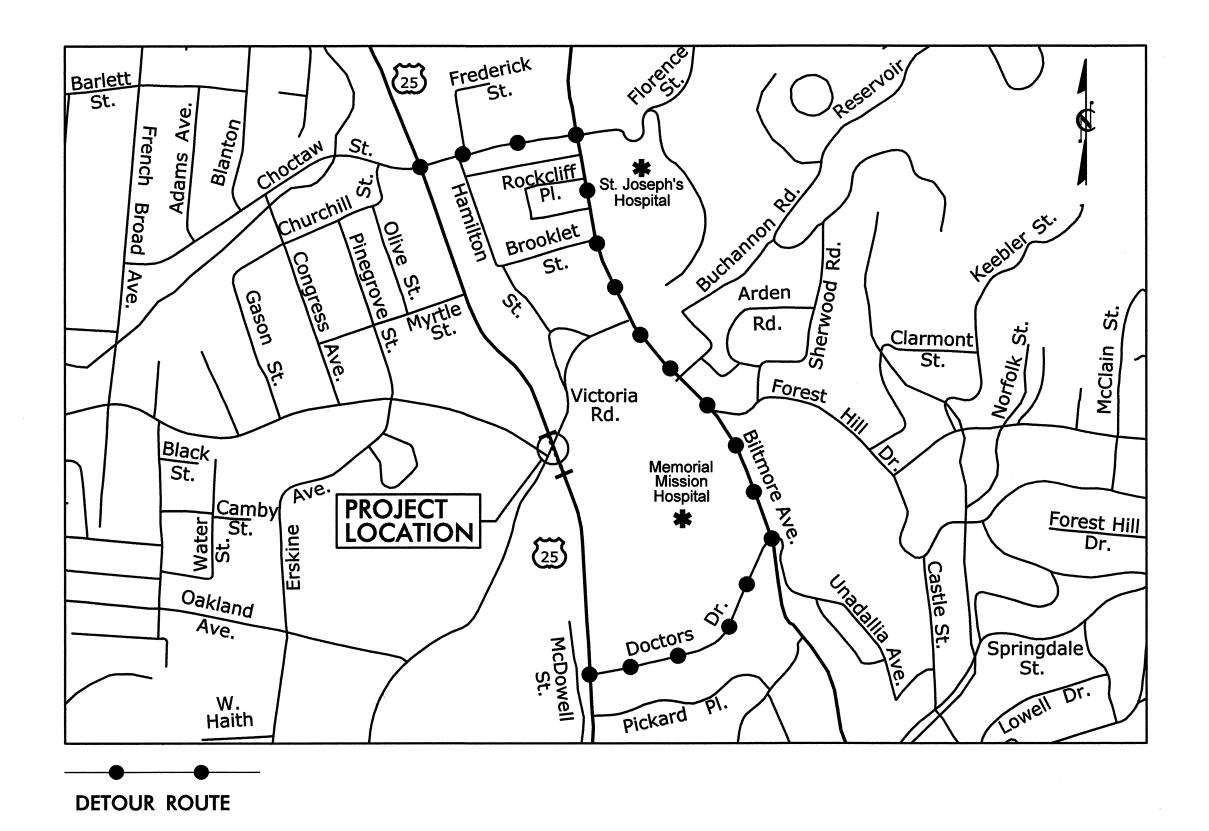
TRANSPORTATION MANAGEMENT PLAN

BUNCOMBE COUNTY



LOCATION: TUNNEL ON US 25 (MCDOWELL ST.) UNDER VICTORIA ROAD



WORK ZONE SAFETY & MOBILITY
"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

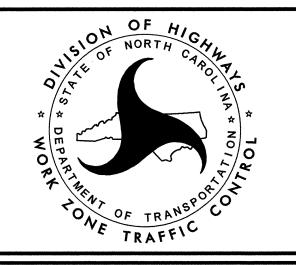
J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER

LAWRENCE GETTIER, P.E. PROJECT MANAGER

JESSE GILSTRAP

____ TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER



INDEX OF SHEETS

ROADWAY STANDARD DRAWINGS & LEGEND

SHEET NO.

TMP-1C

TITLE

TMP-1 TITLE SHEET AND INDEX OF SHEETS

TMP-1B GENERAL NOTES

PHASING

TMP-2 US 25 (MCDOWELL ST.) TYPICAL SECTIONS

TMP-3 US 25 (MCDOWELL ST.) OFF-SITE DETOUR SIGNING

PLAN PREPARED BY:



HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F—0116

D. WAINWRIGHT, P.E. PROJECT MANAGER

MICHELLE WARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER

MICHELLE WARD, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER

W. WEATHERLY, E.I. TRAFFIC CONTROL DESIGN ENGINEER



TMP-1

7-4014

ROIECT:

USER: sweather DATE: 8/28/2012 FILE: North Carolina_Dept_of_Transportation

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	DRUMS
1135.01	CONES
1145.01	BARRICADES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY-DRUM

PROJ. REFERENCE NO. SHEET NO. U-4014

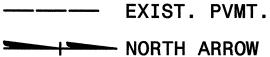
LEGEND

<u>GENERAL</u>

DIRECTION OF TRAFFIC FLOW



DIRECTION OF PEDESTRIAN TRAFFIC FLOW



----- PROPOSED PVMT.



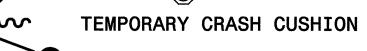
WORK AREA

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)



DRUM SKINNY DRUM O TUBULAR MARKER







LAW ENFORCEMENT



TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)



CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

─ STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

SIGNALS







PAVEMENT MARKINGS

EXISTING LINES ----TEMPORARY LINES

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

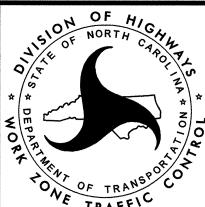


PAVEMENT MARKING SYMBOLS



PAVEMENT MARKING SYMBOLS





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. MODIFICATIONS 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 PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR AS DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAMES

DAY & TIME RESTRICTIONS

US 25 (MCDOWELL ST.)

MONDAY-SUNDAY: 7:00 AM TO 7:00 PM

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

ROAD NAMES

US 25 (MCDOWELL ST.)

- 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 A.M. DECEMBER 31ST TO 7:00 P.M. JANUARY 2ND. IF NEW YEARS DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OF MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 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 7:00 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 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY AND 7:00 P.M. MONDAY.
- 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9) FOR THE BELE CHERE FESTIVAL HELD THE LAST FULL WEEKEND OF JULY IN DOWNTOWN ASHEVILLE, BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE THE BELE CHERE FESTIVAL UNTIL 7:00 P.M. THE MONDAY AFTER THE BELE CHERE FESTIVAL.
- C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAMES

US 25 (MCDOWELL ST.)

DAY AND TIME RESTRICTIONS

MONDAY-SUNDAY: 7:00AM TO 7:00PM

PROJ. REFERENCE NO.	SHEET NO.
U-4014	TMP-1B
HDR Engineering, I 3733 National Drive, Suite N.C.B.E.L.S. Licens	

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- E) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THEN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- F) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
 - PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION. COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- H) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

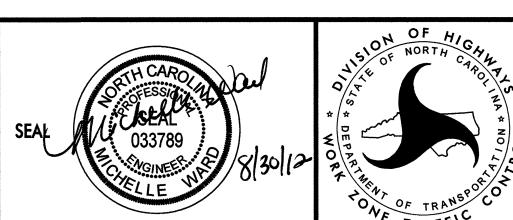
I) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

MISCELLANEOUS

J) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY IS BLOCKED BY CONSTRUCTION ACTIVITIES.

PLACE BARRICADES TO CLOSE SIDEWALK ON THE SIDE THE CONTRACTOR IS WORKING, WITH "SIDEWALK CLOSED" SIGN (R9-9). PEDESTRIAN TRAFFIC MAY CROSS TO OPPOSITE SIDE OF US 25 (MCDOWELL ST) TO CONTINUE THROUGH TUNNEL, AS DIRECTED BY THE ENGINEER.

K) MAINTAIN ACCESS TO LAW ENFORCEMENT AND EMERGENCY SERVICE PERSONNEL THROUGH TUNNEL AT ALL TIMES.



MAINTAIN ACCESS TO PEDESTRIANS THROUGH TUNNEL AT ALL TIMES.

LANE CLOSURES MAY BE USED FOR DELIVERY OF MATERIALS AND EQUIPMENT, ONLY IF DIRECTED BY THE ENGINEER.

- STEP 1: INSTALL ADVANCE WARNING SIGNS ON US 25 (MCDOWELL ST.) AS REQUIRED IN GENERAL NOTES. (SEE SHEET TMP-1B)
- STEP 2: USING RSD 1101.03, SHEET 1 OF 9, AND SHEETS TMP-2 AND TMP-3, INSTALL ROAD CLOSURE AND DETOUR SIGNS, PLACE TYPE III BARRICADES TO CLOSE US 25 (MCDOWELL ST.) TO THROUGH TRAFFIC AND DETOUR TRAFFIC OFF-SITE.

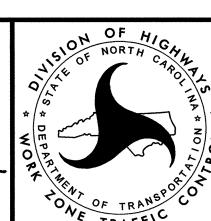
NOTE: INSTALL TYPE III BARRICADES TO CLOSE US 25 AT THE FIRST DRIVEWAY NORTH & SOUTH OF THE TUNNEL TO MAINTAIN ACCESS TO THE PROPERTY.

STEP 3: AWAY FROM TRAFFIC PERFORM ALL CONSTRUCTION ACTIVITIES (STRUCTURE/TUNNEL REPAIRS RETAINING WALLS, VENEER, ETC.) DURING NIGHTLY ROAD CLOSURES.

> NOTE: REMOVE OR COVER OFF-SITE DETOUR SIGNS AND REMOVE BARRICADES AT THE END OF THE WORK PERIOD, AND RETURN TRAFFIC TO THE EXISTING PATTERN.

REPEAT STEPS 2 AND 3 UNTIL ALL CONSTRUCTION IS COMPLETED.

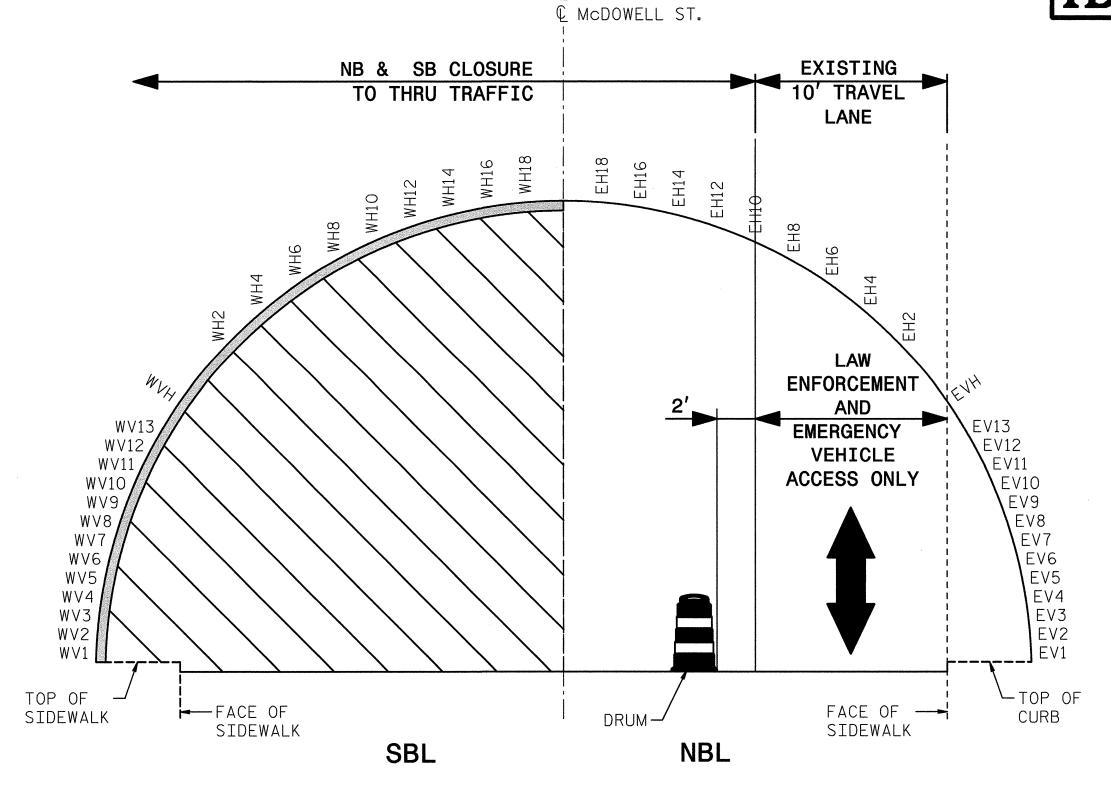
STEP 4: ONCE ALL CONSTRUCTION IS COMPLETE, REMOVE OFF-SITE DETOUR SIGNS AND ALL REMAINING TRAFFIC CONTROL DEVICES.

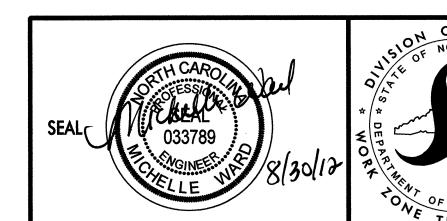


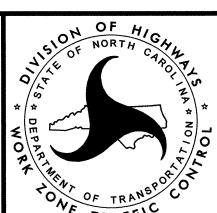
© TUNNEL & © McDOWELL ST. EXISTING 10' TRAVEL NB & SB CLOSURE TO THRU TRAFFIC LANE ENFORCEMENT WV13 WV12 WV11/ WV10/ WV9/ WV8/ WV7/ WV6/ WV5/ WV4/ WV3/ WV2/ EMERGENCY **VEHICLE** ACCESS ONLY WV2 WV1 TOP OF -/ SIDEWALK LTOP OF FACE OF SIDEWALK CURB NBL SBL

TYPICAL 1:

SHEET NO. PROJ. REFERENCE NO. TMP-2 U-4014 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F–0116 € TUNNEL &







REFER TO RSD 1101.03, SHEET 1 OF 9, FOR

ADDITIONAL SIGN AND BARRICADE PLACEMENT.

TYPE III BARRICADE(S) R11-4 60" x 30" (2)

R11-2 48" x 30"

SHEET NO. TMP-3 U-4014 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F–0116

R11-4 60" x 30" (3)TYPE III BARRICADE

DETOUR M4-8 DETOUR | M4-8 24" x 12" 24" x 12" (5)

TYPE III BARRICADE

DETOUR M4-8 24" x 12" M6-3 21" x 15" (6)

ADDITIONAL CMS MESSAGES TO BE DISPLAYED AS DIRECTED BY THE ENGINEER

END DETOUR M4-8 A

MESSAGE MESSAGE NO. 2 NO. ROAD FOLLOW **DETOUR** CLOSED 7PM-7AM ROUTE

CHANGEABLE MESSAGE SIGN

TO BE UTILIZED DURING THE DAY WHEN US 25 WILL BE CLOSED THAT NIGHT

8

MESSAGE MESSAGE NO. 1 NO. 2 TONIGHT US 25 7 PM TO

7 AM

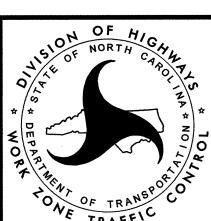
CHANGEABLE MESSAGE SIGN

CLOSE

TO BE UTILIZED DURING THE DAY WHEN US 25 WILL BE CLOSED THAT NIGHT MESSAGE **MESSAGE** NO. 1 NO. 2 US 25 OPEN TO TRAFFIC

CHANGEABLE MESSAGE SIGN

> TO BE SHOWN AT NIGHT WHEN US 25 IS OPEN TO TRAFFIC



US 25 (MCDOWELL ST) OFF-SITE DETOUR SIGNING