

T.I.P.: U-2519CB

CONTRACT: C203398

DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
CUMBERLAND COUNTY

LOCATION: FAYETTEVILLE OUTER LOOP
FROM SOUTH OF SR 1400 (CLIFFDALE ROAD)
TO EAST OF SR 1415 (YADKIN ROAD)

TIP NO. U-2519CB SHEET NO. PM-1
APPROVED: [Signature] DATE: 09/01/14
SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025465 TIM AREY

Part 3 of 3

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

Table with 2 columns: STD. NO. and TITLE. Lists various roadway standards such as PAVEMENT MARKINGS - LINE TYPES AND OFFSETS, PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS, etc.

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

Table with 3 columns: ROAD NAME, MARKING, MARKER. Row 1: "ALL" BRIDGES, THERMOPLASTIC POLYUREA, SNOWPLOWABLE RAISED.

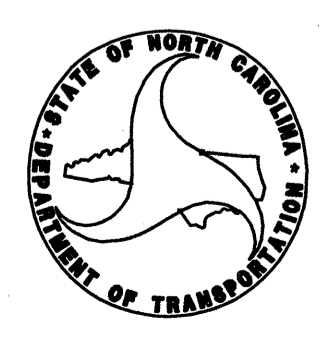
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
E) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
F) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING POLYUREA PAVEMENT MARKING MATERIAL.
G) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

INDEX

Table with 2 columns: SHEET NO. and DESCRIPTION. Lists sheets PM-1 through PM-36 and their descriptions like TITLE SHEET, CROSSWALK PAVEMENT MARKING GUIDANCE DETAIL, etc.

PLAN REVIEWED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

AYMAN ALQUDWAH, P.E. SIGNING & DELINEATION REGIONAL ENGINEER
MITCH EATON SIGNING & DELINEATION PROJECT DESIGN ENGINEER

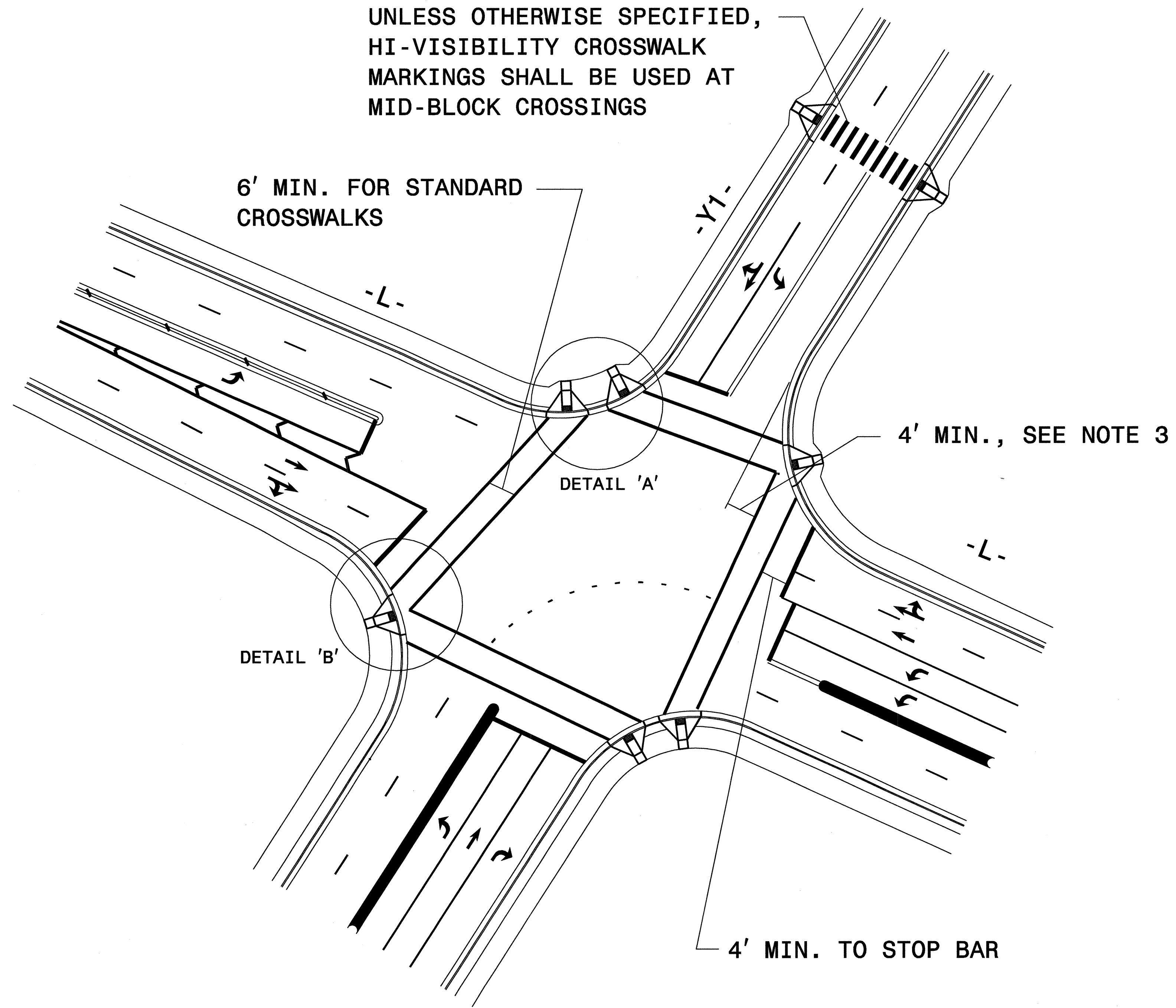


PLAN PREPARED BY: PROGRESSIVE DESIGN GROUP, INC.

TIM AREY, P.E. PROJECT MANAGER
LARRY ASHLEY DESIGN ENGINEER

PROGRESSIVE DESIGN GROUP, INC. logo and contact information: ENGINEERS • CONSULTANTS

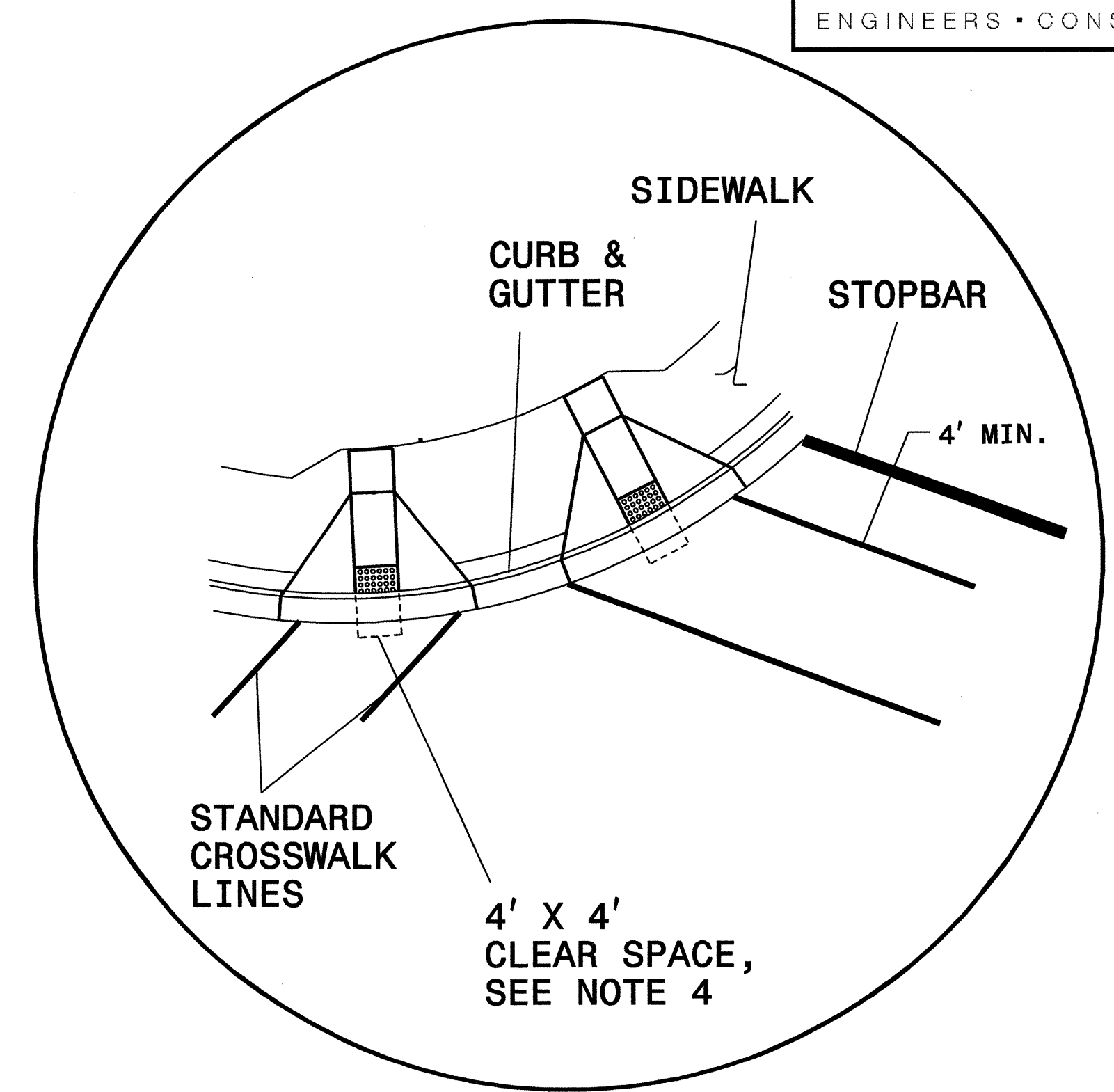
UNLESS OTHERWISE SPECIFIED,  
 HI-VISIBILITY CROSSWALK  
 MARKINGS SHALL BE USED AT  
 MID-BLOCK CROSSINGS



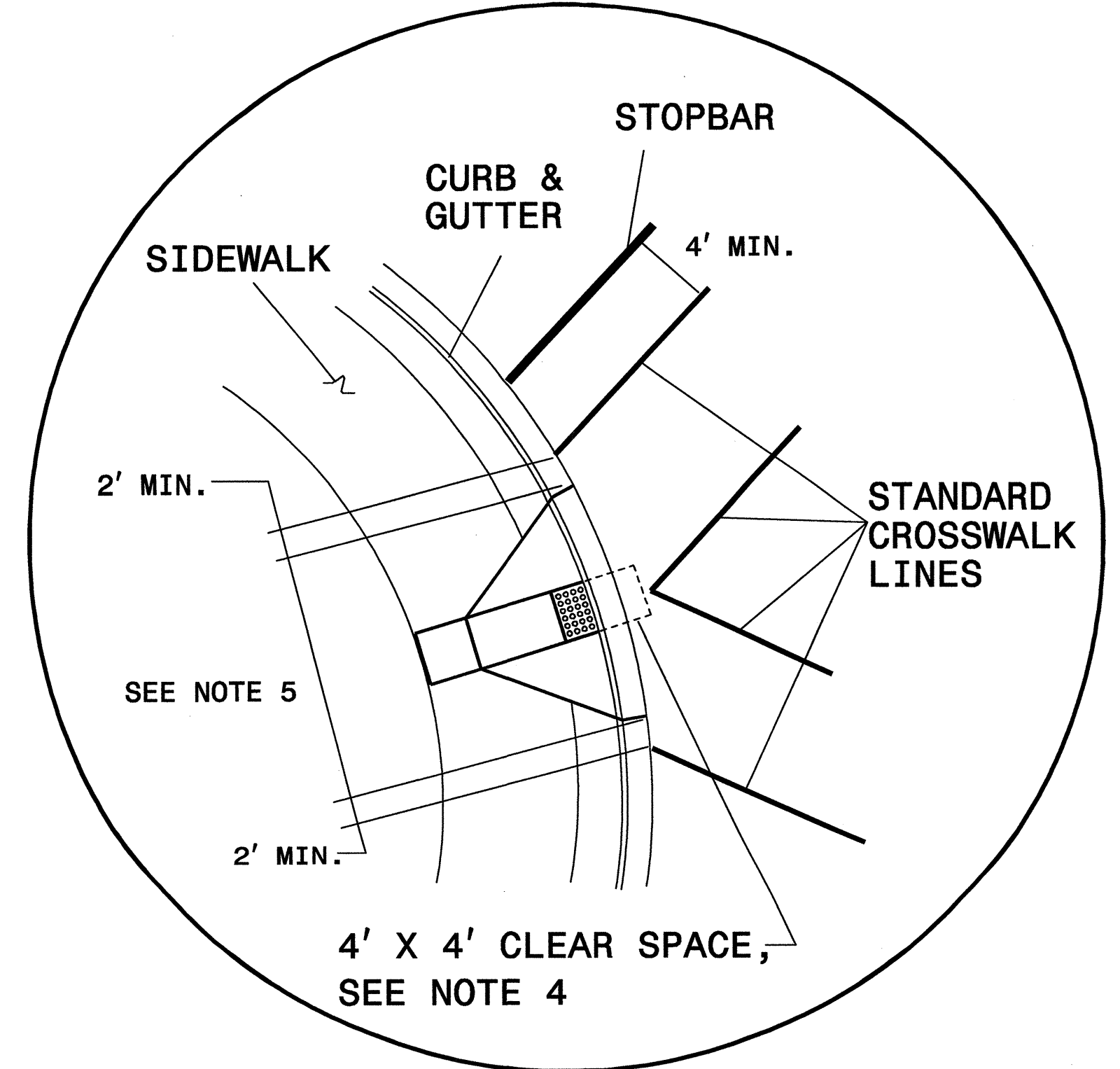
**GUIDANCE DETAIL FOR CROSSWALK MARKINGS**

NOTES:

1. USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS NOT STATIONED ON THE DETAIL SHEETS OR WHEN FIELD ADJUSTMENTS REQUIRED MOVING STATIONED MARKINGS AS DIRECTED BY THE ENGINEER. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.
2. THE CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. ONLY INSTALL CROSSWALK MARKINGS WHERE SHOWN ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALL AS SPECIFIED ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.
3. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
4. BEYOND THE BOTTOM GRADE BRAKE, A CLEAR SPACE OF 4' X 4' MINIMUM SHALL BE PROVIDED WITHIN THE MARKINGS.
5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.
6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.



DETAIL 'A'- DUAL CURB RAMPS

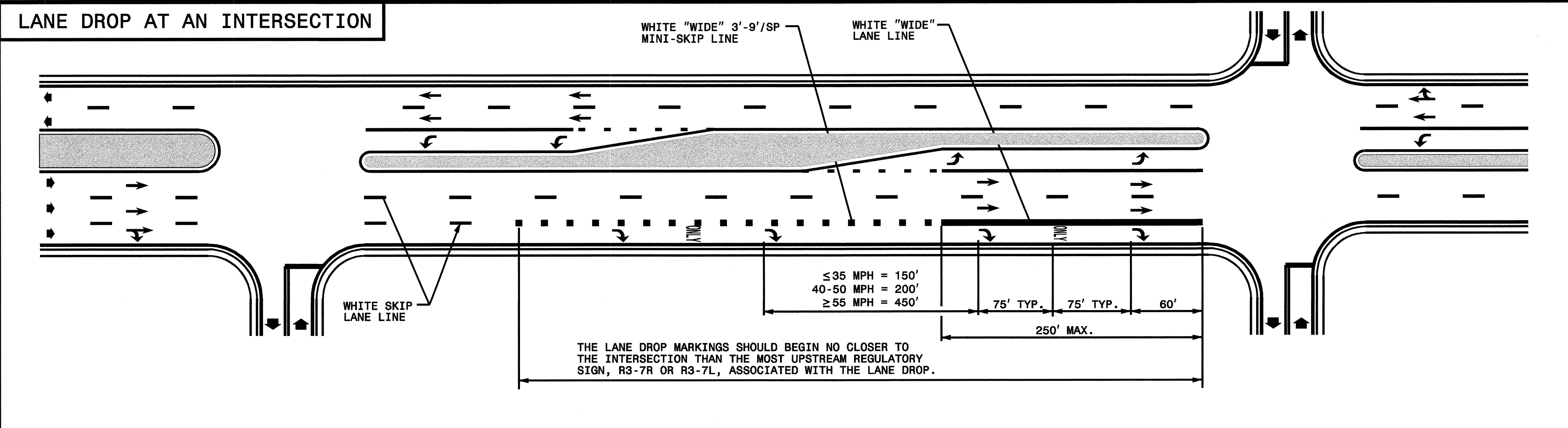


DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

**CROSSWALK PAVEMENT MARKING  
 GUIDANCE DETAIL**

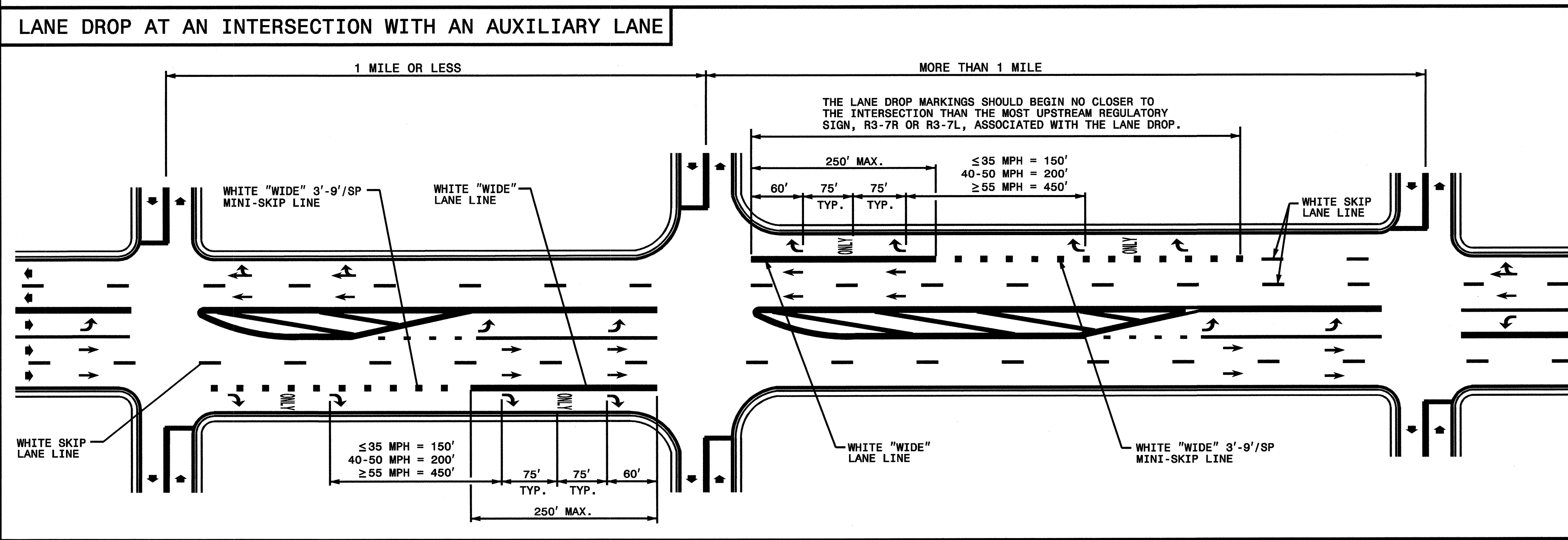


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 RALEIGH, N.C.



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ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 LANE DROPS



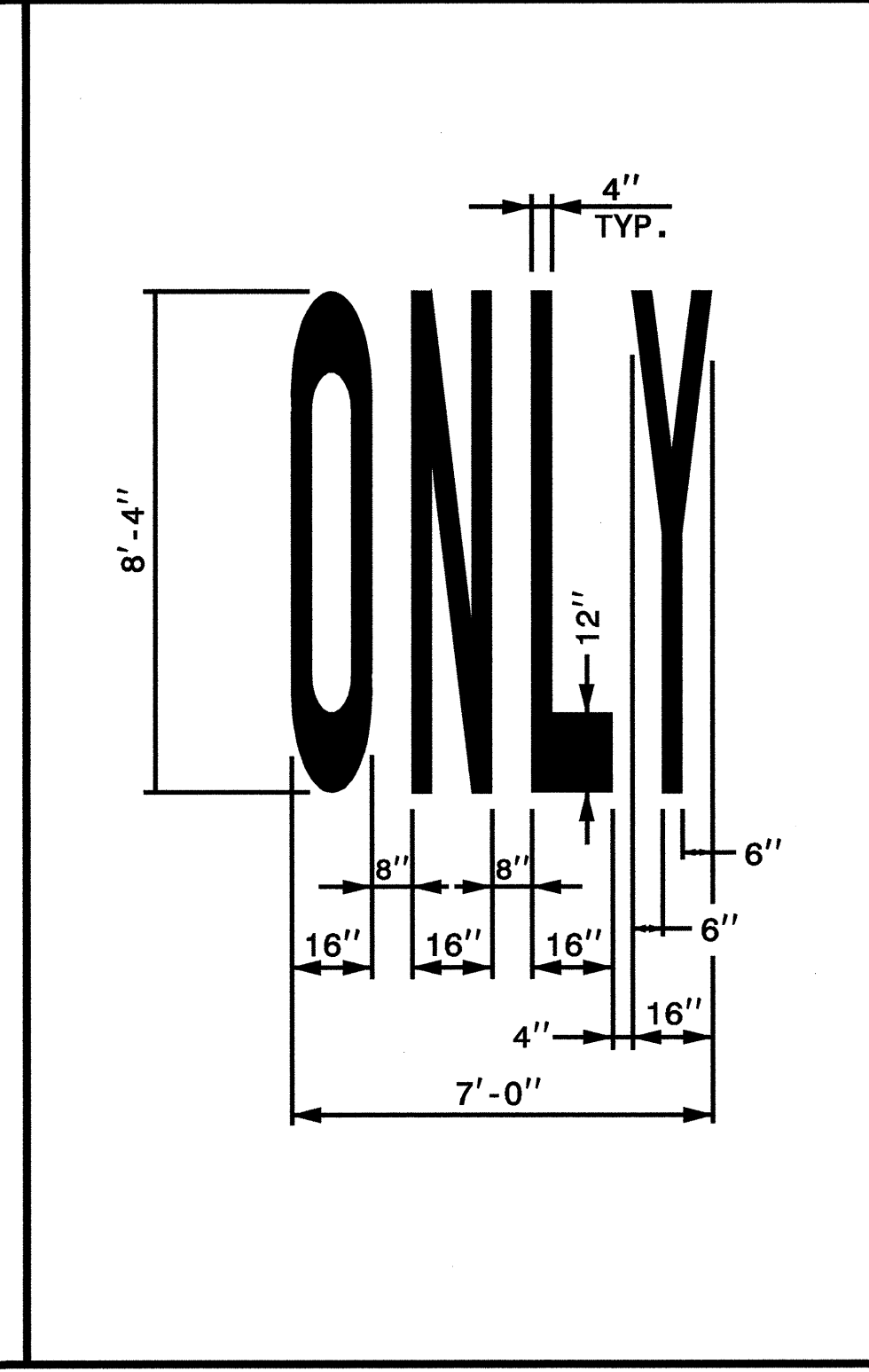
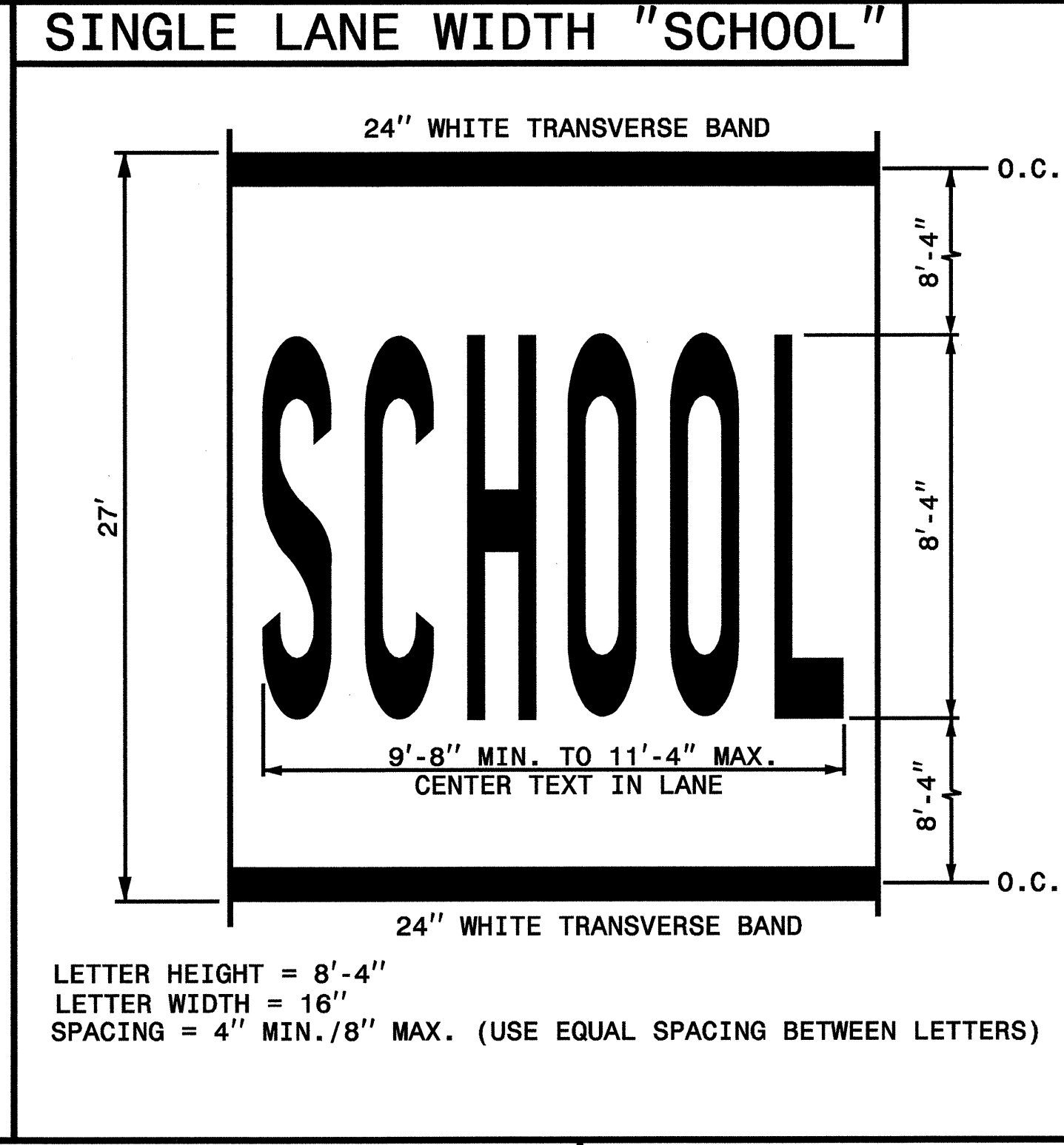
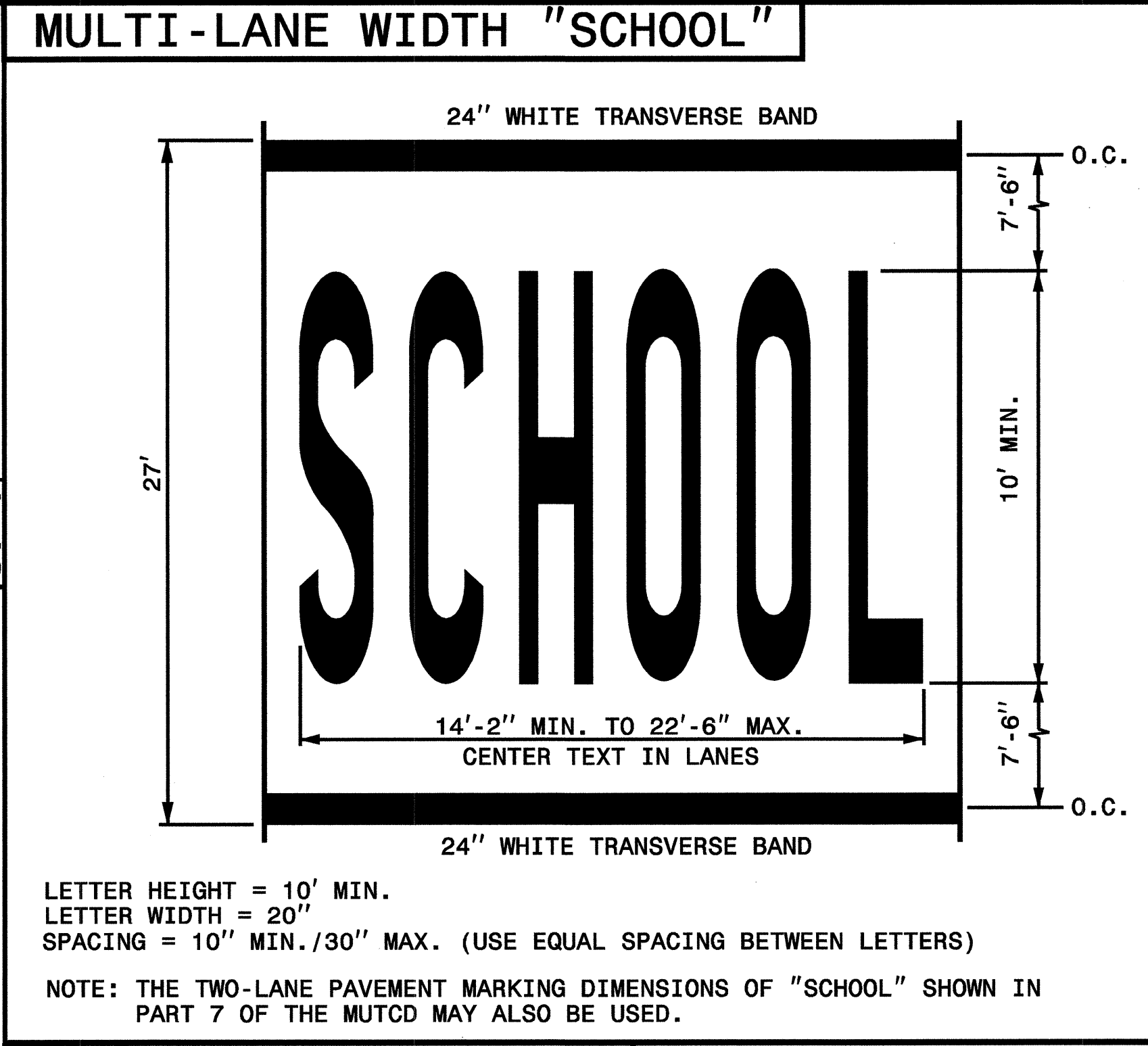
ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 LANE DROPS

- GENERAL NOTES:
- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
  - LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND	
W	WIDTH OF TRAVEL LANE
↔ ONLY	PAVEMENT MARKING SYMBOLS & CHARACTERS
➔	DIRECTION OF TRAFFIC FLOW

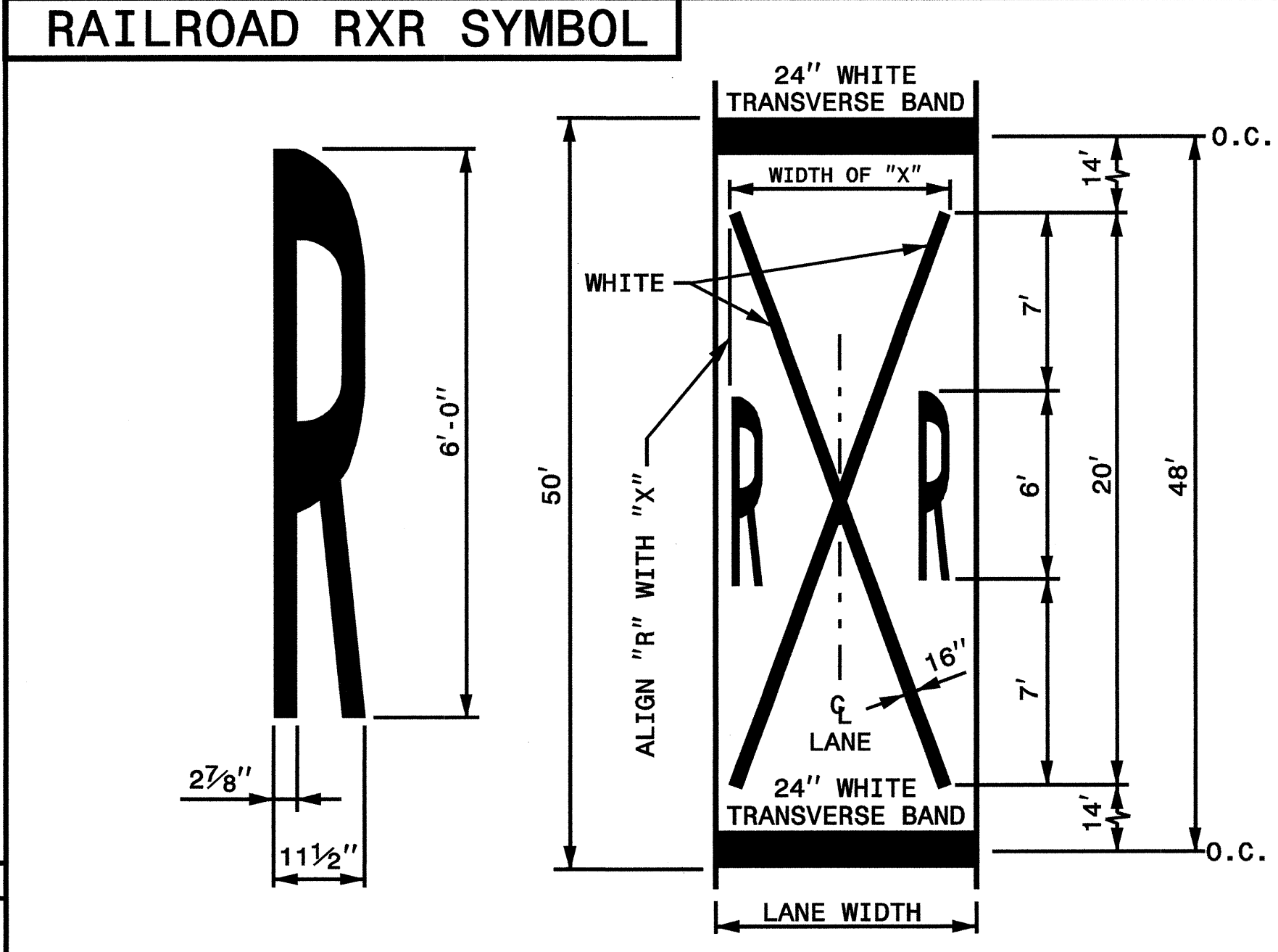
STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

1-12  
 ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 SYMBOLS AND WORD MESSAGES



1-12  
 STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**PAVEMENT MARKINGS**  
 SYMBOLS AND WORD MESSAGES



LANE WIDTH (FEET)	WIDTH OF "X" (FEET)
8' ≤ W ≤ 9'	7'
9' < W ≤ 12'	8'
W > 12'	10'

- GENERAL NOTES:
- 1- THE SCHOOL PAVEMENT MARKING CONSISTS OF SIX (6) CHARACTERS. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID FOR UNDER A SEPARATE PAY ITEM. REFER TO ROADWAY STANDARD DRAWING 1205.10 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
  - 2- PAVEMENT MARKING IN ADVANCE OF A HIGHWAY-RAIL CROSSING SHALL CONSIST OF TWO (2) CHARACTERS AND TWO (2) 16" LINES (FORMING AN X) WHICH ARE PAID FOR UNDER TWO SEPARATE PAY ITEMS. THE TWO (2) 24" TRANSVERSE BANDS WILL BE PAID FOR UNDER A SEPARATE PAY ITEM. REFER TO ROADWAY STANDARD DRAWING 1205.11 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

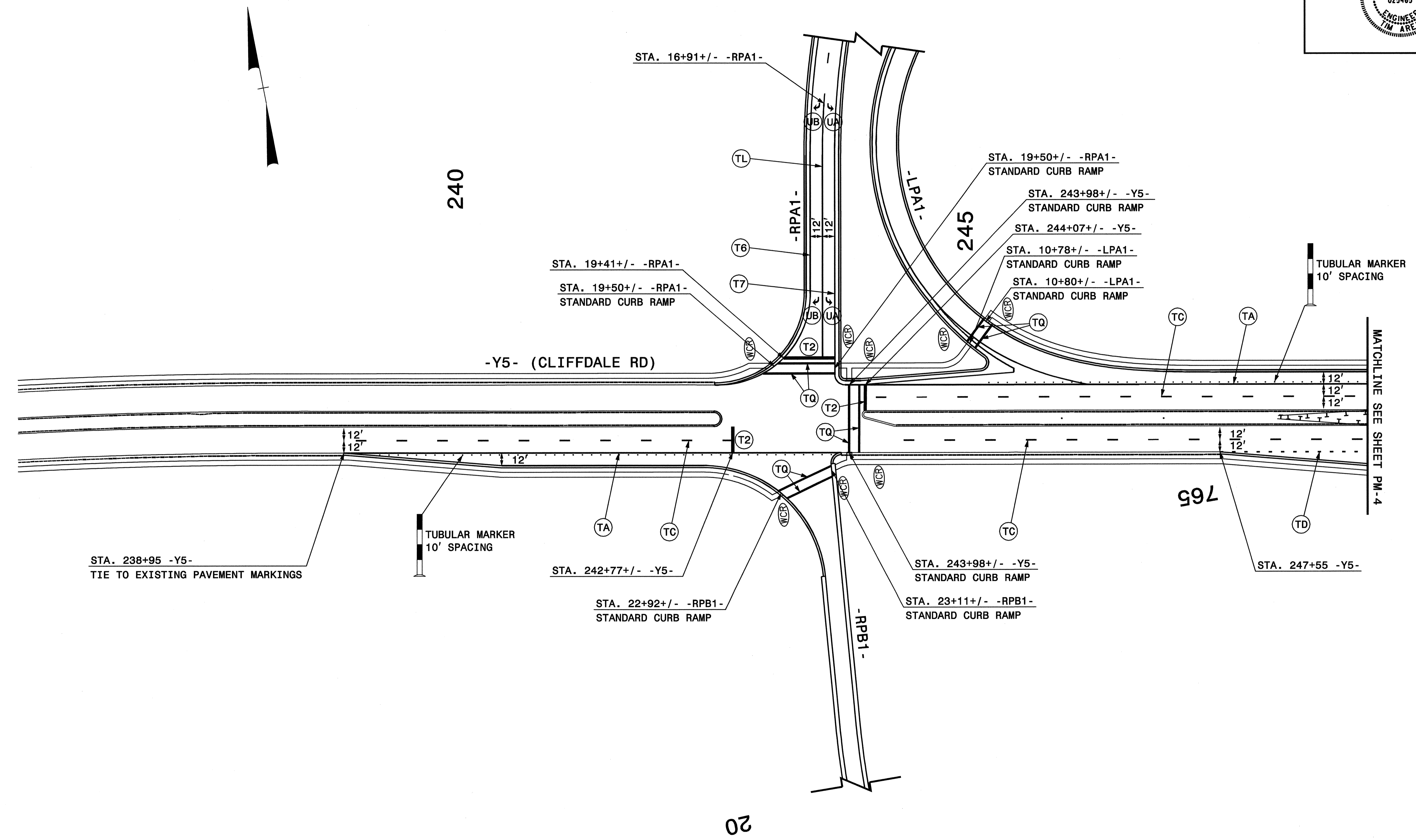


Description:

TA	THERMOPLASTIC (4", 90 MILS) WHITE EDGELINE	11970LF
TB	YELLOW EDGELINE	210LF
	TOTAL (4", 90 MILS)	12180 LF
T8	THERMOPLASTIC (4", 120 MILS) 2 FT. - 6 FT./SP WHITE MINISKIP	178LF
TC	10 FT. WHITE SKIP	4373LF
TD	3 FT. - 9 FT./SP WHITE MINISKIP	1188LF
TE	WHITE SOLID LANE LINE	3400LF
TF	10 FT. YELLOW SKIP	78LF
TH	YELLOW SINGLE CENTER	310LF
TI	YELLOW DOUBLE CENTER	8520LF
	TOTAL (4", 120 MILS)	18047 LF
T6	THERMOPLASTIC (6", 90 MILS) WHITE EDGELINE	103700LF
T7	YELLOW EDGELINE	11660LF
	TOTAL (6", 90 MILS)	115360 LF
TJ	THERMOPLASTIC (6", 120 MILS) 10 FT. WHITE SKIP	22440LF
TK	3 FT. - 9 FT./SP WHITE MINISKIP	7296LF
TL	WHITE SOLID LANE LINE	1980LF
	TOTAL (6", 120 MILS)	31716 LF
TN	THERMOPLASTIC (8", 90 MILS) WHITE GORELINE	890LF
TO	WHITE DIAGONAL	
TQ	THERMOPLASTIC (8", 120 MILS) WHITE CROSSWALK LINE	705LF
TR	WHITE SOLID LANE LINE	
TS	THERMOPLASTIC (12", 90 MILS) WHITE GORELINE	17820LF
TT	THERMOPLASTIC (12", 120 MILS) WHITE SOLID LANE LINE	2750LF
T2	THERMOPLASTIC (24", 120 MILS) WHITE STOPBAR	620LF

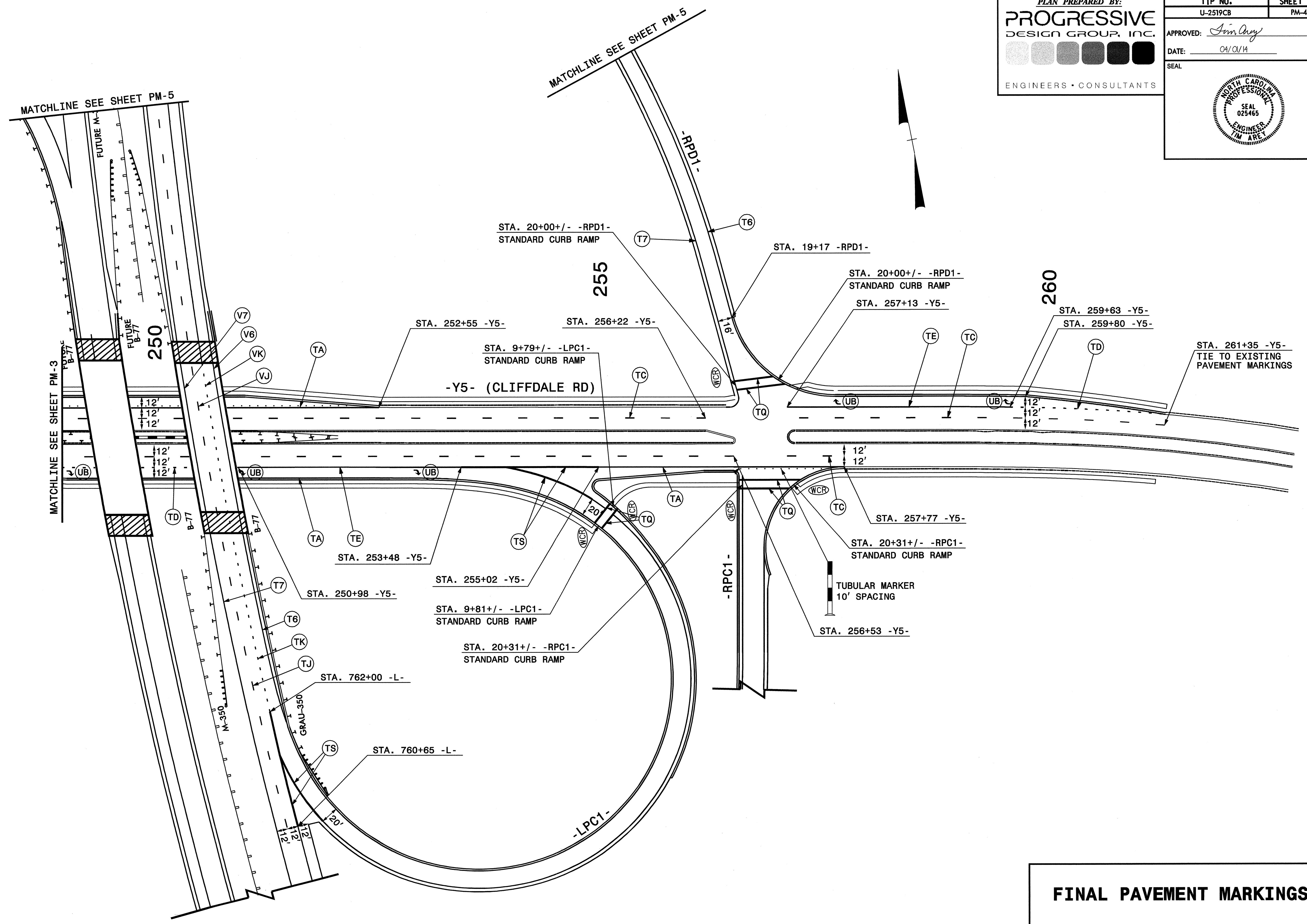
UI	THERMOPLASTICPAVEMENT MARKING CHARACTER (120 MILS) ALPHANUMERIC CHAR.	24EA
	THERMOPLASTICPAVEMENT MARKING SYMBOLS (90 MILS)	
UA	LEFT TURN ARROW	45EA
UB	RIGHT TURN ARROW	51EA
UC	STRAIGHT ARROW	32EA
UE	COMBO.STRAIGHT/RIGHT	4EA
UP	MERGE ARROW	47EA
	TOTAL PAVEMENT MARKING SYMBOLS (90 MILS)	180 EA
	POLYUREA (4")	
VA	WHITE EDGELINE	1220LF
VC	10 FT. WHITE SKIP	545LF
VD	3 FT. - 9 FT./SP WHITE MINISKIP	74LF
VI	YELLOW DOUBLE CENTER	580LF
	TOTAL (4")	2419 LF
	POLYUREA (6")	
V6	WHITE EDGELINE	7980LF
V7	YELLOW EDGELINE	7980LF
VJ	10 FT. WHITE SKIP	1995LF
VK	3 FT. - 9 FT./SP WHITE MINISKIP	475LF
	TOTAL (6")	18430 LF
	POLYUREA (8")	
VN	WHITE GORELINE	350LF
	POLYUREA (12")	
VS	WHITE GORELINE	310LF
VT	WHITE SOLID LANE LINE	140LF

**PAVEMENT MARKING SCHEDULE**

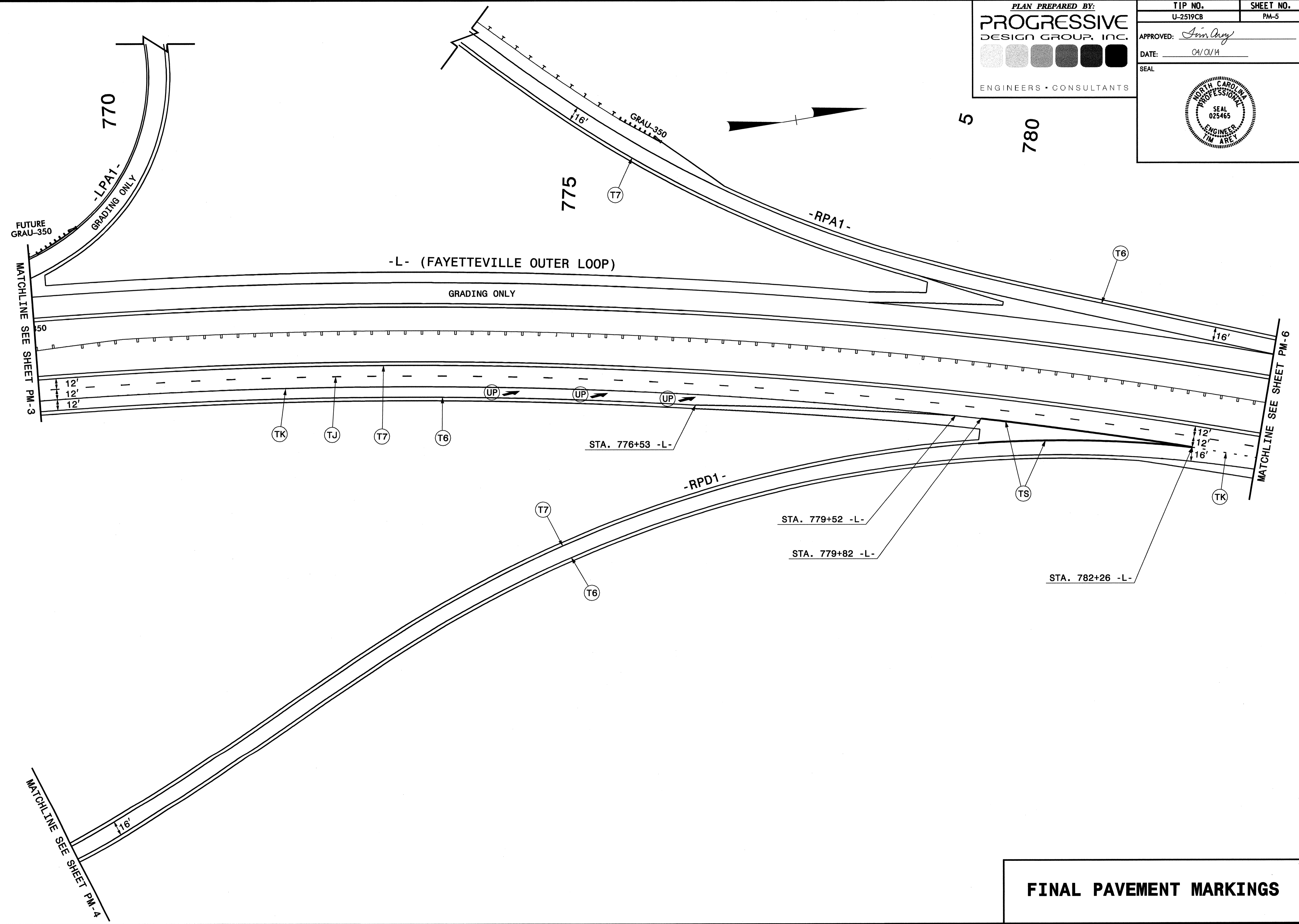


**FINAL PAVEMENT MARKINGS**



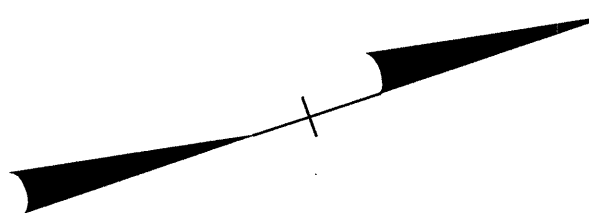
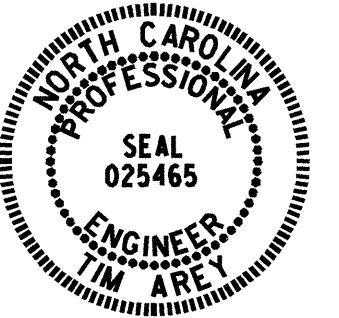


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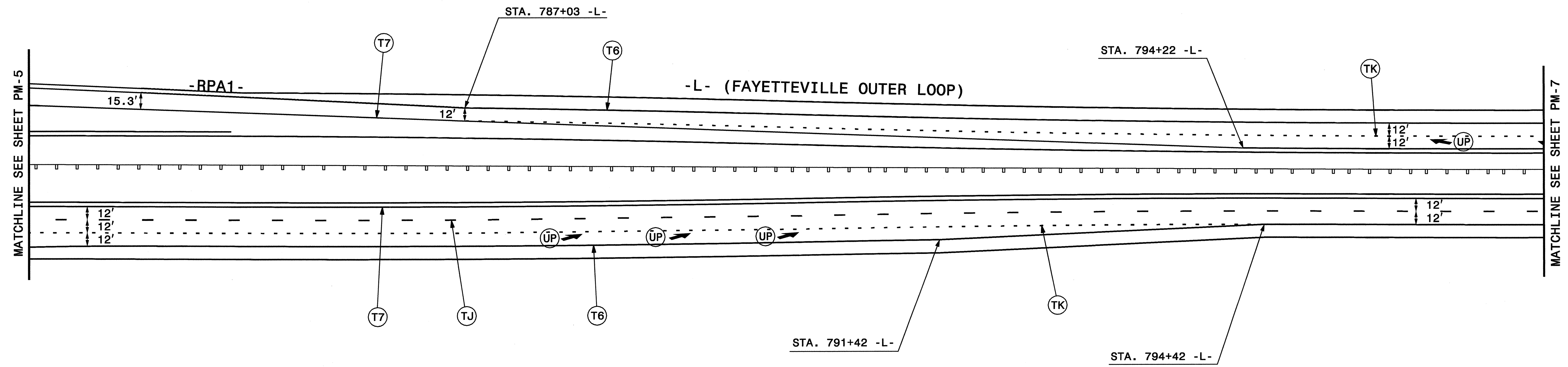




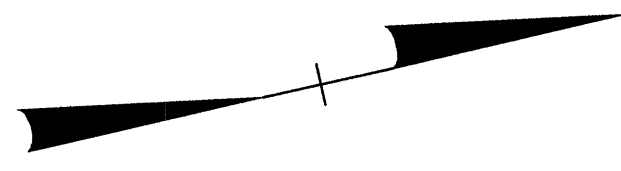
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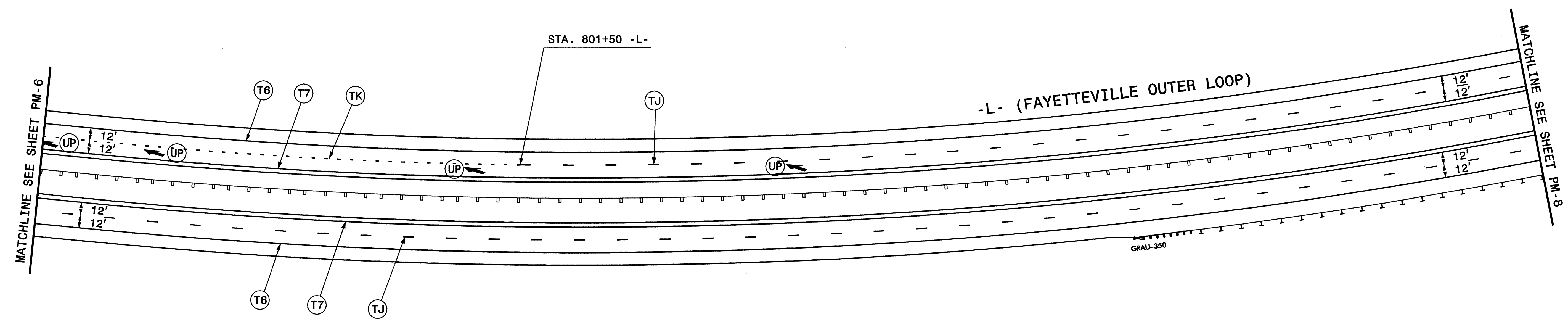
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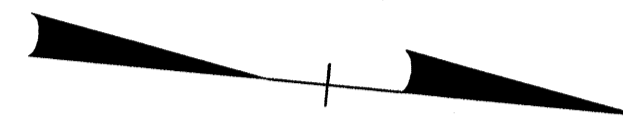
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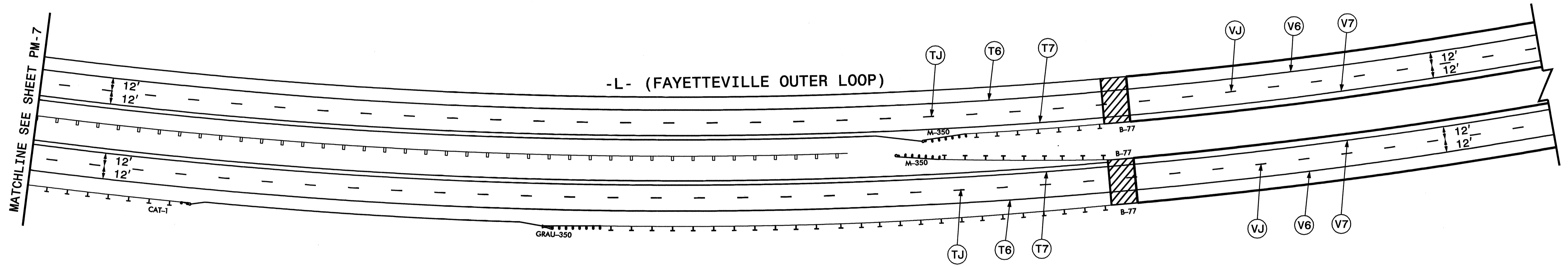




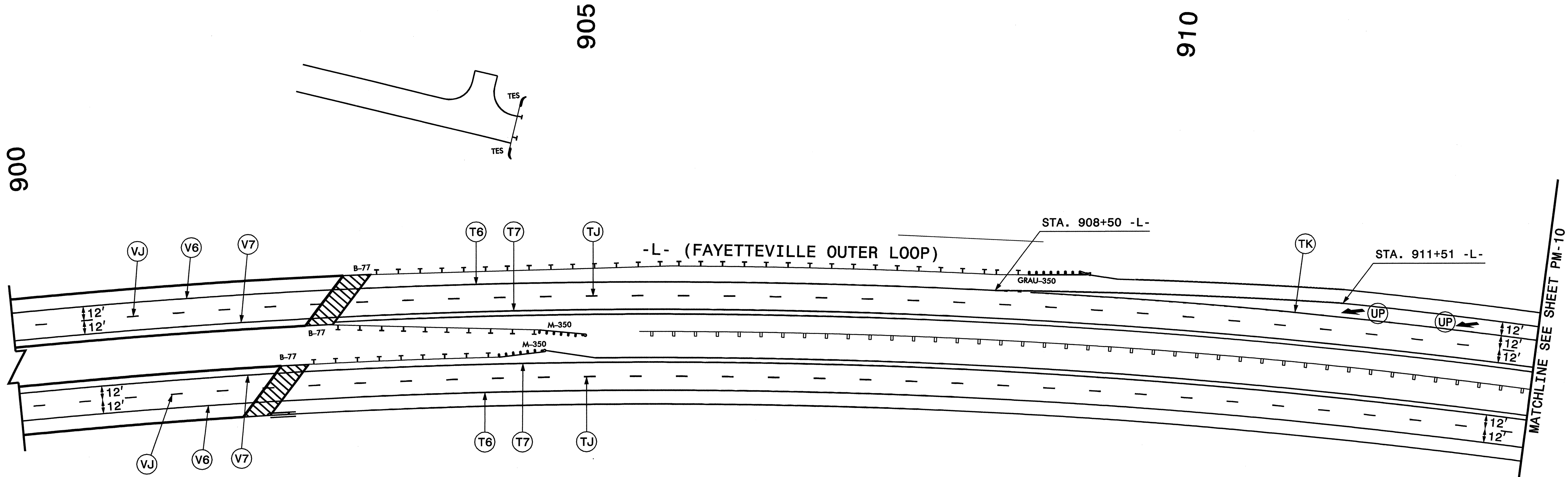
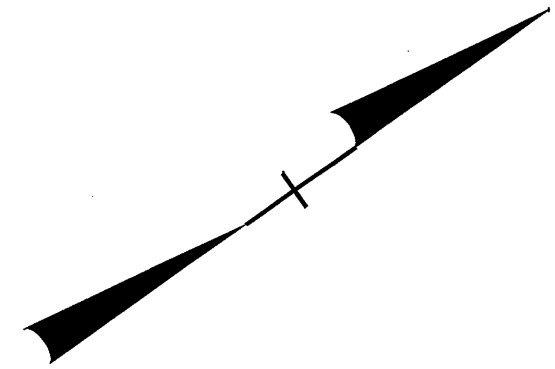
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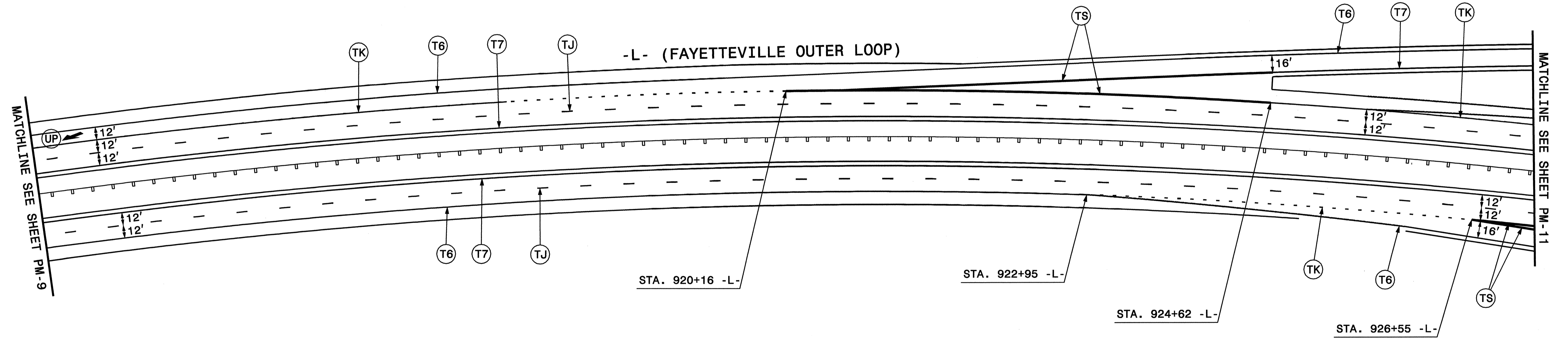
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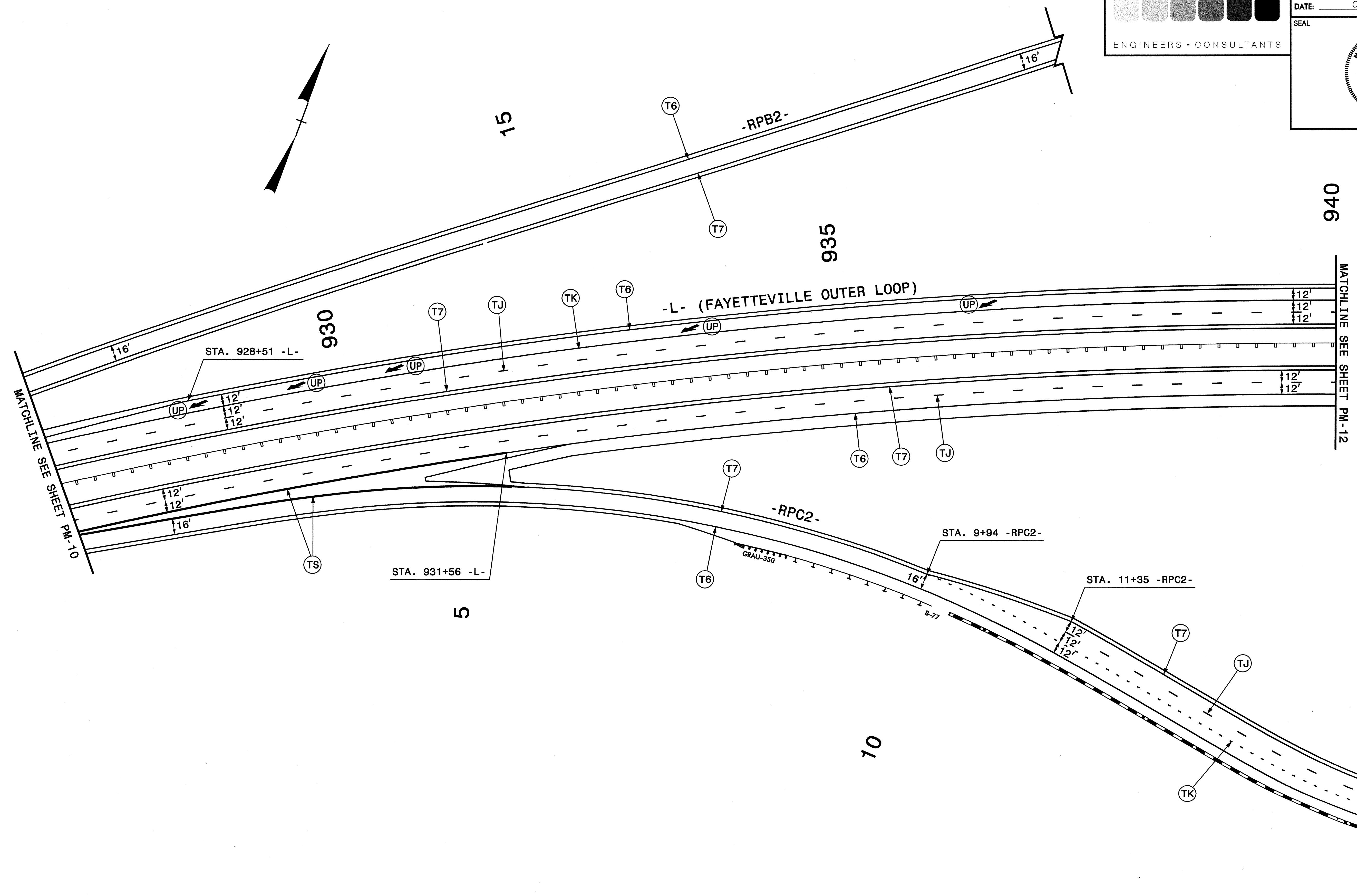
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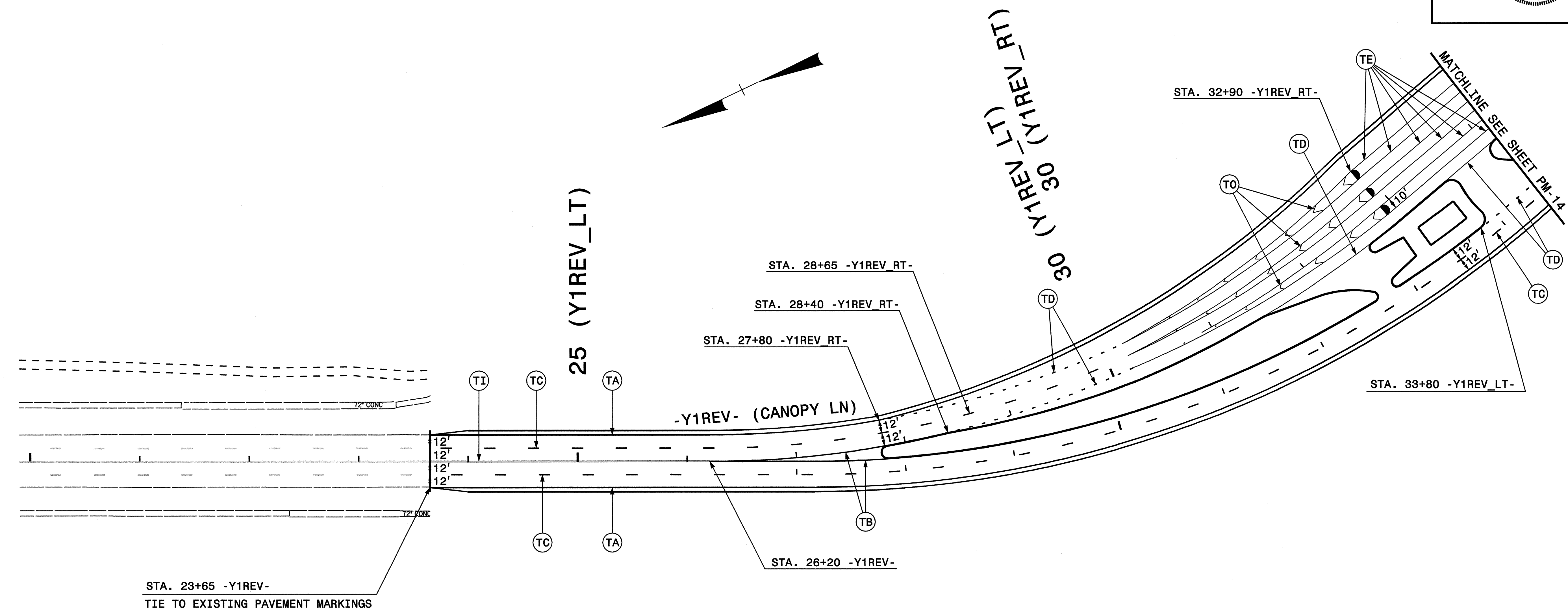
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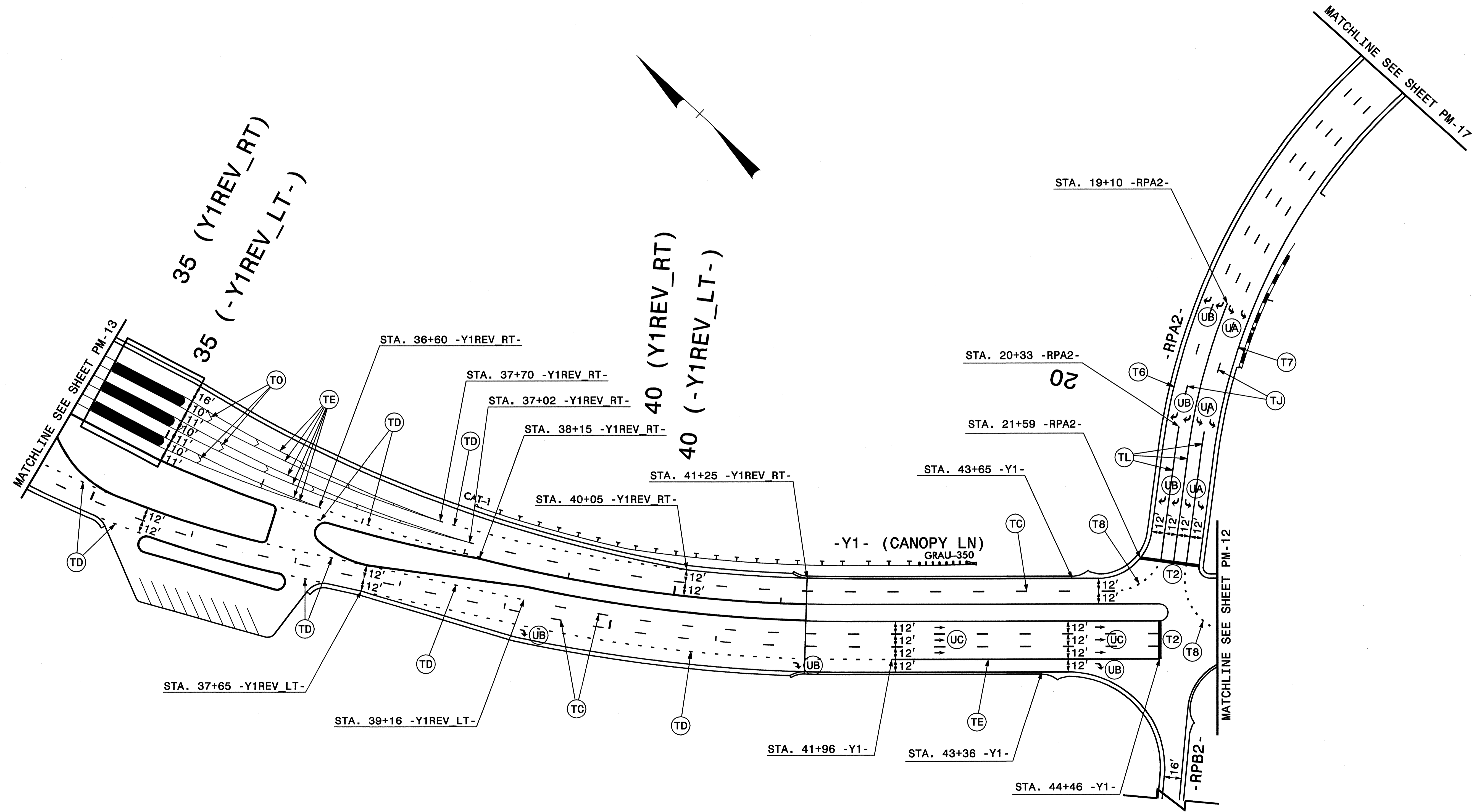
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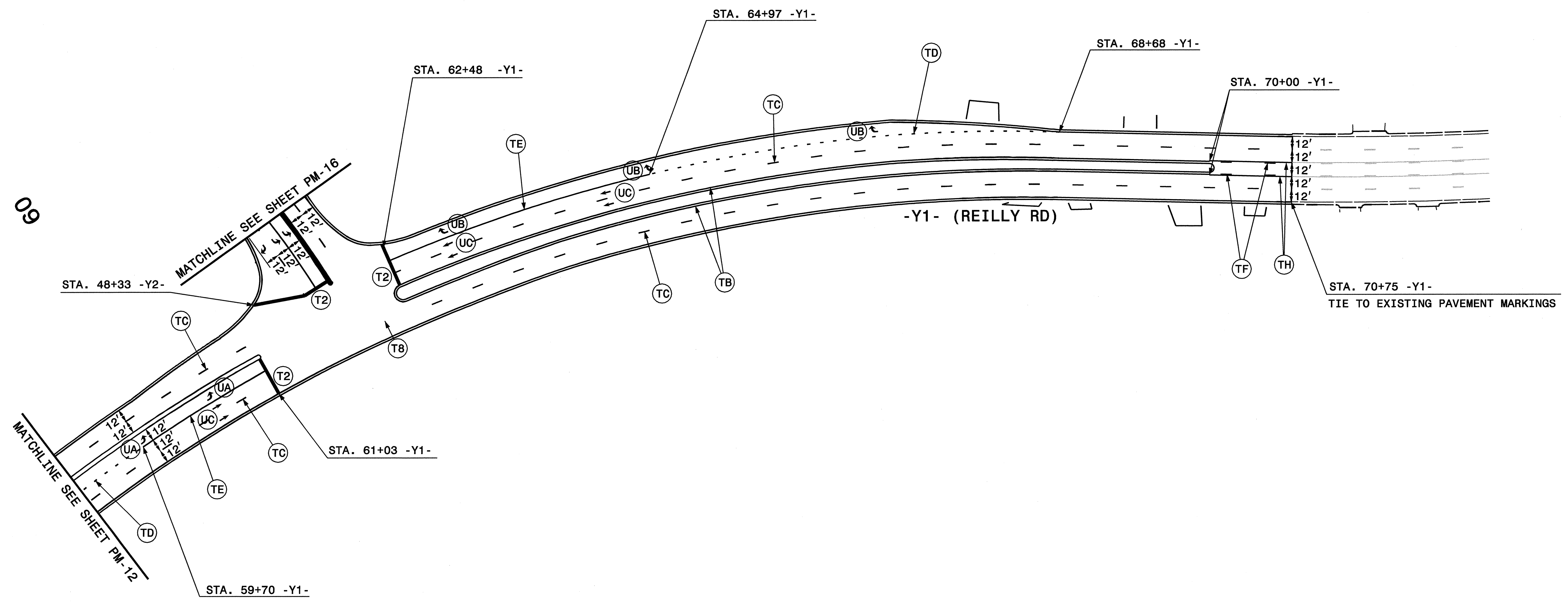
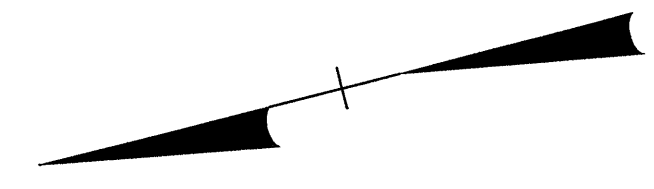




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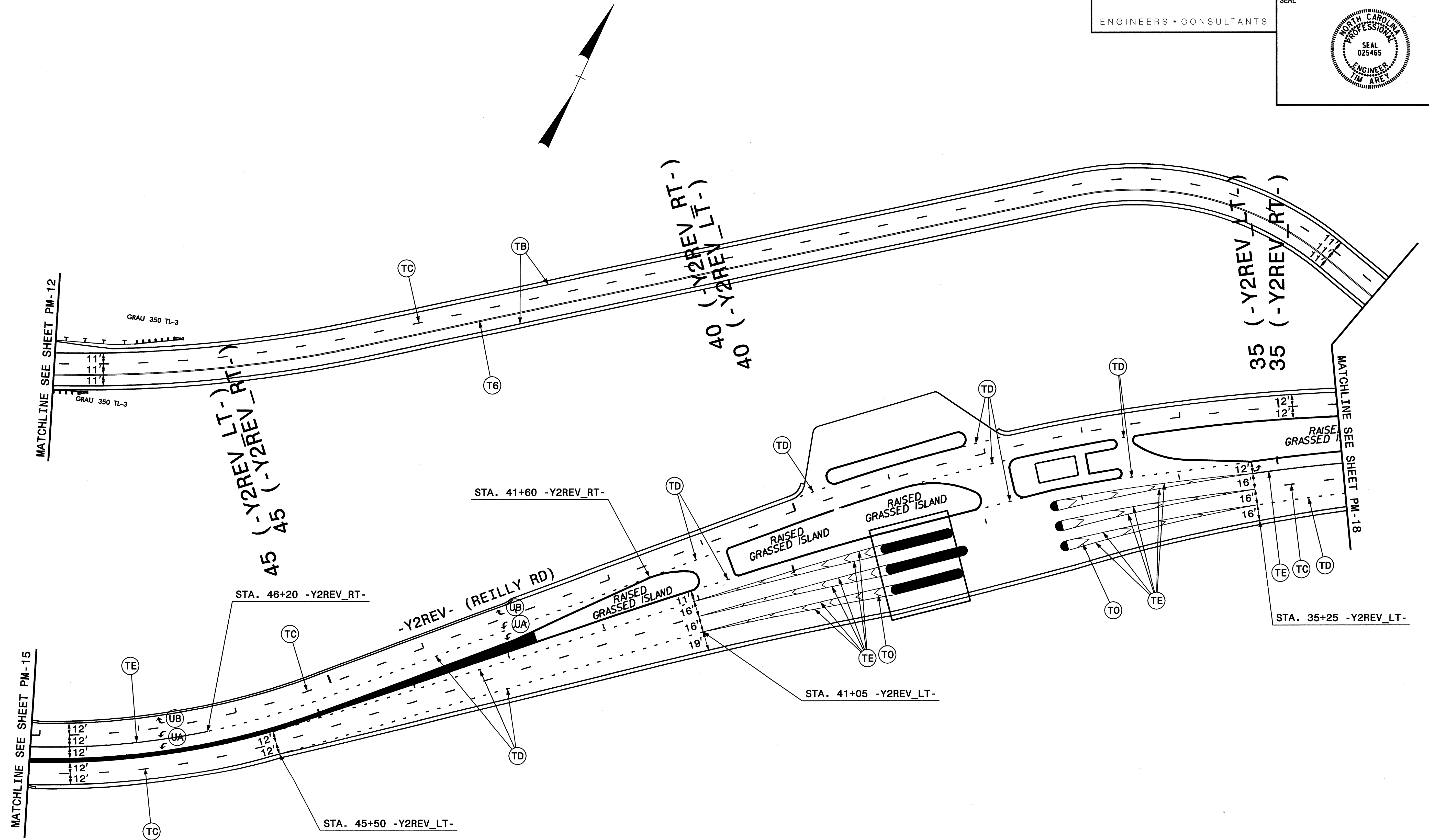


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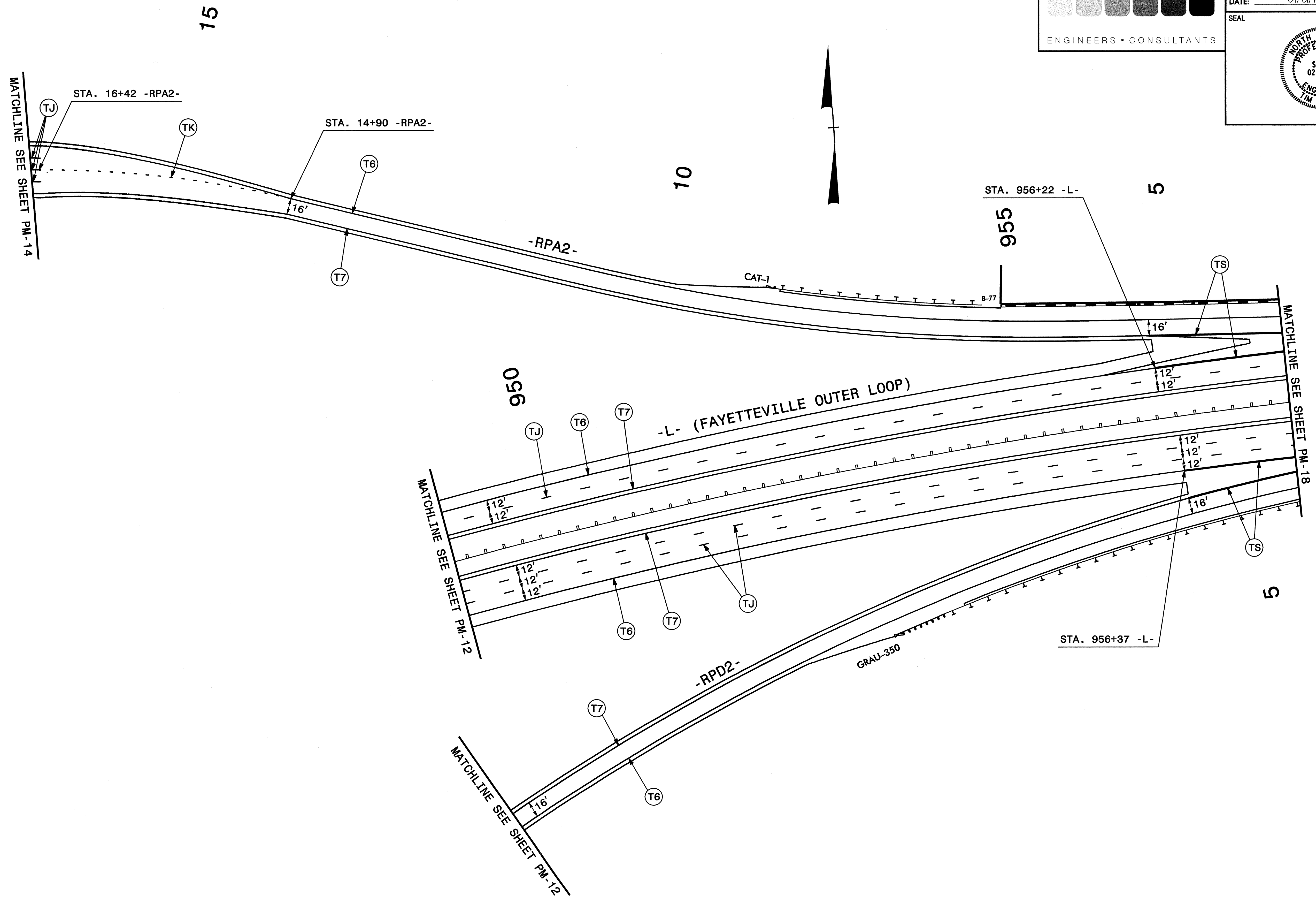


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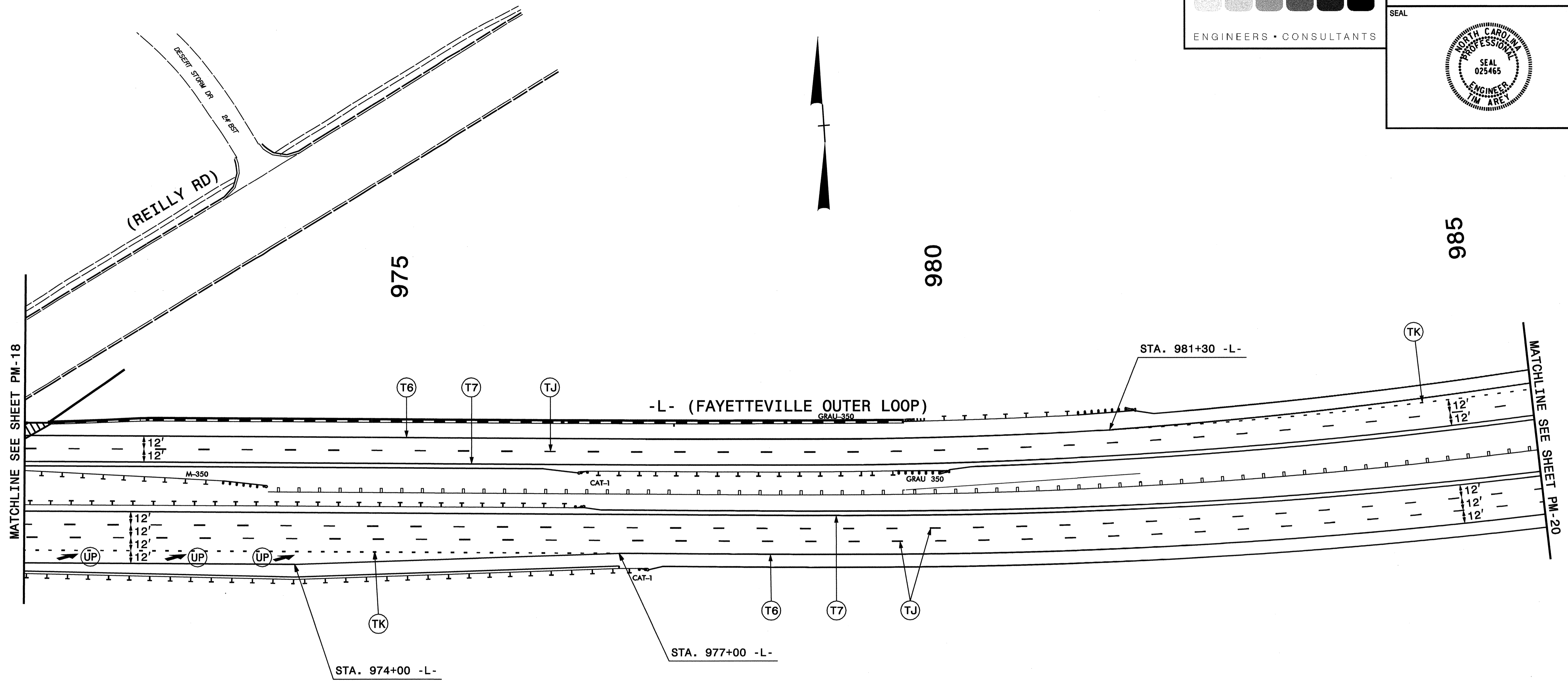
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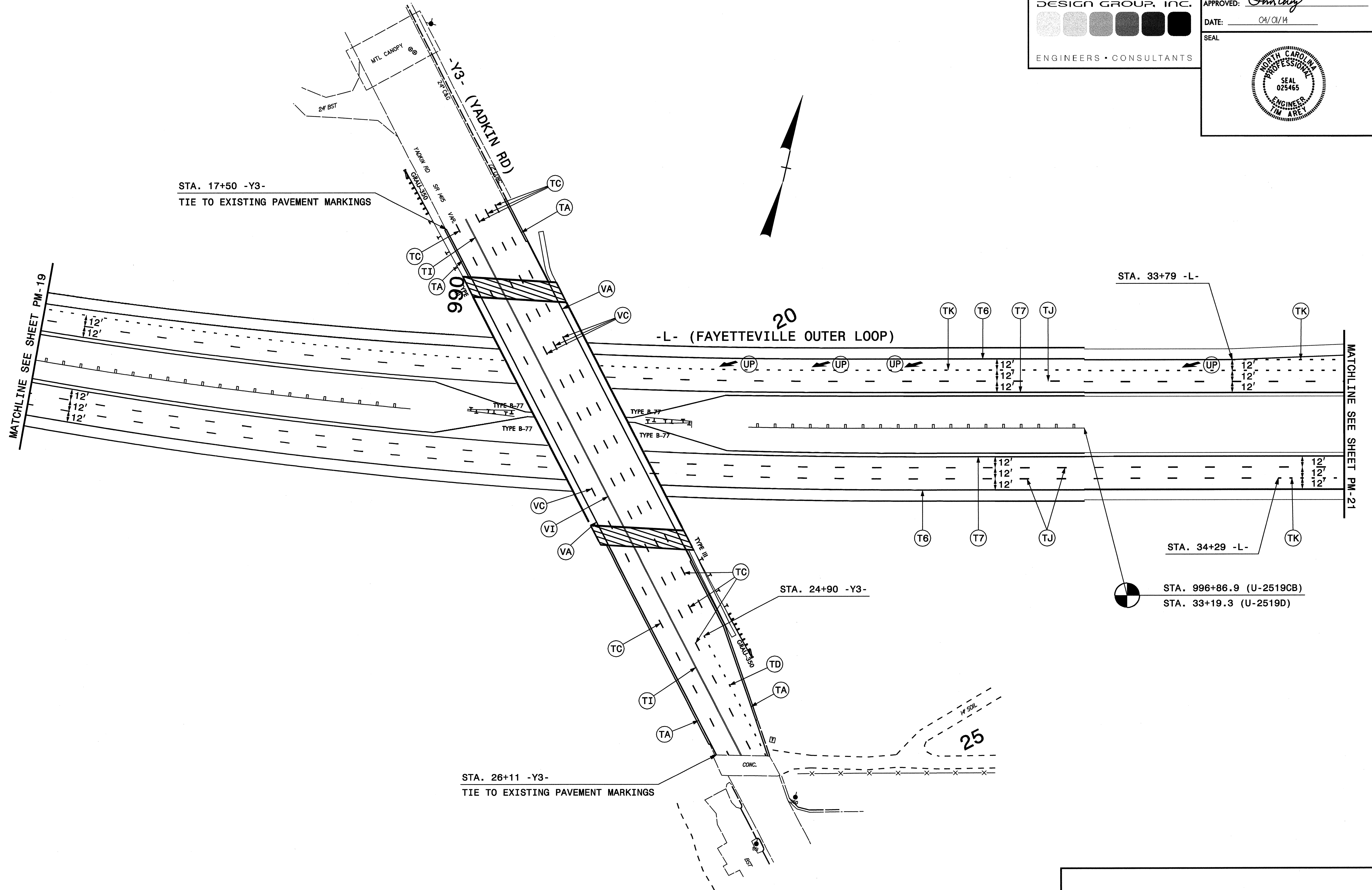
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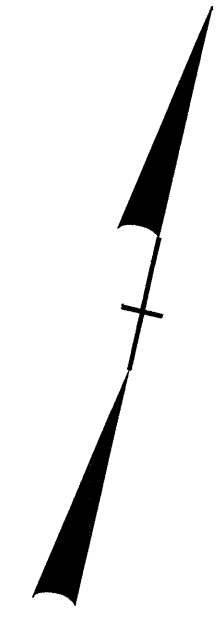




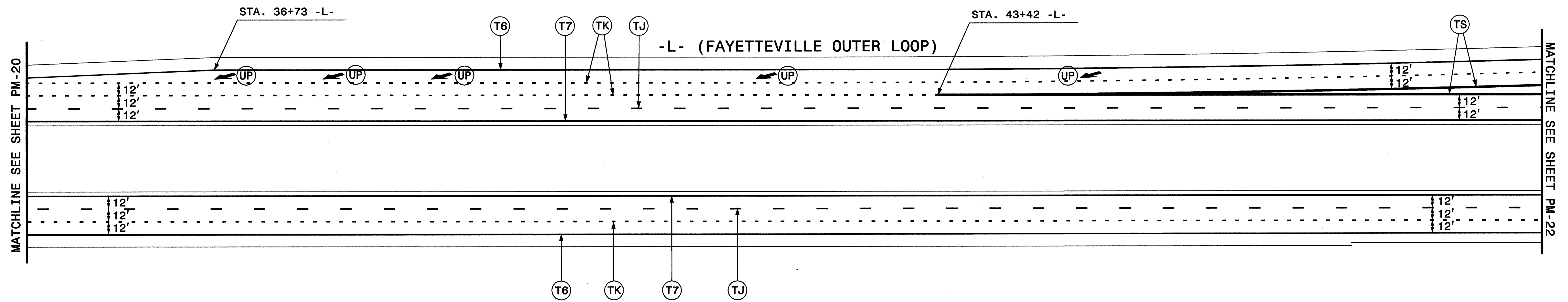
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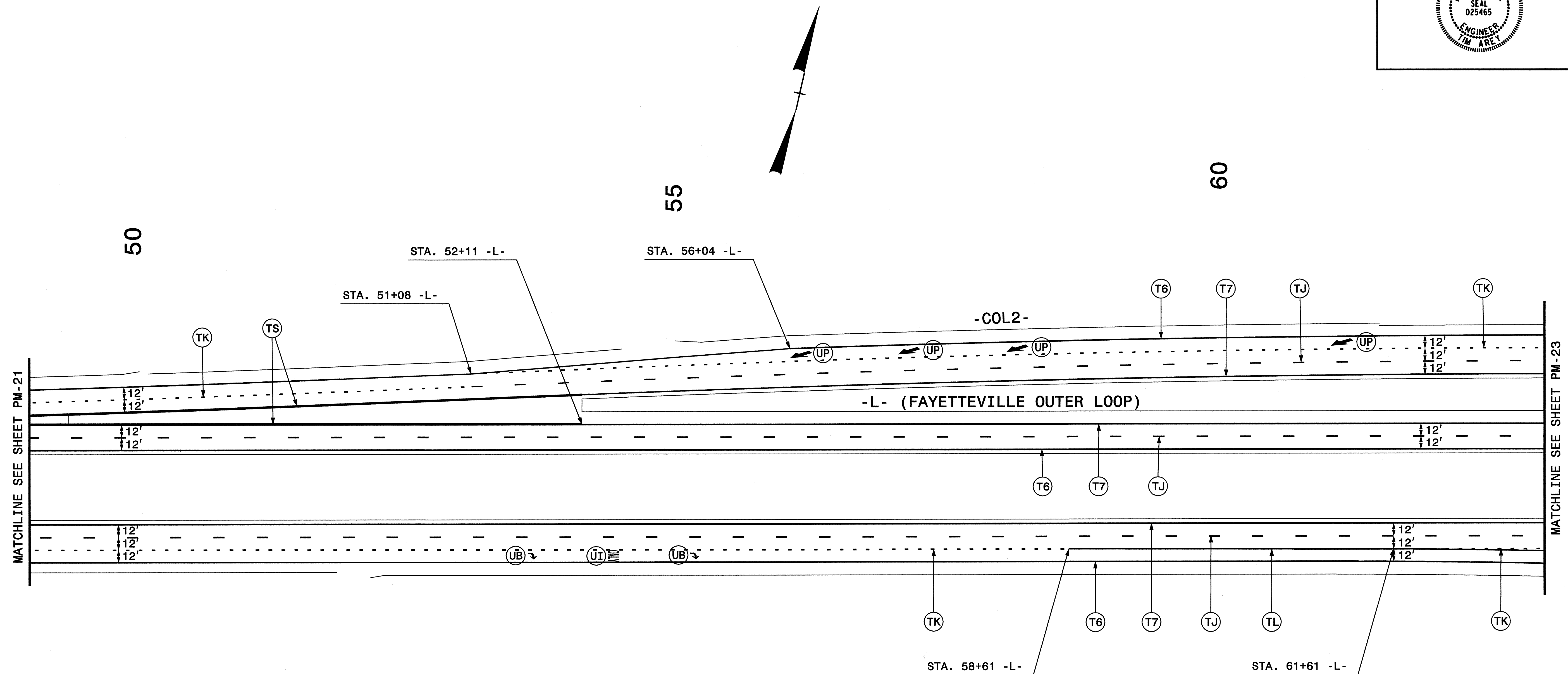
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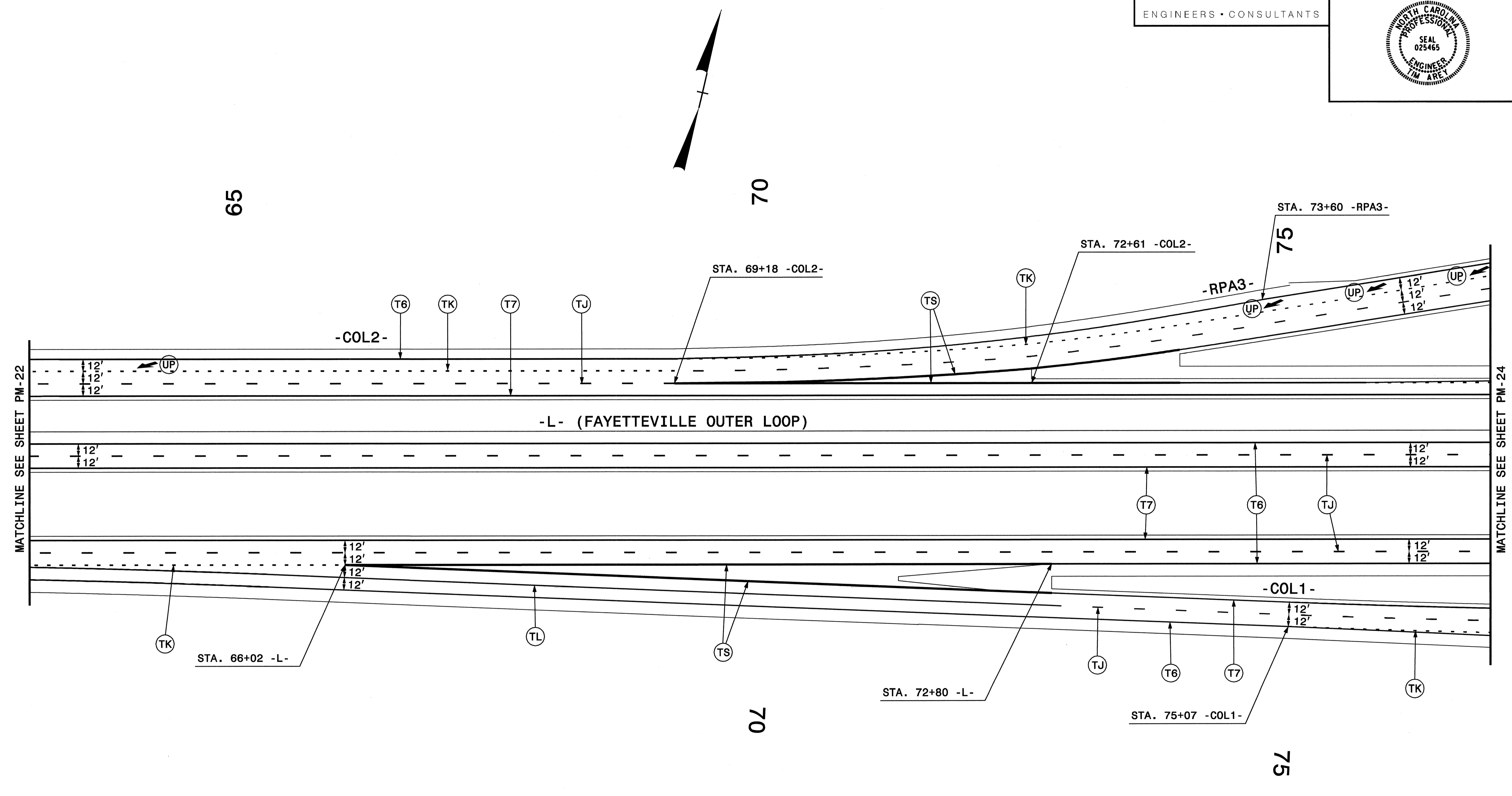


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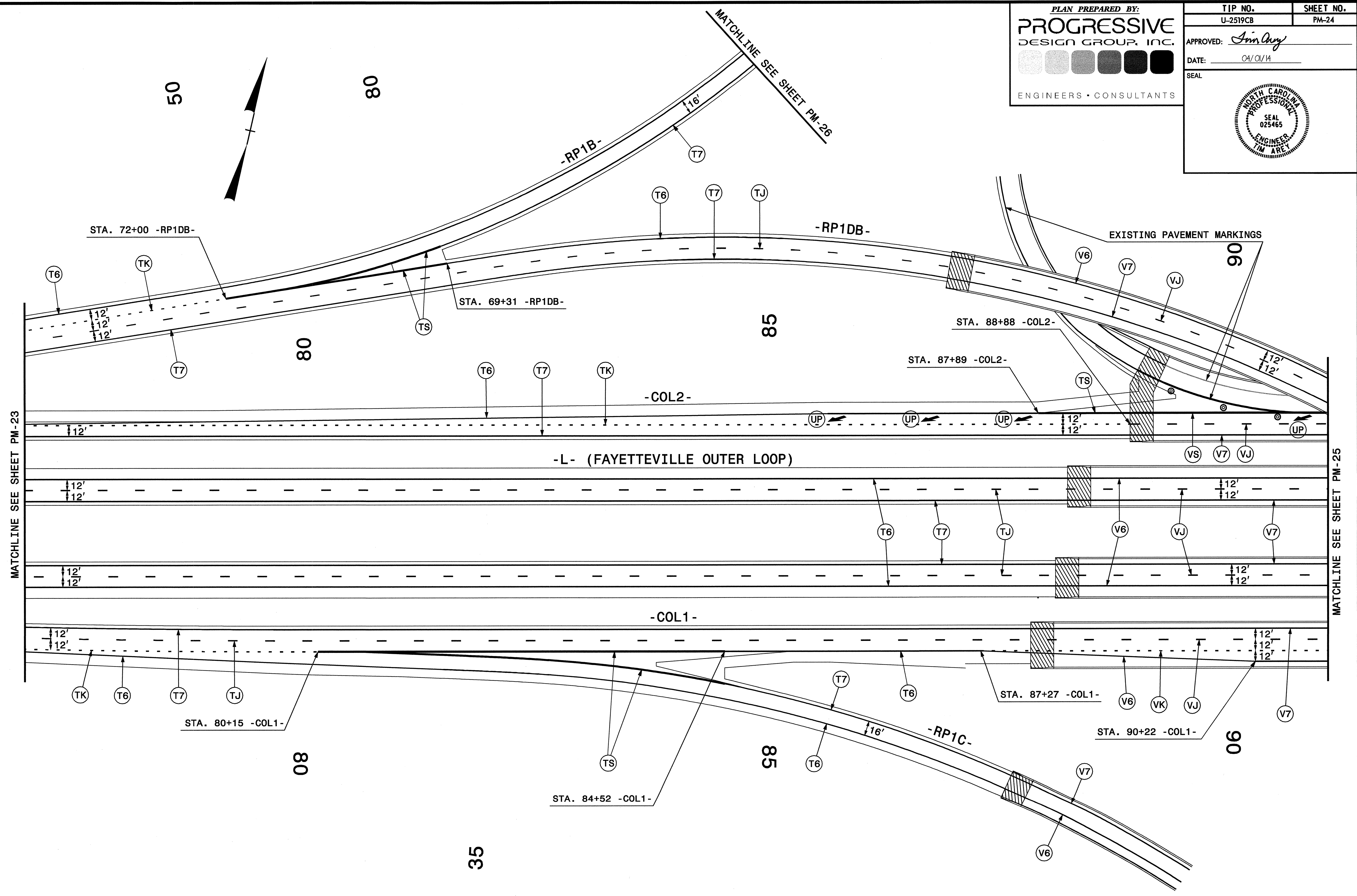


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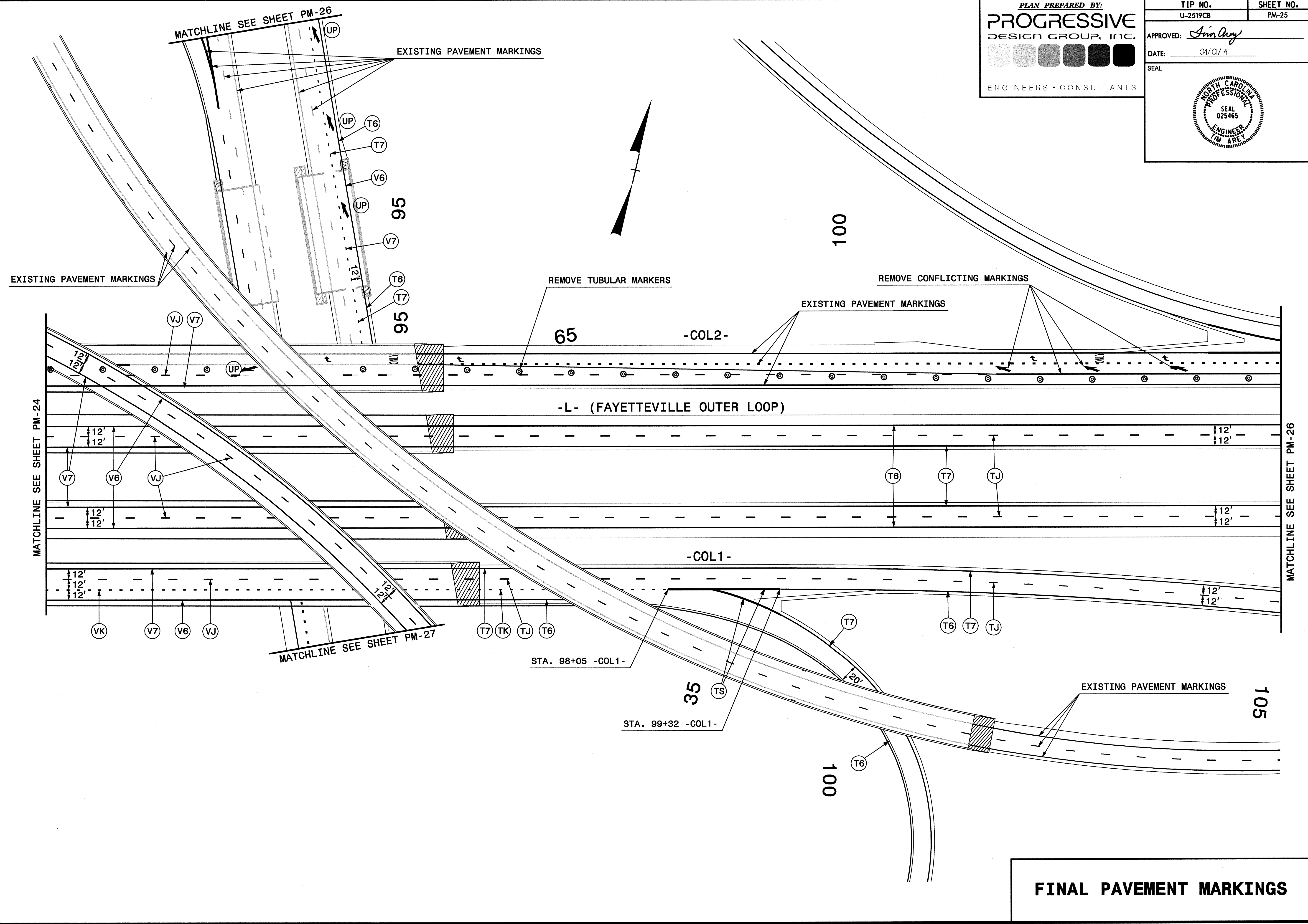




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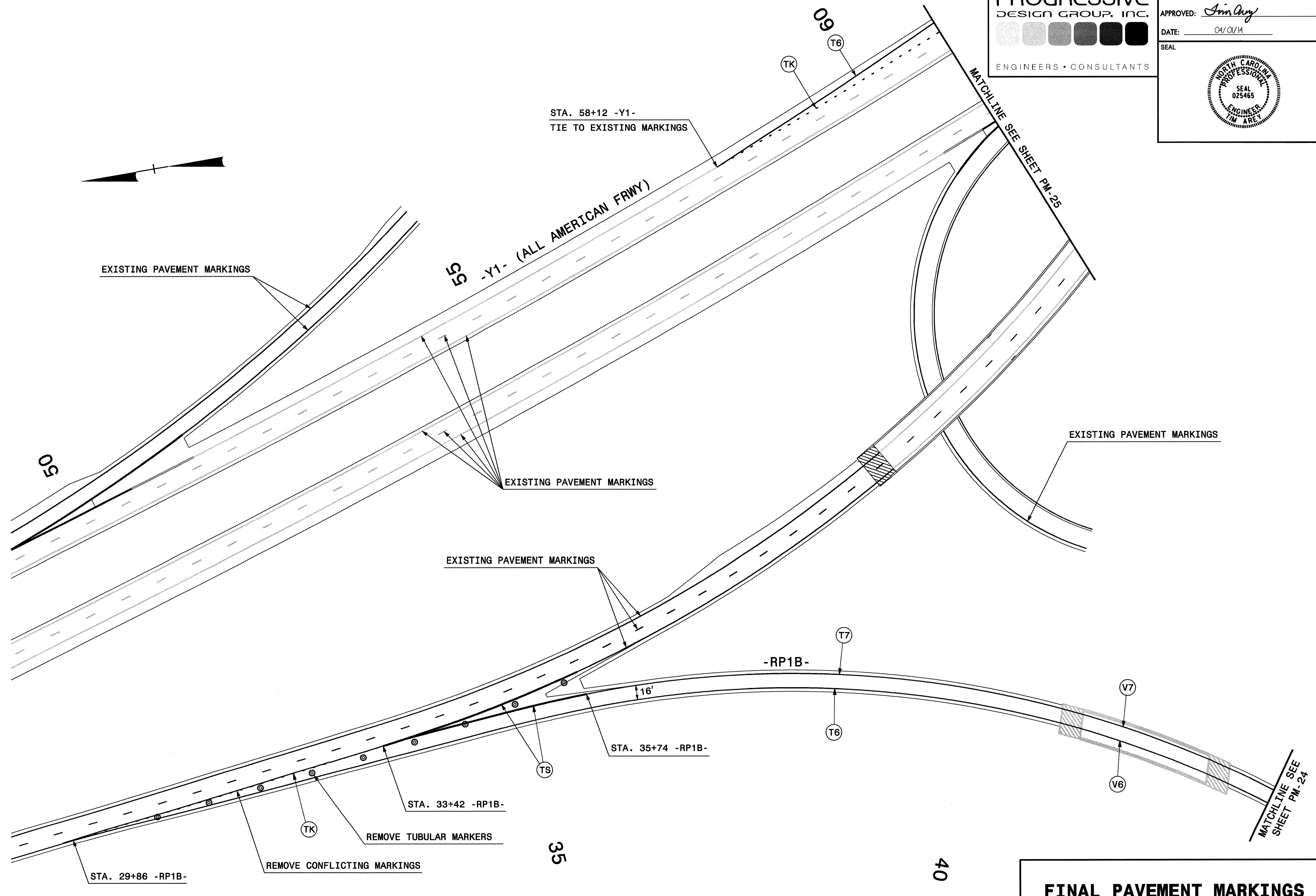


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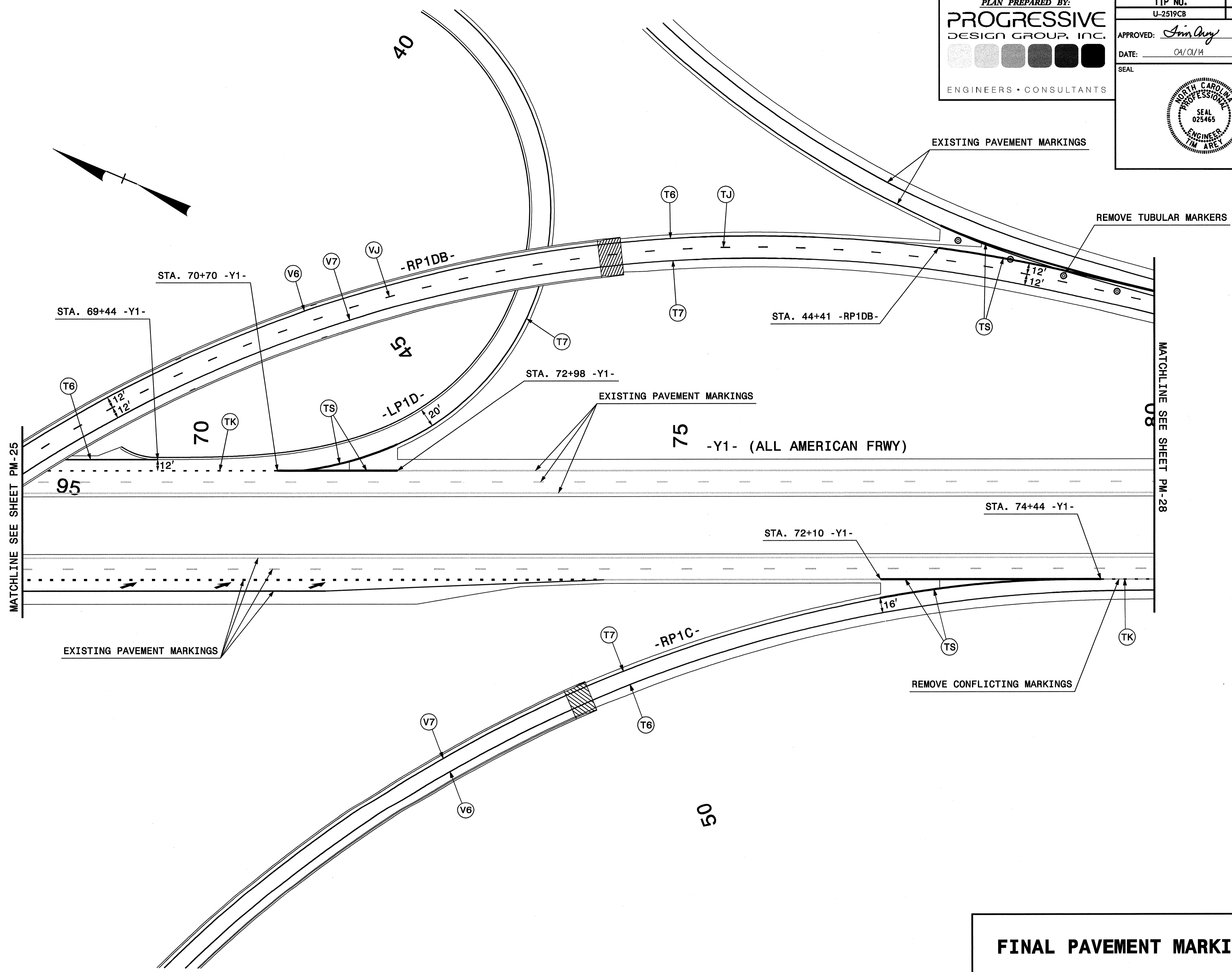
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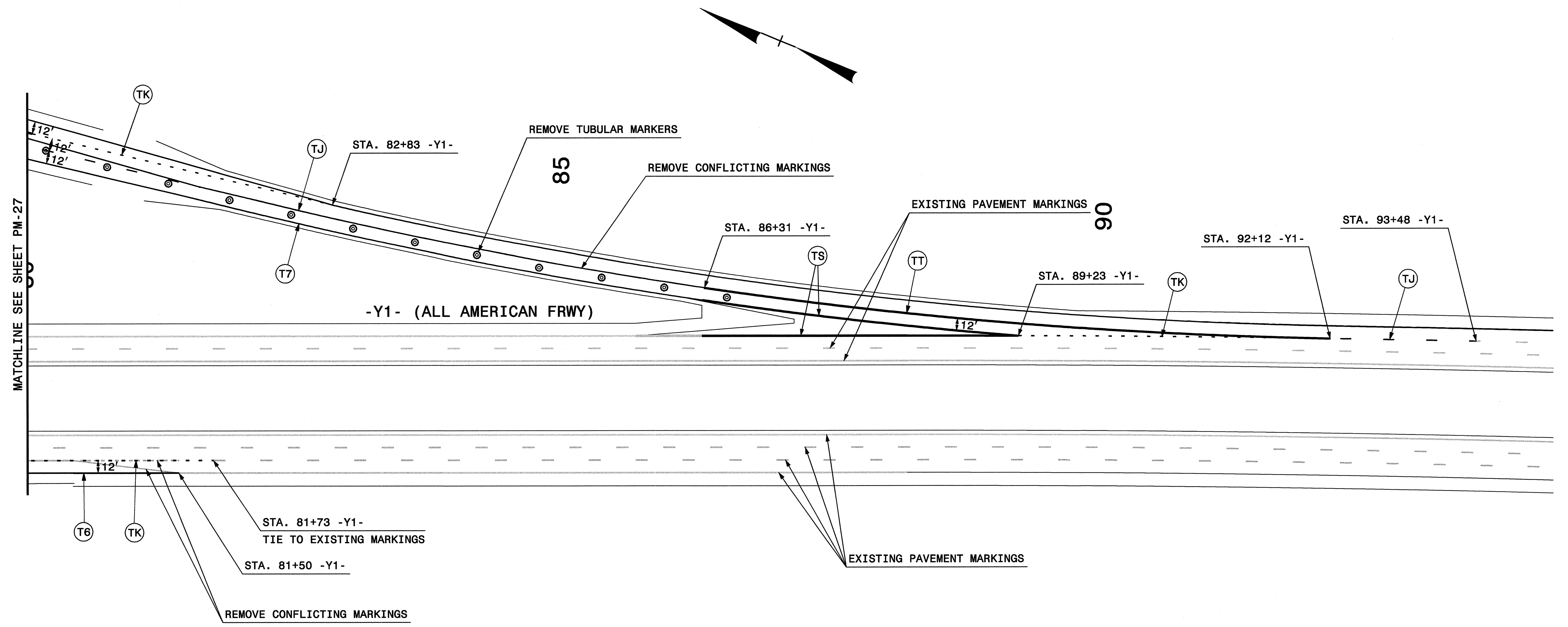


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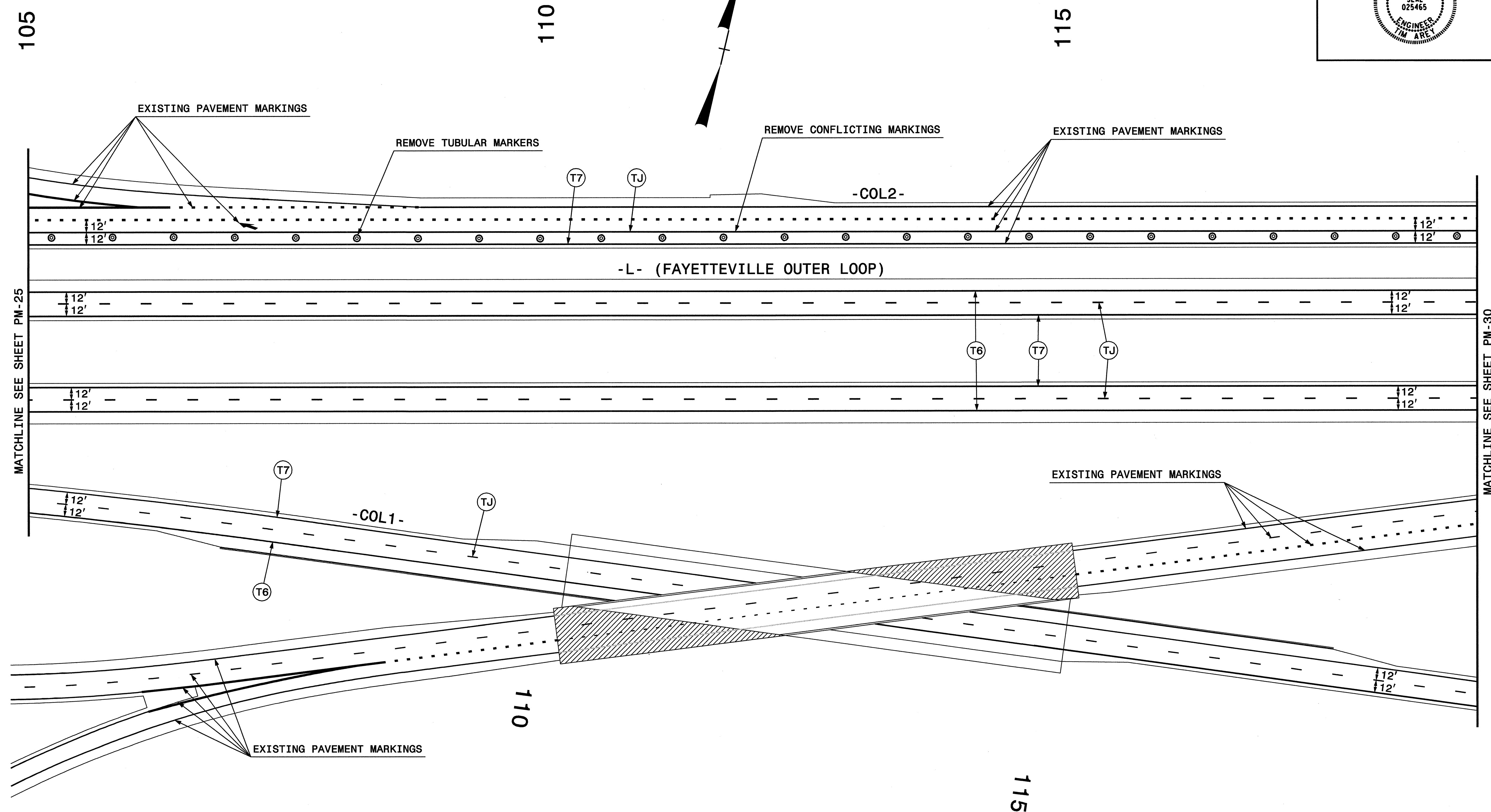




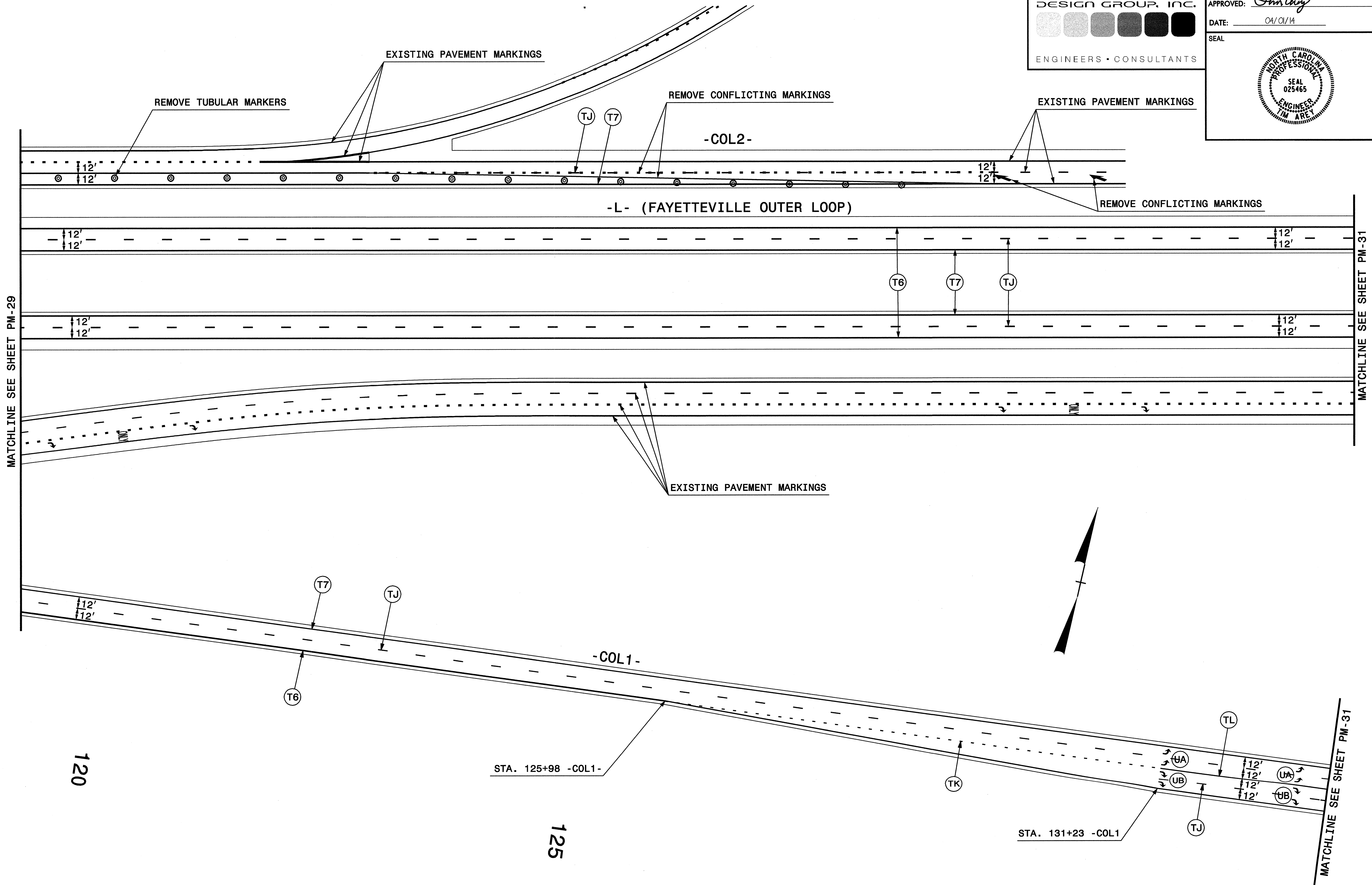
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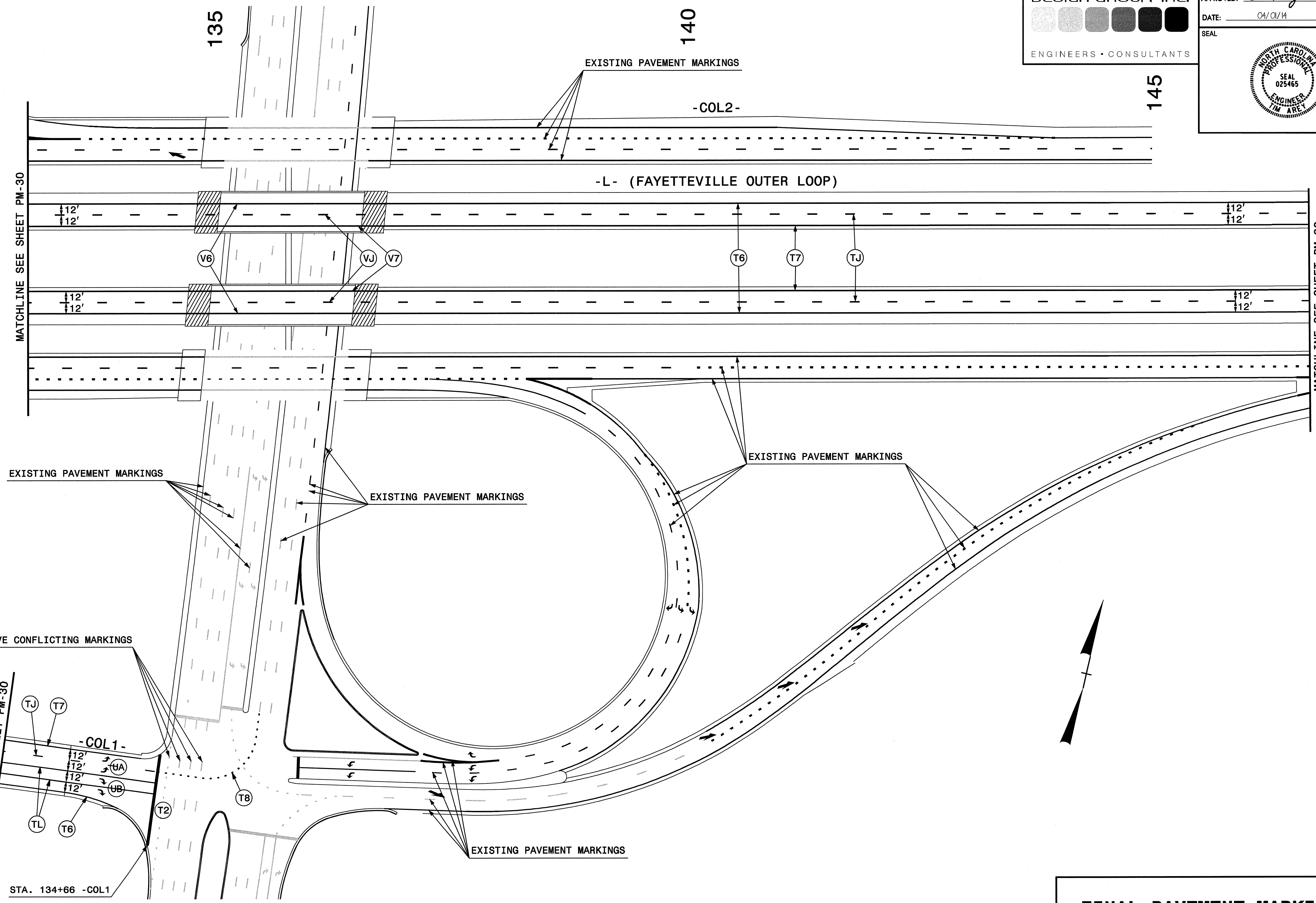


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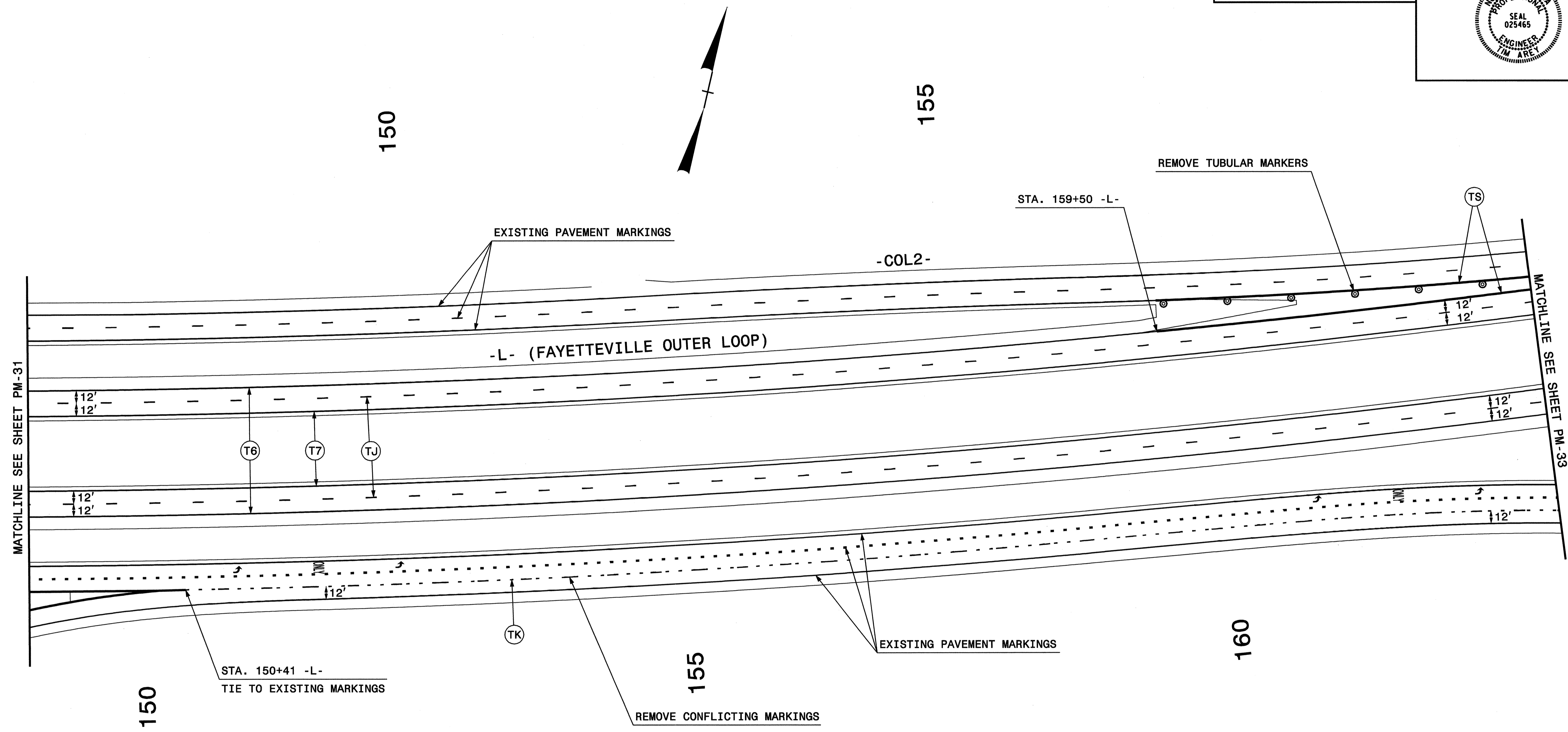


REMOVE CONFLICTING MARKINGS

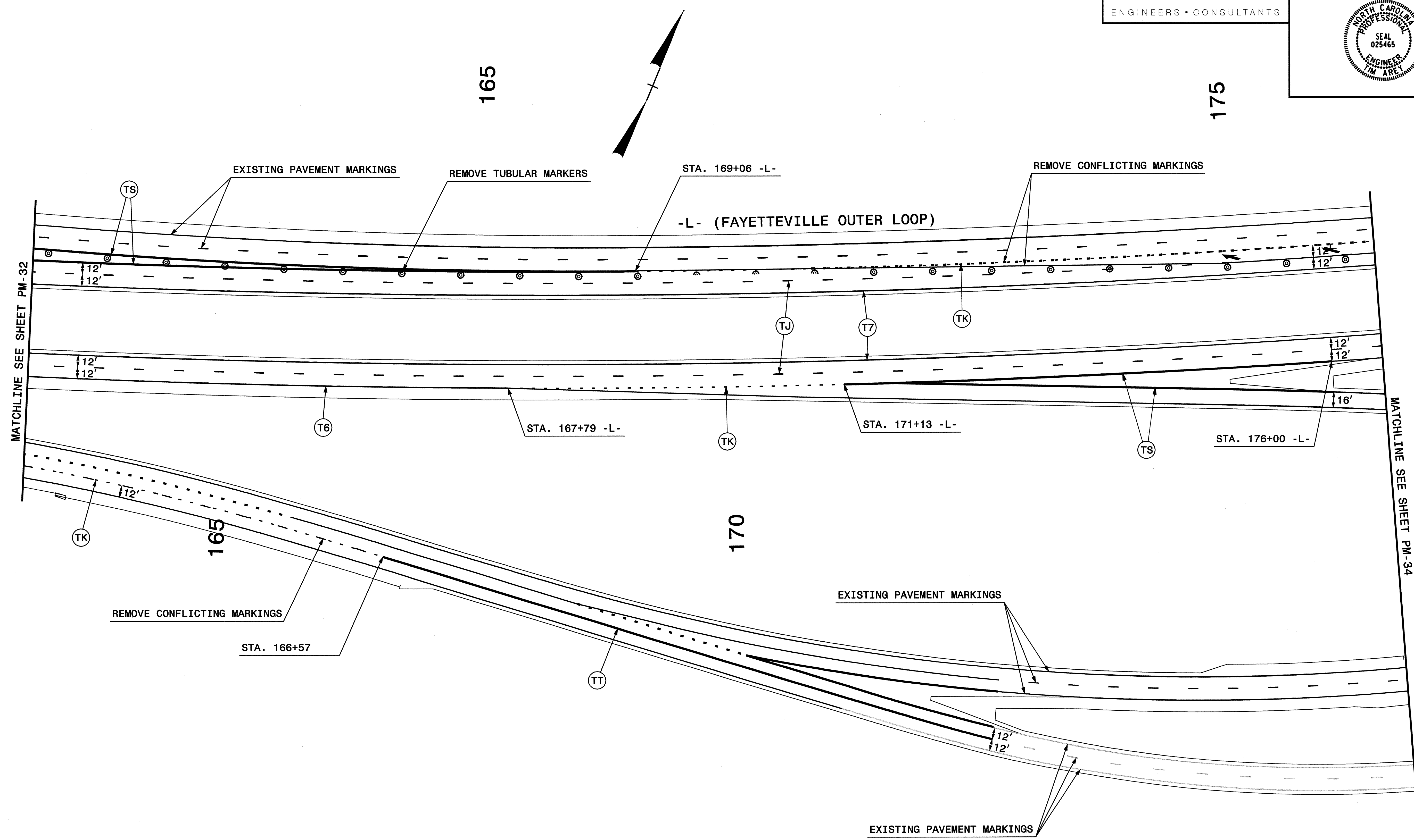
MATCHLINE SEE SHEET PM-30

STA. 134+66 -COL1

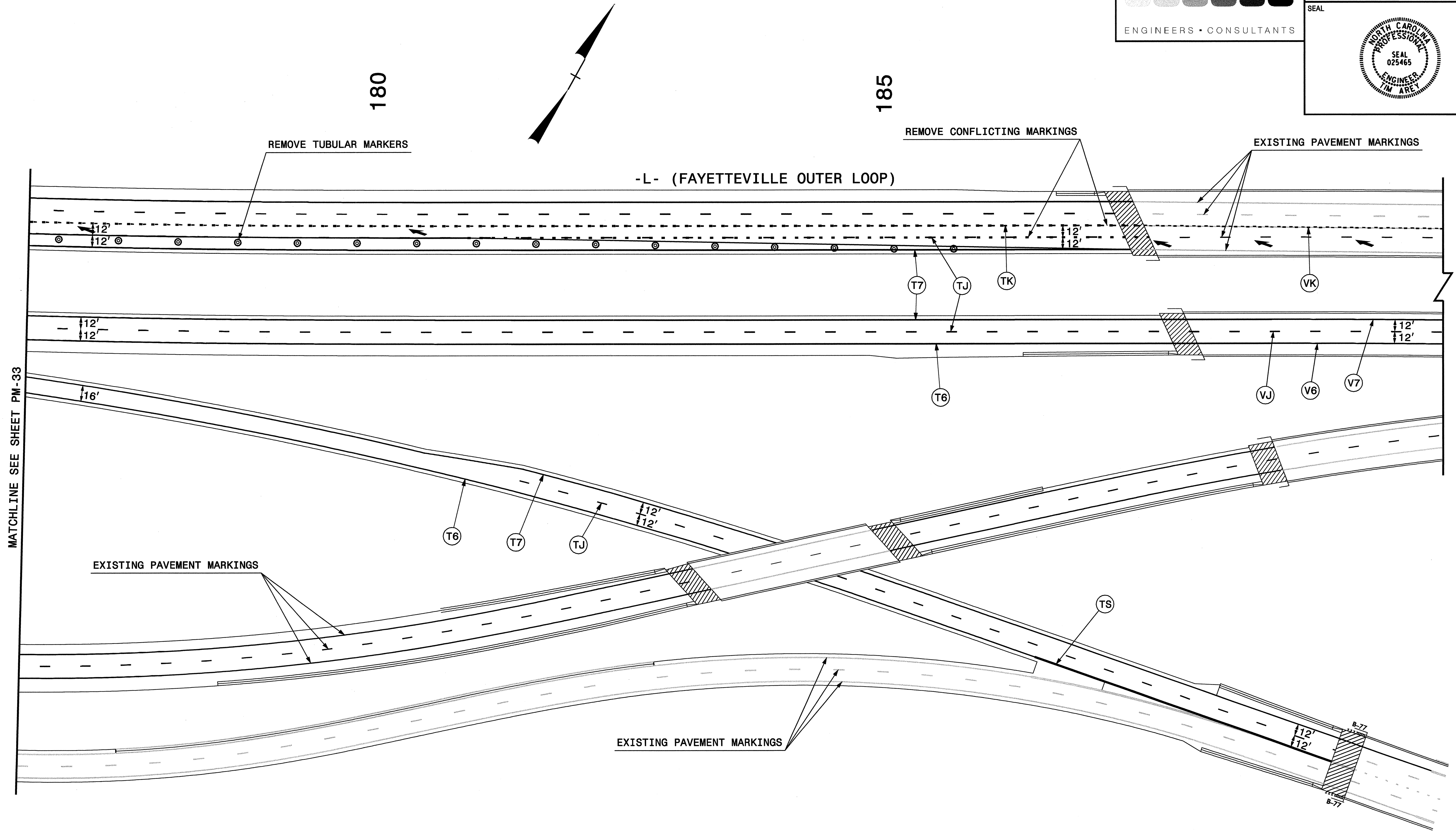
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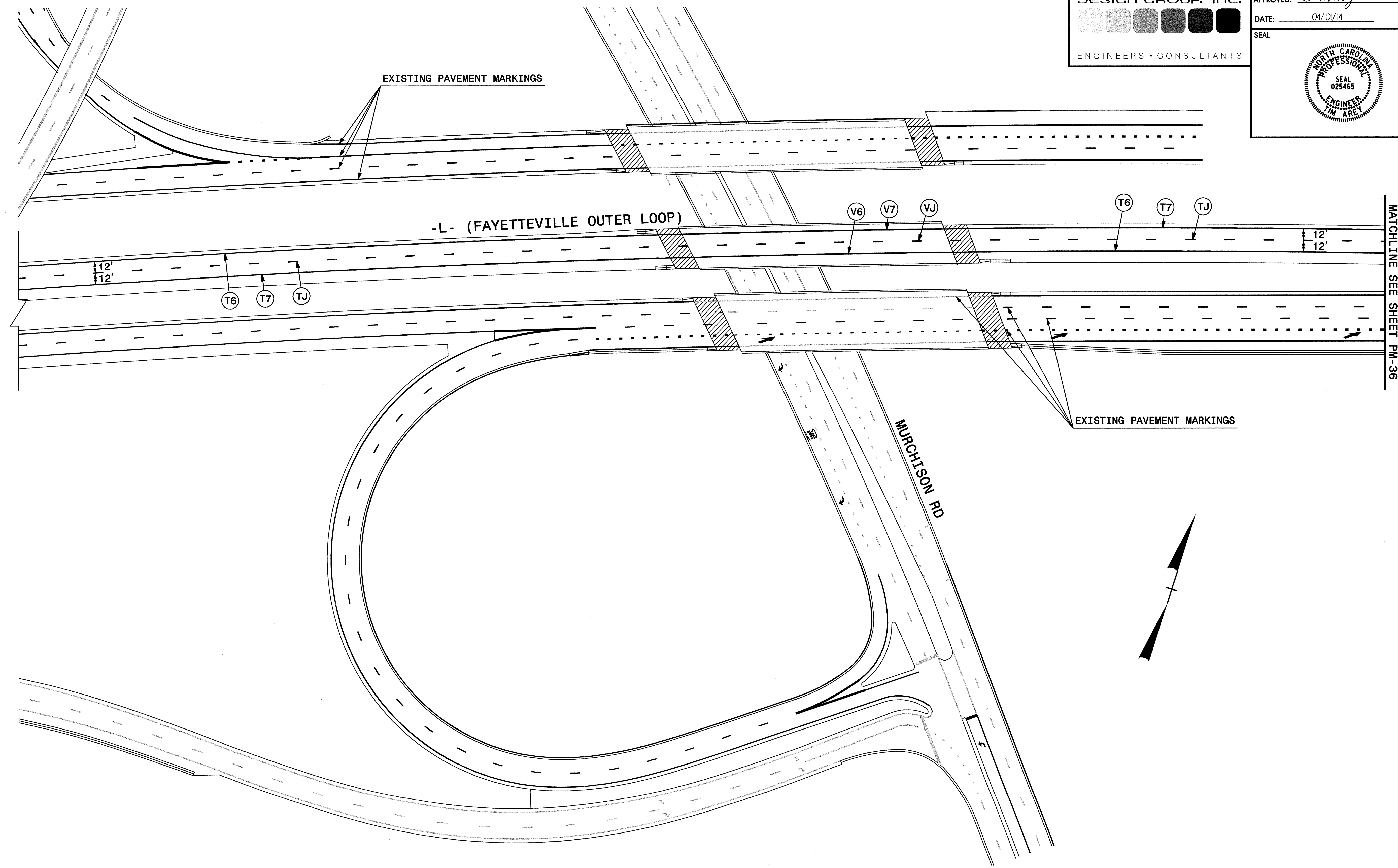


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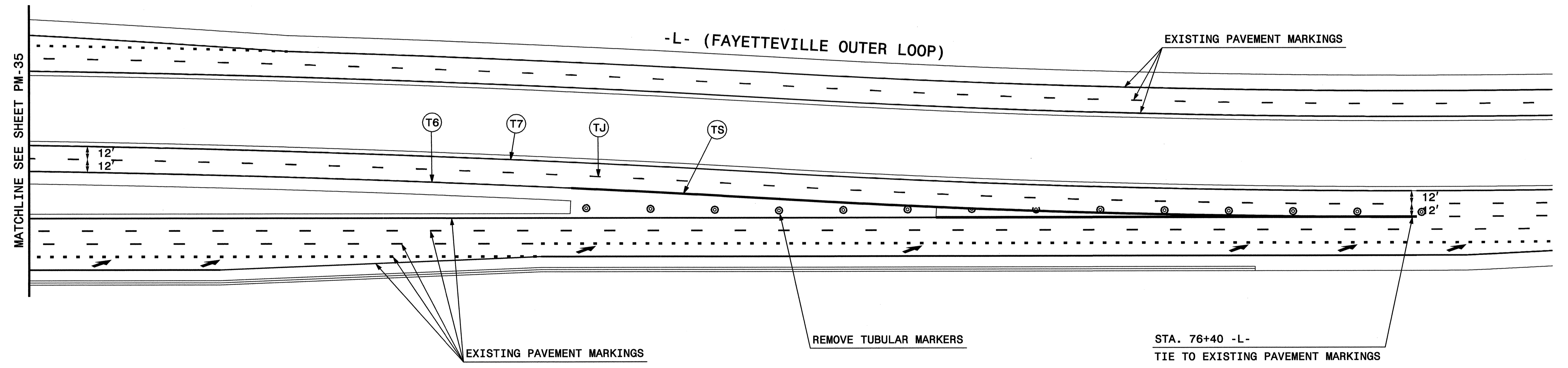
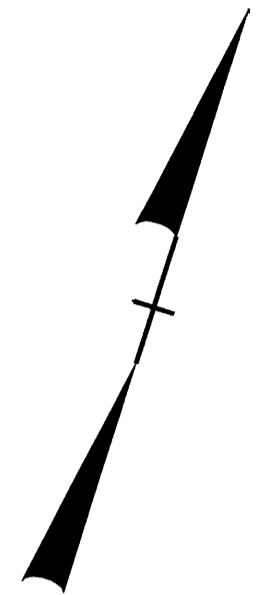
**FINAL PAVEMENT MARKINGS**





MATCHLINE SEE SHEET PM-36

**FINAL PAVEMENT MARKINGS**



**FINAL PAVEMENT MARKINGS**