALD W. LOCKHART, et ux  
 DB L-16 PG 748  
 PC C SLIDE II-A

RANDY BRIGHT  
 DB Y-22 PG 815  
 PC C SLIDE 100-B

167  
 JASPER C. GRIFFIN, JR.  
 DB N-II PG 299  
 PC B SLIDE 306-B  
 LOT 10

168  
 MINNIE ANGE HARRISON  
 DB 09-E PG 16

166  
 BARBRA W. PERRY  
 DB Z-II PG 937  
 DB T-6 PG 313  
 LOT 1

172  
 MINNIE A. HARRISON  
 DB J-21 PG 30  
 PC B SLIDE 306-B  
 LOT 11

173  
 JAMES C. GUARD, JR., et ux  
 DB U-20 PG 475

DETAIL FOR SITE 11

MATCHLINE -L- STA. 496 + 50 SEE SHEET 41

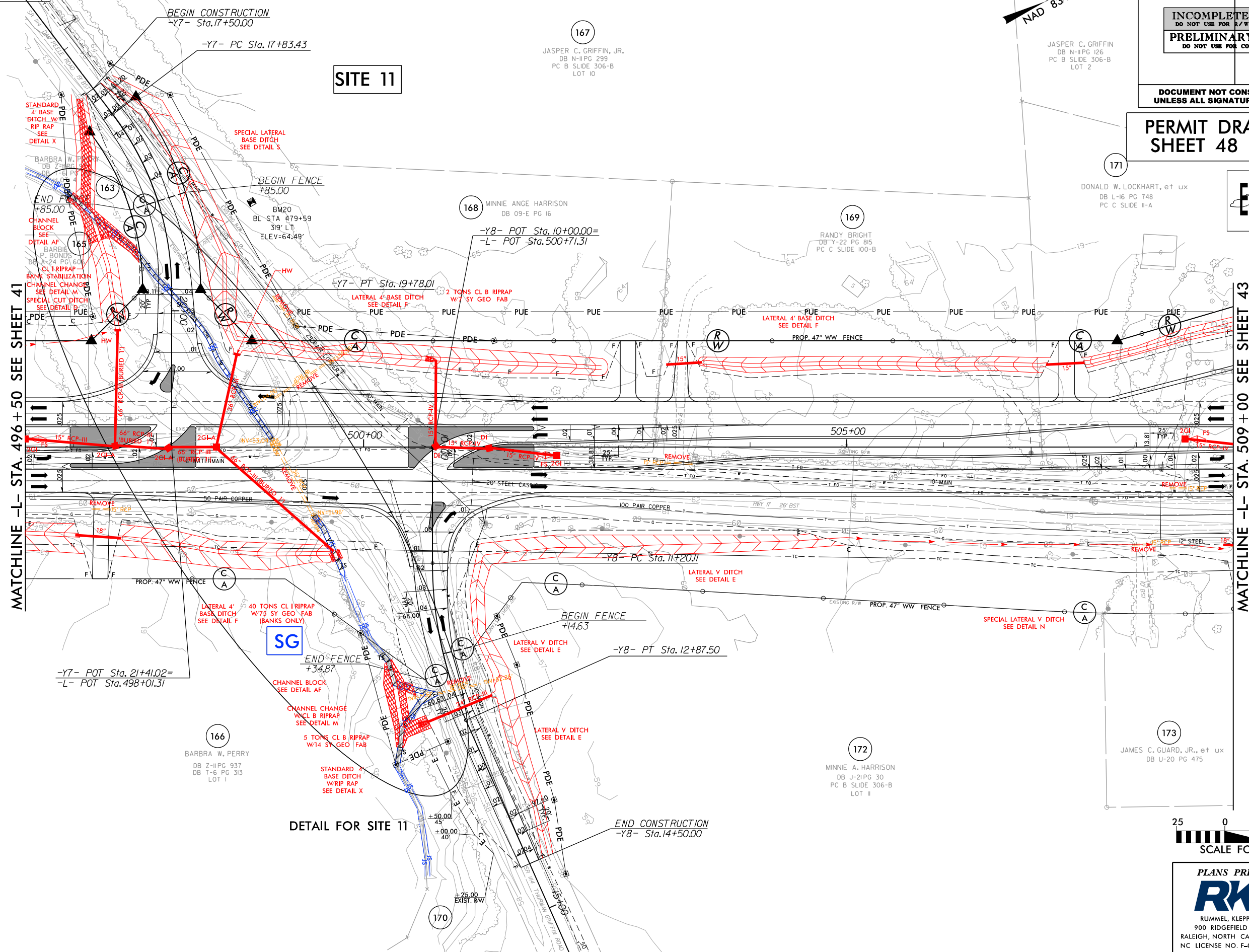
MATCHLINE -L- STA. 509 + 00 SEE SHEET 43

8/17/99

DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO. R-2511	SHEET NO. 42
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING SHEET 48 OF 61**



MATCHLINE -L- STA. 496 + 50 SEE SHEET 41

MATCHLINE -L- STA. 509 + 00 SEE SHEET 43

**SITE 11**

**DETAIL FOR SITE 11**



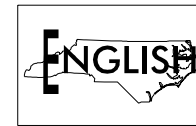
**PLANS PREPARED BY :**  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

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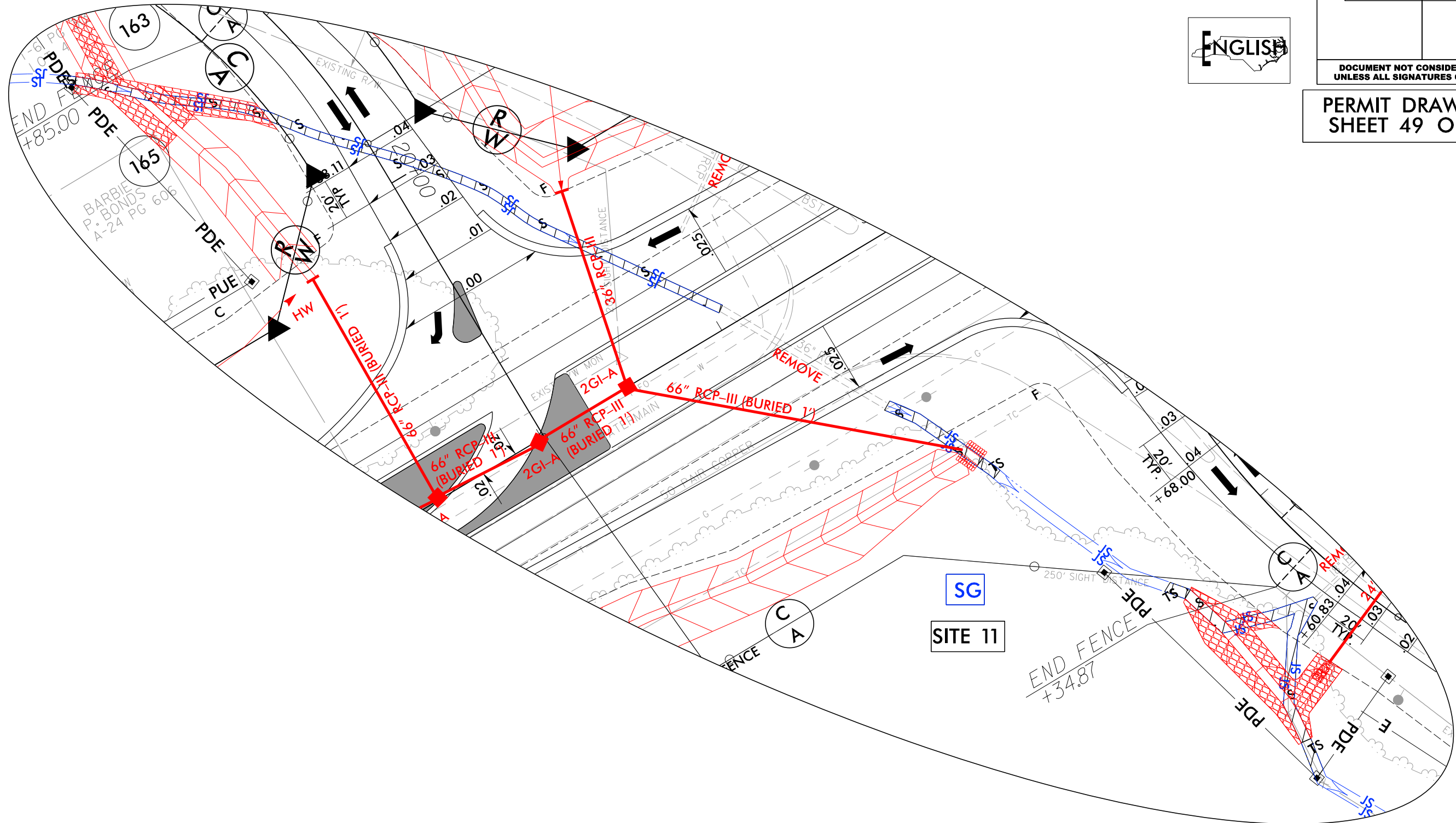
8/17/99

# DETAIL FOR SITE 11

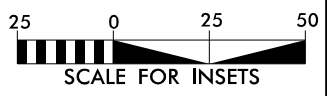


PROJECT REFERENCE NO. R-2511	SHEET NO. 42A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING**  
**SHEET 49 OF 61**



	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PLANS PREPARED BY :

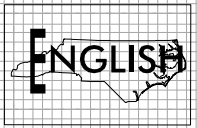
**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

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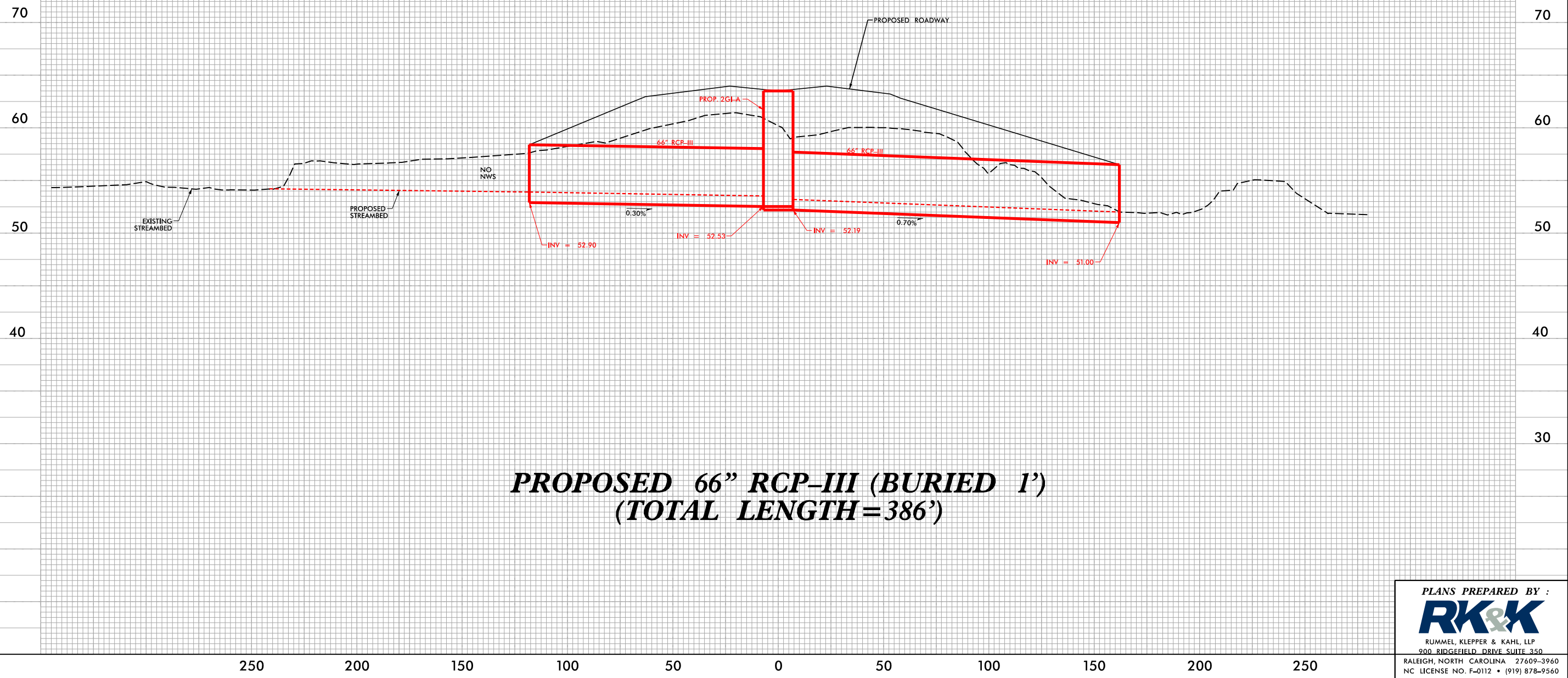
PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 11

## -L- STA. 497+42

**PERMIT DRAWING**  
**SHEET 50 OF 61**



**PROPOSED 66" RCP-III (BURIED 1')**  
**(TOTAL LENGTH=386')**

**PLANS PREPARED BY :**  
  
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 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 • (919) 878-9560

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 5/14/99

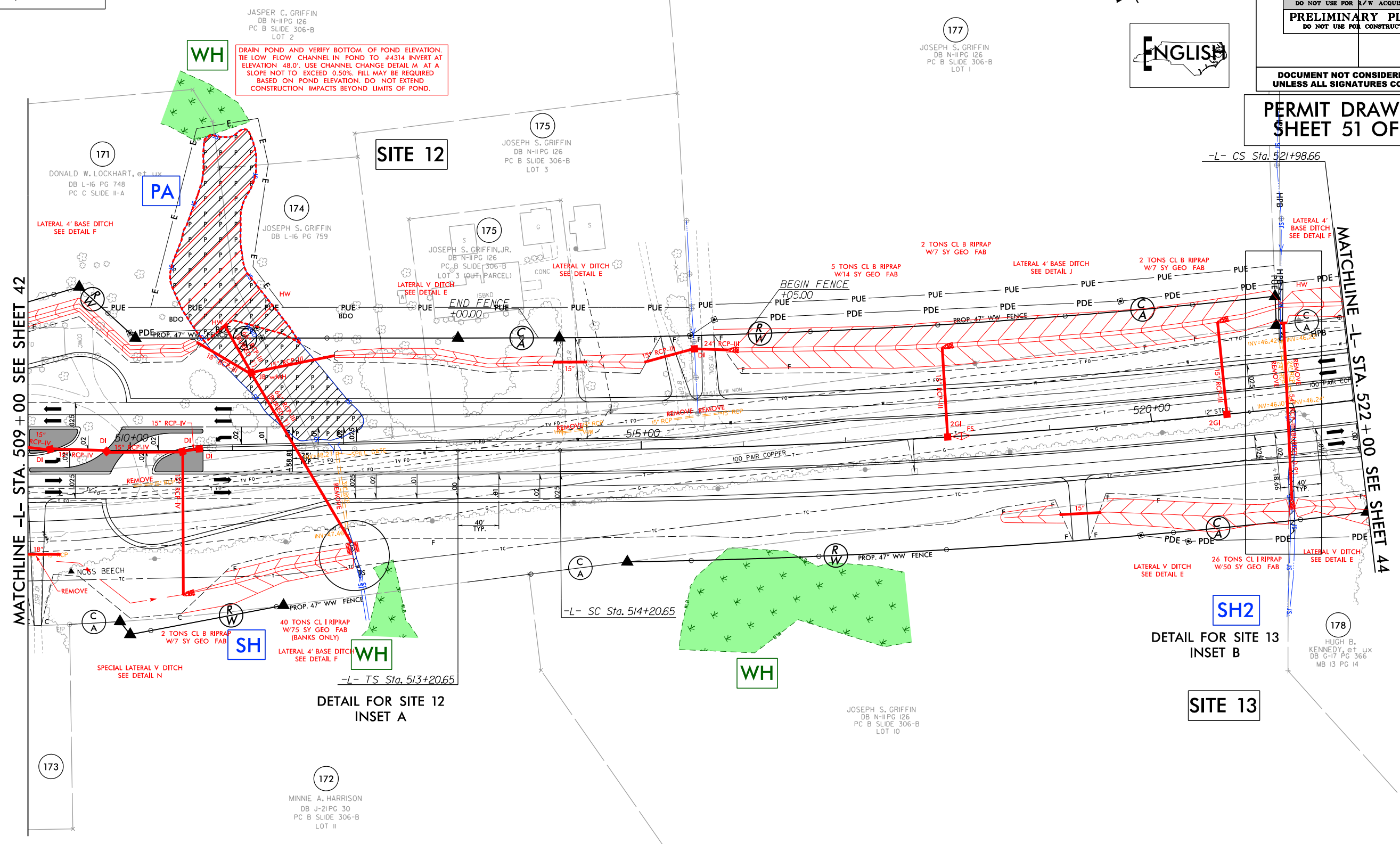
8/17/99

DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
 DENOTES IMPACTS IN SURFACE WATER (POND)

PROJECT REFERENCE NO. R-2511	SHEET NO. 43
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**PERMIT DRAWING**  
**SHEET 51 OF 61**



MATCHLINE -L- STA. 509 + 00 SEE SHEET 42

MATCHLINE -L- STA. 522 + 00 SEE SHEET 44

**DETAIL FOR SITE 12**  
**INSET A**

**DETAIL FOR SITE 13**  
**INSET B**

**SITE 13**

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**PLANS PREPARED BY :**  
  
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 900 RIDGEFIELD DRIVE SUITE 350  
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 NC LICENSE NO. F-0112 • (919) 878-9560

8/17/09  
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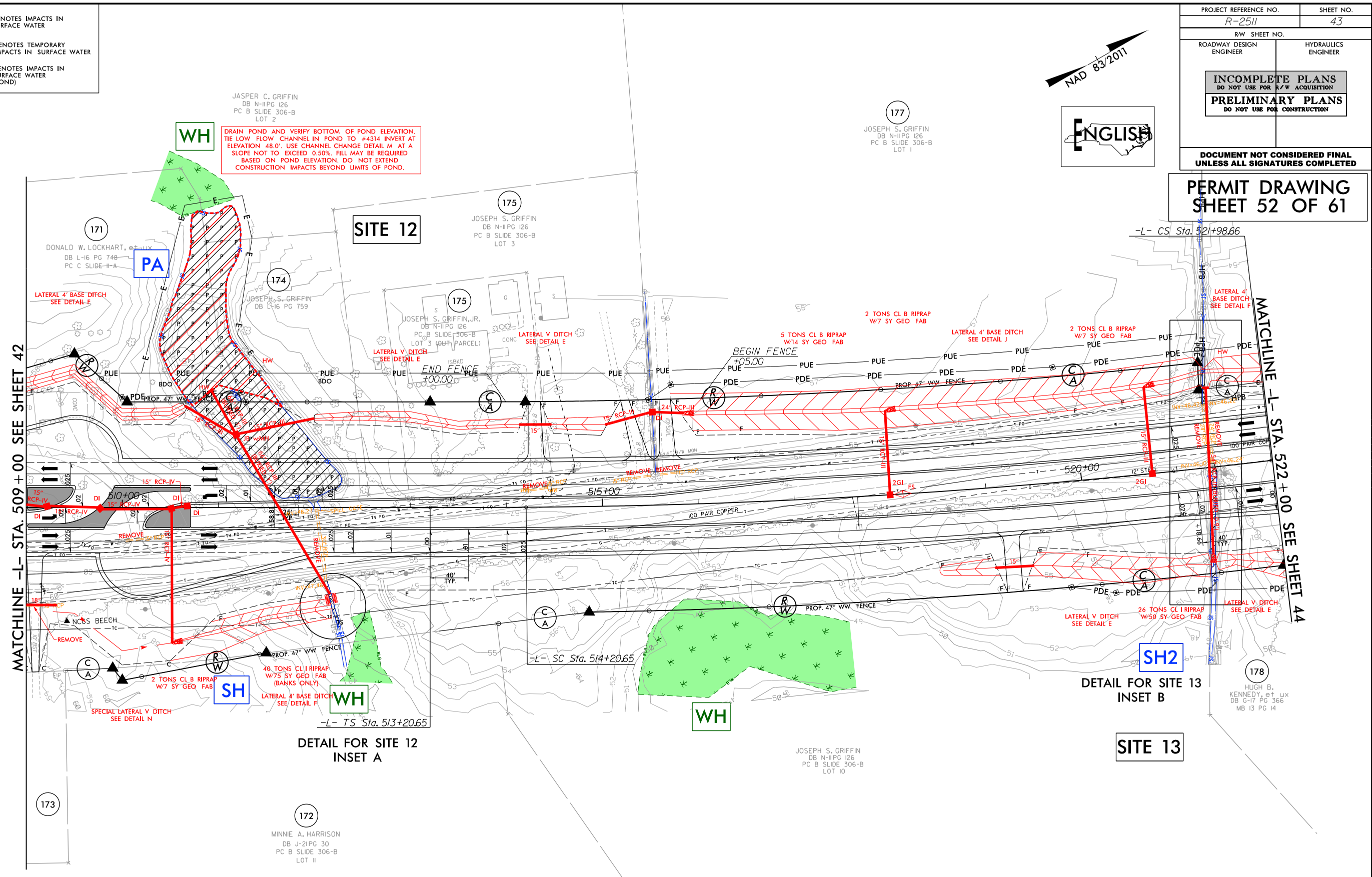
DENOTES IMPACTS IN SURFACE WATER  
DENOTES TEMPORARY IMPACTS IN SURFACE WATER  
DENOTES IMPACTS IN SURFACE WATER (POND)

JASPER C. GRIFFIN  
DB N-II PG 126  
PC B SLIDE 306-B  
LOT 2  
DRAIN POND AND VERIFY BOTTOM OF POND ELEVATION. TIE LOW FLOW CHANNEL IN POND TO #4314 INVERT AT ELEVATION 48.0'. USE CHANNEL CHANGE DETAIL M AT A SLOPE NOT TO EXCEED 0.50%. FILL MAY BE REQUIRED BASED ON POND ELEVATION. DO NOT EXTEND CONSTRUCTION IMPACTS BEYOND LIMITS OF POND.

NAD 83/2011  
ENGLISH

PROJECT REFERENCE NO. R-2511	SHEET NO. 43
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 52 OF 61



MATCHLINE -L- STA. 509 + 00 SEE SHEET 42

MATCHLINE -L- STA. 522 + 00 SEE SHEET 44



DETAIL FOR SITE 12  
INSET A

DETAIL FOR SITE 13  
INSET B

SITE 13

PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
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RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 • (919) 878-9560

8/17/99

 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

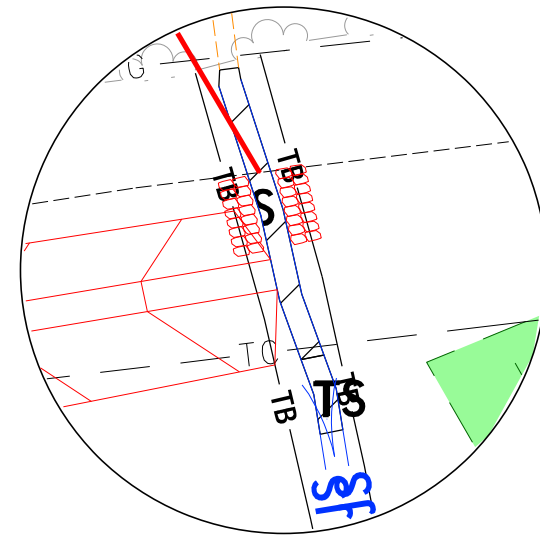
NAD 83/2011



PROJECT REFERENCE NO. R-2511	SHEET NO. 43
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING  
SHEET 53 OF 61**

# DETAIL FOR SITE 12 INSET A

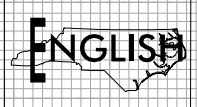


**PLANS PREPARED BY :**  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
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 8/17/2016 10:05

5/14/99

PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	



# SITE 12

## -L- STA. 511+63

PERMIT DRAWING  
SHEET 54 OF 61

790

790

50

50

40

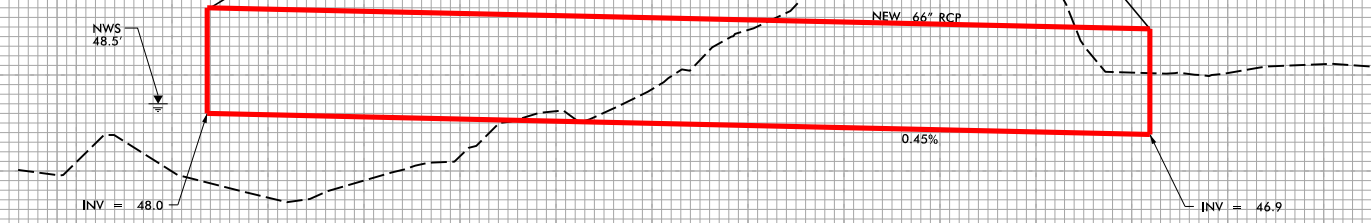
40

30

30

20

20



**PROPOSED 66" RCP-III**  
**(TOTAL LENGTH=246')**

PLANS PREPARED BY :





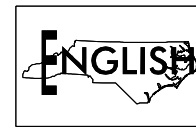
RUMMEL, KLEPPER & KAHL, LLP  
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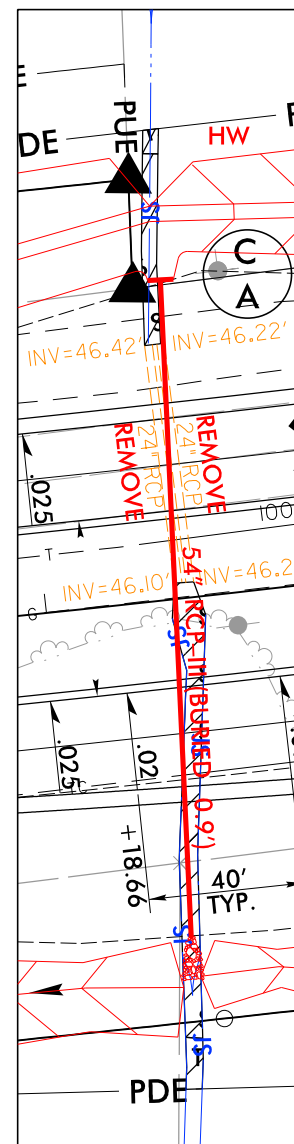
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 DENOTES IMPACTS IN SURFACE WATER  
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PROJECT REFERENCE NO. R-2511	SHEET NO. 43
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
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# DETAIL FOR SITE 13 INSET B



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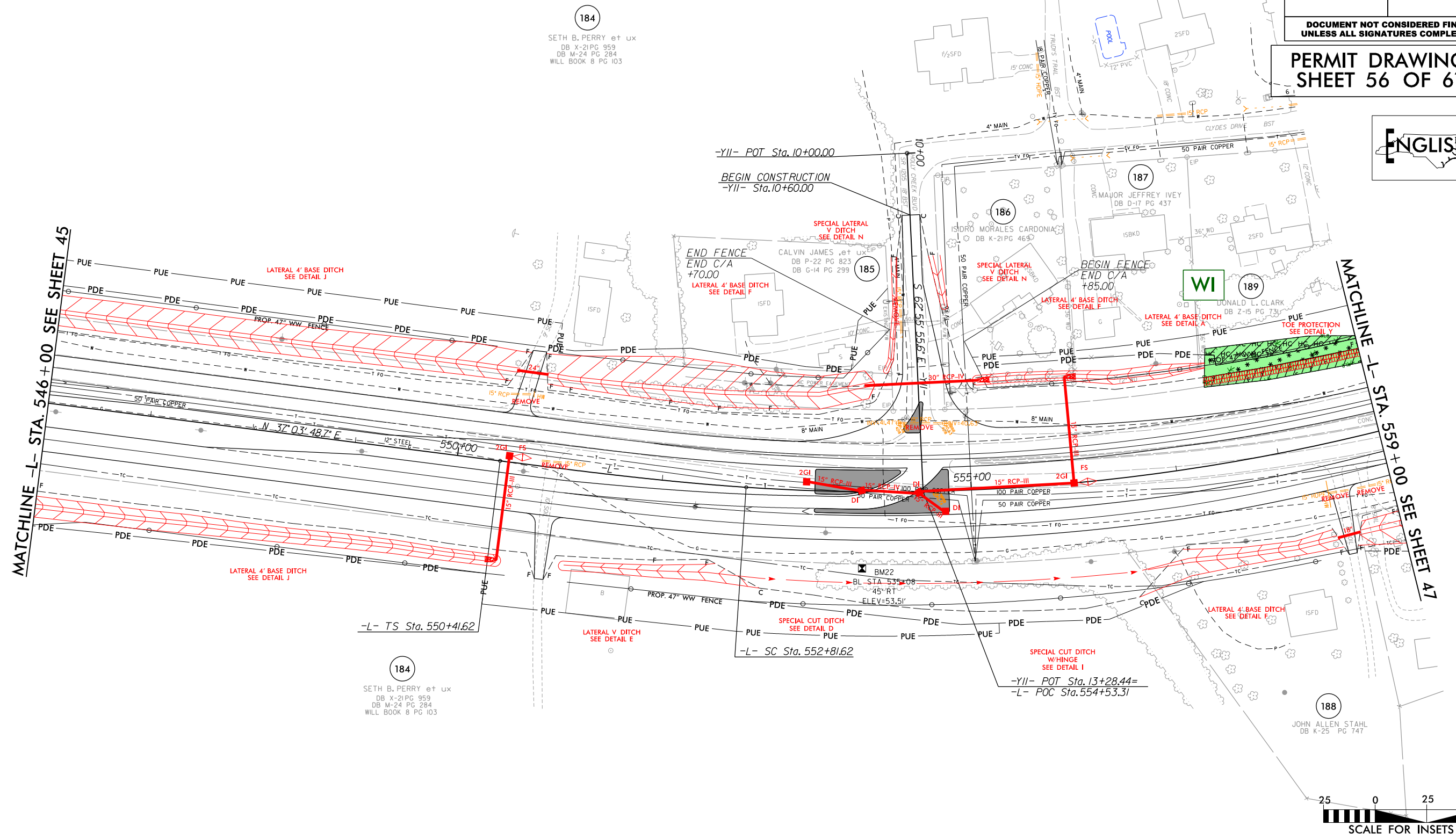
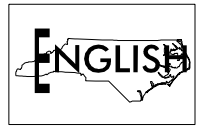
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING

PROJECT REFERENCE NO. R-2511	SHEET NO. 46
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011

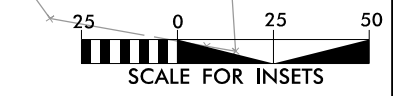
**SITE 14**

**PERMIT DRAWING**  
**SHEET 56 OF 61**



184  
SETH B. PERRY et ux  
DB X-21PG 959  
DB M-24 PG 284  
WILL BOOK 8 PG 103

184  
SETH B. PERRY et ux  
DB X-21PG 959  
DB M-24 PG 284  
WILL BOOK 8 PG 103



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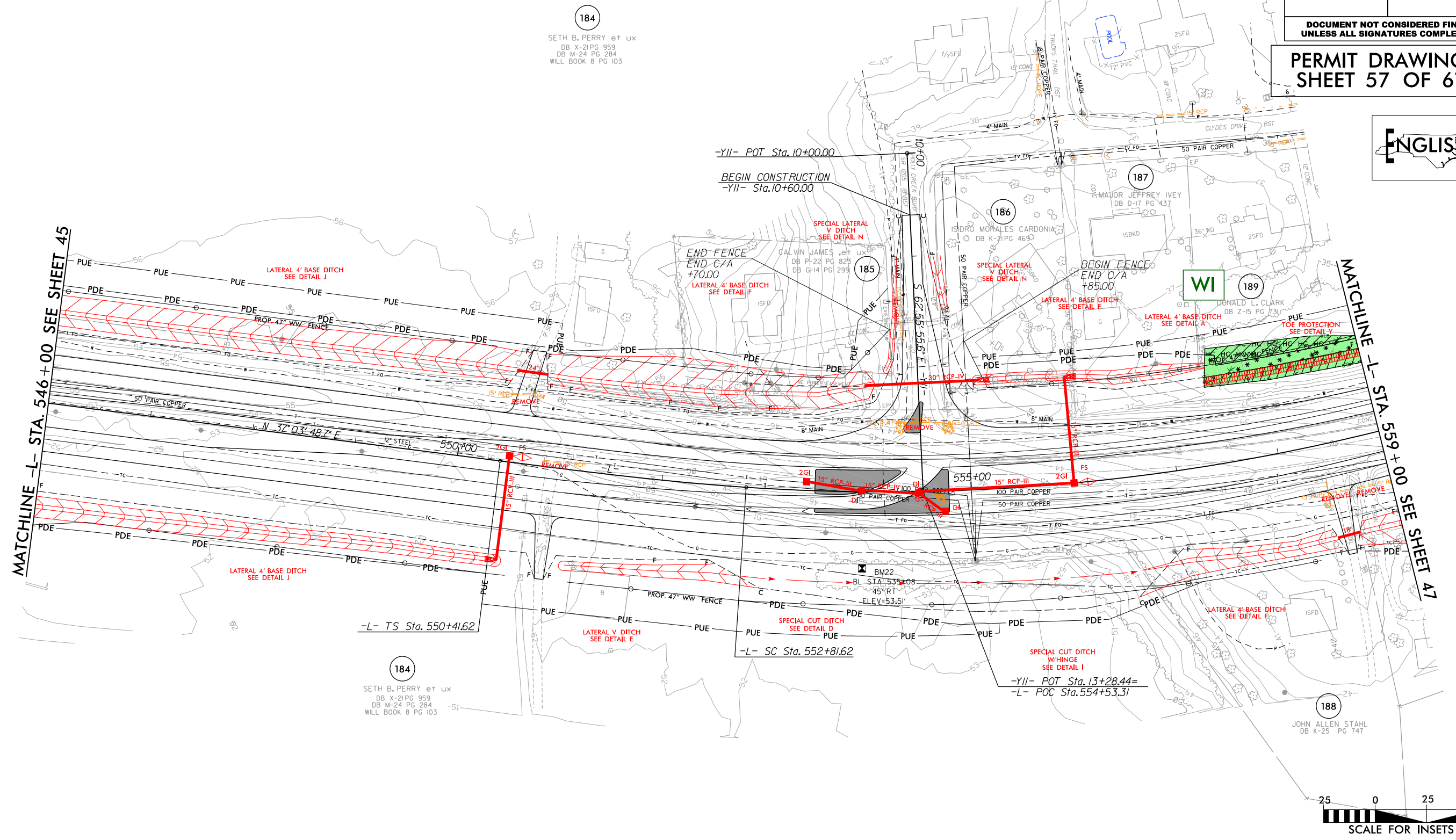
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	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING

PROJECT REFERENCE NO. R-2511	SHEET NO. 46
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	

NAD 83/2011

**SITE 14**

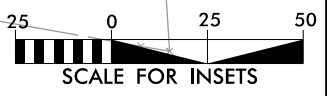
**PERMIT DRAWING**  
**SHEET 57 OF 61**



184  
SETH B. PERRY et ux  
DB X-21PG 959  
DB M-24 PG 284  
WILL BOOK 8 PG 103

184  
SETH B. PERRY et ux  
DB X-21PG 959  
DB M-24 PG 284  
WILL BOOK 8 PG 103

188  
JOHN ALLEN STAHL  
DB K-25 PG 747



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	DENOTES FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING

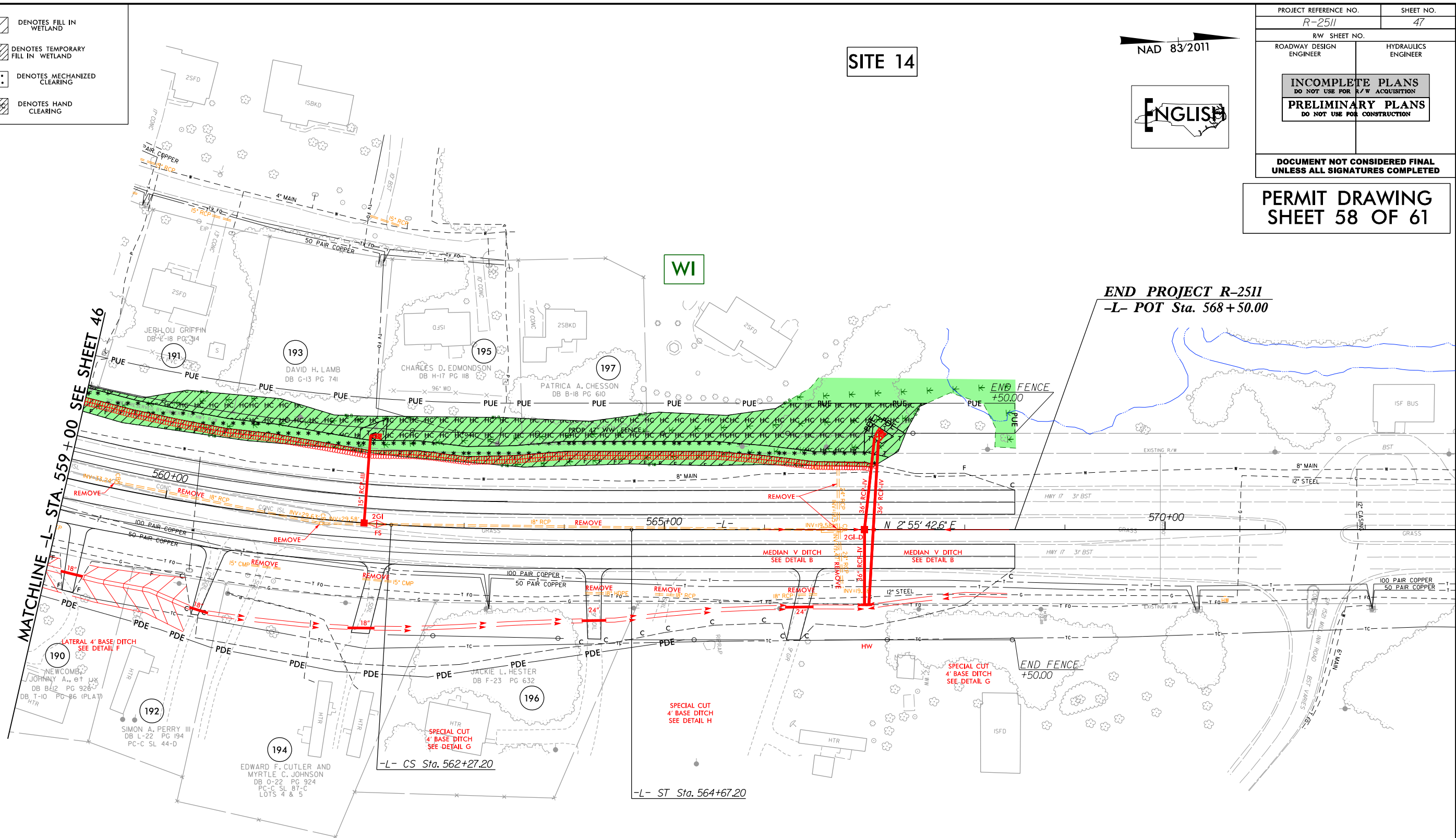
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NAD 83/2011



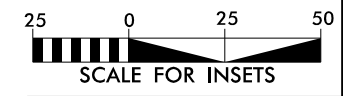
PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. 47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
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**PERMIT DRAWING**  
**SHEET 58 OF 61**



**END PROJECT R-2511**  
**-L- POT Sta. 568+50.00**

**MATCHLINE -L- STA. 559+00 SEE SHEET 46**



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8/17/2018

	DENOTES FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
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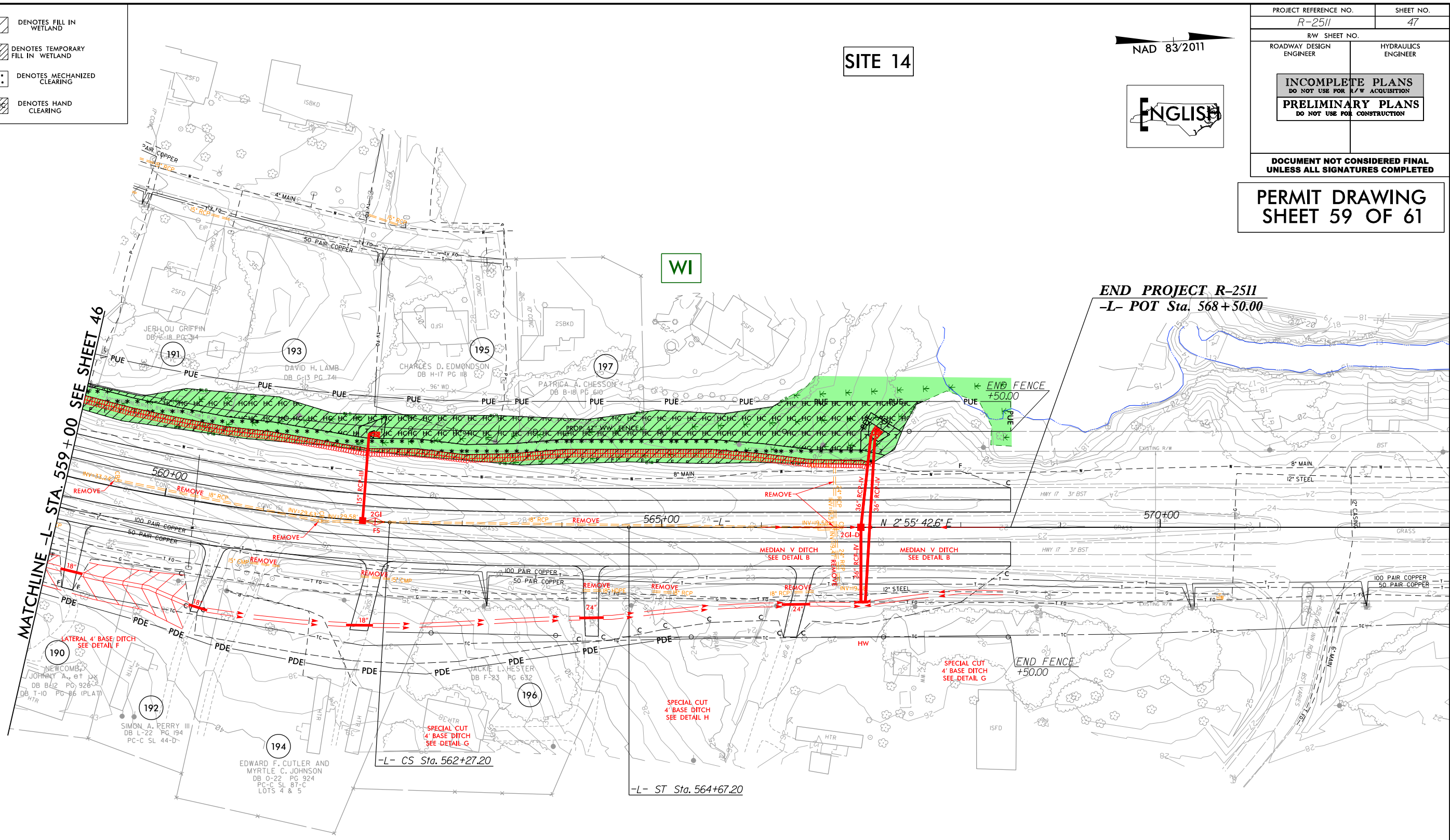
**SITE 14**

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PROJECT REFERENCE NO. <i>R-2511</i>	SHEET NO. 47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

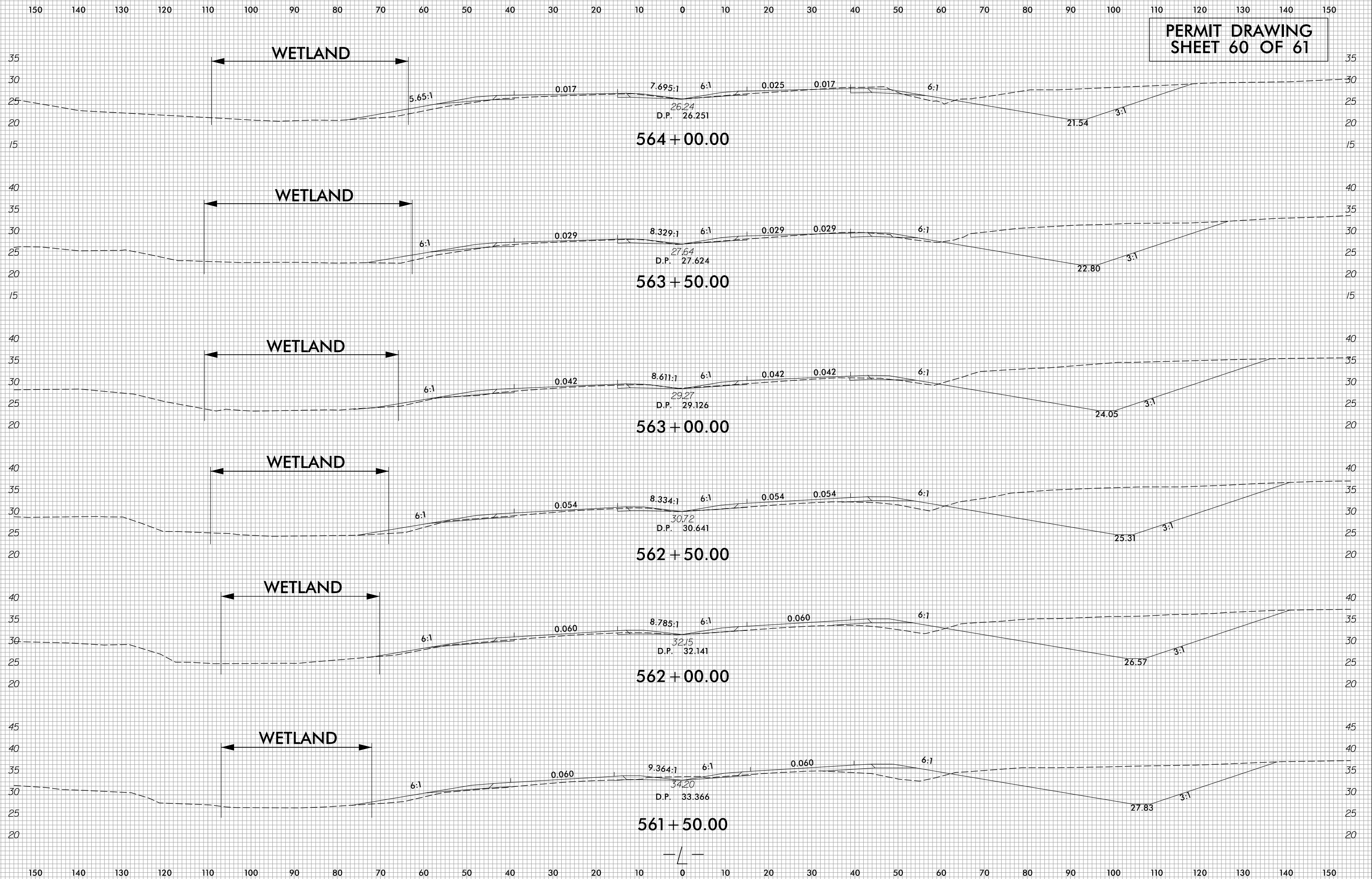
**PERMIT DRAWING**  
**SHEET 59 OF 61**



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PERMIT DRAWING  
SHEET 60 OF 61



## WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 17+60 TO 18+88	RETAIN EXIST. 60" CMP				< 0.01		0.01	< 0.01	74	24	
2	-L- 54+35 TO 57+82	PROP. 60" RCP & ROADWAY FILL	0.26			0.05		0.02	< 0.01	165	8	
3	-L- 68+45 TO 69+77	PROP. 8'X6' RCBC W/ (2) 48" RCP						0.05	< 0.01	284	38	
4	-L- 98+94 TO 99+55	PROP. (2) 42" RCP						0.01	< 0.01	132	27	
5	-L- 152+86 TO 160+06	PROP. DUAL BRIDGES	1.10			0.25	0.43	< 0.01	0.06	7	159	
6	-L- 229+26 TO 230+35	ROADWAY FILL	0.02	< 0.01		0.01						
7	-L- 280+02 TO 281+11	PROP. 48" RCP & ROADWAY FILL	0.11			0.03		< 0.01	< 0.01	122	20	
8	-L- 341+75 TO 349+30	PROP. 10'X6' RCBC & ROADWAY FILL	1.09	0.56	0.06	0.27		0.04	< 0.01	287	9	
9	-L- 364+15 TO 367+67	PROP. (2) 11'X8' RCBC & ROADWAY FILL	0.62	0.02	0.01	0.15	0.21	0.05	< 0.01	227	46	
10	-L- 452+03 TO 452+53	PROP. 48" RCP & ROADWAY FILL						< 0.01	< 0.01	129	13	
11	-L- 496+93 TO 500+77	PROP. 66" RCP & ROADWAY FILL						0.05	< 0.01	512	42	
12	-L- 510+39 TO 512+28	DRAIN/FILL POND						0.50				
	-L- 512+10 TO 512+27	PROP. 66" RCP & ROADWAY FILL						< 0.01	< 0.01	40	10	
13	-L- 521+22 TO 521+28	PROP. 54" RCP & ROADWAY FILL						0.02	< 0.01	160	21	
14	-L- 557+40 TO 567+41	ROADWAY FILL	0.22	0.03		0.22	0.51					
TOTALS*:			3.42	0.61	0.07	0.98	0.51	0.77	0.09	2139	417	0

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 9/11/2018  
 BEAUFORT & MARTIN COUNTY  
 R-2511  
 35494.1.1  
 SHEET 61 OF 61