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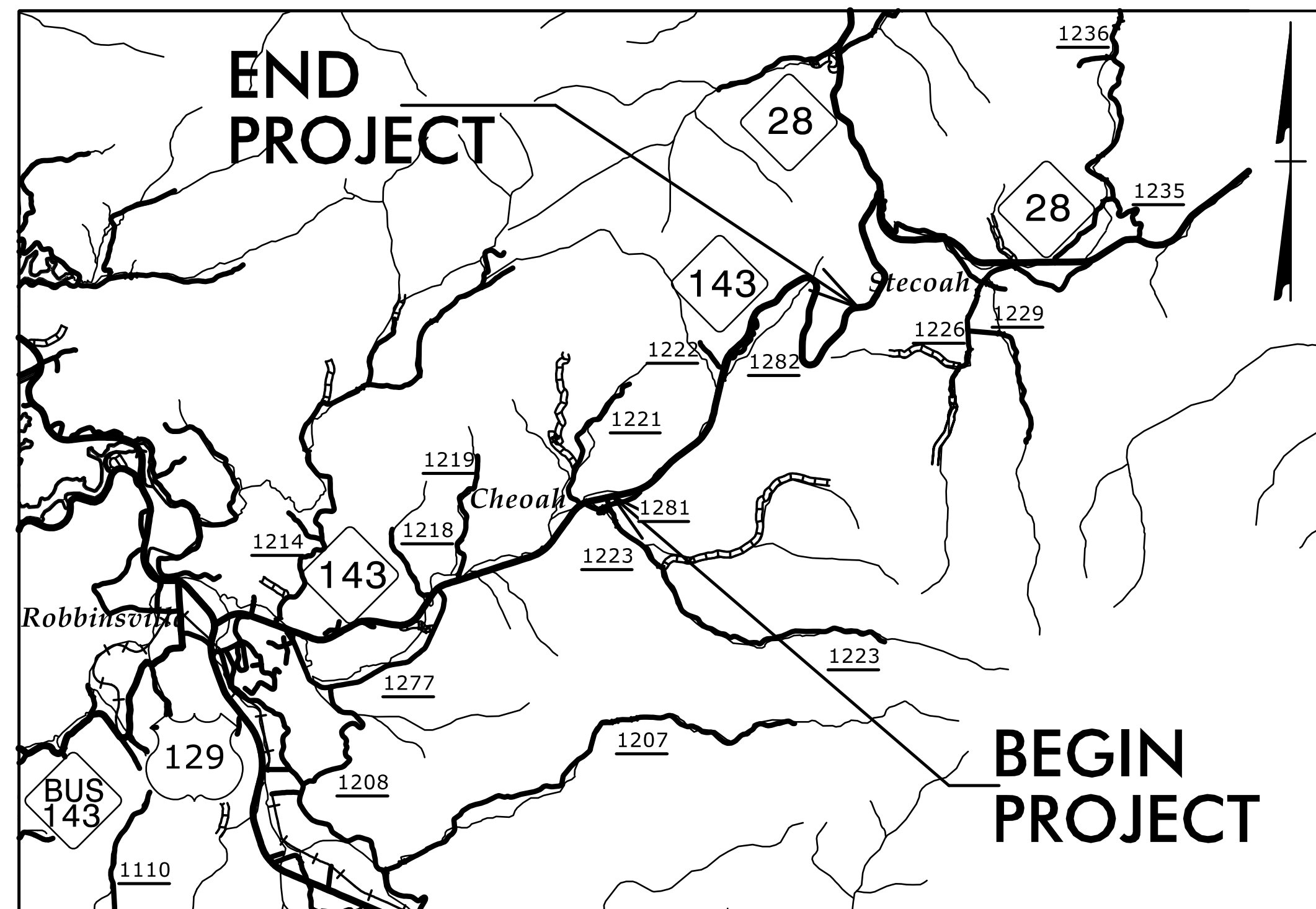
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**GRAHAM COUNTY**  
DIVISION 14



**NC 143 FROM SR 1223 (BEECH CREEK RD) TO  
0.5 MILES NORTH OF APPALACHIAN TRAIL**

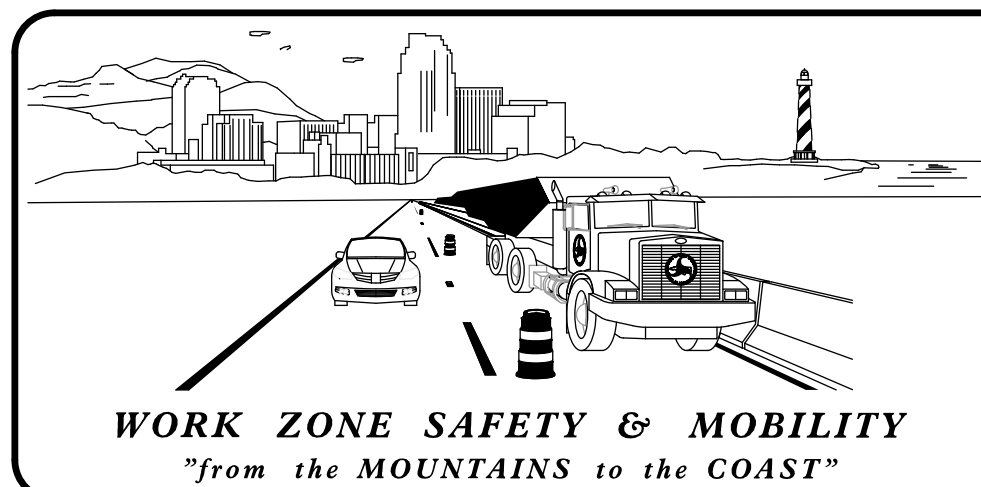


**VICINITY MAP**

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 AND GENERAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A	TEMPORARY SHORING DATA
TMP-2B	PEDESTRIAN ACCOMMODATION (APPALACHIAN TRAIL)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 THRU TMP-11	PHASE I STEP 1
TMP-12 & TMP-13	PHASE I DETAIL
TMP-14 & TMP-16	PHASE I STEP 2
TMP-17 THRU TMP-20	PHASE II STEP 1
TMP-21 THRU TMP-26	PHASE II STEP 2
TMP-27	PHASE II STEP 3
TMP-28 THRU TMP-31	PHASE III

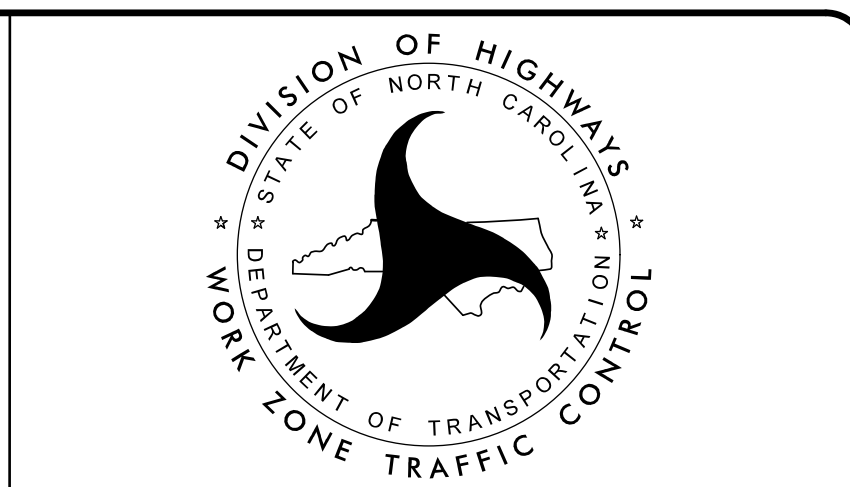
SHEET NO.  
TMP-1

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**PLANS PREPARED BY:**  
  
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DIVISION ENGINEER



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 CORP. LICENSE NO.: C-0275

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APPROVED:   
 DATE: 7/27/2022  
  
 SEAL

**TIP PROJECT: A-0009CB**

# 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
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
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

# LEGEND

## GENERAL

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

- WORK AREA
- REMOVAL
- WEDGING

## SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY
- PORTABLE

## 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
- 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	DESCRIPTION
PAVEMENT MARKINGS	
PAINT (4")	
P1	(4") WHITE EDGELINE
P13	(4") YELLOW DOUBLE CENTER
PAINT (8")	
P46	(8") WHITE CROSSWALK LINE
PAINT (24")	
P61	(24") WHITE STOPBAR
PAVEMENT MARKERS	
MM	TEMPORARY RAISED MARKERS (CRYSTAL & CRYSTAL)

APPROVED: DATE: 7/27/2022  SEAL			ROADWAY STANDARD DRAWINGS & LEGEND
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

# GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-1B

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 CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:
 

ROAD NAME	
NC 143 (-L-)	
ANY OTHER ROAD	
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 4:00 P.M. DECEMBER 31st TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.
3.	FOR EASTER, BETWEEN THE HOURS OF 4:00 P.M. THURSDAY AND 9:00 A.M. MONDAY.
4.	FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.
5.	FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY.  IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 4:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6.	FOR LABOR DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY AND 9:00 A.M. TUESDAY.
7.	FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00 P.M. TUESDAY TO 9:00 A.M. MONDAY.
8.	FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- B) CLOSURE OF ANY ROAD FOR STRUCTURAL MEMBER INSTALLATION SHALL ADHERE TO THE INTERMEDIATE CONTRACT TIMES AS STATED IN THE CONTRACT.
- C) CLOSURE OF ANY ROAD FOR BLASTING OPERATIONS SHALL ADHERE TO THE INTERMEDIATE CONTRACT TIMES AS STATED IN THE CONTRACT.

### 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.  
  
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.
- 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.
- I) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

### 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) 250 FT 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.

### 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) 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.
- O) 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
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 250 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

### TRAFFIC BARRIER

- R) 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.

- S) 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

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

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

ROAD NAME	MARKING	MARKER
NC 143	PAINT	TEMPORARY RAISED
ANY OTHER ROAD	PAINT	NONE
- X) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE.
- Y) 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.
- Z) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- AA) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

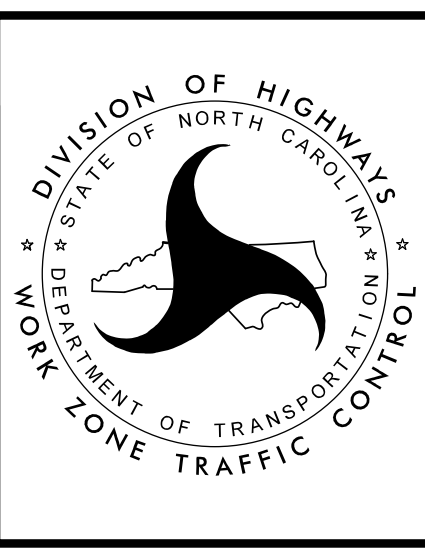
## MANAGEMENT STRATEGIES

THE PROPOSED NC 143 (-L-), AND ALL OTHER ROADS IN THIS PROJECT WILL BE CONSTRUCTED USING A COMBINATION OF SHIFTING TRAFFIC, TEMPORARY LANE AND ROAD CLOSURES AND FLAGGERS. WHILE A SECTION OF NC 143 IS CLOSED TO TRAFFIC, NC 143 TRAFFIC WILL BE DETOURED USING SR 1282 NATHAN GARLAND RD.

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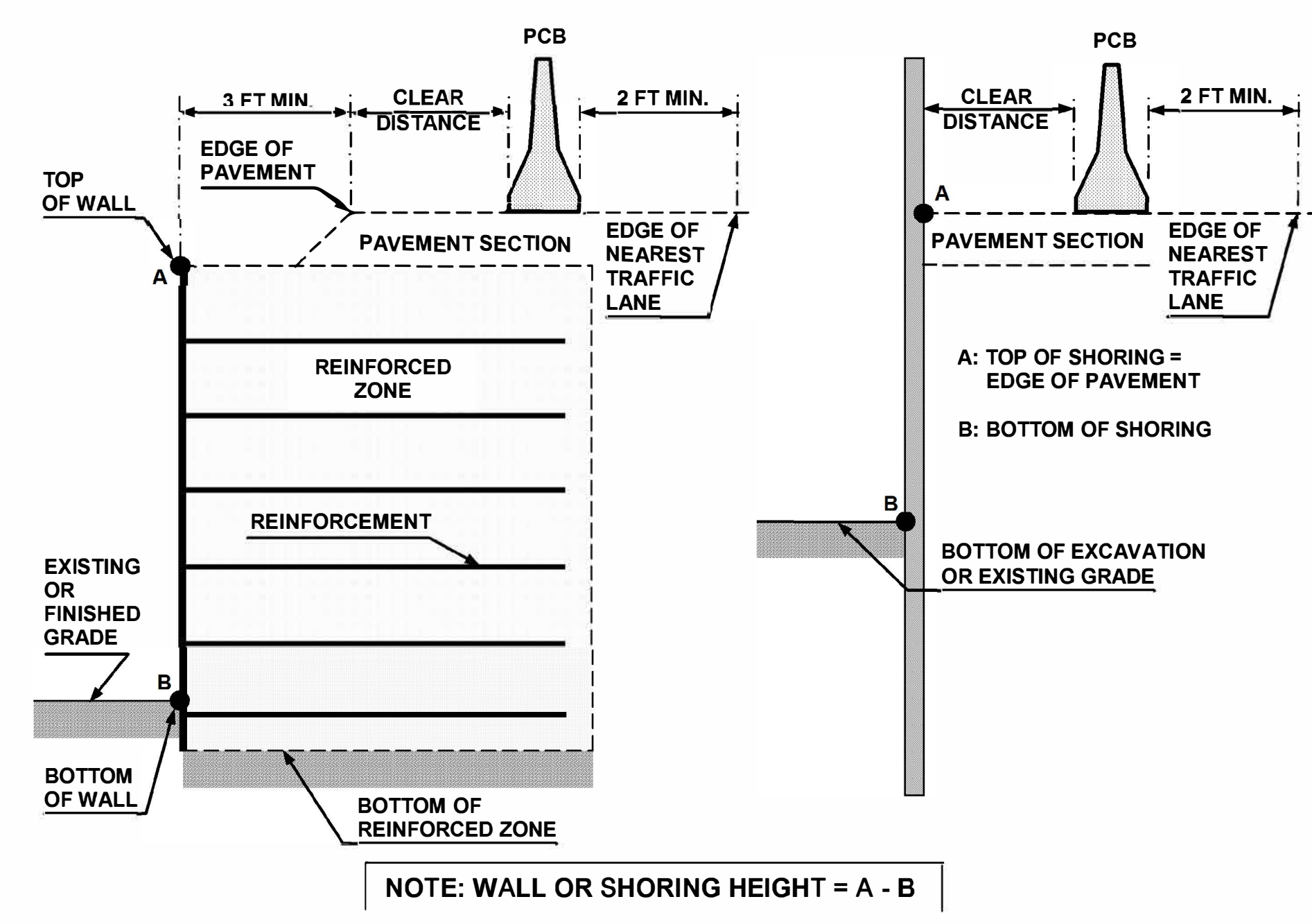
APPROVED: Jimmy Terry  
Professional Engineer  
 DATE: 7/27/2022

SEAL



**TRANSPORTATION OPERATIONS PLAN**

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



**FIGURE A**

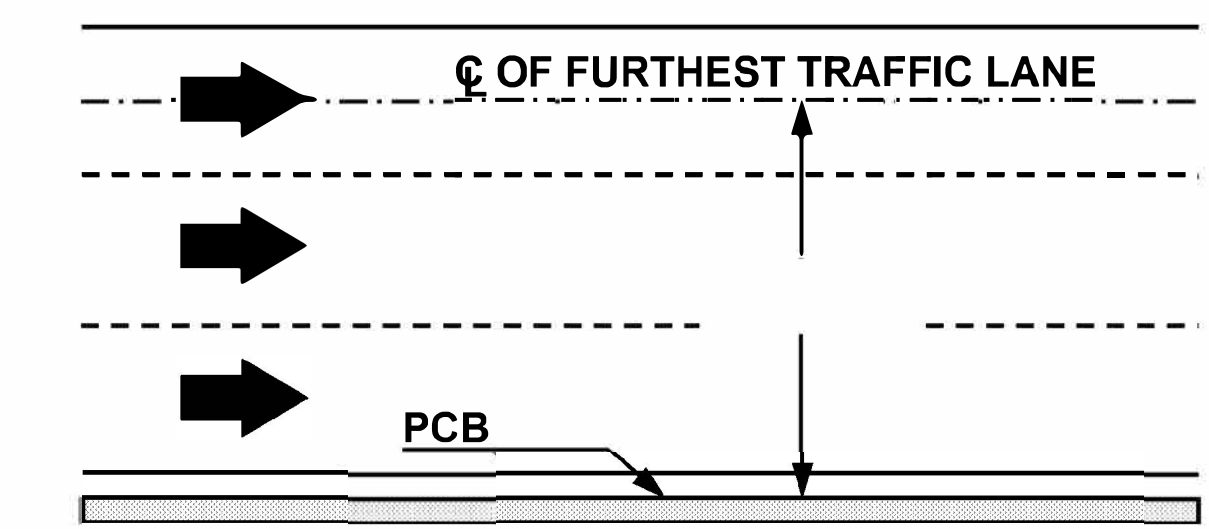
**NOTES**

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- 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).
- 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 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- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- 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.
- 9- 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.
- 10- 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.

**MINIMUM REQUIRED CLEAR DISTANCE, inches**

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

\* See Figure Below



**FIGURE B**

APPROVED: SEAL 	DATE: 7/27/2022 	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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6/5/2014  
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# TEMPORARY SHORING DATA

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-2A

### Shoring Location No. 1:

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE STRUCTURE CONSTRUCTION FROM -L- STATION 249+75, 1' LT TO -L- STATION 250+20, 1' LT.

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 -L- STATION 249+75, 1' LT TO -L- STATION 250+20, 1' LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ELEVATION 2288 TO ELEVATION 2280 FT  
 UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUNDWATER ELEVATION = 2280 FT

ELEVATION 2280 TO ELEVATION 2068 FT  
 UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF

BELOW ELEVATION 2068 FT  
 UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF

DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 249+75, 1' LT TO -L- STATION 250+20, 1' LT MAY NOT PENETRATE BELOW ELEVATION 2278 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L- STATION 249+75, 1' LT TO -L- STATION 250+20, 1' LT. CONTRACTOR DESIGNED SHORING IS REQUIRED. SEE TEMPORARY SHORING SPECIAL PROVISION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L- STATION 249+75, 1' LT TO -L- STATION 250+20, 1' LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

### Shoring Location No. 2:

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE STRUCTURE CONSTRUCTION FROM -L- STATION 249+75, 5' RT TO -L- STATION 250+20, 5' 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 -L- STATION 249+75, 5' RT TO -L- STATION 250+20, 5' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ELEVATION 2288 TO ELEVATION 2280 FT  
 UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUNDWATER ELEVATION = 2280 FT

ELEVATION 2280 TO ELEVATION 2068 FT  
 UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF

BELOW ELEVATION 2068 FT  
 UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF

DO NOT USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L- STATION 249+75, 5' RT TO -L- STATION 250+20, 5' RT. SEE TEMPORARY SHORING SPECIAL PROVISION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STATION 249+75, 5' RT TO -L- STATION 250+20, 5' RT. SEE GEOTECHNICAL STANDARD DETAIL 1801.02 FOR STANDARD TEMPORARY WALLS.

IF GROUNDWATER OR THE FLOOD ELEVATION IS ABOVE THE REINFORCED ZONE, DO NOT USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STATION 249+75, 5' RT TO -L- STATION 250+20, 5' RT. CONTRACTOR DESIGNED SHORING IS REQUIRED.

### Shoring Location No. 3:

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE STRUCTURE CONSTRUCTION FROM -L- STATION 380+50+/- , TBD TO -L- STATION 383+20, TBD.

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 -L- STATION 380+50+/-, TBD TO -L- STATION 383+20, TBD, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUNDWATER ELEVATION = 3121 FT

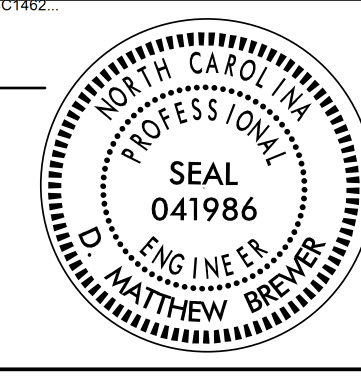
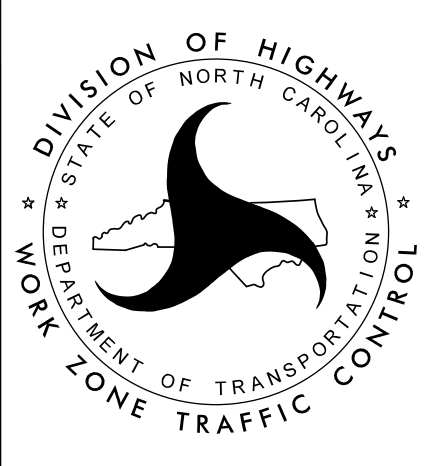
ROCK (ELEVATION VARIES)  
 UNIT WEIGHT ( $\gamma$ ) = 165 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 40 DEGREES  
 COHESION ( $c$ ) = 1000 LB/SF

DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 380+50+/-, TBD TO -L- STATION 383+20+/- TBD MAY NOT PENETRATE BELOW ELEVATION 3130 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L- STATION 380+50+/-, TBD TO -L- STATION 383+20+/-, TBD. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

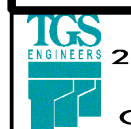
IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L- STATION 380+50+/-, TBD TO -L- STATION 383+20+/-, TBD. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

6/28/2022 10:00:09 AM Traffic\TrafficCom\trd\TCP\A-0009CB\A-0009CB-TC-TMP\_02\Temp Shoring Data.dgn User:ismelvin

APPROVED: <u>Matthew Brewer</u> DATE: 8/1/2022 		<p style="text-align: center;"><b>TEMPORARY SHORING DATA</b></p>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		



# PHASING

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-3
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

### NOTES:

- UNLESS OTHERWISE NOTED PROVIDE ACCESS TO ALL DRIVES AND SIDE STREETS AT ALL TIMES.
- UNLESS OTHERWISE NOTED MAINTAIN THE EXISTING TRAFFIC PATTERN OF NC 143 AND ALL APPLICABLE STREETS IN THE PROJECT AREA AT ALL TIMES WHILE FLAGGERS ARE NOT AT WORK.
- INSTALL ADVANCED WORK ZONE WARNING SIGNS ON ALL ALIGNMENTS IN ACCORDANCE WITH NCDOT RSD 1101.01, SHEET 3 OF 3.
- UNLESS OTHERWISE NOTED USE NCDOT RSD 1101.02, SHEET 1 OF 14 FOR TEMPORARY LANE CLOSURES.
- WHEN WEDGING OVER EXISTING PAVEMENT, WEDGE TO PROPOSED ELEVATION LESS THE FINAL LAYER OF SURFACE COURSE, OR WEDGE AS NEEDED TO MAINTAIN TRAFFIC AS DIRECTED BY THE ENGINEER.
- THE APPALACHIAN TRAIL SHALL REMAIN OPEN TO WALKERS AT ALL TIMES. PROVIDE ACCOMMODATION ACCORDING TO TMP-2B

### PHASE I

#### STEP 1 (TMP-4 THRU TMP-13)

WITH TRAFFIC IN EXISTING PATTERN UNLESS OTHERWISE NOTED AND USING TEMPORARY LANE CLOSURES IN ACCORDANCE WITH NCDOT RSD 1101.02, SHEET 1 OF 14 AND FLAGGERS WIDEN NC 143 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

- FROM -L- STA 208+00± TO STA 214+87±, RT
- FROM -L- STA 208+00± TO STA 247+50±, LT
- FROM -L- STA 224+77± TO STA 229+00±, RT
- FROM -L- STA 235+00± TO STA 274+86±, RT
- FROM -L- STA 271+75± TO STA 278+00±, LT
- FROM -L- STA 279+50± TO STA 309+85±, LT
- FROM -L- STA 307+50± TO STA 335+09±, RT
- FROM -L- STA 328+62± TO STA 414+50±, LT

WORKING IN A CONTINUOUS OPERATION DO THE FOLLOWING:(TMP-6 & TMP-7)

- CLOSE NATHAN GARLAND RD IN ACCORDANCE WITH NCDOT RSD 1101.03, SHEETS 1 AND 2 OF 9 AS SHOWN ON PLANS.
- REMOVE THE EXISTING BRIDGE OVER SWEETWATER CREEK
- CONSTRUCT THE NEW CULVERT AND CONSTRUCT NATHAN GARLAND RD UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -Y4- STA 11+75± TO STA 12+50±.
- REOPEN ROAD TO TRAFFIC
- USING TEMPORARY LANE CLOSURES RESURFACE AND PLACE FINAL LAYER OF SURFACE COURSE ON NATHAN GARLAND RD FROM -Y4- STA 10+28± TO 44+93± PLACE FINAL PAVEMENT MARKINGS

(SEE STRUCTURE PLANS, EROSION CONTROL PLANS, AND FINAL PAVEMENT MARKING PLANS)

- CONSTRUCT RETAINING WALL #7 FROM -L- STA 269+25± TO 272+19±, RT (TMP-6)
- CONSTRUCT RETAINING WALL #9 FROM -L- STA 290+80± TO 292+85±, LT (TMP-7)
- CONSTRUCT RETAINING WALL #10 FROM -L- STA 316+45± TO 317+67±, RT (TMP-8)
- CONSTRUCT RETAINING WALL #38 FROM -L- STA 319+29± TO 321+08±, RT (TMP-8)
- CONSTRUCT RETAINING WALL #11 FROM -L- STA 330+82± TO 333+24±, LT (TMP-8)
- CONSTRUCT RETAINING WALL #12 FROM -L- STA 341+76± TO 344+11±, LT (TMP-9)
- CONSTRUCT RETAINING WALL #13 FROM -L- STA 344+69± TO 346+76±, LT (TMP-9)
- CONSTRUCT RETAINING WALL #14 FROM -L- STA 347+95± TO 350+64±, LT (TMP-9)
- CONSTRUCT RETAINING WALL #15 FROM -L- STA 352+29± TO 368+35±, LT (TMP-9 & TMP-10)
- CONSTRUCT RETAINING WALL #17 FROM -L- STA 369+40± TO 375+26±, LT (TMP-10)
- CONSTRUCT RETAINING WALL #19A (TIERED WALLS) FROM -L- STA 376+65± TO 380+50±, LT (TMP-10)
- CONSTRUCT RETAINING WALL #19B (TIERED WALLS) FROM -L- STA 382+30± TO 391+50±, LT AND FROM -L- STA 391+90± TO 393+22±, LT (TMP-10 & TMP-11)
- CONSTRUCT RETAINING WALL #19B (SINGLE WALL) FROM -L- STA 393+22± TO 408+04±, LT (TMP-11)
- CONSTRUCT RETAINING WALL #20 FROM -L- STA 409+44± TO 411+75±, LT (TMP-11)

CONSTRUCT STAGE 1 OF LANDBRIDGE OVER NC 143 AS SHOWN ON PLANS (TMP-10) SEE STRUCTURE PLANS

WORKING IN A CONTINUOUS OPERATION DO THE FOLLOWING: (TMP-12)

- INSTALL PROPOSED AND TEMPORARY DRAINAGE STRUCTURES AS SHOWN ON PLANS
- PLACE TEMPORARY PAVEMENT AND SHIFT TRAFFIC
- PLACE FIRST SECTION OF PIPE ARCH

WORKING IN A CONTINUOUS OPERATION DO THE FOLLOWING: (TMP-13)

- INSTALL PROPOSED DRAINAGE STRUCTURES AS SHOWN ON PLANS
- PLACE TEMPORARY PAVEMENT
- SHIFT TRAFFIC INTO A ONE LANE OPERATION UTILIZING A TEMPORARY PORTABLE SIGNAL SYSTEM AS SHOWN ON PLANS
- PLACE FIRST SECTION OF 60" CAAP
- RETURN TRAFFIC TO TWO LANES

CONSTRUCT SIDE STREETS UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS SHOWN ON PLANS:

- SAMS HILL RD (TMP-6)
- SR 1222 ORR BRANCH RD (TMP-6)
- GREEN GAP RD (TMP-8)
- BILL ROSE RD (TMP-9)

#### STEP 2 (TMP-14 THRU TMP-16)

USING TEMPORARY LANE CLOSURES, FLAGGERS AND SHIFTING TRAFFIC IF NEEDED CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE:

TMP-14  
 -L- STA 214+87± TO 235+00± WEDGE EXISTING PAVEMENT, PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT AS NEEDED  
 CONSTRUCT PAVED SHOULDER FROM -L- STA 214+87± TO 224+77±, RT AND FROM -L- STA 229+00± TO 235+00±,RT  
 PLACE TEMPORARY PAVEMENT MARKING IN TWO-LANE TWO-WAY PATTERN AS SHOWN ON PLANS

TMP-15  
 -L- STA 259+50± TO 278+00± WEDGE EXISTING PAVEMENT, PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT AS NEEDED  
 CONSTRUCT PAVED SHOULDER FROM -L- STA 259+50± TO 271+75±,LT AND FROM -L- STA 274+86± TO 277+70±, RT  
 PLACE TEMPORARY PAVEMENT MARKING IN TWO-LANE TWO-WAY PATTERN AS SHOWN ON PLANS

TMP-16  
 PLACE TEMPORARY PAVEMENT MARKINGS FROM -L- STA 281+14± TO 309+85± AS SHOWN ON PLANS.  
 THE CONTRACTOR SHALL WEDGE EXISTING PAVEMENT WHERE NECESSARY TO PROVIDE SMOOTH TRANSITIONS BETWEEN NEW AND EXISTING PAVEMENT EDGES PRIOR TO PLACING MARKINGS.  
 SHIFT TRAFFIC AND CONSTRUCT THE FOLLOWING:  
 NEW PAVED SHOULDER FROM -L- STA 284+00± TO 307+50±, RT  
 WIDEN EXISTING NC 143 FROM -L- 289+64± TO 293+17±, RT

### PHASE II

#### STEP 1

(TMP-17 & TMP-18)  
 WORKING IN A CONTINUOUS OPERATION DO THE FOLLOWING:  
 1. UTILIZING A TEMPORARY PORTABLE SIGNAL SYSTEM PLACE TRAFFIC IN A 1-LN 1-WAY PATTERN  
 2. PLACE FIRST SECTION OF PROPOSED CAA ARCH PIPE AS SHOWN ON PLANS.  
 3. WIDEN NC 143 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA 249+50± TO 250+50±, RT  
 4. RETURN TRAFFIC TO A 2-LN 2-WAY PATTERN  
 5. PLACE REMAINING SECTION OF ARCH PIPE

CONSTRUCT PAVED SHOULDER FROM -L- STA 247+50± TO 259+50±,LT

TMP-19  
 14 DAYS PRIOR TO CLOSING NC 143 PLACE MESSAGE SIGNS AND INFORM THE PUBLIC OF THE IMPENDING ROAD CLOSURE.

CLOSE NC 143 TO THRU TRAFFIC ACCORDING TO NCDOT RSD 1101.03, SHEETS 1 & 2 OF 9. PLACE TRAFFIC ONTO NATHAN GARLAND RD AS DESCRIBRD ON SHEET TMP-19.  
 PLACE THE PROPOSED PIPE ARCH.  
 CONSTRUCT NC 143 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA 278+00± TO 279+50±, PLACE PAVED SHOULDER TO -L- STA 284+00±.

TMP-20  
 PLACE NC 143 INTO A ONE LANE PATTERN AS SHOWN ON PLANS AND PLACE THE REMAINING SECTION OF THE 60" CAAP.

#### STEP 2 (TMP-21 THRU TMP-26)

USING TEMPORARY LANE CLOSURES, FLAGGERS, AND TRAFFIC SHIFTS AS NEEDED WEDGE THE EXISTING NC 143 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

- FROM -L- STA 208+00± TO STA 214+87±
- FROM -L- STA 235+00± TO STA 252+00±
- FROM -L- STA 279+50± TO STA 414+50±

PLACE PAVED SHOULDER AS FOLLOWS:

- L- STA 309+85± TO STA 328+62±, LT
- L- STA 335+09± TO STA 383+45
- L- STA 392+00± TO STA 414+50±, RT

COMPLETE MEDIAN FROM -L- STA 375+25± TO STA 383+55±

CONSTRUCT U-TURN BULB AND WIDEN NC 143 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA 364+58± TO STA 369+15±

USING TEMPORARY LANE CLOSURES AND FLAGGERS PLACE TEMPORARY PAVEMENT MARKINGS IN A 2-LN 2 WAY PATTERN AS SHOWN ON PLANS.

- CONSTRUCT RETAINING WALL #16 FROM -L- STA 366+70± TO 369+72±, RT (TMP-25)
- CONSTRUCT RETAINING WALL #18 FROM -L- STA 375+25± TO 378+15±, RT (TMP-25)
- CONSTRUCT RETAINING WALL #19C RT OF -L- STA 380+50 (TMP-25)
- CONSTRUCT RETAINING WALL #42 FROM -L- STA 382+30± TO 383+50±, RT (TMP-25)
- CONSTRUCT RETAINING WALL #29 FROM -L- STA 393+90± TO 395+90±, RT (TMP-26)
- CONSTRUCT RETAINING WALL #29A FROM -L- STA 396+75± TO 398+75±, RT (TMP-26)

CONSTRUCT STAGE 2 OF LANDBRIDGE OVER NC 143 AS SHOWN ON PLANS (TMP-25) SEE STRUCTURE PLANS

#### STEP 3 (TMP-27)

AFTER PEDESTRIAN TRAFFIC HAS BEEN REDIRECTED TO THE NEWLY REALIGNED APPALACHIAN TRAIL AND THE PROPOSED LAND BRIDGE DO THE FOLLOWING:  
 COMPLETE RETAINING WALL #19B FROM -L- STA 391+50± TO STA 391+90±, LT  
 PLACE PAVED SHOULDER FROM -L- STA 385+03± TO STA 392+00±, RT

CONSTRUCT RETAINING WALL #28 FROM -L- STA 389+25± TO 392+00±, RT

### PHASE III

#### STEP 1 (TMP-28 THRU TMP-31)

USING TEMPORARY LANE CLOSURES AND FLAGGERS IN ACCORDANCE WITH NCDOT RSD 1101.02 SHEETS 1 AND 2 OF 14 PLACE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:  
 NC 143 FROM -L- STA 208+00± TO 414+50± (TMP-28 TO TMP-31)

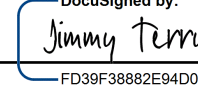
USING TEMPORARY LANE CLOSURES AND FLAGGERS PLACE FINAL LAYER OF SURFACE COURSE ON SIDE STREETS.  
 SAMS HILL RD (TMP-29)  
 SR 1222 ORR BRANCH RD (TMP-29)  
 GREEN GAP RD (TMP-30)  
 BILL ROSE RD (TMP-30)

#### STEP 2

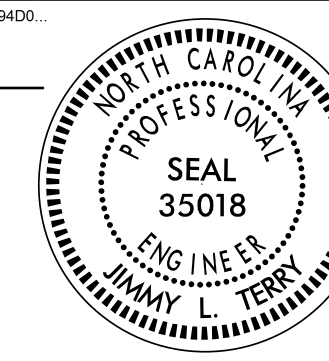
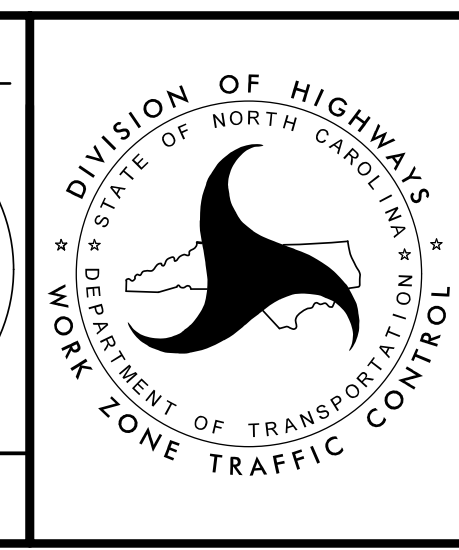
USING TEMPORARY LANE CLOSURES AND FLAGGERS IN ACCORDANCE WITH NCDOT RSD 1101.02 SHEETS 1 AND 2 OF 14 PLACE FINAL PAVEMENT MARKINGS AS SHOWN IN PAVEMENT MARKING PLANS.

REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL ROADS TO TRAFFIC.

5/23/2024  
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 User: tsmelvin

APPROVED:   
 DATE: 7/27/2022

SEAL





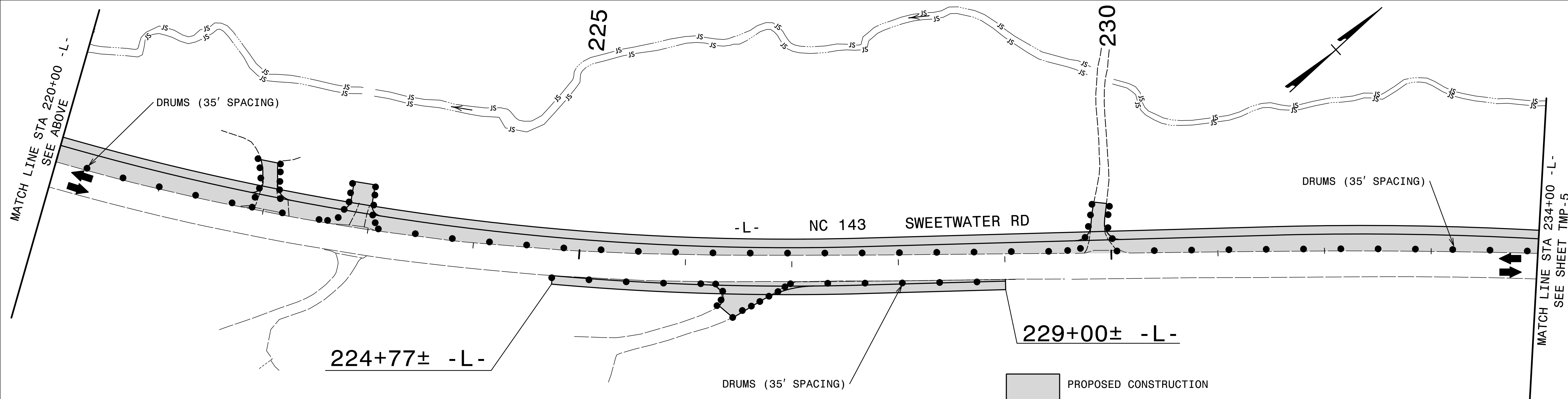
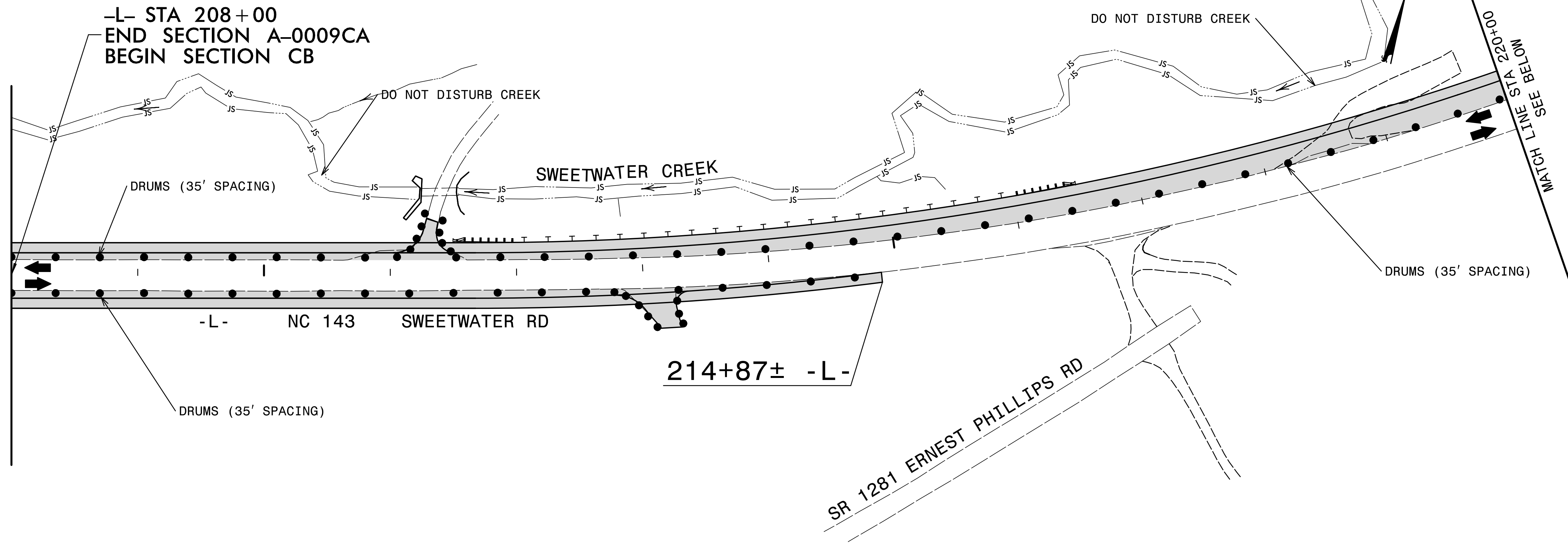
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

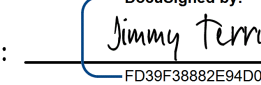


# PHASE 1, STEP 1

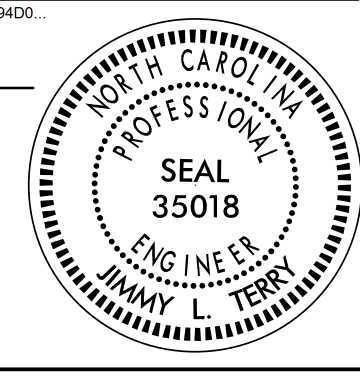
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A-0009CB	TMP-4
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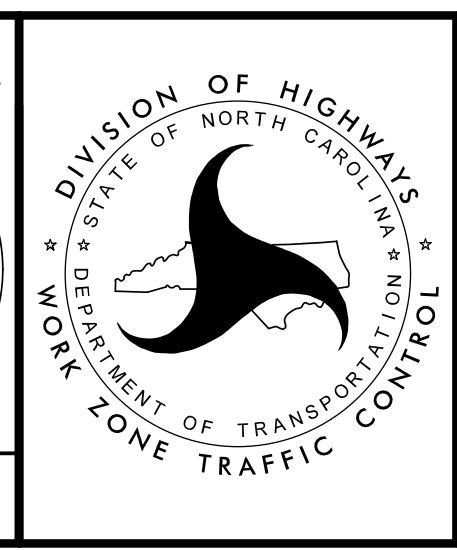
PROPOSED CONSTRUCTION

APPROVED:   
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DATE: 7/27/2022



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

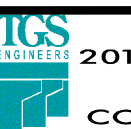


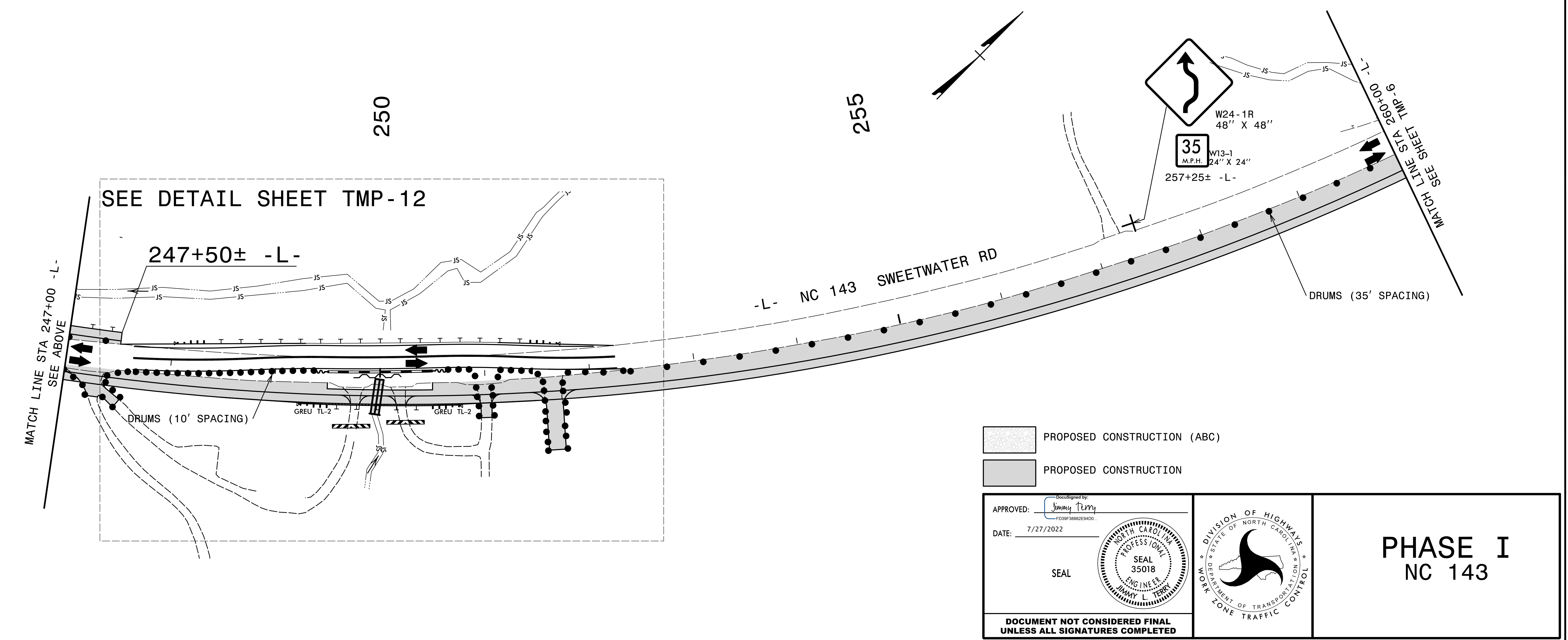
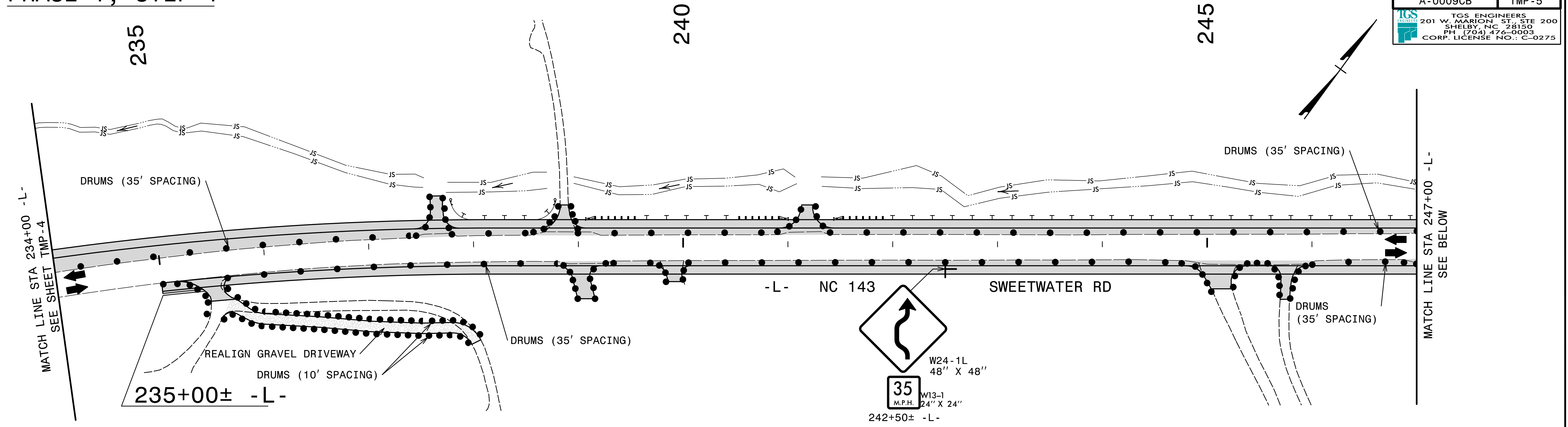
## PHASE I



### NC 143

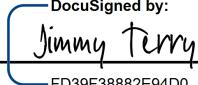
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 User: smelvin

# PHASE 1, STEP 1

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-5
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH: (704) 476-0003 CORP. LICENSE NO.: C-0275	

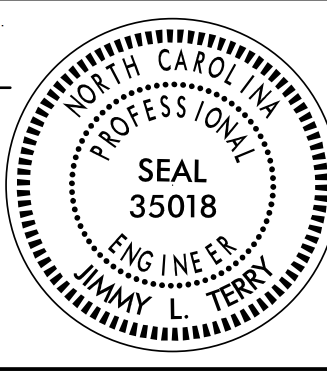
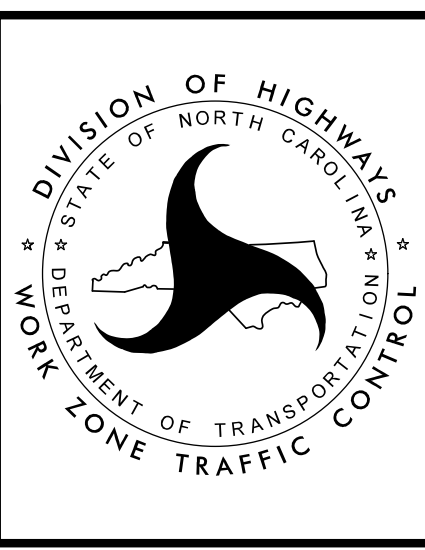


-  PROPOSED CONSTRUCTION (ABC)
-  PROPOSED CONSTRUCTION

APPROVED:   
DocuSigned by: Jimmy Terry  
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DATE: 7/27/2022


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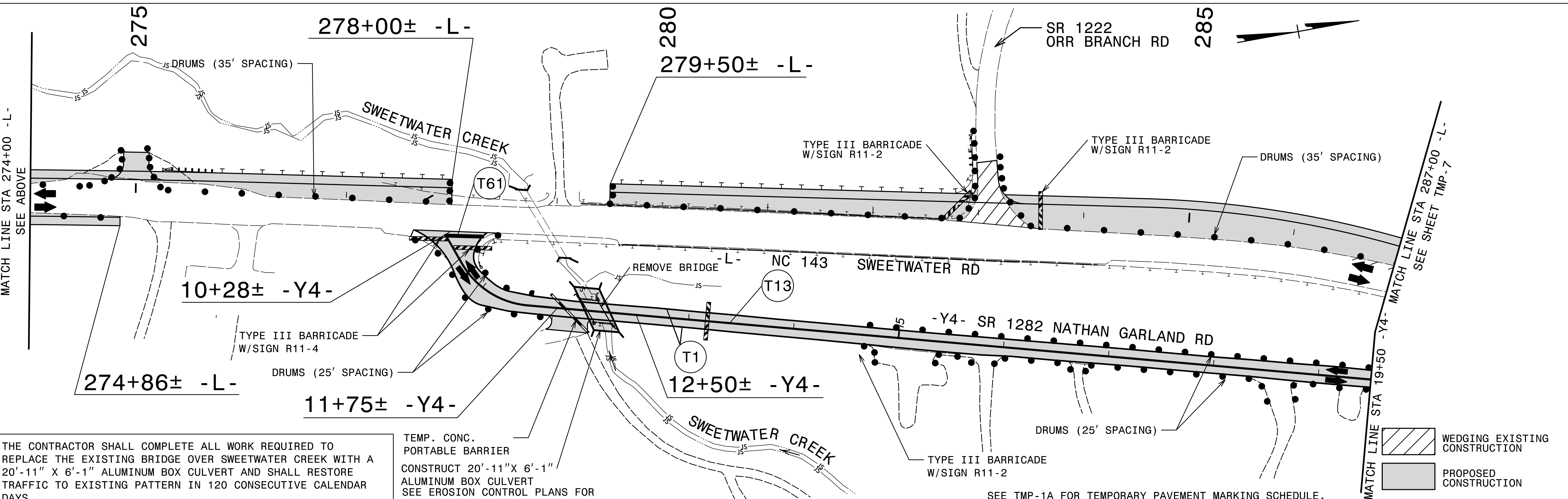
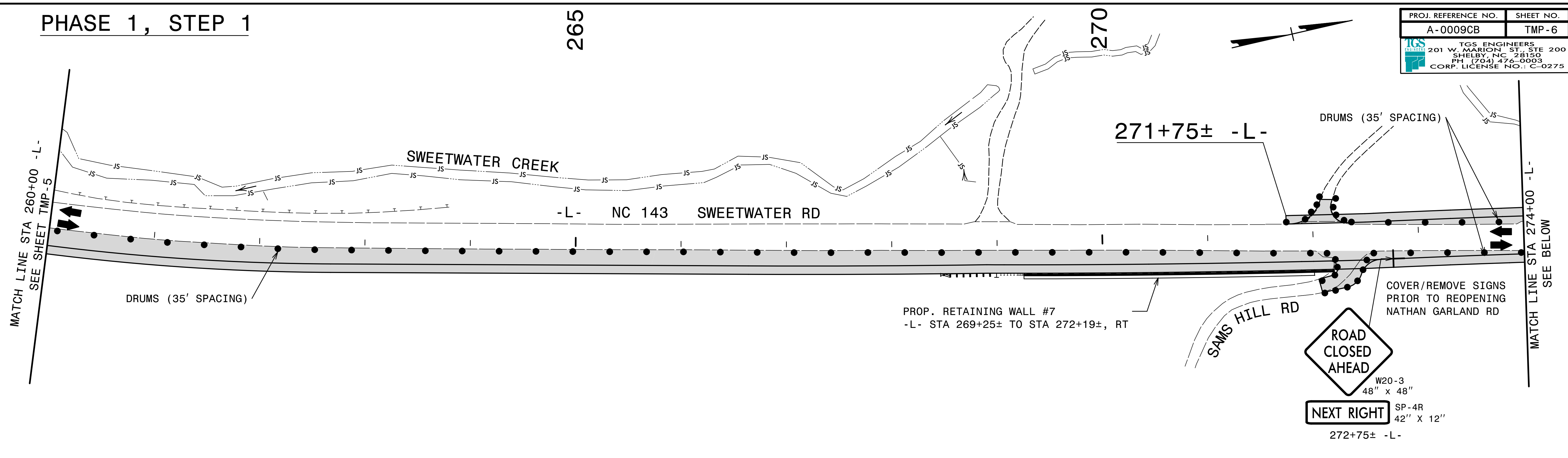



**PHASE I**  
**NC 143**

5/23/2022  
 User: jsmelvin  
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# PHASE 1, STEP 1

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-6
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 474-0003 CORP. LICENSE NO.: C-0275	



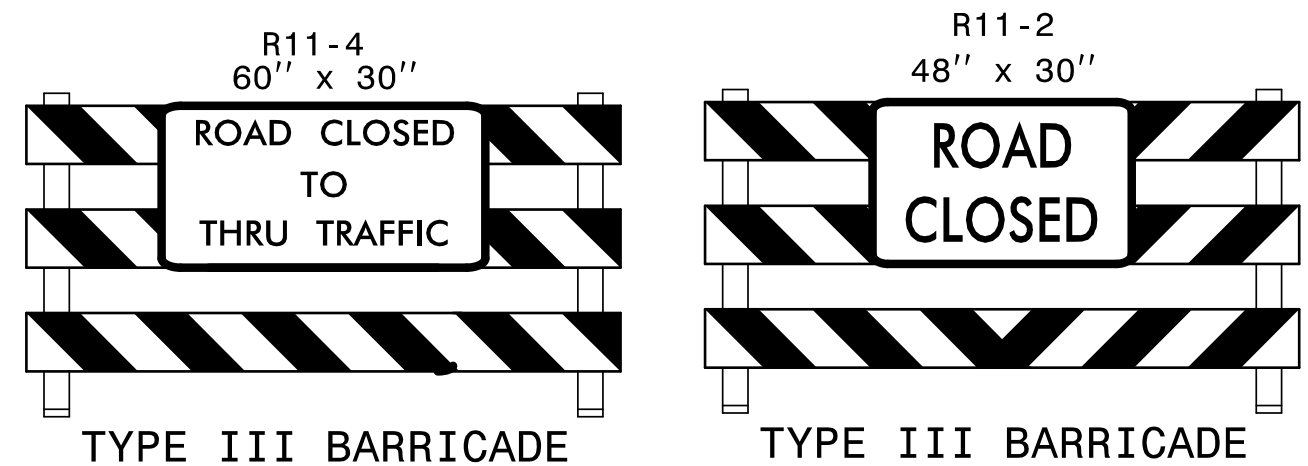
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO REPLACE THE EXISTING BRIDGE OVER SWEETWATER CREEK WITH A 20'-11" X 6'-1" ALUMINUM BOX CULVERT AND SHALL RESTORE TRAFFIC TO EXISTING PATTERN IN 120 CONSECUTIVE CALENDAR DAYS.

PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THIS INTERMEDIATE CONTRACT TIME.

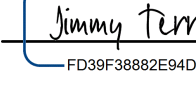
WHILE TRAFFIC IS DETOURED ALONG SR 1282 (NATHAN GARLAND ROAD), THE CONTRACTOR SHALL ENSURE ALL ROADS AND DRIVEWAYS INSIDE THE CLOSED SECTION OF NC 143 (-L-) ARE OPEN AND ACCESSIBLE TO LOCAL TRAFFIC.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

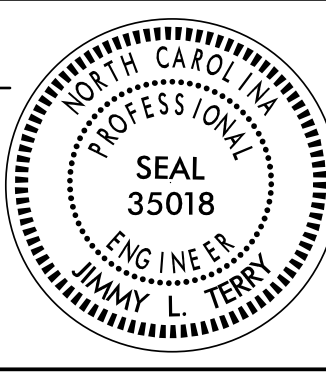
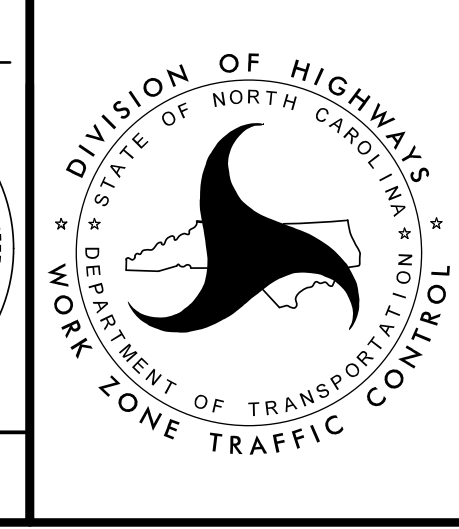
TEMP. CONC. PORTABLE BARRIER  
 CONSTRUCT 20'-11" X 6'-1" ALUMINUM BOX CULVERT  
 SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE.



SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

APPROVED:   
 DATE: 7/27/2022

SEAL

## PHASE I

### NC 143

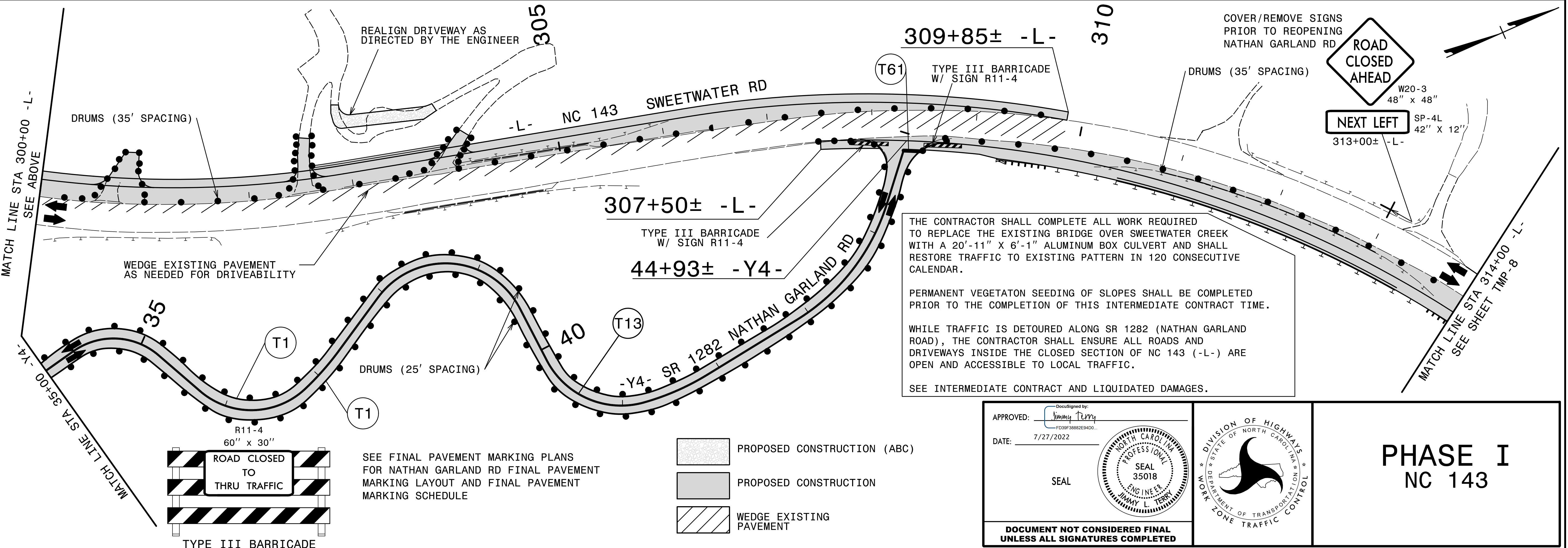
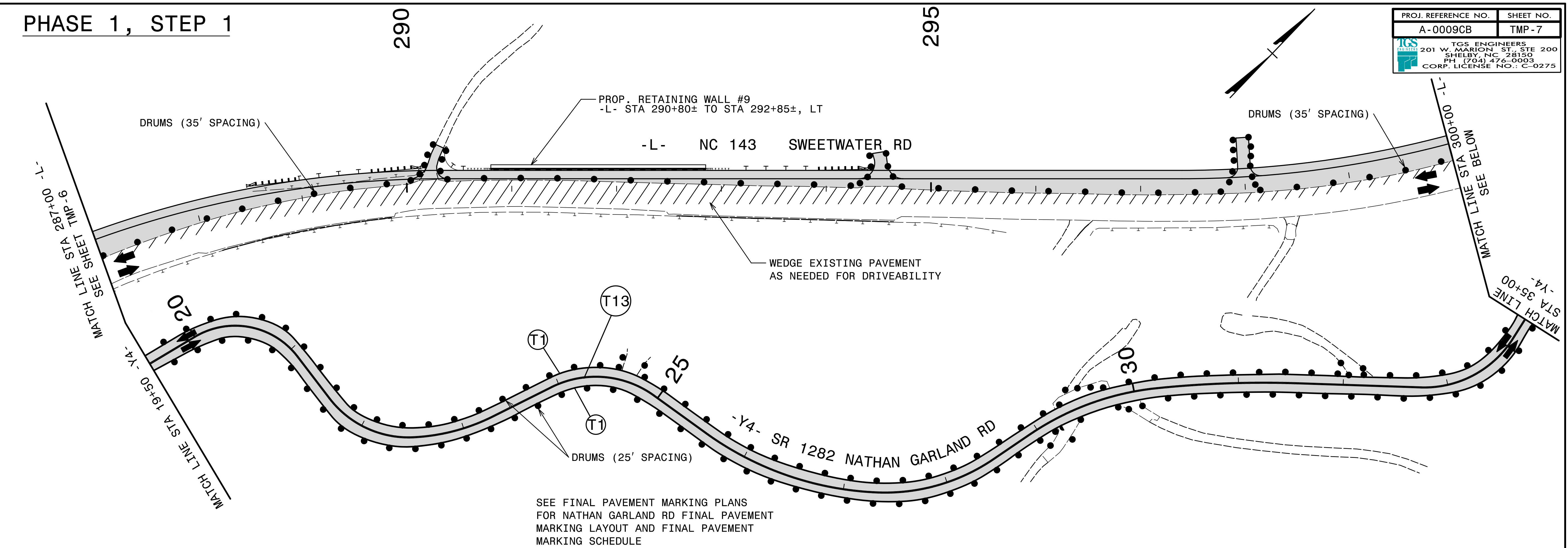
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 User: jsmelvin

# PHASE 1, STEP 1

PROJ. REFERENCE NO. A-0009CB	SHEET NO. TMP-7
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TCS ENGINEERS  
201 W. MARION ST. STE 200  
SHELBY, NC 28150  
PH (704) 474-0003  
CORP. LICENSE NO.: C-0275



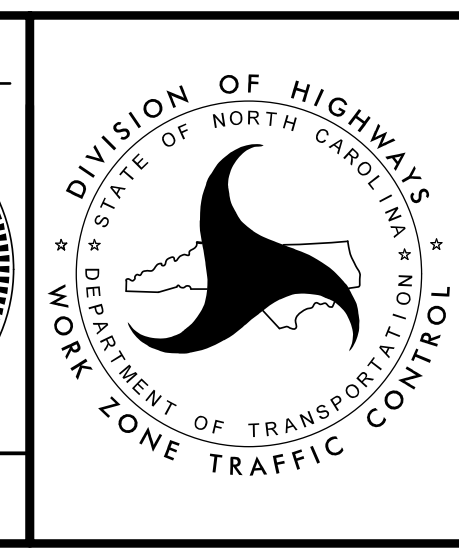
- PROPOSED CONSTRUCTION (ABC)
- PROPOSED CONSTRUCTION
- WEDGE EXISTING PAVEMENT

APPROVED: Jimmy Terry  
DATE: 7/27/2022

SEAL

PROFESSIONAL ENGINEER  
SEAL 35018  
JIMMY L. TERRY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



## PHASE I

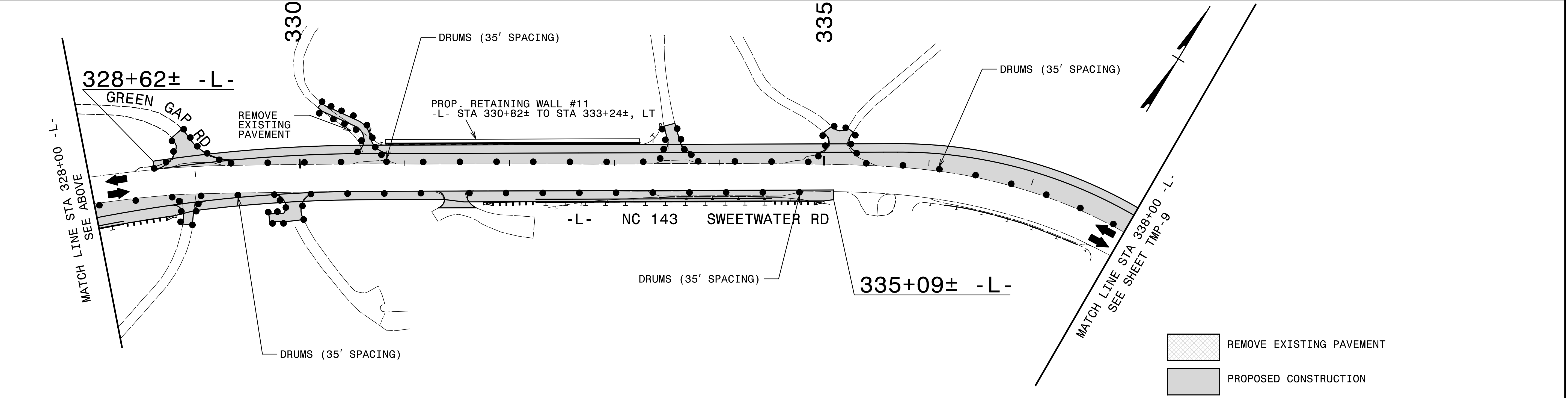
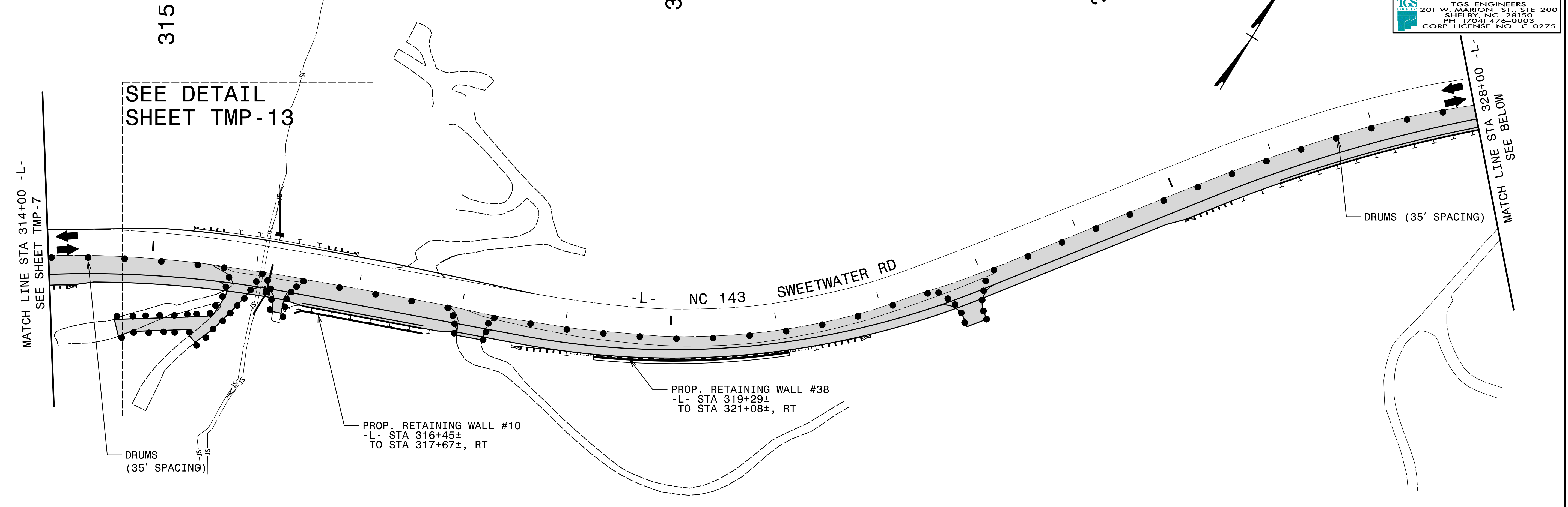
### NC 143

7/26/2022  
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User: jsmelvin

# PHASE 1, STEP 1

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-8

TGS ENGINEERS  
201 W. MARION ST. STE 200  
SHELBY, NC 28150  
PH (704) 476-0003  
CORP. LICENSE NO.: C-0275



REMOVE EXISTING PAVEMENT

PROPOSED CONSTRUCTION

5/27/2022 1:00:00 PM User: jsmelvin

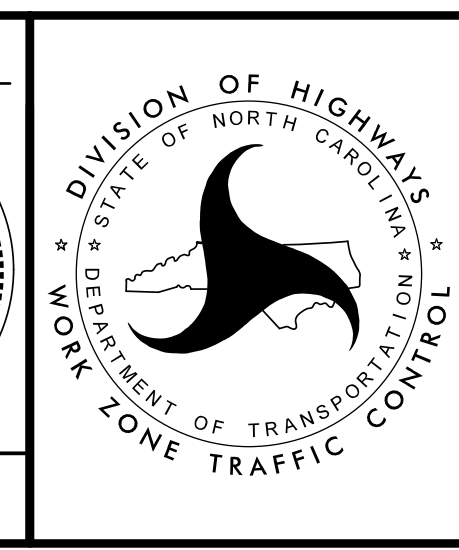
APPROVED: *Jimmy Terry*  
DATE: 7/27/2022

SEAL

DocuSigned by:  
Jimmy Terry  
FD39F3882E94D0

SEAL 35018  
JIMMY L. TERRY  
ENGINEER

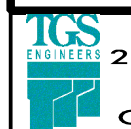
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

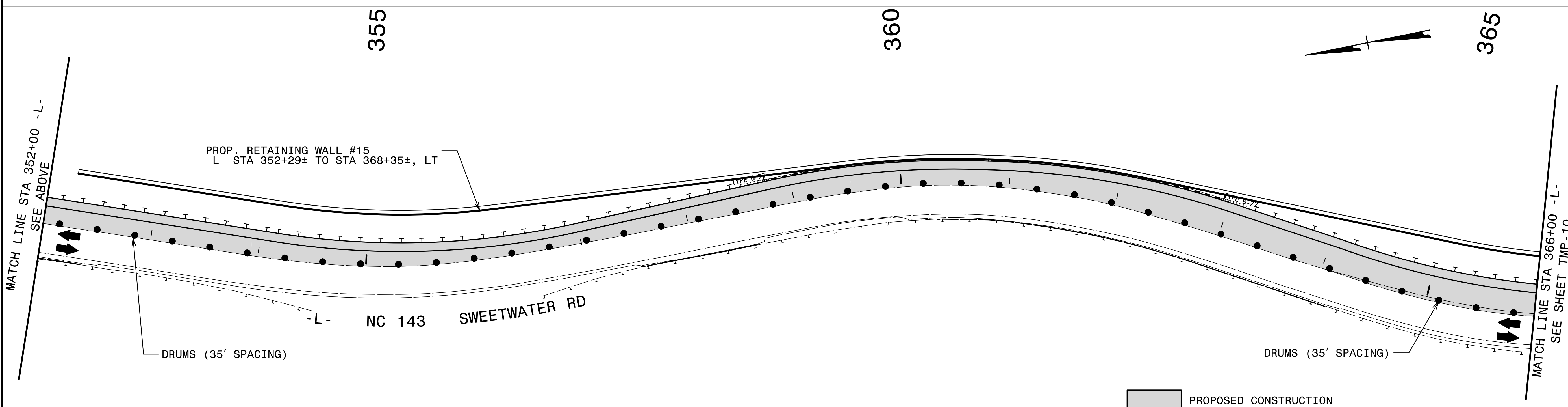
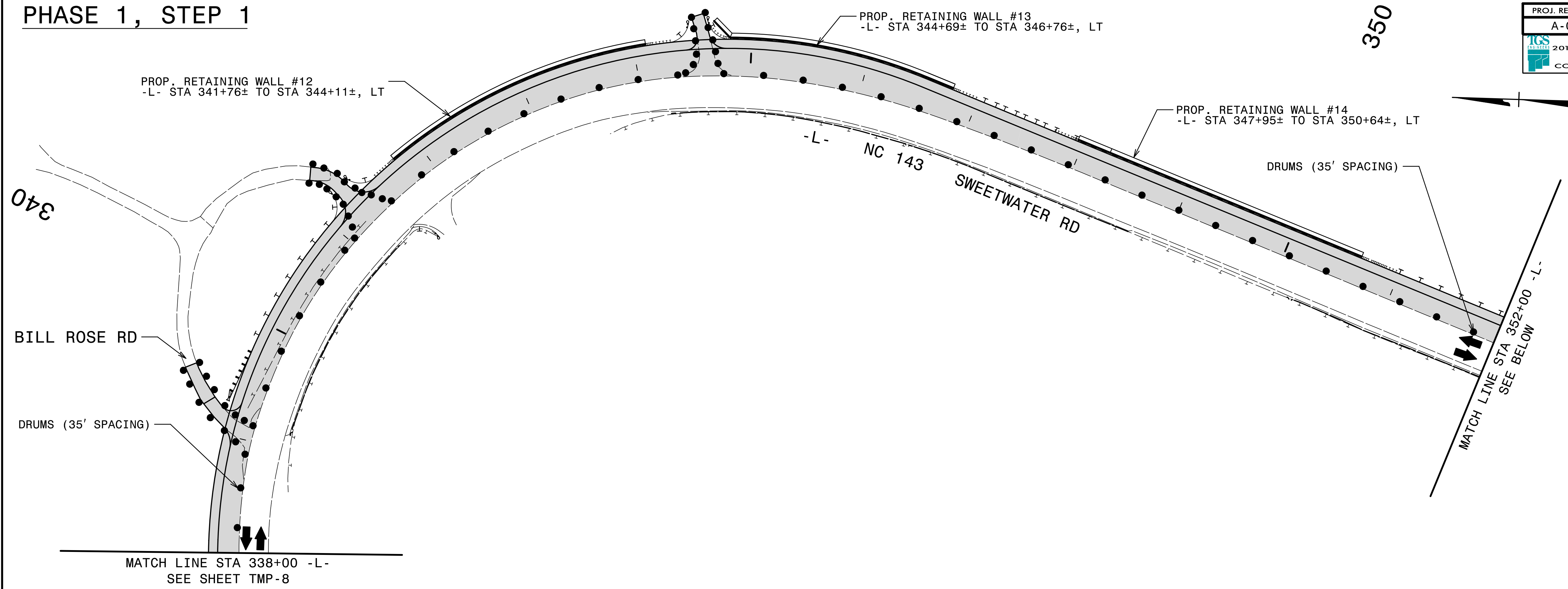


## PHASE I

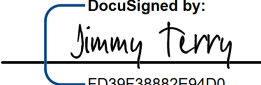
### NC 143

# PHASE 1, STEP 1

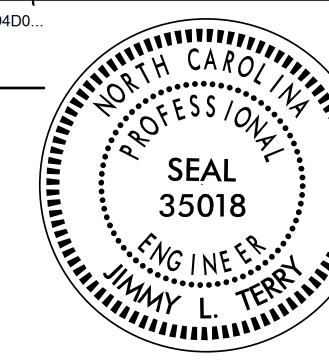
PROJ. REFERENCE NO. A-0009CB	SHEET NO. TMP-9
 <b>TGS ENGINEERS</b> 201 W. MARION ST., STE 200 SHELBY, NC 28150 PH (704) 474-0003 CORP. LICENSE NO.: C-0275	



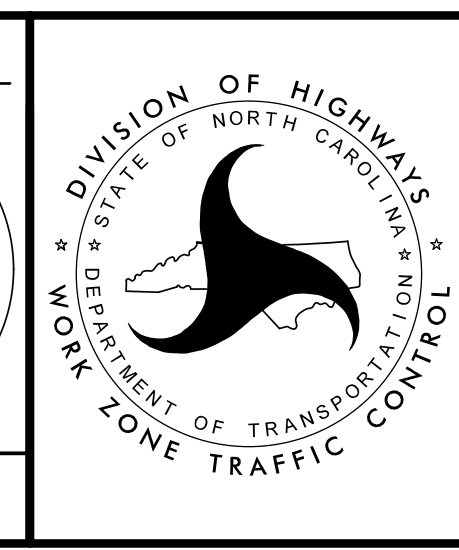
PROPOSED CONSTRUCTION

APPROVED:   
 DATE: 7/27/2022

SEAL



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




## PHASE I NC 143

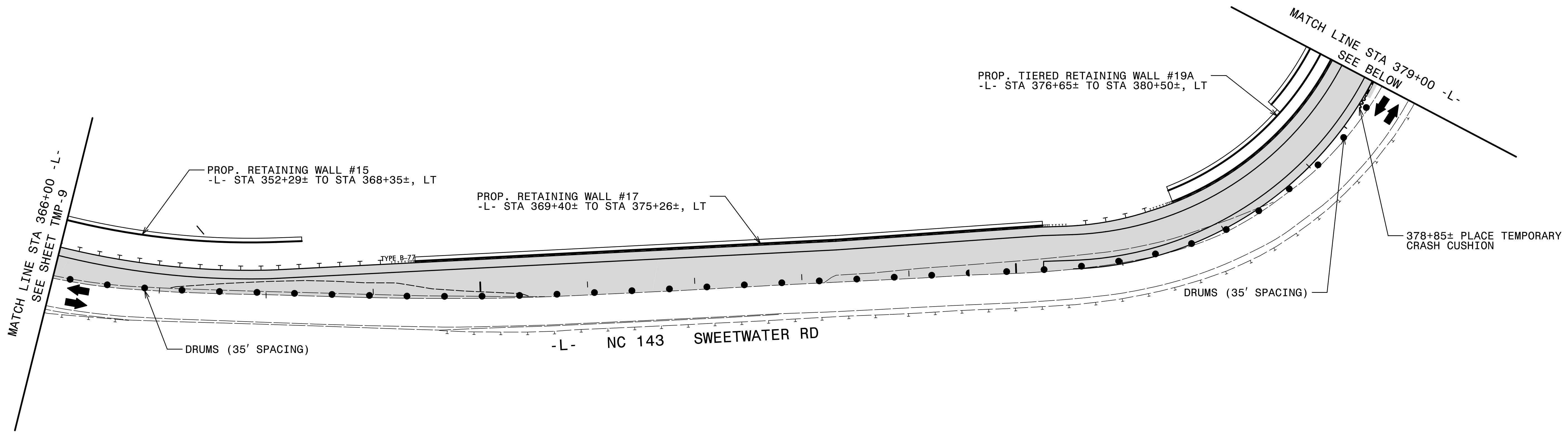
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 User: jsmelvin

# PHASE 1, STEP 1

370

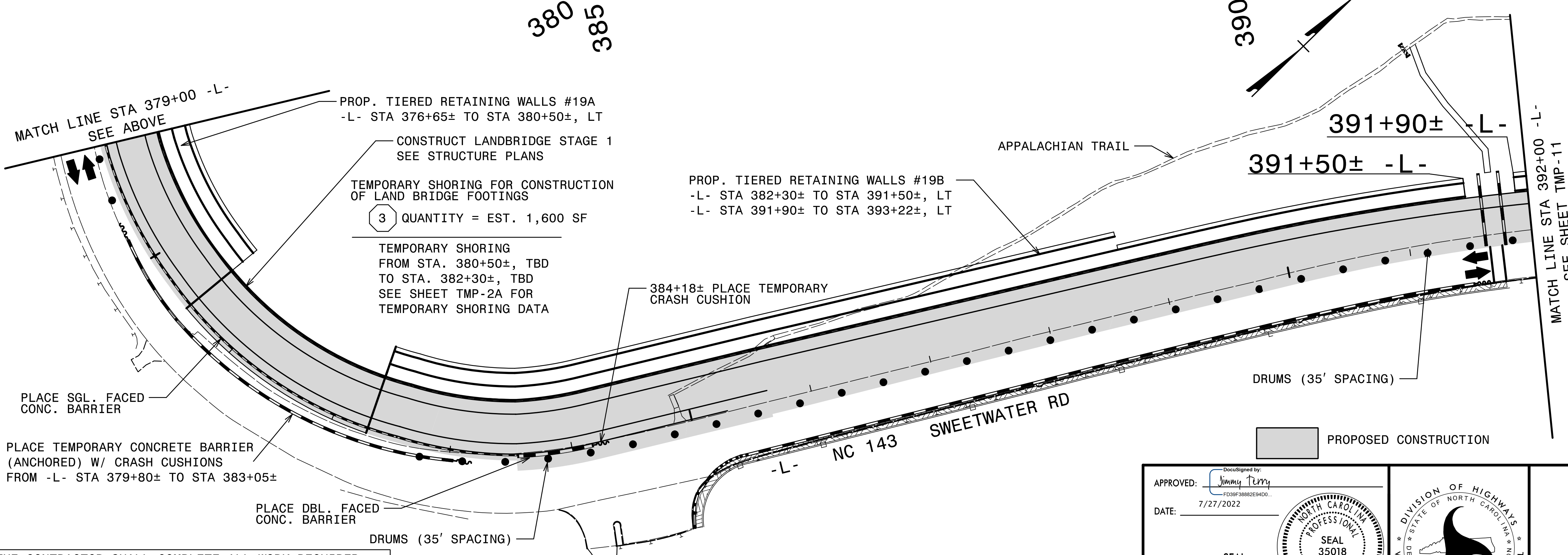
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PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-10
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



380  
385

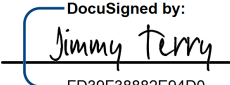
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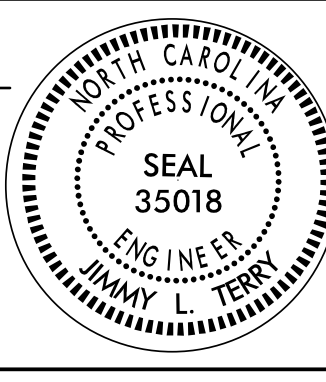


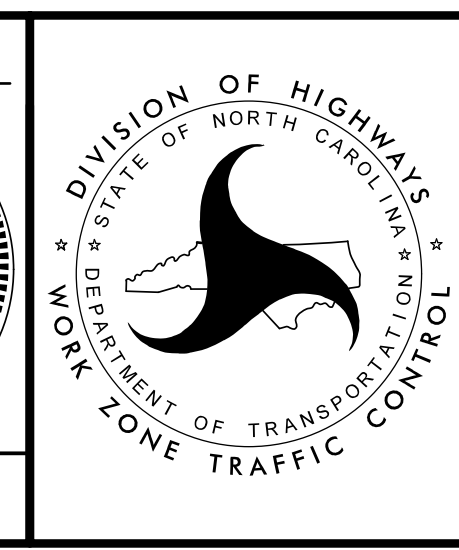
PROPOSED CONSTRUCTION

THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT STAGE 1 OF THE LANDBRIDGE OVER NC 143, RETAINING WALL #19A & RETAINING WALL #19B (PHASE 1, STEP 1) IN 550 CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

SEE TMP-2B FOR PEDESTRIAN ACCOMMODATIONS

APPROVED:   
 DATE: 7/27/2022

SEAL  




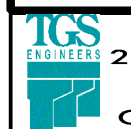
## PHASE I

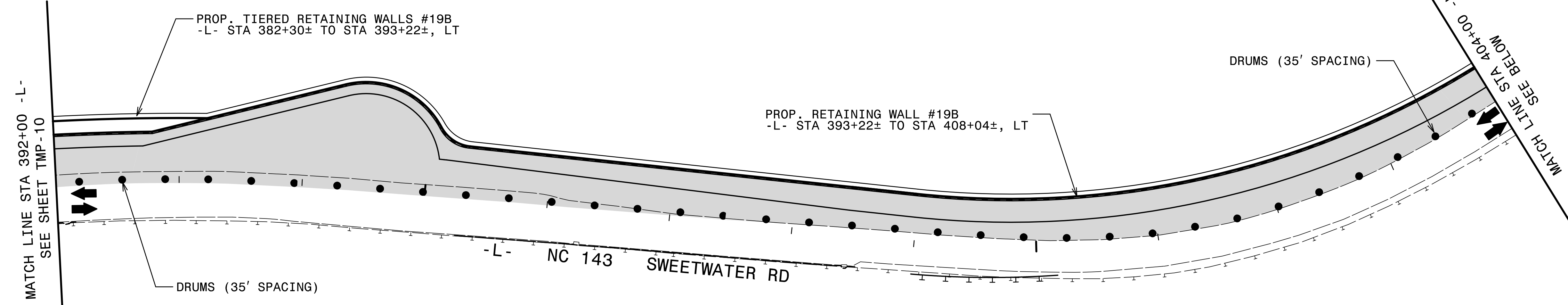
### NC 143

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

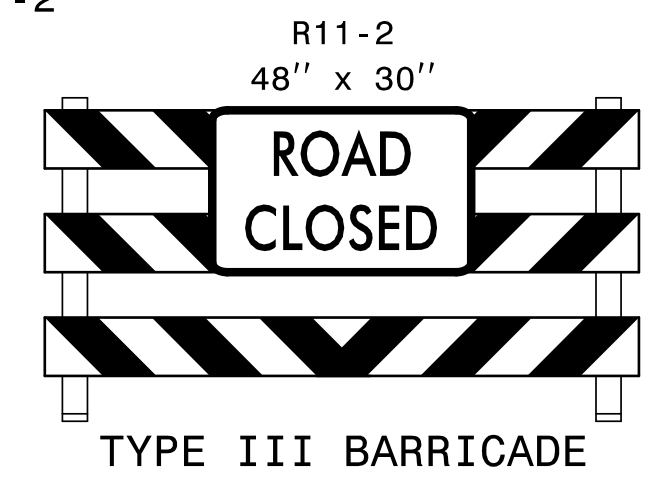
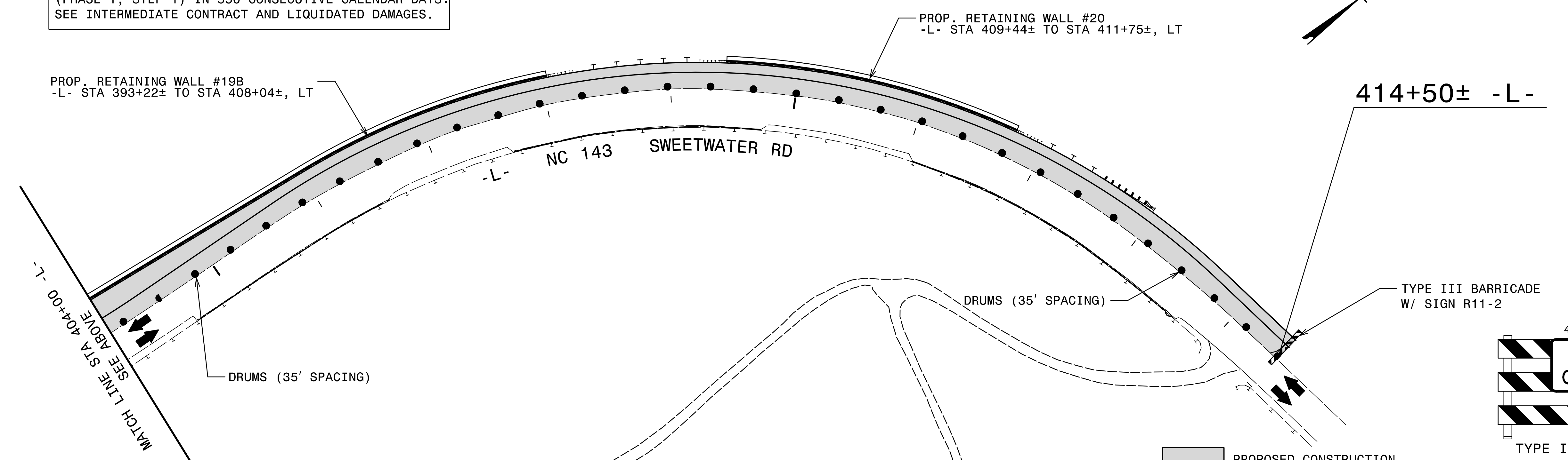
7/26/2022  
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 User: jsmelvin

# PHASE 1, STEP 1

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-11
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



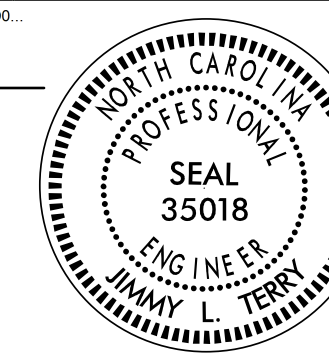
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT STAGE 1 OF THE LANDBRIDGE OVER NC 143, RETAINING WALL #19A & RETAINING WALL #19B (PHASE 1, STEP 1) IN 550 CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.



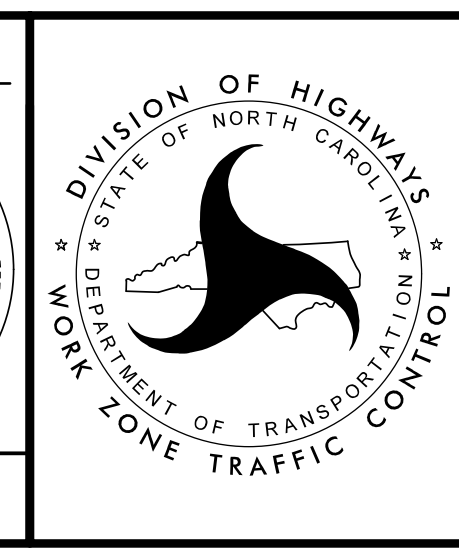
PROPOSED CONSTRUCTION

APPROVED: *Jimmy Terry*  
FO39F3882E84D0...

DATE: 7/27/2022



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



## PHASE I NC 143

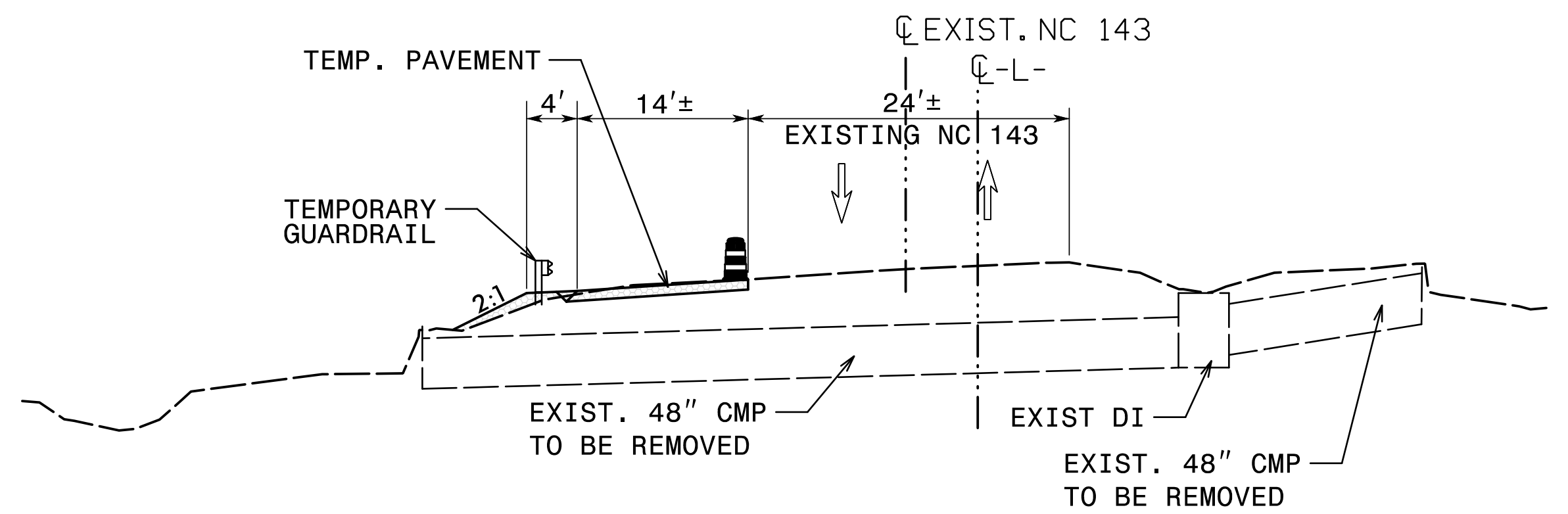
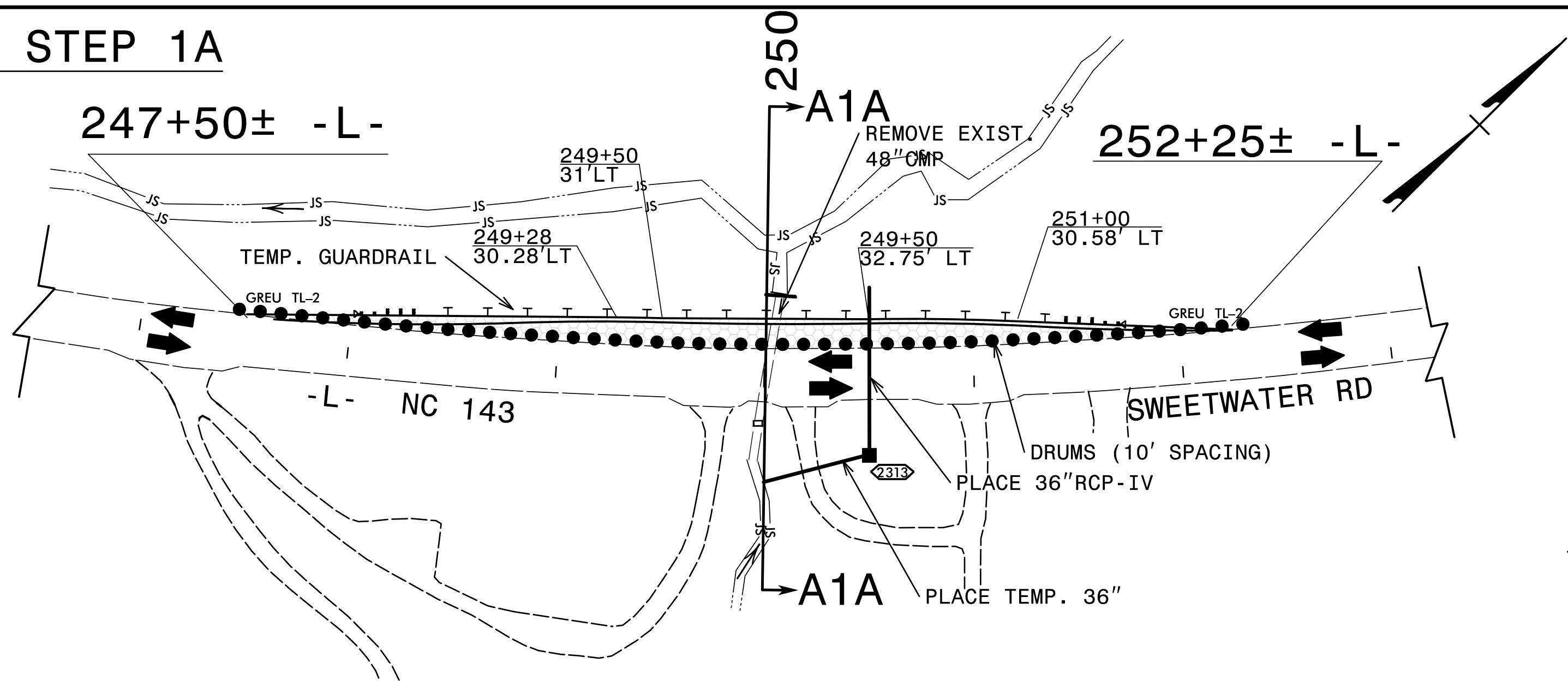
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 User: jsmelvin



# PHASE 1, STEP 1A

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-12

TGS ENGINEERS  
201 W. MARION ST. STE 200  
SHELBY, NC 28150  
PH (704) 476-0003  
CORP. LICENSE NO.: C-0275

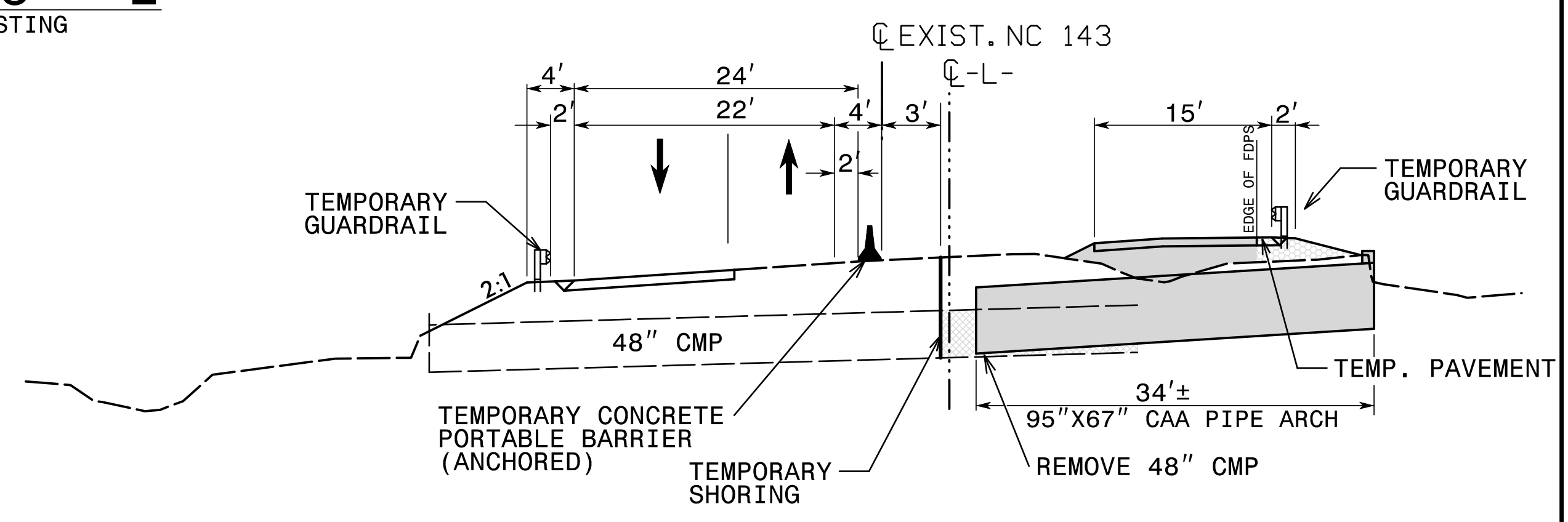
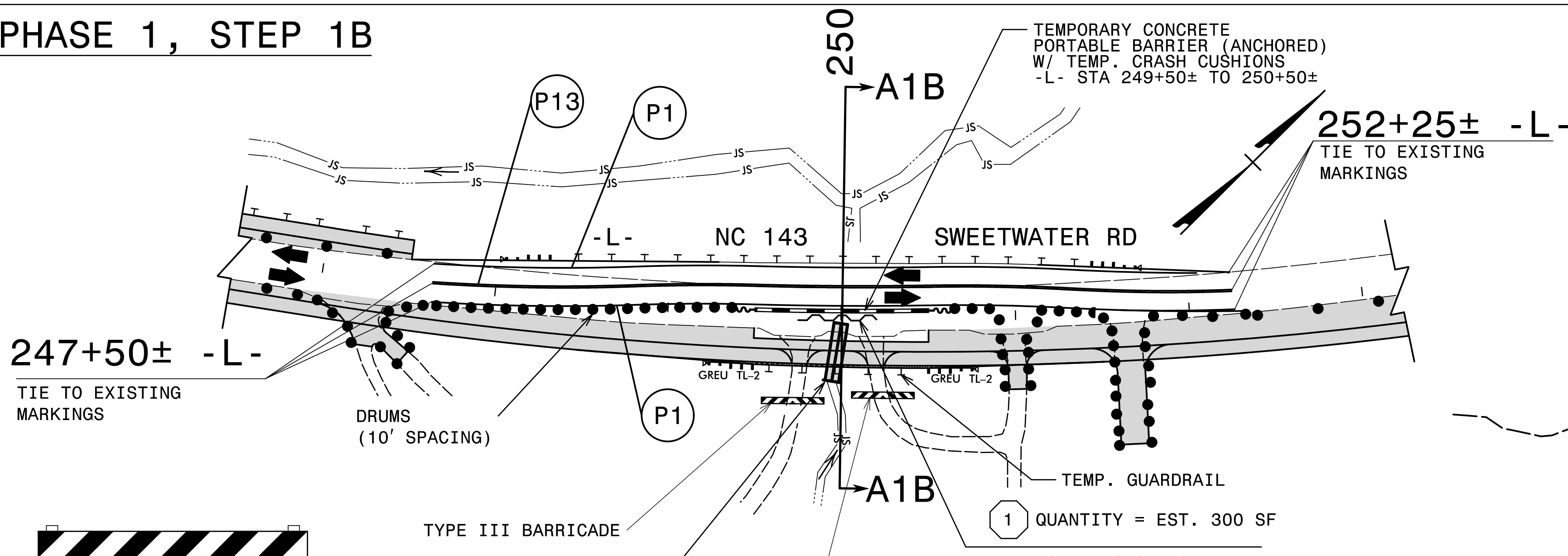


### SECTION A1A-A1A -L- STA 250+00±

WITH TRAFFIC IN EXISTING PATTERN AND USING TEMPORARY LANE AND SHOULDER CLOSURES ACCORDING TO NCDOT RSD STD 1101.02, SHT 1 OF 14, AND 1101.04 PLACE DRAINAGE STR 2313 AND PROPOSED 36" RCP-IV INSTALL TEMPORARY DRAINAGE PIPE. PLACE TEMPORARY PAVEMENT AS SHOWN ON PLAN. PLACE TEMPORARY GUARDRAIL

SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE.

# PHASE 1, STEP 1B



### SECTION A1B-A1B -L- STA 250+00±



TYPE III BARRICADE  
CONSTRUCT SECTION OF 95"X67" CAA PIPE ARCH  
TYPE III BARRICADE  
1 QUANTITY = EST. 300 SF  
TEMPORARY SHORING FROM STA. 249+75±, 1'±LT TO STA. 250+20±, 1'±LT SEE SHEET TMP-2A FOR TEMPORARY SHORING DATA

PLACE TEMPORARY PAVEMENT MARKINGS AND TEMPORARY CONCRETE BARRIER WITH CRASH CUSHIONS AND SHIFT TRAFFIC ONTO TEMPORARY PAVEMENT. PLACE TEMPORARY SHORING REMOVE SECTION OF EXISTING 48" CMP BEGIN CONSTRUCTION OF 65"X67" CAA PIPE-ARCH

SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE. SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT THE 95" X 67" CAA PIPE ARCH IN 120 CONSECUTIVE CALENDAR DAYS.

PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THIS INTERMEDIATE CONTRACT TIME.

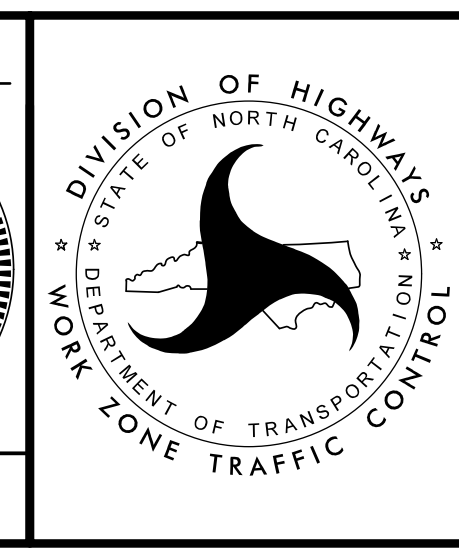
SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

PROPOSED CONSTRUCTION  
TEMPORARY PAVEMENT

APPROVED: *Jimmy Terry*  
DATE: 7/27/2022

SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

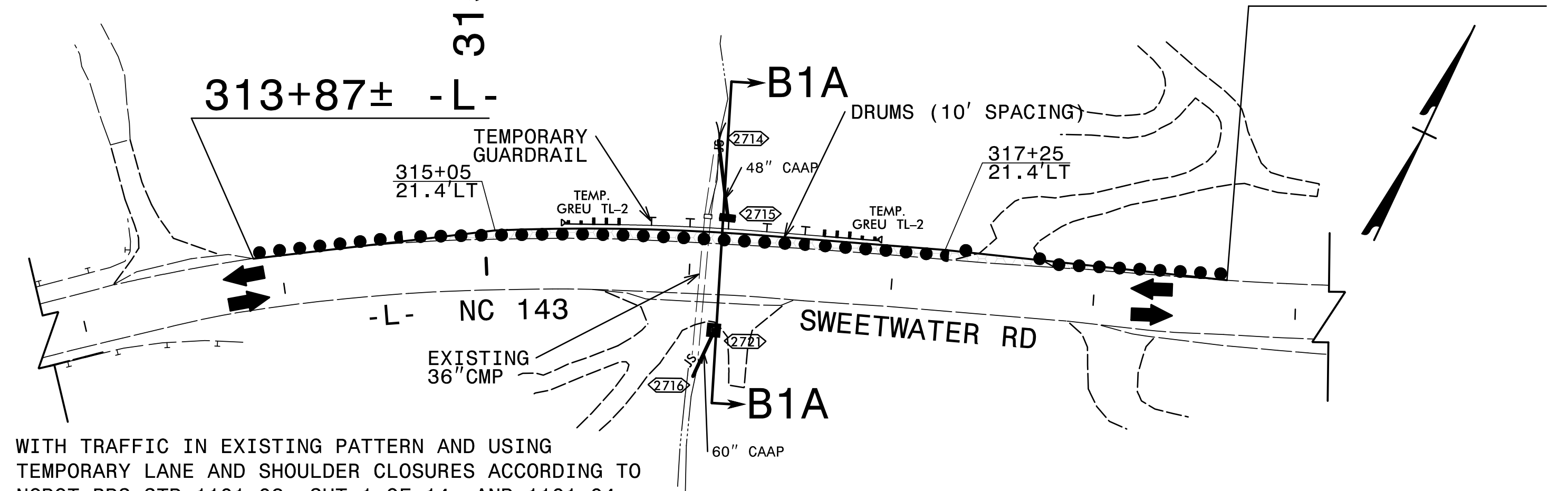


DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WORK ZONE TRAFFIC CONTROL

## PHASE I DETAIL NC 143

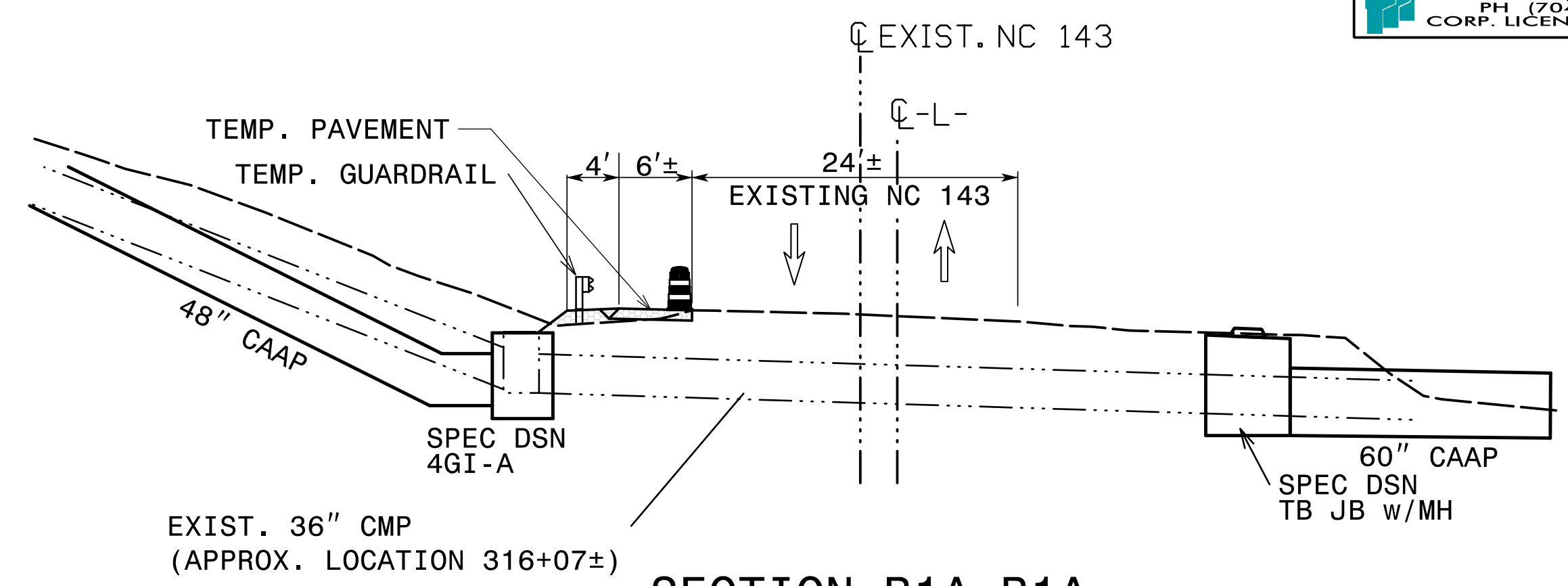
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 User: jsmelvin

# PHASE 1 STEP 1A



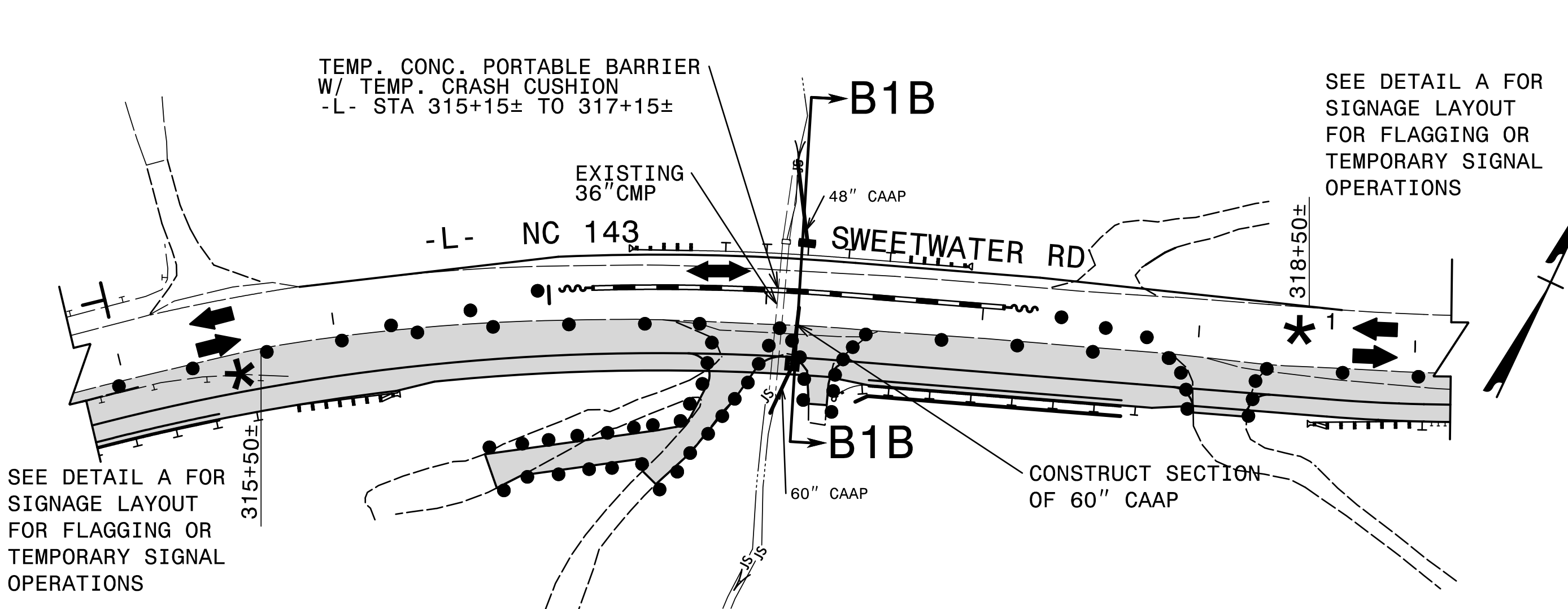
WITH TRAFFIC IN EXISTING PATTERN AND USING TEMPORARY LANE AND SHOULDER CLOSURES ACCORDING TO NCDOT RDS STD 1101.02, SHT 1 OF 14, AND 1101.04 PLACE PROPOSED DRAINAGE STRUCTURES 2715 TO 2714 AND 2716 TO 2721. PLACE TEMPORARY PAVEMENT AS SHOWN ON PLAN. PLACE TEMPORARY GUARDRAIL

SEE EROSION CONTROL PLANS FOR PIPE CONSTRUCTION SEQUENCE.



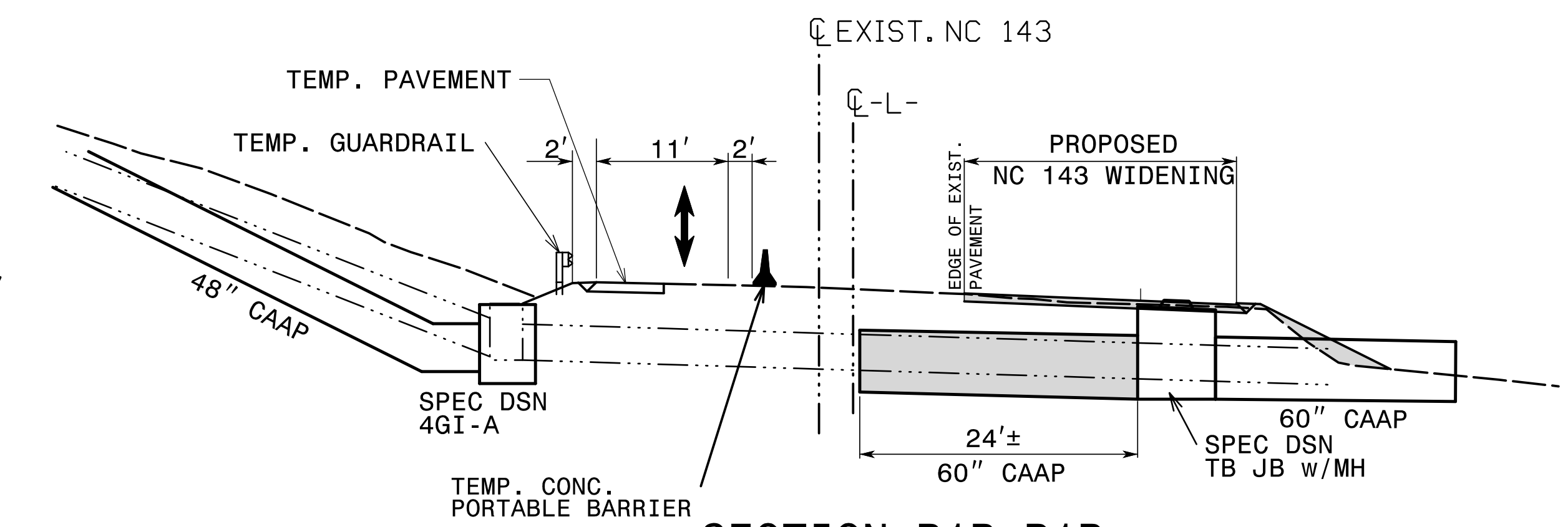
**SECTION B1A-B1A**  
-L- STA 316+15±

# PHASE 1 STEP 1B



SEE DETAIL A FOR SIGNAGE LAYOUT FOR FLAGGING OR TEMPORARY SIGNAL OPERATIONS

SEE DETAIL A FOR SIGNAGE LAYOUT FOR FLAGGING OR TEMPORARY SIGNAL OPERATIONS



**SECTION B1B-B1B**  
-L- STA 316+15±

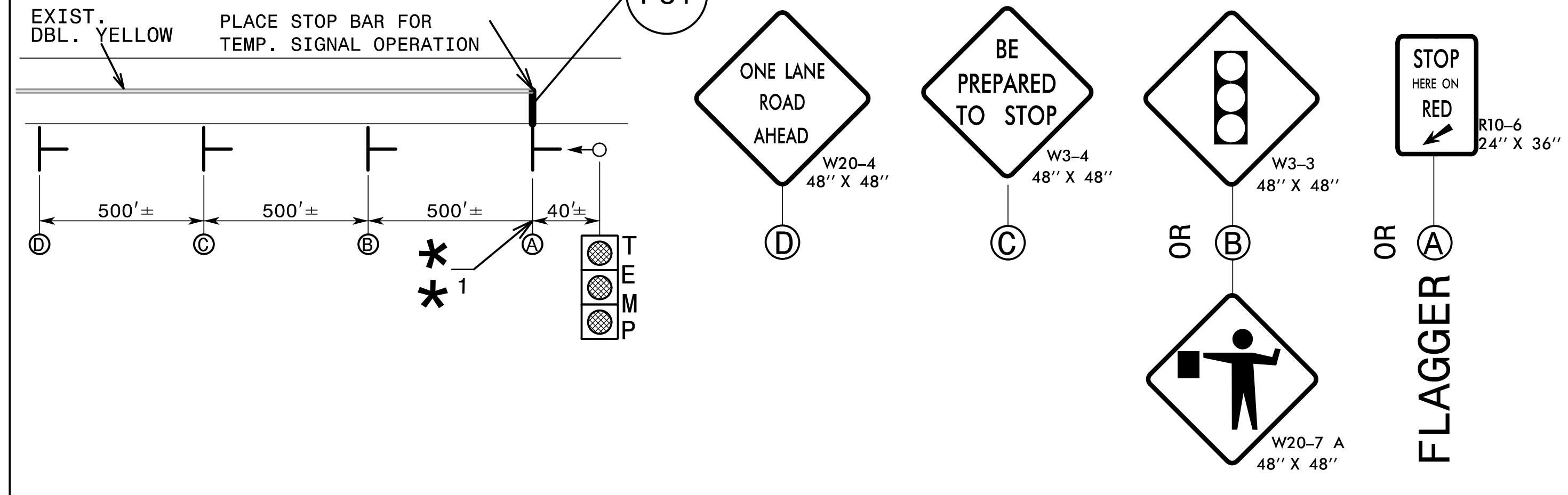
UTILIZING THE TEMPORARY PAVEMENT AND FLAGGERS PLACE TRAFFIC ONTO A ONE LANE DETOUR AS SHOWN ON PLANS TO LAY FIRST SECTION OF 60\"/>

SEE EROSION CONTROL PLANS FOR PIPE CONSTRUCTION SEQUENCE.

AFTER COMPLETION OF PIPE INSTALLMENT RETURN TRAFFIC TO EXISTING PATTERN AND USING TEMPORARY LANE CLOSURES IF NEEDED COMPLETE NC 143 WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS SHOWN ON SHEET TMP-8

## DETAIL A

MIRROR LAYOUT FOR \* 1

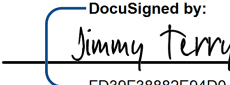


PROPOSED CONSTRUCTION
  TEMPORARY PAVEMENT

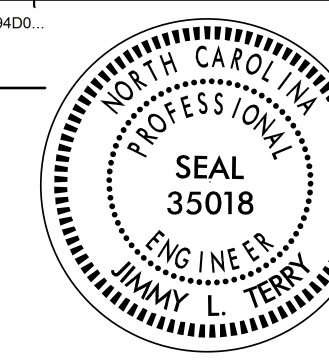
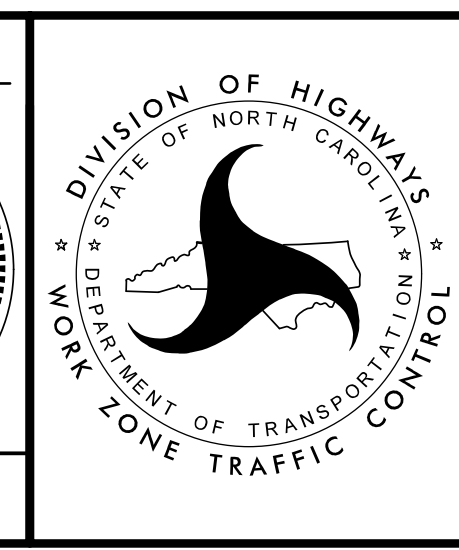
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT THE 60\"/>

PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THE INTERMEDIATE CONTRACT TIME.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

APPROVED:   
 DATE: 7/27/2022

SEAL





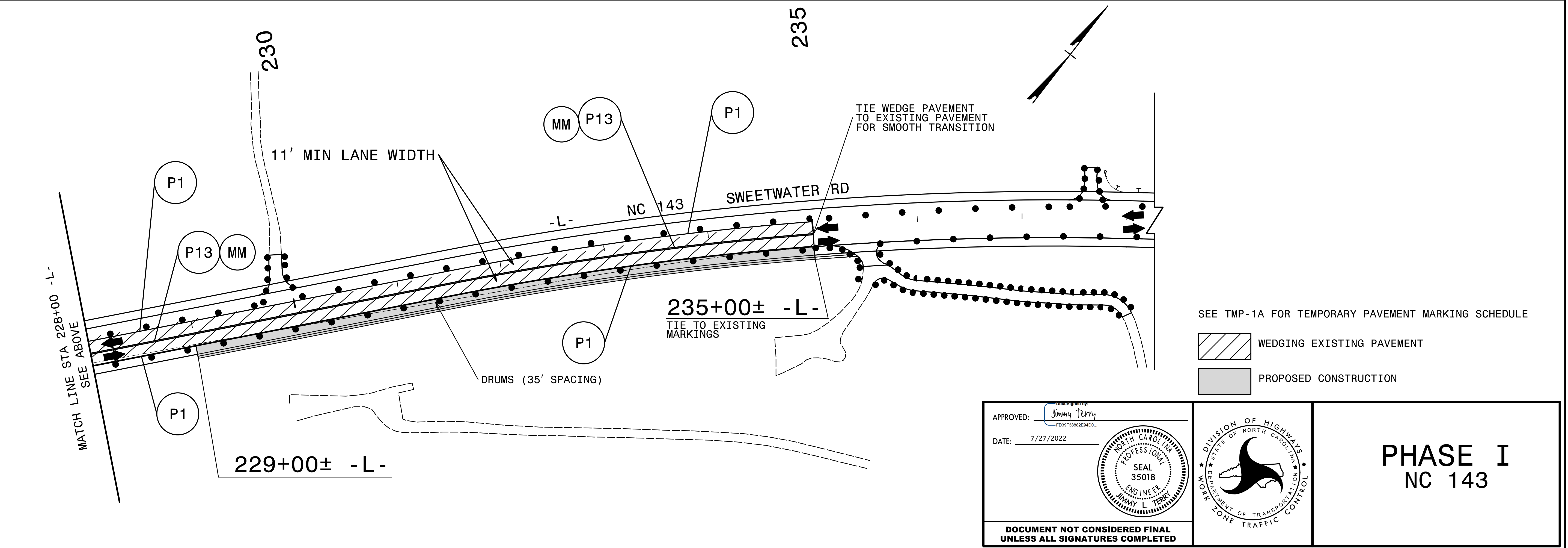
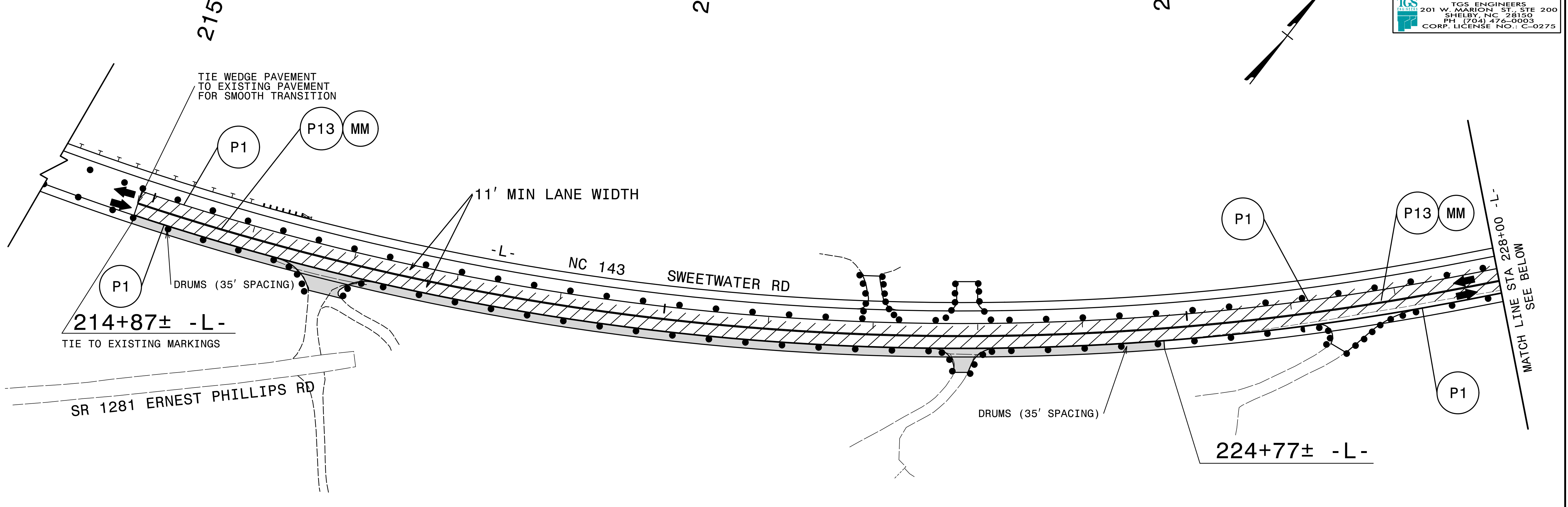
# PHASE I DETAIL NC 143

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED


7/26/2022  
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 User: jsmelvin


# PHASE 1, STEP 2

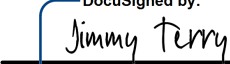
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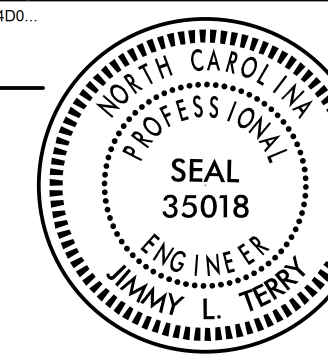
SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE

 WEDGING EXISTING PAVEMENT

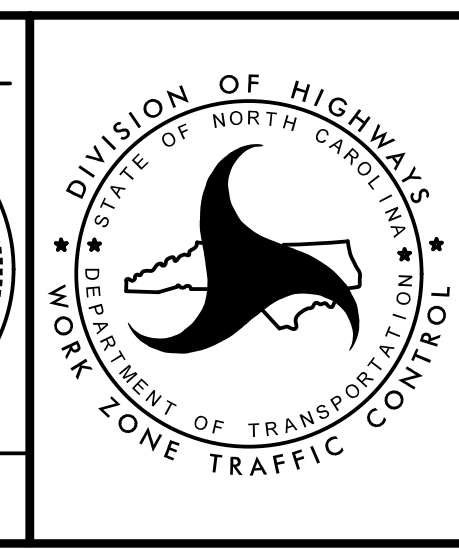
 PROPOSED CONSTRUCTION

APPROVED:   
FD39F3882E94D0

DATE: 7/27/2022




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

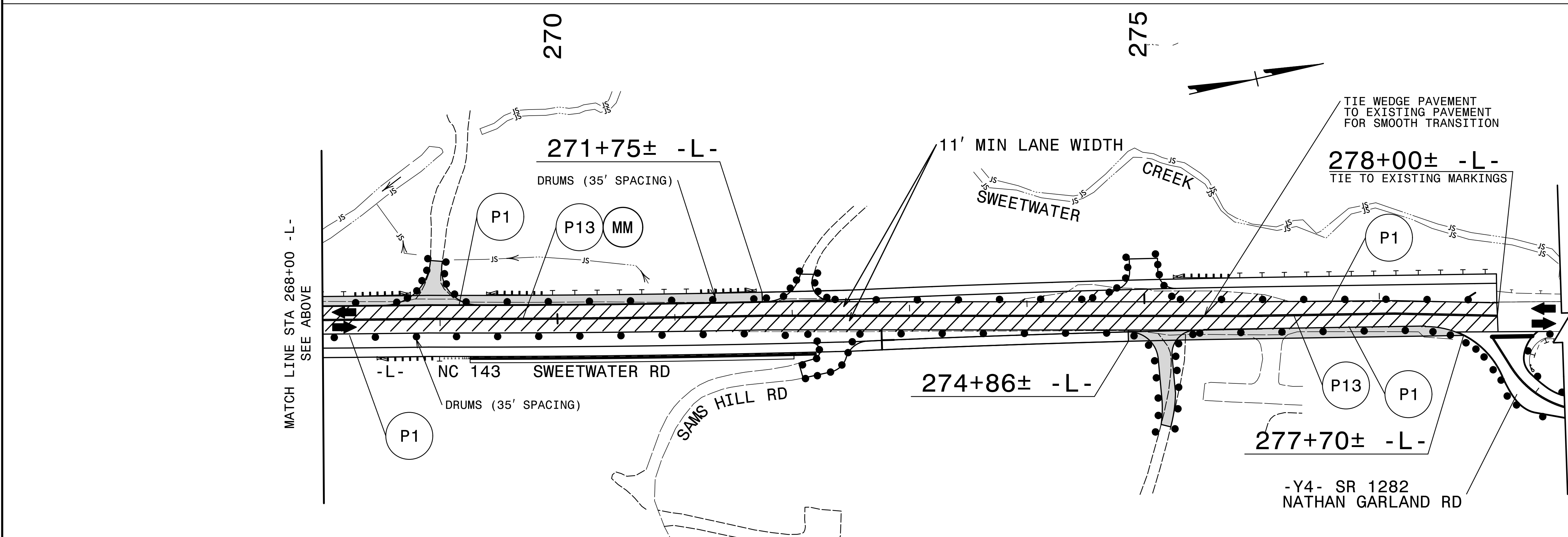
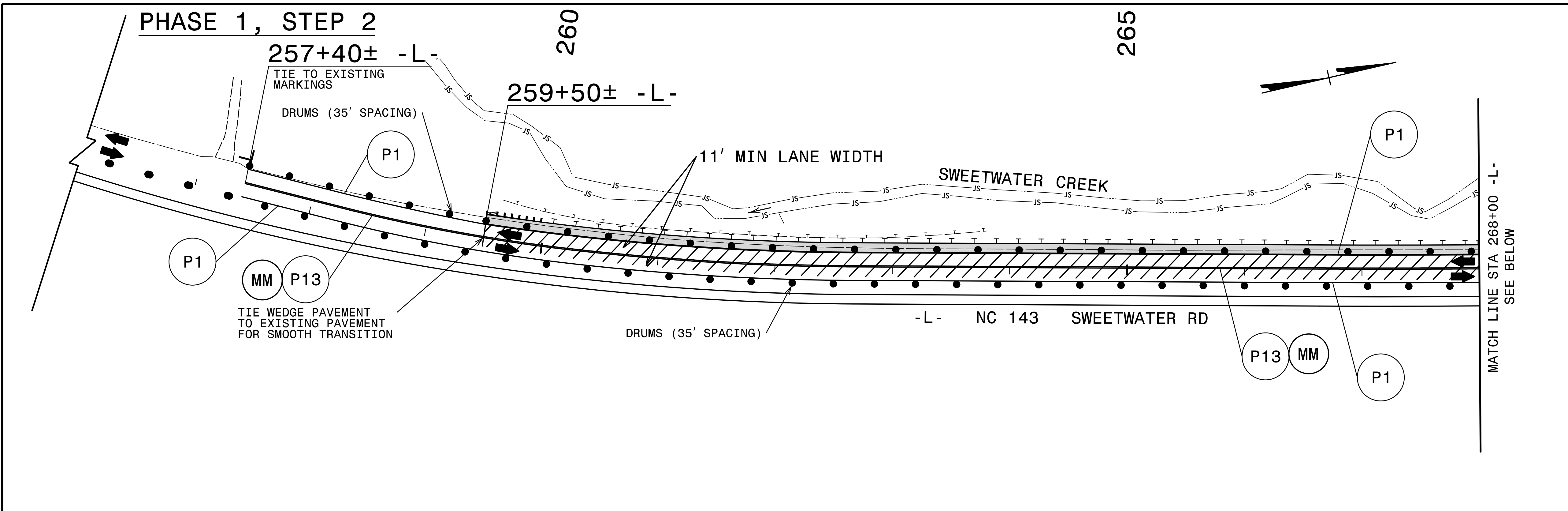


## PHASE I

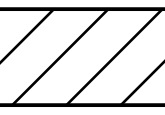

### NC 143

6/22/2022  
 User: tsmelvin  
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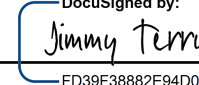
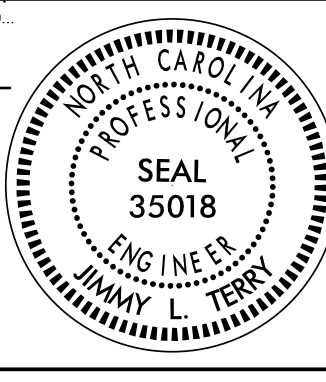
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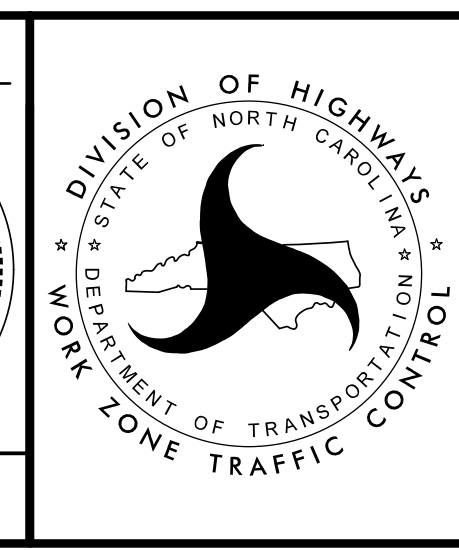


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 User: jsmelvin

 WEDGING EXISTING CONSTRUCTION  
 PROPOSED CONSTRUCTION

SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

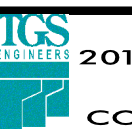
APPROVED:   
 DATE: 7/27/2022  


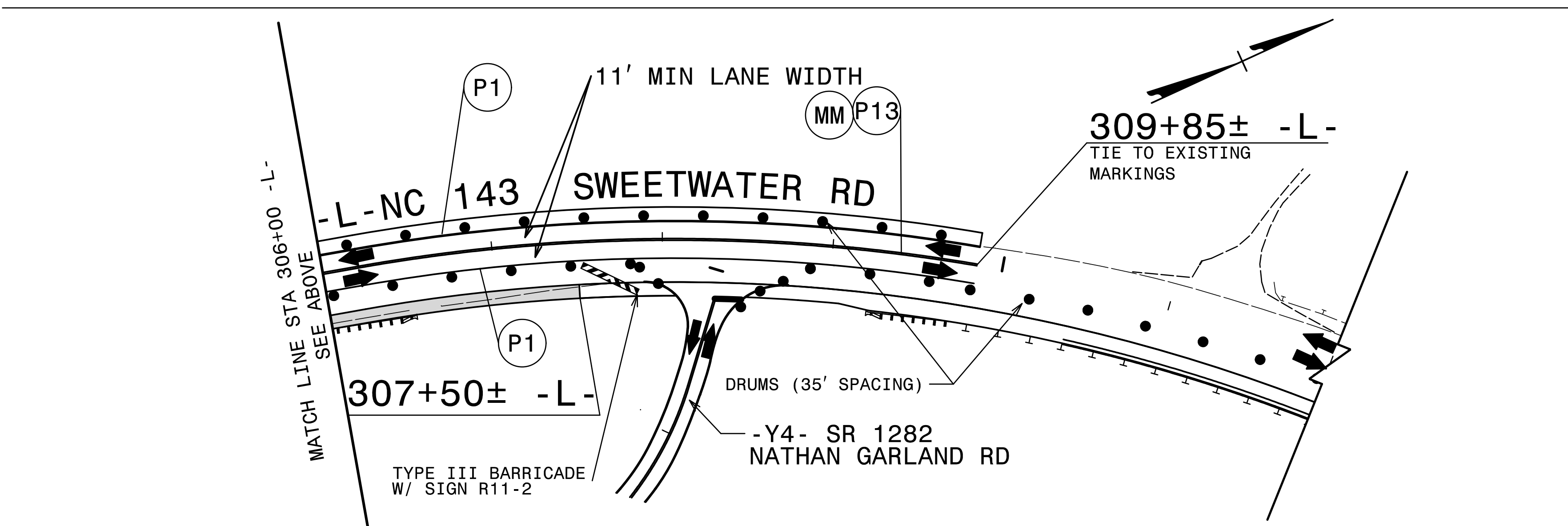
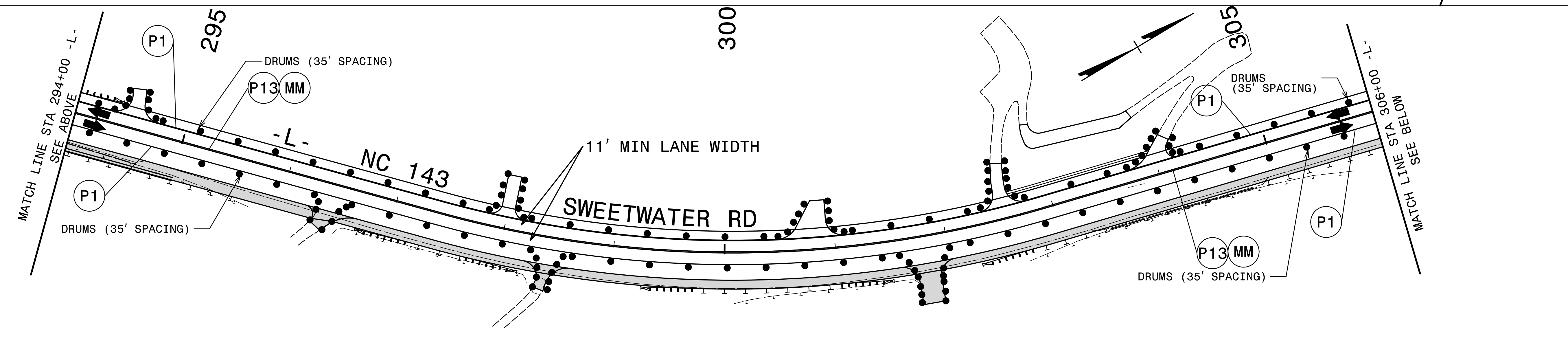
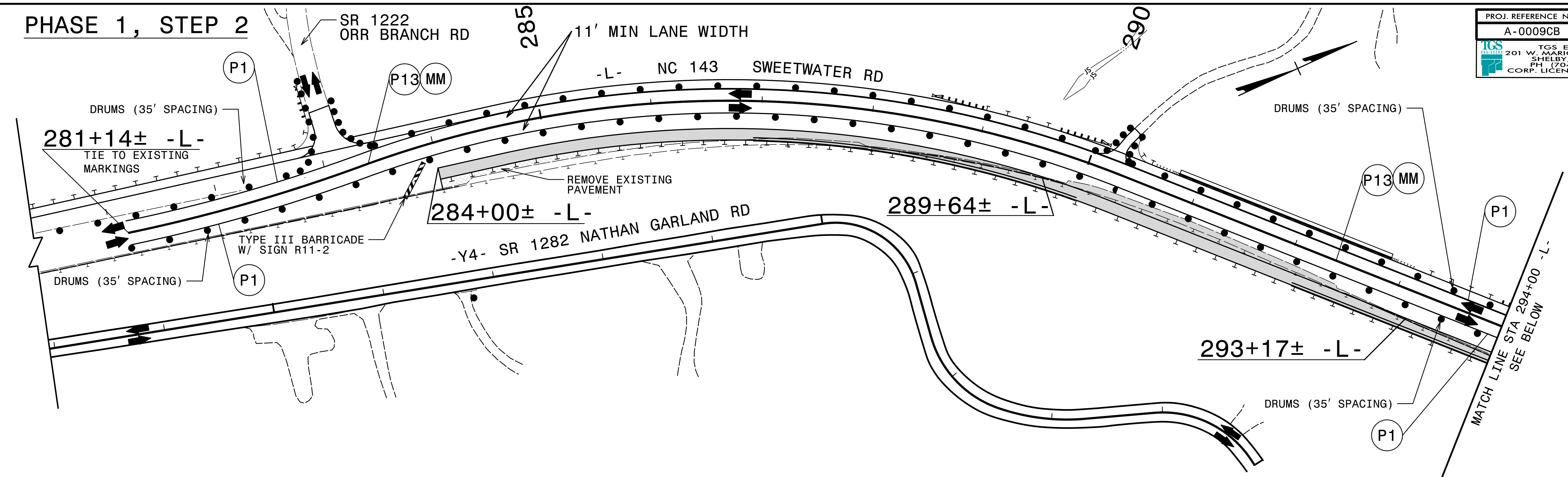


**PHASE I**  
**NC 143**

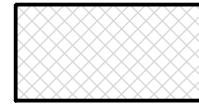

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

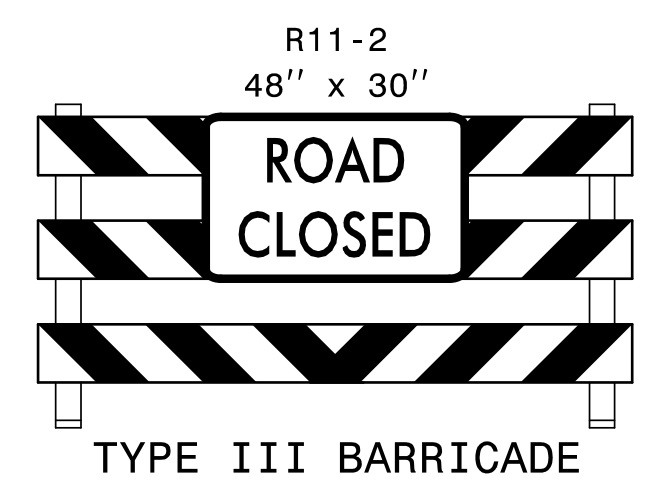
# PHASE 1, STEP 2

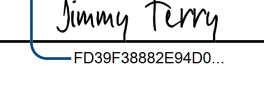
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A-0009CB	TMP-16
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



SEE TMP-1A FOR TEMPORARY PAVEMENT SCHEDULE.

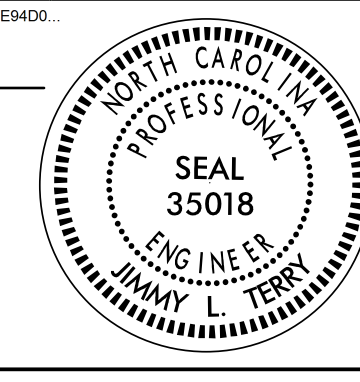
-  REMOVE EXISTING PAVEMENT
-  PROPOSED CONSTRUCTION



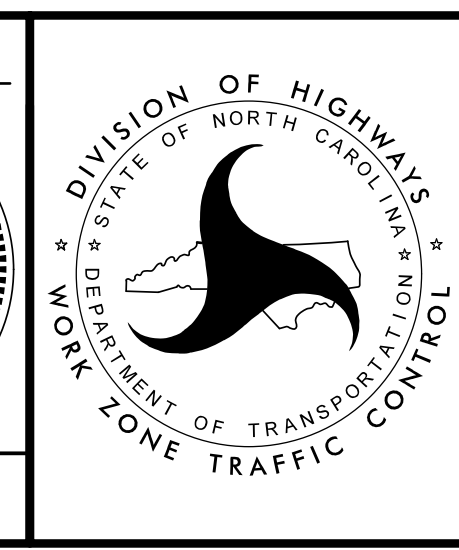
APPROVED: 

DATE: 7/27/2022

SEAL



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

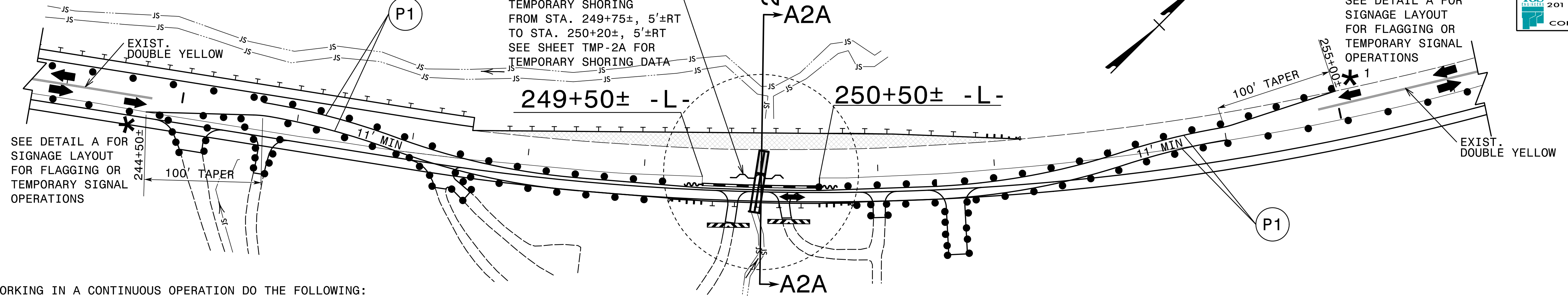


## PHASE I

### NC 143

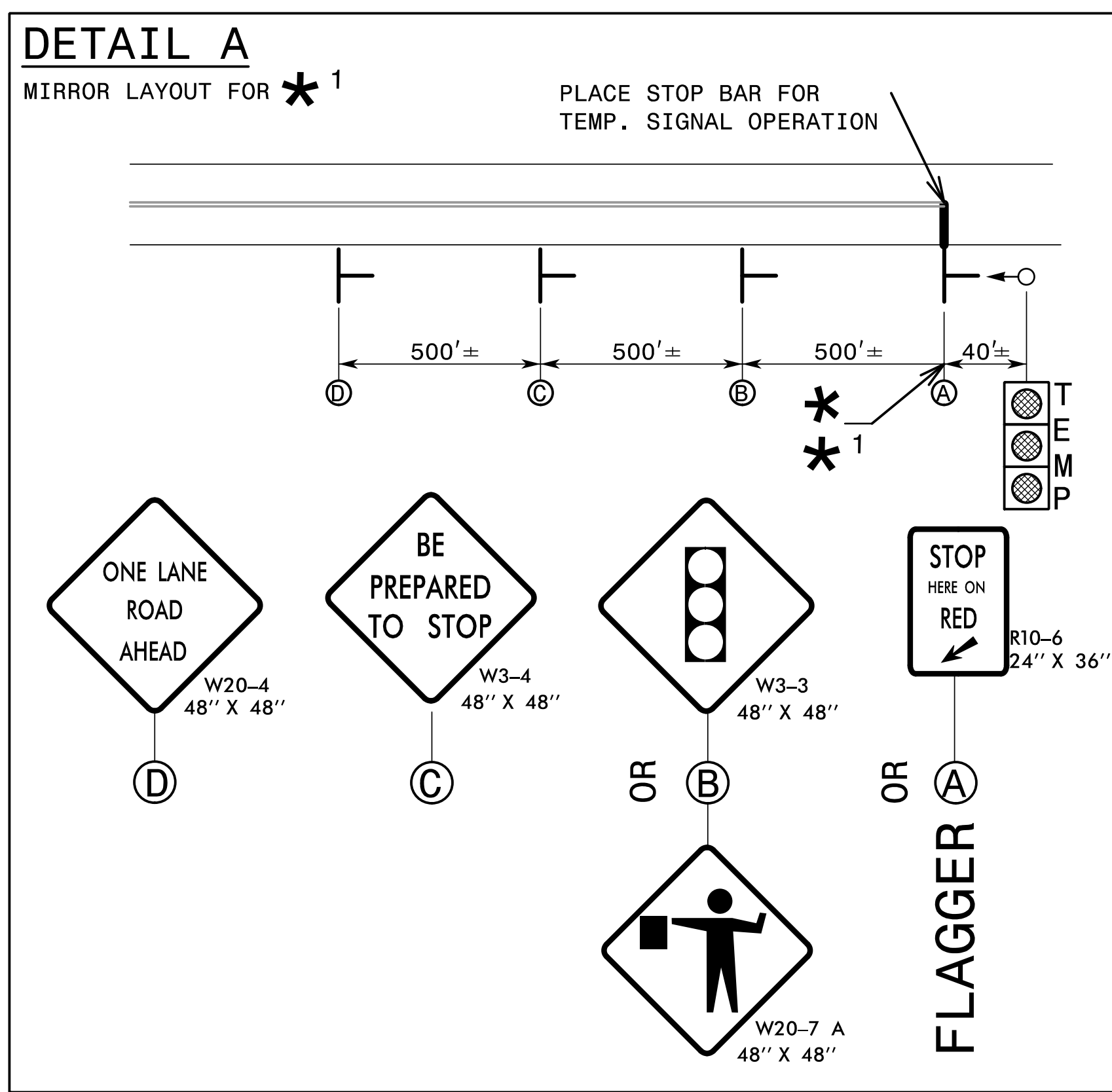
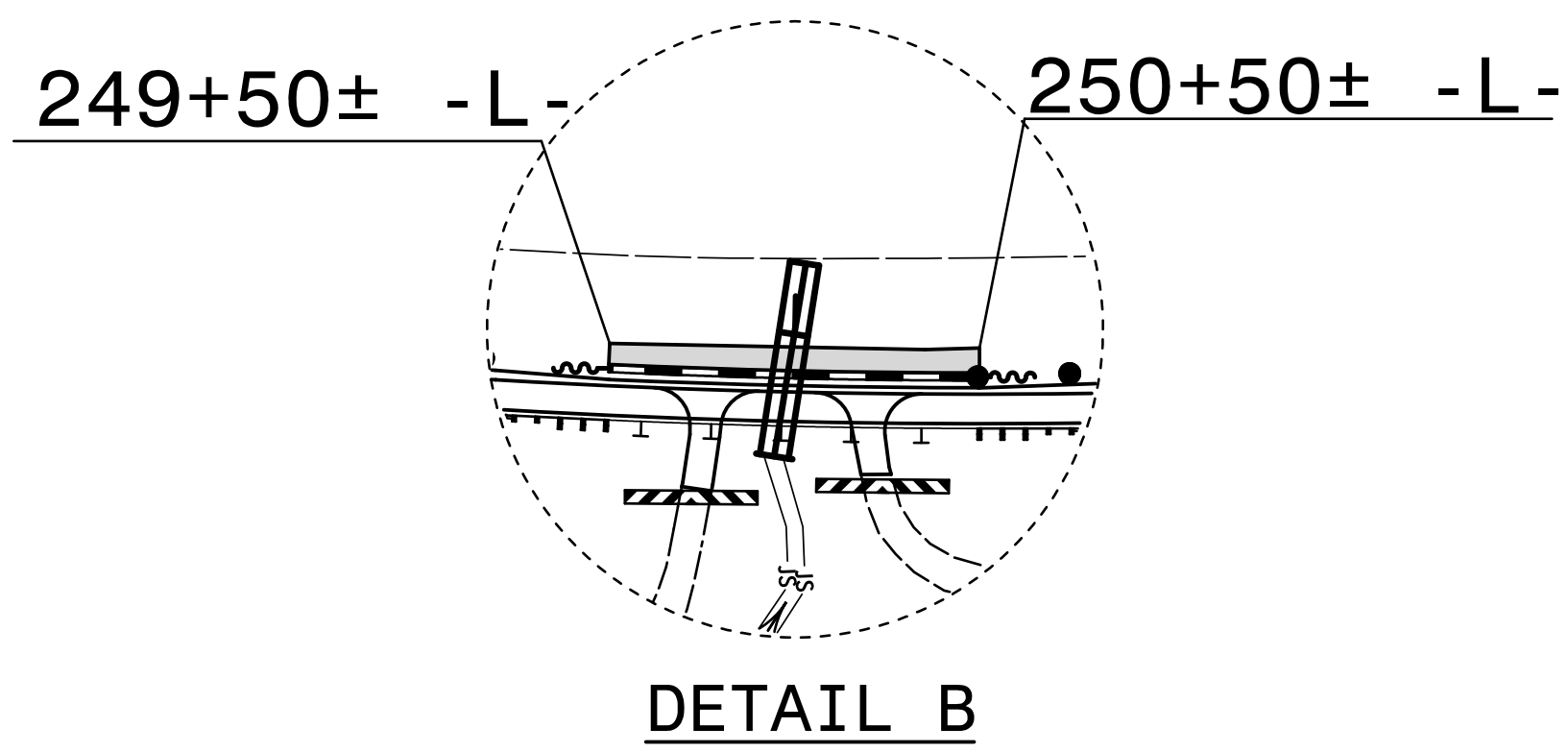
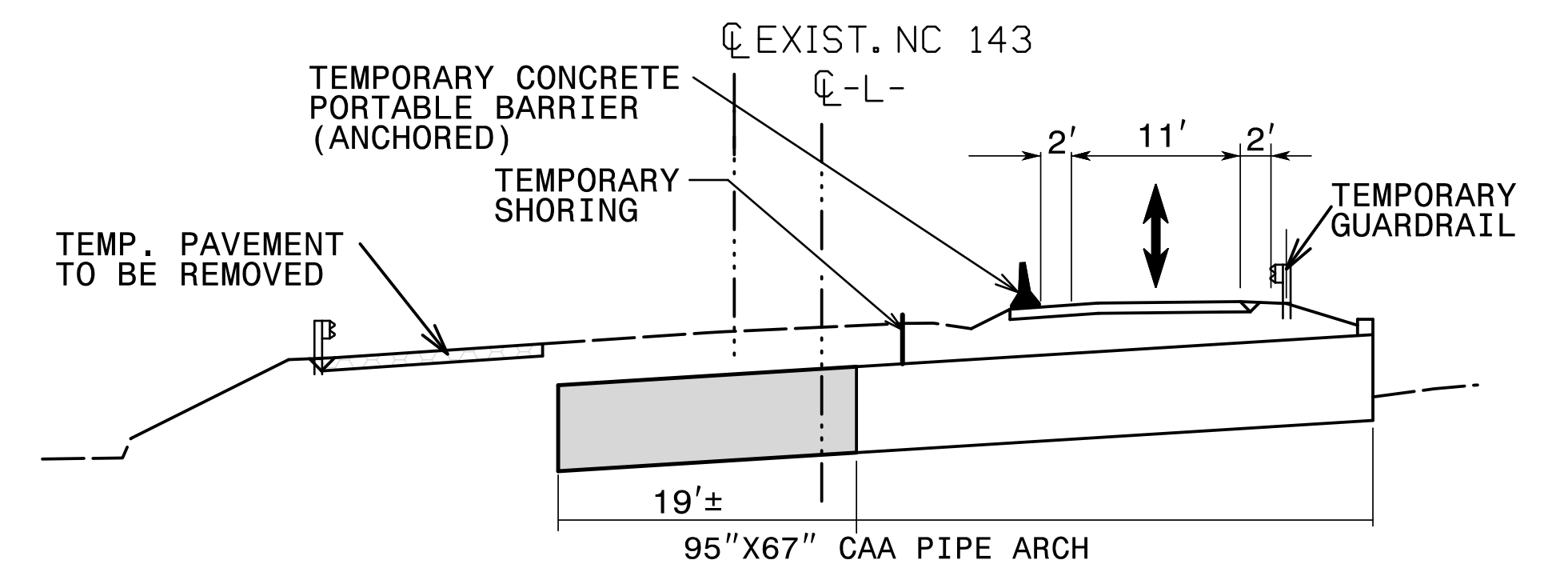
6/29/2022  
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 User: jsmelvin

# PHASE 2, STEP 1A



- WORKING IN A CONTINUOUS OPERATION DO THE FOLLOWING:
1. PLACE APPROPRIATE SIGNAGE TO MOVE TRAFFIC INTO A ONE-LANE ONE-WAY PATTERN AS SHOWN ON PLANS. INSTALL TEMPORARY SIGNAL SYSTEM IN ACCORDANCE WITH NCDOT RDS 1101.02, SHEET 14 OF 14
  2. PLACE TEMPORARY CONCRETE BARRIER AND TEMPORARY SHORING
  3. SHIFT TRAFFIC ONTO ONSITE DETOUR
  4. PLACE SECOND SECTION OF 95" X 67" CAA PIPE-ARCH

SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE.  
SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.



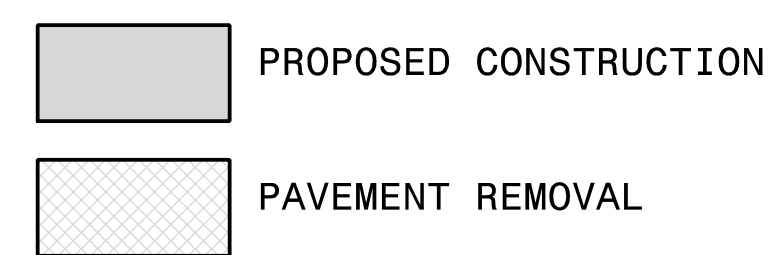
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT THE 95" X 67" CAA PIPE ARCH IN 120 CONSECUTIVE CALENDAR DAYS.

PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THIS INTERMEDIATGE CONTRACT TIME.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

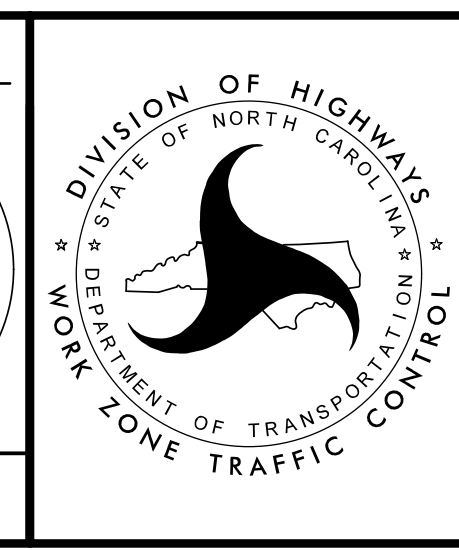
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRING THE ONE-LANE, TWO-WAY TRAFFIC PATTERN FOR CONSTRUCTION OF 95" X 67" CAA PIPE ARCH DURING PHASE II, STEP 1A AND SHALL RESTORE TRAFFIC TO A TWO-LANE, TWO-WAY TRAFFIC PATTERN IN 7 CONSECUTIVE CALENDAR DAYS.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.



APPROVED: *Jimmy Terry*  
DATE: 7/27/2022

SEAL




## PHASE II

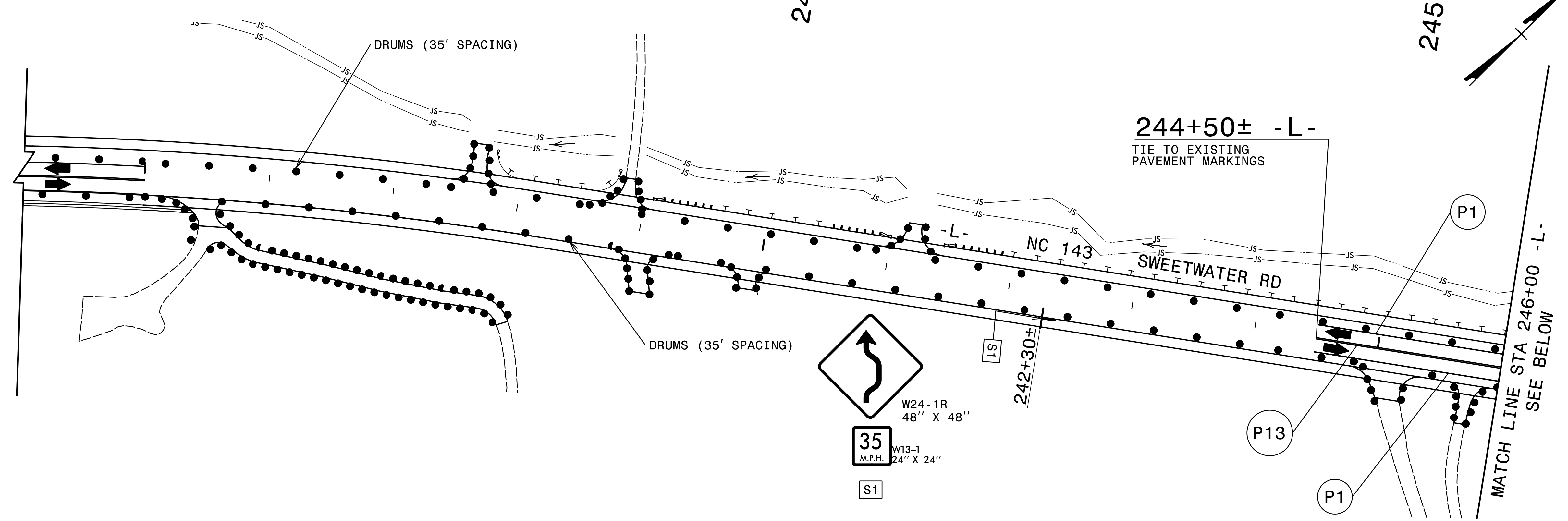
### NC 143

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

7/26/2022  
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 User: jsmelvin

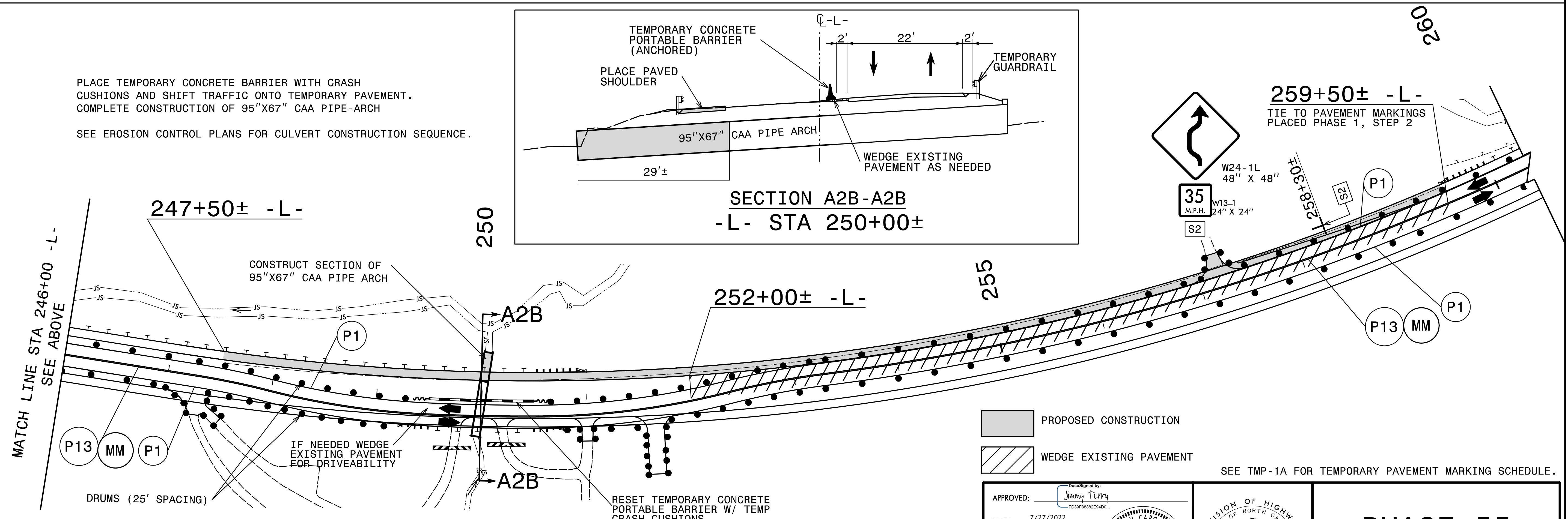
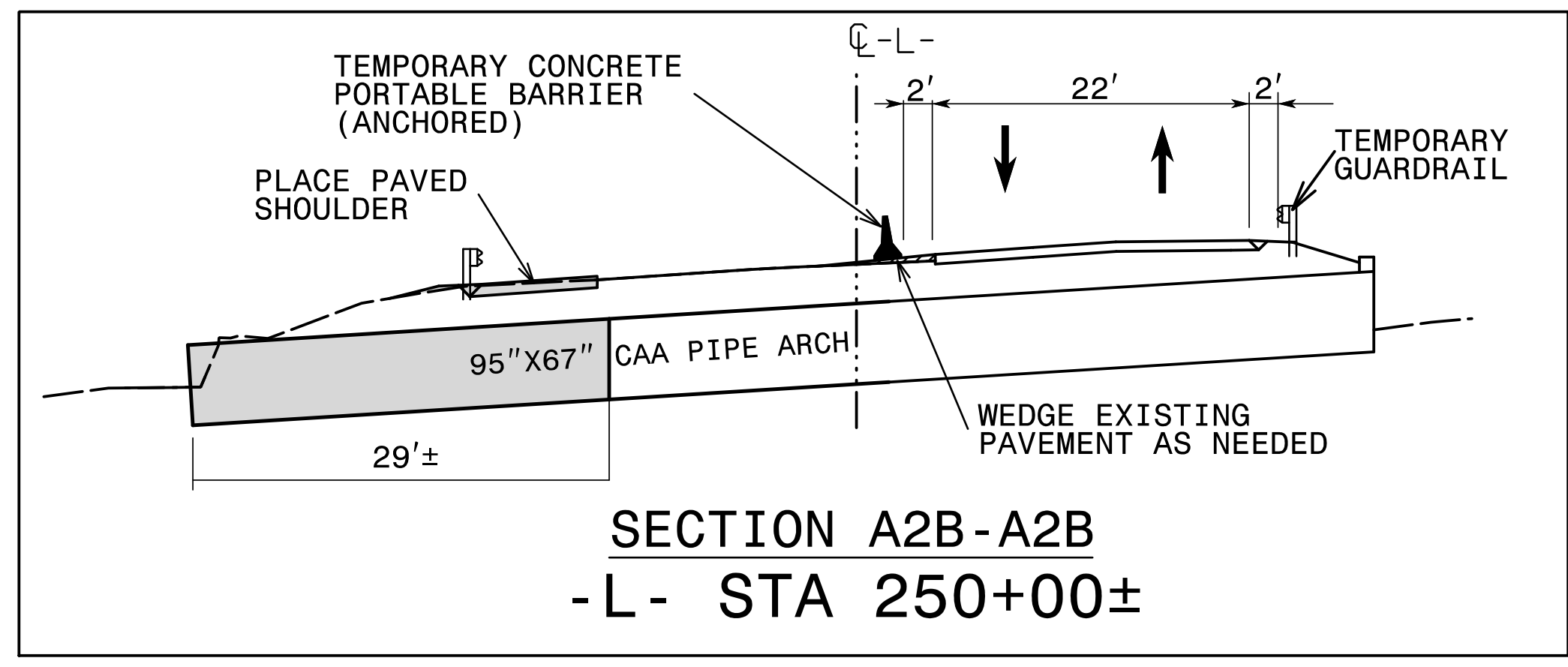
# PHASE 2, STEP 1B

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-18
 <b>TGS ENGINEERS</b> 201 W. MARION ST., STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



PLACE TEMPORARY CONCRETE BARRIER WITH CRASH CUSHIONS AND SHIFT TRAFFIC ONTO TEMPORARY PAVEMENT. COMPLETE CONSTRUCTION OF 95"X67" CAA PIPE-ARCH

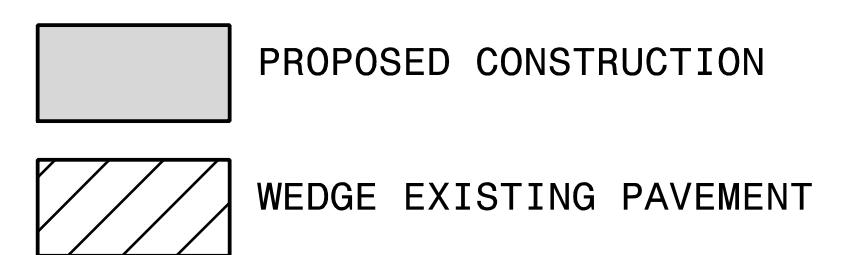
SEE EROSION CONTROL PLANS FOR CULVERT CONSTRUCTION SEQUENCE.



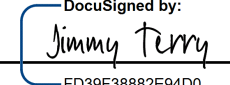
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT THE 95" X 67" CAA PIPE ARCH IN 120 CONSECUTIVE CALENDAR DAYS.

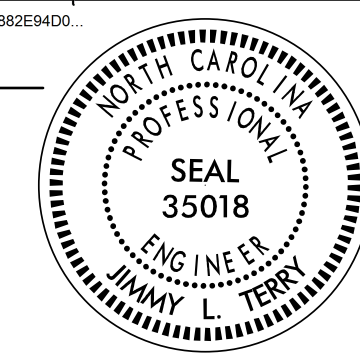
PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THIS INTERMEDIATGE CONTRACT TIME.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

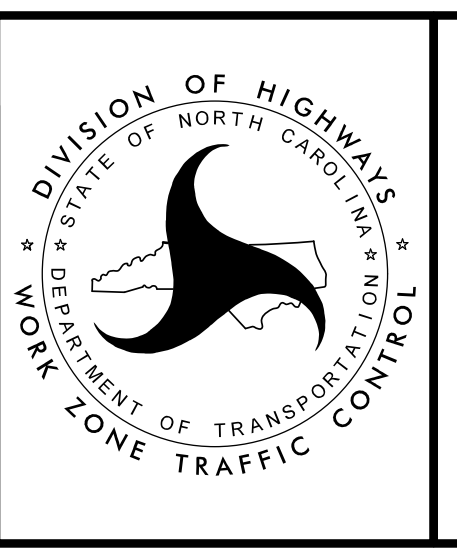


SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

APPROVED:  Jimmy Terry  
 DATE: 7/27/2022



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

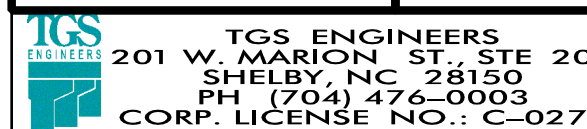


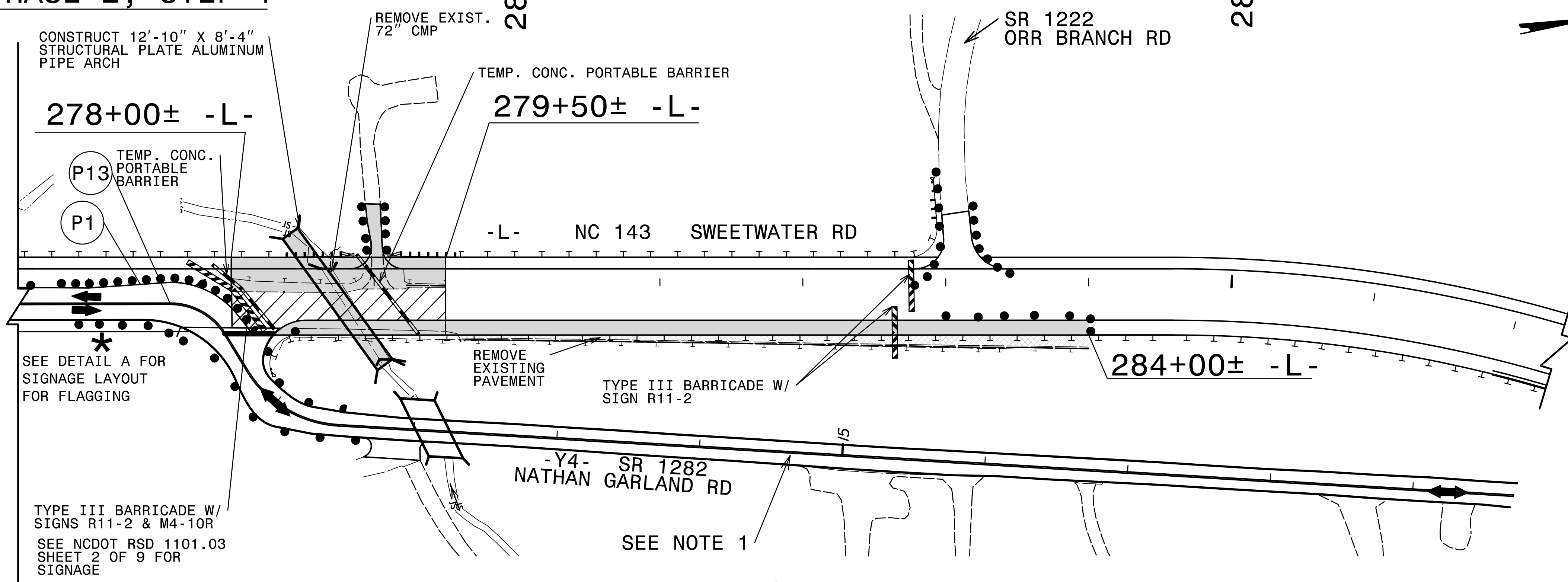
## PHASE II

### NC 143

7/26/2022  
 V:\NC009\Traffic\TrafficControl\TCPA-0009CB\A-0009CB-TC\_TMP\_18(PH2\_Det.dwg)  
 User: jsmelin

# PHASE 2, STEP 1

PROJ. REFERENCE NO. A-0009CB	SHEET NO. TMP-19
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



AS DIRECTED BY THE ENGINEER PLACE CHANGEABLE MESSAGE SIGNS (CMS) APPROX. 1 MILE IN ADVANCE OF CLOSURE POINT IN EACH DIRECTION. PLACE CMS 14 DAYS PRIOR TO CLOSURE. REVISE MESSAGE TO "FOLLOW DETOUR" AFTER CLOSURE IS OPERATIONAL.

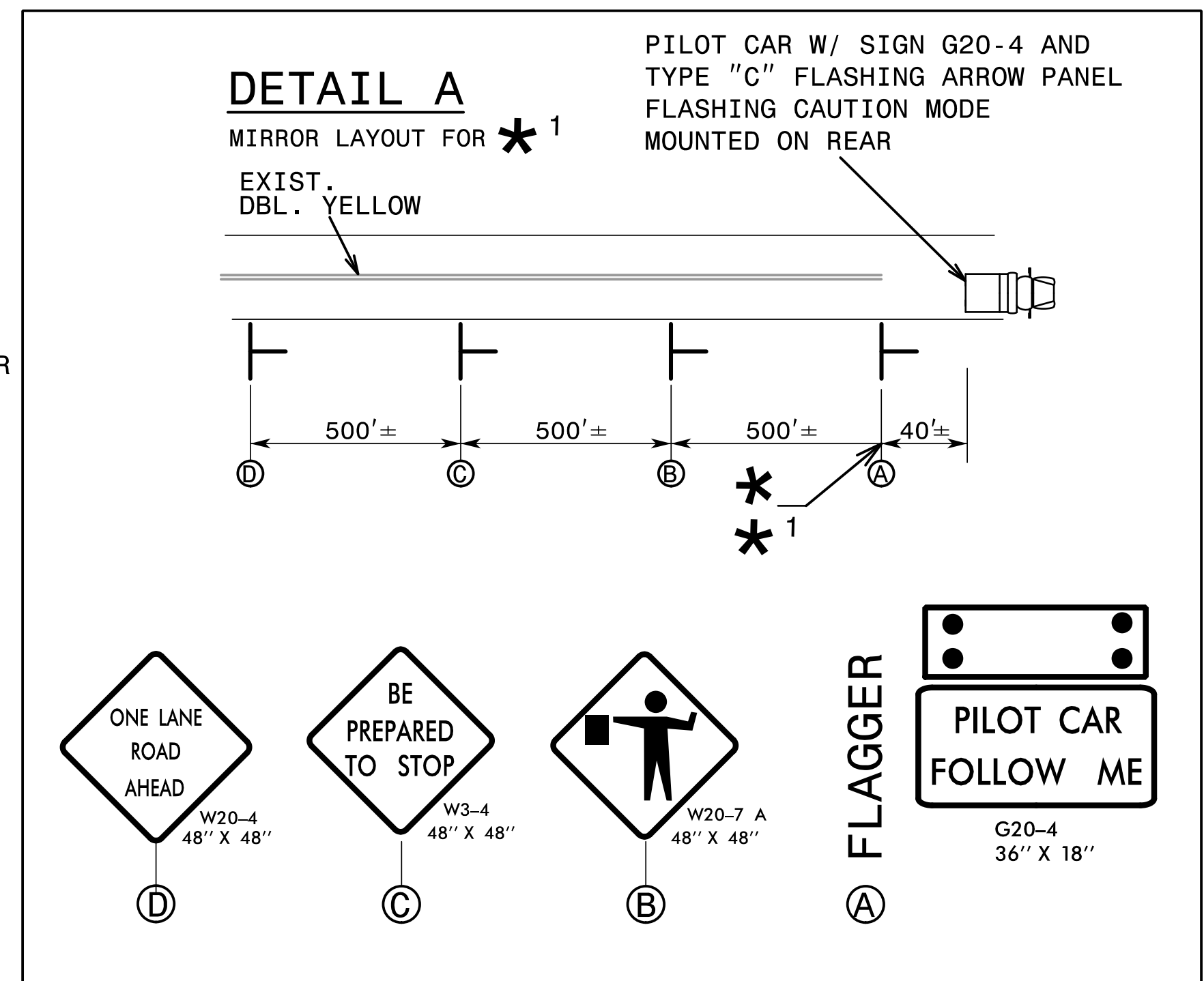
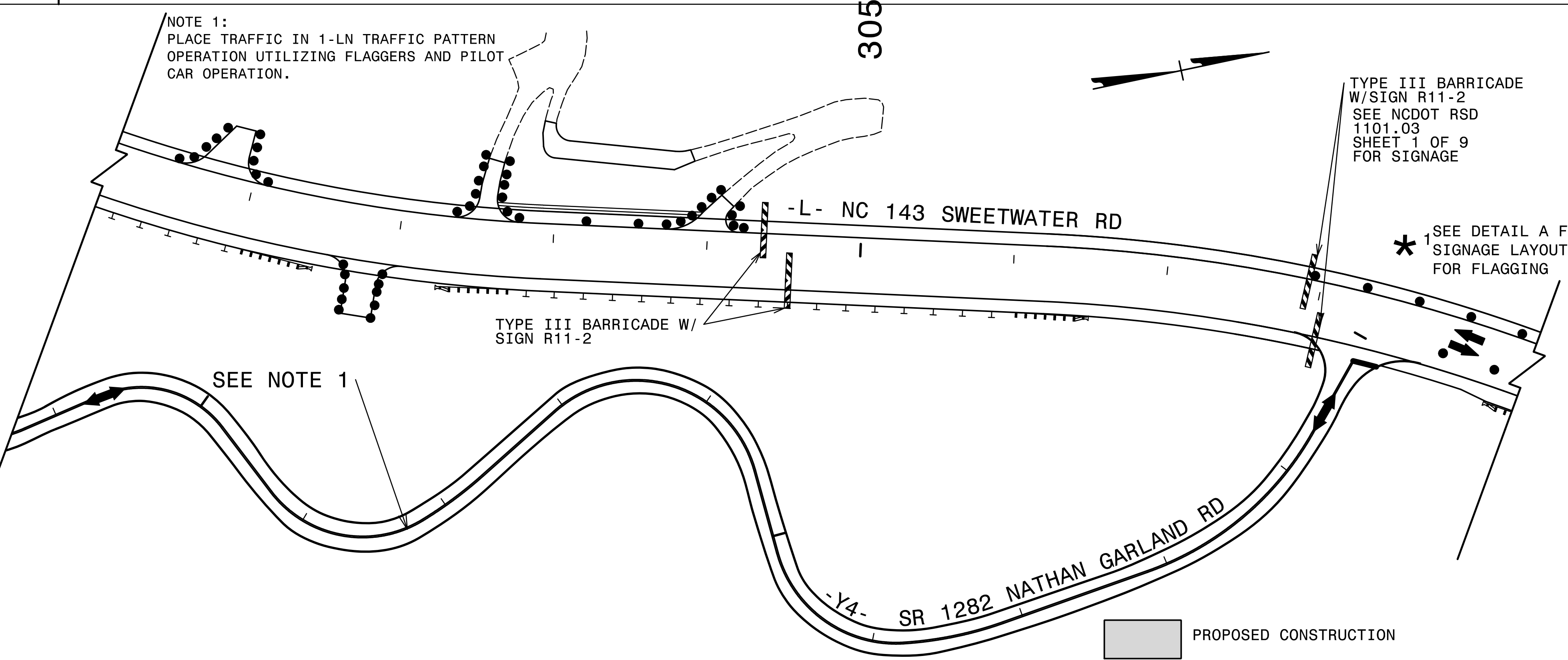
MESSAGE NO. 1	MESSAGE NO. 2
NC 143 CLOSED	FROM XX/XX TO XX/XX

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
NC 143 CLOSED	FOLLOW DETOUR

CHANGEABLE MESSAGE SIGN

NOTE 1:  
PLACE TRAFFIC IN 1-LN TRAFFIC PATTERN OPERATION UTILIZING FLAGGERS AND PILOT CAR OPERATION.


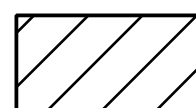



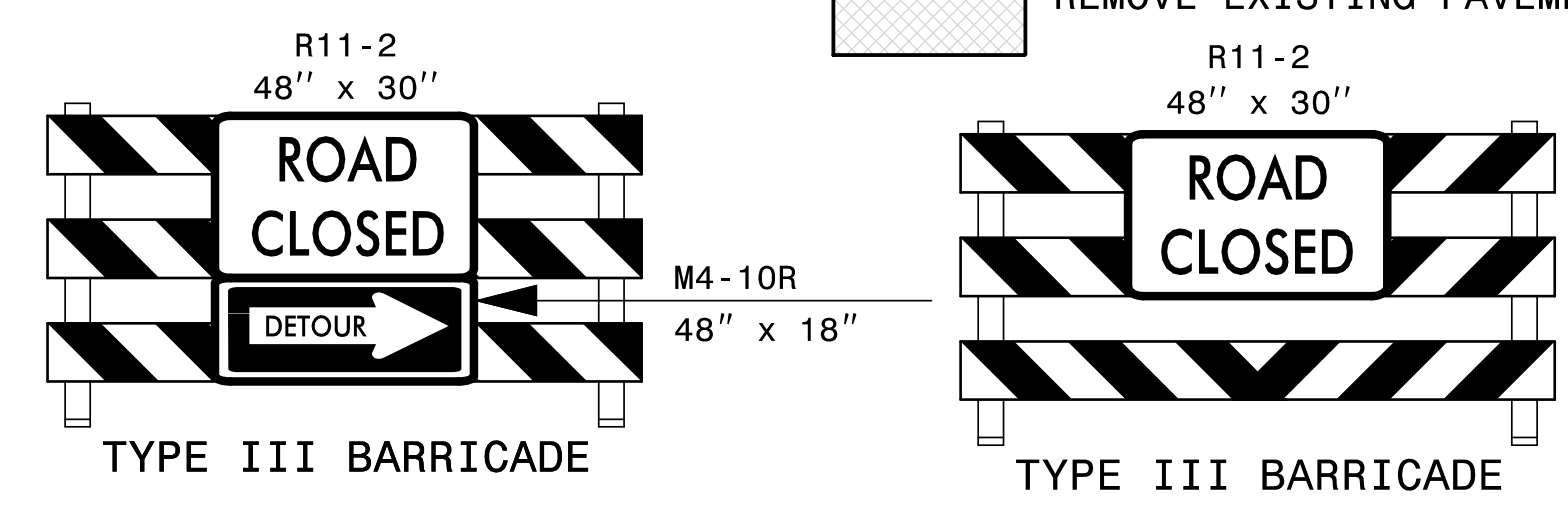
PILOT CAR IS INCLUDED IN THE FLAGGING OPERATION SCOPE OF WORK AND THUS SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT TRAFFIC CONTROL ITEMS AS PART OF THIS PROJECT.

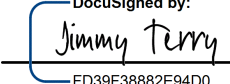
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO DETOUR NC 143 TRAFFIC ONTO SR 1282 (-Y4- NATHAN GARLAND RD) DURING THE CONSTRUCTION OF 12'-10" X 8'-4" STRUCTURAL PLATE ALUMINUM PIPE ARCH (PHASE II, STEP 1) AND SHALL RESTORE TRAFFIC TO EXISTING PATTERN IN 7 CONSECUTIVE CALENDAR DAYS.

WHILE TRAFFIC IS DETOURED ALONG SR 1282 (-Y4- NATHAN GARLAND RD) THE CONTRACTOR SHALL WORK IN A CONTINUOUS 24-HOUR OPERATION AND SHALL USE PILOT VEHICLE(S) TO ESCORT TRAFFIC THROUGH THE DETOUR. FURTHERMORE, THE CONTRACTOR SHALL ENSURE THAT ALL ROADS AND DRIVEWAYS INSIDE THE CLOSED SECTION OF NC 143 (-L-) ARE OPEN AND ACCESSIBLE TO LOCAL TRAFFIC.

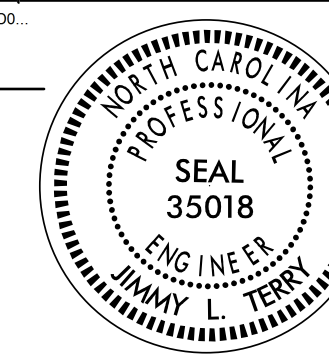
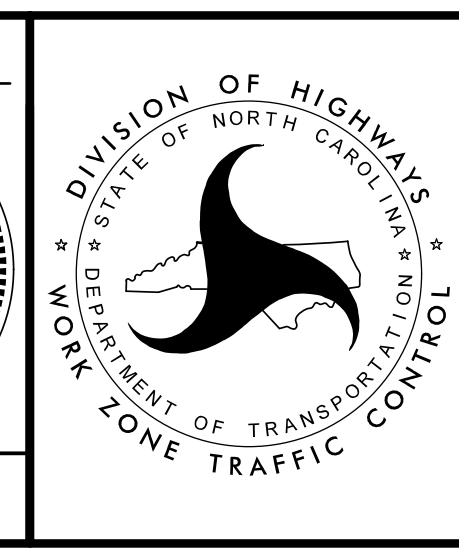
SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

-  PROPOSED CONSTRUCTION
-  WEDGE EXISTING PAVEMENT
-  REMOVE EXISTING PAVEMENT



APPROVED:   
 DATE: 8/3/2022

SEAL

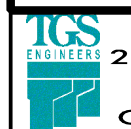
## PHASE II

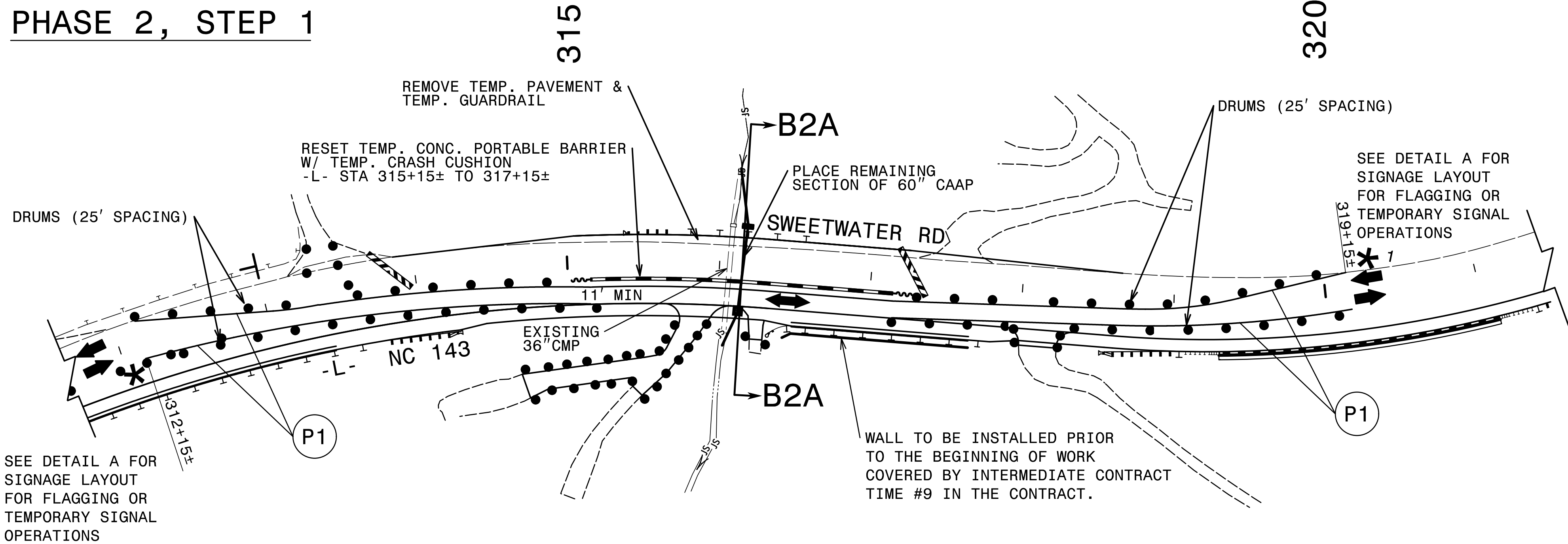
### NC 143

8/3/2022 8:33 AM A:\0009\Traffic\TrafficControl\TCP\A-0009CB\A-0009CB-TC-TMP\_19(PH2\_Det.dtl).dgn User: jsmelvin

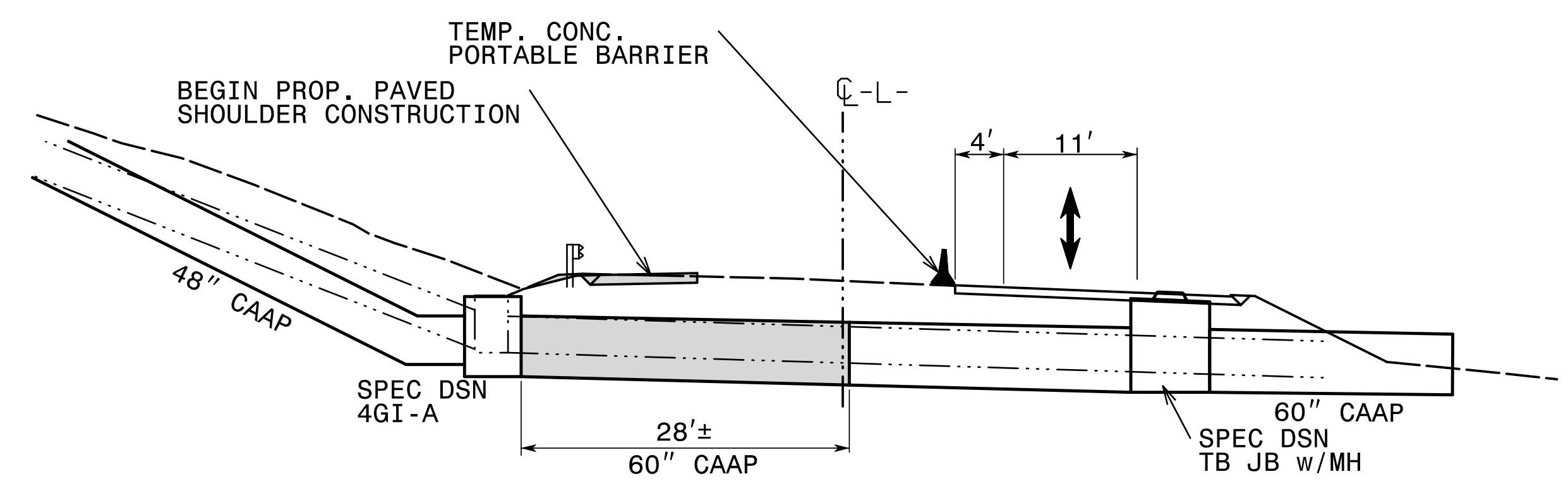
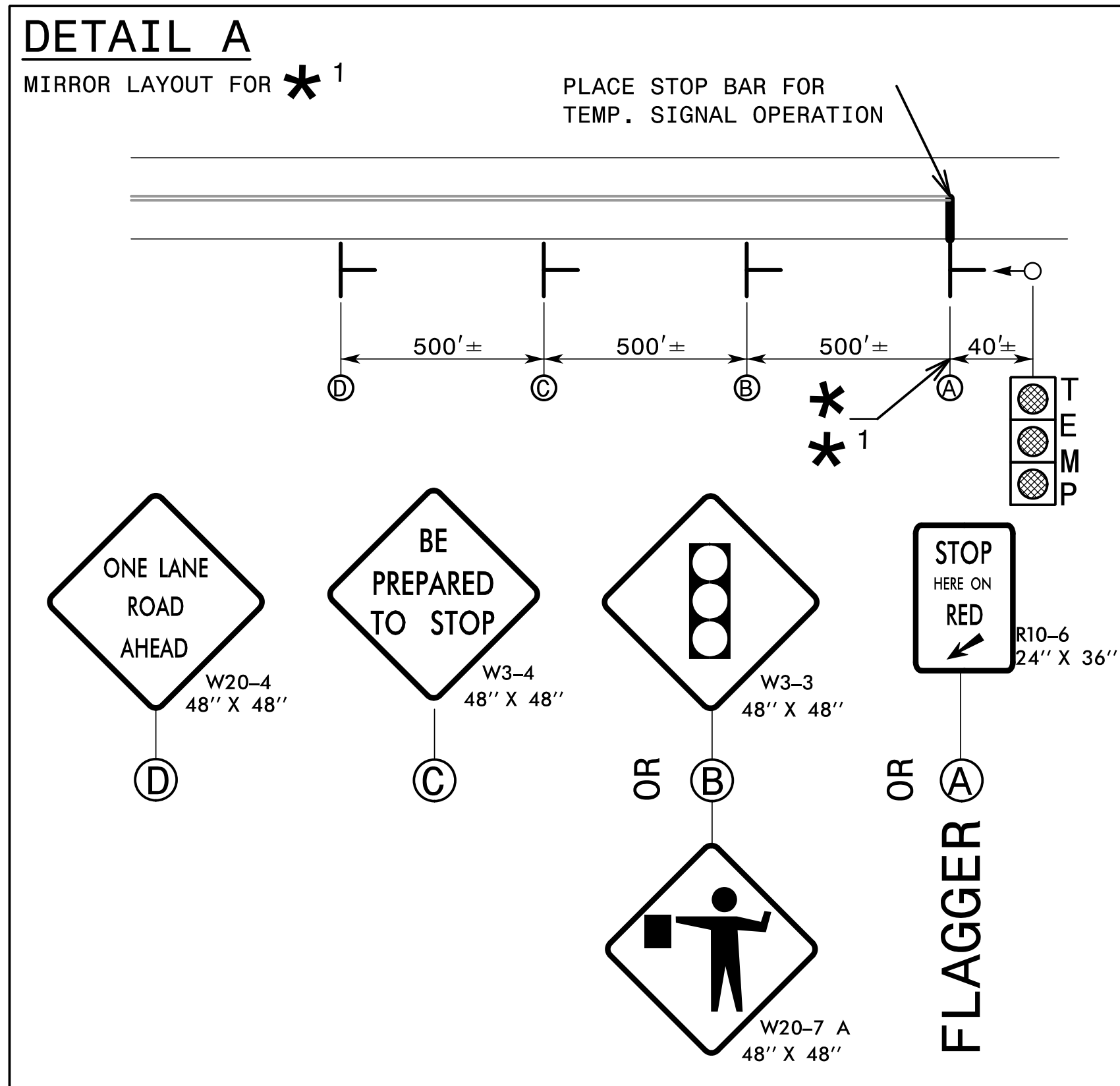


# PHASE 2, STEP 1

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-20
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



SEE DETAIL A FOR SIGNAGE LAYOUT FOR FLAGGING OR TEMPORARY SIGNAL OPERATIONS



**SECTION B2B-B2B**  
**-L- STA 316+15±**

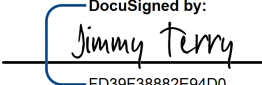
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT THE 60" CAAP DURING PHASE I, STEP 1A THRU PHASE II, STEP 1B AND SHALL RESTORE TRAFFIC TO EXISTING PATTERN AND RE-ESTABLISH THE EXISTING LANDSCAPING IN 45 CONSECUTIVE CALENDAR DAYS.

PERMANENT VEGETATION SEEDING OF SLOPES SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THE INTERMEDIATE CONTRACT TIME.

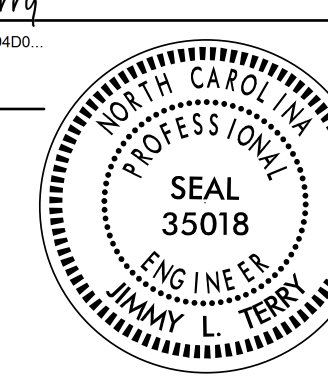
SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

 PROPOSED CONSTRUCTION

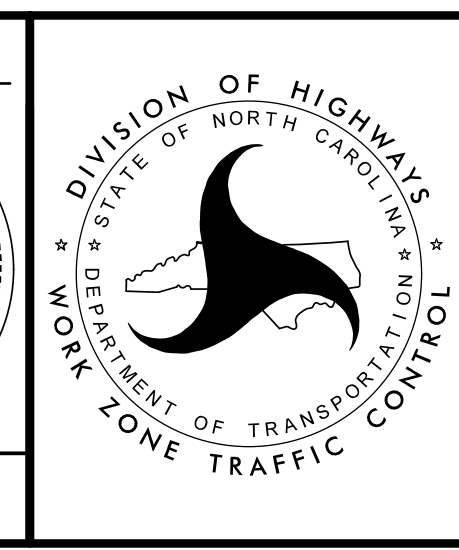
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APPROVED:    
DocuSigned by: Jimmy Terry  
FD39F8882E84D0

DATE: 7/27/2022

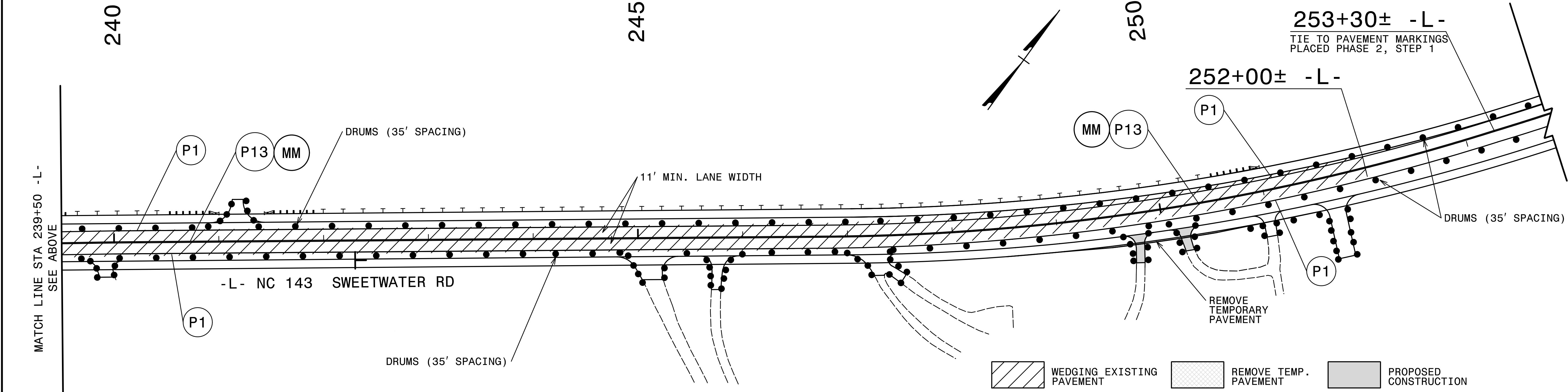
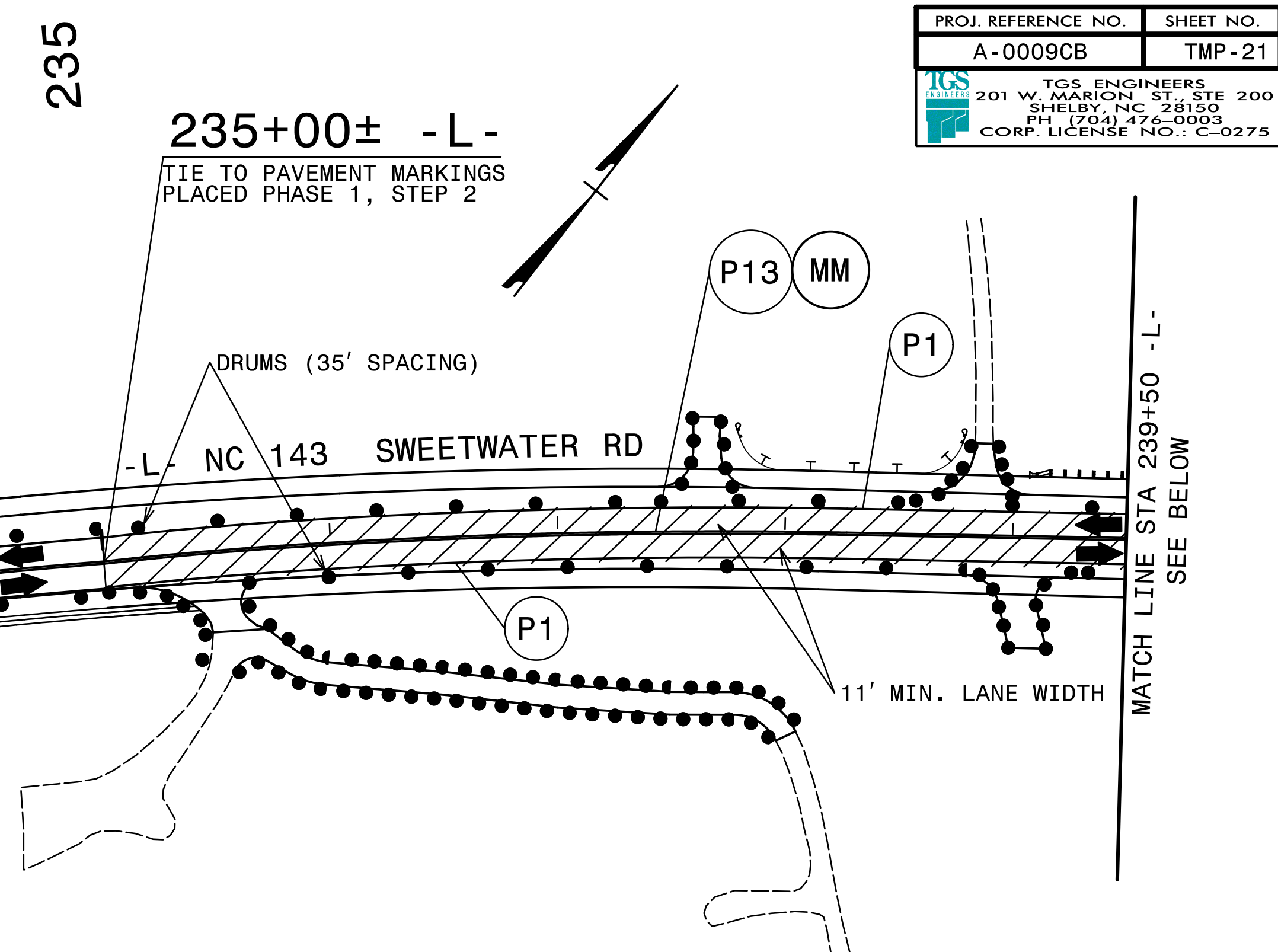
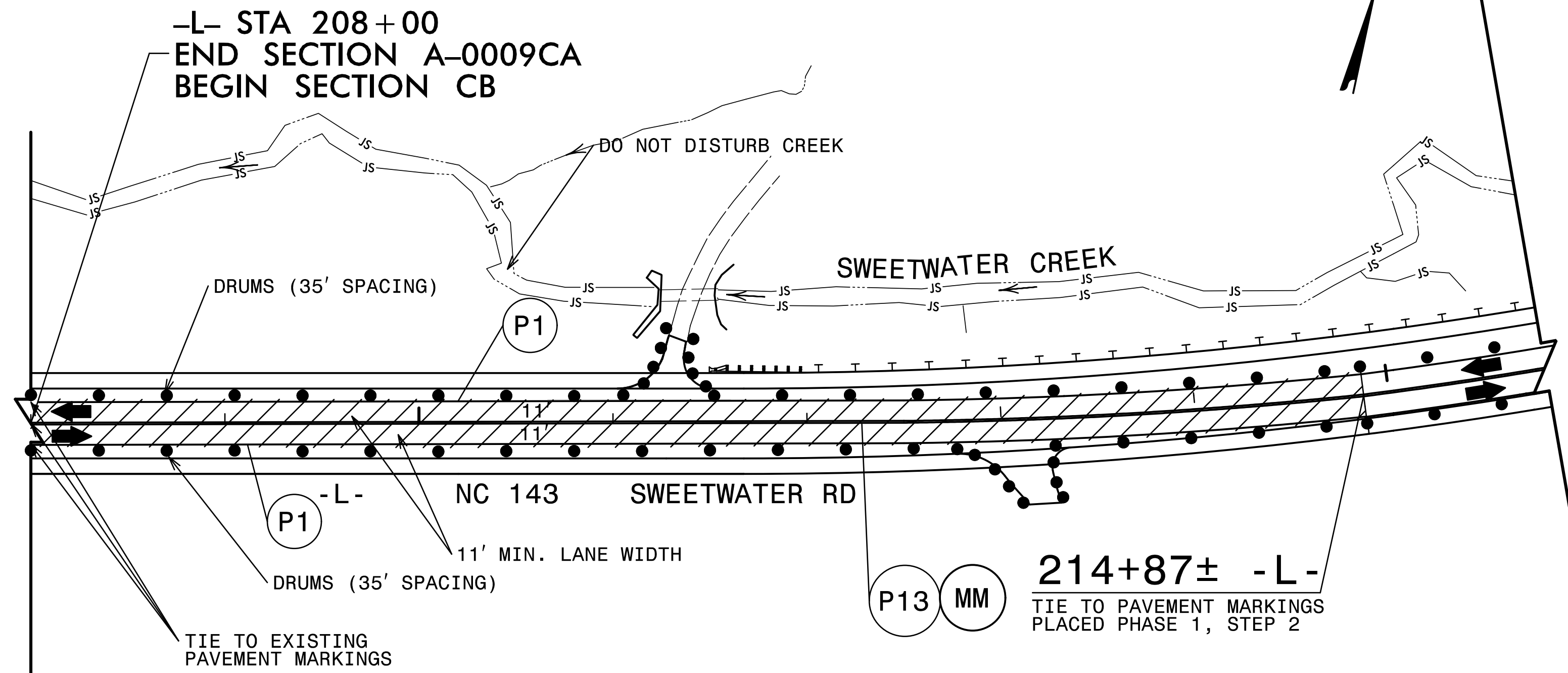





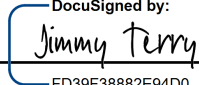

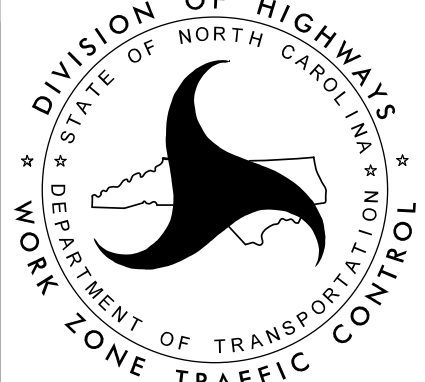
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



**PHASE II**  
**NC 143**

**PHASE 2, STEP 2** 210

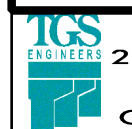


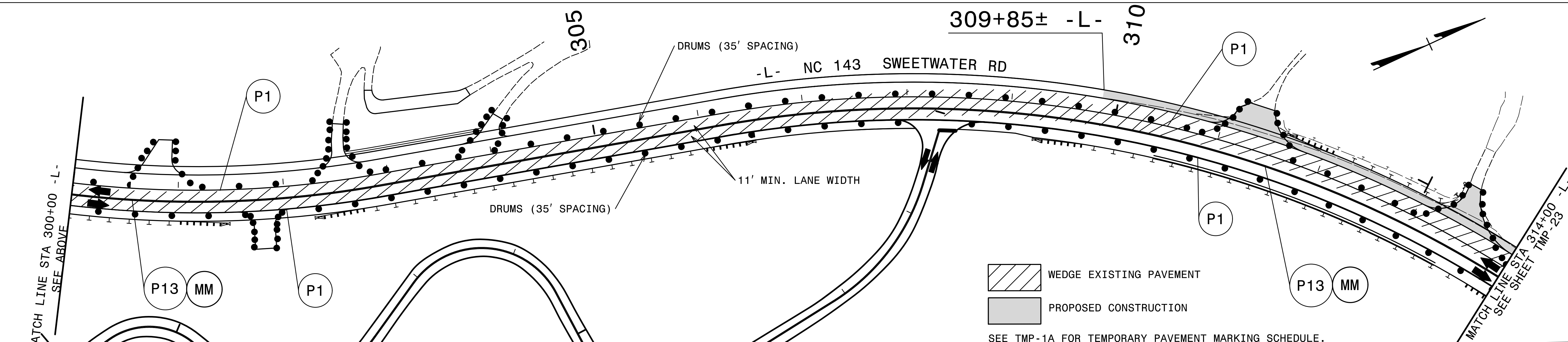
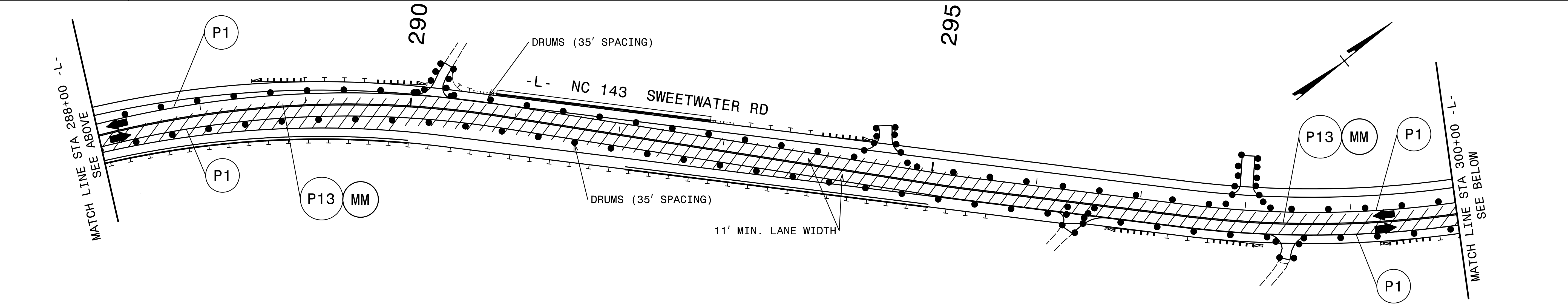
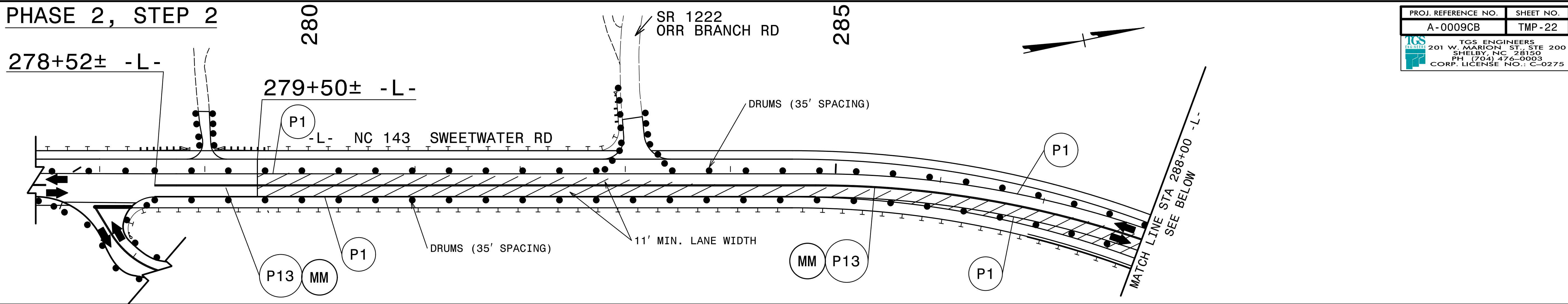
 WEDGING EXISTING PAVEMENT	 REMOVE TEMP. PAVEMENT	 PROPOSED CONSTRUCTION
APPROVED:  DATE: 7/27/2022 SEAL		
<p><b>PHASE II</b> <b>NC 143</b></p>		
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		

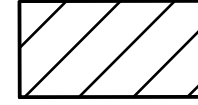

SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE

6/29/2022  
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 User: jsmelvin

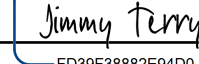
# PHASE 2, STEP 2

PROJ. REFERENCE NO. A-0009CB	SHEET NO. TMP-22
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



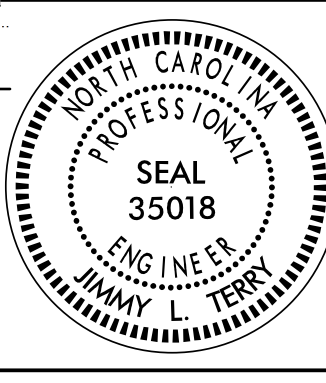
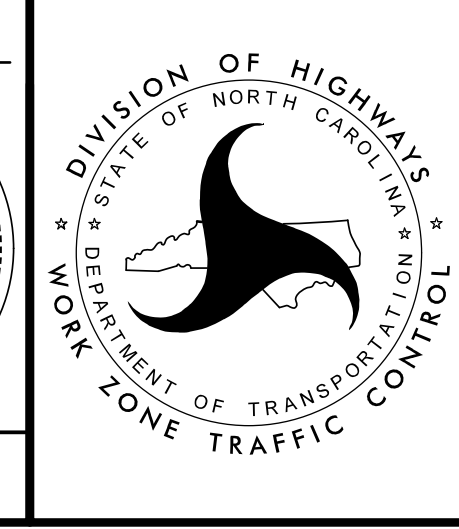
-  WEDGE EXISTING PAVEMENT
-  PROPOSED CONSTRUCTION

SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

APPROVED:   
DocuSigned by: Jimmy Terry  
FD39F8882E84D0

DATE: 7/27/2022

SEAL





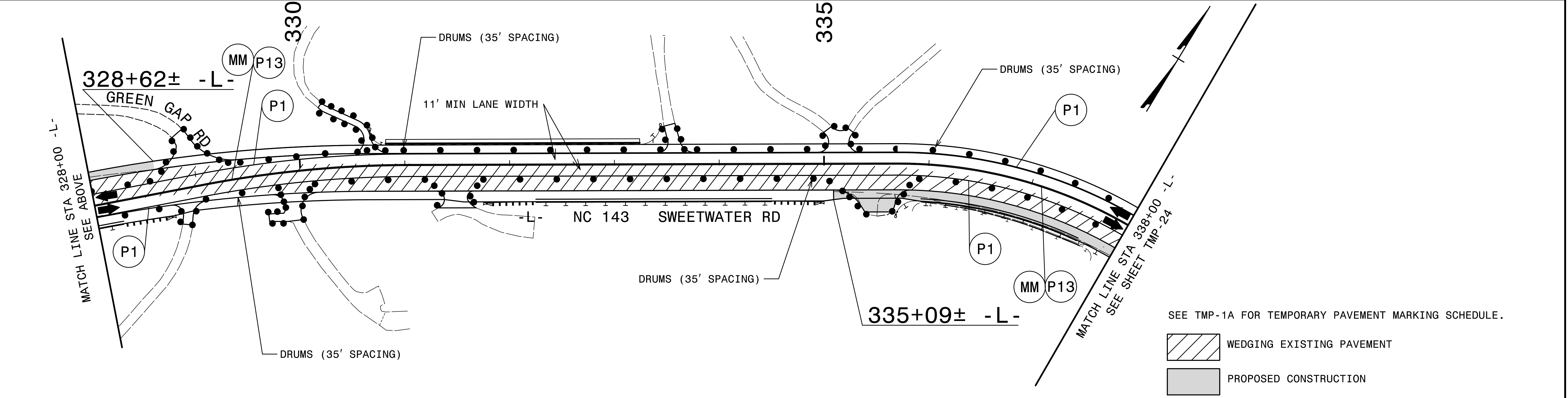
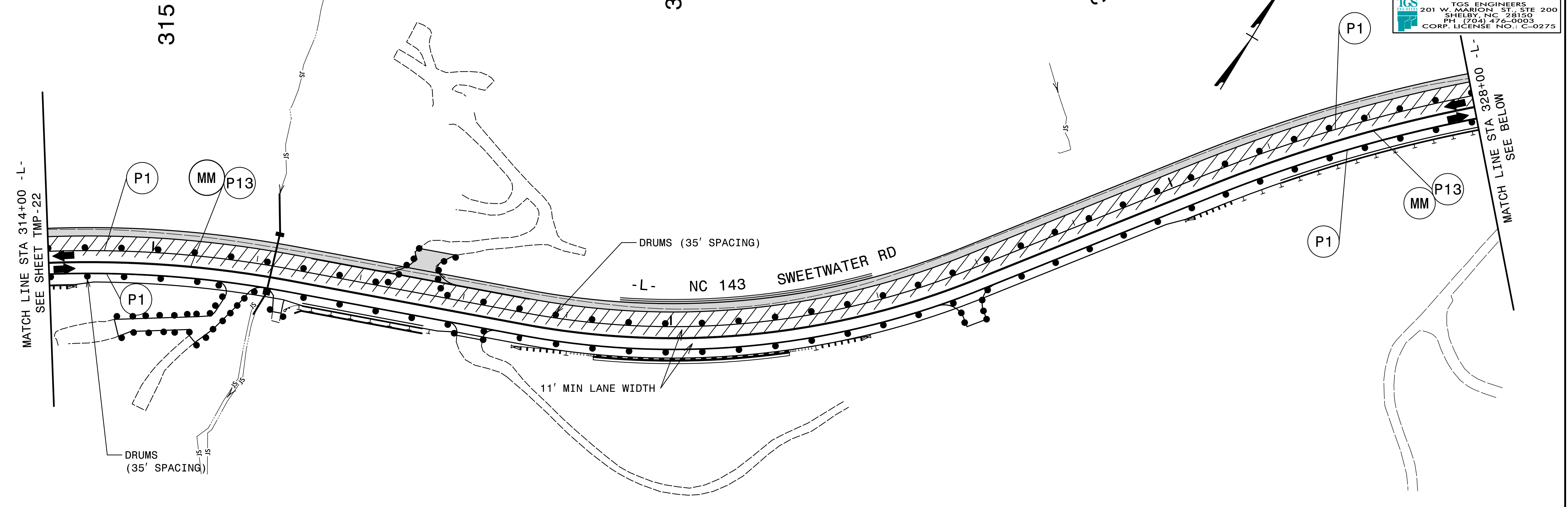
## PHASE II

### NC 143



6/29/2022  
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 User: jsmelvin

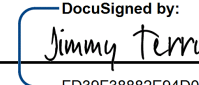
# PHASE 2, STEP 2

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-23
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH: (704) 476-0003 CORP. LICENSE NO.: C-0275	

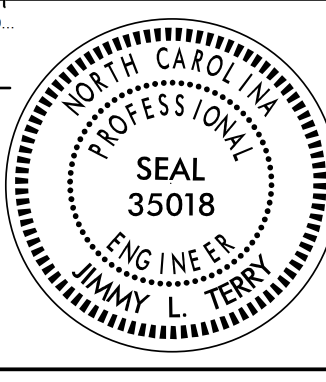


SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

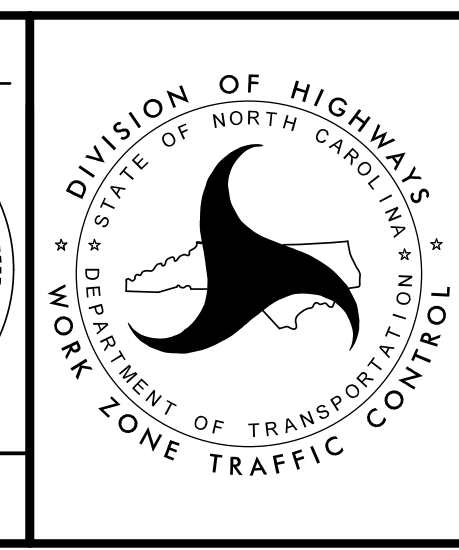
-  WEDGING EXISTING PAVEMENT
-  PROPOSED CONSTRUCTION

APPROVED:   
 DATE: 7/27/2022

SEAL



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




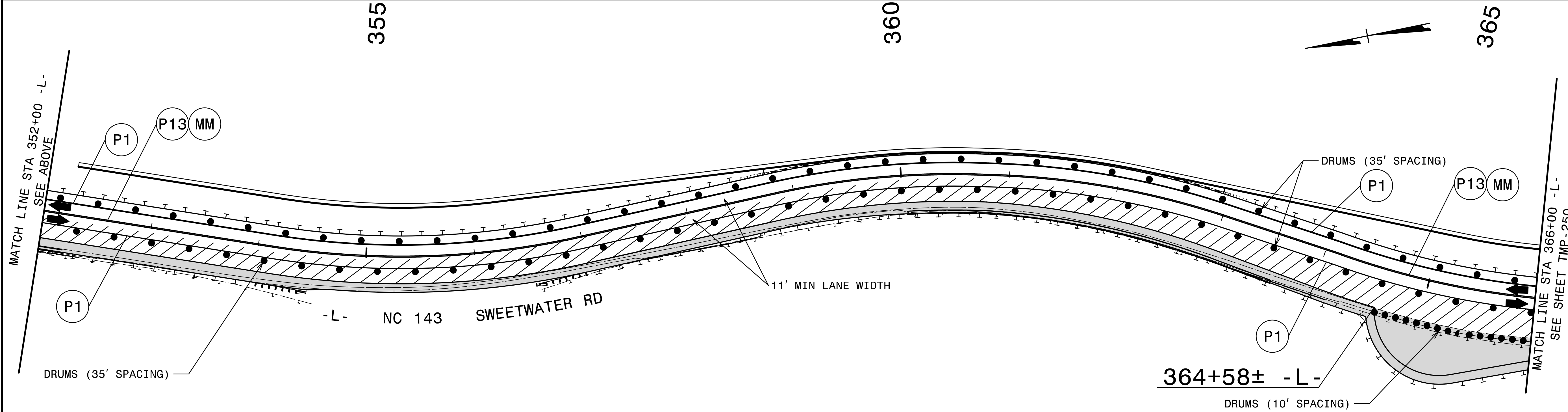
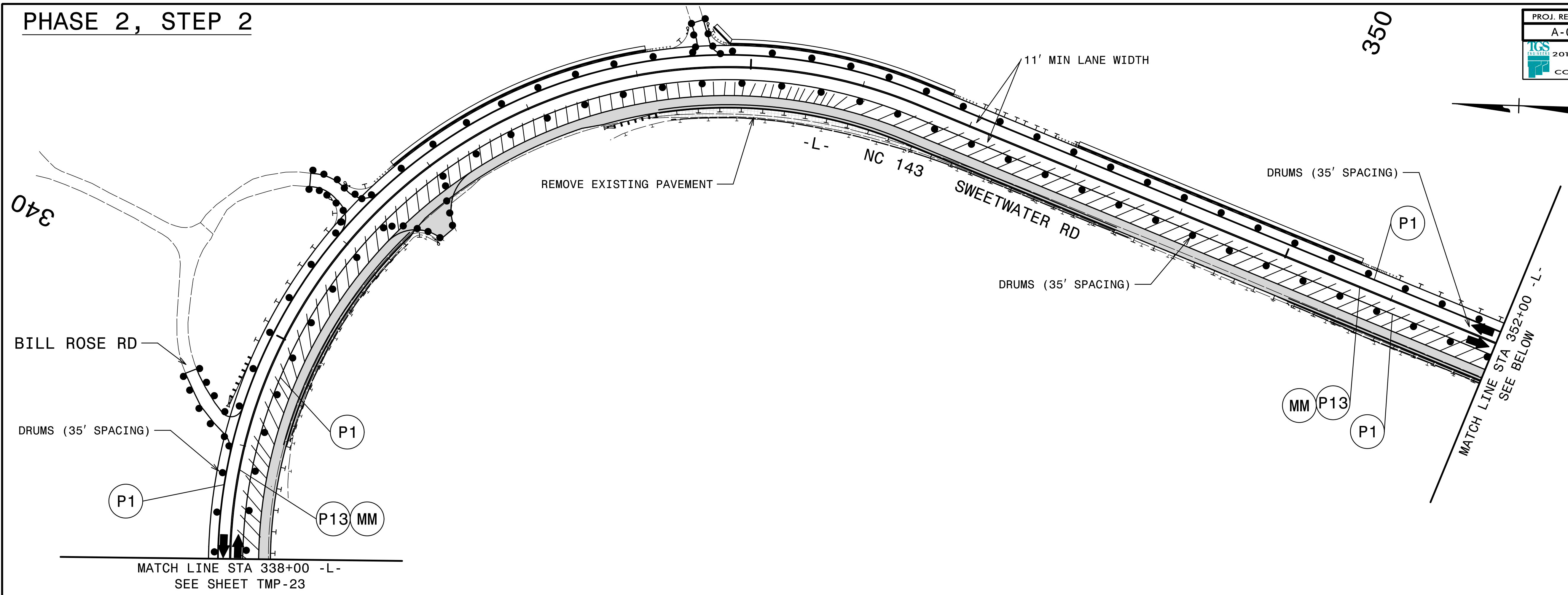
## PHASE II

### NC 143




6/29/2022  
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 User: jsmelvin

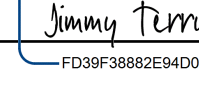
# PHASE 2, STEP 2

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-24
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 474-0003 CORP. LICENSE NO.: C-0275	



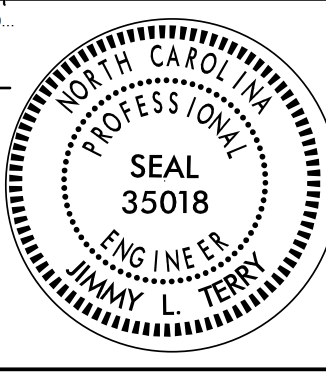
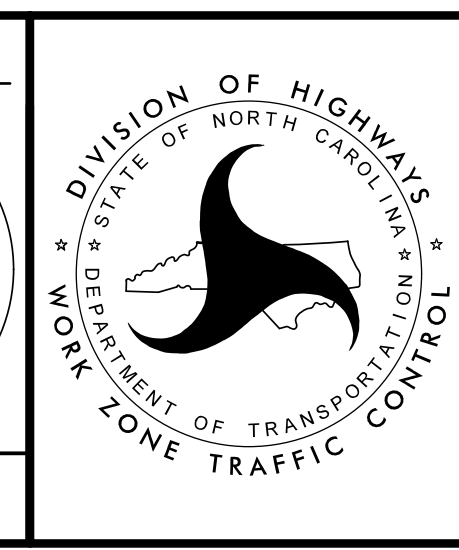
SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

-  REMOVE EXISTING PAVEMENT
-  WEDGING EXISTING PAVEMENT
-  PROPOSED CONSTRUCTION

APPROVED:   
DocuSigned by: Jimmy Terry  
FD39F3882E84DD

DATE: 7/27/2022

SEAL

## PHASE II

### NC 143

6/29/2022  
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 User: jsmelin

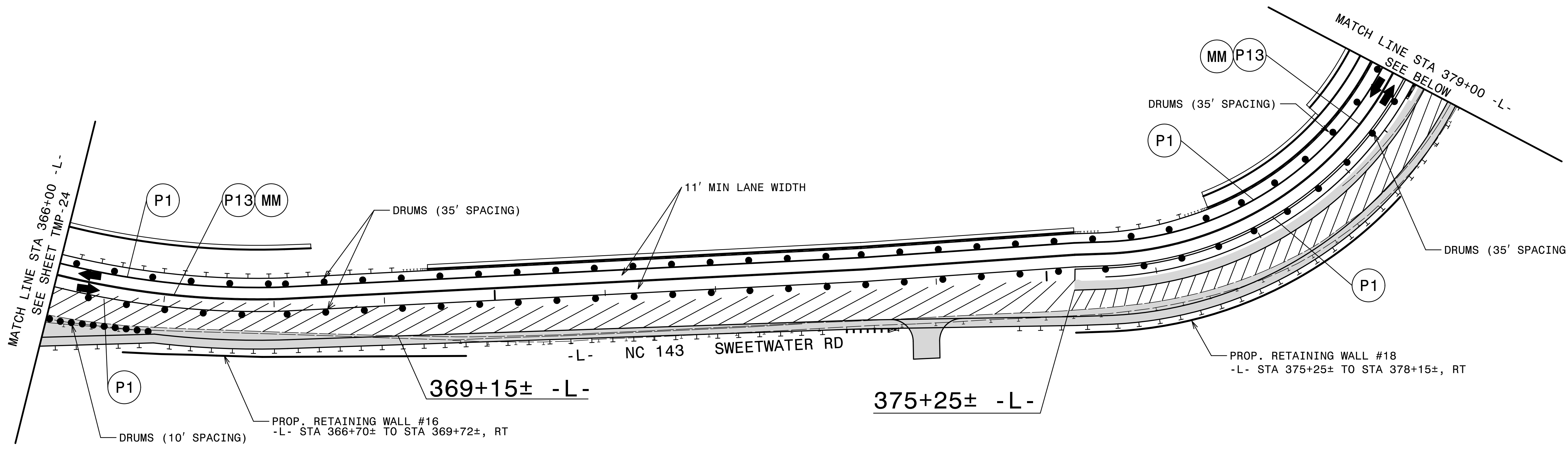
PHASE 2, STEP 2

370

375

PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-25

TGS ENGINEERS  
201 W. MARION ST. STE 200  
SHELBY, NC 28150  
PH (704) 476-0003  
CORP. LICENSE NO.: C-0275



THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT STAGE 2 OF LANDBRIDGE OVER NC 143, RETAINING WALL #19C & RETAINING WALL #42 (PHASE II, STEP 2) IN 330 CONSECUTIVE CALENDAR DAYS.

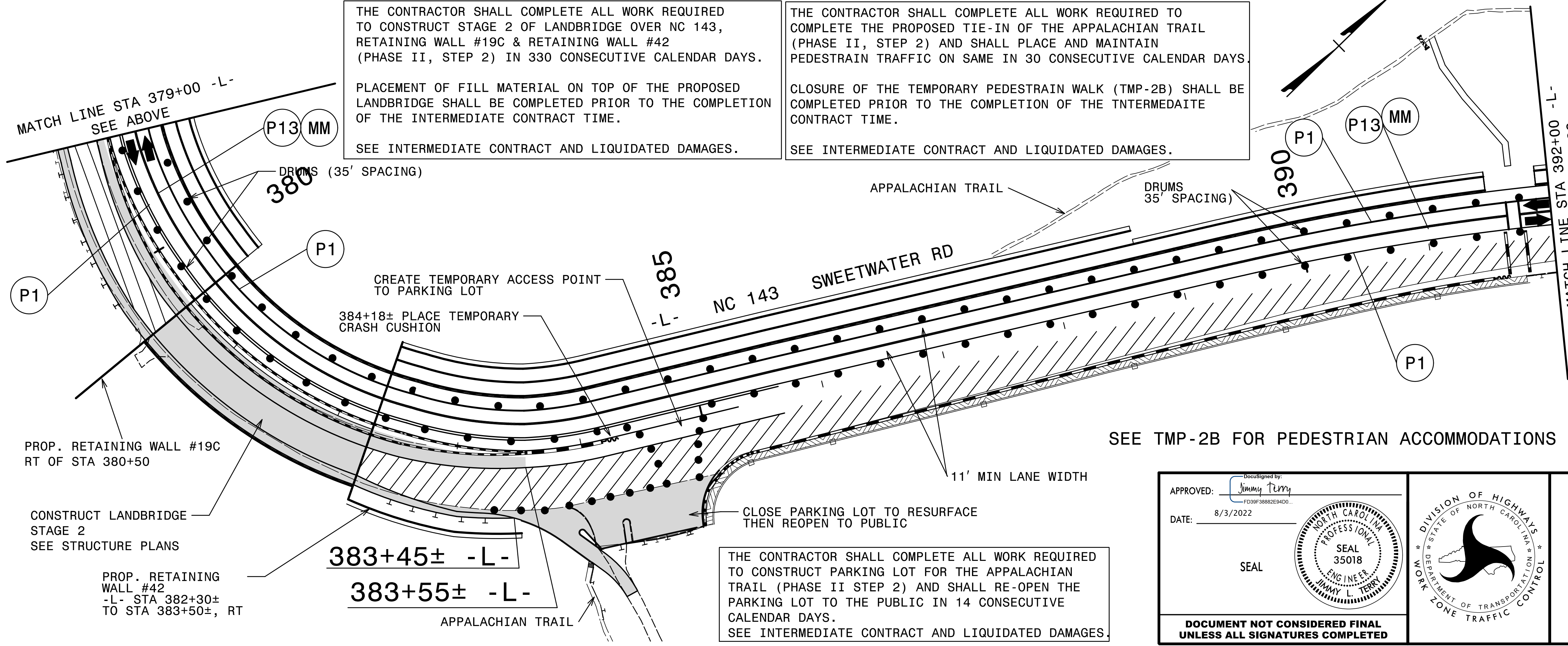
PLACEMENT OF FILL MATERIAL ON TOP OF THE PROPOSED LANDBRIDGE SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THE INTERMEDIATE CONTRACT TIME.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO COMPLETE THE PROPOSED TIE-IN OF THE APPALACHIAN TRAIL (PHASE II, STEP 2) AND SHALL PLACE AND MAINTAIN PEDESTRAIN TRAFFIC ON SAME IN 30 CONSECUTIVE CALENDAR DAYS.

CLOSURE OF THE TEMPORARY PEDESTRAIN WALK (TMP-2B) SHALL BE COMPLETED PRIOR TO THE COMPLETION OF THE INTERMEDIATE CONTRACT TIME.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.



SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.

PROPOSED CONSTRUCTION  
 WEDGING EXISTING PAVEMENT

PROP. RETAINING WALL #19C RT OF STA 380+50

CONSTRUCT LANDBRIDGE STAGE 2 SEE STRUCTURE PLANS

PROP. RETAINING WALL #42 -L- STA 382+30± TO STA 383+50±, RT

CLOSE PARKING LOT TO RESURFACE THEN REOPEN TO PUBLIC

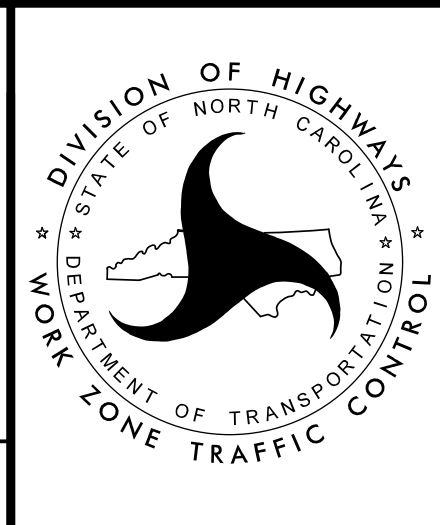
THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED TO CONSTRUCT PARKING LOT FOR THE APPALACHIAN TRAIL (PHASE II STEP 2) AND SHALL RE-OPEN THE PARKING LOT TO THE PUBLIC IN 14 CONSECUTIVE CALENDAR DAYS.

SEE INTERMEDIATE CONTRACT AND LIQUIDATED DAMAGES.

SEE TMP-2B FOR PEDESTRIAN ACCOMMODATIONS

APPROVED:   
DATE: 8/3/2022


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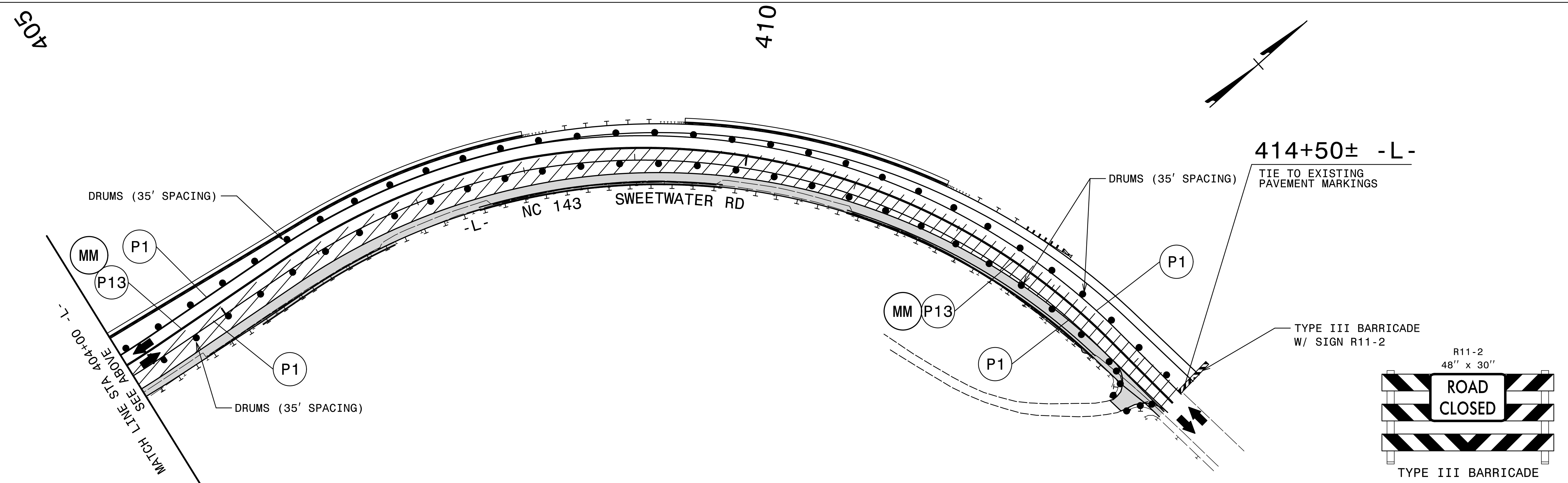
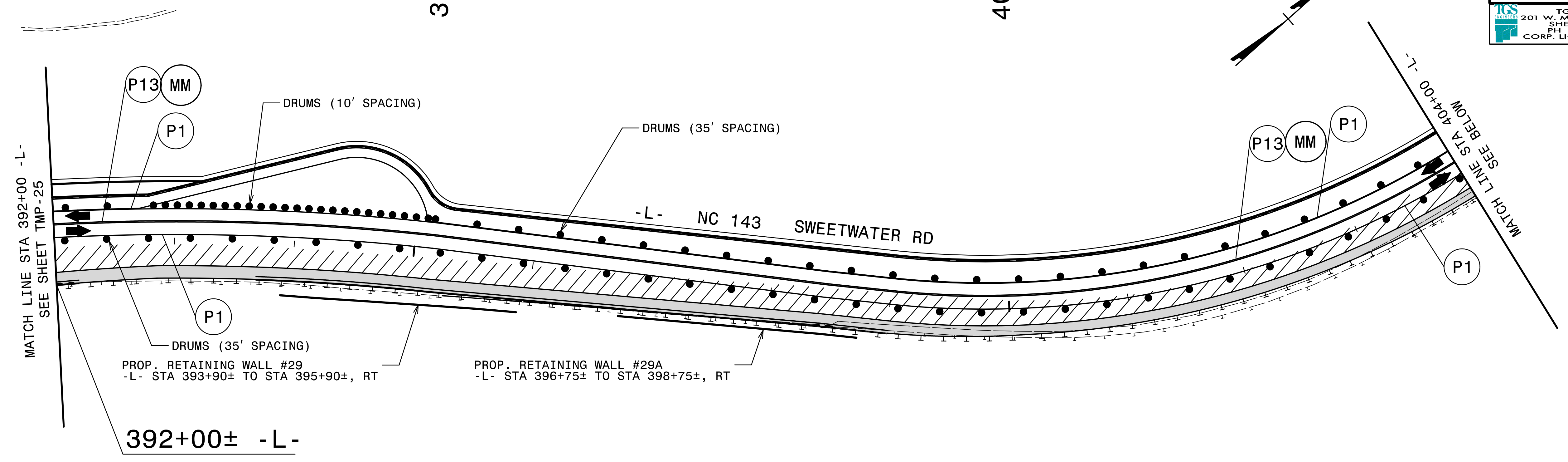


PHASE II  
NC 143

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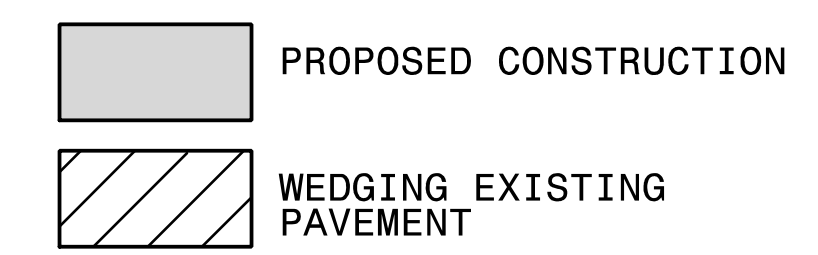
# PHASE 2, STEP 2

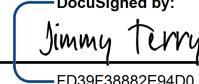
PROJ. REFERENCE NO.	SHEET NO.
A-0009CB	TMP-26
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



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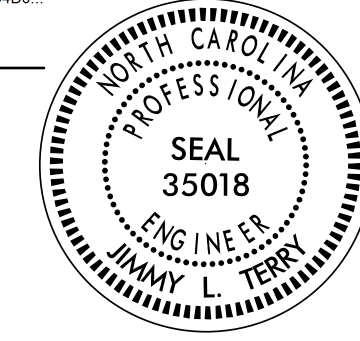
SEE TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE.



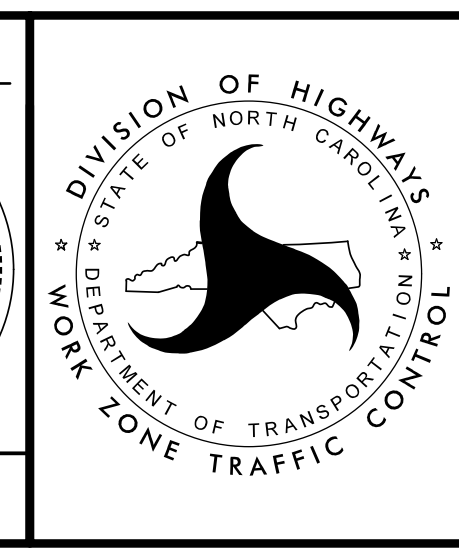
APPROVED:    
Discussed by: Jimmy Terry F039F8882E94D0

DATE: 7/27/2022

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## PHASE II

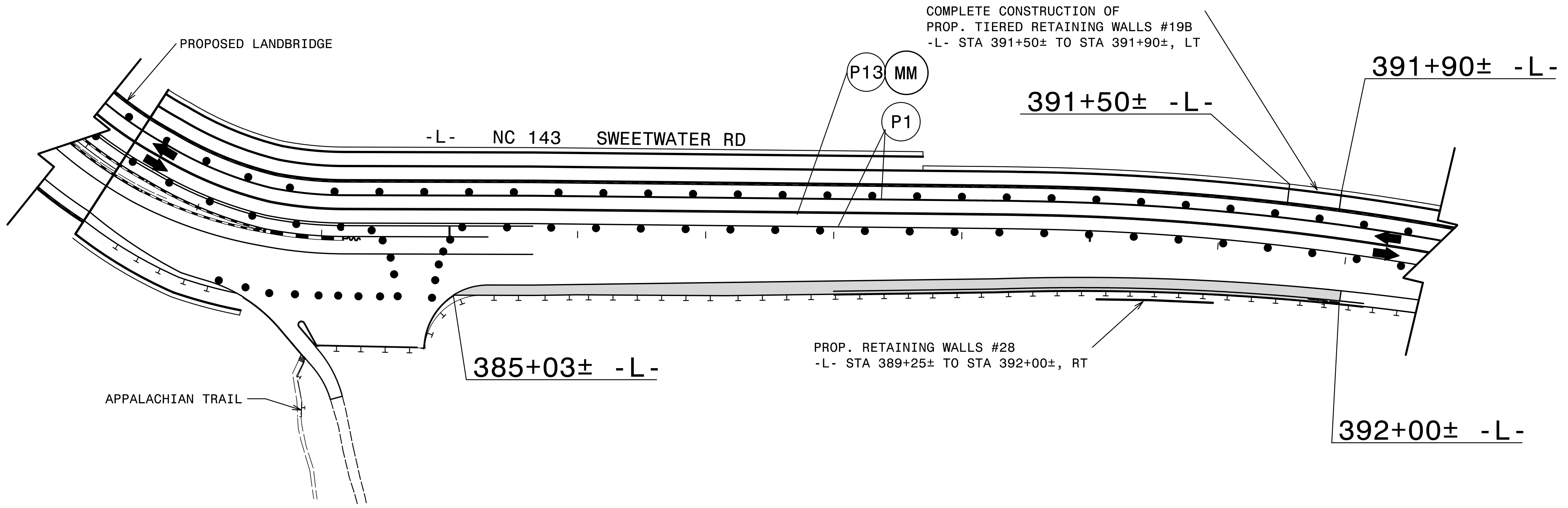
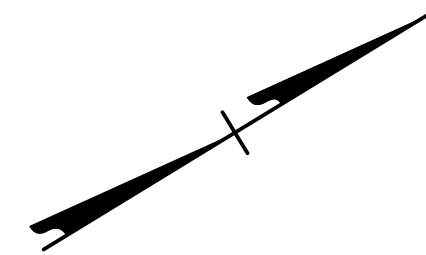
### NC 143

# PHASE 2, STEP 3

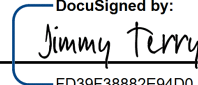
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PROJ. REFERENCE NO. A-0009CB	SHEET NO. TMP-27
 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

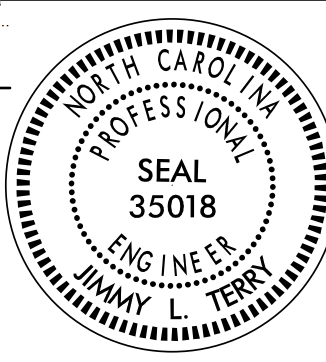
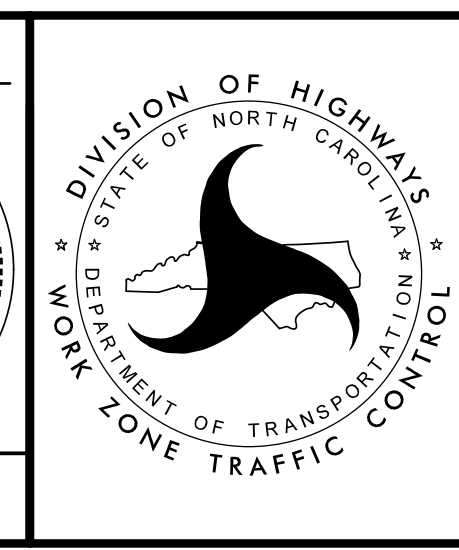


 PROPOSED CONSTRUCTION

APPROVED:   
DocuSigned by: Jimmy Terry  
FD39F8882E84D0

DATE: 7/27/2022

SEAL





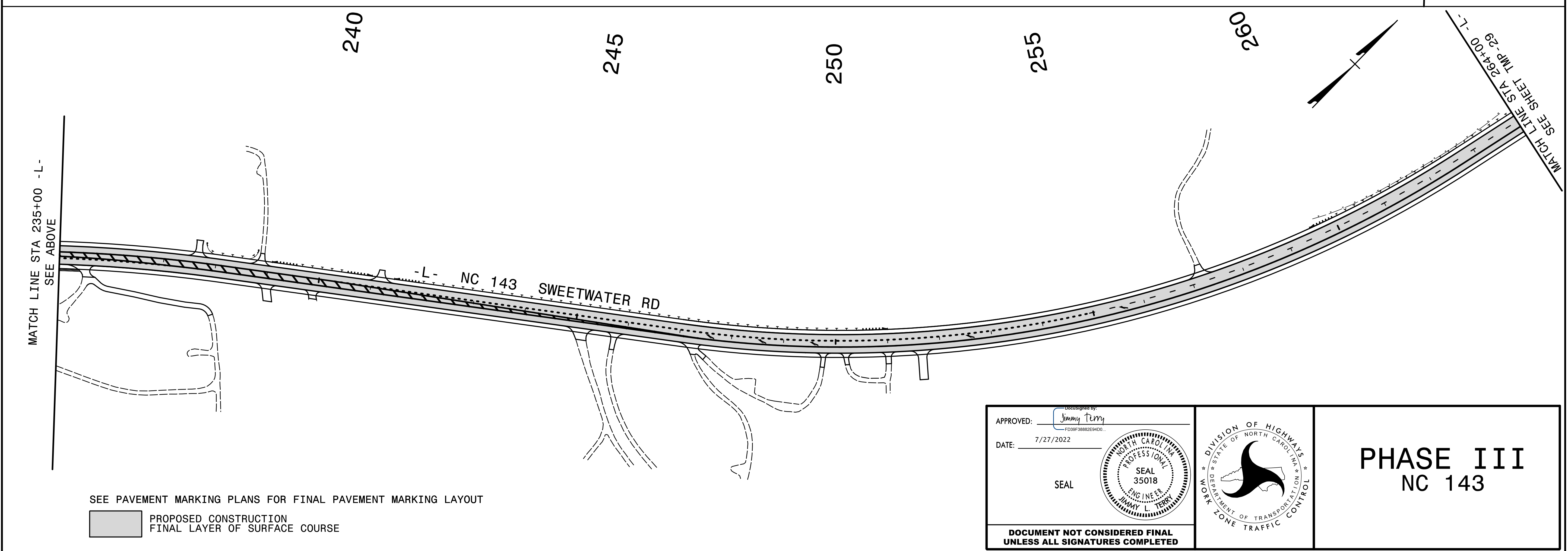
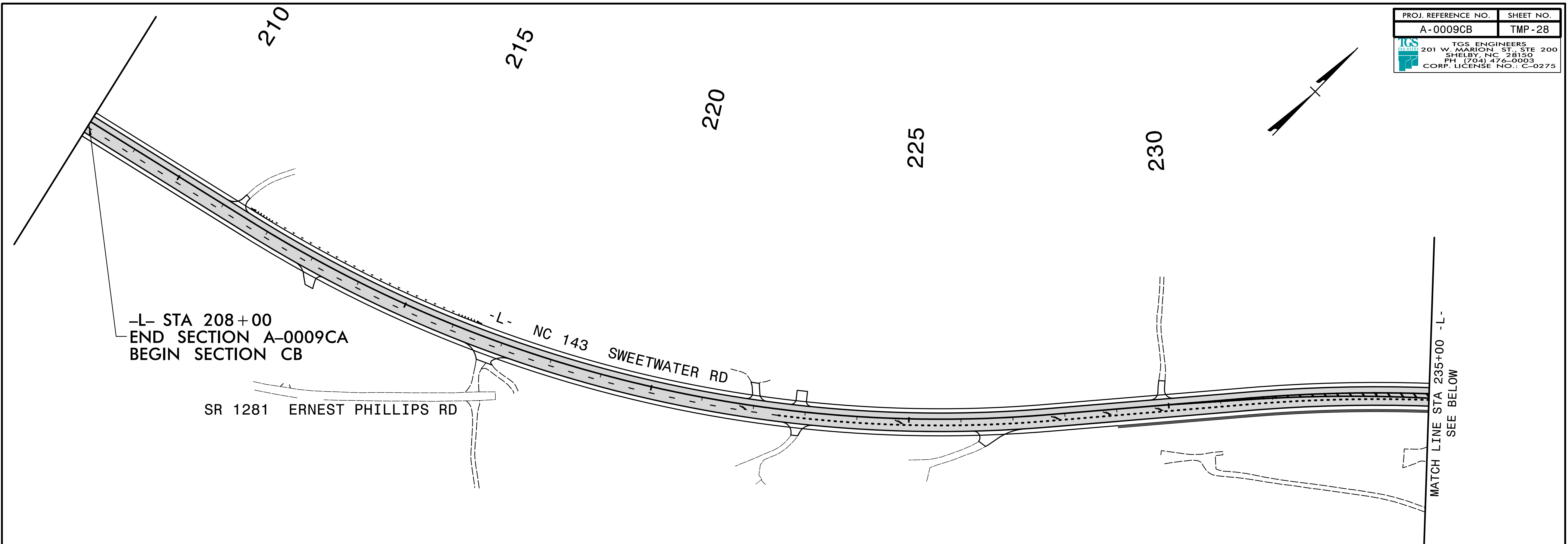
**PHASE II**  
**NC 143**

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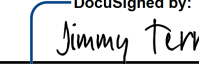


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 <b>TGS ENGINEERS</b> 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



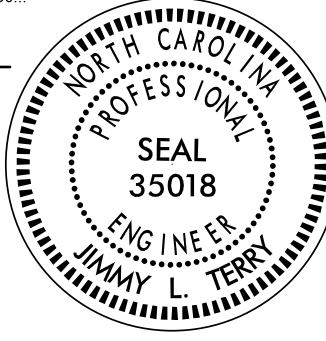
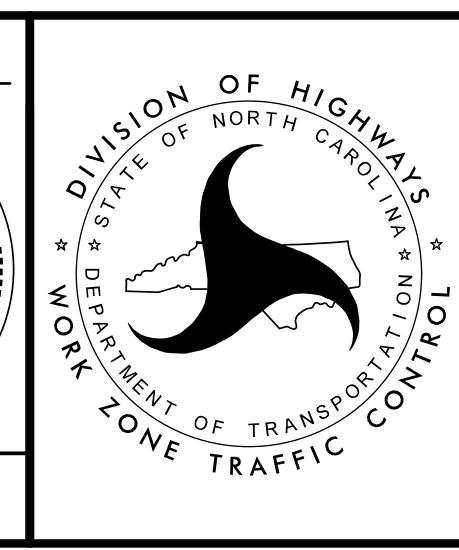
SEE PAVEMENT MARKING PLANS FOR FINAL PAVEMENT MARKING LAYOUT

 PROPOSED CONSTRUCTION  
FINAL LAYER OF SURFACE COURSE

APPROVED:   
DESIGNED BY:  
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DATE: 7/27/2022


SEAL

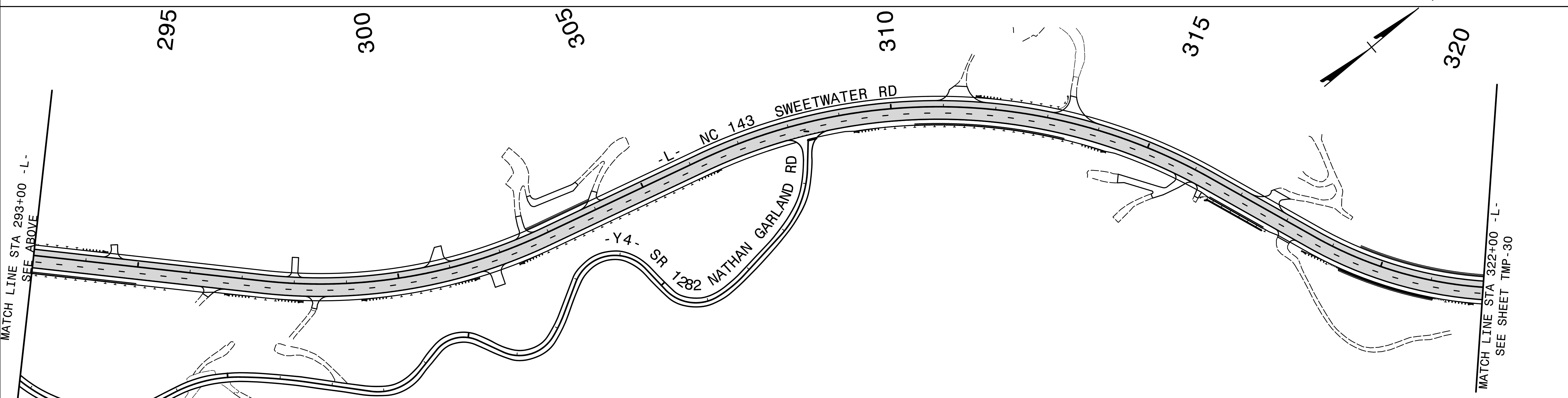
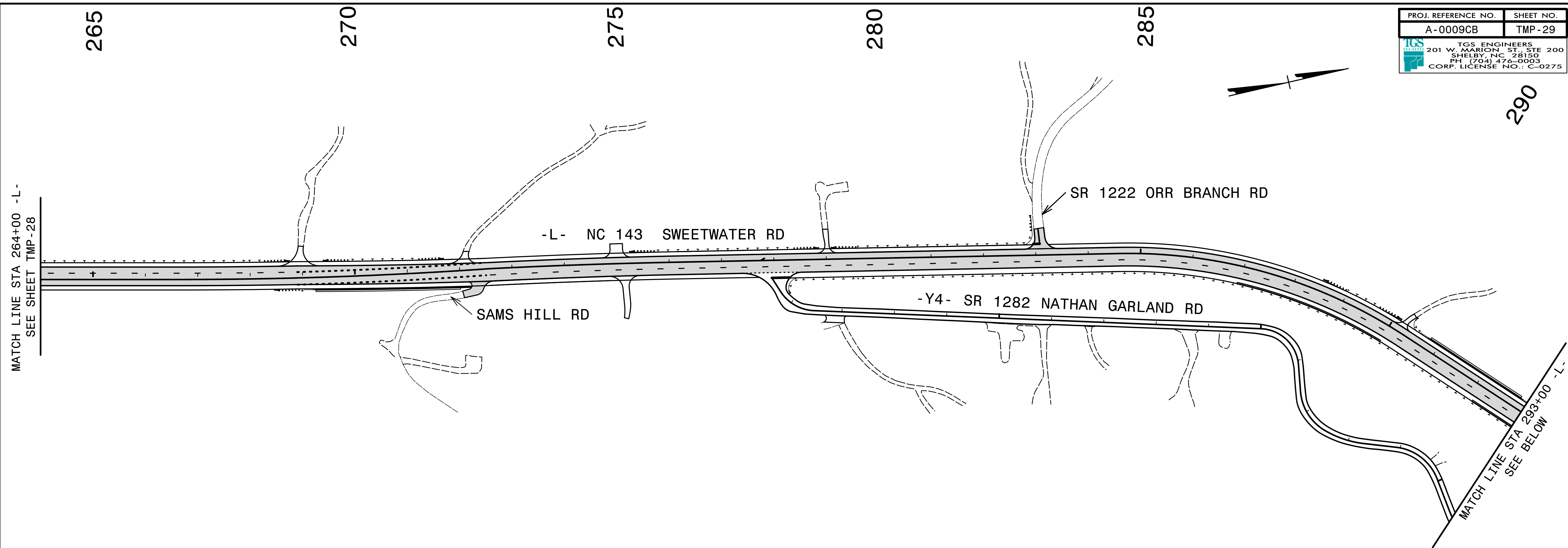



**PHASE III**  
NC 143

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5/27/2022  
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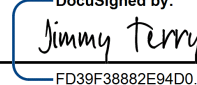
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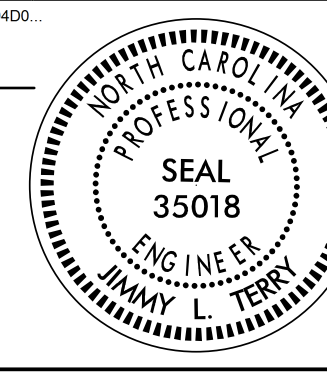
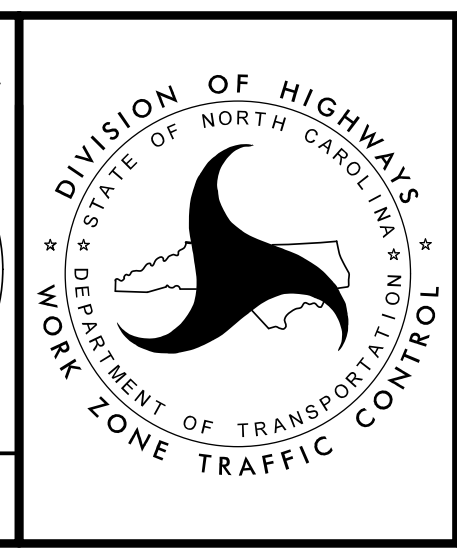
SEE PAVEMENT MARKING PLANS FOR FINAL PAVEMENT MARKING LAYOUT

 PROPOSED CONSTRUCTION  
 FINAL LAYER OF SURFACE COURSE

APPROVED:   
DESIGNED BY  
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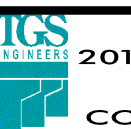
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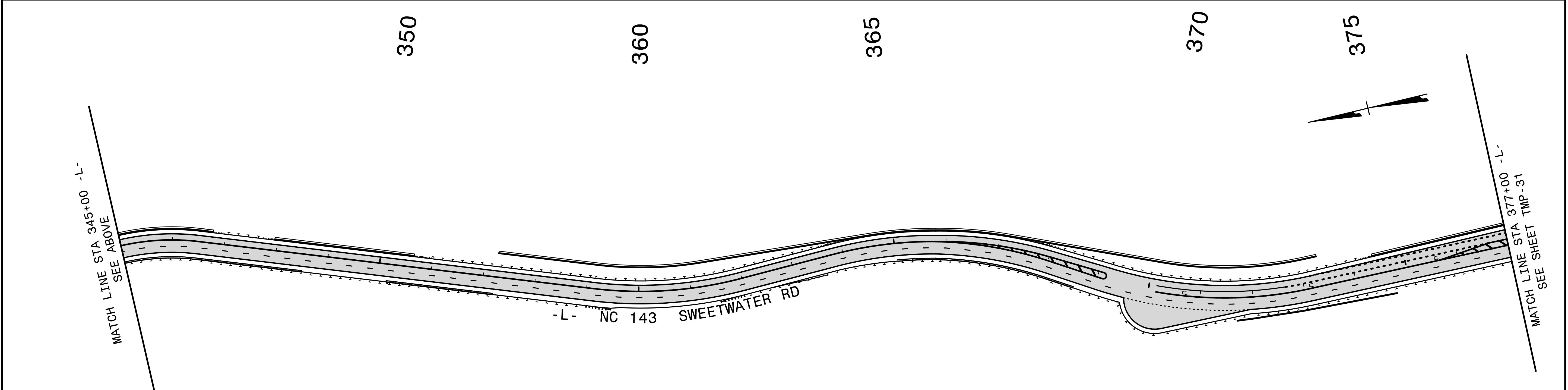
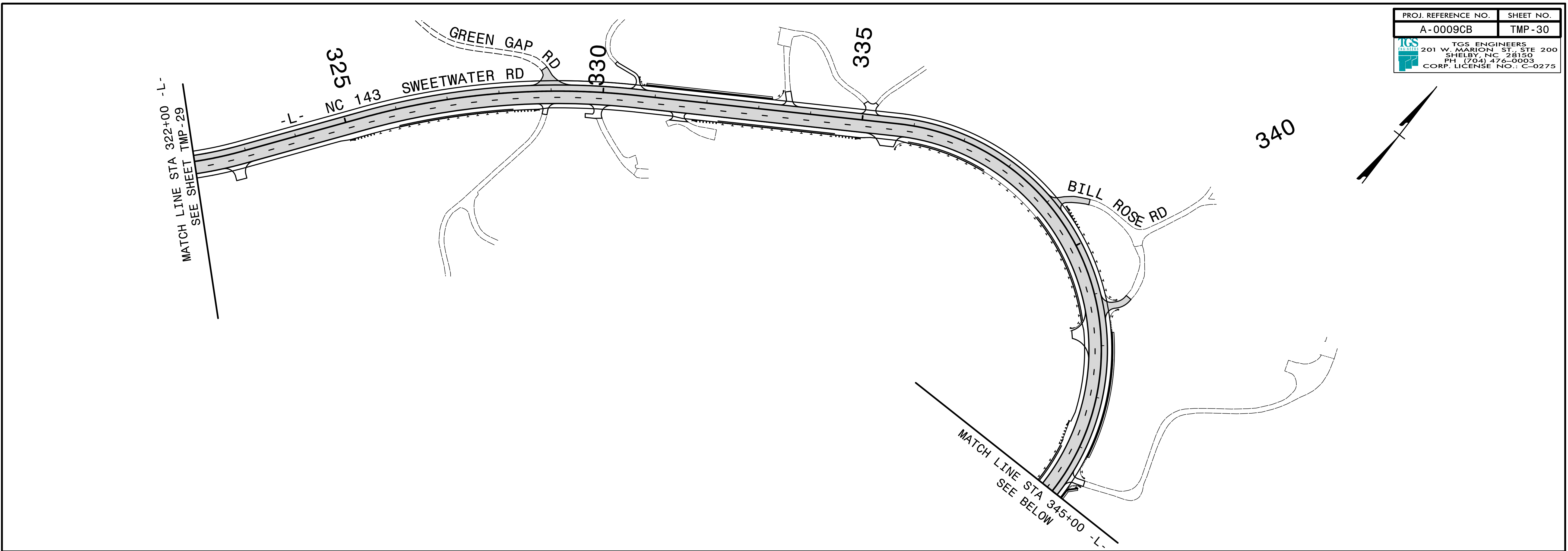
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**PHASE III**  
**NC 143**

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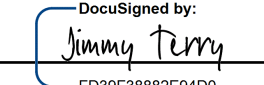
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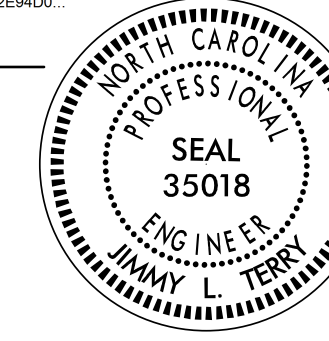
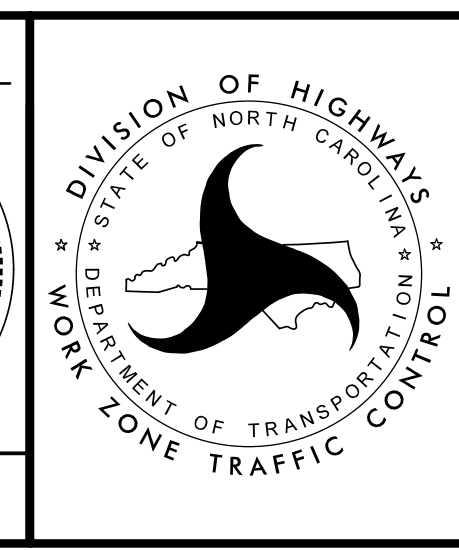
SEE PAVEMENT MARKING PLANS FOR FINAL PAVEMENT MARKING LAYOUT

PROPOSED CONSTRUCTION  
 FINAL LAYER OF SURFACE COURSE

APPROVED:   
DocuSigned by: Jimmy Terry  
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DATE: 7/27/2022


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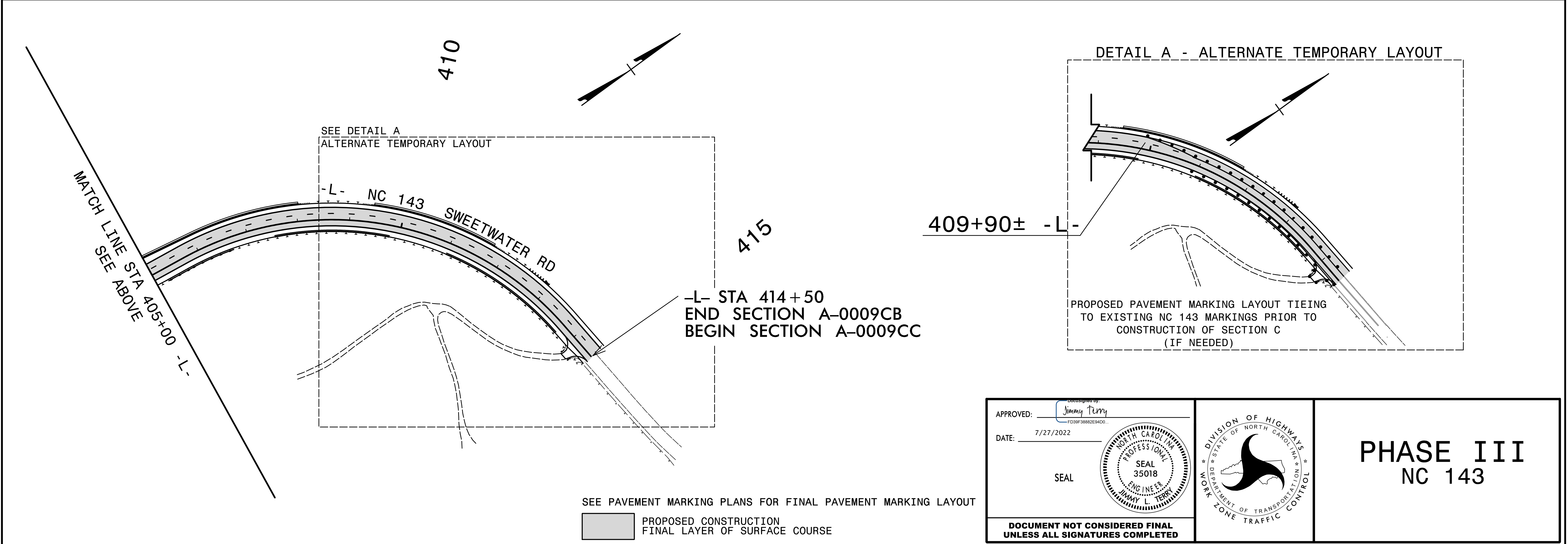
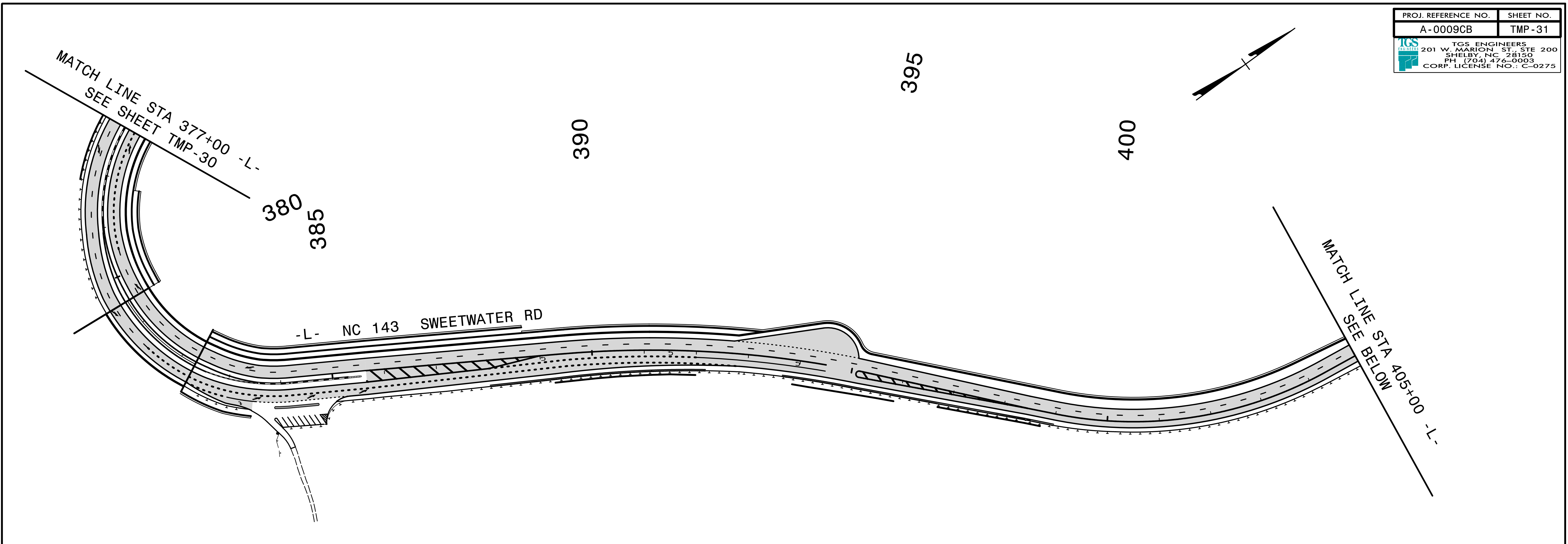



PHASE III

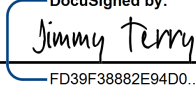
NC 143

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PROJ. REFERENCE NO.	SHEET NO.
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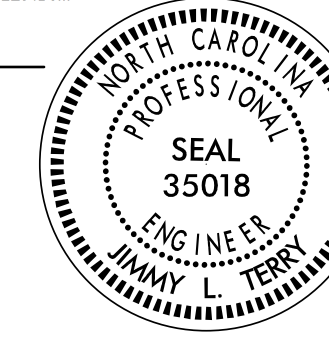
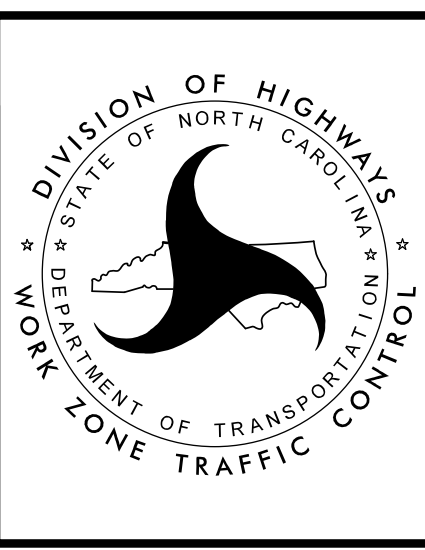


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DATE: 7/27/2022

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**PHASE III**  
**NC 143**

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