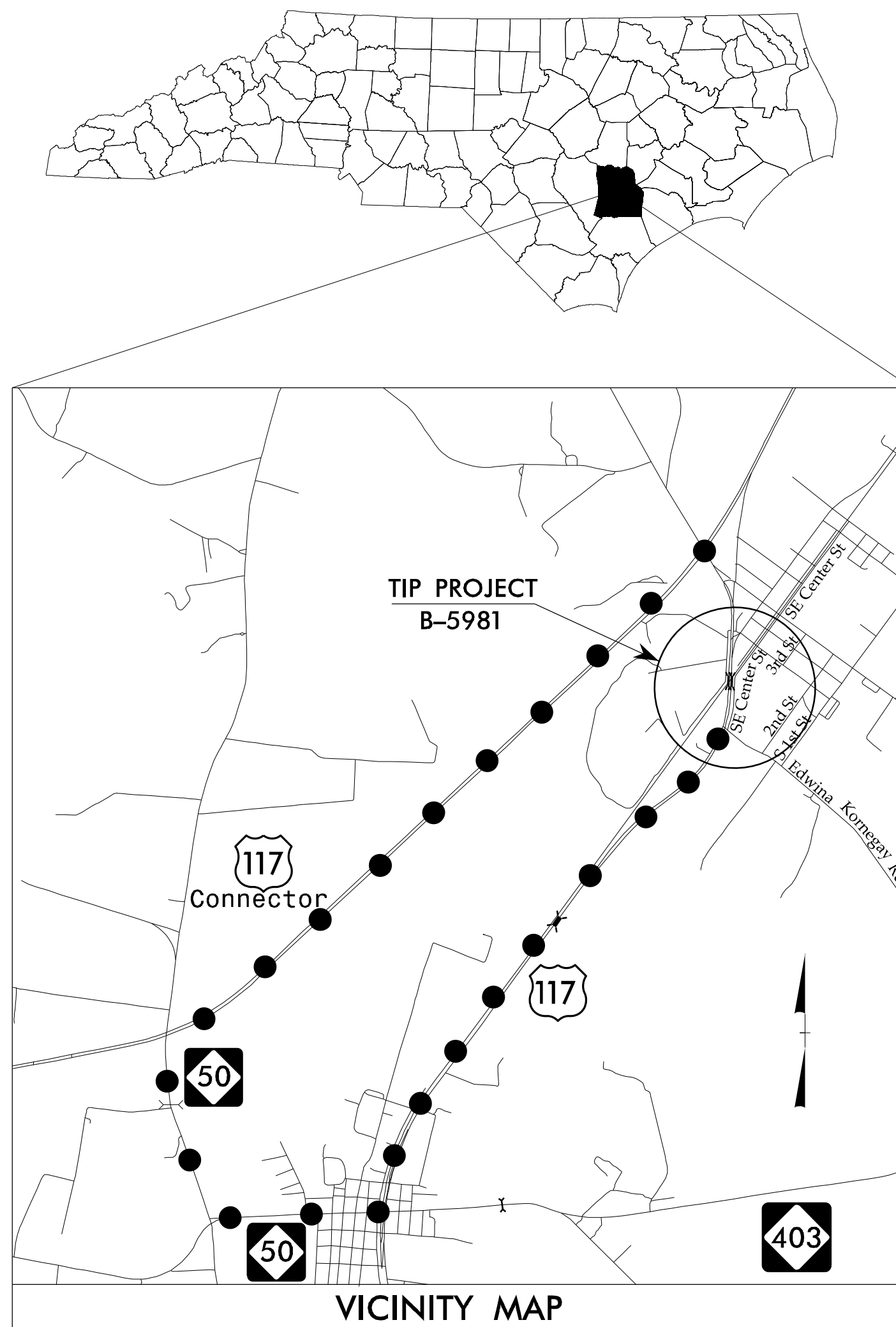


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

DUPLIN COUNTY



LOCATION: REPLACE BRIDGE 16 OVER CSX RAILROAD ON US 117 NB LANE AND BRIDGE PRESERVATION OF BRIDGE 17 OVER CSX RAILROAD

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING AND PAVEMENT MARKINGS

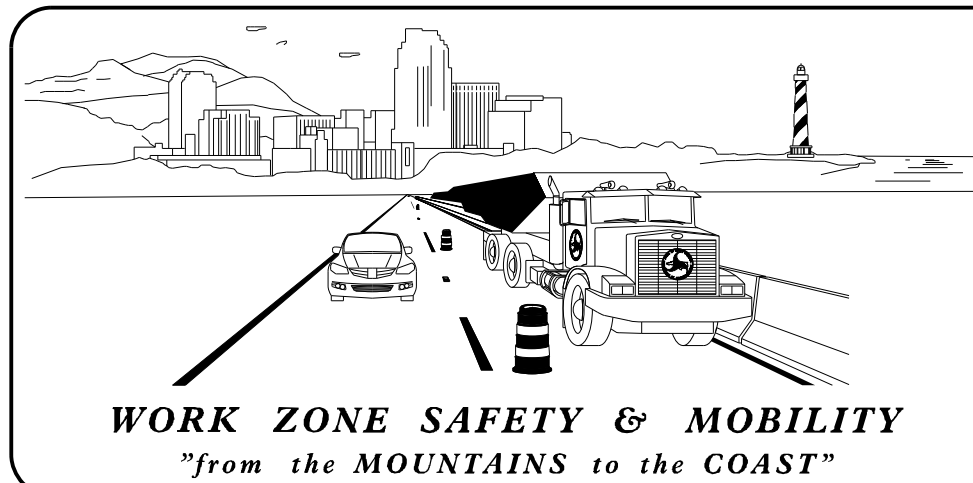
| INDEX OF SHEETS | |
|------------------------|---|
| <u>SHEET NO.</u> | <u>TITLE</u> |
| TMP-1 | TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS |
| TMP-1A | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND |
| TMP-1B | TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, PHASING AND LOCAL NOTES) |
| TMP-2 | SHORING DATA |
| TMP-2A | PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS |
| TMP-2B | NB US 117 OFFSITE DETOUR |
| TMP-2C | NB US 117 SECONDARY OFFSITE DETOUR |
| TMP-3 | NB US 117 AND -SR1- CONSTRUCTION DETAIL 1 |
| TMP-4 | NB US 117 AND -SR1- CONSTRUCTION DETAIL 2 |
| TMP-5 | NB US 117 AND -SR1- TRAFFIC SHIFT DETAIL 3 |
| TMP-6 | NB US 117 AND -SR1- TRAFFIC SHIFT DETAIL 4 |

SHEET NO.
TMP-1

B-5981

TIP PROJECT:

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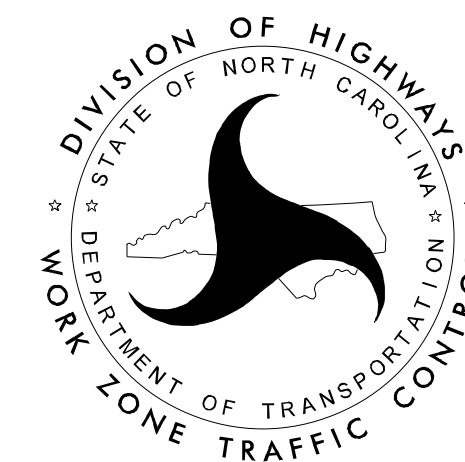
PLANS PREPARED BY:

Chris Howard

NCDOT CONTACTS:

Zach Clark, P.E.
PROJECT ENGINEER

Justin Beaver, P.E.
PROJECT DESIGN ENGINEER



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UNLESS ALL SIGNATURES COMPLETED

DocuSigned by:

Zachary T Clark

APPROVED:

DATE: 05/09/2023

SEAL



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 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 |
| 1115.01 | FLASHING ARROW BOARDS |
| 1130.01 | DRUMS |
| 1135.01 | CONES |
| 1145.01 | BARRICADES |
| 1150.01 | FLAGGING DEVICES |
| 1165.01 | TRUCK MOUNTED ATTENUATOR |
| 1180.01 | SKINNY - DRUMS |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES AND OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.12 | PAVEMENT MARKINGS - BRIDGES |
| 1205.13 | PAVEMENT MARKINGS - LANE REDUCTIONS |
| 1205.15 | PAVEMENT MARKINGS - SUPERSTREETS |
| 1250.01 | RAISED PAVEMENT MARKERS - INSTALLATION SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY) |
| 1261.01 | GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING |
| 1261.02 | GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING |
| 1262.01 | GUARDRAIL END DELINEATION |

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

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

- P1 WHITE EDGELINE - PAINT, 4"
- P10 YELLOW EDGELINE - PAINT, 4"
- P2 LANE LINE - PAINT, 4"
- P71 RIGHT TURN ARROW - PAINT
- P61 STOP BAR, PAINT 24"

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| | | | |
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| APPROVED: DATE: 05/09/2023 SEAL | | | ROADWAY STANDARD DRAWINGS & LEGEND |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP):

- CLOSE NB US 117
- DETOUR TRAFFIC FOR BRIDGE CONSTRUCTION
- CONSTRUCT -SR1- AND TIE-IN USING FLAGGERS
- PLACE FINAL LAYER OF SURFACE COURSE, MARKINGS AND MARKERS AND OPEN NB US 117 TO TRAFFIC

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.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) 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.
- B) 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.
- C) 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.
- D) 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.
- E) 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.

TRAFFIC PATTERN ALTERATIONS

- F) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- G) 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.
- H) 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.
- I) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- J) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORKAREAS 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.
- K) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

- L) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

| ROAD NAME | MARKING | MARKER |
|-----------|---------|--------|
| US 117 | PAINT | N/A |
- M) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- O) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

PHASING

NOTE: FLAGGERS REFERS TO RSD 1101.02 SHEET 1 OF 14

STEP 1

- USING ROADWAY STANDARD DRAWING 1101.01, SHEET 2 AND 3 OF 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS ON US 117.

STEP 2

- USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 14, AND SHEET TMP-2B and 2C, INSTALL ROAD CLOSURE AND DETOUR SIGNS, CLOSE US 117 NB (BRIDGE #16) AND DETOUR TRAFFIC ONTO US 117 CONNECTOR. SEE TMP-3 FOR EDWINA KORNEGAY RD INTERSECTION SIGNING.

STEP 3

- USING FLAGGERS AND RDWY STD. 1101.02 SHEET 3 OF 14, INSTALL RCPs ACROSS NB AND SB US 117, ACROSS -SR1- AND ALONG MEDIAN OF US 117.
- USING RDWY STD. 1101.02 SHEET 3 OF 14, CONDUCT BRIDGE PRESERVATION ON STRUCTURE NO.17 ALONG SB US 117.
- INSTALL PROPOSED SHORING FROM STA. 21+45+/- -L- TO STA. 22+39+/- -L- AND FROM STA. 23+55+/- TO STA. 24+87+/- -L-. SEE SHEET TMP-4

- AWAY FROM TRAFFIC, CONSTRUCT PROPOSED BRIDGE -L- AND ROADWAY FROM STA. 12+00+/- TO 33+55+/- AND -Y1- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

- USING FLAGGERS, CONSTRUCT PROPOSED -SR1- UP TO EDGE AND ELEVATION OF EXISTING ROADWAY. SEE SHEETS TMP-3 AND 4

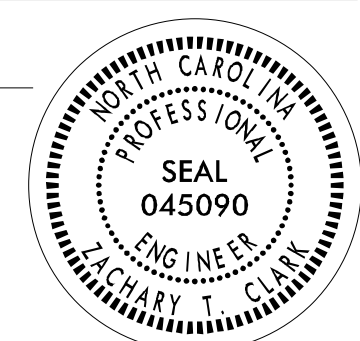

STEP 4

- USING FLAGGERS, TIE-IN -SR1- TO PROPOSED ALIGNMENT AND SHIFT TRAFFIC ON PROPOSED -SR1-. SEE SHEETS TMP-5 AND 6.
- AWAY FROM TRAFFIC AND USING FLAGGERS AS NEEDED, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS ON -L-, -SR1- AND -Y1- AND REMOVE EXISTING CENTER ST. -SR1-.

STEP 5

- UPON COMPLETION OF BRIDGE, APPROACHES, AND ROADWAY, PLACE FINAL PAVEMENT MARKINGS AND MARKERS IN ACCORDANCE WITH RSD 1205.01, 1205.02, 1205.12, 1250.01, AND 1251.01. REMOVE BARRICADES, SIGNS, AND ALL OTHER TRAFFIC CONTROL DEVICES AND OPEN -L- (US 117 BRIDGE #16), AND -Y1- TO TRAFFIC IN FINAL PATTERN.

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| | | |
|---|---|--|
| APPROVED: _____ DATE: 05/09/2023 <div style="text-align: center;">  SEAL </div> | <div style="text-align: center;">  WORK ZONE TRAFFIC CONTROL </div> | <h1 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN</h1> |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | |

SHORING DATA

SHORING LOCATION No. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L-21+45±, 40.0 FT LT, TO STATION -L- 22+39±, 40.0 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 115 PCF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = 159.0 FT±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 21+45±, 40.0 FT LT, TO STATION -L- 22+39±, 40.0 FT LT. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 21+45±, 40.0 FT LT, TO STATION -L- 22+39±, 40.0 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION No. 2

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.




DESIGN TEMPORARY SHORING FROM STATION -L- 23+55±, 40.0 FT LT, TO STATION -L- 24+87±, 40.0 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 115 PCF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = 159.0 FT±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 23+55±, 40.0 FT LT, TO STATION -L- 24+87±, 40.0 FT LT. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 23+55±, 40.0 FT LT, TO STATION -L- 24+87±, 40.0 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

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 WZTCU ON (3/28/2023) AND SEALED BY A PROFESSIONAL ENGINEER, JINYOUNG PARK, LICENSE # 032171.

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| <p>APPROVED:  <small>DocuSigned by: Zachary T. Clark 9C4D47E37ED420</small></p> <p>DATE: 05/09/2023</p> <p>SEAL </p> <p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p> |  | <h2 style="text-align: center;">SHORING DATA</h2> |
|---|---|---|

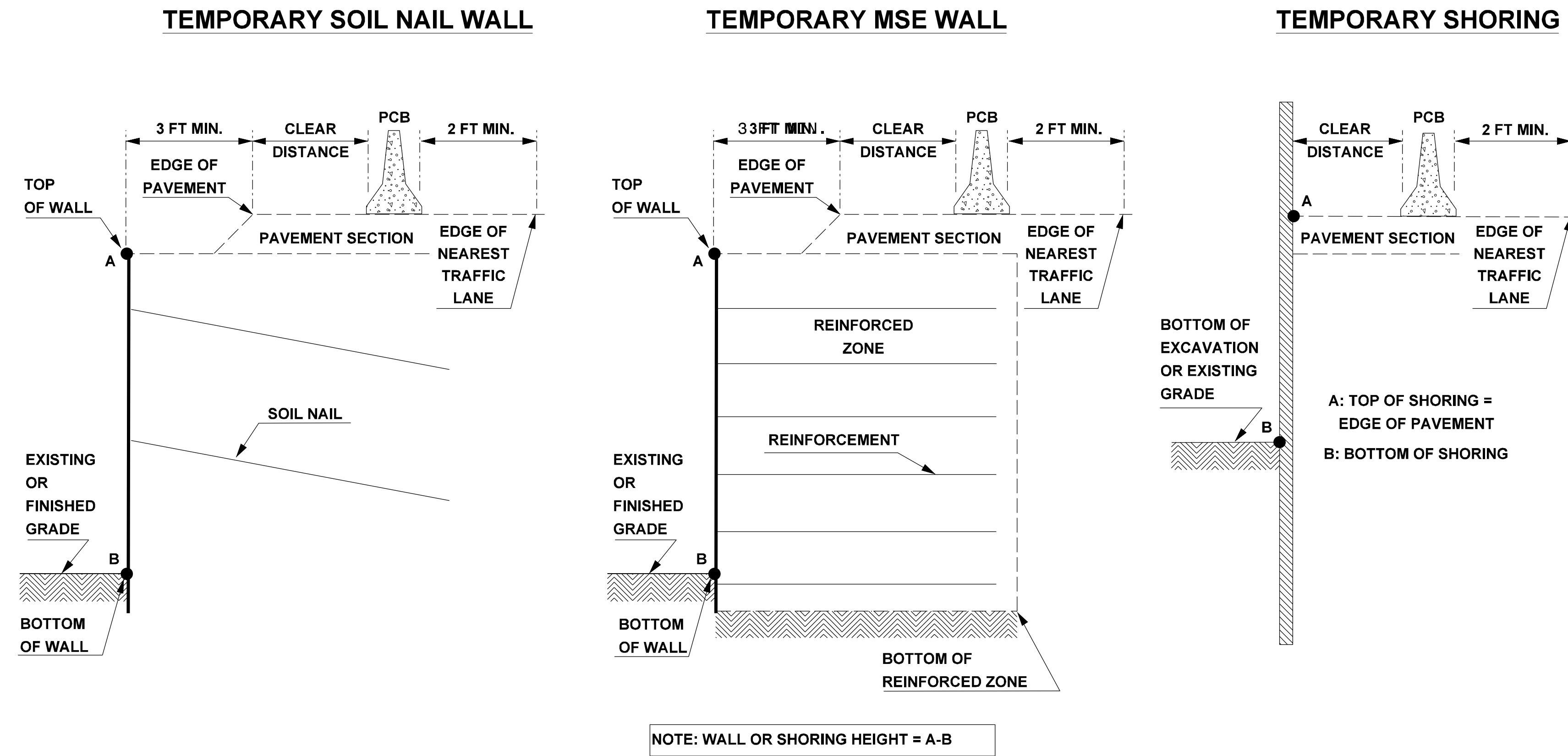


FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" STANDARD PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING/WALL IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING/WALLS EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS OR APPROVED BY THE ENGINEER.
- 8- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THIS MINIMUM REQUIRED DISTANCE IS NOT AVAILABLE, CONTACT THE ENGINEER.
- 9- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS.

MINIMUM REQUIRED CLEAR DISTANCE, inches

| Barrier Type | Pavement Type | Offset * ft | Design Speed, mph | | | | | |
|----------------|--|----------------|--------------------------|-------|-------|-------|-------|-------|
| | | | <30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 |
| Unanchored PCB | Asphalt | <8 | 24 | 26 | 29 | 32 | 36 | 40 |
| | | 8-14 | 26 | 28 | 31 | 35 | 38 | 42 |
| | | 14-20 | 27 | 29 | 34 | 36 | 39 | 43 |
| | | 20-26 | 28 | 31 | 35 | 38 | 40 | 44 |
| | | 26-32 | 29 | 32 | 36 | 39 | 42 | 45 |
| | | 32-38 | 30 | 34 | 38 | 41 | 43 | 46 |
| | | 38-44 | 31 | 34 | 41 | 43 | 45 | 48 |
| | | 44-50 | 31 | 35 | 41 | 43 | 46 | 49 |
| | | 50-56 | 32 | 36 | 42 | 44 | 47 | 50 |
| | >56 | 32 | 36 | 42 | 45 | 47 | 51 | |
| | Concrete | <8 | 17 | 18 | 21 | 22 | 25 | 26 |
| | | 8-14 | 19 | 20 | 23 | 25 | 26 | 29 |
| | | 14-20 | 22 | 22 | 24 | 26 | 28 | 31 |
| | | 20-26 | 23 | 24 | 26 | 27 | 30 | 34 |
| | | 26-32 | 24 | 25 | 27 | 28 | 32 | 35 |
| | | 32-38 | 24 | 26 | 27 | 30 | 33 | 36 |
| | | 38-44 | 25 | 26 | 28 | 30 | 34 | 37 |
| | | 44-50 | 26 | 26 | 28 | 32 | 35 | 37 |
| 50-56 | | 26 | 26 | 28 | 32 | 35 | 38 | |
| >56 | 26 | 27 | 29 | 32 | 36 | 38 | | |
| Anchored PCB | Asphalt | All Offsets | 24 for All Design Speeds | | | | | |
| Anchored PCB | Concrete (including bridge approach slabs) | All Offsets | 12 for All Design Speeds | | | | | |

* See Figure Below

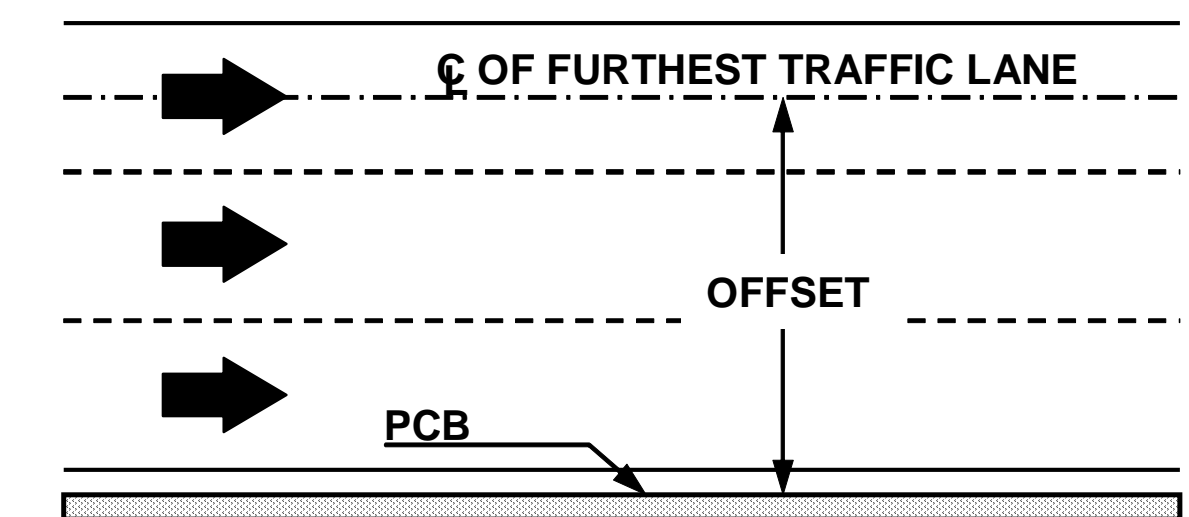
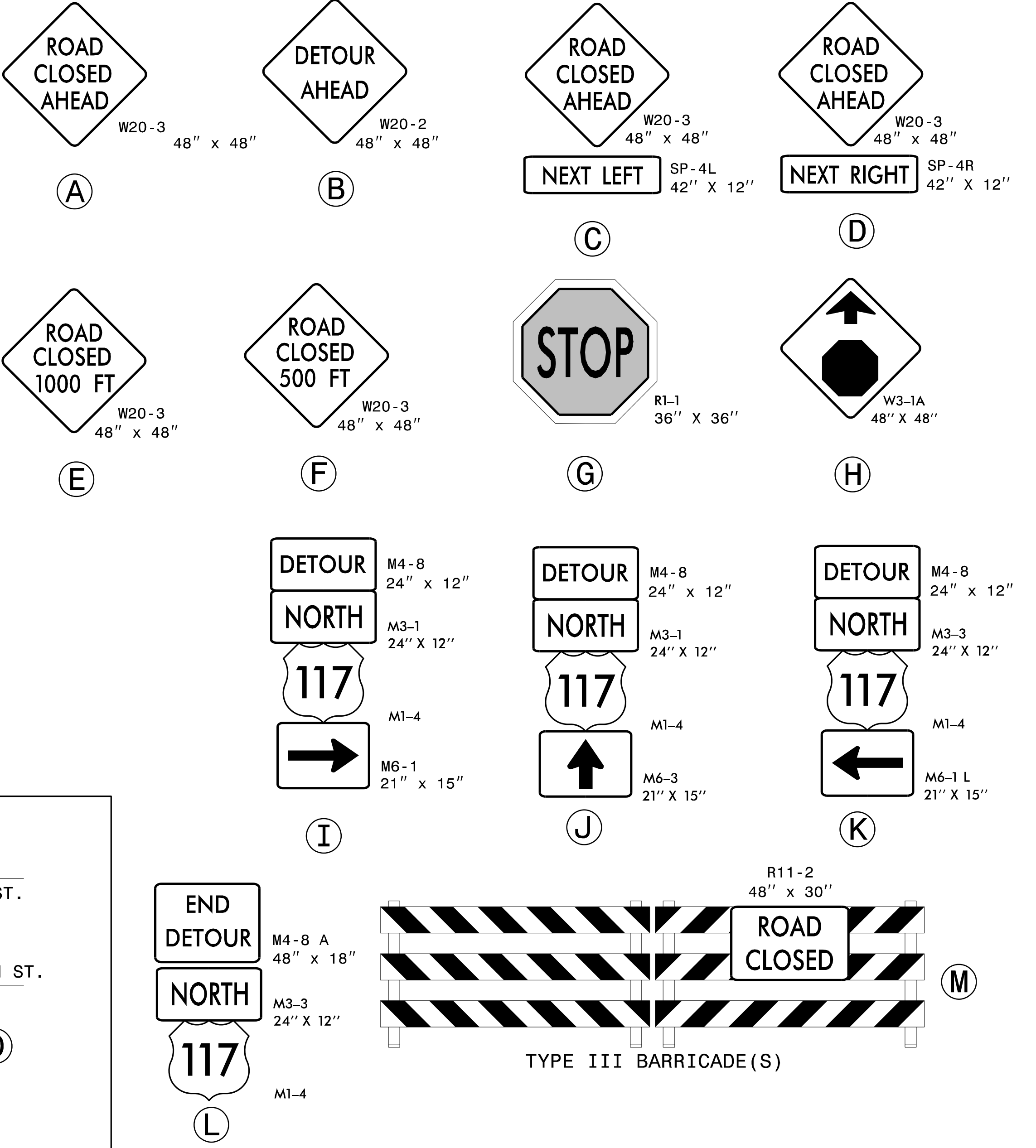
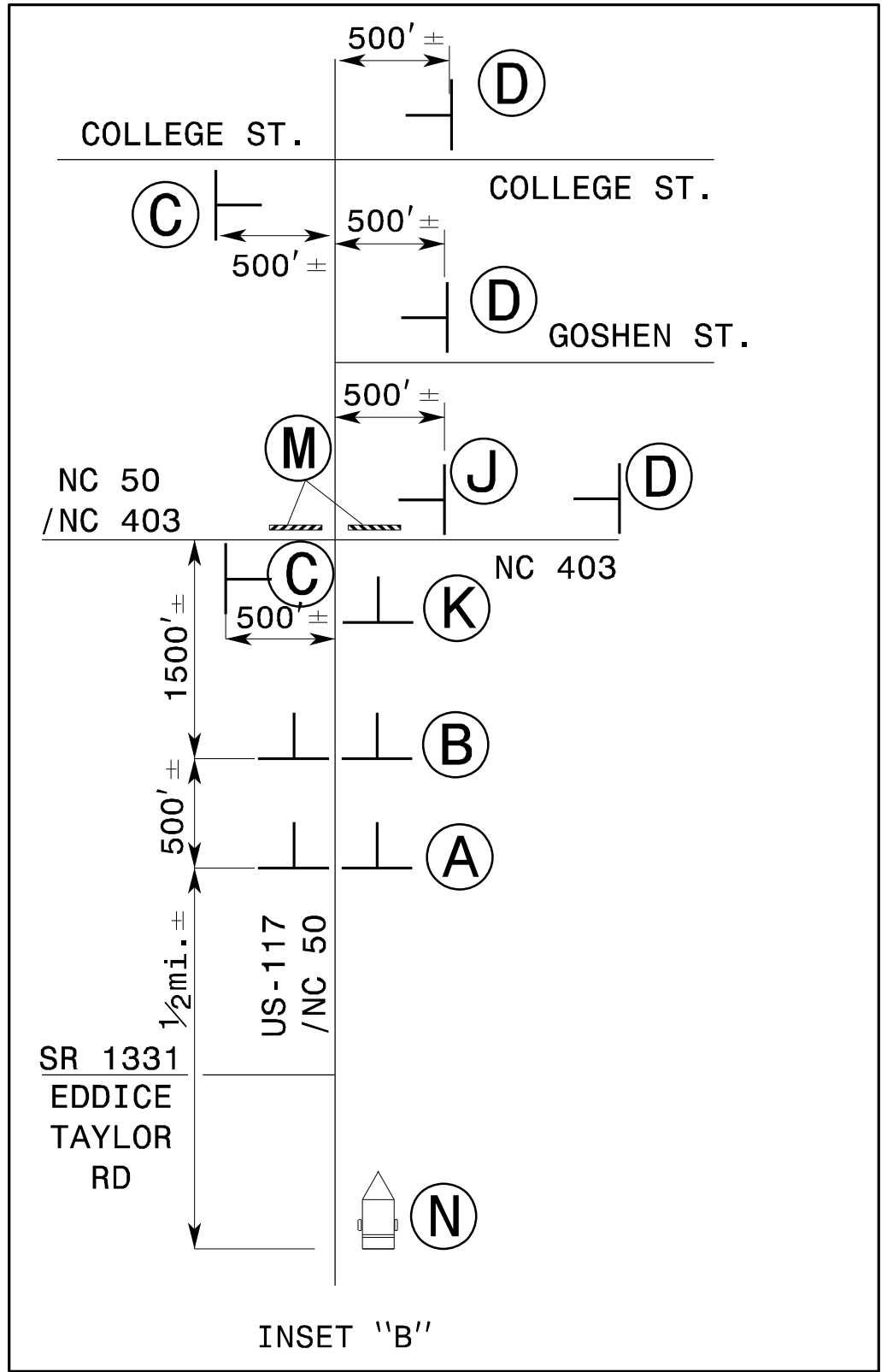
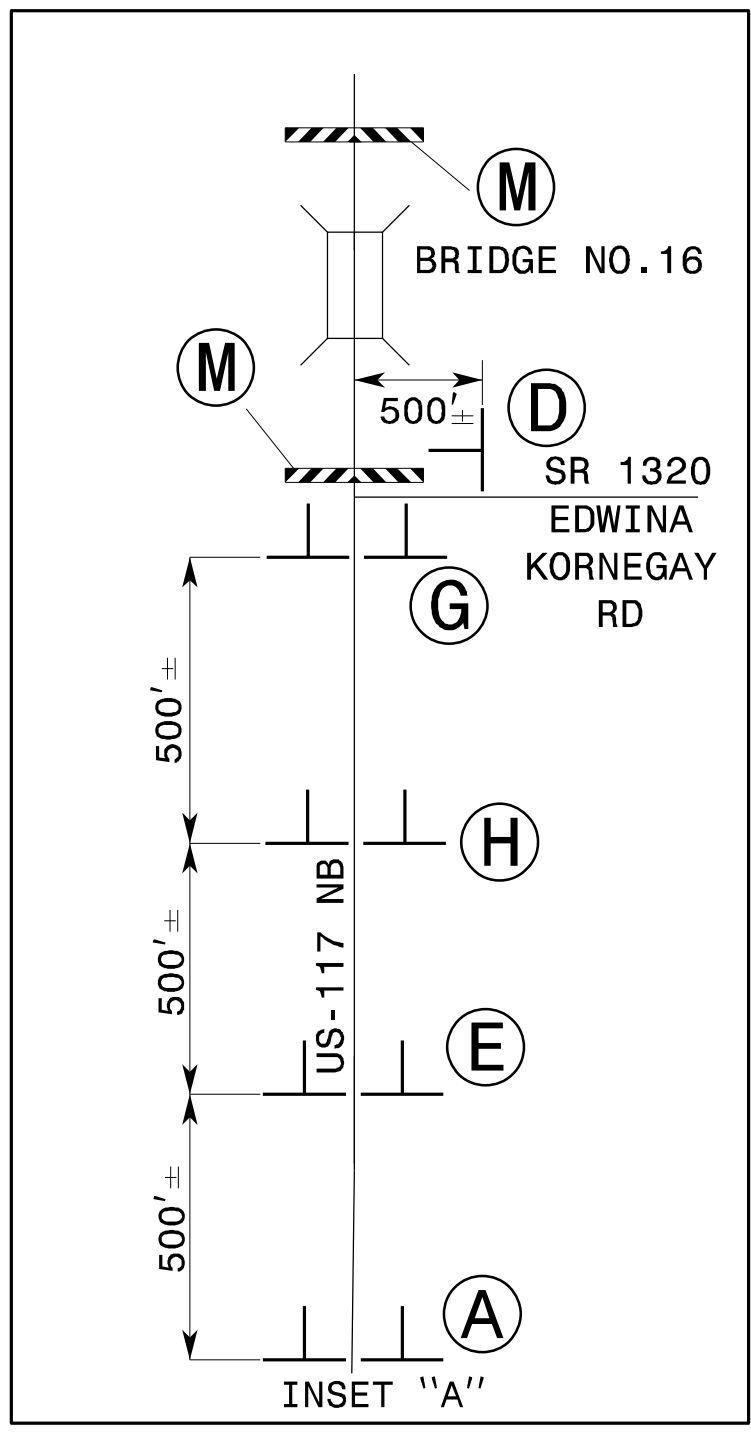
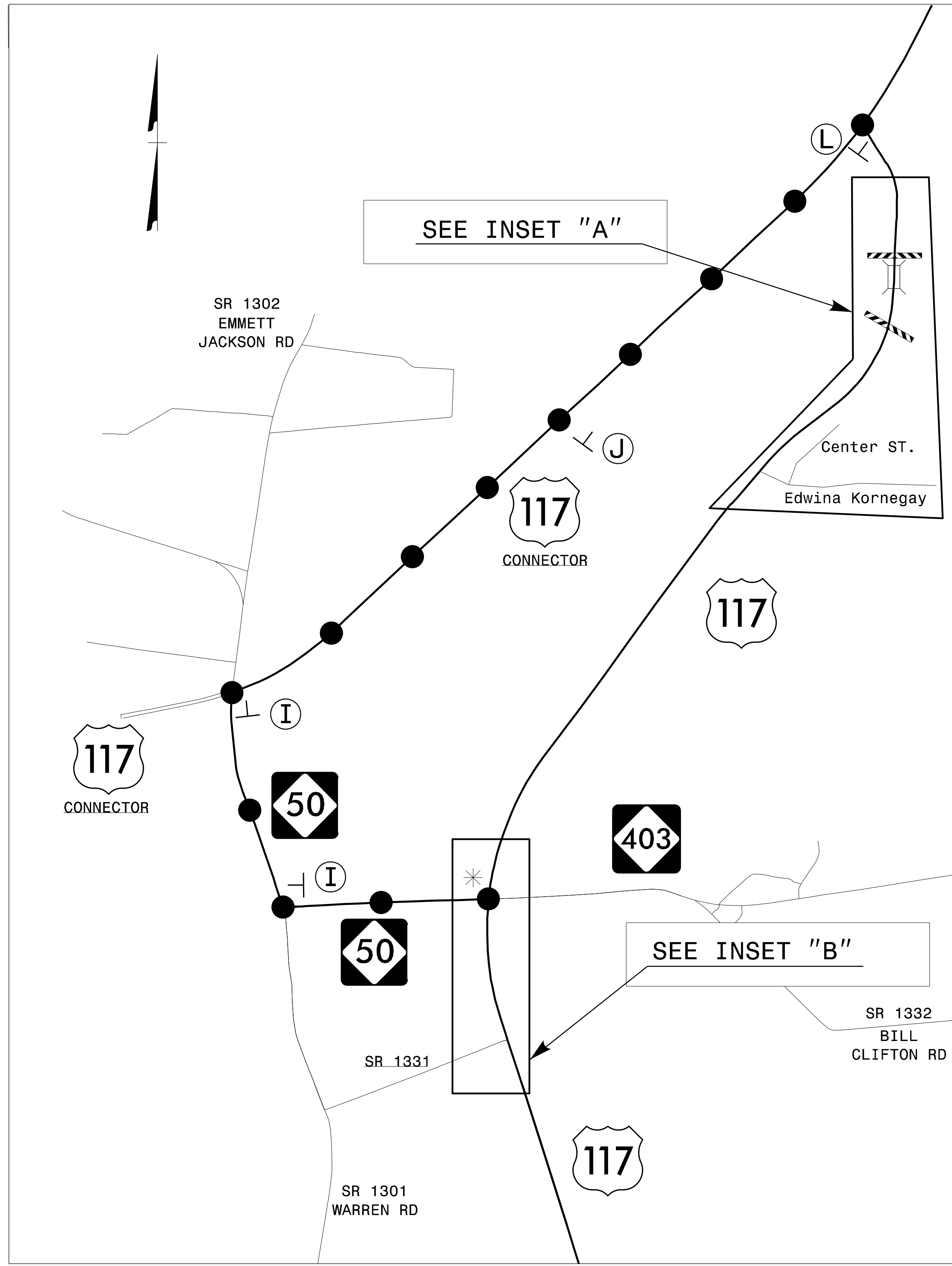


FIGURE B

| | | |
|---|--|--|
| APPROVED: _____ DATE: 05/09/2023 SEAL | Documented by: <i>Zachary T. Clark</i> <small>904DAY17760490</small> | PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | |

DUPLIN COUNTY

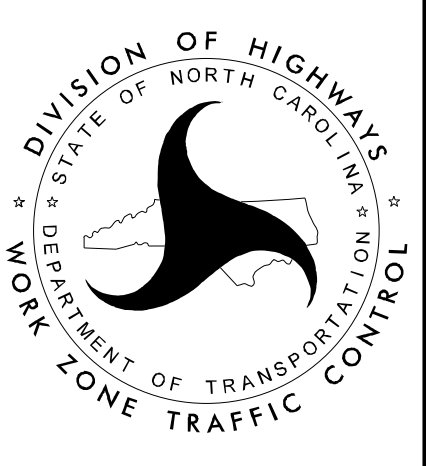


● — ● — ● OFFSITE DETOUR ROUTE

* ADJUST SIGNAL TIMING AS DETERMINED BY THE ENGINEER

NOTES:
1. REFER TO RSD 1101.03, SHEET 1 OF 9, FOR SIGN DISTANCES AND APPLICABLE NOTES.

APPROVED: *Zachary T. Clark*
DATE: 05/09/2023
SEAL

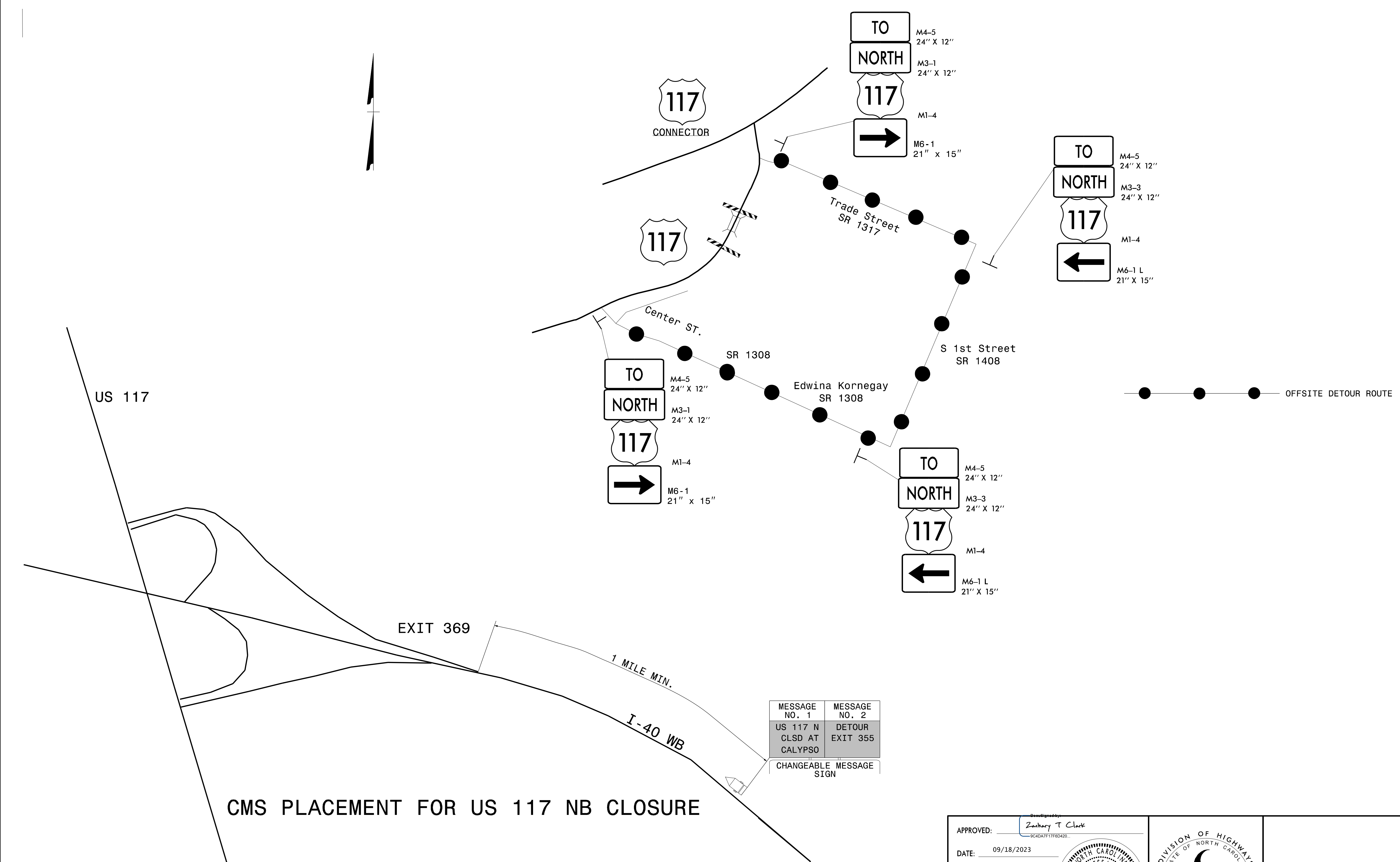


OFFSITE DETOUR FOR US-117 NB

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SECONDARY OFFSITE DETOUR



US 117

117
CONNECTOR

117

TO
NORTH
117
→

TO
NORTH
117
→

TO
NORTH
117
←

TO
NORTH
117
←

EXIT 369

1 MILE MIN.

I-40 WB

| | |
|--------------------------|-----------------|
| MESSAGE NO. 1 | MESSAGE NO. 2 |
| US 117 N CLSD AT CALYPSO | DETOUR EXIT 355 |
| CHANGEABLE MESSAGE SIGN | |

CMS PLACEMENT FOR US 117 NB CLOSURE

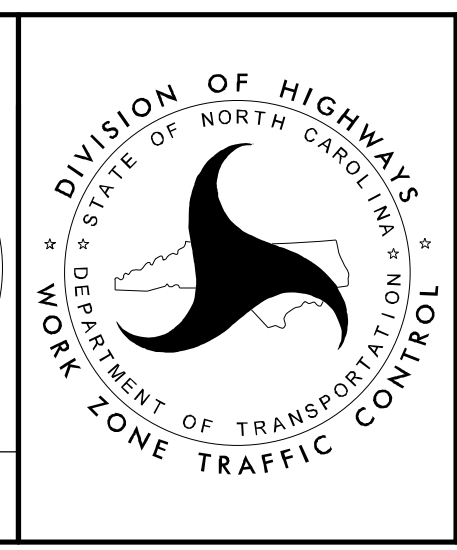
● ● ● OFFSITE DETOUR ROUTE

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APPROVED: Zachary T. Clark
(Signature)
 DATE: 09/18/2023

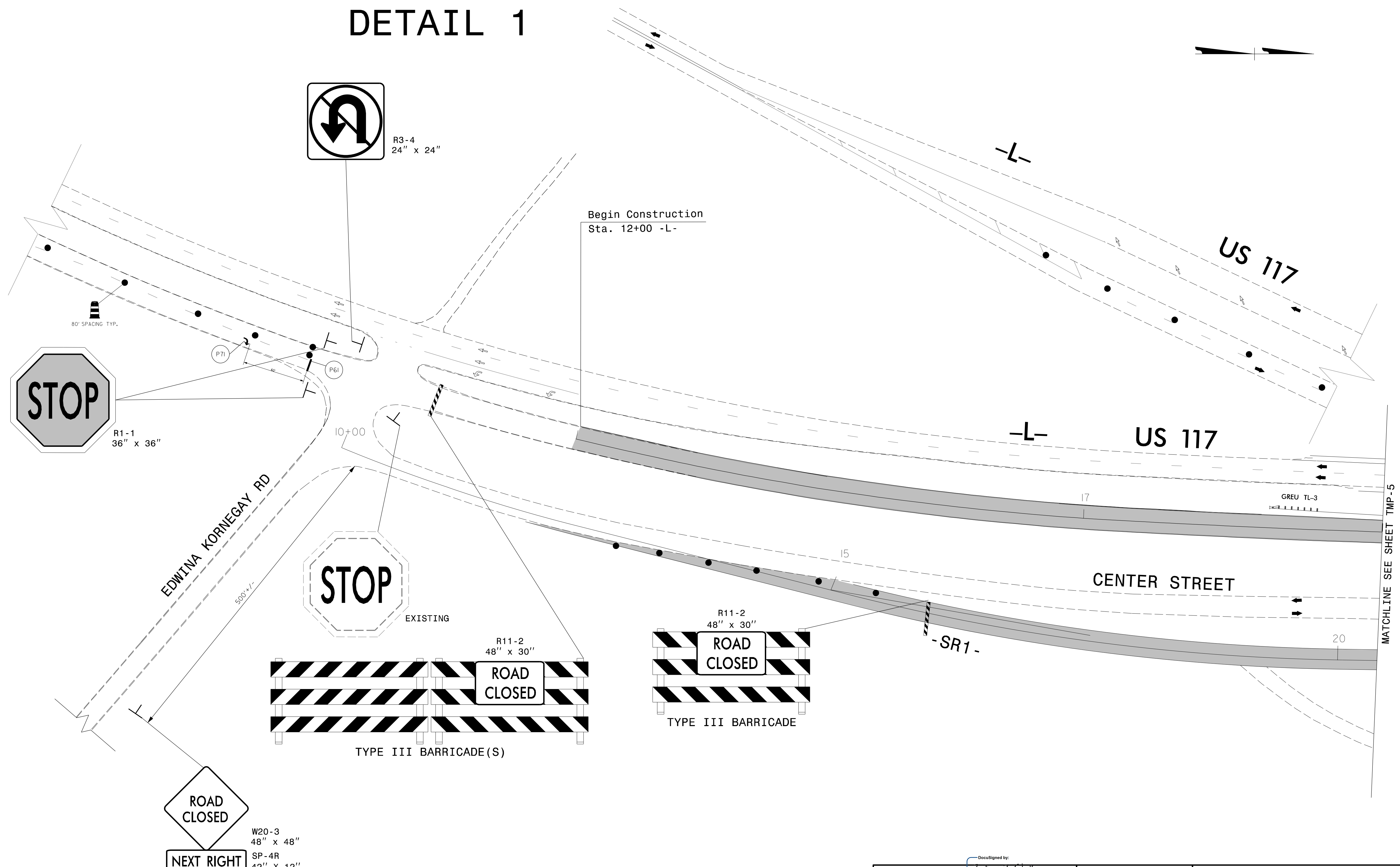
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OFFSITE DETOUR
FOR US-117 NB

DETAIL 1



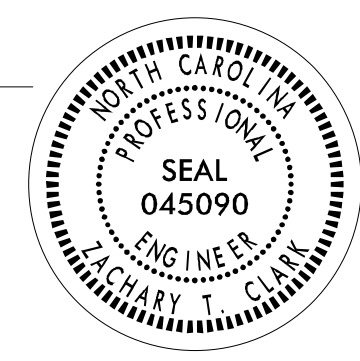
3/30/2023
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 User:cbhoward

ROAD CLOSED
 W20-3
 48" x 48"
 SP-4R
 42" x 12"
 NEXT RIGHT

R11-2
 48" x 30"
 ROAD CLOSED
 TYPE III BARRICADE(S)

R11-2
 48" x 30"
 ROAD CLOSED
 TYPE III BARRICADE

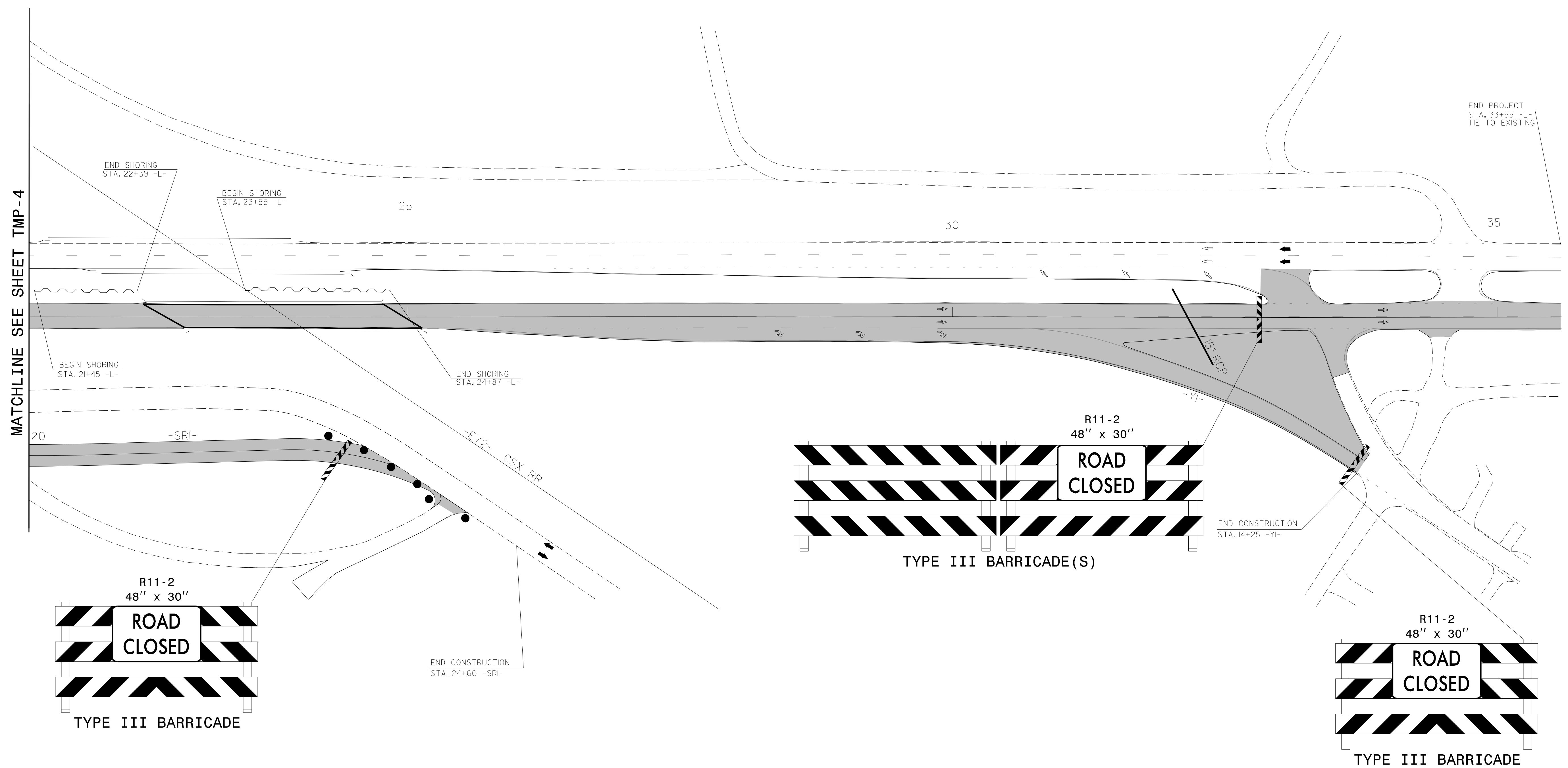
APPROVED: _____
 DATE: 05/09/2023
 SEAL
 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



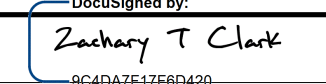


PHASE I, STEP 3

DETAIL 2

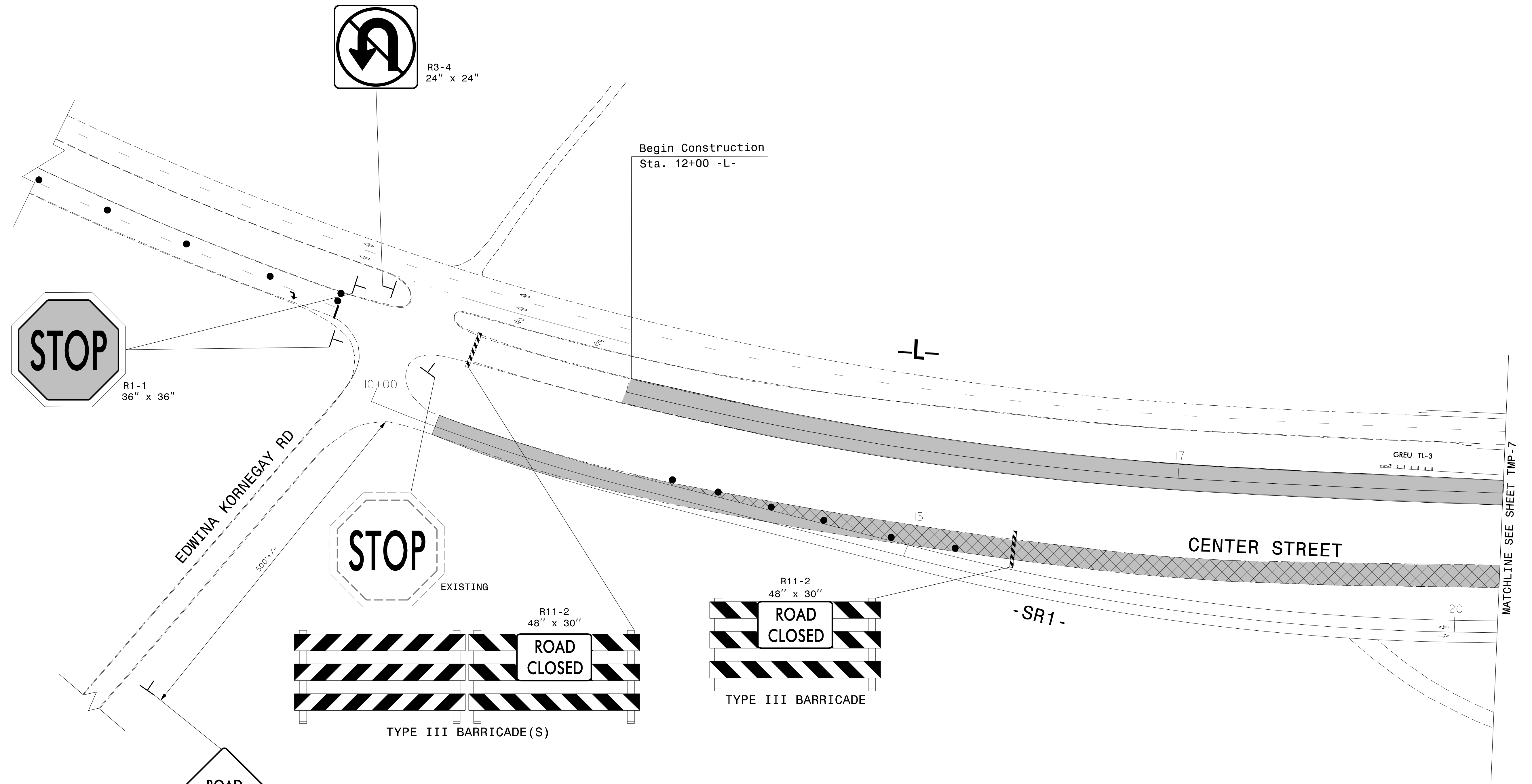
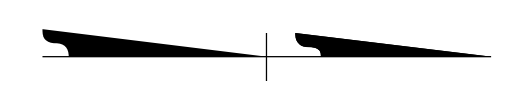
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| PROJ. REFERENCE NO. | SHEET NO. |
| B-5981 | TMP-4 |



3/30/2023
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 User:cbhoward

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| APPROVED:  DATE: 05/09/2023 SEAL:  |  | <h2>PHASE I, STEP 3</h2> |
| <p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p> | | |

DETAIL 3



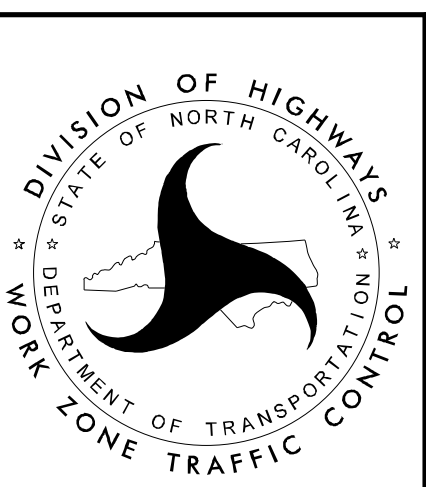
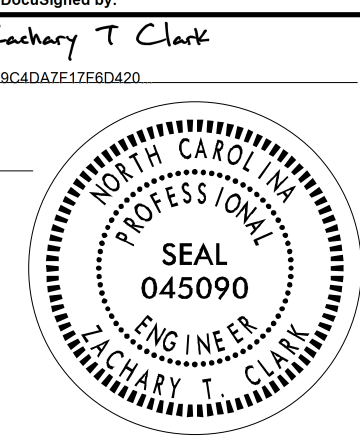
3/30/2023
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 User:cbhoward

ROAD CLOSED
 W20-3
 48" x 48"
 SP-4R
 42" x 12"
 NEXT RIGHT

R11-2
 48" x 30"
 ROAD CLOSED
 TYPE III BARRICADE(S)

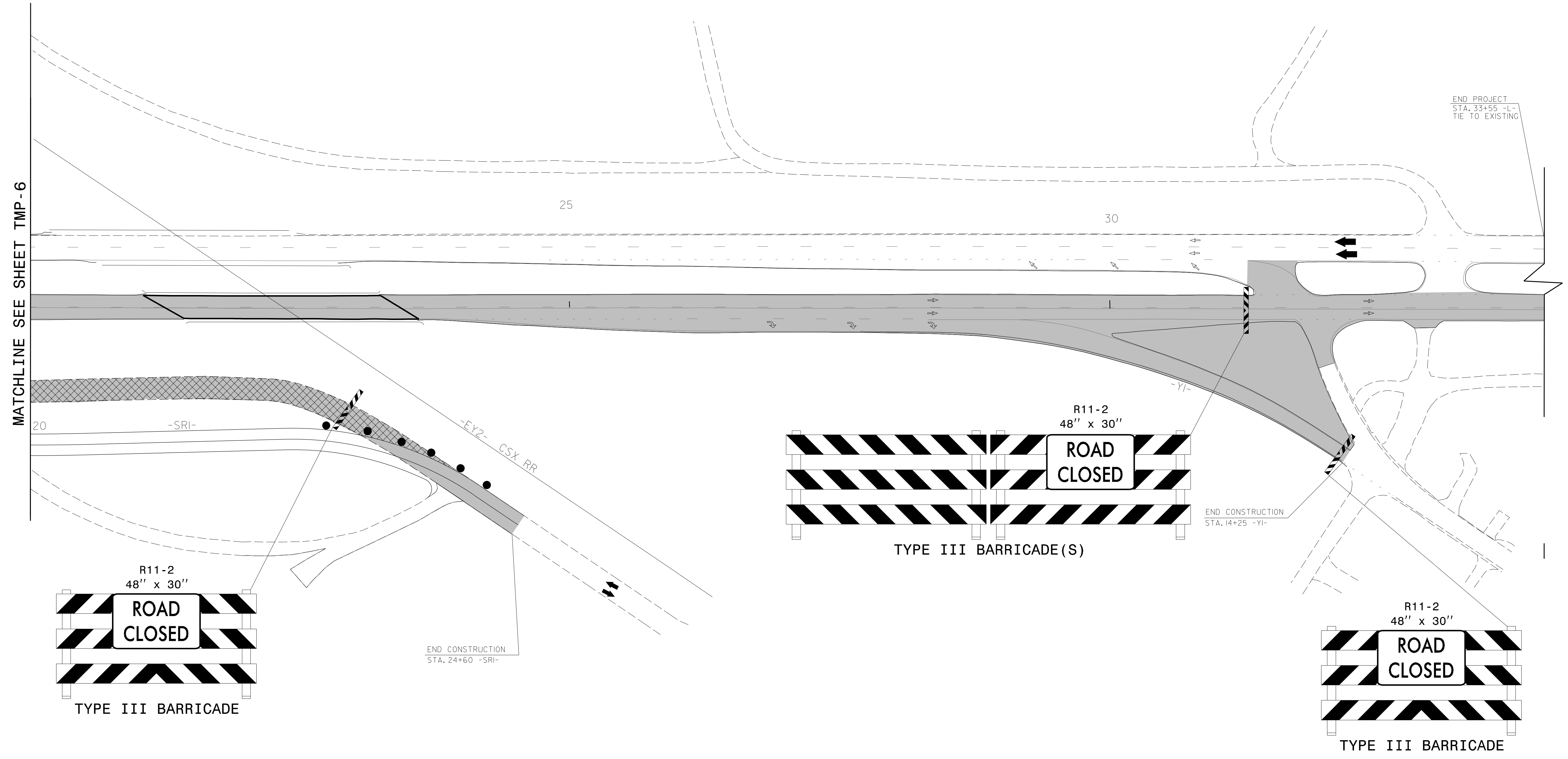
R11-2
 48" x 30"
 ROAD CLOSED
 TYPE III BARRICADE

APPROVED: _____
 DATE: 05/09/2023
 SEAL

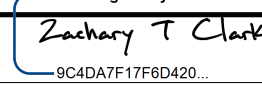


PHASE I, STEP 4
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 UNLESS ALL SIGNATURES COMPLETED

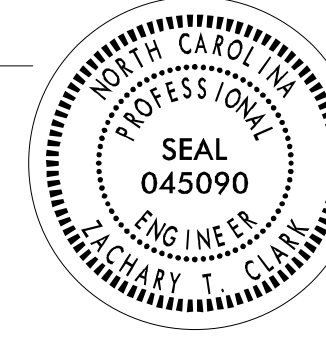
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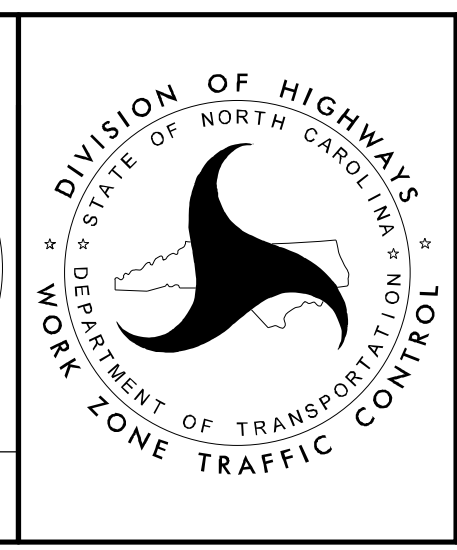


3/30/2023
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 User:cbhoward

APPROVED: 
DocuSigned by: Zachary T. Clark
9C4DA7F17F6E420

DATE: 05/09/2023

SEAL 



PHASE I, STEP 4

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