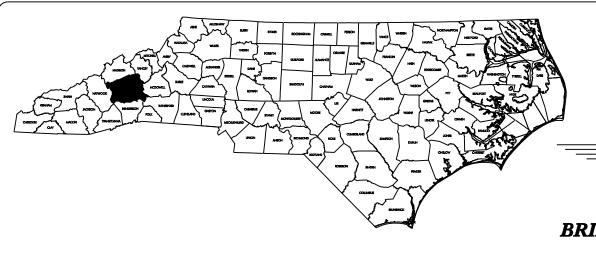
# TIP PROJECT: B-4700X

# NTRACT NC

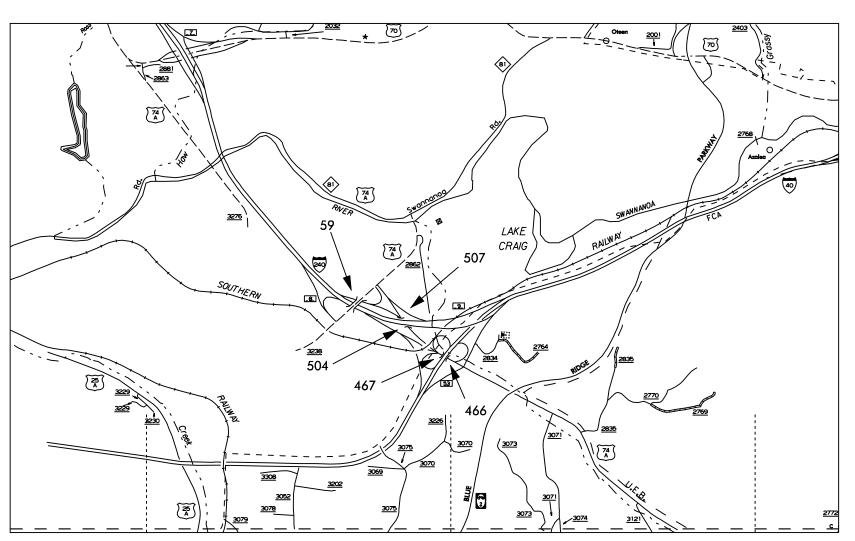


# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

BUNCOMBE	COUNTY
DUNGUMBE	COUNT

STATE	STATE PROJECT REFERENCE NO.		SHEET	TOTAL SHEETS
N.C.	В	3-4700X	1	1
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	TION
36	727.1.1	BRNHS-000S(504)	P.E.	
367	27.3.23	BRNHS-000S(370)	CON	ST

LOCATION: US 74A, I 240, I 40, ACROSS I 240, I 40
TYPE OF WORK: BRIDGE PRESERVATION: CLEANING
AND PAINTING OF EXISTING
BRIDGES #59, #504, #507, #467 & #466 IN BUNCOMBE COUNTY.





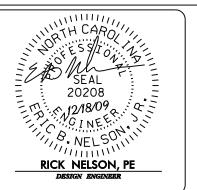


DESIGN DATA

PROJECT LENGTH

LENGTH STRUCTURE PROJECT = 0.50 MILE

Prepared in t	
NORTH CAROLINA DEPARTM	MENT OF TRANSPORTATION
2006 STANDARD SPECIFICATIONS	
LETTING DATE:	
JANUARY 21, 2010	DAN HOLDERMAN, PE
	STATE BRIDGE MANAGEMENT ENGINEER



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# PLAN FOR PROPOSED TRAFFIC CONTROL

# **BUNCOMBE COUNTY**

LOCATION: BRIDGE NO.S 59, 504, 507, 467, AND 466.

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
1150.01	FLAGGING DEVICES
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 TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF ENTRANCE RAMPS
TCP-5	DETAIL FOR TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF EXIT RAMPS
TCP-6	DETAIL FOR TREATMENT OF RIGHT LANE CLOSURES IN THE VICINITY OF ENTRANCE RAMPS WITH STOP CONDITION
TCP-7	BRIDGES 466 & 467 DETAIL SHEET FOR RIGHT LANE CLOSURE
TCP-8	BRIDGES 504 & 507 DETAIL SHEET FOR RIGHT LANE CLOSURE
TCP-9	BRIDGES 504 & 507 DETOUR ROUTE FOR RAMP CLOSURE
TCP-10	BRIDGE 59 DETAIL SHEET FOR RIGHT LANE CLOSURE
TCP-11	BRIDGE 59 DETOUR ROUTE FOR LOOP CLOSURE

### **LEGEND**

### GENERAL

◆ DIRECTION OF TRAFFIC FLOW

STATE PROJECT REFERENCE NO.

B-4700X

SHEET NO

TCP-1

NORTH ARROW



WORK AREA

### TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

▲ CONE

DRUM
SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

— — — PORTABLE CONCRETE BARRIER

TEMPORARY CRASH CUSHION

\_\_\_

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

POLICE

\_\_\_ FLAGGER

PPROVED: SILVI LUATOR PLAN PREPARED BY:



Stantec Consulting Services Inc. Suite 300, 801 Jones Franklin Road Rateigh, NC 27608 Tel. 919.851.6866 Fax. 919.851.7024

BETSY L. WATSON, PE

TRAFFIC CONTROL ENGINEER
TRANSPORTATION DESIGNER

|2/2/2009 |W.Traffic\TrafficControl\B-4700X Buncombe\TC |kwleskamn

5008

KELLIE L. WIESKAMP, EI

PROJECT REFERENCE NO.	SHEET NO.
B-4700X	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

6:00 A.M.-7:00 P.M. MONDAY THRU SUNDAY

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

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 2 MILES OF LANE CLOSURE ON I-240 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- I) DO NOT INSTALL MORE THAN 1 SIMULTANEOUS LANE CLOSURE IN ANY ONE DIRECTION ON I-240 OR US 74A.

### TRAFFIC PATTERN ALTERATIONS

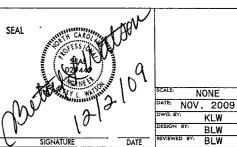
J) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

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

### **MISCELLANEOUS**

- L) DO NOT PERFORM WORK FROM THE ROADWAY ON TOP OF THE STRUCTURE.
- M) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.
- N) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA/INTERSECTIONS, AS DIRECTED BY THE ENGINEER.





PROJECT NOTES **GENERAL NOTES** 

NONE

KLW

BLW

REVISIONS

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 #507 AND #504, USE TEMPORARY LANE CLOSURES ON I-240 TO PERFORM THE WORK ACCORDING TO SHEET TCP-8. REFER TO SHEET TCP-9 FOR DETOUR ROUTE FOR CLOSURE OF FAIRVIEW RD. OFF-RAMP DURING RIGHT LANE

WHEN WORKING ON BRIDGES #466 AND #467, USE TEMPORARY LANE CLOSURES ON I-240/US 74 TO PERFORM THE WORK ACCORDING TO SHEET TCP-7.

MAINTAIN ALL LOOPS AT BRIDGES #466 AND #467. IN THE EVENT THE WORK AREA ENCROACHES INTO AN EXIT LOOP DECELERATION TAPER FOR THE I-40 W ON-LOOP, USE SHEET TCP-5 TO MAINTAIN EXIT LOOP TRAFFIC.

WHEN WORKING ON BRIDGE #59, USE TEMPORARY LANE CLOSURES ON I-240 TO PERFORM THE WORK ACCORDING TO SHEET TCP-10. REFER TO SHEET TCP-11 FOR DETOUR ROUTE FOR CLOSURE OF FAIRVIEW RD. ON-LOOP DURING RIGHT LANE CLOSURES.

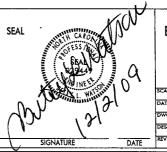
WHEN RIGHT LANE CLOSURES ENCROACH THROUGH THE VICINITY OF AN ENTRANCE RAMP UPSTEAM OF THE WORK AREA AT BRIDGE #59, USE SHEET TCP-4 IN CONJUNCTION WITH A RIGHT LANE CLOSURE AS SHOWN ON RSD 1101.02 SHEET 3 OF 9.

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.

STEP 2:

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





### BUNCOMBE COUNTY BRIDGE PAINTING VICINITY MAP TRAFFIC CONTROL PHASING

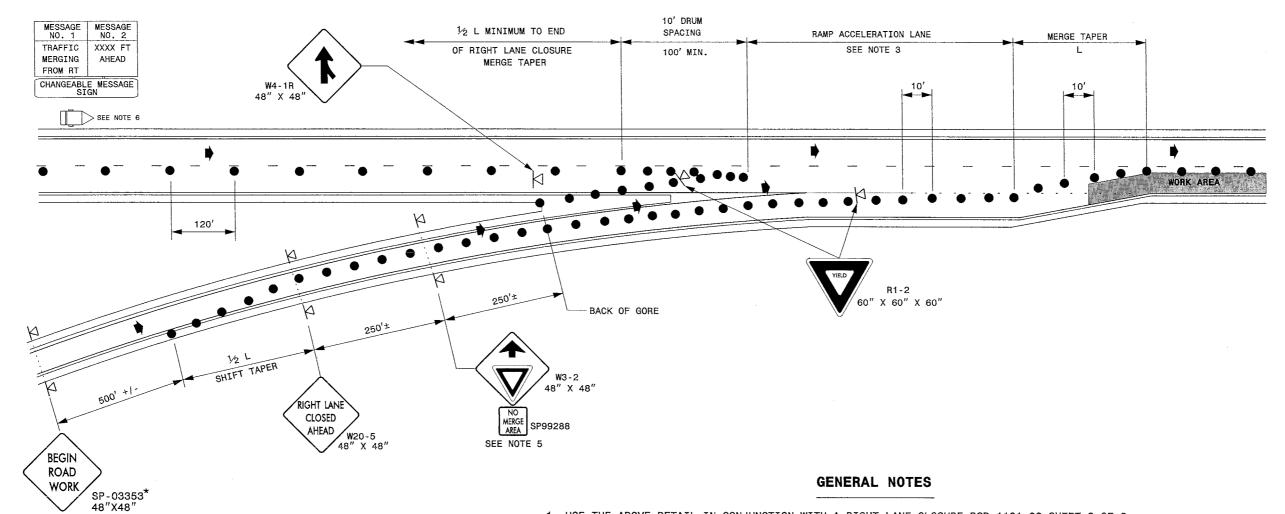
PROJECT REFERENCE NO. B-4700X

TCP-3

NONE DATE: NOV. 2009 DWG, BY: KLW BLW REVIEWED BY: BLW



REVISIONS



- 1- USE THE ABOVE DETAIL IN CONJUNCTION WITH A RIGHT LANE CLOSURE RSD 1101.02 SHEET 3 OF 9.
- 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 RSD 1101.02 SHEET 3 OF 9.
- 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 I-240 FOR THE FOLLOWING SITUATION:

BRIDGE NO. 59, I-240 EB ON-RAMP FROM US 74A FAIRVIEW RD.



CHANGEABLE MESSAGE SIGN (CMS)

- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW



RIGHT LANE CLOSURES THROUGH ENTRANCE RAMPS

SCALE: NONE

DATE: NOV 2009

DWG, BY: KLW

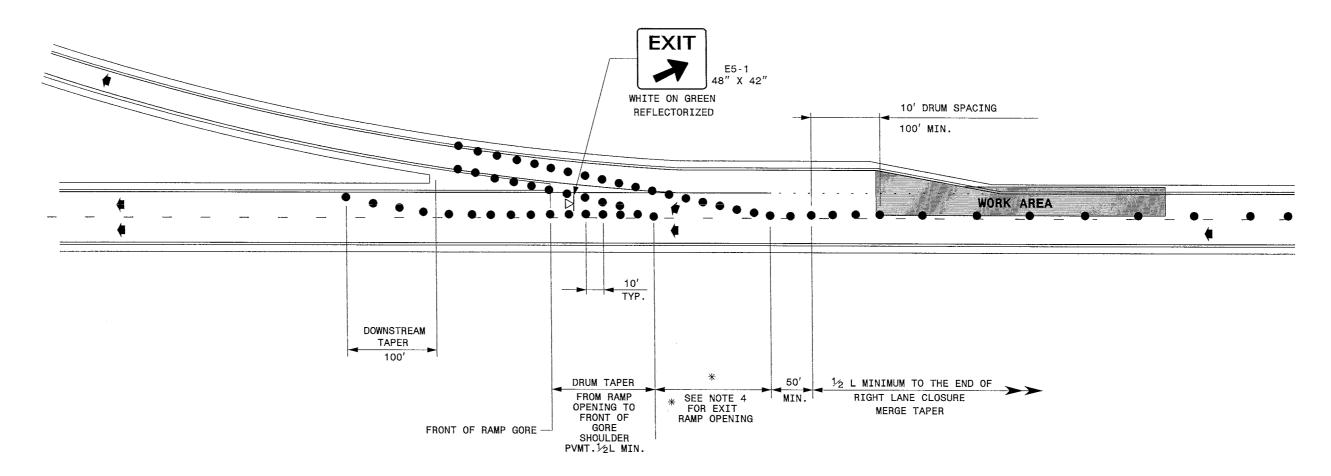
DESIGN BY: BLW

REVIEWED BY: BLW

REVISIONS

CADD FILE

Unitraffic/TrafficControl/B-4700X Buncombe/ICP/Plan Sheets/ kwieskamp



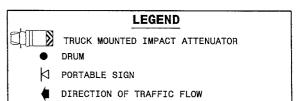
### **GENERAL NOTES**

- 1- USE THE ABOVE DETAILS IN CONJUNCTION WITH A RIGHT LANE CLOSURE AS SHOWN ON RSD 1101.02 SHEET 3 OF 9.
- 2- MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.
- 3- USE THE ABOVE DETAIL FOR LANE CLOSURES ALONG I-240 FOR THE FOLLOWING SITUATIONS:

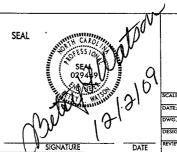
BRIDGE NO. 466: I-240 W/US 74A W TO I-40 W LOOP BRIDGE NO. 467: I-240 W/US 74A W TO I-40 W LOOP

THIS DETAIL MAY NOT BE NECESSARY DEPENDING ON SIZE OF BRIDGE PAINTING STAGING AREA. CONSULT THE ENGINEER FOR GUIDANCE IF NEEDED.

\*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.







## RIGHT LANE CLOSURE THROUGH EXIT RAMP

DATE NONE
DATE: NOV. 2009
DWG. BY: KLW
DESIGN BY: BLW
REVIEWED BY: BLW



REVISIONS

U:\Traffic\Traffic\Control\B-4/00X Buncombe\ICP\Fian Sneets\B-4/00A.tv kwieskamp

