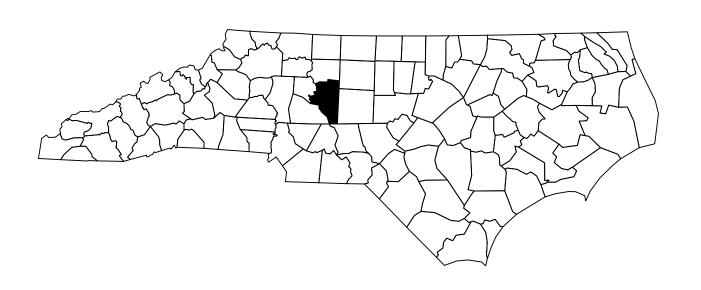
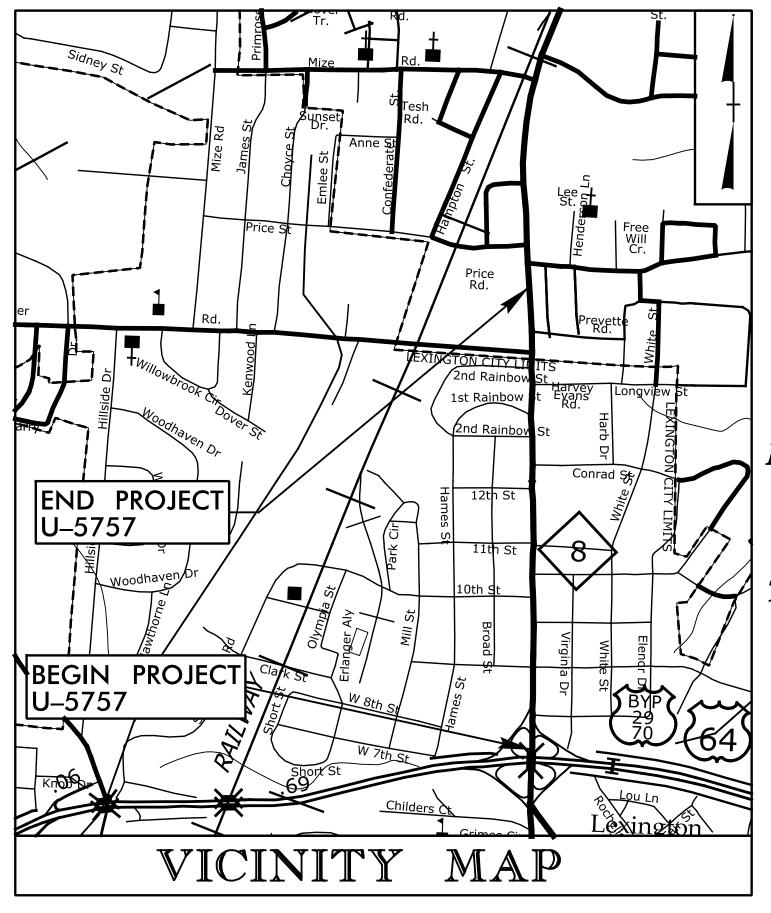
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# TRANSPORTATION MANAGEMENT PLAN

# DAVIDSON COUNTY





LOCATION: NC 8 (WINSTON ROAD) FROM US 29 /US 70 TO SR 1846 (ARRINGTON DRIVE) IN LEXINGTON

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND SIGNALS

## INDEX OF SHEETS

SHEET NO. TITLE TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS TMP - 1 LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES) TMP-2 PHASING TMP-3 TMP-4-6 PHASE I PHASE II TMP-7-9

PHASE III

TMP-10-12

SHEET NO.

TMP-1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WORK ZONE SAFETY & MOBILITY

"from the MOUNTAINS to the COAST"

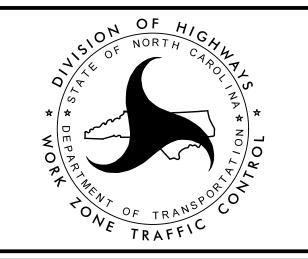
PLANS PREPARED BY: STEVE MILLER, P.E.

JOHN BAUMAN, P.E.

AL BLANTON, PE, PLS PROJECT ENGINEER

NCDOT CONTACTS:

PROJECT DESIGN ENGINEER



1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453 **TR**ANSYSTEMS

APPROVED. DATE: SEAL

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>	
1101.01	WORK ZONE ADVANCE WARNING SIGNS	
1101.02	TEMPORARY LANE CLOSURES	
1101.04	TEMPORARY SHOULDER CLOSURES	
1101.05	WORK ZONE VEHICLE ACCESSES	
1101.11	TRAFFIC CONTROL DESIGN TABLES	
1110.01	STATIONARY WORK ZONE SIGNS	
1110.02	PORTABLE WORK ZONE SIGNS	
1115.01	FLASHING ARROW BOARDS	
1130.01	DRUMS	
1135.01	CONES	
1145.01	BARRICADES - TYPE III	
1150.01	FLAGGERS	
1165.01	TRUCK MOUNTED ATTENUATOR	
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	
1205.05	PAVEMENT MARKINGS - TURN LANES	
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS	
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES	
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS	

# **LEGEND**

PROJ. REFERENCE NO. SHEET NO. U-5757 TMP-1A

# <u>GENERAL</u>

DIRECTION OF TRAFFIC FLOW

PROPOSED PVMT.

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

**———** EXIST. PVMT.

NORTH ARROW

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL

WEDGING

## SIGNALS

Ï∰¦EXISTING





#### PAVEMENT MARKINGS

EXISTING LINES TEMPORARY LINES

### TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III) 

TEMPORARY CRASH CUSHION FLASHING ARROW BOARD

FLAGGER

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

CHANGEABLE MESSAGE SIGN

#### TEMPORARY SIGNING

PORTABLE SIGN

— STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

#### PAVEMENT MARKERS

CRYSTAL/CRYSTAL CRYSTAL/RED YELLOW/YELLOW

# PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

#### TEMPORARY PAVEMENT MARKING SCHEDULE

DESCRIPTION SYMBOL PAINT (24") P61 WHITE STOP BAR PAINT (4") WHITE EDGE LINE WHITE SOLID LANE LINE 10 FT. WHITE SKIP 3 FT. - 9 FT./SP WHITE MINISKIP 2 FT. - 6 FT./SP WHITE MINISKIP YELLOW EDGE LINE P11 YELLOW SINGLE CENTER P12 10 FT. YELLOW SKIP YELLOW DOUBLE CENTER P13 PAINT (8") P42 YELLOW DIAGONAL P43 WHITE SOLID LANE LINE

3 FT. - 9 FT./SP WHITE MINISKIP

P46 WHITE CROSSWALK LINE

LEFT TURN ARROW P71 RIGHT TURN ARROW STRAIGHT ARROW

COMBO RIGHT/STRAIGHT ARROW COMBO LEFT/RIGHT/STRAIGHT ARROW P79 MERGE ARROW

ELONGATED STRAIGHT ARROW

BICYCLE SYMBOL, HEATED IN PLACE AND BICYCLE STRAIGHT ARROW, HEATED IN PLACE SHARROW, HEATED IN PLACE

P100 ALPHANUMERIC CHARACTER

> SEAL **DOCUMENT NOT CONSIDERED FINAL**

PAINT PAVEMENT MARKING SYMBOLS



ROADWAY STANDARD DRAWINGS & LEGEND

1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453

**UNLESS ALL SIGNATURES COMPLETED** 

I. REFERENCE NO.	SHEET NO.
U-5757	TMP-2

### MANAGEMENT **STRATEGIES**

- LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION
- PROVIDE ONE MONTH NOTICE TO THE ENGINEER, DAVIDSON COUNTY EMERGENCY SERVICES, AND DAVIDSON COUNTY SCHOOL OFFICIALS PRIOR TO ROAD CLOSURE

### GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME: NC 8(WINSTON RD) DAY AND TIME RESTRICTIONS MONDAY-FRIDAY 7:00 A.M.-9:00 A.M 4:00 P.M.-7:00 P.M.

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

ROAD NAME: NC 8 (WINSTON RD)

HOLIDAY

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

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

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER ONE MONTH PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

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

TRAFFIC CONTROL DEVICES

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

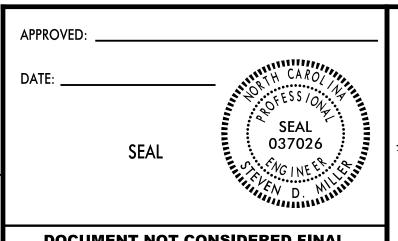
P) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME MARKING MARKER NC8(WINSTON RD) PAINT NONE

- Q) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- T) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS.

#### MISCELLANEOUS

- U) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- V) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).



TRANSPORTATION **OPERATIONS PLAN** 

Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453

1 Glenwood Avenu

ROJ. REFERENCE NO.	SHEET NO.
U-5757	TMP-3

### **PHASING**

#### PHASE I

- STEP 1: USING ROADWAY STANDARD DRAWING 1101.01 SHEETS 2 AND 3 OF 3 INSTALL ADVANCE WARNING SIGNS ON NC 8 AND ALL -Y- LINES.
- STEP 2: USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19, BEGIN CONSTRUCTION ON THE RIGHT SIDE OF -L- AS SHOWN ON TMP 4-6 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. CONTRACTOR MUST CLOSE SIDEWALK USING PEDESTRIAN BARRICADES AND AUDIBLE WARNING DEVICES AS SHOWN ON TMP-4.

WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF PHASE I STEP 3 IN |SEVENTY-TWO (72) CONSECUTIVE HOURS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 3: USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19, COMPLETE CONSTRUCTION NECESSARY FOR PHASE II PATTERN. PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS AND SHIFT TRAFFIC TO PHASE II PATTERN.

> NOTE: WEDGE AS NEEDED TO MAINTAIN SMOOTH TRANSITION FROM PROPOSED TO EXISTING.

NOTE: ADJUST SIGNAL PATTERNS AS NEEDED WHERE TRAFFIC PATTERNS ARE AFFECTED BY CROSSOVERS.

#### PHASE II

- STEP 1: AWAY FROM TRAFFIC AND USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19 AS NEEDED, COMPLETE CONSTRUCTION ON THE LEFT SIDE OF -L- .
- STEP 2: USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19, WEDGE UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS IN THE FINAL PATTERN AND SHIFT TRAFFIC TO PHASE III PATTERN.

NOTE: ADJUST SIGNAL PATTERNS AS NEEDED WHERE TRAFFIC PATTERNS ARE AFFECTED BY CROSSOVERS.

#### PHASE III

- STEP 1: USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19, CONSTRUCT CONCRETE MEDIAN ISLANDS AND MEDIAN CURB & GUTTER.
- STEP 2: USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 19, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS AND MARKINGS PER THE FINAL PAVEMENT MARKING PLAN.
- STEP 3: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

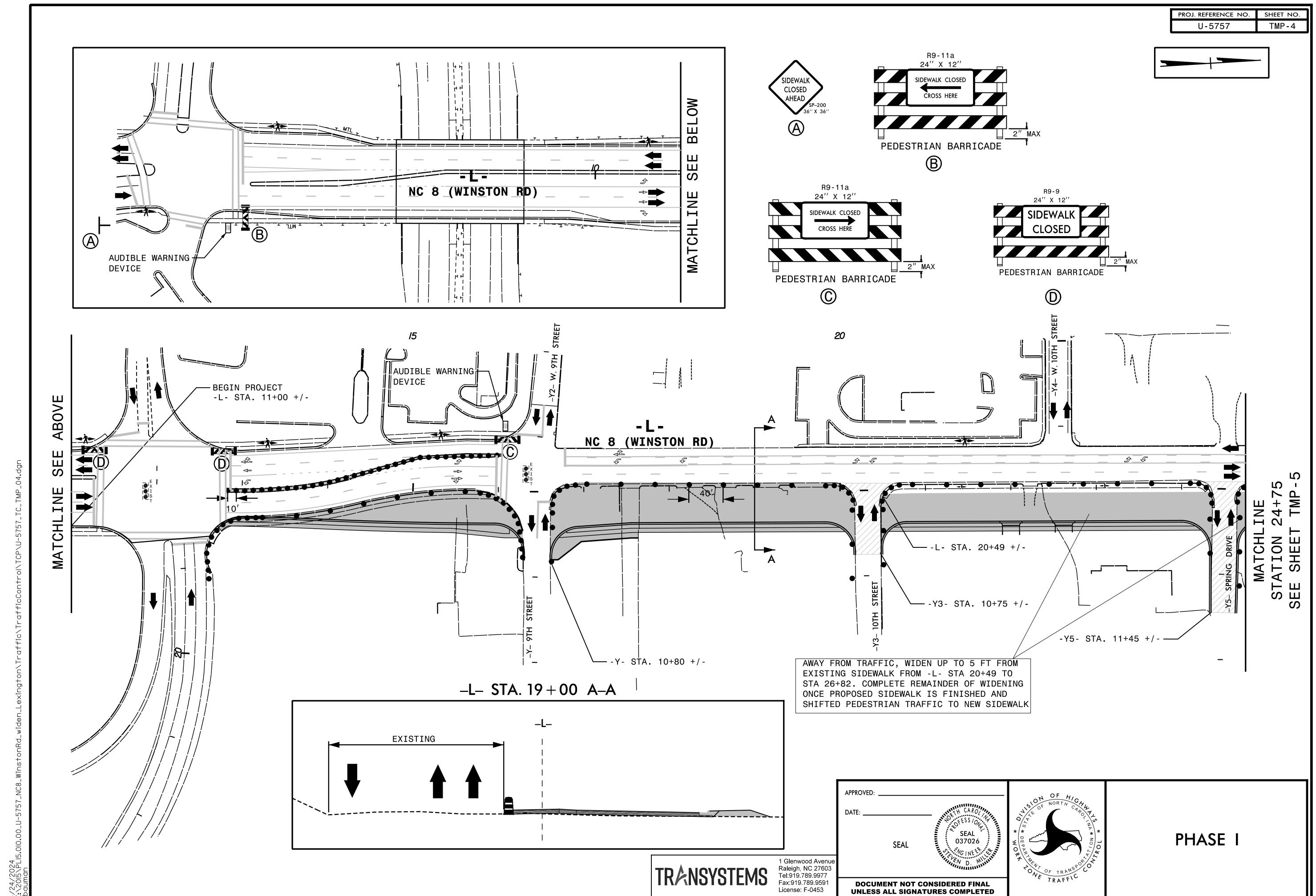
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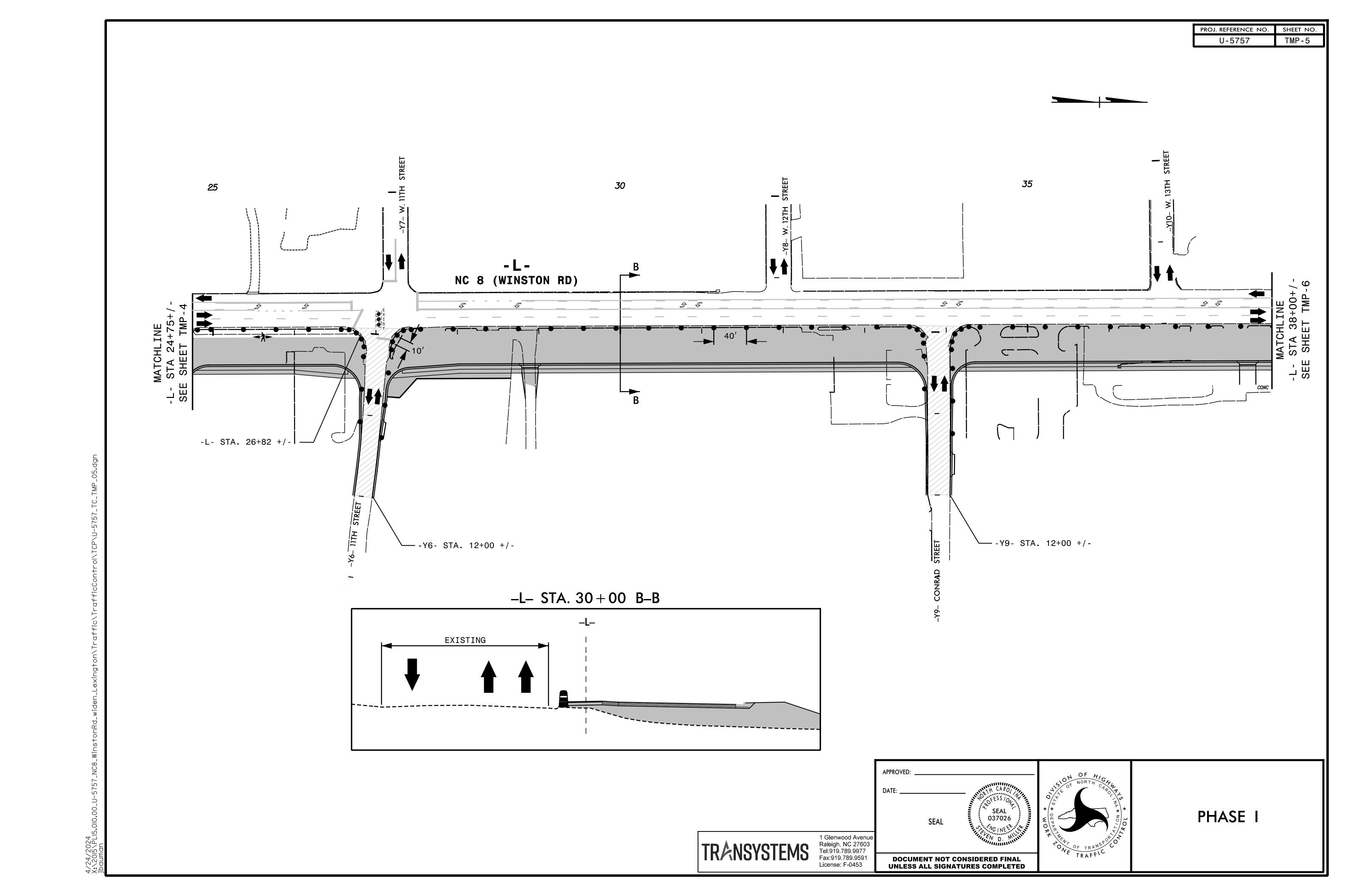
**UNLESS ALL SIGNATURES COMPLETED** 

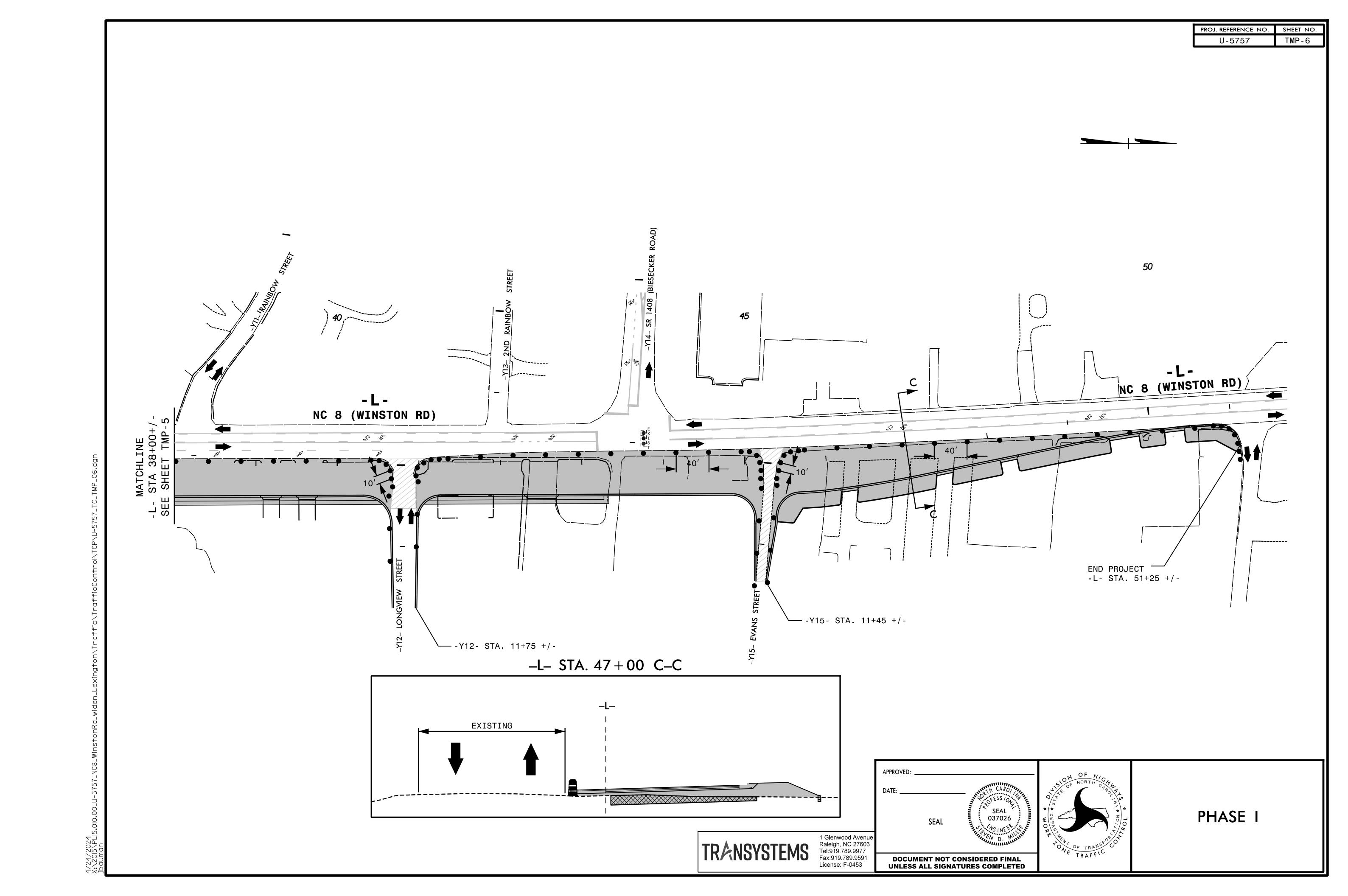
PHASING

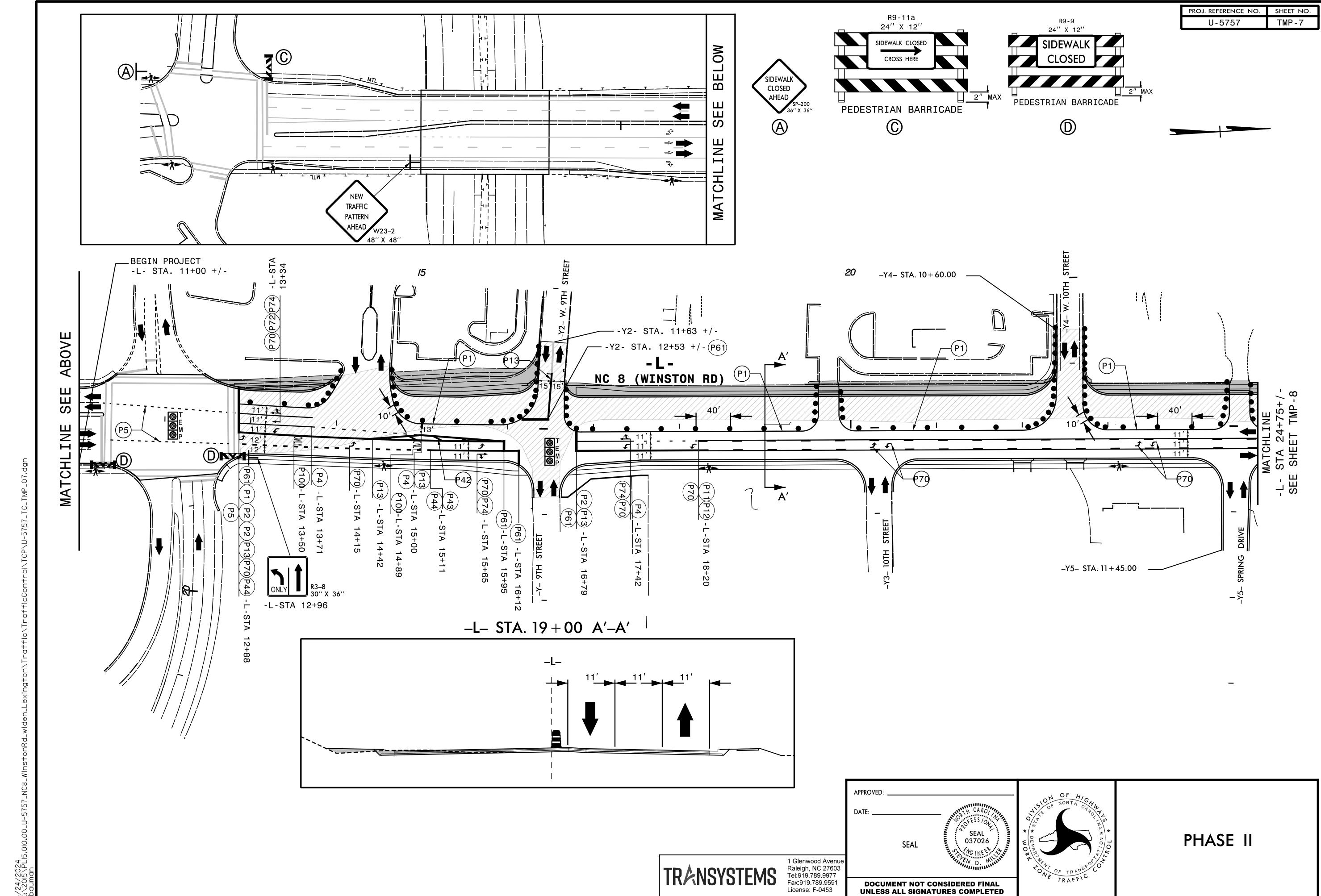
TRANSYSTEMS

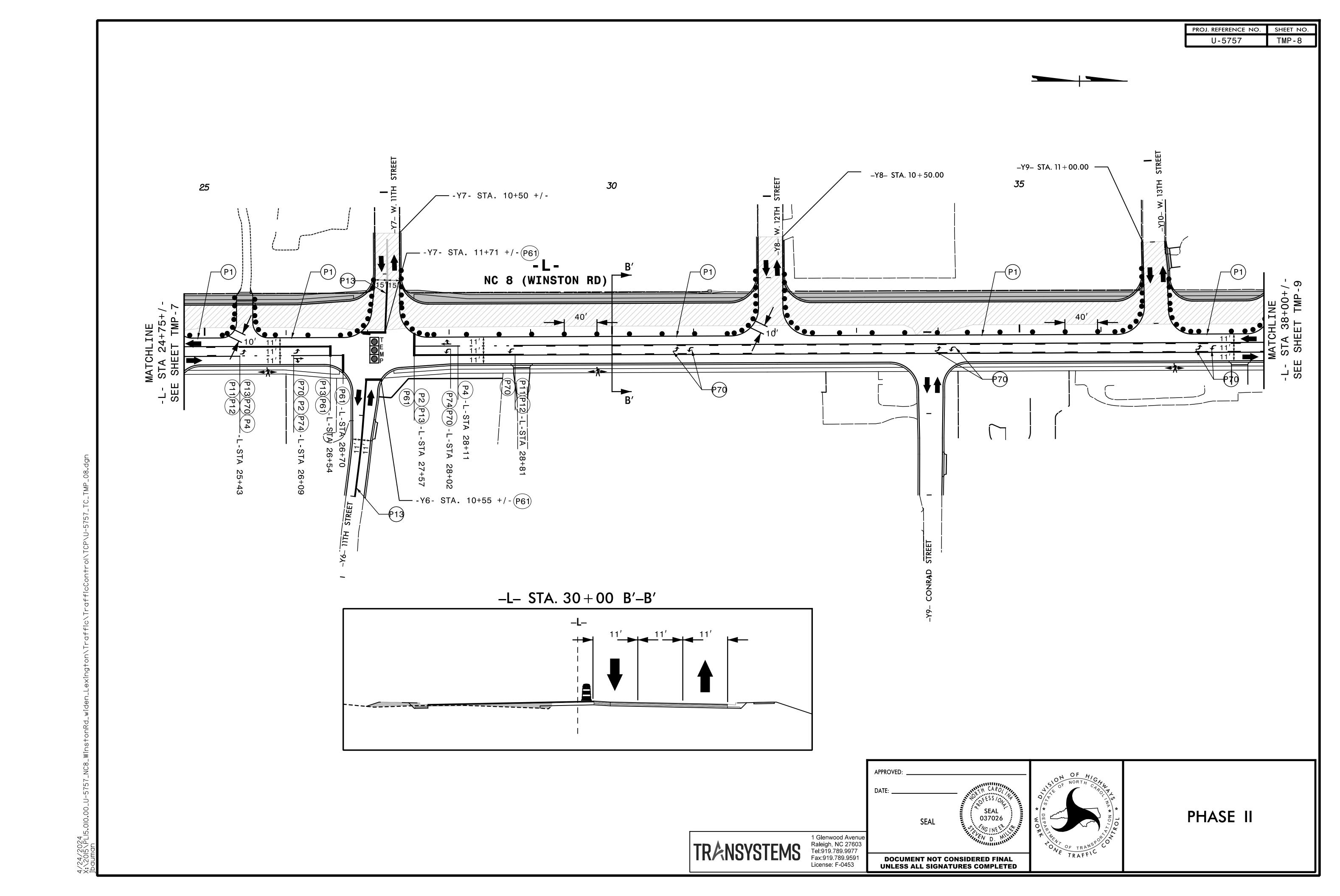
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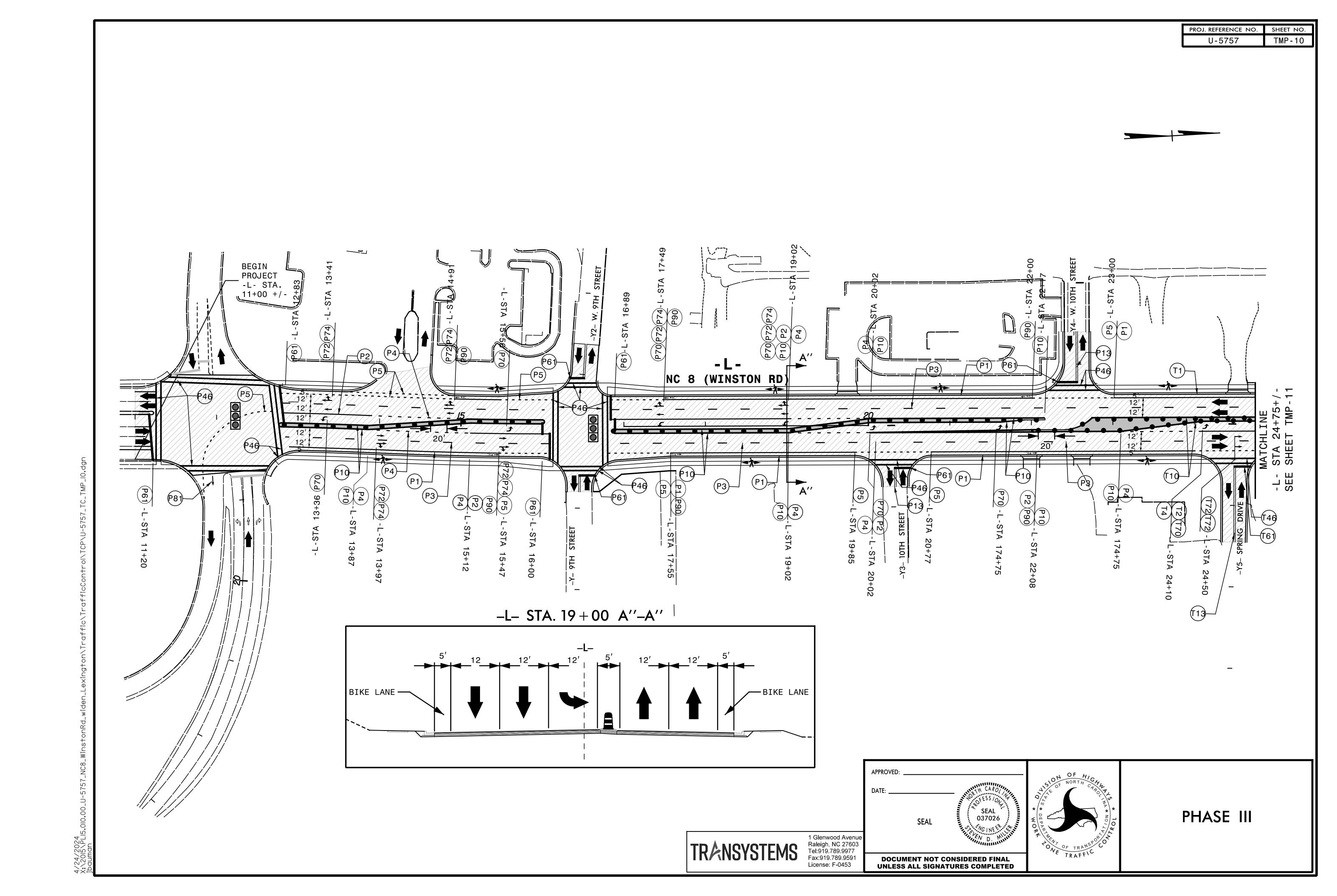








TMP-9 PEDESTRIAN BARRICADE -L-NC 8 (WINSTON RD) 11 P70 A END PROJECT -L- STA. 51+25 +/--L- STA. 47 + 00 C'-C' PHASE II 1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453 TRANSYSTEMS DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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SHEET NO. U-5757 TMP-12 --SE END PROJECT -L- STA. 51+25 +/-—79-L-STA 46+00 -L- STA. 47 + 00 C''-C'' PHASE III SEAL 1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453 TRANSYSTEMS DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED