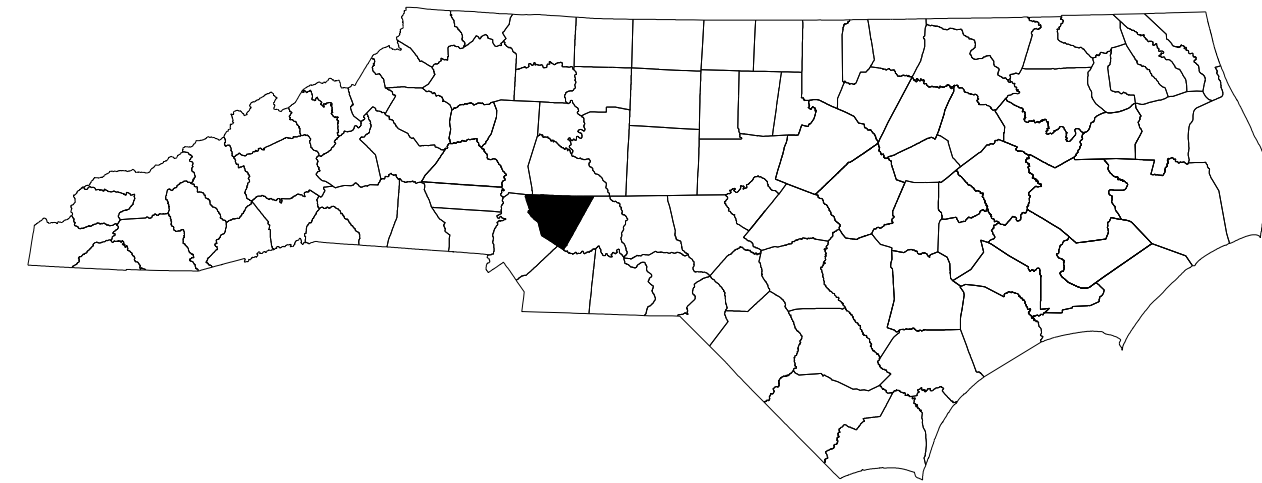


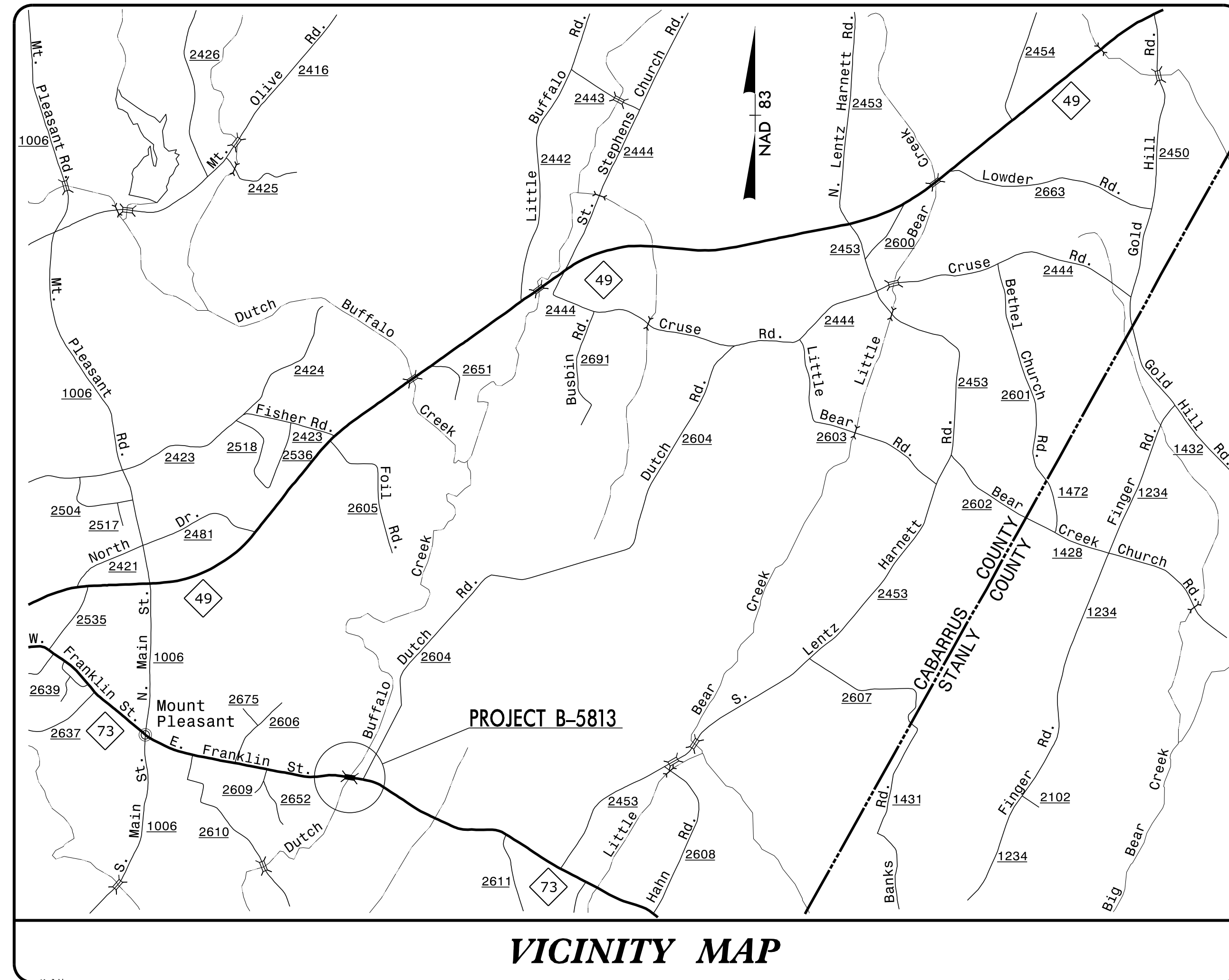
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**CABARRUS COUNTY**



LOCATION: BRIDGE NO.132 OVER DUTCH BUFFALO CREEK ON NC 73



**VICINITY MAP**

**INDEX OF SHEETS**

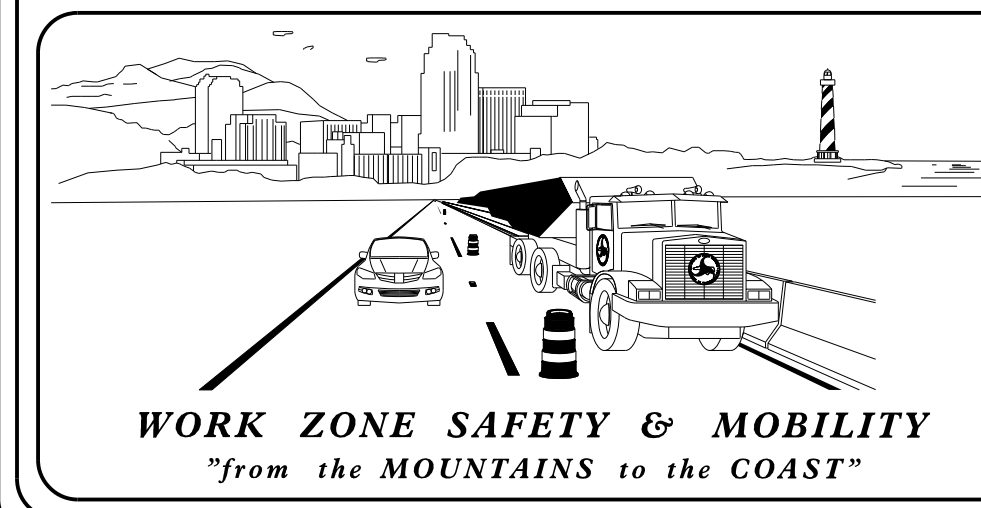
SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKINGS
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (TRANSPORTATION OPERATIONS AND GENERAL NOTES)
TMP-2	TEMPORARY SHORING NOTES
TMP-2A	PHASE I - OFF-SITE DETOUR - DUTCH ROAD
TMP-2B	SPECIAL SIGN DESIGN - DUTCH ROAD - SR 2604
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	PHASE I DETAILS (STEP 1 AND 2)
TMP-5	PHASE I DETAILS (STEP 1 AND 2)
TMP-6	PHASE I DETAILS (STEP 4 AND 5)
TMP-7	PHASE I DETAILS (STEP 4 AND 5)
TMP-8	PHASE II DETAILS
TMP-9	PHASE II DETAILS

SHEET NO.  
TMP-1

**B-5813**

**TIP PROJECT:**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**PLANS PREPARED BY:**  
D. A. PARKER, P.E.  
TRAFFIC CONTROL PROJECT ENGINEER

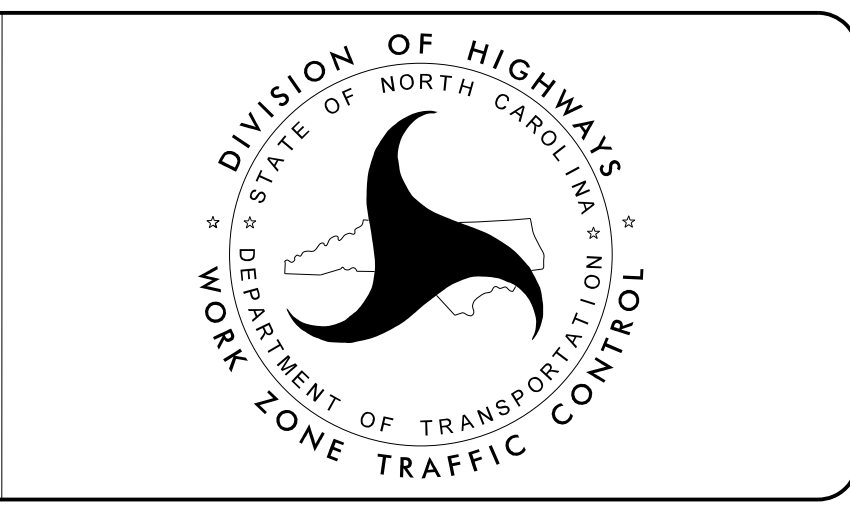
K. E. DAIS, P.E.  
TRAFFIC CONTROL PROJECT DESIGN ENGINEER

M. A. AKLILU  
TRAFFIC CONTROL DESIGN ENGINEER

**NCDOT CONTACTS:**

D. A. PARKER, P.E.  
PROJECT ENGINEER

K. E. DAIS, P.E.  
PROJECT DESIGN ENGINEER



APPROVED: \_\_\_\_\_  
DATE: 7/7/2021

SEAL

3/16/2021  
P:\TIP\Projects-B\B5813\TrafficControl\CP\B5813\_TC\_TMP\_1.dgn  
User:macklilu

# 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
- ON-GOING CONSTRUCTION

## 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

- C1(IV) - COLD APPLIED PLASTIC (TYPE 4) - WHITE EDGELINE - (4")
- C2(IV) - COLD APPLIED PLASTIC (TYPE 4) - WHITE SOLID LANE LINE - (4")
- C4(IV) - COLD APPLIED PLASTIC (TYPE 4) - 3 FT. - 9 FT./SP WHITE MINISKIP - (4")
- C13(IV) - COLD APPLIED PLASTIC (TYPE 4) - YELLOW DOUBLE CENTER - (4")
- C70(IV) - COLD APPLIED PLASTIC (TYPE 4) - LEFT TURN ARROW
- P1 - PAINT - WHITE EDGELINE - (4")
- P2 - PAINT - WHITE SOLID LANE LINE - (4")
- P4 - PAINT - 3 FT. - 9 FT./SP WHITE MINISKIP - (4")
- P5 - PAINT - 2 FT. - 6 FT./SP WHITE MINISKIP - (4")
- P13 - PAINT - YELLOW DOUBLE CENTER - (4")
- P52 - PAINT - YELLOW DIAGONAL - (12")
- P61 - PAINT - WHITE STOP BAR - (24")
- P70 - PAINT - LEFT TURN ARROW
- MA - MARKER - TEMPORARY RAISED (YELLOW & YELLOW)

3/16/2021 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_1A.dgn User:tmackillu

APPROVED: DATE: 7/7/2021 		<b>ROADWAY STANDARD DRAWINGS &amp; LEGEND</b>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		



## 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

A) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY & TIME RESTRICTIONS	DURATION & OPERATION
NC 73 (-L-)	MONDAY THRU SUNDAY 6:00 AM - 7:00 PM	30 MIN STOPPAGE FOR GIRDER INSTALLATION

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

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	MONDAY THRU FRIDAY 6:00 A.M. - 9:00 A.M. 3:00 P.M. - 6:00 P.M.

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

- | ROAD NAME | HOLIDAY |
|-----------|---------|
| ALL ROADS |         |
- 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 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
  - FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY TO 6:00 P.M. MONDAY.
  - FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
  - FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 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 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
  - FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
  - FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
  - FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

### 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.
- 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 TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

- K) NOTIFY THE ENGINEER THIRTY (30) 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) 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 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.
- Q) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

### PAVEMENT MARKINGS AND MARKERS

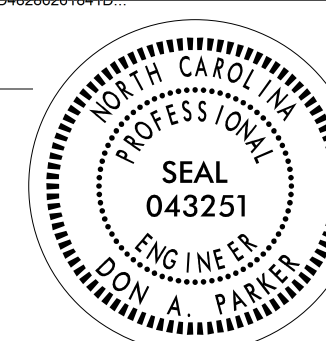
- R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
NC 73 (-L-)	PAINT	N/A
SR 2604 (-Y-)	PAINT	N/A

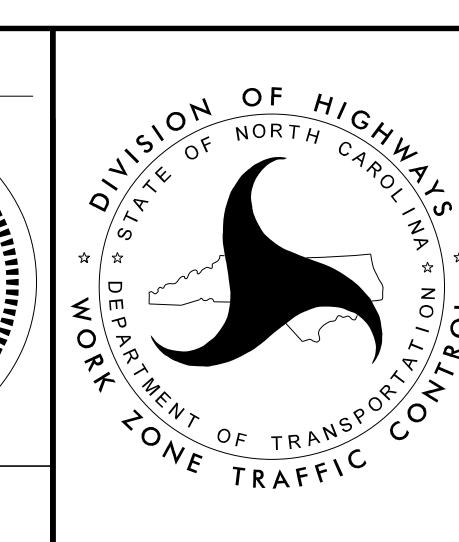
- S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- V) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN FINAL PAVEMENT MARKING PLAN.

APPROVED: \_\_\_\_\_  
DATE: 9/1/2021

DocuSigned by:  
Don A. Parker  
4024829262618410



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



# TRANSPORTATION OPERATIONS PLAN

SHORING LOCATION NO.	BEGIN STATION AND OFFSET	END STATION AND OFFSET	ESTIMATED AVERAGE HEIGHT	ESTIMATED MAXIMUM HEIGHT	SHORING LOCATION TYPE
NO. 1	STA. 20+56+/- -L- 28 FT. RT.	STA. 20+81+/- -L- 28 FT. RT.	3.9 FT.	4.1 FT.	STRUCTURE

### TEMPORARY SHORING NOTES

**SHORING LOCATION NO. 1**

TEMPORARY SHORING IS REQUIRED FOR THE END BENT INSTALLATION FROM STA. 20+56+/- -L-, 28' RT., TO STA. 20+81+/- -L-, 28' RT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.


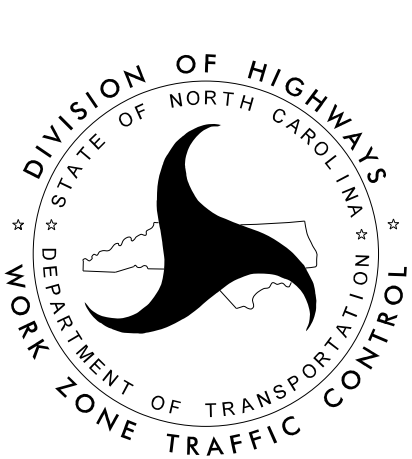
DESIGN TEMPORARY SHORING FROM STA. 20+56+/- -L-, 28' RT., TO STA. 20+81+/- -L-, 28' RT., FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 0 DEGREES  
 COHESION ( $c$ ) = 200 LB/SF  
 GROUNDWATER ELEVATION = 513 FT.

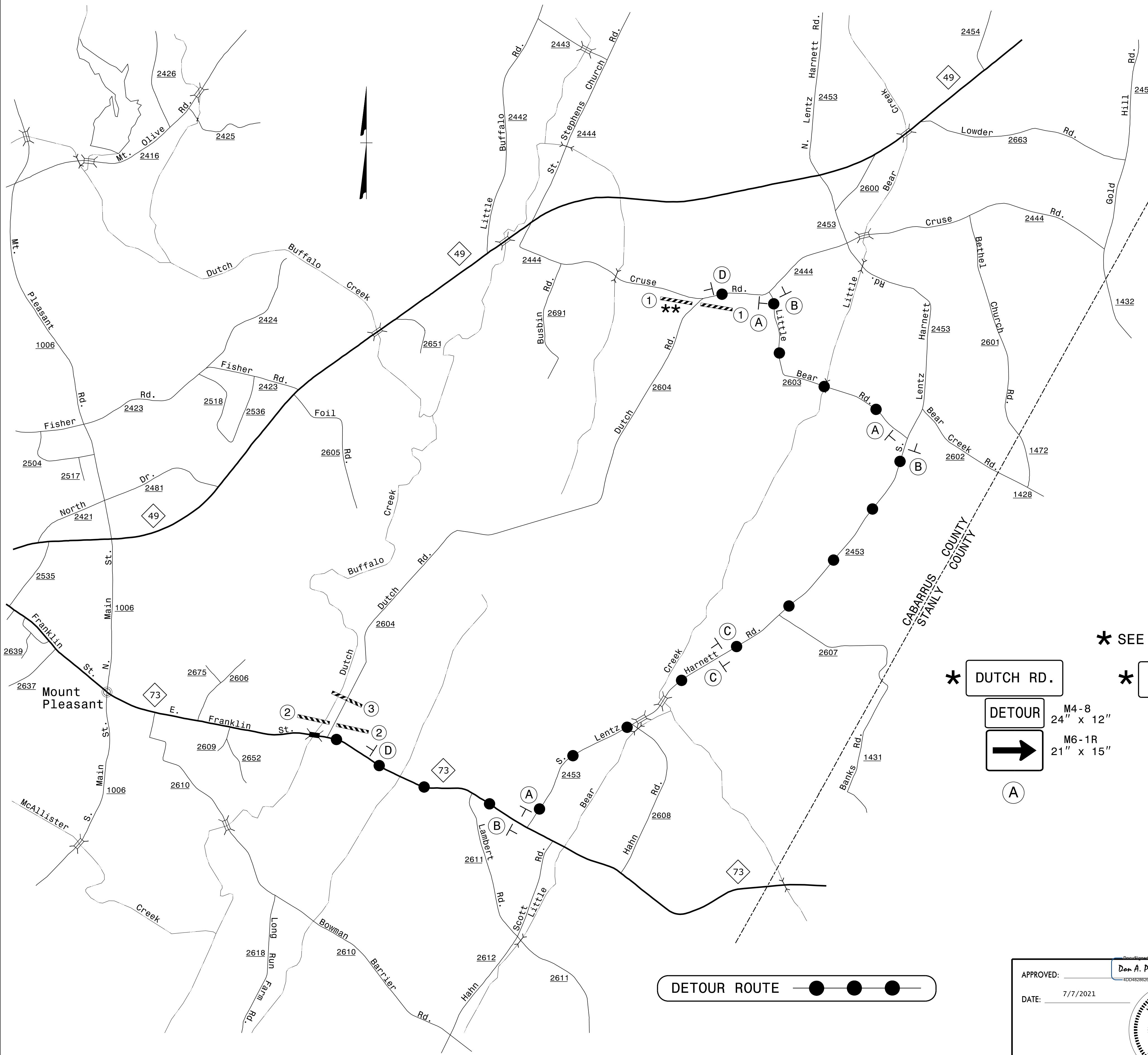
DRIVEN PILING FOR TEMPORARY SHORING FROM STA. 20+56+/- -L-, 28' RT., TO STA. 20+81+/- -L-, 28' RT. MAY NOT PENETRATE BELOW ELEVATION 501.5 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STA. 20+56+/- -L-, 28' RT., TO STA. 20+81+/- -L-, 28' RT.

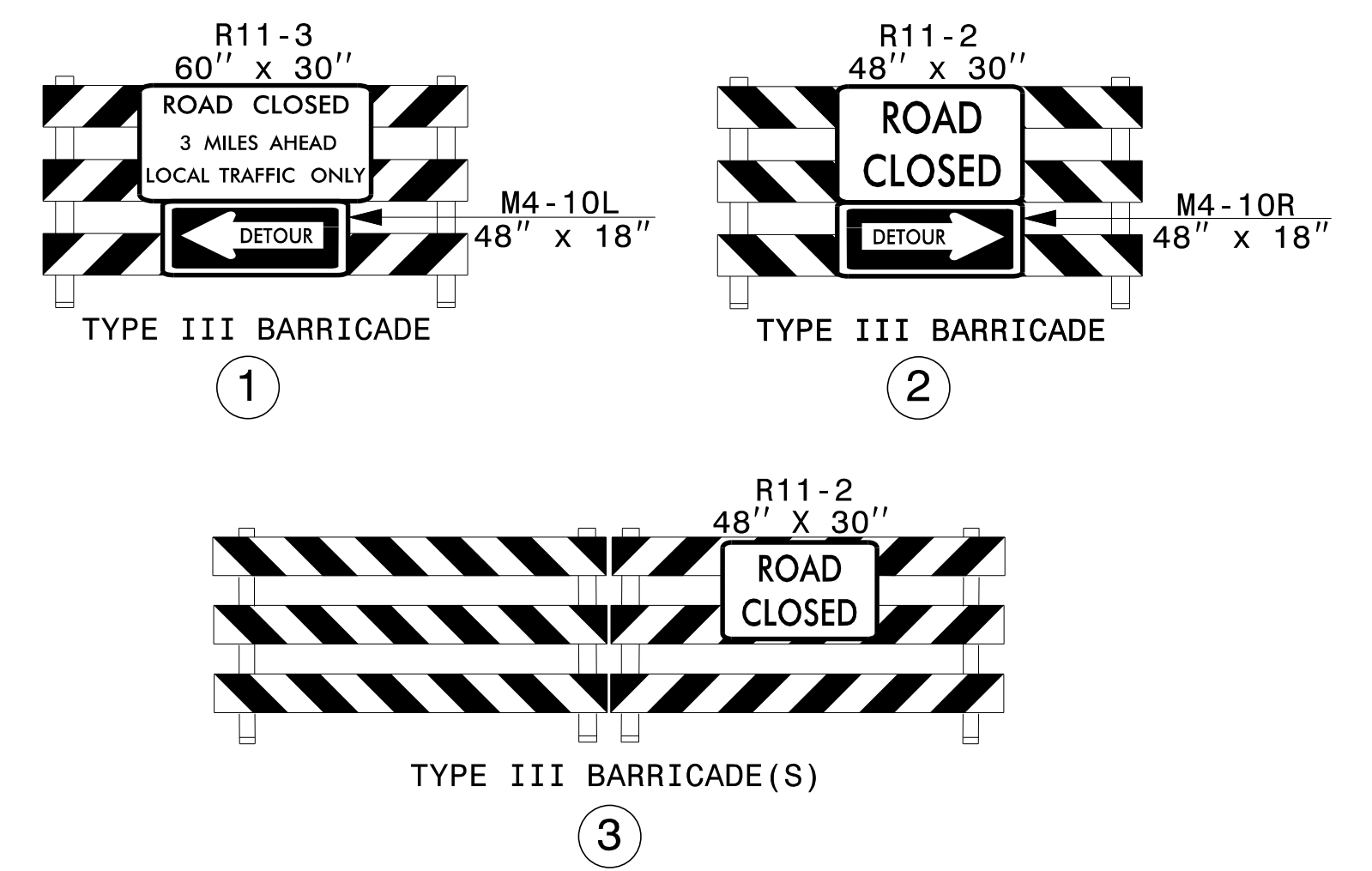
3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_2.dgn  
 User:smackillu

APPROVED:  DATE: 7/12/2021		
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>		
<h2 style="margin: 0;">TEMPORARY SHORING NOTES</h2>		

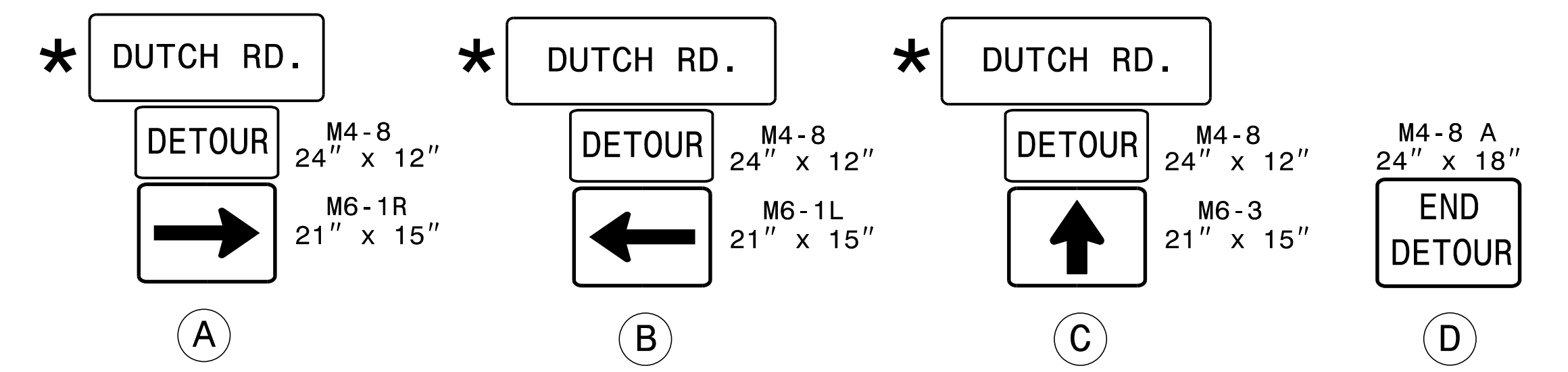




**\*\* SEE RSD 1101.03, SHEET 1 AND 2 OF 9, FOR ADDITIONAL WORK ZONE SIGNS AND LOCATIONS.**



**\* SEE SHEET TMP-2B FOR SIGN DESIGN**



DETOUR ROUTE —●—●—●—

3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\CP\B5813\_TC\_TMP-2A.dgn  
 User:smackfilu

APPROVED: <i>Don A. Parkes</i> DATE: 7/7/2021 		<b>OFF-SITE DETOUR DUTCH ROAD SR 2604</b>
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>		

<b>SIGN NUMBER:</b> SP19077 <b>TYPE:</b> STATIONARY <b>QUANTITY:</b> SEE PLANS  <b>SIGN WIDTH:</b> 3'-0" <b>HEIGHT:</b> 1'-6" <b>TOTAL AREA:</b> 4.5 Sq.Ft.  <b>BORDER TYPE:</b> INSET <b>RECESS:</b> 0.38" <b>WIDTH:</b> 0.63" <b>RADII:</b> 1.5"  <b>NO. Z BARS:</b> <b>LENGTH:</b>	<b>BACKG COLOR:</b> Fluorescent Orange <b>COPY COLOR:</b> Black	<b>DESIGN BY:</b> W. Johnson <b>PROJECT ID:</b> B-5813	<b>CHECKED BY:</b> <b>LOCATION:</b>	<b>May 14, 2019</b> <b>DIV:</b> DIV																																													
	<table border="1"> <thead> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	SYMBOL	X	Y	WID	HT																																											
SYMBOL	X	Y	WID	HT																																													
<b>USE NOTES: 1,2</b>  1. Legend and border shall be direct applied black non-reflective sheeting. 2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.																																																	
Spacing Factor is 1 unless specified otherwise																																																	

**LETTER POSITIONS**

Letter spacings are to start of next letter											Series/Size
D	U	T	C	H	R	D					Text Length
2.5	4.5	4.2	3.8	4.5	3.4	3	4.3	3.4	2.5		D 2000
											30.9

FILENAME: B-5813

NORTH CAROLINA D.O.T. SIGN DETAIL

3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_2B.dgn  
 User:mackfilu

APPROVED: <u>Renée B. Roach</u> <small>3EB4308D316431</small> DATE: 7/7/2021  		<b>SPECIAL SIGN DESIGN DUTCH ROAD</b>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		

# TEMPORARY TRAFFIC CONTROL PHASING

NOTE: PRIOR TO CONSTRUCTION, INSTALL ADVANCE WARNING SIGNS ON NC 73 AND DUTCH RD. PER RSD 1101.01, SHEET 3

**PHASE I**

STEP 1 -- USING RSD 1101.02, SHEET 1, INSTALL TEMPORARY GUARDRAIL IN THE FOLLOWING LOCATIONS:

- L- STA. 16+96 +/- TO STA. 20+85 +/-
- L- STA. 22+74 +/- TO STA. 25+05 +/-

NOTE: USE INCIDENTAL STONE FOR PARCEL 4 DRIVEWAY ACCESS LOCATED AT -Y- STA. 12+50 +/- UNTIL PROPOSED DRIVEWAY ON -L- IS OPERATIONAL.

NOTE: STEPS 2 THROUGH 5 MAY BE PERFORMED CONCURRENTLY

STEP 2 -- USING RSD 1101.02, SHEET 1 AS NECESSARY, CONSTRUCT PROPOSED -L- INCLUDING TEMPORARY SHORING, BRIDGE AND APPROACHES UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS (SEE TMP-4 AND 5):

- L- STA 12+70 +/- TO STA. 25+45 +/-
- L- STA 26+72 +/- TO 31+30 +/-

-- FOR TEMPORARY SHORING NOTES, SEE TMP-2

NOTE: COMPLETE THE WORK OF PHASE I, STEP 3 USING 30 MINUTE TRAFFIC STOPS BETWEEN THE HOURS OF 7:00 PM AND 6:00 AM. AFTER 30 MINUTES, USE FLAGGER CONTROL TO DEplete THE TRAFFIC QUEUE (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

STEP 3 -- USING RSD 1101.03, SHEET 8, DELIVER AND INSTALL PROPOSED GIRDERS. USE CHANGEABLE MESSAGE SIGNS (INSTALLED A HALF MILE NORTH AND SOUTH OF THE PROJECT) PRIOR TO AND DURING THIS OPERATION AS SHOWN ON TMP-4 AND 5

COMPLETE THE WORK OF PHASE I, STEP 4 IN TWENTY-ONE CALENDAR DAYS (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

STEP 4 -- CONSTRUCT DUTCH RD. (-Y-) UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

- A. CLOSE AND DETOUR DUTCH RD. (SEE RSD 1101.03, SHEET 1 AND TMP-2A)
- B. CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE TMP-6):
  - L- STA 25+45 +/- TO STA. 26+72 +/-
  - Y- STA 12+50 +/- TO STA. 14+22 +/-
- C. CONSTRUCT TEMPORARY PAVEMENT TIE IN BETWEEN DUTCH RD. AND NC 73 (SEE RSD 1101.02, SHEET 1 AND TMP-6)
- D. INSTALL TEMPORARY PAVEMENT MARKINGS (SEE TMP-7)
- E. RE-OPEN DUTCH RD. TO TRAFFIC

STEP 5 -- USING RSD 1101.02, SHEET 1, CONSTRUCT -Y- STA. 10+30 +/- TO STA. 12+50 +/- UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE TMP-6)

STEP 6 -- USING RSD 1101.02, SHEET 1, INSTALL PHASE II PAVEMENT MARKINGS/MARKERS, NEW TRAFFIC PATTERN WARNING SIGNS, REMOVE TEMPORARY GUARDRAIL AND SHIFT TRAFFIC TO THE PHASE II TRAFFIC PATTERN.

**PHASE II**

STEP 1 -- USING RSD 1101.02, SHEET 1, REMOVE EXISTING BRIDGE AND ROADWAY PER ROADWAY PLANS AND COMPLETE FINAL GRADING AND DRAINAGE (SEE TMP-8 AND 9).

STEP 2 -- USING RSD 1101.02, SHEET 1 AND 2, COMPLETE PAVED SHOULDERS UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE (SEE TMP-8 AND 9)

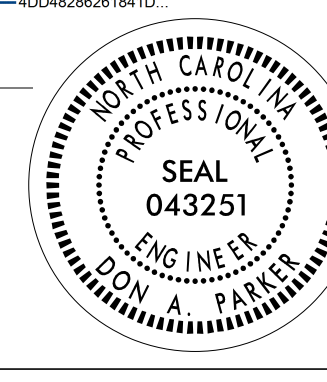
STEP 3 -- USING RSD 1101.02, SHEET 1 AND 2, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS THROUGHOUT THE PROJECT LIMITS PER PAVEMENT MARKING PLAN.

STEP 4 -- REMOVE ALL TRAFFIC CONTROL DEVICES.

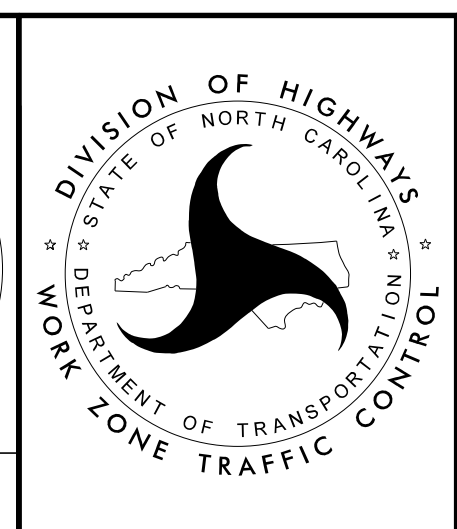
9/8/2021 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_3.dgn User:mackfilu

APPROVED: Don A. Parker  
100462802018410

DATE: 9/8/2021

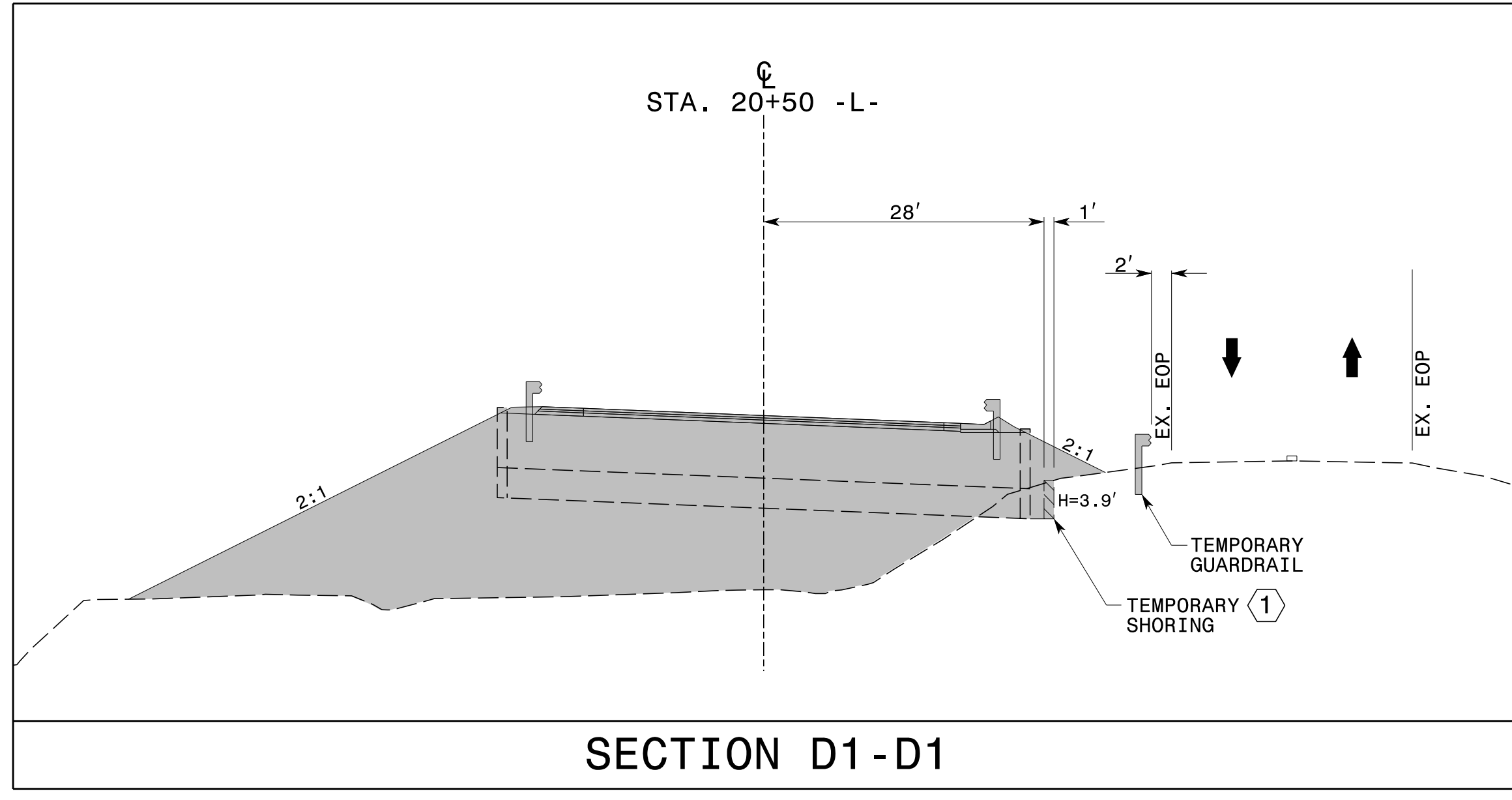


**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



TEMPORARY TRAFFIC CONTROL PHASING

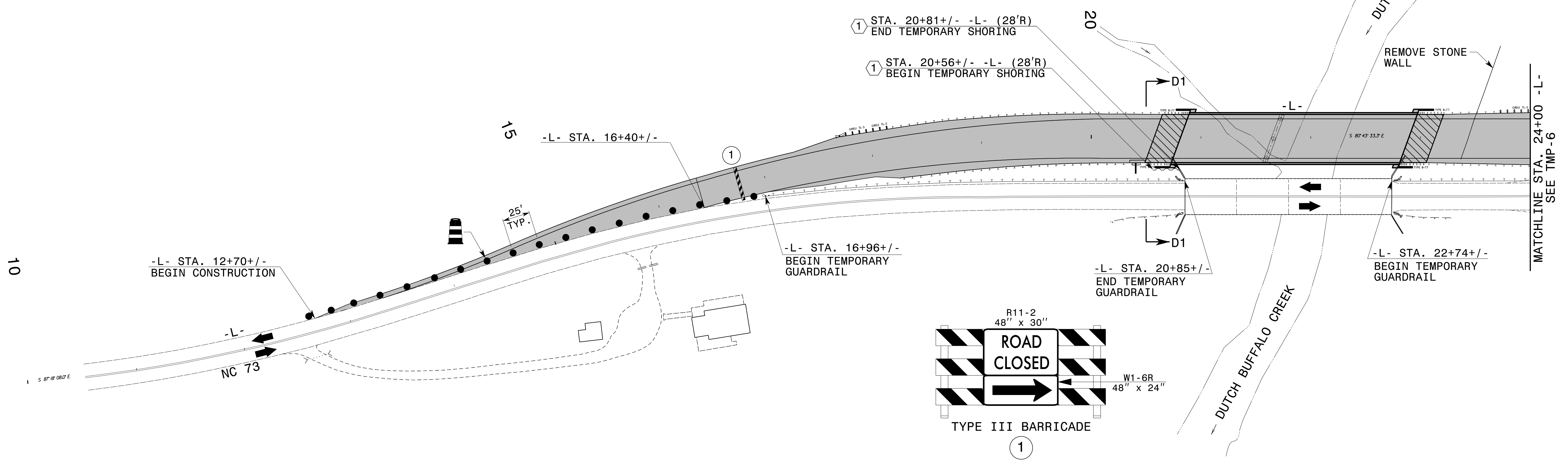




7 DAYS PRIOR TO CLOSURE		DURING CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
BEGIN XX-XX-XX 7PM-6AM	EXPECT DELAYS	WORKERS IN ROAD AHEAD	PREPARE TO STOP
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	

CMS MESSAGING PRIOR TO AND DURING GIRDER DELIVERY AND INSTALLATION

CMS INSTALLED 1/2 MILE NORTH AND SOUTH OF PROJECT



Shoring I.D. No.	Estimated Average Height (ft.)	Quantity (sq. ft.)
①	3.9 FT.	98 SQ. FT.

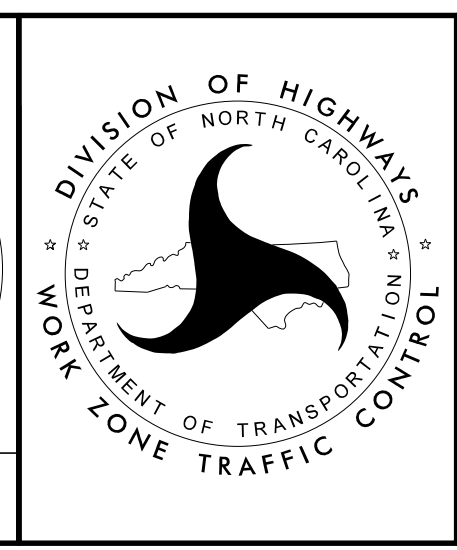
3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_4.dgn  
 User:smackfilu

APPROVED: Don A. Parker  
 DATE: 7/7/2021

400428282818410

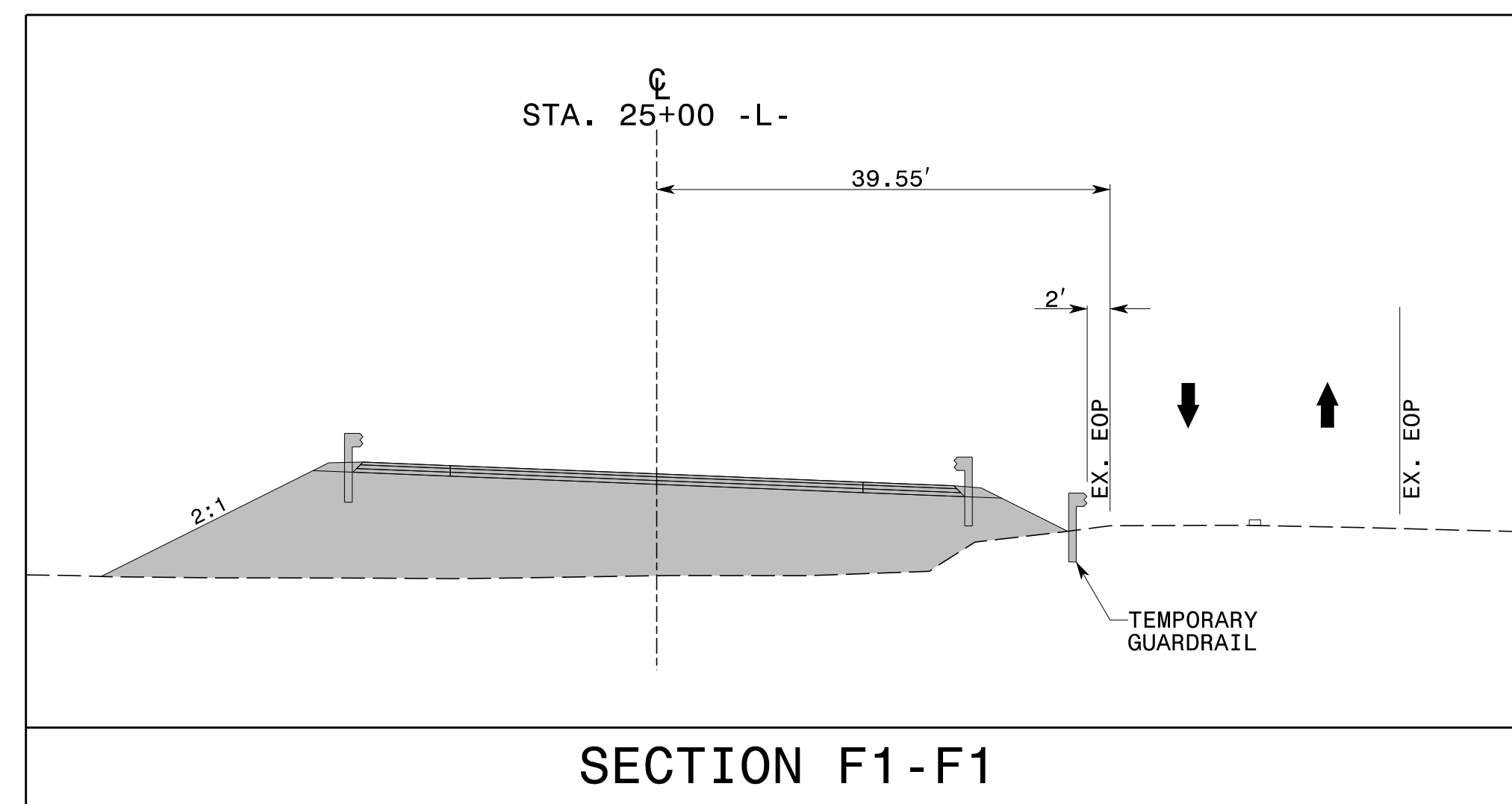
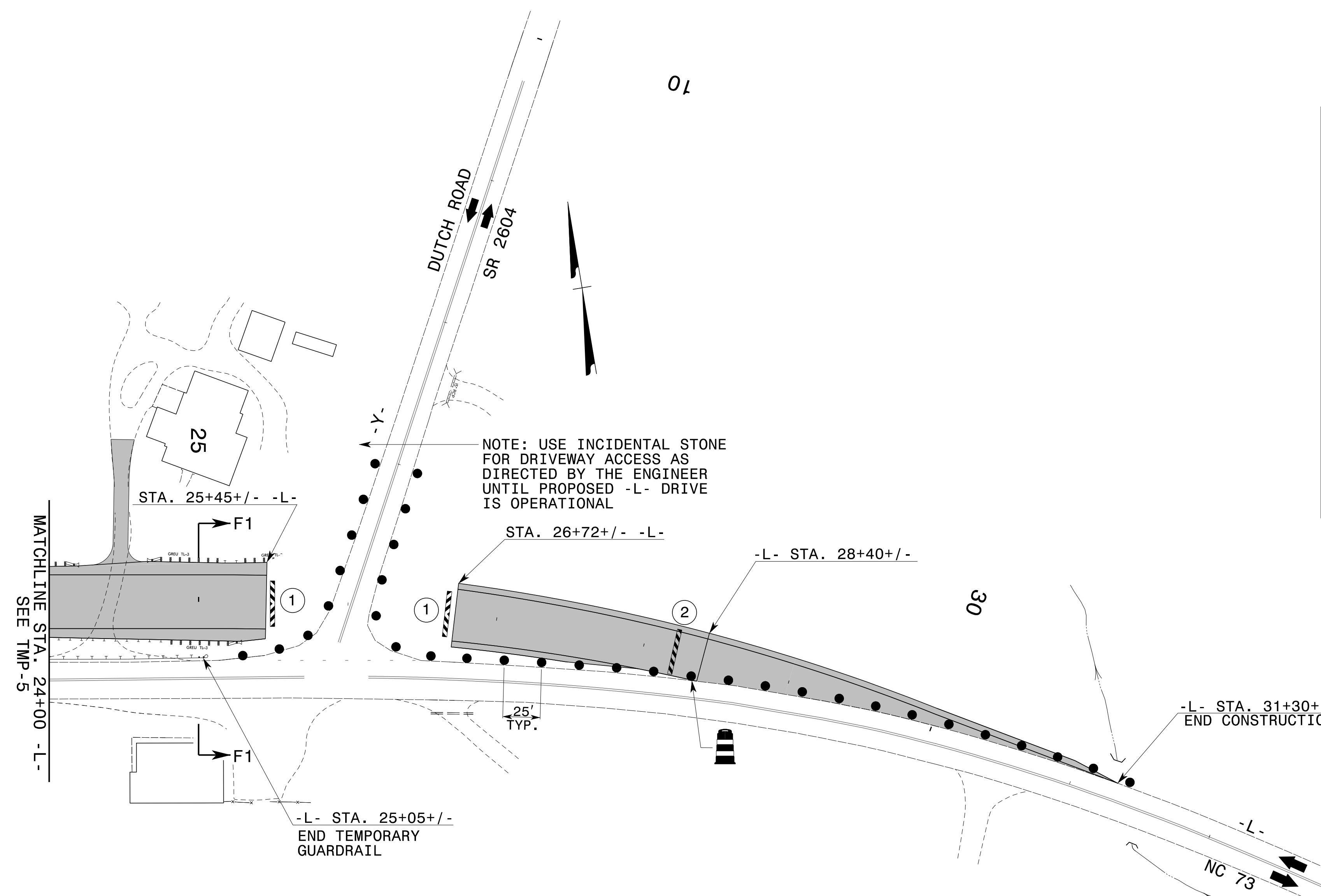
SEAL  
 043251  
 ENGINEER  
 DON A. PARKER

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



**PHASE I DETAILS  
 STEP 1 AND 2**

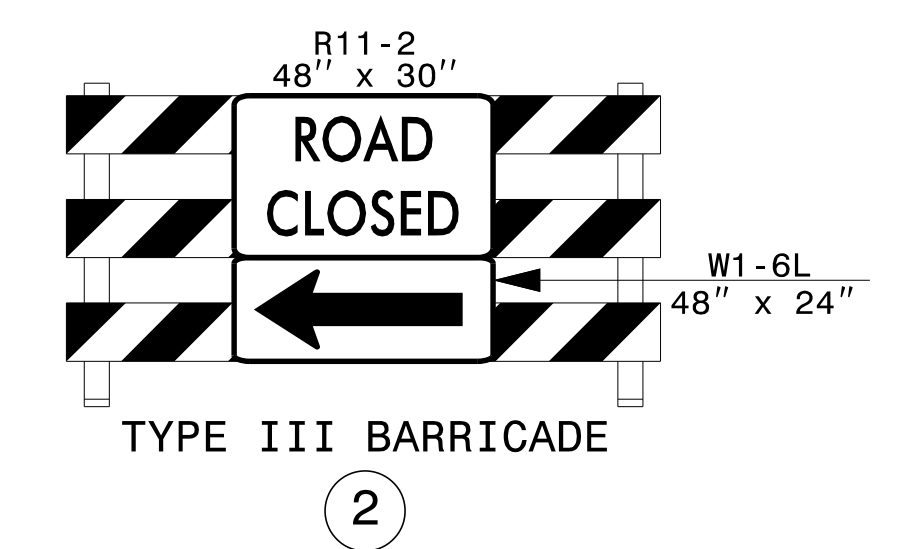
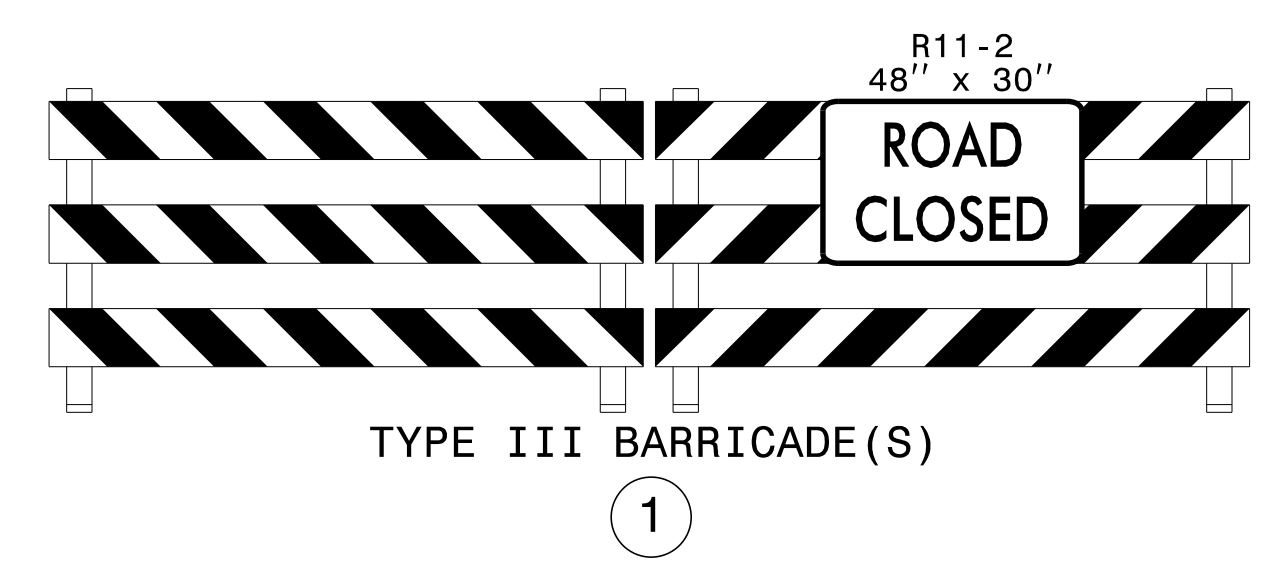




NOTE: THE CONTRACTOR SHALL PROVIDE ACCESS TO DRIVES AT ALL TIMES.

7 DAYS PRIOR TO CLOSURE		DURING CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
BEGIN XX-XX-XX 7PM-6AM	EXPECT DELAYS	WORKERS IN ROAD AHEAD	PREPARE TO STOP
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	

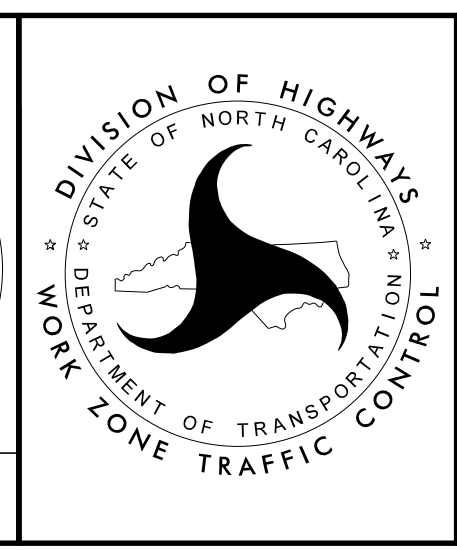
CMS MESSAGING PRIOR TO AND DURING GIRDER DELIVERY AND INSTALLATION  
 CMS INSTALLED 1/2 MILE NORTH AND SOUTH OF PROJECT



APPROVED: \_\_\_\_\_  
 DATE: 7/7/2021

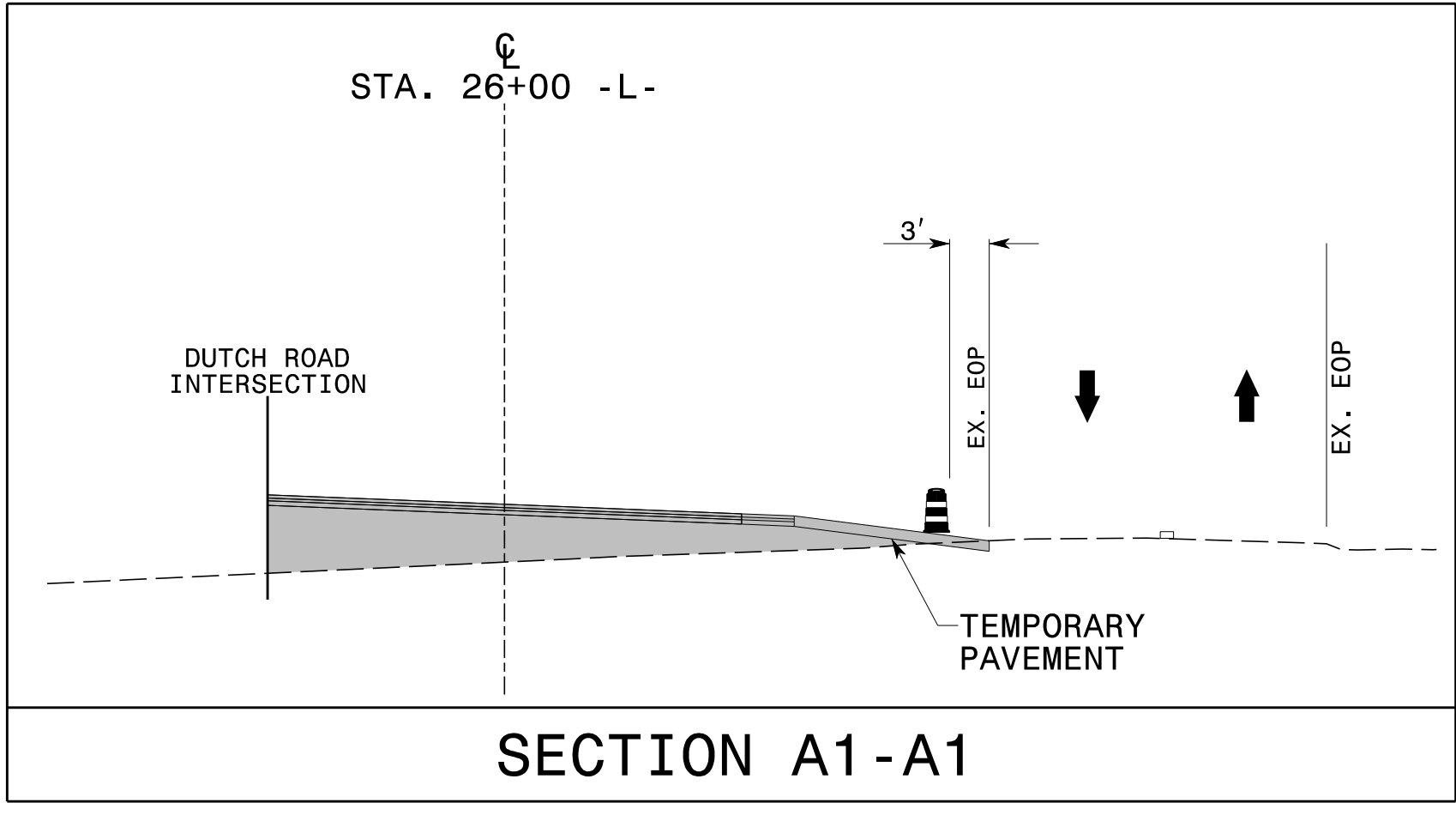
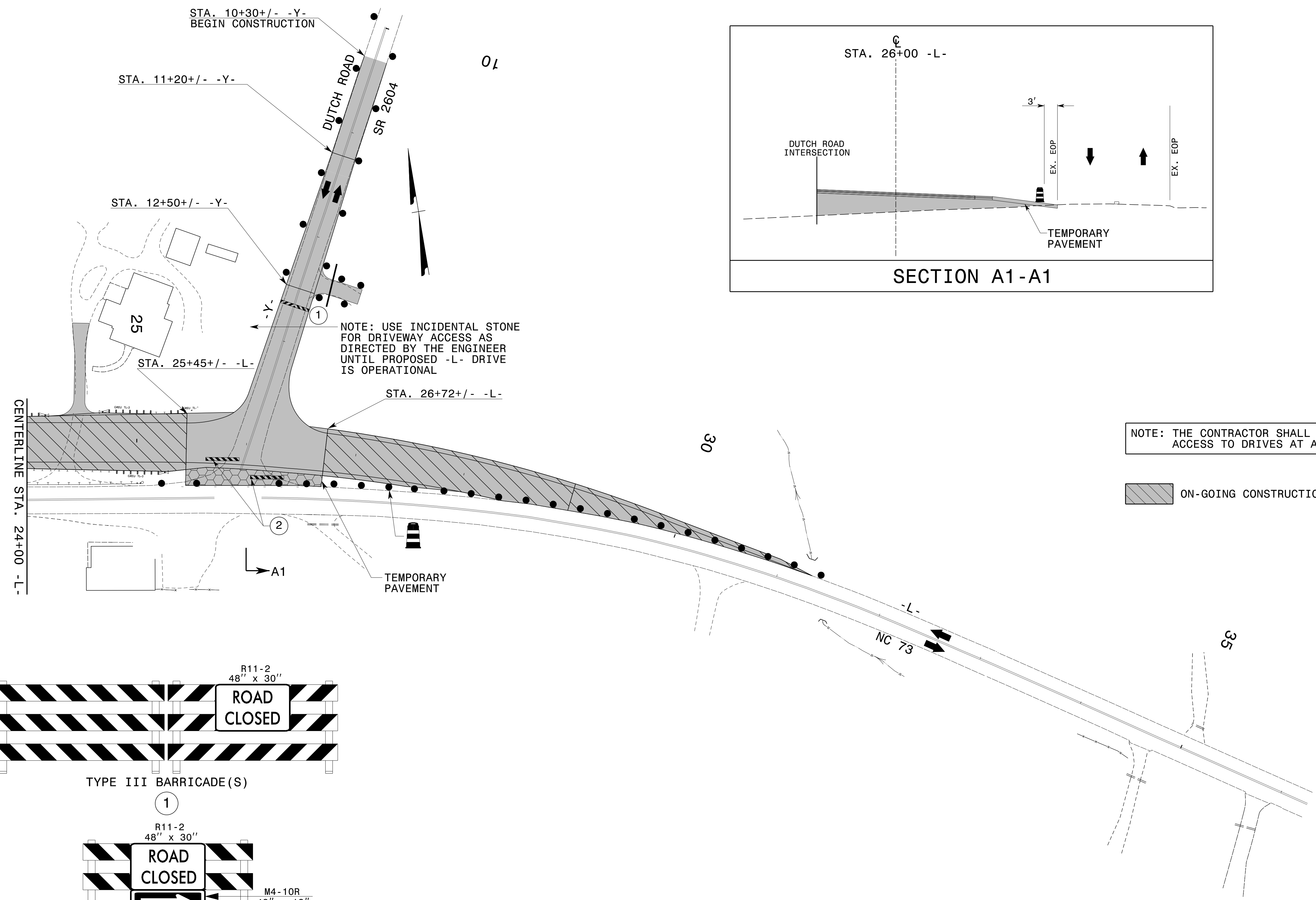
Don A. Parker  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 043251  
 DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



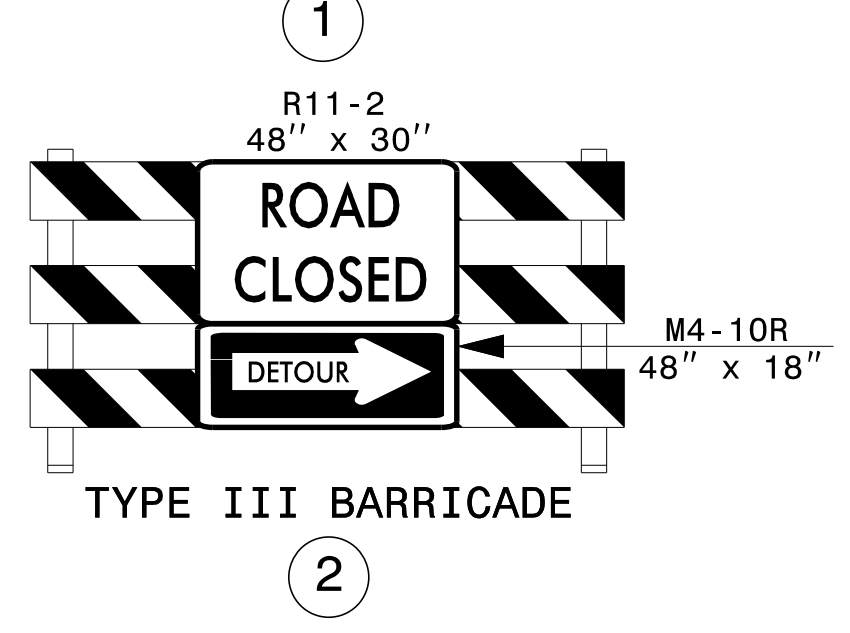
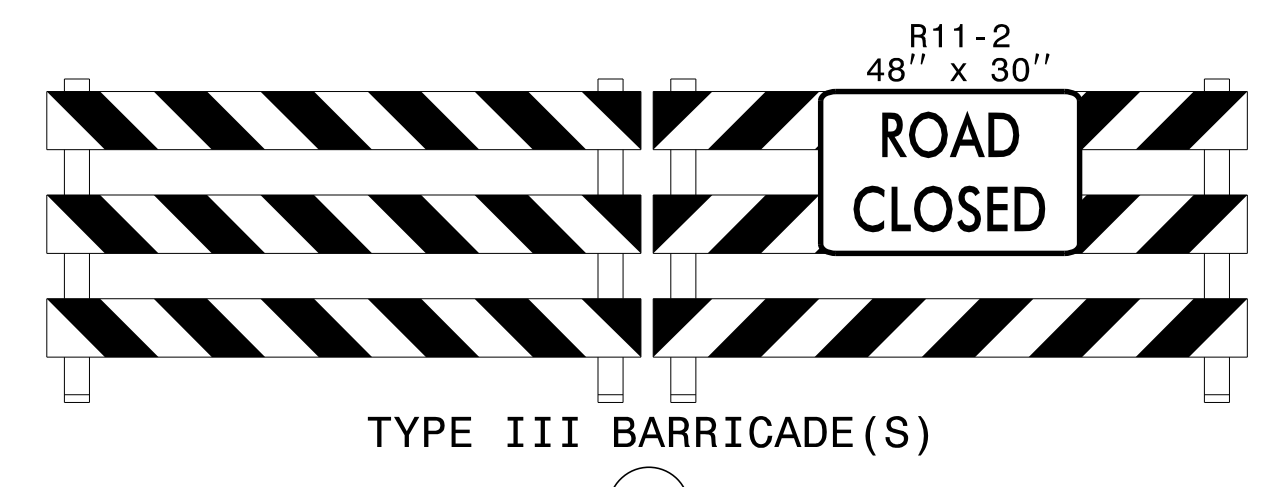
PHASE I DETAILS  
 STEP 1 AND 2

3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_5.dgn  
 User:smackitlu



NOTE: THE CONTRACTOR SHALL PROVIDE ACCESS TO DRIVES AT ALL TIMES.

ON-GOING CONSTRUCTION



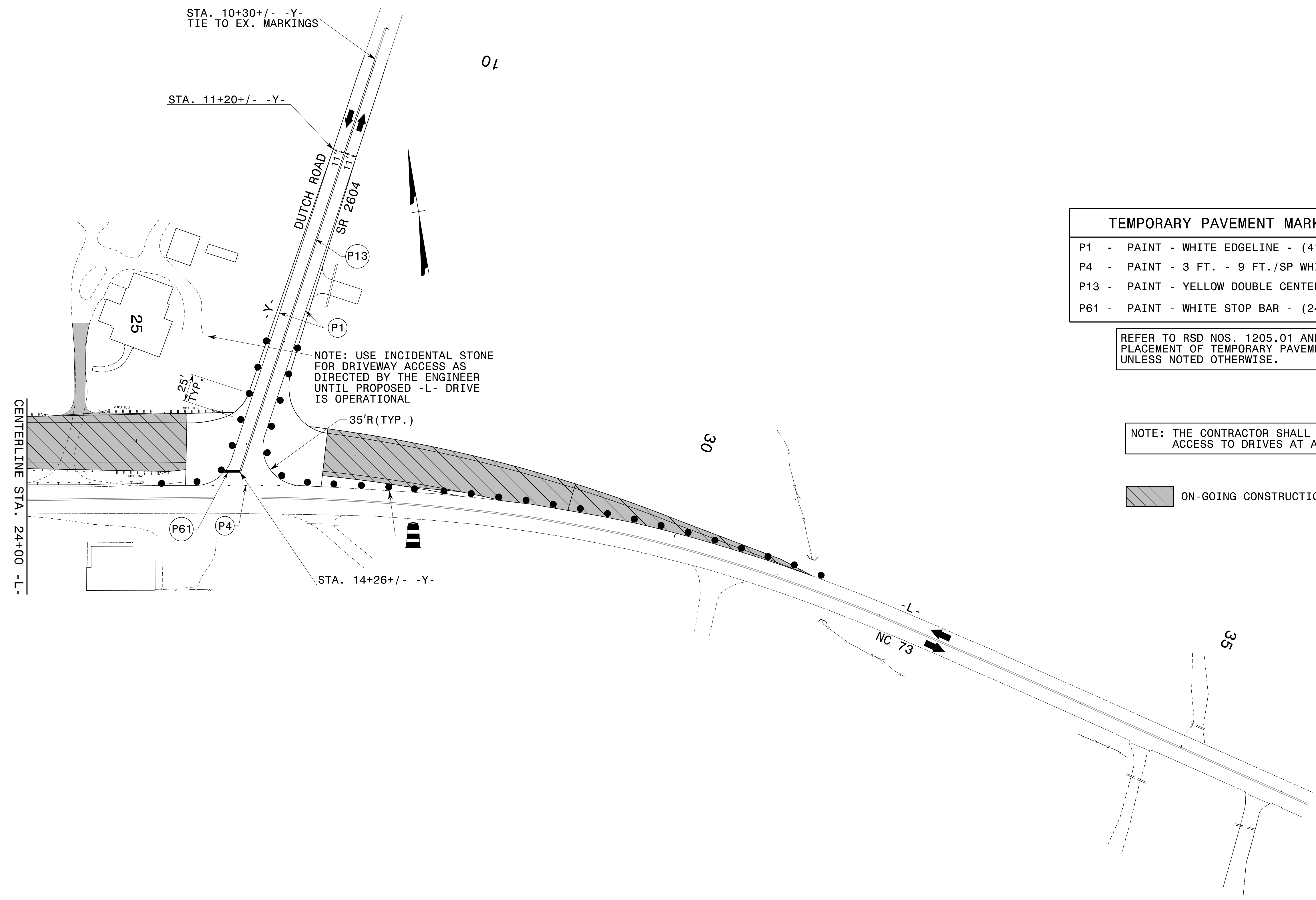
APPROVED: Don A. Parker  
400462902010410  
 DATE: 7/7/2021



**PHASE I DETAILS  
STEP 4 AND 5**

3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_6.dgn  
 User:smackfilu





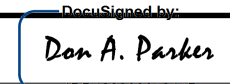
TEMPORARY PAVEMENT MARKING LEGEND	
P1	- PAINT - WHITE EDGELINE - (4")
P4	- PAINT - 3 FT. - 9 FT./SP WHITE MINISKIP - (4")
P13	- PAINT - YELLOW DOUBLE CENTER - (4")
P61	- PAINT - WHITE STOP BAR - (24")

REFER TO RSD NOS. 1205.01 AND 1205.02 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS UNLESS NOTED OTHERWISE.

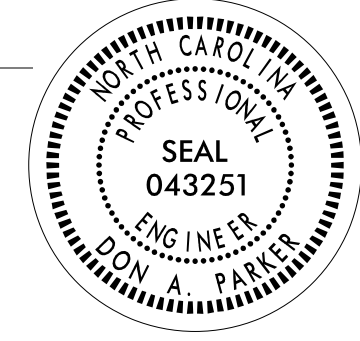
NOTE: THE CONTRACTOR SHALL PROVIDE ACCESS TO DRIVES AT ALL TIMES.

 ON-GOING CONSTRUCTION

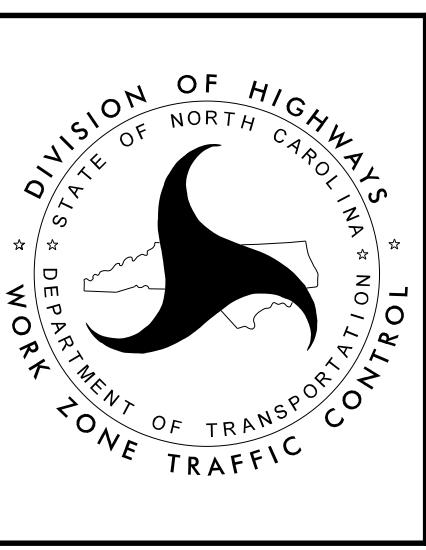
3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP\_7.dgn  
 User:smackfilu

APPROVED:   
40048282818410

DATE: 7/7/2021



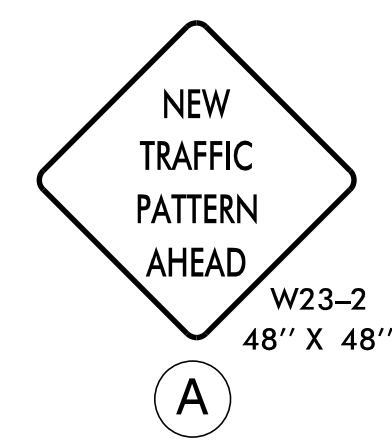
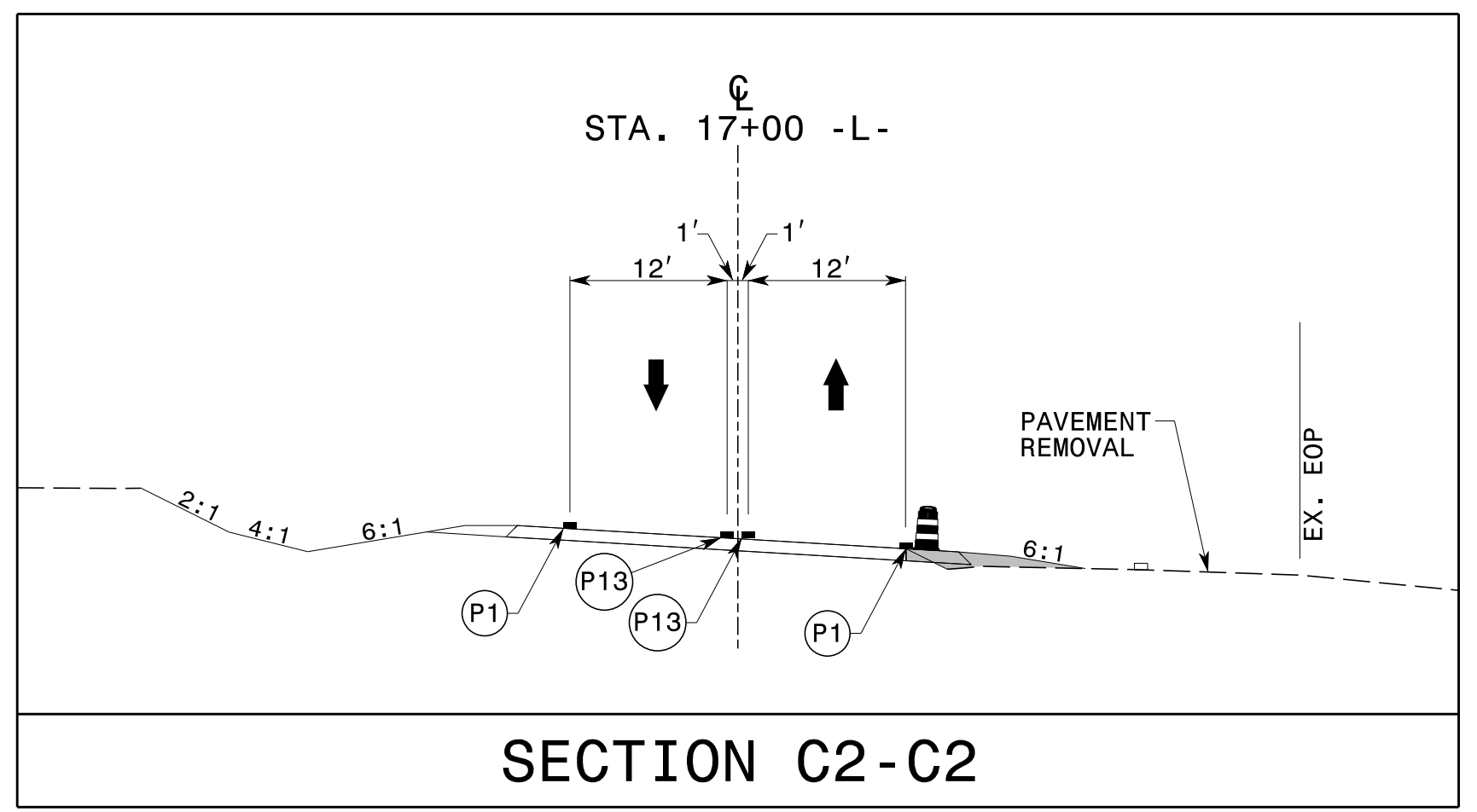
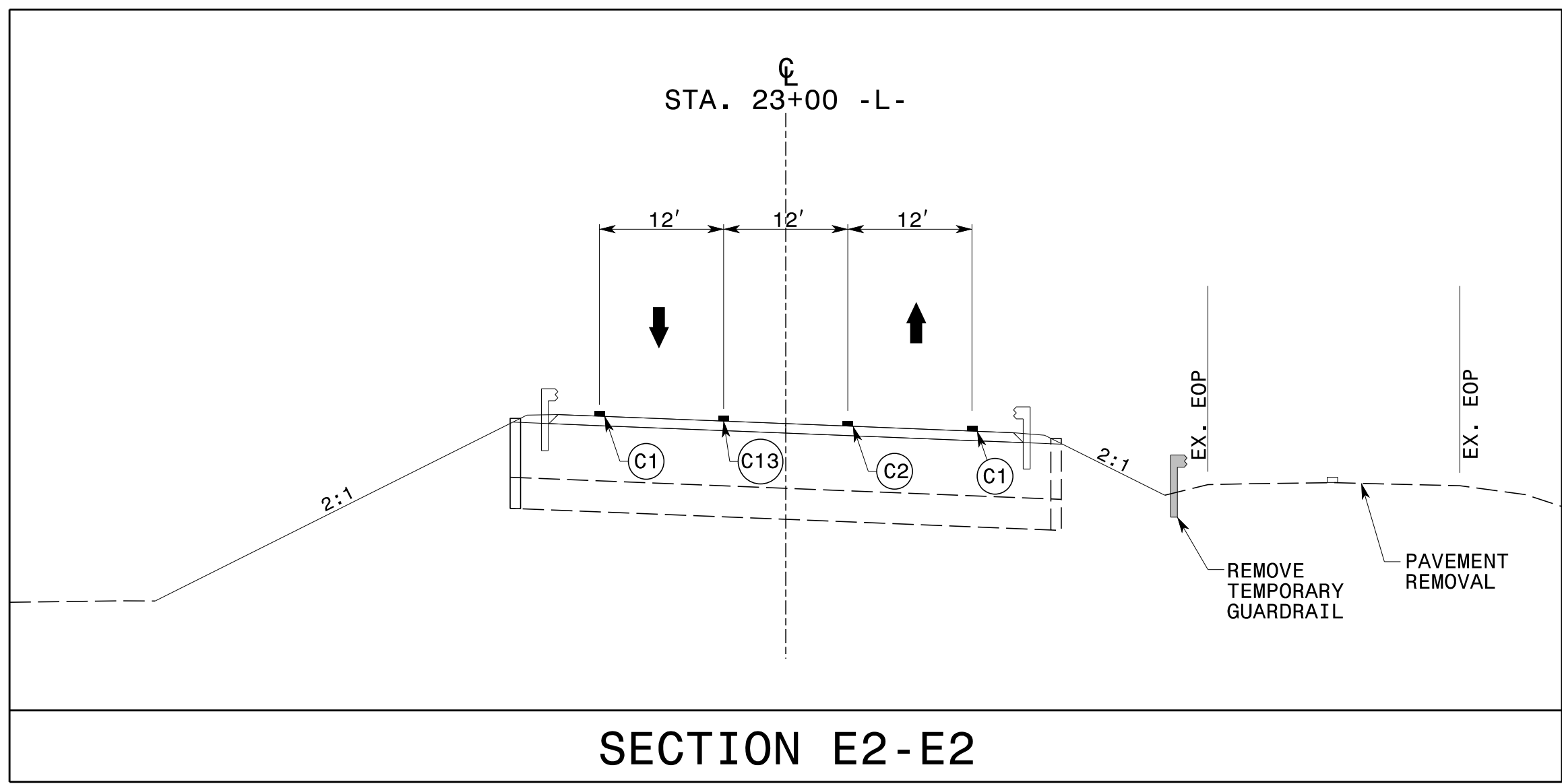
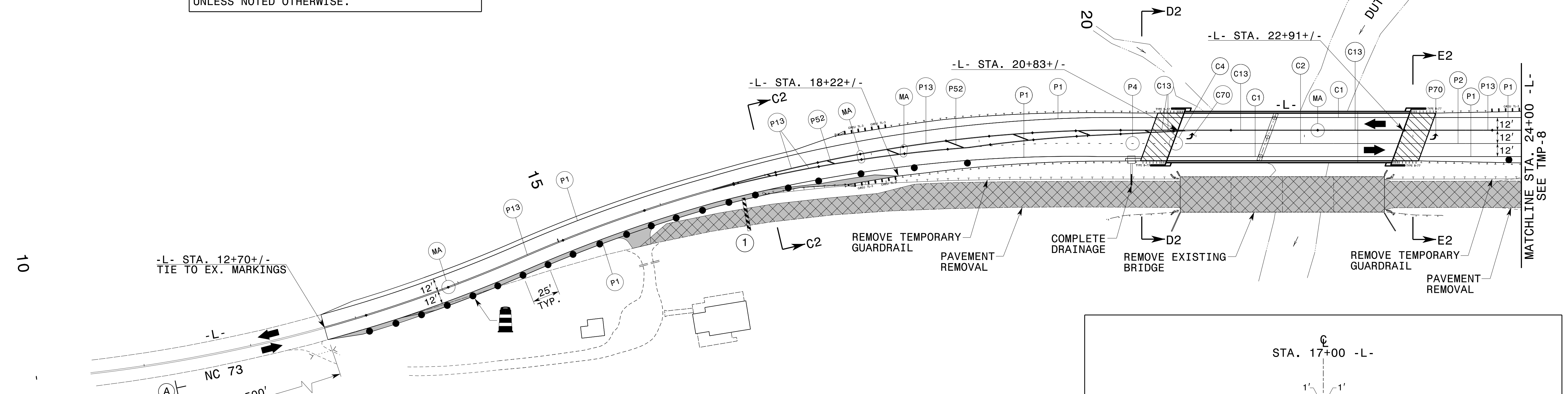
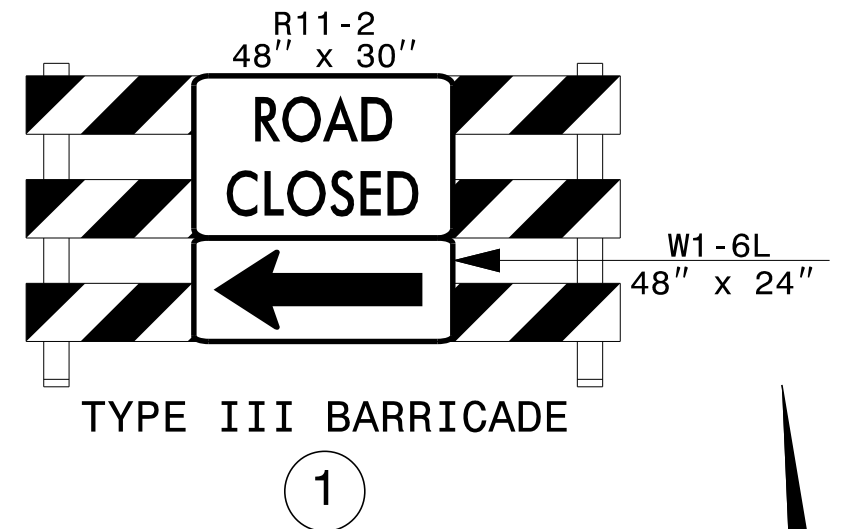
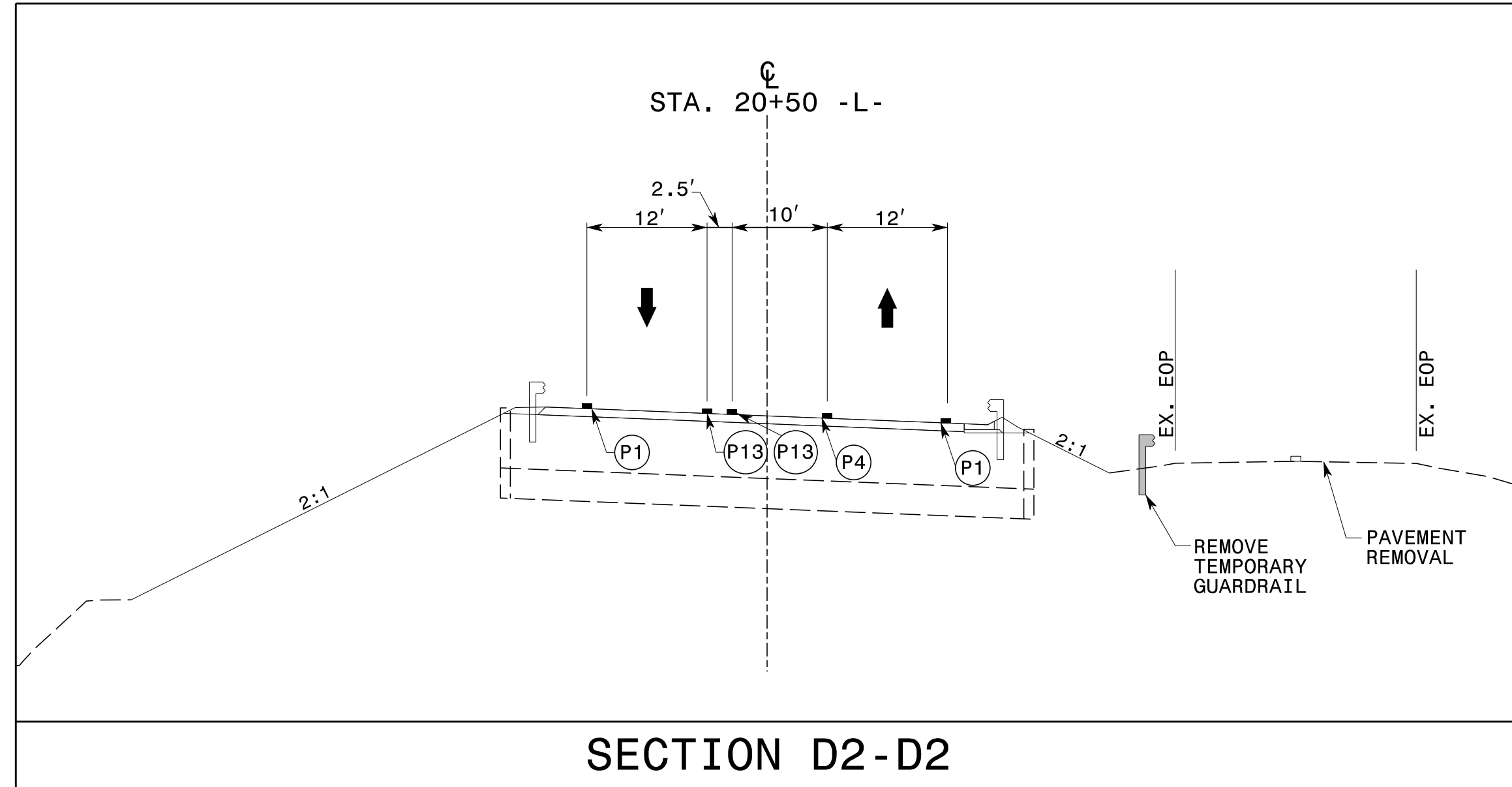
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



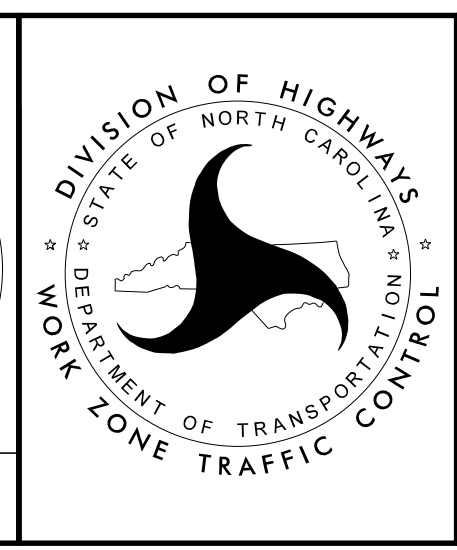
**PHASE I DETAILS  
STEP 4 AND 5**

TEMPORARY PAVEMENT MARKING LEGEND	
C1(IV)	- COLD APPLIED PLASTIC (TYPE 4) - WHITE EDGELINE - (4")
C2(IV)	- COLD APPLIED PLASTIC (TYPE 4) - WHITE SOLID LANE LINE - (4")
C4(IV)	- COLD APPLIED PLASTIC (TYPE 4) - 3 FT. - 9 FT./SP WHITE MINISKIP- (4")
C13(IV)	- COLD APPLIED PLASTIC (TYPE 4) - YELLOW DOUBLE CENTER - (4")
C70(IV)	- COLD APPLIED PLASTIC (TYPE 4) - LEFT TURN ARROW
P1	- PAINT - WHITE EDGELINE - (4")
P2	- PAINT - WHITE SOLID LANE LINE - (4")
P4	- PAINT - 3 FT. - 9 FT./SP WHITE MINISKIP - (4")
P13	- PAINT - YELLOW DOUBLE CENTER - (4")
P52	- PAINT - YELLOW DIAGONAL - (12")
P70	- PAINT - LEFT TURN ARROW
MA	- MARKER - TEMPORARY RAISED (YELLOW & YELLOW)

REFER TO RSD NOS. 1205.01 AND 1205.02 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS UNLESS NOTED OTHERWISE.



APPROVED: *Don A. Parker*  
 DATE: 7/7/2021  
 SEAL 043251  
 ENGINEER  
 DON A. PARKER

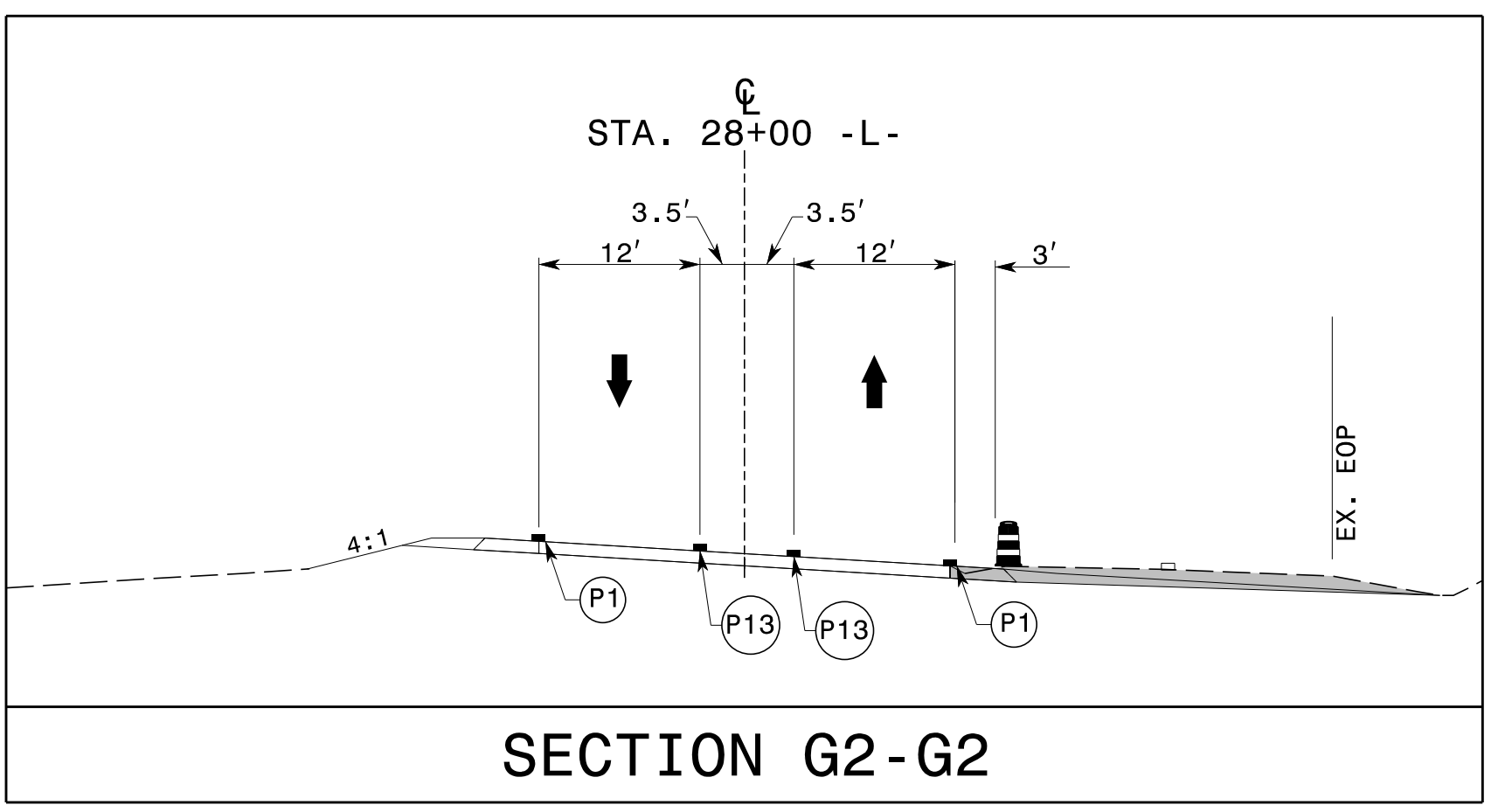
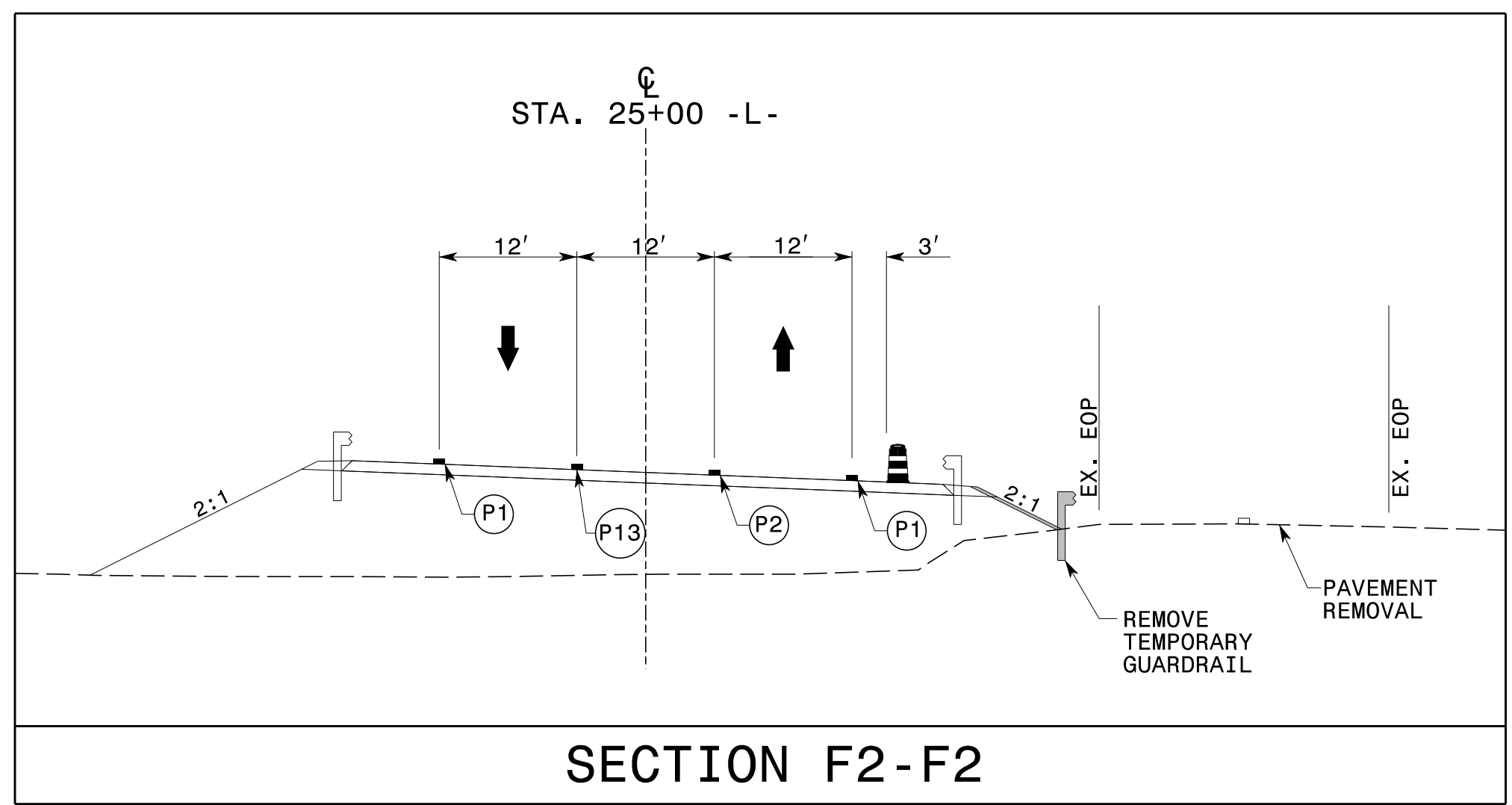
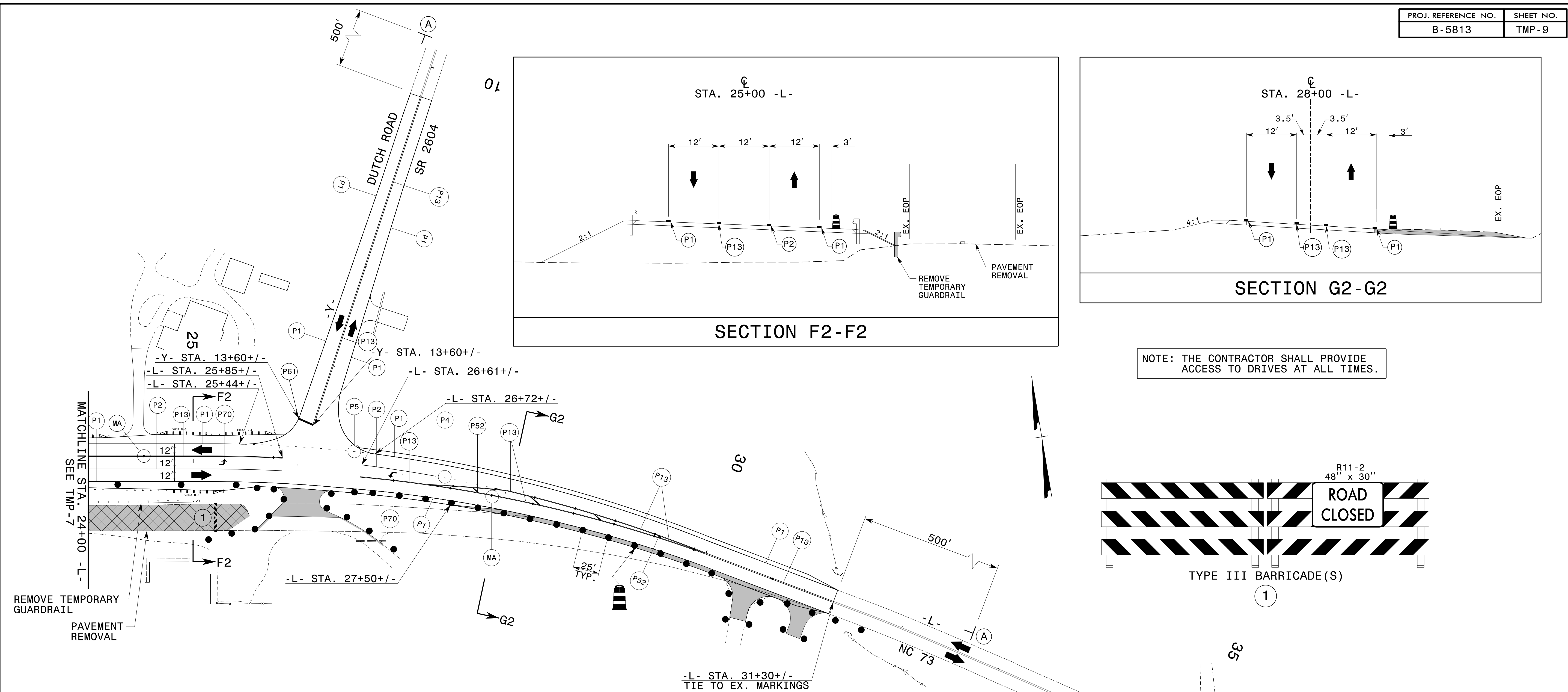


PHASE II DETAILS

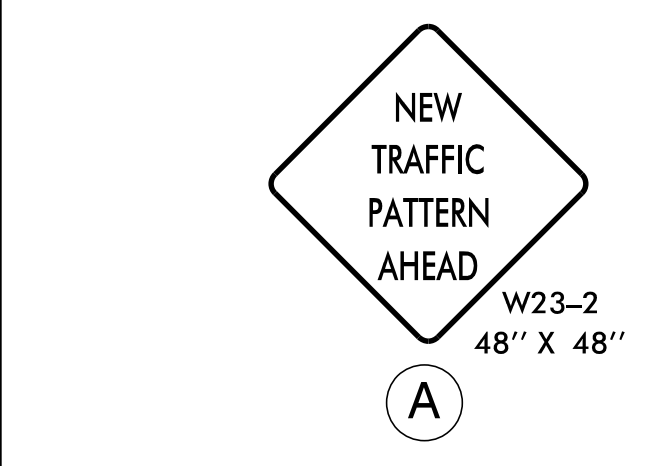
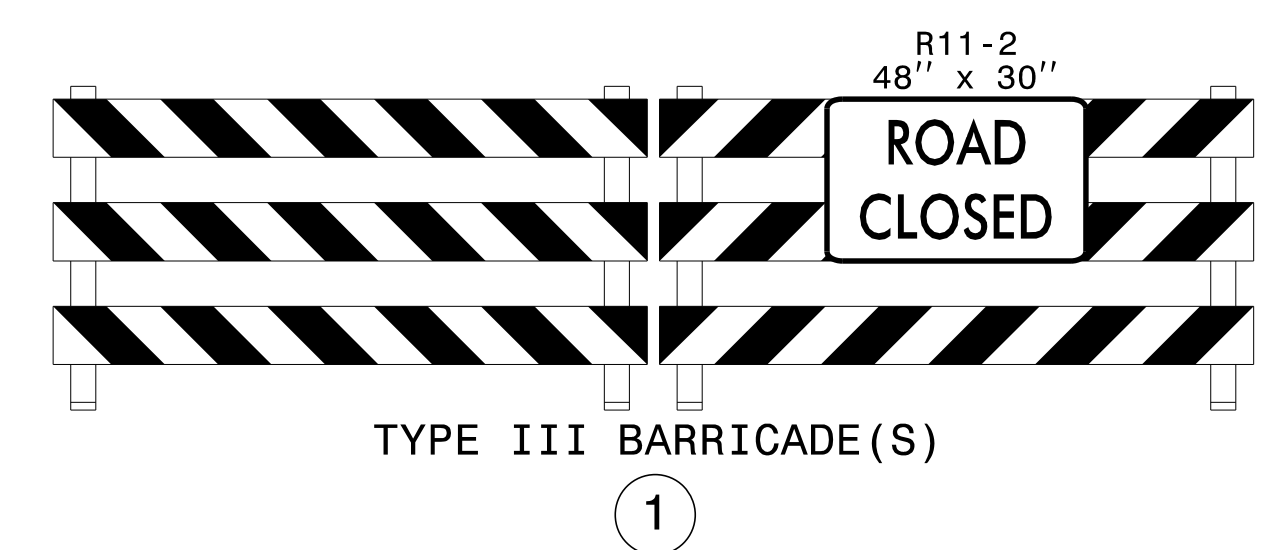
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/16/2021 P:\TIP\Projects-B\B5813\TrafficControl\TCP\B5813\_TC\_TMP-8.dgn User:mackfilu





NOTE: THE CONTRACTOR SHALL PROVIDE ACCESS TO DRIVES AT ALL TIMES.



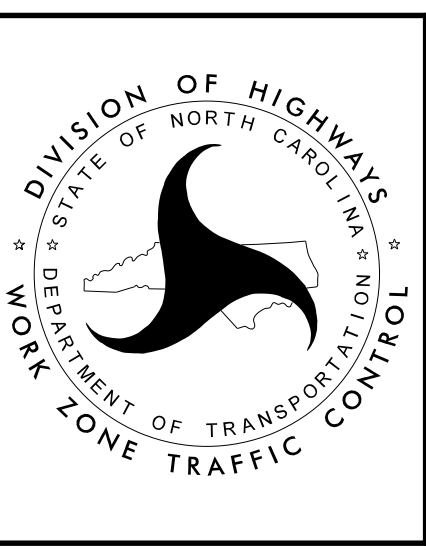
TEMPORARY PAVEMENT MARKING LEGEND	
P1	- PAINT - WHITE EDGELINE - (4")
P2	- PAINT - WHITE SOLID LANE LINE - (4")
P4	- PAINT - 3 FT. - 9 FT./SP WHITE MINISKIP - (4")
P5	- PAINT - 2 FT. - 6 FT./SP WHITE MINISKIP - (4")
P13	- PAINT - YELLOW DOUBLE CENTER - (4")
P52	- PAINT - YELLOW DIAGONAL - (12")
P61	- PAINT - WHITE STOP BAR - (24")
P70	- PAINT - LEFT TURN ARROW
MA	- MARKER - TEMPORARY RAISED (YELLOW & YELLOW)

REFER TO RSD NOS. 1205.01 AND 1205.02 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS UNLESS NOTED OTHERWISE.

APPROVED: Don A. Parker  
40042802619410

DATE: 7/7/2021

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



**PHASE II DETAILS**

3/16/2021  
 P:\TIP\Projects-B\B5813\TrafficControl\B5813\_TC\_TMP\_9.dgn  
 User:smackfilu