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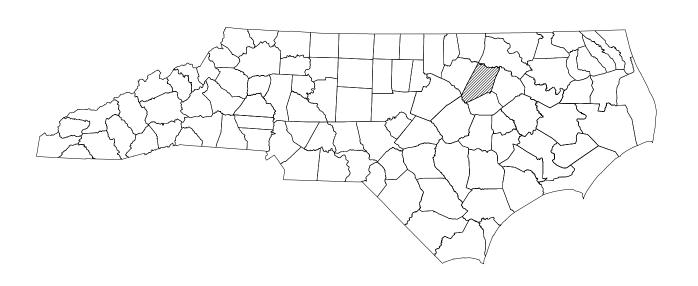
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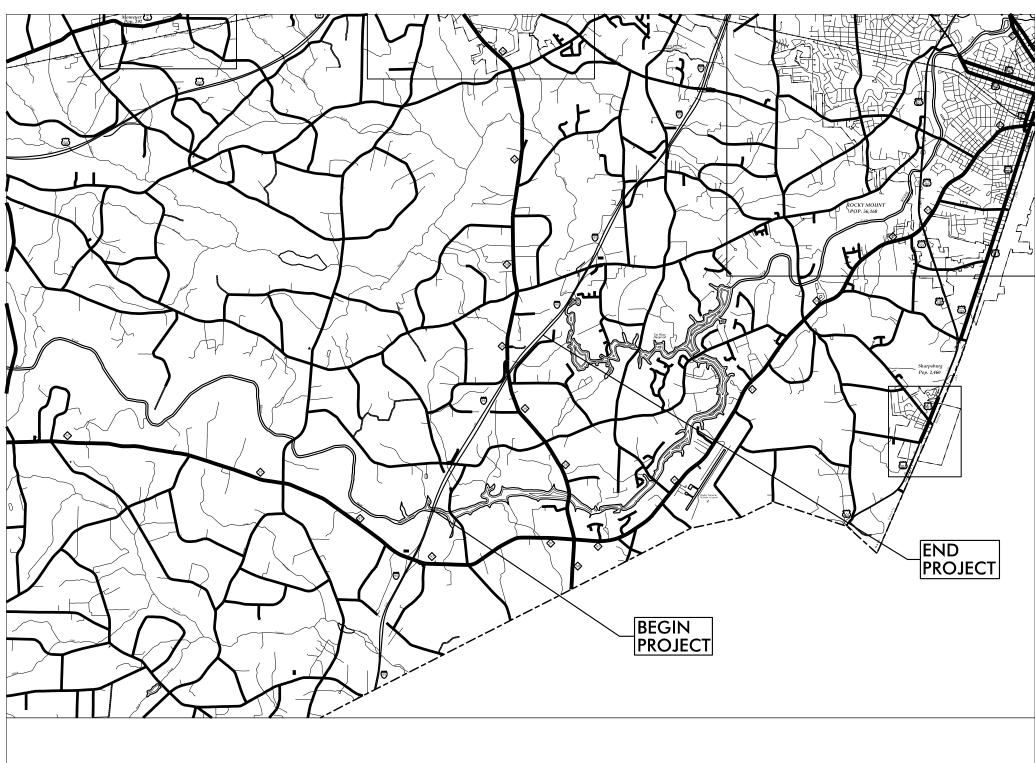
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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

NASH COUNTY





VICINITY MAP



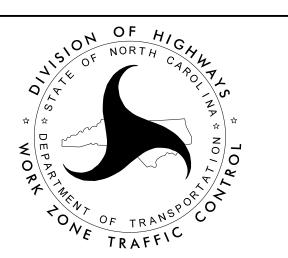
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL 1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER STEVE KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER

TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER



INDEX OF SHEETS

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WORK ZONE VARIABLE SPEED LIMIT DETAIL TMP-2C

OFF SITE DETOUR DETAIL TMP-2D

TMP-3 TEMPORARY TRAFFIC CONTROL PHASING

4000 WestChase Boulevard, Suite 530 Raleigh, NC 27607 NC License No. C-3705

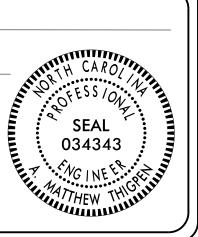
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JOSEPH LEWIS, PE TRAFFIC CONTROL PROJECT ENGINEER

A. MATTHEW THIGPEN, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER

APPROVED: DATE:

SEAL



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN 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:

STD. NO.	TITLE	
1101.01	WORK ZONE ADVANCE WARNING SIGNS	
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 BOARDS	
1130.01	DRUM	
1135.01	CONES	
1145.01	BARRICADES	
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION	
1180.01	SKINNY-DRUM	
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS	
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS	
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS	
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING	
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY	

PROJ. REFERENCE NO.	SHEET NO.
I-5841	TMP-1A

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

----- PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL

PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION

FLASHING ARROW BOARD FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

── STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

◆ YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES COMPLETED

ROADWAY STANDARD DRAWINGS & LEGEND

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 UNDESIRED 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:

DAY AND TIME RESTRICTIONS

DURING THE TIME FROM THE WEEK AFTER

LABOR DAY TO THE WEEK BEFORE MEMORIAL DAY

FRIDAY NOON TO SUNDAY MIDNIGHT

DURING THE TIME FROM THE WEEK BEFORE
MEMORIAL DAY TO THE WEEK AFTER LABOR DAY
MONDAY TO THURSDAY - 7:00 A.M. TO 8:00 P.M.
FRIDAY TO SUNDAY - 7:00 A.M. TO 10:00 P.M.

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

ROAD NAME I-95

I-95

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S DAY, BETWEEN THE HOURS OF 6:30 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:30 A.M. THURSDAY AND 8:00 P.M. TUESDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:30 A.M. FRIDAY TO 8:00 P.M. WEDNESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:30 A.M. THE FRIDAY BEFORE THE WEEK OF INDEPENDENCE DAY AND 8:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF INDEPENDENCE DAY.
- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:30 A.M. FRIDAY TO 8:00 P.M. WEDNESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:30 A.M. TUESDAY AND 8:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:30 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

PROJ. REFERENCE NO. SHEET NO. I - 5841 TMP - 2A

C) DO NOT CLOSE ROADS AS FOLLOWS:

 $^{\prime\prime}$ ROAD CLOSURE IS ONLY FOR THE REPAIR OF JOINTED CONCRETE PAVEMENT SLABS $^{\prime\prime}$

ROAD NAME

I-95

DAY AND TIME RESTRICTIONS

DURING THE TIME FROM THE WEEK AFTER

LABOR DAY TO THE WEEK BEFORE MEMORIAL DAY

MONDAY THROUGH WEDNESDAY 5:00 A.M. TO 11:00 P.M.

THURSDAY AT 5:00 A.M. THROUGH SUNDAY AT 11:00 P.M.

DURING THE TIME FROM THE WEEK BEFORE MEMOIRAL DAY

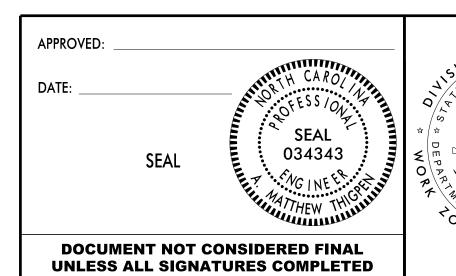
TO THE WEEK AFTER LABOR DAY.

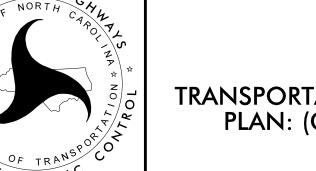
LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) 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.
- F) 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.

- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRANSPORTATION MANAGEMENT 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.
- H) 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.
- I) DO NOT INSTALL MORE THAN 1 MILE OF LANE CLOSURE ON I-95 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON I-95.





TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)

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GENERAL NOTES CONTINUED

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) 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.

L) 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) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- N) 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.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

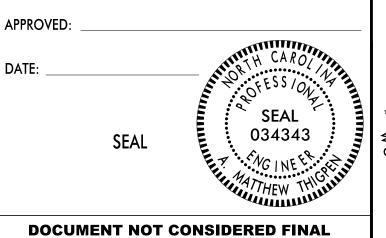
PROJ. REFERENCE NO.	SHEET NO.
I-5841	TMP-2B

TRAFFIC CONTROL DEVICES

- Q) WHEN LANE CLOSURES ARE NOT IN EFFECT 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. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS)
 PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN
 UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

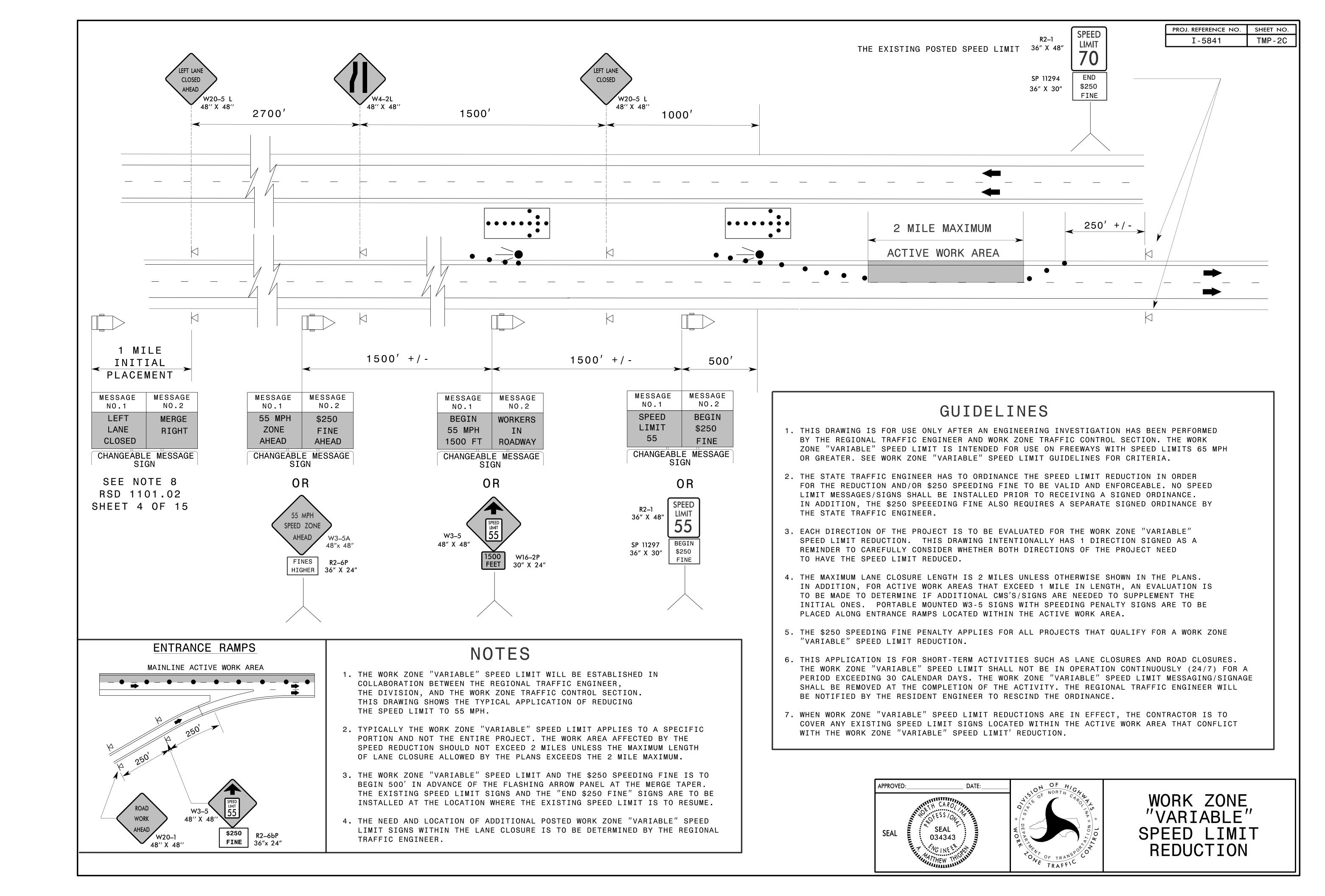
T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

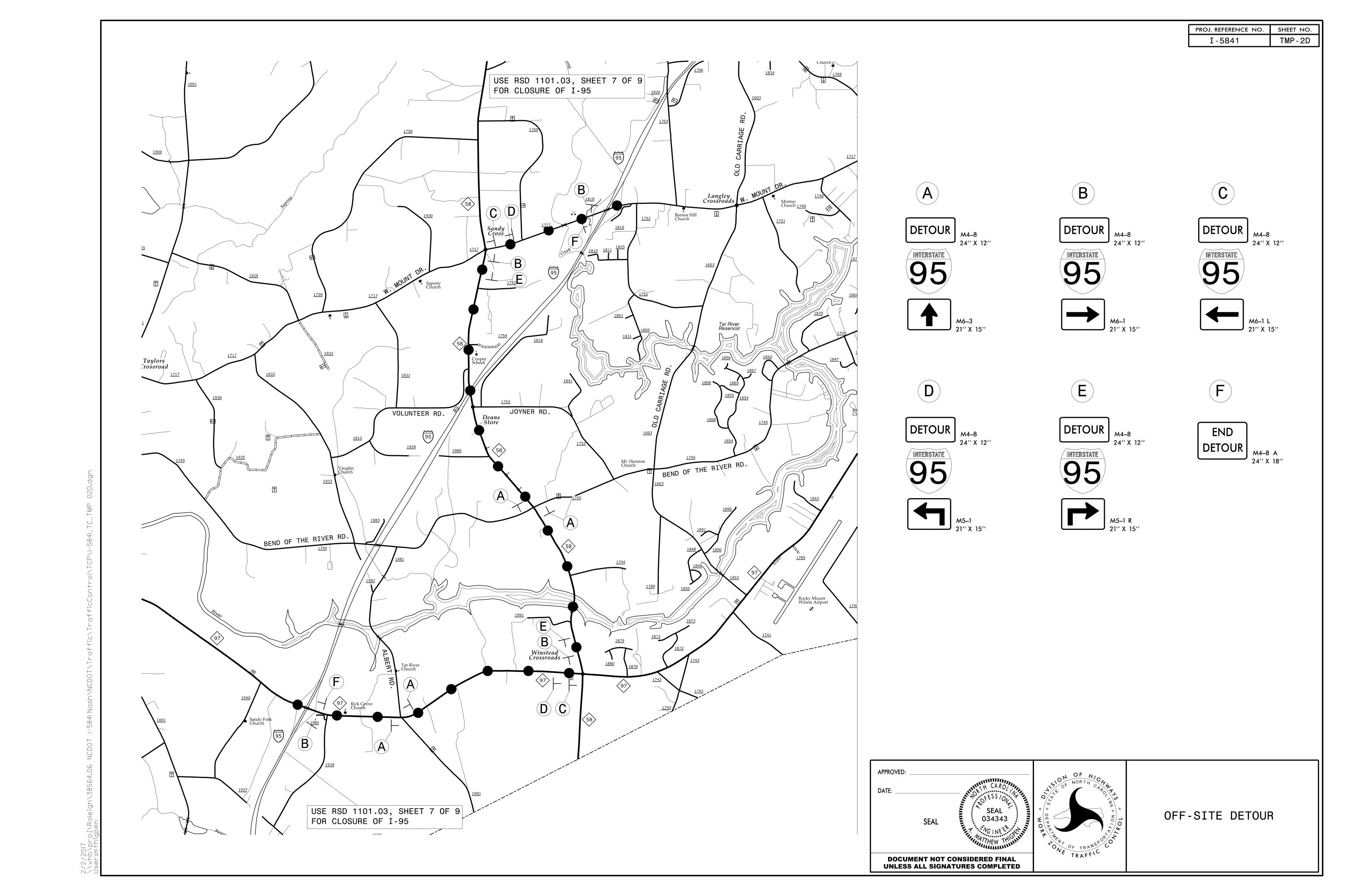


UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)





THIS PROJECT CONSISTS OF REPARING A CONCRETE ROADWAY SECTION OF I-95. THE PROCESS CONSISTS OF SEALING CRACKS AND REPLACEMENT OF SOME SLABS. THE PROCEDURE TO ACCOMPLISH

SLAB REMOVAL AND REPLACEMENT:

THE CONSTRUCTION IS DETAILED BELOW:

TRAFFIC MANAGEMENT PROCEDURE: I-95 WILL BE CLOSED AND PLACED ON THE OFF SITE DETOUR AS SHOWN ON SHEET TMP-2D DURING THE SLAB REMOVAL AND REPLACEMENT PROCESS. THESE SLABS WILL BE REMOVED AND REPLACED WITHIN THE ALLOWABLE OVERNIGHT TIME PERIOD STATED IN THE INTERMEDIATE CONTRACT TIME. I-95 WILL BE OPENED TO TRAFFIC BY 7:00 AM IN A ONE LANE PATTERN PER DIRECTION TO ALLOW FOR THE NEW SLAB IN THE CLOSED LANE TO CURE. THE INTERMEDIATE CONTRACT TIME DOES NOT ALLOW FOR LANE CLOSURES ON I-95 DURING WEEKENDS STARTING AT NOON ON FRIDAY AND ENDING AT MIDNIGHT ON SUNDAY. ALL SLAB REPLACEMENTS SHOULD BE COORDINATED SO THAT ALL LANES OF I-95 CAN BE OPENED TO TRAFFIC DURING THE TIMES STATED IN THE INTERMEDIATE CONTRACT TIME. THE FOLLOWING IS AN EXAMPLE CONSTRUCTION SEQUENCE FOR THE SLAB REPLACEMENTS:

- -CLOSE I-95 ON SUNDAY NIGHT AT 12:00 AM. COMPLETE SLAB REMOVAL AND REPLACEMENT ON X NUMBER OF SLABS.
- -REOPEN I-95 TO ONE LANE BY 7:00 AM MONDAY MORNING.
- -CLOSE I-95 ON MONDAY NIGHT AT 12:00 AM. COMPLETE SLAB REMOVAL AND REPLACEMENT ON X NUMBER OF SLABS.
- -REOPEN I-95 TO ONE LANE BY 7:00 AM TUESDAY MORNING.

THIS PROCESS IS TO CONTINUE UP TO THE FRIDAY THROUGH SUNDAY LANE CLOSURE RESTRICTIONS. ALL SLABS THAT ARE REMOVED SHALL BE REPLACED WITHIN THE SAME ROAD CLOSURE PERIOD PRIOR TO OPENING I-95 BACK UP TO TRAFFIC. SLAB REMOVAL DROP OFFS WILL NOT BE ALLOWED ON I-95 WHEN I-95 IS OPENED TO TRAFFIC IN ANY LANE CONFIGURATION.

PHASING

PROJ. REFERENCE NO. SHEET NO. I - 5841 TMP - 3

STEP 1

INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.02.

INSTALL AND COVER THE OFF SITE DETOUR SIGNING SHOWN ON SHEET TMP-2D.

THE CONTRACTOR SHALL COMPLETE THE WORK IN STEPS 2 AND 3 OVER SUCCESSIVE OVERNIGHT WORK PERIODS UNTIL ALL REQUIRED SLABS HAVE BEEN REPLACED ON I-95.

CONTRACTOR SHALL COMPLETE WORK OF STEPS 2 AND 3 BETWEEN THE HOURS OF 12:00 AM AND 7:00 AM MONDAY THRU FRIDAY. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 2

USING RSD 1101.03, SHEET 7 OF 9, CLOSE I-95. DETOUR TRAFFIC ALONG ROUTE SHOWN ON TMP-2D.

COMPLETE THE SLAB REMOVAL AND REPLACEMENT PROCESS AS DESCRIBED WITHIN THE CONSTRUCTION NARRATIVE SECTION. SEAL CRACKS IN CONCRETE. DO NOT REMOVE AND REPLACE SLABS IN BOTH THE INSIDE AND OUTSIDE LANES DURING THE SAME OVERNIGHT WORK PERIOD.

STEP 3

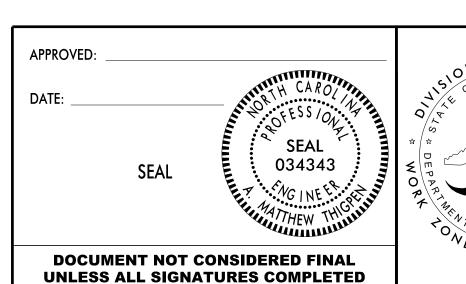
USING RSD 1101.02, SHEET 4 OF 15, INSTALL LANE CLOSURE DEVICES ON I-95, REMOVE THE ROAD CLOSURE DEVICES FROM I-95 INSTALLED IN STEP 2 AND PLACE I-95 TRAFFIC INTO A ONLE LANE PATTERN. I-95 MUST REOPEN TO A TWO LANE PATTERN ON FRIDAY BY 12:00 PM UNTIL MONDAY AT 12:00 AM.

STEP 4

USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 4 OF 15), INSTALL FINAL PAVEMENT MARKINGS AND MARKERS IN ALL AREAS WHERE THE SLAB REPLACEMENT WAS CONDUCTED.

STEP 5

REMOVE ALL REMANING TRAFFIC CONTROL DEVICES.



PHASING NOTES