

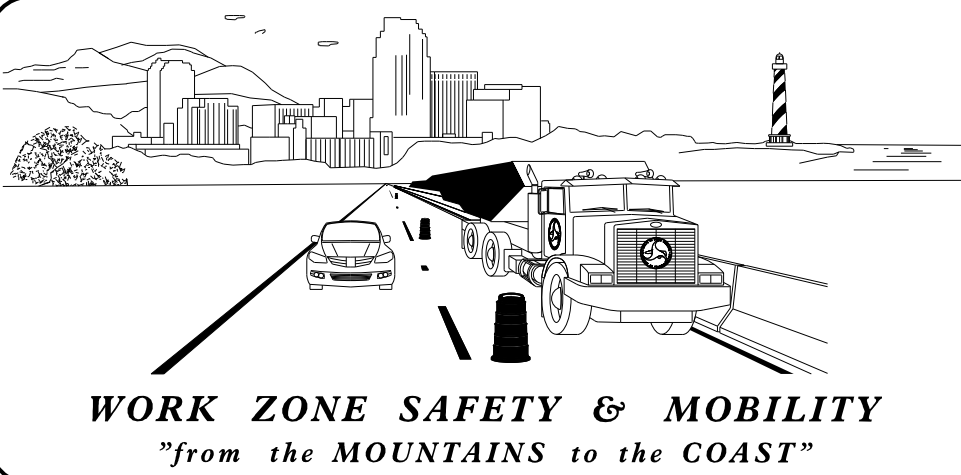
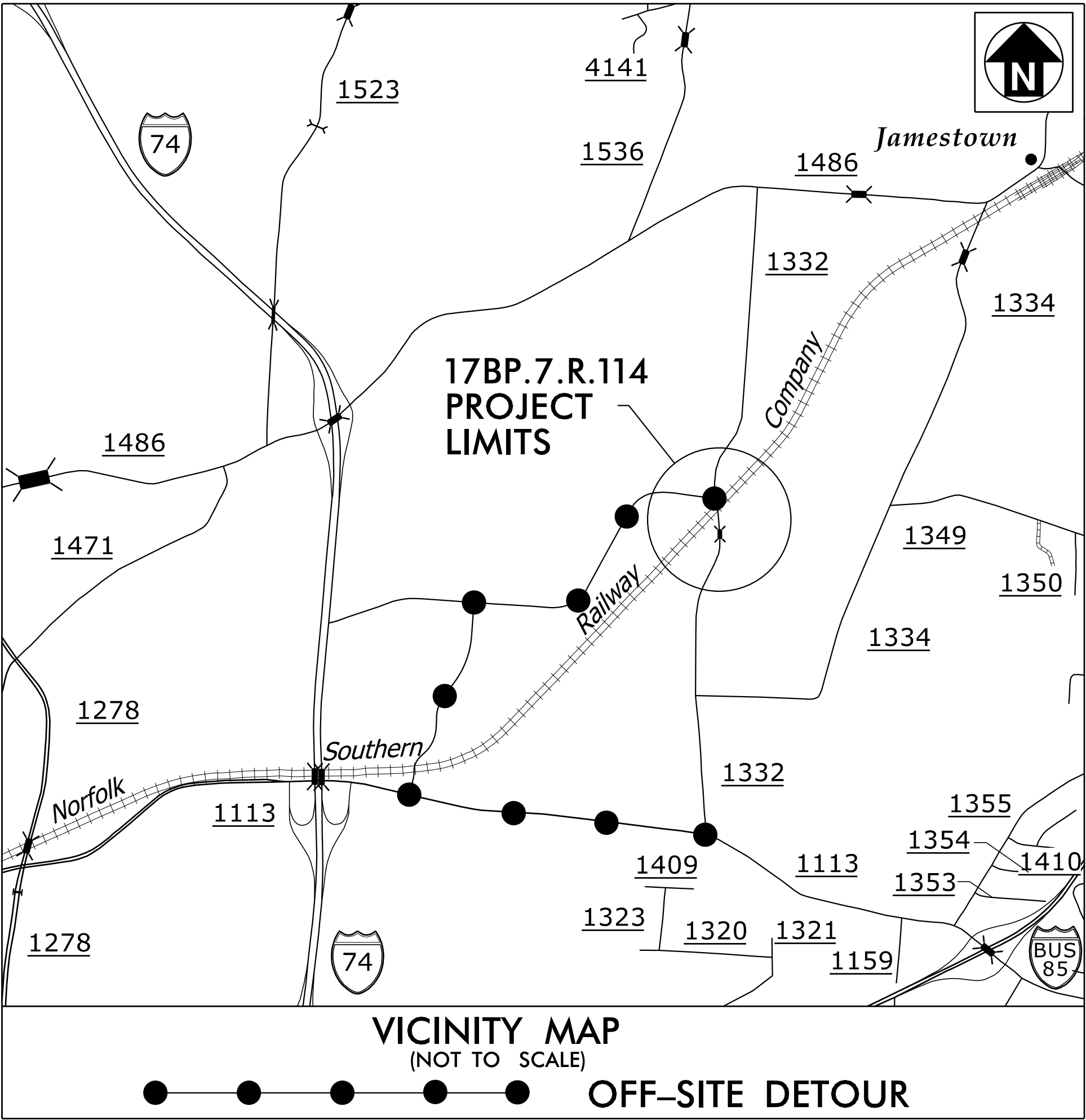
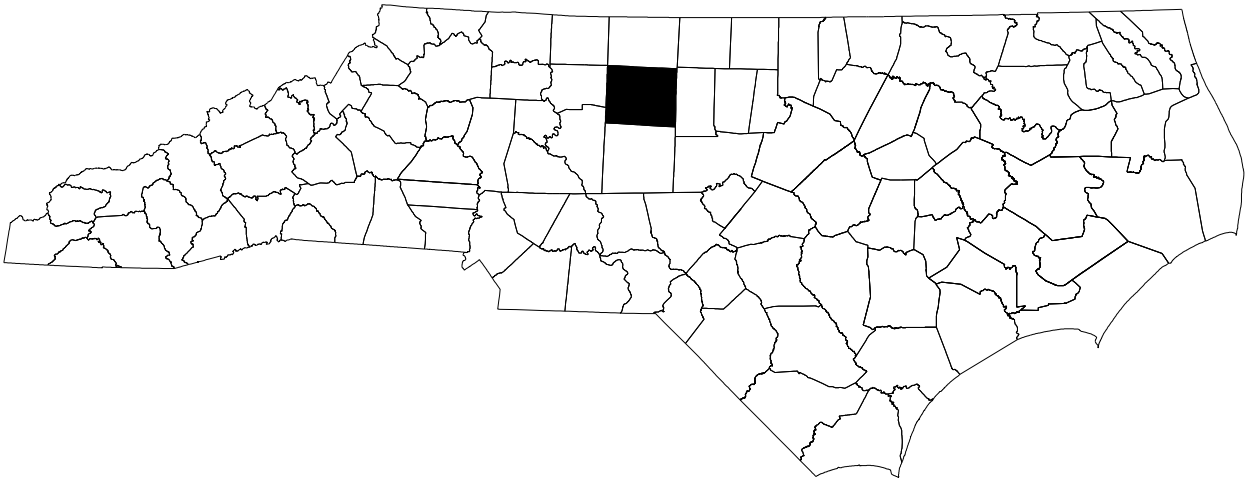
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\$\$\$\$DATE\$\$\$\$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

GUILFORD COUNTY



PREPARED IN THE OFFICE OF MOTT MACDONALD
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

TIM JORDAN, PE TRAFFIC CONTROL PROJECT ENGINEER

PADDY JORDAN TRAFFIC CONTROL DESIGN TECHNICIAN

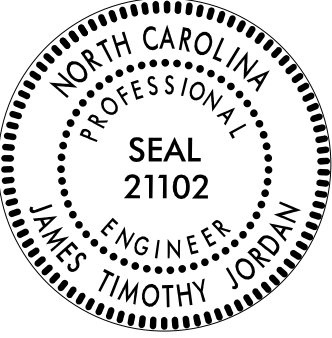
INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND PAVEMENT MARKING SCHEDULE
TMP-1B	GENERAL NOTES
TMP-2	TEMPORARY SHORING NOTES
TMP-2A	PAVEMENT MARKING - LINE TYPES AND OFFSETS DETAIL
TMP-2B	PAVEMENT MARKING - RAILROAD CROSSING DETAIL
TMP-3	TEMPORARY TRAFFIC CONTROL - WRITTEN PHASING
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TMP-7	ROAD CLOSURE SIGNING
TMP-8	SPECIAL SIGN DESIGN

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: James Timothy Jordan
DATE: 03-JUN-2026

SEAL



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SHEET NO.

TMP-1

17BP.7.R.114

PROJECT:

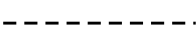
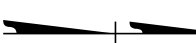
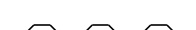
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE 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
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSING
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1266.01	RAISED PAVEMENT MARKERS - TUBULAR MARKERS

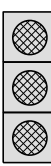
LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)

-  WORK AREA
-  REMOVAL
-  PAVEMENT OVERLAY

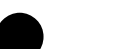
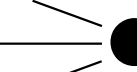
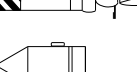
SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY

PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM
-  SKINNY DRUM
-  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 MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

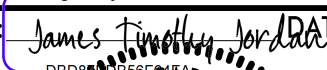
-    
- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING SCHEDULE

DESCRIPTION	QUANTITY
P1 PAINT WHITE EDGETLINE (4")	2,817 LF
P5 PAINT 2 FT.-6 FT./SP WHITE MINISKIP (4")	29 LF
P10 PAINT YELLOW EDGETLINE (4")	100 LF
P13 PAINT YELLOW DOUBLE CENTER (4")	1,750 LF
P42 PAINT YELLOW DIAGONAL (8")	100 LF
P60 PAINT WHITE LINE, RAILROAD CROSSING (16")	45 LF
P61 PAINT WHITE STOPBAR (24")	70 LF
P100 PAINT ALPHANUMERIC CHARACTER	2 EA

FINAL PAVEMENT MARKING SCHEDULE

DESCRIPTION	QUANTITY
T1 THERMOPLASTIC WHITE EDGETLINE (4")	2,817 LF
T5 THERMOPLASTIC 2 FT.-6 FT./SP WHITE MINISKIP (4")	50 LF
T10 THERMOPLASTIC YELLOW EDGETLINE (4")	410 LF
T13 THERMOPLASTIC YELLOW DOUBLE CENTER (4")	2,080 LF
T42 THERMOPLASTIC YELLOW DIAGONAL (8")	33 LF
T60 THERMOPLASTIC WHITE LINE, RAILROAD CROSSING (16")	45 LF
T61 THERMOPLASTIC WHITE STOPBAR (24")	104 LF
T100 THERMOPLASTIC ALPHANUMERIC CHARACTER	2 EA

APPROVED:  DATE: 03-Jun-2026



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ROADWAY STANDARD
DRAWINGS, LEGEND
AND PAVEMENT
MARKING SCHEDULE

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PROJ. REFERENCE NO.	SHEET NO.
17BP-7.R.114	TMP -1B

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 UNDESIRE

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	DAY AND TIME RESTRICTIONS
ANY ROAD	MONDAY THRU FRIDAY 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

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

ROAD NAME
ANY ROAD
HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 AM DECEMBER 31ST TO 7:00 PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 7:00 PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 7:00 PM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00 PM THE DAY AFTER INDEPENDENCE DAY.

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

- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 7:00 PM TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY TO 7:00 PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- FOR HIGH POINT MARKET SPRING AND FALL TRADE SHOWS, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE THE SHOW AND 7:00 PM THE DAY AFTER THE SHOW ENDS.

C) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVEL WAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

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 WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, 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 WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, 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 TRAVEL WAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- I) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

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

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) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- O) 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 TRAVEL WAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- P) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

APPROVED

SEAL

James T. Mott, Jr.

Professional Engineer

21102

James T. Mott, Jr.

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UNLESS ALL SIGNATURES COMPLETED

Signed by: James T. Mott, Jr. DATE: 03-Jun-2026

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M

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Raleigh, NC 27606
www.moffmac.com

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GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
17BP.7.R.114	TMP -2

TEMPORARY SHORING NOTES

SHORING LOCATION NO. 1

- 1) FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.
- 2) BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.
- 3) DESIGN TEMPORARY SHORING FROM -L- STATION 14+25.4, 32.6’ LT TO STATION 14+53.7, 35.6’ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 761.6:

UNIT WEIGHT = 110 LB/CF

FRICTION ANGLE = 26 DEGREES

COHESION = 0 LB/SF

BETWEEN ELEVATION 761.6 AND 759.6:

UNIT WEIGHT = 120 LB/CF

FRICTION ANGLE = 30 DEGREES

COHESION = 0 LB/SF

BELOW ELEVATION 759.6:

UNIT WEIGHT = 135 LB/CF

FRICTION ANGLE = 42 DEGREES

COHESION = 0 LB/SF

GROUNDWATER ELEVATION = 765.0 FT
- 4) DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 14+25.4, 32.6’ LT TO STATION 14+53.7, 35.6’ LT WILL NOT PENETRATE BELOW ELEVATION 759.6 FT DUE TO WEATHERED OR HARD ROCK.
- 5) IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L- STATION 14+25.4, 32.6’ LT TO STATION 14+53.7, 35.6’ LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALL PROVISIONS.
- 6) DESIGN TEMPORARY SHORING FROM -L- STATION 14+25.4, 32.6’ LT TO STATION 14+53.7, 35.6’ LT FOR ADDITIONAL LOAD FROM IMPACT TO EXISTING GUARDRAIL IMMEDIATELY BEHIND TEMPORARY SHORING.

SHORING LOCATION NO. 2

- 1) FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.
- 2) BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.
- 3) DESIGN TEMPORARY SHORING FROM -L- STATION 14+15.7, 27.5’ LT TO STATION 14+92.4, 27.5’ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 761.6:

UNIT WEIGHT = 110 LB/CF

FRICTION ANGLE = 26 DEGREES

COHESION = 0 LB/SF

BETWEEN ELEVATION 761.6 AND 759.6:

UNIT WEIGHT = 120 LB/CF

FRICTION ANGLE = 30 DEGREES

COHESION = 0 LB/SF

BELOW ELEVATION 759.6:

UNIT WEIGHT = 135 LB/CF

FRICTION ANGLE = 42 DEGREES

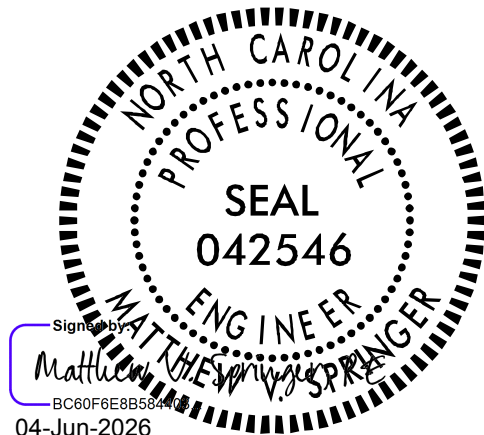
COHESION = 0 LB/SF
- AT THE CONTRACTORS OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STATION 14+15.7, 27.5’ LT TO STATION 14+92.4. 27.5’ LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

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THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE DIVISION PROJECT ENGINEER ON JANUARY 6, 2025 AND SEALED BY A PROFESSIONAL ENGINEER, JEREMY R. HAMM, LICENSE #39779.	M M MOTT MACDONALD 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com	TEMPORARY SHORING NOTES
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PROJECT REFERENCE NO.	SHEET NO.
17BP.7.R.114	TMP-2A

CONTINUOUS LINES EDGE LINE YELLOW OR WHITE 4" / 6" LANE LINE WHITE 4" / 6" CENTER LINE YELLOW 4" / 6" GORE LINE WHITE 8" / 12" DIAGONAL LINE YELLOW OR WHITE 12" 45 MPH OR HIGHER 8" LESS THAN 45 MPH 4"-6" FOR BICYCLE FACILITIES CROSSWALK LINE WHITE 8" TRANSVERSE 24" LONGITUDINAL RxR LINE WHITE 16" STOP OR TRANSVERSE BAR WHITE 24"	10'-30'/SP SKIP LINE UNLESS OTHERWISE SHOWN, USE 10'-30'/SP SKIPS FOR SKIP LANE LINES AND SKIP CENTER LINES. 10' 30' 4" / 6" YELLOW OR WHITE	2'-6'/SP MINI-SKIP LINE UNLESS OTHERWISE SHOWN, USE 2'-6'/SP MINI-SKIPS FOR LANE LINE EXTENSIONS THROUGH INTERSECTIONS, EDGE LINE EXTENSIONS THROUGH INTERSECTIONS AND BICYCLE LANE EXTENSIONS. 2' 6' 4" / 6" YELLOW OR WHITE	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
	3'-3'/SP MINI-SKIP LINE UNLESS OTHERWISE SHOWN, USE 3'-3'/SP MINI-SKIPS FOR THE WHITE EDGE LINE EXTENSIONS AT ROUNDABOUTS. 3' 3' 8" / 12" WHITE	3'-9'/SP MINI-SKIP LINE UNLESS OTHERWISE SHOWN, USE 3'-9'/SP MINI-SKIPS FOR MINI-SKIP LANE LINES, LINE EXTENSIONS THROUGH TAPERS, AND MINI-SKIPS USED FOR BICYCLE LANE LINES. 3' 9' 4" / 6" WHITE	
GENERAL NOTES: 1- USE 6" LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER. 2- LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE. 3- GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.		ROADWAY DETAIL DRAWING FOR PAVEMENT MARKINGS LINE TYPES AND OFFSETS	
		SHEET 1 OF 2 1205D01	



CONTRACTS STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950	FAX 919-250-4119
SEE TITLE BLOCK	
ORIGINAL BY: M.V. SPRINGER DATE: 2-15-24	
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC.: _____	

ADVANCE WARNING SIGN
PLACEMENT DISTANCE

POSTED OR 85 PERCENTILE SPEED (MPH)	"D" (FEET)
20	115**
25	155**
30	200**
35	250**
40	305**
45	360**
50	425**
55	495**
60	570**

* ADVANCE PAVEMENT MARKINGS SHALL NOT BE REQUIRED WHEN THE POSTED OR STATUTORY HIGHWAY SPEED IS LESS THAN 40 MPH OR IN URBAN AREAS IF AN ENGINEERING STUDY INDICATES THAT OTHER INSTALLED DEVICES PROVIDE SUITABLE WARNING AND CONTROL. REFER TO PART 8 OF THE MUTCD FOR ADDITIONAL GUIDANCE.

** THE PLACEMENT LOCATION IS DEPENDENT ON SITE CONDITIONS TO PROVIDE AN ADEQUATE ADVANCE WARNING FOR THE DRIVER. PLACEMENT MAY NEED TO BE ADJUSTED FOR A SIGN LEGIBILITY DISTANCE OF 250 FT.

A PORTION OF THE "X" SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE RAILROAD WARNING SIGN (W10-1).

SEE NOTE 5

"D"

50' MIN.

24" WHITE STOP BAR

10' MIN.

EXTEND YELLOW CENTER LINE AT LEAST 10 FT. PAST THE RAILROAD SYMBOL (OR LONGER AS REQUIRED TO MEET SIGHT DISTANCE REQUIREMENTS).

*** LOCATION IS MEASURED FROM NEAREST POINT WHEN STOP BAR IS SKEWED

STOP BAR LOCATION

15 FEET IN ADVANCE OF THE NEAREST RAIL
OR
8 FEET IN ADVANCE OF GATES, BUT NO CLOSER THAN 15 FEET TO THE NEAREST RAIL.
OR
8 FEET IN ADVANCE OF SIGNALS WITHOUT GATES, BUT NO CLOSER THAN 15 FEET TO THE NEAREST RAIL.

LEGEND

DIRECTION OF TRAFFIC FLOW

PAVEMENT MARKING SYMBOLS

RAILROAD TRACKS

STATIONARY SIGN

GENERAL NOTES:

- IDENTICAL MARKINGS SHALL BE PLACED IN EACH APPROACH LANE ON ALL PAVED APPROACHES TO GRADE CROSSINGS WHERE SIGNALS OR AUTOMATIC GATES ARE LOCATED, AND AT ALL OTHER GRADE CROSSINGS WHERE THE POSTED OR STATUTORY HIGHWAY SPEED IS 40 MPH OR GREATER.
- EXTEND "RXR" SYMBOL MARKINGS 6 INCHES FROM THE EDGE OF PAVEMENT TO 8 INCHES FROM THE CENTER LINE OF THE ROADWAY OR POSITION THE MARKINGS TO ACCOMMODATE FUTURE PLACEMENT OF EDGE LINE AND CENTER LINE PAVEMENT MARKINGS WHERE CENTER LINES OR EDGE LINES DO NOT EXIST.
- POSITION ALL TRANSVERSE BANDS AND STOP BARS PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY.
- CENTER THE "RXR" SYMBOL ACROSS THE ENTIRE ROADWAY FOR ROADWAYS THAT ARE LESS THAN 16 FEET IN WIDTH.
- CENTER AND EDGELINE MARKINGS SHALL EXTEND FROM STOP BAR TO STOP BAR AS INDICATED ABOVE.
- REFER TO ROADWAY STANDARD DRAWING 1205.08 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.
- REFER TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR SIGNING PLANS FOR ADDITIONAL WARNING SIGNS.

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
PAVEMENT MARKINGS
RAILROAD CROSSINGS

SHEET 1 OF 4
1205D11



CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: M.V. SPRINGER DATE: 4-21-26
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

PROJ. REFERENCE NO.	SHEET NO.
17BP.7.R.114	TMP-3

WRITTEN PHASING

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLES OTHERWISE NOTED IN THE PHASING OR AS DIRECTED BY ENGINEER

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT NO PONDING OR WATER WILL OCCURE WITHIN THE TRAVEL LANE

COMPLETE PAVING UP TO, BUT NOT FINAL LAYER OF SURFACE COURSE, UNTIL STATED TO PLACE THE FINAL LAYER IN THE WRITTEN PHASING OR AS DIRECTED BY ENGINEER

PHASE I

STEP 1 USING RSD 1101.01, SHEET 3 OF 3, INSTALL ADVANCE WARNING SIGNS ON -L-, -Y- AND CEDROW DR PRIOR TO BEGINNING ANY WORK

STEP 2 BEHIND GUARDRAIL AND USING TEMPORARY SHORING AS NEEDED, CONSTRUCT PROPOSED CULVERT

- USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NEEDED, CONSTRUCT THE FOLLOWING (TMP-4):
- * -L- FROM STA 13+00+/- TO STA 16+50+/- USING TEMPORARY SHORING LOCATION 1 TO MAINTAIN EXISTING TRAFFIC AS NEEDED AND TEMPORARY SHORING LOCATION 2 TO MAINTAIN PROPOSED ROADWAY FOR PHASE III TRAFFIC PATTERN
 - * -L- FROM STA 20+45+/- TO STA 22+00+/- INCLUDING PROPOSED TIE TO CEDROM DR

PHASE II

STEP 1 USING RSD 1101.03, SHEETS 1 AND 2 OF 9, AND TMP-7, PLACE AND COVER ROAD CLOSURE SIGNS AND DETOUR SIGNING

USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 20+45+/- TO STA 22+00+/- AS SHOWN ON TMP-5

NOTE: COMPLETE THE WORK DESCRIBED IN PHASE II, STEP 2 THRU PHASE II, STEP 4 IN 45 CONSECUTIVE CALENDAR DAYS. (SEE INTERMEDIATE CONTRACT TIMES)

STEP 2 USING RSD 1101.03, SHEETS 1 AND 2 OF 9, TMP-5, AND TMP-6, PERFORM THE FOLLOWING:

A. UNCOVER DETOUR AND ROAD CLOSURE SIGNING

B. DETOUR TRAFFIC AS SHOWN ON TMP-7 AND INSTALL STOP SIGNS AND TYPE III BARRICADES WITH BARRICADE MOUNTED SIGNS AND

USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA 20+45+/- TO STA 22+00+/- AS SHOWN ON TMP-5

STEP 3 AWAY FROM TRAFFIC CONSTRUCT PROPOSED ROADWAY AND INSTALL TEMPORARY PAVEMENT MARKINGS AT THE FOLLOWING (TMP-5):

- * -L- FROM STA 11+00+/- TO STA 13+00+/-
- * -L- FROM STA 16+50+/- TO STA 20+45+/-
- * -Y- FROM -L- TO STA 10+75+/- INCLUDING INSTALLATION OF PROPOSED STOP SIGN

USING RSD 1101.02, SHEET 1 OF 19, AND FLAGGERS AS NEEDED, CONSTRUCT THE PROPOSED ROADWAY AND INSTALL TEMPORARY PAVEMENT MARKINGS AT THE FOLLOWING (TMP-5):

- * -L- FROM STA 10+00+/- TO STA 11+00+/-
- * -Y- FROM STA 10+75+/- TO STA 11+75+/-

AWAY FROM TRAFFIC, BEGIN REMOVAL OF THE FOLLOWING:

- * EXISTING STRUCTURE
- * EXISTING ROADWAY FROM NORTH SIDE OF EXISTING STRUCTURE TO PROPOSED -L-

STEP 4 PERFORM THE FOLLOWING:

- * OPEN -L- AND -Y- TO TRAFFIC
- * REMOVE STOP BAR ON -L- AT STA 21+00+/-
- * REMOVE TEMPORARY STOP SIGN ON -L- AT STA 21+00+/-
- * REMOVE TYPE III BARRICADES AND BARRICADE MOUNTED SIGNS USED TO CLOSE -L- AND -Y- TO TRAFFIC
- * COVER/REMOVE ROAD CLOSURE AND DETOUR SIGNING

PHASE III

STEP 1 BEHIND GUARDRAIL, COMPLETE THE REMOVAL OF EXISTING STRUCTURE

STEP 2 BEHIND GUARDRAIL, CONSTRUCT WING WALLS OF PROPOSED CULVERT

STEP 3 USING RSD 1101.02, SHEET 1 OF 19, AND FLAGGERS AS NEEDED, PERFORM THE FOLLOWING:

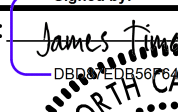
- * REMOVE/COMPLETE REMOVAL OF EXISTING ROADWAY AS SHOWN IN ROADWAY PLANS
- * CONSTRUCT PROPOSED EMBANKMENT ON LEFT SIDE OF -L-
- * INSTALL DRAINAGE, MONOLITIC ISLANDS, AND TUBULAR MARKERS

STEP 4 USING RSD 1101.02, SHEET 1 OF 19, AND FLAGGERS AS NEEDED, PERFORM THE FOLLOWING:

- * PLACE FINAL LAYER OF SURFACE COURSE
- * PLACE FINAL PAVEMENT MARKINGS

STEP 5 REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES

iso-pjordan
c:\pwworking\hmm\proj\transit\jer66165\40176632\400052.TC.TCP_TMP03.dgn
5/20/2026 5:20:26 PM
\$\$\$\$DATE\$

APPROVED:  DATE: 03-Jun-2024



SEAL

M
M
MOTT
MACDONALD

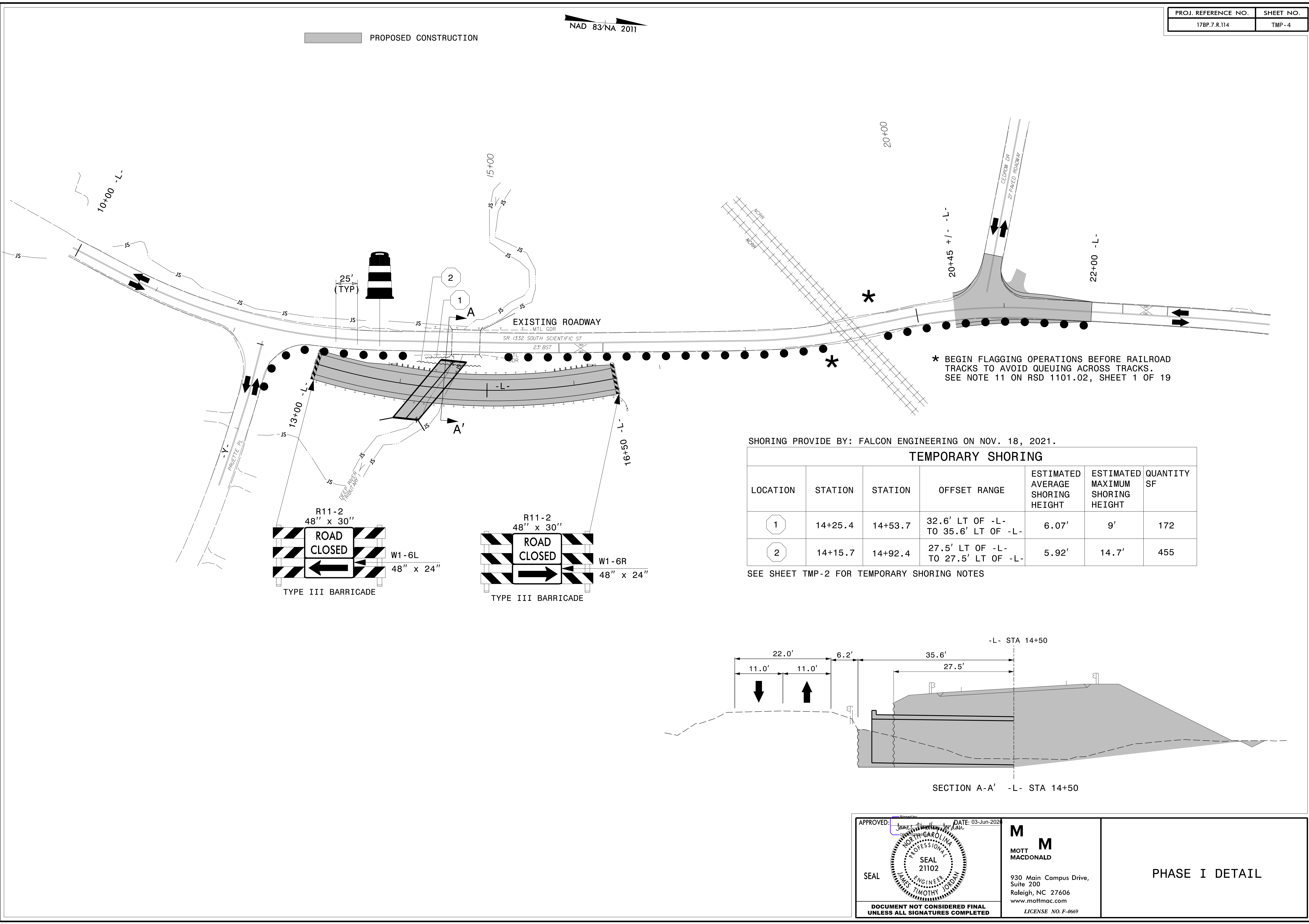
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
www.mottmac.com

LICENSE NO. F-0669

TEMPORARY TRAFFIC CONTROL
WRITTEN PHASING

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

User: jsc-ephuo
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6/2/2026
\$\$\$\$DATE\$

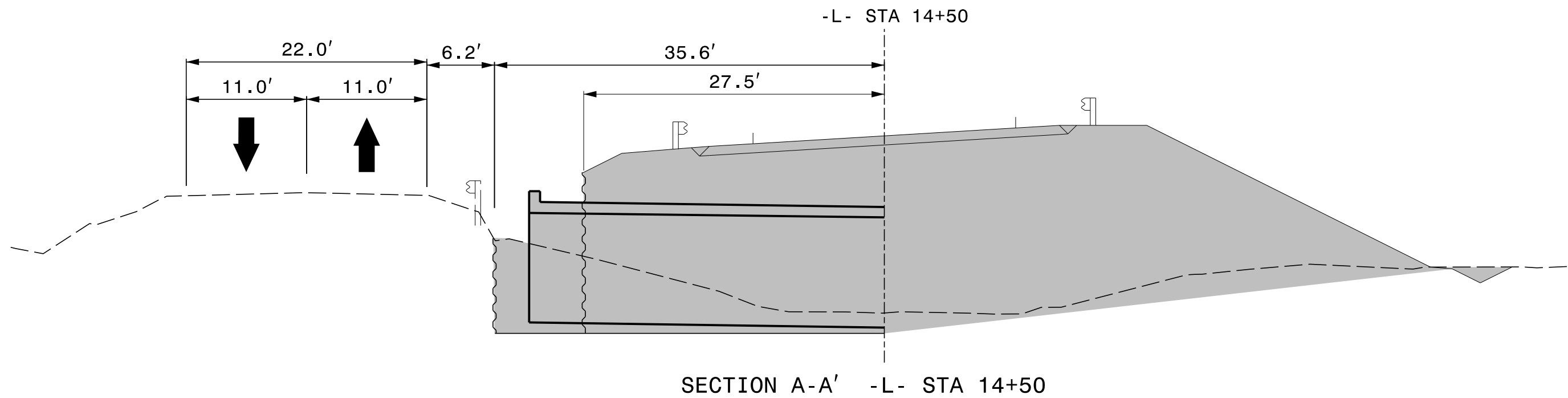


PROJ. REFERENCE NO.	SHEET NO.
17BP.7.R.114	TMP-4

SHORING PROVIDE BY: FALCON ENGINEERING ON NOV. 18, 2021.

TEMPORARY SHORING						
LOCATION	STATION	STATION	OFFSET RANGE	ESTIMATED AVERAGE SHORING HEIGHT	ESTIMATED MAXIMUM SHORING HEIGHT	QUANTITY SF
1	14+25.4	14+53.7	32.6' LT OF -L- TO 35.6' LT OF -L-	6.07'	9'	172
2	14+15.7	14+92.4	27.5' LT OF -L- TO 27.5' LT OF -L-	5.92'	14.7'	455

SEE SHEET TMP-2 FOR TEMPORARY SHORING NOTES



APPROVED:

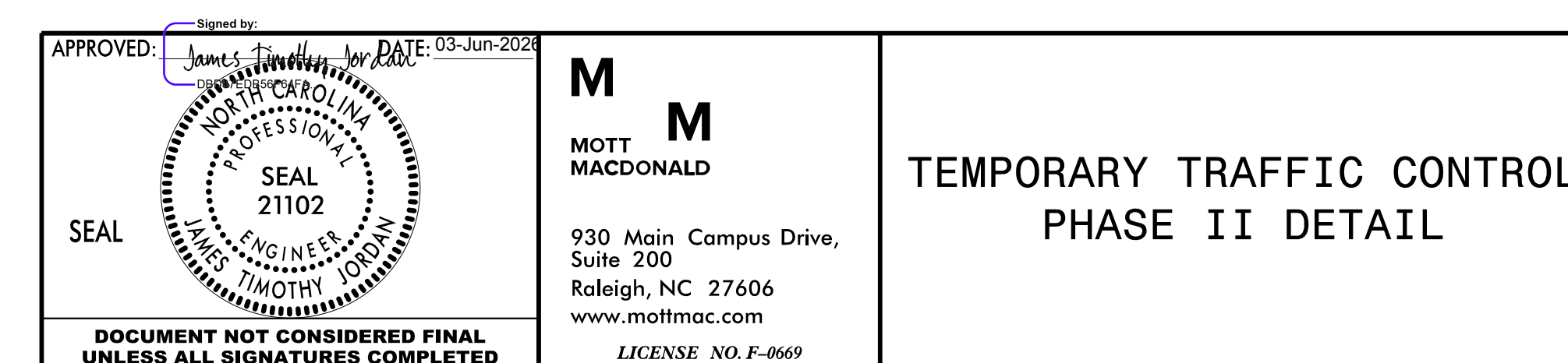
DATE: 03-Jun-2026

M
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Raleigh, NC 27606
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PHASE I DETAIL

FOR DETOUR SEE SHEETS TMP-7 & TMP-8

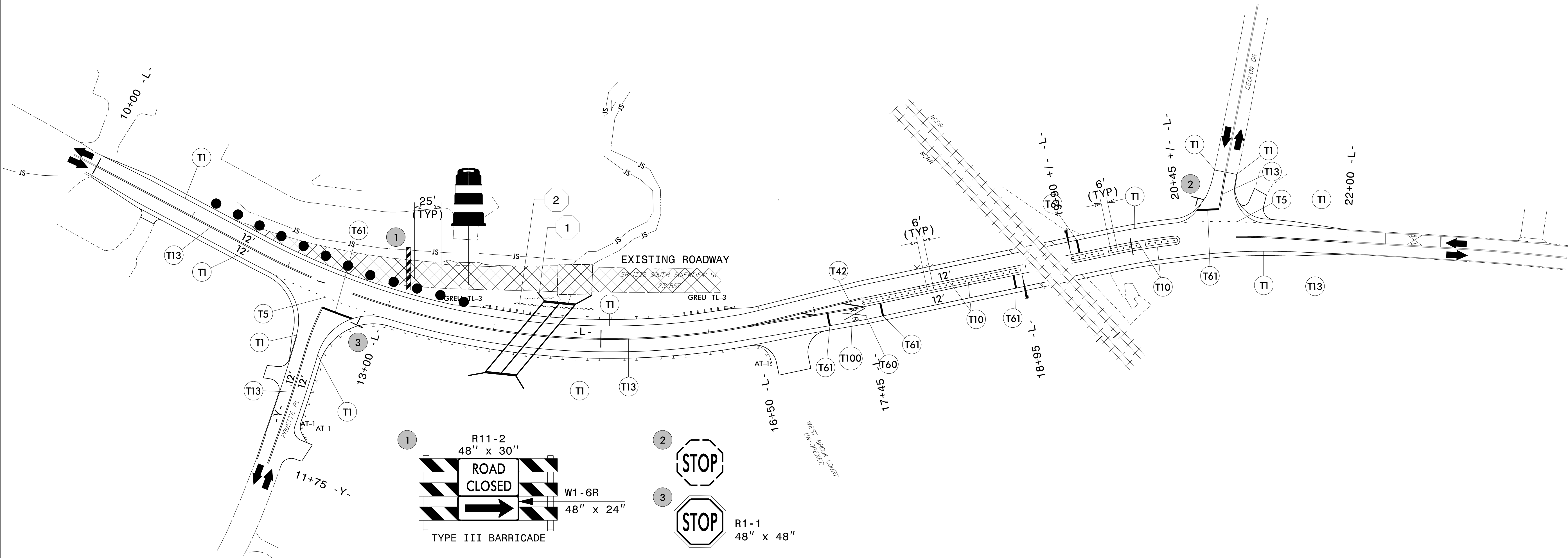


PROJ. REFERENCE NO.	SHEET NO.
17BP.7.R.114	TMP-6

REMOVAL OF EXISTING PAVEMENT
PROPOSED CONSTRUCTION

NAD 83/NA 2011

User: jsc-ephua
pw:\mott-use-pw\benjileyc\mott-use-pw-15\Documents\391827-2017_Rail_Engineering_LSA\NCF-Server\308350-DDC\12-FL17BP.7.R.114\Traffic\TrafficControl\TCP\400052_TC_TCP_TMP06.dgn
5/7/2026



APPROVED: James E. Mott DATE: 03-Jun-2026

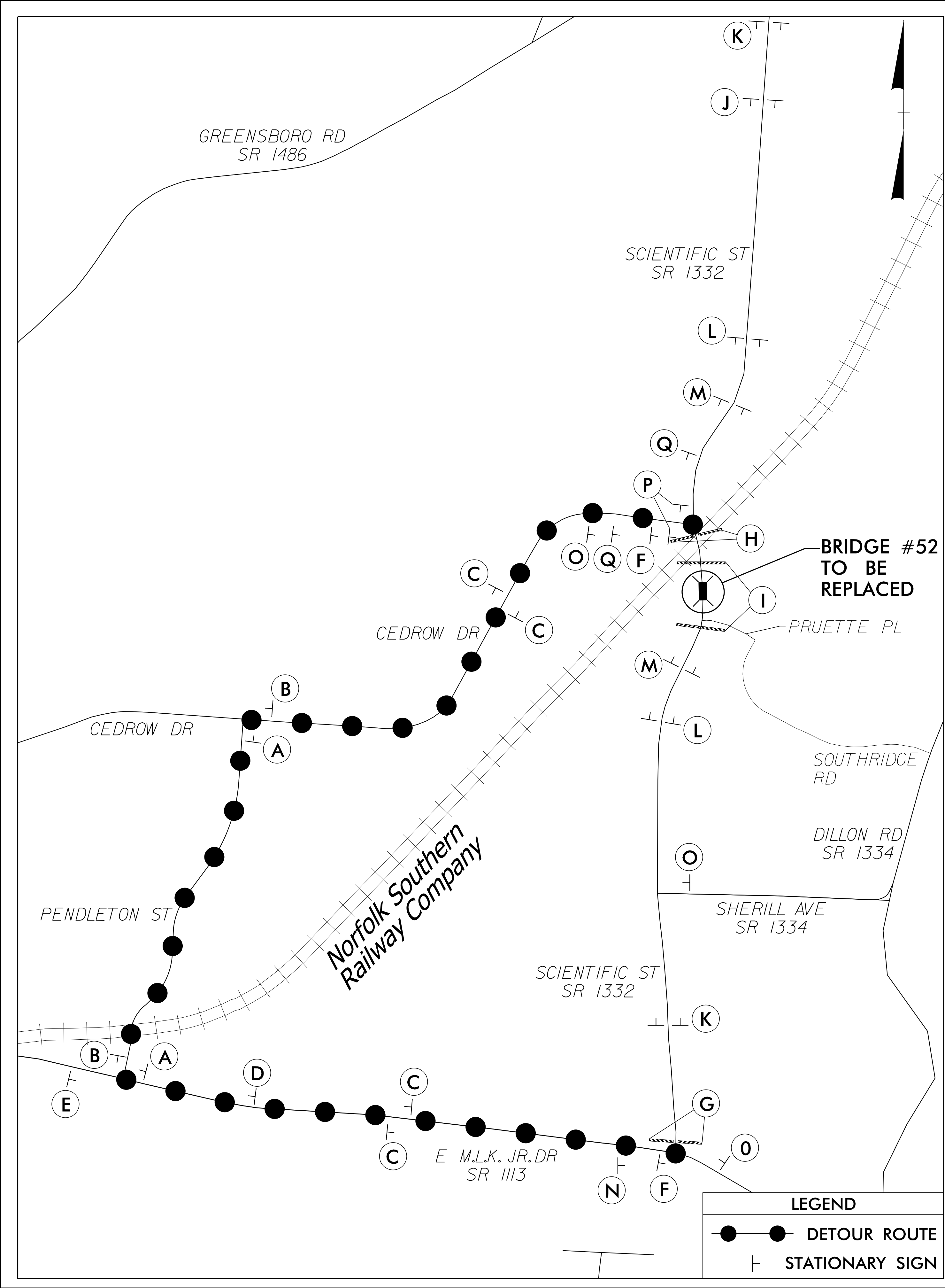
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NORTH CAROLINA
PROFESSIONAL
ENGINEER
JAMES E. MOTT
21102

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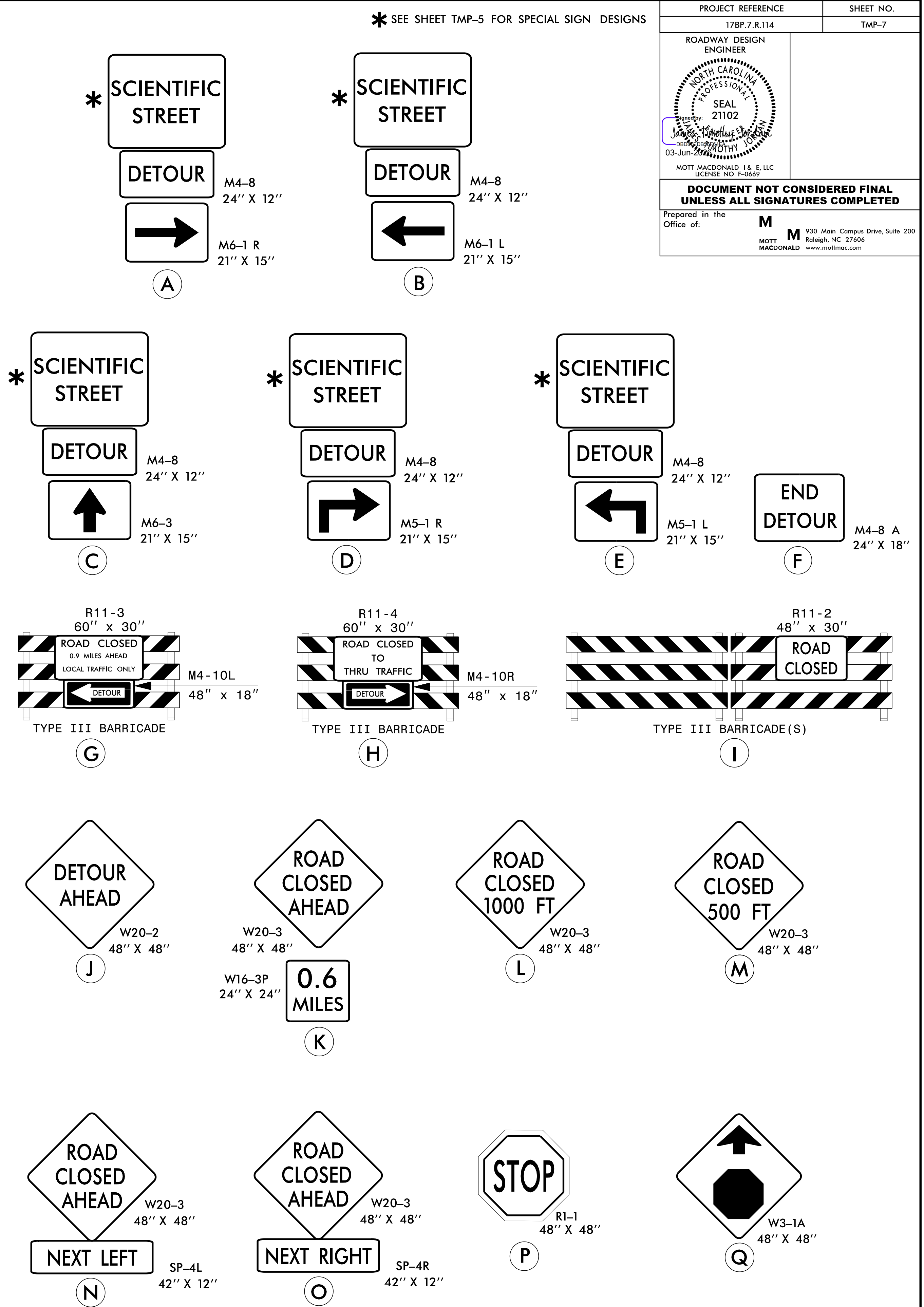
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TEMPORARY TRAFFIC CONTROL
PHASE III DETAIL

iso-pjordan
c:\pwworking\hmm\rail-transit\jor66165\ad0176622\400052_rdj_tmpl.dgn
5/7/2026
\$\$\$\$DATE\$



LEGEND	
	DETOUR ROUTE
	STATIONARY SIGN



PROJECT REFERENCE		SHEET NO.
17BP.7.R.114		TMP-7
ROADWAY DESIGN ENGINEER		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
Prepared in the Office of:		

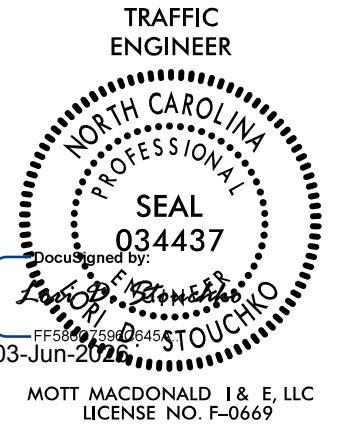
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PROJECT REFERENCE

17BP.7.R.114

SHEET NO.

TMP-8



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

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Raleigh, NC 27606
www.mottmac.com

SIGN NUMBER: SD-1

TYPE: D

QUANTITY: SEE PLANS

SIGN WIDTH: 4'-6"

HEIGHT: 2'-6"

TOTAL AREA: 11.3 Sq.Ft.

BORDER TYPE: INSET

RECESS: 0.38"

WIDTH: 0.5"

RADII: 1.5"

NO. Z BARS:

LENGTH:

BACKG COLOR: Fluorescent Orange

COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.080" (2.0 mm) ALUMINUM

DESIGN BY: PJ

PROJECT ID: 17BP.7.R.114

CHECKED BY: DWB

DIV: 7

DATE: Mar 05, 2018

4'-6"

2'-6"

6.75"

6.75"

6.75"

6.75"

6.75"

40.5"

SCIENTIFIC STREET

BORDER
R=1.5"
TH=0.5"
IN=0.38"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner																									Series/Size Text Length	
S	C	I	E	N	T	I	F	I	C																	D 2000
6.8	11.7	17.1	19.5	24.3	29.3	33.9	36.3	40.9	43.2																	40.5
S	T	R	E	E	T																					D 2000
13.5	18.1	22.7	27.8	32.6	36.8																					26.9

FILENAME: 400052_rdy_tmp3

NORTH CAROLINA D.O.T. SIGN DETAIL

iso-pjordan
c:\pwworking\hmm\raii-transit\jor66165\ad0176622\400052_rdy_tmp5.dgn
5/11/2026
\$\$\$\$DATE\$