PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

ROWAN COUNTY

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -ROADWAY DESIGN 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.	<u>TITLE</u>
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
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
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, INDEX OF SHEETS, AND PAVEMENT MARKING SCHEDULE
TCP-2	PROJECT NOTES
TCP-3	PHASING
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TCP-5	PHASE II
TCP-6	TEMPORARY OFFSITE DETOUR AND SIGNING DETAIL
TCP-7	PHASE III
TCP-8	WORK ZONE WARNING SIGN DETAIL

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

NORTH ARROW

PROPOSED PVMT. ----- EXIST. PVMT.

WORK AREA

REMOVAL OF EXISTING PAVEMENT

TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

- STATIONARY SIGN

O PORTABLE SIGN

---- CRASH CUSHION

■ FLAGGER

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	PAY ITEM/QUANITY BREAKDOWN	TOTAL QUANTITY				
PAVEMENT MARKING LINES							
	PAINT 4"						
PA PI	WHITE EDGELINE YELLOW DOUBLE CENTER	8,400 LF 8,400 LF	16,800 LF				
	EPOXY 4"						
EA	WHITE EDGELINE	1,920 LF	1,920 LF				
	EPOXY 4"						
EI	YELLOW DOUBLE CENTER	1,920 LF	1,920 LF				
·	PAVE	MENT MARKERS					
	TEMPORARY RAISED						
мн	YELLOW/YELLOW	114 EA	114 EA				
	SNOWPLOWABLE						
ME	YELLOW/YELLOW	12 EA	12 EA				

	APPROVED DATE	Meredith McDrarnied: 4/4/06	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT
SEAL		SEAT SEAL	J. S. BOURNE, P.E. TRAFFIC CONTROL ENGINEER
	SFAL		M. McDIARMID, P.E. TRAFFIC CONTROL PROJECT ENGINEER
	SEME	025895 025895	C. B. HOWARD TRAFFIC CONTROL PROJECT DESIGN ENGINEER
		W. W	M. D. STOKES TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

ADAPT THE TRAFFIC CONTROL PLANS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

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

1. NC 801

MONDAY THRU FRIDAY 6:00 A.M. THRU 8:00 A.M. 2:00 P.M. THRU 4:00 P.M.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- B) 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 40 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.
- 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 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.
- F) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- G) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.
- PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) 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 A DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

DO NOT EXCEED A DIFFERENCE OF 1.5 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY MILE THROUGHOUT THE UNEVEN AREA.

PROJECT NOTES

PROJ. REFERENCE NO.	SHEET NO.
B-4255	TCP-2
	107-2

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

N) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER 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.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME

MARKING

MARKER

NC 801

EPOXY

SNOWPLOWABLE

P) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME

NC 801

MARKING

PAINT

MARKER

TEMPORARY RAISED

- Q) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- R) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.

APPROVED: MM McDarmul DATE: 4406

PROJECT NOTES

NONE DWG. BY: MDS DESIGN BY: MDS REVIEWED BY: CBH



REVISIONS

REVISIONS

PHASE I

NOTE: MAINTAIN TRAFFIC ACCESS TO THE DRIVEWAYS LOCATED WITHIN THE PROJECT LIMITS.

IF GUARDRAIL INSTALLATION CANNOT BE COMPLETED IN A CONTINUOUS MANNER, PROTECT THE EXPOSED END OF THE GUARDRAIL WITH A TMIA IF THE EXPOSED END IS WITHIN 30 FEET OF THE TRAVELWAY UNTIL THE GUARDRAIL INSTALLATION CAN BE COMPLETED.

- STEP 1: INSTALL ADVANCED WORK ZONE WARNING SIGNS ON NC 801 IN ACCORDANCE WITH SHEET TCP-8.
- STEP 2: AWAY FROM TRAFFIC, INSTALL THE TEMPORARY 24 INCH CORRUGATED STEEL PIPE AT -DET- STA. 16+55 +/-.
 - USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, CONSTRUCT THE ONSITE DETOUR AND BRIDGE UP TO EDGE AND ELEVATION OF EXISTING ROADWAY INCLUDING THE DETOUR GUARDRAIL AS SHOWN ON TCP-4 FROM -DET- STA. 10+00 +/- TO -DET- STA. 19+33 +/-. PLACE TYPE III BARRICADES AND DRUMS TO CLOSE THE DETOUR TO TRAFFIC.
 - INSTALL AND COVER WORK ZONE SIGNING FOR THE ONSITE DETOUR TRAFFIC. SEE SHEET TCP-5.
- STEP 3: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, TIE-IN DETOUR WITH EXISTING ROADWAY AND PLACE PAINT PAVEMENT MARKINGS (EDGE LINE AND DOUBLE YELLOW CENTERLINE) AND TEMPORARY PAVEMENT MARKERS. SEE SHEET TCP-5 AND ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9, FOR PAVEMENT MARKING AND MARKER DETAILS.

PHASE II

- STEP 1: UNCOVER SIGNING FOR DETOUR AND USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, SHIFT TRAFFIC ONTO CONSTRUCTED DETOUR. PLACE TYPE III BARRICADES AND DRUMS TO CLOSE -L- TO TRAFFIC AS SHOWN ON SHEET TCP-5.
- STEP 2: CONSTRUCT THE -L- BRIDGE AND THE PROPOSED -L- ROADWAY UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 16+90 +/- TO -L- STA. 23+50 +/-. SEE SHEET TCP-5.
 - INSTALL ALL PROPOSED GUARDRAIL EXCEPT FOR THE RIGHT SIDE NORTHBOUND GUARDRAIL LOCATED FROM -L- STA. 15+15 +/- TO -L- STA. 17+42 +/-. PROTECT TRAFFIC FROM THE EXPOSED BRIDGE RAILING WITH A TEMPORARY CRASH CUSHION AS SHOWN ON SHEET TCP-5.
- STEP 3: USING SHEET TCP-6 AND ROADWAY STANDARD DRAWING 1101.03, SHEET 1 OF 9, INSTALL AND COVER OFFSITE DETOUR SIGNING AND TEMPORARY ROAD CLOSURE SIGNING.

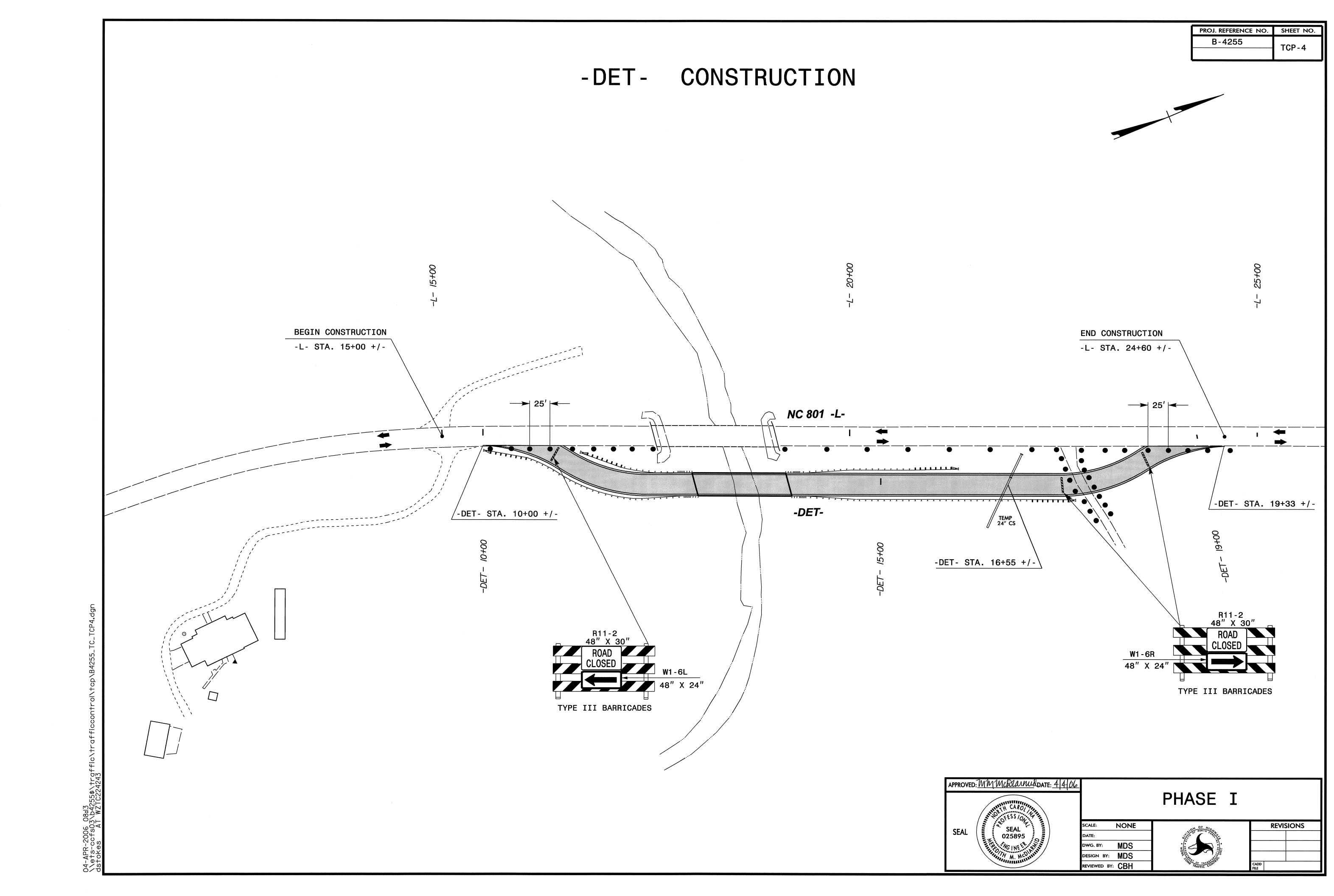
WORKING IN A CONTINUOUS MANNER, THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN PHASE II STEP 4, A THRU E IN 60 CONSECUTIVE HOURS BEGINNING ON A FRIDAY AT 6:00 P.M. AND FINISHING THE FOLLOWING MONDAY AT 6:00 A.M. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

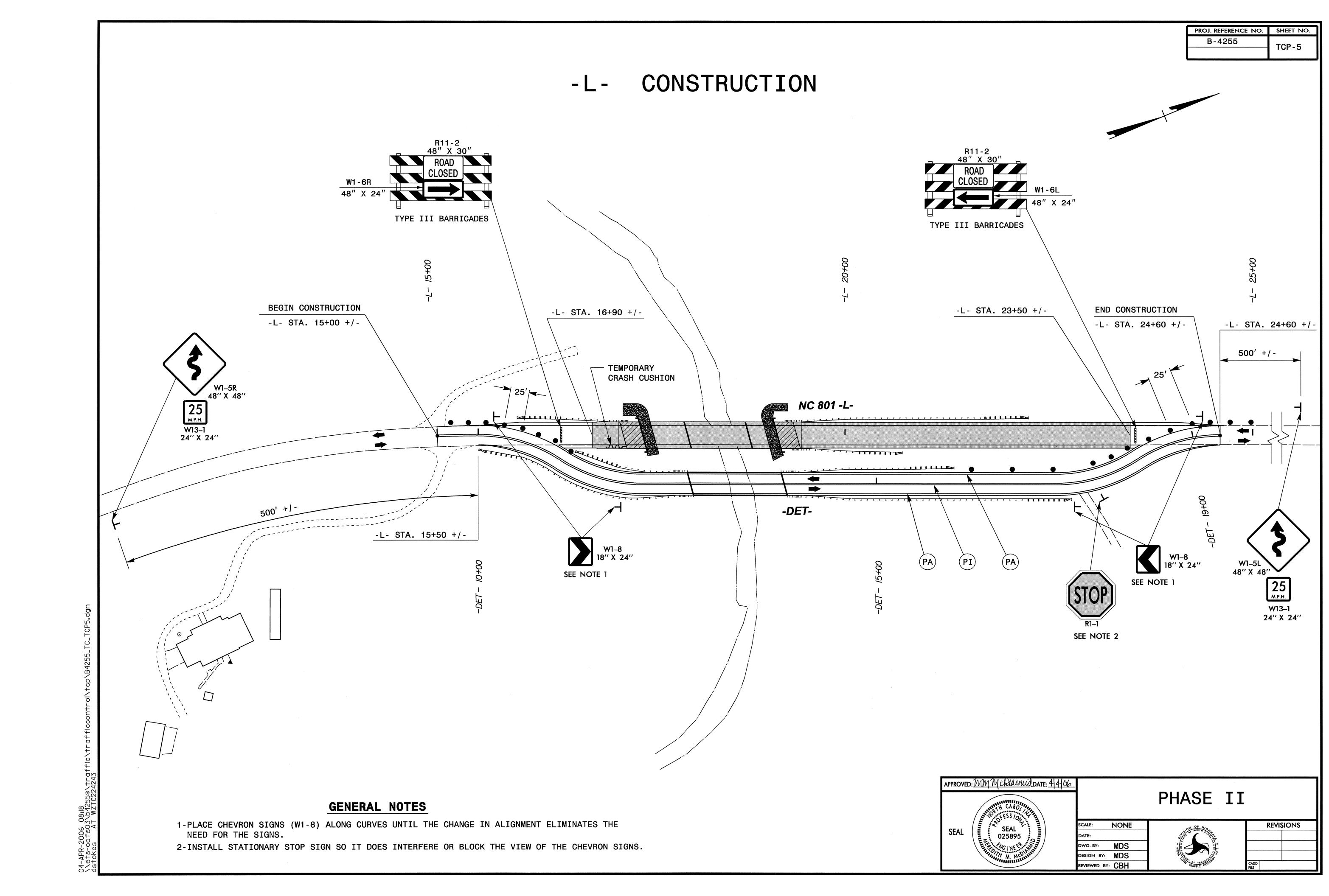
- STEP 4: A) UNCOVER OFFSITE DETOUR SIGNING AND TEMPORARY ROAD CLOSURE SIGNING.
 USING ROADWAY STANDARD DRAWING 1101.03, SHEET 1 OF 9, SHIFT TRAFFIC
 TO OFFSITE DETOUR AND INSTALL BARRICADES TO CLOSE NC 801 AS SHOWN ON
 TCP-6.
 - B) CONSTRUCT THE TIE-INS UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 15+00 +/- TO 16+90 +/- AND FROM -L- STA. 23+50 +/- TO 24+60 +/-.
 - C) INSTALL RIGHT SIDE NORTHBOUND GUARDRAIL LOCATED FROM -L- STA. 15+32 +/- TO -L- STA. 17+55 +/-. SEE SHEET TCP-7.
 - REMOVE ONSITE DETOUR SIGNING THAT WAS INSTALLED AS SHOWN ON SHEET TCP-5.
 - PLACE TYPE III BARRICADES AND DRUMS TO CLOSE ONSITE DETOUR TO TRAFFIC AS SHOWN ON SHEET TCP-7.
 - D) PLACE PAINT PAVEMENT MARKINGS (EDGE LINE AND DOUBLE YELLOW CENTERLINE)
 AND TEMPORARY PAVEMENT MARKERS AND TIE-IN TEMPORARY PAVEMENT MARKING LINES
 TO EXISTING PAVEMENT MARKING LINES. SEE SHEET TCP-7 FOR FOR PAVEMENT
 MARKING DETAILS.
 - E) REMOVE BARRICADES USED TO CLOSE NC 801, REMOVE OFFSITE DETOUR SIGNING AND TEMPORARY ROAD CLOSURE SIGNING AND OPEN NC 801 TO TRAFFIC.

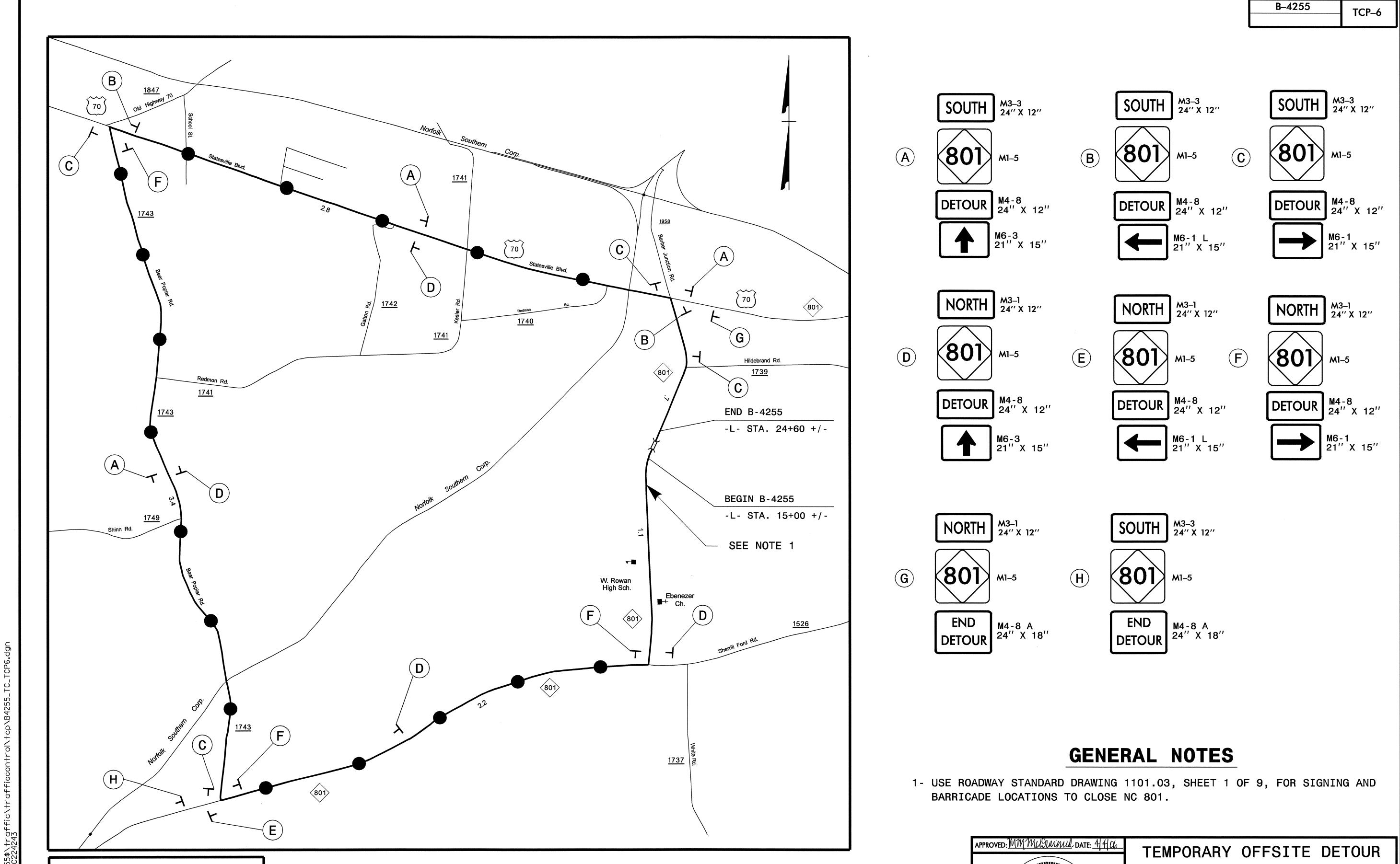
PHASE III

- STEP 1: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, REMOVE DETOUR AND FINISH REMAINING CONSTRUCTION OF -L- ROADWAY AND STRUCTURE.
- STEP 2: USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PLACE FINAL LAYER OF SURFACE COURSE, EPOXY PAVEMENT MARKINGS AND SNOWPLOWABLE MARKERS.
 - REMOVE ALL REMAINING TEMPORARY TRAFFIC CONTROL DEVICES AND OPEN -L- TO TRAFFIC.

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DETOUR ROUTE

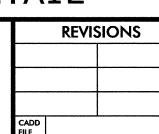
AND SIGNING DETAIL

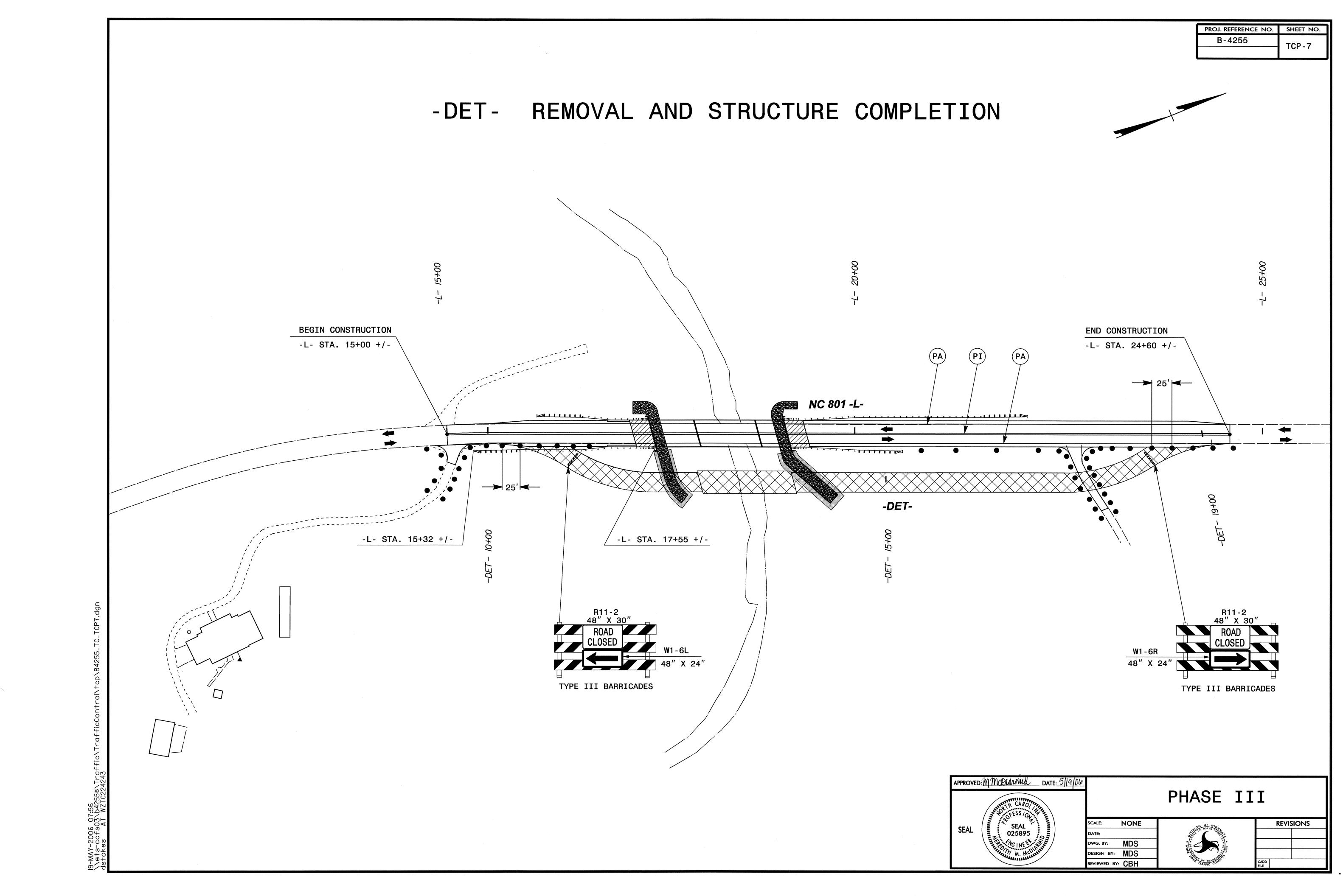
NONE DWG. BY: MDS REVIEWED BY: CBH



PROJ. REFERENCE NO.

SHEET NO.





TRANSPORTATION HIGHWAYS **OF** DIVISION 0F

Z

RALEIGH,

CAROLINA

NORTH

0F

STATE

RECOMMENDED MINIMUM SIGN SPACING

 \otimes

500'

1000'

POSTED SPEED LIMIT

(M.P.H.)

≤ 50

≥ 55

G H G

LEGEND

├ STATIONARY SIGN ■ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

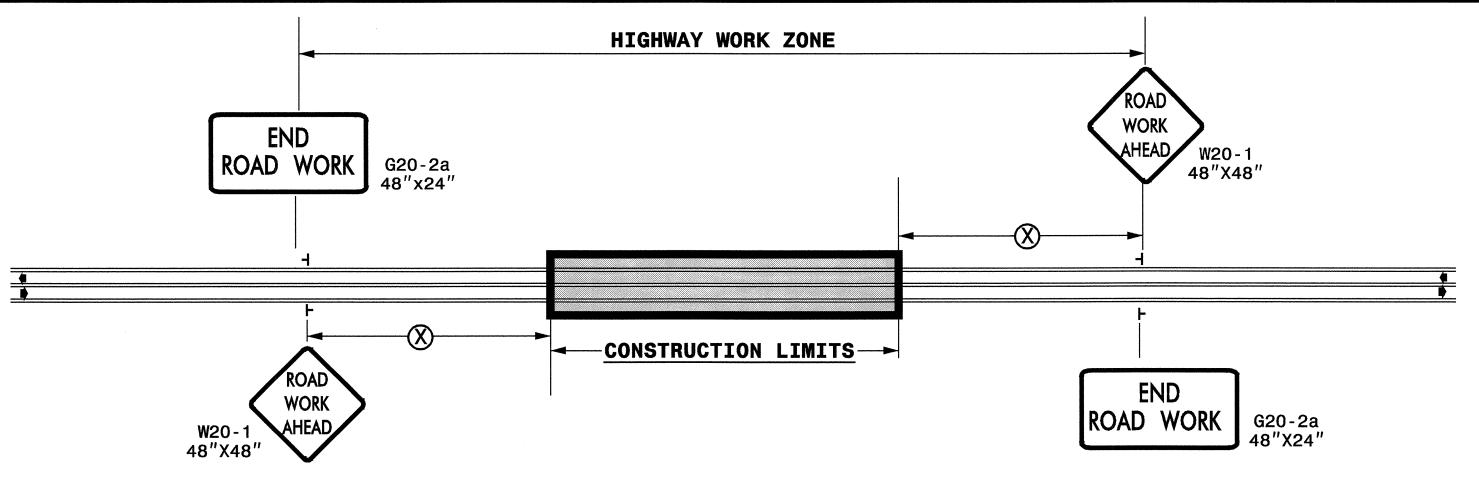
APPROVED: MMMC MARKED DATE: 4406 SEAL 025895

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

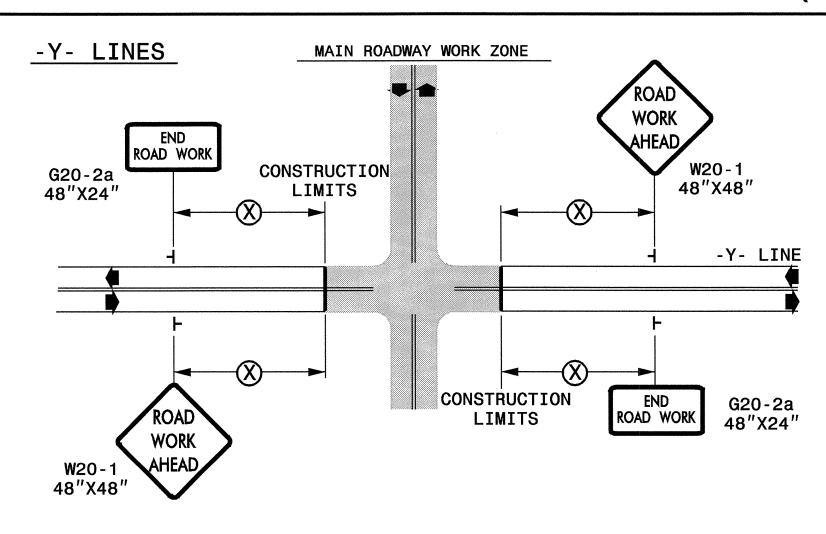
NONE DWG. BY: MDS REVIEWED BY: CBH

REVISIONS 7_98 | 10/01 10–98 03/04 01/01 | 11/04





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



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.