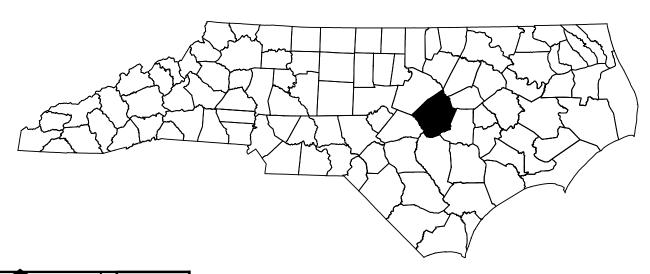
This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

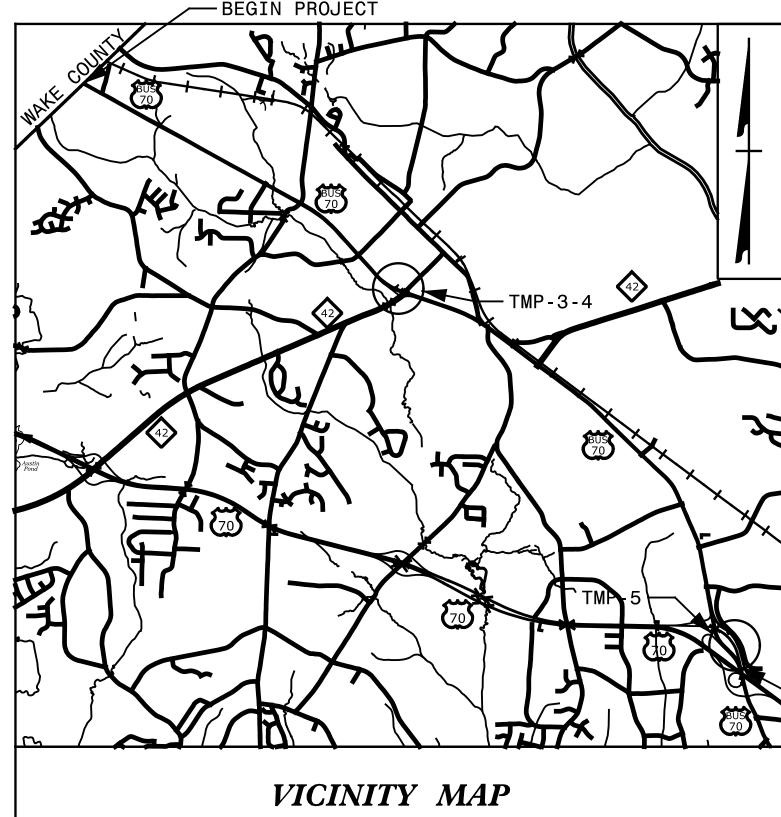
The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.

This file or an individual page shall not be considered a certified document.

TRANSPORTATION MANAGEMENT PLAN

JOHNSTON COUNTY





LOCATION: BUSINESS US 70 FROM WAKEJOHNSTON COUNTY LINE TO BUSINESS US 70/US 70 INTERCHANGE

TYPE OF WORK: MILLING, RESURFACING

-END PROJECT

INDEX OF SHEETS

SHEET NO.

TMP-2

<u>TITLE</u>

SHEET NO.

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

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

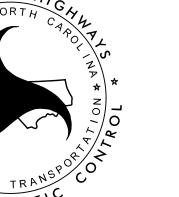
TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT TMP-1B STRATEGIES, GENERAL NOTES, AND PHASING)

SIGN LEGEND

OFF-SITE DETOUR DETAILS

PHASE I TMP-6-12

> DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED**



1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 Fax:919-789-9591 License: C-2197

APPROVED: Steve Miller DATE:______ SEAL

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. E. HUMMER, PHD, P.E. STATE TRAFFIC MANAGEMENT ENGINEER

J. S. KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER

S. B. JENNINGS TRAFFIC CONTROL DESIGN ENGINEER

M. V. SPRINGER, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER

PROJ. REFERENCE NO. SHEET NO. W-5704A W-5704B TMP-1A

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
1101.11	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 - TYPE III
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

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

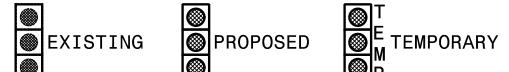
USER DEFINED (IF NEEDED)

USER DEFINED (IF NEEDED)

SIGNALS







PAVEMENT MARKINGS

EXISTING LINES TEMPORARY LINES



PAVEMENT MARKING SYMBOLS

TRAFFIC CONTROL DEVICES

FLASHING ARROW BOARD

LAW ENFORCEMENT

STATIONARY OR PORTABLE SIGN

FLAGGER

TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

◆ YELLOW/YELLOW

BARRICADE (TYPE III)

TEMPORARY CRASH CUSHION

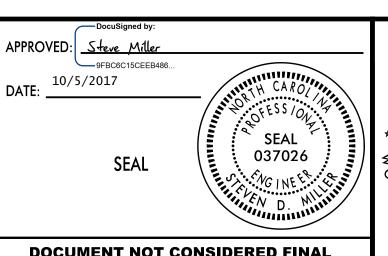
TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

DRUM SKINNY DRUM O TUBULAR MARKER

PAVEMENT MARKING SYMBOLS

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977





ROADWAY STANDARD DRAWINGS & LEGEND

ENGINEERING & Fax:919-789-9591
CONSTRUCTION License: C-2197

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MANAGEMENT STRATEGIES

- LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES WILL BE MAINTAINED BETWEEN CLOSURE POINTS AT ALL TIMES DURING CONSTRUCTION

- PROVIDE ONE MONTH NOTICE TO THE ENGINEER, JOHNSTON COUNTY EMERGENCY SERVICES, AND JOHNSTON COUNTY SCHOOL OFFICIALS PRIOR TO RAMP CLOSURE

- ONE OFF-SITE DETOUR MAY BE IN OPERATION AT A GIVEN TIME

PHASING

STEP 1: USING ROADWAY STANDARD DRAWING (RSD) 1101.01 SHEETS 1 AND 2 OF 3, INSTALL ADVANCE WORK ZONE WARNING SIGNS ON BUS US

STEP 2: USING RSD 1101.02 SHEETS 1 AND 3 OF 15, COMPLETE PAVEMENT REHABILITATION OPERATIONS FOR THE ESTABLISHED WORK AREA.

MILL AND PAVE BACK THE SAME DAY.

TO CONSTRUCT MEDIAN IMPROVEMENTS, CLOSE THE ACCESS POINT

AND PLACE DEVICES AS SHOWN ON TMP-6 THROUGH TMP-12. DO NOT CLOSE TWO ADJACENT ACCESS POINTS.

SEE TMP-2 THROUGH TMP-5 FOR RAMP CLOSURE DETAILS.

STEP 3: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

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:

ROAD NAME US 70 US BUS 70 DAY AND TIME RESTRICTIONS

MONDAY TO SUNDAY

6:00 A.M. TO 8:30 P.M.

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

ROAD NAME US 70 BUS US 70

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 8:30 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:30 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 8:30 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 8:30 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:30 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 8:30 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:30 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 8:30 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:30 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME
US BUS 70 RAMPS & LOOPS
AT US 70, NC 42, MAP #3,
AND MAP #4

DAY AND TIME RESTRICTIONS
MONDAY TO SUNDAY
6:00 A.M. TO 10:00 P.M.

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 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.
- 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.

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 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER ONE MONTH PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- L) INSTALL ADVANCE WORK ZONE WARNING SIGNS NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- M) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING 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.

N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

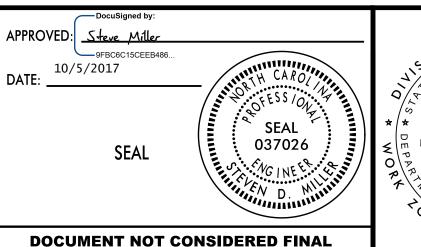
COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

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

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 Fax:919-789-9591 License: C-2197



UNLESS ALL SIGNATURES COMPLETED

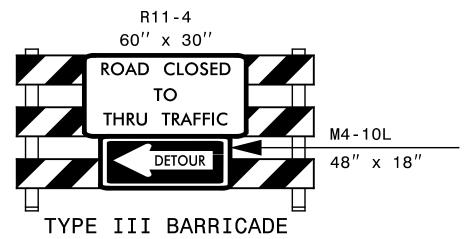


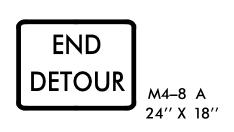
TRANSPORTATION
OPERATIONS
PLAN

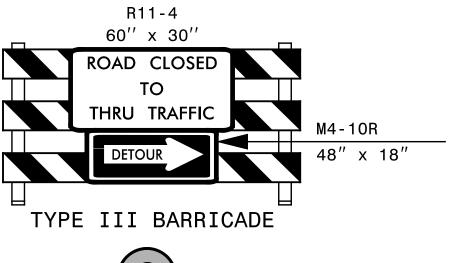
PROJ. REFERENCE NO. SHEET NO.

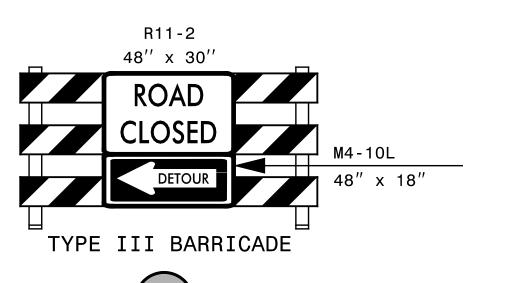
N-5704A W-5704B TMP-1B

PROJ. REFERENCE NO. SHEET NO. W-5704A W-5704B TMP-2





















ROAD

CLOSED



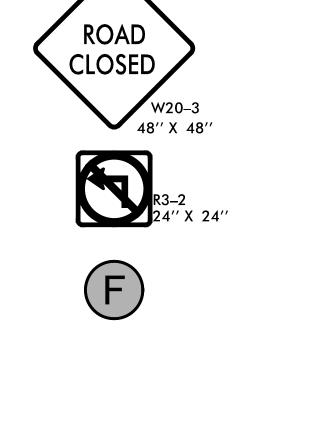






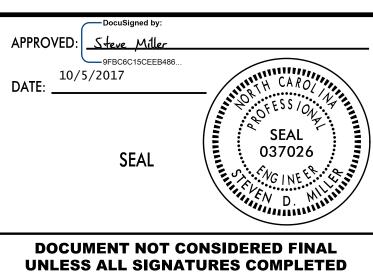














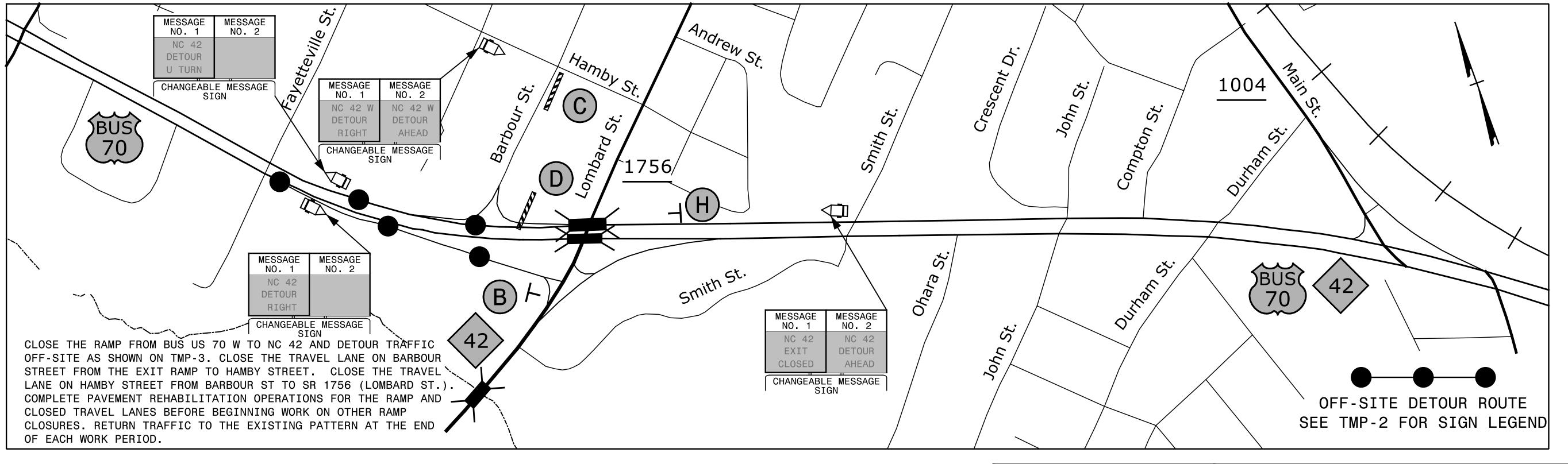
SIGN LEGEND

TMP-3

OFF-SITE

DETOUR

DETAIL



APPROVED: Steve Miller

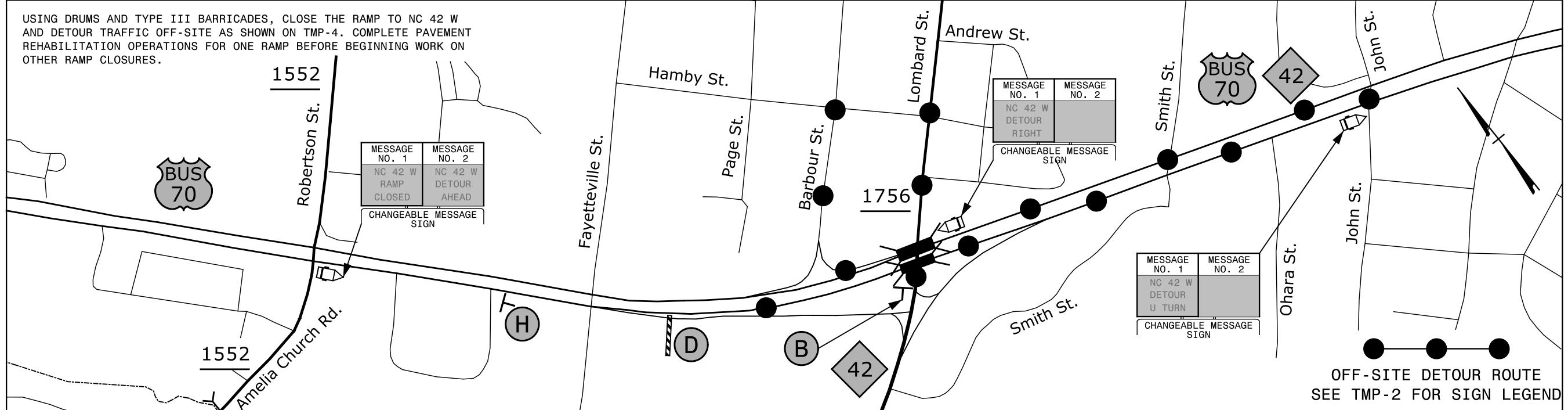
1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977

ENGINEERING & Fax:919-789-9591
CONSTRUCTION License: C-2197

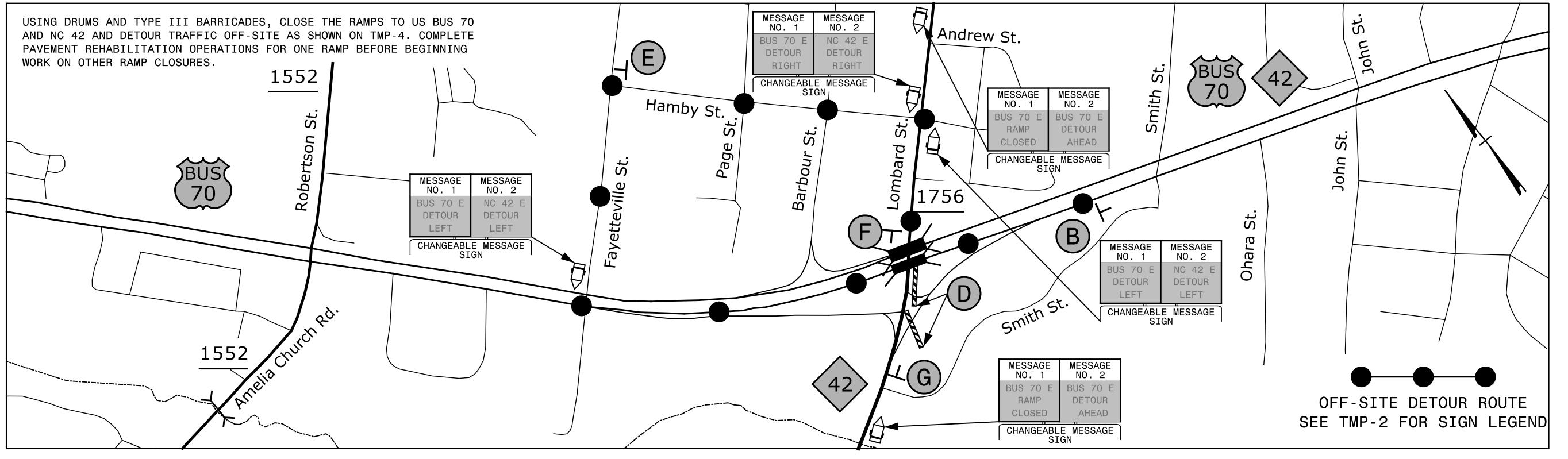
10/5/2017

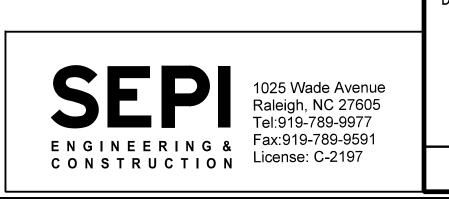
SEAL

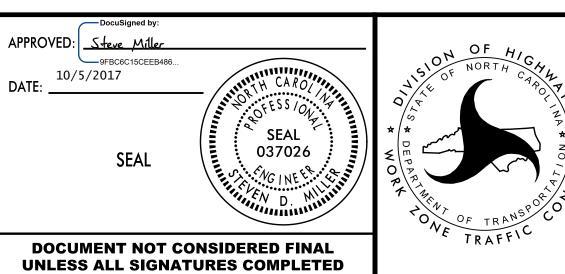
DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED**



BUS 70 E/NC 42 E

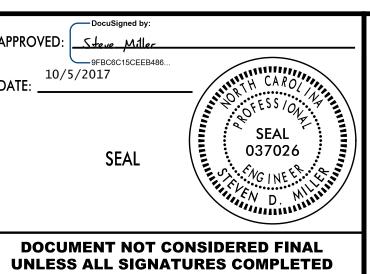






OFF-SITE DETOUR DETAIL

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 Fax:919-789-9591 License: C-2197



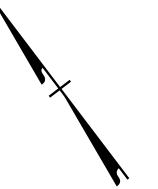
DETOUR DETAIL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

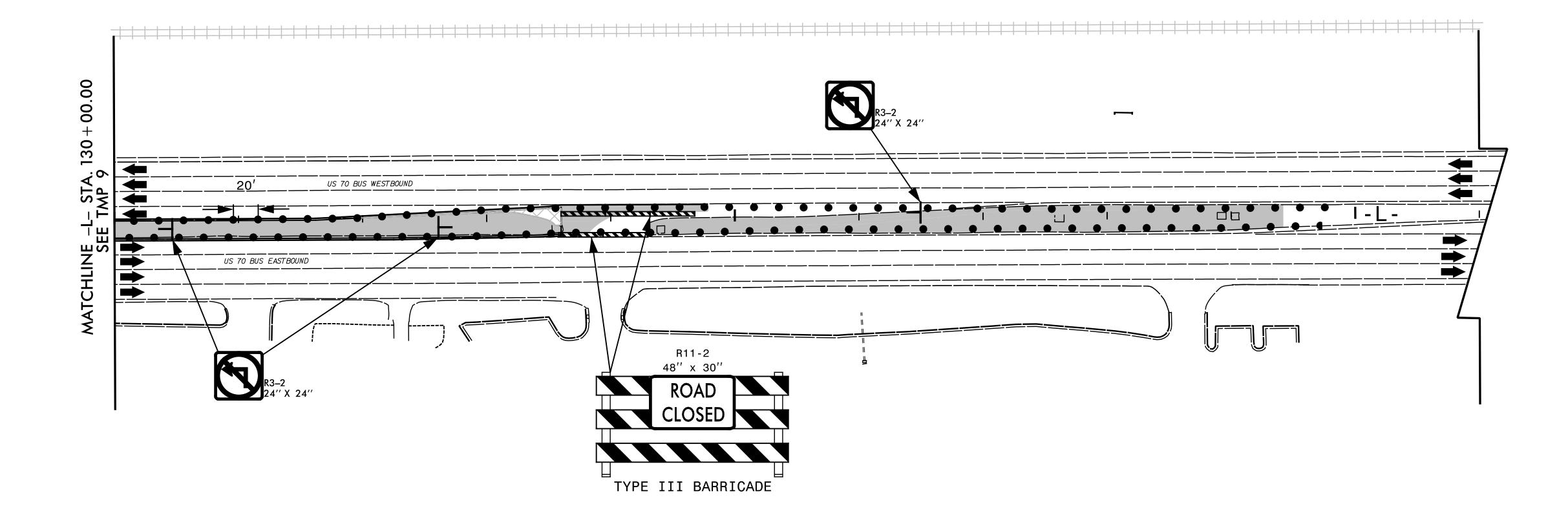
DocuSign Envelope ID: BAD9AFB6-F44A-4AF1-997C-8FE66E6AA3F5

PROJ. REFERENCE NO. SHEET NO. W-5704A W-5704B TMP-10

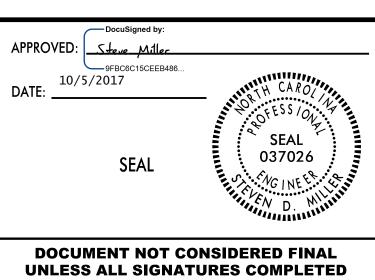


20

)) 3



1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197



PHASE I

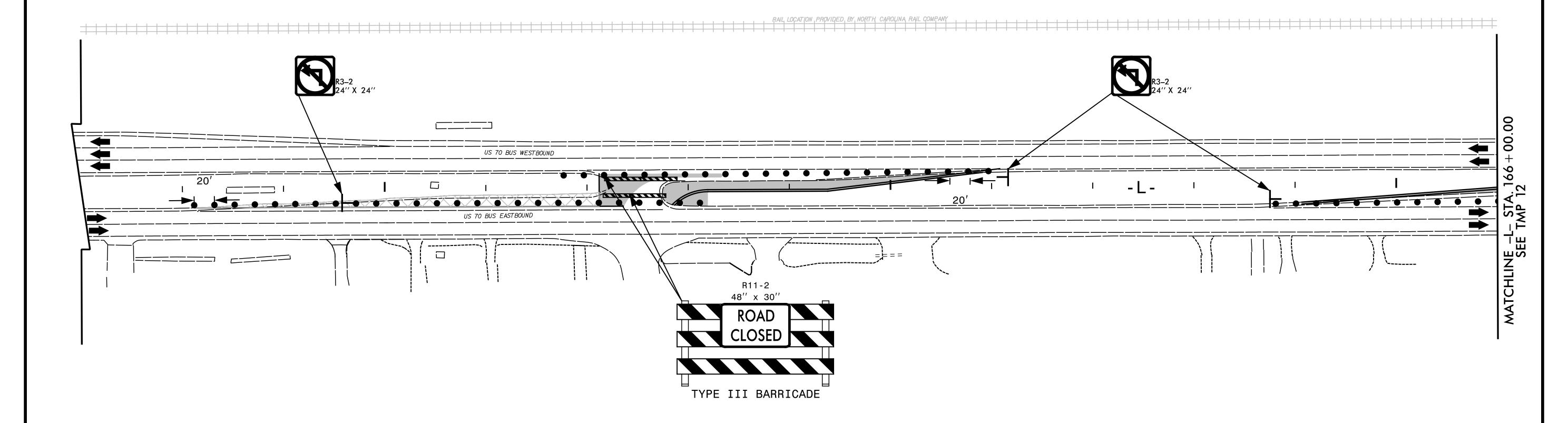
DocuSign Envelope ID: BAD9AFB6-F44A-4AF1-997C-8FE66E6AA3F5

PROJ. REFERENCE NO. SHEET NO. W-5704A W-5704B TMP-11



) 1 *9*

6



1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 ENGINEERING & CONSTRUCTION Fax:919-789-9591 License: C-2197 APPROVED:

Steve Miler

9FBC6C15CEEB486...

DATE:

SEAL

037026

SEAL

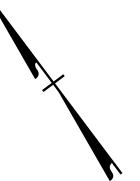
037026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

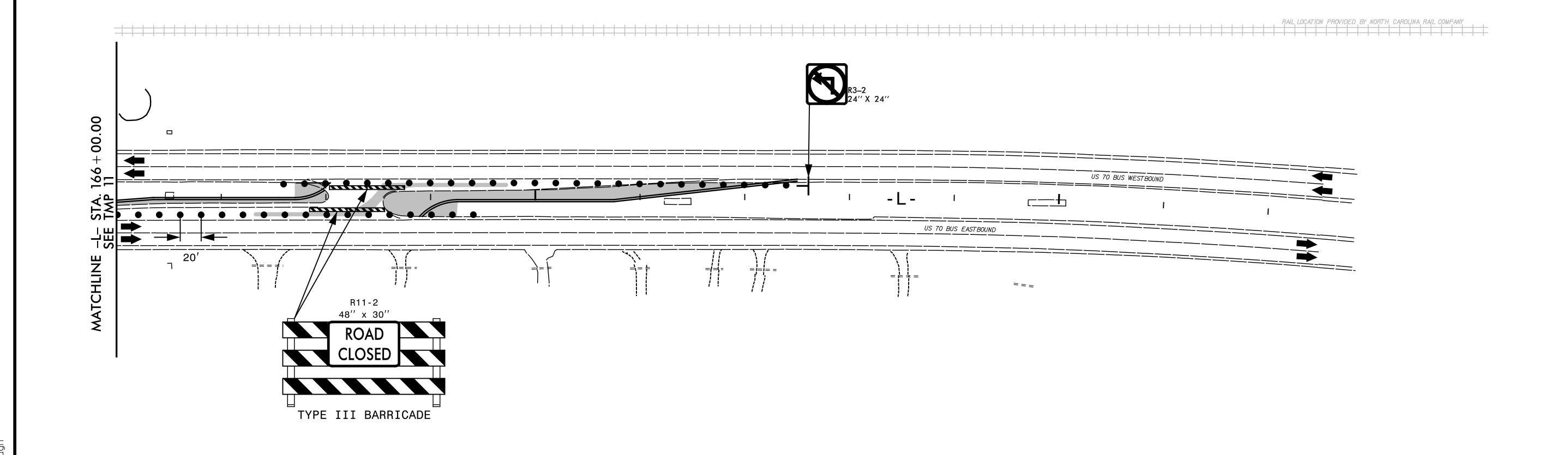
PHASE I

DocuSign Envelope ID: BAD9AFB6-F44A-4AF1-997C-8FE66E6AA3F5

PROJ. REFERENCE NO. SHEET NO. W-5704A W-5704B TMP-12



75



1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

APPROVED:

Steve Miller

9FBC6C15CEEB486...

10/5/2017

DATE:

SEAL

SEAL

037026

SEAL

037026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CARPOLLAR ANSPOLLAR TRAFFIC

PHASE I