

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
U-4703	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
WAKE COUNTY**

U-4703

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS"-  
PROJECT SERVICES UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C.,  
DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE  
CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY)

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND INDEX OF SHEETS
TCP-2 & TCP-2A	PROJECT NOTES
TCP-3	TEMPORARY PAVEMENT MARKING SCHEDULE
TCP-4	PHASING
TCP-5	PHASE I OVERVIEW
TCP-6 THRU TCP-8	PHASE I DETAILS
TCP-9	PHASE II OVERVIEW
TCP-10 THRU TCP-12B	PHASE II DETAILS
TCP-13	WORK ZONE ADVANCE WARNING SIGNS
SD-1	NEW RAND RD. SIGN DESIGN

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
  - PROPOSED PVMT. EXIST. PVMT.
  - WORK AREA
  - REMOVAL OF EXISTING PAVEMENT
- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
  - TYPE II BARRICADE
  - TYPE III BARRICADE
  - CONE
  - DRUM SKINNY DRUM
  - FLASHING ARROW PANEL (TYPE C)
  - STATIONARY SIGN
  - PORTABLE SIGN
  - STATIONARY OR PORTABLE SIGN
  - CRASH CUSHION
  - CHANGEABLE MESSAGE SIGN
  - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
  - POLICE
  - FLAGGER
- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
  - YELLOW/YELLOW PAVEMENT MARKER
  - CRYSTAL/RED PAVEMENT MARKER
  - PAVEMENT MARKING SYMBOLS

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TIP PROJECT:

APPROVED: DATE:	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL SECTION
	J. S. BOURNE, P.E. <b>TRAFFIC CONTROL ENGINEER</b>
	J. ISHAK, P.E. <b>TRAFFIC CONTROL PROJECT ENGINEER</b>
	J. L. PORTANOVA, P.E. <b>TRAFFIC CONTROL PROJECT DESIGN ENGINEER</b>
	M. H. STEELMAN <b>TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN</b>

## GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

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.

### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
TIMBER DRIVE	MONDAY THRU FRIDAY FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM
NC 50	MONDAY THRU FRIDAY FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM
WHITE OAK RD.	MONDAY THRU THURSDAY FROM 3:00 PM TO 10:00 PM AND FRIDAY FROM 3:00 PM TO 11:00 PM AND SATURDAY AND SUNDAY 9:00 AM TO 11:00 PM
TIMBER DRIVE EAST	MONDAY THRU THURSDAY FROM 3:00 PM TO 10:00 PM AND FRIDAY FROM 3:00 PM TO 11:00 PM AND SATURDAY AND SUNDAY 9:00 AM TO 11:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

### ROAD NAME

TIMBER DRIVE, NC 50, NEW RAND RD. EXTENSION, WHITE OAK RD., AND AND TIMBER DRIVE EAST

### HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 10:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 10:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 10:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 10:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 10:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 10:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 10:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
NC 50	MONDAY THRU FRIDAY 6:00 AM TO 8:00 PM	20 MIN. FOR TRAFFIC SIGNAL INSTALLATION AND TRAFFIC SHIFTS

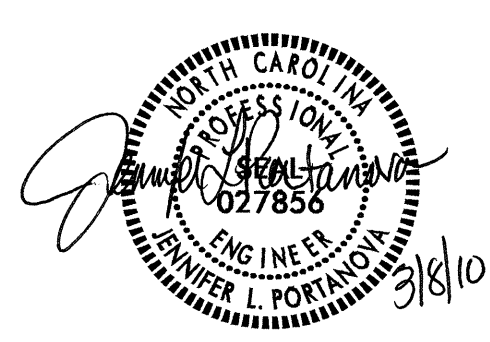
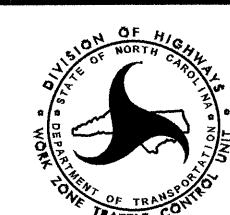
D) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
WHITE OAK RD.	MONDAY THRU FRIDAY FROM 3:00 PM TO 10:00 PM AND FRIDAY FROM 3:00 PM TO 11:00 PM AND SATURDAY AND SUNDAY FROM 9:00 AM TO 11:00 PM
NC 50	MONDAY THRU FRIDAY FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- K) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

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		SCALE: NONE	REVISIONS
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		DESIGN BY: MHS	
		REVIEWED BY: JLP	
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## GENERAL NOTES CONTINUED

### PAVEMENT EDGE DROP OFF REQUIREMENTS

- L) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
- BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- M) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

- N) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

### SIGNING

- O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- P) PROVIDE PERMANENT SIGNING.
- Q) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.  
AND  
PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- R) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.  
AND  
COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- S) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

### TRAFFIC CONTROL DEVICES

- T) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 100 FT. CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

### PAVEMENT MARKINGS AND MARKERS

- W) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN HTE PAVEMENT MARKING PLAN.
- X) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMPORARY RAISED

- Y) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Z) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- AA) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- BB) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION. PLACE CONES TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION.

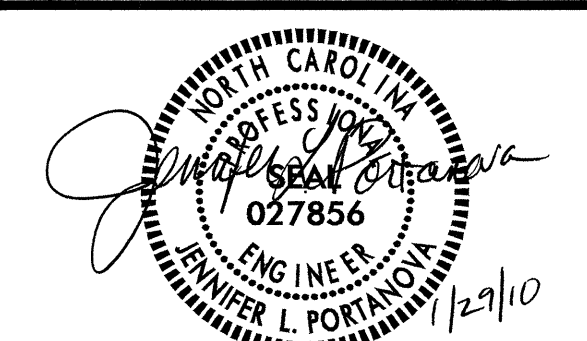

### TEMPORARY / FINAL SIGNALS

- CC) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

### MISCELLANEOUS

- DD) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.
- EE) ALL WHEEL CHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

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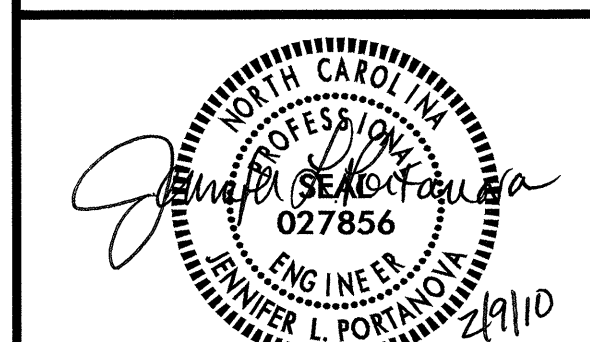
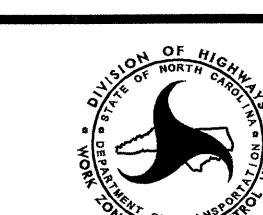
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	DESIGN BY: MHS	
REVIEWED BY: JLP	REVISIONS	



## TEMPORARY PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	PAY ITEM QUANTITY	TOTAL
TEMPORARY PAVEMENT MARKINGS			
PAINT (24")			
P4	WHITE STOPBAR	790 LF	
		TOTAL	790 LF
PAINT (4")			
PA	WHITE EDGELINE	14114 LF	
PC	10 FT. WHITE SKIP	1910 LF	
PD	2 FT. WHITE MINISKIP	588 LF	
PE	WHITE SOLID LANE LINE	4415 LF	
PF	10 FT. YELLOW SKIP	881 LF	
PH	YELLOW SINGLE CENTER	3522 LF	
PI	YELLOW DOUBLE CENTER	18256 LF	
		TOTAL	43686 LF
PAINT (8")			
PR	WHITE GORELINE	376 LF	
PS	WHITE DIAGONAL	124 LF	
PV	YELLOW DIAGONAL	278 LF	
PX	WHITE CROSSWALK LINE	2170 LF	
		TOTAL	2948 LF
PAINTMARKING CHARACTERS			
QI	ALPHANUMERIC CHAR.	44 EA	
		TOTAL	44 EA
PAINTMARKING SYMBOLS			
QA	LEFT TURN ARROW	58 EA	
QB	RIGHT TURN ARROW	59 EA	
QC	STRAIGHT ARROW	46 EA	
QE	COMBO. STRAIGHT/RIGHT	4 EA	
QF	COMBO. LEFT/RIGHT	9 EA	
		TOTAL	176 EA
MARKERS			
TEMPORARY RAISED PAVEMENT MARKERS			
MH	YELLOW & YELLOW	98 EA	
MI	CRYSTAL & RED	270 EA	
		TOTAL	368 EA

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		DATE: JAN 2010		REVISIONS
		DWG. BY: MHS		
		DESIGN BY: MHS		
		REVIEWED BY: JLP		



# PHASING

PROJ. REFERENCE NO. U-4703	SHEET NO. TCP-4
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THE FOLLOWING GENERAL NOTES APPLY DURING ALL PHASES OF CONSTRUCTION.

**NOTES:**

- A) CONSTRUCT ALL PROPOSED WIDENING ADJACENT TO EXISTING PAVEMENT IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN TRAVEL LANE.
- B) AT END OF WORK DAY, RETURN TRAFFIC TO EXISTING TRAFFIC PATTERN UNLESS OTHERWISE STATED IN PHASING OR SHOWN IN PLANS.
- C) COORDINATE WITH ENGINEER TO CONTACT NCDOT "TRAFFIC SYSTEMS OPERATIONS" UNIT TO INFORM PUBLIC OF TRAFFIC PATTERN ALTERATIONS.
- D) CONTRACTOR SHALL REPLACE NEW RAND RD. ROAD CLOSURE SIGNS/DEVICES WITH SIGNS/DEVICES SHOWN ON TCP-6. STORE REMOVED SIGNS/DEVICES IN A SECURE LOCATION UNTIL PICKED UP BY STATE FORCES. CONTACT ENGINEER TO NOTIFY STATE FORCES.

### PHASE I

- STEP 1) -INSTALL WORK ZONE ADVANCE WARNING SIGNS ACCORDING TO SHEET TCP-13.  
-REPLACE NEW RAND ROAD CLOSURE SIGNS AND DEVICES (SEE TCP-6).
- STEP 2) -USING ROADWAY STANDARD DRAWING 1101.02, SH. 1, 3, AND 4 OF 9, AS NECESSARY, BEGIN THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, UNLESS OTHERWISE INDICATED:
- PROPOSED DRAINAGE WORK WITHIN PROJECT LIMITS, EXCEPT FOR 36" PIPE UNDER -Y4- AND EXISTING NEW RAND RD.
  - PROPOSED CONSTRUCTION ON TIMBER DRIVE EXTENSION (-L-) FROM STA. 17+00+/- TO STA. 80+20+/- UP THROUGH THE FINAL LAYER OF SURFACE COURSE AND PLACE FINAL MARKINGS AND MARKERS. (SEE SHEET TCP-5, TCP-6, AND TCP-7).
  - PROPOSED NEW RAND RD. CONNECTOR FROM -Y3- STA. 10+32+/- TO EXISTING EDGE AND ELEVATION OF EXISTING NEW RAND (-Y1-) PAVEMENT. (SEE TCP-5 AND 8).
  - USING TRENCHLESS INSTALLATION METHOD, INSTALL PROPOSED 42" PIPE UNDER EXISTING NC 50 (-Y-) AS DIRECTED BY THE ENGINEER.
  - USING ROADWAY STANDARD DRAWING 1101.02, SH. 3 OF 9, INSTALL AND ACTIVATE TEMPORARY SIGNAL AT INTERSECTION OF WHITE OAK RD. AND TIMBER DRIVE EAST. (SEE SIGNAL PLANS AND TCP-7).
  - USING ROADWAY STANDARD 1101.02, SH. 3 AND 4 OF 9, MAY BEGIN INSTALLATION OF TEMPORARY TRAFFIC SIGNAL AT INTERSECTION OF TIMBER DRIVE (-L-) AND NC 50 (-Y-) FOR PHASE II USE. COVER SIGNAL HEADS UNTIL READY TO ACTIVATE. (SEE SIGNAL PLANS).
  - USING ROADWAY STANDARD DRAWING 1101.02, SH. 1, 3, AND 4 OF 9, MAY BEGIN INSTALLATION OF ALL PROPOSED TRAFFIC SIGNALS (SEE SIGNAL PLANS). COVER SIGNAL HEADS UNTIL READY TO ACTIVATE.
  - USING ROADWAY STANDARD DRAWING 1101.02, SH. 1, 3, AND 4 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS AND SIGNING ON EASTBOUND TIMBER DRIVE (-L-) TO MERGE TRAFFIC FROM OUTSIDE LANE TO INSIDE LANE AS SHOWN ON SHEET TCP-5 AND 6.
- STEP 3) -USING ROADWAY STANDARD DRAWING 1101.02, SH. 3 OF 9, BEGIN THE FOLLOWING PROPOSED WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE:
- PROPOSED WHITE OAK RD. (-Y2-) SB FROM STA. 23+24+/- TO STA. 27+58+/- . (SEE SHEET TCP-5 AND 7).
  - PROPOSED WHITE OAK RD. (-Y2-) NB FROM STA. 28+78+/- TO STA. 33+30+/- . (SEE SHEET TCP-5 AND 7).
  - PROPOSED TIMBER DRIVE EAST (-L-) WB FROM STA. 80+66+/- TO STA. 84+15+/- . (SEE SHEET TCP-5 AND 7).
- USING ROADWAY STANDARD DRAWING 1101.02, SH. 1 AND 3 OF 9, AND SHEET TCP-6 AND 8, CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE:
- CONSTRUCT (WEDGE AND WIDEN) PROPOSED NC 50 (-Y-) FROM -Y- STA. 12+00+/- TO STA. 24+00+/- AND PLACE TEMPORARY PAVEMENT MARKINGS ON NC 50 (-Y-) IN THE EXISTING PATTERN.
  - CONSTRUCT PROPOSED NEW RAND RD. CONNECTOR (-Y3-) FROM NC 50 (-Y-) TO EXISTING EDGE AND ELEVATION OF EXISTING NEW RAND (-Y1-) PAVEMENT.
  - CONSTRUCT PROPOSED -Y4- FROM INTERSECTION OF (-Y3-) TO -Y4- STA. 10+78+/- .

-MAY BEGIN WORK TO COMPLETE THIS INTERMEDIATE CONTRACT TIME TO CONSTRUCT WIDENING ALONG SOUTHBOUND WHITE OAK ROAD SOUTH OF TIMBER DRIVE EAST AS INDICATED ON SHEETS TCP-7A, 7B, AND 7C. THE INTERMEDIATE CONTRACT TIME IS FOR THIRTY (30) CONSECUTIVE CALENDAR DAYS. NO WORK IS ALLOWED FROM SUNDAY THRU THURSDAY BETWEEN 6:00 AM AND 9:00 PM AND FROM FRIDAY AT 6:00 AM TO SUNDAY 6:00 AM. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

USING ROADWAY STANDARD DRAWING 1101.03, SH. 6 OF 9, AND SHEET TCP-7A, TCP-7B, TCP-7C, AND LAW ENFORCEMENT TO DIRECT TRAFFIC AT INTERSECTIONS (PROVIDE LIGHTING FOR LAW ENFORCEMENT), MAY BEGIN CONSTRUCTION OF WHITE OAK RD. (-Y2-) SB FROM STA. 27+58+/- TO STA. 36+60+/- (WIDENING AND SIDEWALK) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. REPLACE COVERED/DAMAGED TEMPORARY PAVEMENT MARKINGS IN THE EXISTING PATTERN PRIOR TO REOPENING THE ROAD TO TRAFFIC EACH DAY. PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON SHEET TCP-7C AFTER THIS PROPOSED CONSTRUCTION IS COMPLETE AND OPEN BOTH THRU LANES OF SB WHITE OAK RD (-Y2-) TO TRAFFIC AS SHOWN.

### PHASE II

- STEP 1) -USING ROADWAY STANDARD DRAWING 1101.02, SH. 1, 3, AND 4 OF 9, PLACE TEMPORARY SIGNING AND TEMPORARY PAVEMENT MARKINGS ON NC 50 (-Y-) AND NEW RAND RD. CONNECTOR (-Y3-) AS MUCH AS POSSIBLE IN THE FINAL PATTERN, UNLESS OTHERWISE INDICATED ON SHEET TCP-10. (SEE TCP-10 AND FINAL PAVEMENT MARKING PLANS).
- CONTINUE CONSTRUCTION ON TIMBER DRIVE EAST (-L-) AND WHITE OAK RD. (-Y2-) BEGUN IN PHASE I. (SEE SHEET TCP-7, 7A, 7B, 7C, AND TCP-9).
- COMPLETE INSTALLATION OF PROPOSED TRAFFIC SIGNAL AT INTERSECTION OF NC 50 (-Y-) AND NEW RAND RD. CONNECTOR (-Y3-). ACTIVATE FLASH MODE ON PROPOSED TRAFFIC SIGNAL AS DIRECTED BY THE ENGINEER. (SEE SIGNAL PLANS AND TCP-10).

WORK IN A CONTINUOUS MANNER TO COMPLETE PHASE II, STEP 2 AND 3, WITHIN SEVEN (7) CONSECUTIVE CALENDAR DAYS AND OPEN NEW RAND RD. CONNECTOR (-Y3-) TO PROPOSED TRAFFIC PATTERN. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

- STEP 2) USING ROADWAY STANDARD DRAWING 1101.03, SH. 1 OF 9, TCP-10, AND TCP-10A, CLOSE EXISTING NEW RAND RD. (-Y1-) AND DETOUR TRAFFIC. CONSTRUCT NEW RAND RD. CONNECTOR (-Y3-) TIE-INS, INCLUDING PROPOSED CURB AND GUTTER, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. PLACE TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN (SEE TCP-10 AND PAVEMENT MARKING PLANS).
- STEP 3) INSTALL TRAFFIC CONTROL DEVICES AS INDICATED ON SHEET TCP-11A. REMOVE TRAFFIC CONTROL DEVICES PREVIOUSLY INSTALLED PER TCP-10A THAT ARE NOT SHOWN ON TCP-11A. ACTIVATE PROPOSED TRAFFIC SIGNAL AT INTERSECTION OF NEW RAND RD. CONNECTOR (-Y3-) AND NC 50 (-Y-) AND OPEN NEW RAND RD. CONNECTOR (-Y3-) TO TRAFFIC. (SEE TCP-11 AND 11A).
- STEP 4) -AWAY FROM TRAFFIC, CONSTRUCT PROPOSED (-Y4-) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, INCLUDING PROPOSED 36" PIPE. PLACE TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN (SEE PAVEMENT MARKING PLANS). REMOVE (-Y4-) ROAD CLOSURE SIGNS AND DEVICES AND OPEN (-Y4-) TO PROPOSED 2-LANE, 2-WAY TRAFFIC PATTERN. (SEE TCP-11 AND TCP-11A).
- USING ROADWAY STANDARD 1101.02, SH. 3 AND 4 OF 9, COMPLETE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL AT INTERSECTION OF TIMBER DRIVE (-L-) AND NC 50 (-Y-). COVER SIGNAL HEADS UNTIL READY TO ACTIVATE. (SEE SIGNAL PLANS).

WORK IN A CONTINUOUS MANNER TO COMPLETE PHASE II, STEP 5 AND 6 WITHIN FORTY-TWO (42) CONSECUTIVE CALENDAR DAYS AND OPEN ALL ROADS TO PROPOSED TRAFFIC PATTERN UNDER PROPOSED TRAFFIC SIGNAL CONTROL. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

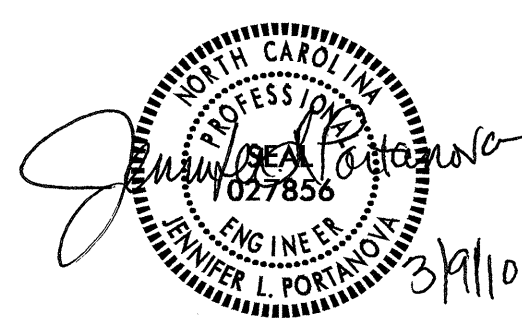

- STEP 5) USING SHEET TCP-12 AND TCP-12A, SIMULTANEOUSLY PERFORM THE FOLLOWING WORK:  
CLOSE TIMBER DRIVE (-L-) ON EAST SIDE OF NC 50 AND CLOSE EXISTING NEW RAND RD. (-Y1-). USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, MODIFY PAVEMENT MARKINGS ON EB TIMBER DRIVE (-L-) AND SB NC 50 (-Y-). USE DRUMS TO CLOSE TURN LANES AS INDICATED, AND UNCOVER SIGNAL HEADS FOR TEMPORARY SIGNAL TO ACCOMMODATE TEMPORARY PATTERN.
- STEP 6) -USING TCP-12B AND DRUMS, PERFORM THE PROPOSED MONOLITHIC CONCRETE ISLAND WORK AS FOLLOWS:
- A) CLOSE OUTSIDE LANE OF NB NC 50 (-Y-) AND REMOVE/COVER CONFLICTING EXISTING PAVEMENT MARKING SYMBOLS ON OUTSIDE LANE OF NB NC 50 (-Y-) AS DIRECTED BY THE ENGINEER.
  - B) OPEN OUTSIDE LANE OF NB NC 50 AND PLACE DRUMS ADJACENT TO PROPOSED MONOLITHIC CONCRETE ISLANDS ON NC 50 (-Y-) AND TIMBER DRIVE (-L-).
  - C) BEHIND DRUMS, CONSTRUCT PROPOSED MONOLITHIC CONCRETE ISLANDS ON TIMBER DRIVE (-L-) AND NC 50 (-Y-).
  - D) OPEN NB NC 50 TRAFFIC TO PROPOSED THRU LANE ADJACENT TO PROPOSED MONOLITHIC CONCRETE ISLAND.
  - E) CLOSE OUTSIDE LANE OF NC 50 (-Y-) AND REPLACE/UNCOVER PAVEMENT MARKING SYMBOLS TO EXISTING PATTERN.
  - F) OPEN TIMBER DRIVE (-L-) AND NC 50 (-Y-) TRAFFIC TO PATTERN SHOWN ON SHEET TCP-12, UNLESS READY TO OPEN ALL ROADS TO TRAFFIC.
- USING ROADWAY STANDARD DRAWING 1101.02, SH. 1, 3, AND 4 OF 9, AS NECESSARY, COMPLETE CONSTRUCTION OF REMAINING WORK ON PROJECT, EXCEPT PROPOSED CUL-DE-SAC ON EXISTING NEW RAND RD. (-Y1-), AS SHOWN IN ROADWAY PLANS UP THROUGH THE FINAL LAYER OF SURFACE COURSE AND PLACE FINAL PAVEMENT MARKINGS ON ALL ROADS. ACTIVATE PROPOSED SIGNALS AND OPEN ALL ROADS TO PROPOSED TRAFFIC PATTERN.

- STEP 7) AWAY FROM TRAFFIC, CONSTRUCT PROPOSED CUL-DE-SAC ON EXISTING NEW RAND RD. (-Y-) UP THROUGH THE FINAL LAYER OF SURFACE COURSE AND PLACE PROPOSED PAVEMENT MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. (SEE SHEET TCP-12 AND 12B).
- STEP 8) REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

ICT

ICT

ICT

<p>APPROVED: _____ DATE: _____</p> 	<h2 style="margin: 0;">PHASING</h2>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">SCALE:</td> <td>NONE</td> </tr> <tr> <td style="font-size: small;">DATE:</td> <td>OCT 2009</td> </tr> <tr> <td style="font-size: small;">DWG. BY:</td> <td>MHS</td> </tr> <tr> <td style="font-size: small;">DESIGN BY:</td> <td>MHS</td> </tr> <tr> <td style="font-size: small;">REVIEWED BY:</td> <td>JLP</td> </tr> </table>	SCALE:	NONE	DATE:	OCT 2009	DWG. BY:	MHS	DESIGN BY:	MHS	REVIEWED BY:	JLP
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08-MAR-2010 16:40 \\dot\dfsroot\01\Projects\110103\TrafficControl\TCP\Revised TCP-U-4703.TC.TCP-04.dgn

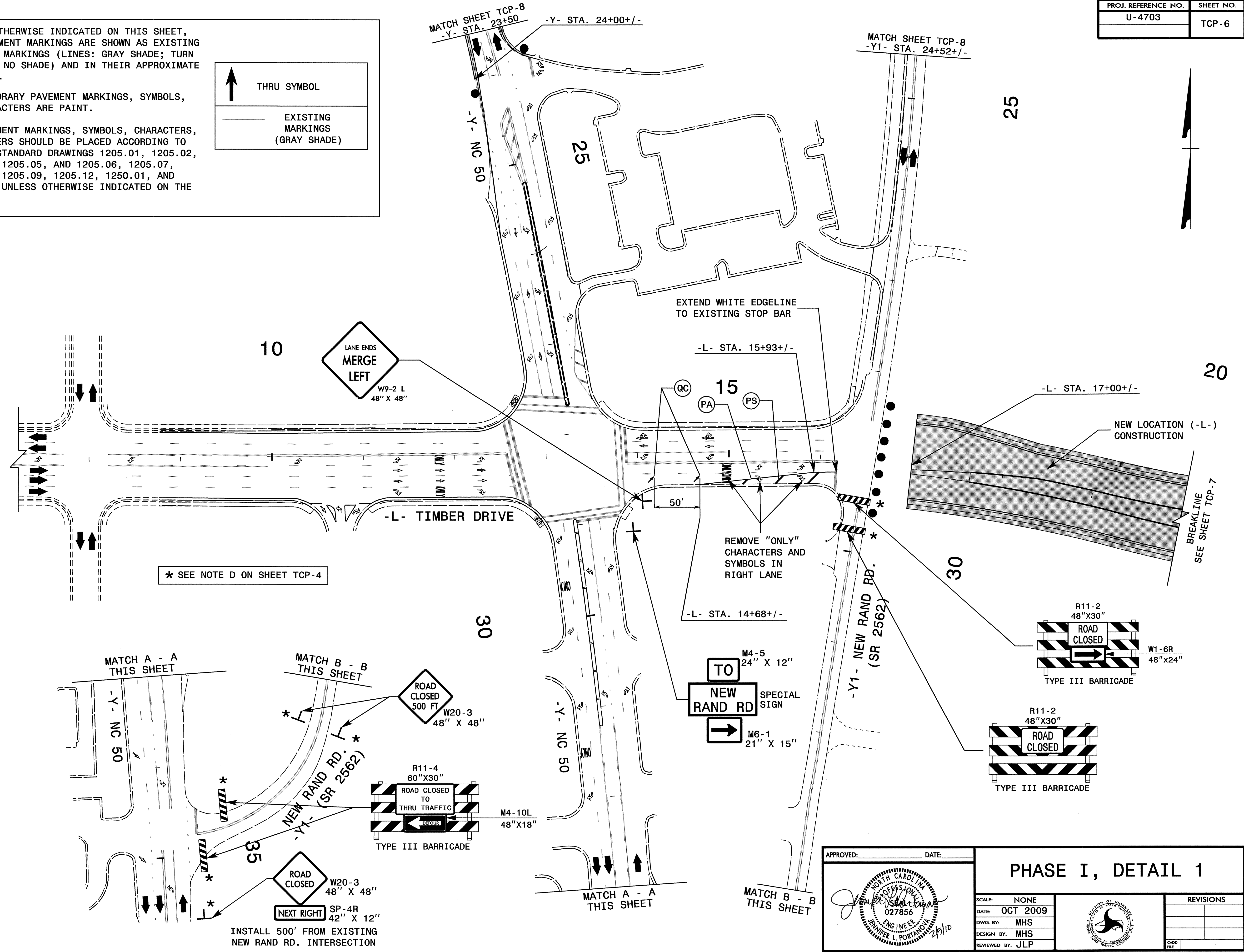
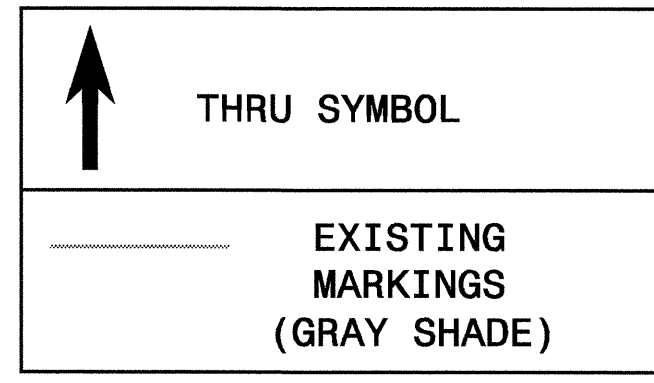




UNLESS OTHERWISE INDICATED ON THIS SHEET, ALL PAVEMENT MARKINGS ARE SHOWN AS EXISTING PAVEMENT MARKINGS (LINES: GRAY SHADE; TURN SYMBOLS: NO SHADE) AND IN THEIR APPROXIMATE LOCATION.

ALL TEMPORARY PAVEMENT MARKINGS, SYMBOLS, AND CHARACTERS ARE PAINT.

ALL PAVEMENT MARKINGS, SYMBOLS, CHARACTERS, AND MARKERS SHOULD BE PLACED ACCORDING TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.04, 1205.05, AND 1205.06, 1205.07, 1205.08, 1205.09, 1205.12, 1250.01, AND 1251.01, UNLESS OTHERWISE INDICATED ON THE PLANS.



APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

*James S. Phipps*  
 JAMES S. PHIPPS  
 ENGINEER  
 027856  
 JEFFERSON L. PORTLANDON  
 2/5/10

**PHASE I, DETAIL 1**

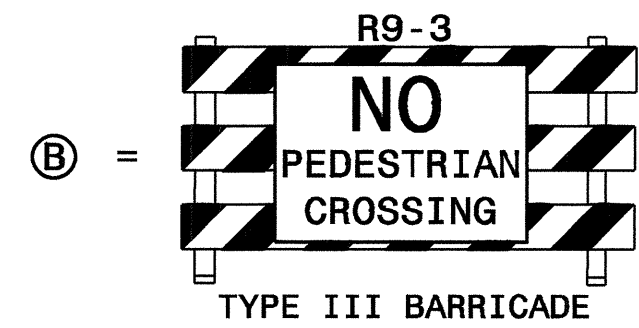
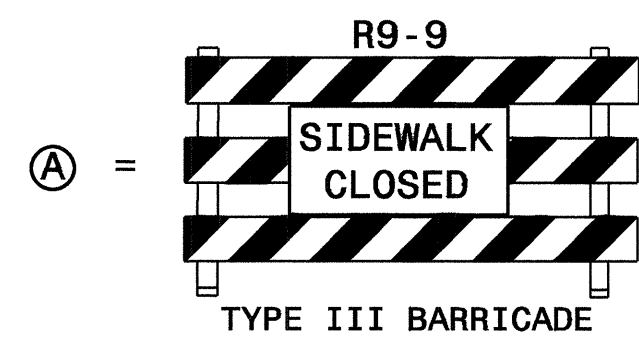
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 DATE: OCT 2009  
 DWG. BY: MHS  
 DESIGN BY: MHS  
 REVIEWED BY: JLP

REVISIONS


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 User: jls  
 Project: U-4703 Traffic Control  
 Sheet: TCP-6

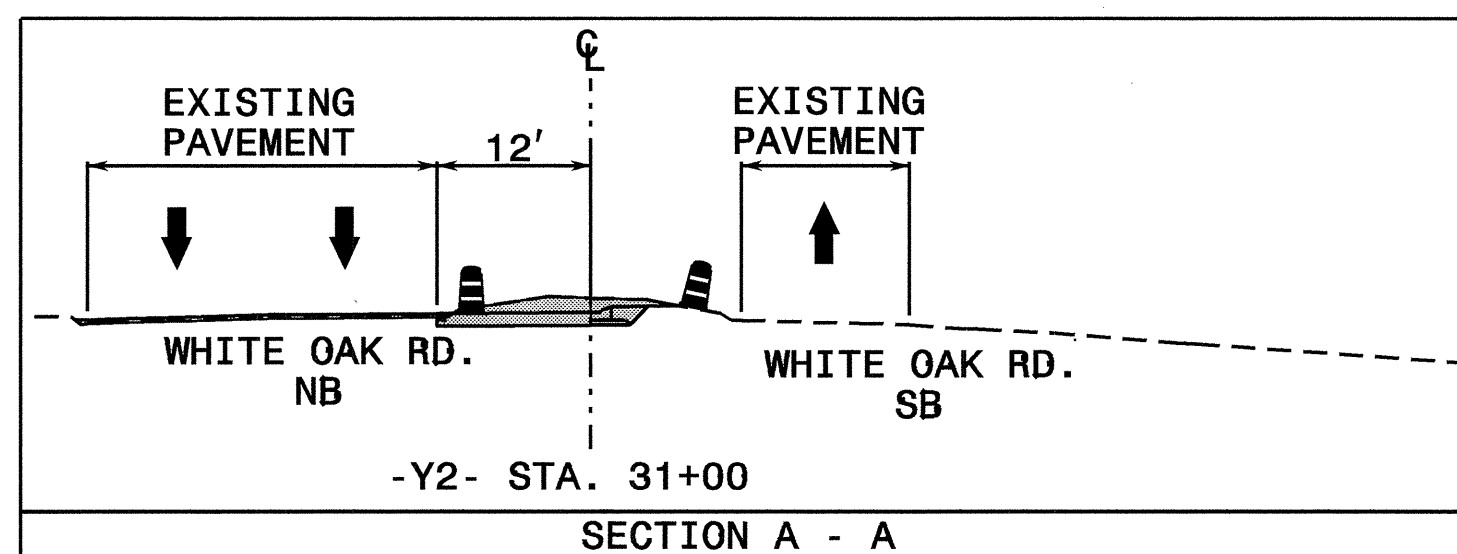
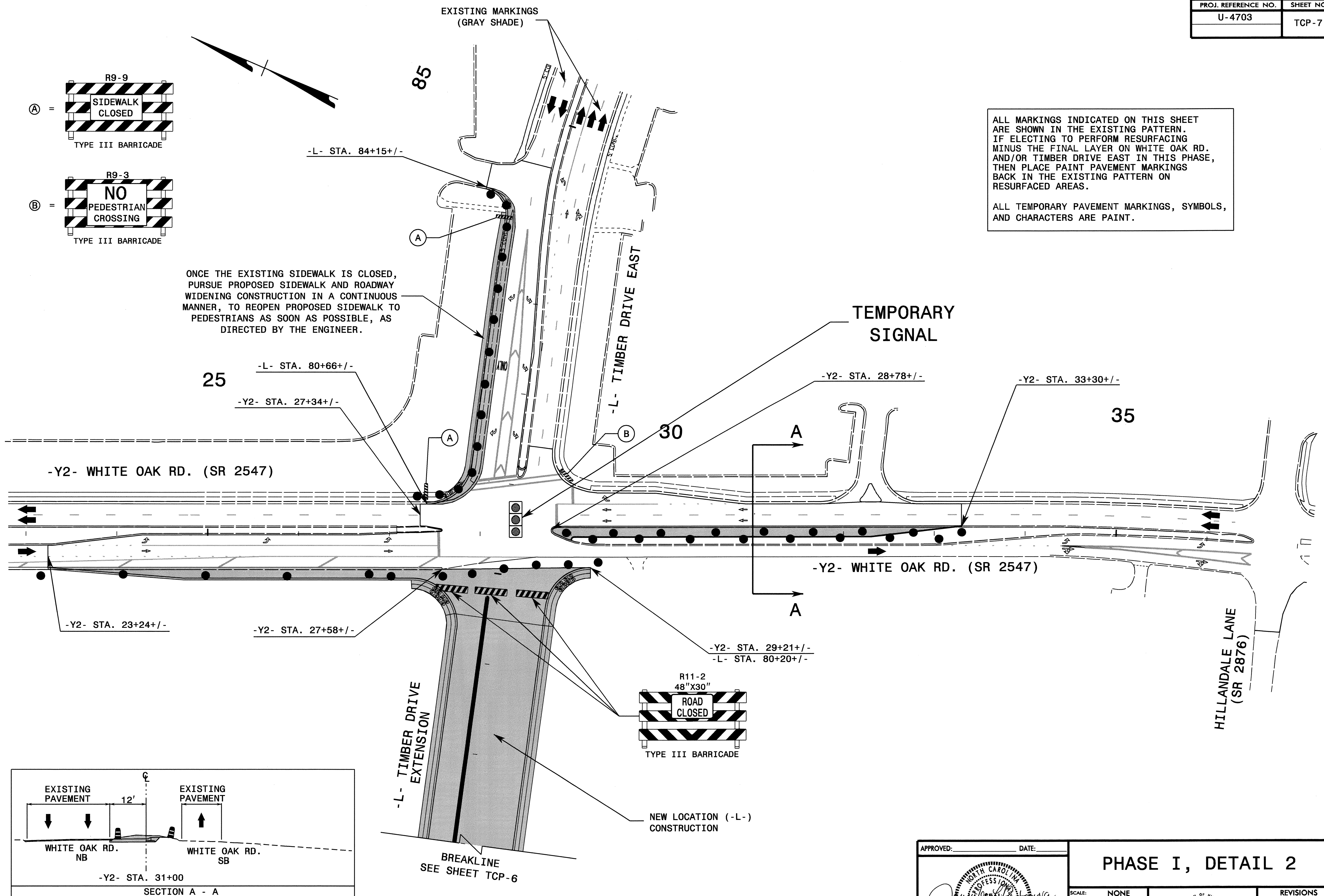




ALL MARKINGS INDICATED ON THIS SHEET ARE SHOWN IN THE EXISTING PATTERN. IF ELECTING TO PERFORM RESURFACING MINUS THE FINAL LAYER ON WHITE OAK RD. AND/OR TIMBER DRIVE EAST IN THIS PHASE, THEN PLACE PAINT PAVEMENT MARKINGS BACK IN THE EXISTING PATTERN ON RESURFACED AREAS.

ALL TEMPORARY PAVEMENT MARKINGS, SYMBOLS, AND CHARACTERS ARE PAINT.

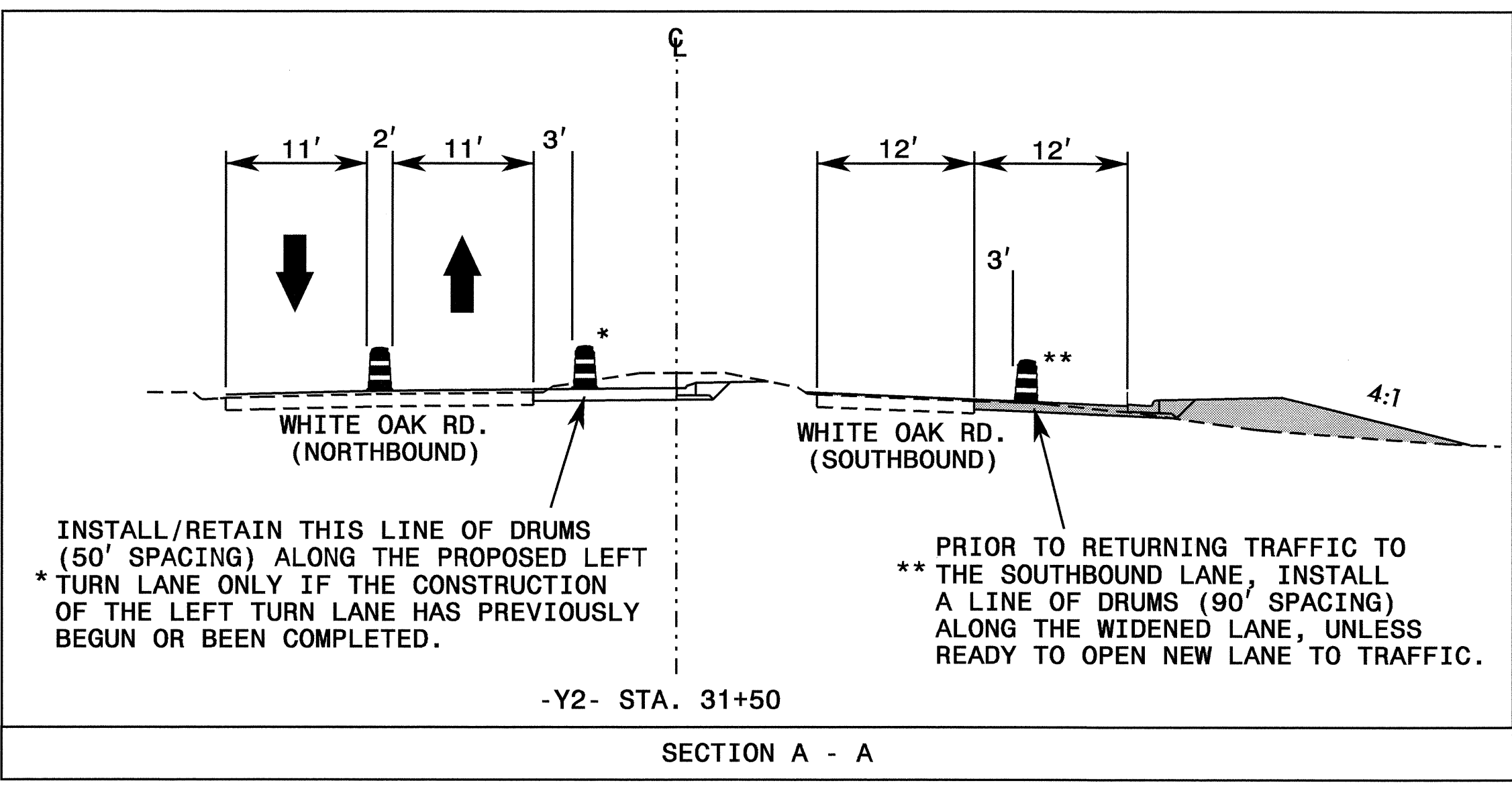
ONCE THE EXISTING SIDEWALK IS CLOSED, PURSUE PROPOSED SIDEWALK AND ROADWAY WIDENING CONSTRUCTION IN A CONTINUOUS MANNER, TO REOPEN PROPOSED SIDEWALK TO PEDESTRIANS AS SOON AS POSSIBLE, AS DIRECTED BY THE ENGINEER.



29-JAN-2010 13:45 \\dot\dfs\00\Projects\IP\Projects-U4703\TrafficControl\TCP\Revised TCP-U-4703-TC-TCP-07.dgn AT WZTC24735

APPROVED:	DATE:	<b>PHASE I, DETAIL 2</b>									
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REVIEWED BY: JLP	DATE: 1/29/10	<table border="1"> <tr> <td>CADD</td> <td>FILE</td> </tr> </table>		CADD	FILE						
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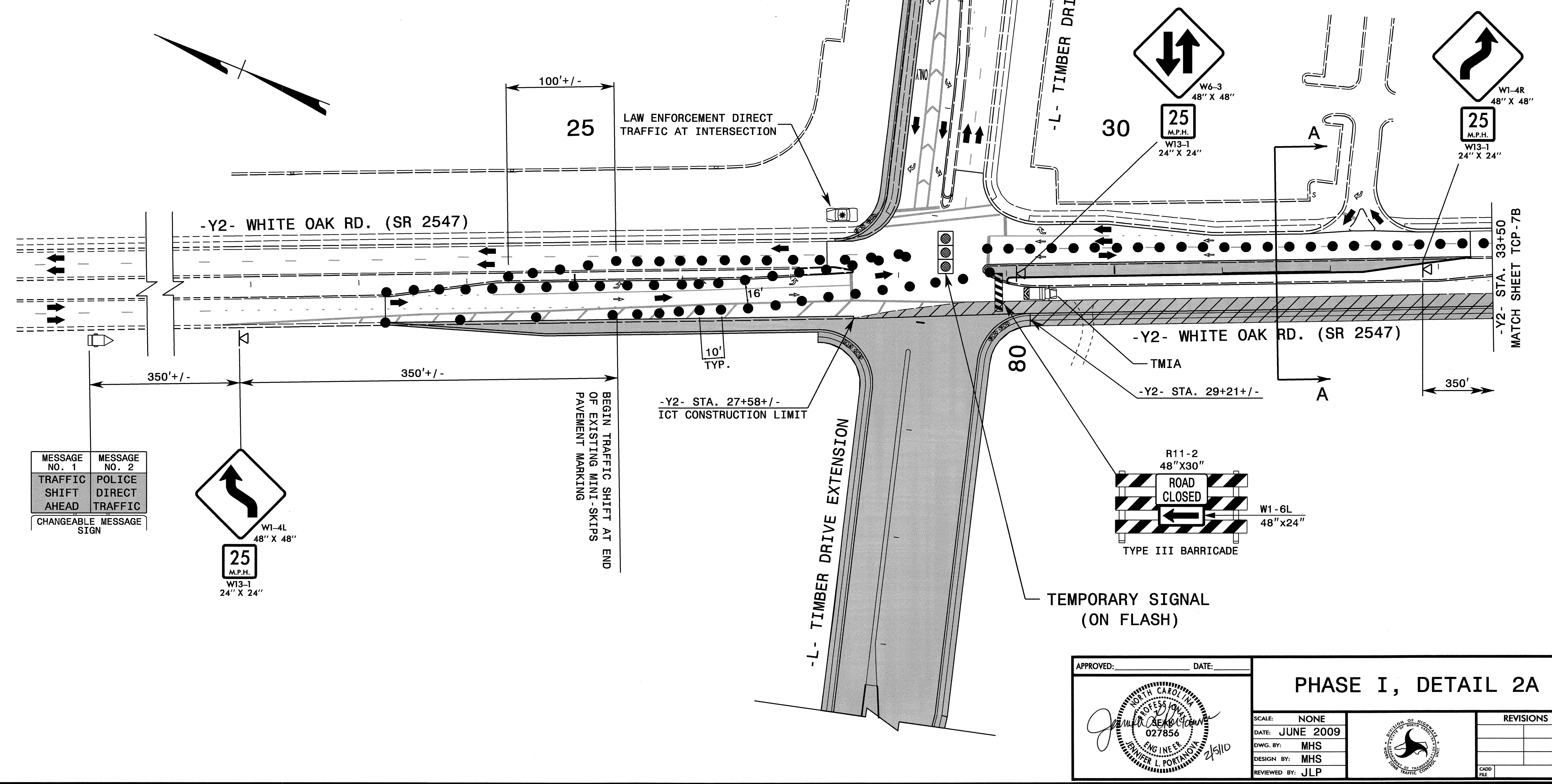


THE TRAFFIC CONTROL DEVICES SHOWN ARE ONLY TO CONSTRUCT WHITE OAK RD. FROM -Y2- STA. 27+58+/- TO -Y2- STA. 36+60+/- . ALL DRUM SPACINGS ARE 10'. (REFER TO ROADWAY STANDARD DRAWING 1101.03, SH. 6 OF 9, FOR ADDITIONAL GUIDANCE).

ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE PRESENT DUE TO CONSTRUCTION PREVIOUSLY BEGUN AS ALLOWED IN THE PHASING. ADJUST THESE DEVICES AS DIRECTED BY THE ENGINEER TO ENSURE A SAFE TRAFFIC OPERATION.

WORK PERFORMED IN THIS AREA UNDER ICT USING THIS TRAFFIC CONTROL SETUP = [Hatched Pattern]

CONSTRUCTION PREVIOUSLY ALLOWED TO BEGIN NOT ASSOCIATED WITH THIS TRAFFIC CONTROL SETUP = [Solid Grey Pattern]



MESSAGE NO. 1	MESSAGE NO. 2
TRAFFIC SHIFT AHEAD	POLICE DIRECT TRAFFIC
CHANGEABLE MESSAGE SIGN	

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

*James L. Portanova*  
 PROFESSIONAL ENGINEER  
 027856  
 ENGINEER  
 JAMES L. PORTANOVA

PHASE I, DETAIL 2A

SCALE: NONE

DATE: JUNE 2009

DWG. BY: MHS

DESIGN BY: MHS

REVIEWED BY: JLP

REVISIONS	

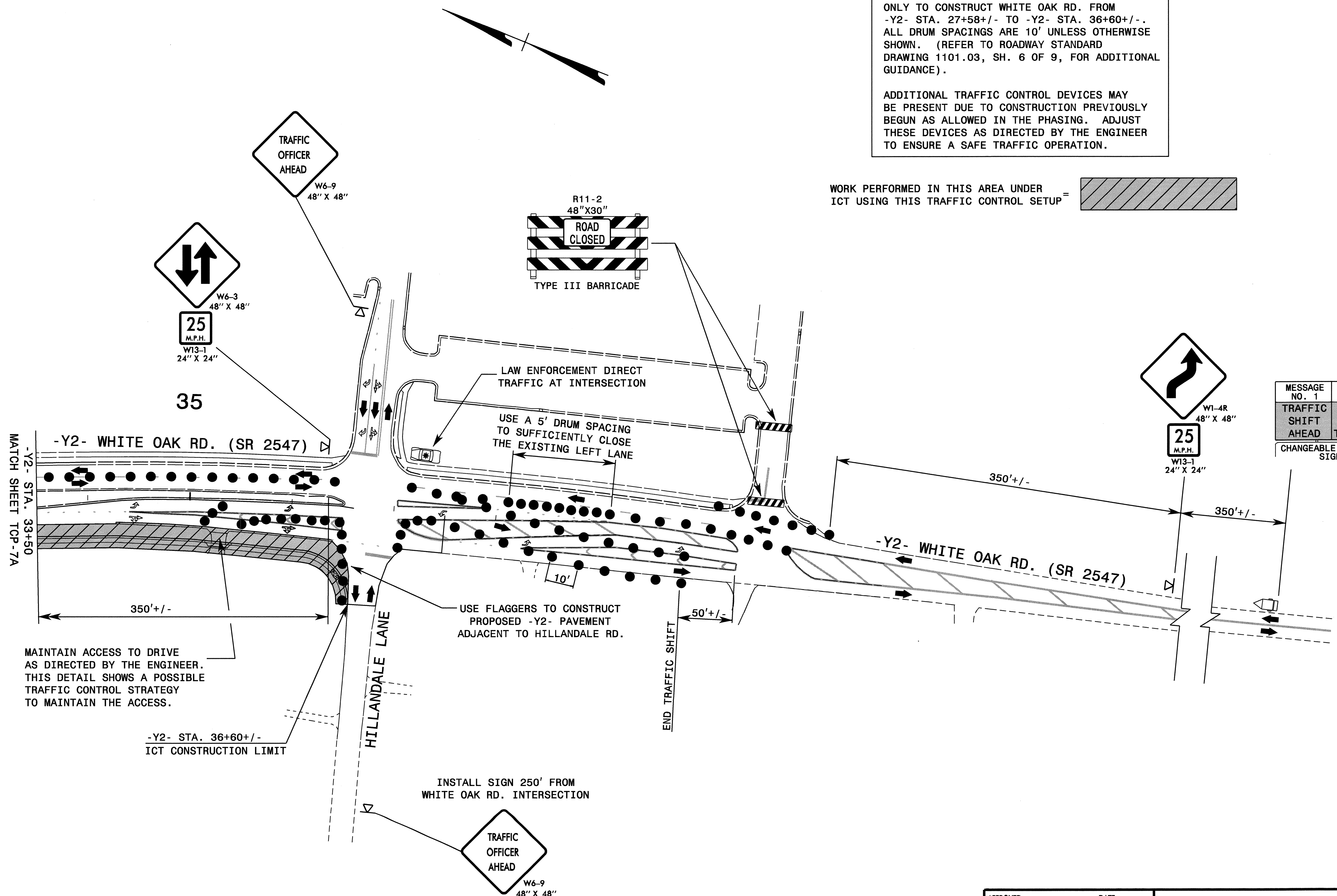
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 mst\bellini AT WZ10237453

THE TRAFFIC CONTROL DEVICES SHOWN ARE ONLY TO CONSTRUCT WHITE OAK RD. FROM -Y2- STA. 27+58+/- TO -Y2- STA. 36+60+/- . ALL DRUM SPACINGS ARE 10' UNLESS OTHERWISE SHOWN. (REFER TO ROADWAY STANDARD DRAWING 1101.03, SH. 6 OF 9, FOR ADDITIONAL GUIDANCE).

ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE PRESENT DUE TO CONSTRUCTION PREVIOUSLY BEGUN AS ALLOWED IN THE PHASING. ADJUST THESE DEVICES AS DIRECTED BY THE ENGINEER TO ENSURE A SAFE TRAFFIC OPERATION.

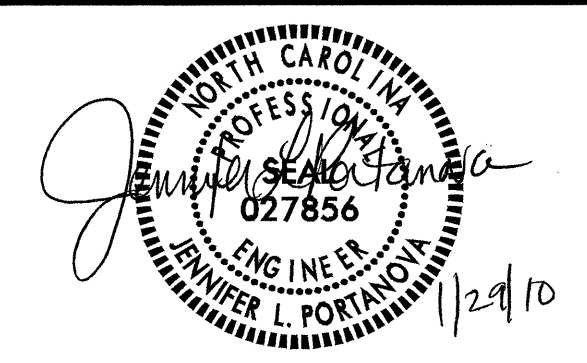
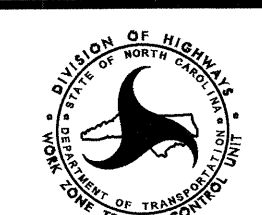
WORK PERFORMED IN THIS AREA UNDER ICT USING THIS TRAFFIC CONTROL SETUP = 



MAINTAIN ACCESS TO DRIVE AS DIRECTED BY THE ENGINEER. THIS DETAIL SHOWS A POSSIBLE TRAFFIC CONTROL STRATEGY TO MAINTAIN THE ACCESS.

-Y2- STA. 36+60+/-  
ICT CONSTRUCTION LIMIT

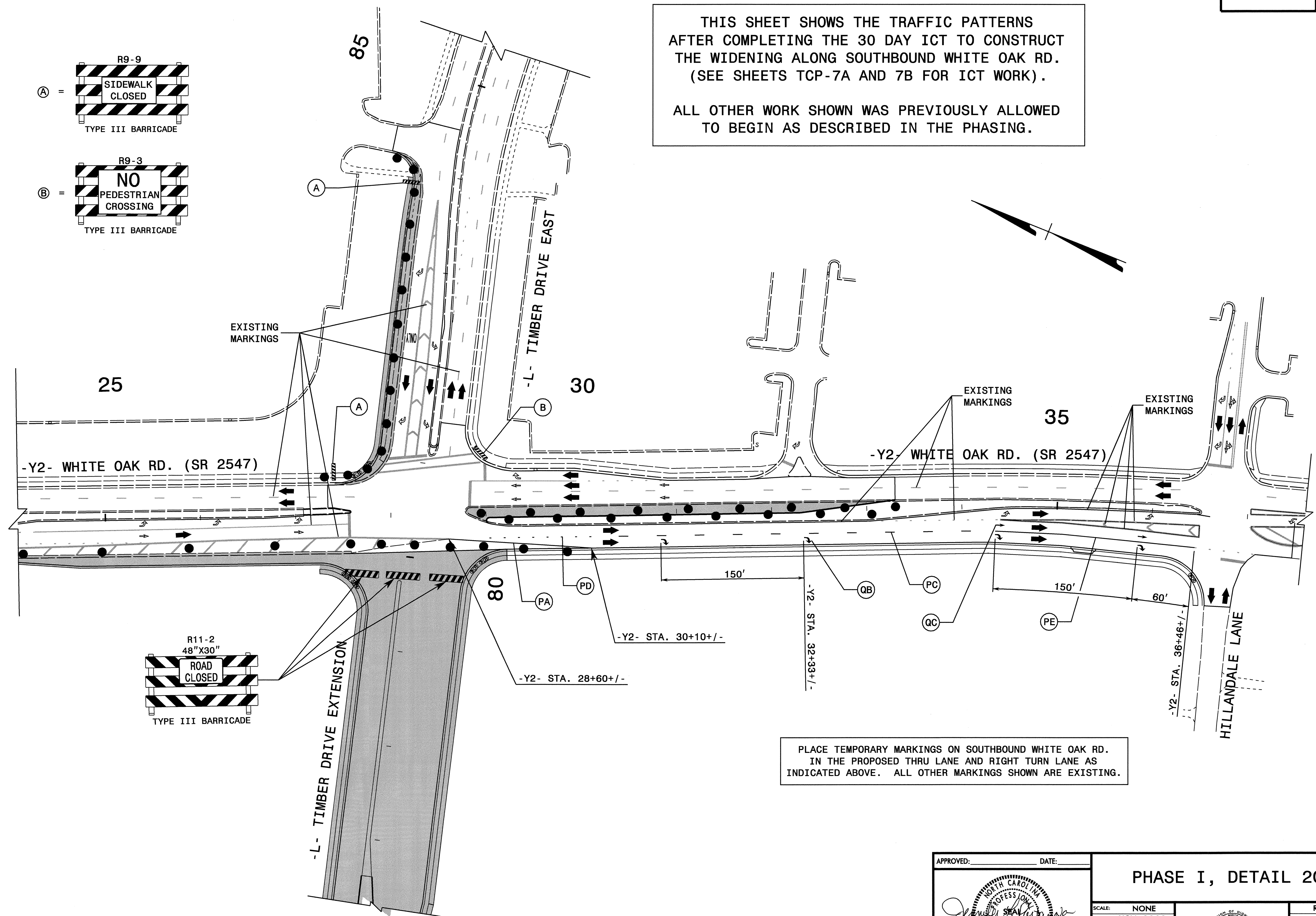
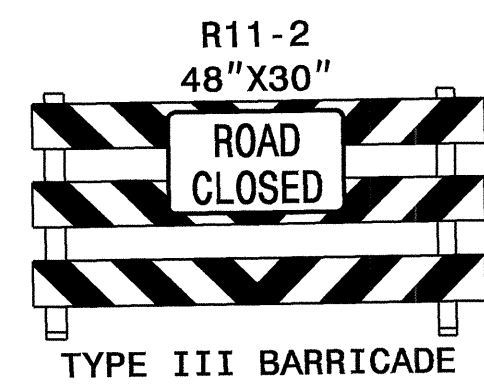
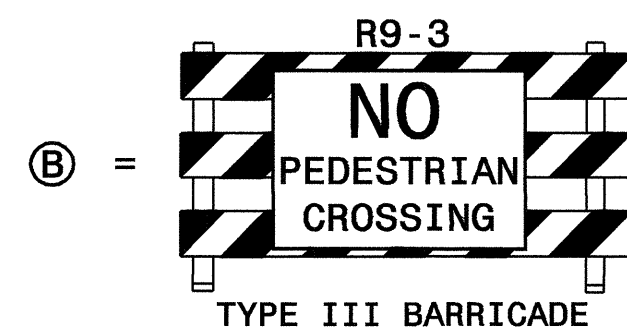
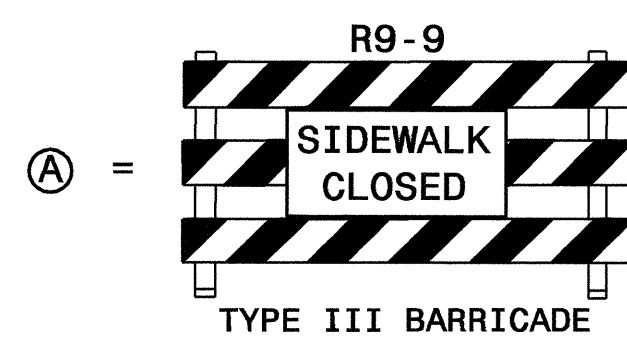
INSTALL SIGN 250' FROM WHITE OAK RD. INTERSECTION

APPROVED: _____ DATE: _____	<b>PHASE I, DETAIL 2B</b>	
		
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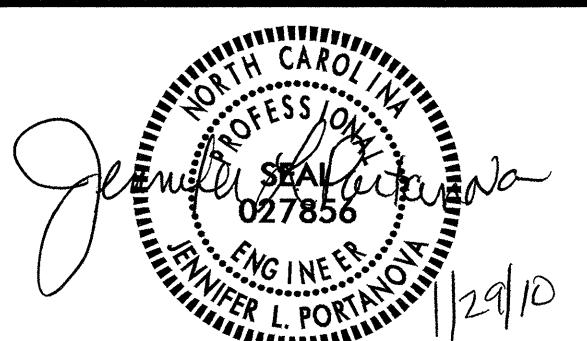

THIS SHEET SHOWS THE TRAFFIC PATTERNS AFTER COMPLETING THE 30 DAY ICT TO CONSTRUCT THE WIDENING ALONG SOUTHBOUND WHITE OAK RD. (SEE SHEETS TCP-7A AND 7B FOR ICT WORK).

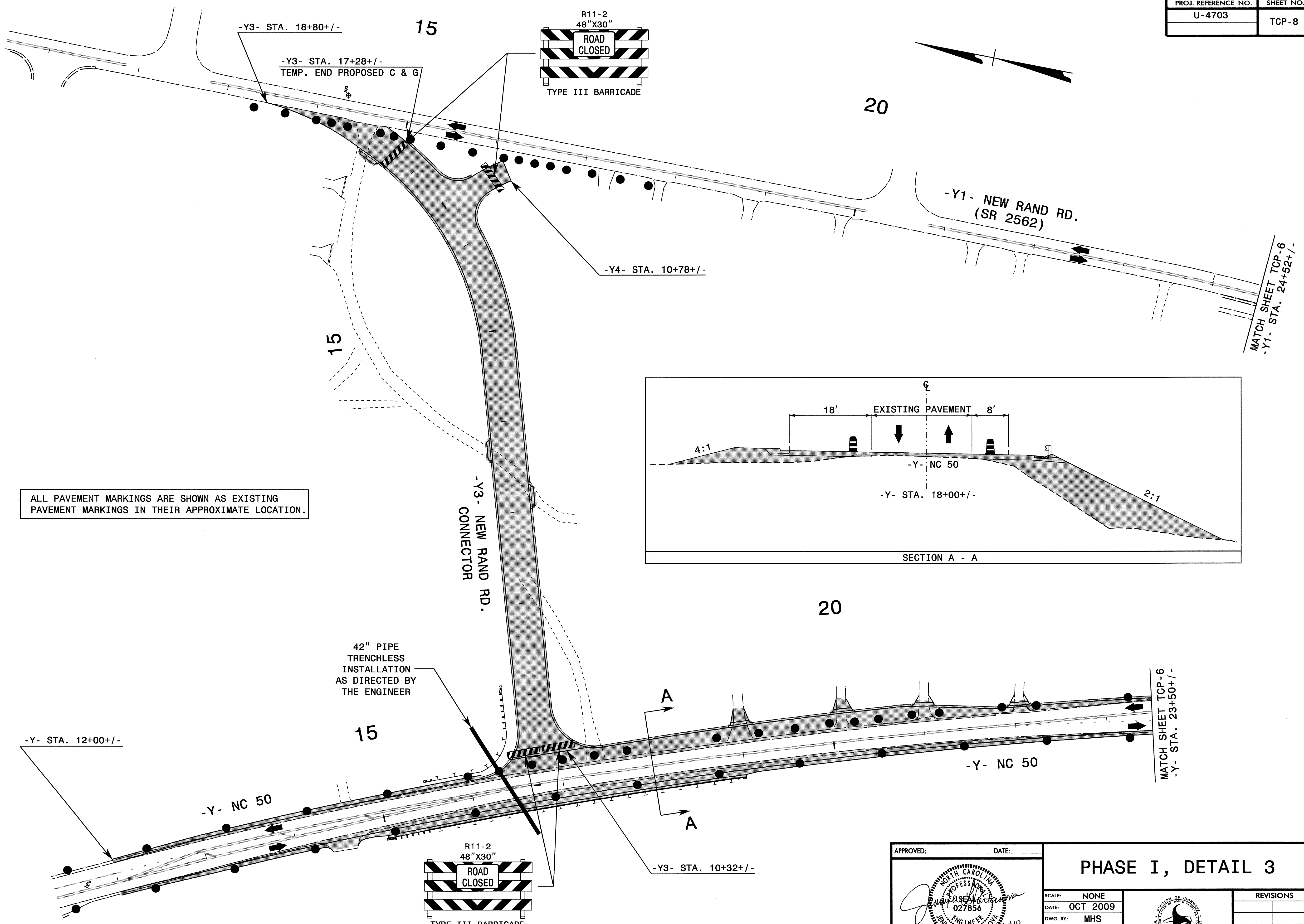
ALL OTHER WORK SHOWN WAS PREVIOUSLY ALLOWED TO BEGIN AS DESCRIBED IN THE PHASING.



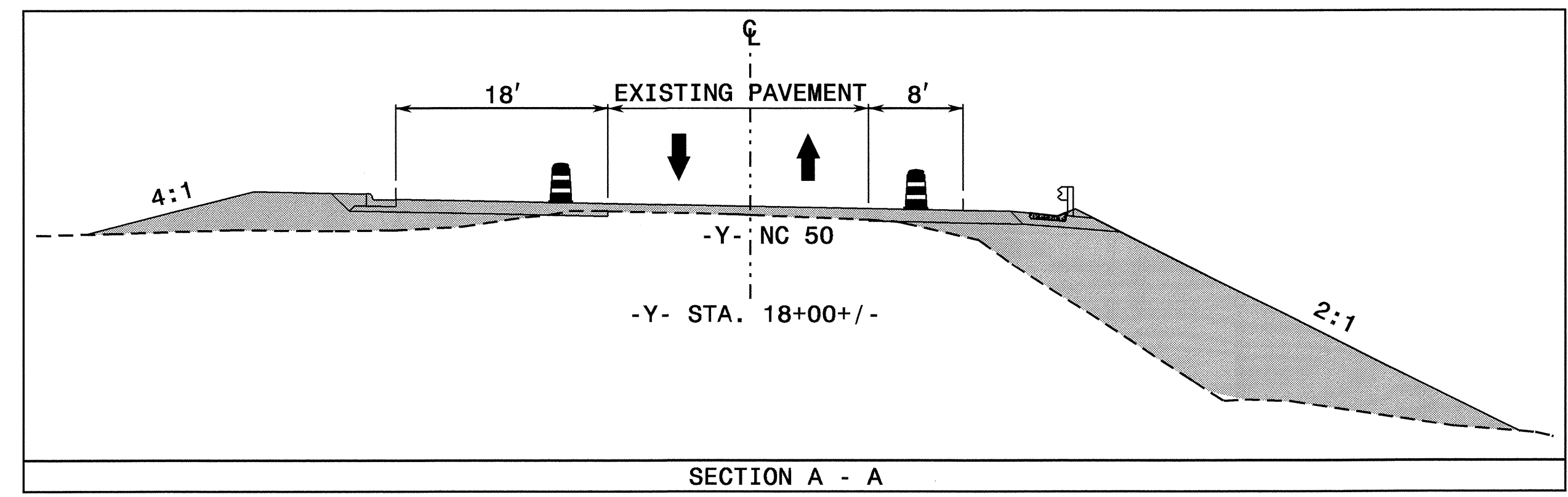
PLACE TEMPORARY MARKINGS ON SOUTHBOUND WHITE OAK RD. IN THE PROPOSED THRU LANE AND RIGHT TURN LANE AS INDICATED ABOVE. ALL OTHER MARKINGS SHOWN ARE EXISTING.

29-JAN-2010 14:07 \\dot\dfsroot\proj\TIP\Projects-U\4703\TrafficControl\TCP\Revised TCP-U-4703-TC-TCP\_07C.dgn msteelman AT WZTC237453

APPROVED: _____ DATE: _____	<b>PHASE I, DETAIL 2C</b>		<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		REVISIONS										
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ALL PAVEMENT MARKINGS ARE SHOWN AS EXISTING PAVEMENT MARKINGS IN THEIR APPROXIMATE LOCATION.



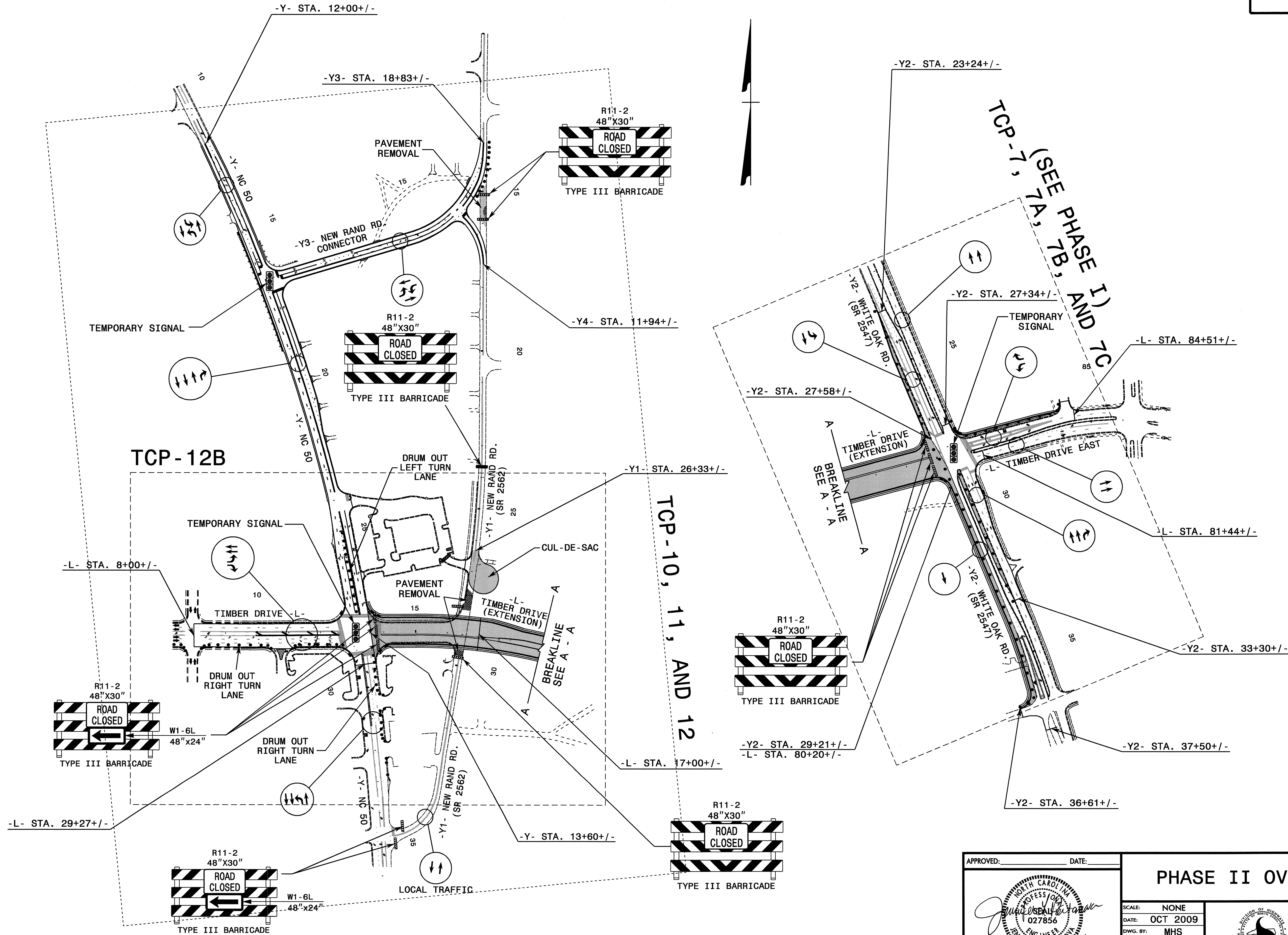
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

Professional Engineer Seal for Jennifer L. Portanova, State of North Carolina, License No. 027856. The seal includes the text 'NORTH CAROLINA PROFESSIONAL ENGINEERS', 'JENNIFER L. PORTANOVA', 'ENGINEER', and '027856'.

<b>PHASE I, DETAIL 3</b>	
SCALE: NONE	REVISIONS
DATE: OCT 2009	
DWG. BY: MHS	
DESIGN BY: MHS	
REVIEWED BY: JLP	

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 mstebman AT WZTC237455



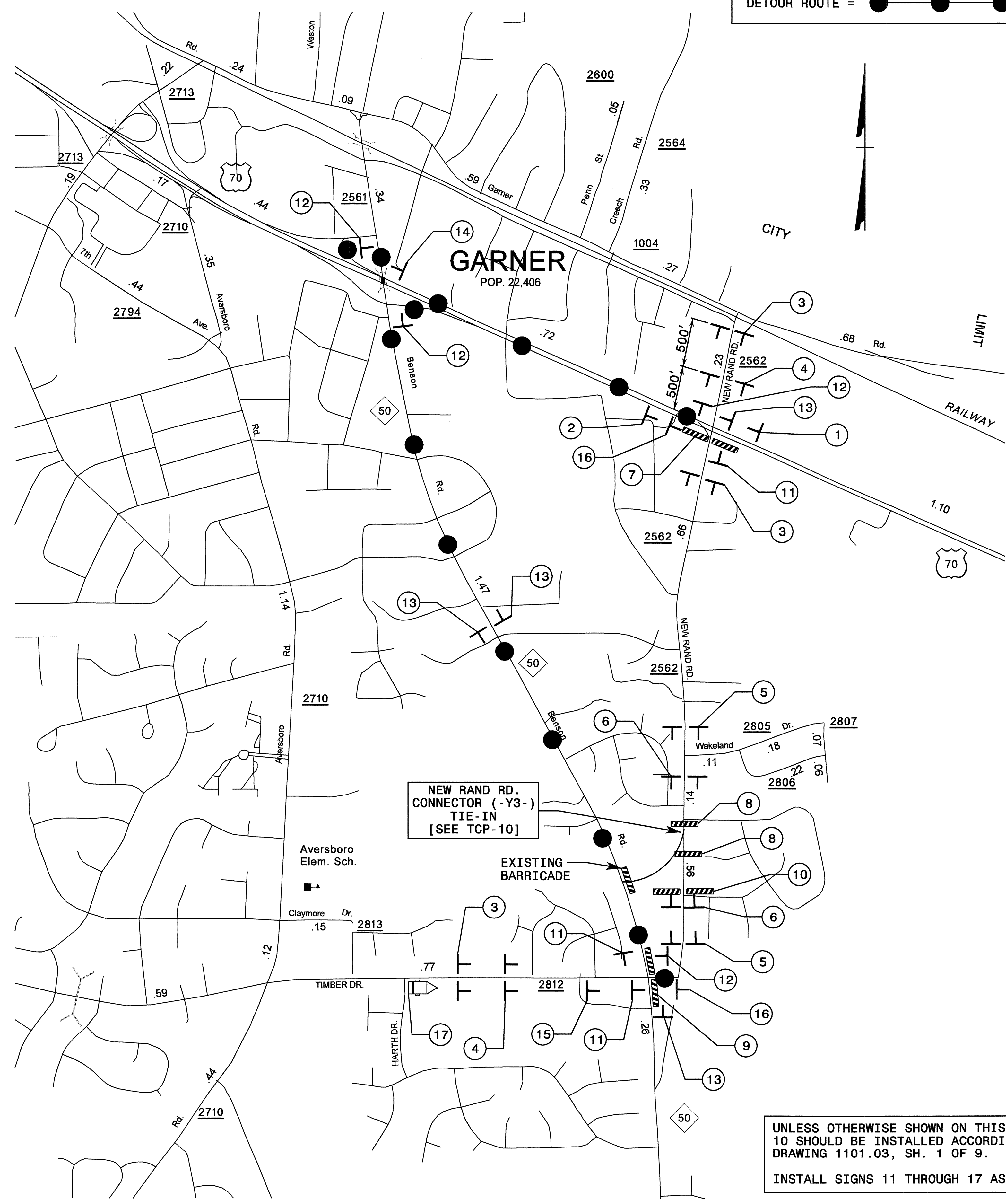


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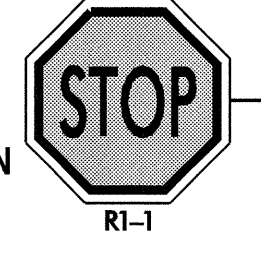
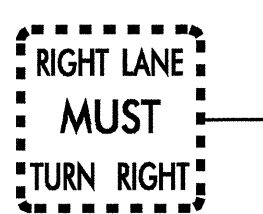
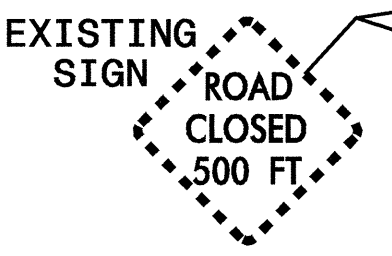
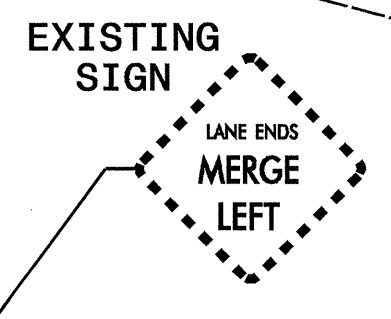
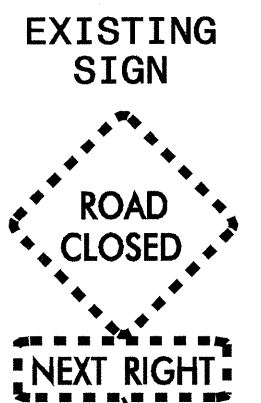
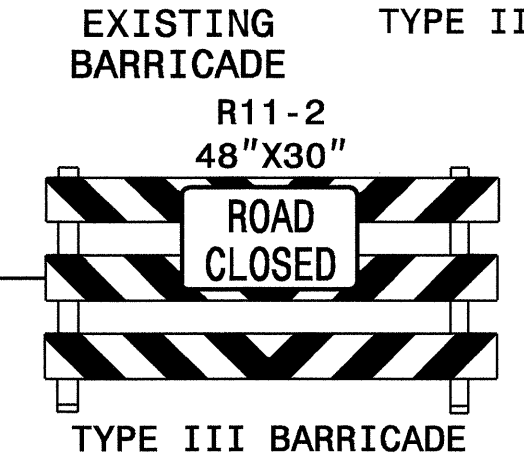
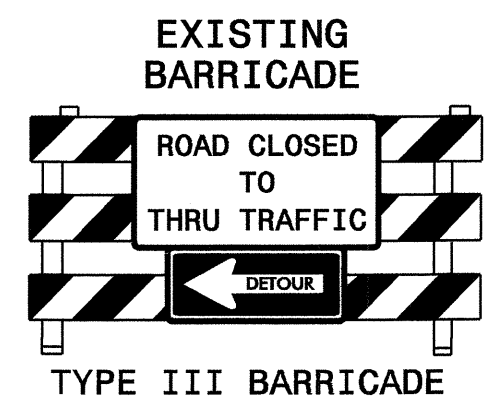
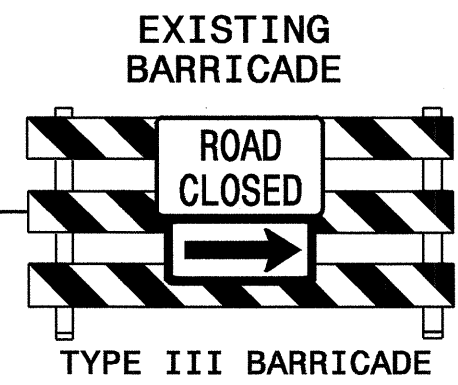
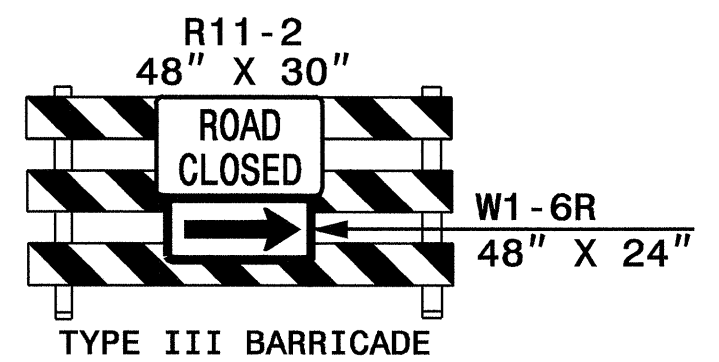
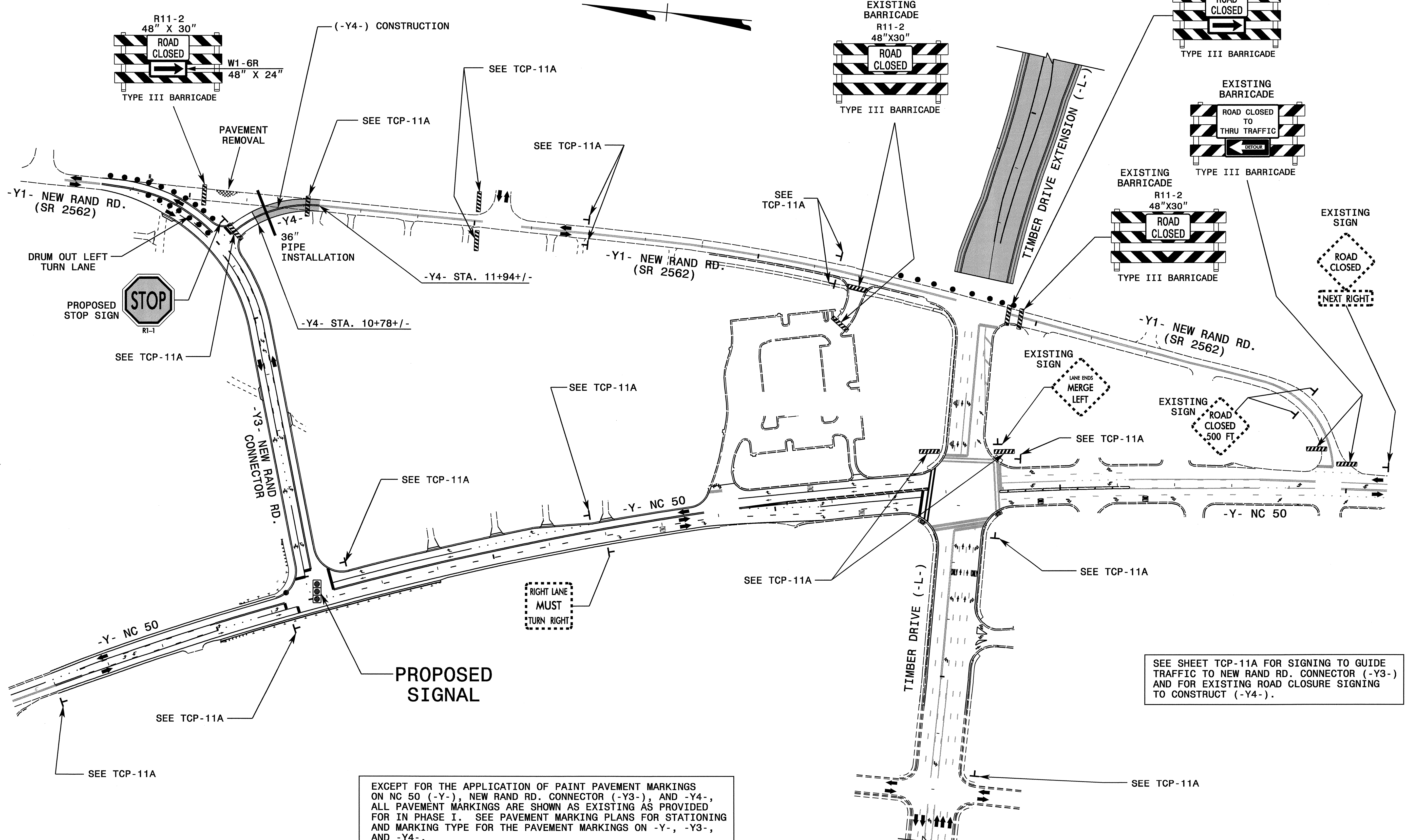
UNLESS OTHERWISE SHOWN ON THIS SHEET, SIGNS 1 THROUGH 10 SHOULD BE INSTALLED ACCORDING TO ROADWAY STANDARD DRAWING 1101.03, SH. 1 OF 9.  
INSTALL SIGNS 11 THROUGH 17 AS DIRECTED BY THE ENGINEER.

- ① = ROAD CLOSED AHEAD  
W20-3 48" X 48"  
NEXT LEFT  
SP-4L 42" X 12"
- ② = ROAD CLOSED AHEAD  
W20-3 48" X 48"  
NEXT RIGHT  
SP-4R 42" X 12"
- ③ = ROAD CLOSED AHEAD  
W20-3 48" X 48"
- ④ = DETOUR AHEAD  
W20-2 48" X 48"
- ⑤ = ROAD CLOSED 1000 FT  
W20-3 48" X 48"
- ⑥ = ROAD CLOSED 500 FT  
W20-3 48" X 48"
- ⑦ = ROAD CLOSED TO THRU TRAFFIC  
R11-4 60" X 30"  
M4-10R 48" X 18"  
TYPE III BARRICADE
- ⑧ = ROAD CLOSED  
R11-2 48" X 30"  
TYPE III BARRICADE
- ⑨ = ROAD CLOSED TO THRU TRAFFIC  
R11-4 60" X 30"  
M4-10L 48" X 18"  
TYPE III WING BARRICADE
- ⑩ = ROAD CLOSED TO THRU TRAFFIC  
R11-4 60" X 30"  
M4-10L 48" X 18"  
TYPE III BARRICADE
- ⑪ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
DETOUR  
M4-8 24" X 12"  
M6-1 L 21" X 15"
- ⑫ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
DETOUR  
M4-8 24" X 12"  
M6-1 21" X 15"
- ⑬ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
DETOUR  
M4-8 24" X 12"  
M6-3 21" X 15"
- ⑭ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
DETOUR  
M4-8 24" X 12"  
M6-2 21" X 15"
- ⑮ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
DETOUR  
M4-8 24" X 12"  
M5-1 21" X 15"
- ⑯ = NEW RAND ROAD  
SPECIAL SIGN DESIGN  
END DETOUR  
M4-8 A 24" X 18"
- ⑰ = SUGGESTED MESSAGES  
MESSAGE NO. 1: NEW RAND ROAD TRAFFIC  
MESSAGE NO. 2: TURN LEFT AT SIGNAL  
CHANGEABLE MESSAGE SIGN

29-JAN-2010 07:34 \\dot\dfsroot\proj\TIP\Projects-U\U4703\TrafficControl\TCP\Revised TCP-U-4703.TC.TCP-10A.dgn sbjennings AT WZTC244731

APPROVED: _____	DATE: _____	<b>PHASE II, DETAIL 1A</b>									
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DWG. BY: MHS	DESIGN BY: MHS										
REVIEWED BY: JLP											





SEE SHEET TCP-11A FOR SIGNING TO GUIDE TRAFFIC TO NEW RAND RD. CONNECTOR (-Y3-) AND FOR EXISTING ROAD CLOSURE SIGNING TO CONSTRUCT (-Y4-).

EXCEPT FOR THE APPLICATION OF PAINT PAVEMENT MARKINGS ON NC 50 (-Y-), NEW RAND RD. CONNECTOR (-Y3-), AND -Y4-, ALL PAVEMENT MARKINGS ARE SHOWN AS EXISTING AS PROVIDED FOR IN PHASE I. SEE PAVEMENT MARKING PLANS FOR STATIONING AND MARKING TYPE FOR THE PAVEMENT MARKINGS ON -Y-, -Y3-, AND -Y4-.

ALL PAVEMENT MARKINGS, SYMBOLS, CHARACTERS, AND MARKERS SHOULD BE PLACED ACCORDING TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.04, 1205.05, AND 1205.06, 1205.07, 1205.08, 1205.09, 1205.12, 1250.01, AND 1251.01, UNLESS OTHERWISE INDICATED ON THE PLANS.

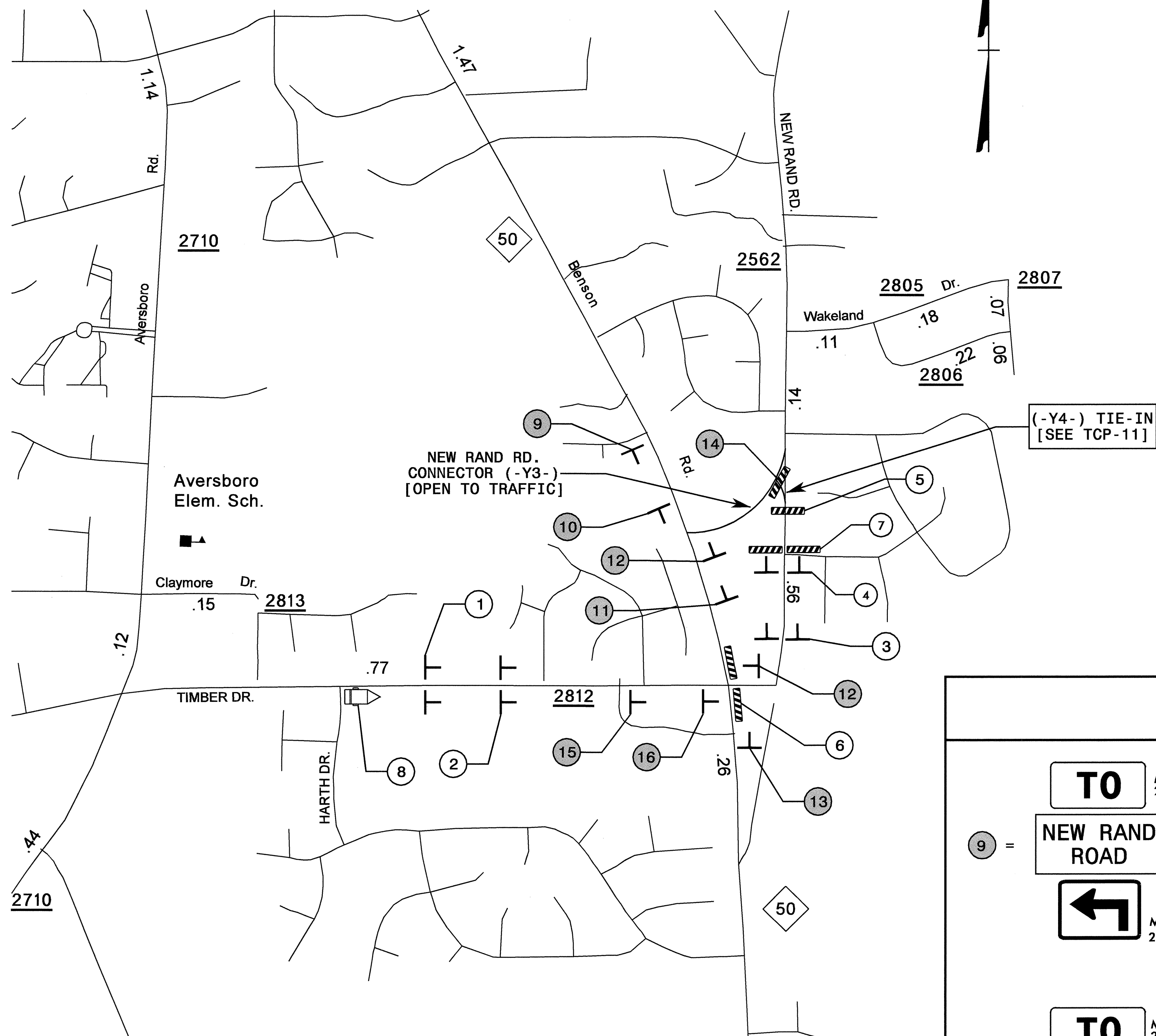
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**PHASE II, DETAIL 2**

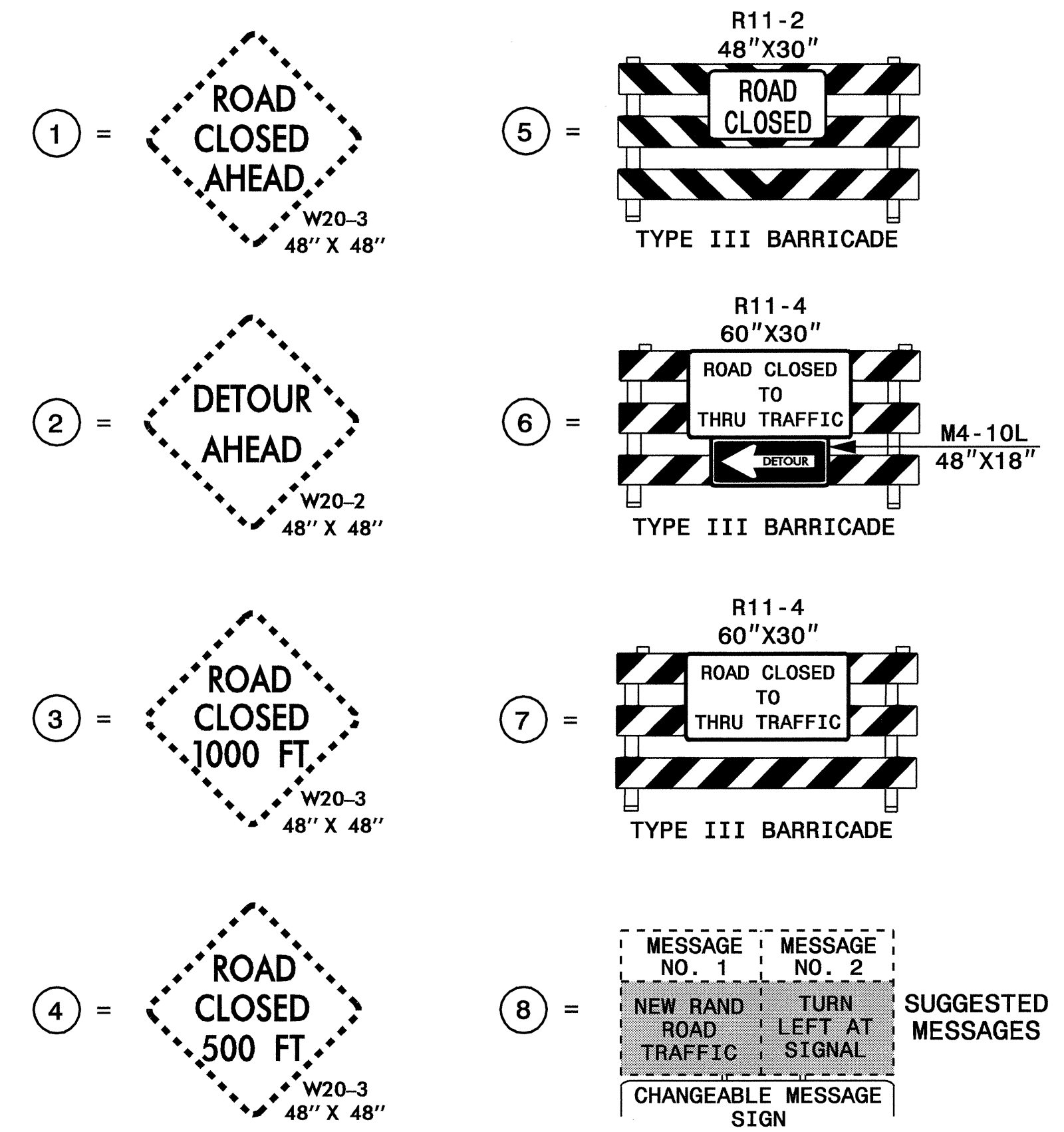
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 msteelman AT WZTC237453

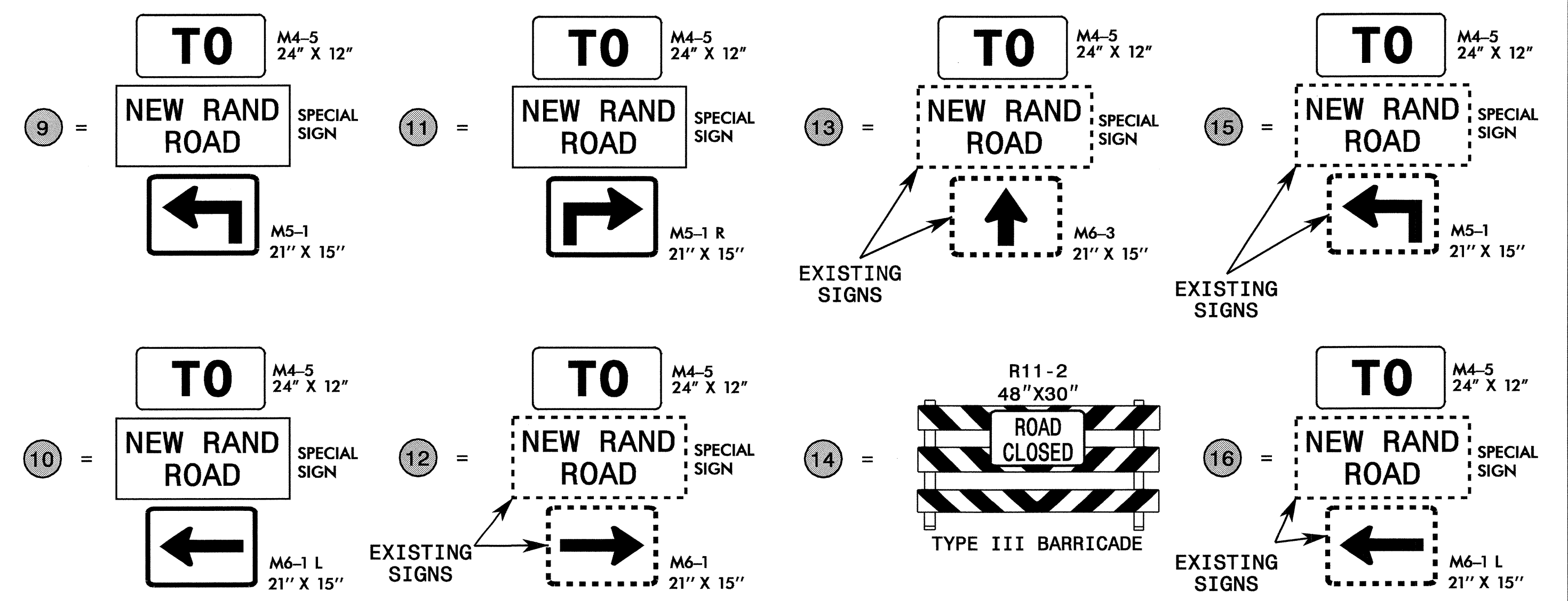




SIGNS AND BARRICADES ① THRU ⑧ SHOULD ALREADY BE IN PLACE FROM THE ROAD CLOSURE SHOWN ON SHEET TCP-10 AND TCP-10A USED TO CONSTRUCT THE (-Y3-) TIE-IN.

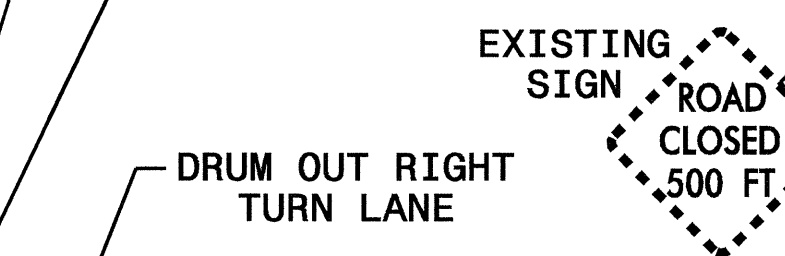
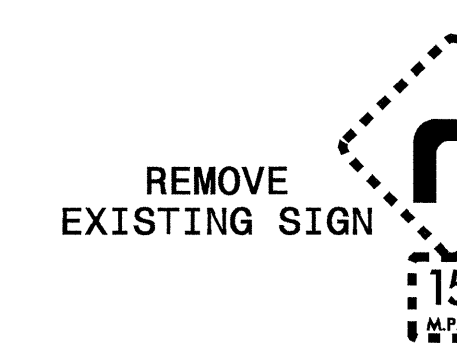
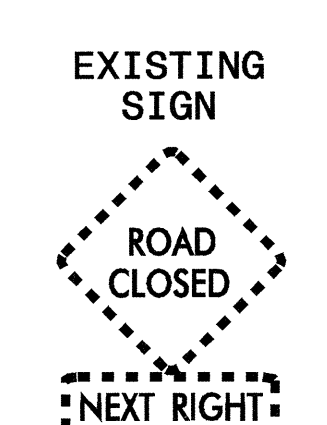
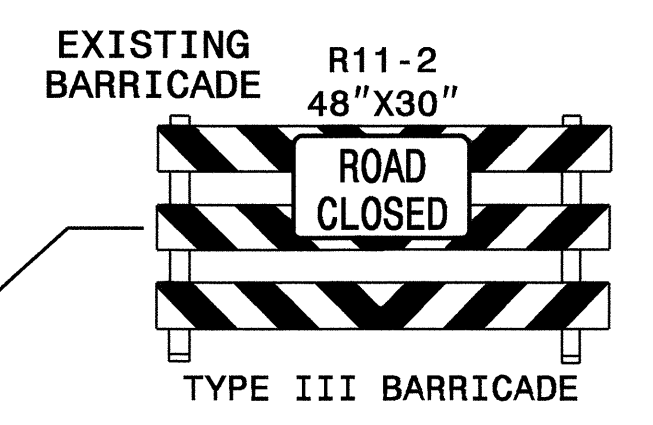
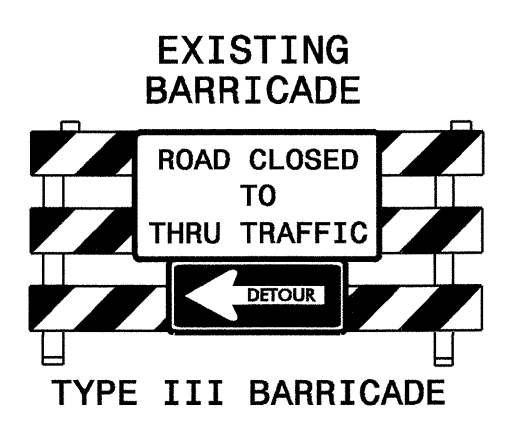
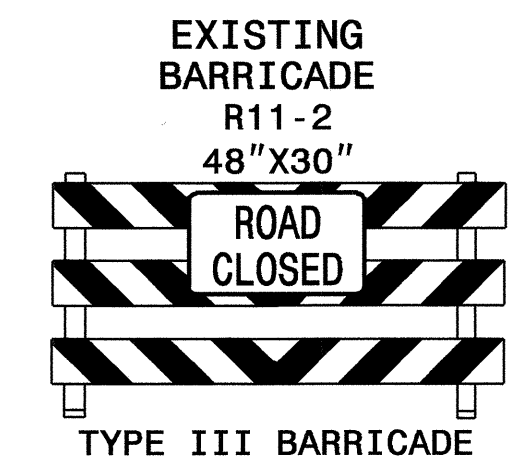
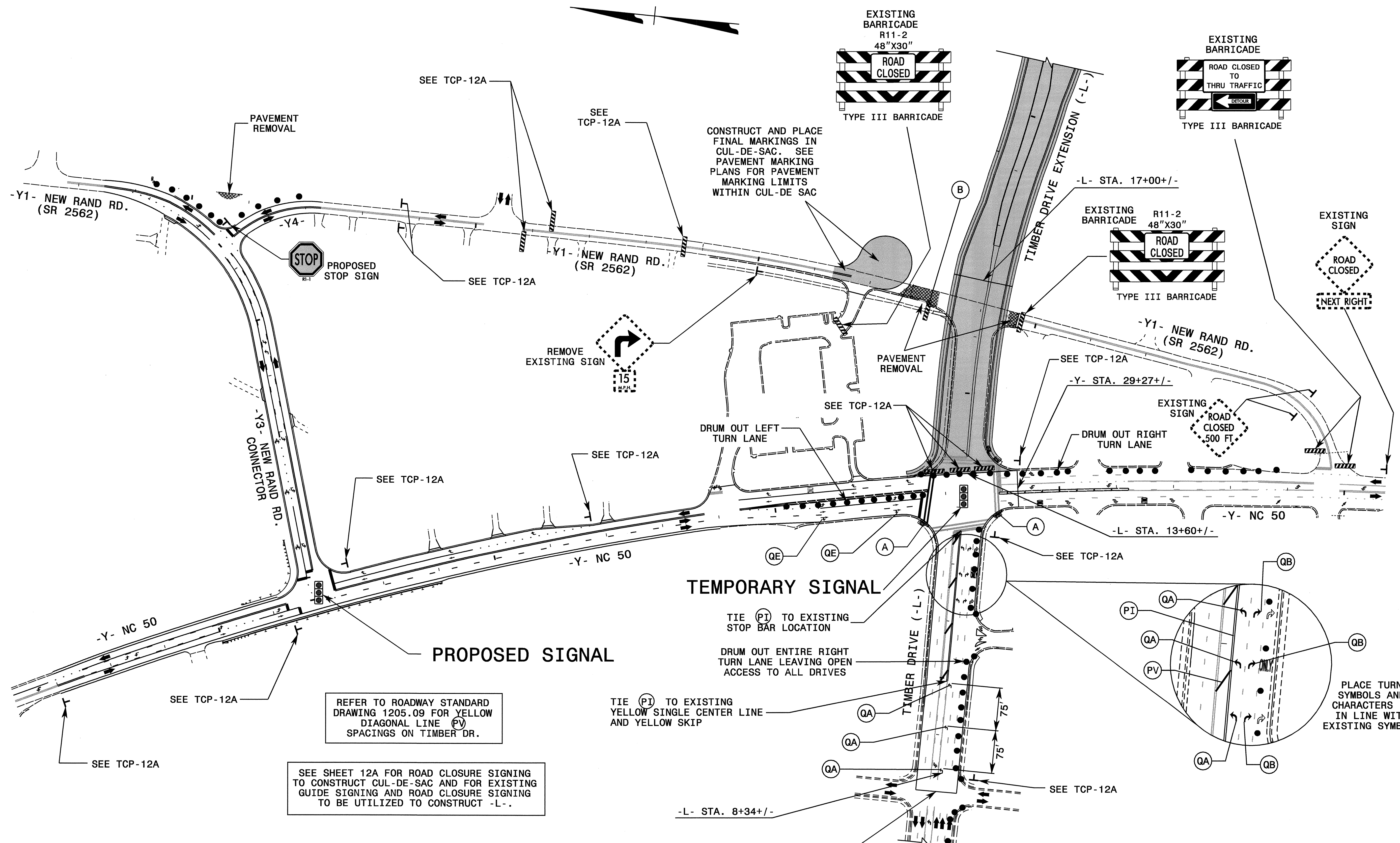


SIGNS AND BARRICADES ⑨ THRU ⑯ SHALL BE INSTALLED TO GUIDE TRAFFIC TO NEW RAND RD. CONNECTOR (-Y3-) AND TO PERMIT THE CONSTRUCTION OF THE (-Y4-) TIE-IN.



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SCALE:	NONE																					
DATE:	SEP 2009																					
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DESIGN BY:	MHS																					
REVIEWED BY:	JLP																					
REVISIONS																						



**TEMPORARY SIGNAL**

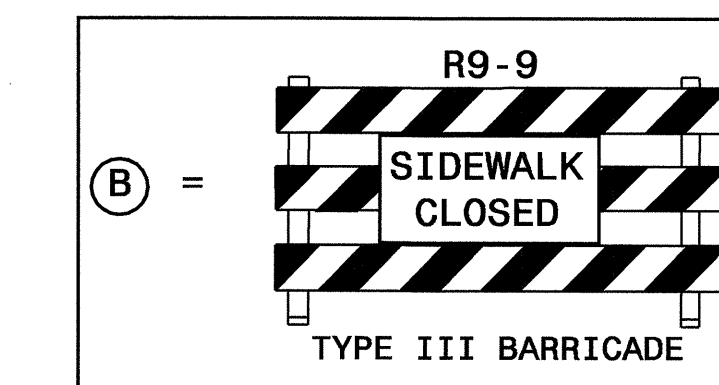
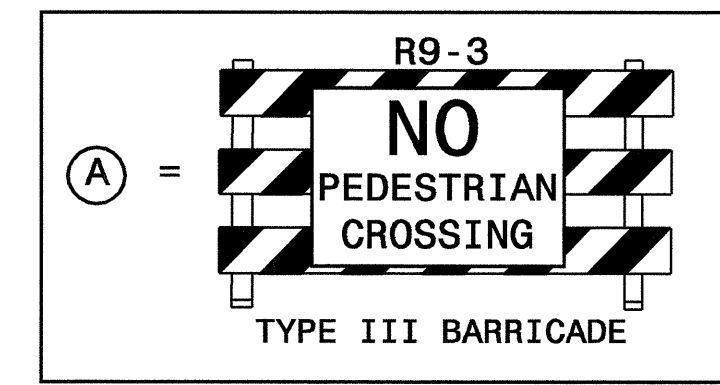
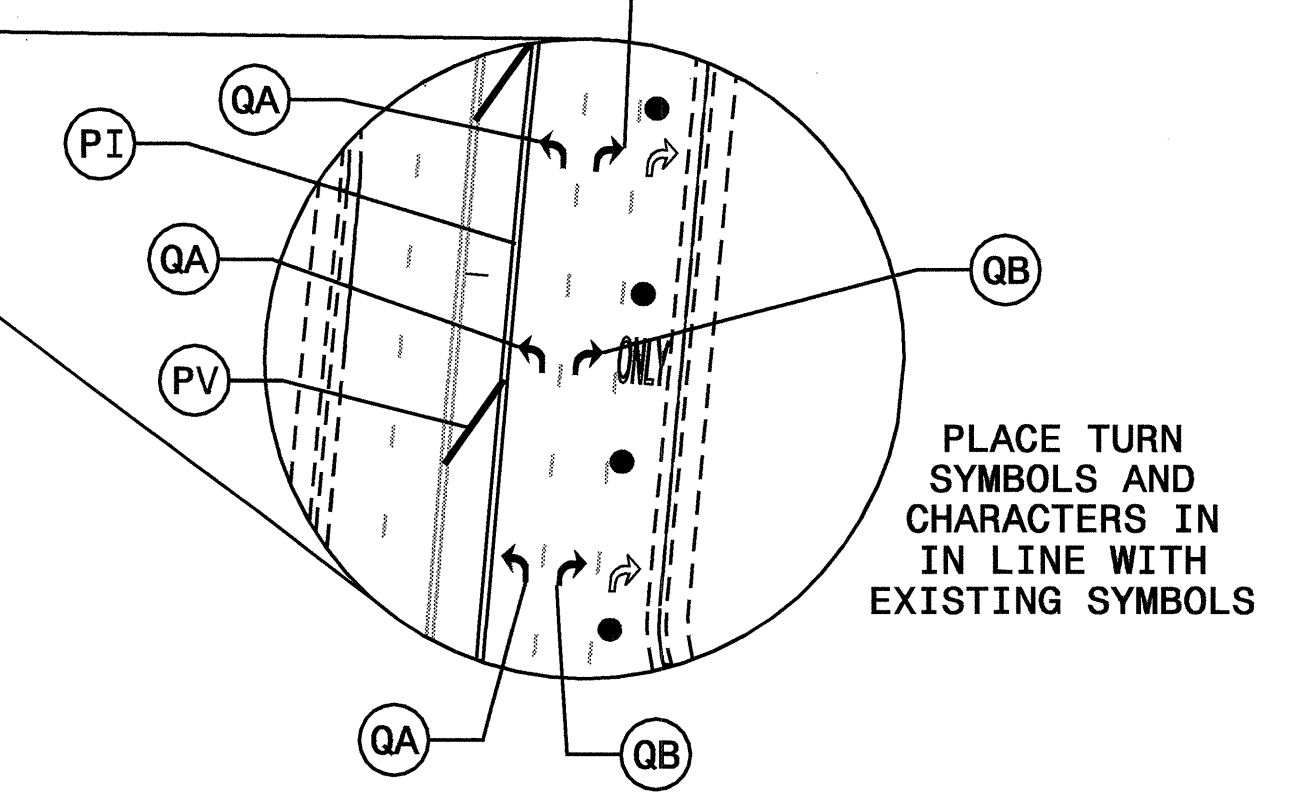
TIE (PI) TO EXISTING STOP BAR LOCATION  
DRUM OUT ENTIRE RIGHT TURN LANE LEAVING OPEN ACCESS TO ALL DRIVES

TIE (PI) TO EXISTING YELLOW SINGLE CENTER LINE AND YELLOW SKIP

**PROPOSED SIGNAL**

REFER TO ROADWAY STANDARD DRAWING 1205.09 FOR YELLOW DIAGONAL LINE (PV) SPACINGS ON TIMBER DR.

SEE SHEET 12A FOR ROAD CLOSURE SIGNING TO CONSTRUCT CUL-DE-SAC AND FOR EXISTING GUIDE SIGNING AND ROAD CLOSURE SIGNING TO BE UTILIZED TO CONSTRUCT -L-.

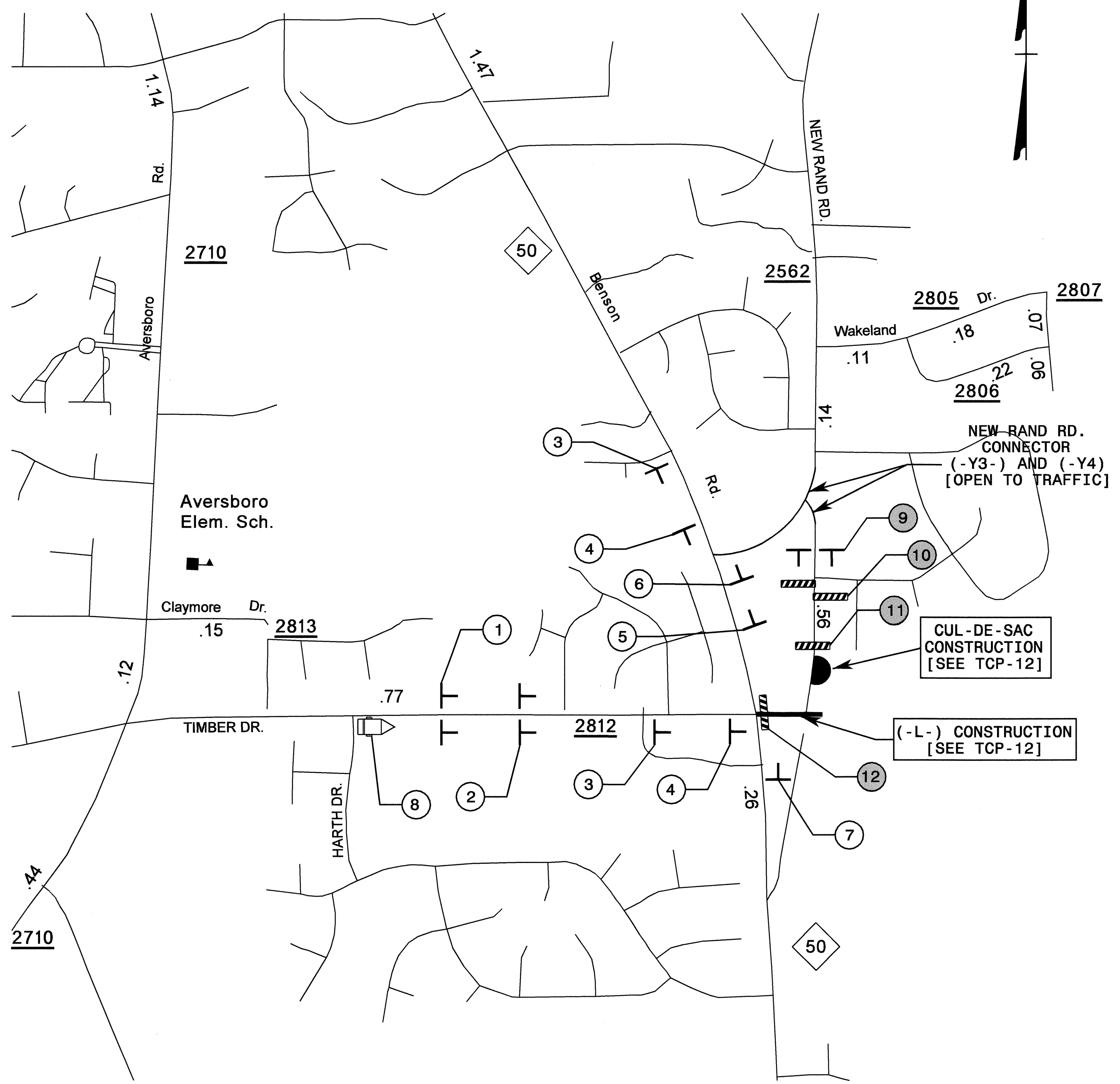


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<b>PHASE II, DETAIL 3</b>			REVISIONS	
SCALE:	NONE			
DATE:	OCT 2009			
DWG. BY:	MHS			
DESIGN BY:	MHS			
REVIEWED BY:	JLP			

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SIGNS AND BARRICADES ① THRU ⑧ SHOULD ALREADY BE IN PLACE FROM THE ROAD CLOSURE SHOWN ON SHEET TCP-11 AND TCP-11A USED TO CONSTRUCT THE (-Y4-) TIE-IN.

- ① =
- ② =
- ③ =
- ④ =
- ⑤ =
- ⑥ =
- ⑦ =
- ⑧ =

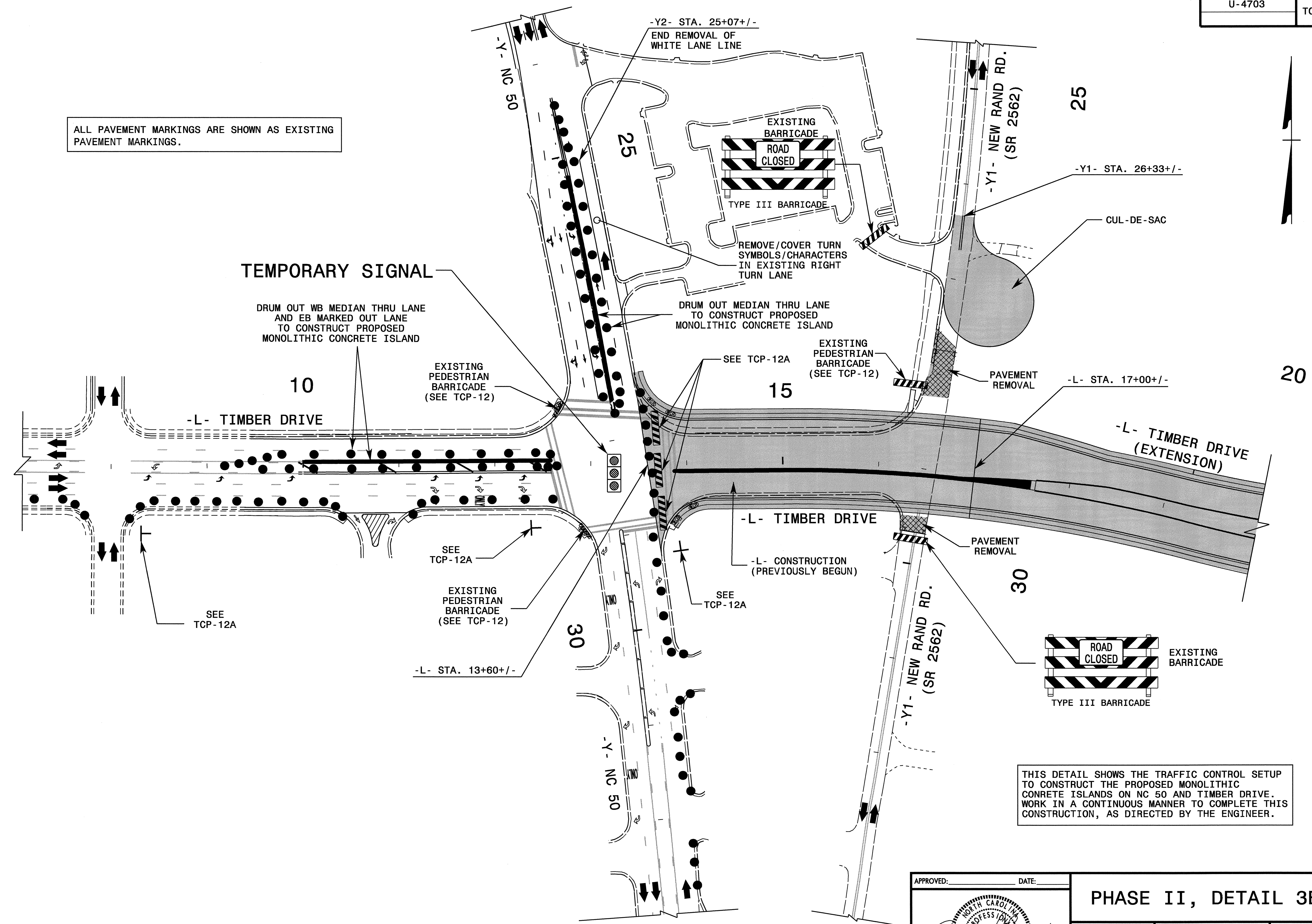
SIGNS AND BARRICADES ⑨ THRU ⑫ SHALL BE INSTALLED IN ORDER TO CONSTRUCT THE CUL-DE-SAC AND -L-

- ⑨ =
- ⑩ =
- ⑪ =
- ⑫ =

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 sbjennings AT WZTC24473

APPROVED: _____ DATE: _____	<b>PHASE II, DETAIL 3A</b>	
	SCALE: NONE	
	DATE: SEP 2009	
	DWG. BY: MHS	
	DESIGN BY: MHS	
REVIEWED BY: JLP	REVISIONS	

ALL PAVEMENT MARKINGS ARE SHOWN AS EXISTING PAVEMENT MARKINGS.



THIS DETAIL SHOWS THE TRAFFIC CONTROL SETUP TO CONSTRUCT THE PROPOSED MONOLITHIC CONCRETE ISLANDS ON NC 50 AND TIMBER DRIVE. WORK IN A CONTINUOUS MANNER TO COMPLETE THIS CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

*[Signature]*

PROFESSIONAL ENGINEER  
 STATE OF NORTH CAROLINA  
 LICENSE NO. 027856  
 JEFFER L. PORTANTON

PHASE II, DETAIL 3B

SCALE: NONE  
 DATE: OCT 2009  
 DWG. BY: MHS  
 DESIGN BY: MHS  
 REVIEWED BY: JLP

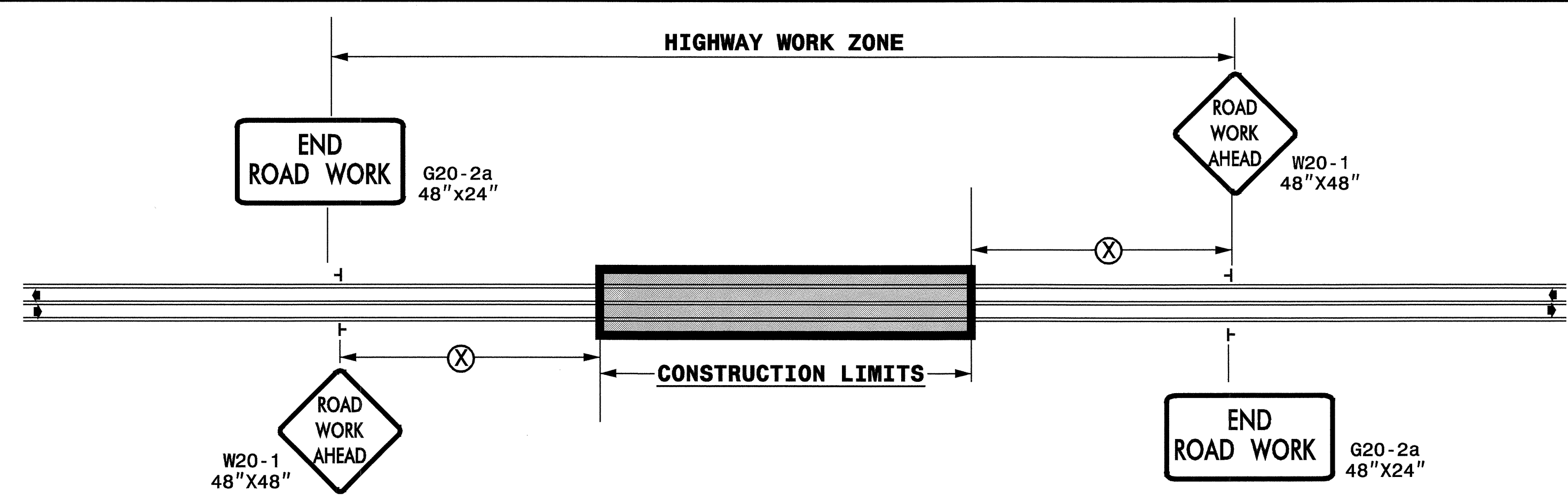


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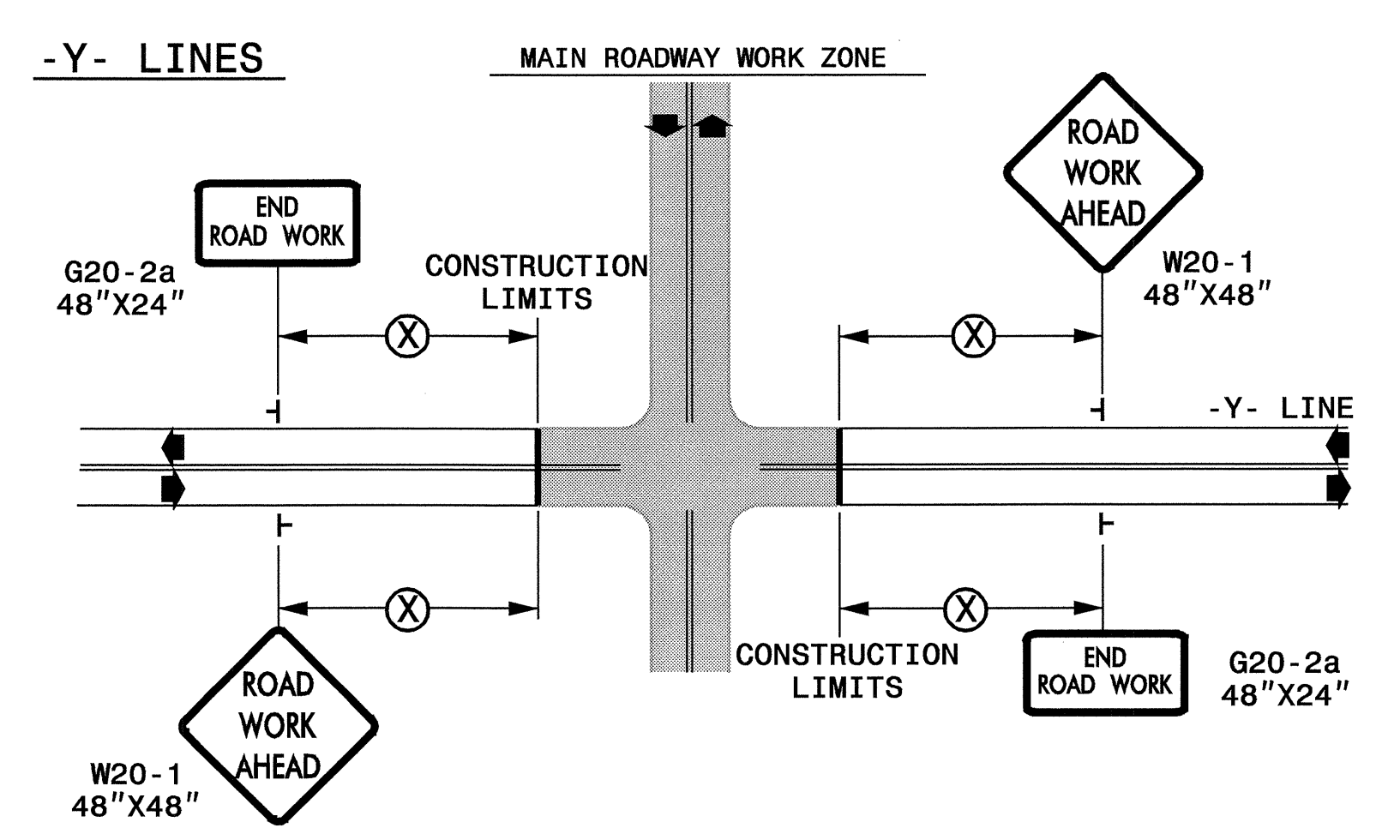
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

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

**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)**



DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

**GENERAL NOTES**

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: _____ DATE: _____	<p>DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS</p>	
SCALE: NONE	REVISIONS	
DATE: OCT 2009	7-98	10/01
DWG. BY: MHS	10-98	03/04
DESIGN BY: MHS	01/01	11/04
REVIEWED BY: JLP		

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