This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

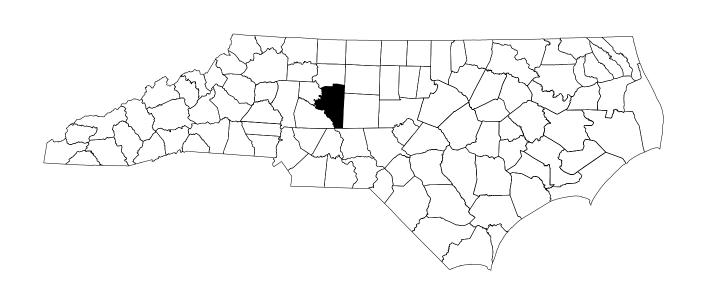
The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.

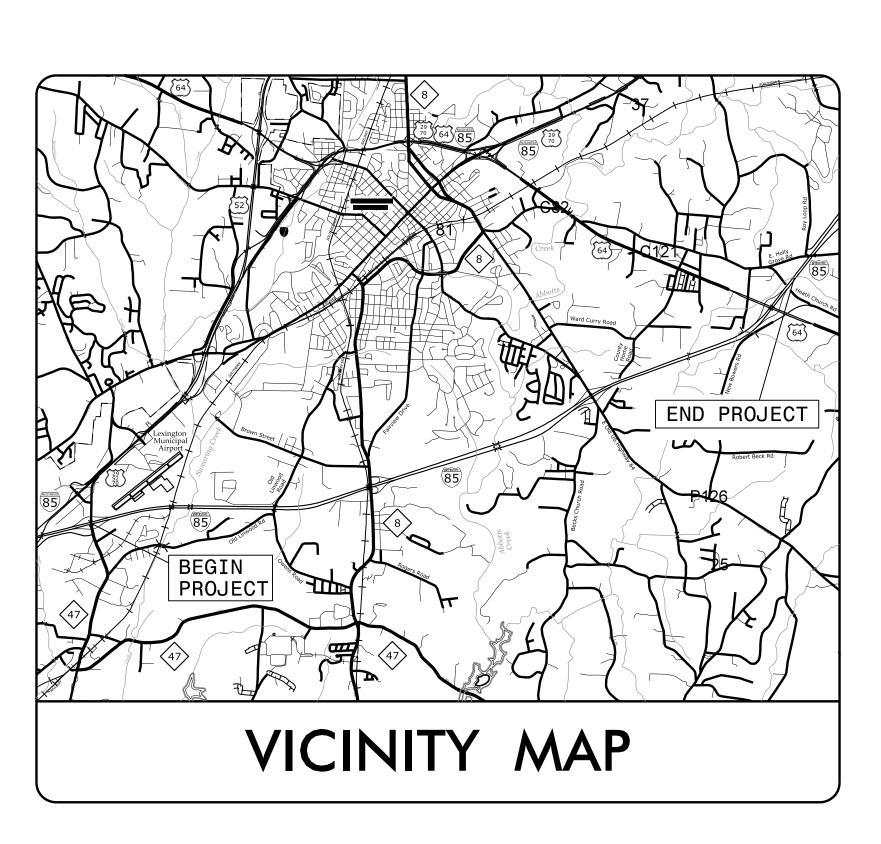
This file or an individual page shall not be considered a certified document.

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

DAVIDSON COUNTY





WORK ZONE SAFETY & MOBILITY

"from the MOUNTAINS to the COAST"

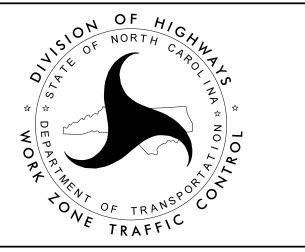
PLANS PREPARED BY:

TODD BROOKS, PE PROJECT ENGINEER

ABRAHAM WILES PROJECT DESIGN ENGINEER NCDOT CONTACTS:

KEN THORNEWELL JR, PE PROJECT ENGINEER

JUSTIN BEAVER, PE PROJECT DESIGN ENGINEER



INDEX OF SHEETS

SHEET NO. TITLE

TITLE SHEET, VICINITY MAP, AND INDEX OF

TMP - 1

TMP - 18

TMP-1A LIST OF APPLICABLE ROADWAY STANDARD

DRAWINGS AND LEGEND

TMP-1B TEMPORARY LANE CLOSURES - DIVIDED MULTI-LANE

ROADWAY - 1 LANE CLOSED

TEMPORARY LANE CLOSURES - DIVIDED MULTI-LANE TMP-1C ROADWAYS - 2 LANES CLOSED

TMP-2 THRU TMP-2B TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES)

TMP-3 THRU TMP-3B TEMPORARY TRAFFIC CONTROL PHASING

TMP-4 THRU TMP-6 PROJECT OVERVIEW SHEETS

DETAIL SHEETS FOR REGRADING I-85 SB TMP-7 THRU TMP-8

SHOULDER AT NC 47

TMP-9 THRU TMP-11 DETAIL SHEETS FOR THE THREE SLAB

REPLACEMENTS NEAR M.P. 88.31

TMP-12 DETAIL SHEET FOR CONSTRUCTION OF FULL DEPTH SHOULDER WITH SHOULDER BERM GUTTER

SB M.P. 89.29 TO 89.24 & SB M.P. 89.18

TO 89.12

TMP-13 THRU TMP-13D NC 8 DETAIL SHEETS

TMP-14 THRU TMP-17 DETAIL SHEETS FOR CONSTRUCTION OF

FULL DEPTH SHOULDER WITH SHOULDER BERM GUTTER NB M.P. 91.52 TO 91.69

DETAIL SHEET FOR SLAB REPLACEMENT NEAR M.P. 92.54

TMP-19 THRU TMP-25 DETAIL SHEETS FOR THE THREE SLAB

REPLACEMENTS NEAR M.P. 96.11

TMP-26 THRU TMP-34 DETOUR ROUTES

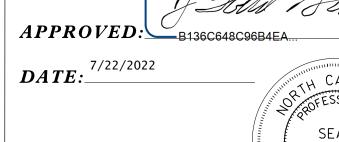
SHEET NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PLAN PREPARED FOR N.C.D.O.T. BY:



2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929



SEAL

PROJ. REFERENCE NO. SHEET NO. I - 5950 TMP - 1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO. TITLE

1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES - TYPE III
1160.01	TEMPORARY CRASH CUSHION - REFLECTIVE END TREATMENT
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 MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

----- EXIST. PVMT.

NORTH ARROW

PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

PAVEMENT MARKINGS

----- EXISTING AND TEMPORARY LINES

TEMPORARY PAVEMENT MARKING

(P20)	WHITE EDGELINE	PAINT (6"

P23 3 FT. - 9 FT./SP WHITE MINISKIP PAINT (6")

(P50) WHITE GORELINE PAINT (12")

PAVEMENT MARKING SYMBOLS AND CHARACTERS

P79 PAINT MERGE ARROW PAINT

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

C ~ C

DRUM WITH SEQUENTIAL FLASHING WARNING LIGHTS

DRUM SKINNY DRUM TUBULAR MARKER

→ TEMPORARY CRASH CUSHION

TEMI CHART CHASH COSHION

FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

├─ STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED

◆ YELLOW/YELLOW

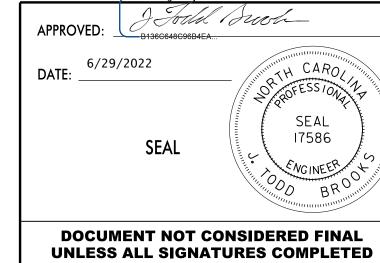
•

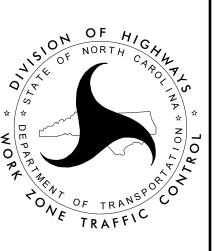
PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

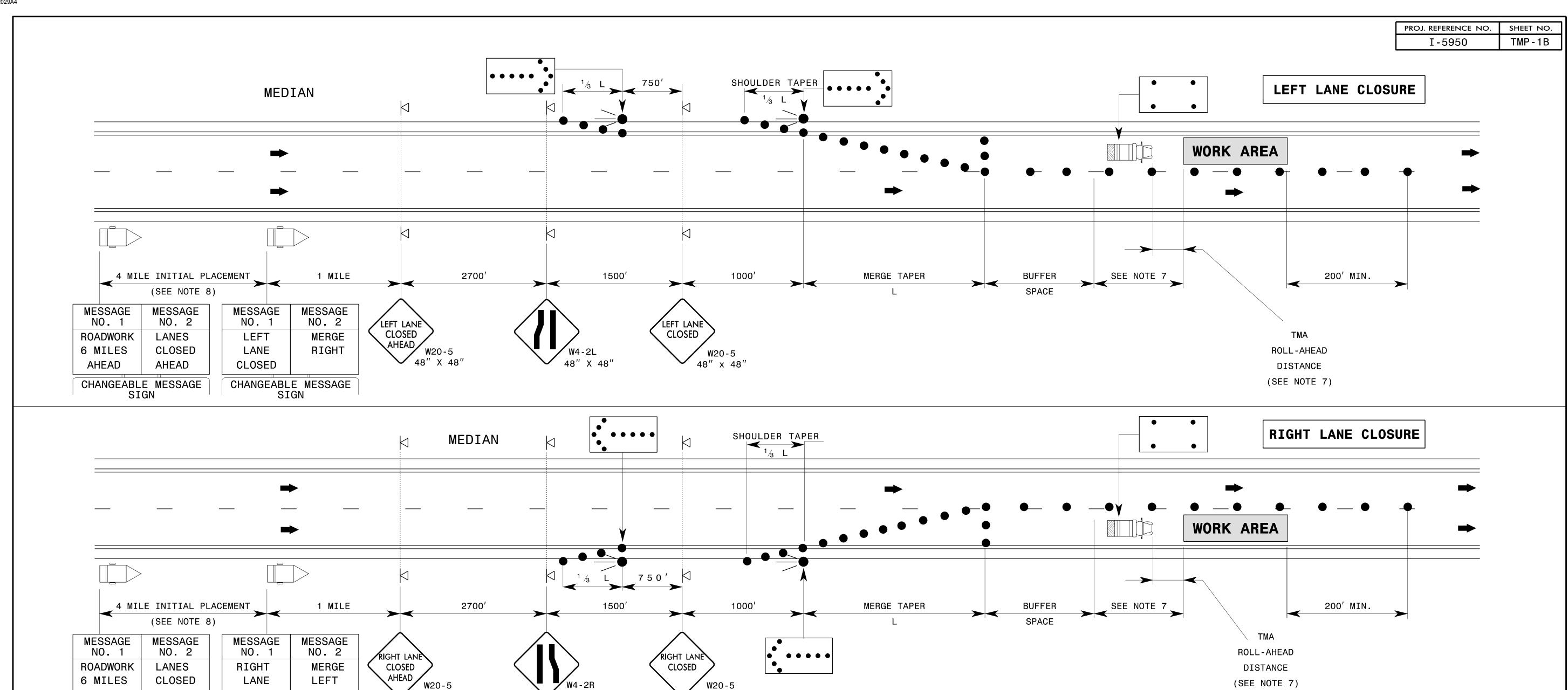
Devberry

2610 WYCLIFF ROAD SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929





ROADWAY STANDARD DRAWINGS & LEGEND



GENERAL NOTES

48" X 48"

1- IF NECESSARY USE THIS RSD. FOR ONE-WAY CITY TYPE STREETS WHERE SIGNS MAY BE MOUNTED 8- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE ON BOTH SIDES OF THE ROADWAY.

TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS

48" X 48"

48" X 48"

- 2- PLACE ARROW BOARDS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW BOARDS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW BOARD LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW BOARD IS MET (REFER TO RSD. 1101.11, SHEET 2).
- 3- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 4- REFER TO RSD. 1101.11, SHEETS 1 & 2, FOR "L" DISTANCE AND BUFFER SPACE.

AHEAD

CHANGEABLE MESSAGE SIGN CLOSED

CHANGEABLE MESSAGE

SIGN

AHEAD

- 5- REFER TO RSD. 1101.02, SHEETS 9 & 10, FOR TREATMENT OF LANE CLOSURES THRU INTERCHANGES.
- 6- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 7- POSITION THE TMA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMAS AS WORK PROGRESSES.

- 8- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 5 MILES IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.
- 9- DO NOT EXCEED A 2 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

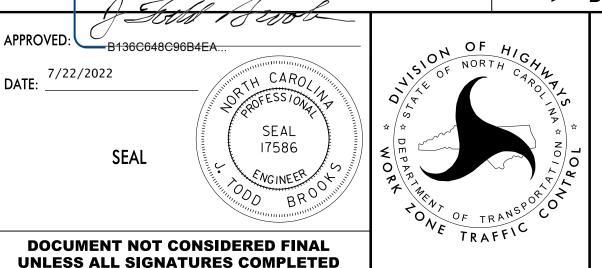
2610 WYCLIFF ROAD

LEGEND

- FLASHING ARROW BOARD

 FLASHING ARROW BOARD

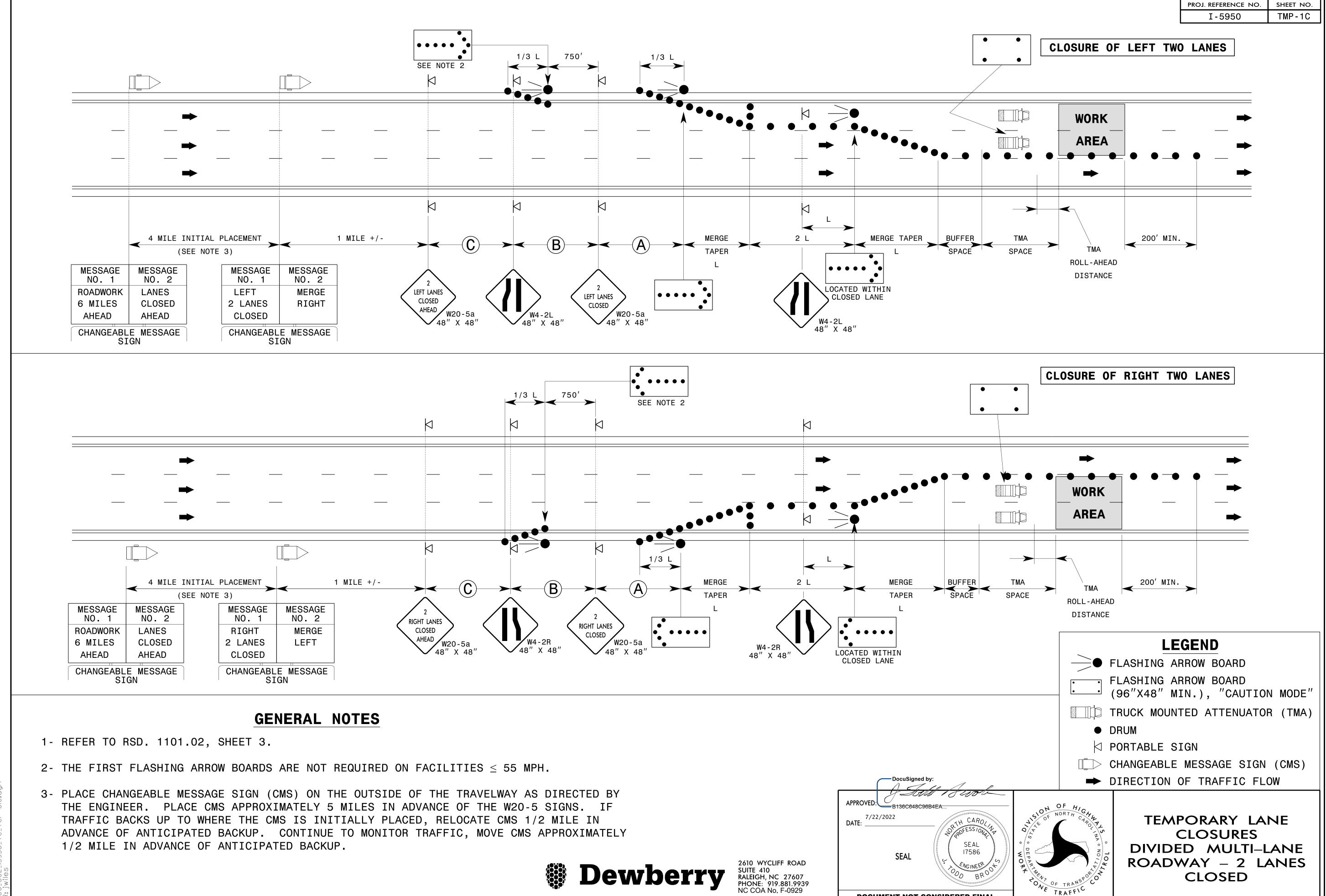
 (96"X48" MIN.), "CAUTION MODE"
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ☐ PORTABLE SIGN
- → DIRECTION OF TRAFFIC FLOW



TEMPORARY LANE
CLOSURES
DIVIDED MULTI-LANE
ROADWAY - 1 LANE
CLOSED
(FOR ROADWAYS
> 60 MPH)

Devidery

Suite 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Invalid expression ...\200_002_15950_TC_TCP OIC.dg USER:jwiles

PROJ. REFERENCE NO. SHEET NO. I - 5950 TMP - 2

MANAGEMENT STRATEGIES

THE RECOMMENDED MANAGEMENT STRATEGIES RELATIVE TO THIS TMP ARE AS FOLLOWS:

- * SHOULDER CLOSURES
- * SINGLE LANE CLOSURES
- * DOUBLE LANE CLOSURES
- * RAMP/LOOP CLOSURES AND DETOURS
- * LAW ENFORCEMENT
- * CHANGEABLE MESSAGE SIGNS

GENERAL NOTES

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

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

TIME RESTRICTIONS

A) EXCEPT AS ALLOWED FOR FULL-DEPTH SHOULDER RECONSTRUCTION ON SHEET TMP-3, DO NOT CLOSE OR NARROW A SINGLE LANE TRAVEL LANE AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-85 ALL OTHER ROADS MONDAY THRU SUNDAY, 6:00 AM TO 8:00 PM MONDAY THRU SUNDAY, 6:00 AM TO 8:00 PM

B) DO NOT CLOSE OR NARROW TWO LANES OF TRAFFIC AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-85

MONDAY THRU SUNDAY, 6:00 AM TO 8:00 PM

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

ROAD NAME

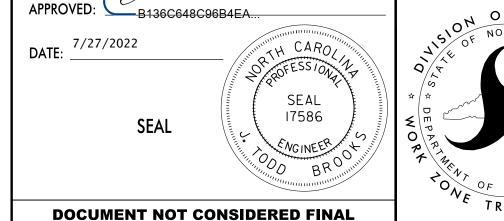
ANY ROAD AND ANY RAMP/LOOP

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 6:00 AM DECEMBER 31ST TO 8:00 PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 PM THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 8:00 PM MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 8:00 PM TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 8:00 PM THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN BETWEEN THE HOURS OF 6:00 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00 PM THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 8:00 PM TUESDAY.



UNLESS ALL SIGNATURES COMPLETED

(CONTINUED ON TMP-2A)

TRANSPORTATION OPERATIONS PLAN

Dewberry

2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 C) - CONT.

(CONTINUED FROM TMP-2)

- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY AND 8:00 PM MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

SPECIAL EVENTS

- 9. FOR ANY NASCAR RACE AT THE CHARLOTTE MOTOR SPEEDWAY BETWEEN THE HOURS OF 6:00 AM THE WEDNESDAY BEFORE THE FIRST TRACK EVENT AND 10:00 PM THE DAY AFTER THE LAST TRACK EVENT.
- 10. FOR ANY CAROLINA PANTHERS GAME PLAYED IN CHARLOTTE FROM FIVE (5) HOURS BEFORE THE GAME TO FIVE (5) HOURS AFTER THE GAME.
- 11. FOR THE AUTOFAIR AT THE CHARLOTTE MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00 AM THE WEDNESDAY OF THE WEEK OF THE AUTOFAIR AND 10:00 PM THE FOLLOWING MONDAY AFTER THE AUTOFAIR.
- 12. FOR THE BARBECUE FESTIVAL OCCURING IN LEXINGTON, NORTH CAROLINA, BETWEEN FOUR (4) HOURS BEFORE THE START AND FOUR (4) HOURS AFTER THE END OF THE BARBECUE FESTIVAL. (REFER TO WWW.THEBARBECUEFESTIVAL.COM FOR DATE AND TIMES OF THE ANNUAL BARBECUE FESTIVAL)
- D) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-85 ANY RAMP / LOOP ANYTIME, EXCEPT AS ALLOWED BY THE ICTS MONDAY THROUGH SUNDAY, 6:00 AM TO 9:00 PM

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVEL WAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) 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.
- G) 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 IS CLOSURE IS INSTALLED.
- H) 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 SHEET TMP-1B FOR I-85 AND ROADWAY STANDARD DRAWING NO. 1102.02 FOR ROADS OTHER THAN I-85 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- I) 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 REMAINS WITHIN THE CLOSED TRAVEL LANE.
- J) 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.
- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON I-85.

PAVEMENT EDGE DROP OFF REQUIREMENTS

L) BACKFILL AT 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.

M) 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) 1000 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- O) 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.
- P) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLAN.
- Q) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER AND REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- S) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 1000 FT. IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

APPROVED: 7/27/2022 DATE: SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED (CONTINUED ON TMP-2B)

TRANSPORTATION OPERATIONS PLAN

Dewberry

(CONTINUED FROM TMP-2A)

GENERAL NOTES

PROJ. REFERENCE NO. SHEET NO. I - 5950 TMP - 2B

TRAFFIC BARRIER

T) 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 AN 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 ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

U) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT 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

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

PAVEMENT MARKINGS AND MARKERS

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

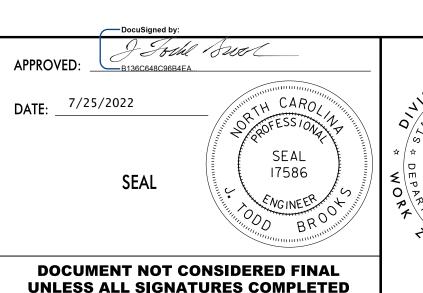
ROAD NAME	MARKING	MARKEF	
I-85 AND ALL RAMPS	PAINT	NONE	

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

MISCELLANEOUS

CC) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.







TRANSPORTATION
OPERATIONS
PLAN

PROJ. REFERENCE NO. SHEET NO. TMP-3

PHASING

WORK ZONE ADVANCE WARNING SIGNS

PRIOR TO BEGINNING ANY WORK ON I-85, INSTALL WORK ZONE ADVANCE WARNING SIGNS ON I-85 NB & I-85 SB PROJECT APPROACHES AS WELL AS INTERCHANGE RAMPS / LOOPS WITHIN THE PROJECT LIMITS AS SHOWN ON RSD 1101.01, SHEET 1 OF 3.

DRAINAGE REPAIRS AND IMPROVEMENTS

USING RSD 1101.04 AND DETAIL SHEETS TMP-7 AND TMP-8, TEMPORARILY CLOSE SHOULDERS ON I-85 TO PERFORM DRAINAGE REPAIRS AND IMPROVEMENTS AWAY FROM TRAFFIC, INCLUDING REPAIR OF CONCRETE AT D.I.'S, PARALLEL PIPE REPAIRS, SHOULDER REGRADING AND PIPE LINING. REFER TO PROJECT OVERVIEWS ON TMP-4 THRU TMP-6 AND ROADWAY PLANS FOR LOCATIONS OF DRAINAGE IMPROVEMENT WORK AREAS.

THIS WORK MAY BE COMPLETED AT ANY TIME WHEN NOT IN CONFLICT WITH SLAB REPLACEMENTS, FULL-DEPTH PAVED SHOULDER RECONSTRUCTION, AND BRIDGE REHABILITATION.

SHOULDER SLAB REPLACEMENT

THIS WORK MAY BE COMPLETED AT ANY TIME WHEN NOT IN CONFLICT WITH I-85 MAINLINE SLAB REPLACEMENTS, FULL-DEPTH SHOULDER RECONSTRUCTION, AND BRIDGE REHABILITATION.

USING SHEET TMP-1B, TEMPORARILY CLOSE THE RIGHT LANE OF I-85 TO REPLACE EXISTING SHOULDER SLABS DURING PERMISSIBLE LANE CLOSURE HOURS AT THE FOLLOWING LOCATIONS:

I-85 NORTHBOUND

BRIDGE #147 OVER N.S.R.R. (SEE PROJECT OVERVIEW SHEET TMP-4)
BRIDGE #154 OVER SWEARING CREEK (SEE PROJECT OVERVIEW SHEET TMP-4)
BRIDGE #170 OVER ABBOTTS CREEK (SEE PROJECT OVERVIEW SHEET TMP-5)

I-85 SOUTHBOUND

BRIDGE #171 - I-85 SB OVER ABBOTTS CREEK (SEE PROJECT OVERVIEW SHEET TMP-5)

FULL-DEPTH SHOULDER RECONSTRUCTION

THIS WORK MAY BE COMPLETED AT ANY TIME WHEN NOT IN CONFLICT WITH SLAB REPLACEMENTS AND BRIDGE REHABILITATION.

FOR EACH WORK LOCATION, THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN STEP 1 THROUGH STEP 4 WITHIN 168 CONSECUTIVE HOURS. SEE INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES

<u>I-85 SOUTHBOUND MP 89.29 TO 89.24 AND MP 89.18 TO 89.12</u> (SEE DETAIL SHEET TMP-12)

- STEP 1: WITHOUT DISTURBING EXISTING GUARDRAIL, PERFORM AS MUCH OF PROPOSED CONSTRUCTION AS POSSIBLE BY TEMPORARILY CLOSING RIGHT LANE OF I-85 SB OVER SWEARING CREEK (BRIDGE #157) DURING PERMISSIBLE LANE CLOSURE HOURS USING SHEET TMP-1B.
- STEP 2: USING SHEET TMP-1C, TEMPORARILY CLOSE THE I-85 SB CENTER AND RIGHT LANES AND INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) ON RIGHT LANE AS SHOWN ON DETAIL SHEET TMP-12.

 ONCE P.C.B. IS INSTALLED, REOPEN CENTER LANE WHILE MAINTAINING RIGHT LANE CLOSURE AS SHOWN ON TMP-12 AND SHEET TMP-1B.

- STEP 3: WORKING BEHIND P.C.B., REMOVE EXISTING GUARDRAIL THEN CONSTRUCT FULL-DEPTH PAVED SHOULDER, SHOULDER BERM GUTTER AND GUARDRAIL AND REPLACE SHOULDER SLAB.
- STEP 4: USING SHEET TMP-1C, TEMPORARILY CLOSE THE I-85 SB CENTER LANE AND REMOVE P.C.B FROM THE CLOSED RIGHT LANE. REMOVE ALL LANE CLOSURE SIGNS AND DEVICES AND REOPEN ALL SOUTHBOUND LANES TO TRAFFIC.

I-85 NORTHBOUND MP 91.52 TO 91.69

(SEE DETAIL SHEETS TMP-15 THRU TMP-17)

- STEP 1: WITHOUT DISTURBING EXISTING GUARDRAIL, PERFORM AS MUCH OF PROPOSED CONSTRUCTION AS POSSIBLE BY TEMPORARILY CLOSING RIGHT LANE OF I-85 NB DURING PERMISSIBLE LANE CLOSURE HOURS USING SHEET TMP-1B AND RSD 1101.02, SHEETS 9 AND 10 OF 14.
- STEP 2: USING SHEET TMP-1C AND RSD 1101.02, SHEETS 9 AND 10 OF 14, TEMPORARILY CLOSE THE I-85 NB CENTER AND RIGHT LANES:
 - REVISE PAVEMENT MARKINGS ON I-85 NB RIGHT LANE AND NB ENTRANCE RAMP FROM NC 8 AS SHOWN ON DETAIL SHEETS TMP-16 AND TMP-17.
 - INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) ON RIGHT LANE AS SHOWN ON DETAIL SHEETS TMP-16 AND TMP-17.
 - ONCE P.C.B. IS INSTALLED, REOPEN CENTER LANE WHILE MAINTAINING RIGHT LANE CLOSURE AS SHOWN ON DETAIL SHEETS TMP-15 THROUGH TMP-17 AND SHEET TMP-1B.
- STEP 3: WORKING BEHIND P.C.B., REMOVE EXISTING GUARDRAIL THEN CONSTRUCT FULL-DEPTH PAVED SHOULDER, SHOULDER BERM GUTTER AND GUARDRAIL AND REPLACE SHOULDER SLAB.
- STEP 4: USING SHEET TMP-1C AND RSD 1101.02, SHEETS 9 AND 10 OF 14M TEMPORARILY CLOSE THE I-85 NB CENTER LANE AND:
 - REMOVE P.C.B. FROM THE CLOSED RIGHT LANE.
 - REMOVE TEMPORARY PAVEMENT MARKINGS FROM THE I-85 NB RIGHT LANE AND NB ENTRANCE RAMP FROM NC 8.
 - INSTALL PAINT PAVEMENT MARKINGS IN ORIGINAL PATTERN ON THE I-85 NB RIGHT LANE AND NB ENTRANCE RAMP FROM NC 8.

REMOVE ALL LANE CLOSURE SIGNS AND DEVICES AND REOPEN ALL NORTHBOUND LANES TO TRAFFIC.

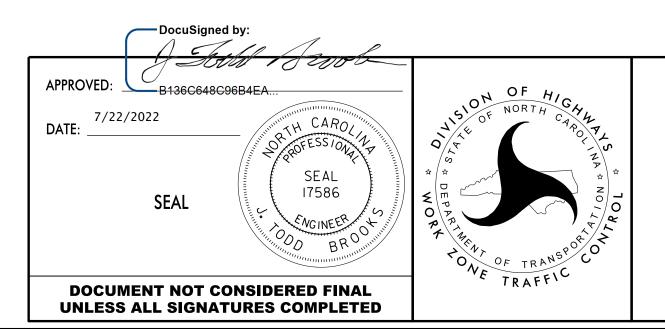
I-85 SLAB REPLACEMENT

THIS WORK MAY BE COMPLETED AT ANY TIME WHEN NOT IN CONFLICT WITH FULL-DEPTH PAVED SHOULDER RECONSTRUCTION, SHOULDER SLAB REPLACMENT AND BRIDGE REHABILITATION.

FOR EACH WORK LOCATION, THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN STEPS 1 THROUGH 3 DURING ALLOWABLE OVERNIGHT LANE CLOSURE HOURS.

CONTINUED ON SHEET TMP-3A





PHASING

ROJ. REFERENCE NO.	SHEET NO.	
I-5950	TMP-3A	

I-85 SB RIGHT LANE SLAB AT EXIT 88 - NC 47 (HARGRAVE RD)

- STEP 1: USING SHEETS TMP-1C AND TMP-9, TEMPORARILY CLOSE THE RIGHT AND CENTER LANES ON I-85 SOUTHBOUND APPROACHING EXIT 88 AND TEMPORARILY CLOSE EXIT 88. MAINTAIN A SINGLE LANE OF TRAFFIC IN THE LEFT LANE OF I-85 THROUGH WORK AREA AND DETOUR EXIT 88 TRAFFIC VIA EXIT 86 AND I-85 NB AS SHOWN ON TMP-26.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN RIGHT LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-9.
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES AND EXIT 88 RAMP TO TRAFFIC.

I-85 SB CENTER LANE SLAB AT EXIT 88 - NC 47 (HARGRAVE RD)

- STEP 1: USING SHEETS TMP-1C AND TMP-10, TEMPORARILY CLOSE THE LEFT AND CENTER LANES ON I-85 SOUTHBOUND APPROACHING EXIT 88 AND MAINTAIN A SINGLE LANE OF TRAFFIC IN THE RIGHT LANE THROUGH WORK AREA.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN CENTER LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-10
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.
- I-85 SB LEFT LANE SLAB AT EXIT 88 NC 47 (HARGRAVE RD)
- STEP 1: USING SHEETS TMP-1C AND TMP-11, TEMPORARILY CLOSE THE LEFT AND CENTER LANES ON I-85 SOUTHBOUND APPROACHING EXIT 88 AND MAINTAIN A SINGLE LANE OF TRAFFIC IN THE RIGHT LANE THROUGH WORK AREA.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN LEFT LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-11
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.

I-85 NB LEFT LANE SLAB AT ABBOTTS CREEK

- STEP 1: USING SHEETS TMP-1C AND TMP-11, TEMPORARILY CLOSE THE LEFT AND CENTER LANES ON I-85 NORTHBOUND APPROACHING ABBOTTS AND MAINTAIN A SINGLE LANE OF TRAFFIC IN THE RIGHT LANE THROUGH WORK AREA.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN LEFT LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-18
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.
- I-85 SB LEFT LANE SLAB AT EXIT 96 US 64
- STEP 1: USING SHEETS TMP-1C, TMP-19 AND TMP-20, TEMPORARILY CLOSE THE LEFT AND CENTER LANES
 ON I-85 SOUTHBOUND AT EXIT 96 AND MAINTAIN A SINGLE LANE OF TRAFFIC IN THE RIGHT LANE
 THROUGH WORK AREA.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN LEFT LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-19
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.

I-85 SB CENTER LANE SLAB AT EXIT 96 - US 64

- STEP 1: USING DETAIL SHEETS TMP-21 THROUGH TMP-23, TEMPORARILY CLOSE I-85 SOUTHBOUND AT EXIT
 96 AND DETOUR ALL I-85 SOUTHBOUND TRAFFIC VIA THE EXIT 96 SOUTHBOUND EXIT AND ENTRANCE
 RAMPS DURING ALLOWABLE OVERNIGHT HOURS. PROVIDE LAW ENFORCEMENT TO DIRECT DETOURED I-85
 SOUTHBOUND TRAFFIC THROUGH US 64 AT I-85 SB RAMPS INTERSECTION (SEE DETAIL SHEET TMP-21).
- STEP 2: BEHIND ROAD CLOSURE, REMOVE AND REPLACE SLAB IN CENTER LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-21.
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.

I-85 SB RIGHT LANE SLAB AT EXIT 96 - US 64

- STEP 1: USING SHEETS TMP-1C, TMP-24 AND TMP-25, TEMPORARILY CLOSE THE RIGHT AND CENTER LANES ON I-85 SOUTHBOUND AT EXIT 96 DURING ALLOWABLE OVERNIGHT HOURS AND MAINTAIN A SINGLE LANE OF TRAFFIC IN THE LEFT LANE OF I-85 THROUGH WORK AREA.
- STEP 2: BEHIND LANE CLOSURE, REMOVE AND REPLACE SLAB IN RIGHT LANE UP TO ELEVATION OF EXISTING PAVEMENT AS SHOWN ON TMP-24.
- STEP 3: REMOVE TRAFFIC CONTROL DEVICES AND REOPEN ALL LANES TO TRAFFIC.

BRIDGE REHABILITATION

THIS WORK MAY BE COMPLETED AT ANY TIME WHEN NOT IN CONFLICT WITH SLAB REPLACEMENTS, FULL-DEPTH SHOULDER RECONSTRUCTION AND RAMP CLOSURES AND DETOURS.

I-85 MAINLINE BRIDGES

REHABILITATE THE FOLLOWING MAINLINE BRIDGES ON I-85:

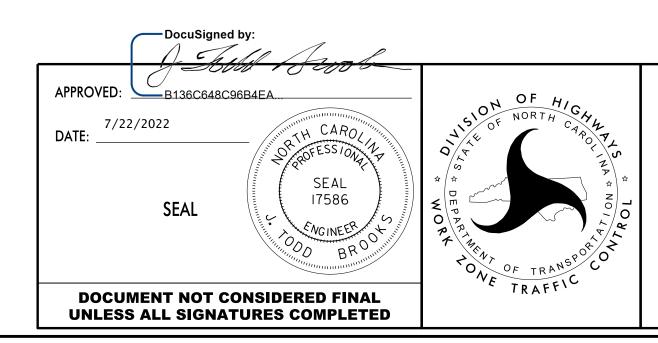
BRIDGE NO.	ROUTE	OVER	PROJECT OVERVIEW
147	I-85 NB	NSRR	TMP-4
152	I-85 SB	NSRR	TMP-4
154	I-85 NB	SWEARING CREEK	TMP-4
157	I-85 SB	SWEARING CREEK	TMP-4
170	I-85 NB	ABBOTTS CREEK	TMP-5
171	I-85 SB	ABBOTTS CREEK	TMP-5

PERFORM JOINT REPAIRS USING SHEETS TMP-1B AND TMP-1C TO CLOSE 1 OR 2 LANES OF I-85 DURING PERSMISSIBLE LANE CLOSURE HOURS.

CONSTRUCT PC OVERLAY OF BRIDGE DECKS USING SHEET TMP-1C. CLOSE 2 OF 3 LANES ON I-85 DURING PERMISSIBLE LANE CLOSURE HOURS.

CONTINUED ON SHEET TMP-3B





PHASING

ROJ. REFERENCE NO.	SHEET NO.
I-5950	TMP-3B

PAINT BEAM ENDS AND SHOTCRETE BRIDGES USING RSD 1101.04 FOR SHOULDER CLOSURES AND SHEET TMP-1B FOR CLOSURE OF ADJACENT LANE ON I-85 DURING PERMISSIBLE LANE CLOSURE HOURS.

PAINT BEAM ENDS AND SHOTCRETE OVERPASSES

PAINT BEAM ENDS AND SHOTCRETE BRIDGES OVER I-85 USING RSD 1101.04 FOR SHOULDER CLOSURES ON I-85 AND SHEET TMP-1B FOR CLOSURE OF ADJACENT LANE ON I-85 DURING PERMISSIBLE LANE CLOSURE HOURS.

I-285 NB BRIDGE #137 OVER I-85

REPAIR JOINTS AND PLACE LMC ON BRIDGE DECK DURING PERMISSIBLE LANE CLOSURE HOURS AS FOLLOWS:

- FOR RIGHT HALF OF BRIDGE, IMPLEMENT RIGHT LANE CLOSURE ON I-285 NB BETWEEN I-85 NB EXIT GORE AND BRIDGE OVER I-85 USING SHEET TMP-1B.
- FOR LEFT HALF OF BRIDGE, IMPLEMENT A WEAVE LANE CLOSURE OF I-285 LEFT LANE USING RSD 1101.02, SHEET 5 OF 14.

NC 47 (HARGROVE RD) BRIDGE #146 OVER I-85

REPAIR JOINTS AND PLACE LMC ON BRIDGE DECK DURING PERMISSIBLE LANE CLOSURE HOURS USING RSD 1101.02, SHEETS 1 AND 2 OF 14.

NC 8 (COTTON GROVE RD) BRIDGE #092 OVER I-85

REPAIR JOINTS AND PLACE LMC ON BRIDGE DECK DURING PERMISSIBLE LANE CLOSURE HOURS AS FOLLOWS:

- CLOSE RIGHT LANE ON SOUTHBOUND NC 8 (COTTON GROVE RD) ALONG WITH WB LEFT TURN LANES ON I-85 SB RAMP AND ON FAIRVIEW RD AS SHOWN ON DETAIL SHEETS TMP-13 AND TMP-13A.
- CLOSE LEFT LANE ON SOUTHBOUND NC 8 (COTTON GROVE RD) ALONG WITH WB LEFT TURN LANES ON I-85 SB RAMP AND ON FAIRVIEW RD AS SHOWN ON DETAIL SHEETS TMP-13B AND TMP-13C.
- CLOSE RIGHT LANE ON NORTHBOUND NC 8 (COTTON GROVE RD) USING RSD 1101.02, SHEET 3 OF 14 AND DETAIL SHEET TMP-13D.
- CLOSE LEFT LANE ON NORTHBOUND NC 8 (COTTON GROVE RD) USING RSD 1101.02, SHEET 3 OF 14

SR 2205 (OLD US 64) BRIDGE #174 OVER I-85

REPAIR JOINTS AND PLACE LMC ON BRIDGE DECK DURING PERMISSIBLE LANE CLOSURE HOURS USING RSD 1101.02. SHEET 1 OF 14.

MILLING AND RESURFACING (MILL & FILL)

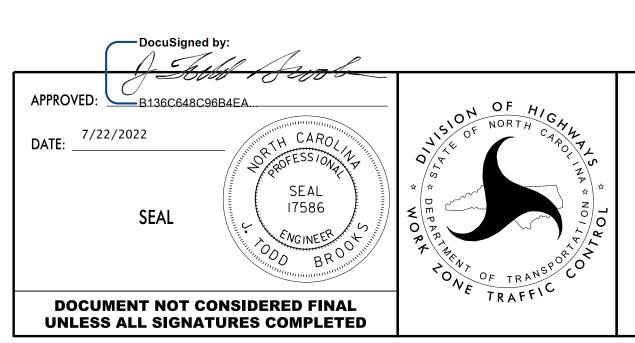
THIS WORK MUST BE COMPLETED AFTER ALL SLAB REPLACEMENTS AND FULL-DEPTH PAVED SHOULDER RECONSTRUCTION WORK ARE COMPLETE.

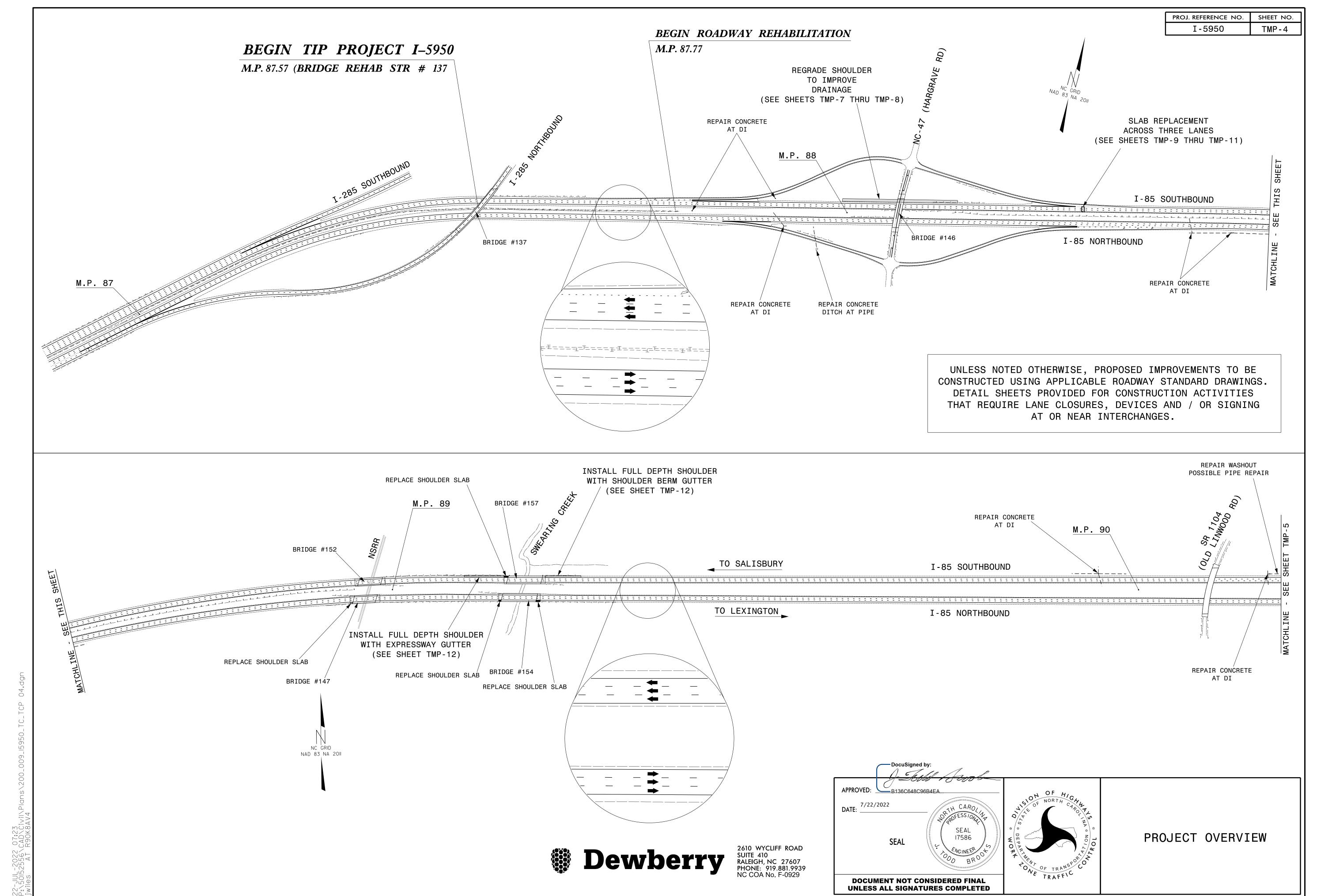
STEP 1: USING SHEET TMP-1B AND RSD 1101.02, SHEETS 9 & 10 OF 14 DURING OVERNIGHT WORK PERIODS, MILL AND REPAVE INSIDE AND OUTSIDE SHOULDERS ON I-85 NB & I-85 SB.

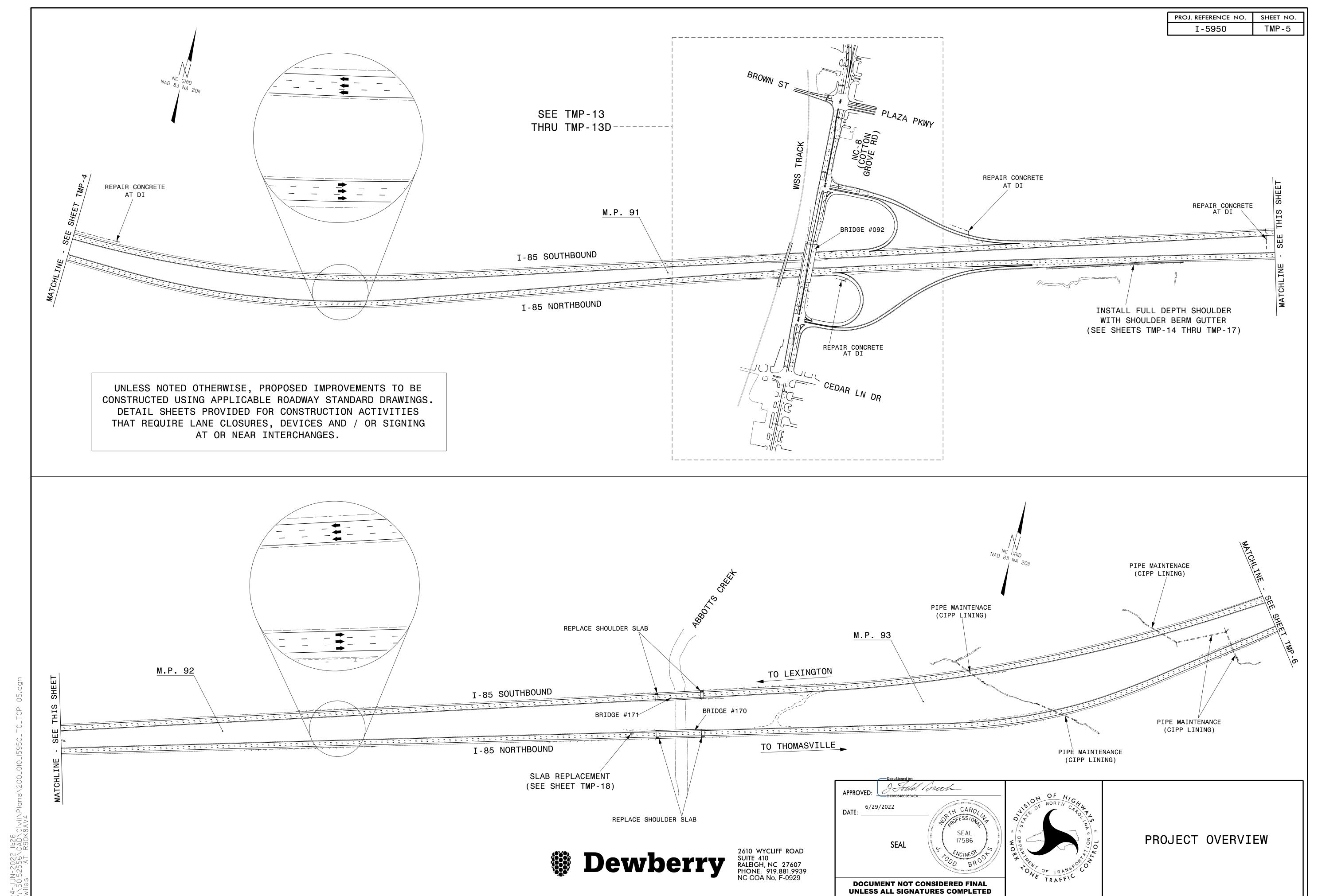
> USING SHEETS TMP-1B & TMP-1C AND RSD 1101.02, SHEETS 9 & 10 OF 14 DURING OVERNIGHT WORK PERIODS, MILL I-85 TRAVEL LANES, REPAVE UP TO BUT NOT INCLUDING FINAL ULTRA THIN LAYER OF SURFACE COURSE AND REPLACE PAVEMENT MARKINGS USING TEMPORARY PAINT.

- STEP 2: IMPLEMENT OVERNIGHT RAMP AND LOOP CLOSURES AND DETOURS TO MILL AND RESURFACE RAMPS AND LOOPS DURING ALLOWABLE WORK HOURS IN ACCORDANCE WITH THE DETOUR DETAILS LISTED BELOW. DO NOT CLOSE RAMPS AND LOOPS AT MORE THAN ONE INTERCHANGE AT A TIME. AT EACH INTERCHANGE. DO NOT CLOSE AND DETOUR MORE THAN THE TWO RAMPS/LOOPS SHOWN ON EACH DETAIL BELOW AT THE SAME TIME.
 - NC 47 (HARGRAVE RD) RAMPS A & D SEE DETOUR DETAIL SHEET TMP-26
 - NC 47 (HARGRAVE RD) RAMPS B & C SEE DETOUR DETAIL SHEET TMP-27
 - NC 8 (COTTON GROVE RD) RAMP A & LOOP A SEE DETOUR DETAIL SHEET TMP-28
 - NC 8 (COTTON GROVE RD) RAMP D & LOOP D SEE DETOUR DETAIL SHEET TMP-29
 - E. OLD US 64 RAMPS A & D SEE DETOUR DETAIL SHEET TMP-30
 - E. OLD US 64 RAMPS B & C SEE DETOUR DETAIL SHEET TMP-31
 - US 64 RAMPS A & D SEE DETOUR DETAIL SHEET TMP-32
 - US 64 RAMPS B & C SEE DETOUR DETAIL SHEETS TMP-33 & TMP-34
- UPON COMPLETION OF RESURFACING OF THE RAMP/LOOP. RESTORE ORIGINAL PAVEMENT MARKINGS USING TEMPORARY PAINT, THEN REOPEN THE RAMP/LOOP TO TRAFFIC AND DISCONTINUE THE DETOUR.
- STEP 4: USING SHEET TMP-1B AND RSD 1101.02, SHEETS 9 & 10 OF 14, COMPLETE THE FOLLOWING DURING OVERNIGHT PERIODS:
 - PAVE FINAL ULTRA THIN LAYER OF SURFACE COURSE ON I-85 TRAFFIC LANES.
 - PLACE FINAL PAVEMENT MARKINGS AND FINAL MARKERS ON I-85 AND ASSOCIATED LOOPS AND RAMPS.
 - MILL RUMBLE STRIPS INTO MEDIAN AND OUTSIDE SHOULDERS OF I-85 NB AND I-85 SB.
- STEP 5: REMOVE ALL TRAFFIC CONTROL DEVICES WITHIN THE PROJECT LIMITS.

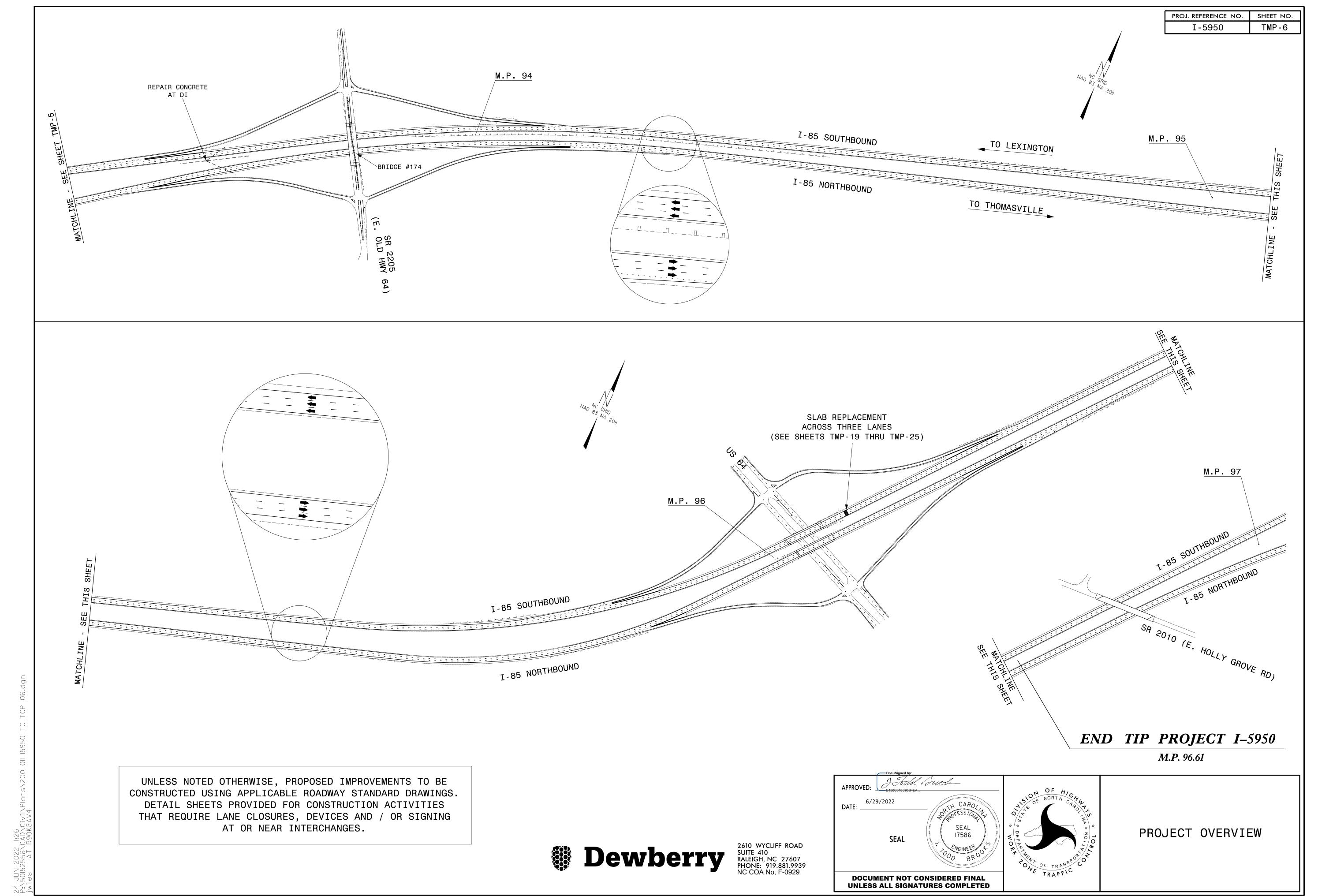








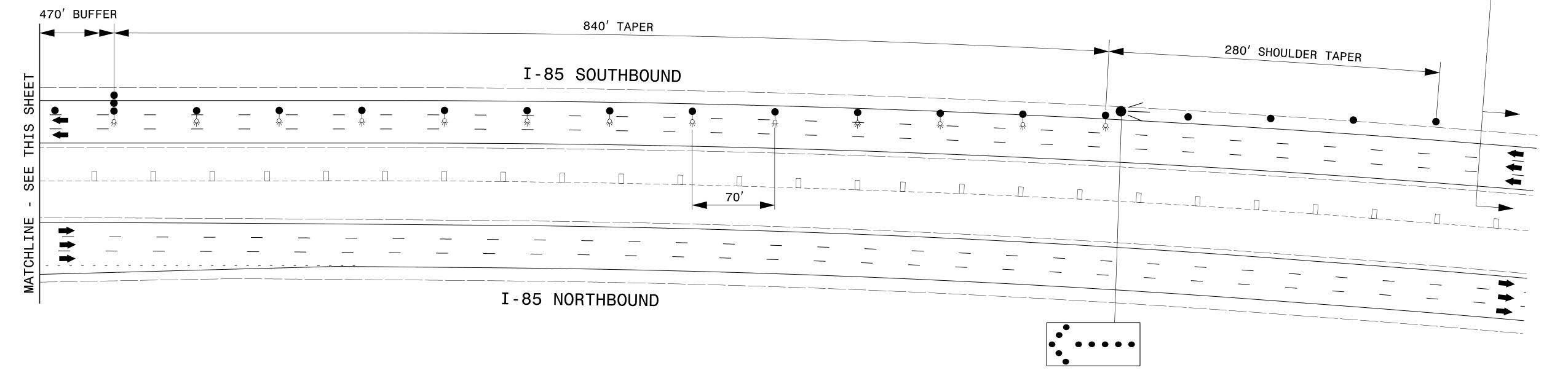
DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1



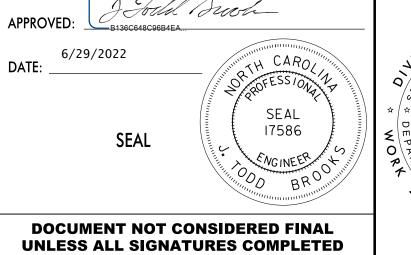
DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. TMP - 7 I-5950 (HARGRAVE REGRADE SHOULDER TO IMPROVE DRAINAGE 200' MIN. 200' TMA SPACE I-85 SOUTHBOUND M.P. 88 I-85 NORTHBOUND OVERNIGHT LANE CLOSURE FOR RREGRADING I–85 SB SHOULDER AT NC 47 ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED Dewberry

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. TMP-8 I-5950 ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED 215' OPENING 160′ 470' BUFFER I-85 SOUTHBOUND I-85 NORTHBOUND **EXIT** SEE RSD 1101.02, SHEET 4 OF 14, FOR LANE CLOSURE SIGNING AND DEVICES 470' BUFFER 840' TAPER

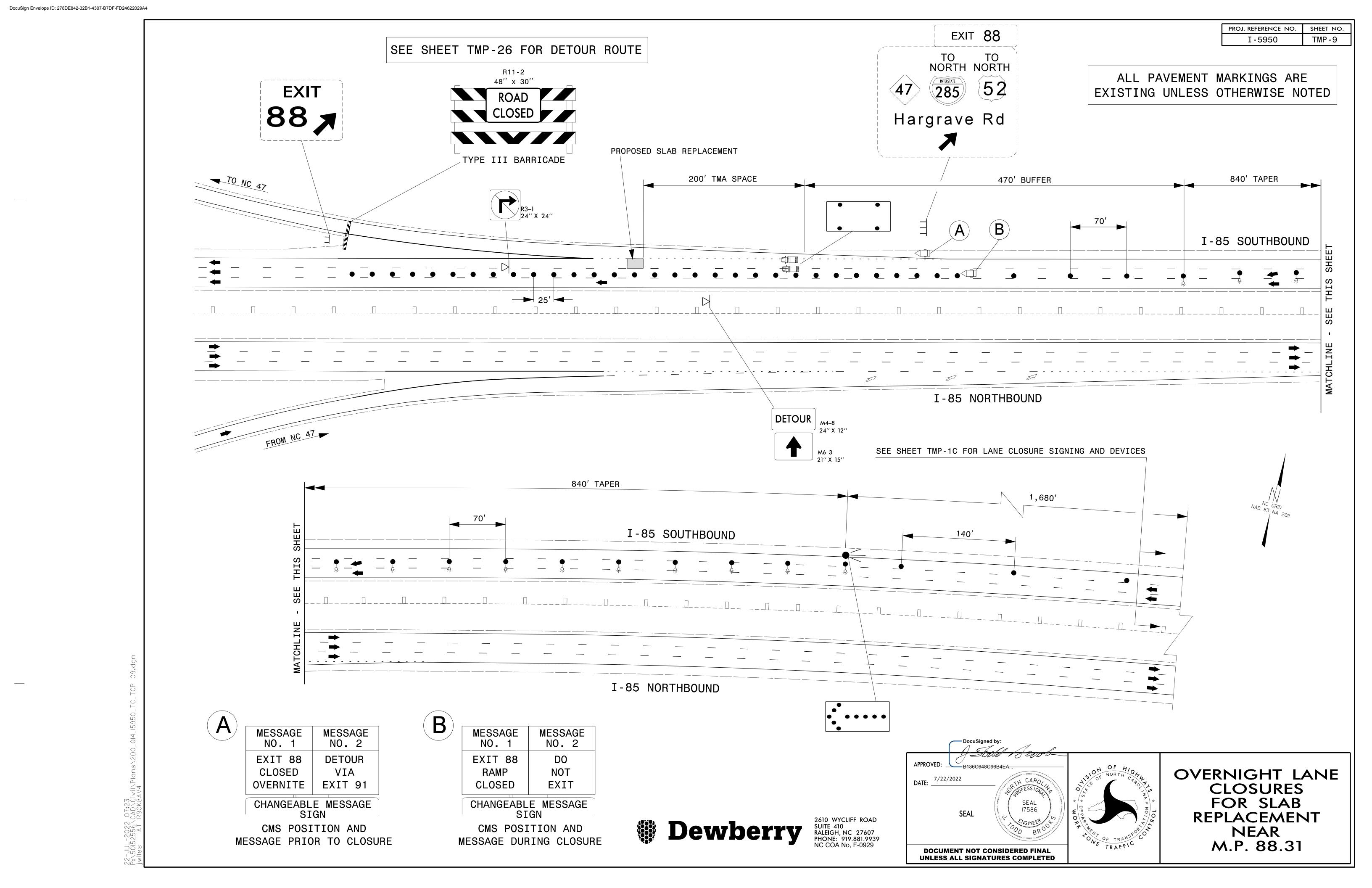






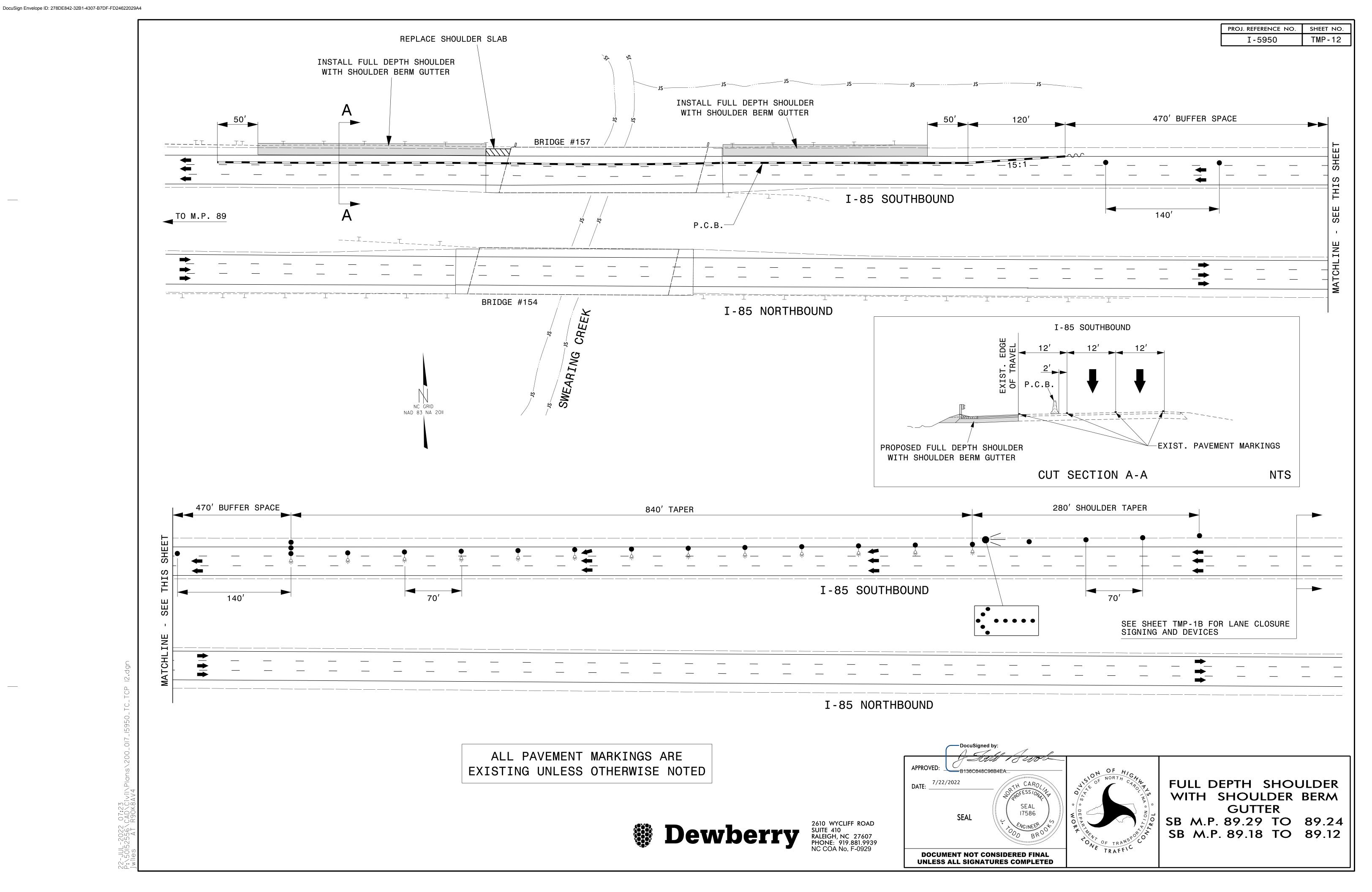


OVERNIGHT LANE
CLOSURE FOR
RREGRADING
I-85 SB SHOULDER
AT NC 47



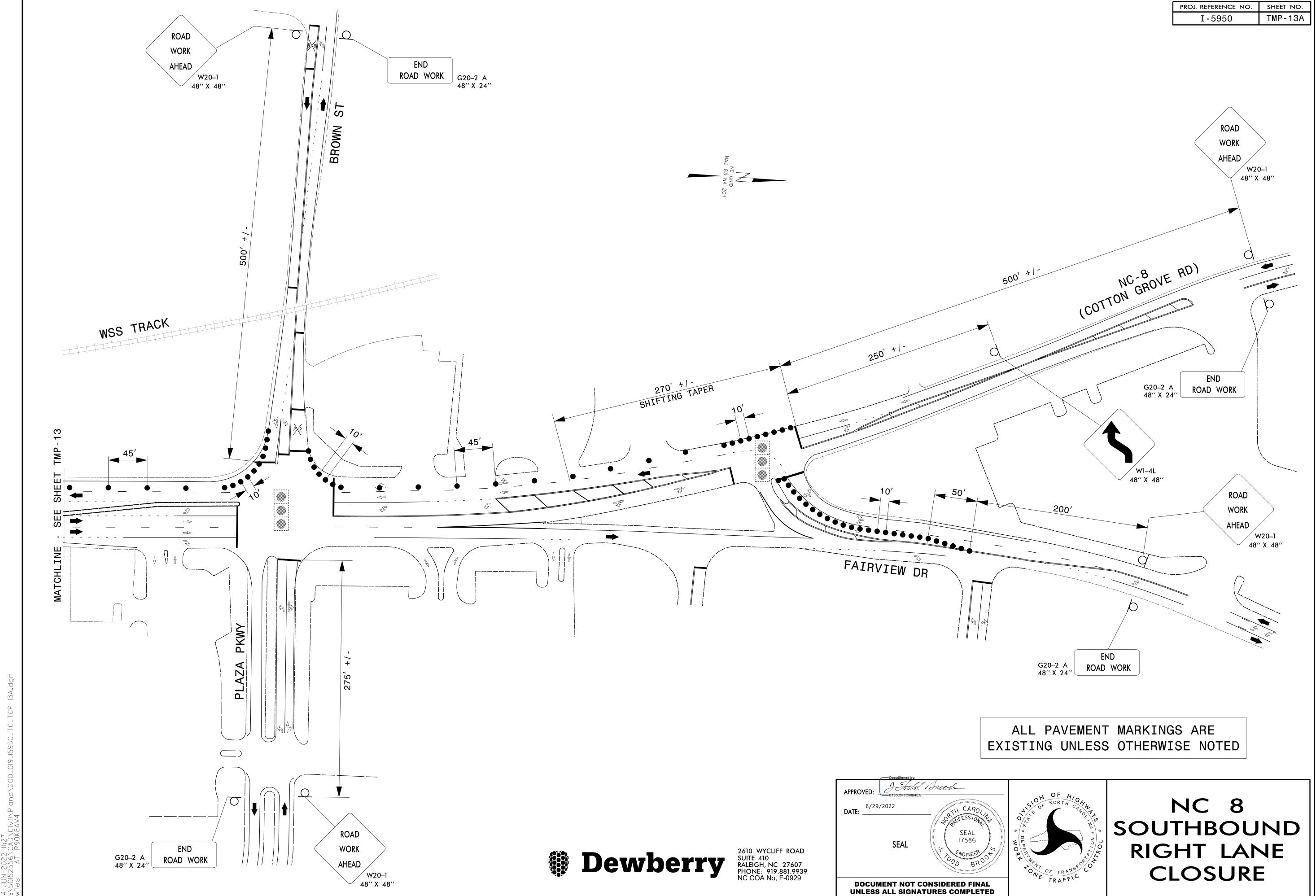
DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4 PROJ. REFERENCE NO. I-5950 TMP - 10 ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED **EXIT** 470' BUFFER 200' TMA SPACE 88 I-85 SOUTHBOUND I-85 NORTHBOUND PROPOSED SLAB REPLACEMENT SEE SHEET TMP-1C FOR LANE CLOSURE SIGNING AND DEVICES 470' BUFFER 840' TAPER 1,680′ I-85 SOUTHBOUND 140′ **70**′ ► I-85 NORTHBOUND APPROVED: B136C648C96B4EA PLACE JUST INSIDE OF OVERNIGHT LANE SINGLE-LANE BUFFER ZONE CLOSURES FOR SLAB REPLACEMENT SEAL 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 Dewberry **NEAR** M.P. 88.31 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4 PROJ. REFERENCE NO. TMP-11 I-5950 ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED 200' TMA SPACE 470' BUFFER 200' MIN. I-85 SOUTHBOUND **▼** TO M.P. 88 I-85 NORTHBOUND PROPOSED SLAB REPLACEMENT SEE SHEET TMP-1C FOR LANE CLOSURE SIGNING AND DEVICES 470' BUFFER 840' TAPER 1,680′ I-85 SOUTHBOUND 140′ I-85 NORTHBOUND APPROVED: B136C648C96B4EA OVERNIGHT LANE
CLOSURES
FOR SLAB
REPLACEMENT SEAL 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 Dewberry NEAR M.P. 88.31 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

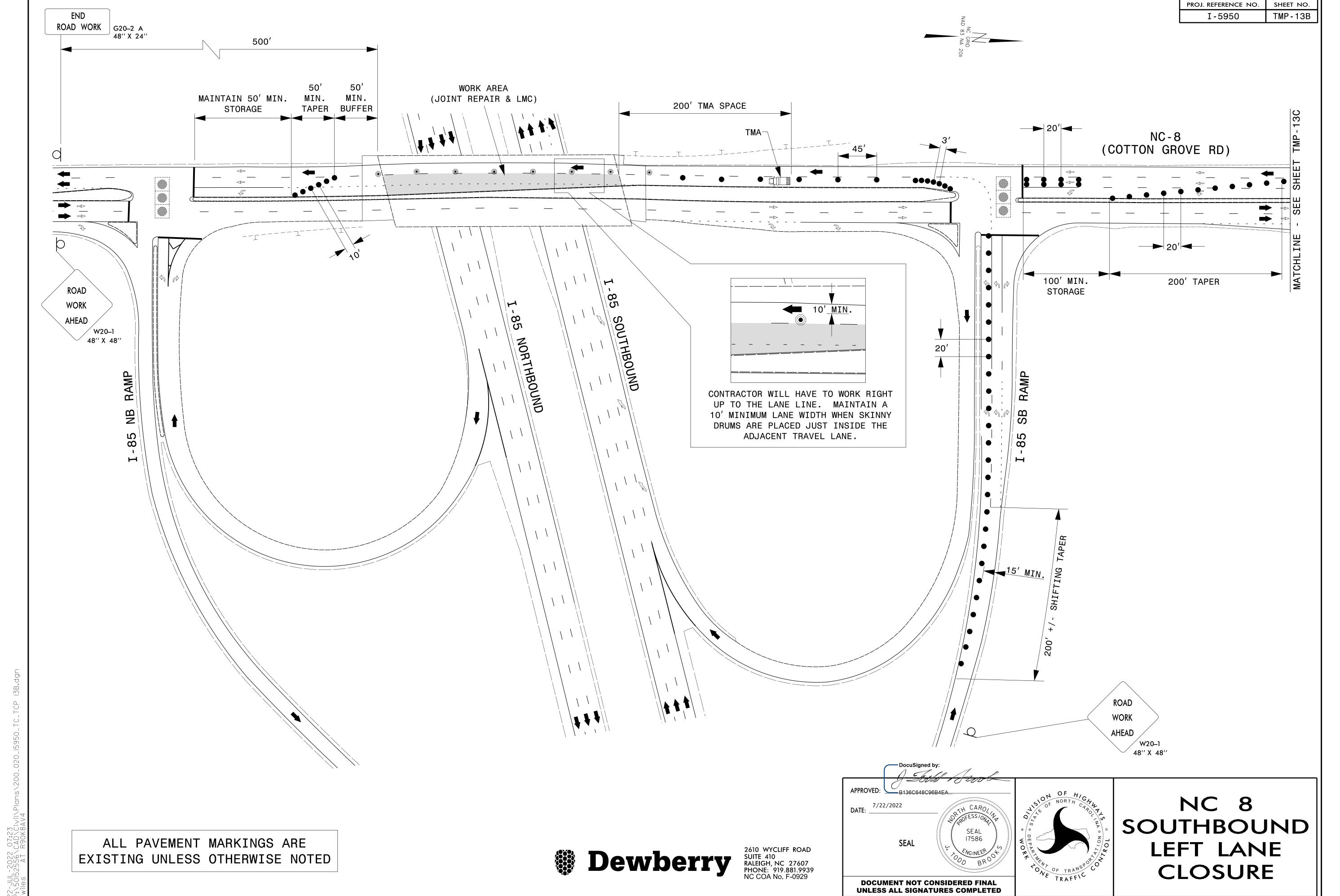


DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. SHEET NO. I-5950 TMP-13 ROAD WORK G20-2 A 48" X 24" WORK AREA (JOINT REPAIR AND LMC) 500′ 200' TMA SPACE NC-8 (COTTON GROVE RD) ROAD WORK SOUTHBOUND AHEAD NORTHBOUND 20' RAMP UP TO THE LANE LINE. MAINTAIN A NB SB 10' MINIMUM LANE WIDTH WHEN SKINNY DRUMS ARE PLACED JUST INSIDE THE ADJACENT TRAVEL LANE. 85 85 ROAD WORK AHEAD John Such NC 8 SOUTHBOUND ALL PAVEMENT MARKINGS ARE SEAL RIGHT LANE EXISTING UNLESS OTHERWISE NOTED 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 Dewberry **CLOSURE** DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

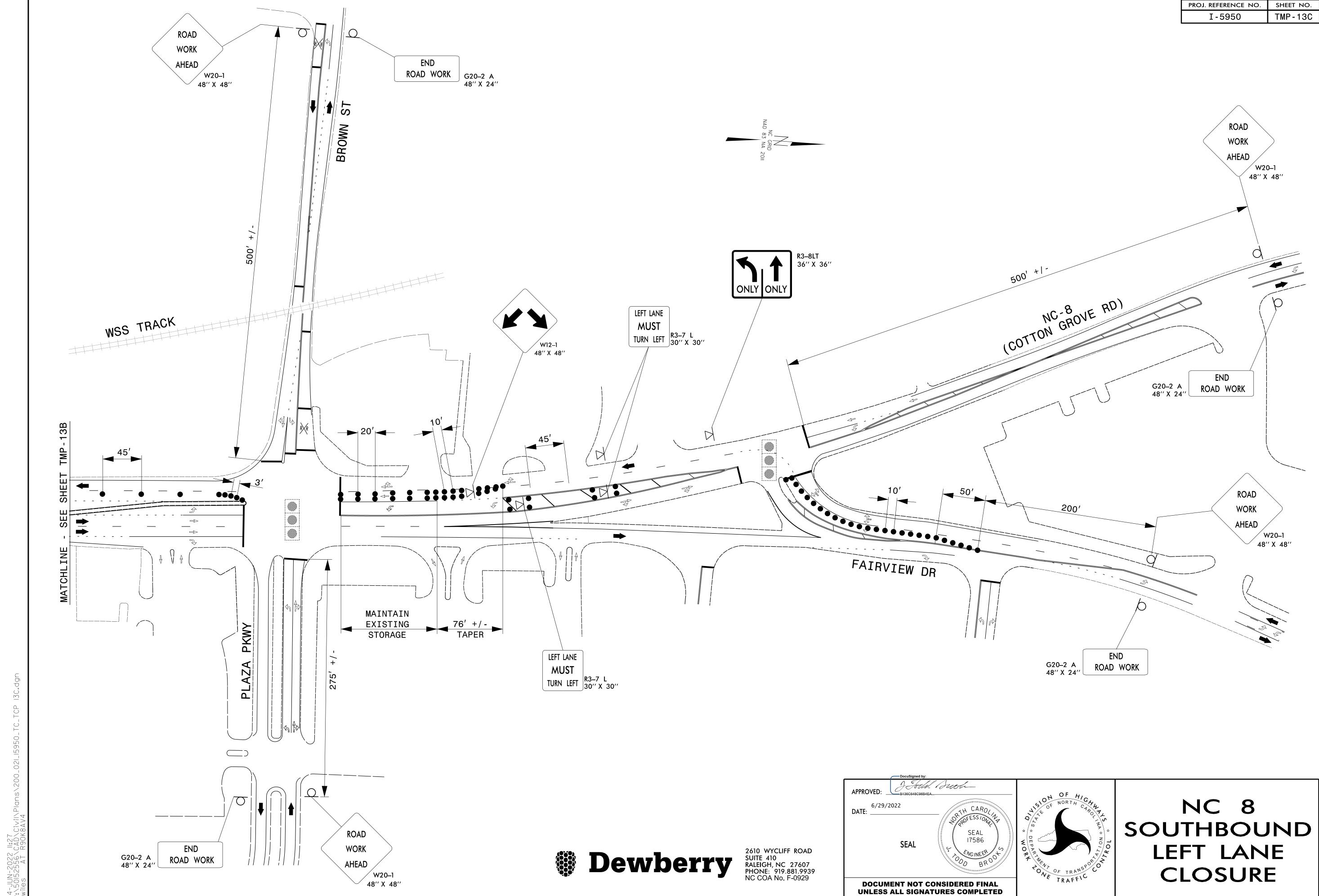
DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1



DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4



DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1

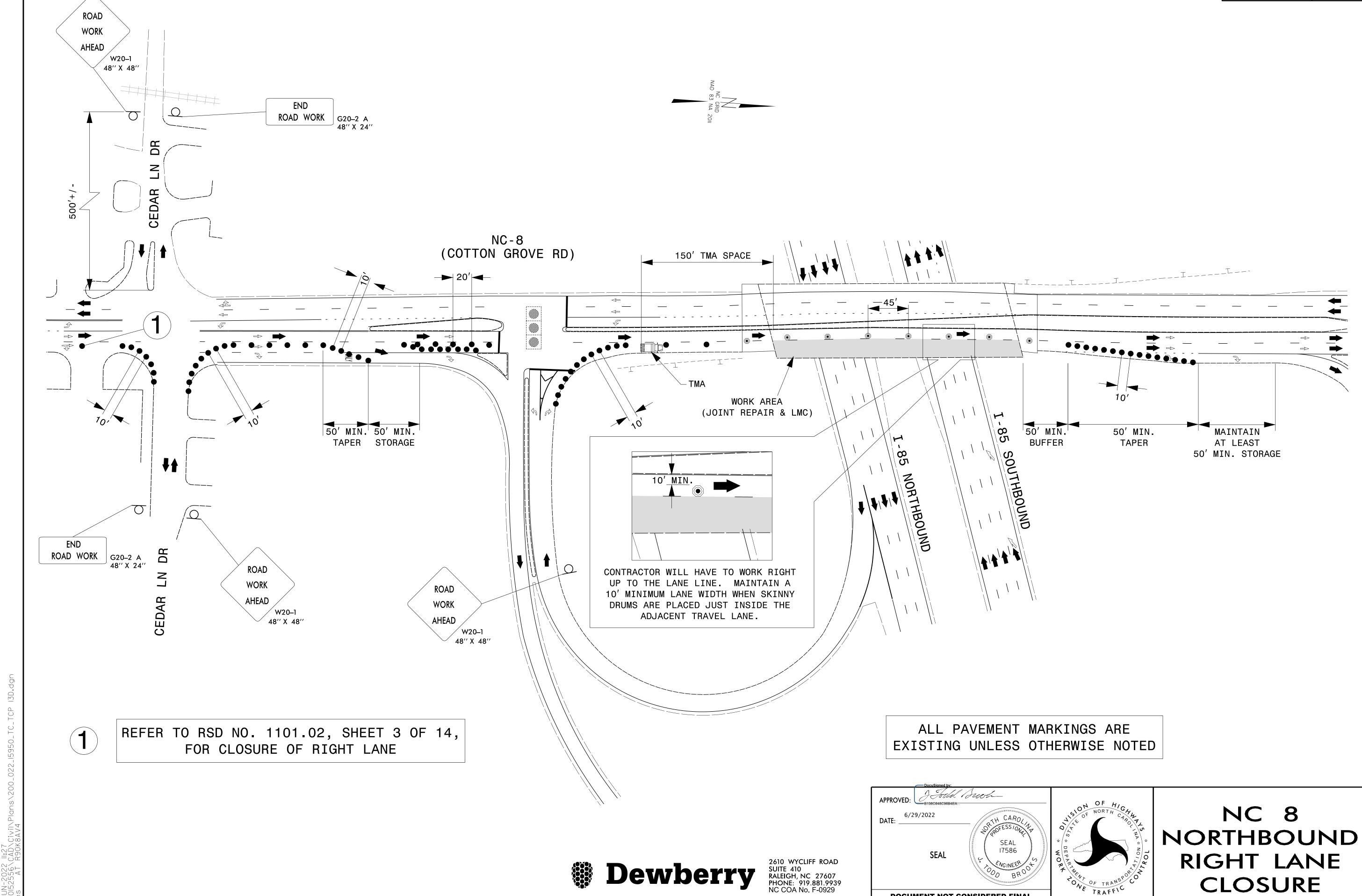


DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1

PROJ. REFERENCE NO. TMP-13D I-5950

CLOSURE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

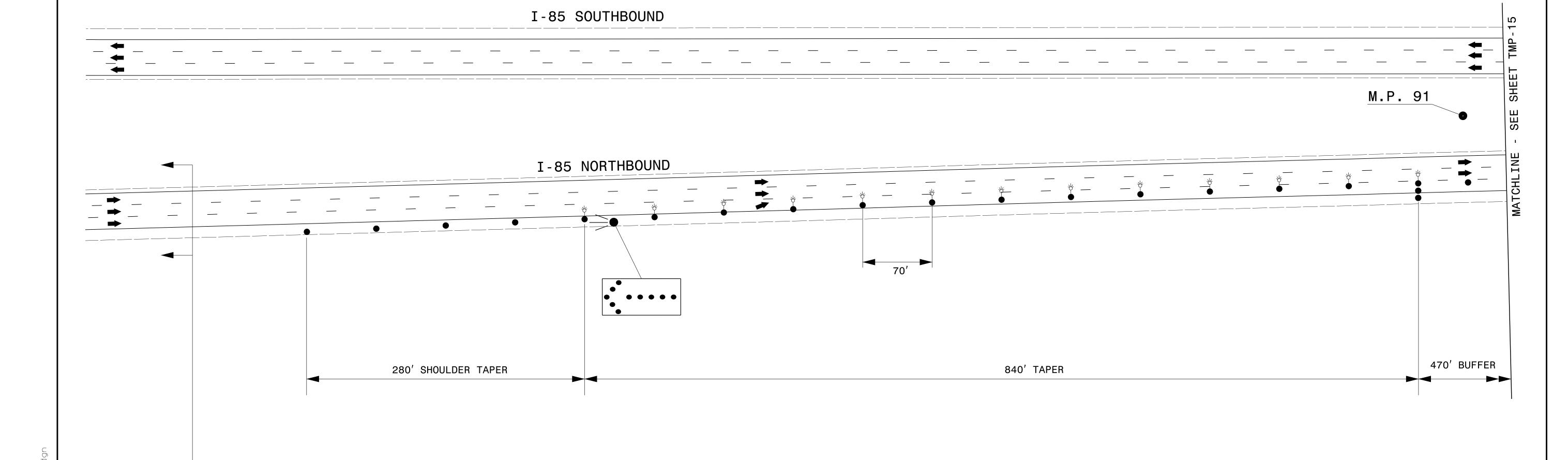


DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4

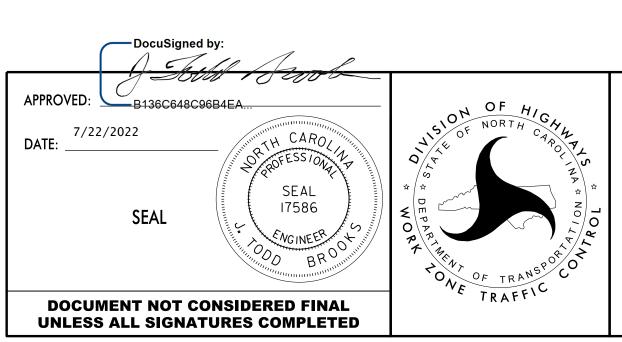
PROJ. REFERENCE NO. SHEET NO. TMP - 14



ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED







FULL DEPTH SHOULDER
WITH SHOULDER BERM
GUTTER
NB M.P. 91.52 TO 91.69

SEE SHEET TMP-1B FOR LANE CLOSURE SIGNING AND DEVICES

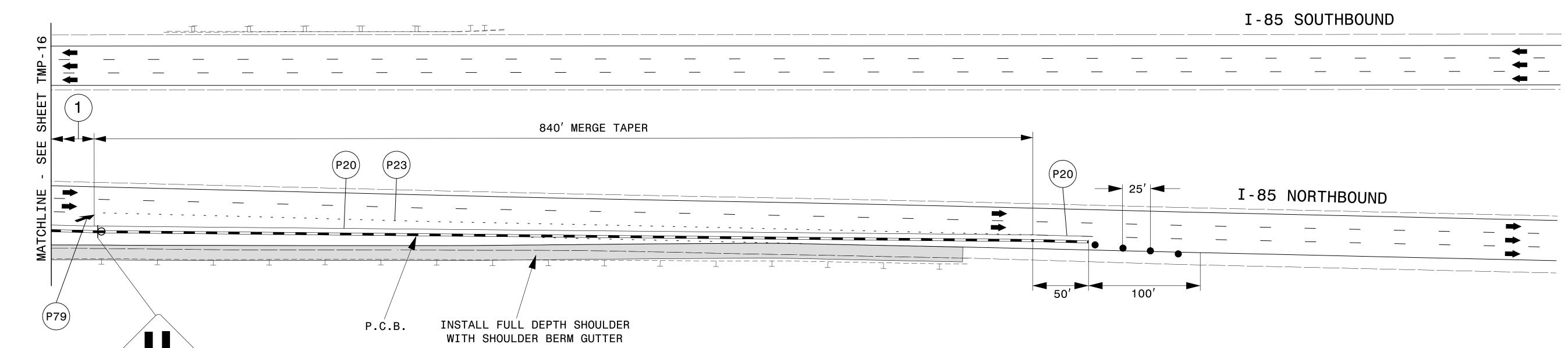
DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1

ROJ. REFERENCE NO. SHEET NO. TMP-17

PERFORM WORK SHOWN THIS SHEET
JUST PRIOR TO I-85 MILLING AND
PAVING OPERATION. RESTORE PAVEMENT
MARKINGS TO EXISTING PATTERN IN
COORDINATION WITH PLACEMENT OF
I-85 PAVEMENT MARKINGS.



1 400' MIN. PARALLEL ACCELERATION LANE



TEMPORARY PAVEMENT MARKING

P20 WHITE EDGELINE

MOUNTED ON P.C.B.

PAINT (6")

P23 3 FT. - 9 FT./SP WHITE MINISKIP

PAINT (6")

PAVEMENT MARKING SYMBOLS AND CHARACTERS

(P79) PAINT MERGE ARROW

PAINT

ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED

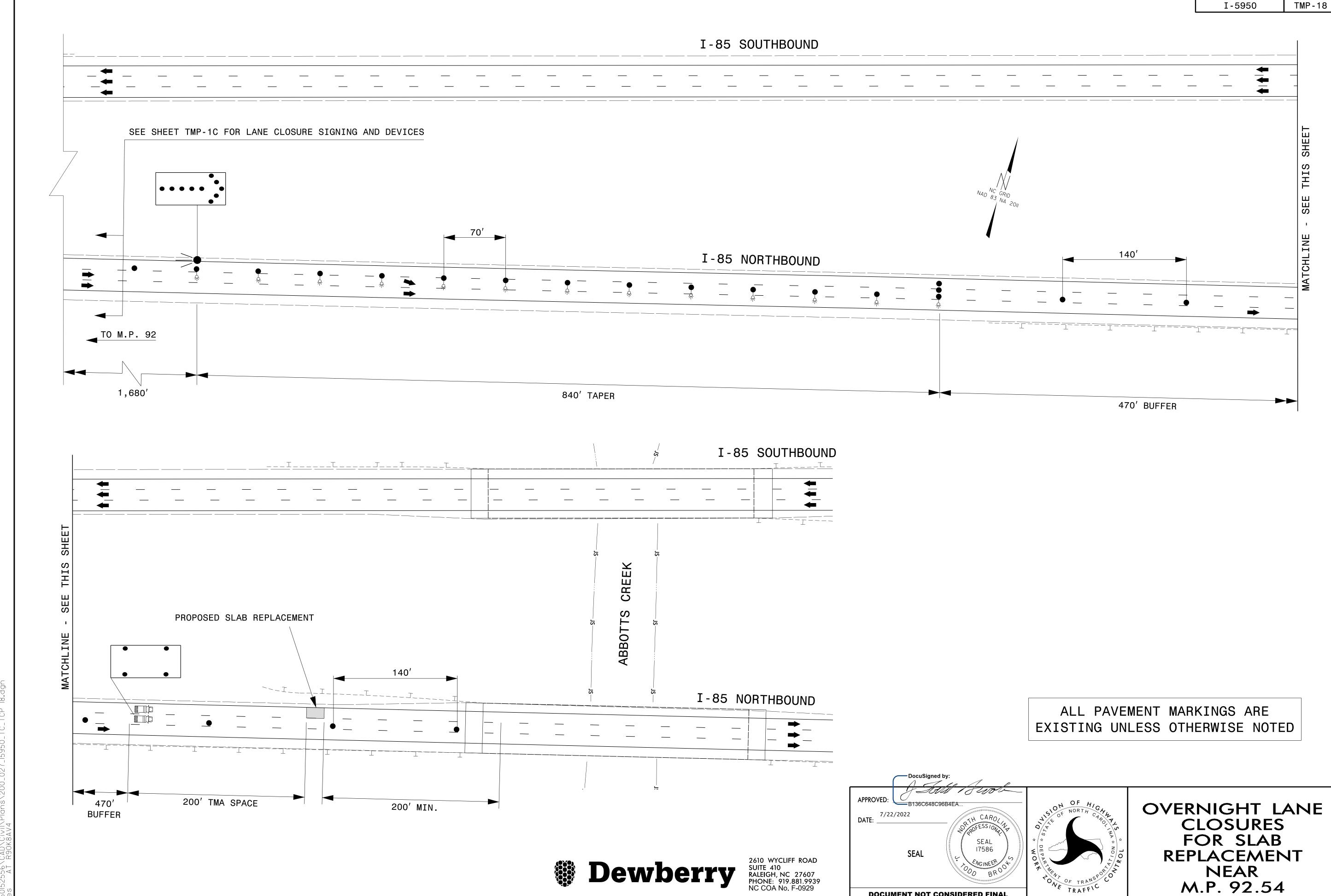




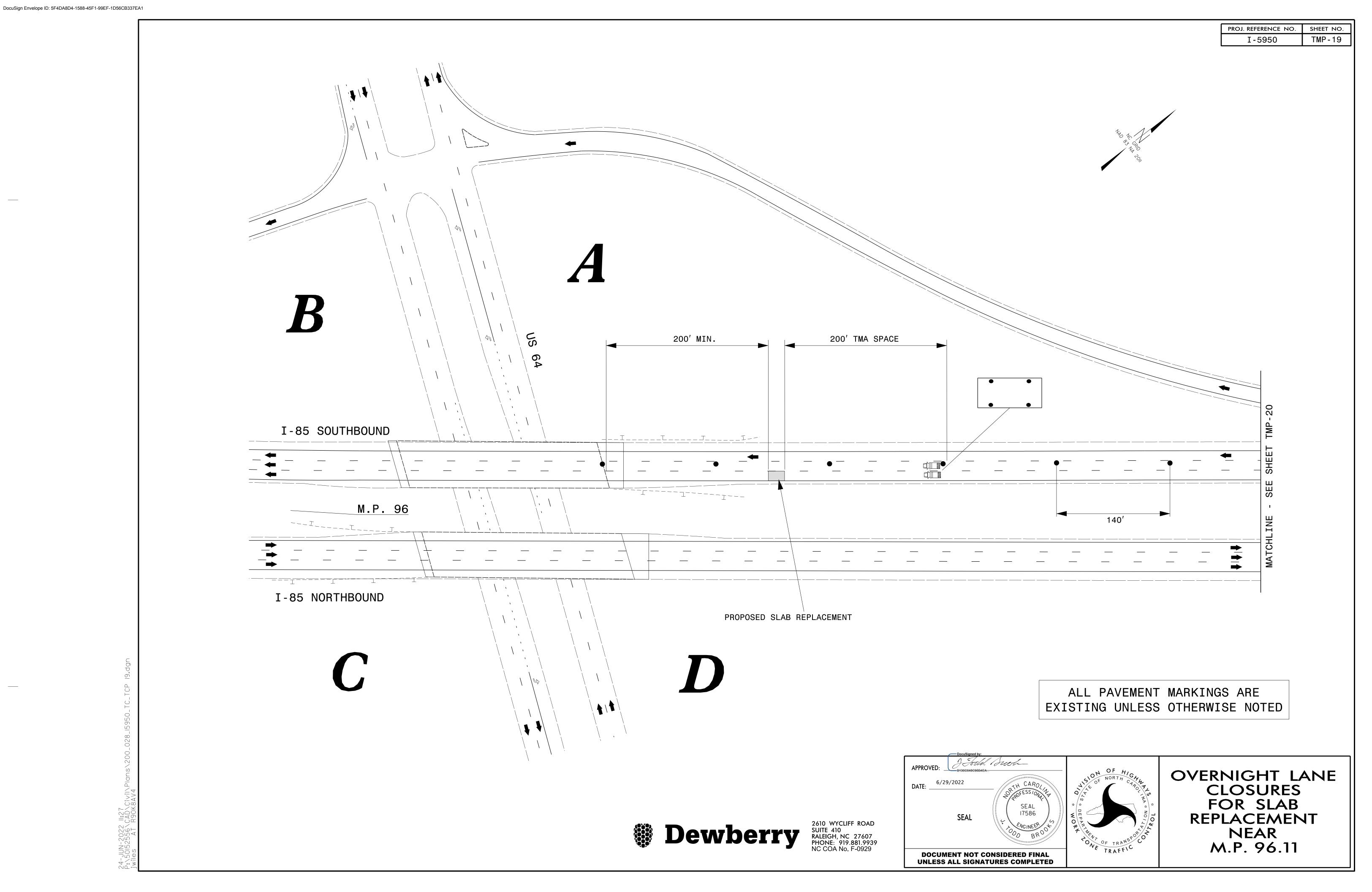


FULL DEPTH SHOULDER
WITH SHOULDER BERM
GUTTER
NB M.P. 91.52 TO 91.69

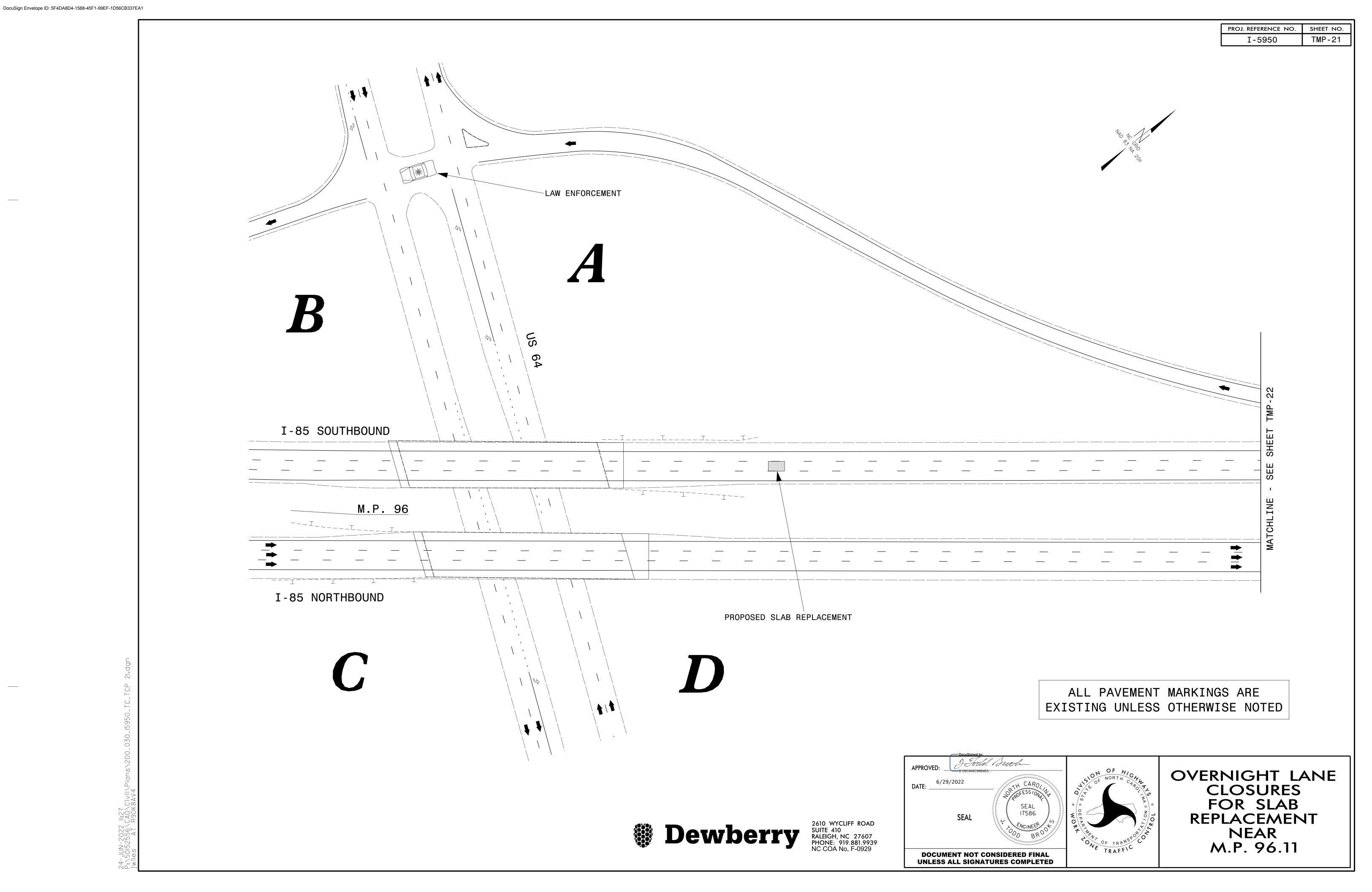
PROJ. REFERENCE NO. TMP-18 I-5950 MATCHLINE



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



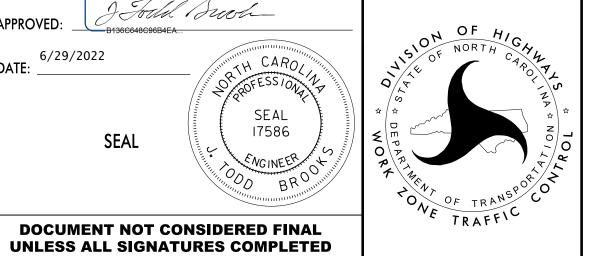
DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4 TMP-20 I-5950 840' TAPER 470' BUFFER 140′ I-85 NORTHBOUND SEE SHEET TMP-1C FOR LANE CLOSURE SIGNING AND DEVICES 840' TAPER 1,680′ I-85 SOUTHBOUND 70' I-85 NORTHBOUND APPROVED: OVERNIGHT LANE
CLOSURES
FOR SLAB
REPLACEMENT ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED SEAL Dewberry NEAR M.P. 96.11 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 TMP-22 I-5950 162′ 840' BUFFER I-85 SOUTHBOUND I-85 NORTHBOUND ALL 48'' x 30'' TRAFFIC SP03355 48" X 48" 840' TAPER TYPE III BARRICADE 840' TAPER 840' BUFFER 1680' TAPER I-85 SOUTHBOUND <u>_____T__T___T___T___T___T___</u> SHEE **→** 70′ I-85 NORTHBOUND OVERNIGHT LANE ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED

Dewberry

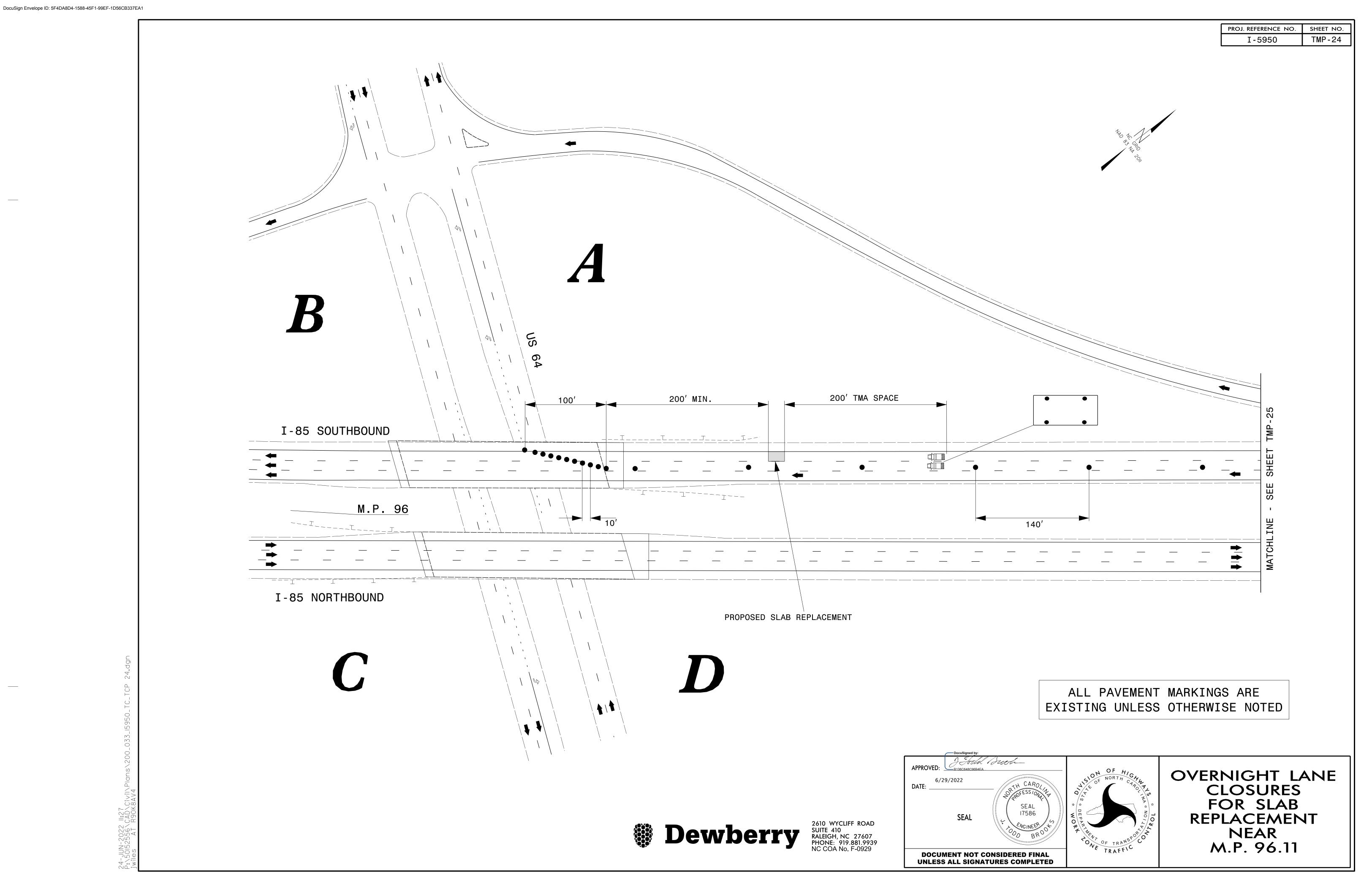
2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929



CLOSURES FOR SLAB REPLACEMENT NEAR M.P. 96.11

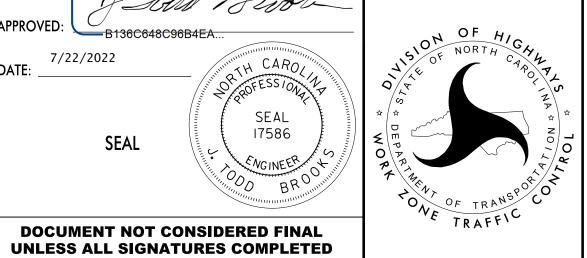
DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4 PROJ. REFERENCE NO. I-5950 TMP-23 840′ **TAPER** 1,680′ .22 TMP I-85 SOUTHBOUND 140′ M.P. 97 W4-2L 48" X 48" **GENERAL NOTES** 1- REFER TO RSD. 1101.02, SHEET 3. K. HOLLY GROVE BD I-85 NORTHBOUND 2- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 5 MILES IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, ALL PAVEMENT MARKINGS ARE MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. EXISTING UNLESS OTHERWISE NOTED 1500′ 750′ 280' SHOULDER TAPER 840' TAPER INE MATCHL: SEE THIS 70′ I-85 SOUTHBOUND I-85 SOUTHBOUND 1500′ 2700′ 2700′ 1 MILE LEFT LANES 1350′ CLOSED W20-5a 4 MILES (B)(A)I-85 SOUTHBOUND LEFT LANES ALL TRAFFIC CLOSED USE NEXT EXIT G21–65 132'' X 54'' AHEAD 48'' X 48'' **W20–5**a (\mathbf{C}) [^] 48′′ X 48′′ (B) (\mathbf{C}) (D)(A)MESSAGE NO. 1 **MESSAGE** MESSAGE **MESSAGE** MESSAGE MESSAGE MESSAGE MESSAGE NO. 1 NO. 1 NO. 2 NO. 2 NO. 2 NO. 2 NO. 1 **MERGE** LEFT ROADWORK LEFT LEFT ROAD ALL APPROVED: 3 MILES OVERNIGHT LANE RIGHT CLOSED TRAFFIC 2 LANES 6 MILES 2 LANES 2 LANES AHEAD CLOSURES FOR SLAB CLOSED CLOSED DATE: AHEAD CLOSED AHEAD EXIT CHANGEABLE MESSAGE SIGN CHANGEABLE MESSAGE SIGN CHANGEABLE MESSAGE SIGN CHANGEABLE MESSAGE SIGN SEAL 17586 SEAL **REPLACEMENT** 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 Dewberry NEAR M.P. 96.11

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

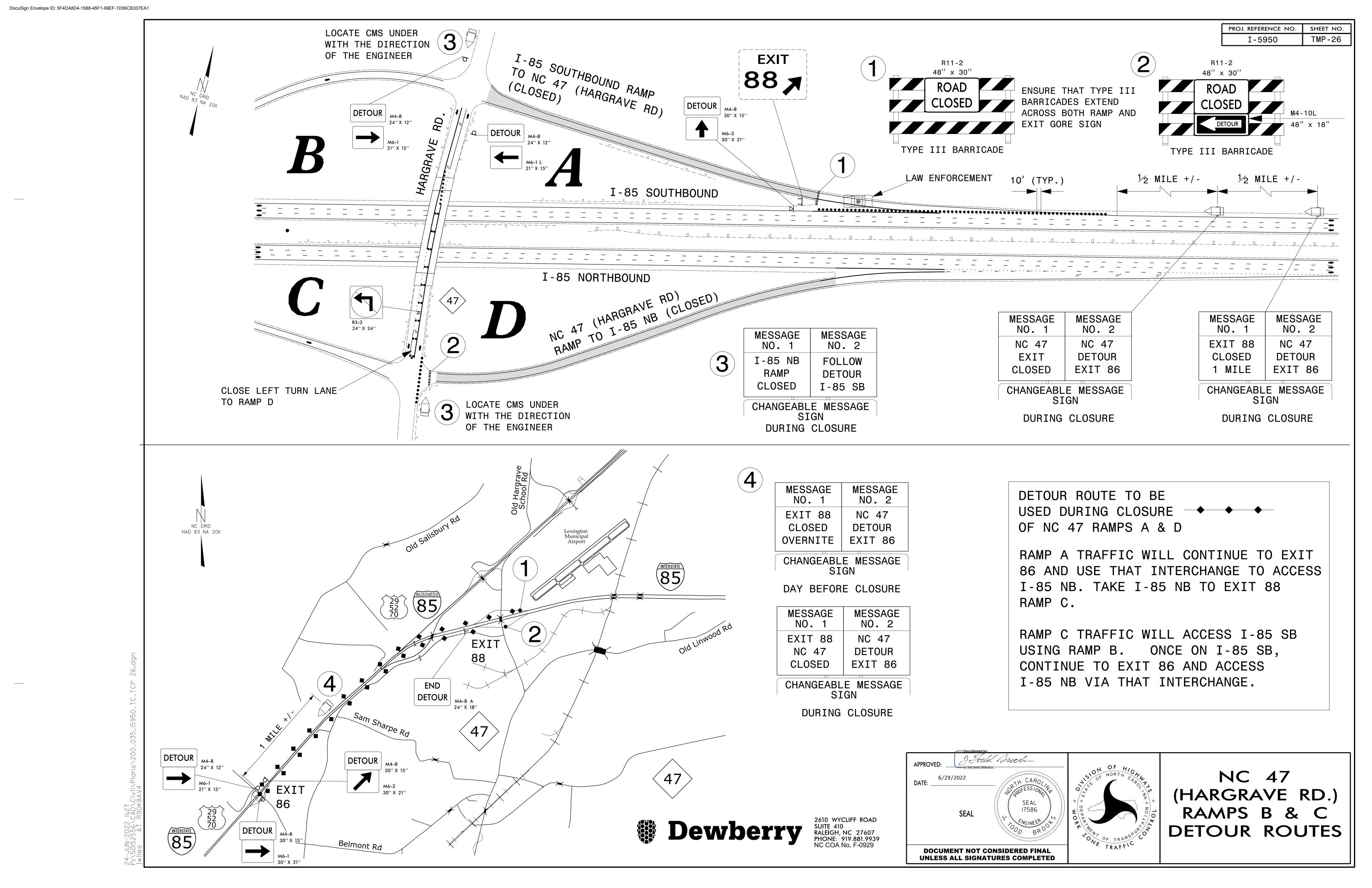


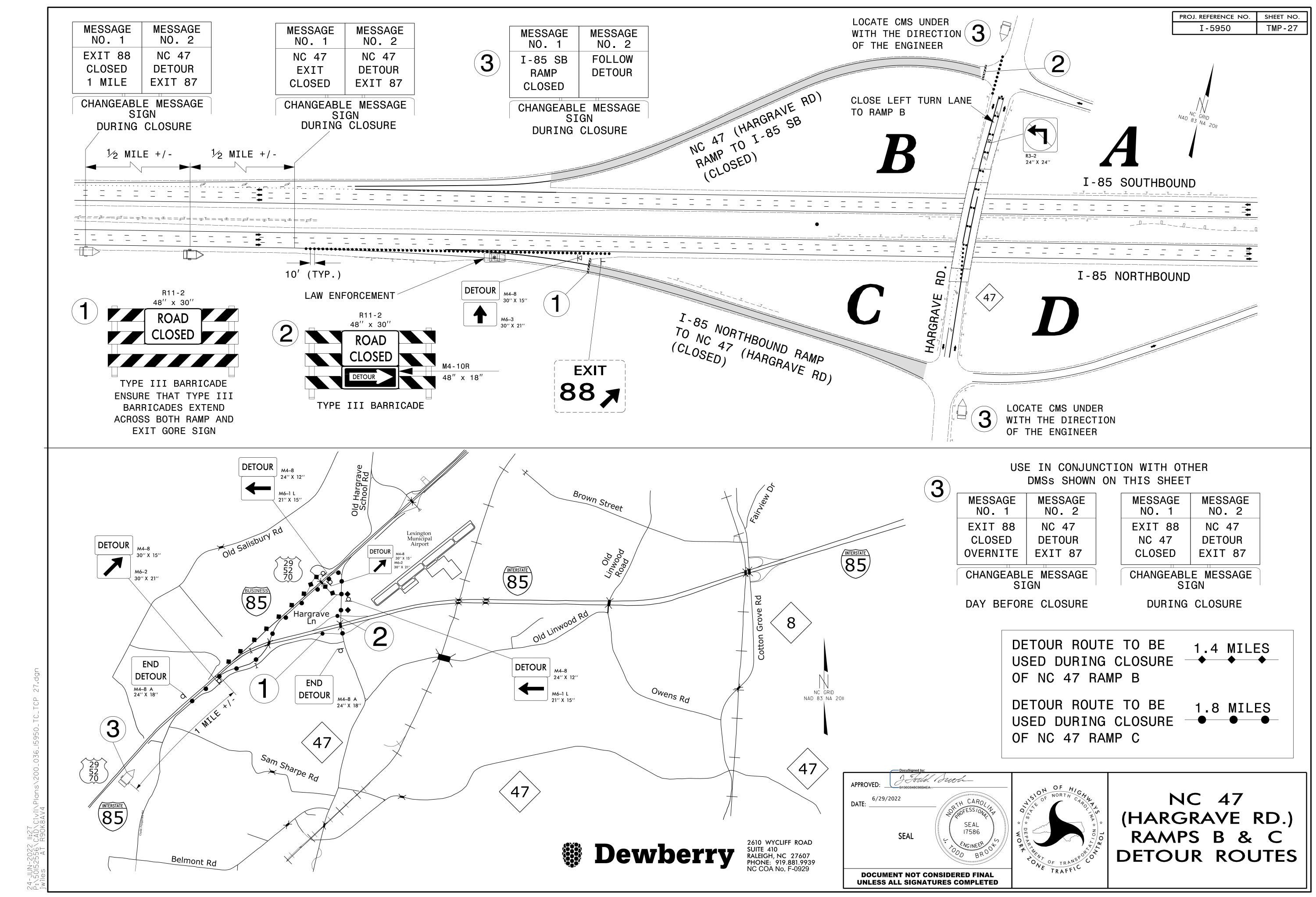
DocuSign Envelope ID: 278DE842-32B1-4307-B7DF-FD24622029A4 PROJ. REFERENCE NO. TMP-25 I-5950 **EXIT** 840' TAPER 360' BUFFER SPACE 200′ I-85 SOUTHBOUND 70′ 240′ 170' OPENING I-85 NORTHBOUND SEE SHEET TMP-1C FOR LANE CLOSURE SIGNING AND DEVICES 840' TAPER I-85 SOUTHBOUND 70' I-85 NORTHBOUND OVERNIGHT LANE
CLOSURES
FOR SLAB
REPLACEMENT APPROVED: DATE: ALL PAVEMENT MARKINGS ARE EXISTING UNLESS OTHERWISE NOTED SEAL 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929

Dewberry



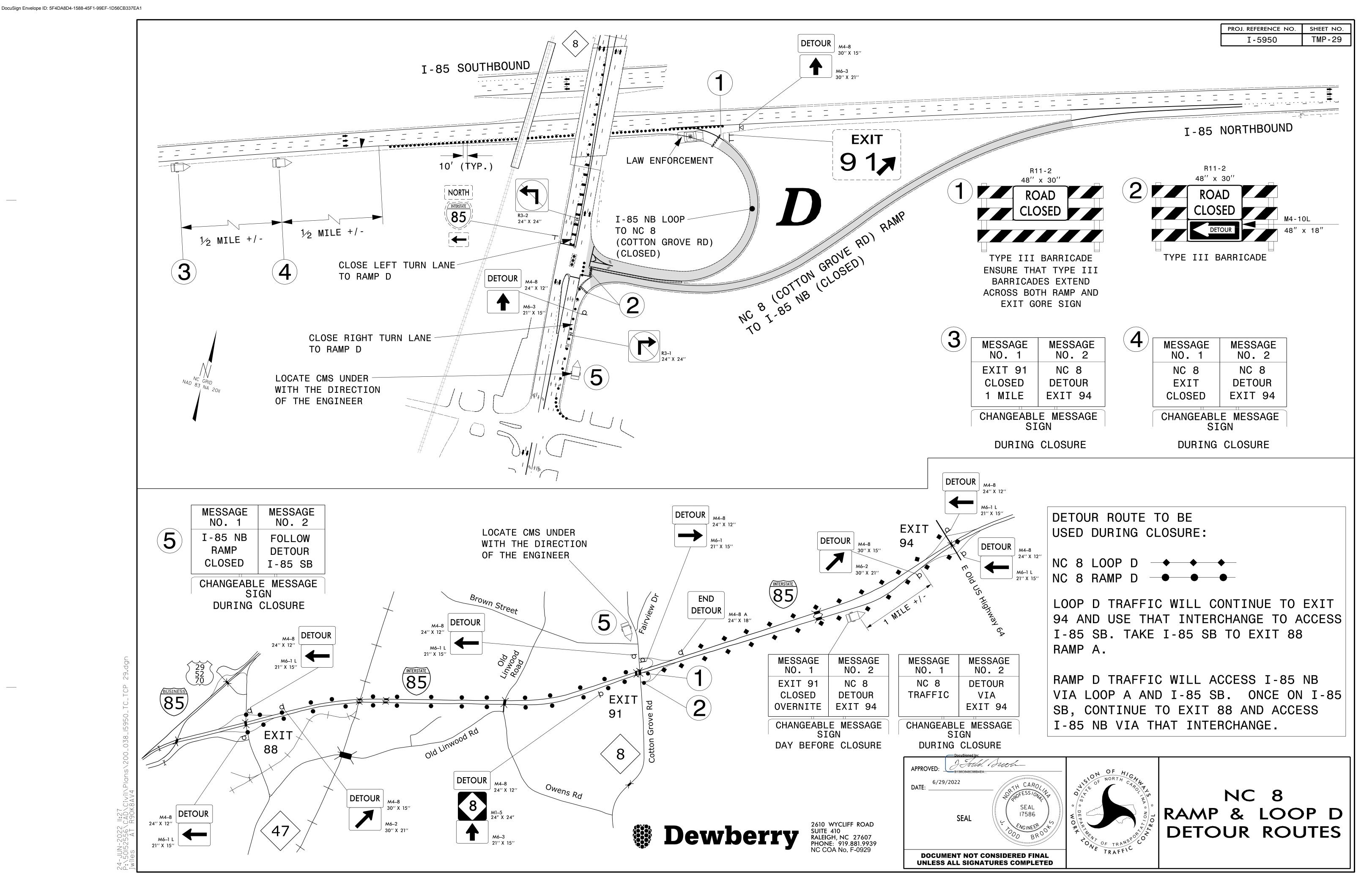
NEAR M.P. 96.11



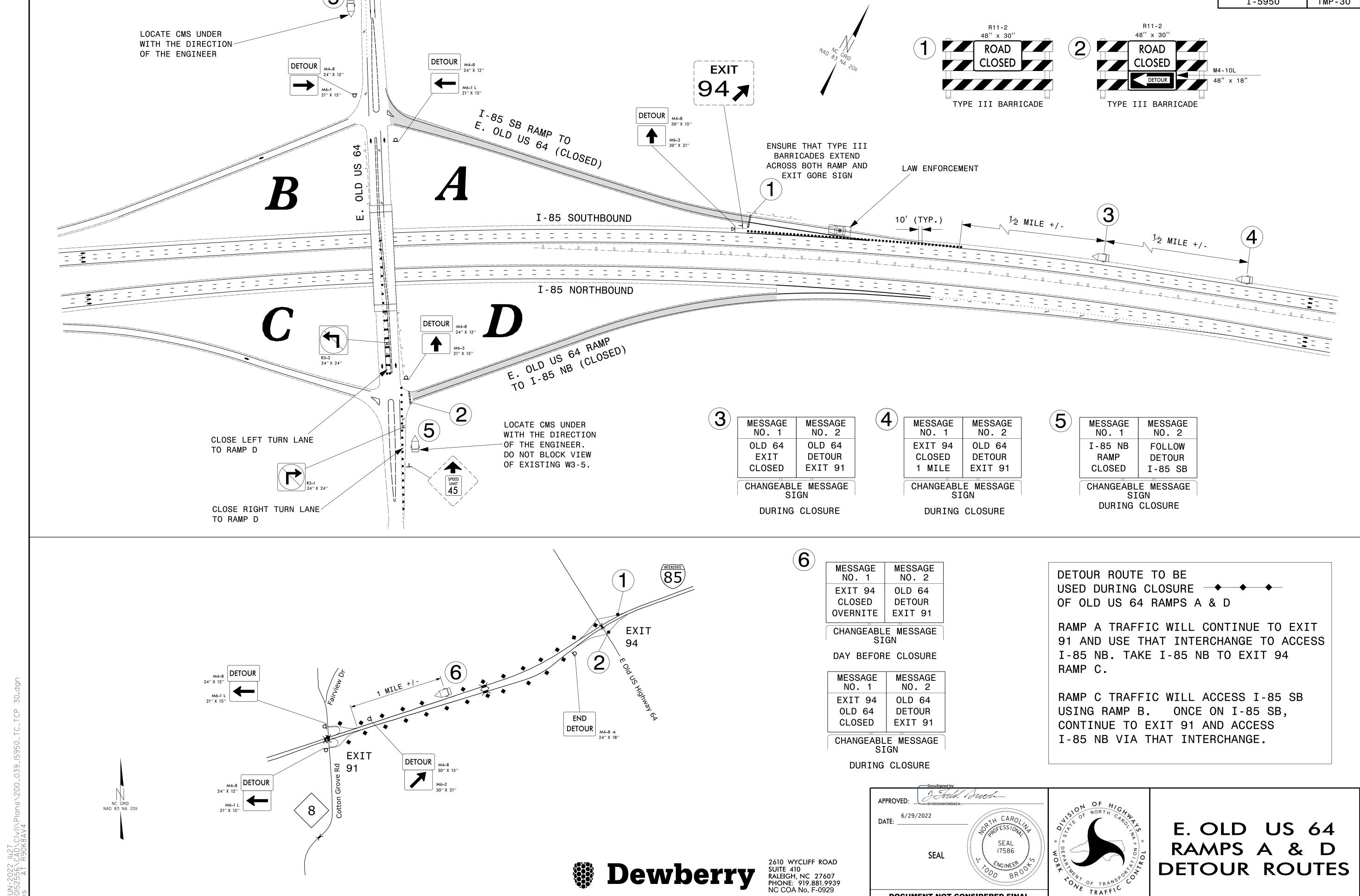


DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. SHEET NO. R11-2 LOCATE CMS UNDER TMP-28 I-5950 48" x 30" WITH THE DIRECTION MESSAGE MESSAGE OF THE ENGINEER NO. 2 NO. 1 MESSAGE MESSAGE NC 8 EXIT 91 NO. 1 NO. 2 8 **DETOUR** CLOSED I-85 SB FOLLOW OVERNITE EXIT 88 LOOP MESSAGE DETOUR MESSAGE NO. 1 NO. 2 TYPE III BARRICADE CLOSED I-85 NB CHANGEABLE MESSAGE EXIT 91 NC 8 SIGN CLOSE LEFT TURN LANE CHANGEABLE MESSAGE CLOSED **DETOUR** DAY BEFORE CLOSURE TO LOOP A SIGN 48" x 30" 1 MILE EXIT 88 DURING CLOSURE MESSAGE MESSAGE CHANGEABLE MESSAGE CLOSED NO. 1 NO. 2 SIGN NC 8 NC 8 24" X 24" DURING CLOSURE EXIT **DETOUR** R11-2 DETOUR | M4-8 CLOSED EXIT 88 TYPE III BARRICADE TO NC SOUTHBOUND (CLOSED) (COTTON RAMP GROVE RD) ACROS CHANGEABLE MESSAGE CLOSED SIGN DURING CLOSURE CLOSE RIGHT TURN LANE TO LOOP A TYPE III BARRICADE 1/2 MILE +/-1/2 MILE +/-ENSURE THAT TYPE III LAW ENFORCEMENT BARRICADES EXTEND ACROSS BOTH RAMP AND EXIT GORE SIGN NC 8 (COTTON GROVE RD) DETOUR | M4-8 10' (TYP.) LOOP TO I-85 SB (CLOSED) M6–3 30′′ X 21′′ **EXIT** I-85 SOUTHBOUND DETOUR | M4-8 5 MESSAGE MESSAGE MESSAGE MESSAGE NO. 1 NO. 2 DETOUR | M4-8 24" X 12" NO. 1 NO. 2 DETOUR ROUTE TO BE EXIT 91 NC 8 NC 8 **DETOUR** USED DURING CLOSURE: DETOUR | M4-8 CLOSED DETOUR TRAFFIC VIA OVERNITE | EXIT 88 EXIT 88 NC 8 RAMP A CHANGEABLE MESSAGE CHANGEABLE MESSAGE NC 8 LOOP A → ◆ SIGN SIGN DAY BEFORE CLOSURE DURING CLOSURE RAMP A TRAFFIC WILL CONTINUE TO EXIT M4-8 DETOUK 88 AND USE THAT INTERCHANGE TO ACCESS I-85 NB. TAKE I-85 NB TO EXIT 91 EXIT LOOP D. DETOUR | M4-8 85 LOOP A TRAFFIC WILL ACCESS I-85 SB DETOUR | M4-8 VIA RAMP D AND I-85 NB. ONCE ON I-85 NB, CONTINUE TO EXIT 94 AND ACCESS M6-1 21" X 15" END EXIT I-85 SB VIA THAT INTERCHANGE. DETOUR

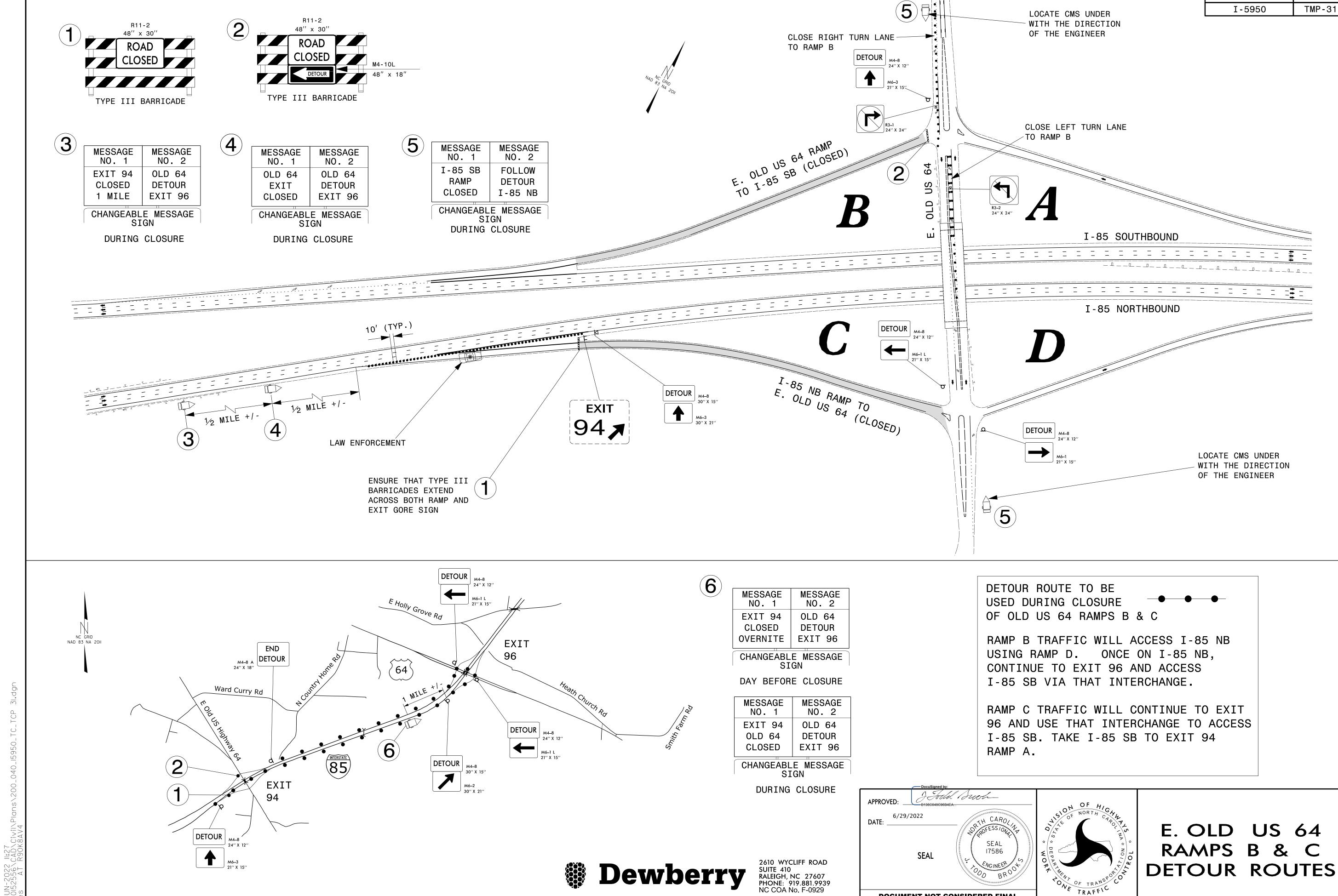
M4-8 A
24" X 18" 88 **(4**) J Folk Buch DETOUR DETOUR | M4-8 30" X 15" APPROVED: LOCATE CMS UNDER O_{wens Rd} 6/29/2022 NC 8 WITH THE DIRECTION OF THE ENGINEER 21" X 15" RAMP & LOOP A 47 M4-8 DETOUR | SEAL **DETOUR ROUTES** 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 Dewberry **DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. SHEET NO. TMP-30 I-5950

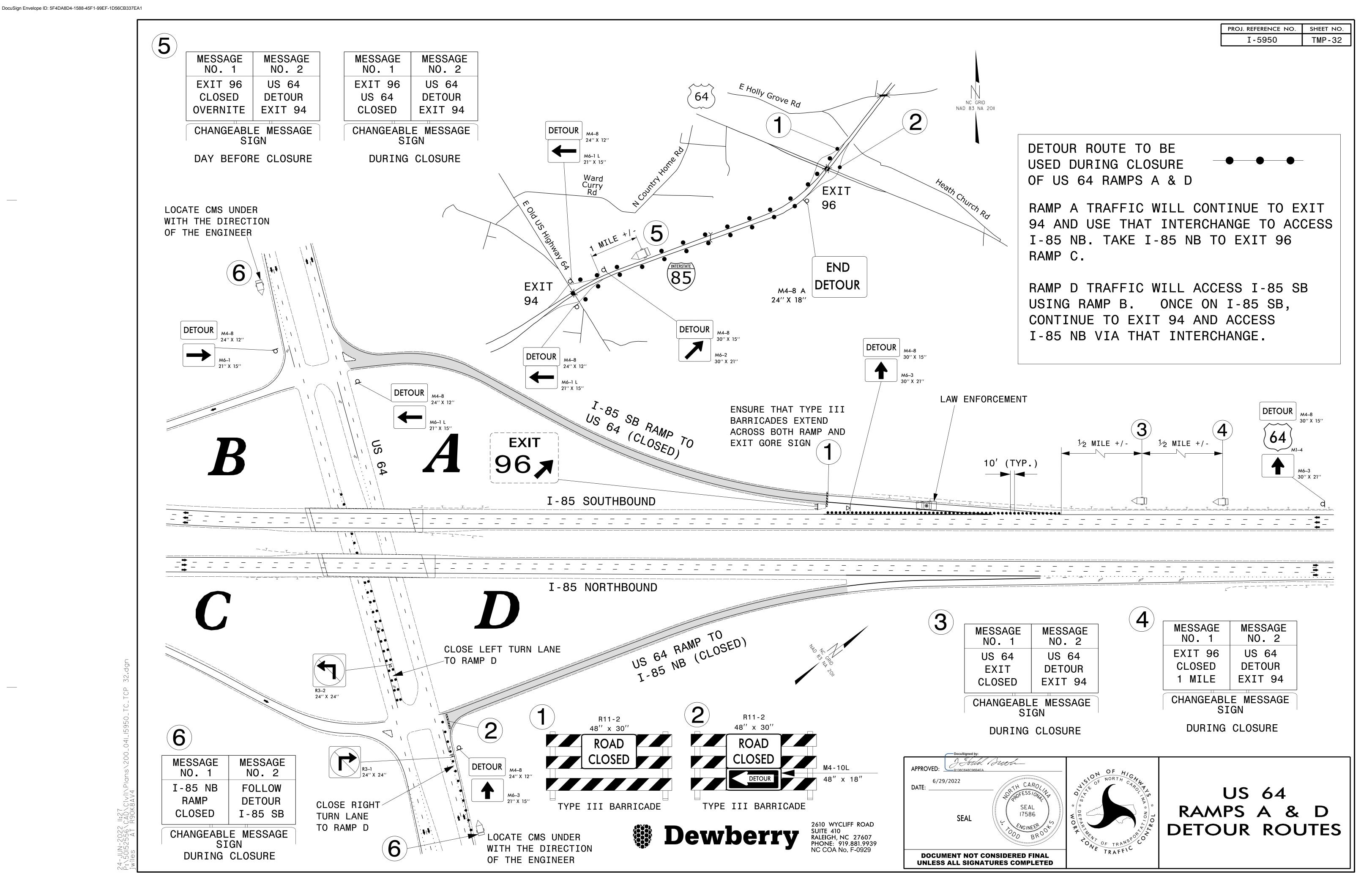


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SHEET NO.

PROJ. REFERENCE NO.



DocuSign Envelope ID: 5F4DA8D4-1588-45F1-99EF-1D56CB337EA1 PROJ. REFERENCE NO. SHEET NO. R11-2 LOCATE CMS UNDER R11-2 TMP-33 48" x 30" I-5950 DETOUR | M4-8 | 24" X 12" 48" x 30" WITH THE DIRECTION ROAD **ROAD** OF THE ENGINEER CLOSED CLOSED CLOSE RIGHT TURN LANE DETOUR | M4-8 | 24" X 12" TO RAMP B LEFT DETOUR TYPE III BARRICADE TYPE III BARRICADE M5–4 24" X 18" DETOUR ROUTE TO BE USED DURING CLOSURE → ◆ ◆ DETOUR | M4-8 DETOUR | M4-8 OF US 64 RAMP B 24" X 12" CLOSE LEFT LEFT US 64 RAMP TO (CLOSED)
1-85 SB (CLOSED) 24" X 12" LANE M5-4 24" X 18" TURN LANE DETOUR M4-8 TO RAMP B 2 M6–3 30" X 21" DETOUR 64 M1-4 36" x 36" DETOUR M4-8 I-85 SOUTHBOUND ENSURE THAT TYPE III BARRICADES EXTEND ACROSS BOTH RAMP AND EXIT GORE SIGN 12 MILE +/-3 DETOUR | M4-8 12 MILE +/-I-85 NORTHBOUND LAW ENFORCEMENT **EXIT** 96, DETOUR | M4-8 SEE TMP-34 FOR DETOUR ROUTE TO BE USED DURING MESSAGE MESSAGE CLOSURE OF US 64 RAMP C NO. 1 NO. 2 21" X 15" US 64 NB RAMP TO EXIT 96 US 64 CLOSED **DETOUR** EXIT 102 1 MILE CHANGEABLE MESSAGE SIGN DETOUR _{M4-8} E Holly Grove Rd DURING CLOSURE M6–3 21" X 15" 5 4 MESSAGE NO. 2 MESSAGE MESSAGE MESSAGE NAD 83 NA 2011 NO. 1 NO. 2 NO. 1 FOLLOW I-85 SB US 64 US 64 **DETOUR** RAMP EXIT DETOUR Ward Curry Rd 2 CLOSED CLOSED **EXIT 102** LOCATE CMS UNDER WITH THE DIRECTION CHANGEABLE MESSAGE SIGN ⁾ 64 ⁽ CHANGEABLE MESSAGE SIGN NTERSTATE 85 OF THE ENGINEER DETOUR | M4-8 24" X 12" DURING CLOSURE DURING CLOSURE J Sould Such APPROVED: DATE: US 64 DETOUR

M4-8 A
24" X 18" RAMP B SEAL 2610 WYCLIFF ROAD SUITE 410 RALEIGH, NC 27607 PHONE: 919.881.9939 NC COA No. F-0929 DETOUR ROUTE Dewberry

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED