

09, 08/2023

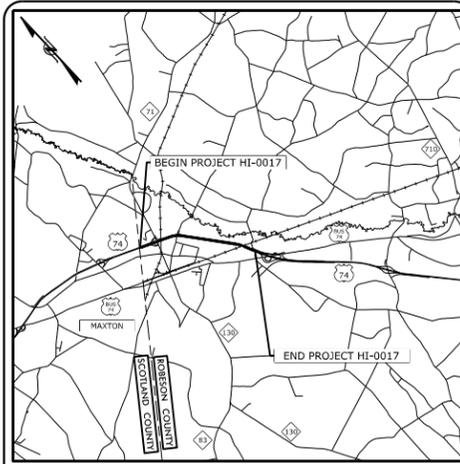
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HI-0017	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49988.1.1		PE	
49988.3.1	4998831	CONST	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

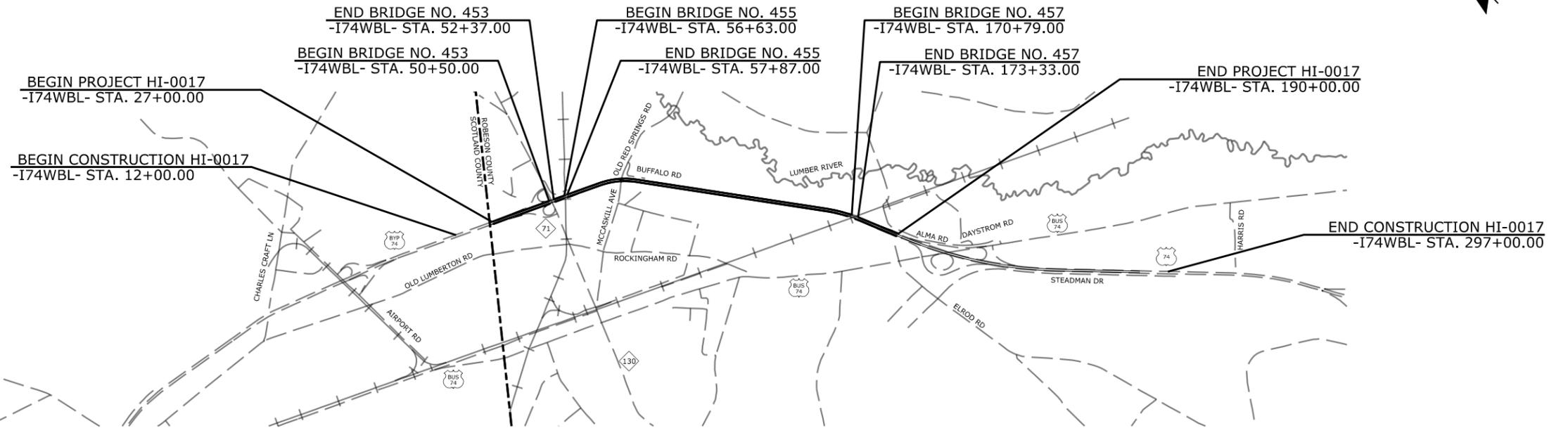
**ROBESON COUNTY**

LOCATION: US 74 FROM THE SCOTLAND COUNTY LINE  
TO I-74 /US 74 BUSINESS

TYPE OF WORK: PAVEMENT REHABILITATION, DRAINAGE  
& BRIDGE PRESERVATION



**VICINITY MAP**  
N.T.S.



**TIP PROJECT: HI-0017**

**CONTRACT: C204845**

**DESIGN DATA**

AADT 2021 = 19,500  
V = 70 MPH

FUNC CLASS =  
FREEWAY /FUTURE INTERSTATE

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT HI-0017 WBL = 2.980 MI  
LENGTH STRUCTURE TIP PROJECT HI-0017 WBL = 0.107 MI  
TOTAL LENGTH OF TIP PROJECT HI-0017 WBL = 3.087 MI

Prepared for the Office of:  
**DIVISION OF HIGHWAYS**  
431 Transportation Dr, Fayetteville NC, 28301

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
N/A

LETTING DATE:  
DECEMBER 19, 2023

ALEX HENDERSON  
NCDOT CONTACT  
PROJECT MANAGER

DOUGLAS SAUNDERS, PE  
PROJECT ENGINEER

WILLIAM TILLITT, PE  
PROJECT DESIGN ENGINEER

11/9/2023



DocuSigned by:  
*William E. Tillitt*  
SIGNATURE: WILLIAM E. TILLITT, P.E.



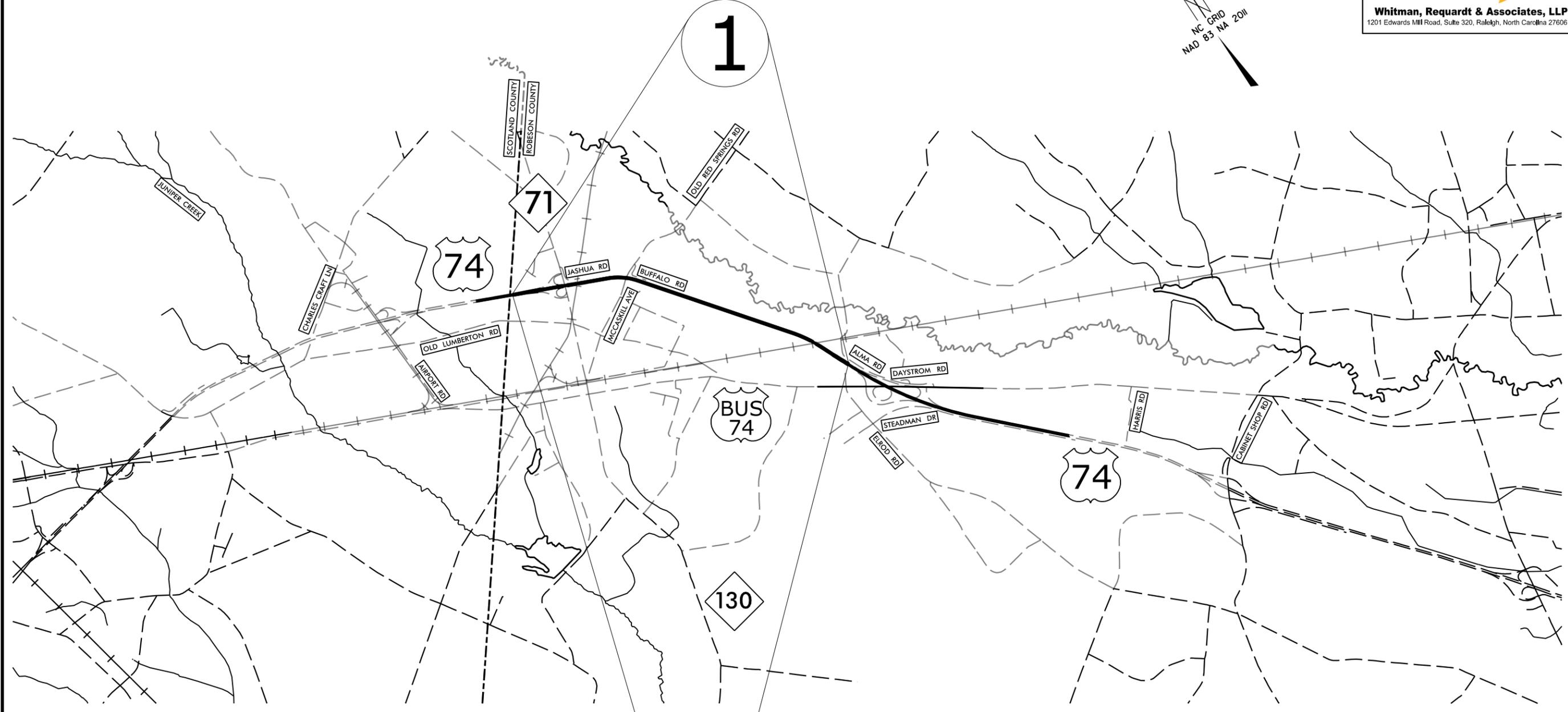
**Whitman, Requardt & Associates, LLP**  
1201 Edwards Mill Road, Suite 320, Raleigh, North Carolina 27606



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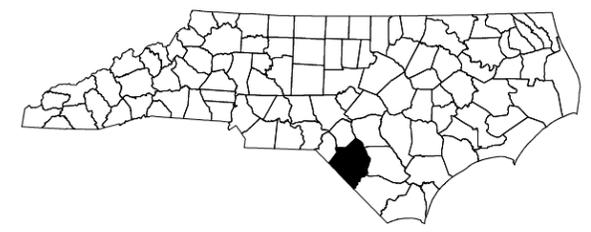
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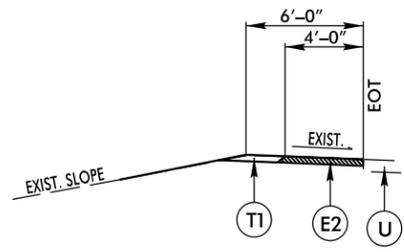
2

# ROBESON COUNTY NORTH CAROLINA

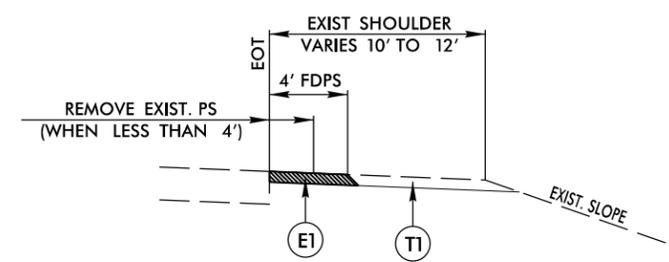


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8/17/99

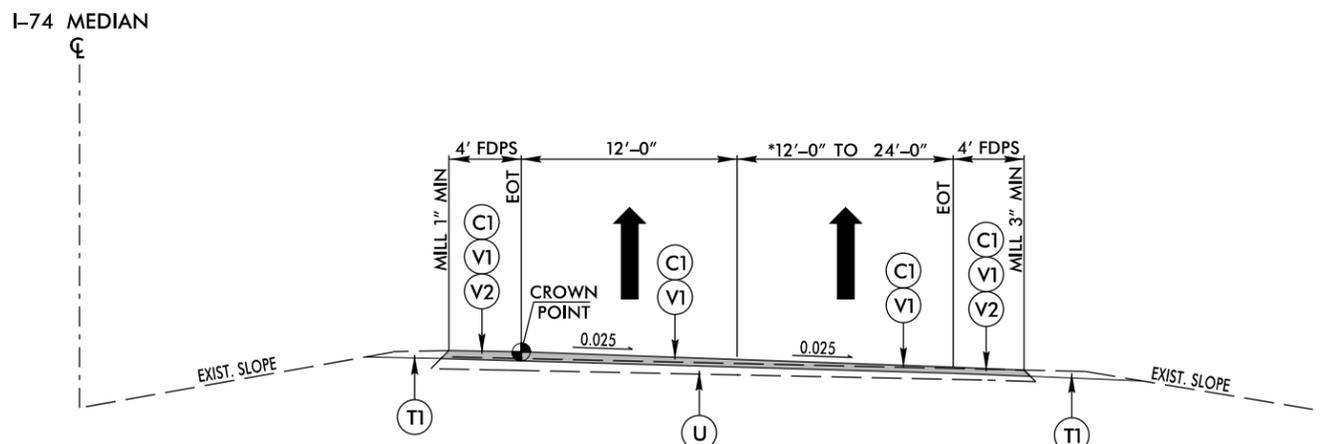
**NOT TO SCALE**



**DETAIL A**  
**FULL DEPTH PAVED SHOULDER WIDENING (INSIDE/MEDIAN) STEP 1**



**DETAIL B**  
**FULL DEPTH PAVED SHOULDER WIDENING (OUTSIDE) STEP 1**



**TYPICAL SECTION NO. 1**  
L-74 EB STA. 27+00.00 TO 189+50.34  
L-74 WB STA. 27+00.00 TO 190+00.00  
MAPS 1-2

CONSTRUCT ALL MEDIAN AND OUTSIDE PAVED SHOULDER WIDENING, DETAILS A AND B TO EXISTING US 74 TRAVEL LANE ELEVATION. ONCE ALL FDPS WIDENING IS COMPLETE, MILL NEW FDPS AND EXISTING US 74 TRAVEL LANES TO 0.025 SE GRADE USING V1 (1" TO 3" MILLING) AND FILL WITH C1 (2" S9.5C)

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YARD
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" OR GREATER THAN 2.0" IN DEPTH.
E1	PROP. APPROX. 8.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 969 LBS. PER SQ. YARD
E2	PROP. APPROX. 6.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 741 LBS. PER SQ. YARD
E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT GREATER THAN 5.5" IN DEPTH OR LESS THAN 3.0" IN DEPTH.
T1	SHOULDER RECONSTRUCTION USING AGGREGATE SHOULDER BORROW AS DIRECTED BY ENGINEER
U	EXISTING ASPHALT PAVEMENT
V1	1" TO 3" MILLED ASPHALT PAVEMENT
V2	MILLED RUMBLE STRIPS
V3	2" MILLED ASPHALT PAVEMENT
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE. SEE SHOULDER WEDGE DETAIL.

**NOTES:**

\*PAVEMENT REHABILITATION FOR RAMP ENTRANCE AND EXIT LANES WILL INCLUDE ADDITIONAL WIDTH FOR AREAS OF GORES. (SEE PLANS FOR LIMITS)

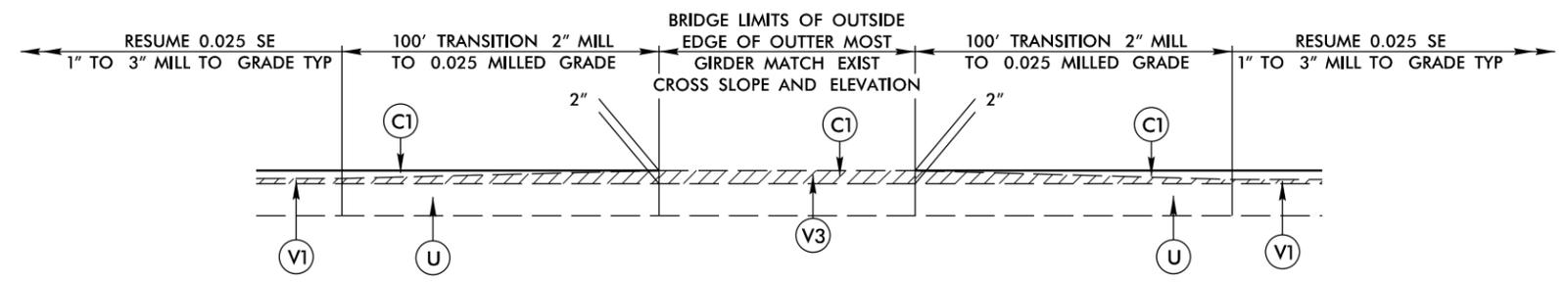
LIMITS OF TYPICAL SECTIONS INDICATED ON THE PLANS ARE APPROXIMATE. TYPICAL SECTION LIMITS AND TRANSITIONS TO BE VERIFIED BY THE ENGINEER IN FIELD.

PAVE SHOULDERS FOR VEHICLE PULL-OFF AREA AS DIRECTED BY ENGINEER.

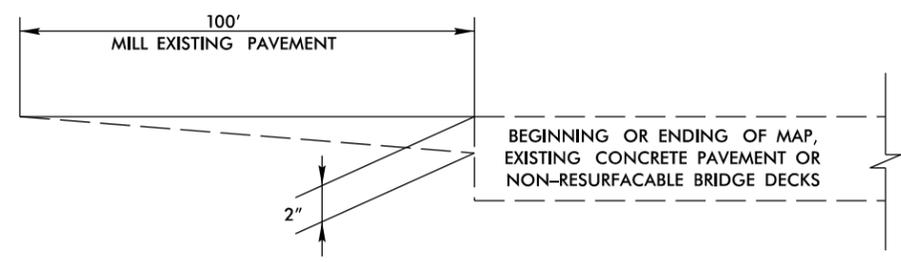
SURVEY ALL EXISTING CURVES INCLUDING FULL SUPERELEVATION SECTION, SUPERELEVATION RUNOFF, AND TANGENT RUNOUTS. PROVIDE FINDINGS TO NCDOT ENGINEER WITH RECOMMENDED SUPERELEVATIONS FOR CORRECTING DEFECIENCIES. CONTRACTOR SHALL STAKE EVERY 50 FEET THROUGHOUT EACH CURVE FOR EACH LIFT. ITEM SHALL BE PAID FOR UNDER CONSTRUCTION SURVEYING.

WEDGE ALL CURVES TO OBTAIN APPROVED SUPERELEVATIONS. WEDGING QUANTITIES FOR SUPERELEVATION CORRECTION WERE ESTIMATED FROM LIDAR. FINAL QUANTITIES WILL VARY.

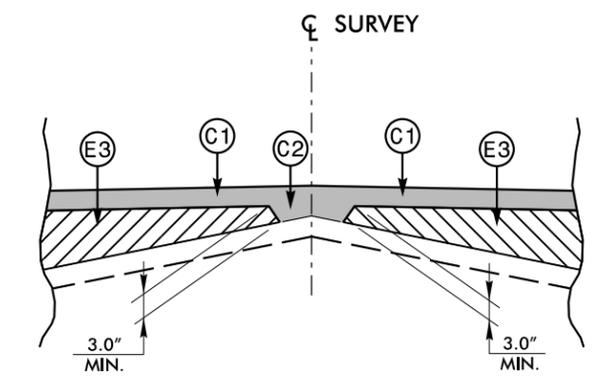
MILLED SECTIONS SHALL BE RESURFACED IN THE SAME NIGHT.



**MILLING UNDER BRIDGES**



**INCIDENTAL MILLING AT PAVEMENT TIE-INS**



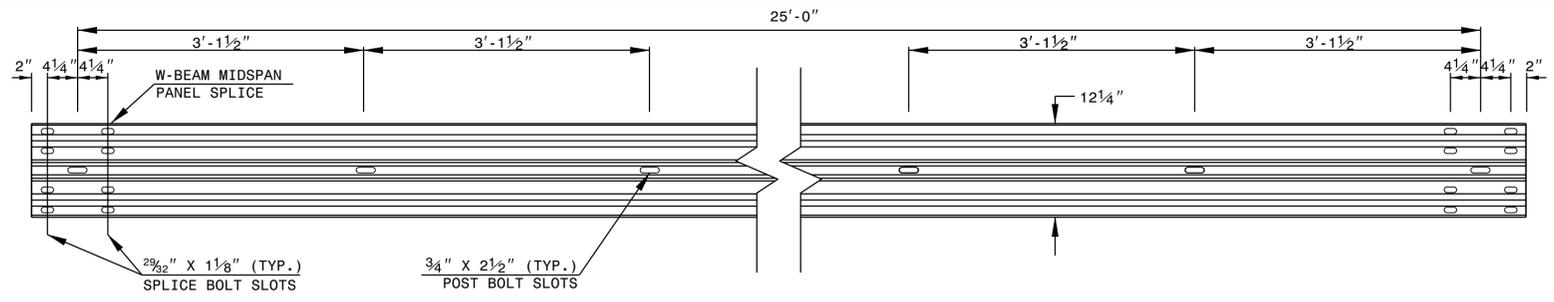
**WEDGING DETAIL**

8/17/99  
7:57:28 AM  
N:\48006-002\CADD\NCDOT\Roadway\Pro\017\HI-0017\_R017\_TYP.dgn

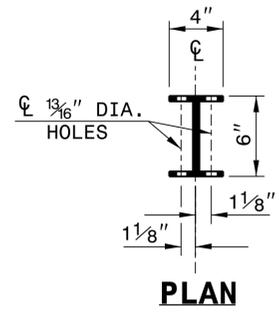
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

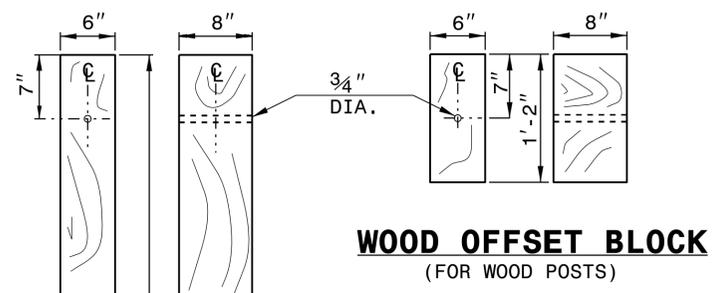
SHEET 6 OF 8  
**862D02**



**STANDARD W-BEAM GUARDRAIL**



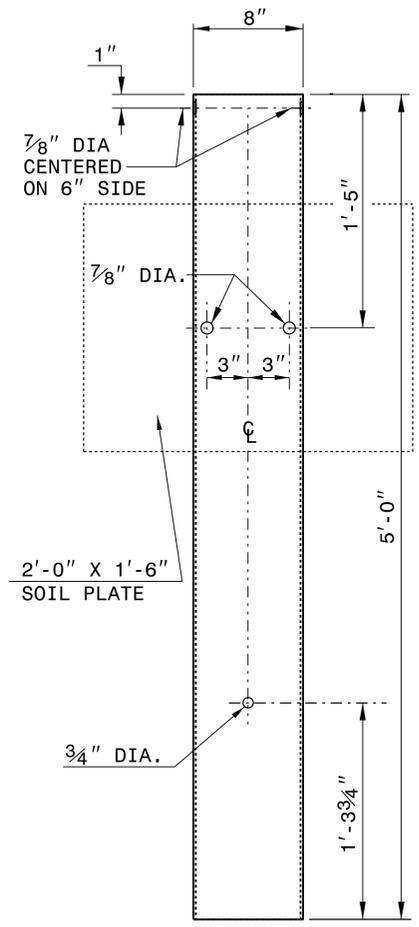
**PLAN**



**WOOD OFFSET BLOCK  
(FOR WOOD POSTS)**

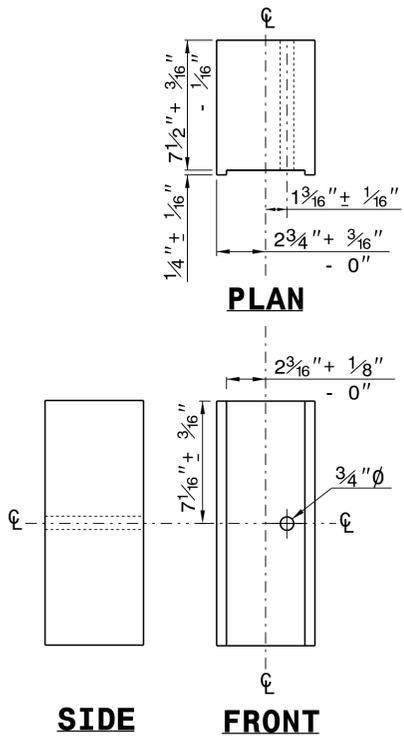
**STANDARD  
LINE POST**

**SHORT WOOD  
BREAKAWAY POST**



**STEEL TUBE  
TS 6"x8"x0.1875"**

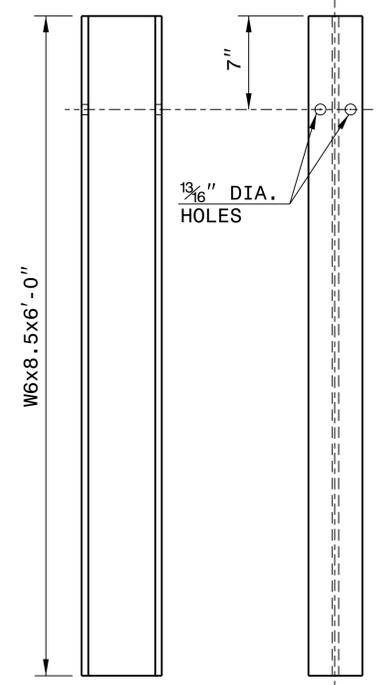
**SYSTEM PARTS**



**SIDE**

**FRONT**

**ROUTED  
OFFSET BLOCK**



**SIDE**

**FRONT**

**"W6" STEEL POST**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET 6 OF 8  
**862D02**



**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

ORIGINAL BY: J. HOWERTON DATE: 3-7-2018  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_



SUMMARY OF QUANTITIES - ROADWAY

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	000100000-N	000400000-N	124500000-E	126000000-E	129700000-E	130800000-E	133000000-E	
												MOBILIZATION	CONSTRUCTION SURVEYING	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	2" MILLING	1" TO 3" MILLING	INCIDENTAL MILLING	
											MI	FT	LS	LS	SMI	TON	SY	SY	SY
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24						52,715		
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24						52,072		
TOTAL FOR MAP NO. 1										2.98						52,715			
TOTAL FOR MAP NO. 2										2.98						52,072			
GRAND TOTAL										5.96		1	1	12.35	31,120	375	104,787	7,475	
												1	1	12.35	31,120	375	104,790	7,475	

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	149100000-E	152300000-E	157500000-E	184000000-E	303000000-E	315000000-N
												ASPHALT CONC BASE COURSE, TYPE B25.0C	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	STEEL BEAM GUARDRAIL	ADDITIONAL GUARDRAIL POSTS
											TONS	TONS	TONS	LF	LF	EA	
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24	6,440	7,227	716	32,600		
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24	6,421	7,152	711	32,600		
TOTAL FOR MAP NO. 1										2.98		6,440	7,227	716	32,600		
TOTAL FOR MAP NO. 2										2.98		6,421	7,152	711	32,600		
GRAND TOTAL										5.96		12,861	14,379	1,427	65,200	6,787.5	15
												12,870	14,380	1,430	65,200	6,787.5	15

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	321000000-N	328700000-N	331700000-N	336000000-E	350300000-E	350900000-E	351500000-E
												GUARDRAIL END UNITS, TYPE CAT-1	GUARDRAIL END UNITS, TYPE TL-3	GUARDRAIL ANCHOR UNITS, TYPE B-77	REMOVE EXISTING GUARDRAIL	WOVEN WIRE FENCE, 47" FABRIC	4" TIMBER FENCE POSTS, 7'-6" LONG	5" TIMBER FENCE POSTS, 8'-0" LONG
											EA	EA	EA	LF	LF	EA	EA	
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24							
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	NO	NO	2.98	24							
TOTAL FOR MAP NO. 1										2.98								
TOTAL FOR MAP NO. 2										2.98								
GRAND TOTAL										5.96		4	14	22	7,989	470	21	24
												4	14	22	7,989	470	21	24





PROJECT NO.	SHEET NO.
HI-0017	3B-5

### SIGNING QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	4048000000-E	4054000000-E	4060000000-E	4072000000-E	4102000000-N	4108000000-N	4110000000-N	4110000000-N	4152000000-N	4155000000-N	
									REINFORCED CONCRETE SIGN FOUNDATIONS	PLAIN CONCRETE SIGN FOUNDATIONS	SUPPORTS, BREAKAWAY STEEL BEAM	SUPPORTS, 3 LB STEEL U CHANNEL	SIGN ERECTION TYPE E	SIGN ERECTION TYPE F	SIGN ERECTION, TYPE A (GROUND MOUNTED)	SIGN ERECTION, TYPE B (GROUND MOUNTED)	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	
								MI	CY	CY	LB	LF	EA	EA			EA	EA	
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98											
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98											
GRAND TOTAL									8.0	1.0	8,440	170	6	1	10	8	11	1	
								8.0	1.0	8,440	170	6	1	10	8	11	1		

### WORK ZONE TRAFFIC CONTROL QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	4400000000-E	4405000000-E	4423000000-N	4424000000-N	4434000000-N	4430000000-N	4600000000-N	4600000000-N	4600000000-N
									WORK ZONE SIGNS (STATIONARY)	WORK ZONE SIGNS (PORTABLE)	GENERIC TRAFFIC CONTROL ITEM - WORK ZONE DIGITAL SPEED LIMIT SIGNS	GENERIC TRAFFIC CONTROL ITEM - WORK ZONE PRESENCE LIGHTING	GENERIC TRAFFIC CONTROL ITEM - SEQUENTIAL FLASHING WARNING LIGHTS	DRUMS	GENERIC TRAFFIC CONTROL ITEM - SINGLE LANE CLOSURE	GENERIC TRAFFIC CONTROL ITEM - RAMP/LOOP TRAFFIC CONTROL	GENERIC TRAFFIC CONTROL ITEM - RAMP/LOOP CLOSURES
								MI	SF	SF	EA	EA	EA	EA	EA	EA	EA
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98									
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98									
GRAND TOTAL									880	192	4	14	13	50	110	4	4
								880	192	4	14	13	50	110	4	4	

PROJECT NO.

SHEET NO.

HI-0017

3B-6

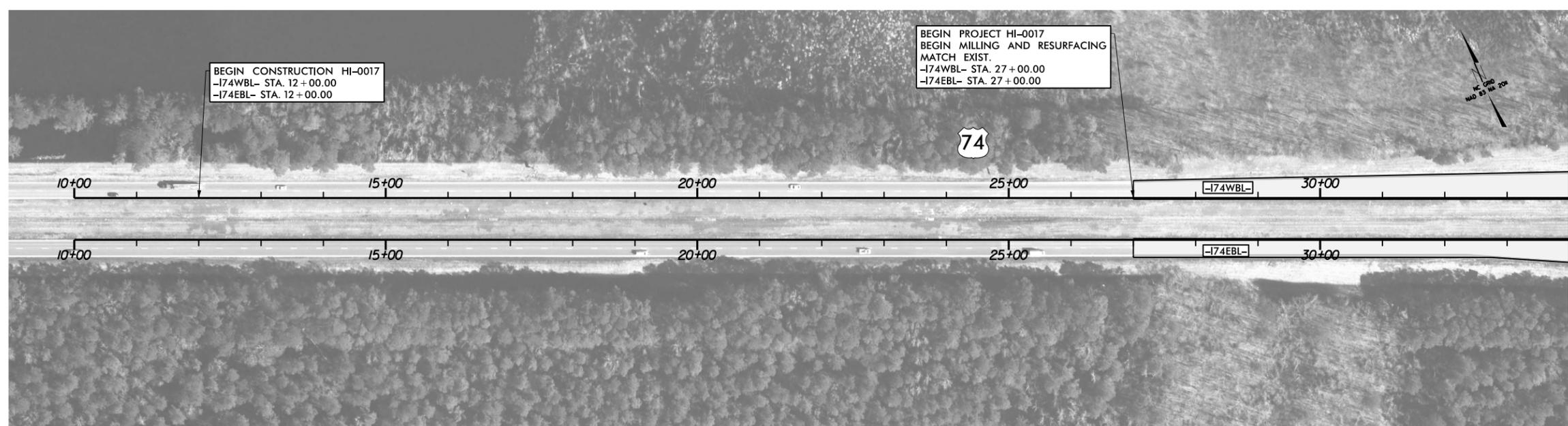
## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4688000000-E		4700000000-E	4725000000-E	4815000000-E		4825000000-E	4845000000-N	4847096000-E		4905100000-N		
										THERMO PAVEMENT MARKING LINES (6", 90 MILS), WHITE	THERMO PAVEMENT MARKING LINES (6", 90 MILS), YELLOW	THERMO PAVEMENT MARKING LINES (12", 90 MILS), WHITE	THERMO PAVEMENT MARKING SYMBOL (90 MILS), MERGE ARROW	PAINT PAVEMENT MARKING LINES (6") WHITE	PAINT PAVEMENT MARKING LINES (6") YELLOW	PAINT PAVEMENT MARKING LINES (12") WHITE	PAINT PAVEMENT MARKING SYMBOL, MERGE ARROW	POLYUREA PAVEMENT MARKING LINES WHITE (6", 30 MILS) STANDARD GLASS BEADS	POLYUREA PAVEMENT MARKING LINES YELLOW (6", 30 MILS) STANDARD GLASS BEADS	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER		
										MI	FT	LF	EA	LF	LF	LF	EA	LF	LF	EA		
49988.3.1	Robeson	1	US 74 WB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98	24													
		2	US 74 EB 2" MILL	FROM THE SCOTLAND COUNTY LINE TO US 74 BUSINESS	1	2	2WD	2.98	24													
GRAND TOTAL												42,020	32,800	1,420	8	45,190	34,260	1,420	8	3,170	1,460	516
												74,820	1,420	8	79,450	1,420	8	4,630		516		

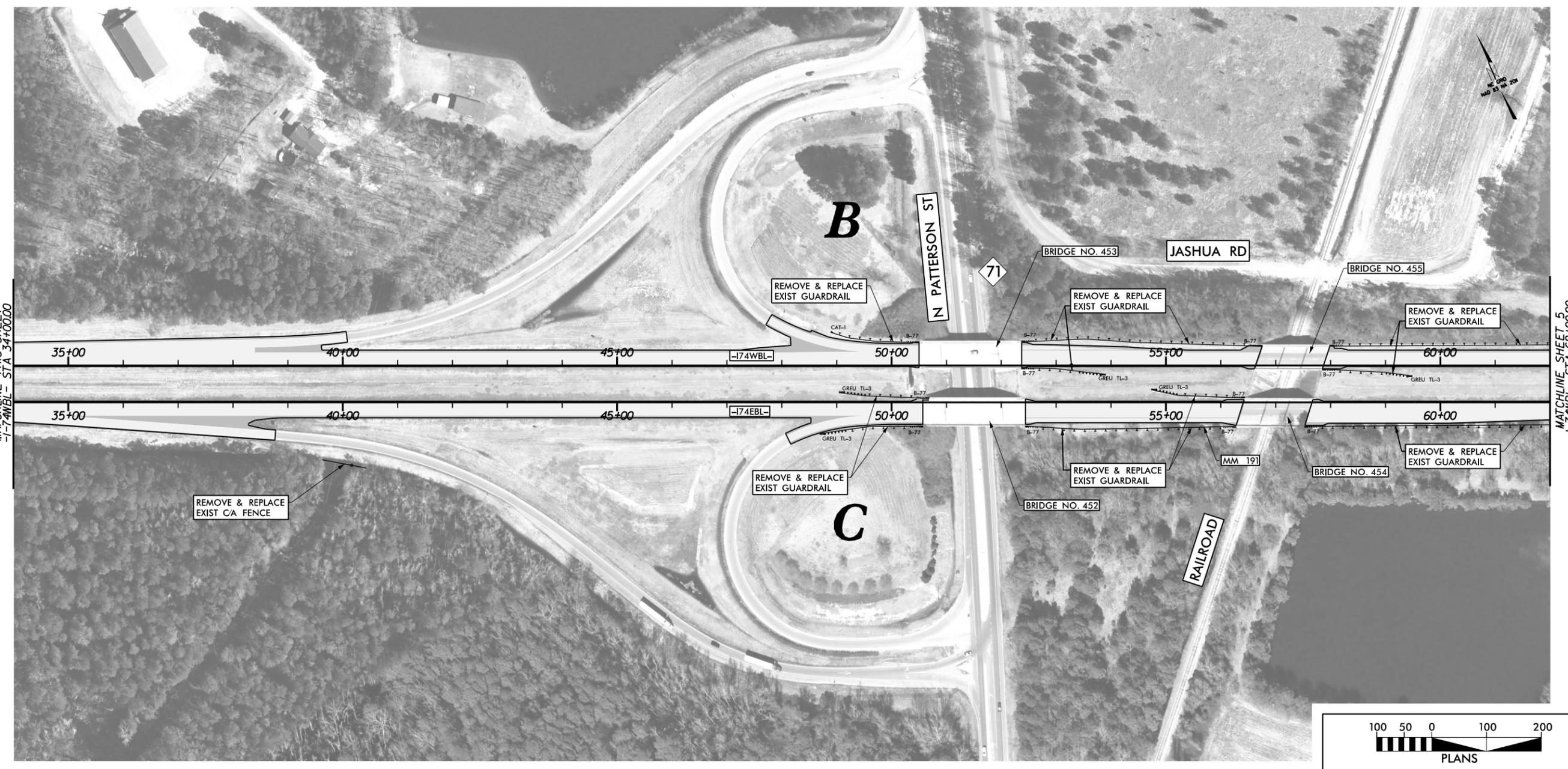
8/17/99



**Whitman, Requardt & Associates, LLP**  
 1201 Edwards Mill Road, Suite 320, Raleigh, North Carolina 27606



MATCHLINE THIS SHEET  
-1-74WBL- STA 34+00.00

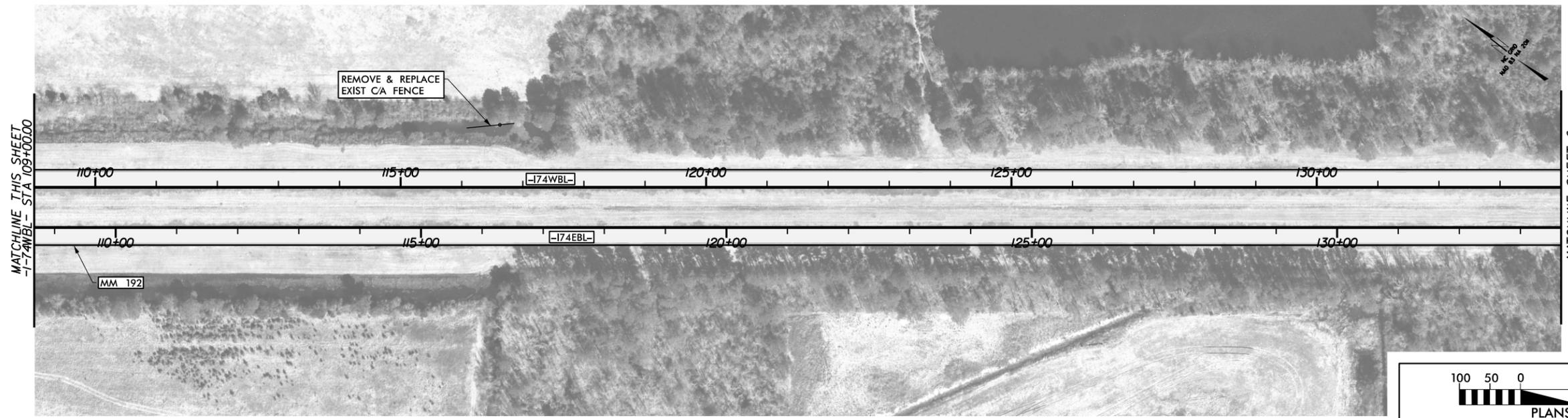
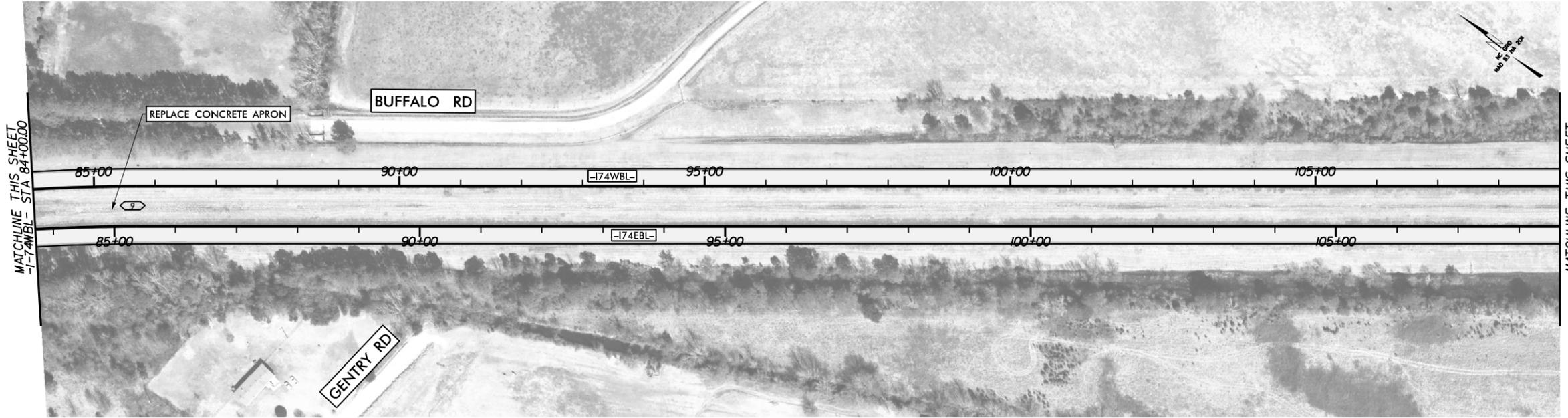
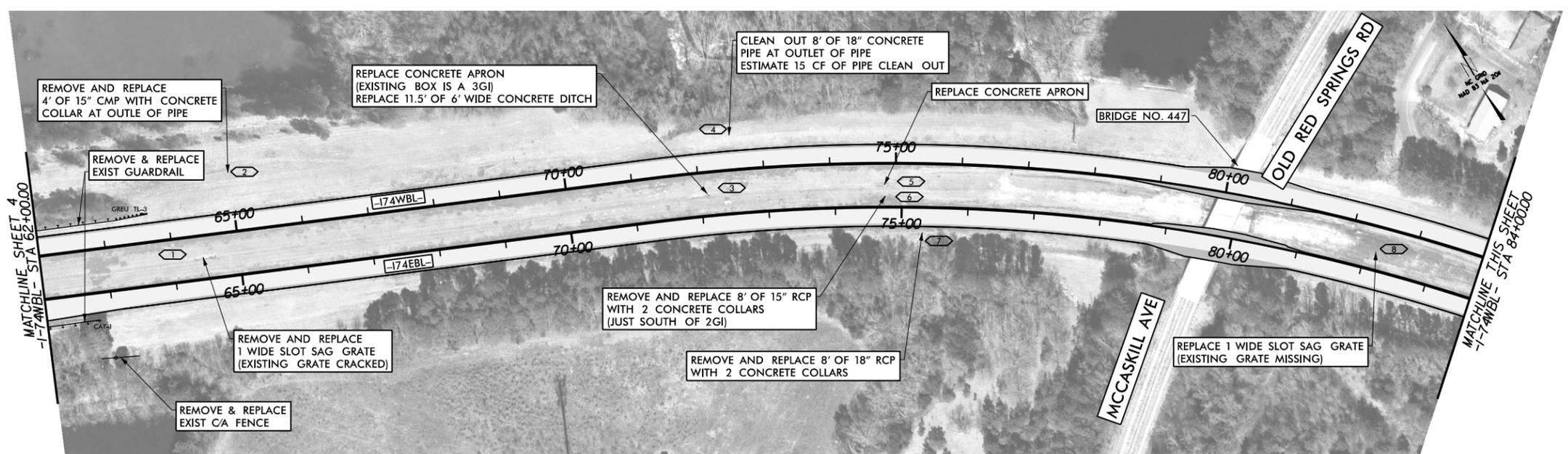


MATCHLINE THIS SHEET  
-1-74WBL- STA 34+00.00

MATCHLINE SHEET 5  
-1-74WBL- STA 62+00.00



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8/17/99

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