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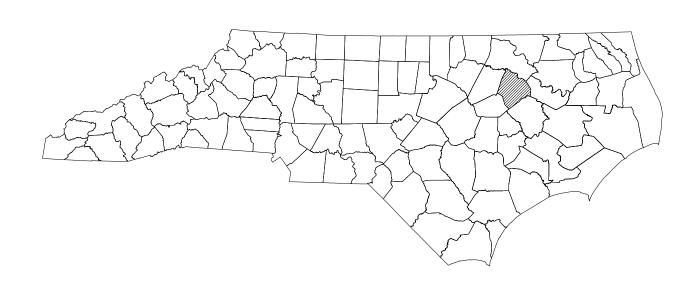
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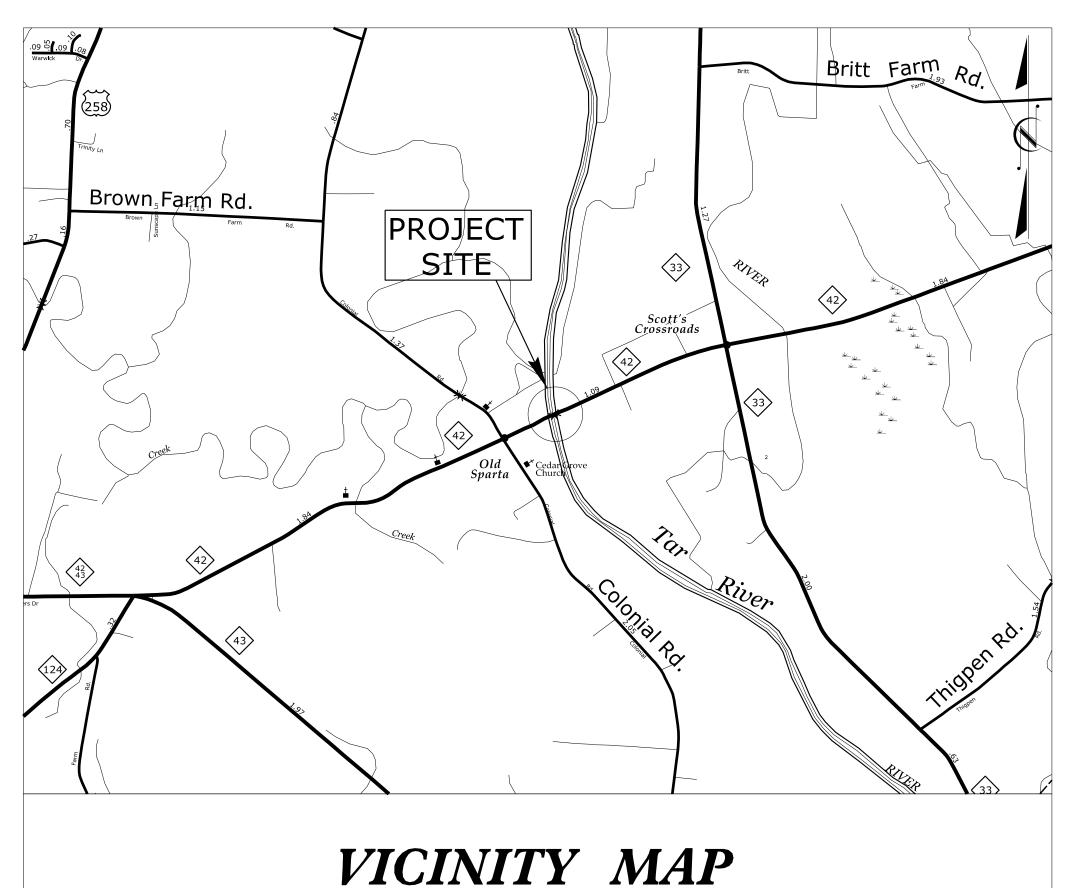
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# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

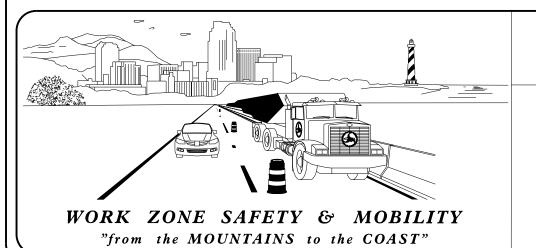
# TRANSPORTATION MANAGEMENT PLAN

# EDGECOMBE COUNTY





LOCATION: BRIDGE NO. 28 OVER TAR RIVER ON NC 42

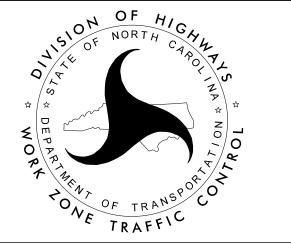


N.C.D.O.T. WORK ZONE TRAFFIC CONTROL 1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

JOSEPH HUMMER, P.E. STATE TRAFFIC MANAGEMENT ENGINEER

STEVE KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER

MATT SPRINGER, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER TRAFFIC CONTROL DESIGN ENGINEER



# INDEX OF SHEETS

SHEET NO. TITLE

TMP - 1 TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A

TMP-1B THRU TMP-1C TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES AND LOCAL NOTES)

TMP-2 PORTABLE TEMPORARY SIGNAL STANDARD DRAWING

TEMPORARY TRAFFIC CONTROL PHASING TMP-3

TMP-4 THRU TMP-5 TEMPORARY TRAFFIC CONTROL PHASE I DETAILS

TMP-6 OFF SITE DETOUR



JOSEPH LEWIS, PE TRAFFIC CONTROL PROJECT ENGINEER

A. MATTHEW THIGPEN, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER APPROVED:\_ DATE:\_ SEAL

TMP-1

2

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

#### TITLE STD. NO.

1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE 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
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

PROJ. REFERENCE NO.	SHEET NO.
B-4932	TMP-1A

# **LEGEND**

#### **GENERAL**

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

----- PROPOSED PVMT.

TEMPORARY SHORING (SOIL FABRIC WALL)

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 MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

## TEMPORARY PAVEMENT MARKING

(P2) WHITE STOPBAR PAINT (24")

(PA) WHITE EDGELINE PAINT (4")



ROADWAY STANDARD DRAWINGS & LEGEND

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 - DON'T APPLY WHEN TEMPORARY SIGNAL IS IN PLACE

A) DO NOT <u>CLOSE OR NARROW TRAVEL LANES</u> DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

NC 42

#### 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 6:00 A.M.
  DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW
  YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR
  MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY
THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE
DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY AND 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

PROJ. REFERENCE NO.	SHEET NO.
B-4932	TMP-1B

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.
- C) 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.
- D) 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.
- E) 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.
- F) 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.
- G) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON NC 42.
- H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING.

#### PAVEMENT EDGE DROP OFF REQUIREMENTS

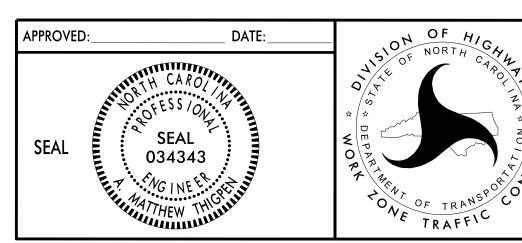
I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

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.

J) 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.



# GENERAL NOTES CONTINUED

#### 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 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- N) 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.

#### TRAFFIC BARRIER

O) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

P) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE
BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY
CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE
CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS
OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFS	ΕT
40 OR LESS	15 F	Τ
45 - 50	20 F	Τ
55	25 F	Τ
60 MPH or HIGHER	30 F	Т

PROJ. REFERENCE NO. SHEET NO. B-4932 TMP-1C

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

ROAD NAME MARKING MARKER

NC 42 PAINT (2 APPLICATIONS) TEMPORARY RAISED CONCRETE BRIDGES PAINT (1 APPLICATION) TEMPORARY RAISED

- U) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- V) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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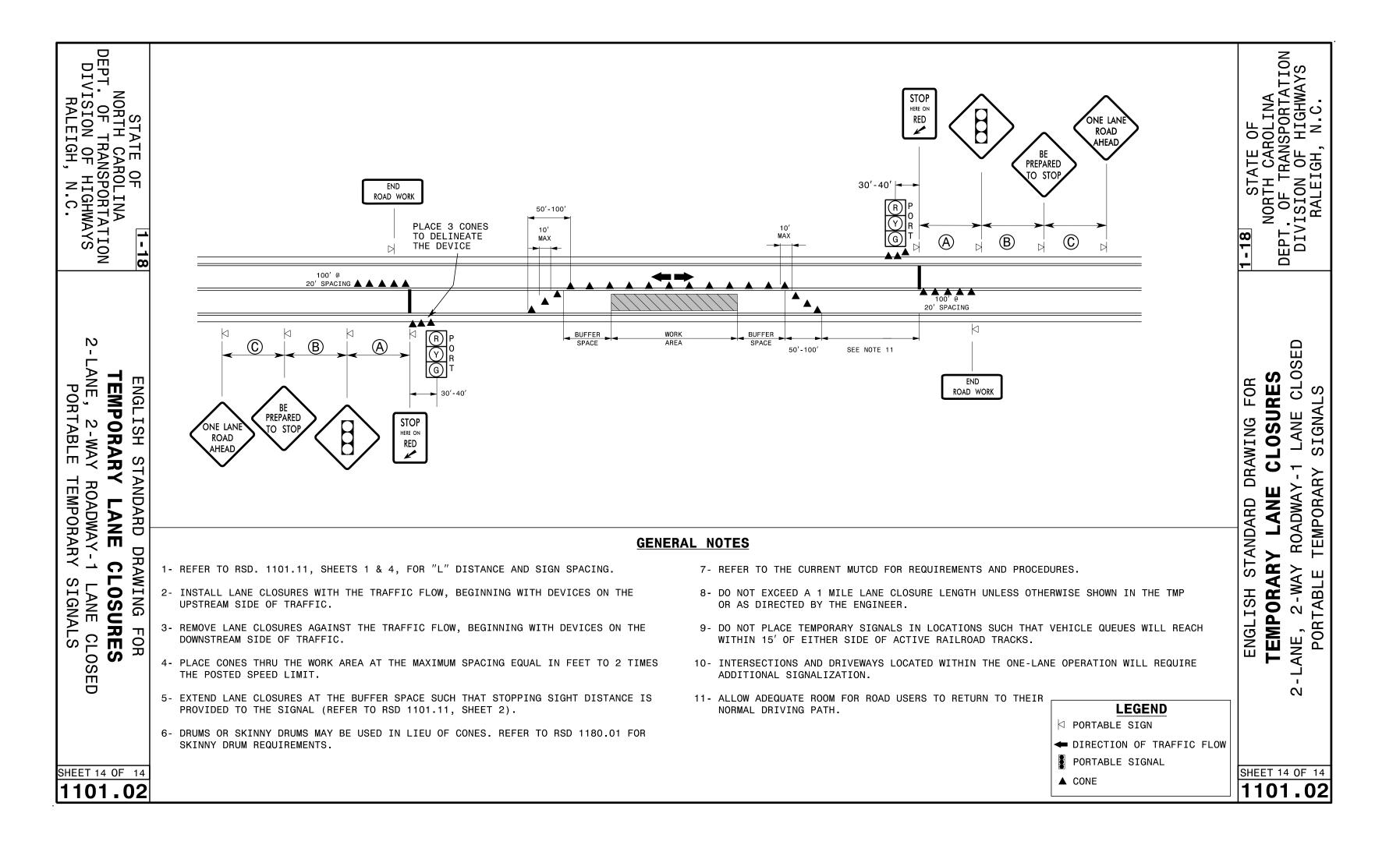
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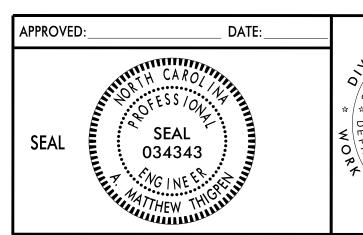
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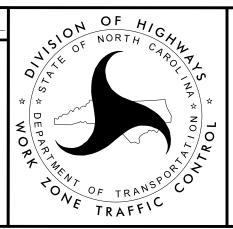


TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)

PROJ. REFERENCE NO. SHEET NO. TMP-2







PORTABLE TEMPORARY SIGNAL DETAIL

OJ. REFERENCE NO.	SHEET NO.
B-4932	TMP-3

# PHASING

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS AS DIRECTED BY THE ENGINEER.

#### PHASE I

#### STEP 1

INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.01.

#### STEP 2

BEHIND EXISTING GUARDRAIL, BEGIN PROPOSED BRIDGE CONSTRUCTION AND GRADING UP TO THE APPROXIMATE ELEVATION OF THE EXISTING SHOULDER (SEE TMP-4 AND TMP-5)

PLACE TEMPORARY PORTABLE SIGNAL AND BAG SIGNAL HEADS. PLACE IN FLASH MODE 2 WEEKS PRIOR TO ACTIVATION.

#### STEP 3

USING RSD 1101.02, SHEET 1 OF 14, INSTALL PORTABLE CONCRETE BARRIER (PCB), TEMPORARY CRASH CUSHIONS AND TEMPORARY PAVEMENT MARKINGS AND REMOVE EXISTING GUARDRAIL AS SHOWN ON SHEETS TMP-4 AND TMP-5.

ACTIVATE TEMPORARY PORTABLE SIGNAL.

#### STEP 4

WORKING BEHIND PORTABLE CONCRETE BARRIER (PCB), COMPLETE PROPOSED BRIDGES AND APPROACHES UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE. SEE SHEETS TMP-4 AND TMP-5.

THE CONTRACTOR SHALL COMPLETE PHASE I, STEP 5 WITHIN A 2 WEEK TIME PERIOD. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

THE CONTRACTOR MAY, WITH APPROVAL OF THE ENGINEER, PERFORM WORK FROM PHASE I STEP 5 CONCURRENTLY WITH ANY OTHER WORK BETWEEN PHASE I STEP 2 AND PHASE I STEP 6.

#### STEP 5

COMPLETE 54" RCP INSTALLATION IN THE FOLLOWING SEQUENCE:

- A. PRIOR TO ANY CONSTRUCTION OPERATIONS, INSTALL AND COVER DETOUR SIGNS AS SHOWN ON TMP-6 AND IN ACCORDANCE WITH RSD 1101.01 SHEETS 1 AND 2 OF 9.
- B. INSTALL BARRICADES AND UNCOVER DETOUR SIGNS. CLOSE -L- TO TRAFFIC AS SHOWN ON TMP-6.
- C. WITH -L- CLOSED TO TRAFFIC, INSTALL PROPOSED 54" RCP.
- D. REMOVE ALL ROAD CLOSURE SIGNS AND BARRICADES AND OPEN -L- TO THROUGH TRAFFIC.

#### STEP 6

PLACE TEMPORARY PHASE II PAVEMENT MARKINGS/MARKERS AS MUCH AS POSSIBLE WITHOUT INTERFERING WITH THE EXISTING TRAFFIC PATTERN. USE 2 APPLICATIONS OF PAINT ON ASPHALT AND 1 APPLICATION OF PAINT ON CONCRETE BRIDGE DECKS.

#### STEP 7

WORKING IN A CONTINUOUS MANNER TO COMPLETE IN A SINGLE WORK PERIOD, SHIFT NC 42 TRAFFIC IN THE FOLLOWING SEQUENCE:

- A) USING FLAGGERS, PLACE ALL TRAFFIC IN A 1L, 2W PATTERN IN THE EXISTING EB LANE.
- B) WITH ALL TRAFFIC IN THE EXISTING EB LANE, TIE IN THE PROPOSED WB LANE OF THE NEW ROAD AND INSTALL A DOUBLE YELLOW CENTERLINE.
- C) HAVE FLAGGERS DIRECT TRAFFIC TO NEWLY CONSTRUCTED -L- IN A 1L, 2W PATTERN IN THE PROPOSED WB LANE.

#### STEP 7 CONTINUED

- D) WITH ALL TRAFFIC IN THE WB LANE, TIE IN PROPOSED EB LANE OF THE NEW ROAD AND TIE IN THE DOUBLE YELLOW CENTERLINE.
- E) ENSURE ALL TRAFFIC CONTROL DEVICES ON NC 42 ARE CORRECT AND OPEN LANES TO 2L, 2W TRAFFIC PATTERN.

#### PHASE II

#### STEP 1

USING RSD 1101.02, SHEET 1 OF 14, CONSTRUCT ANY REMAINING RIGHT SIDE SLOPES, PAVEMENT REMOVAL AND BRIDGE DEMOLITION.

#### STEP 2

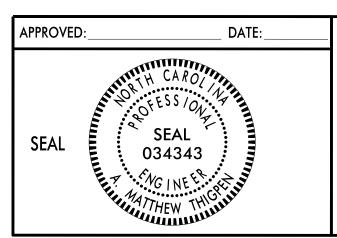
USING RSD 1101.02, SHEET 1 OF 14, PLACE FINAL LAYER OF SURFACE COURSE.

#### STEP 3

USING RSD 1101.02, SHEET 1 OF 14, PLACE FINAL PAVEMENT MARKINGS AND MARKERS (SEE PAVEMENT MARKING PLANS).

#### STEP 4

REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES.





PHASING

