

**PROJECT: 45340.3.FS13 TIP:W-5210M**

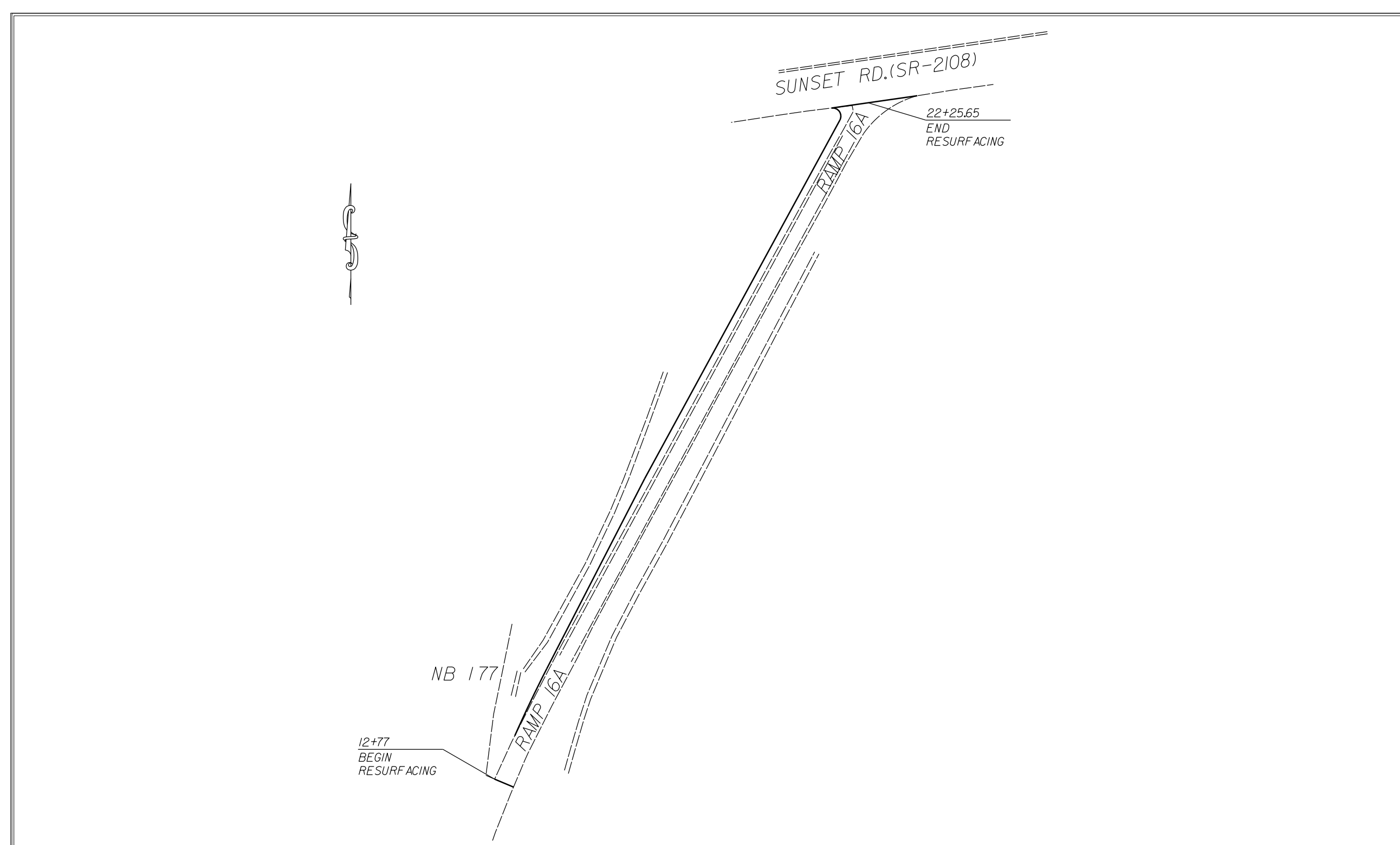


VICINITY MAP NOT TO SCALE

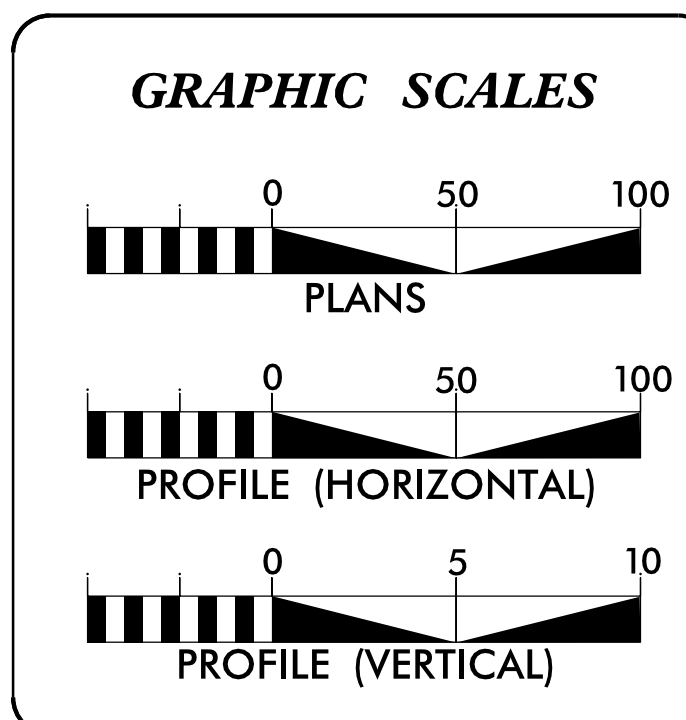
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**MECKLENBURG COUNTY**

**LOCATION:** RAMP 16A ON NORTH BOUND I 77

**TYPE OF WORK:** GRADING, PAVING, PAVEMENT REMOVAL, AND THERMOPLASTIC PAVEMENT MARKINGS.



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45340.1.FS13		P.E.	
		R/W	
45340.3.FS13		CONST.	



**DESIGN DATA**

ADT	=	
ADT	=	
DHV	=	%
D	=	%
T	=	%
V	=	MPH

**PROJECT LENGTH**

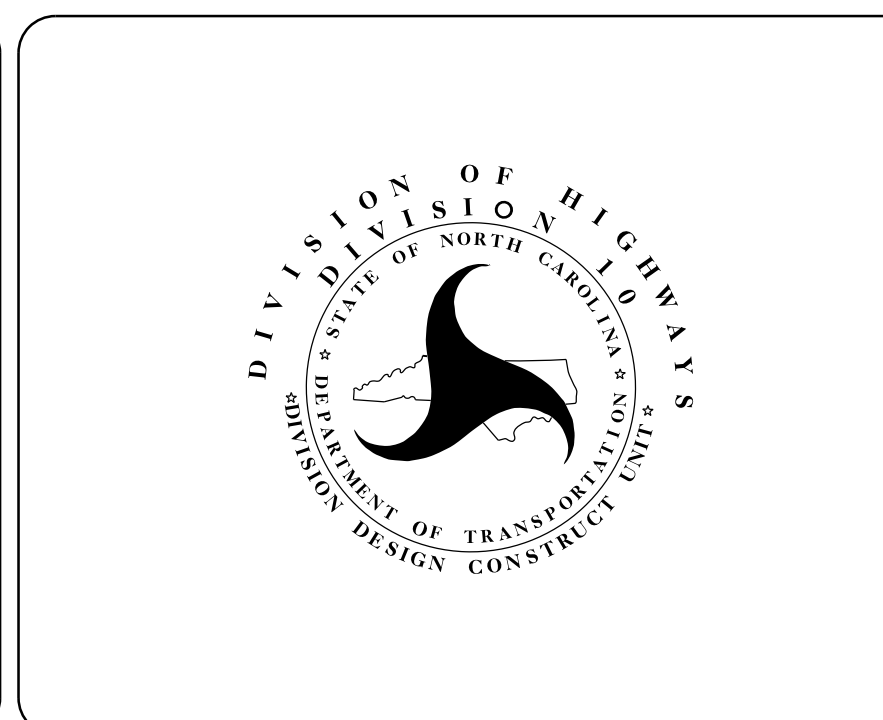
LENGTH OF ROADWAY PROJECT 45340.3.FS13	=	0.17	MILES
TOTAL LENGTH OF STATE PROJECT 45340.3.FS13	=	0.17	MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
DIVISION TEN  
DIVISION DESIGN / CONSTRUCT UNIT

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2012 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b> N/A	<b>RANDY BOWERS</b> PROJECT ENGINEER
<b>LETTING DATE:</b> April 1, 2015	<b>DONALD HARWARD</b> PROJECT DESIGN ENGINEER



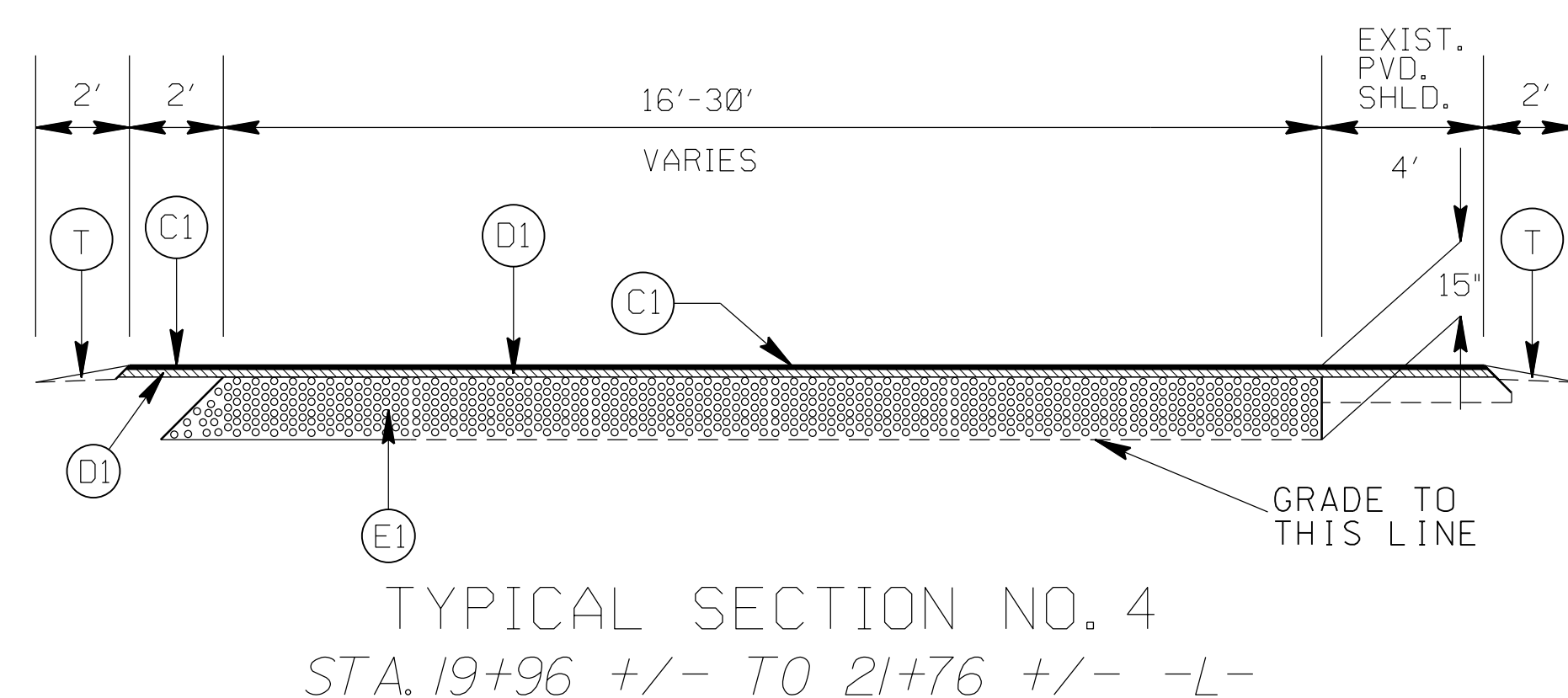
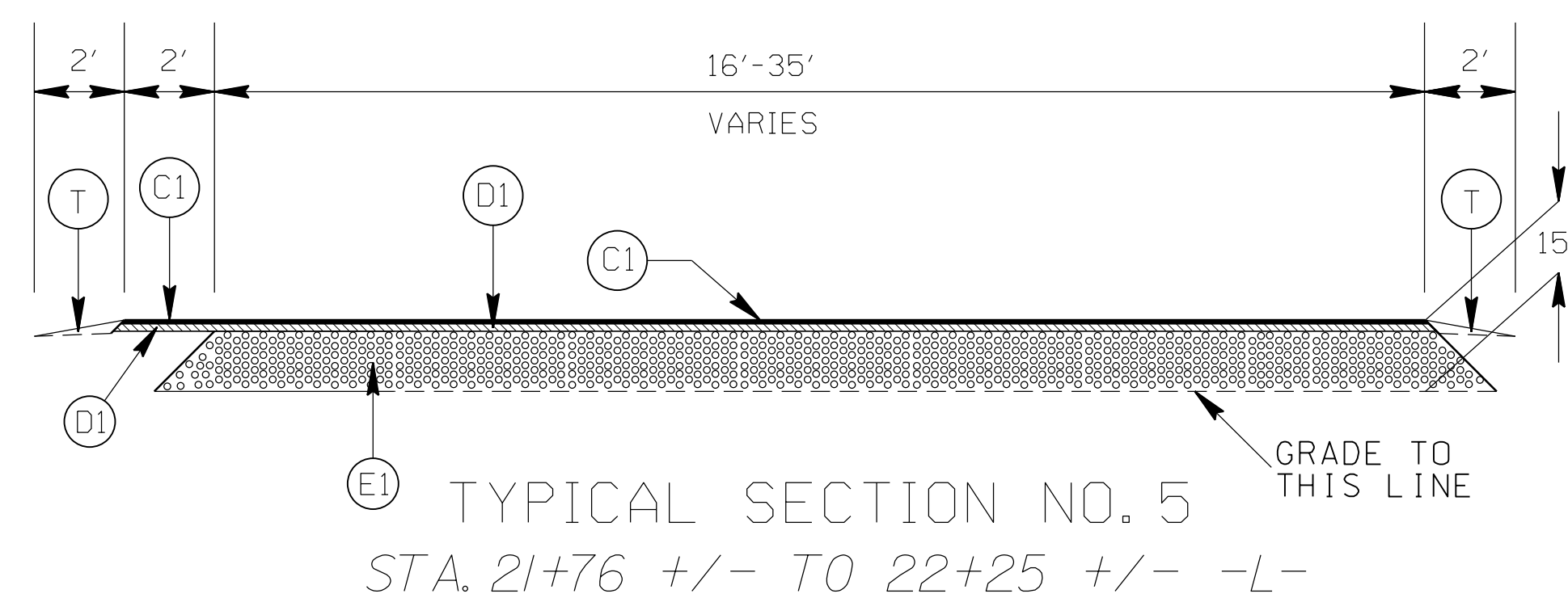
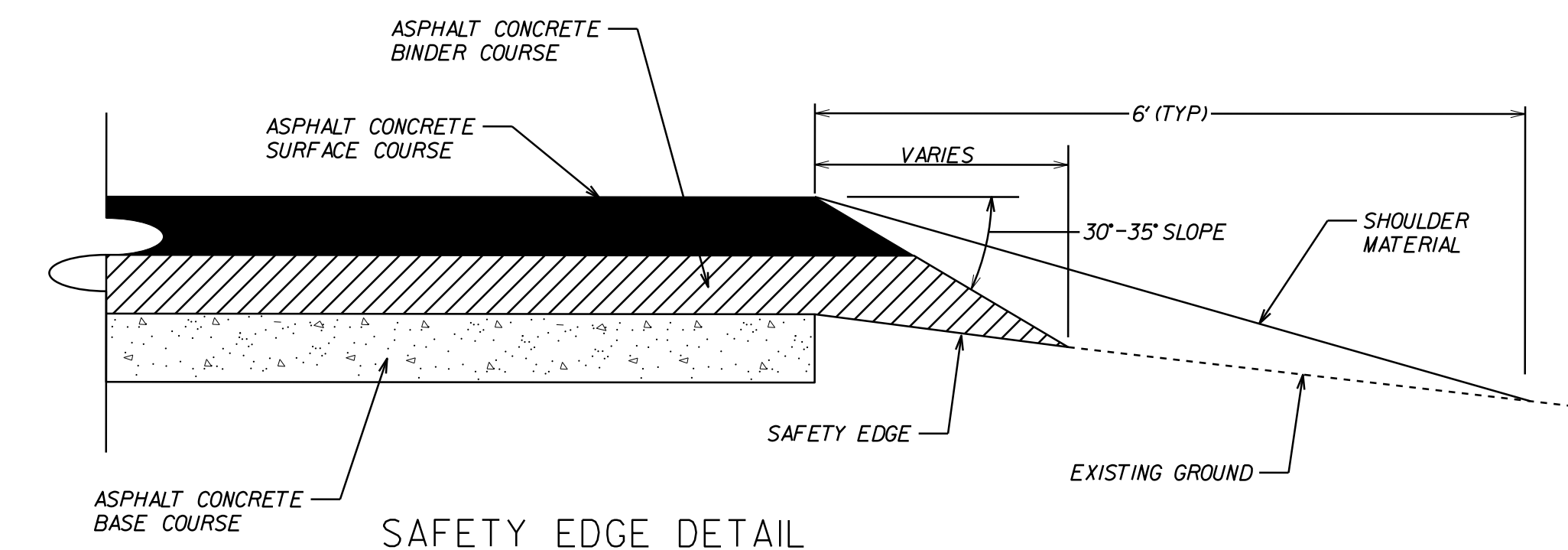
**DIVISION OF HIGHWAYS**  
STATE OF NORTH CAROLINA

DocuSigned by:  
*Randy Bowers*  
52446807898482  
**APPROVED BY**  
DDC ENGINEER

DATE  
3/5/2015



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	2A	
F.A. PROJECT NO.			

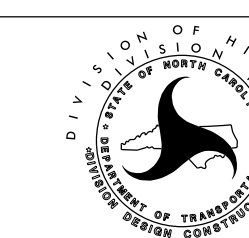


PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(D1)	PROP. APPROX. 2.5" ASPHALT CONC. BINDER COURSE, TYPE I19.0C, WARM MIX ASPHALT AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 11" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(T)	EARTH MATERIAL

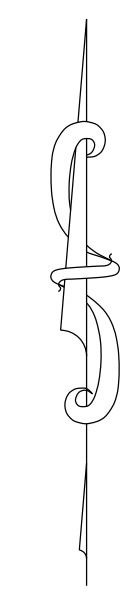
WIDENING RAMP 16A ON NORTH BOUND 177

SCALE	1"=50'
DATE	7/14
DWG. BY	JDH
DESIGN BY	JDH
APPROVED	RWB



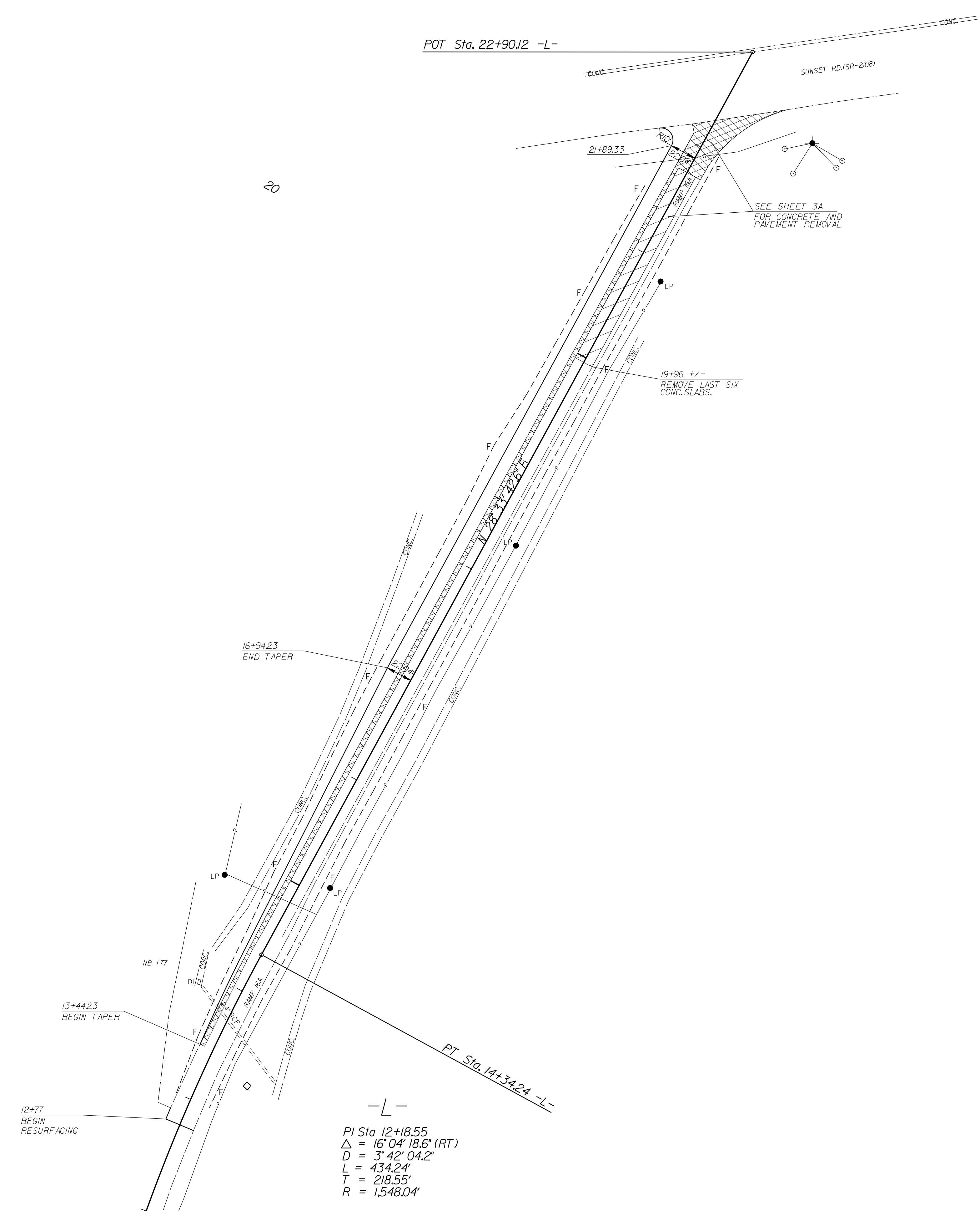
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	3	
F.A. PROJECT NO.			



15

20



- CONCRETE SLAB REMOVAL
- FULL DEPTH PAVEMENT REMOVAL

WIDENING RAMP 16A ON NORTH BOUND 177

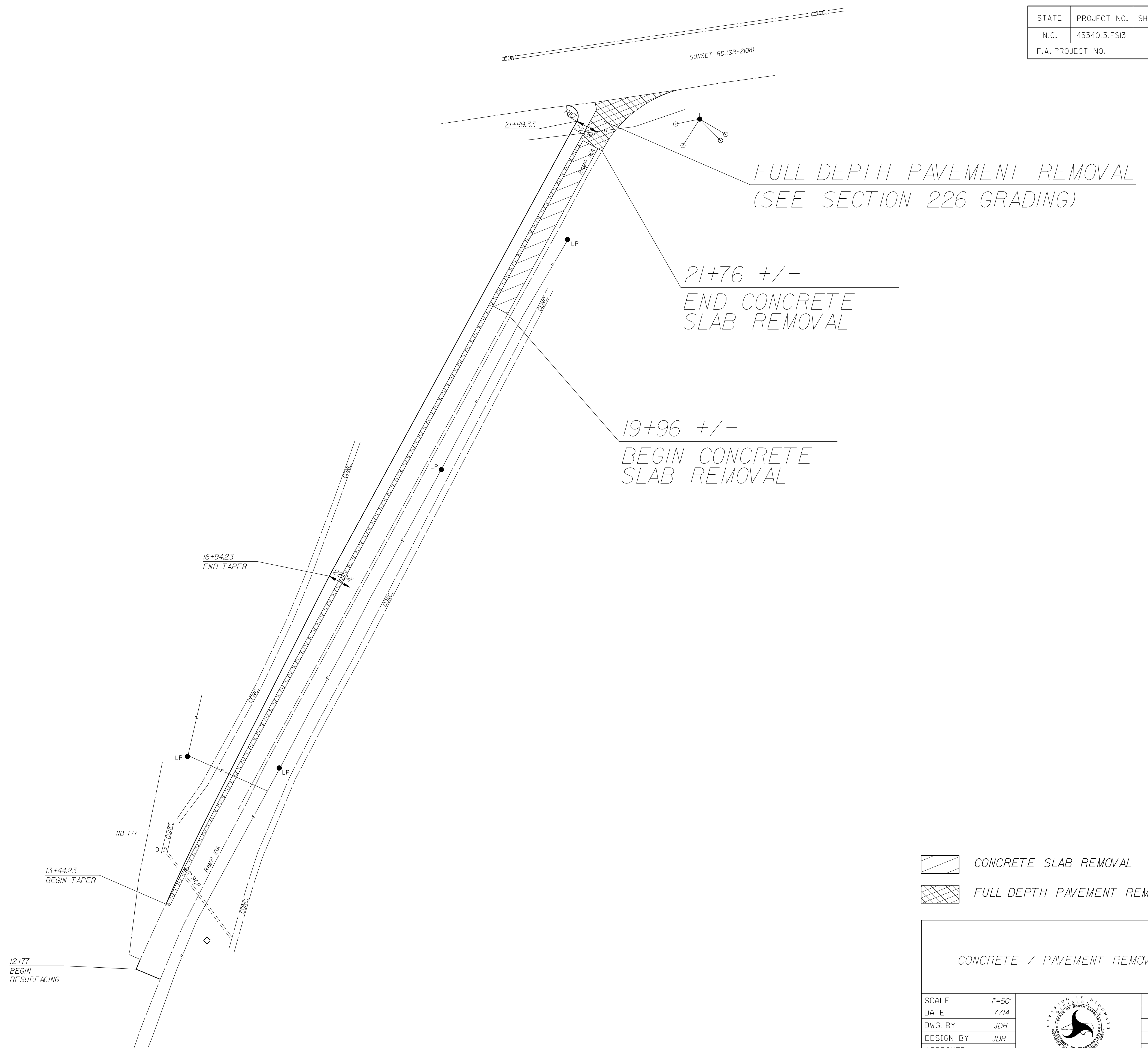
SCALE	1"=50'		REVISIONS
DATE	7/14		
DWG. BY	JDH		
DESIGN BY	JDH		
APPROVED	RWB		

-L-

PI Sta. 12+18.55  
 $\Delta = 16^{\circ}04'18.6''$  (RT)  
 $D = 3'42''04.2''$   
 $L = 434.24'$   
 $T = 218.55'$   
 $R = 1,548.04'$

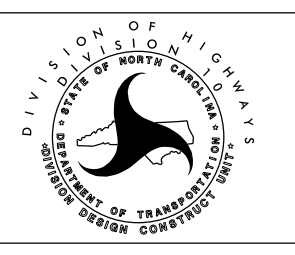


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	3A	
F.A. PROJECT NO.			



- CONCRETE SLAB REMOVAL
- FULL DEPTH PAVEMENT REMOVAL

CONCRETE / PAVEMENT REMOVAL DETAIL		
SCALE	1"=50'	REVISIONS
DATE	7/14	
DWG. BY	JDH	
DESIGN BY	JDH	
APPROVED	RWB	



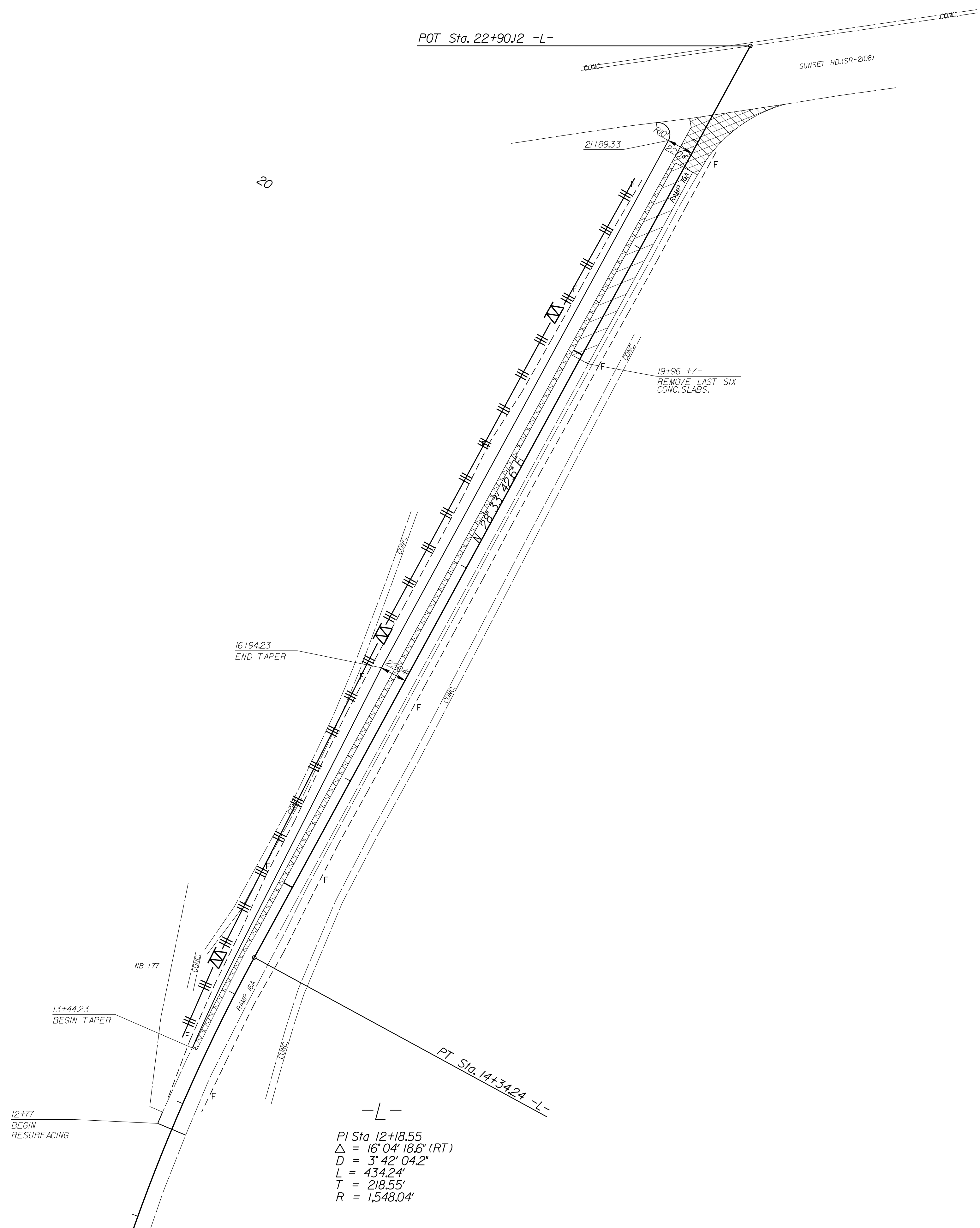




STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	EC-2	
F.A. PROJECT NO.			

15

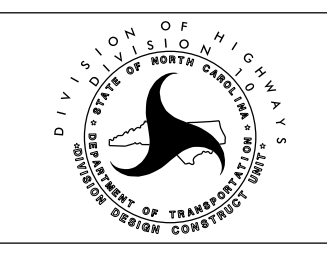
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- CONCRETE SLAB REMOVAL
- FULL DEPTH PAVEMENT REMOVAL

WIDENING RAMP 16A ON NORTH BOUND 177

SCALE	1"=50'
DATE	7/14
DWG. BY	JDH
DESIGN BY	JDH
APPROVED	RWB



REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	PMP-1	
F.A. PROJECT NO.			

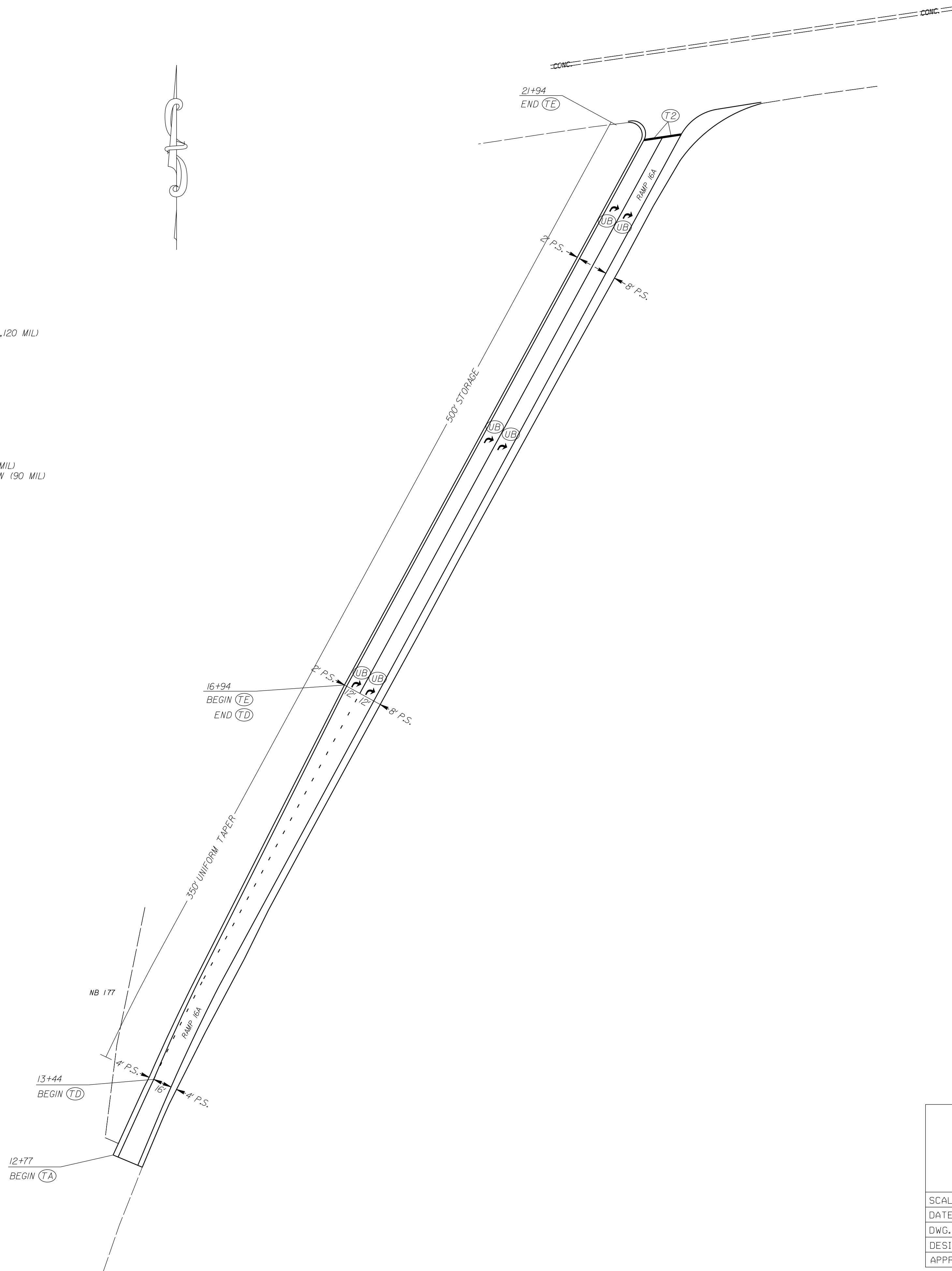
PAVEMENT MARKING SCHEDULE

PAVEMENT MARKING LINES

- |  |   |
|--|---|
| TA - WHITE EDGELINE (4", 90 MIL)               | TU - WHITE DIAGONAL (12", 90 MIL)                             |
| TB - YELLOW EDGELINE (4", 90 MIL)              | TV - YELLOW DIAGONAL (12", 90 MIL)                            |
| TC - 10FT. WHITE SKIP (4", 120 MIL)            | TI - WHITE LINE, RR X (16", 120 MIL)                          |
| TD - 3FT.-9FT./SP WHITE MINISKIP (4", 120 MIL) | T2 - WHITE STOPBAR (24", 120 MIL)                             |
| TE - WHITE SOLID LANE LINE (4", 120 MIL)       | T3 - WHITE CROSSWALK LINE (24", 120 MIL)                      |
| TF - 10FT. YELLOW SKIP (4", 120 MIL)           | T4 - WHITE RUMBLE STRIP (4", 240 MIL)                         |
| TH - YELLOW SINGLE CENTER (4", 120 MIL)        | T5 - YELLOW RUMBLE STRIP (4", 240 MIL)                        |
| TI - YELLOW DOUBLE CENTER (4", 120 MIL)        | T6 - WHITE EDGELINE (6", 90 MIL)                              |
| TJ - 10FT. WHITE SKIP (6", 120 MIL)            | T7 - YELLOW EDGELINE (6", 90 MIL)                             |
| TK - 3FT.-9FT./SP WHITE MINISKIP (6", 120 MIL) | T8 - 2FT.-6FT./SP WHITE MINISKIP (4", 120 MIL)                |
| TL - WHITE SOLID LANE LINE (6", 120 MIL)       | T9 - 2FT.-6FT./SP YELLOW MINISKIP (4", 120 MIL)               |
| TM - 10FT. YELLOW SKIP (6", 120 MIL)           | T10 - 3FT.-3FT./SP WHITE MINISKIP (12", 120 MIL)              |
| TN - WHITE GORELINE (8", 90 MIL)               | T11 - 2FT.-6FT./SP WHITE MINISKIP (6", 120 MIL)               |
| TO - WHITE DIAGONAL (8", 90 MIL)               | T12 - 2FT.-6FT./SP YELLOW MINISKIP (6", 120 MIL)              |
| TP - YELLOW DIAGONAL (8", 90 MIL)              | T13 - 3FT.-9FT./SP WHITE MINISKIP (8", 120 MIL)               |
| TQ - WHITE CROSSWALK LINE (8", 120 MIL)        | T14 - 3FT.-9FT./SP WHITE MINISKIP (12", 120 MIL)              |
| TR - WHITE SOLID LANE LINE (8", 120 MIL)       | T15 - YELLOW SINGLE CENTER (6", 120 MIL)                      |
| TS - WHITE GORELINE (12", 90 MIL)              | T16 - YELLOW DOUBLE CENTER (6", 120 MIL)                      |
| TT - WHITE SOLID LANE LINE (12", 120 MIL)      | T17 - 3FT.-3FT./SP WHITE MINISKIP ENTRANCE LINE (8", 120 MIL) |

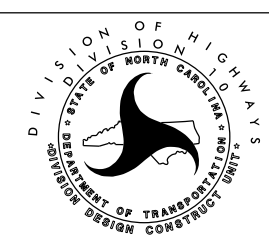
PAVEMENT MARKING SYMBOLS

- |  |  |
|--|--|
| UA - LEFT TURN ARROW (90 MIL)                  | UU - FISH-HOOK STRAIGHT ARROW (90 MIL)                     |
| UB - RIGHT TURN ARROW (90 MIL)                 | UV - FISH-HOOK LEFT/STRAIGHT ARROW (90 MIL)                |
| UC - STRAIGHT ARROW (90 MIL)                   | UW - FISH-HOOK RIGHT/STRAIGHT ARROW (90 MIL)               |
| UD - COMBO. LEFT/STRAIGHT ARROW (90 MIL)       | UX - FISH-HOOK LEFT/RIGHT ARROW (90 MIL)                   |
| UE - COMBO. RIGHT/STRAIGHT ARROW (90 MIL)      | UY - FISH-HOOK LEFT/RIGHT/STRAIGHT ARROW (90 MIL)          |
| UF - COMBO. LEFT/RIGHT ARROW (90 MIL)          | UZ - FISH-HOOK W/CIRCLE STRAIGHT ARROW (90 MIL)            |
| UG - COMBO. LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |  |
| UH - HANDICAP PARKING (90 MIL)                 | WA - FISH-HOOK W/CIRCLE LEFT ARROW (90 MIL)                |
| UI - ALPHANUMERIC CHAR. (120 MIL)              | WB - FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL)       |
| UJ - BICYCLE SYMBOL (90 MIL)                   | WC - FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UK - BICYCLE STRAIGHT ARROW (90 MIL)           |  |
| UL - BICYCLE CHAR. (120 MIL)                   | MA - PERMANENT RAISED MARKER (YELLOW & YELLOW)             |
| UM - 12" YIELD LINE TRIANGLE (90 MIL)          | MB - PERMANENT RAISED MARKER (CRYSTAL & RED)               |
| UN - 24" YIELD LINE TRIANGLE (90 MIL)          | MC - PERMANENT RAISED MARKER (YELLOW & RED)                |
| UO - BICYCLE LEFT ARROW (90 MIL)               | MD - PERMANENT RAISED MARKER (YELLOW)                      |
| UP - MERGE ARROW (90 MIL)                      | ME - SNOWPLOWABLE MARKER (YELLOW & YELLOW)                 |
| UQ - RAMP ARROW SYMBOL (90 MIL)                | MF - SNOWPLOWABLE MARKER (CRYSTAL & RED)                   |
| UR - SHARROW (90 MIL)                          | MG - SNOWPLOWABLE MARKER (YELLOW & RED)                    |
| US - BICYCLE LOOP DETECTOR (90 MIL)            | ML - PERMANENT RAISED MARKER (CRYSTAL & CRYSTAL)           |
| UT - U-TURN ARROW (90 MIL)                     | MO - SNOWPLOWABLE MARKER (CRYSTAL & CRYSTAL)               |



WIDENING RAMP 16A ON NORTH BOUND 177

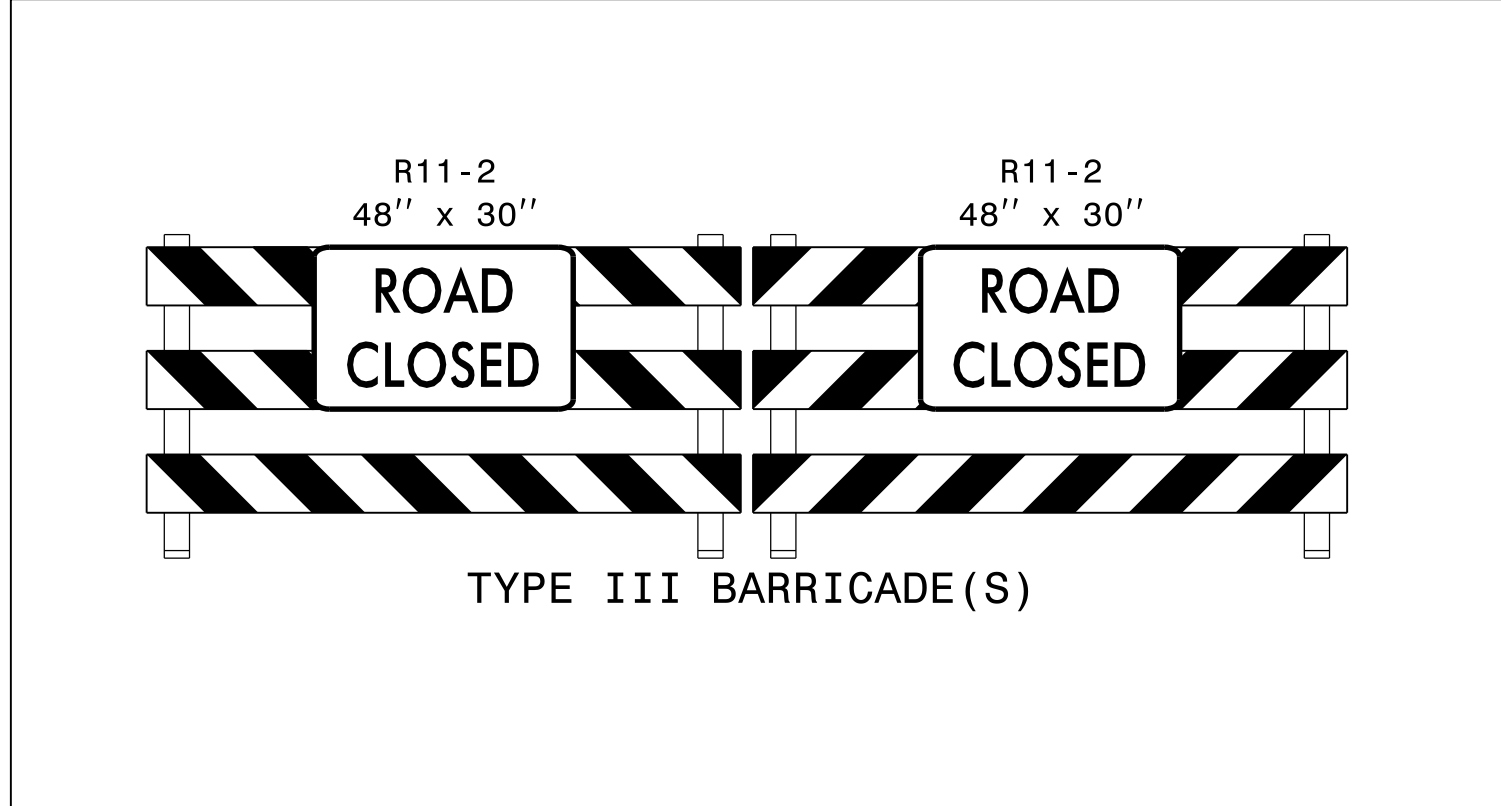
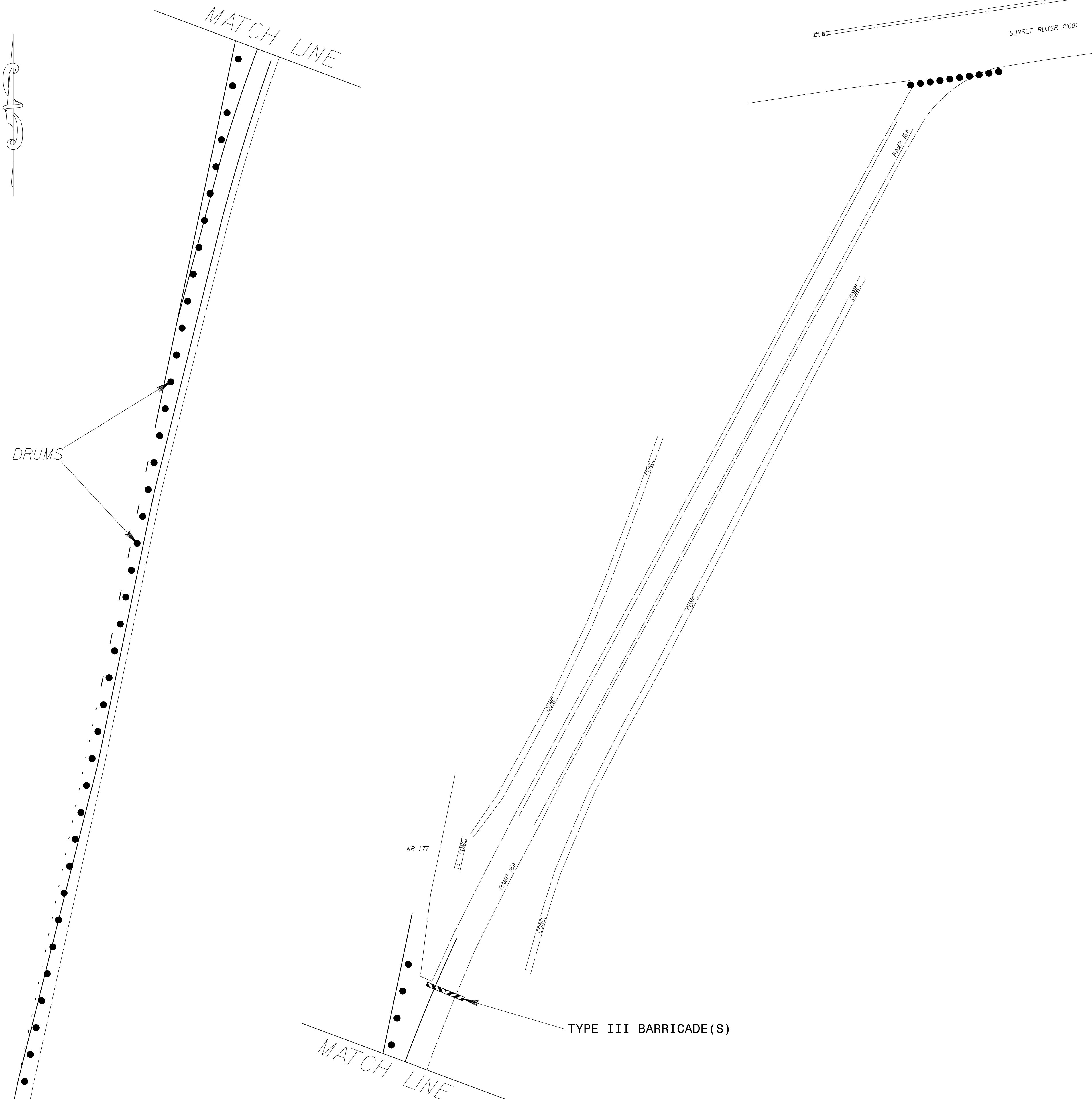
SCALE	1"=50'
DATE	7/14
DWG. BY	JDH
DESIGN BY	JDH
APPROVED	RWB



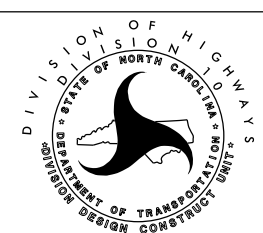
REVISIONS



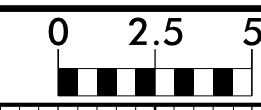

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	45340.3.FS13	TCP-1	
F.A. PROJECT NO.			



WIDENING RAMP 16A ON NORTH BOUND 177

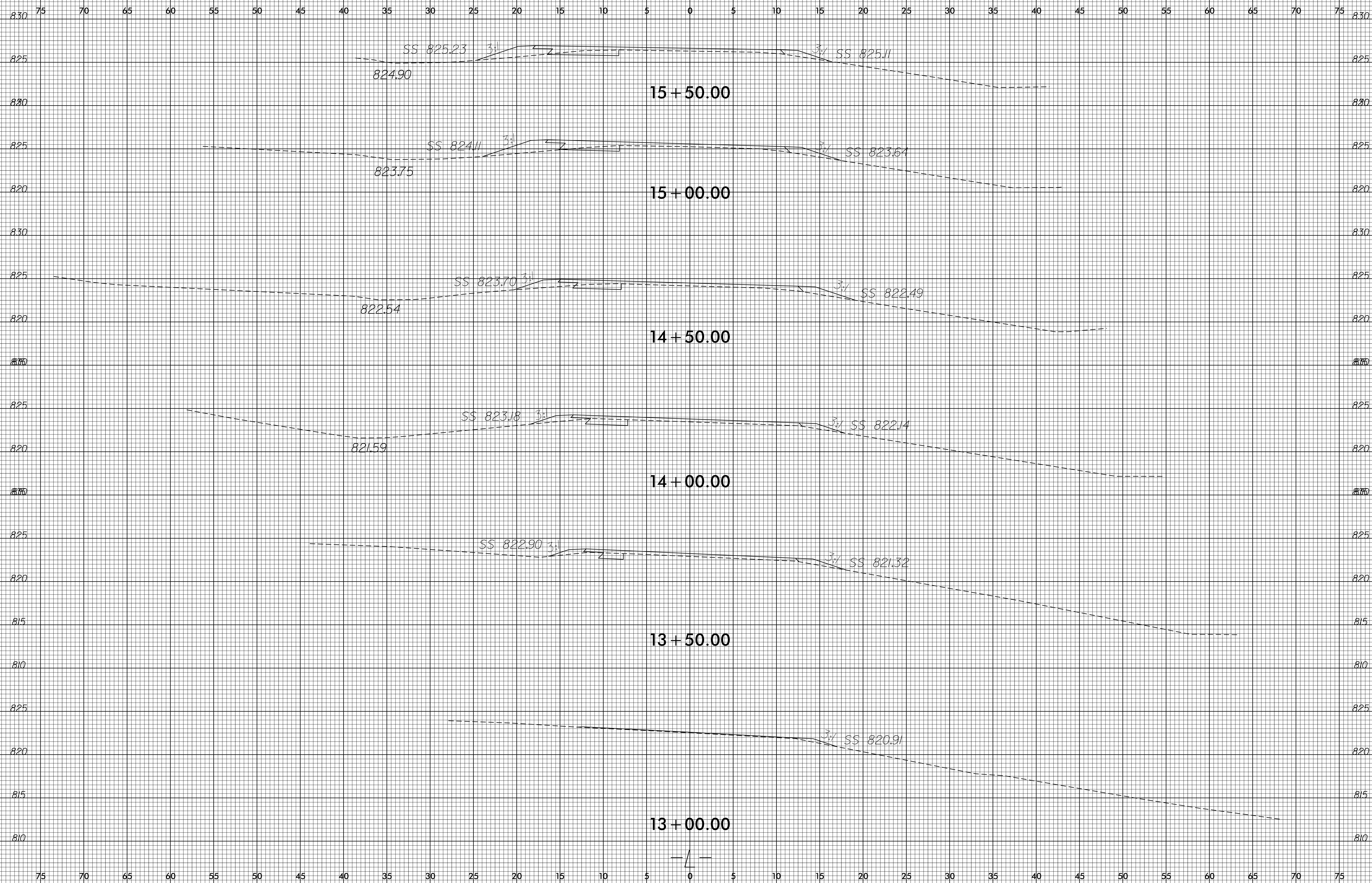
SCALE	1"=50'		REVISIONS
DATE	7/14		
DWG. BY	JDH		
DESIGN BY	JDH		
APPROVED	RWB		

8/23/99



PROJ. REFERENCE NO.  
45340.3.FS13

SHEET NO.  
X-1



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Schward





