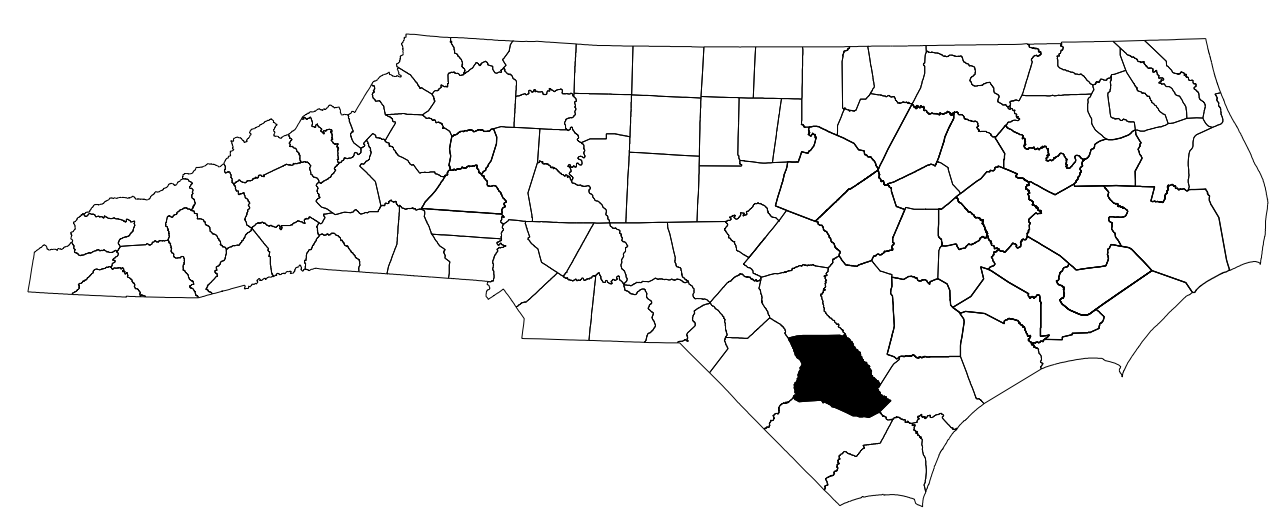


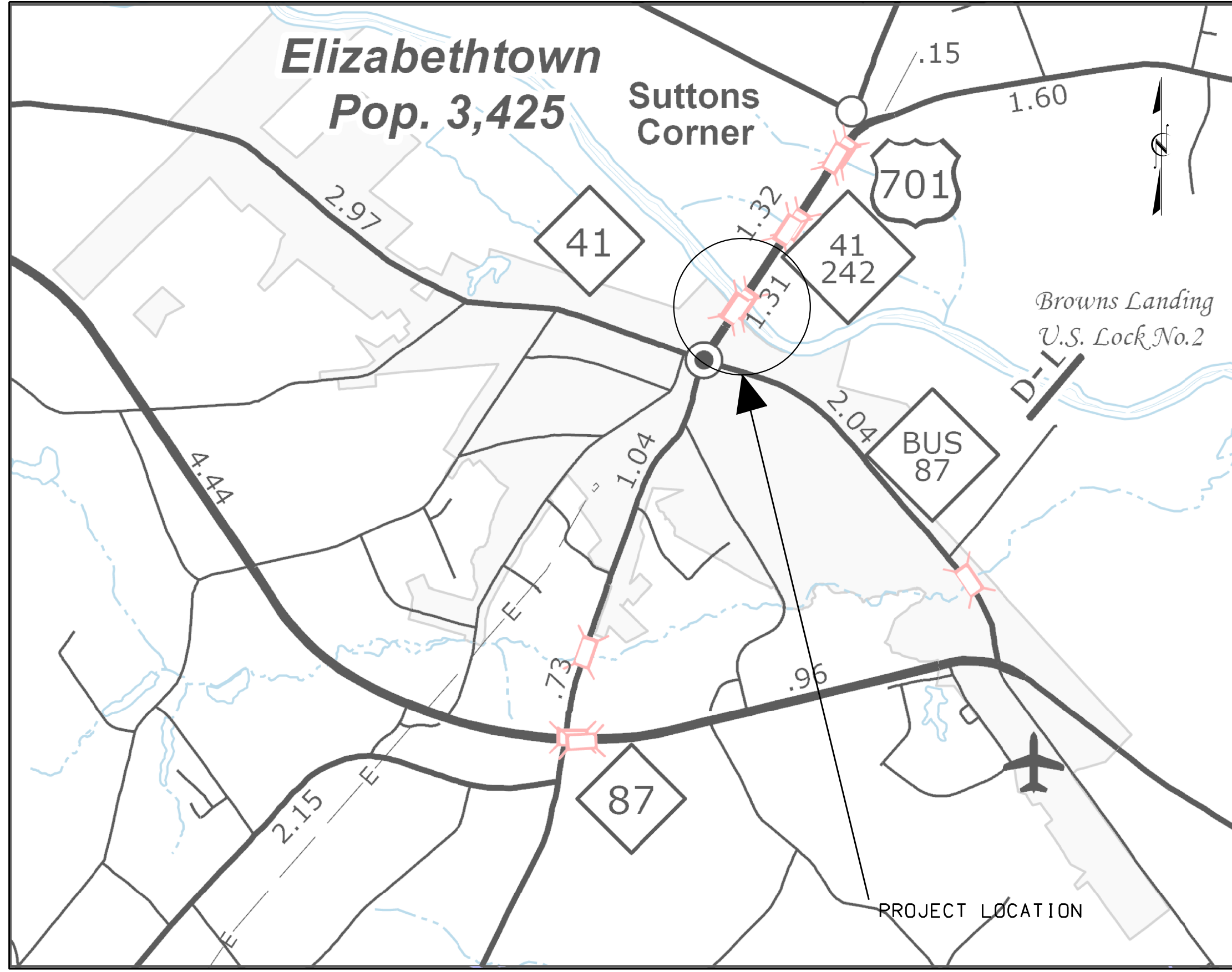
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BLADEN COUNTY



**LOCATION: EMERGENCY REPLACEMENT OF BRIDGE NO. 080016 & NO. 080017
OVER CAPE FEAR RIVER ON US 701, NC 41 & NC 242
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURES**

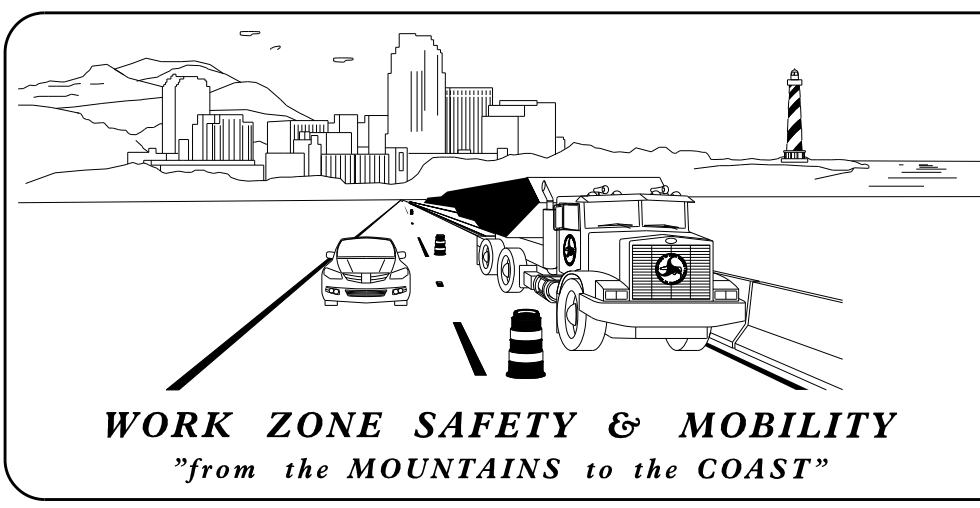


INDEX OF SHEETS

SHEET NO.	TITLE
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, AND LOCAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A	TEMPORARY SHORING NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 & 5	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-6 & 7	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
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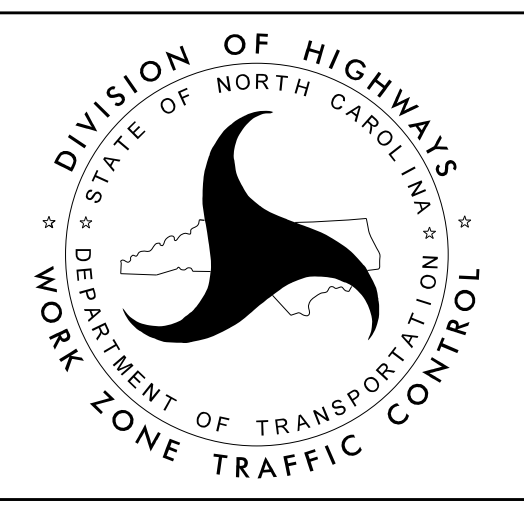
SHEET NO.
TMP-1

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PLANS PREPARED BY:
J.S. BOURNE, PE
M. MATHEW, EIT

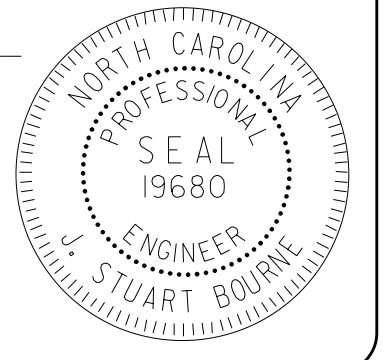
NCDOT CONTACTS:
PROJECT ENGINEER
PROJECT DESIGN ENGINEER



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UNLESS ALL SIGNATURES COMPLETED**

APPROVED: *J. Stuart Bourne*
DATE: 8/12/2020

SEAL



WBS 48793.3.1

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
1101.06	WARNING SIGNS FOR BLASTING ZONES
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
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMP
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

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

- 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

SYMBOL	DISCRIPTION
	PAINT (4")
P1	WHITE EDGELINE
P3	WHITE SKIP
P10	YELLOW EDGELINE
P13	YELLOW DOUBLE CENTER
	COLD APPLIED PLASTIC (4")
C1	WHITE EDGELINE
C3	WHITE SKIP
C13	YELLOW DOUBLE CENTER
	TEMPORARY RAISED MARKERS
MA	YELLOW & YELLOW

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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 UNDESIRABLE 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 - REQUIRES INTERMEDIATE CONTRACT TIME PROJECT SPECIAL PROVISIONS

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

ROAD NAME	DATE AND TIME RESTRICTIONS
	MONDAY THROUGH FRIDAY
US 701	6:00 AM TO 9:00 AM 4:00 PM TO 7:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES ON US 701 DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

- 1) FOR ANY UNEXPECTED OCCURENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2) FOR NEW YEARS' DAY, BETWEEN THE HOURS OF 6 AM DECEMBER 31 TO 7:00 PM JANUARY 2. IF NEW YEARS' DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN UNTIL 7:00 PM THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS 6:00 AM THURSDAY AND 7:00 PM MONDAY.
- 4) FOR THE WHITE LAKE WATER FESTIVAL, TYPICALLY HELD THE 3RD WEEKEND IN MAY, BETWEEN THE HOURS OF 6:00 AM THE THURSDAY BEFORE THE FESTIVAL AND 9:00 AM THE MONDAY AFTER THE FESTIVAL.
- 5) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 7:00 PM TUESDAY.
- 6) 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.
- 7) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 7:00 PM TUESDAY.
- 8) FOR THANKSGIVING, BETWEEN THE HOURS OF 6:00 AM TUESDAY TO 7:00 PM MONDAY.
- 9) 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 DAY.

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 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.
- 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) 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.

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

TRAFFIC PATTERN ALTERATIONS

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

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

TRAFFIC BARRIER

L) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

M) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH OR HIGHER	30 FT

TRAFFIC CONTROL DEVICES

N) 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 RADIUS, 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.

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
US 701	PAINT	RAISED

Q) 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.

R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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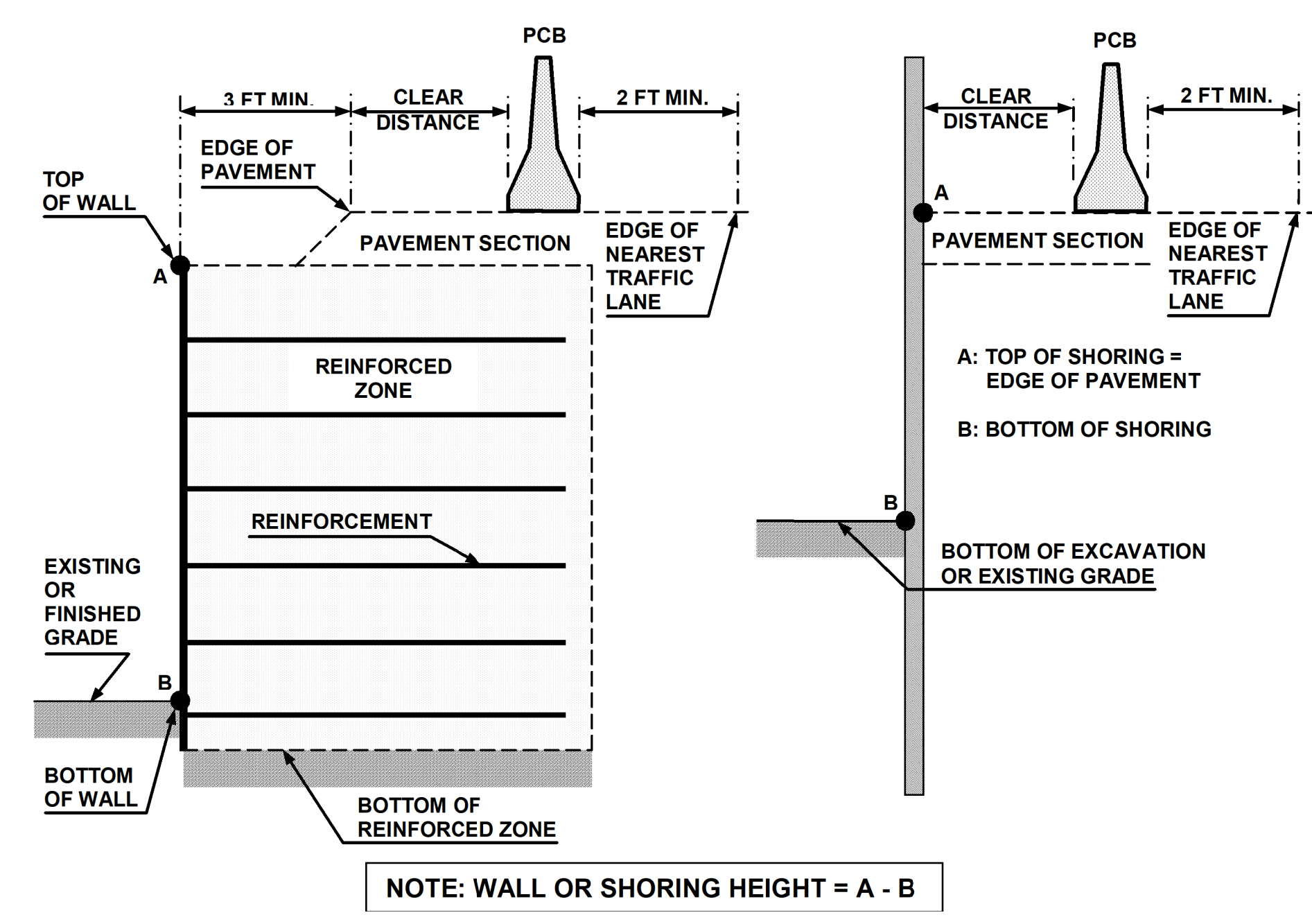


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- PCB IS REQUIRED IF TEMPORARY SHORING 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 UNIT FOR APPLICABLE PAVEMENT DESIGN).
- 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.
- 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 EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 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 AND OR AS APPROVED BY THE ENGINEER.
- 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 THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

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

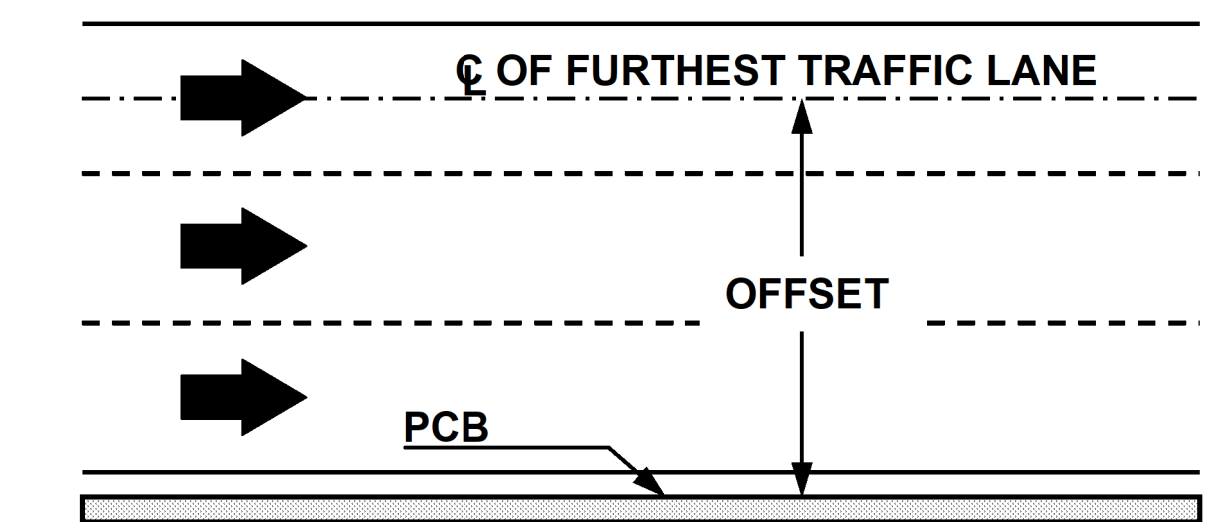


FIGURE B

APPROVED: <i>Stuart Bourne</i> DATE: 8/12/2020			PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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TEMPORARY SHORING 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- 112+50 +/-, 25''LT TO STATION -L- 113+50 +/-, 25''LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 GROUNDWATER ELEVATION = 37'
 UNIT WEIGHT (γ_a) = 120 PCF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 PSF
 AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 112+50 +/-, 25''LT TO STATION -L- 113+50 +/-, 25''LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.


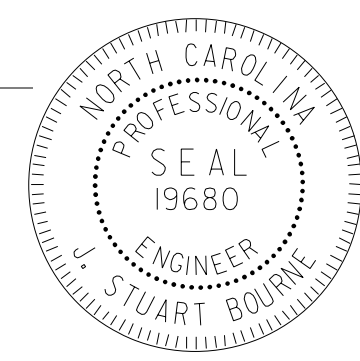
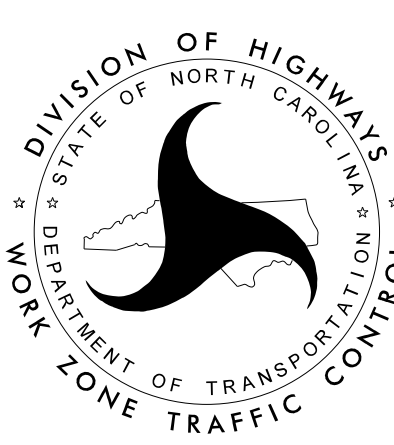
TEMPORARY SHORING NO. 2

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- 124+00 +/-, 25''LT TO STATION -L- 125+30 +/-, 25''LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 GROUNDWATER ELEVATION = 39'
 SOIL PARAMETERS ABOVE ELEVATION 48'
 UNIT WEIGHT (γ_a) = 120 PCF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 PSF
 SOIL PARAMETERS BETWEEN ELEVATION 48'' AND ELEVATION 39'
 UNIT WEIGHT (γ_a) = 110 PCF
 FRICTION ANGLE (ϕ) = 0 DEGREES
 COHESION (c) = 200 PSF
 SOIL PARAMETERS BELOW ELEVATION 39'
 UNIT WEIGHT (γ_a) = 110 PCF
 FRICTION ANGLE (ϕ) = 0 DEGREES
 COHESION (c) = 500 PSF

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Please also reference the Standard Temporary Shoring provision and Geotechnical Standard Detail No. 1801.01 included in the contract.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED BY SEALED DOCUMENTS SUBMITTED ON JULY 8, 2020 AND SEALED BY PROFESSIONAL ENGINEER, MATTHEW R. SNYDER LICENSE # 044566

APPROVED:  DATE: 8/12/2020 		TEMPORARY SHORING NOTES
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PHASING

PHASE I

STEP 1
USE SHEETS TMP-3 AND TMP-4 TO ERECT ADVANCED WORK ZONE WARNING SIGNS AND OTHER TRAFFIC CONTROL DEVICES AS SHOWN. REPLACE EXISTING NCDOT DRUMS WITH CONTRACTOR FURNISHED DRUMS KEEPING TRAFFIC IN ITS EXISTING TWO-LANE TWO-WAY PATTERN.

RETURN DEPARTMENT OWNED TRAFFIC CONTROL DEVICES TO NCDOT DIVISION 6 AS DESCRIBED IN THE CONTRACT SPECIAL PROVISIONS.

STEP 2
USE RSD 1101.02 SHEET 1 OF 14 CONSTRUCT CROSSOVER FROM -L- STA 108+50+/- TO STA 111+65+/- RESET/ADJUST GUARDLAIL AND PLACE PAVEMENT MARKING AND RAISED MARKERS AS SHOWN ON SHEET TMP-4

STEP 3
USING RSD 1101.02 PLACE NORTH BOUND TRAFFIC ON CROSS OVER AS SHOWN ON SHEET TMP-4.

WITH EXISTING TRAFFIC IN A TWO-LANE TWO-WAY PATTERN ON THE SB US 701 BRIDGE, CONSTRUCT STAGE I OF THE PROPOSED STRUCTURE (SEE STRUCTURE PLANS)

PHASE II

STEP 1
USE RSD 1101.02 SHEET 1 OF 14 TO CONSTRUCT CROSSOVER DETOURS FOR THE SB TRAFFIC. SEE ROADWAY PLANS. PLACE TEMPORARY PAVEMENT MARKING AS SHOWN ON SHEETS TMP-5 AND TMP-6.

STEP 2
USING RSD 1101.02 SHEET 1 OF 14 PLACE NB TRAFFIC IN THE OUTSIDE NB LANE ACROSS STAGE 1 OF THE PROPOSED STRUCTURE. COMPLETE TEMPORARY PAVEMENT MARKING AND PLACE SB TRAFFIC ON THE INSIDE PROPOSED NB LANE ACROSS STAGE 1 OF THE PROPOSED STRUCTURE AS SHOWN ON SHEETS TMP-5 AND TMP-6.

REMOVE EXISTING SB STRUCTURE AND CONSTRUCT STAGE 2 OF THE PROPOSED STRUCTURE. SEE STRUCTURE PLANS.

PHASE III

STEP 1
PLACE TEMPORARY PAVEMENT MARKING AND DRUMS ON STAGE 2 OF THE PROPOSED STRUCTURE AS SHOWN ON SHEETS TMP-7 AND TMP-8.

USING RSD 1101.02 SHEET 1 OF 14 PLACE SB TRAFFIC IN THE OUTSIDE SB LANE ACROSS STAGE 2 OF THE PROPOSED STRUCTURE. SEE SHEETS TMP-7 AND TMP-8.

STEP 2
WHILE THE EXISTING NB TRAFFIC IS IN THE OUTSIDE NB LANE, CLOSE THE INSIDE NB LANE USING DRUMS AS SHOWN ON SHEET TMP-7 AND REMOVE PORTABLE CONCRETE BARRIER AND ALL CONFLICTING PAVEMENT MARKING (DOUBLE YELLOW LINE).

CONSTRUCT 4 FOOT CONCRETE MONOLITHIC ISLANDS AND ALL OTHER MEDIAN WORK.

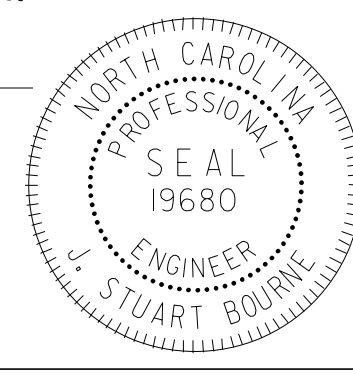
STEP 3
USING ALTERNATE LANE CLOSURES AND RSD 1101.02 SHEET 3 OF 14, PLACE PROPOSED PAVEMENT MARKING AND SIGNING. SEE PAVEMENT MARKING PLANS AND SIGNING PLANS.

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES INCLUDING ADVANCED WORK ZONE WARNING SIGNS AND OPEN ALL LANES TO PROPOSED TRAFFIC PATTERN.

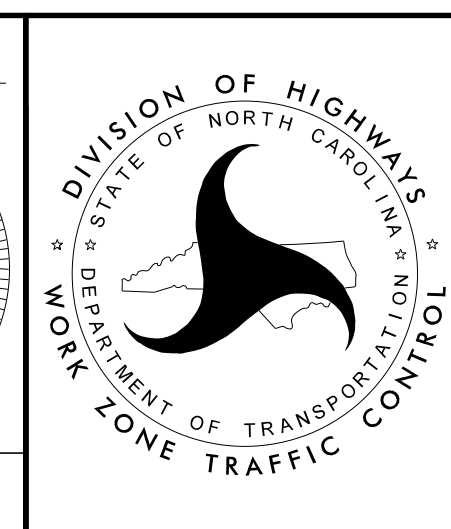
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DATE: 9/2/2020

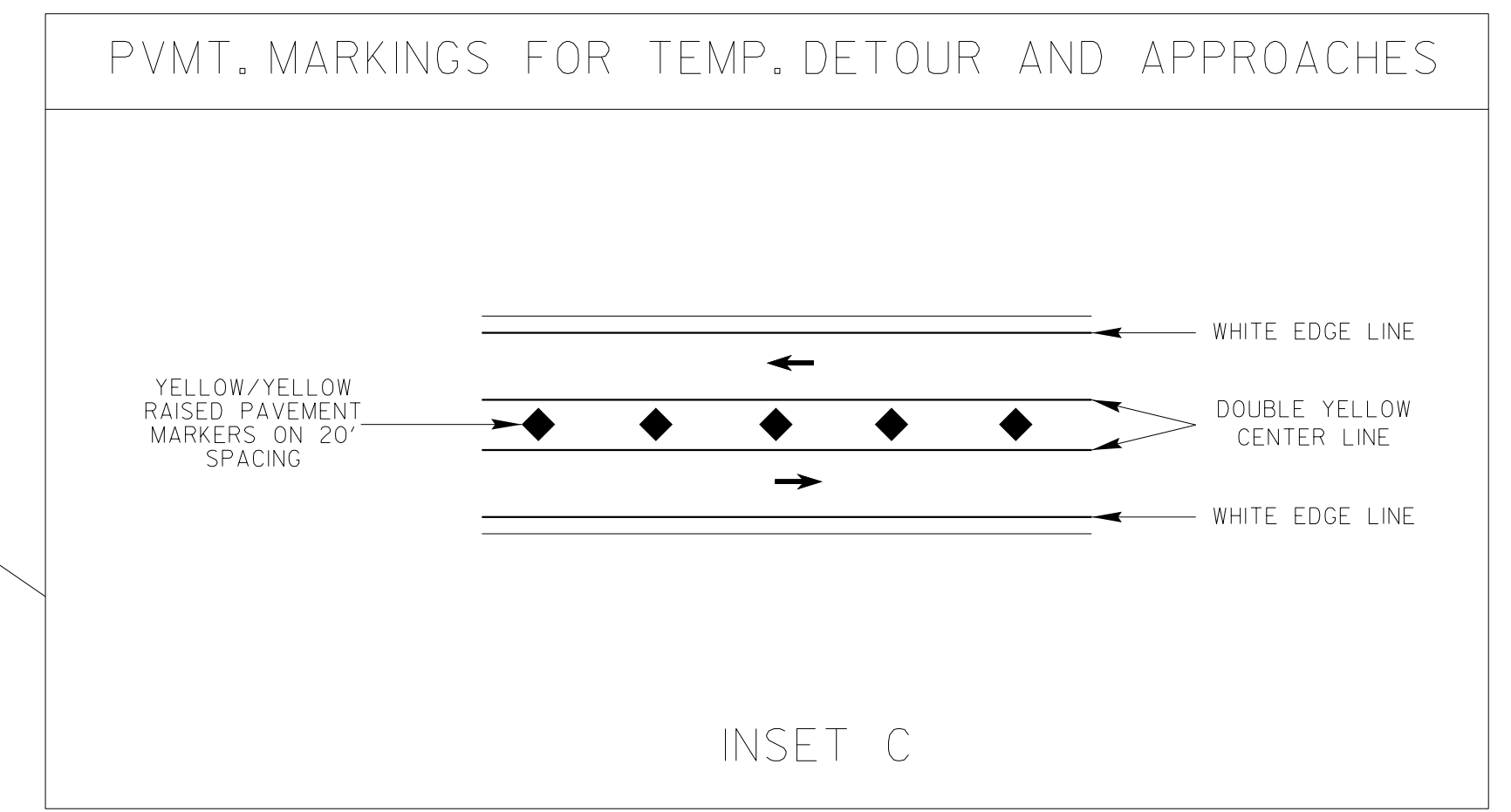
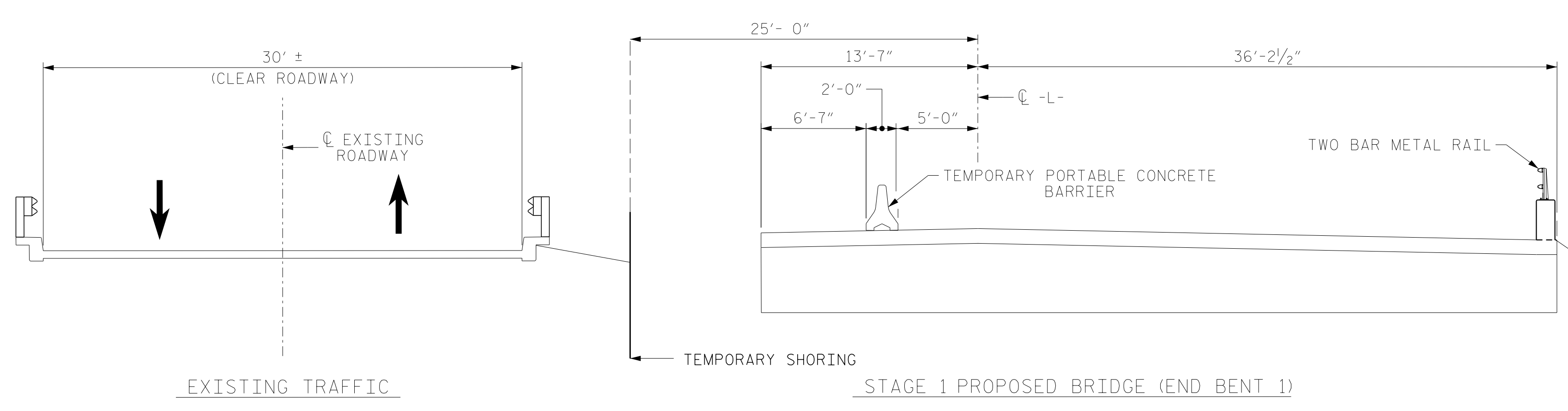
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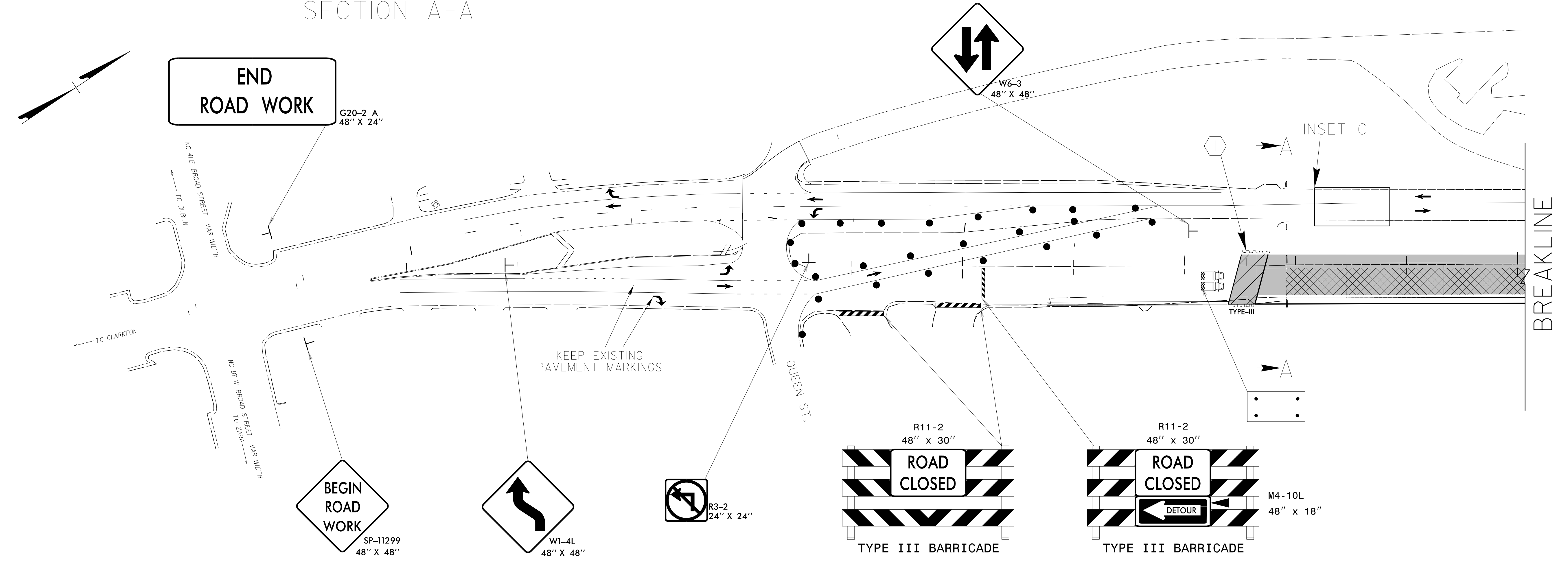
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PHASING



SECTION A-A



(I) TEMPORARY SHORING
 FROM STA. 112+50 +/- 25' LEFT OF ALIGNMENT
 FROM STA. 113+50 +/- 25' LEFT OF ALIGNMENT
 ESTIMATED LENGTH: 100', AVERAGE HEIGHT: 11'
 (SEE TEMPORARY SHORING DATA SHEET TMP-2A)

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 DATE: 8/12/2020
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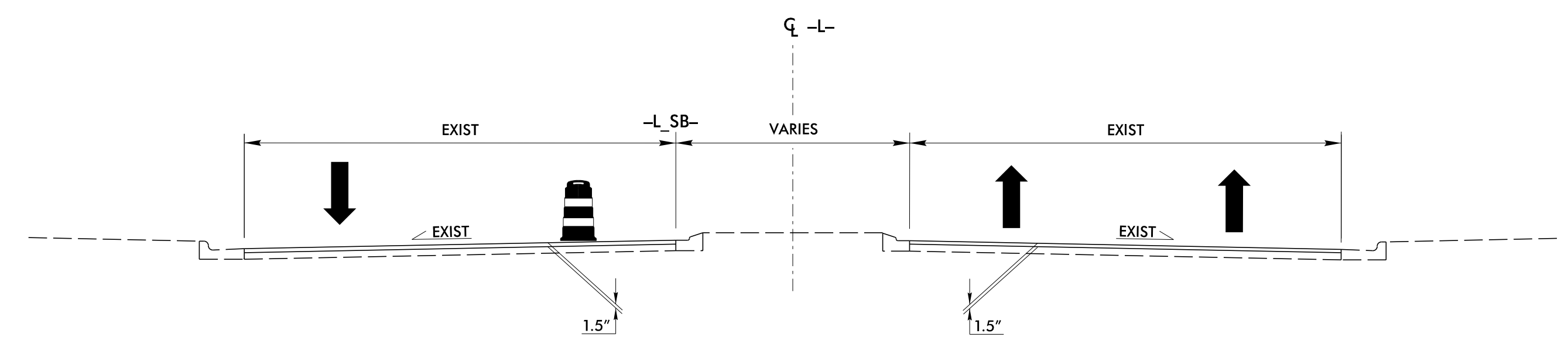
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DIVISION OF HIGHWAYS
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

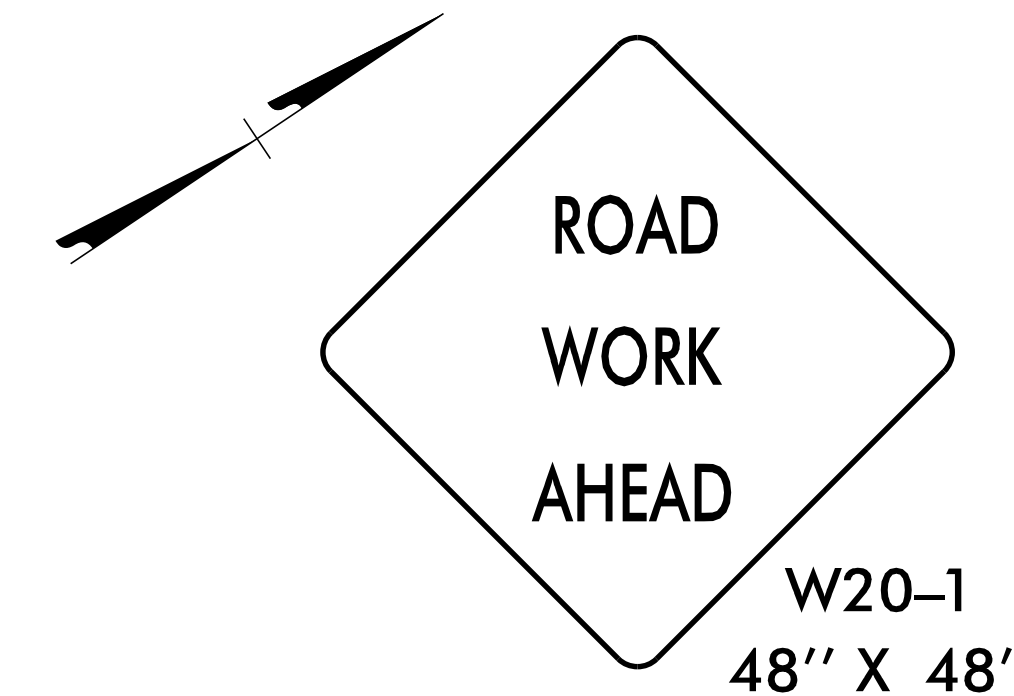
PHASE I

8/11/2020
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 User:mohit.matthew

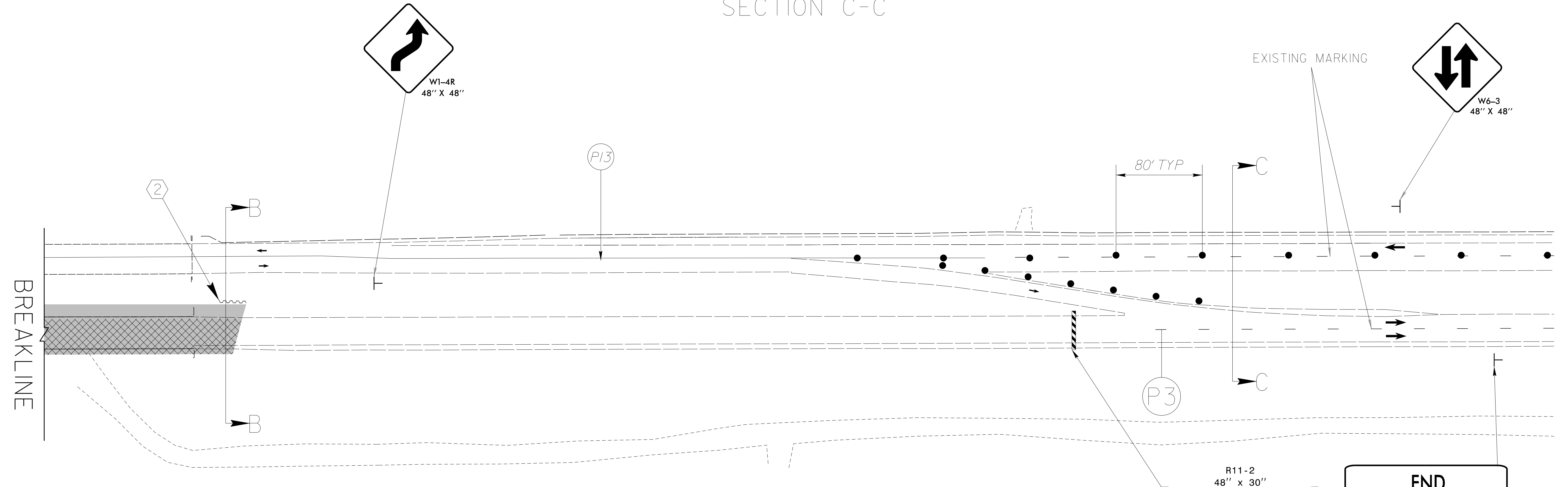
② TEMPORARY SHORING
 FROM STA. 124+00 +/- 25' LEFT OF ALIGNMENT
 FROM STA. 125+30 +/- 25' LEFT OF ALIGNMENT
 ESTIMATED LENGTH: 130', AVERAGE HEIGHT: 12'
 (SEE TEMPORARY SHORING DATA SHEET TMP-2A)



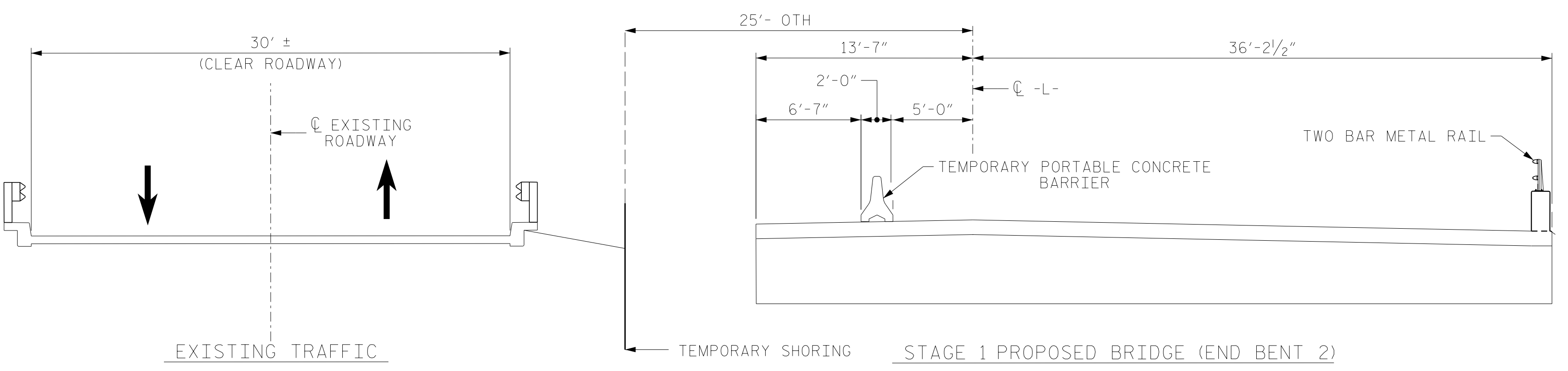
SECTION C-C



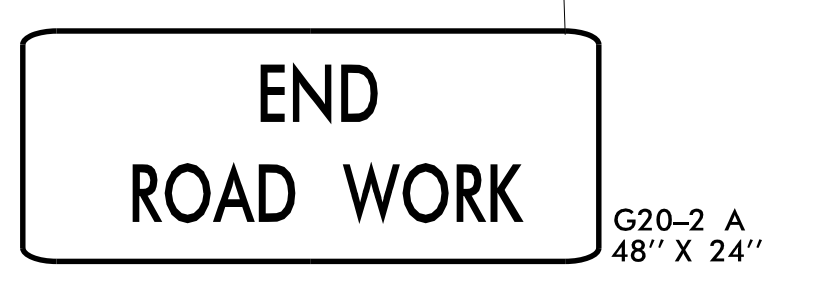
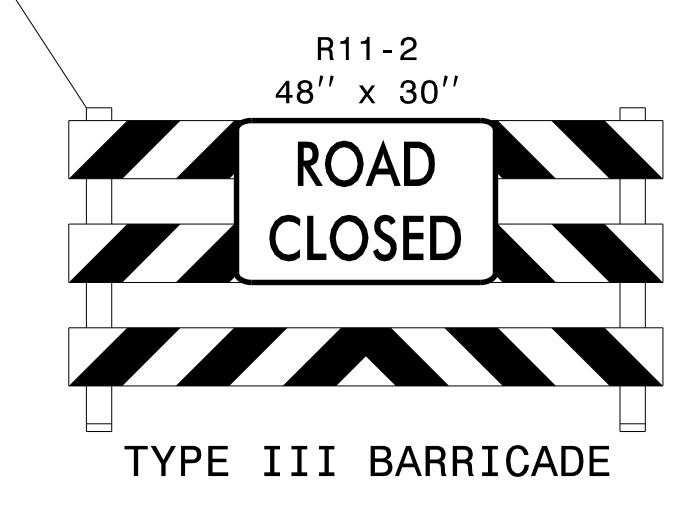
NOTE: PLACE WORK ZONE ADVANCE WARNING SIGN W20-1 (48" X 48") 1/4 MILE NORTH OF STA. 135+00.00 FOR SB TRAFFIC



BREAKLINE



SECTION B-B

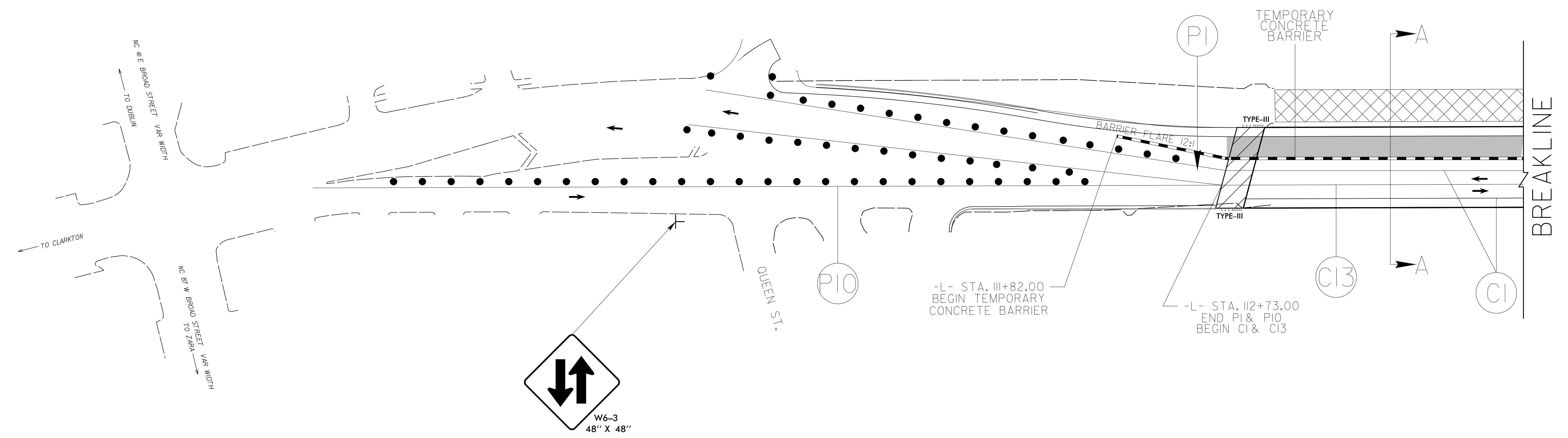
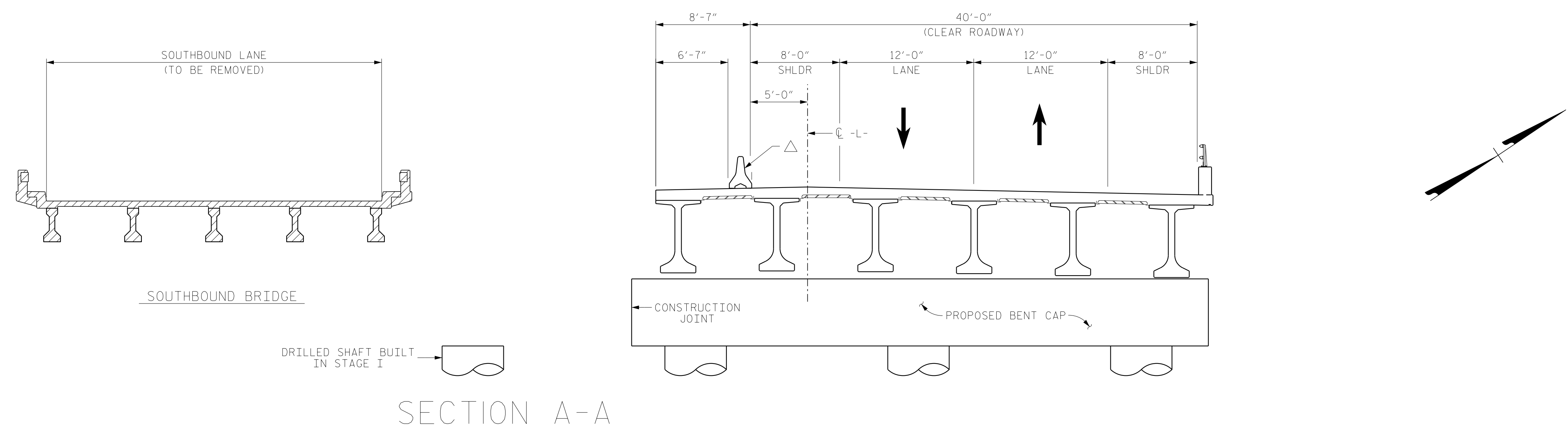


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 DATE: 8/12/2020
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PHASE I

8/11/2020
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 User:mohit.matthew

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DESIGNED BY
REGISTERED PROFESSIONAL ENGINEER

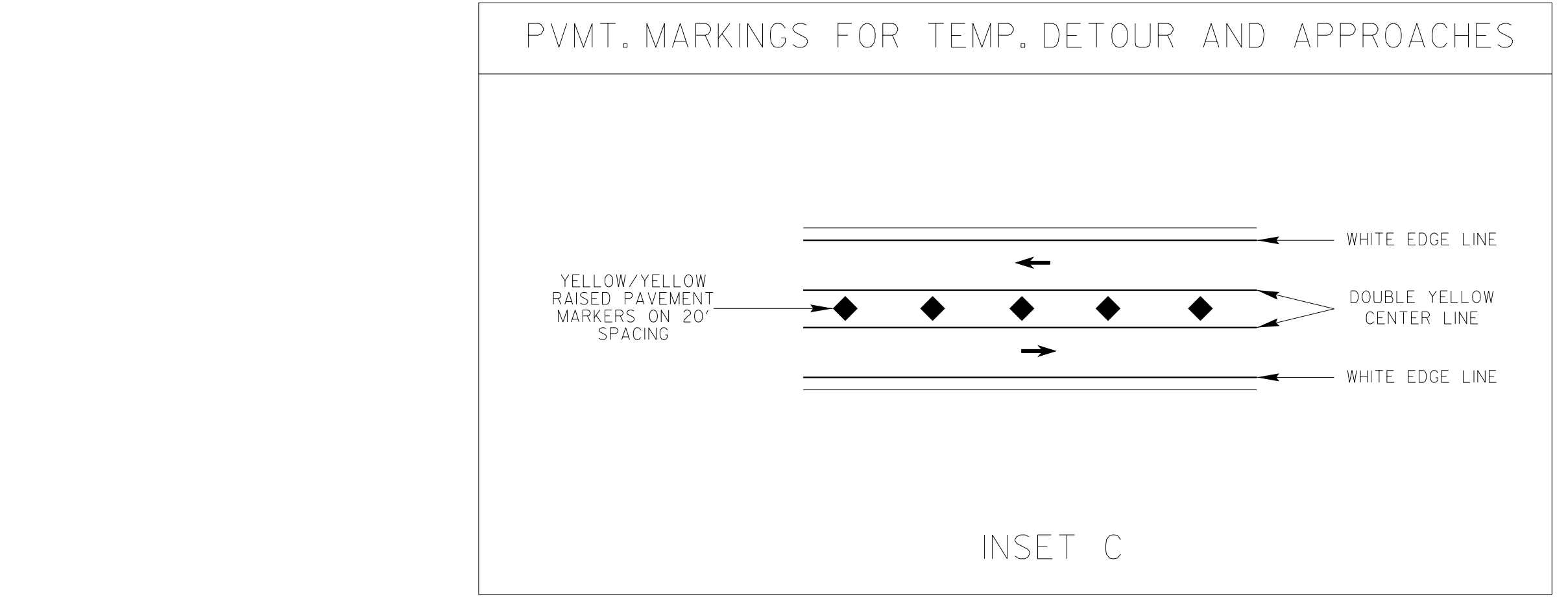
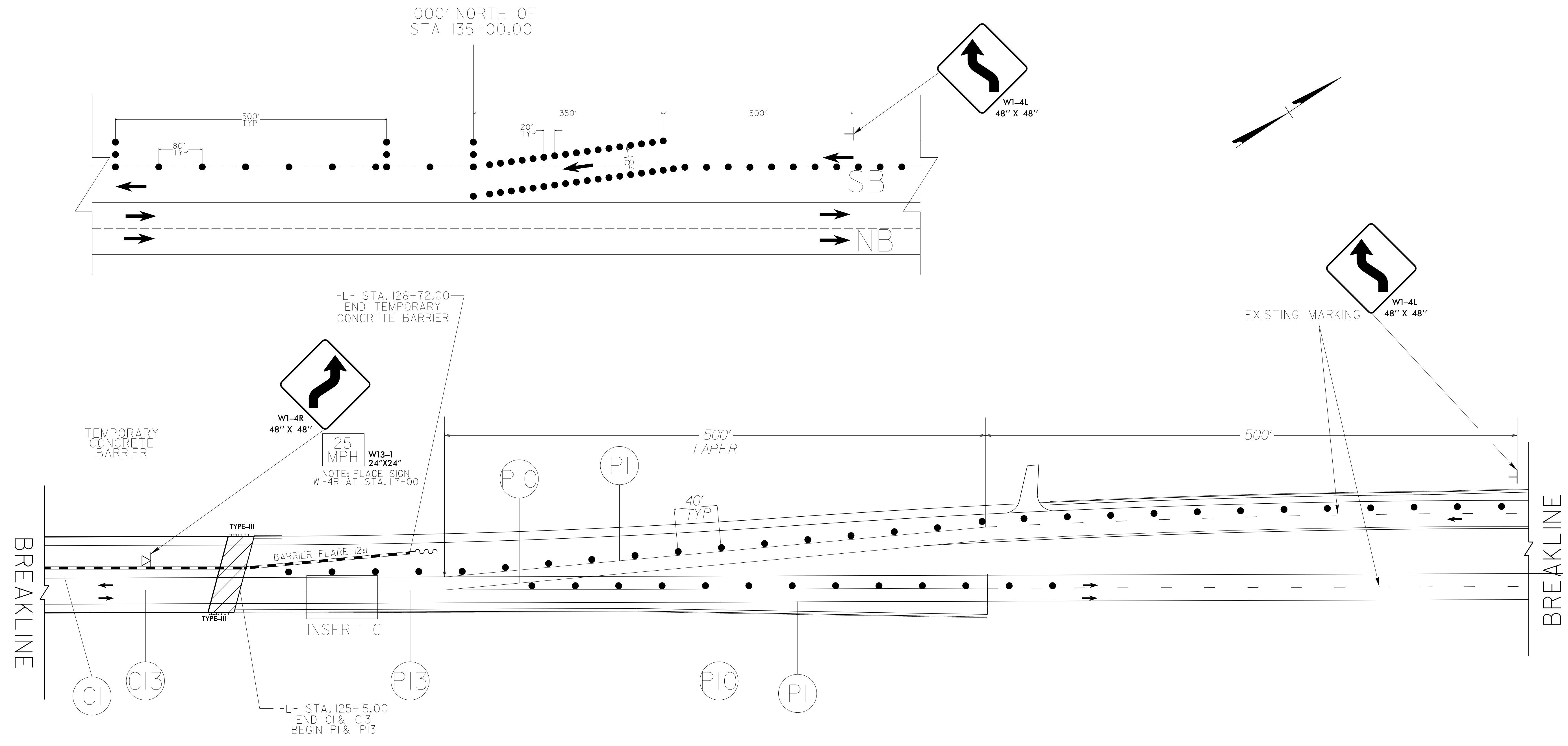
DATE: 8/12/2020

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DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

PHASE II



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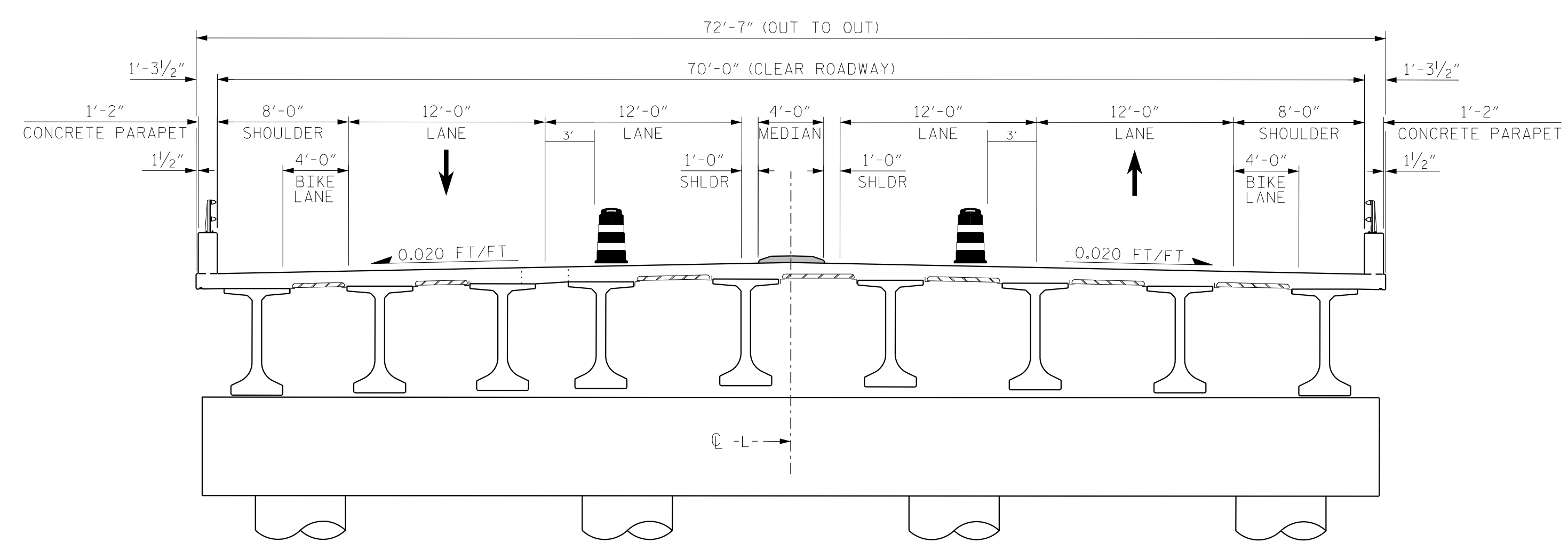
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ENGINEER

DATE: 8/12/2020

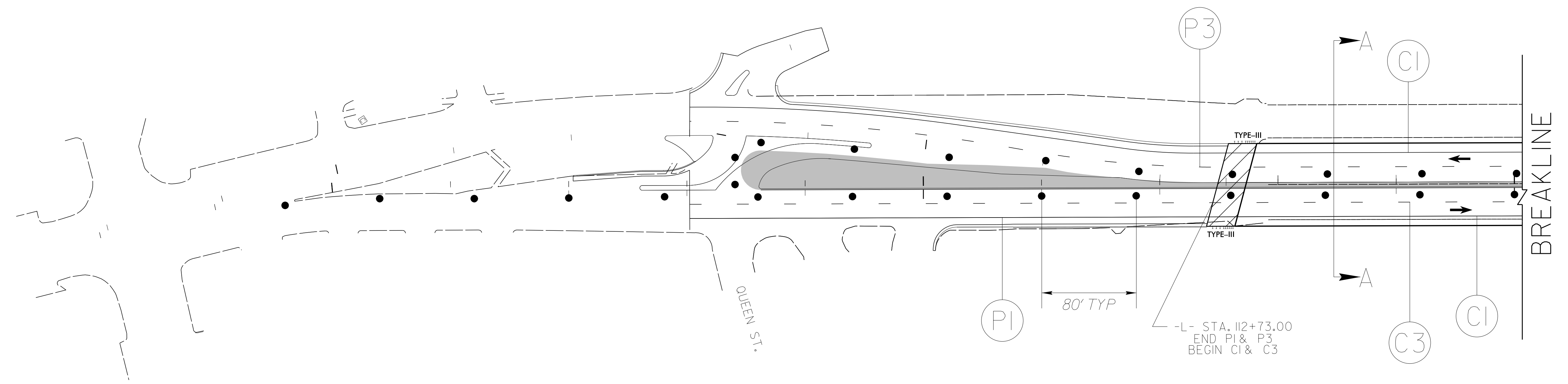
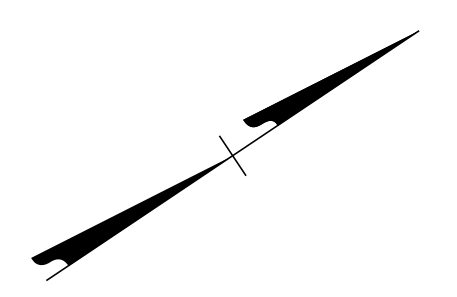
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PHASE II



SECTION A-A

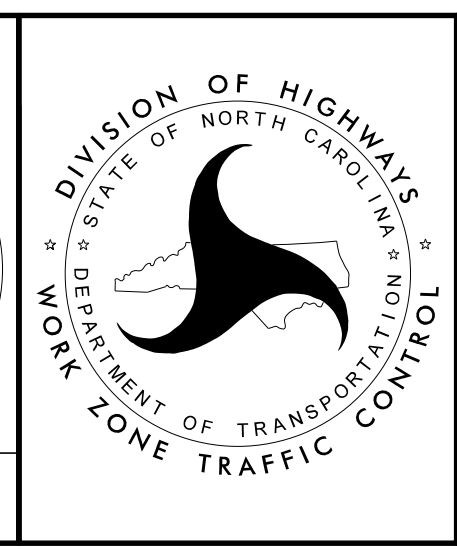


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User:mohit.mathew

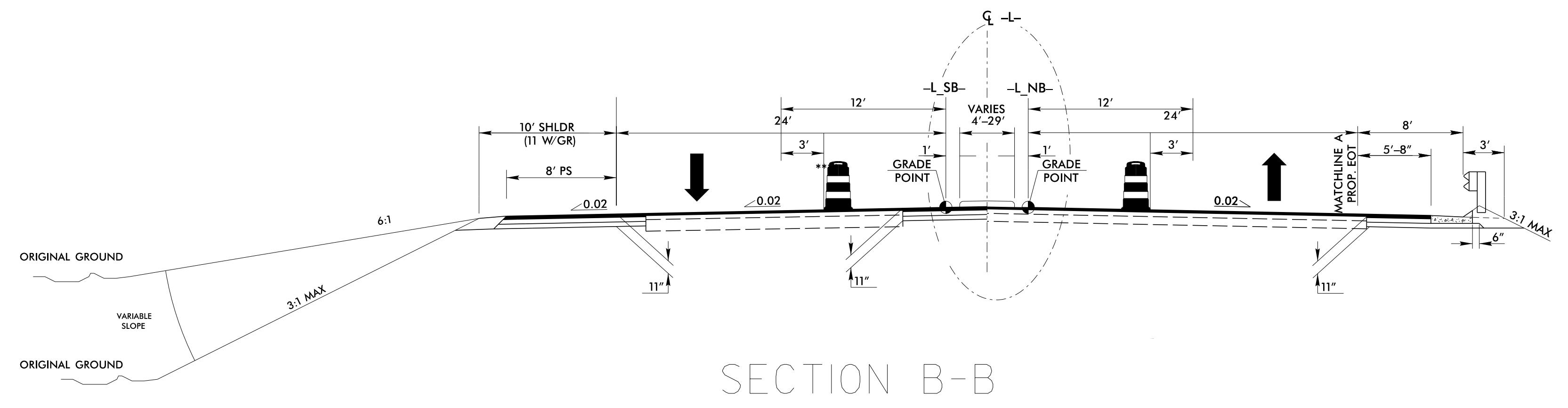
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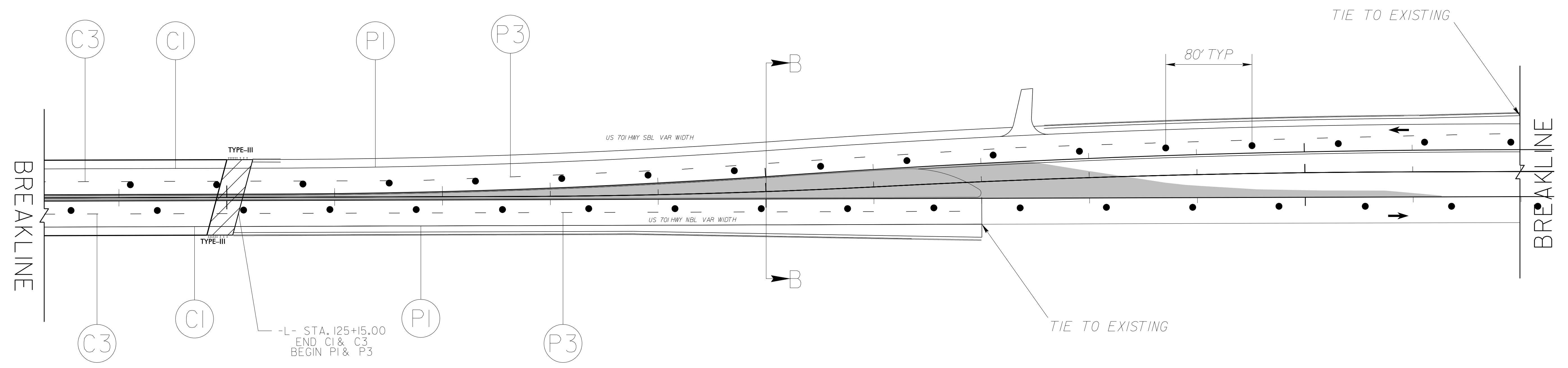
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PHASE III

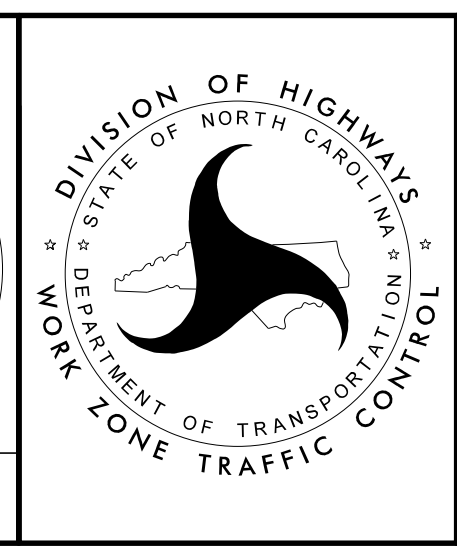
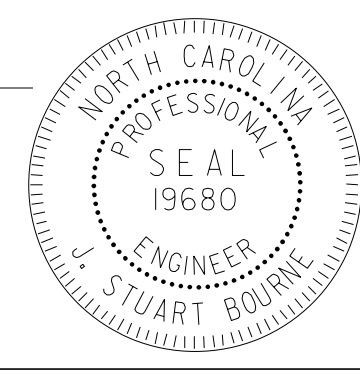


SECTION B-B



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PHASE III

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