

R-2576 Mid-Currituck Bridge

Attachment 9:

# **Wetland Utility Impacts Permit Drawings**

09/28/19

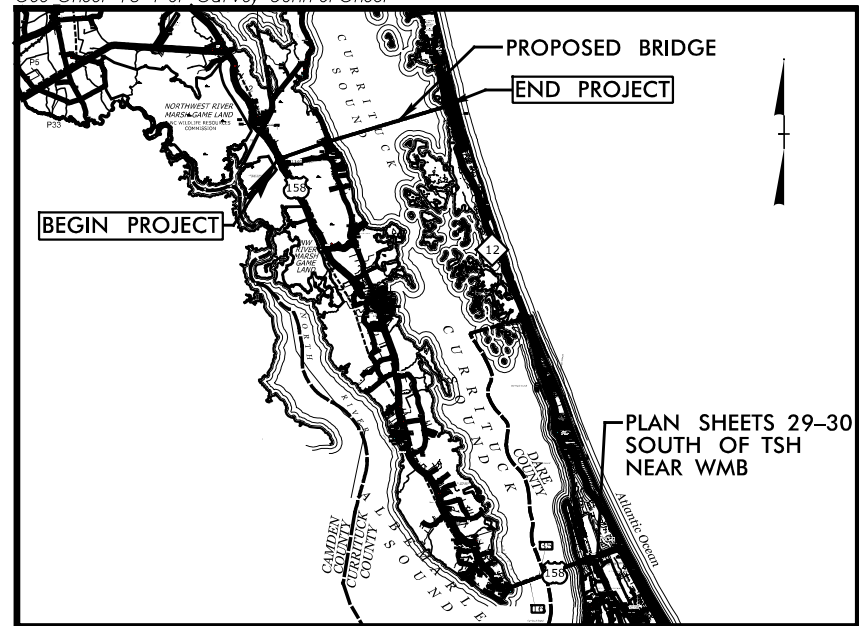
See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols  
See Sheet 1C For Survey Control Sheet

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**CURRITUCK &  
DARE COUNTIES**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2576	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34470.1.TA1	BRSTP-000(494)	P.E.	

**TIP PROJECT: R-2576**

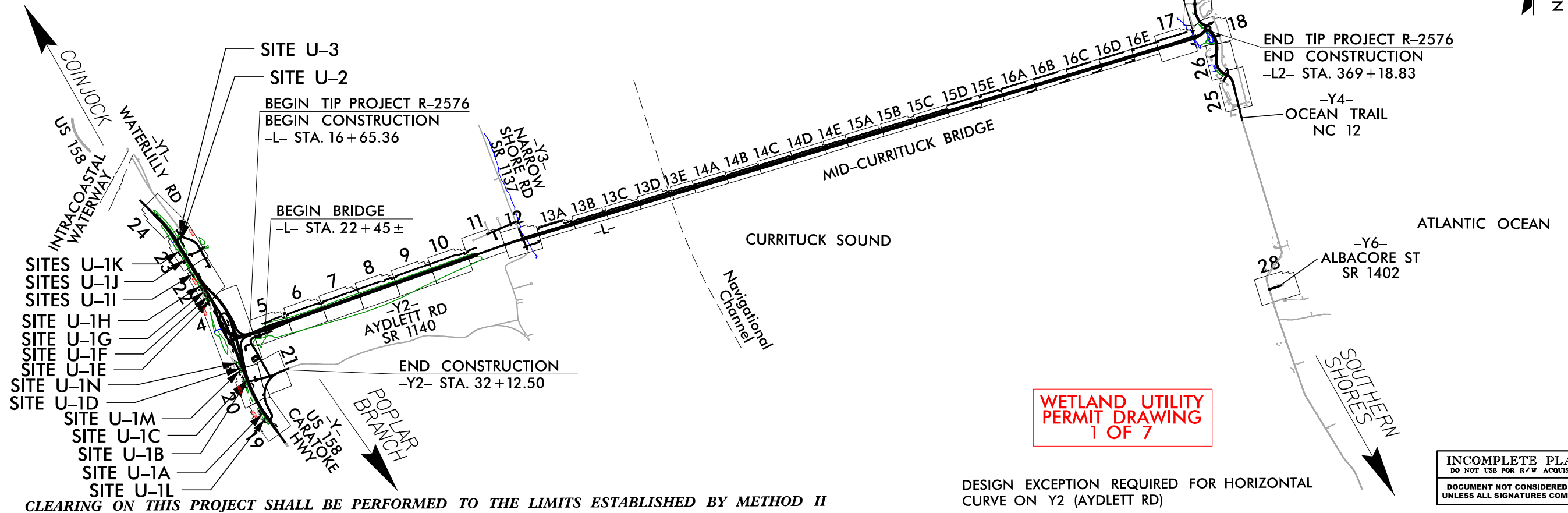


**VICINITY MAP**

75% PLANS

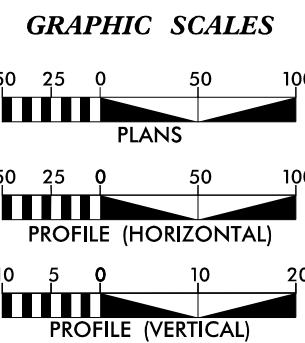
**LOCATION: MID-CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK  
TO NC 12 SOUTH OF COROLLA**

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



NAD 83 / 2011

**CONTRACT:**



**DESIGN DATA**

# ADT 2020 =	11,800
ADT 2040 =	18,000
K =	9 %
D =	60 %
T =	7 % *
V =	60 MPH
* (TTST=2) + (DUAL=1) + (RV=4)	
FUNC CLASS =	ARTERIAL STATEWIDE TIER

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT R-2576	= 0.524 Miles
LENGTH STRUCTURES	= 6.153 Miles
TOTAL LENGTH TIP PROJECT R-2576	= 6.677 Miles

# PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

**LOCHNER**  
TRANSPORTATION ENGINEERING  
1223 Jones Franklin Rd.  
Raleigh, NC 27606  
Phone: 919.851.8107  
Fax: 919.851.8107

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FY 2026

LETTING DATE: FY 2026

BRIAN K. EASON, PE  
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE  
PROJECT DESIGN ENGINEER

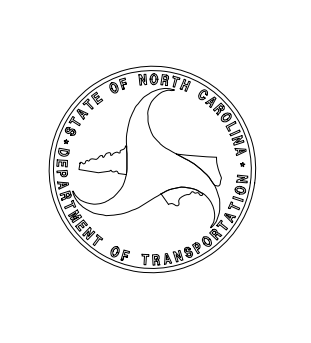
DENNIS JERNIGAN, PE  
NCDOT / NCTA

HYDRAULICS ENGINEER

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

ROADWAY DESIGN ENGINEER

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



INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL  
CURVE ON Y2 (AYDLETT RD)

2/5/2024  
R2576\_rdy\_TSH.dgn  
ACHODD

NO.	DESCRIPTION

**LOCHNER**  
 2840 PLAZA PLACE SUITE 202  
 RALEIGH, NC 27612  
 (919) 271-7111

PROJECT REFERENCE NO. **R-2576** SHEET NO. **4**

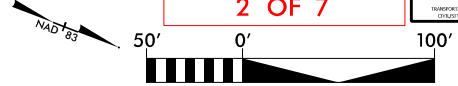
ROADWAY DESIGN ENGINEER  
 HYDRAULIC ENGINEER

**INCOMPLETE PLANS**  
 NOT FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**PAVED SHOULDER**

**WETLAND UTILITY PERMIT DRAWING**  
**2 OF 7**



-Y- NB-		-Y- SB-		-Y- NB-		-Y- SB-		-Y- NB-		-Y- SB-		-Y- NB-		-Y- SB-	
PI Sta 54+10.60	PI Sta 57+47.38	PI Sta 60+183.40	PI Sta 31+05.35	PI Sta 37+51.49	PI Sta 43+82.33	PI Sta 11+33.35	PI Sta 13+187.76	PI Sta 16+143.39	PI Sta 19+10.06	PI Sta 22+687.3	PI Sta 26+124.46	PI Sta 28+180.3	PI Sta 31+792.9	PI Sta 34+617.7	PI Sta 37+461.7
Δ = 7° 34' 32.3"	Δ = 7° 32' 10.4" (LT)	Δ = 7° 34' 32.3"	Δ = 2° 57' 53.2"	Δ = 2° 07' 43.1" (LT)	Δ = 2° 57' 53.2"	Δ = 2° 28' 17.2"	Δ = 2° 28' 17.2"	Δ = 2° 28' 17.2"	Δ = 2° 28' 17.2"	Δ = 14° 10' 01.7" (RT)	Δ = 2° 28' 17.2"	Δ = 2° 28' 17.2"	Δ = 10° 41' 31.9" (LT)	Δ = 2° 28' 17.2"	Δ = 2° 28' 17.2"
Ls = 220.00'	Ls = 220.00'	Ls = 220.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'	Ls = 270.00'
LT = 146.67'	LT = 58.613'	LT = 146.67'	LT = 180.00'	LT = 180.00'	LT = 180.00'	LT = 133.35'	LT = 133.35'	LT = 133.35'	LT = 133.35'	LT = 133.35'	LT = 133.35'	LT = 133.35'	LT = 44.27'	LT = 133.35'	LT = 133.35'
ST = 73.34'	ST = 263.44'	ST = 73.34'	ST = 90.02'	ST = 90.02'	ST = 90.02'	ST = 66.68'	ST = 66.68'	ST = 66.68'	ST = 66.68'	ST = 66.68'	ST = 66.68'	ST = 66.68'	ST = 222.00'	ST = 66.68'	ST = 66.68'
R = 4000.00'	R = 2634.4'	R = 4000.00'	R = 2700.00'	R = 2700.00'	R = 2700.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'	R = 2350.00'
SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05	SE = 0.05

DENOTES TEMPORARY  
 FILL IN WETLAND

**SITE U-1D**  
 (TYP. DETAIL A, THIS SHEET)

**SITE U-1N**  
 (TYP. DETAIL C, THIS SHEET)

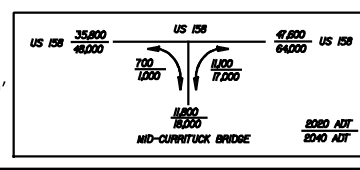
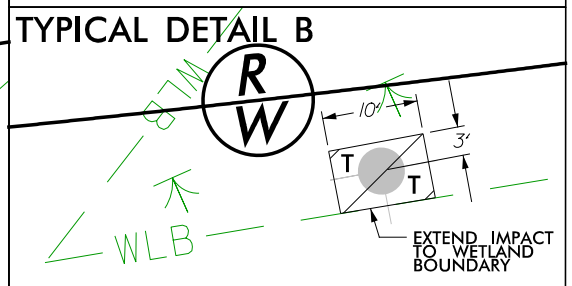
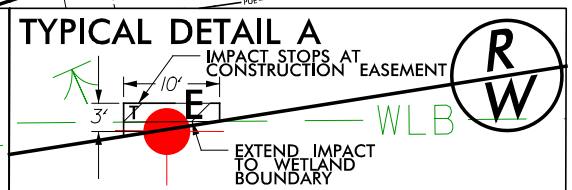
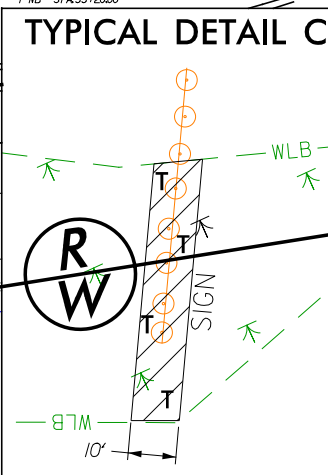
MATCHLINE SHEET 20  
 -Y- NB- STA. 16+50

MATCHLINE SHEET 22  
 -Y- SB- STA. 33+50

MATCHLINE SHEET 21  
 -Y2A- STA. 17+00

MATCHLINE SHEET 5  
 -Y2A- STA. 26+50

MATCHLINE SHEET 5  
 -L- STA. 18+00



SEE SHEET 20-1 FOR DITCH DETAILS  
 SEE SHEET 31 FOR -L- PROFILE  
 SEE SHEET 37 FOR -Y- PROFILE  
 SEE SHEET 39 FOR -Y2B- PROFILE  
 SEE SHEET 39-40 FOR -Y2C- PROFILE  
 SEE SHEET 41-42 FOR -LPB- PROFILE  
 SEE SHEET 42 FOR -RPB- PROFILE  
 SEE SHEET 43 FOR -RPA- PROFILE  
 SEE SHEET 44 FOR -RPD- PROFILE  
 SEE SHEET 46-47 FOR -Y2A- PROFILE  
 SEE SHEET 46 FOR -DRI- PROFILE

LOCATION: MID-CURRUCK PLACE AT US 158 (R/L)
DATE: _____
DESIGNED BY: _____
CHECKED BY: _____

6/2/99

# LOCHNER

H. W. LOCHNER, INC.  
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NC License  
Number F-0159



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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. SHEET NO.

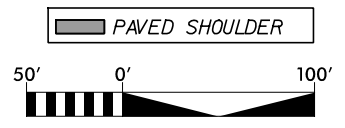
R-2576 19

ROADWAY DESIGN ENGINEER PAVEMENT DESIGN ENGINEER

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

**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

**WETLAND UTILITY PERMIT DRAWING**  
**3 OF 7**



-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
$\Theta_s = 0^\circ 55' 36.6''$	$\Delta = 12^\circ 43' 01.7''$ (RT)	$\Theta_s = 0^\circ 55' 36.6''$
$L_s = 165.00'$	$D = 1^\circ 07' 24.4''$	$L_s = 165.00'$
$LT = 110.00'$	$L = 1,131.98'$	$LT = 110.00'$
$ST = 55.00'$	$T = 568.32'$	$ST = 55.00'$
	$R = 5,100.00'$	
	$SE = 0.03$	

-Y2-		
PI Sta 11+70.00	PI Sta 25+7.49	
$\Delta = 81^\circ 32' 22.8''$ (LT)	$\Delta = 95^\circ 09' 21.1''$ (RT)	
$D = 36^\circ 57' 54.1''$	$D = 6^\circ 44' 26.4''$	
$L = 220.59'$	$L = 1,411.67'$	
$T = 133.65'$	$T = 930.15'$	
$R = 155.00'$	$R = 850.00'$ **	
$SE = 0.06$	$SE = 0.06$	
$Ro = 144'$	$Ro = 144'$	

\*\* DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

DENOTES TEMPORARY FILL IN WETLAND



SUZANNE LEA MIDGETT TRUSTEE  
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT  
IRREVOCABLE TRUST  
DB 974 PG 425

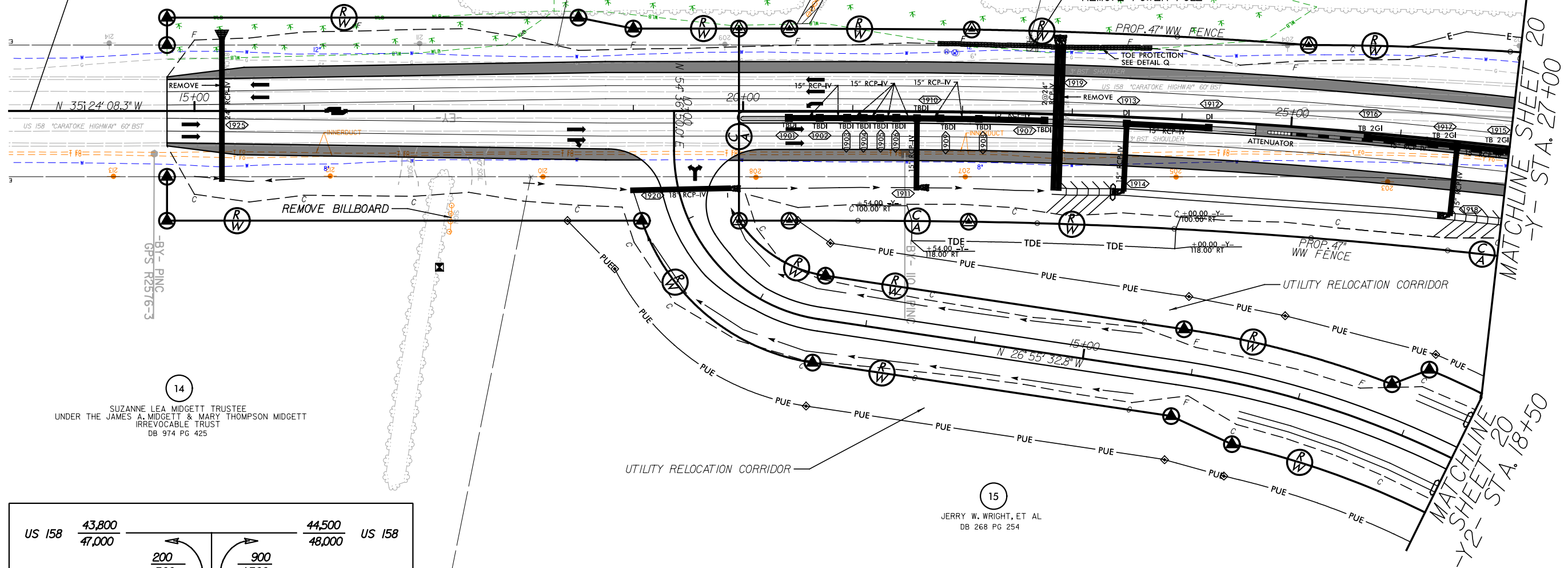
14

BEGIN CONSTRUCTION  
-Y- STA. 13+50.00

SITE U-1L  
(TYP. DETAIL C,  
DRAWING 2)

SITE U-1A  
(TYP. DETAIL B,  
DRAWING 2)

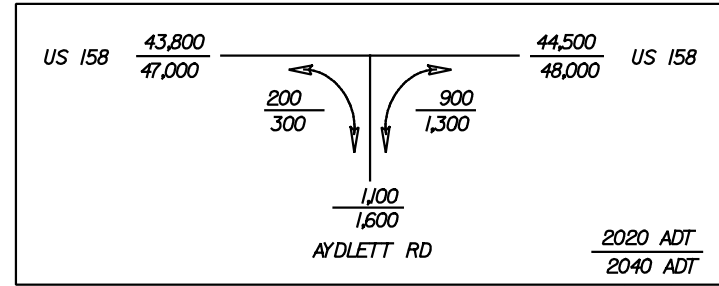
15  
JERRY W. WRIGHT, ET AL  
DB 268 PG 254



SUZANNE LEA MIDGETT TRUSTEE  
UNDER THE JAMES A. MIDGETT & MARY THOMPSON MIDGETT  
IRREVOCABLE TRUST  
DB 974 PG 425

14

15  
JERRY W. WRIGHT, ET AL  
DB 268 PG 254



SEE SHEET 2D-1 FOR DITCH DETAILS  
SEE SHEET 36 FOR -Y- PROFILE  
SEE SHEET 45 FOR -Y2- PROFILE

2/5/2024  
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6/2/99

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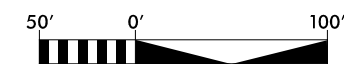
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. **R-2576** SHEET NO. **20**

ROADWAY DESIGN ENGINEER PAVEMENT DESIGN ENGINEER

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

**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED



PAVED SHOULDER

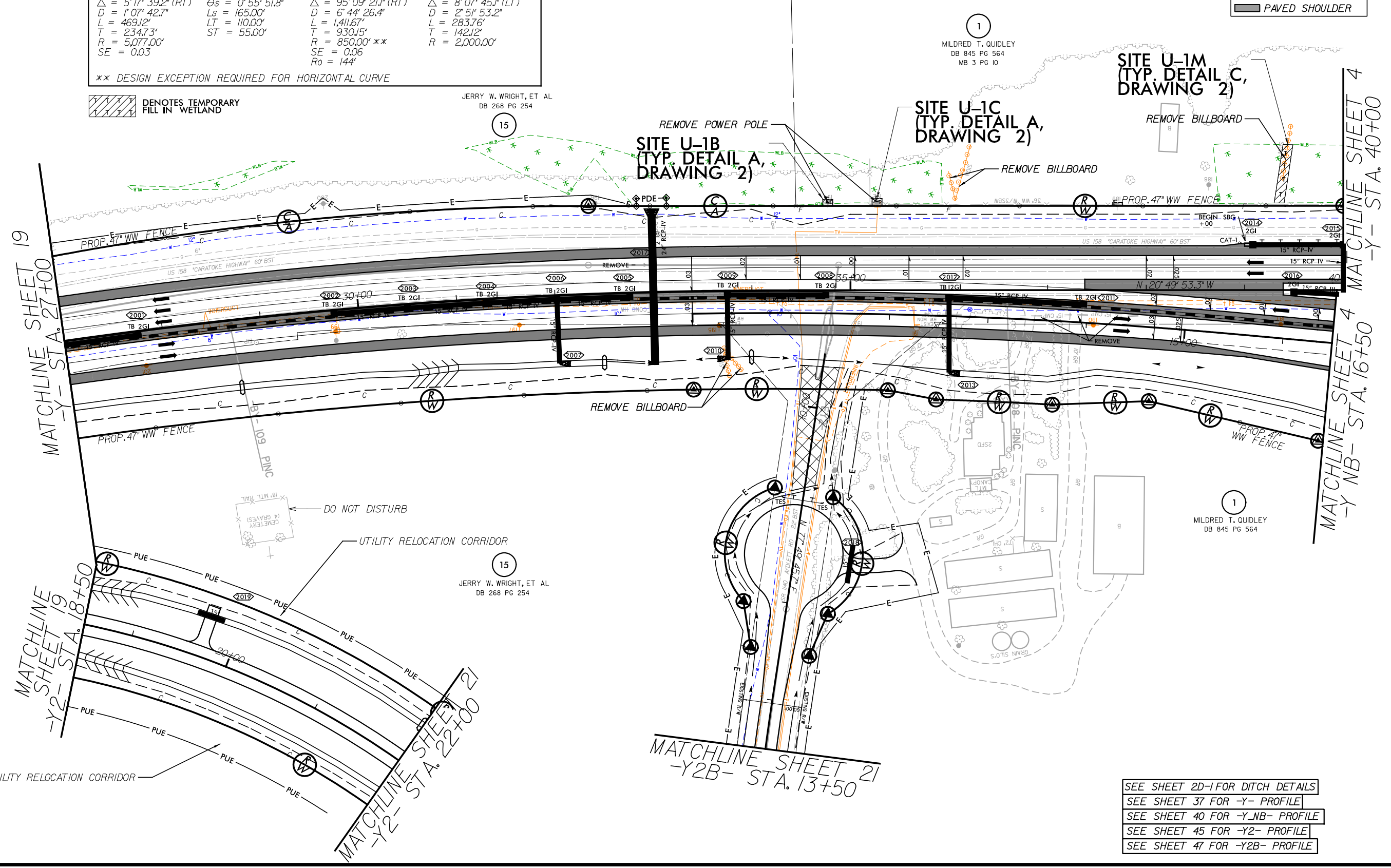
-Y-			
Pls Sta 21+52.26	Pls Sta 27+75.58	Pls Sta 33+94.24	
$\Theta_s = 0^\circ 55' 36.6''$	$\Delta = 12^\circ 43' 01.7''$ (RT)	$\Theta_s = 0^\circ 55' 36.6''$	
Ls = 165.00'	D = 1'07" 24.4"	Ls = 165.00'	
LT = 110.00'	L = 1,131.98'	LT = 110.00'	
ST = 55.00'	T = 568.32'	ST = 55.00'	
	R = 5,100.00'		
	SE = 0.03		
-Y-NB-			
Pls Sta 12+34.73	Pls Sta 15+24.12	Pls Sta 25+17.49	Pls Sta 14+46.16
$\Delta = 5^\circ 17' 39.2''$ (RT)	$\Theta_s = 0^\circ 55' 51.8''$	$\Delta = 95^\circ 09' 21.1''$ (RT)	$\Delta = 8^\circ 07' 45.1''$ (LT)
D = 1'07" 42.7"	Ls = 165.00'	D = 6' 44" 26.4"	D = 2' 51" 53.2"
L = 469.12'	LT = 110.00'	L = 1,411.67'	L = 283.76'
T = 234.73'	ST = 55.00'	T = 930.15'	T = 142.12'
R = 5,077.00'		R = 850.00' **	R = 2,000.00'
SE = 0.03		SE = 0.06	Ro = 144'

\*\* DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

DENOTES TEMPORARY FILL IN WETLAND

JERRY W. WRIGHT, ET AL  
DB 268 PG 254

## WETLAND UTILITY PERMIT DRAWING 4 OF 7



MATCHLINE SHEET 19  
-Y- STA. 27+00

MATCHLINE SHEET 19  
-Y2- STA. 18+50

MATCHLINE SHEET 21  
-Y2- STA. 22+00

MATCHLINE SHEET 4  
-Y- STA. 40+00

MATCHLINE SHEET 4  
-Y NB- STA. 16+50

MATCHLINE SHEET 21  
-Y2B- STA. 13+50

- SEE SHEET 20-I FOR DITCH DETAILS
- SEE SHEET 37 FOR -Y- PROFILE
- SEE SHEET 40 FOR -Y-NB- PROFILE
- SEE SHEET 45 FOR -Y2- PROFILE
- SEE SHEET 47 FOR -Y2B- PROFILE

2/5/2024  
R2576\_Pdu\_pty\_impacts.dgn

6/2/99



**LOCHNER**

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Number F-0159



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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. R-2576 SHEET NO. 22

ROADWAY DESIGN ENGINEER  
PAVEMENT DESIGN ENGINEER

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

**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

-Y_NB-		
Pls Sta 47+22.32	Pl Sta 49+89.44	Pls Sta 52+55.98
$\theta_s = 2^\circ 32' 47.3"$	$\Delta = 7^\circ 55' 45.6" (RT)$	$\theta_s = 2^\circ 32' 47.3"$
$L_s = 240.00'$	$D = 2^\circ 07' 19.4"$	$L_s = 240.00'$
$LT = 160.02'$	$L = 373.66'$	$LT = 160.02'$
$ST = 80.02'$	$T = 187.13'$	$ST = 80.02'$
	$R = 2,700.00'$	
	$SE = 0.05$	

**WETLAND UTILITY PERMIT DRAWING 5 OF 7**

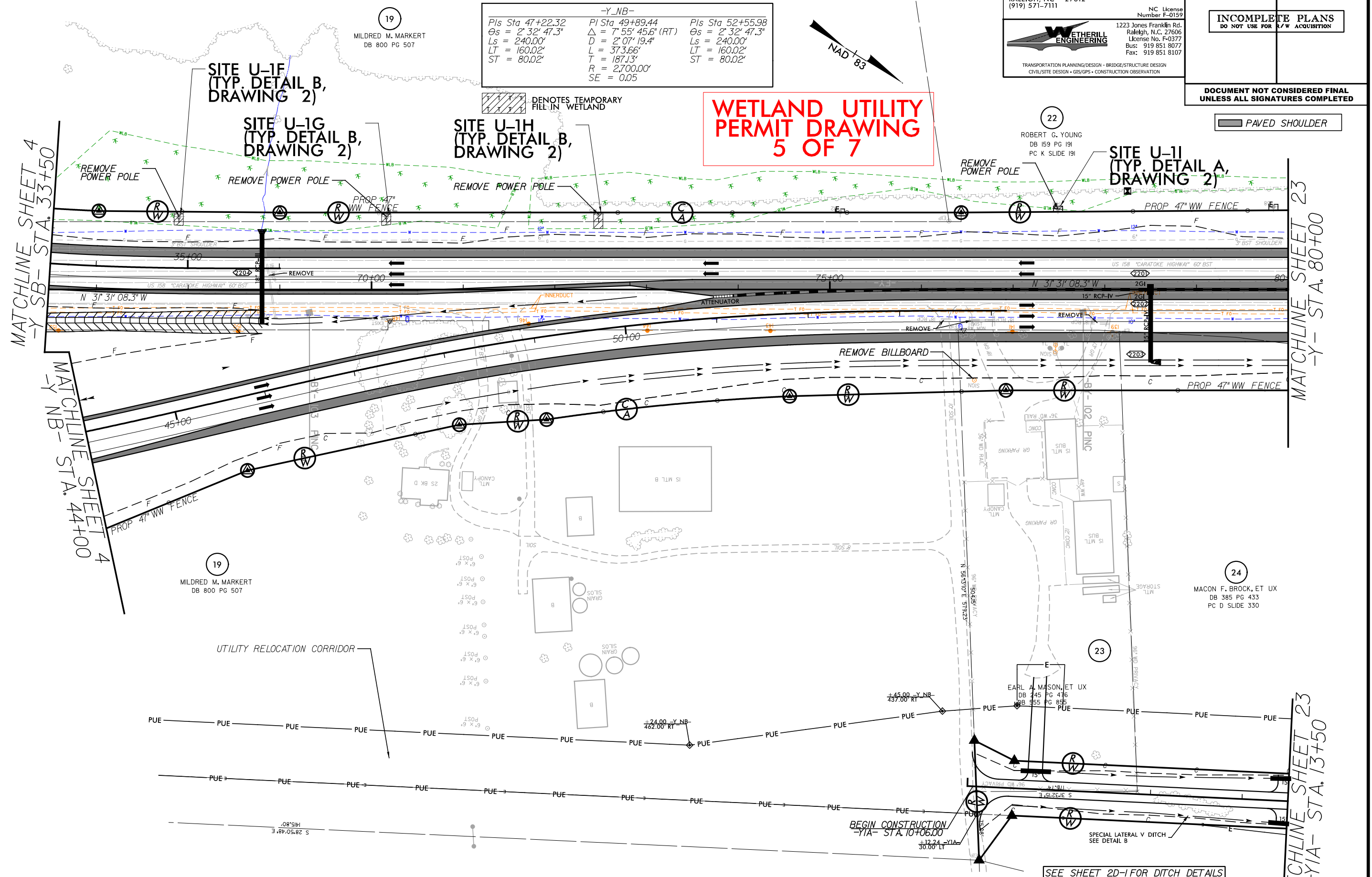
DENOTES TEMPORARY FILL IN WETLAND

MATCHLINE SHEET 4  
-Y\_SB- STA. 33+50

MATCHLINE SHEET 4  
-Y\_NB- STA. 44+00

MATCHLINE SHEET 23  
-Y- STA. 80+00

MATCHLINE SHEET 23  
-Y1A- STA. 13+50



SITE U-1F  
(TYP. DETAIL B,  
DRAWING 2)

SITE U-1G  
(TYP. DETAIL B,  
DRAWING 2)

SITE U-1H  
(TYP. DETAIL B,  
DRAWING 2)

SITE U-1I  
(TYP. DETAIL A,  
DRAWING 2)

19  
MILDRED M. MARKERT  
DB 800 PG 507

22  
ROBERT G. YOUNG  
DB 159 PG 191  
PC K SLIDE 191

24  
MACON F. BROCK, ET UX  
DB 385 PG 433  
PC D SLIDE 330

23  
EARL A. MASON, ET UX  
DB 445 PG 416  
DB 555 PG 383

BEGIN CONSTRUCTION  
-Y1A- STA. 10+06.00

SPECIAL LATERAL V DITCH  
SEE DETAIL B

SEE SHEET 37-38 FOR -Y- PROFILE  
SEE SHEET 40-41 FOR -Y\_NB- PROFILE  
SEE SHEET 39 FOR -Y\_SB- PROFILE  
SEE SHEET 44 FOR -Y1A- PROFILE

2/5/2024  
R2576\_Pdu\_psh22\_UtilityImpacts.dgn

6/2/99

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Fax: 919 851 8107



TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

COINJOCK DEVELOPMENT COMPANY, INC  
DB 103 PG 363  
PC A SLIDE 217

-Y- TS Sta. 90+40.53  
-Y- POT Sta. 90+63.30  
-YI- POT Sta. 10+00.00  
Δ = 90° 00' 00.00"

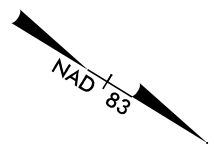
PROJECT REFERENCE NO. R-2576 SHEET NO. 23

ROADWAY DESIGN ENGINEER PAVEMENT DESIGN ENGINEER

**INCOMPLETE PLANS**  
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**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

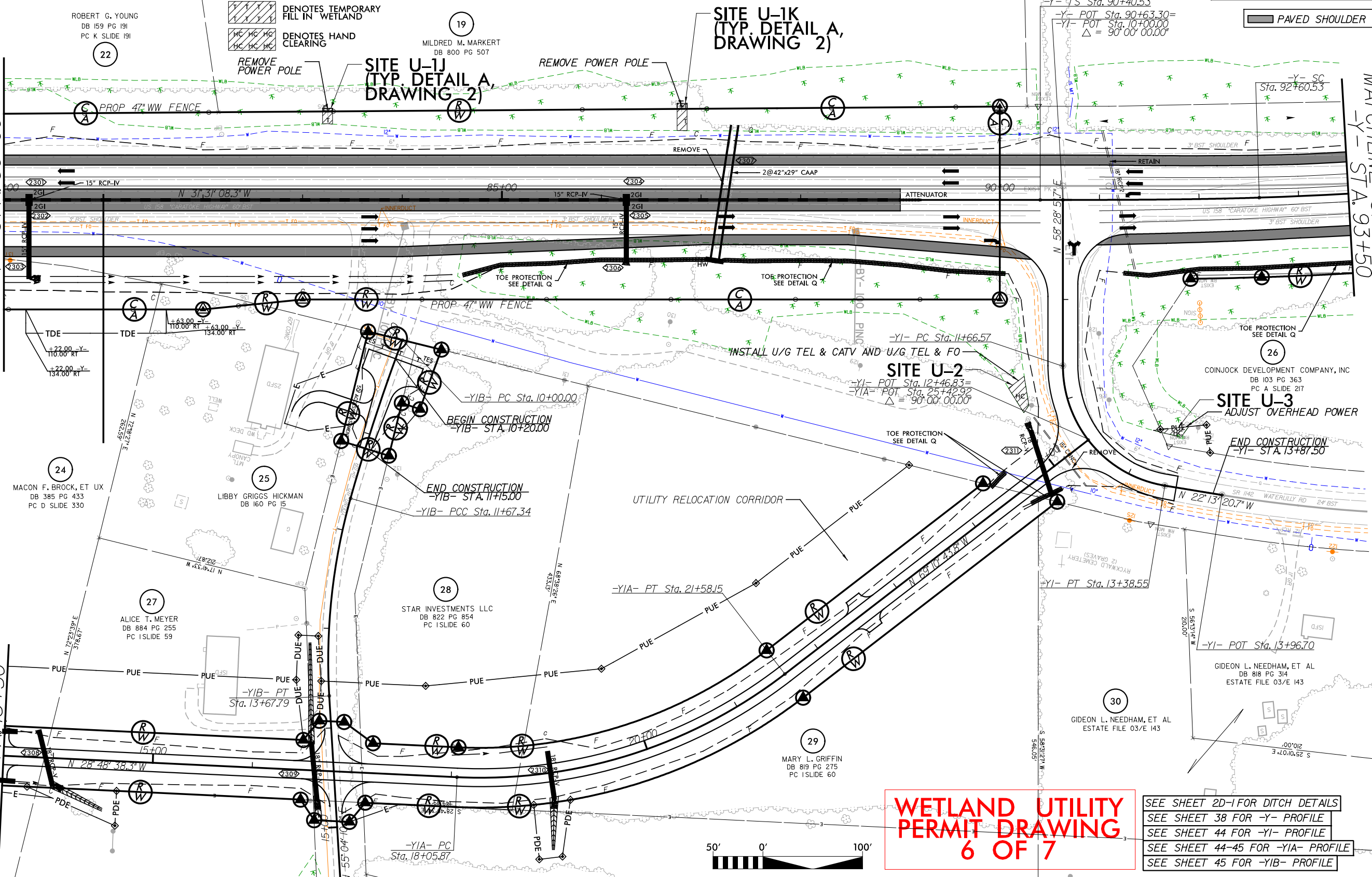
-YI-	-YIA-	-YIB-	-Y-
PI Sta 12+70.31 Δ = 80° 42' 12.5" (LT) D = 46° 55' 31.0" L = 171.98' T = 103.74' R = 122.10' SE = 0.06 Ro = 124'	PI Sta 19+89.68 Δ = 40° 22' 05.5" (LT) D = 11° 27' 33.0" L = 352.28' T = 183.81' R = 500.00' SE = 0.05 Ro = 100'	PI Sta 10+83.72 Δ = 4° 47' 38.4" (LT) D = 2° 51' 53.2" L = 167.34' T = 83.72' R = 2,000.00'	PI Sta 12+68.51 Δ = 19° 08' 28.0" (LT) D = 9° 32' 57.5" L = 200.45' T = 101.17' R = 600.00'
PIs Sta 91+87.20 Θs = 1° 48' 02.6" Ls = 220.00' LT = 146.67' ST = 73.34'	PIs Sta 95+75.07 Δ = 10° 16' 13.8" (LT) D = 1° 38' 13.3" L = 627.39' T = 314.54' R = 3,500.00' SE = 0.04	PIs Sta 99+61.26 Θs = 1° 48' 02.6" Ls = 220.00' LT = 146.67' ST = 73.34'	



MATCHLINE SHEET 22  
-Y- STA. 80+00

MATCHLINE SHEET 24  
-Y- STA. 93+50

MATCHLINE SHEET 22  
-YIA- STA. 13+50



**WETLAND UTILITY PERMIT DRAWING**  
**6 OF 7**

- SEE SHEET 2D-I FOR DITCH DETAILS
- SEE SHEET 38 FOR -Y- PROFILE
- SEE SHEET 44 FOR -YI- PROFILE
- SEE SHEET 44-45 FOR -YIA- PROFILE
- SEE SHEET 45 FOR -YIB- PROFILE



245/2024  
R2576\_P01\_psh23\_UtilityImpacts.dgn  
6/2/2024

**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)	
U-1A	-Y- 34+72 to 34+82 LT			0.002									
U-1B	-Y- 34+72 to 34+82 LT			0.001									
U-1C	-Y- 35+22 to 35+32 LT			0.001									
U-1D	-Y- 40+13 to 40+23 LT			< 0.001									
U-1E	-Y- 66+37 to 66+47 LT			0.002									
U-1F	-Y- 67+85 to 67+95 LT			0.003									
U-1G	-Y- 70+11 to 70+21 LT			0.003									
U-1H	-Y- 72+43 to 72+53 LT			0.004									
U-1I	-Y- 77+44 to 77+54 LT			< 0.001									
U-1J	-Y- 83+20 to 83+30 LT			0.004									
U-1K	-Y- 86+76 to 86+86 LT			0.006									
U-1L	-Y- 20+49 to 20+81 LT			0.010									
U-1M	-Y- 39+30 to 39+49 LT			0.014									
U-1N	-Y- 42+32 to 42+47 LT			0.012									
2	-Y1- 11+75 to 12+01 RT							0.009					
3	-Y1- 13+03 to 13+53 RT							0.004					
<b>TOTALS*:</b>				0.062				0.013			0	0	0

\*Rounded totals are sum of actual impacts

- NOTES:  
 Site 1 includes the entire wetland along the Y line (US 158)  
 Site 1 assumes the use a 10' wide construction mat in wetlands to access power poles to be removed.  
 Site 1 assumes a 5' buffer for construction mats around billboards to be removed.

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 2/5/2024  
 Currituck County  
 R-2576  
 34470.1.TA1  
 SHEET 7 OF 7