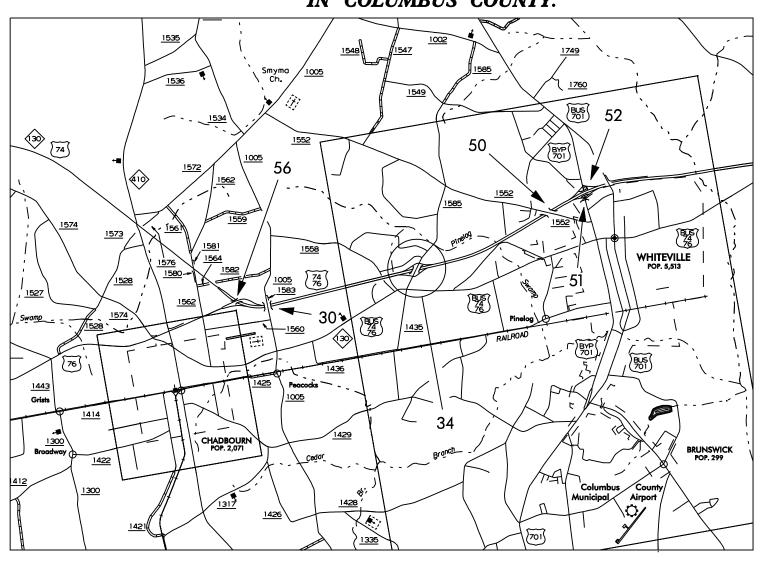


# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

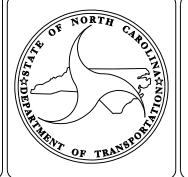
## COLUMBUS COUNTY

STATE	STATE PROJECT REPERENCE NO.		SHEET	TOTAL SHEETS
N.C.	B-4700AO		1	1
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	TION
36	727.1.1	BRNHS-000S(504)	P.E.	
367	27.3.39	BRNHS-000S(370)	CONST	
	•			

LOCATION: US 74/NC130, US 76, SR 1435, SR 1585, SR 1552,
ACROSS US 74/76, US BYP 701
TYPE OF WORK: BRIDGE PRESERVATION: CLEANING
AND PAINTING OF BRIDGES #30, #34, #50, & #51, #52 & #56
IN COLUMBUS COUNTY.



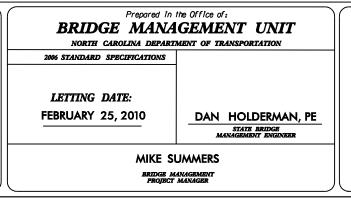


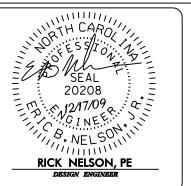


DESIGN DATA

PROJECT LENGTH

LENGTH STRUCTURE PROJECT = 5.83 MILE





# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## PLAN FOR PROPOSED TRAFFIC CONTROL

## COLUMBUS COUNTY

LOCATION: BRIDGE NO.S 56, 30, 34, 50, 51, 52, 381, AND 382.

TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE PAINTING

## 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
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1135.01	CONES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY-DRUM

## INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND INDEX OF SHEETS
TCP-2	GENERAL NOTES
TCP-3	VICINITY MAP AND PROJECT PHASING
TCP-4	DETAIL FOR RIGHT AND LEFT LANE CLOSURES ON US 74/76
TCP-5	DETAIL FOR TREATMENT OF CENTER LANE CLOSURES ON US 701 BYP.
TCP-6	DETAIL FOR TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF ENTRANCE RAMPS
TCP-7	DETAIL FOR TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF EXIT RAMPS
TCP-8	DETAIL FOR TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF EXIT RAMPS

## LEGEND

#### **GENERAL**

◆ DIRECTION OF TRAFFIC FLOW

STATE PROJECT REFERENCE NO.

B-4700AO

SHEET NO.

TCP-1

NORTH ARROW



#### TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

▲ CONE

DRUM
SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

STATIONARY SIGN

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

- PORTABLE CONCRETE BARRIER

---- TEMPORARY CRASH CUSHION

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

POLICE

--- FLAGGER





BETSY L. WATSON, PE

KELLIE L. WIESKAMP, EI

TRAFFIC CONTROL ENGINEER TRANSPORTATION DESIGNER

PROJECT REFERENCE NO.	SHEET NO.
B-4700A0	TCP-2

## **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

#### LANE CLOSURE TIME RESTRICTIONS

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

ROAD NAME

DAY AND TIME RESTRICTIONS

ALL ROADS

7:00 A.M. FRIDAY - 12:00 A.M. MONDAY

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

ROAD NAME ALL ROADS

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

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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,
- D) 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.
- E) 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 1101.01, SHEET 1 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRATI.

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 SHEET TCP-4 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- F) 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.
- G) 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.
- H) DO NOT INSTALL MORE THAN 4 MILES OF LANE CLOSURE ON US 74/76 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- I) DO NOT INSTALL MORE THAN 2 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON US 74/76.
- J) PROVIDE A MINIMUM OF 1 MILE BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

#### TRAFFIC PATTERN ALTERATIONS

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

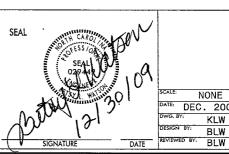
#### SIGNING

L) ENSURE ALL SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC

#### **MISCELLANEOUS**

- M) DO NOT PERFORM WORK FROM THE ROADWAY ON TOP OF THE STRUCTURE.
- N) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

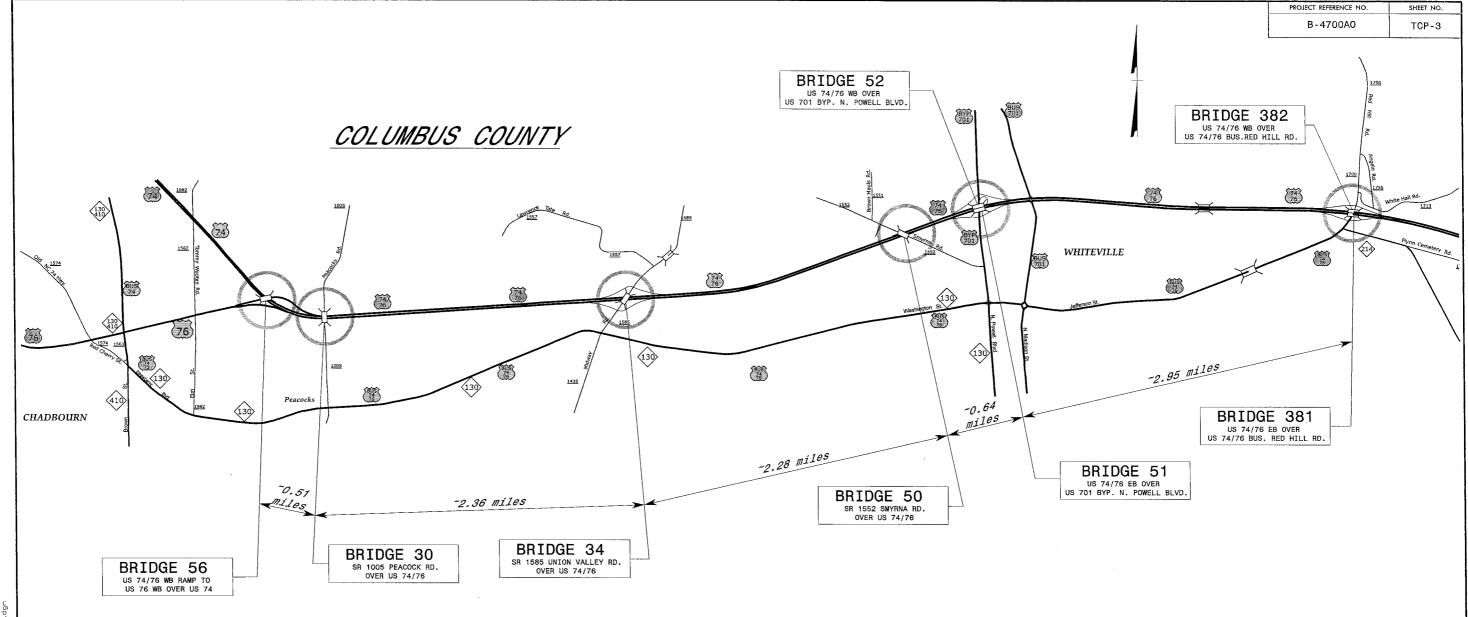




PROJECT NOTES GENERAL NOTES

NONE DATE: DEC. 2009 KLW BLW

REVISIONS



#### TRAFFIC CONTROL PHASING

#### STEP 1:

PERFORM BRIDGE PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS. PERFORM WORK IN ACCORDANCE WITH "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES-JULY 2006".

WHEN WORKING ON BRIDGES #56, #30, #34, AND #50, USE TEMPORARY LANE CLOSURES ON US 74/76 TO PERFORM THE WORK ACCORDING TO SHEET TCP-4.

WHEN WORKING ON BRIDGES #381 AND #382, USE DEVICES AS SHOWN ON TCP-4 FOR RIGHT LANE CLOSURES ONLY, WITH THE EXCEPTION THAT APPROACH WARNING SIGNS ARE NOT REQUIRED TO BE MOUNTED ON THE LEFT SIDE OF THE ROADWAY AND THE USE OF A CMS IS NOT REQUIRED UNLESS DIRECTED BY THE ENGINEER.

WHEN WORKING ON BRIDGES #51 AND #52, USE TEMPORARY LANE CLOSURES ON US 701 BYP. TO PERFORM THE WORK ACCORDING TO SHEET TCP-5.

WHEN RIGHT LANE CLOSURES ENCROACH THROUGH THE VICINITY OF AN ENTRANCE RAMP IN ADVANCE OF THE WORK AREA AT BRIDGE #50, USE SHEET TCP-6 IN CONJUNCTION WITH A RIGHT LANE CLOSURE SHEET TCP-4.

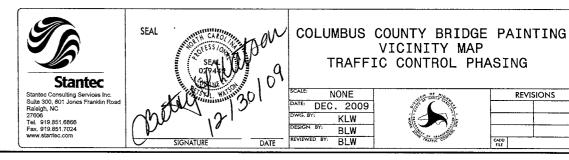
WHEN RIGHT LANE CLOSURES ENCROACH THROUGH THE VICINITY OF AN EXIT RAMP IN ADVANCE OF THE WORK AREA AT BRIDGE #34, USE SHEET TCP-7 IN CONJUNCTION WITH A RIGHT LANE CLOSURE SHEET TCP-4.

WHEN RIGHT LANE CLOSURES ENCROACH THROUGH THE VICINITY OF AN EXIT RAMP DOWNSTREAM OF THE WORK AREA AT BRIDGE #30, USE SHEET TCP-8 IN CONJUNCTION WITH A RIGHT LANE CLOSURE SHEET TCP-4.

MAINTAIN ALL RAMPS AND LOOPS OPEN AT ALL TIMES FOR ALL INTERCHANGES ON THE PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

AT THE END OF EACH DAY'S OPERATIONS MOVE EQUIPMENT TO STAGING AREA AT LEAST 40 FEET AWAY FROM ANY TRAVEL LANES AS APPROVED BY THE ENGINEER AND REMOVE LANE CLOSURES. WHEN NOT BEING USED TO CLOSE A LANE, DRUMS MAY EITHER BE TOTALLY REMOVED OR BE MOVED TO OUTSIDE OF SHOULDER SUCH THAT THEY DO NOT CLOSE THE SHOULDER.

UPON COMPLETION OF THE PROJECT, REMOVE ALL TRAFFIC CONTROL DEVICES.



REVISIONS

DEC. 2009

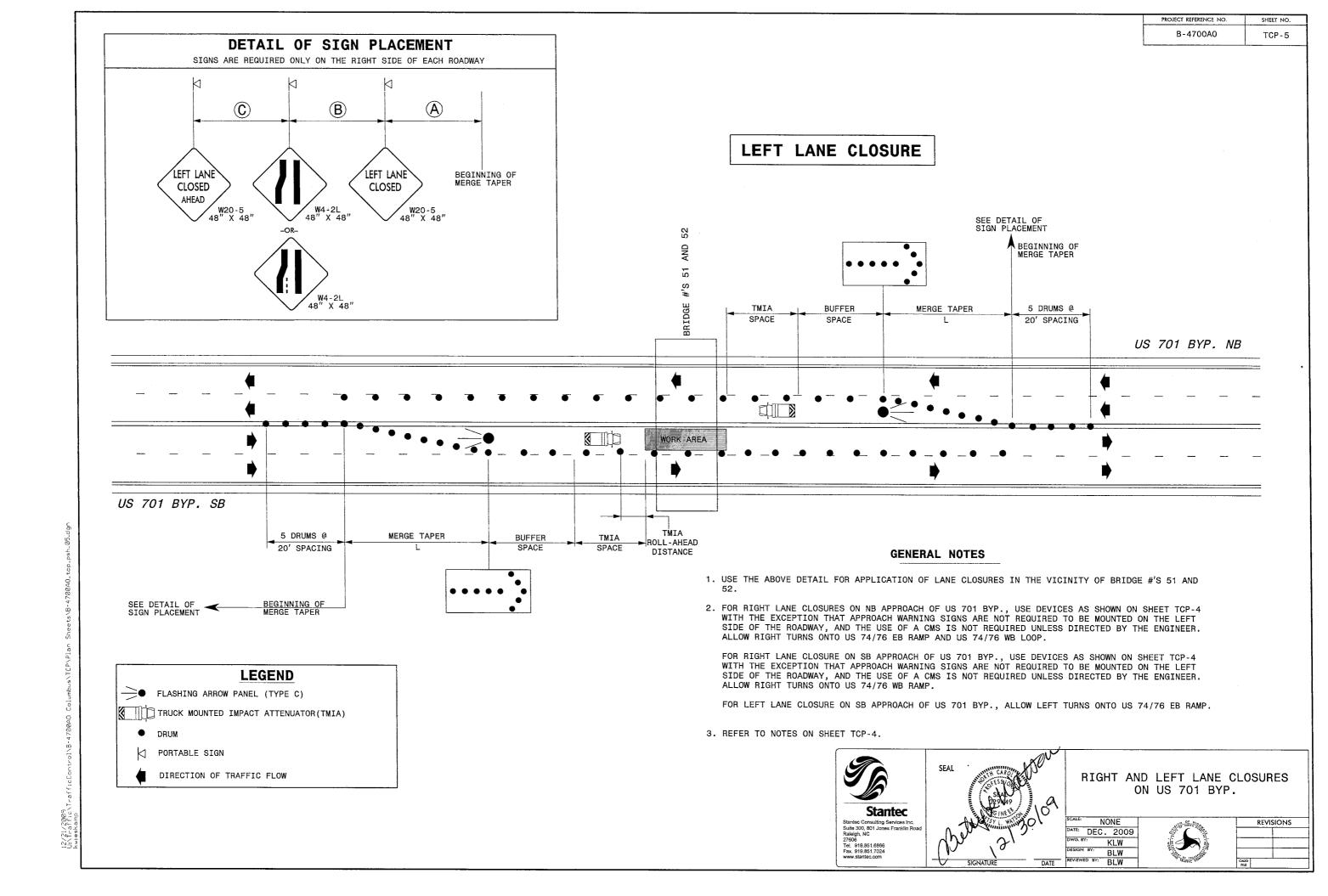
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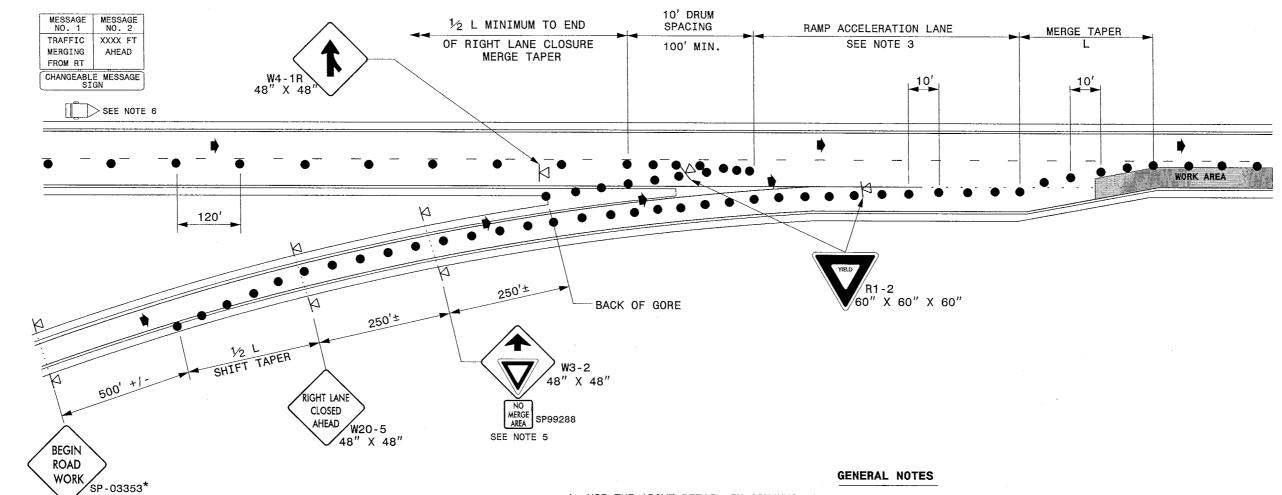
KLW

BLW REVIEWED BY: BLW

1/2 MILE IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE

FROM ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC AND MOVE CMS APPROXIMATELY 1/2 MILE IN CONJUCTION WITH ANTICIPATED BACKUP.





- 1- USE THE ABOVE DETAIL IN CONJUNCTION WITH A RIGHT LANE CLOSURE AS SHOWN ON SHEET TCP-4. 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.
- 3- IF EXISTING ACCELERATION DISTANCE OR A MINIMUM OF 400' ACCELERATION DISTANCE CANNOT BE PROVIDED, CONTACT THE WORK ZONE TRAFFIC CONTROL UNIT FOR FURTHER GUIDANCE.
- 4- CLOSE THE RIGHT LANE SUFFICIENTLY IN ADVANCE TO STABILIZE MOTOR VEHICLE TRAFFIC FLOW BEFORE THE MERGE AS SHOWN ON SHEET TCP-4.
- 5- INSTALL SP99288 BELOW THE YIELD AHEAD SIGN (AS SHOWN) TO ALERT MOTORISTS THAT THE ACCELERATION DISTANCE HAS BEEN REDUCED.
- 6- COORDINATE WITH THE ENGINEER FOR LOCATION OF CMS.
- 7- USE THE ABOVE DETAIL ALONG US 74/76 FOR THE FOLLOWING SITUATIONS:

BRIDGE NO. 50 ON RAMP FROM US 701 BYP. SB TO US 74/76 WB

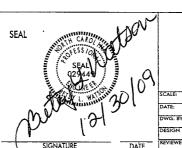
### **LEGEND**

48" X 48"

CHANGEABLE MESSAGE SIGN (CMS)

- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW





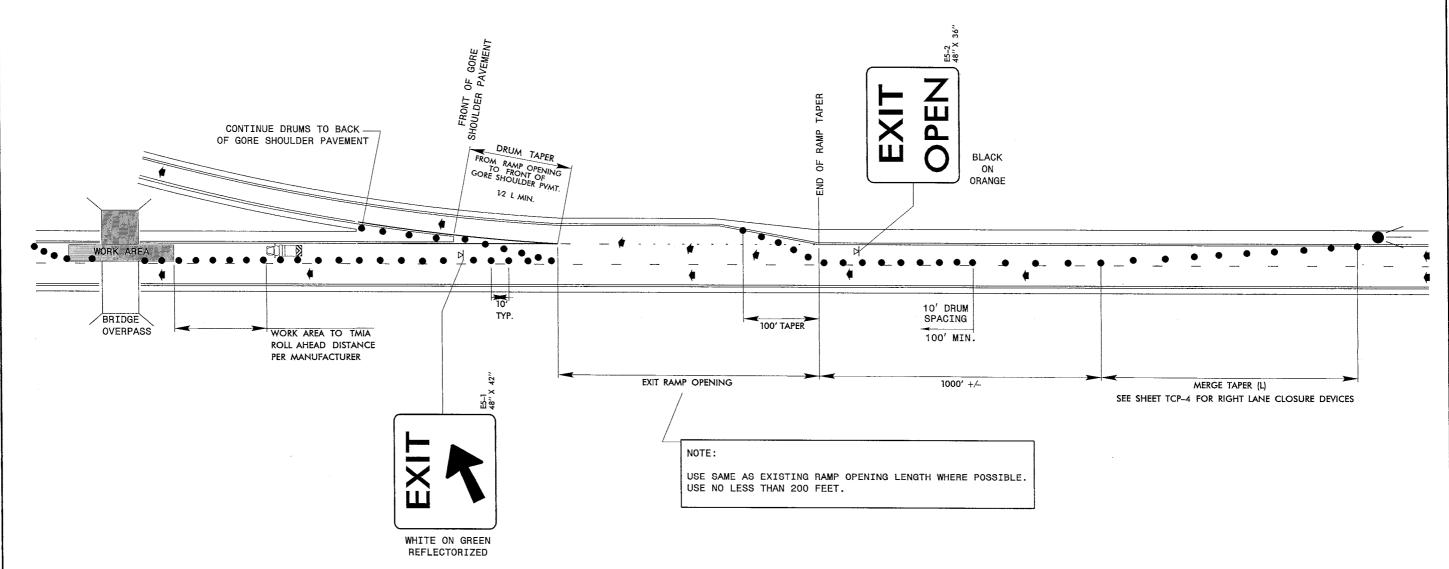
**TYPICAL** RIGHT LANE CLOSURE THROUGH VICINITY OF ENTRANCE RAMP

DEC. 2009 KLW BLW

REVISIONS

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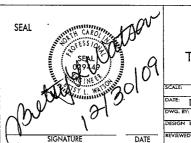
## <u>TYPICAL</u> <u>RIGHT LANE CLOSURE</u> THROUGH VICINITY OF EXIT RAMP



#### NOTES

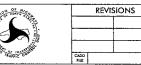
- USE THE ABOVE DETAIL IN CONJUNCTION WITH A RIGHT LANE CLOSURE AS SHOWN ON SHEET TCP-4 FOR EXIT RAMPS IN ADVANCE OF BRIDGE #34 (US 74/76 EB/WB RAMPS TO SR 1585 UNION VALLEY RD.).
- 2. MOUNT EXIT SIGN(E5-1) AND EXIT OPEN SIGN(E5-2) A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.
- 3. REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEETS 1, 2 & 4 FOR TRAFFIC CONTROL DESIGN TABLES.



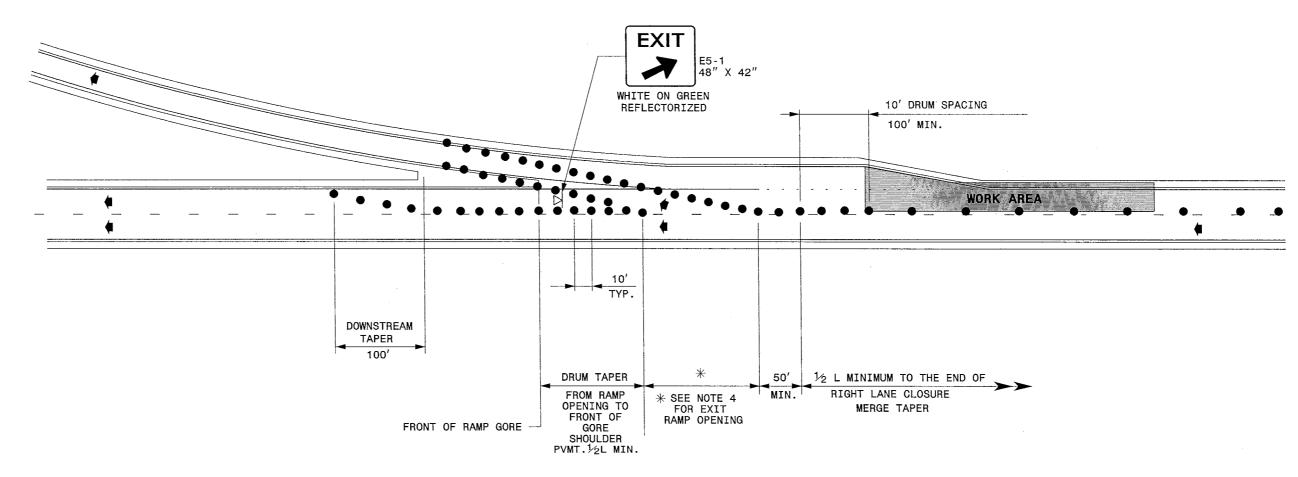


# TYPICAL RIGHT LANE CLOSURE THROUGH VICINITY OF EXIT RAMP

NONE	510M
DEC. 2009	
BY: KLW	# C
N BY: BLW	2.15/1
VED BY: DI IM	778



PROJECT REFERENCE NO. SHEET NO. B-4700A0 TCP-8



### **GENERAL NOTES**

- 1-USE THE ABOVE DETAILS IN CONJUNCTION WITH A RIGHT LANE CLOSURE AS SHOWN ON SHEET TCP-4.
- 2-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.
- 3-USE THE ABOVE DETAIL FOR LANE CLOSURES ALONG US 74/76 FOR THE FOLLOWING SITUATION:

BRIDGE NO. 30: US 74/76 WB RAMP TO US 76

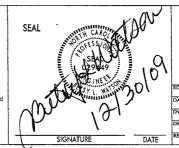
# 4- USE EXISTING RAMP OPENING LENGTH WHERE POSSIBLE. USE NO LESS THAN  $1\!\!\!/_2$  ORIGINAL LENGTH. IF  $1\!\!\!/_2$  ORIGINAL LENGTH CANNOT BE OBTAINED, CONTACT THE WORK ZONE TRAFFIC CONTROL UNIT FOR FURTHER GUIDANCE.



## **LEGEND** TRUCK MOUNTED IMPACT ATTENUATOR

- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW





### TYPICAL RIGHT LANE CLOSURE THROUGH VICINITY OF EXIT RAMP

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**REVISIONS**