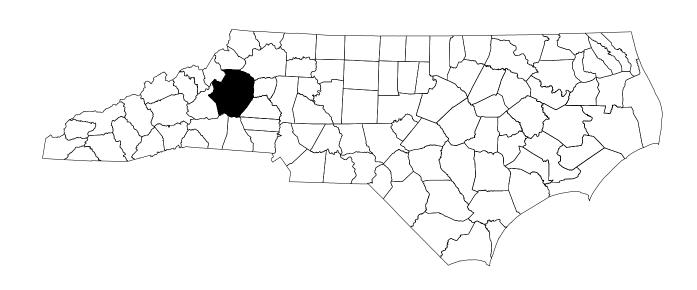
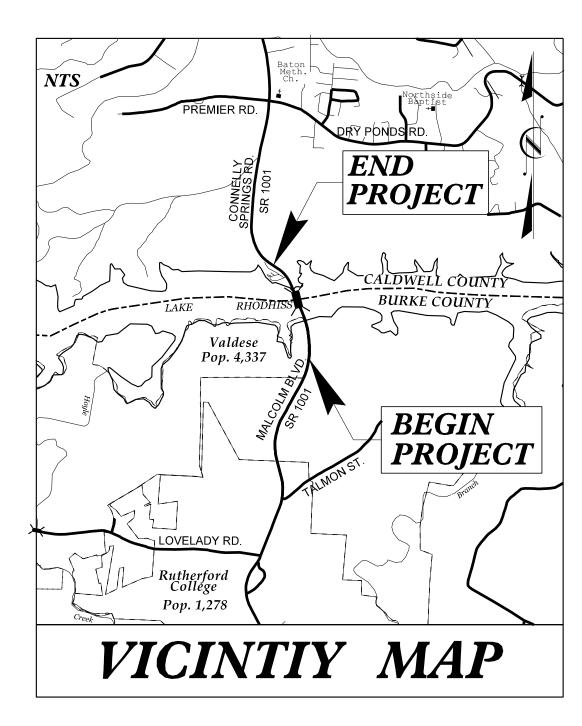
TRANSPORTATION MANAGEMENT PLAN

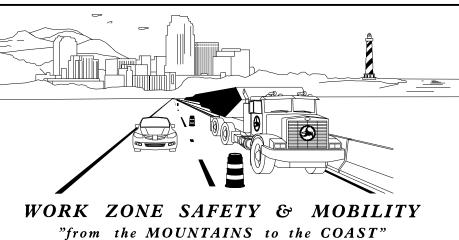
BURKE /CALDWELL COUNTY





LOCATION: BRIDGE #110010 OVER CATAWBA RIVER ON SR 1001 (CONNELLY SPRINGS ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE, & STRUCTURES



PLANS PREPARED BY:

LISA M. MOON, P.E. TRAFFIC CONTROL PROJECT ENGINEER

DARREN J. WHITE TRAFFIC CONTROL PROJECT DESIGN ENGINEER NCDOT PMU CONTACT:

OLIVIA PILKINGTON, PE SENIOR PROJECT MANAGER



INDEX OF SHEETS

SHEET NO. TITLE TMP - 1 TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, TMP-1A

AND LEGEND

TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES) TMP-1B TO TMP-1C

TMP-2 PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING

LOCATIONS

TMP-2A TEMPORARY SHORING DATA TMP-2B TO TMP-2C RIVER WARNING SIGNS

TEMPORARY TRAFFIC CONTROL PHASING TMP-3 TO TMP-3A TMP-4 TO TMP-7 TEMPORARY TRAFFIC CONTROL PHASE I TEMPORARY TRAFFIC CONTROL PHASE II TMP-8 TO TMP-10 TMP-11 TO TMP-13 TEMPORARY TRAFFIC CONTROL PHASE III

ICT Step 1

TEMPORARY TRAFFIC CONTROL PHASE III TMP-14 TO TMP-16 TMP-17 TO TMP-19 TEMPORARY TRAFFIC CONTROL PHASE III

ICT Step 2

TEMPORARY TRAFFIC CONTROL PHASE IV TMP-20 TO TMP-22

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



APPROVED: *DATE*:_____

SEAL

Lisa M Moon

SHEET NO.

TMP-1

430B

PROJ. REFERENCE NO. SHEET NO. R-3430B TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -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 ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE 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	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
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

××××××× STAGING AREA

REMOVAL

TEMPORARY PAVEMENT

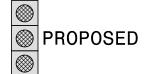
WEDGING

TEMPORARY TIE

(PORTABLE) DRIVEWAY SIGNAL

SIGNALS







TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O TUBULAR MARKER

TEMPORARY CRASH CUSHION FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

O PORTABLE SIGN

── STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

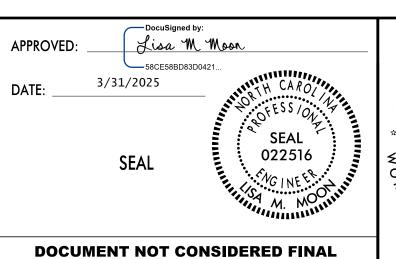
PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

TEMPORARY PAVEMENT MARKING

P1	WHITE EDGELINE	PAINT (4")	LF
P5	2FT 6FT./SP WHITE	PAINT (4")	LF
P13	YELLOW DOUBLE CENTER	PAINT (4")	LF
P14	2FT 6FT./SP YELLOW	PAINT (4")	LF
P42	YELLOW DIAGONAL	PAINT (8")	LF
<u>C1</u>	WHITE EDGELINE	COLD APPLIED PLASTIC TYPE IV (4")	LF
C13	YELLOW DOUBLE CENTER	COLD APPLIED PLASTIC TYPE IV (4")	LF
(C61)	WHITE STOPBAR	COLD APPLIED PLASTIC TYPE IV (24")	LF





UNLESS ALL SIGNATURES COMPLETED



ROADWAY STANDARD DRAWINGS & LEGEND

MANAGEMENT STRATEGIES

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

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES: LANE SHIFTS OR CLOSURES SHOULDER CLOSURES ONE-LANE, TWO WAY OPERATION (FLAGGING) WORK HOUR RESTRICTIONS FOR PEAK TRAVEL INTERMEDIATE CONTRACT TIMES/LIQUIDATED DAMAGES

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
SR 1001	MONDAY-SUNDAY

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

7 AM - 7 PM

ROAD NAME

SR 1001

HOLIDAY

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

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

6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.

- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

A) DO NOT STOP TRAFFIC FOR EXCEPT AS FOLLOWS:

		DURATION AND
ROAD NAME	DAY AND TIME RESTRICTIONS	OPERATION
SR 1001	MONDAY-SUNDAY	30 MINUTES,
	7 AM-7 PM	GIRDER DELIVERIES

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 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 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
- 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.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON SR 1001.
- I) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

PAVEMENT EDGE DROP OFF REQUIREMENTS

J) 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.

K) 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) 350 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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



PROJ. REFERENCE NO.	SHEET NO.
R-3430B	TMP-1B

SIGNING

- M) 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.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

P) 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.

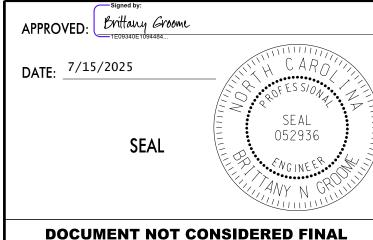
INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC

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.

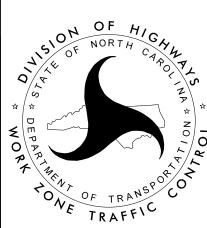
Q) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

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)

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



UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION OPERATIONS PLAN

PROJ. REFERENCE NO. SHEET NO. R - 3430B TMP - 1C

GENERAL NOTES (Cont.)

TRAFFIC CONTROL DEVICES

- R) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- S) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- T) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES
 PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN
 UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

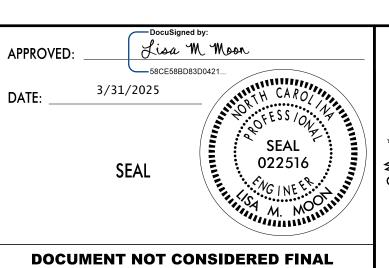
ROAD NAME	MARKING	MARKER
ALL	PAINT/COLD APPLIED PLASTIC (TYPE IV)	NONE
BRIDGE	COLD APPLIED PLASTIC (TYPE IV)	NONE

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

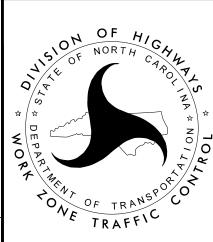
MISCELLANEOUS

Y) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.





UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION OPERATIONS PLAN

TEMPORARY MSE WALL TEMPORARY SHORING TEMPORARY SOIL NAIL WALL CLEAR DISTANCE **EDGE OF EDGE OF PAVEMENT PAVEMENT** OF WALL **OF WALL EDGE OF EDGE OF PAVEMENT SECTION PAVEMENT SECTION PAVEMENT SECTION NEAREST TRAFFIC TRAFFIC** LANE LANE **BOTTOM OF** REINFORCED **ZONE EXCAVATION OR EXISTING** GRADE A: TOP OF SHORING = **SOIL NAIL EDGE OF PAVEMENT** REINFORCEMENT **B: BOTTOM OF SHORING EXISTING EXISTING FINISHED FINISHED GRADE GRADE**

OF WALL

NOTE: WALL OR SHORING HEIGHT = A-B

FIGURE A

BOTTOM OF

REINFORCED ZONE

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	Pavement	Offset *	Design Speed, mph					
Type	Type	ft	<30	31-40	41-50	51-60	61-70	71-80
		<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
	Asphalt	26-32	29	32	36	39	42	45
	Passi	32-38	30	34	38	41	43	46
8		38-44	31	34	41	43	45	48
PCB		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
Unanchored		>56	32	36	42	45	47	51
h 0		<8	17	18	21	22	25	26
nc		8-14	19	20	23	25	26	29
2 2		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
	Concrete	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

EDGE OF

TRAFFIC

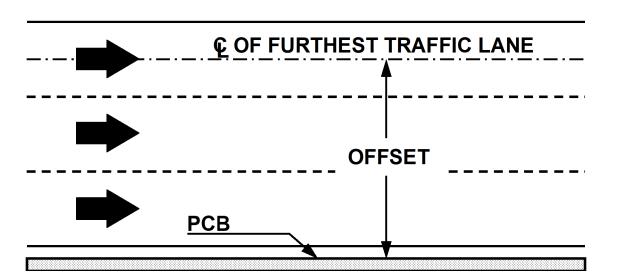
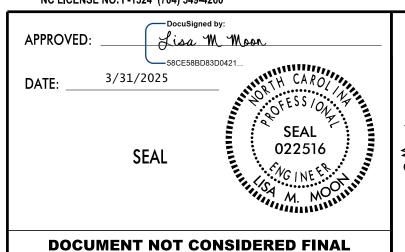




FIGURE B



UNLESS ALL SIGNATURES COMPLETED



PORTABLE CONCRETE BARRIER TEMPORARY SHORING LOCATIONS

BOTTOM OF WALL

PROJ. REFERENCE NO. SHEET NO. R-3430B TMP-2A

TEMPORARY 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- ±38+32, 15.75' RT, TO STATION -L- ±38+72, 15.75' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT $(\gamma) = 30$ PCF FRICTION ANGLE (ϕ) = 120 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 992.1 FT

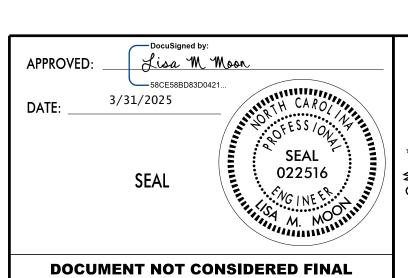
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L-±38+32, 15.75' RT, TO STATION -L- ±38+72, 15.75' RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L-±38+32, 15.75' RT, TO STATION -L- ±38+72, 15.75' RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

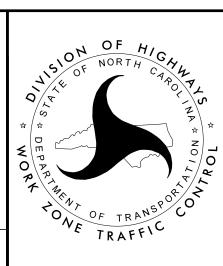
IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- ±38+32, 15.75' RT, TO STATION -L- ±38+72, 15.75' RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

> THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO THE WZTC SECTION ON NOVEMBER 7, 2023 AND SEALED BY PROFESSIONAL ENGINEER, MICHAEL H. STEPHENS, P.E., LICENSE # 028893.

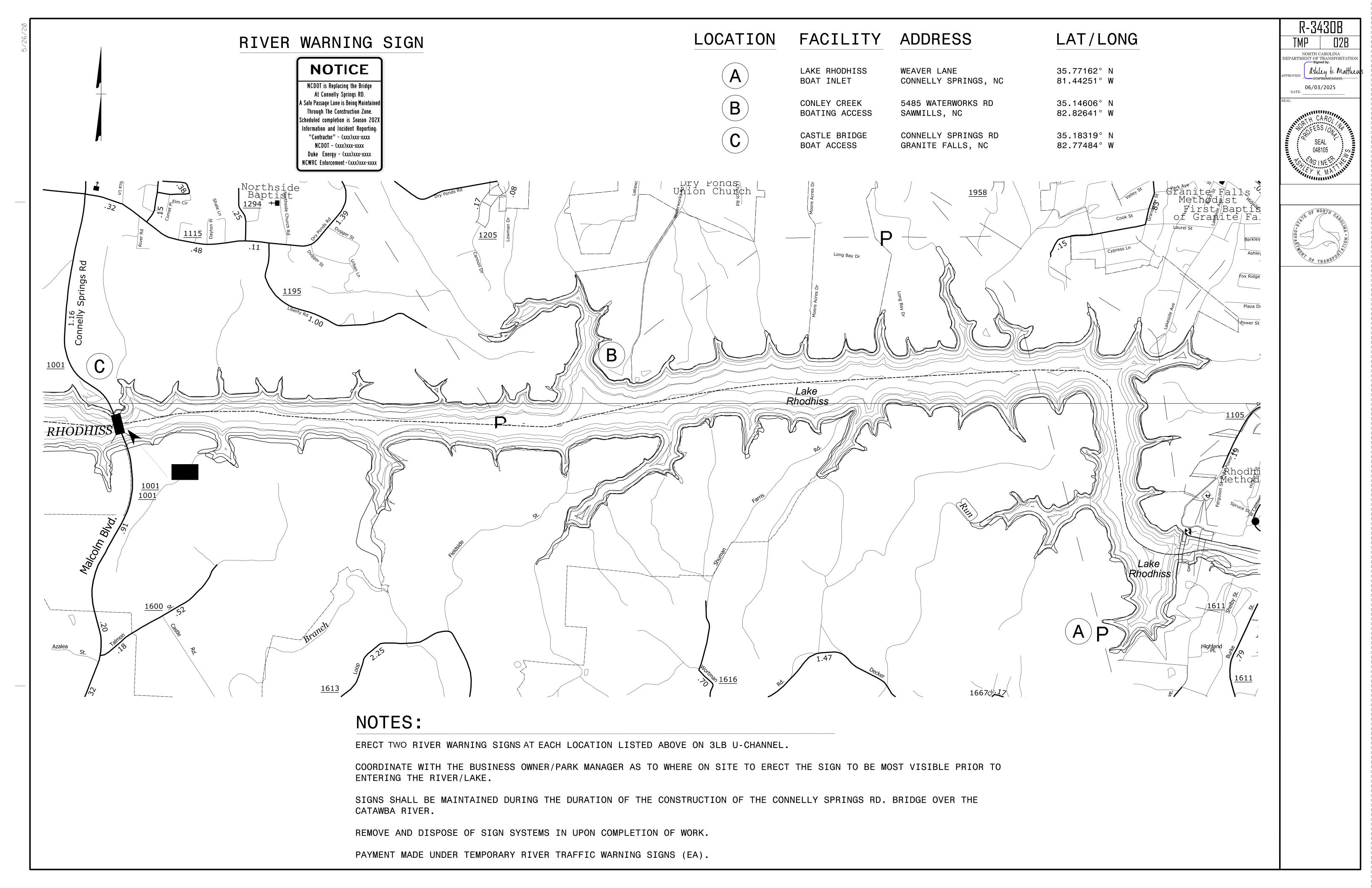




UNLESS ALL SIGNATURES COMPLETED



TEMPORARY SHORING NOTES



Notice to Paddlers

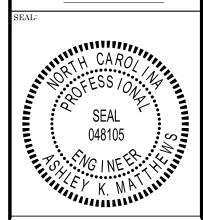
R-3430B TMP 02C

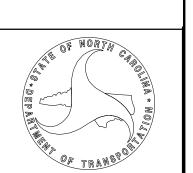
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Signed by:

APPROVED:

USLLY & Matthew
209FB0A0E345455...

06/03/2025





SIGN DESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

ACCESS TO ALL RESIDENCES AND BUSINESSES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AT ALL TIMES.

COMPLETE PAVING UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNTIL STATED TO PLACE FINAL LAYER IN THE PHASING.

MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.

USE ROADWAY STANDARD 1101.05 WORK ZONE VEHICLE ACCESSES WITH FLAGGERS, AS NECESSARY.

USE CMS DURING ALL FLAGGING OPERATIONS ON -L- (MALCOLM BLVD), NORTHBOUND CMS ~2,650 FEET (0.5 MILES) SOUTH OF STA 17+00+/- AND SOUTHBOUND CMS ~2,150 FEET (0.4 MILES) NORTH OF STA 48+00+/-. SEE INSET ON TMP-4 FOR MESSAGES.

INSTALL RIVER WARNING SIGNS AS SHOWN ON TMP-2B AND TMP-2C OF THE PLANS. OPERATE FOR TWO WEEKS MINIMUM PRIOR TO INSTALLATION OF ANY FLOATING BARRICADE SYSTEM AND THE ASSOCIATED WORK ON THE STRUCTURE (BEGINNING PHASE I, STEP 4).

PHASE I

STFP 1: (TMP-4)

INSTALL CHANGEABLE MESSAGE SIGNS ON -L- (MALCOLM BLVD) AS SHOWN THE PLANS. OPERATE FOR TWO WEEKS MINIMUM PRIOR TO BEGINNING CONSTRUCTION. SEE INSET 1 ON TMP-4.

STEP 2:

INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.01, SHEET 3 OF 3.

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AS NECESSARY, INSTALL ALL APPROPRIATE TRAFFIC CONTROL DEVICES, AS SHOWN ON TMP-4.

STEP 3:

WHILE MAINTAINING TRAFFIC IN EXISTING TRAFFIC PATTERN, AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 AND 14 OF 19 AS NECESSARY, COMPLETE CONSTRUCTION UP TO FINAL SURFACE COURSE OF THE FOLLOWING AS SHOWN ON TMP-4 UNLESS OTHERWISE NOTED:

- -DET_DRW1- STA 13+75 +/- TO STA 11+77 +/-, CONSTRUCT TEMPORARY PAVEMENT AT CROSS SLOPE
 OF PROPOSED FINAL CONSTRUCTION. ENSURE THAT THE TIE-IN OF THE EXISTING EDGE OF PAVEMENT
 IS WITHIN 2" OF THE EXISTING ROADWAY ELEVATION.
- -DET_DRW1- STA 11+67 +/- TO STA 10+10 +/-, CONSTRUCT TEMPORARY PAVEMENT AT CROSS SLOPE
 OF PROPOSED FINAL CONSTRUCTION. ENSURE THAT THE TIE-IN OF THE EXISTING EDGE OF PAVEMENT
 IS WITHIN 2" OF THE EXISTING ROADWAY ELEVATION.
- -L- STA 45+00 +/- TO STA 48+00 +/-, LEFT SIDE, CLEAR AND TRIM ANY NECESSARY VEGETATION TO ENSURE THAT TRAFFIC ON -DET_DRW1- CAN SAFELY EXIT -DET_DRW1- ONTO -L- (MALCOLM BLVD).
- -DET_DRW1- STA 13+75 +/- TO STA 13+80 +/-, -DET DRW1- STA 11+67 +/- TO STA 11+77 +/- AND -DET_DRW1- STA 10+00+/- TO STA 10+10+/-, WEDGE ACROSS ENOUGH OF EXISTING LANE TO MAINTAIN POSITIVE DRAINAGE. ENSURE CONSTRUCTION OF -DET_DRW1- STA 13+75 +/- TO STA 13+80 +/- AND -DET DRW1- STA 11+67 +/- TO STA 11+77 +/- IS BUILT NONCONCURRENTLY SO TRAFFIC CAN BE MAINTAINED USING FLAGGING FOR TWO-WAY TRAFFIC.
- -L- STA 44+59 +/- TO STA 45+45 +/-, LEFT SIDE, WEDGE ALONG EXISTING ROADWAY TO SMOOTHLY TIE NEW CONSTRUCTION TO EXISTING ALIGNMENT.
- INSTALL TRUCK ENTRANCE SIGNS PER RDS 1101.05 SHEET 1 OF 2.
- INSTALL TEMPORARY SHORING FROM -L- STA 38+32 +/- TO -L- STA 38+72 +/-, AS SHOWN ON TMP-6.

USING RSD 1101.02, SHEET 1 OF 19 AS NECESSARY, INSTALL ALL APPROPRIATE TRAFFIC CONTROL DEVICES, AS SHOWN ON TMP-5 THROUGH TMP-7.

STEP 4: (TMP-5 TO TMP-7)

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, SHIFT TRAFFIC FROM EXISTING CASTLE BRIDGE DRIVE TO -DET_DRW1-, WHILE MAINTAINING EXISTING PATTERN ON OTHER ALIGNMENTS AND DRIVEWAYS.

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT DRAINAGE, GUARDRAIL AND ROADWAY FOR THE FOLLOWING:

- -L- STA 27+50 +/- TO STA 28+90 +/-, USE TEMPORARY SLOPES (MAX 2:1) ON RIGHT SIDE OF -L- TO MAINTAIN EXISTING TRAFFIC PATTERN.
- -L- STA 28+90 +/- TO STA 40+15 +/-, BEGIN CONSTRUCTION OF BRIDGE
- -L- STA 40+15 +/- TO STA 41+00 +/-, USE TEMPORARY SLOPES (MAX 2:1) ON RIGHT SIDE OF -L- TO MAINTAIN EXISTING TRAFFIC PATTERN.

USING RSD 1101.02, SHEET 1 & 14 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT DRAINAGE, GUARDRAIL AND ROADWAY AND REPLACE EXISTING MARKINGS FOR THE FOLLOWING:

- -L- STA 16+50 +/- TO STA 20+00 +/-, BOTH LANES, LEFT SIDE AND RIGHT SIDE AS SHOWN ON THE PLANS.
- -L- STA 20+00 +/- TO STA 23+00 +/-, BOTH LANES, LEFT SIDE AND DRAINAGE FOR RIGHT SIDE AS SHOWN ON THE PLANS. WEDGE ALONG EXISTING ROADWAY TO SMOOTHLY TIE NEW CONSTRUCTION TO EXISTING ALIGNMENT.
- EXISTING LANES FROM -L- STA 23+00 +/- TO STA 24+51 +/-.
- -Y1- STA 10+00+/- TO STA 11+25, COORDINATE WITH -L- CONSTRUCTION.
- -L- STA 43+25 +/- TO STA 48+00 +/-, BOTH LANES AND LEFT SIDE PAVED SHOULDER. WEDGE ALONG EXISTING ROADWAY TO SMOOTHLY TIE NEW CONSTRUCTION TO EXISTING ALIGNMENT.
- EXISTING DRIVEWAY, -L- STA 41+20 +/- TO STA 41+89 +/-
- EXISTING DRIVEWAY, -L- STA 41+75 +/- TO STA 42+34 +/-
- EXISTING LANES FROM -L- STA 41+20 +/- TO STA 43+25 +/ -DET_DRW1- STA 10+17 +/- TO 10+50 +/-, WEDGE DRIVEWAY ALONG EXISTING ROADWAY TO SMOOTHLY TIE INTO NEW CONSTRUCTION.
- DRW2- STA 10+00 +/- TO STA 10+92 +/-, COORDINATE WITH -L- CONSTRUCTION.

USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY CONSTRUCT STAGING AREA DRIVEWAY BETWEEN -DRW1- STA 10+17 +/- TO STA 11+13 +/-, DESIGN AND MATERIALS ARE AT THE CONTRACTOR DESCRETION. MAINTAIN DRAINAGE AS SHOWN ON THE PLANS, SEE TMP-7.

PHASING

PHASE I CONT.

<u>STEP 5:</u>

USING RSD 1101.02, SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY INSTALL REMAINING TEMPORARY PAVEMENT MARKINGS AND ALL APPROPRIATE TRAFFIC CONTROL DEVICES, AS SHOWN ON TMP-8 THROUGH TMP-10 AND SHIFT TRAFFIC TO PHASE II PATTERN INCLUDING:

- SHIFTING TRAFFIC FROM EXISTING STAGING ENTRANCE TO RELOCATED STAGING ENTRANCE, LEFT SIDE OF -L-.
- SHIFTING TRAFFIC FROM EXISTING BOAT RAMP ACCESS TO NEW -DRW2-, RIGHT SIDE OF -L-.
- MAINTAINING NEW -DET DRW1-, LEFT SIDE OF -L-.
- MAINTAINING EXISTING PATTERN ON EXISTING -L- AND -Y1-.

PHASE II

STEP 1: (TMP-8 TO TMP-10)

WHILE MAINTAINING TRAFFIC IN PHASE II TRAFFIC PATTERN, AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, COMPLETE CONSTRUCTION OF DRAINAGE, GUARDRAIL AND ROADWAY FOR THE FOLLOWING:

- -L- STA 27+50 +/- TO STA 28+90 +/-, USE TEMPORARY SLOPES (MAX 2:1) ON RIGHT SIDE OF PROPOSED
 -L- TO MAINTAIN EXISTING TRAFFIC PATTERN ON EXISTING -L-.
- -L- STA 28+90 +/- TO STA 40+15+/-, BRIDGE.
- -L- STA 40+15 +/- TO STA 41+00 +/-, USE TEMPORARY SLOPES (MAX 2:1) ON RIGHT SIDE OF PROPOSED -L- TO MAINTAIN EXISTING TRAFFIC PATTERN ON EXISTING -L-.

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT DRAINAGE, GUARDRAIL AND ROADWAY FOR THE FOLLOWING:

- -L- STA 23+00 +/- TO STA 25+00 +/-, LEFT SIDE, MINIMUM OF 11' OF PAVEMENT AS SHOWN IN CROSS SECTION B-B ON TMP-8.
- -L- STA 25+00 +/- TO STA 26+00 +/-, LEFT SIDE, MINIMUM OF 17' OF PAVEMENT AS SHOWN IN CROSS SECTION C-C ON TMP-8.
- -L- STA 26+00 +/- TO STA 27+50 +/-, BOTH LANES AND LEFT SIDE PAVED SHOULDER AS SHOWN IN CROSS SECTION D-D ON TMP-8.
- -L- STA 41+00 +/- TO STA 42+00 +/-, BOTH LANES AND LEFT SIDE PAVED SHOULDER.
- -L- STA 42+00 +/- TO STA 43+25 +/-, LEFT SIDE, MINIMUM OF 17' OF PAVEMENT AS SHOWN IN CROSS SECTION E-E ON TMP-10.
- -L- STA 16+50 +/- TO STA 22+15 +/-, -L- STA 22+75 +/- TO STA 28+56 +/- AND -L- STA 39+91 +/- TO STA 43+19 +/-, LEFT SIDE GUARDRAIL AS SHOWN IN CROSS SECTIONS A-A THRU E-E ON TMP-8 AND TMP-10.

STEP 2:

AWAY FROM TRAFFIC, INSTALL PCB AT -L- STA 25+00 +/- TO 28+20 +/-, AS SHOWN IN PHASE III ON TMP-11

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY INSTALL TEMPORARY PAVEMENT MARKINGS AND ALL APPROPRIATE TRAFFIC CONTROL DEVICES, AS SHOWN ON TMP-11 THROUGH TMP-13 BETWEEN STA 22+70 +/- AND STA 43+90 +/- ON PROPOSED -L-.

PHASE III

CONTRACTOR SHALL CONSTRUCT PHASE III, STEP 1 DURING A WEEKEND ICT FROM FRIDAY 7 PM TO MONDAY 7 AM. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 1: (TMP-11 TO TMP-13)

A: TRAFFIC SHIFT

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 1 AND 17 OF 19 AND FLAGGERS AS NECESSARY, COMPLETE THE FOLLOWING:

- INSTALL PORTABLE TEMPORARY SIGNALS AND ALL APPROPRIATE TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-11, TMP-12, TMP-13 AND RSD 1101.02, SHEET 17 OF 19, ACTIVATE PORTABLE TRAFFIC SIGNAL AND SHIFT TRAFFIC INTO 1 LANE, 2 WAY TRAFFIC PATTERN IN NB LANE OF EXISTING -L-. MAINTAIN -Y1- AND -DET_DRW1- ACCESS WITH FLAGGERS, BARRICADES AND ONE-WAY DIRECTION SIGNS AS NECESSARY.
- BAG R4-7 SIGNS.

B: CONSTRUCTION

WHILE MAINTAINING TRAFFIC IN PHASE III, STEP 1 TRAFFIC PATTERN, USING RSD 11.0.02 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT THE FOLLOWING:

- -L- STA 23+00 +/- TO STA 23+75 +/- AND -L- STA 24+25 +/- TO STA 25+00 +/-, USE TEMPORARY SIDE SLOPES (MAX 6:1) ON PROPOSED -L- TO MAINTAIN PHASE III TRAFFIC PATTERN IN NB LANE OF EXISTING -L-. SEE SECTIONS B-B AND D-D ON TMP-11.
- FOR -L- STA 23+75 +/- TO STA 24+25 +/- , USE TEMPORARY SIDE SLOPES AT GRADE AS CLOSE TO 6:1 AS POSSIBLE, ON PROPOSED -L- TO MAINTAIN PHASE III TRAFFIC PATTERN IN NB LANE OF EXISTING -L-. SEE SECTION C-C ON TMP-11.
- REMAINING TEMPORARY PAVEMENT MARKINGS, AS SHOWN ON TMP-11 THROUGH TMP-13.

C:TRAFFIC SHIFT

USING RSD 1101.02, SHEETS 1 OF 19 AND FLAGGERS AS NECESSARY INSTALL ALL APPROPRIATE TRAFFIC CONTROL DEVICES, UNBAG R-4-7 SIGNS, REMOVE PORTABLE TRAFFIC SIGNAL AND SHIFT TRAFFIC TO PHASE III, STEP 2 PATTERN AS SHOWN ON TMP-14 THROUGH TMP-16.

PHASE III CONT.

STEP 2: (TMP-14 TO TMP-16)

WHILE MAINTAINING TRAFFIC IN PHASE III, STEP 2 TRAFFIC PATTERN, AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT DRAINAGE, GUARDRAIL AND ROADWAY FOR THE FOLLOWING:

• -L- STA 23+00 +/- TO STA 24+00 +/-, MINIMUM OF 7', OF PAVEMENT AS SHOWN IN CROSS SECTIONS B-B AND C-C ON TMP-14.

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SHEET NO.

TMP-3

- -L- STA 24+00 +/- TO STA 25+00 +/-, MINIMUM OF 9', OF PAVEMENT AS SHOWN IN CROSS SECTION D-D ON TMP-14.
- -L- STA 25+00 +/- TO STA 26+00 +/-, RIGHT SIDE, MINIMUM OF 11' TO COMPLETE BOTH LANES OF PAVEMENT AS SHOWN IN CROSS SECTION D-D ON TMP-14.
- -L- STA 42+00 +/- TO STA 43+25 +/-, RIGHT SIDE, MINIMUM OF 12' TO COMPLETE BOTH LANES OF PAVEMENT AS SHOWN IN CROSS SECTION E-E ON TMP-16.

CONTRACTOR SHALL CONSTRUCT PHASE III, STEP 3 DURING A WEEKEND ICT FROM FRIDAY 7 PM TO MONDAY 7 AM. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.

<u>STEP 3:</u>

AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 1 AND 17 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT ROADWAY AS FOLLOWS:

A: TRAFFIC SHIFT

- INSTALL PORTABLE TEMPORARY SIGNALS, TEMPORARY PAVEMENT MARKINGS AND ALL APPROPRIATE TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-17, TMP-18, TMP-19 AND RSD 1101.02, SHEET 17 OF 19. MAINTAIN -Y1- AND -DET_DRW1- ACCESS WITH FLAGGERS, BARRICADES AND ONE-WAY DIRECTION SIGNS AS NECESSARY.
- REMOVE EXISTING R4-7 SIGNS.

B: CONSTRUCTION

WHILE MAINTAINING TRAFFIC IN PHASE III, STEP 2 TRAFFIC PATTERN, USING RSD 11.0.02 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT THE FOLLOWING:

- -L- STA 23+00 +/- TO STA 25+00 +/-, CONSTRUCT MINIMUM AMOUNT OF PAVEMENT NECESSARY TO SHIFT TRAFFIC TO PHASE IV PATTERN
- -L- STA 42+00 +/- TO STA 43+25 +/-, CONSTRUCT A MINIMUM GRADE 6:1 SIDE SLOPE.

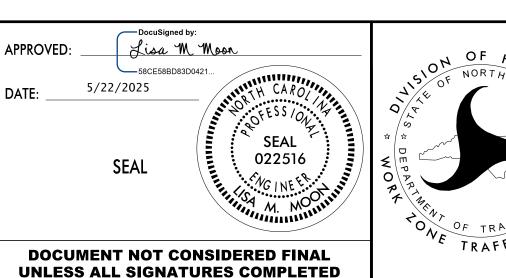
C: PCB BARRIER

USING RSD 1101.11, SHEET 3 OF 4 AND FLAGGERS AS NECCESSARY RELOCATE, RESET AND INSTALL NEW PCB AT -L- STA 24+13 +/- TO 29+00 +/- AND -L- STA 39+50 +/- TO STA 42+82 +/-, AS SHOWN IN PHASE IV ON TMP-20 THRU TMP-22.

D: TRAFFIC SHIFT

USING RSD 1101.02, SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY INSTALL REMAINING TEMPORARY PAVEMENT MARKINGS AND ALL APPROPRIATE TRAFFIC CONTROL DEVICES, AS SHOWN ON TMP-20 THROUGH TMP-22, REMOVE PORTABLE TRAFFIC SIGNAL AND SHIFT TRAFFIC TO PHASE IV PATTERN AS SHOWN ON TMP-20 THROUGH TMP-22.





PHASING OPERATIONS PLAN

ACCESS TO ALL RESIDENCES AND BUSINESSES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AT ALL TIMES.

COMPLETE PAVING UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNTIL STATED TO PLACE FINAL LAYER IN THE PHASING.

MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.

USE ROADWAY STANDARD 1101.05 WORK ZONE VEHICLE ACCESSES WITH FLAGGERS, AS NECESSARY.

USE CMS DURING ALL FLAGGING OPERATIONS ON -L- (MALCOLM BLVD), NORTHBOUND CMS \sim 2,650 FEET (0.5 MILES) SOUTH OF STA 17+00+/- AND SOUTHBOUND CMS \sim 2,150 FEET (0.4 MILES) NORTH OF STA 48+00+/-. SEE INSET ON TMP-4 FOR MESSAGES.

INSTALL RIVER WARNING SIGNS AS SHOWN ON TMP-2B AND TMP-2C OF THE PLANS. OPERATE FOR TWO WEEKS MINIMUM PRIOR TO INSTALLATION OF ANY FLOATING BARRICADE SYSTEM AND THE ASSOCIATED WORK ON THE STRUCTURE (BEGINNING PHASE I, STEP 4).

PHASE IV

STEP 1: (TMP-20 TO TMP-22)

WHILE MAINTAINING TRAFFIC IN PHASE IV TRAFFIC PATTERN, AWAY FROM TRAFFIC AND USING RSD 1101.02. SHEET 1 OF 19 AND FLAGGERS AS NECESSARY, CONSTRUCT DRAINAGE, GUARDRAIL AND **ROADWAY FOR THE FOLLOWING:**

- -L- STA 20+00 +/- TO STA 23+00 +/-, RIGHT SIDE PAVED SHOULDER & ANY REMAINING WORK AS SHOWN IN CROSS SECTION A-A ON TMP-20.
- -L- STA 23+00 +/- TO STA 24+00 +/-, RIGHT SIDE LANE, PAVED SHOULDER & ANY REMAINING WORK AS SHOWN IN CROSS SECTIONS B-B AND C-C ON TMP-20.
- -L- STA 24+00 +/- TO STA 27+50 +/-, RIGHT SIDE PAVED SHOULDER & ANY REMAINING WORK AS SHOWN IN CROSS SECTIONS C-C AND D-D ON TMP-20.
- -L- STA 23+50 +/- TO STA 29+14 +/- AND -L- STA 39+91 +/- TO STA 43+06 +/-, RIGHT SIDE GUARDRAIL AS SHOWN IN CROSS SECTIONS B-B, C-C, D-D AND E-E ON TMP-20 AND TMP-22.
- -L- STA 27+50 +/- TO STA 28+90 +/-, REMOVE EXISTING ROADWAY AS NECESSARY AND CONSTRUCTION FINAL FILL SLOPES ON RIGHT SIDE OF -L-.
- REMOVE EXISTING BRIDGE AND FINALIZE EXCAVATION AS SHOWN ON THE ROADWAY PLANS.
- -L- STA 41+00 +/- TO STA 43+25 +/-, REMOVE EXISTING ROADWAY AS NECESSARY AND CONSTRUCTION FINAL FILL SLOPES ON RIGHT SIDE OF -L- AS SHOWN IN CROSS SECTION E-E ON TMP-22.
- -L- STA 43+81 +/- TO STA 47+50 +/-, RIGHT SIDE PAVED SHOULDER & ANY REMAINING WORK AS SHOWN IN CROSS SECTION F-F ON TMP-22.
- -DRW1- STA 10+17 +/- TO STA 13+25 +/-, REMOVING STAGING AREA AND CONSTRUCT NEW DRIVEWAY USING WEDGING AND MILLING TO MAINTAIN TRAFFIC ALONG -DET DRW1- AT -DET_DRW1- STA 11+70 +/- TO STA 11+80 +/- AND -DRW1- STA 13+25 +/- TO STA 13+71 +/- ON TMP-22.

USING RSD 1101.02, SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY, REMOVE EXISTING TEMPORARY DRIVEWAY USED FOR DRIVEWAY DETOUR, -DET_DRW1- STA 10+17 +/- TO -DRW1- STA

STEP 3:

USING RSD 1101.02, SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY REMOVE PCB, INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN, AS SHOWN IN THE PAVEMENT MARKING PLANS, INSTALL FINAL SIGNS, AND SHIFT TRAFFIC TO FINAL PATTERN.

• REMOVE PCB -L- STA 24+13 +/- TO STA 29+00 +/- AND -L- STA 39+50 +/- TO STA 42+82 +/-.

STEP 4:

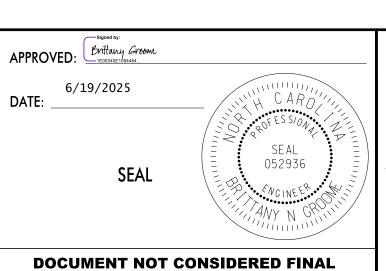
USING RSD 1101.02 SHEETS 1 AND 14 OF 19 AND FLAGGERS AS NECESSARY, COMPLETE THE **FOLLOWING WORK:**

- PLACE FINAL LAYER OF SURFACE COURSE ON ENTIRE PROJECT
- PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON THE PROJECT PER THE PAVEMENT MARKING PLANS.

ROJ. REFERENCE NO.	SHEET NO.
R-3430B	TMP-3A

PHASING



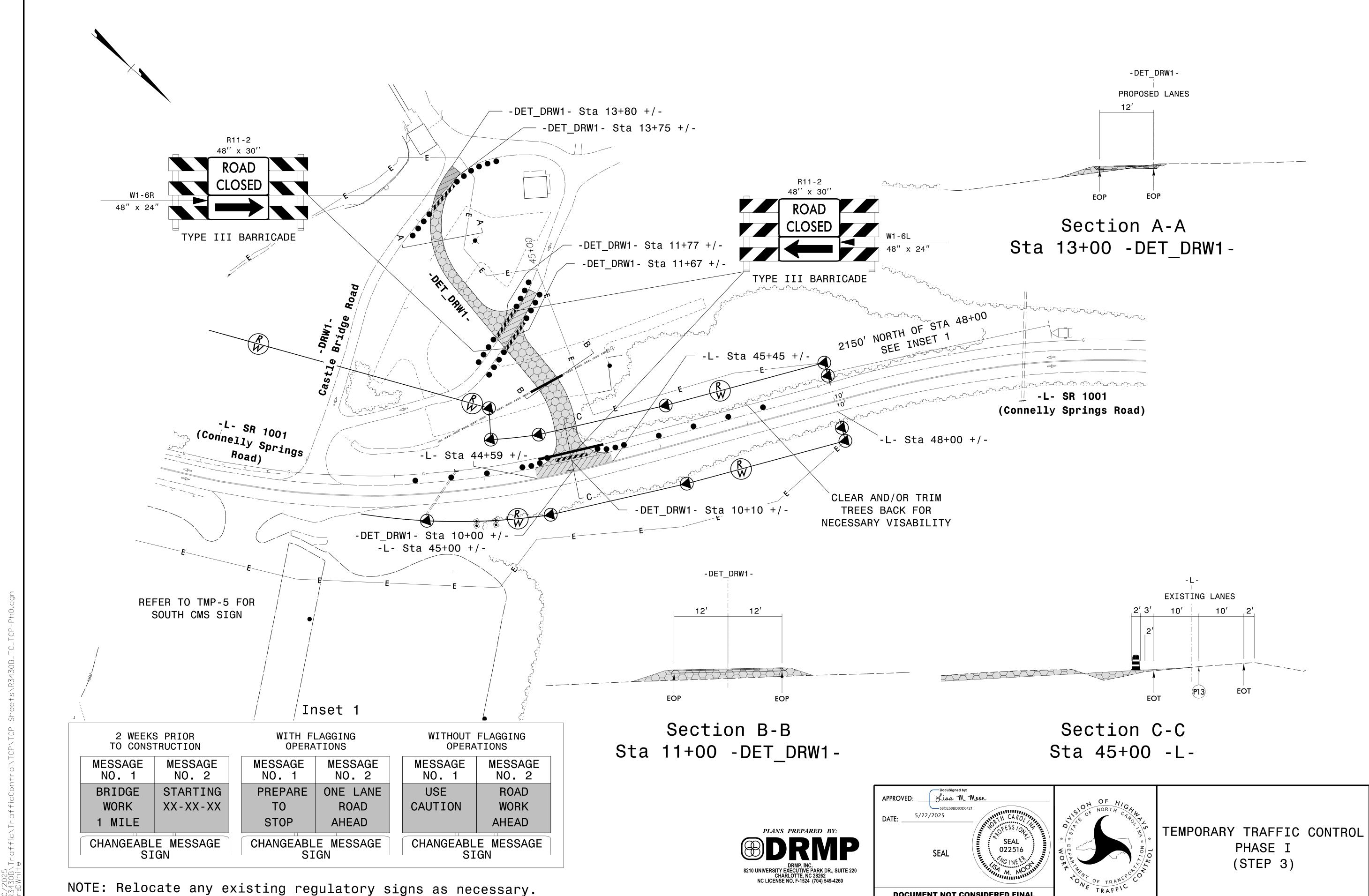


UNLESS ALL SIGNATURES COMPLETED



PHASING **OPERATIONS** PLAN

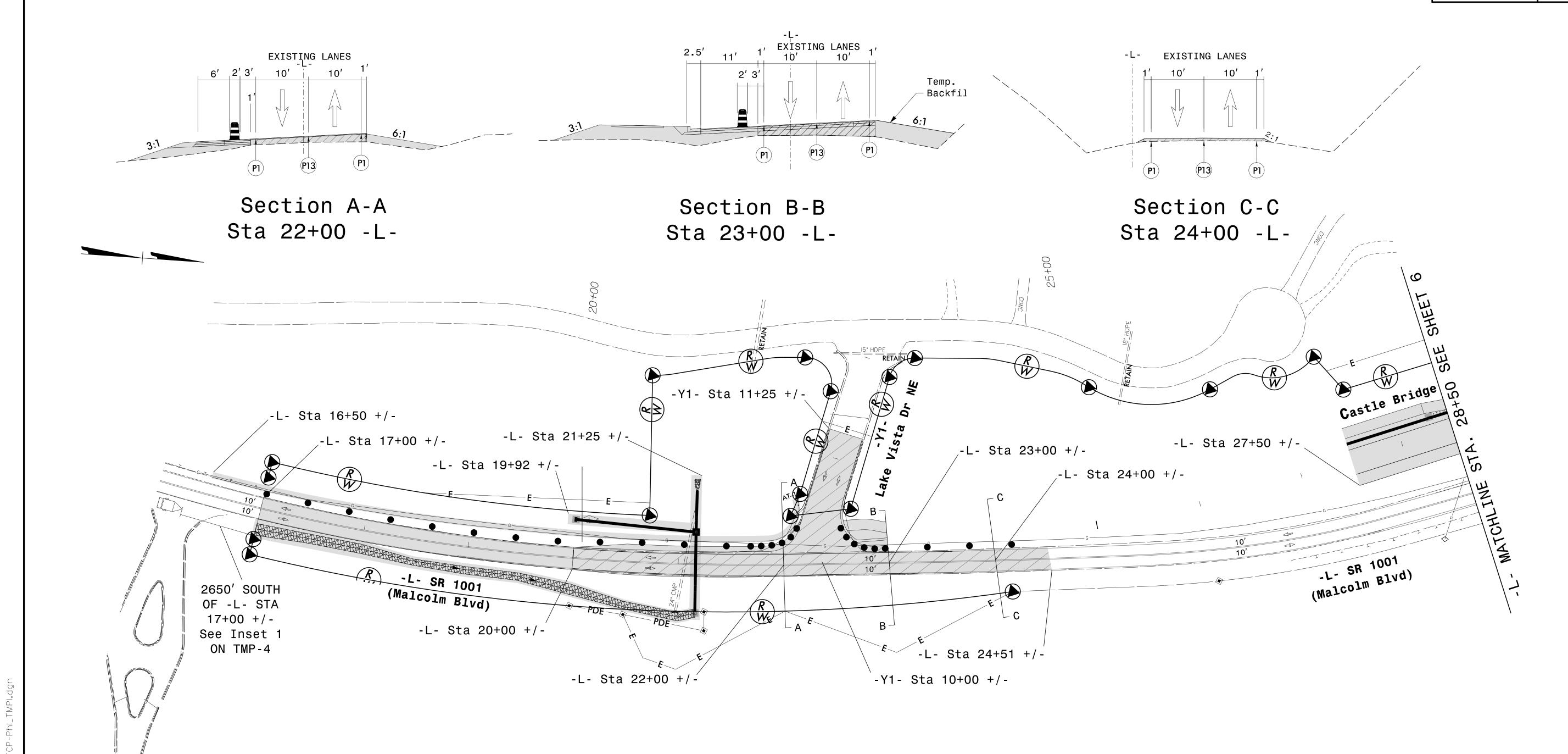
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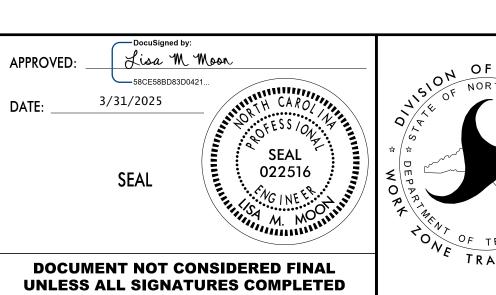
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R-3430B TMP-5





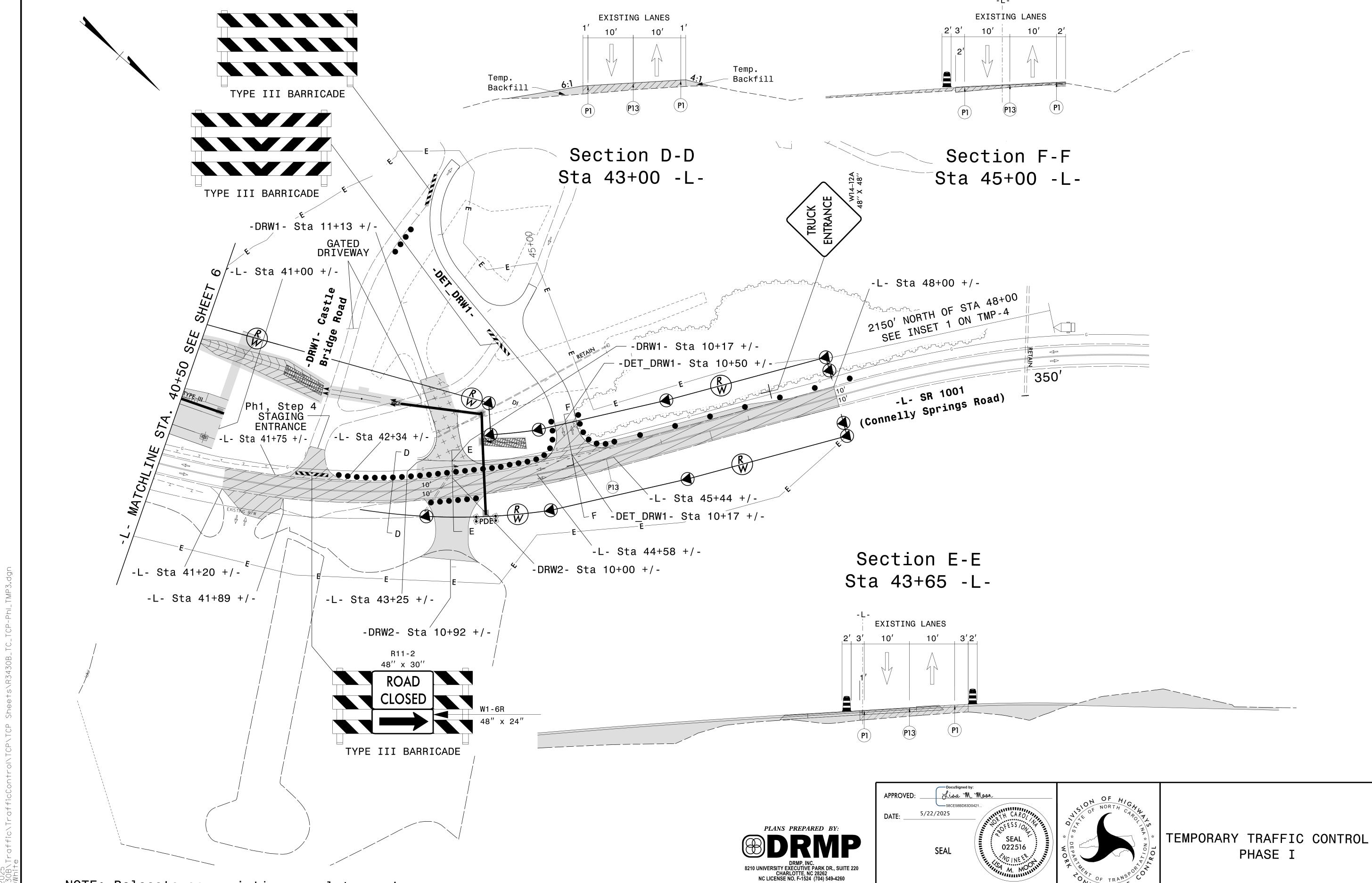


TEMPORARY TRAFFIC CONTROL PHASE I

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 R-3430B TMP-6 $\langle 1 \rangle$ Quantity = 288 SQ FT -Temporary Shoring -L- Sta 40+15 +/ FROM -L- STA. 38+32, 15.75' RT TO -L- STA. 38+42, 25.75' RT ,-L- Sta 28+90 +/-TO -L- STA. 38+62, 25.75' RT TO -L- STA. 38+72, 15.75' RT Castle Bridge $R \longrightarrow R$ 28+50 10' \Leftrightarrow \Leftrightarrow SR 1001 (Malcolm Blvd/Connelly Springs Road) 5 PROPOSED LANES EXISTING LANES EL: 996.20 DocuSigned by: Lisa M Moon APPROVED: Section H-H 3/31/2025 DATE: _ PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL Sta 38+50 -L-PHASE I DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260 NOTE: Relocate any existing regulatory signs as necessary. DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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PROJ. REFERENCE NO. R-3430B TMP-7



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 R-3430B EXISTING LANES EXISTING LANES EXISTING LANES Section B-B Section C-C Section A-A Sta 25+00 -L-Sta 24+00 -L-Sta 23+00 -L-Castle Bridge -L- Sta 27+50 +/--L- Sta 16+50 +/--L- Sta 26+00 +/--L- Sta 25+00 +/--L- Sta 24+00 +/--L- Sta 22+15 +/--L- SR 1001 -L- SR 1001 (Malcolm Blvd) C (Malcolm Blvd) -L- Sta 22+75 +/--L- Sta 17+00 +/--L- Sta 23+00 +/--L- Sta 24+51 +/-17′ EXISTING LANES EOT Docusigned by: Lisa M Moon APPROVED: Section D-D DATE: _ Sta 26+50 -L-PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL PHASE II DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260 NOTE: Relocate any existing regulatory signs as necessary. DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

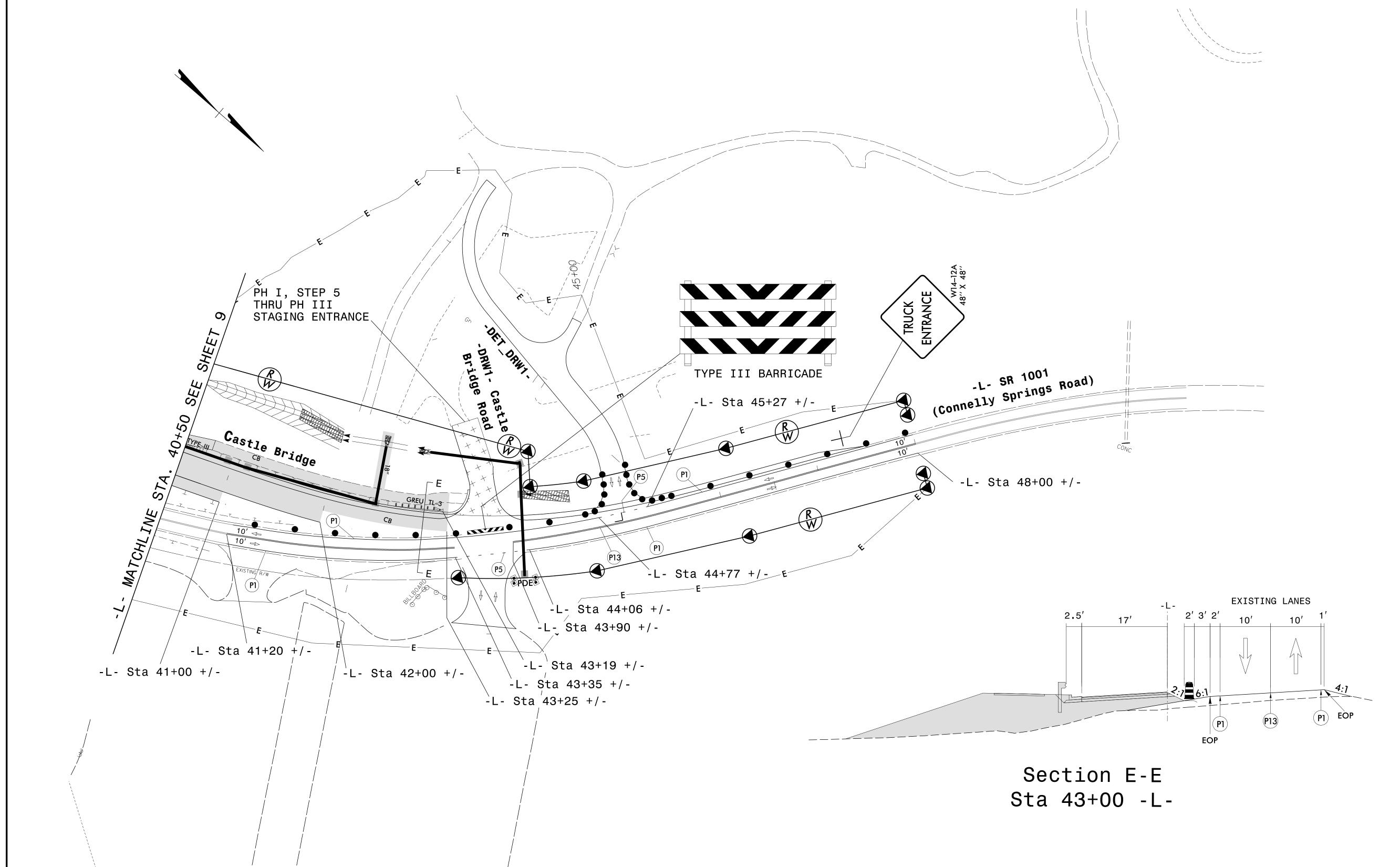
PROJ. REFERENCE NO. SHEET N
R - 3430B TMP-9

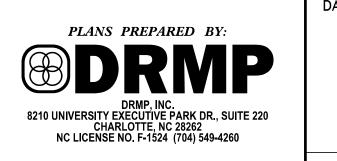
NOTE: Relocate any existing regulatory signs as necessary.

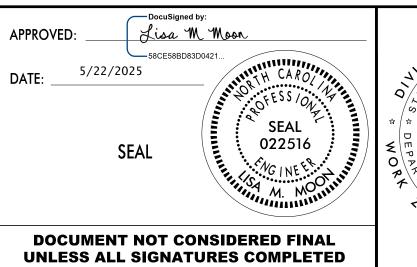
-L- Sta 28+56 +/--L- Sta 40+15 + -L- Sta 28+90 +/-MATCHLINE Castle Bridge -L- Sta 39+91 +/--L- SR 1001 (Malcolm Blvd/Connelly Springs Road) Docusigned by:
Lisa M Moon APPROVED: 3/31/2025 DATE: _ PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL PHASE II DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO. SHEET NO. R - 3430B TMP–10



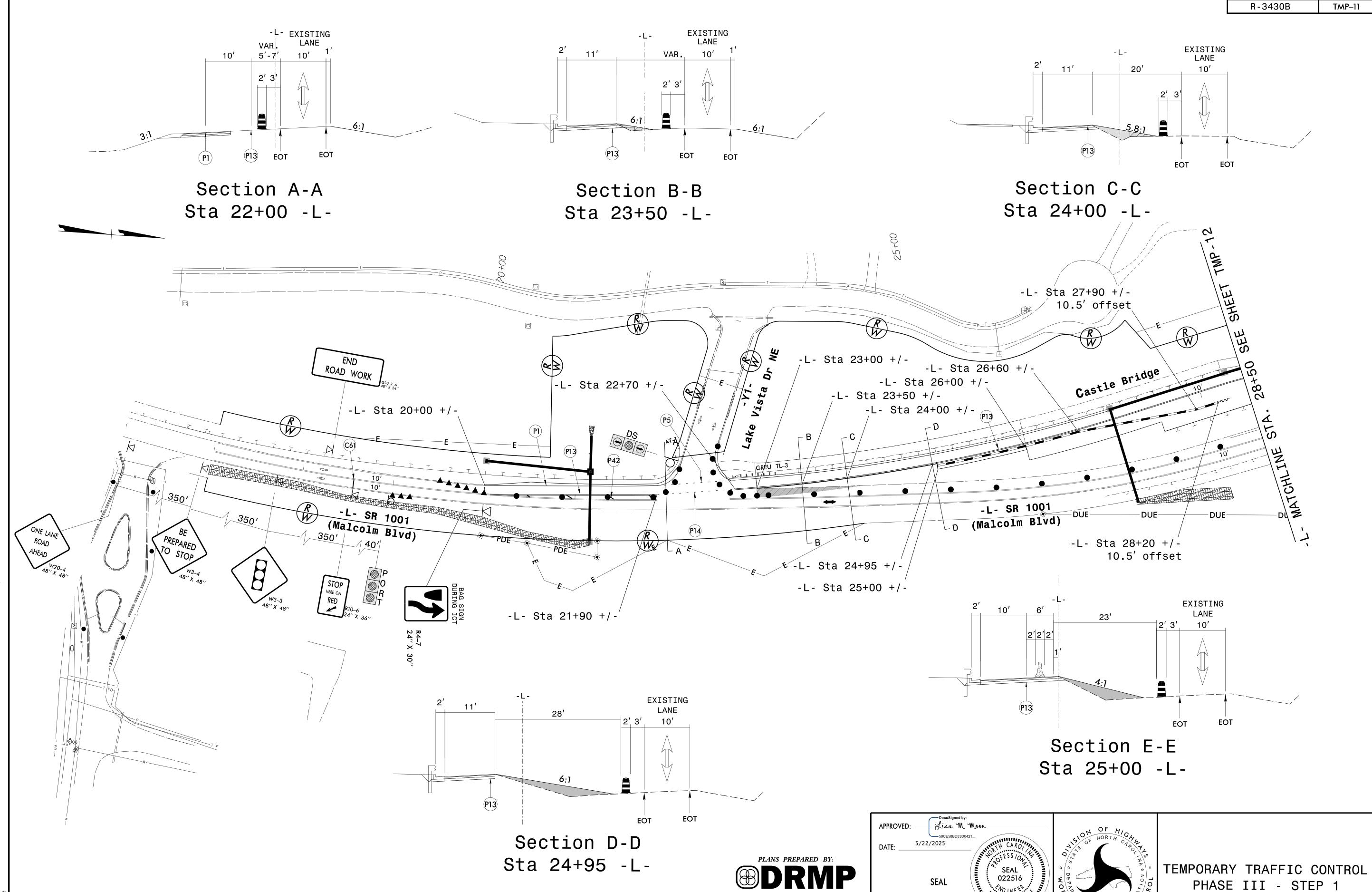






TEMPORARY TRAFFIC CONTROL
PHASE II

R-3430B TMP-11 EXISTING LANE EXISTING LANE

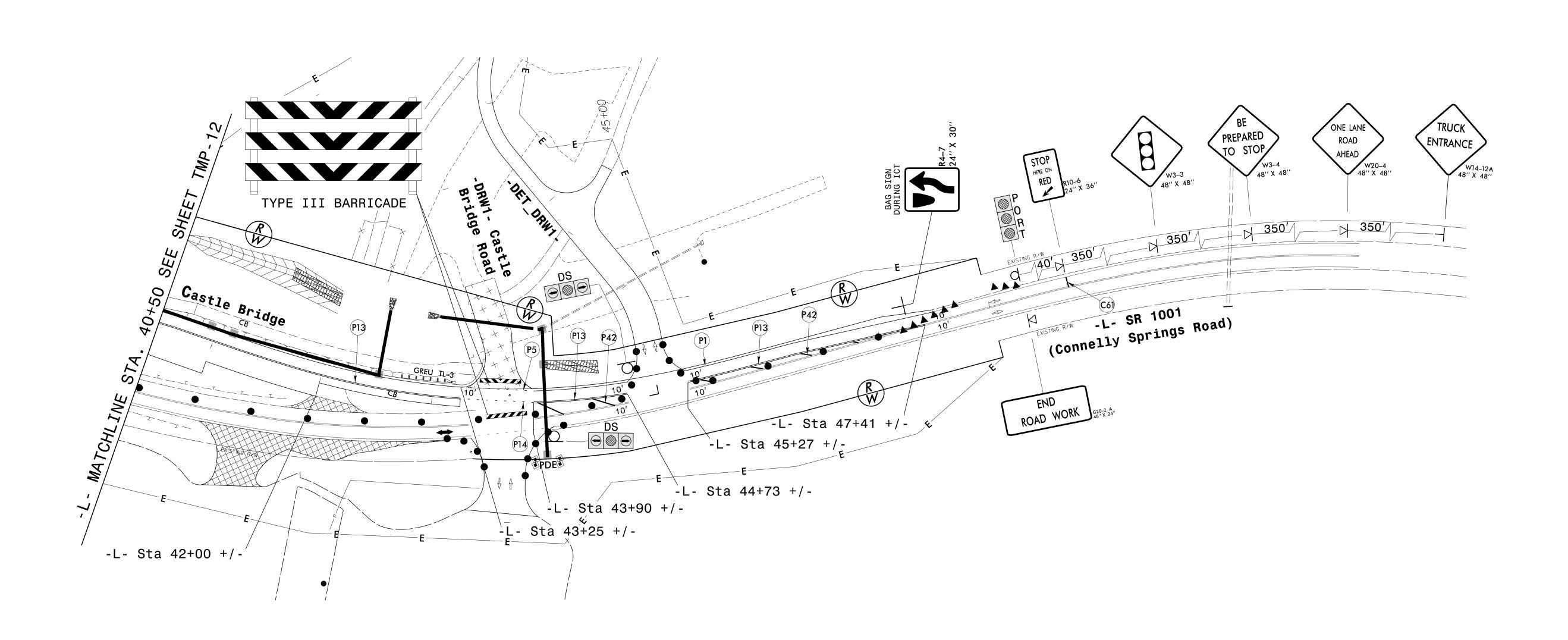


DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260

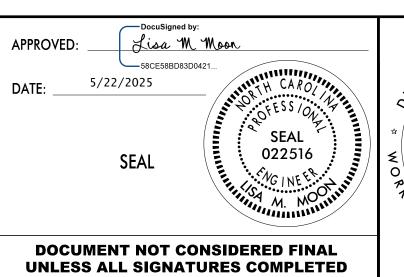
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

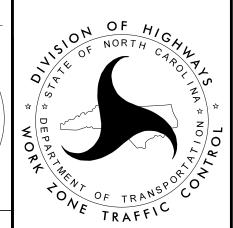
Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 PROJ. REFERENCE NO. R-3430B **C**astle Bridge +50 -L- SR 1001 (Malcolm Blvd/Connelly Springs Road) Lisa M Moon APPROVED: DATE: ___ PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL PHASE III - STEP 1 DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260 NOTE: Relocate any existing regulatory signs as necessary. DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO. SHEET NO. R - 3430B TMP–13









TEMPORARY TRAFFIC CONTROL
PHASE III - STEP 1

NOTE: Relocate any existing regulatory signs as necessary.

5/20/2025 R:\R3/3/R\T Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78

R-3430B TMP-14 EXISTING LANE EXISTING LANE EXISTING LANE Section C-C Section B-B Sta 24+00 -L-Sta 23+50 -L--L- Sta 23+00 +/--L- Sta 23+50 +/--L- Sta 24+00 +/--L- SR 1001 -L- SR 1001 (Malcolm Blvd) D (Malcolm Blvd) -L- Sta 25+00 +/-EXISTING EXISTING 11' 2' 3' 10' EOT DocuSigned by: Lisa M Moon APPROVED: Section D-D DATE: _ PLANS PREPARED BY: Sta 25+00 -L-TEMPORARY TRAFFIC CONTROL PHASE III DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260 NOTE: Relocate any existing regulatory signs as necessary.

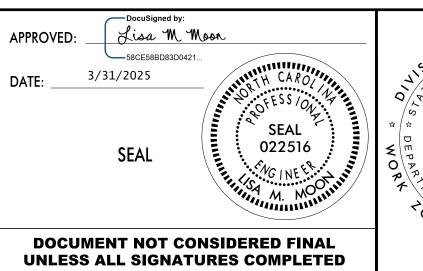
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 PROJ. REFERENCE NO. R-3430B TMP-15 **C**astle Bridge 50 -L- SR 1001 (Malcolm Blvd/Connelly Springs Road) TMP - 14

PLANS PREPARED BY:

DRMP, INC.

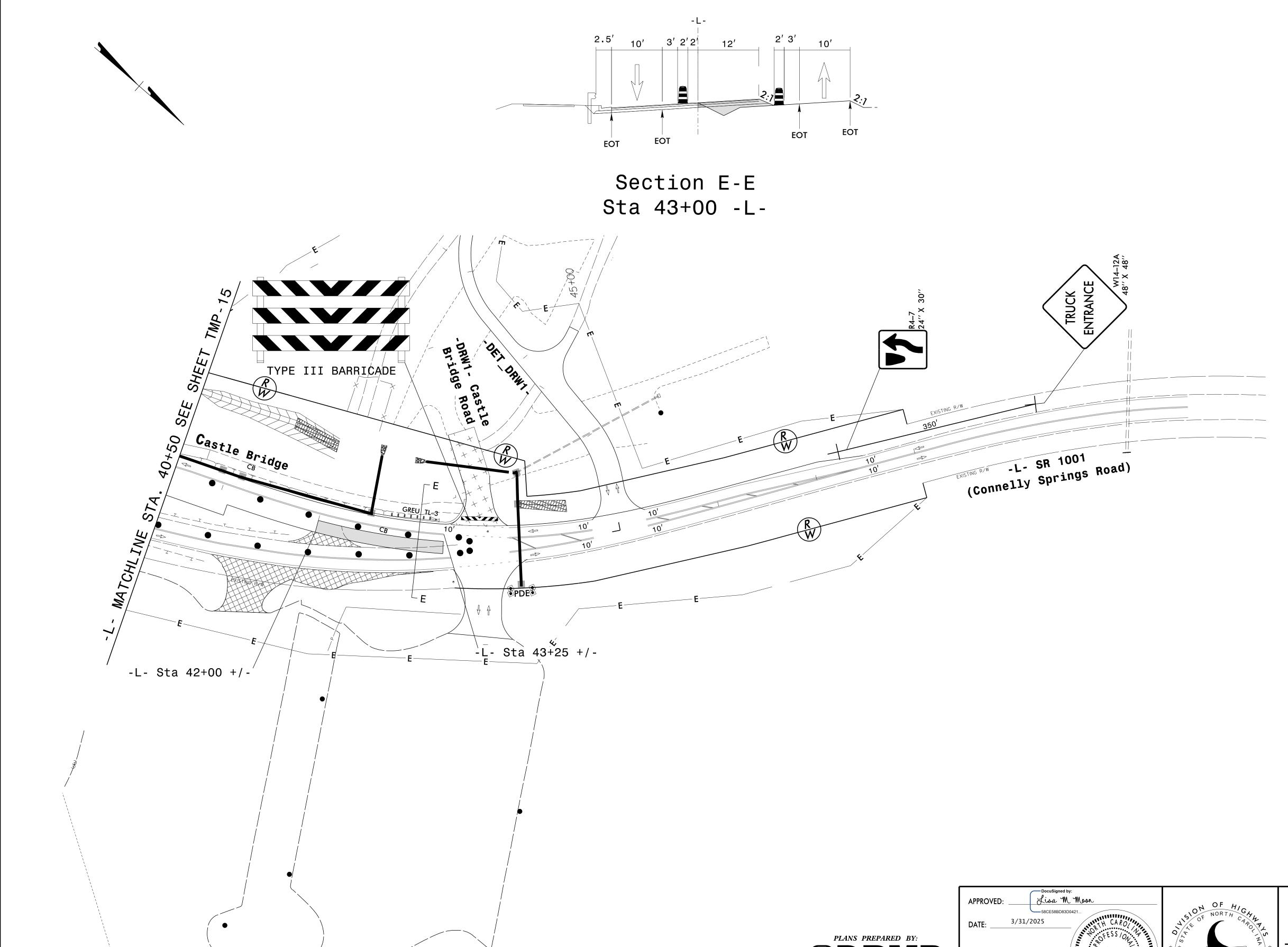
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CHARLOTTE, NC 28262
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OF HIGH NORTH CARPOLIZATION TO A TRAFFIC

TEMPORARY TRAFFIC CONTROL PHASE III

PROJ. REFERENCE NO. SHEET NO. R - 3430B TMP-16

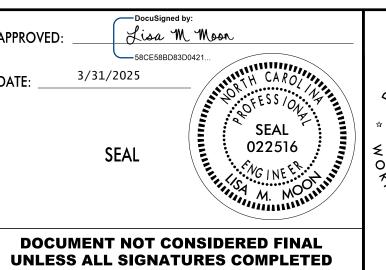


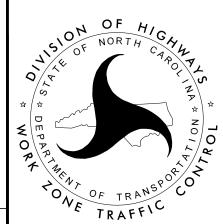
NOTE: Relocate any existing regulatory signs as necessary.

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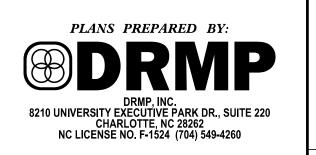


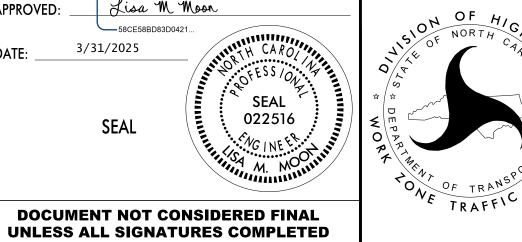
TEMPORARY TRAFFIC CONTROL PHASE III Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78

R-3430B TMP-17 EXISTING -L-LANE 2' 10' 3' 2' 3 4' EXISTING LANE Section C-C Section B-B Sta 24+00 -L-Sta 23+50 -L--L- Sta 23+00 +/-ROAD WORK -L- Sta 23+50 +/--L- Sta 24+00 +/--L- SR 1001 (Malcolm Blvd) -L- SR 1001 (Malcolm Blvd) PREPARED

TO STOP ROAD AHEAD 350′ STOP
HERE ON
RED
24" X 36" -L- Sta 25+00 +/-EXISTING LANES EOT Docusigned by: Lisa M Moon APPROVED: Section D-D 3/31/2025 DATE: _ PLANS PREPARED BY: Sta 25+00 -L-TEMPORARY TRAFFIC CONTROL SEAL

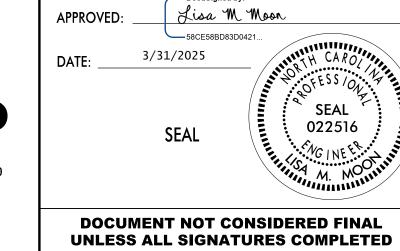
NOTE: Relocate any existing regulatory signs as necessary.

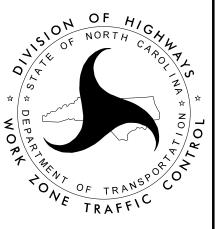




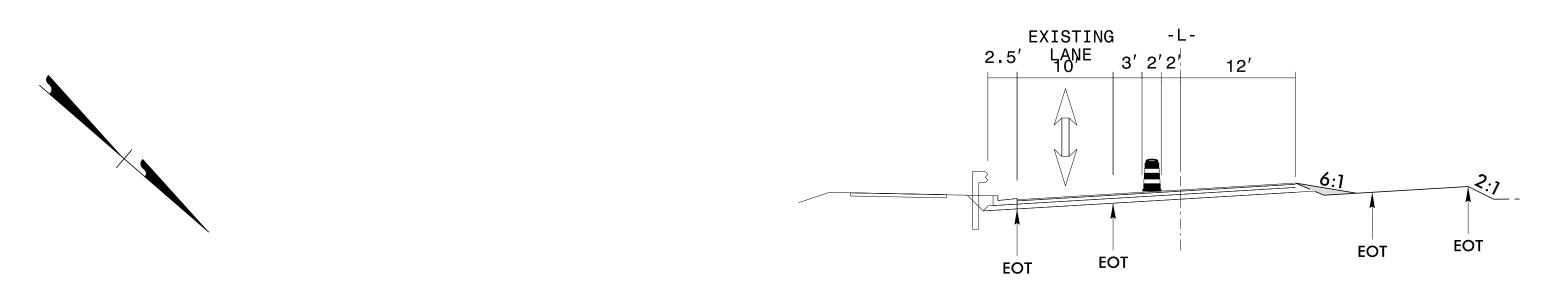
PHASE III - STEP 3

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 PROJ. REFERENCE NO. R-3430B **C**astle Bridge -L- SR 1001 (Malcolm Blvd/Connelly Springs Road) TMP - 17 DocuSigned by: Lisa M Moon APPROVED: DATE: ____ PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL PHASE III - STEP 3 DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260

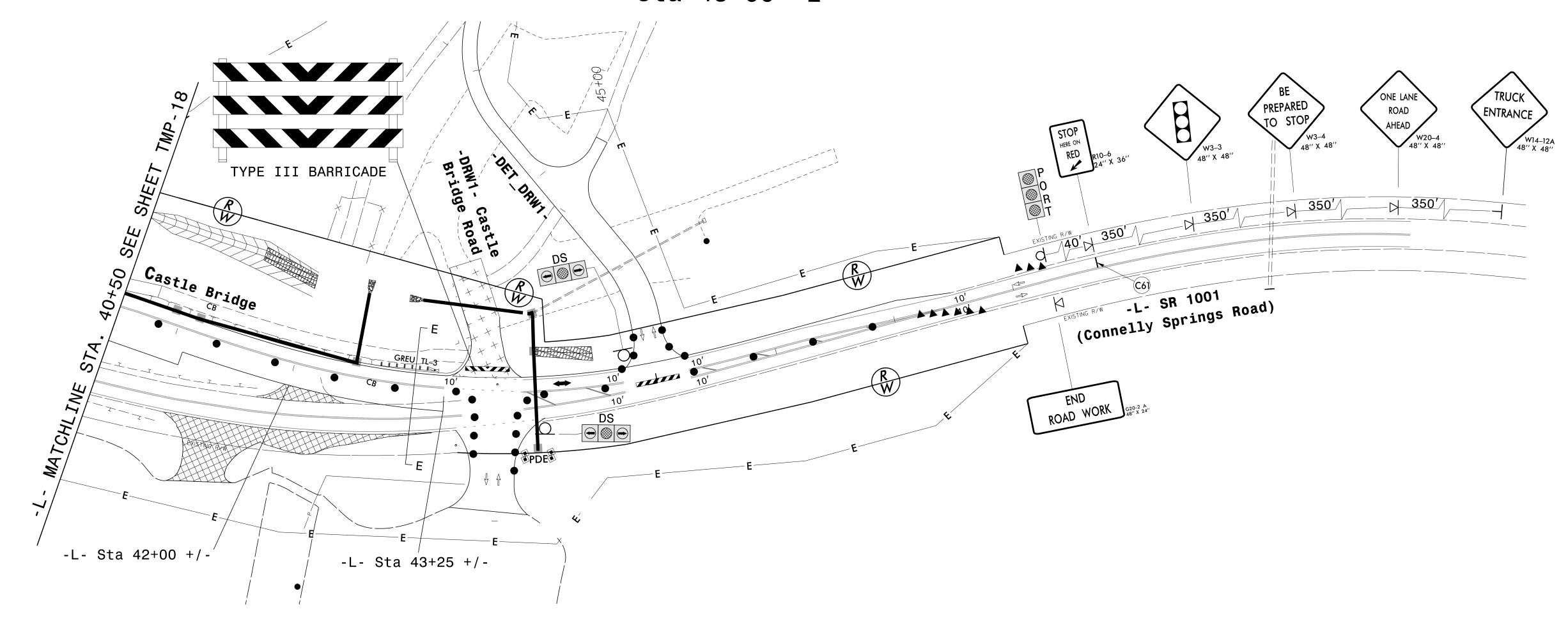




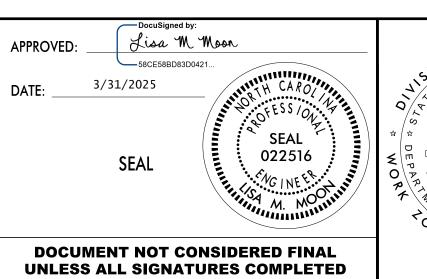
PROJ. REFERENCE NO. SHEET NO. R-3430B TMP-19



Section E-E Sta 43+00 -L-







TEMPORARY TRAFFIC CONTROL PHASE III - STEP 3

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78 PROJ. REFERENCE NO. R-3430B TMP-21 -L- Sta 28+75 +/--L- Sta 29+14 +/--L- Sta 39+50 +/-**C**astle Bridge -L- SR 1001 (Malcolm Blvd/Connelly Springs Road) -L- Sta 29+25 +/--L- Sta 28+90 +/-TMP - 20 -L- Sta 39+91 +/-Docusigned by:
Lisa M Moon APPROVED: DATE: _ PLANS PREPARED BY: TEMPORARY TRAFFIC CONTROL PHASE IV DRMP, INC. 8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220 CHARLOTTE, NC 28262 NC LICENSE NO. F-1524 (704) 549-4260 NOTE: Relocate any existing regulatory signs as necessary. DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Docusign Envelope ID: E2CCE392-D27F-4A86-9649-50D3D2E95F78

R-3430B TMP-22

