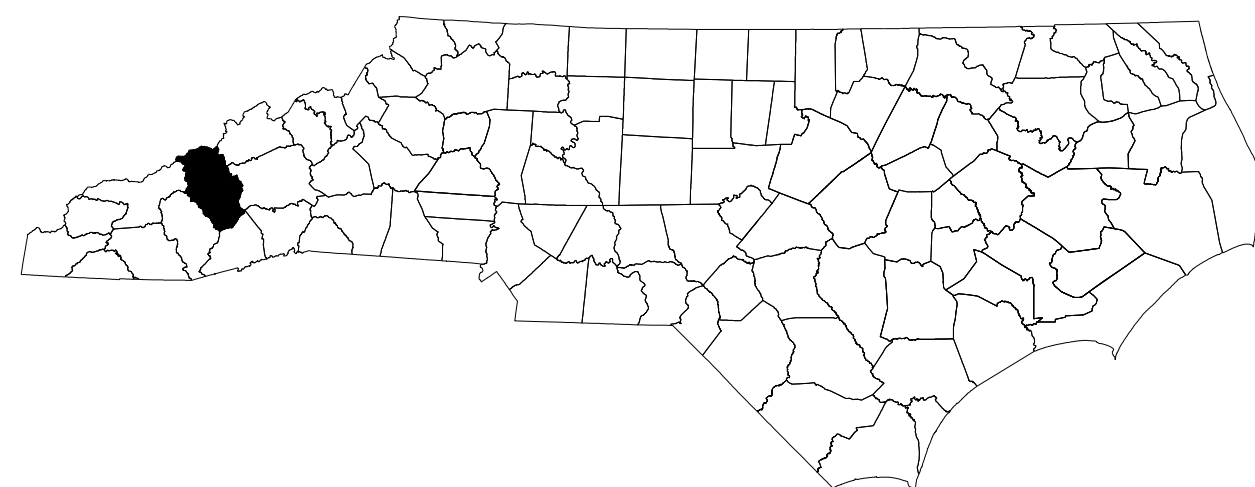


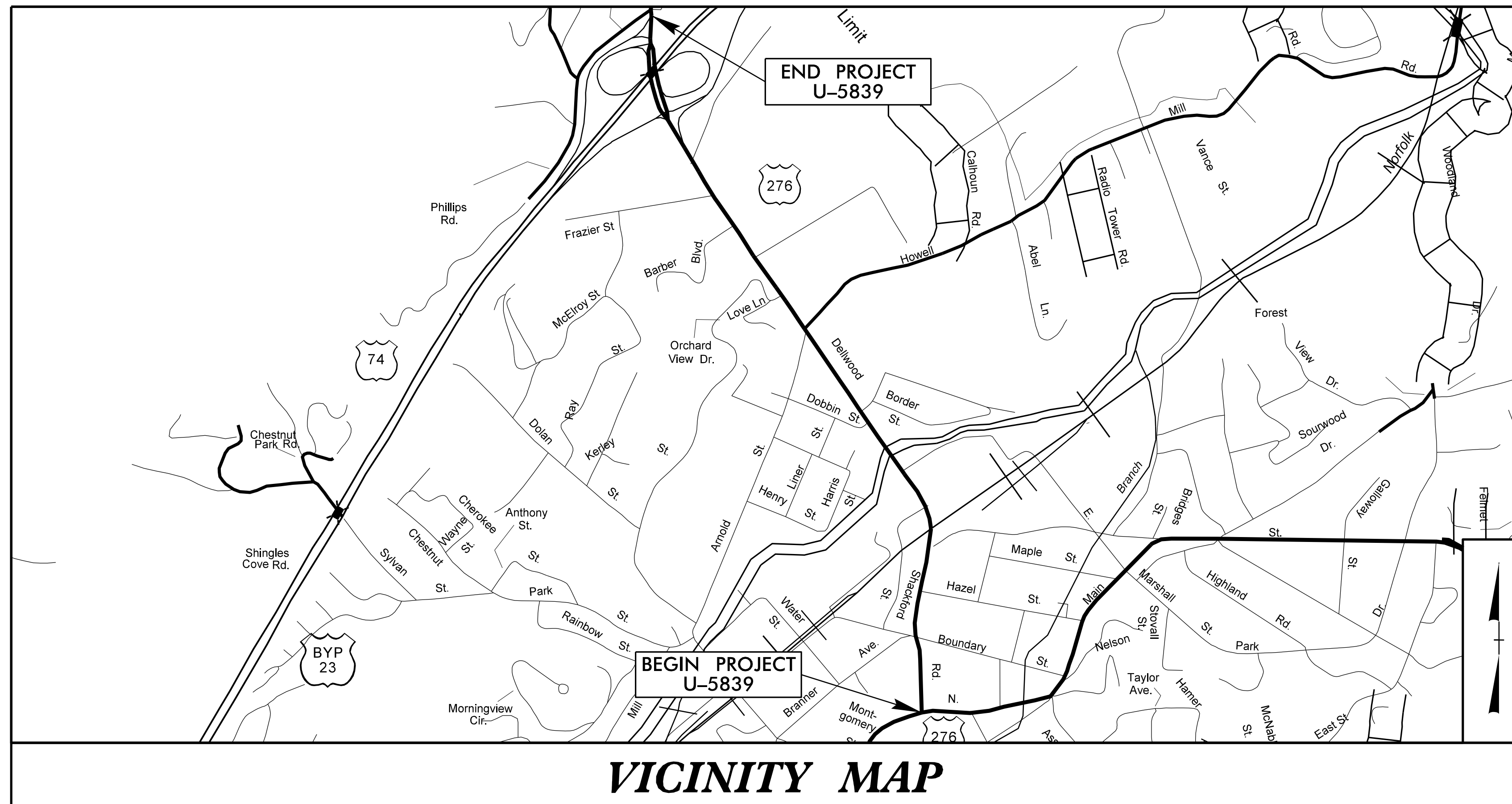
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HAYWOOD COUNTY



**LOCATION: US-276 (RUSS AVENUE) FROM US 23 /74 TO US 23
BUSINESS (MAIN STREET)**



VICINITY MAP

INDEX OF SHEETS

SHEET NO.	TITLE
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TMP-1B THRU TMP-1C	GENERAL NOTES
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A THRU TMP-2C	TEMPORARY SHORING NOTES
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SHEET NO.
TMP-1

U-5839

TIP PROJECT:

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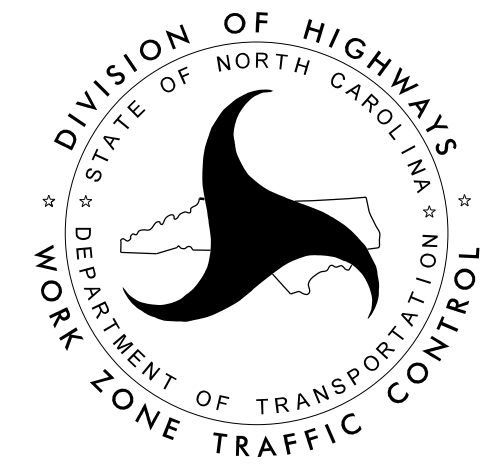
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APPROVED: William J. Hamilton
DATE: 5/4/2023

SEAL

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
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
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-DRUM
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 RAMP
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

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

- WORK AREA
- REMOVAL
- TEMPORARY PAVEMENT
- ON-GOING WORK

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN
- PORTABLE CONCRETE BARRIERS

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

P1	WHITE EDGE LINE	PAINT (4")	LF	P40	WHITE GORELINE	PAINT (8")	LF
P2	WHITE SOLID LANE LINE	PAINT (4")	LF	P41	WHITE DIAGONAL	PAINT (8")	LF
P3	10FT. WHITE SKIP	PAINT (4")	LF	P43	WHITE SOLID LANE LINE	PAINT (8")	LF
P4	3FT.-9FT./SP WHITE MINISKIP	PAINT (4")	LF	P44	3FT.-9FT./SP WHITE MINISKIP	PAINT (8")	LF
P5	2FT.-6FT./SP WHITE MINISKIP	PAINT (4")	LF	P50	WHITE GORELINE	PAINT (12")	LF
P10	YELLOW EDGELINE	PAINT (4")	LF	P61	WHITE STOPBAR	PAINT (24")	LF
P11	YELLOW SINGLE CENTER	PAINT (4")	LF	P62	WHITE CROSSWALK LINE	PAINT (24")	LF
P12	10FT. YELLOW SKIP	PAINT (4")	LF	P102	12" YIELD LINE TRIANGLE	PAINT (24")	LF
P13	YELLOW DOUBLE CENTER	PAINT (4")	LF				
P14	2FT.-6FT./SP YELLOW MINISKIP	PAINT (4")	LF				

APPROVED: DATE: 2/23/2023			<h3>ROADWAY STANDARD DRAWINGS & LEGEND</h3>
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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:

<u>ROAD NAME</u>	<u>DAY AND TIME RESTRICTIONS</u>
US 276 FROM NORTH MAIN STREET TO WALNUT STREET	MONDAY THRU SUNDAY 8PM-7AM
US 276 FROM WALNUT STREET TO PHILLIPS ROAD	MONDAY THRU SUNDAY 7AM-8PM

SEE ICT'S #1 AND #2 FOR MORE DETAILS ON US 276 TIME RESTRICTIONS

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

ROAD NAME
US 276

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 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 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 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY AND 8:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR CHRISTMAS PARADE, BETWEEN THE HOURS OF 7:00 A.M. ON THE DAY OF THE EVENT AND 8:00 P.M. THE FOLLOWING DAY.

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

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 TRANSPORTATION MANAGEMENT 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) DO NOT INSTALL MORE THAN TWO SIMULTANEOUS LANE CLOSURE IN ANY ONE DIRECTION ON US 276.
- J) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- K) 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.
- L) 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) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

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APPROVED: <i>William J. Hamilton</i> DATE: 2/23/2023 SEAL			<h2 style="margin: 0;">GENERAL NOTES</h2>
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GENERAL NOTES

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TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- N) 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.
- O) 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.
- P) 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.
- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

S) 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.

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

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

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

ROAD NAME	MARKING	MARKER
US 276 (-L-)	PAINT (4")	TEMPORARY RAISED
US 23	PAINT (4")	TEMPORARY RAISED
US 74	PAINT (6")	TEMPORARY RAISED
ALL OTHER ROADS	PAINT (4")	TEMPORARY RAISED (IF EXISTING MARKERS ARE PRESENT)

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.

BB) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION. PLACE CONES TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION.

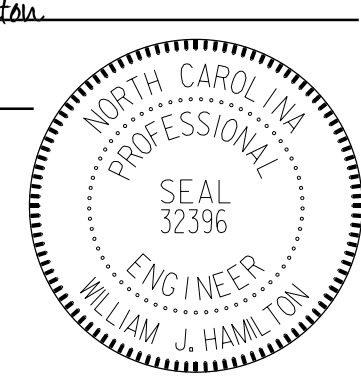

MISCELLANEOUS

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

DD) IN THE EVEN A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT AND 1,000 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OR ROADWAY ALONG UNPAVED AREAS.

EE) PLACE DRUMS ALONG ALL DRIVEWAYS TO PREVENT TRAFFIC FROM ENTERING ACTIVE CONSTRUCTION AREAS.

FF) 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.

<p>DocuSigned by: APPROVED: <i>William J. Hamilton</i> A05620704848484</p> <p>DATE: 2/23/2023</p> <p style="text-align: center;">SEAL</p>			<p>GENERAL NOTES</p>
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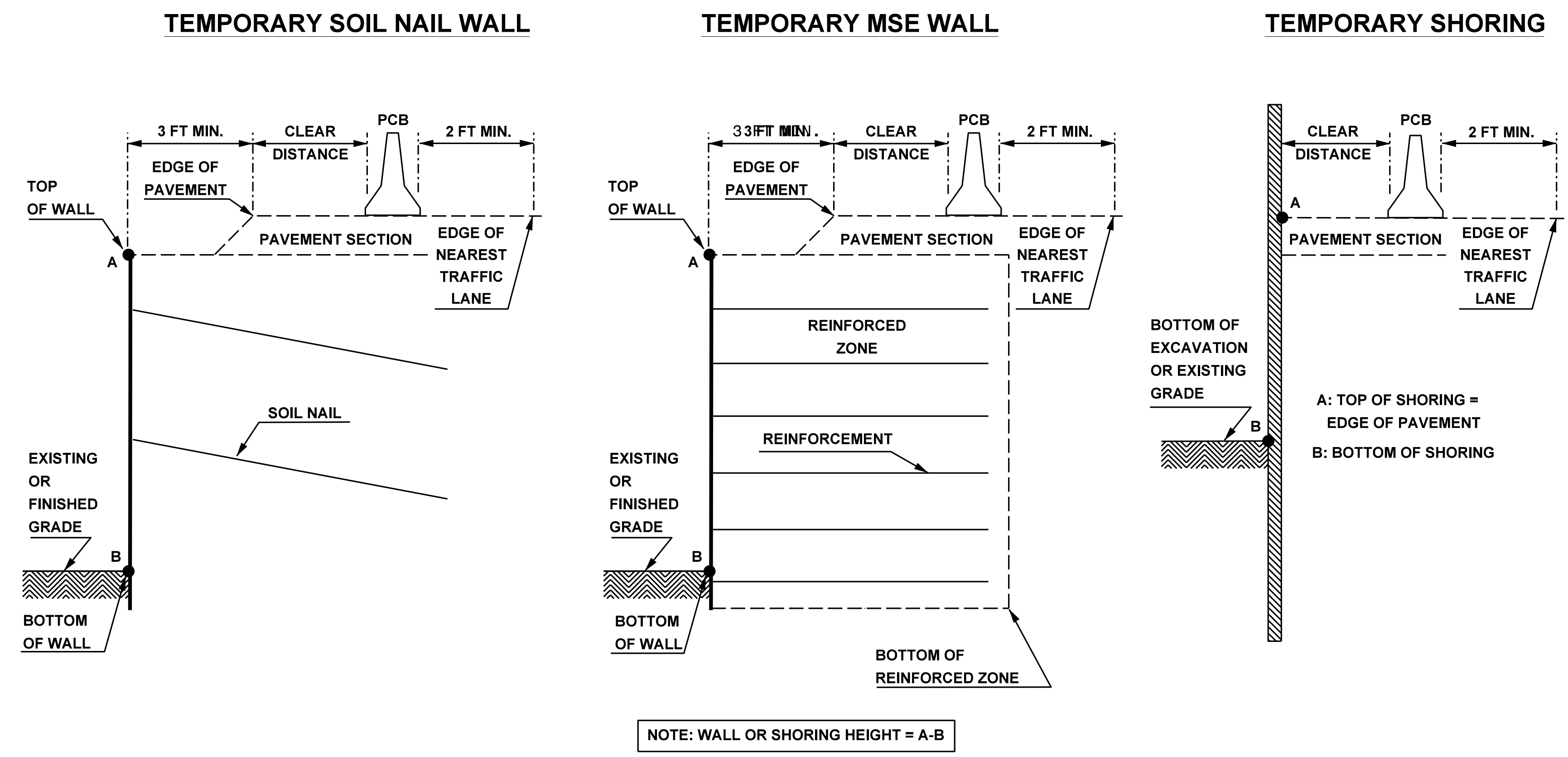


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" STANDARD PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- PCB IS REQUIRED IF TEMPORARY SHORING/WALL IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT FOR APPLICABLE PAVEMENT DESIGN).
- 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.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING/WALLS EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS OR APPROVED BY THE ENGINEER.
- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THIS MINIMUM REQUIRED DISTANCE IS NOT AVAILABLE, CONTACT THE ENGINEER.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS.

		MINIMUM REQUIRED CLEAR DISTANCE, inches							
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		
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds						
		Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

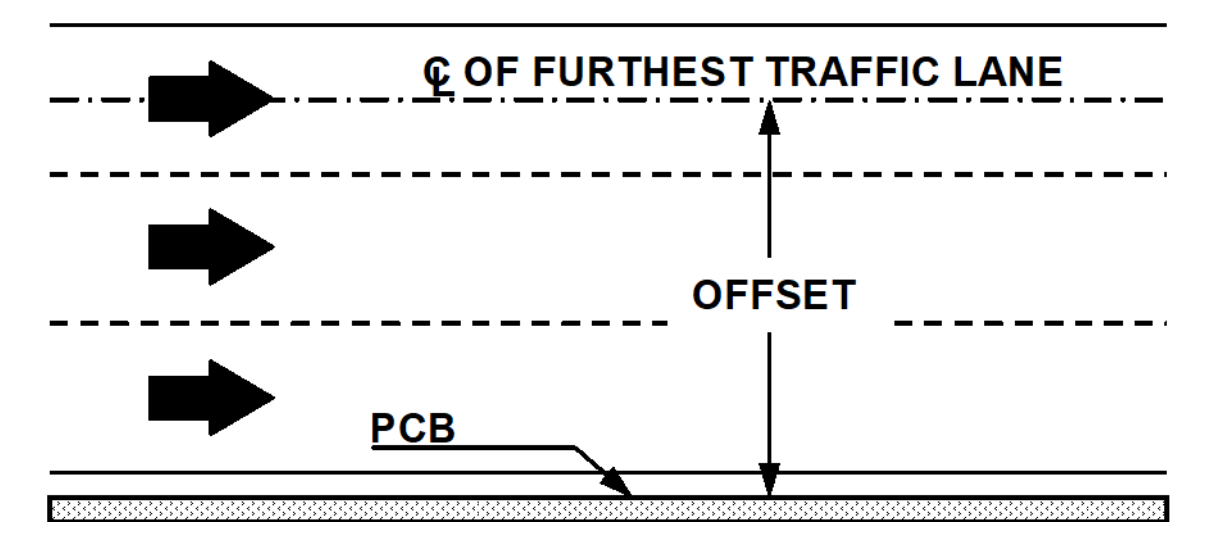
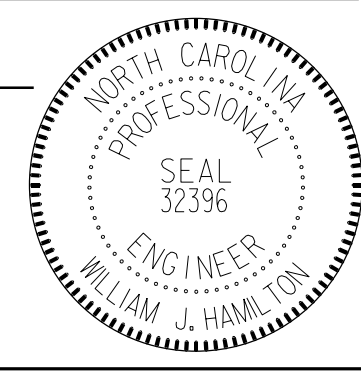




FIGURE B

APPROVED: <i>William J. Hamilton</i> <small>Professional Engineer No. 32396</small> DATE: 2/23/2023 SEAL	 	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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TEMPORARY SHORING NOTES

TEMPORARY SHORING 1

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

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

DESIGN TEMPORARY SHORING FROM STATION 23+24± 5.4± FT LT OF -L- TO STATION 23+75± 1.7± FT LT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 23+24± 5.4± FT LT OF -L- TO STATION 23+75± 1.7± FT LT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 23+24± 5.4± FT LT OF -L- TO STATION 23+75± 1.7± FT LT OF -L- MAY NOT PENETRATE BELOW ELEVATION 2,640 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 STATION 23+24± 5.4± FT LT OF -L- TO STATION 23+75± 1.7± FT LT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 23+24± 5.4± FT LT OF -L- TO STATION 23+75± 1.7± FT LT OF -L-. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING 2

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

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

DESIGN TEMPORARY SHORING FROM STATION 25+41± 3.9± FT RT OF -L- TO STATION 25+79± 4.9± FT RT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 25+41± 3.9± FT RT OF -L- TO STATION 25+79± 4.9± FT RT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 25+41± 3.9± FT RT OF -L- TO STATION 25+79± 4.9± FT RT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 25+41± 3.9± FT RT OF -L- TO STATION 25+79± 4.9± FT RT OF -L-. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING 3

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

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

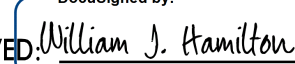
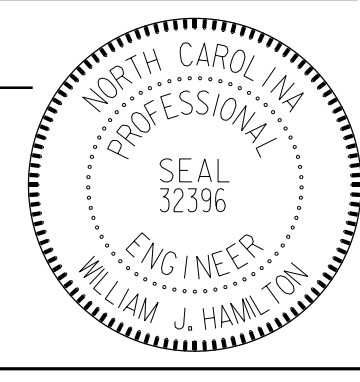

DESIGN TEMPORARY SHORING FROM STATION 30+14± 2.7± FT LT OF -L- TO STATION 30+64± 2.7± FT LT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:


UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 30+14± 2.7± FT LT OF -L- TO STATION 30+64± 2.7± FT LT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 30+14± 2.7± FT LT OF -L- TO STATION 30+64± 2.7± FT LT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 30+14± 2.7± FT LT OF -L- TO STATION 30+64± 2.7± FT LT OF -L-. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

APPROVED:  DATE: 2/23/2023 SEAL			TEMPORARY SHORING NOTES
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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U-5839	TMP-2B
Infrastructure Consulting Services, Inc.	
	
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<small>NC License No. F-1489 www.rameykemp.com</small>	

TEMPORARY SHORING NOTES

TEMPORARY SHORING 4

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

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

DESIGN TEMPORARY SHORING FROM STATION 32+26± 2.7± FT LT OF -L- TO STATION 32+70± 2.7± FT LT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 32+26± 2.7± FT LT OF -L- TO STATION 32+70± 2.7± FT LT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 32+26± 2.7± FT LT OF -L- TO STATION 32+70± 2.7± FT LT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 32+26± 2.7± FT LT OF -L- TO STATION 32+70± 2.7± FT LT OF -L-. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING 5

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

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

DESIGN TEMPORARY SHORING FROM STATION 23+38± 6.7± FT RT OF -L- TO STATION 23+76± 6.5± FT RT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 23+38± 6.7± FT RT OF -L- TO STATION 23+76± 6.5± FT RT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 23+38± 6.7± FT RT OF -L- TO STATION 23+76± 6.5± FT RT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING 6

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

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

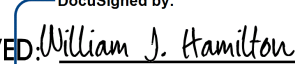
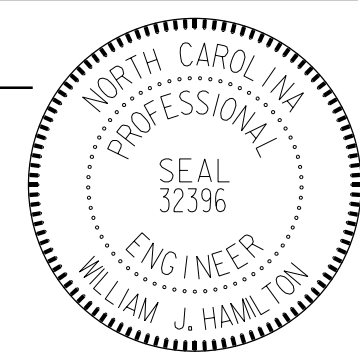
DESIGN TEMPORARY SHORING FROM STATION 25+55± 8.2± FT RT OF -L- TO STATION 25+82± 8.1± FT RT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 25+55± 8.2± FT RT OF -L- TO STATION 25+82± 8.1± FT RT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 25+55± 8.2± FT RT OF -L- TO STATION 25+82± 8.1± FT RT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

APPROVED  <small>AD5600704648484</small> DATE: 2/23/2023 <div style="text-align: center; margin-top: 20px;">  </div>		<h2 style="margin: 0;">TEMPORARY SHORING NOTES</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

TEMPORARY SHORING NOTES

TEMPORARY SHORING 7

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

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

DESIGN TEMPORARY SHORING FROM STATION 30+20± 8.3± FT LT OF -L- TO STATION 30+55± 8.3± FT LT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 30+20± 8.3± FT LT OF -L- TO STATION 30+55± 8.3± FT LT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 30+20± 8.3± FT LT OF -L- TO STATION 30+55± 8.3± FT LT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING 8

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

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

DESIGN TEMPORARY SHORING FROM STATION 32+35± 8.3± FT LT OF -L- TO STATION 32+70± 8.3± FT LT OF -L-. FOR THE FOLLOWINGS ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 LB/CF
 FRICTION ANGLE (F) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = N/A FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 32+35± 8.3± FT LT OF -L- TO STATION 32+70± 8.3± FT LT OF -L-. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

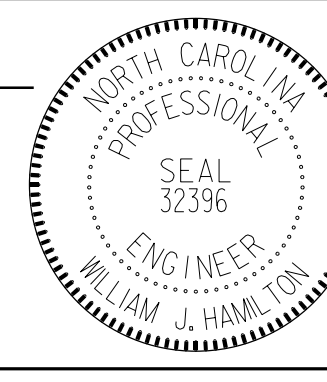
AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 32+35± 8.3± FT LT OF -L- TO STATION 32+70± 8.3± FT LT OF -L-. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

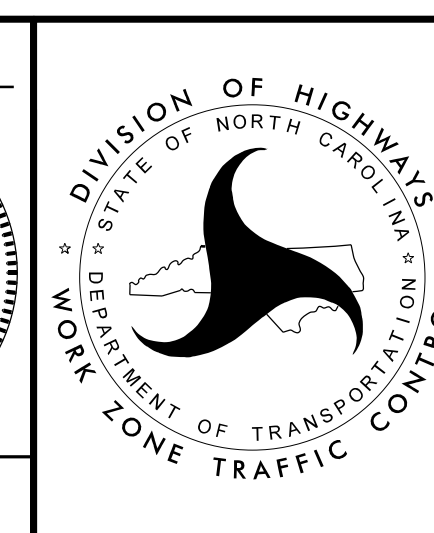
DocuSigned by:
 APPROVED *William J. Hamilton*
A05600704848484

DATE: 2/23/2023

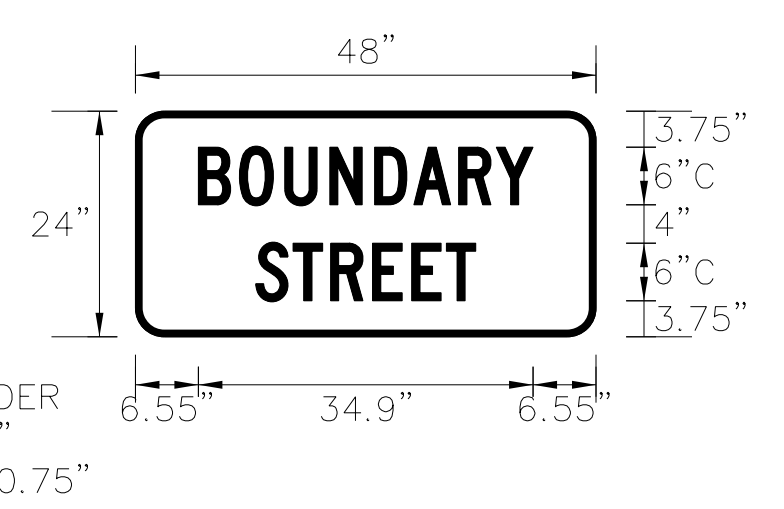
SEAL



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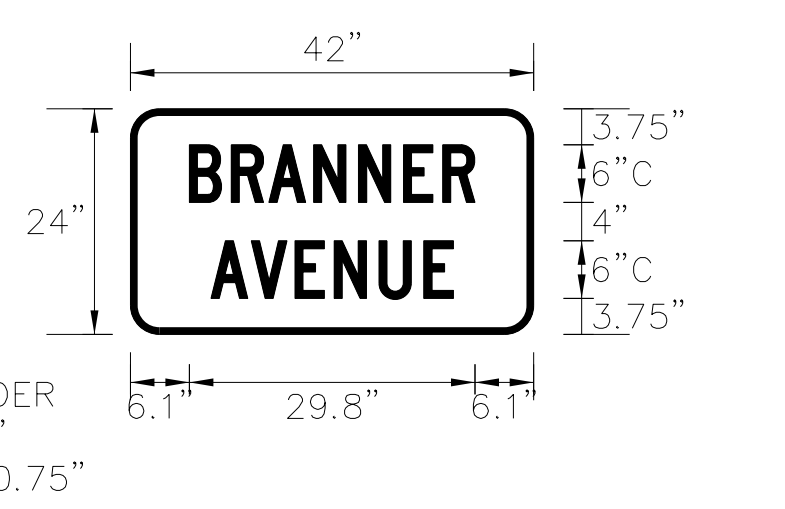


TEMPORARY SHORING NOTES

SIGN NUMBER: SD-1 TYPE: D QUANTITY: 1 SIGN WIDTH: 4'-0" HEIGHT: 1'-12" TOTAL AREA: 7.8 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH:	BACKG COLOR: Orange COPY COLOR: Black SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: TSP PROJECT ID: U-5839 CHECKED BY: WJH Jan 24, 2020 DIV: 11	 <p>BORDER R=3" TH=0.75"</p> <p>Spacing Factor is 1 unless specified otherwise</p>
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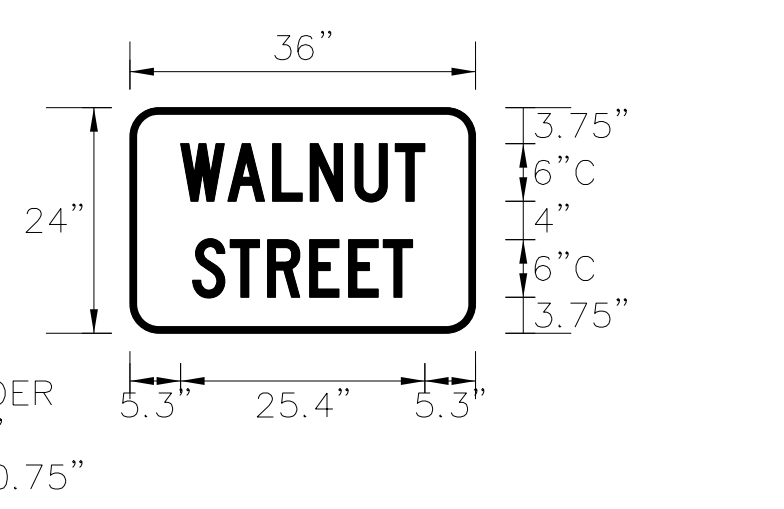
LETTER POSITIONS										
Letter spacings are to start of next letter										
	B	O	U	N	D	A	R	Y		Series/Size Text Length
	6.6	4.3	4.7	4.7	4.7	4.1	4.7	3.9	3.8	6.6
		S	T	R	E	E	T			C 2000
	12.5	3.9	3.9	4.4	4.1	3.6	3.1	12.5		22.9

FILENAME: U-5839_TC_SD NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SD-2 TYPE: D QUANTITY: 1 SIGN WIDTH: 3'-6" HEIGHT: 1'-12" TOTAL AREA: 6.9 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH:	BACKG COLOR: Orange COPY COLOR: Black SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: TSP PROJECT ID: U-5839 CHECKED BY: WJH Jan 24, 2020 DIV: 11	 <p>BORDER R=3" TH=0.75"</p> <p>Spacing Factor is 1 unless specified otherwise</p>
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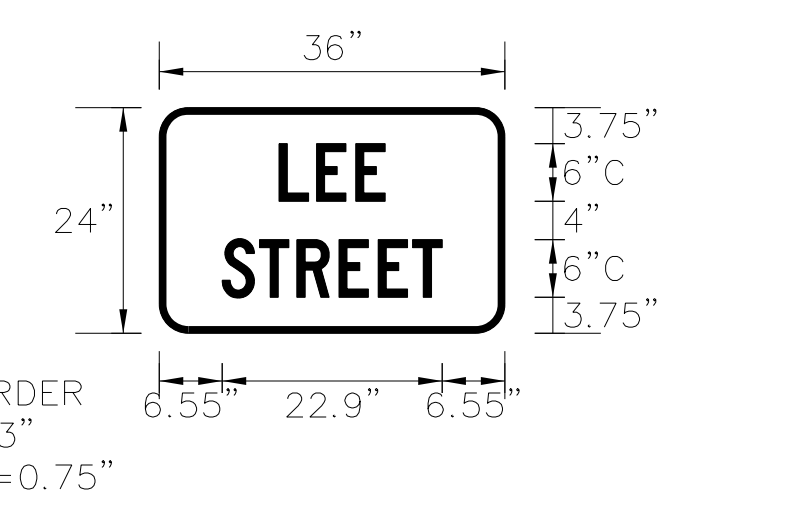
LETTER POSITIONS										
Letter spacings are to start of next letter										
	B	R	A	N	N	E	R			Series/Size Text Length
	6.1	4.4	3.9	4.7	4.7	4.1	3.4	6.1		C 2000
		A	V	E	N	U	E			C 2000
	8.4	4.2	4.6	4.1	4.7	4.7	3.1	8.4		25.3

FILENAME: U-5839_TC_SD NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SD-3 TYPE: D QUANTITY: 1 SIGN WIDTH: 3'-0" HEIGHT: 1'-12" TOTAL AREA: 5.9 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH:	BACKG COLOR: Orange COPY COLOR: Black SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: TSP PROJECT ID: U-5839 CHECKED BY: WJH Jan 24, 2020 DIV: 11	 <p>BORDER R=3" TH=0.75"</p> <p>Spacing Factor is 1 unless specified otherwise</p>
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LETTER POSITIONS										
Letter spacings are to start of next letter										
	W	A	L	N	U	T				Series/Size Text Length
	5.3	4.9	4.7	3.9	4.7	4.2	3.1	5.3		C 2000
		S	T	R	E	E	T			C 2000
	6.5	3.9	3.9	4.4	4.1	3.6	3.1	6.5		22.9

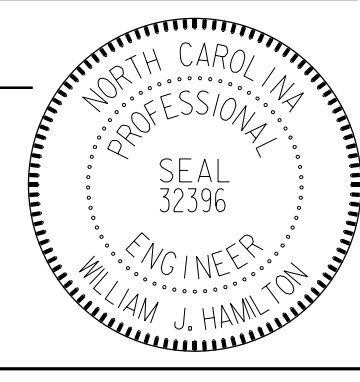
FILENAME: U-5839_TC_SD NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SD-4 TYPE: D QUANTITY: 1 SIGN WIDTH: 3'-0" HEIGHT: 1'-12" TOTAL AREA: 5.9 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH:	BACKG COLOR: Orange COPY COLOR: Black SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: TSP PROJECT ID: U-5839 CHECKED BY: WJH Jan 24, 2020 DIV: 11	 <p>BORDER R=3" TH=0.75"</p> <p>Spacing Factor is 1 unless specified otherwise</p>
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LETTER POSITIONS										
Letter spacings are to start of next letter										
	L	E	E							Series/Size Text Length
	12.5	3.9	4.1	3.1	12.5					C 2000
		S	T	R	E	E	T			C 2000
	6.5	3.9	3.9	4.4	4.1	3.6	3.1	6.5		22.9


FILENAME: U-5839_TC_SD NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED: *William J. Hamilton*
 DATE: 2/23/2023
 SEAL



DETOUR
SIGN DESIGNS

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Infrastructure Consulting Services, Inc.	
 RAMEY KEMP ASSOCIATES	
<small>8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262</small>	
<small>NC License No. F-1489 www.rameykemp.com</small>	

PHASING

NOTES

BEFORE BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES. FIELD VERIFY LOCATIONS WITH THE RESIDENT ENGINEER PRIOR TO INSTALLATION.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES, SCHOOLS, BUS STOPS, EMERGENCY SERVICES, AND BUSINESSES DURING THE LIFE OF THE CONTRACT, PRIOR TO INCORPORATION, OBTAIN WRITTEN APPROVAL FROM THE ENGINEER ON METHOD TO MAINTAIN ACCESS.

COMPLETE ANY PROPOSED OR TEMPORARY WIDENING IN SUCH A MANNER THAT NO PONDING OF WATER WILL OCCUR WITHIN THE TRAVEL LANE.

WHEN USING LANE CLOSURES (RSD 1101.02), RETURN TRAFFIC TO EXISTING AND/OR TEMPORARY TRAFFIC PATTERN UPON ACTIVITIES COMPLETION, UNLESS OTHERWISE NOTED IN THE PHASING PLANS.

WHEN PHASING STATES TO USE LANE CLOSURES, REFER TO THE FOLLOWING FOR ALL EXISTING AND PROPOSED ROADS:

- ALL TWO-LANE/TWO-WAY FACILITIES SEE RSD 1101.02 SHEET 1 OF 14
- ALL 3-LANE OR 5-LANE ROADWAYS SEE RSD 1101.02 SHEET 2 OF 14
- ALL MULTI-LANE FACILITIES POSTED < 60 MPH SEE RSD 1101.02 SHEET 3 OF 14
- ALL MULTI-LANE FACILITIES POSTED > 60 MPH SEE RSD 1101.02 SHEET 4 OF 14
- ALL UNDIVIDED MULTI-LANE FACILITIES SEE RSD 1101.02 SHEET 7 OF 14
- ALL ENTRANCE AND EXIT RAMP SEE RSD 1101.02 SHEETS 9 AND 10 OF 14

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

WHEN WEDGING OVER EXISTING PAVEMENT, WEDGE TO PROPOSED ELEVATION (LESS THE FINAL LAYER OF SURFACE COURSE), OR WEDGE AS NEEDED TO MAINTAIN TRAFFIC. MAINTAIN POSITIVE DRAINAGE AND MAINTAIN A MAXIMUM 0.04 ROLLOVER IN BOTH EXISTING AND/OR TEMPORARY TRAVEL LANES.

REPLACE MARKINGS AND RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

FOR ALL SHOULDER CLOSURES, SEE RSD 1101.04. WHEN PORTABLE CONCRETE BARRIER (PCB) IS PRESENT ON SHOULDERS, PLACE SHOULDER CLOSURE SIGNS & DEVICES IN ADVANCE OF PCB.

SPECIAL TRAFFIC CONTROL NOTES

PEDESTRIAN NOTE:

THROUGHOUT THE DURATION OF PHASE 1 AND PHASE 2, PEDESTRIANS WILL BE ABLE TO USE A RIDE SERVICE TO HELP ACCESS CLOSED SIDEWALKS OR LOCATIONS DISTURBED BY U-5839 CONSTRUCTION. THE SERVICE CAN BE REQUESTED BY CALLING THE NCDOT DIVISION 14 OFFICE AT 828-586-4043. PICK UP LOCATION CAN BE FOUND NOTED ON THE TRAFFIC CONTROL PLANS. DROP OFF LOCATIONS CAN ONLY BE ALONG RUSS AVENUE AND WHERE PEDESTRIANS CAN SAFELY EXIT VEHICLE. IF PEDESTRIANS NEED ASSISTANCE AFTER PHASE 2, IT MUST BE APPROVED BY THE CONTRACTOR. REFER TO CONTRACTS AT THE END OF THIS SUBMITTAL FOR MORE INFORMATION ON RIDE SHARE SERVICES.

UTILITY NOTE:

MANY UTILITIES NEED TO BE INSTALLED AND/OR RELOCATED DUE TO THE ROADWAY IMPROVEMENTS OF U-5839. FOR PHASE I AND PHASE II CONSTRUCTION, USE FLAGGERS AS NEEDED TO COMPLETE UTILITY CROSSINGS. IT IS RECOMMENDED THAT NO MORE THAN ONE CROSSING REQUIRING A LANE CLOSURE IS COMPLETED AT A TIME, UNLESS APPROVED BY THE ENGINEER. (REFERENCE RSD 1101.02 AS NEEDED)

DUE TO THE LARGE AMOUNT OF UTILITIES BEING INSTALLED NEAR BRANNER AVENUE, SPECIAL CARE IS REQUIRED. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES TO ENSURE UTILITIES ARE INSTALLED APPROPRIATELY WITH DRAINAGE OPEN CUTS TO MINIMIZE TRAFFIC IMPACTS.

ACCESS NOTE:

FOR THE DURATION OF CONSTRUCTION, ENSURE ALL DRIVEWAY ACCESS IS MAINTAINED.

INTERMEDIATE CONTRACT TIME NOTE:

REFER TO EACH CORRESPONDING ICT FOR MORE INFORMATION ON CONTRACT TIMELINES AND LIQUIDATED DAMAGES. ICT'S CAN BE FOUND AT THE END OF THIS SUBMITTAL.

PHASE 1

STEP 1: (SEE TMP-4 THRU TMP-9)

USING LANE CLOSURES, PLACE TEMPORARY MARKINGS AND MARKERS AND SHIFT TRAFFIC TO THE PHASE 1 - STEP 1 TRAFFIC PATTERN.

INSTALL OFF-SITE DETOUR SIGNS AS SHOWN ON SHEETS TMP-25 THRU TMP-28, AND TMP-30 THRU TMP-31. COVER DETOUR SIGNING UNTIL DETOUR IS REQUIRED.

ONCE SHIFTED, USING LANE CLOSURES, INSTALL PCB, THEN BEHIND BARRIER, AWAY FROM TRAFFIC, AND USING LANE CLOSURES AS NEEDED, BEGIN CONSTRUCTION OF THE FOLLOWING:

- -L- STA. 10+19 +/- TO STA. 27+77 +/- (RIGHT SIDE)
- -L- STA. 10+19 +/- TO STA. 17+17 +/- (LEFT SIDE)
- -L- STA. 26+45 +/- TO STA. 68+85 +/- (LEFT SIDE)
- -Y4-
- -Y9- STA. 11+30 +/- TO STA. 16+26 +/- LT
- -Y11-
- -Y14- STA. 10+72 +/- TO STA. 14+60 +/- LT
- -Y16- STA. 15+95 +/- TO -L- STA. 73+20 +/- LT
- -Y20-
- -Y21RPA-

NOTE 1:

TEMPORARY SHORING WILL BE NEEDED TO CONSTRUCT END BENTS FOR PROPOSED BRIDGES.

CLOSE BOUNDARY STREET, BRANNER AVENUE, WALNUT STREET, LEE STREET, US 276 SB OFF RAMP AND US 74 WEST ON RAMP TO THROUGH TRAFFIC AND OPEN DETOURS. AWAY FROM TRAFFIC, AND USING LANE CLOSURES AS NEEDED, COMPLETE CONSTRUCTION OF THE FOLLOWING:

- -Y2- (MUST BE COMPLETED PRIOR TO MOVING ONTO -Y2A- / -Y3-)
- -Y2A-
- -Y3-
- -Y5-
- -Y7-
- -Y9-
- -Y14-
- -Y21LPD- (MUST BE COMPLETED PRIOR TO MOVING ONTO -Y21RPD-)

NOTE 2:

CONTRACTOR SHALL COMPLETE THE WORK OF -Y21LPD- AND EACH -Y- LINE CLOSURE IN 90 CONSECUTIVE CALENDAR DAYS. SEE ICT'S #2 THROUGH #8 AND LIQUIDATED DAMAGES LOCATED AT THE END OF THIS SUBMITTAL FOR MORE INFORMATION.

NOTE 3:

THE FOLLOWING TEMPORARY SIGNALS WILL BE REQUIRED FOR THE PHASE 1 TRAFFIC PATTERN:

- -L- (RUSS AVE) AND -Y1- US 23 (NORTH MAIN ST)
- -- COVER SIGNAL HEADS AS NEEDED TO AVOID CONFUSION.
- -L- (RUSS AVE) AND -Y2- / -Y2A- (BOUNDARY ST)
- -L- (RUSS AVE) AND -Y5- (WALNUT ST)
- -- COVER SIGNAL HEADS AS NEEDED TO AVOID CONFUSION.
- -L- (RUSS AVE) AND -Y7- (LEE ST) / -Y18- (WAYNESVILLE PL)
- -L- (RUSS AVE) AND -Y9- (DELLWOOD RD) / -Y10- (HOWELL MILL RD)
- -L- (RUSS AVE) AND -Y17- (W. MARSHAL ST)
- -L- (RUSS AVE) AND -Y21LPD- AND -Y21RPD- (US 74 RAMPS)

STEP 2: (SEE TMP-10 THRU TMP-11)

AWAY FROM TRAFFIC AND USING LANE CLOSURES, PLACE TEMPORARY MARKINGS AND MARKERS, REMOVE -Y21LPD- BARRICADES AND DETOUR SIGNS AND SHIFT TRAFFIC TO THE PHASE 1 - STEP 2 TRAFFIC PATTERN.

ONCE -Y21LPD- BARRICADES AND DETOUR SIGNS HAVE BEEN REMOVED, CLOSE -Y21RPD- TO THROUGH TRAFFIC AND OPEN -Y21RPD- DETOUR.

ONCE SHIFTED AND -Y21LPD- IS PROPERLY DETOURED, AWAY FROM TRAFFIC AND USING LANE CLOSURES AS NEEDED, COMPLETE CONSTRUCTION OF THE FOLLOWING:

- -L- STA. 68+85 +/- TO STA. 73+20 +/- (LEFT SIDE)
- -Y9- STA. 11+30 +/- TO STA. 15+75 +/- (RIGHT SIDE)
- -Y14- STA. 10+72 +/- TO STA. 13+50 +/- (RIGHT SIDE)
- -Y16- STA. 15+95 +/- TO -Y16- STA. 17+50 +/-
- -Y21RPD-

AWAY FROM TRAFFIC AND USING LANE CLOSURES WHEN NEEDED, COMPLETE ALL CONSTRUCTION PREVIOUSLY BEGUN IN PHASE 1 - STEP 1.

NOTE:

CONTRACTOR SHALL COMPLETE THE WORK OF -Y21RPD- AND EACH REMAINING -Y- LINE CLOSURE IN 90 CONSECUTIVE CALENDAR DAYS. SEE ICT #9 AND LIQUIDATED DAMAGES LOCATED AT THE END OF THIS SUBMITTAL FOR MORE INFORMATION.

PHASE 2

STEP 1: (SEE TMP-12 THRU TMP-17)

AWAY FROM TRAFFIC AND USING LANE CLOSURES, REMOVE/RESET PCB, PLACE TEMPORARY MARKINGS AND MARKERS AND SHIFT TRAFFIC TO THE PHASE 2 - STEP 1 TRAFFIC PATTERN.

INSTALL OFF-SITE DETOUR SIGNS ALONG DETOUR ROUTE AS SHOWN ON SHEET TMP-29. CLOSE -Y21LPB- TO THROUGH TRAFFIC AND OPEN DETOUR.

ONCE SHIFTED, BEHIND BARRIER, AWAY FROM TRAFFIC AND USING LANE CLOSURES AS NEEDED, BEGIN CONSTRUCTION OF THE FOLLOWING:

- -L- STA. 17+17 +/- TO STA. 26+51 +/- (LEFT SIDE)
- -L- STA. 27+27 +/- TO STA. 59+52 +/- (RIGHT SIDE)
- -L- STA. 61+80 +/- TO STA. 73+20 +/- (RIGHT SIDE)
- -Y8-
- -Y10-
- -Y13-
- -Y14A-
- -Y15-
- -Y17-
- -Y18-

NOTE 1:

TEMPORARY SHORING WILL BE NEEDED TO CONSTRUCT END BENTS FOR PROPOSED BRIDGES.

CLOSE -Y21LPB- TO THROUGH TRAFFIC AND OPEN DETOUR. AWAY FROM TRAFFIC, AND USING LANE CLOSURES AS NEEDED, COMPLETE CONSTRUCTION OF THE FOLLOWING:

- -L- STA. 61+92 +/- TO STA. 64+64 +/- (RIGHT SIDE)
- -Y21RPB- STA. 13+05 +/- TO STA. 16+50 +/-
- -Y21LPB-

NOTE 2:

CONTRACTOR SHALL COMPLETE THE WORK OF -Y21LPB- CLOSURE IN 90 CONSECUTIVE CALENDAR DAYS. SEE ICT #12 AND LIQUIDATED DAMAGES LOCATED AT THE END OF THIS SUBMITTAL.

NOTE 3:

THE FOLLOWING TEMPORARY SIGNALS WILL BE REQUIRED FOR THE PHASE 2 TRAFFIC PATTERN:

- -L- (RUSS AVE) AND -Y2- / -Y2A- (BOUNDARY ST)
- -L- (RUSS AVE) AND -Y5- (WALNUT ST)
- -L- (RUSS AVE) AND -Y7- (LEE ST)
- -L- (RUSS AVE) AND -Y9- (DELLWOOD RD) / -Y10- (HOWELL MILL RD)
- -L- (RUSS AVE) AND -Y13- (BARBER BLVD)
- -L- (RUSS AVE) AND -Y14- (FRAZIER ST)
- -L- (RUSS AVE) AND -Y16- (PHILLIPS RD)
- -L- (RUSS AVE) AND -Y17- (W. MARSHAL ST)
- -L- (RUSS AVE) AND -Y21LPD- AND -Y21RPD- (US 74 RAMPS)

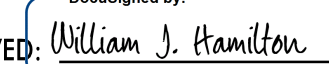
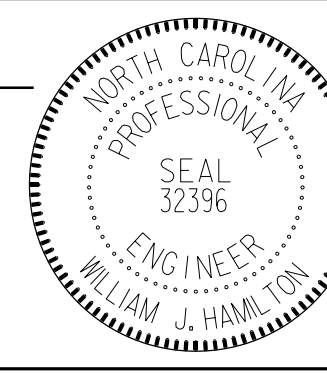
STEP 2: (SEE TMP-18)

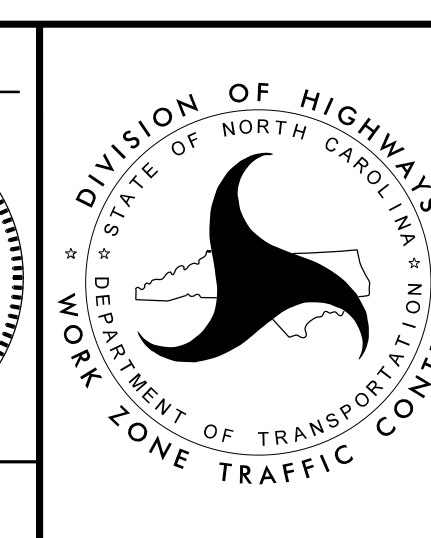
AWAY FROM TRAFFIC AND USING LANE CLOSURES, PLACE TEMPORARY MARKINGS AND MARKERS, REMOVE -Y21LPB- BARRICADES AND DETOUR SIGNS AND SHIFT TRAFFIC TO THE PHASE 2 - STEP 2 TRAFFIC PATTERN UTILIZING THE -Y21RPB- ALIGNMENT AND CLOSING THE EXISTING ON-RAMP TO US 74 EAST.

ONCE SHIFTED, AWAY FROM TRAFFIC AND USING LANE CLOSURES AS NEEDED, COMPLETE CONSTRUCTION OF THE FOLLOWING:

- -Y21RPB- STA. 13+05 +/- TO STA. 14+79 +/-

AWAY FROM TRAFFIC AND USING LANE CLOSURES WHEN NEEDED, COMPLETE ALL CONSTRUCTION PREVIOUSLY BEGUN IN PHASE 2 - STEP 1.

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DATE: 2/23/2023
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TEMPORARY TRAFFIC CONTROL PHASING

PHASING

PHASE 3

STEP 1: (SEE TMP-19 THRU TMP-24)

AWAY FROM TRAFFIC AND USING LANE CLOSURES, REMOVE PCB, PLACE TEMPORARY MARKINGS AND MARKERS AND SHIFT TRAFFIC TO THE PHASE 3 TRAFFIC PATTERN.

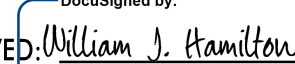
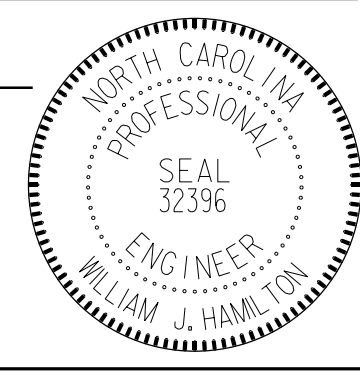

ONCE SHIFTED, AWAY FROM TRAFFIC AND USING LANE CLOSURES AS NEEDED, COMPLETE CONSTRUCTION OF ALL MEDIANS AND MONOLITHIC ISLANDS AND COMPLETE ALL REMAINING DRAINAGE CONSTRUCTION.

NOTE 1:
THE FOLLOWING TEMPORARY SIGNALS WILL BE REQUIRED FOR THE PHASE 3 TRAFFIC PATTERN:

- -L- (RUSS AVE) AND -Y2- / -Y2A- (BOUNDARY ST)
- -L- (RUSS AVE) AND -Y5- (WALNUT ST)
- -L- (RUSS AVE) AND -Y7- (LEE ST) / -Y18- (WAYNESVILLE PL)
- -L- (RUSS AVE) AND -Y9- (DELLWOOD RD) / -Y10- (HOWELL MILL RD)
- -L- (RUSS AVE) AND -Y13- (BARBER BLVD)
- -L- (RUSS AVE) AND -Y14- (FRAZIER ST)
- -L- (RUSS AVE) AND -Y16- (PHILLIPS RD)
- -L- (RUSS AVE) AND -Y17- (W. MARSHAL ST)
- -L- (RUSS AVE) AND -Y21LPD- AND -Y21RPD- (US 74 RAMPS)

STEP 2:
USING LANE CLOSURES, PLACE TEMPORARY MARKINGS AND MARKERS IN THE FINAL PATTERN, REMOVE BARRICADES AND OPEN TO THE FINAL TRAFFIC PATTERN.

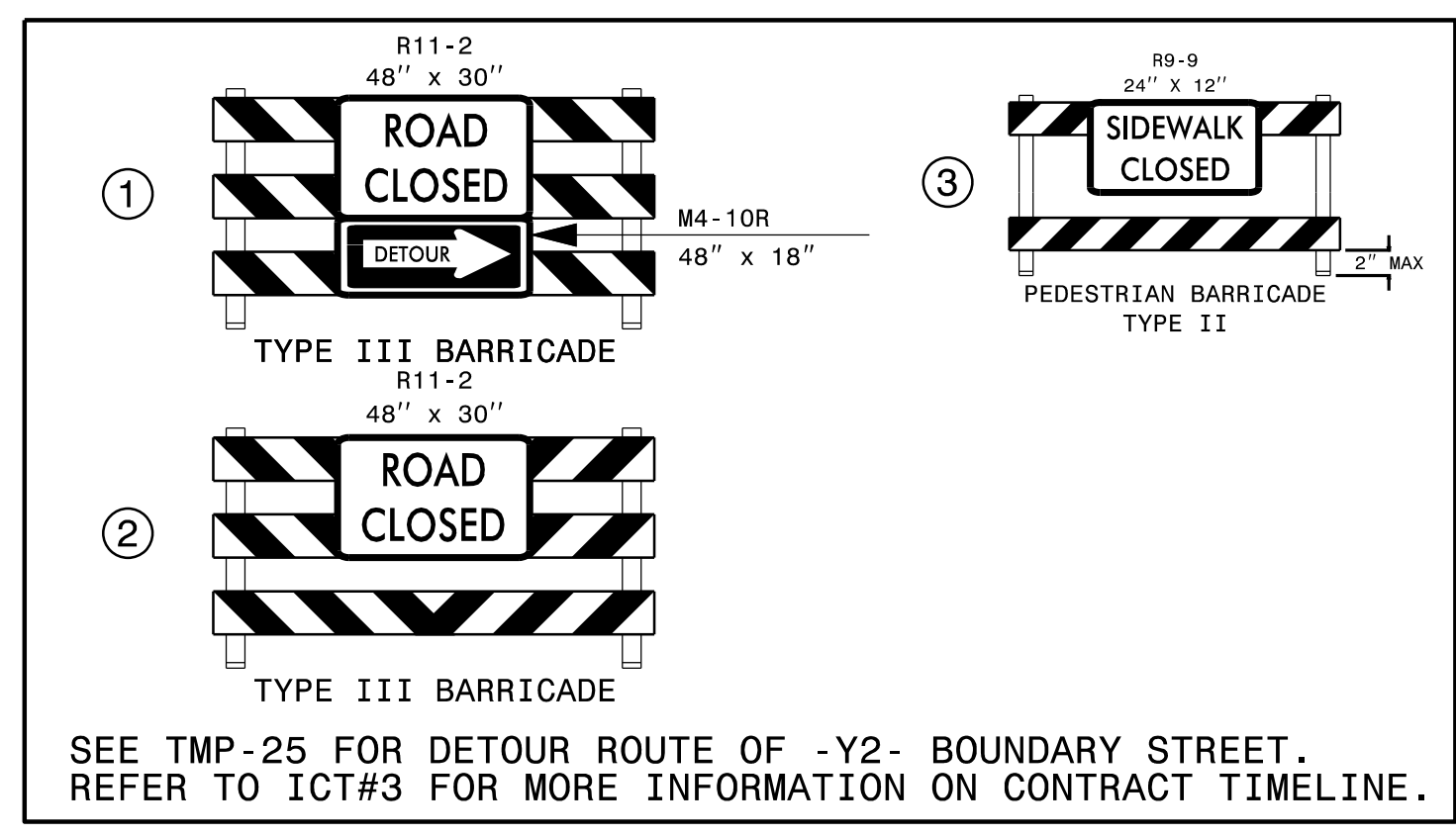
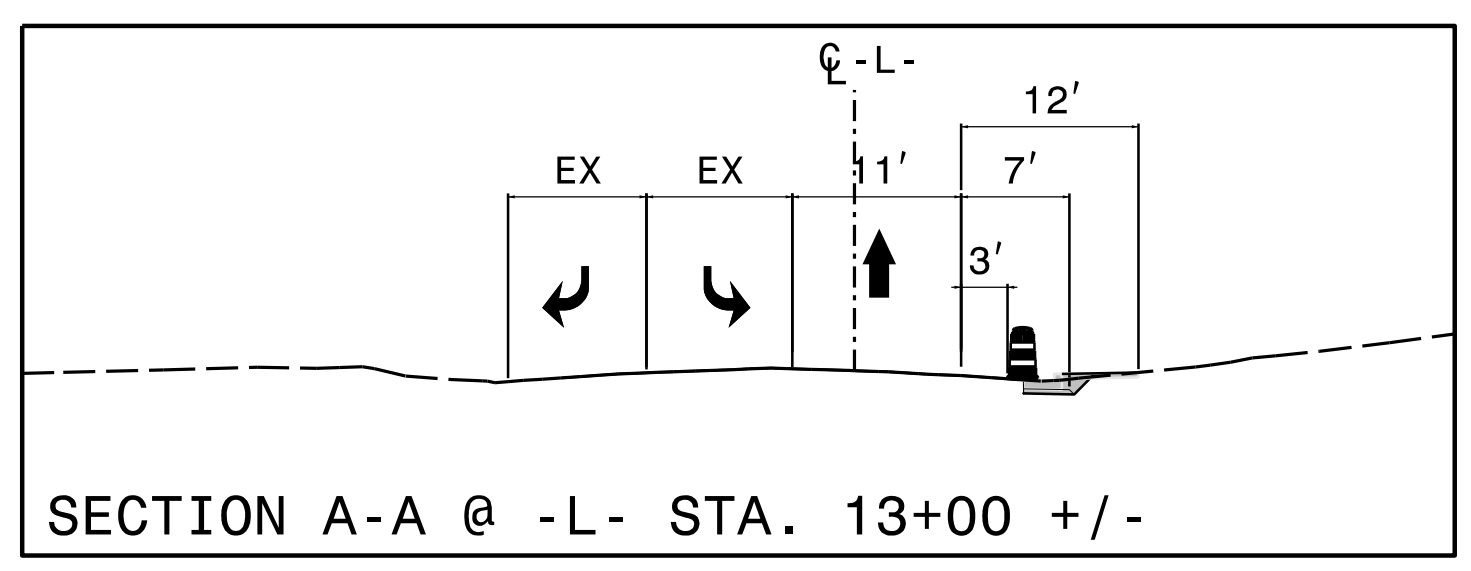
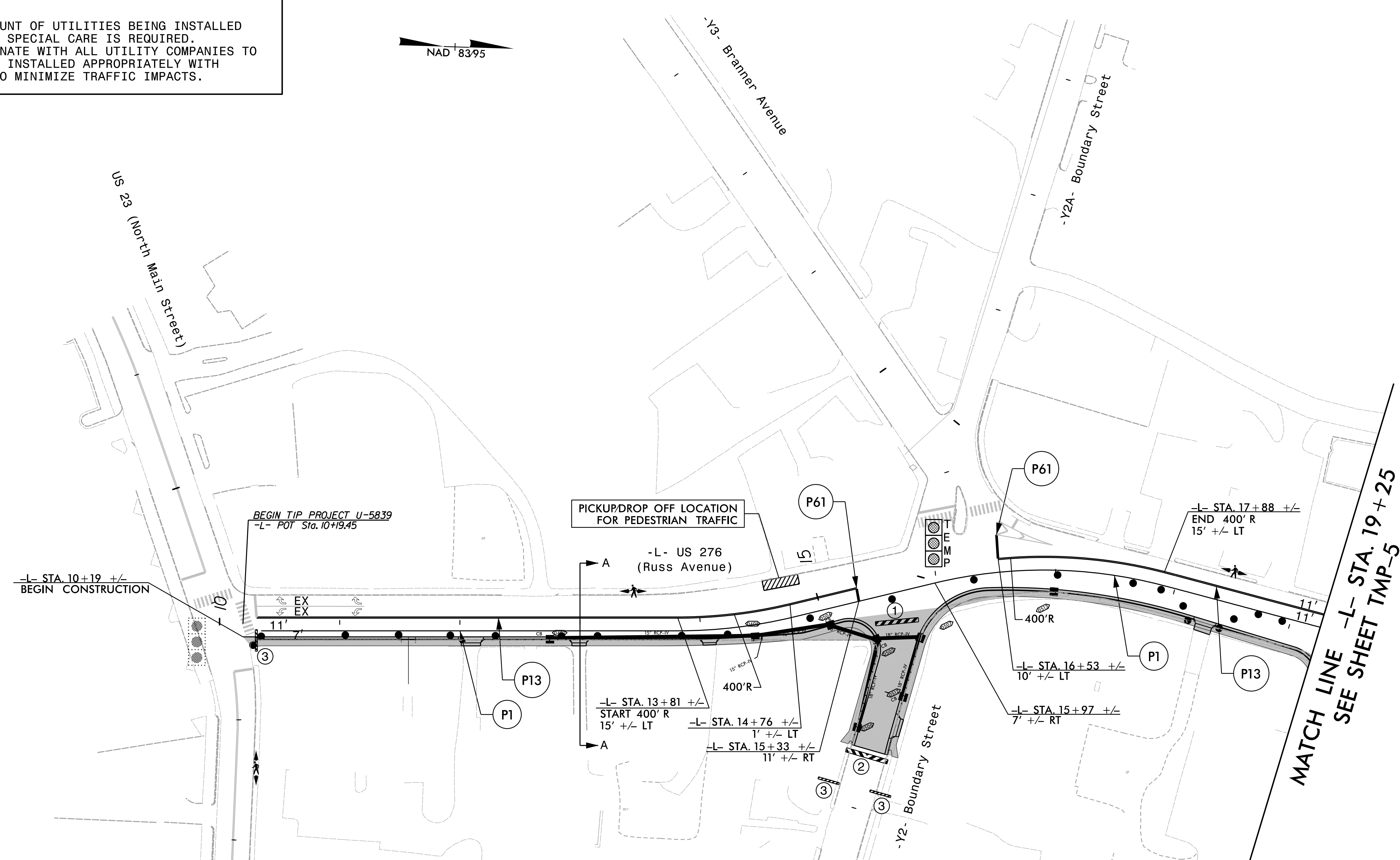
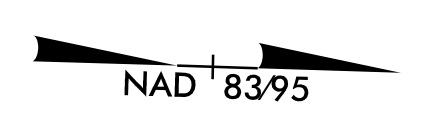
STEP 3:
USING LANE CLOSURES, CONSTRUCT THE FINAL LAYER OF SURFACE COURSE, THEN PLACE THE FINAL MARKINGS AND MARKERS. SEE PAVEMENT MARKING PLAN FOR MORE DETAILS.

<p>APPROVED:  <small>Assigned by: A05600704648484</small></p> <p>DATE: 2/23/2023</p> <p style="text-align: center;">SEAL</p> <div style="text-align: center;">  </div>		<h3>TEMPORARY TRAFFIC CONTROL PHASING</h3>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		

NOTE A:

ENSURE ALL FIBER AND CONDUIT FROM -L- 10+19 +/- TO -L- 25+75 +/- IS BUILT IN PHASE I. REFER TO ITS PLANS FOR MORE DETAILS.

DUE TO THE LARGE AMOUNT OF UTILITIES BEING INSTALLED NEAR BRANNER AVENUE, SPECIAL CARE IS REQUIRED. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES TO ENSURE UTILITIES ARE INSTALLED APPROPRIATELY WITH DRAINAGE OPEN CUTS TO MINIMIZE TRAFFIC IMPACTS.



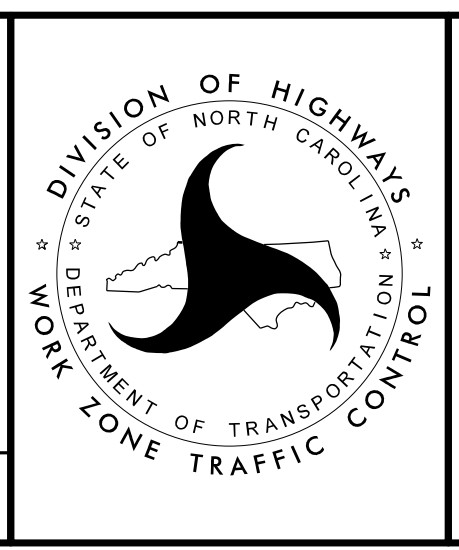
APPROVED: *William J. Hamilton*
AD5600704648484

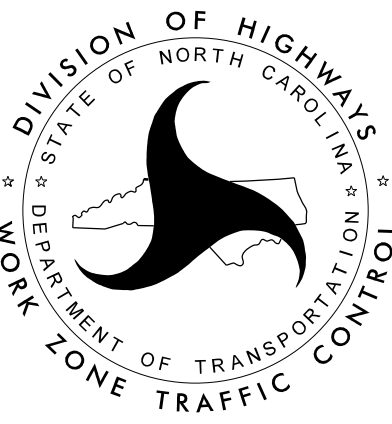
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DESIGNED BY:

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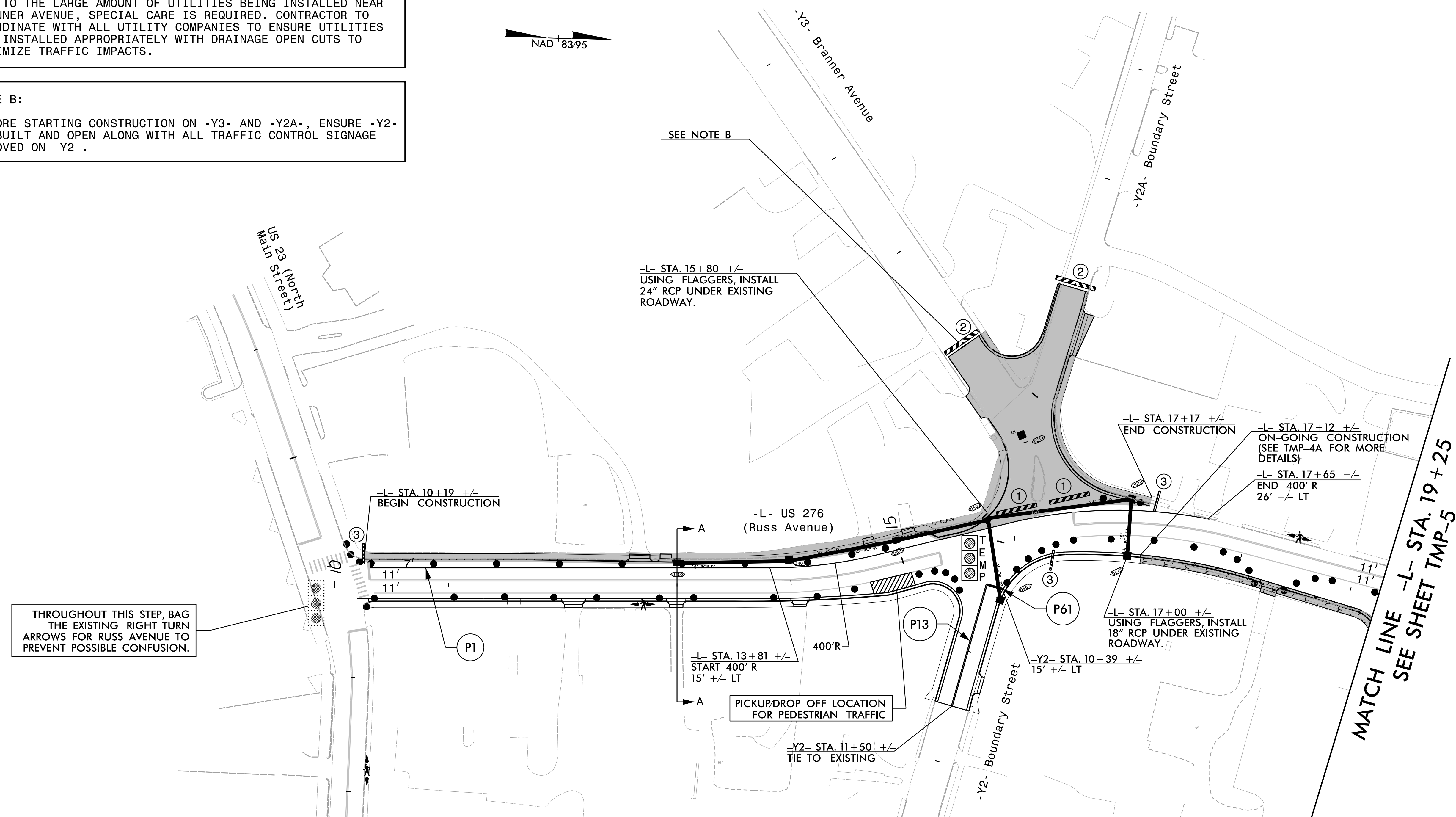
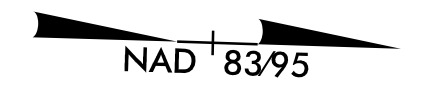


**TEMPORARY
TRAFFIC CONTROL
PHASE I – STEP 1**

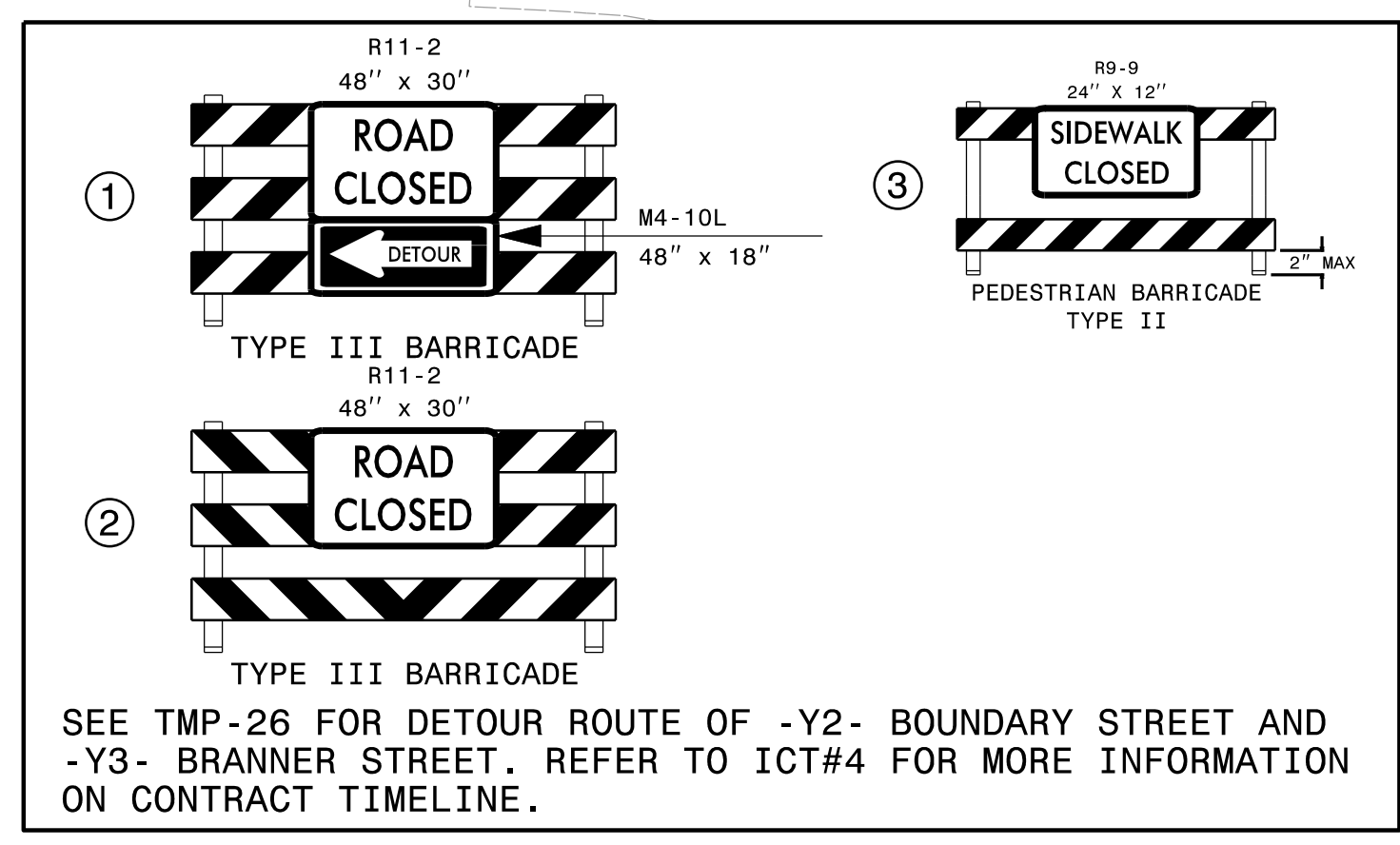
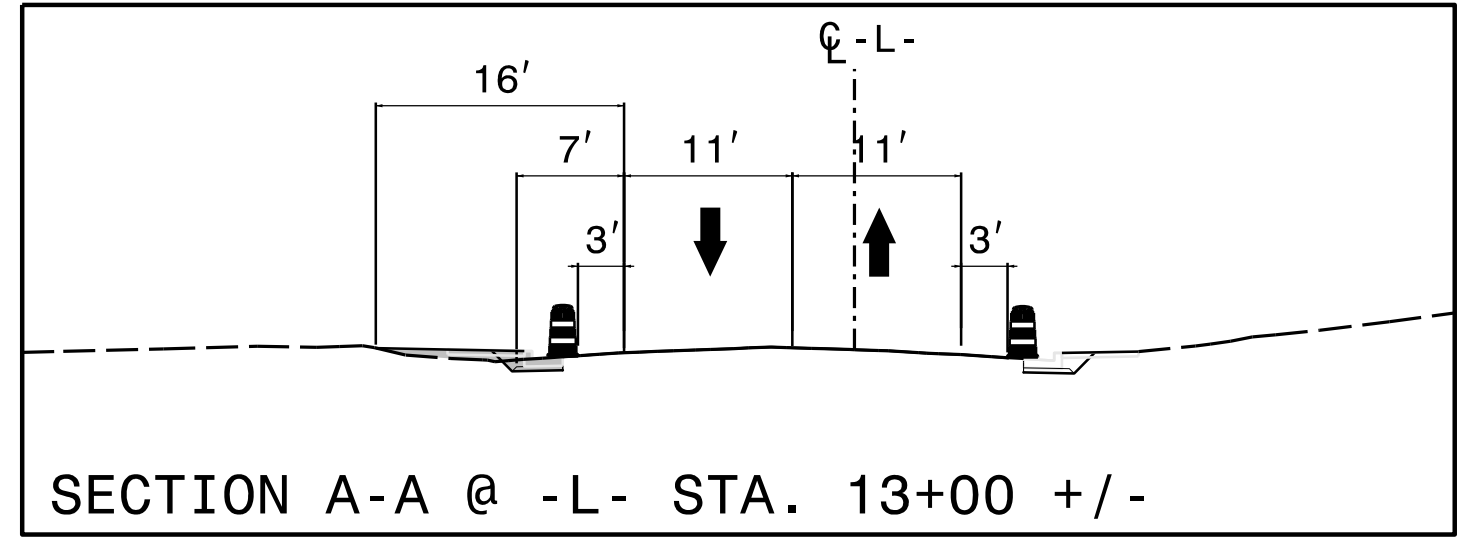
NOTE A:
 ENSURE ALL FIBER AND CONDUIT FROM -L- 10+19 +/- TO -L- 25+75 +/- IS BUILT IN PHASE I. REFER TO ITS PLANS FOR MORE DETAILS.

DUE TO THE LARGE AMOUNT OF UTILITIES BEING INSTALLED NEAR BRANNER AVENUE, SPECIAL CARE IS REQUIRED. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES TO ENSURE UTILITIES ARE INSTALLED APPROPRIATELY WITH DRAINAGE OPEN CUTS TO MINIMIZE TRAFFIC IMPACTS.

NOTE B:
 BEFORE STARTING CONSTRUCTION ON -Y3- AND -Y2A-, ENSURE -Y2- IS BUILT AND OPEN ALONG WITH ALL TRAFFIC CONTROL SIGNAGE REMOVED ON -Y2-.



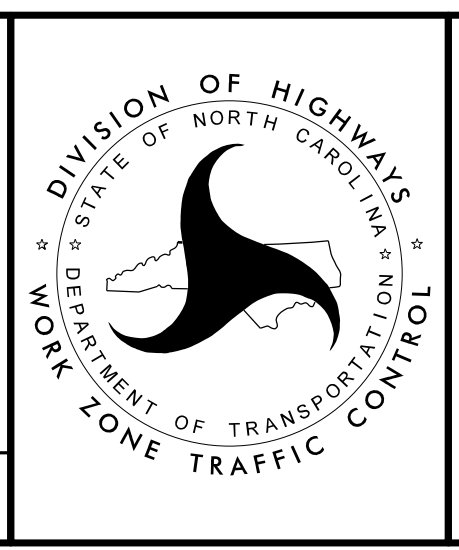
THROUGHOUT THIS STEP, BAG THE EXISTING RIGHT TURN ARROWS FOR RUSS AVENUE TO PREVENT POSSIBLE CONFUSION.




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 DATE: 2/23/2023

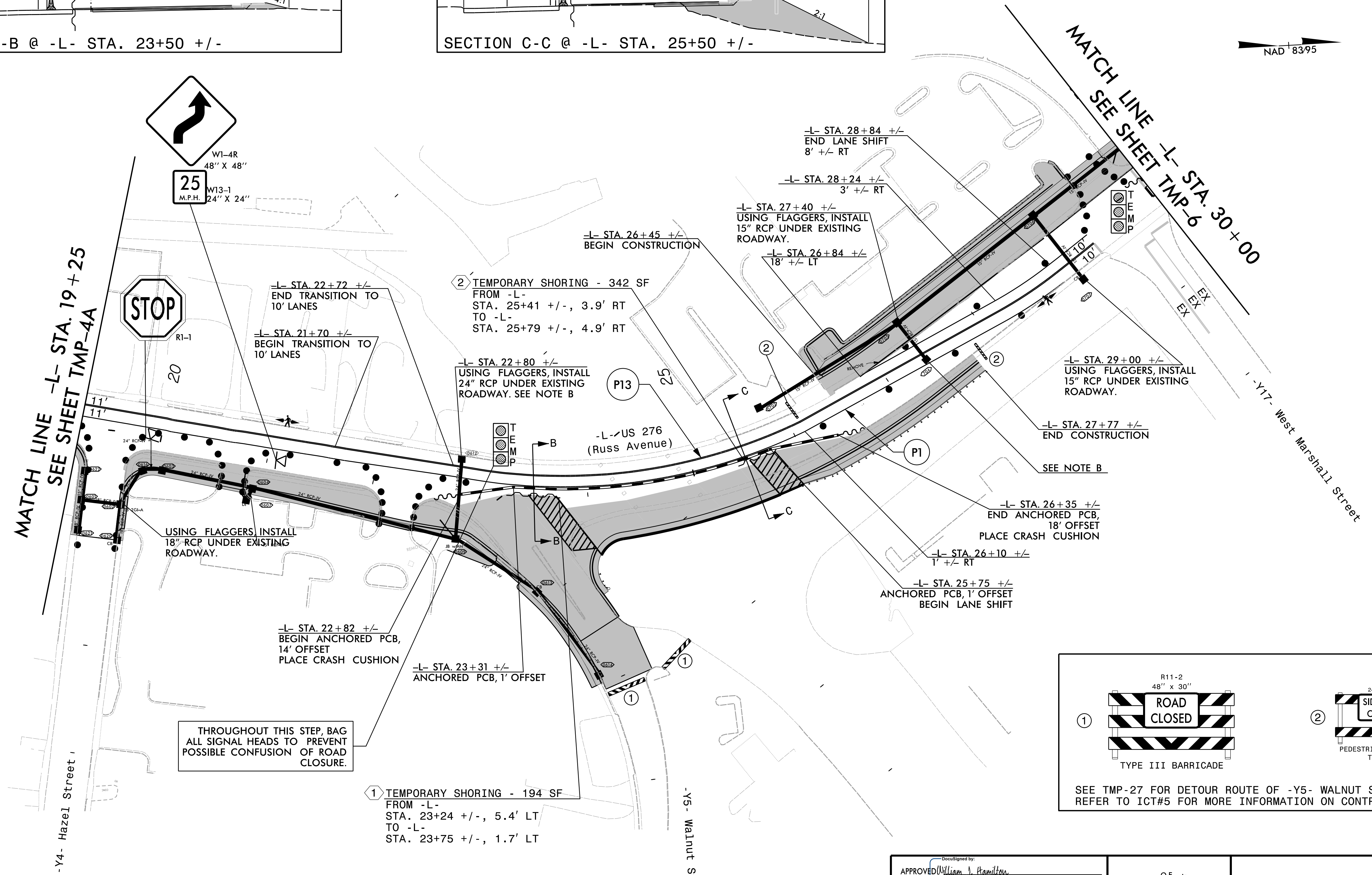
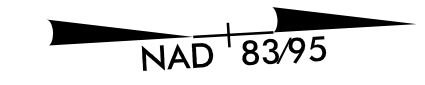
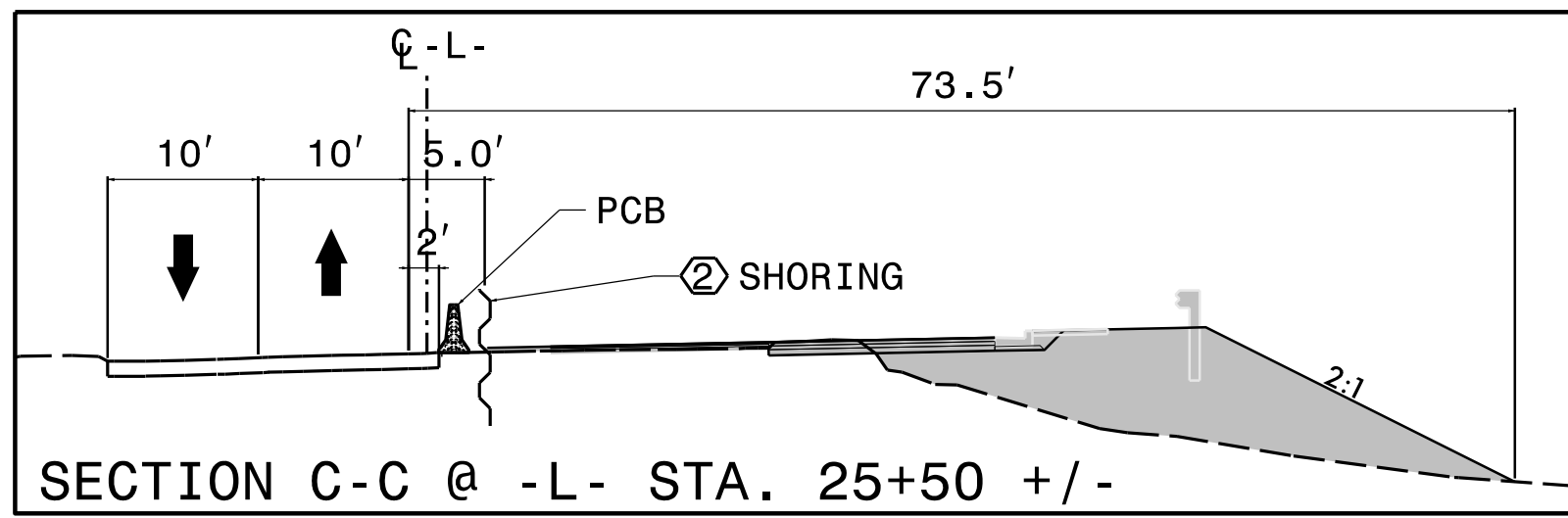
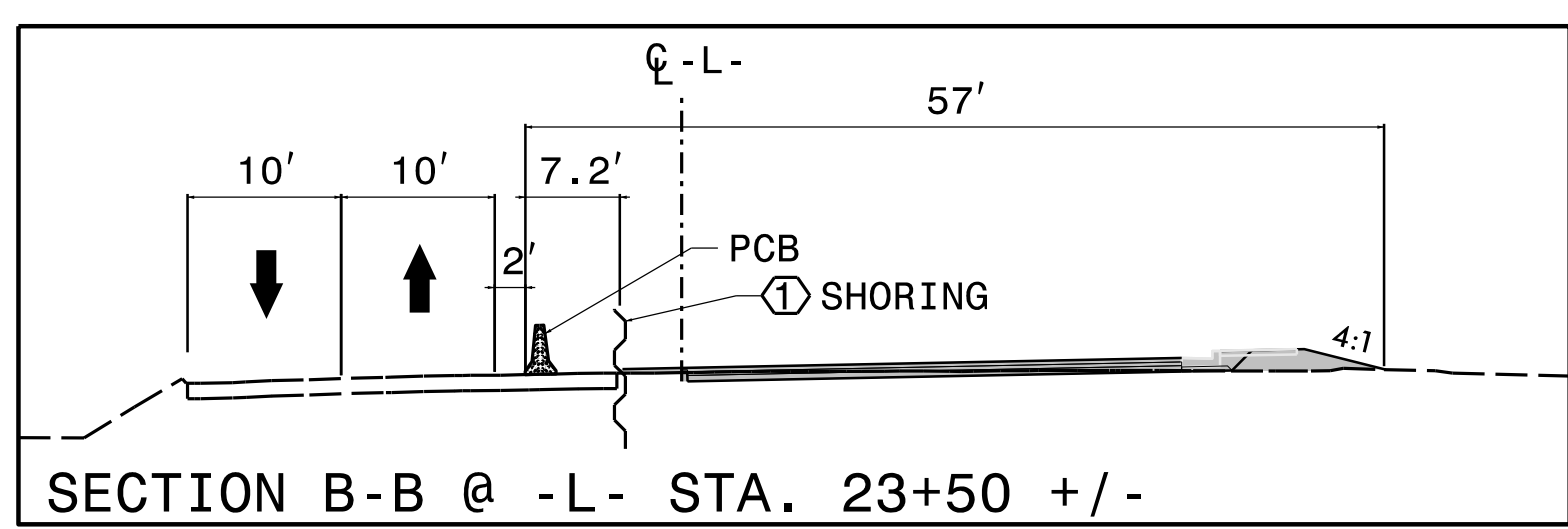
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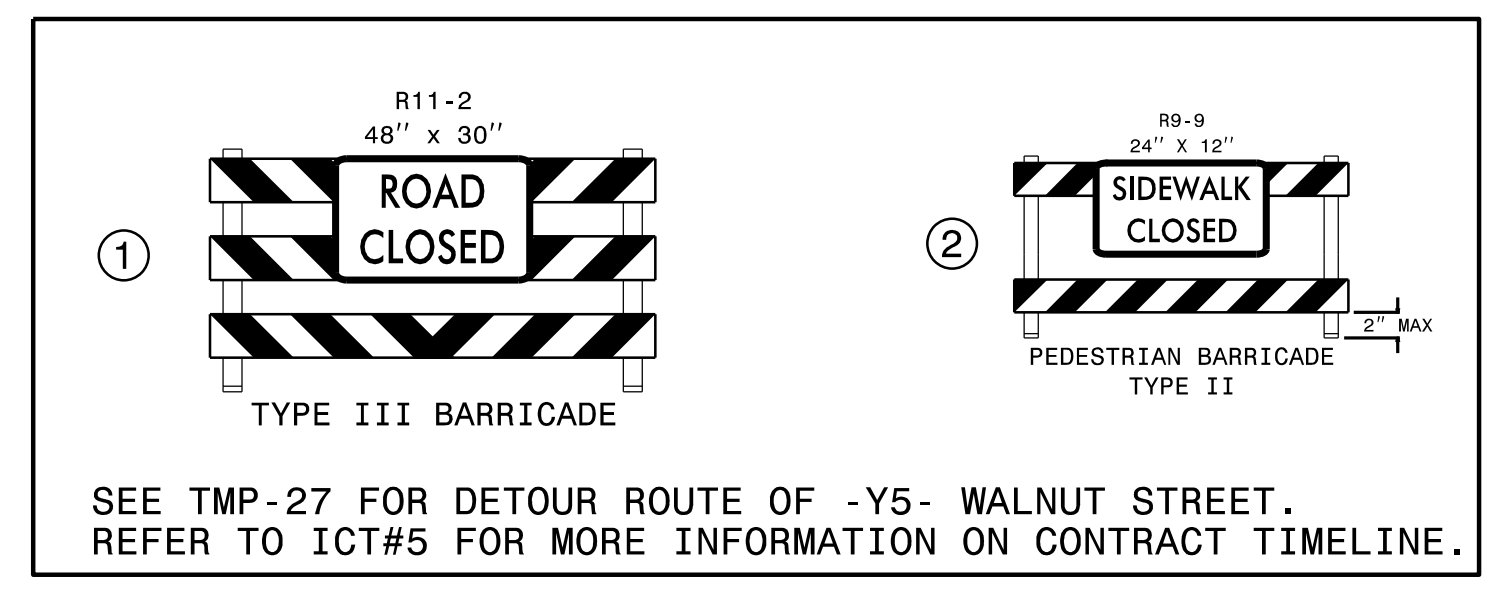
**TEMPORARY
 TRAFFIC CONTROL
 PHASE I – STEP 1**



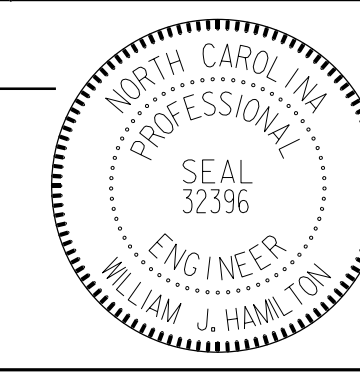
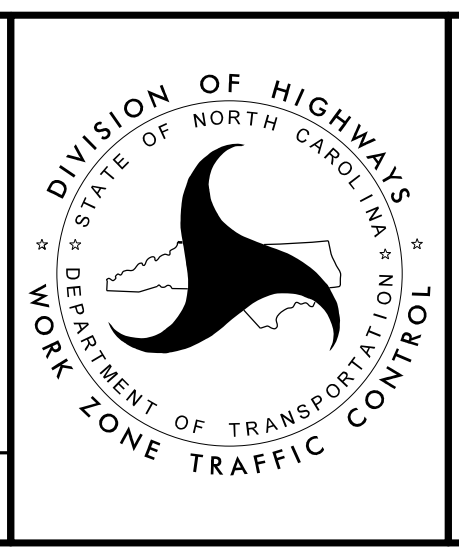
NOTE A:
 ENSURE ALL FIBER AND CONDUIT FROM -L- 10+19 +/- TO -L- 25+75 +/- IS BUILT IN PHASE I. REFER TO ITS PLANS FOR MORE DETAILS.

NOTE B:
 USE FLAGGERS TO INSTALL TRAFFIC BEARING PRECAST DRAINAGE STR. 612 AND 704 SHORT OF THE FINAL GRADE. FIELD VERIFY TOP OF STRUCTURE ELEVATIONS PRIOR TO MANUFACTURE. BACKFILL/PLATE AND PAVE OVER AS DIRECTED BY ENGINEER.

THROUGHOUT THIS STEP, BAG ALL SIGNAL HEADS TO PREVENT POSSIBLE CONFUSION OF ROAD CLOSURE.

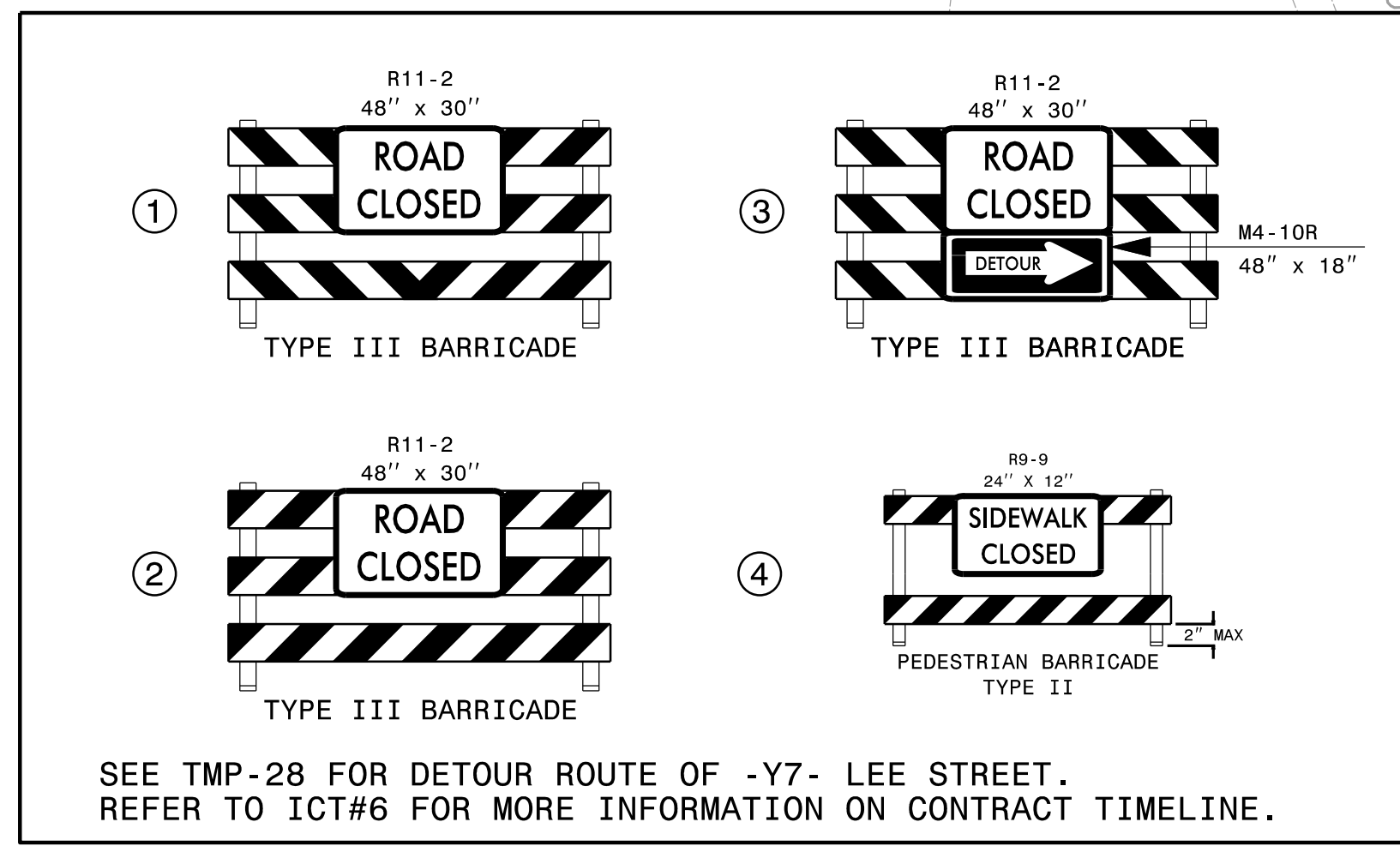
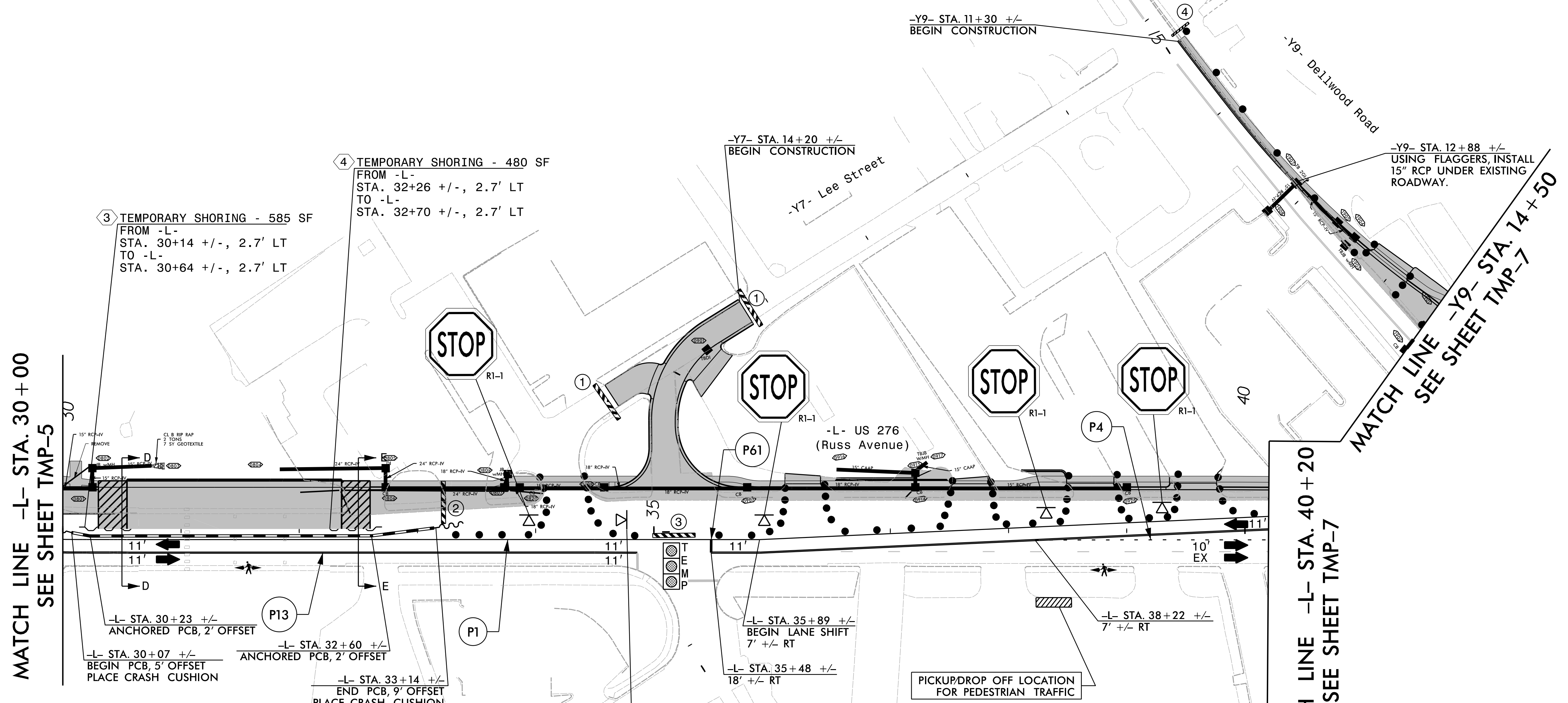
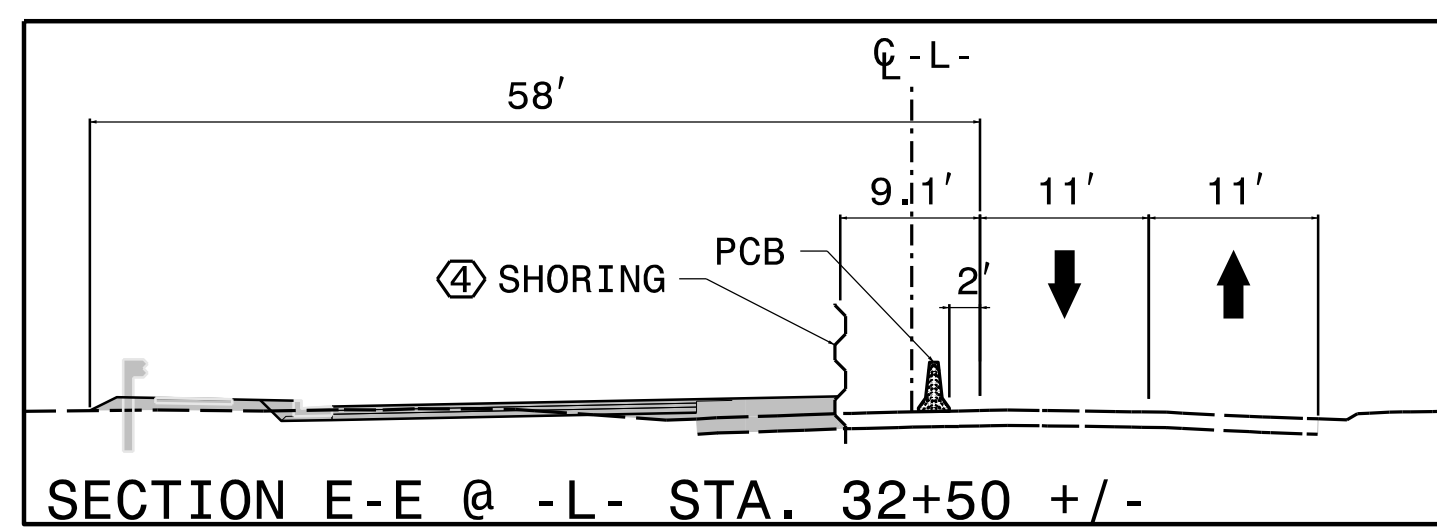
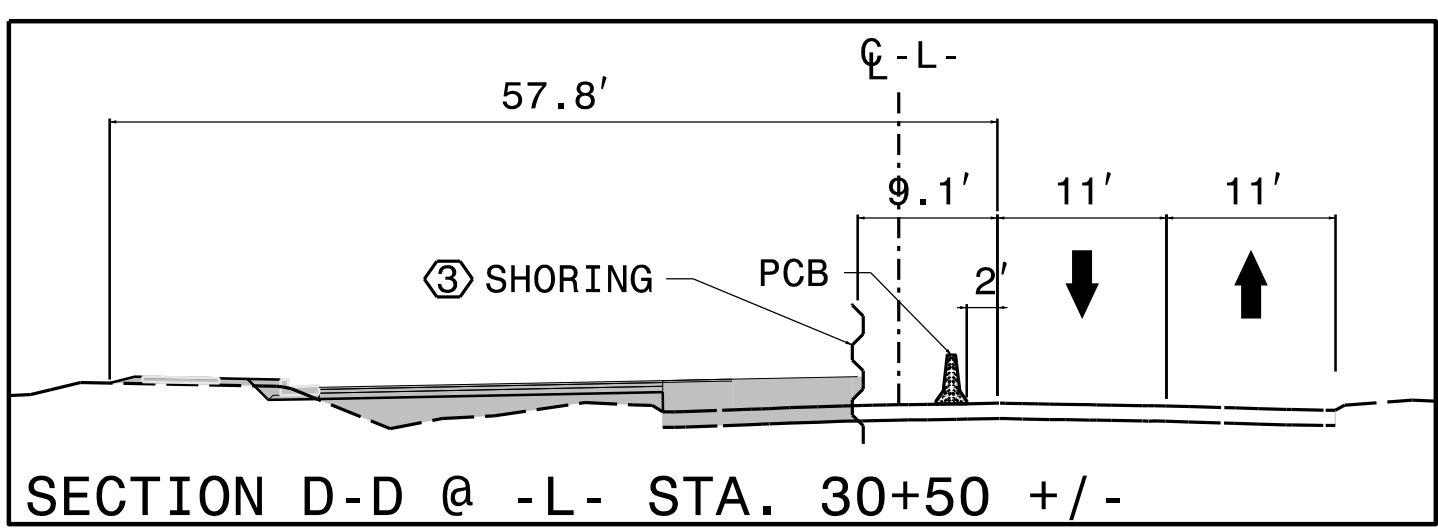


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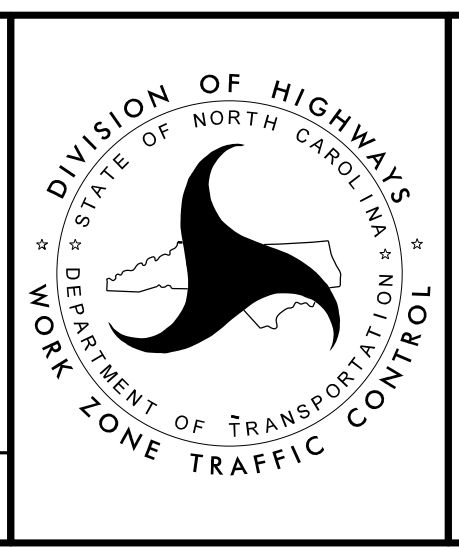



TEMPORARY TRAFFIC CONTROL PHASE I - STEP 1

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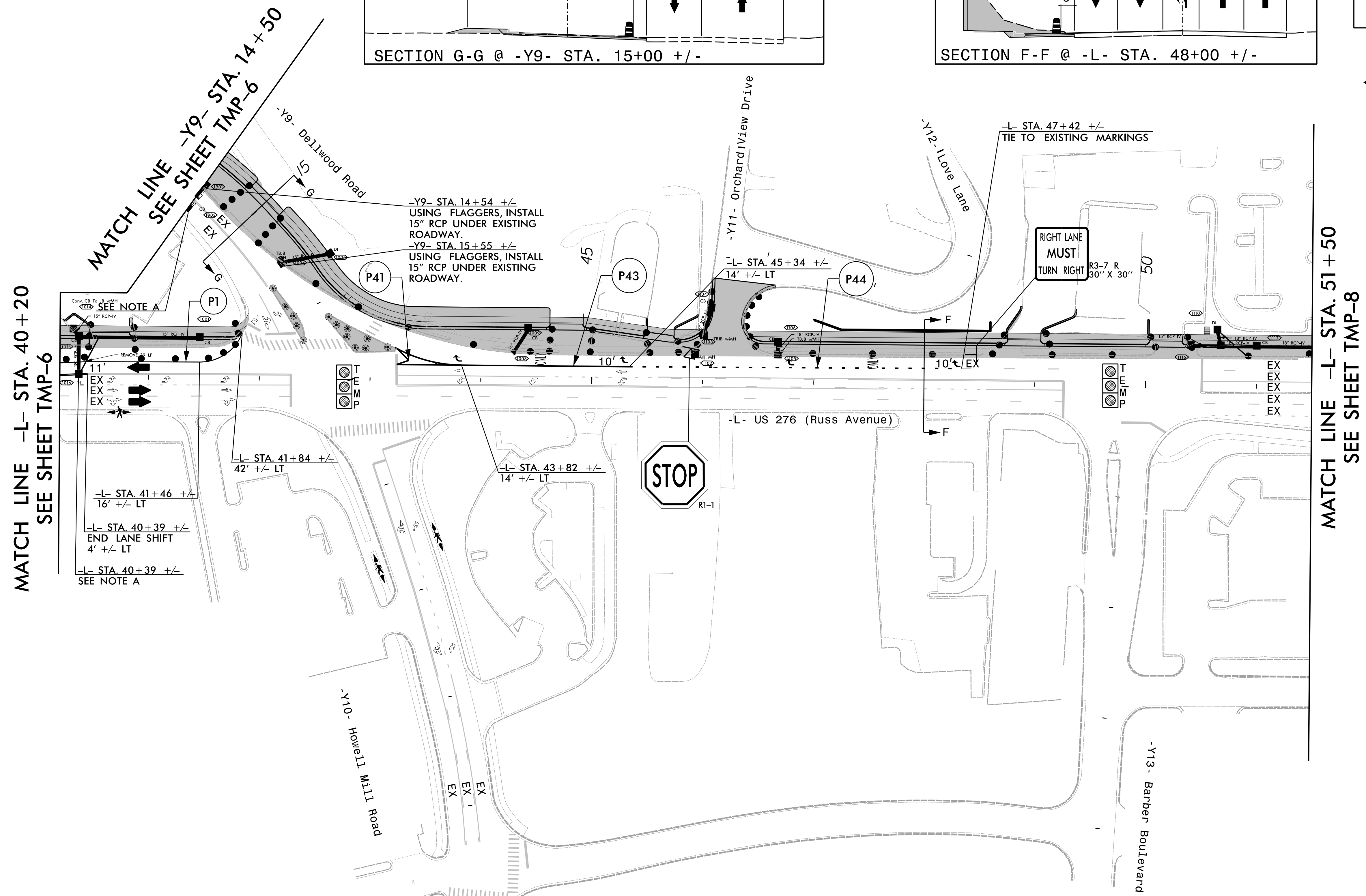
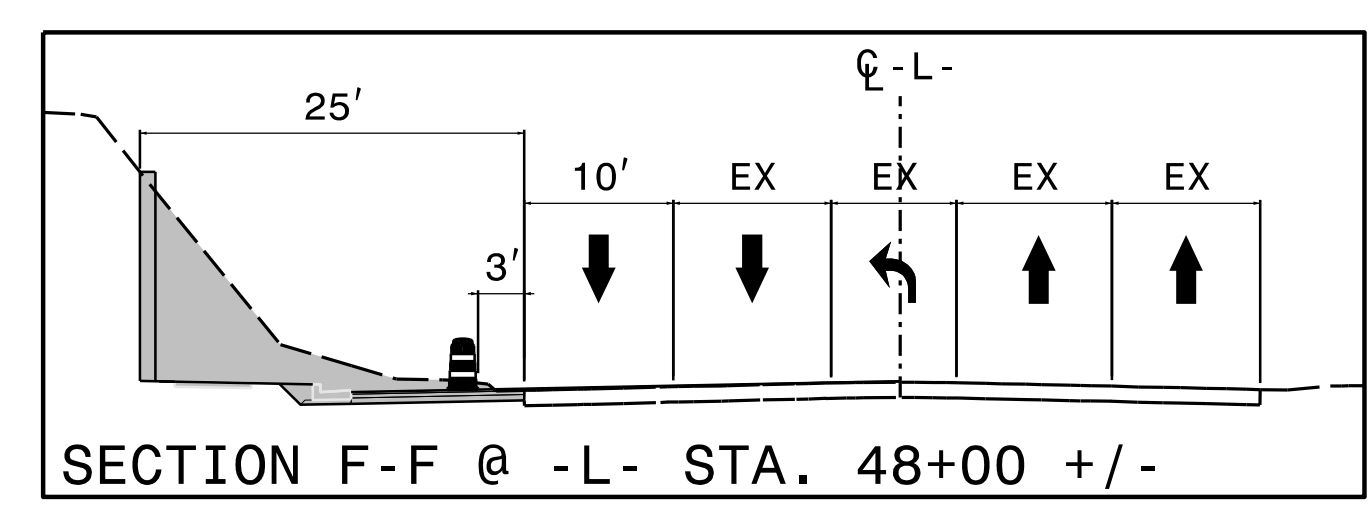
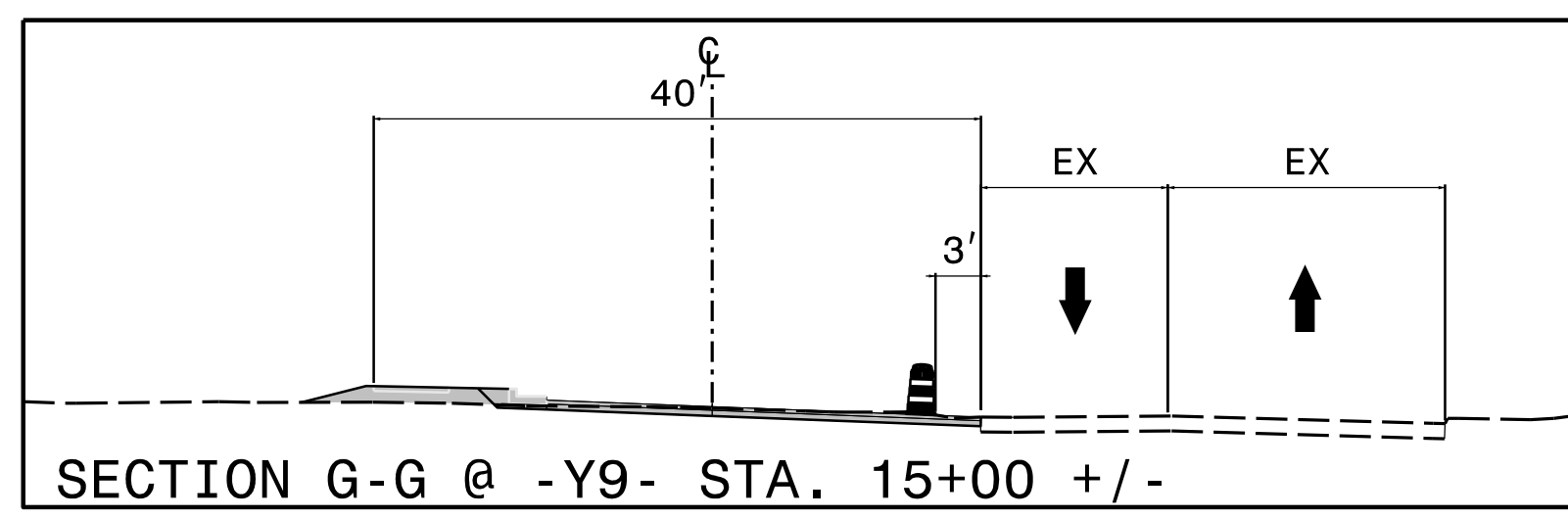
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 DATE: 2/23/2023
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 32396
 WILLIAM J. HAMILTON



TEMPORARY TRAFFIC CONTROL PHASE I - STEP 1

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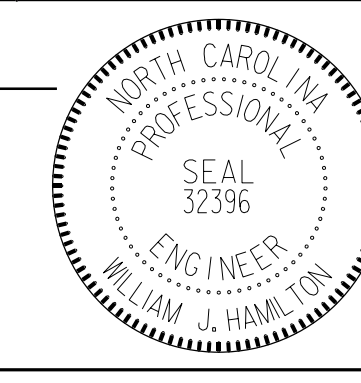




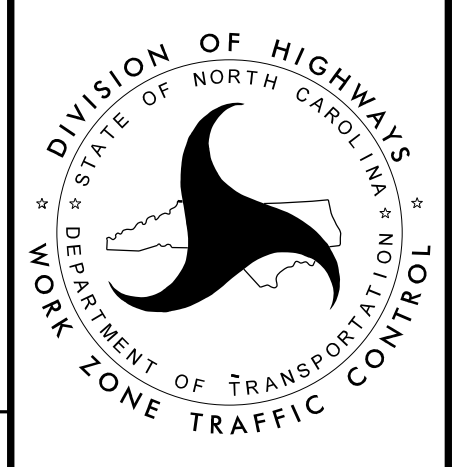
NOTE A:
 USE FLAGGERS TO INSTALL TRAFFIC BEARING PRECAST DRAINAGE STR. 1016 AND 1902 SHORT OF THE FINAL GRADE. FIELD VERIFY TOP OF STRUCTURE ELEVATIONS PRIOR TO MANUFACTURE. BACKFILL/PLATE AND PAVE OVER AS DIRECTED BY ENGINEER.

APPROVED: *William J. Hamilton*
 DATE: 2/23/2023

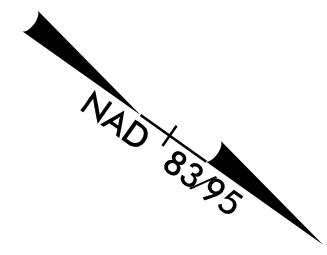
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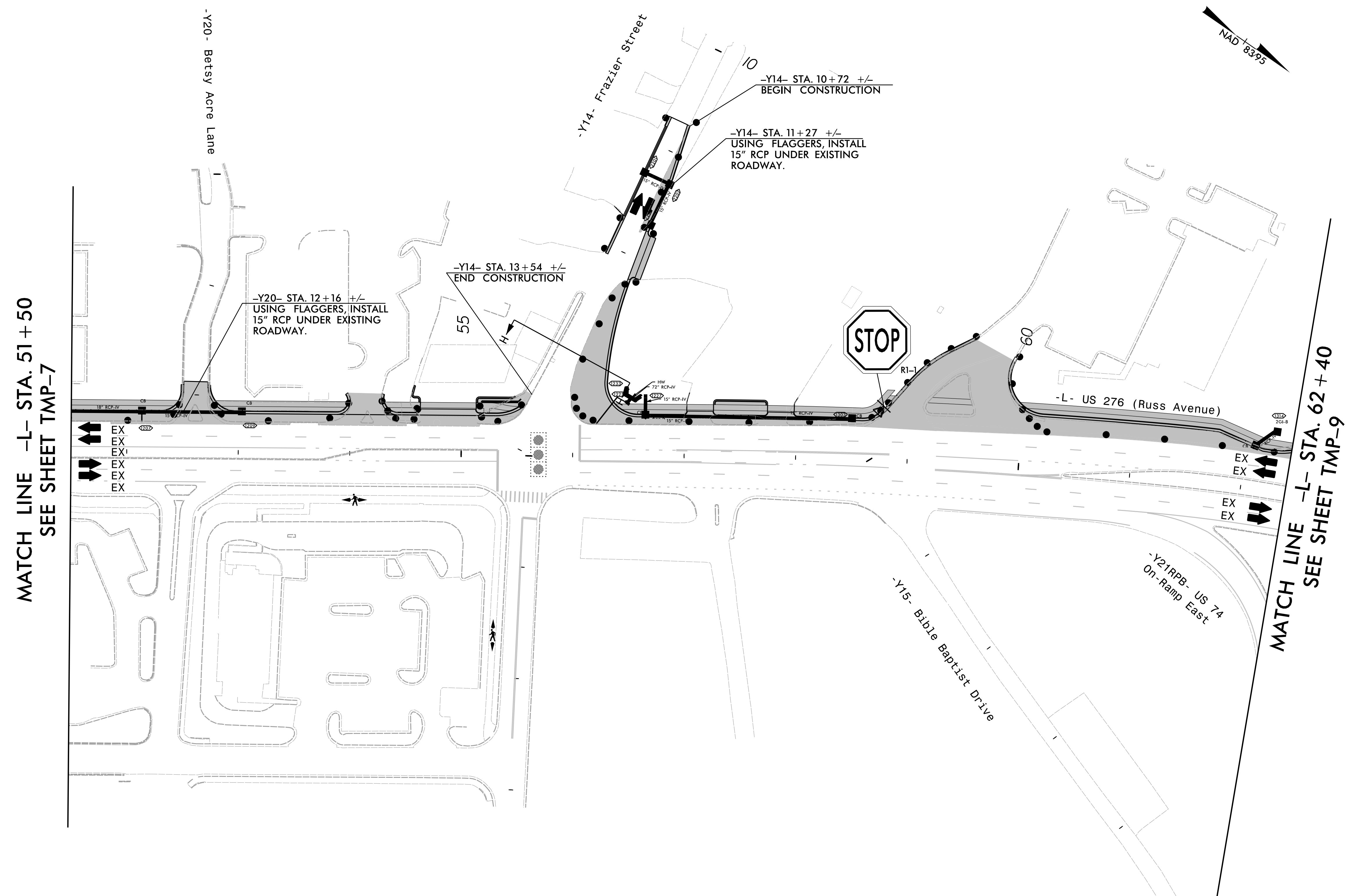


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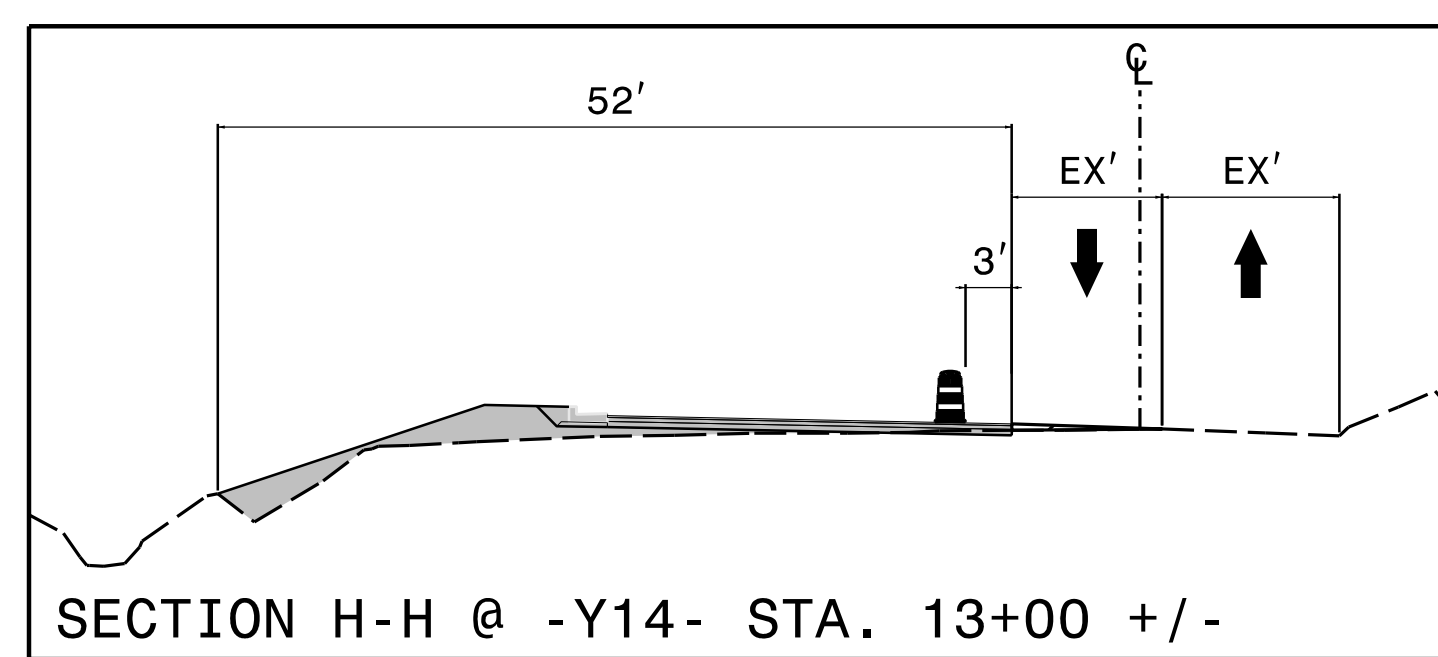
TEMPORARY TRAFFIC CONTROL PHASE I - STEP 1



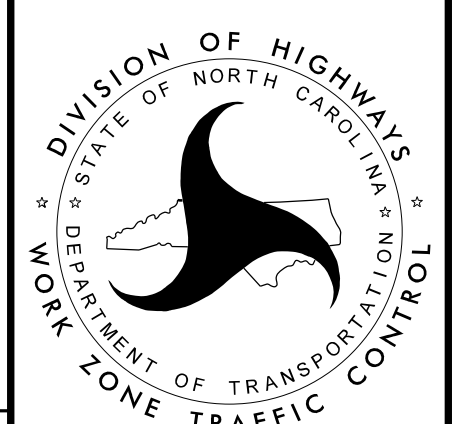
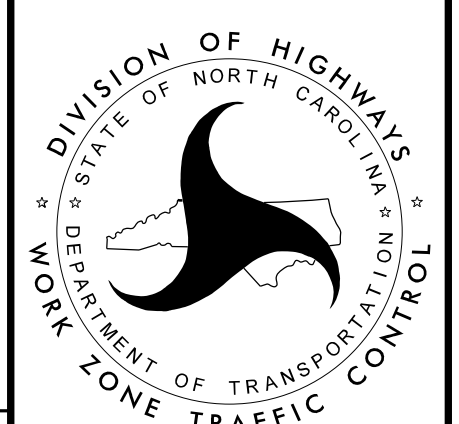


MATCH LINE -L- STA. 51+50
SEE SHEET TMP-7

MATCH LINE -L- STA. 62+40
SEE SHEET TMP-9

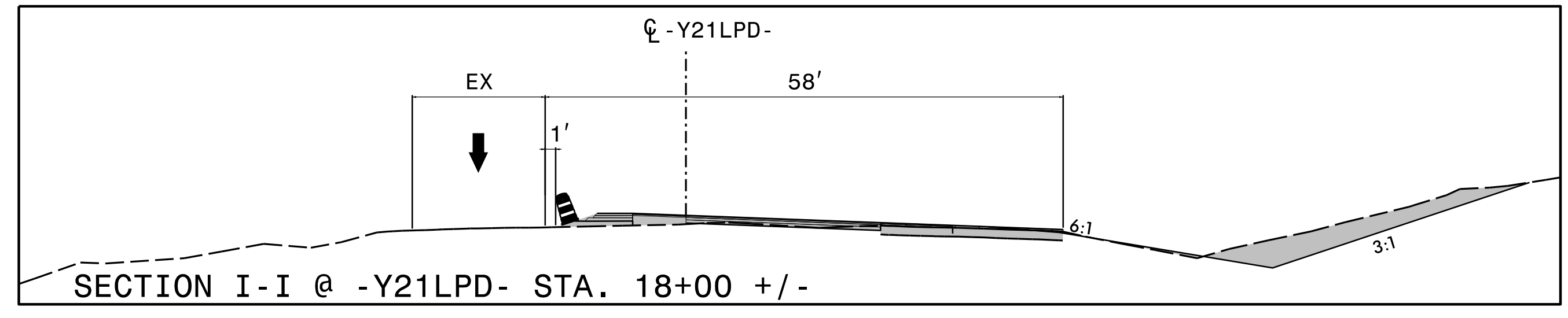
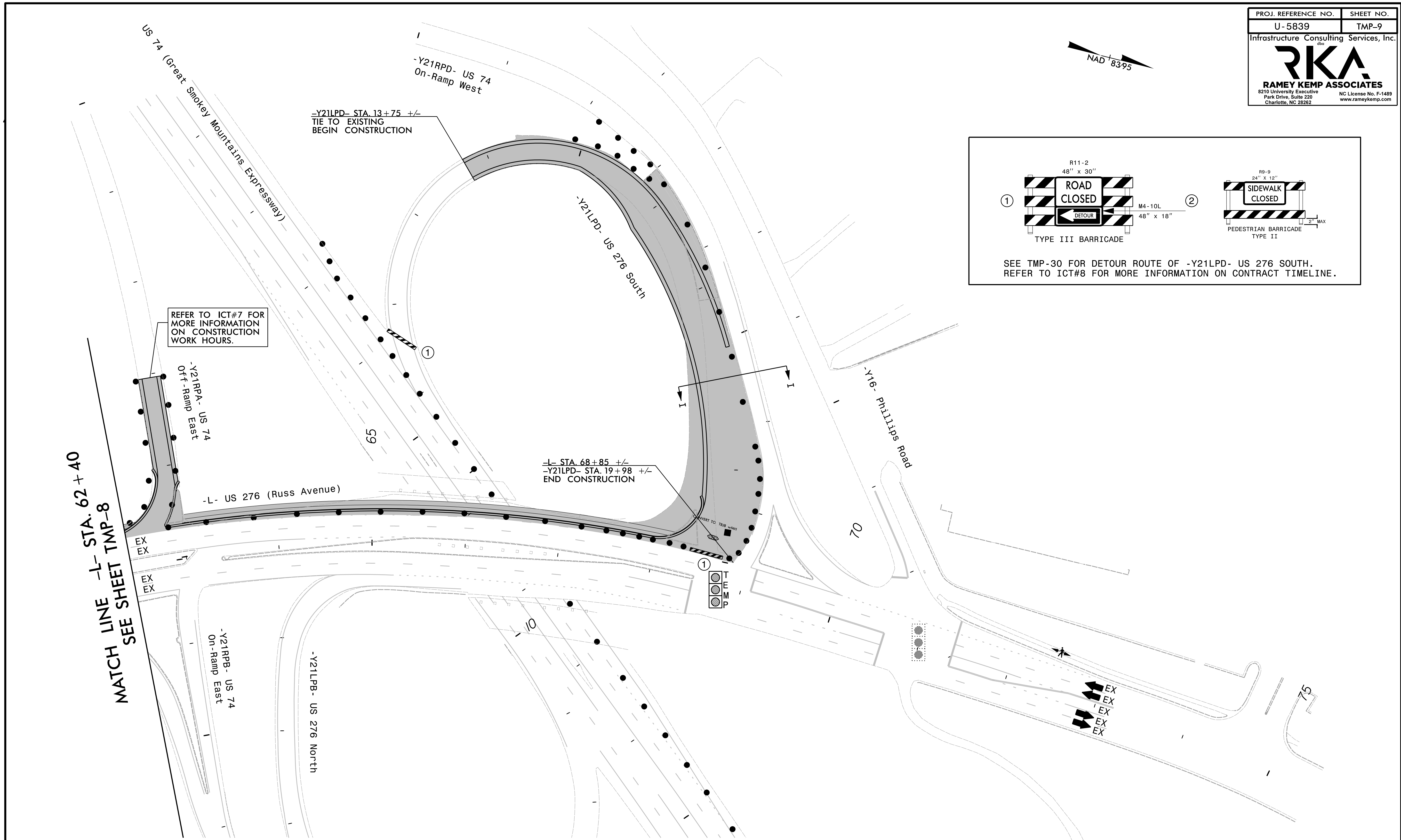
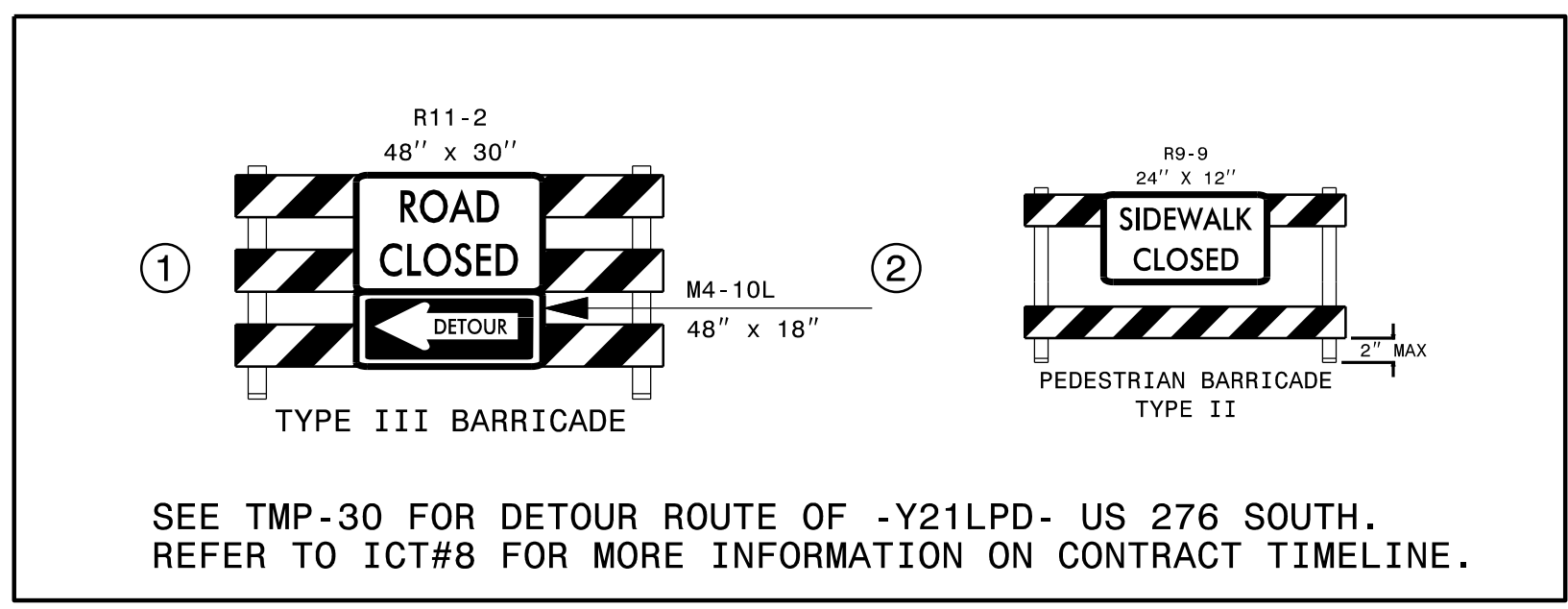


APPROVED: *William J. Hamilton*
Professional Engineer
A05600704648484
 DATE: 2/23/2023
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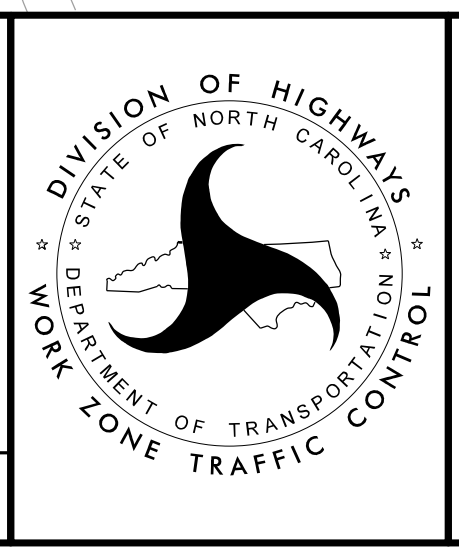


**TEMPORARY
TRAFFIC CONTROL
PHASE I – STEP 1**

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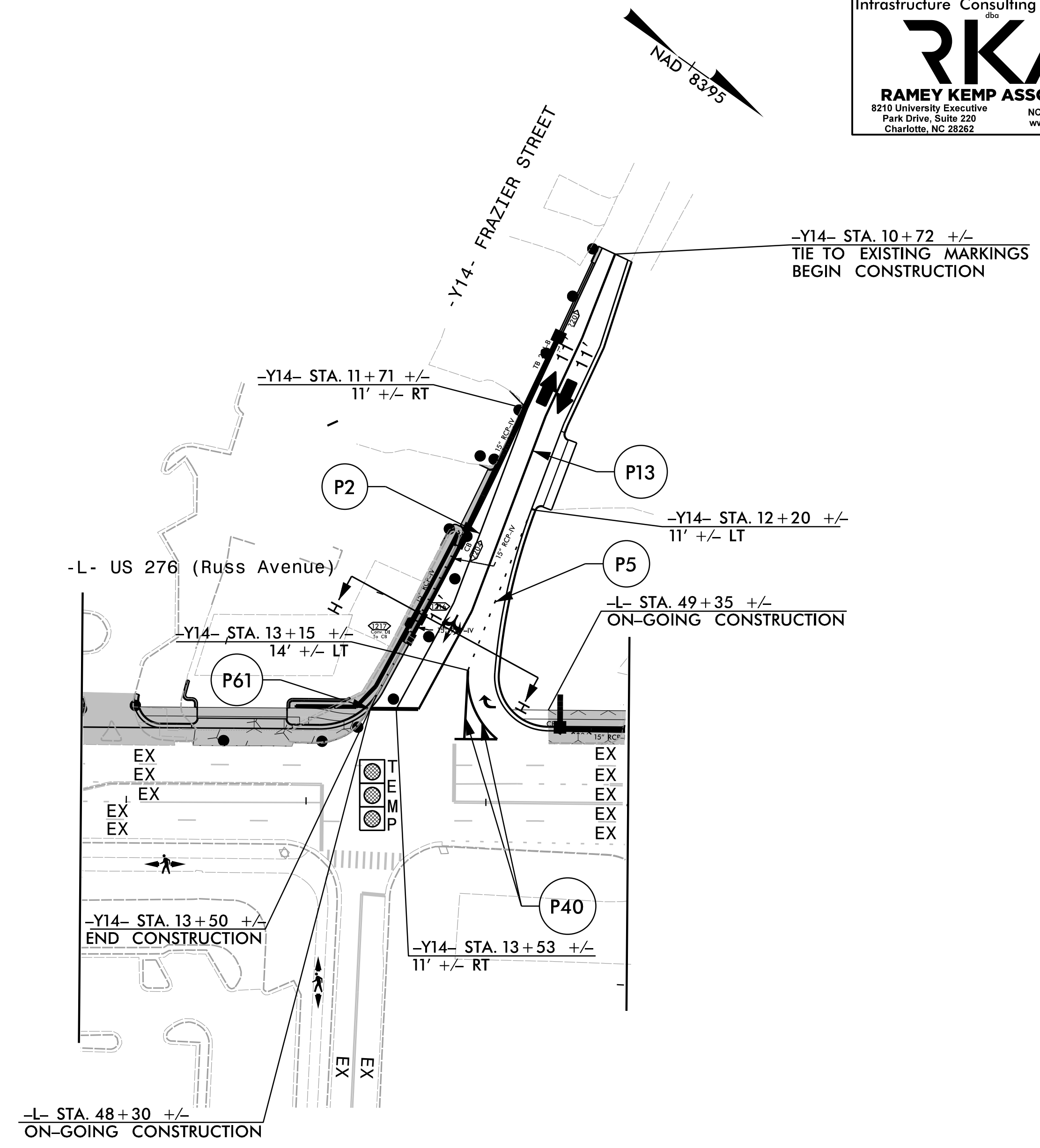
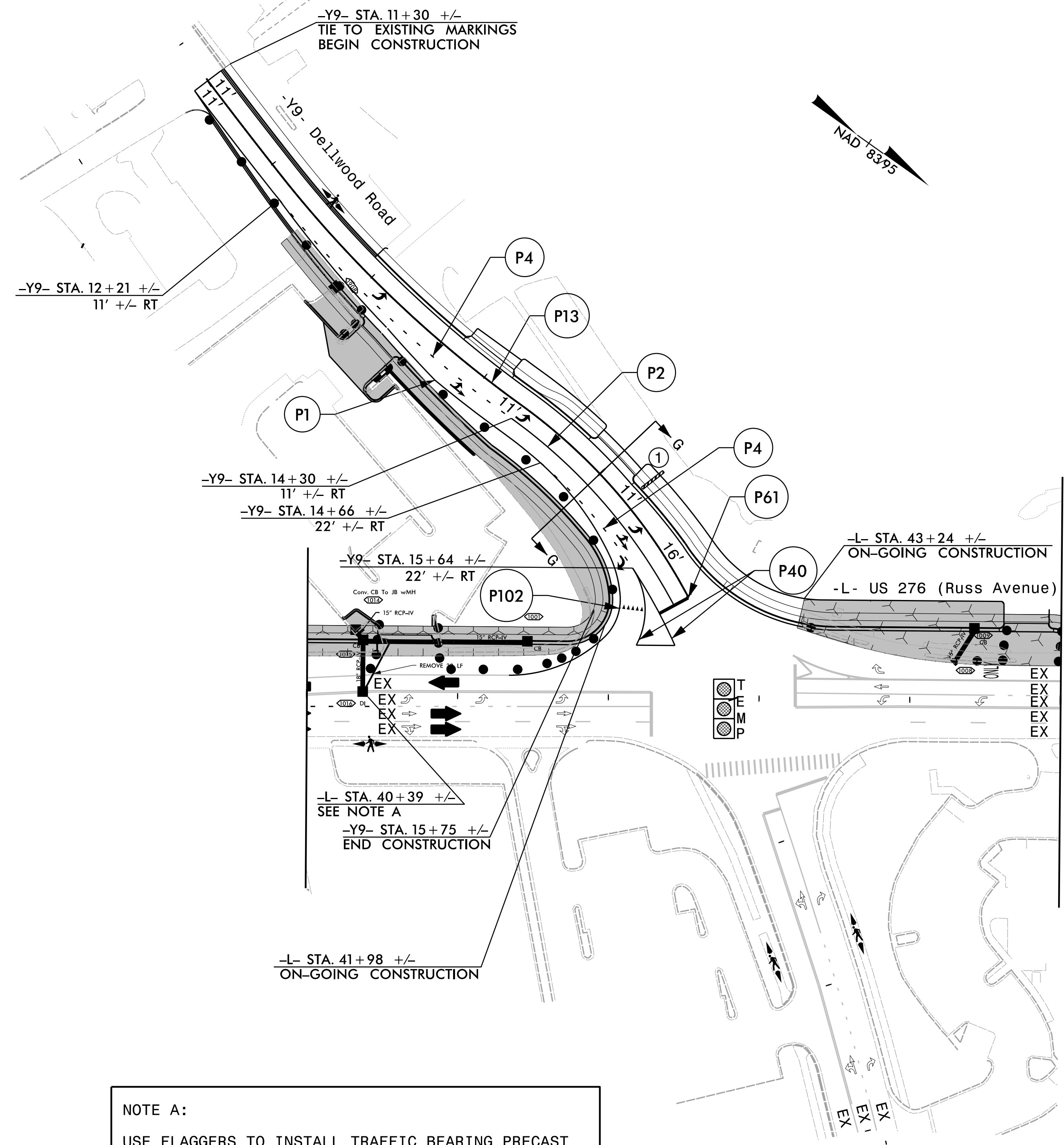


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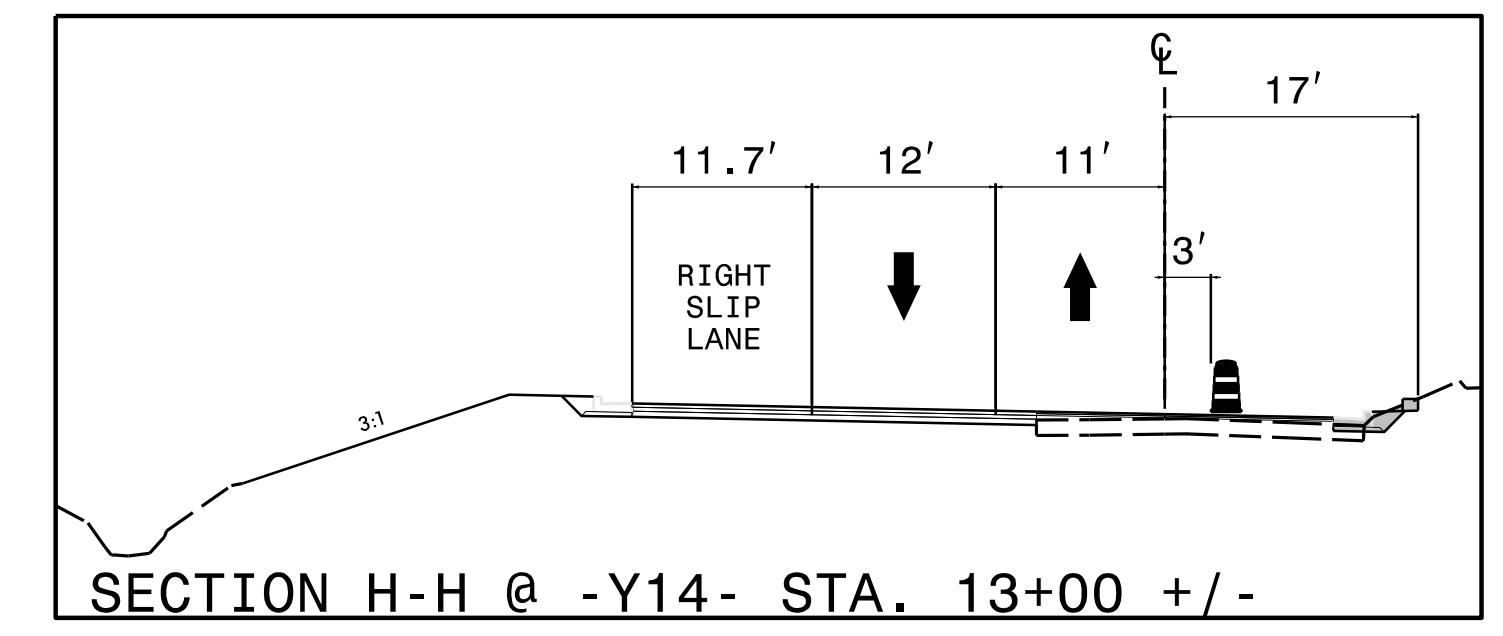
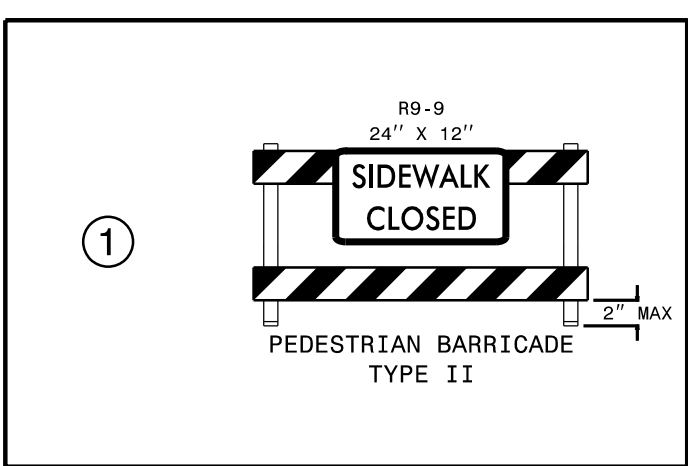
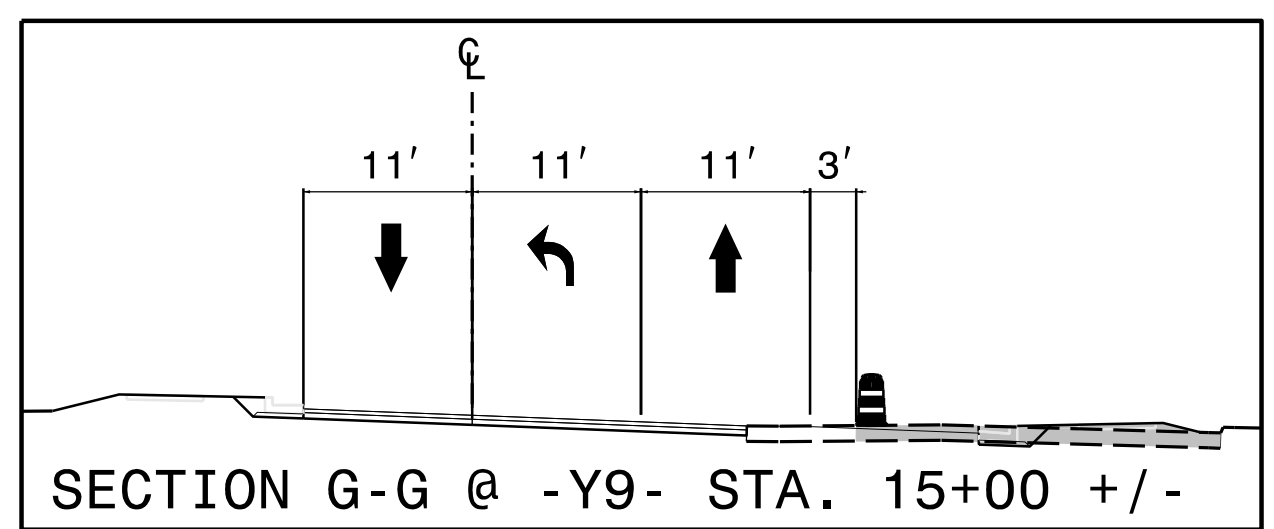


**TEMPORARY
 TRAFFIC CONTROL
 PHASE I – STEP 1**

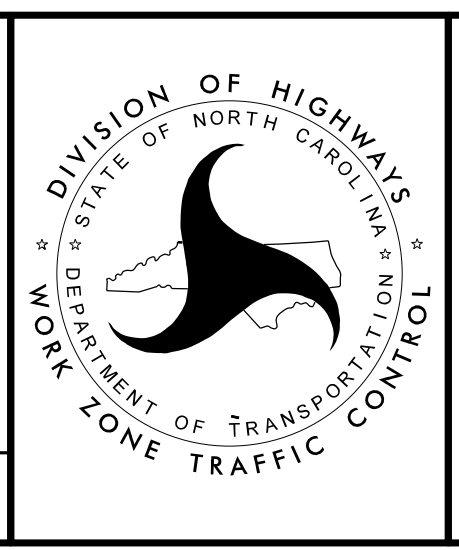
**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



NOTE A:
 USE FLAGGERS TO INSTALL TRAFFIC BEARING PRECAST DRAINAGE STR. 1016 AND 1902 SHORT OF THE FINAL GRADE. FIELD VERIFY TOP OF STRUCTURE ELEVATIONS PRIOR TO MANUFACTURE. BACKFILL/PLATE AND PAVE OVER AS DIRECTED BY ENGINEER.

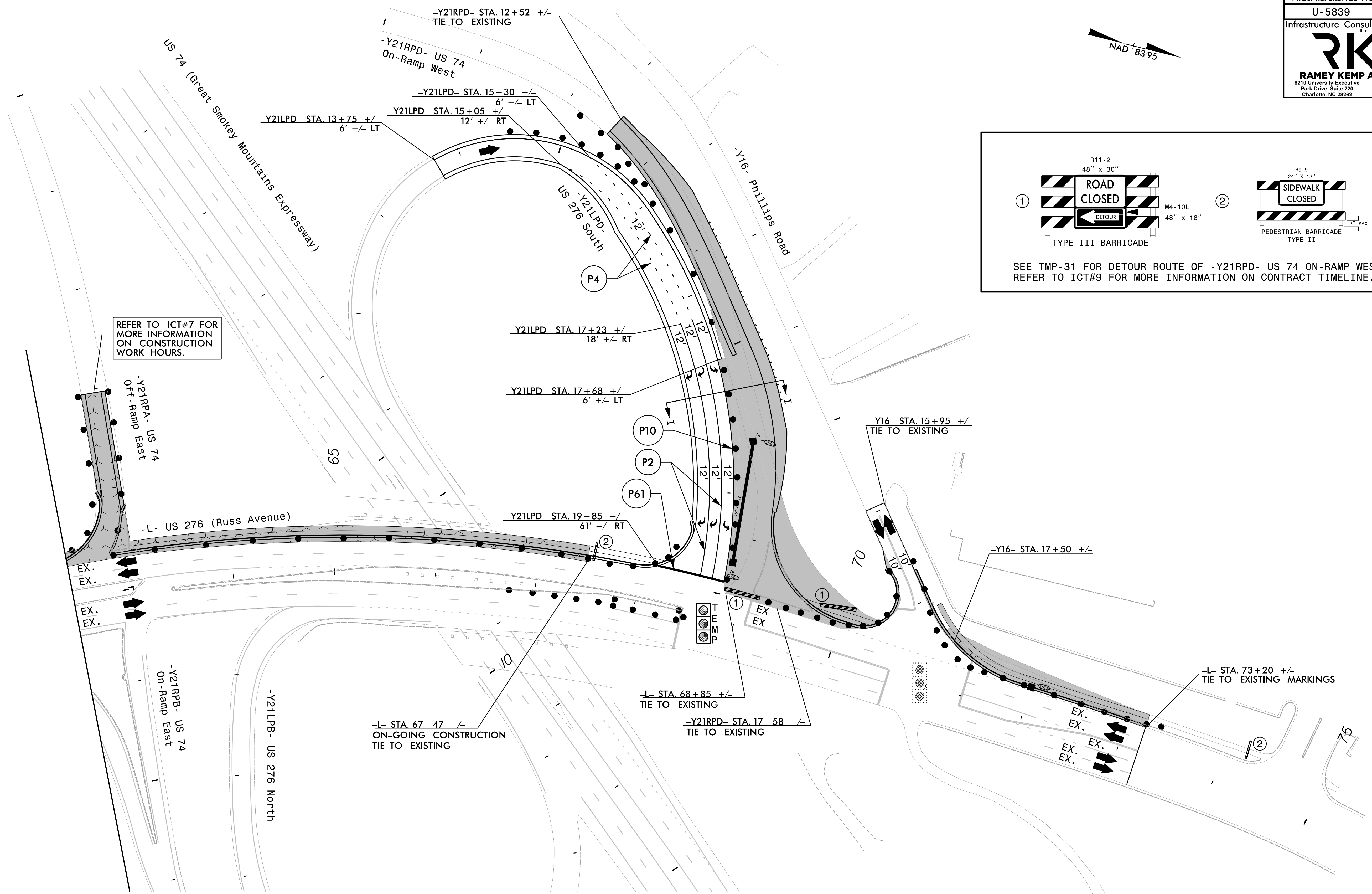


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 SEAL 32396
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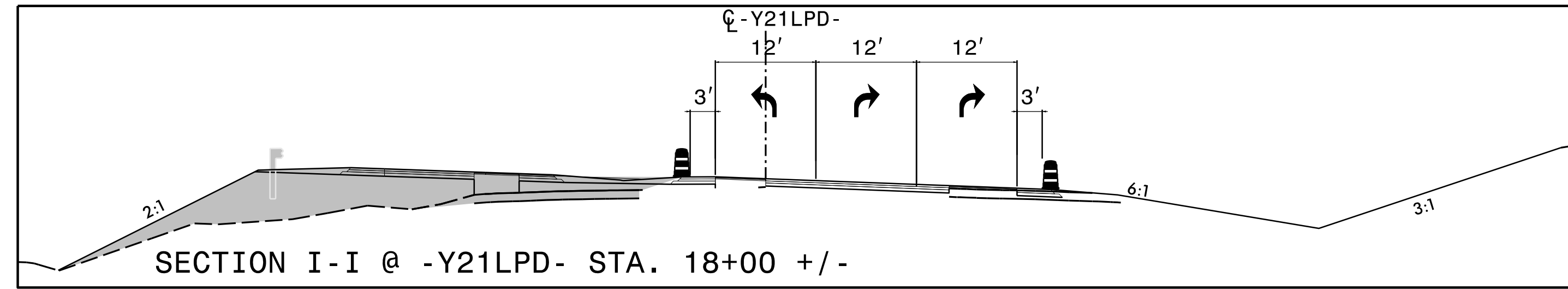
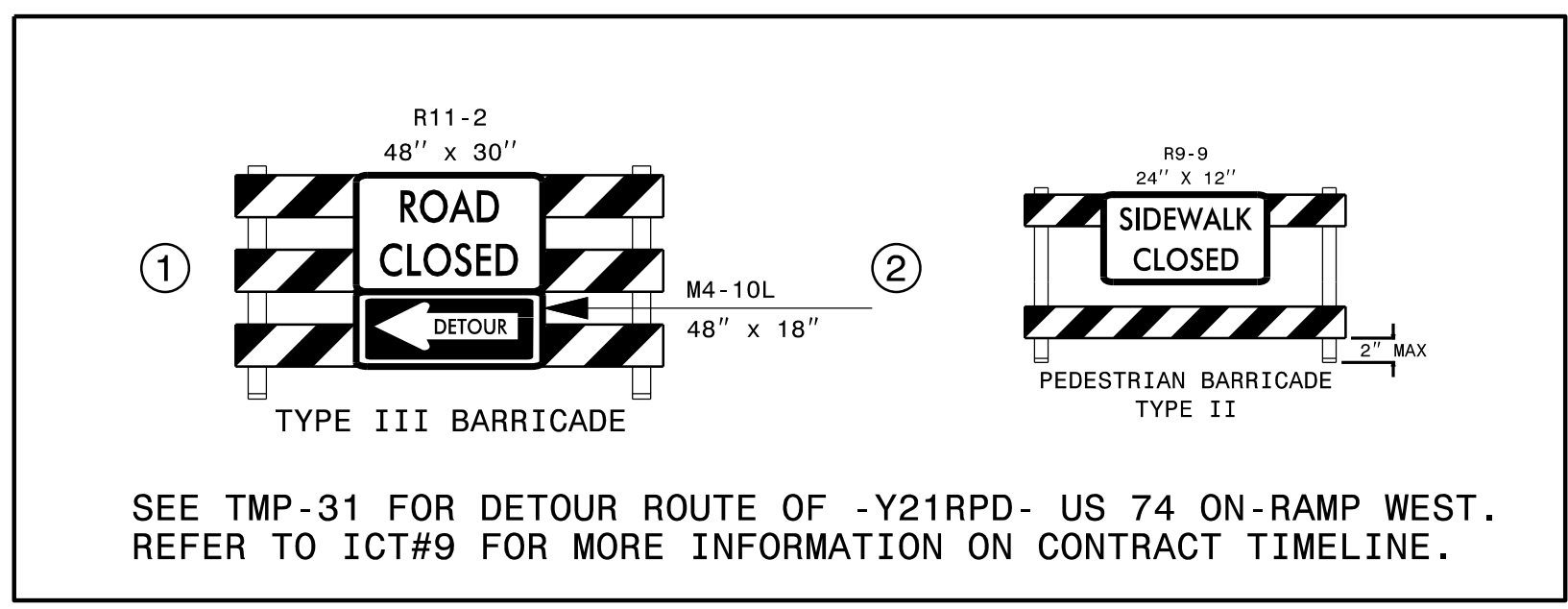


**TEMPORARY TRAFFIC CONTROL
 PHASE I - STEP 2**

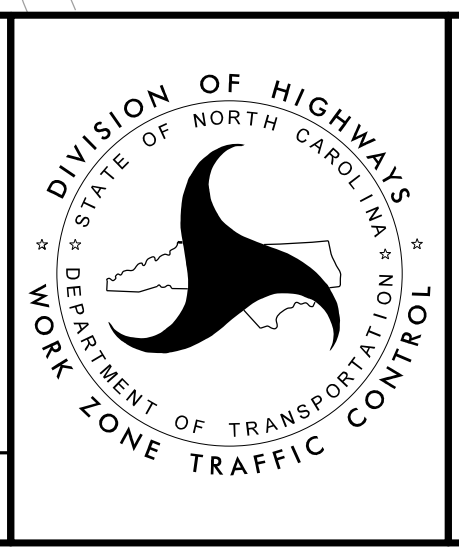
**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



REFER TO ICT#7 FOR MORE INFORMATION ON CONSTRUCTION WORK HOURS.

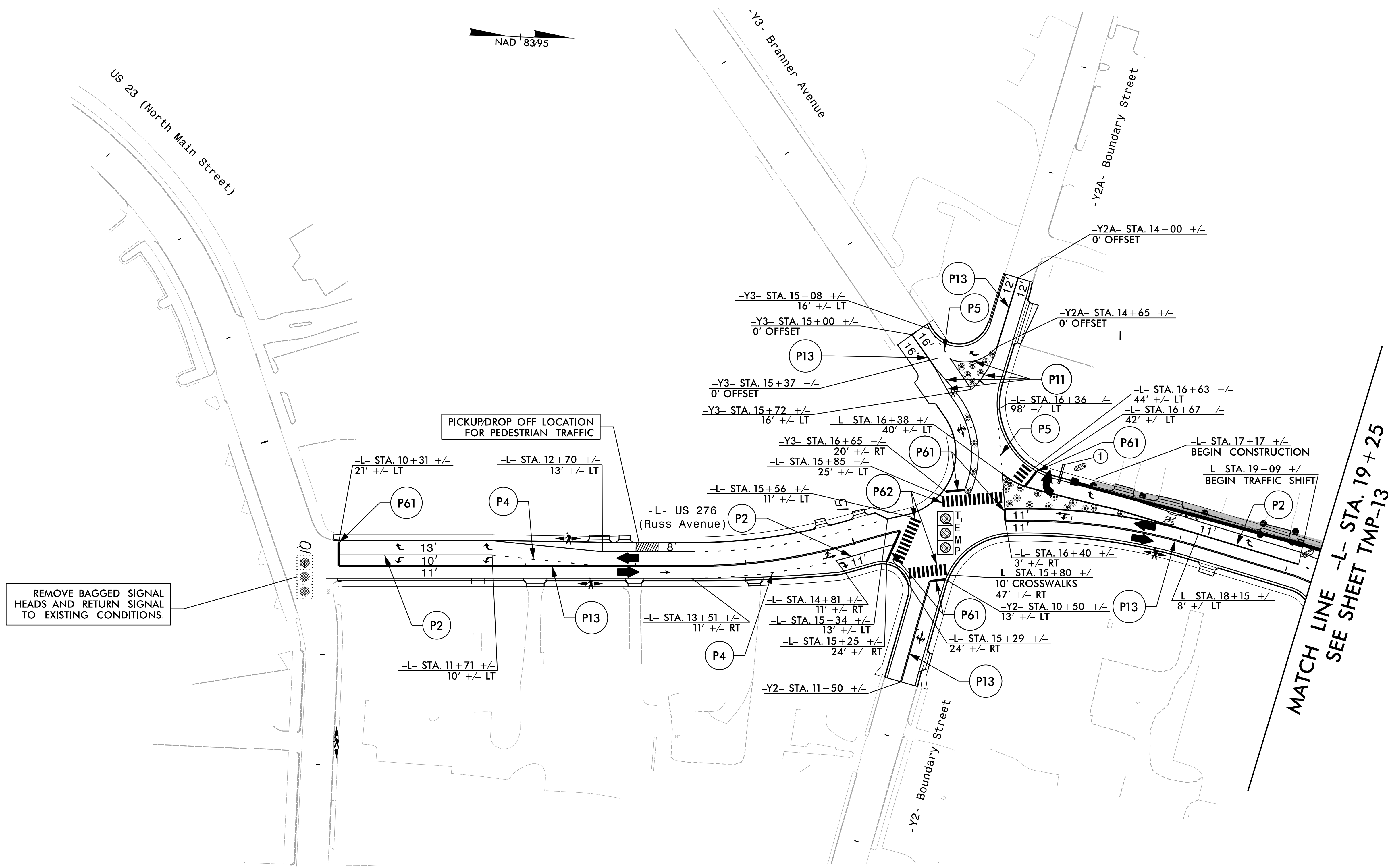
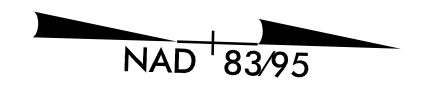


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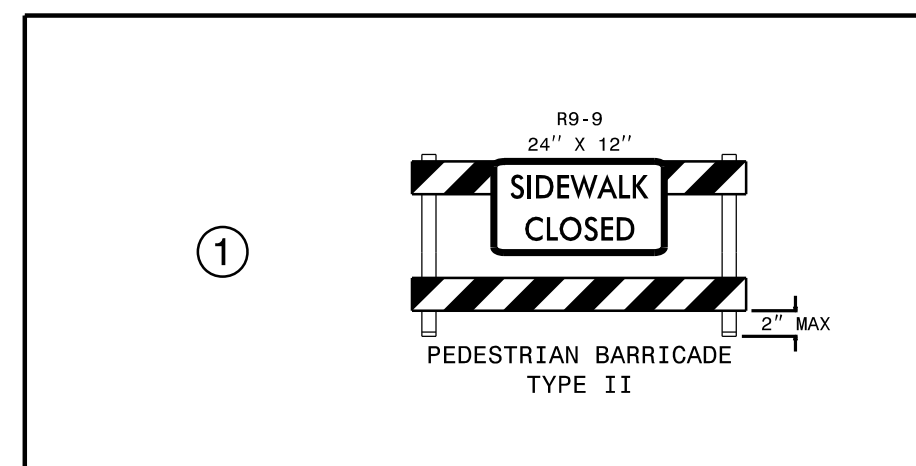
**TEMPORARY
TRAFFIC CONTROL
PHASE I – STEP 2**

**DOCUMENT NOT CONSIDERED FINAL
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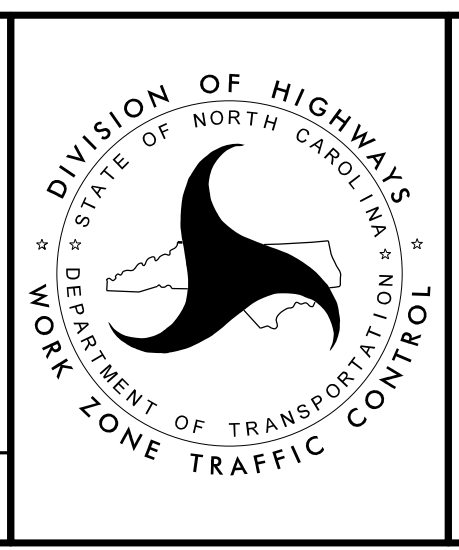
REMOVE BAGGED SIGNAL HEADS AND RETURN SIGNAL TO EXISTING CONDITIONS.

PICKUP/DROP OFF LOCATION FOR PEDESTRIAN TRAFFIC

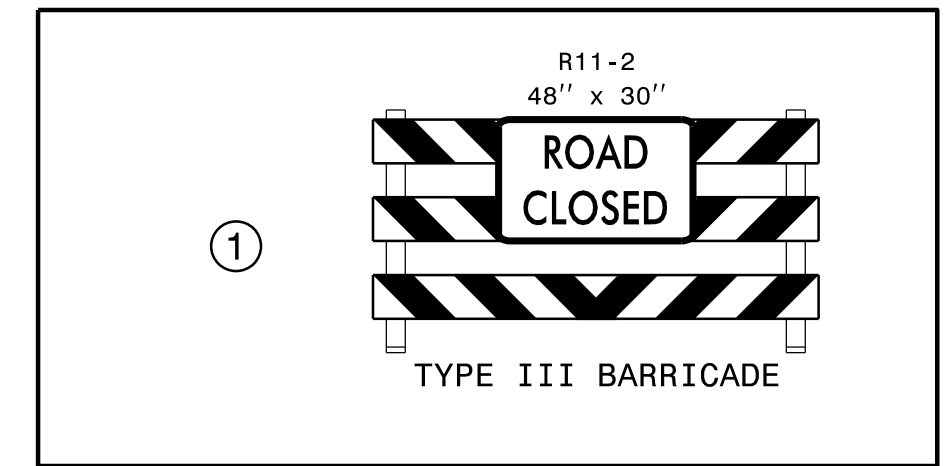
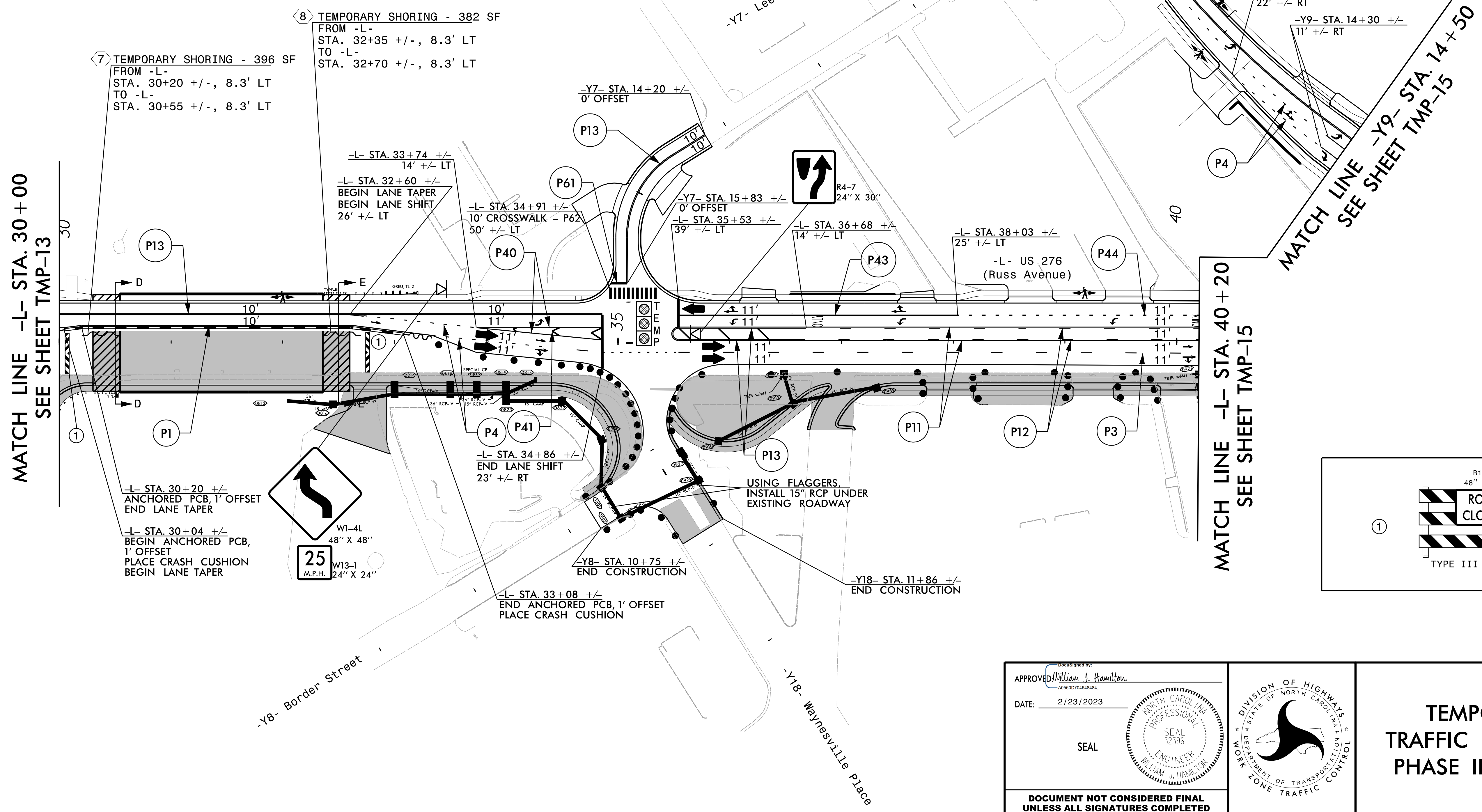
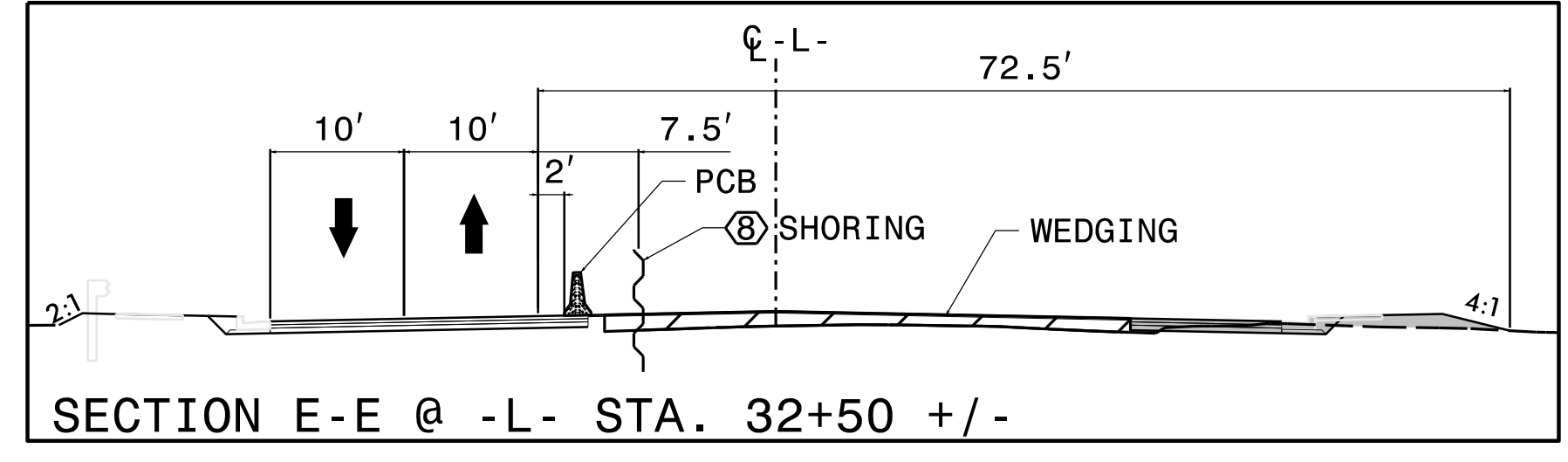
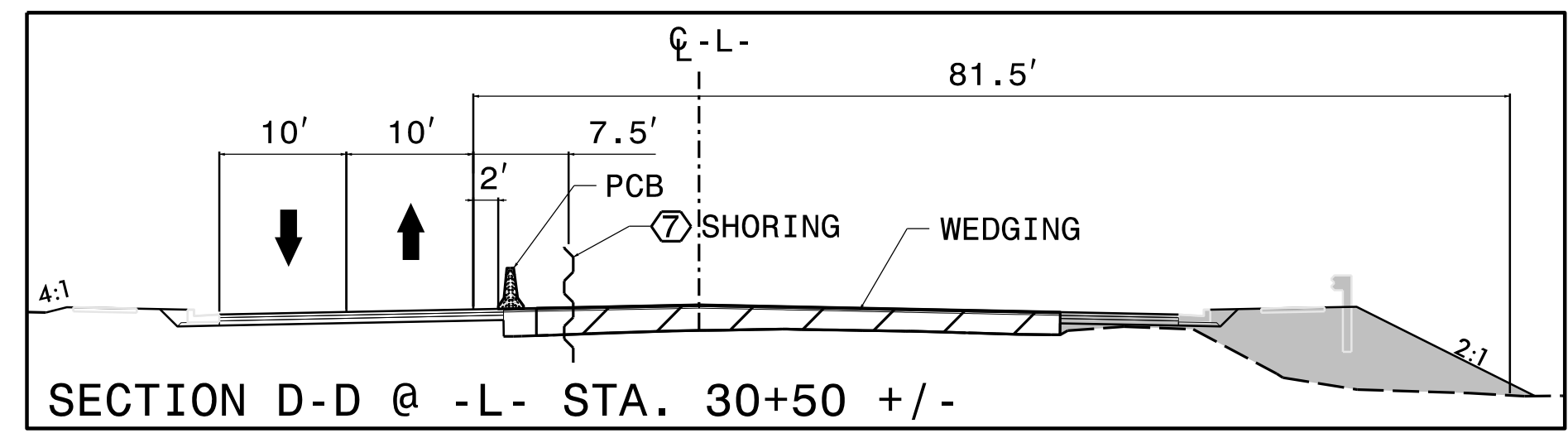


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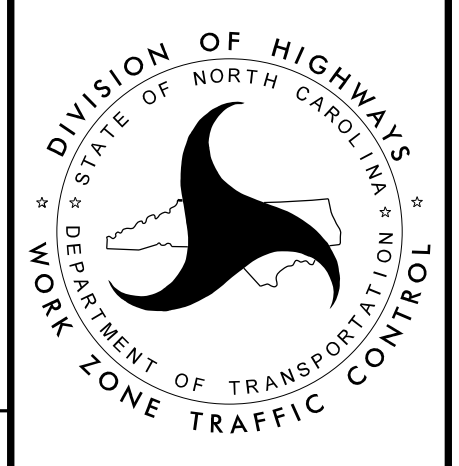
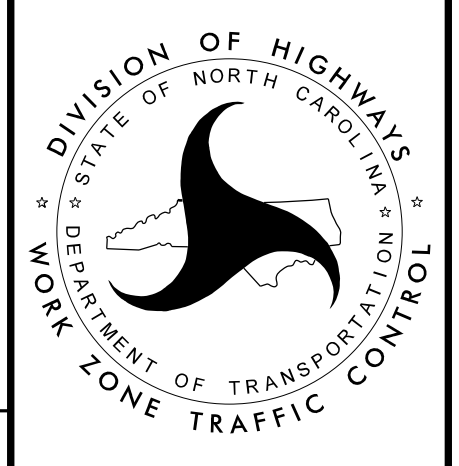
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**TEMPORARY TRAFFIC CONTROL
 PHASE II - STEP 1**

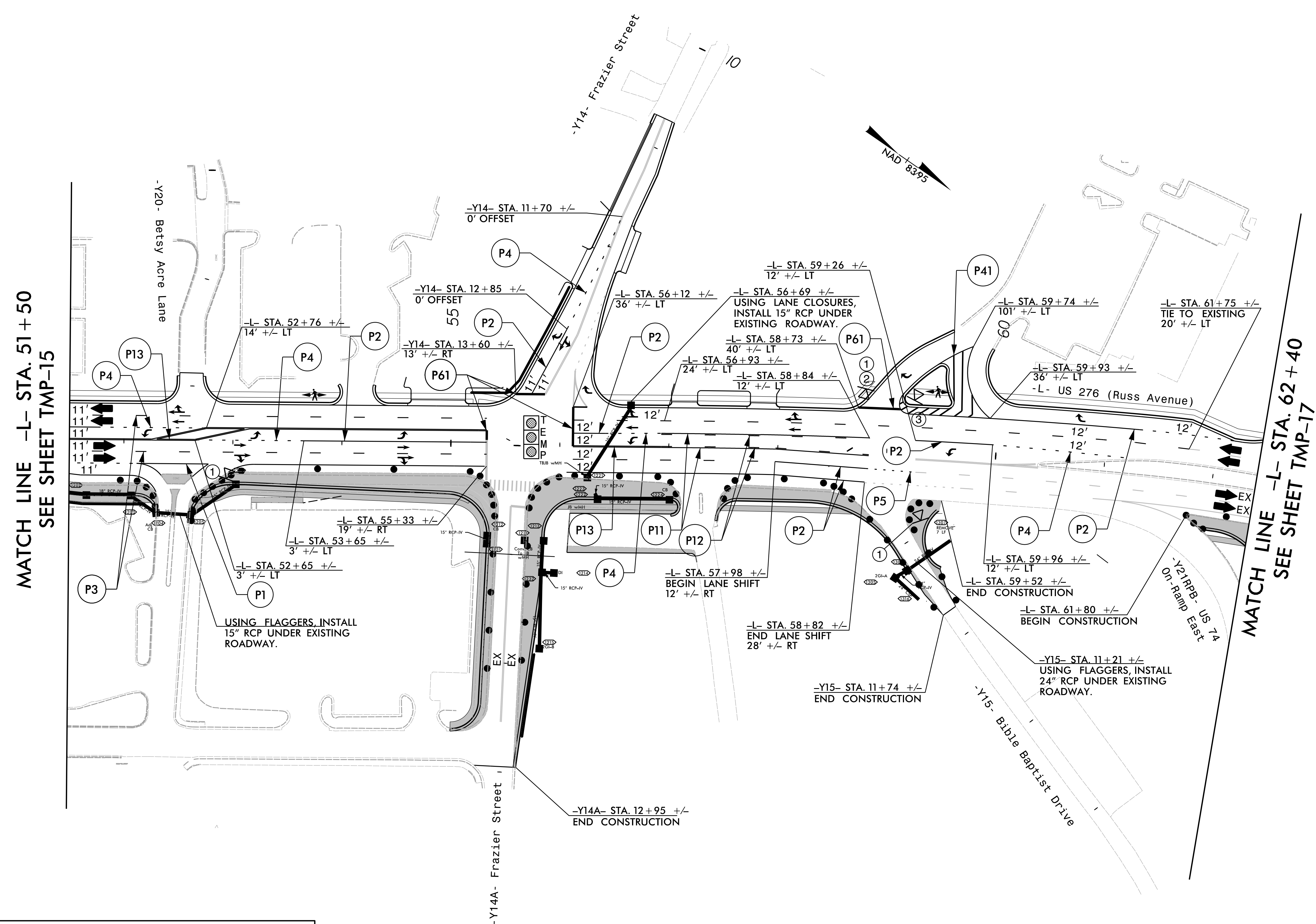


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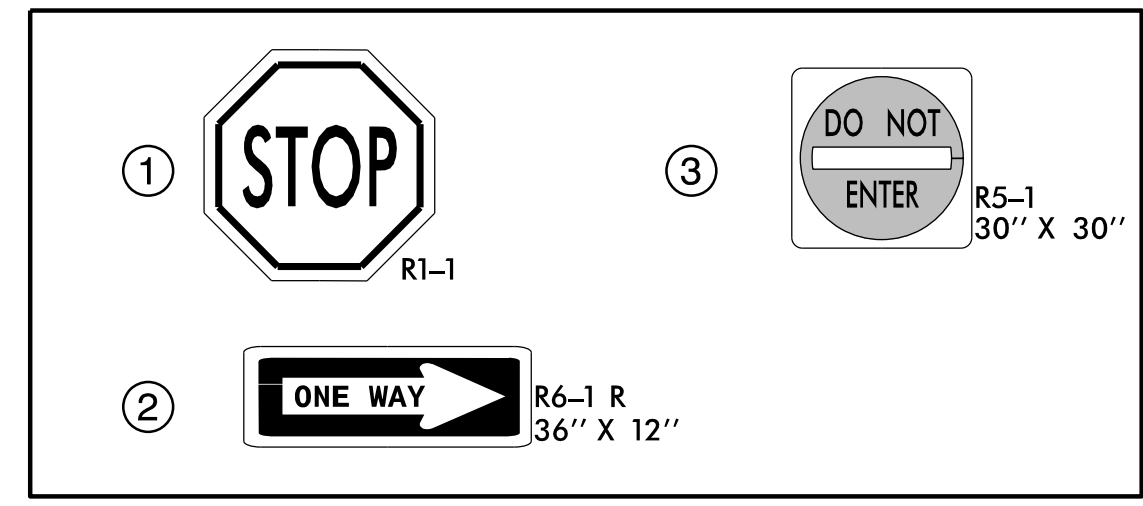
TEMPORARY TRAFFIC CONTROL PHASE II - STEP 1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



MATCH LINE -L- STA. 51+50
SEE SHEET TMP-15

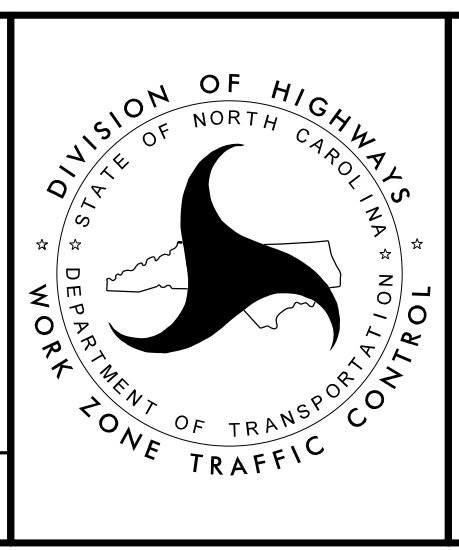
MATCH LINE -L- STA. 62+40
SEE SHEET TMP-17



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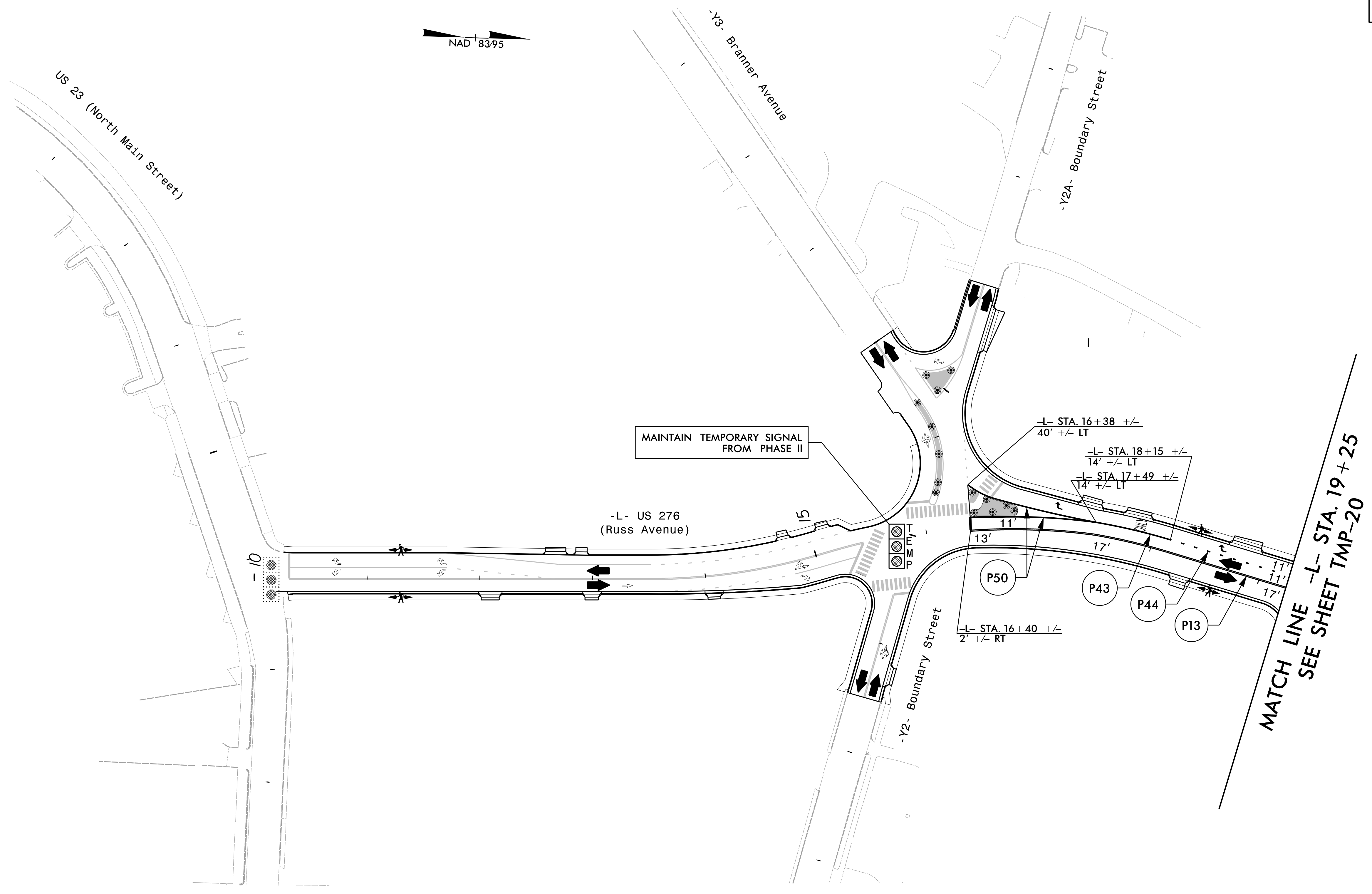
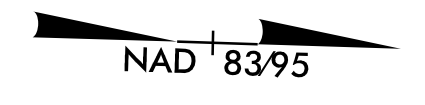
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



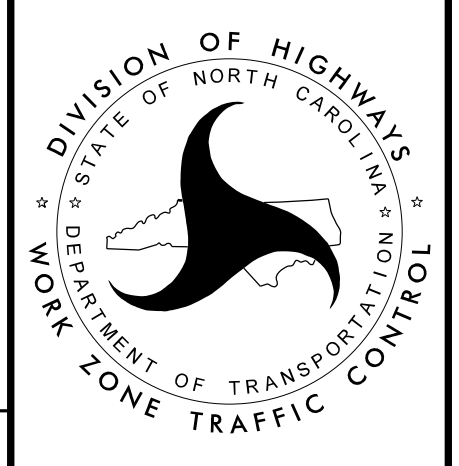
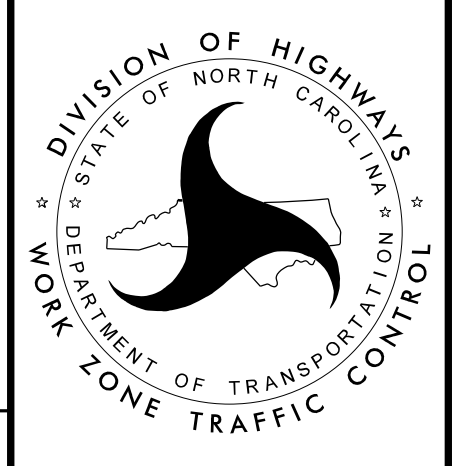


 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

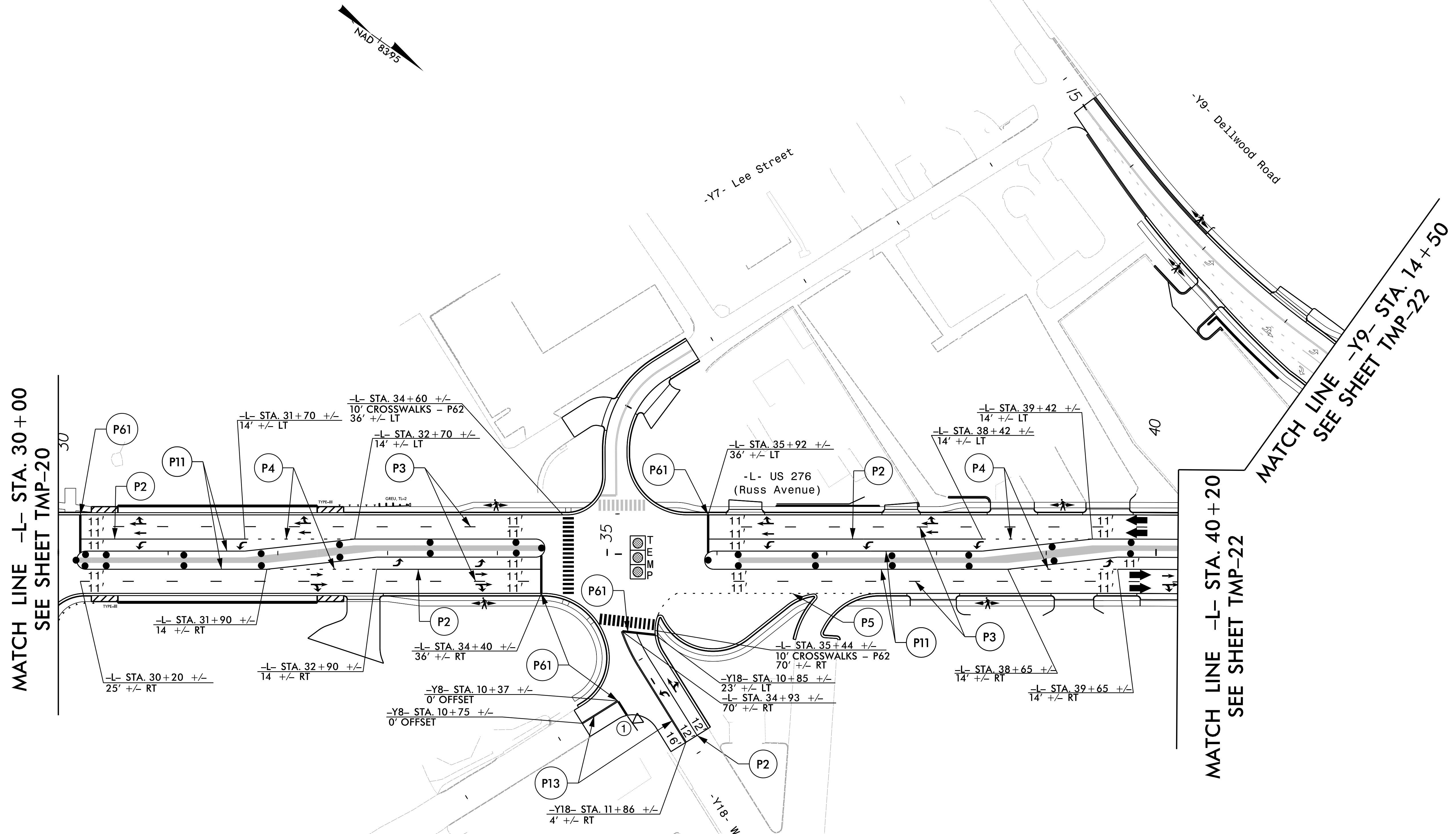
TEMPORARY
TRAFFIC CONTROL
PHASE II - STEP 1



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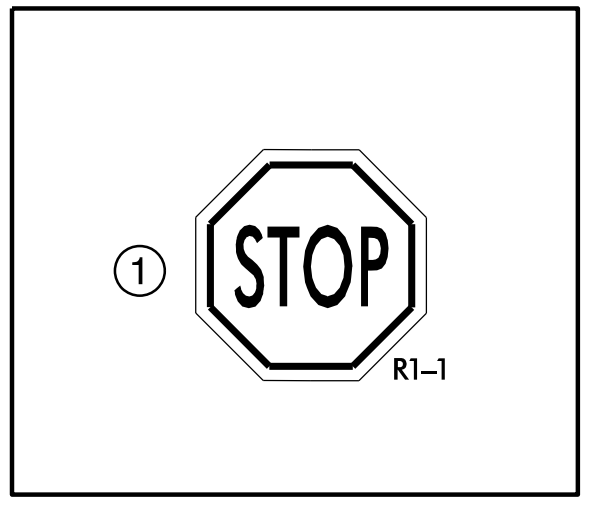


**TEMPORARY
 TRAFFIC CONTROL
 PHASE III**

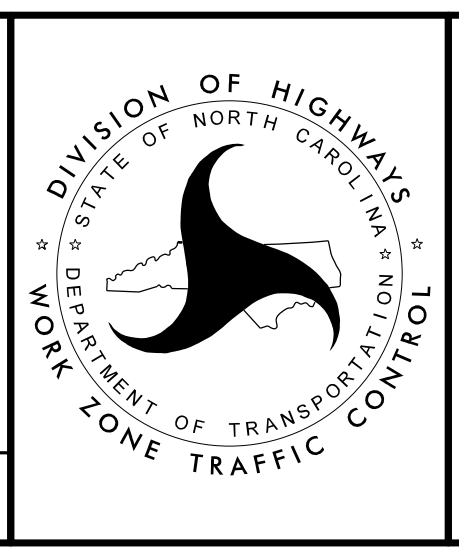


MATCH LINE -L- STA. 30+00
SEE SHEET TMP-20

MATCH LINE -L- STA. 40+20
SEE SHEET TMP-22

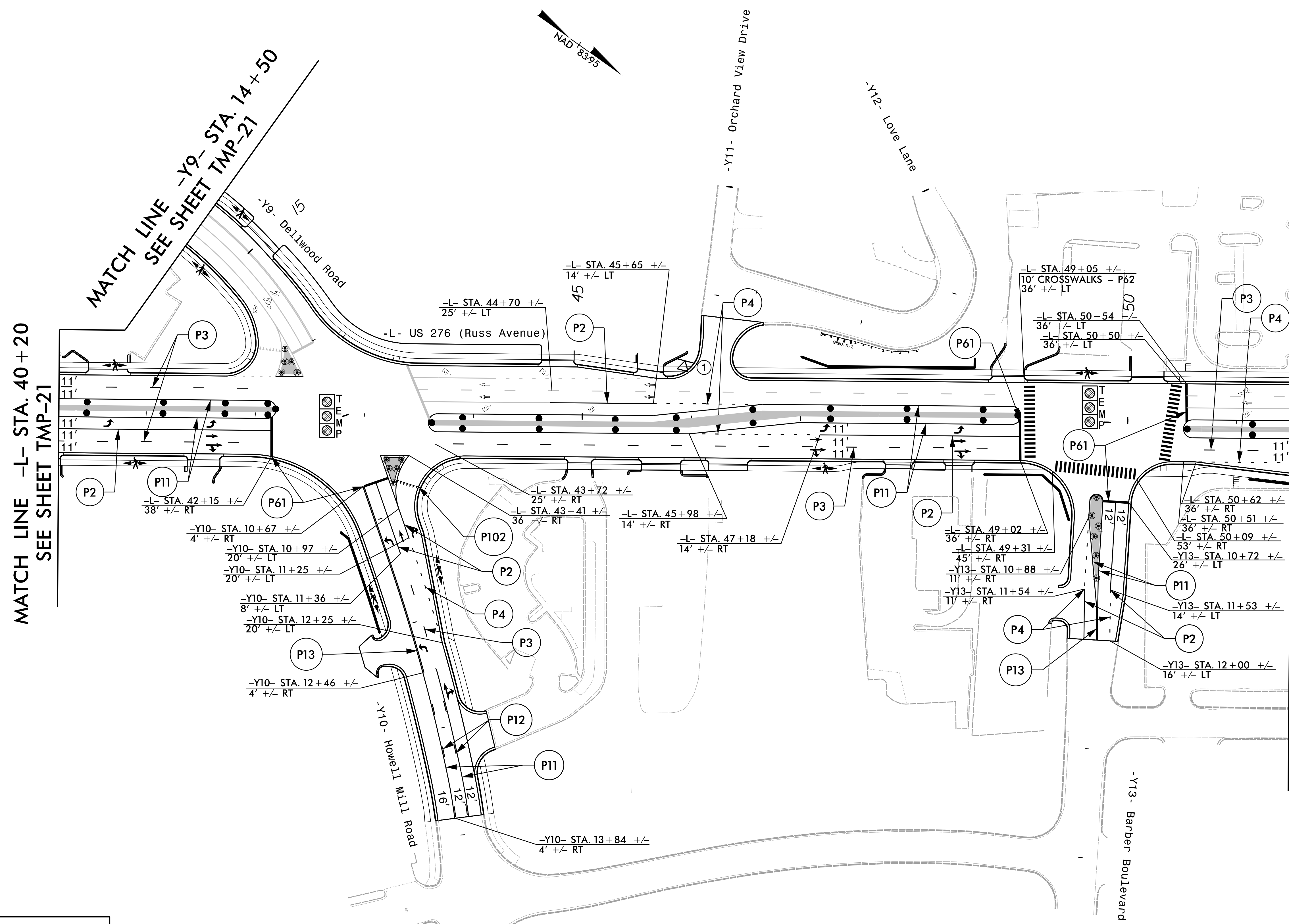


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 SEAL 32396
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**TEMPORARY
TRAFFIC CONTROL
PHASE III**

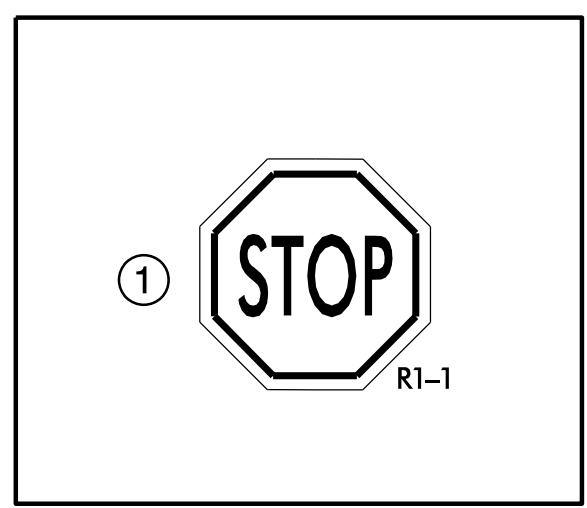
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



MATCH LINE -L- STA. 40+20
SEE SHEET TMP-21

MATCH LINE -Y9- STA. 14+50
SEE SHEET TMP-21

MATCH LINE -L- STA. 51+50
SEE SHEET TMP-23

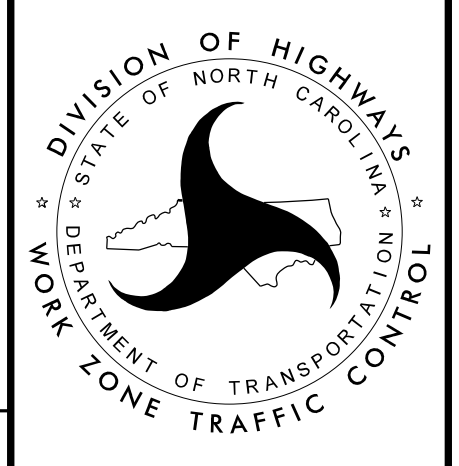


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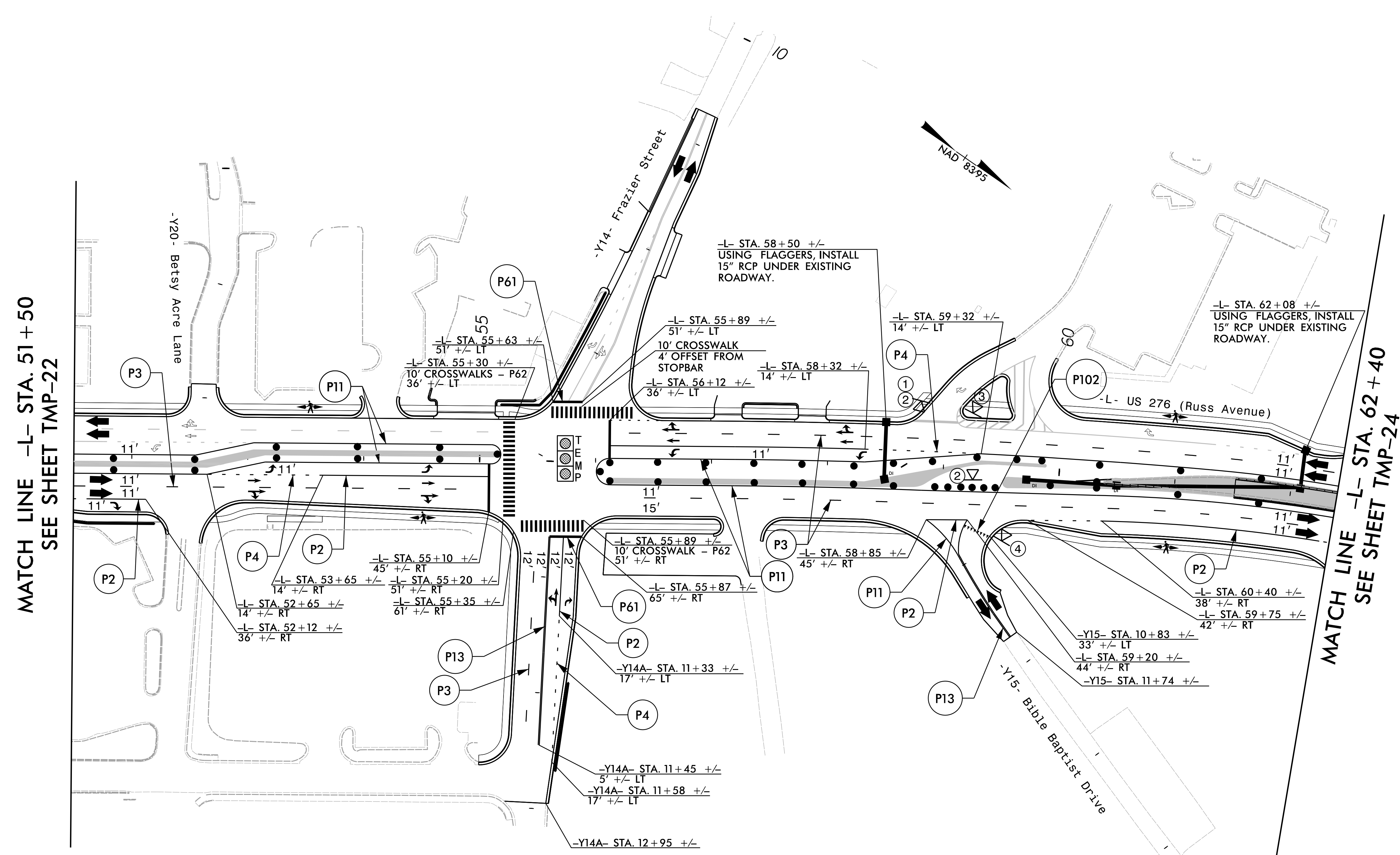
DATE: 2/23/2023

SEAL

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

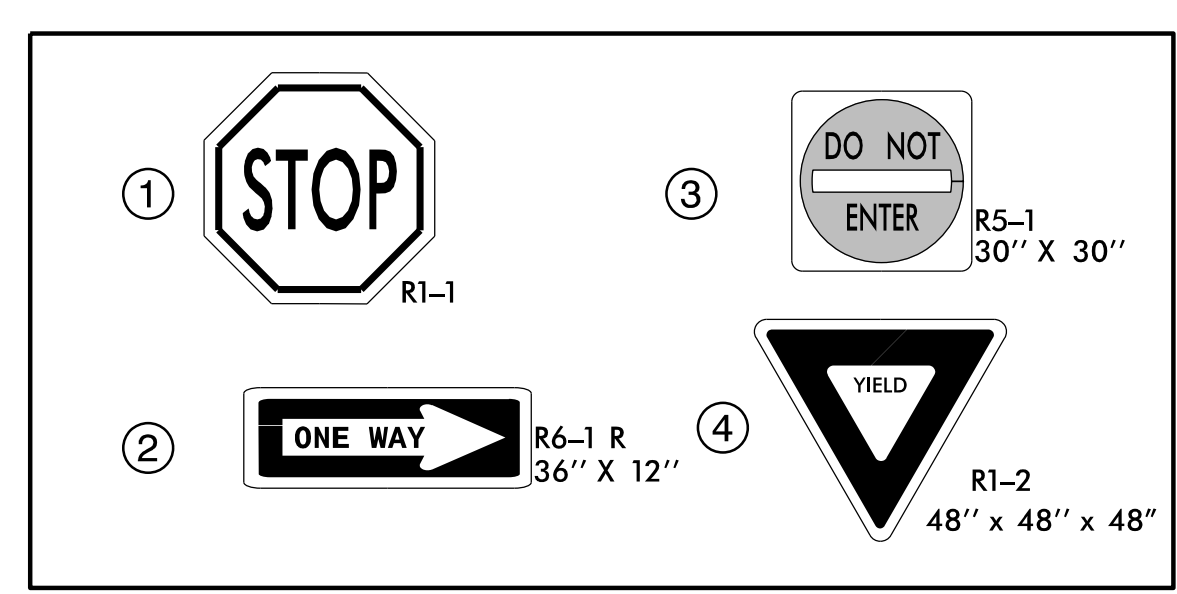


**TEMPORARY
TRAFFIC CONTROL
PHASE III**



MATCH LINE -L- STA. 51+50
SEE SHEET TMP-22

MATCH LINE -L- STA. 62+40
SEE SHEET TMP-24

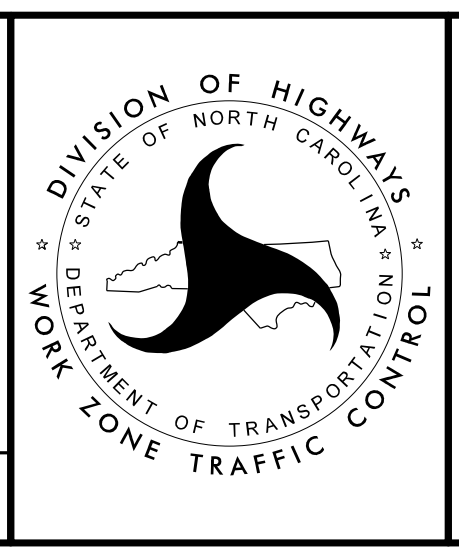


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 ENGINEER
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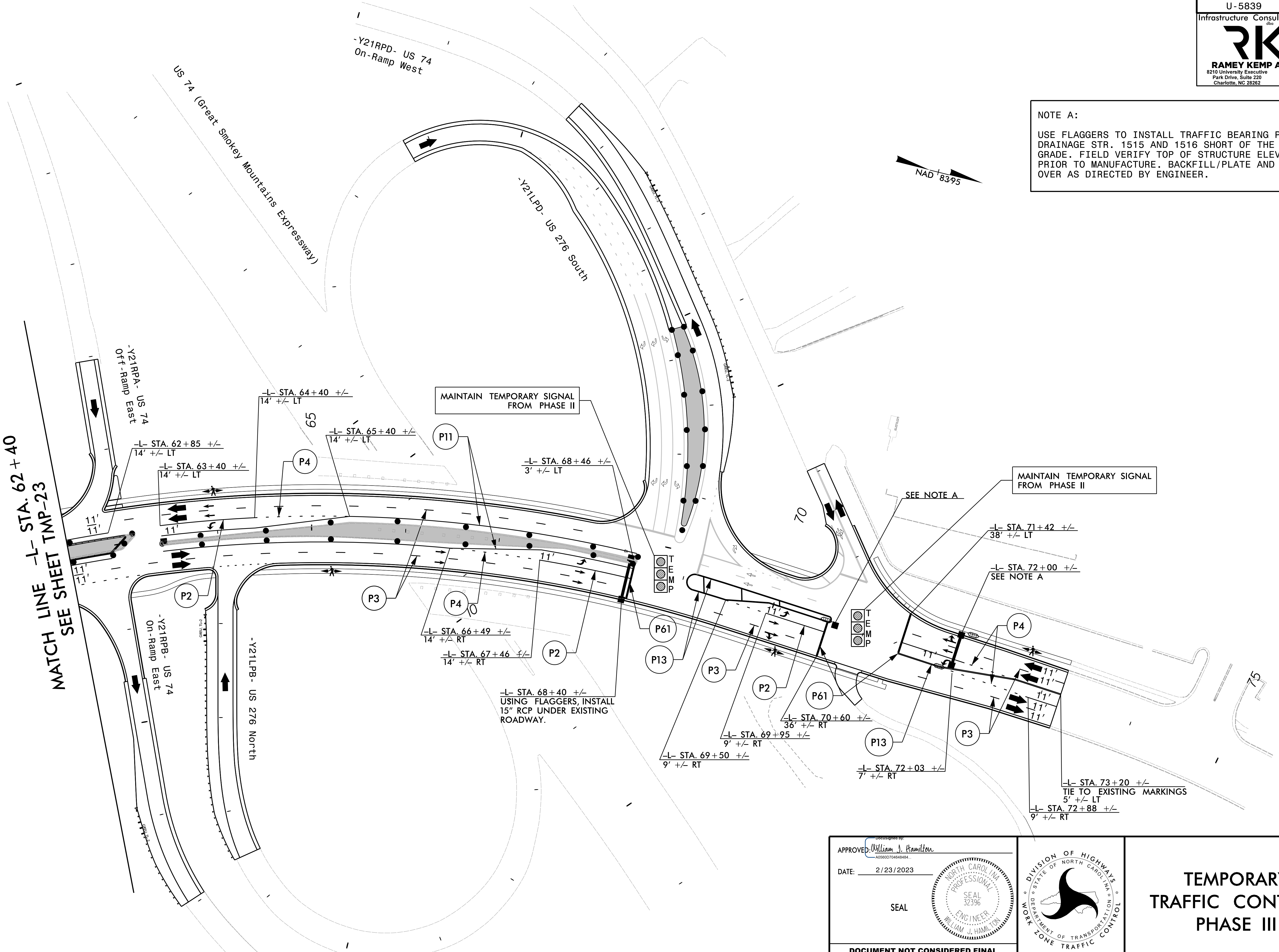
**TEMPORARY
 TRAFFIC CONTROL
 PHASE III**

NOTE A:

USE FLAGGERS TO INSTALL TRAFFIC BEARING PRECAST DRAINAGE STR. 1515 AND 1516 SHORT OF THE FINAL GRADE. FIELD VERIFY TOP OF STRUCTURE ELEVATIONS PRIOR TO MANUFACTURE. BACKFILL/PLATE AND PAVE OVER AS DIRECTED BY ENGINEER.



MATCH LINE -L- STA. 62+40
SEE SHEET TMP-23

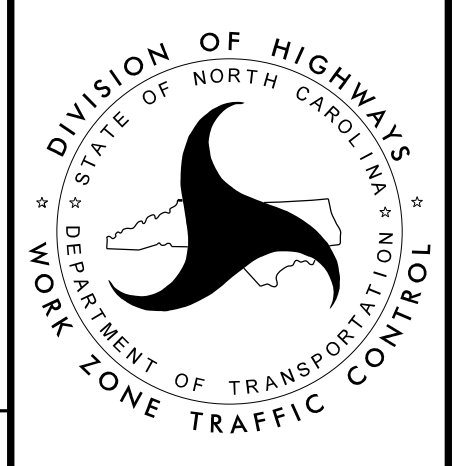
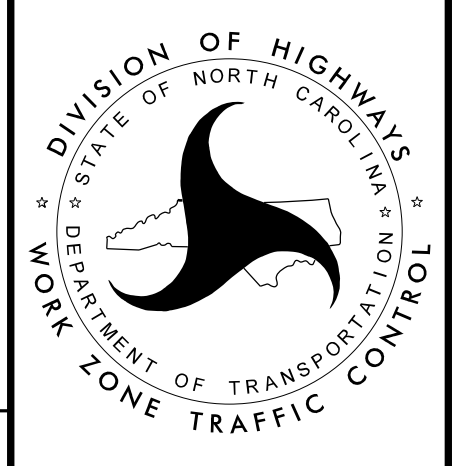


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DATE: 2/23/2023

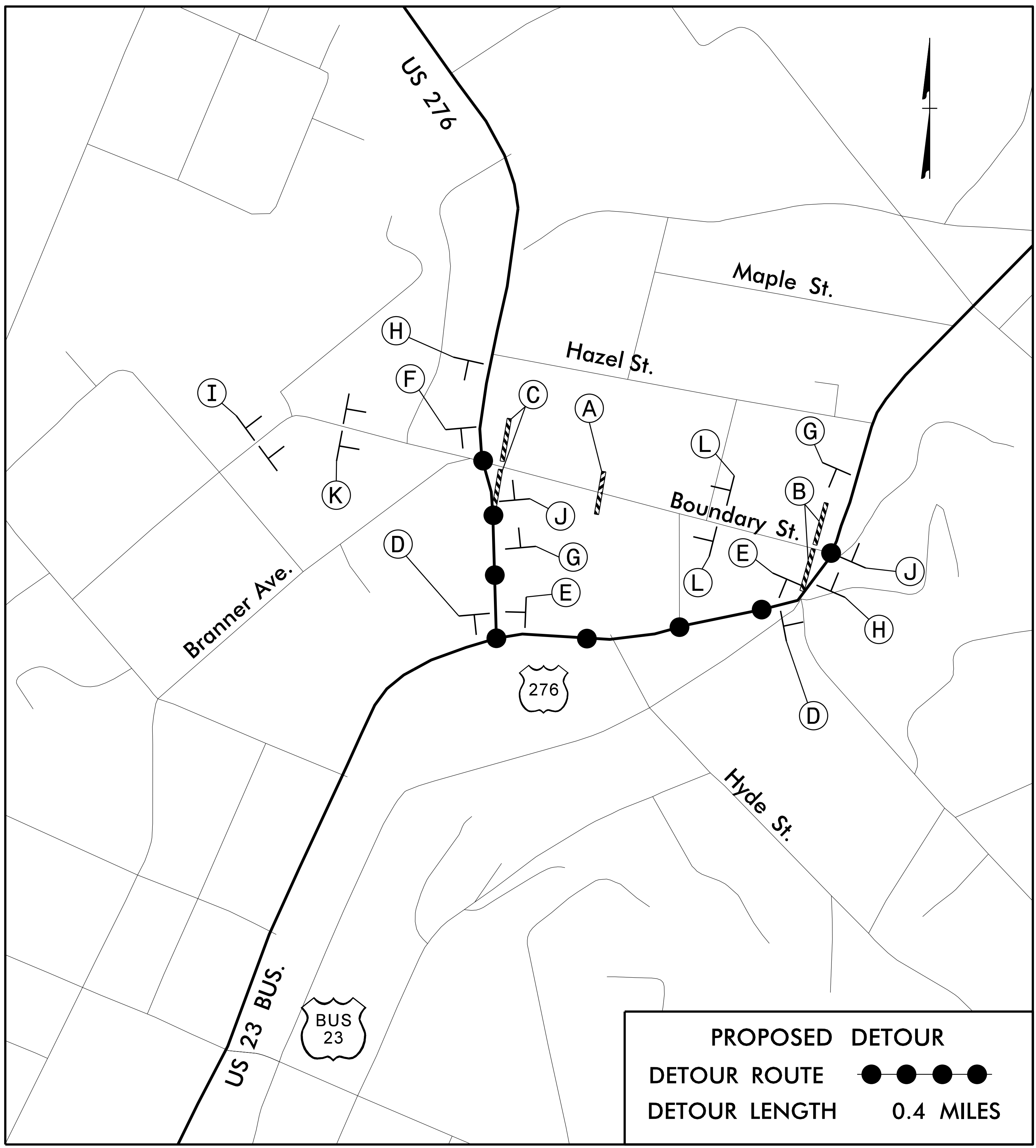
SEAL

**DOCUMENT NOT CONSIDERED FINAL
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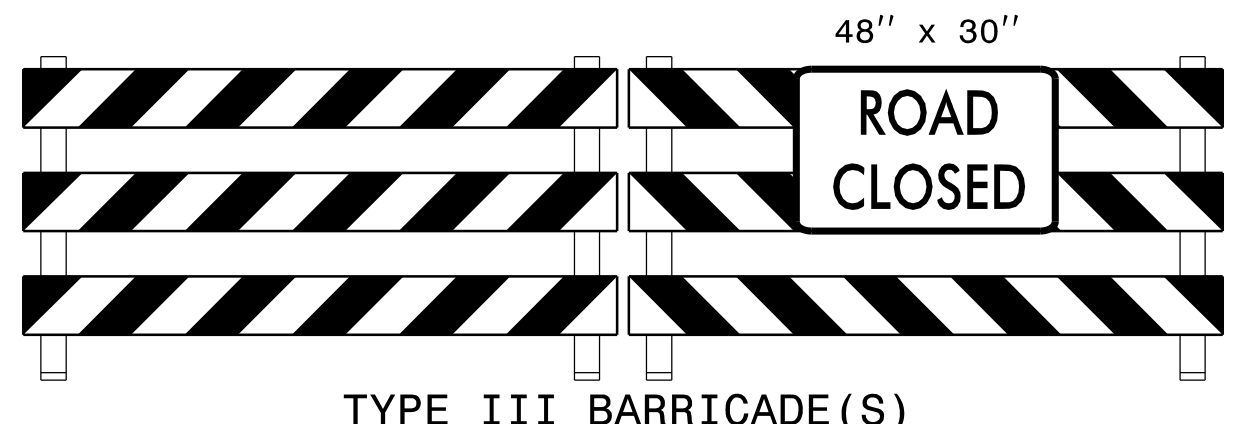


**TEMPORARY
TRAFFIC CONTROL
PHASE III**

-Y2- DETOUR - BOUNDARY STREET VIA US-23 BUSINESS

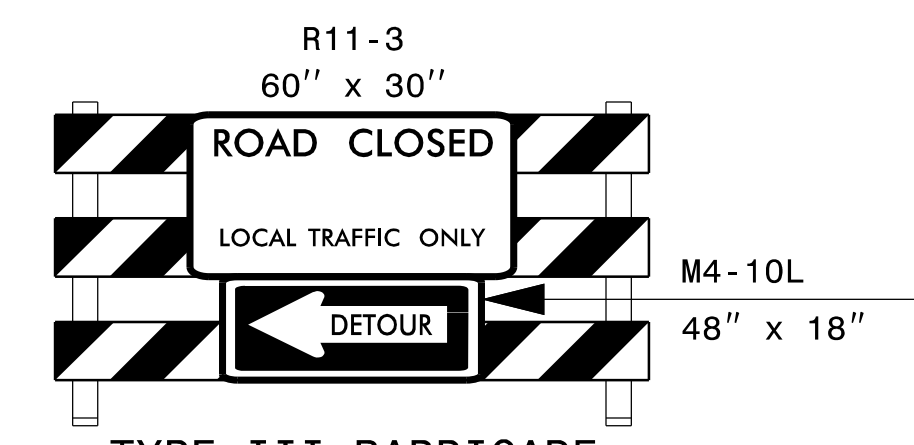


PROPOSED DETOUR
 DETOUR ROUTE ●—●—●—●—●
 DETOUR LENGTH 0.4 MILES



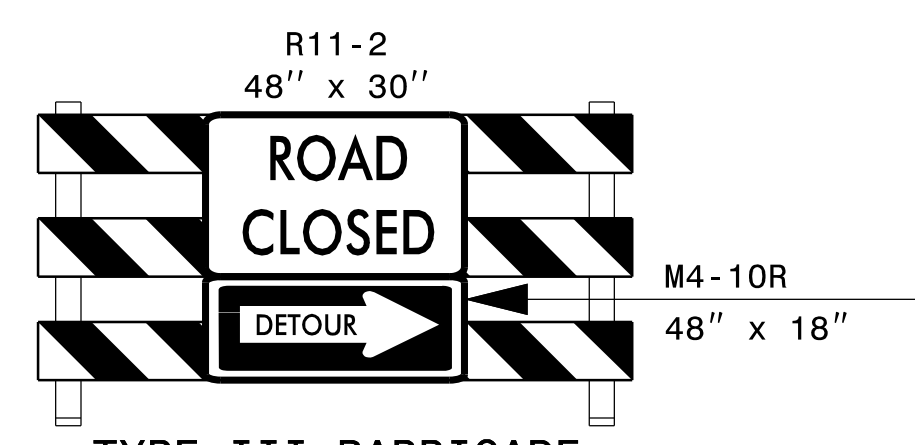
TYPE III BARRICADE(S)

(A)



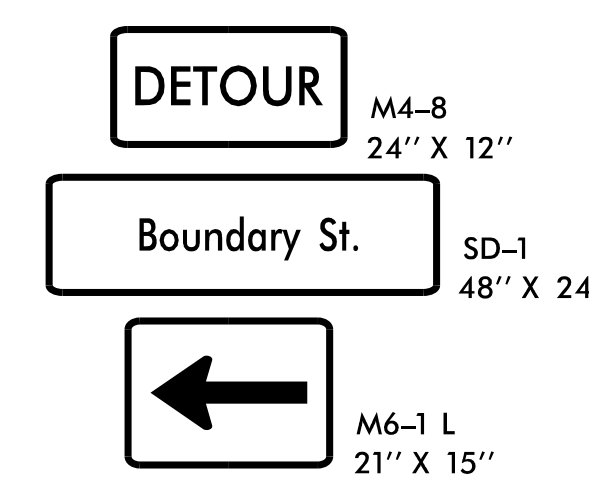
TYPE III BARRICADE

(B)

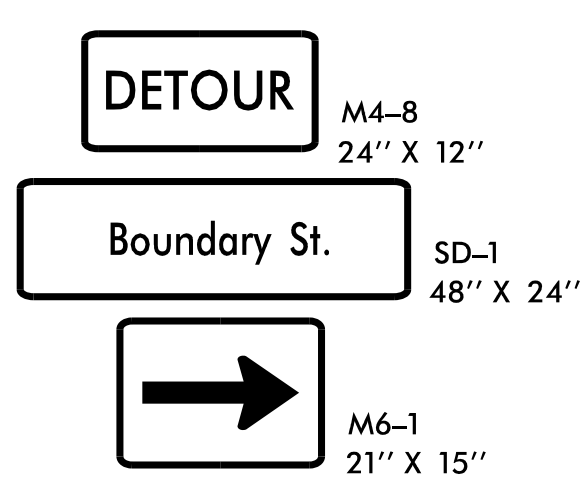


TYPE III BARRICADE

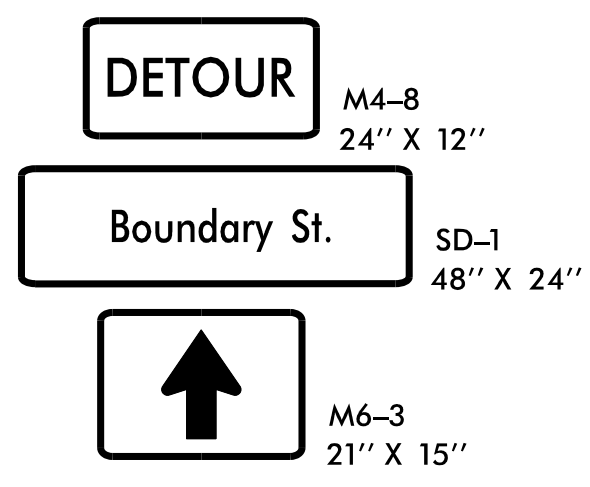
(C)



(D)



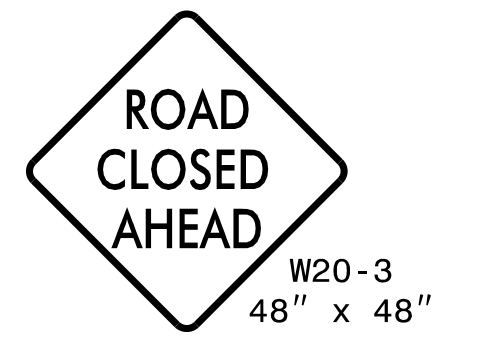
(E)



(F)



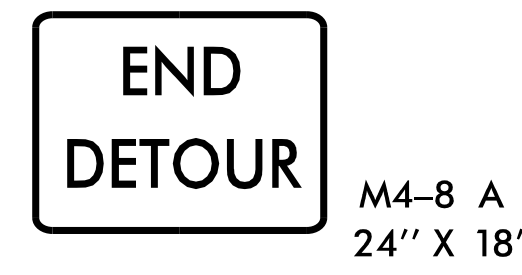
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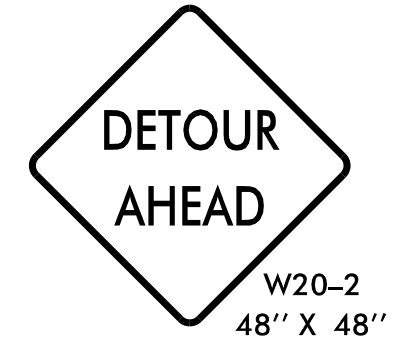
(H)



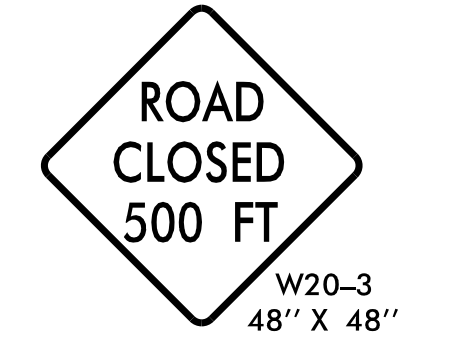
(I)



(J)



(K)



(L)

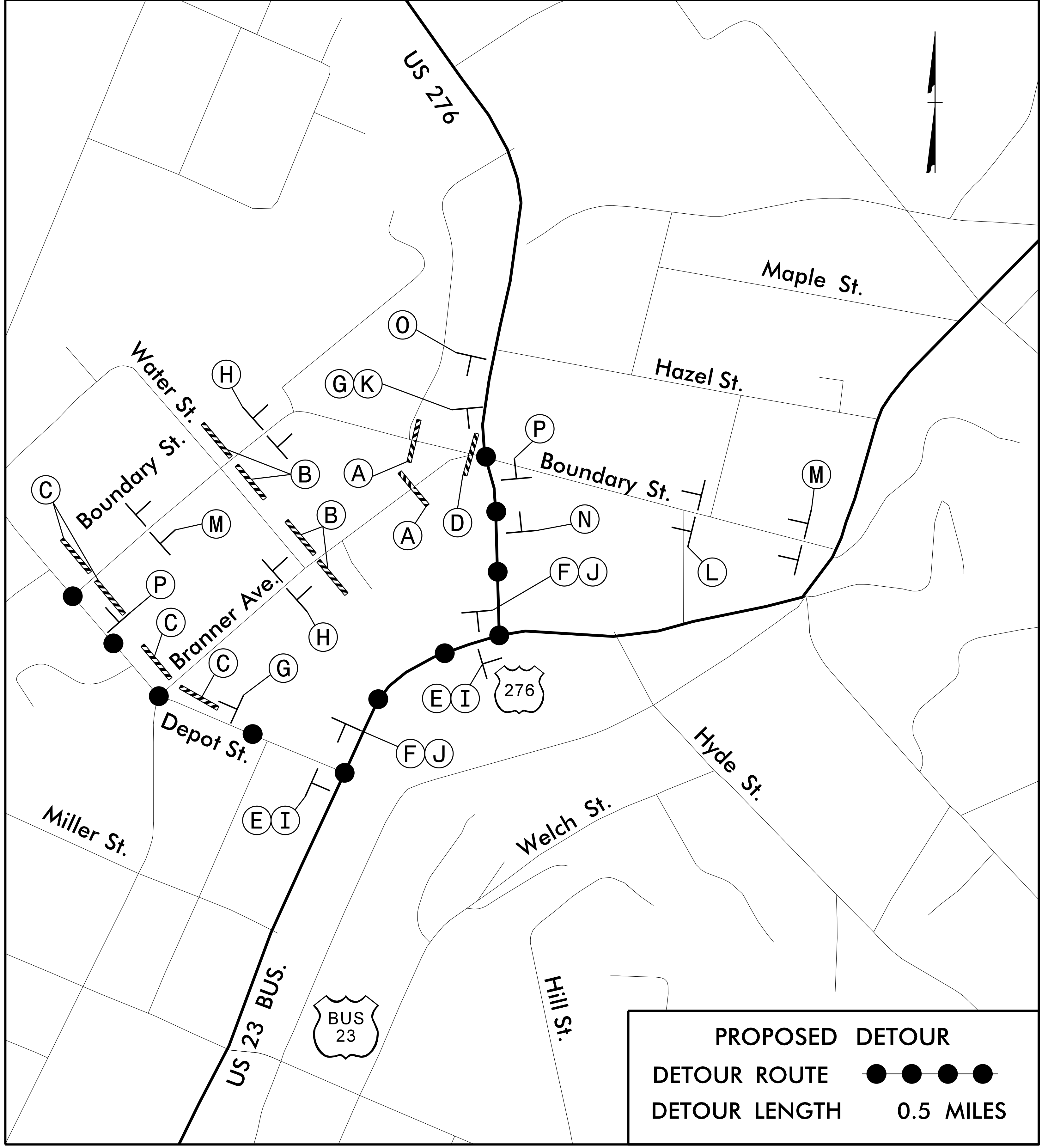
PROJ. REFERENCE NO. U-5839	SHEET NO. TMP-25
Infrastructure Consulting Services, Inc.	
RKA	
RAMEY KEMP ASSOCIATES	
8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262	NC License No. F-1489 www.rameykemp.com

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 SEAL

**DETOUR
SIGNING**

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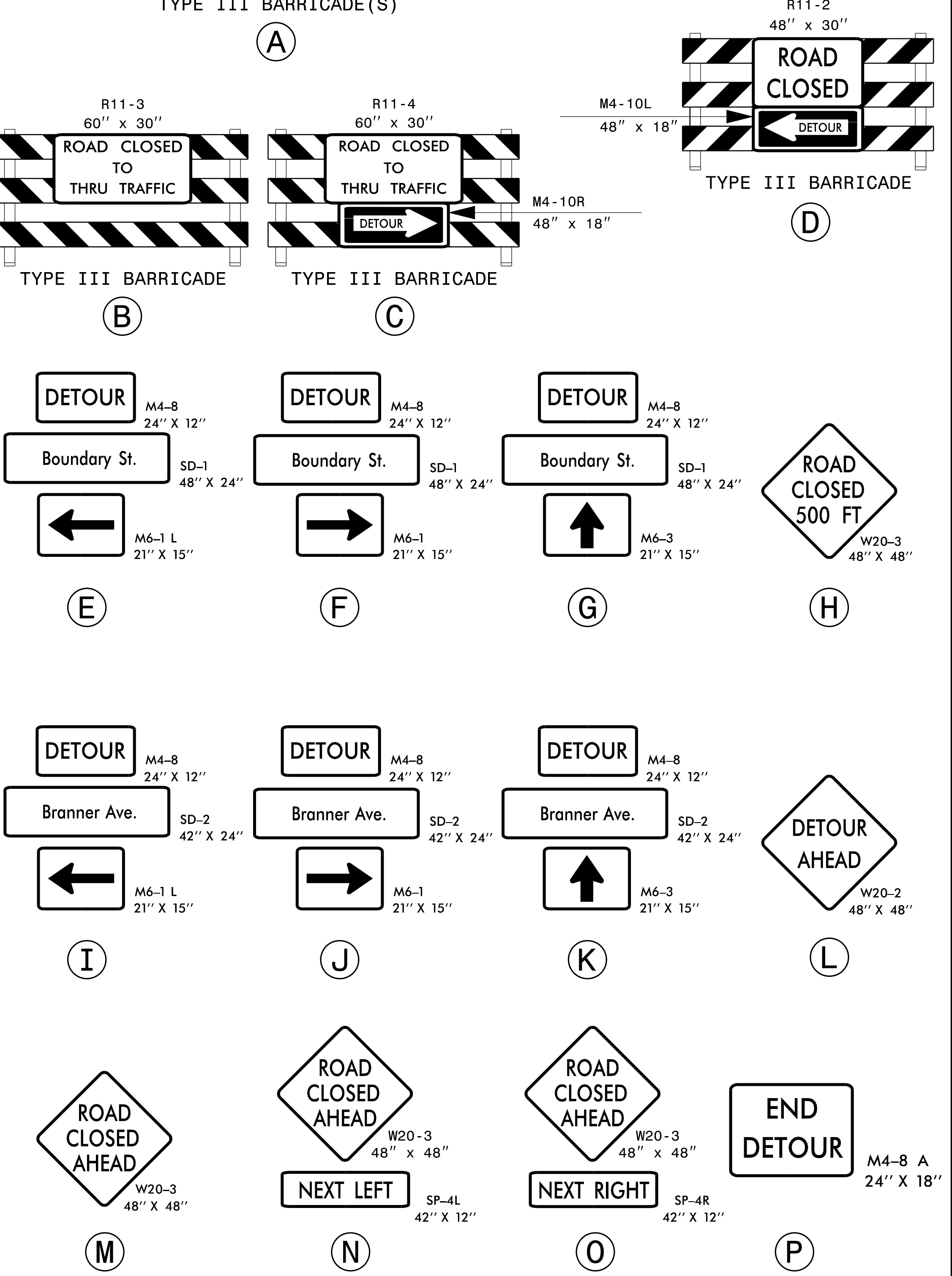
-Y2A- AND -Y3- DETOURS - BOUNDARY STREET / BRANNER AVENUE VIA US-23 BUSINESS / DEPOT STREET



PROPOSED DETOUR
 DETOUR ROUTE ●●●●●
 DETOUR LENGTH 0.5 MILES

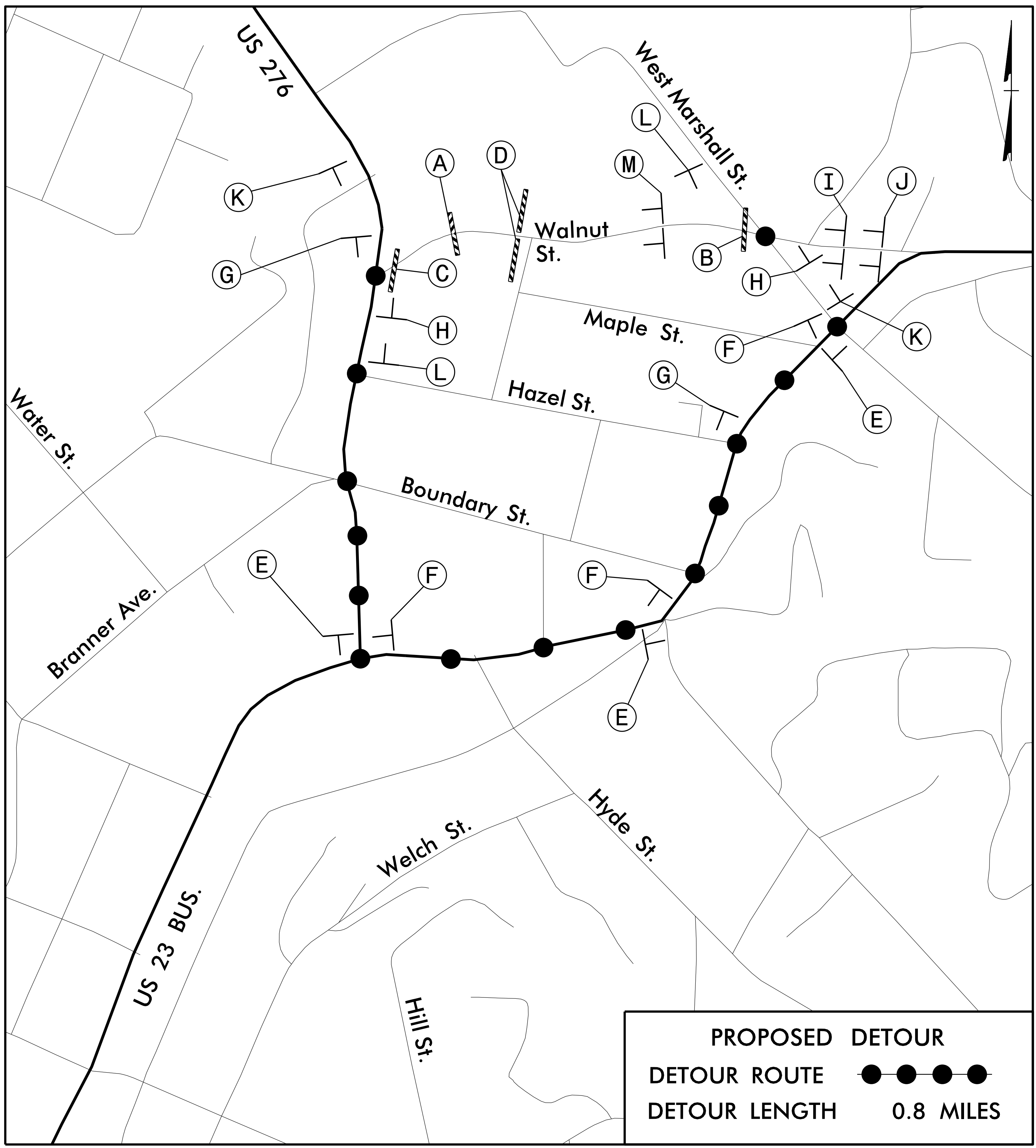
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Infrastructure Consulting Services, Inc.			
 RKA RAMEY KEMP ASSOCIATES <small>8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262 NC License No. F-1489 www.rameykemp.com</small>			
 TYPE III BARRICADE(S)		 TYPE III BARRICADE	
 TYPE III BARRICADE		 TYPE III BARRICADE	
 E		 F	
 G		 H	
 I		 J	
 K		 L	
 M		 N	
		 O	
		 P	
 SEAL		 DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	
DETOUR SIGNING			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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 SHEET NO. TMP-26
 Infrastructure Consulting Services, Inc.
RKA
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-Y5- DETOUR - WALNUT STREET VIA US-23 BUSINESS / WEST MARSHALL STREET

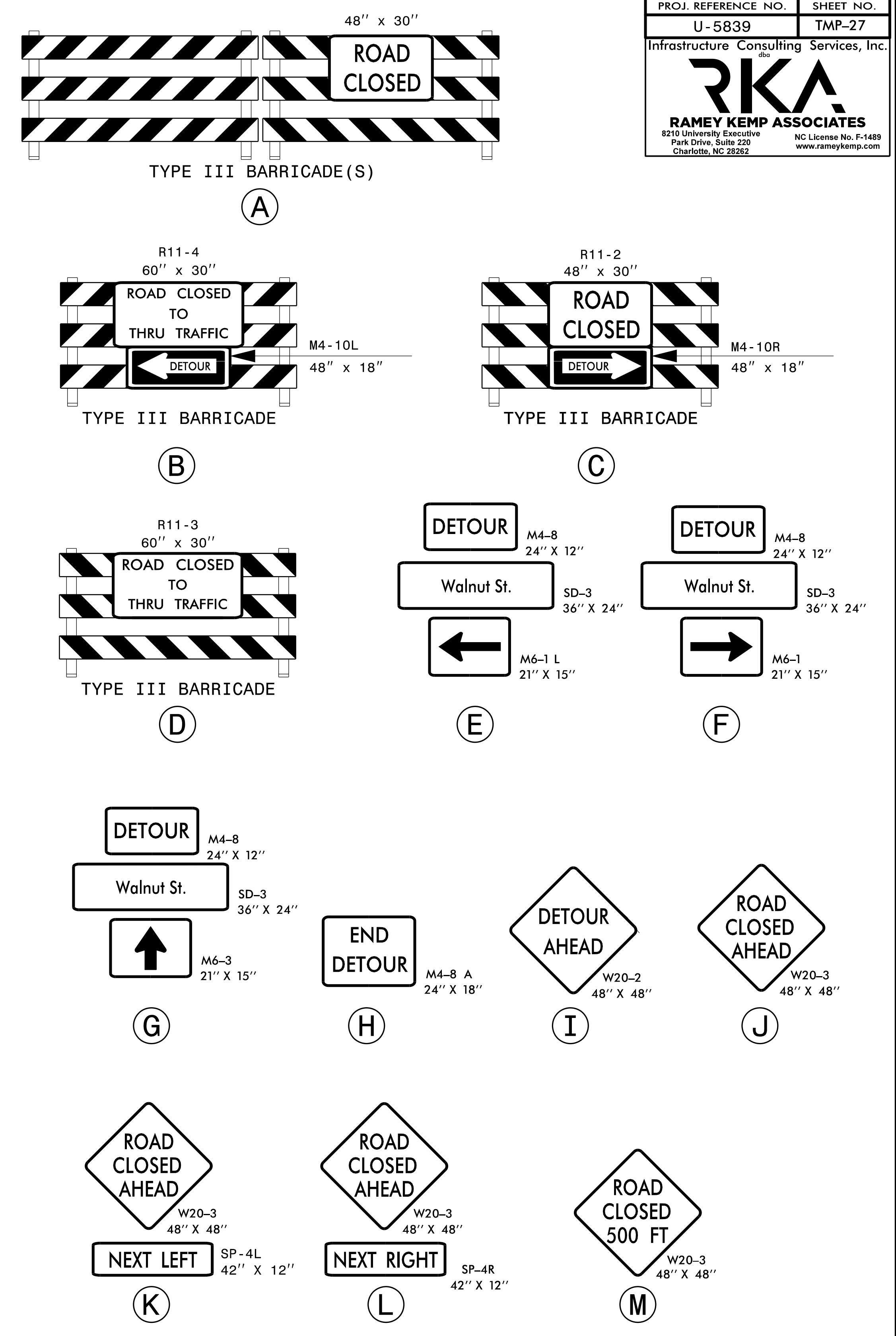
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Infrastructure Consulting Services, Inc.	
RKA	
RAMEY KEMP ASSOCIATES	
<small>8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262</small>	
<small>NC License No. F-1489 www.rameykemp.com</small>	



PROPOSED DETOUR

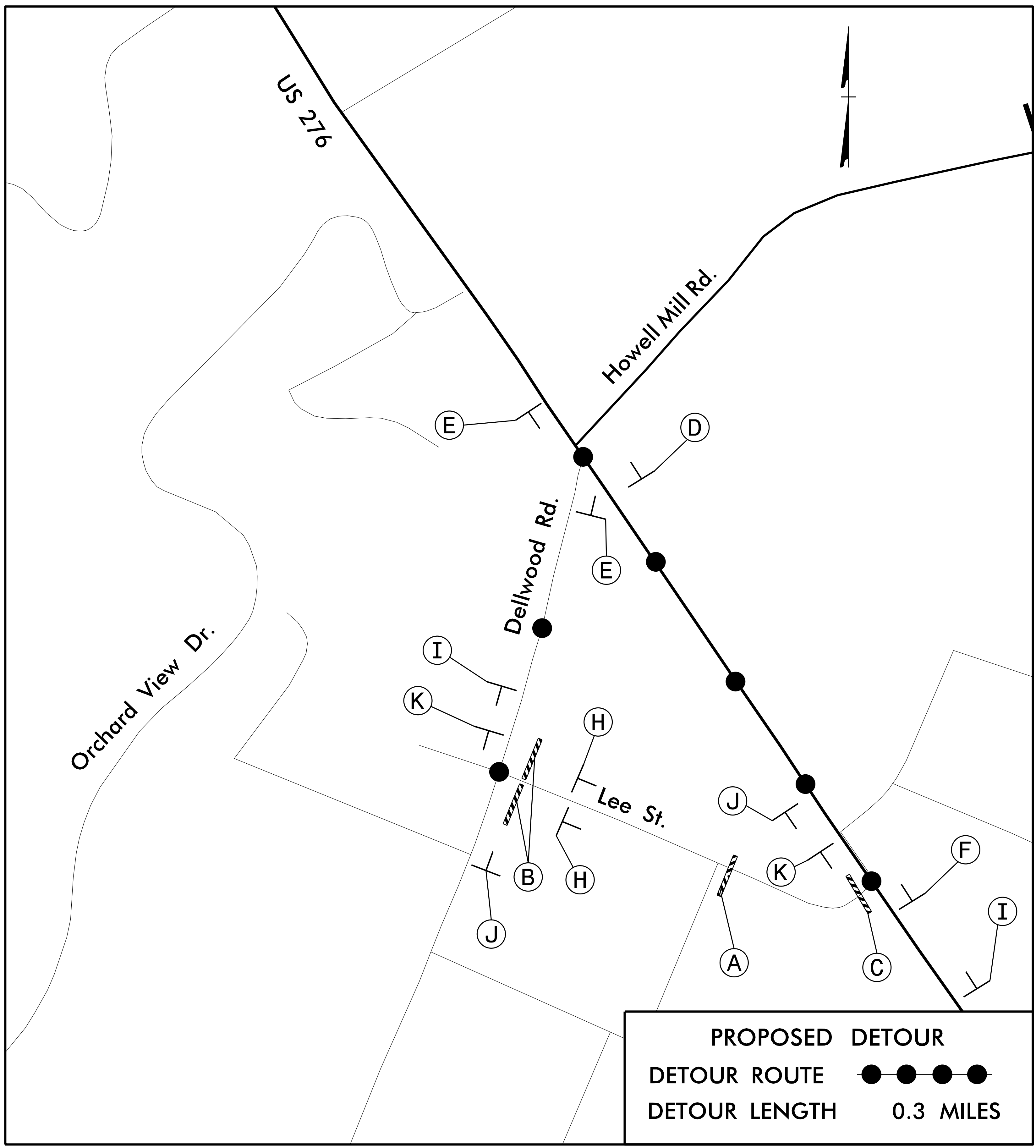
DETOUR ROUTE ●●●●

DETOUR LENGTH 0.8 MILES




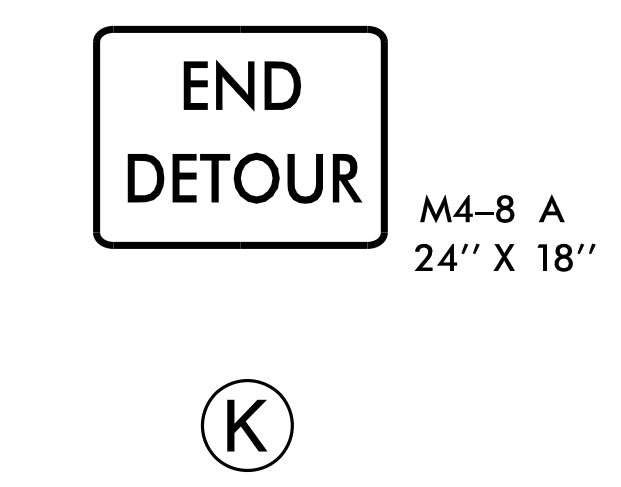
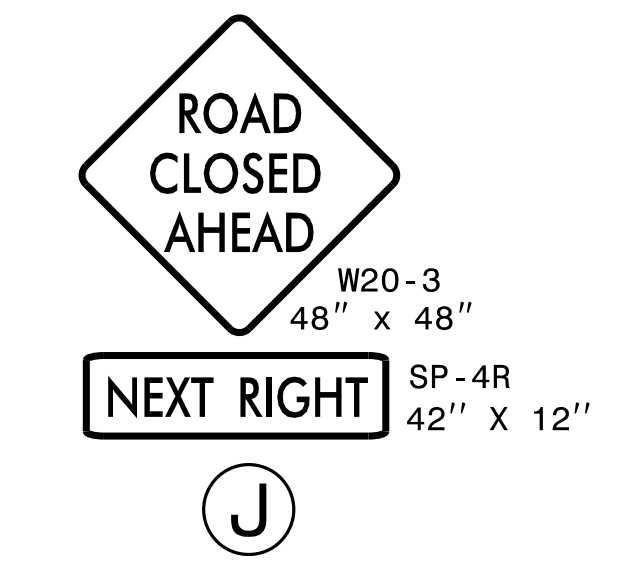
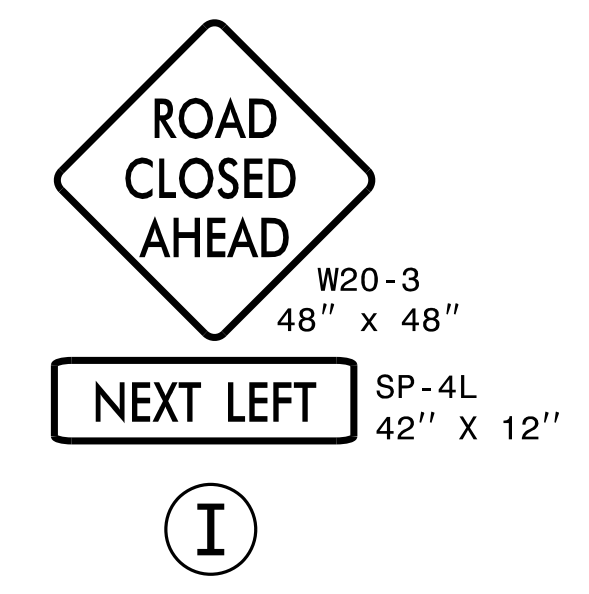
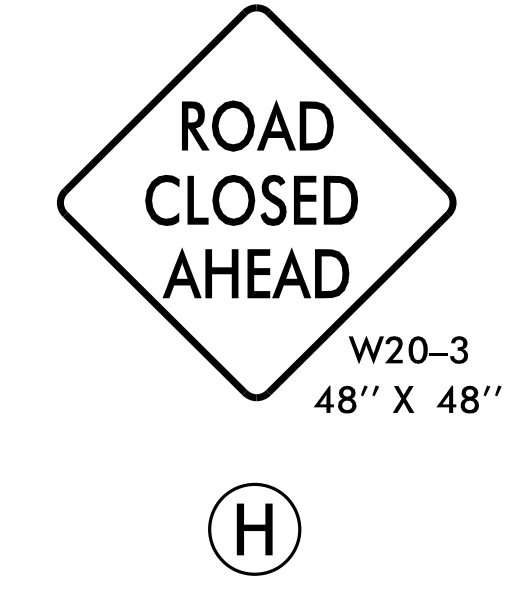
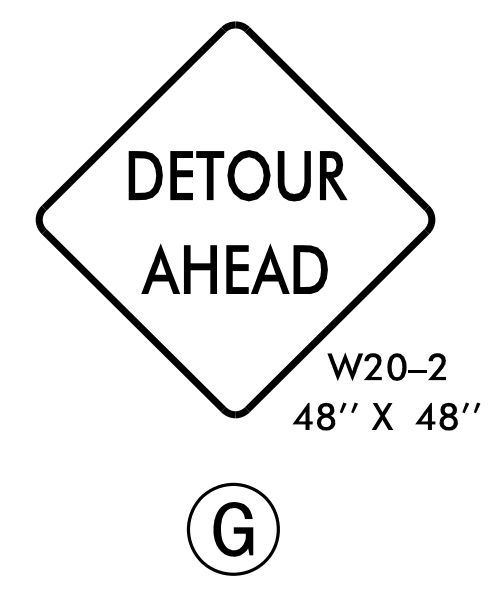
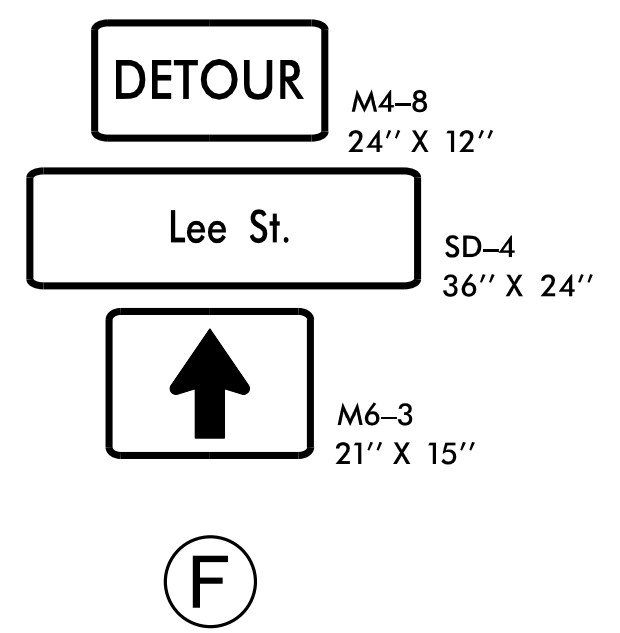
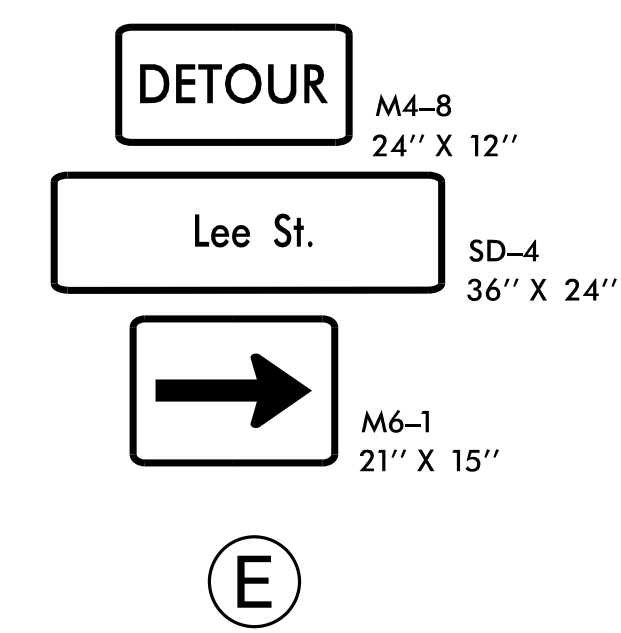
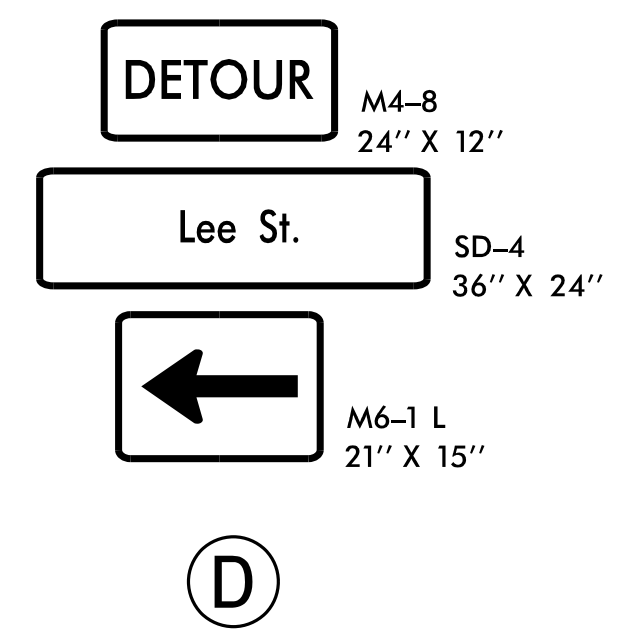
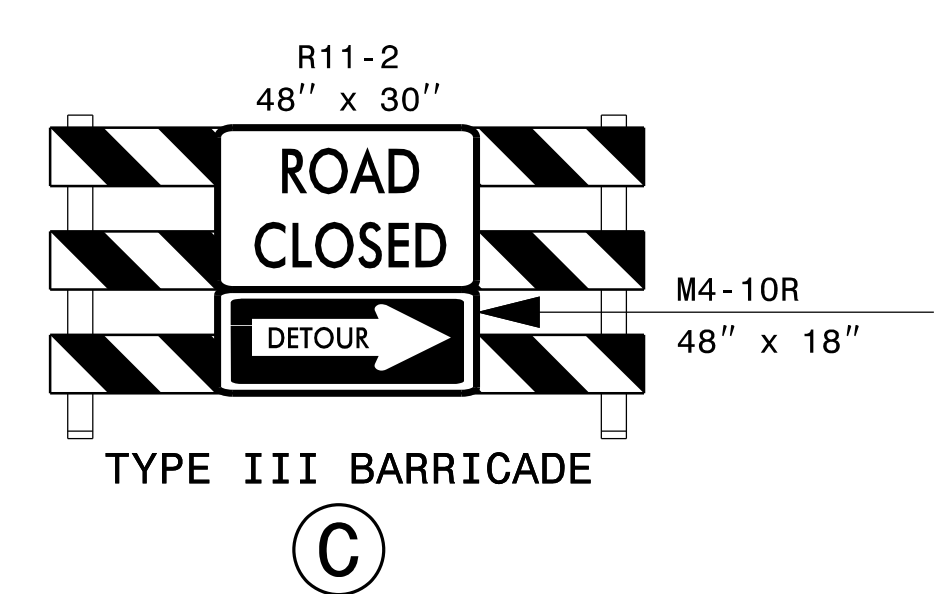
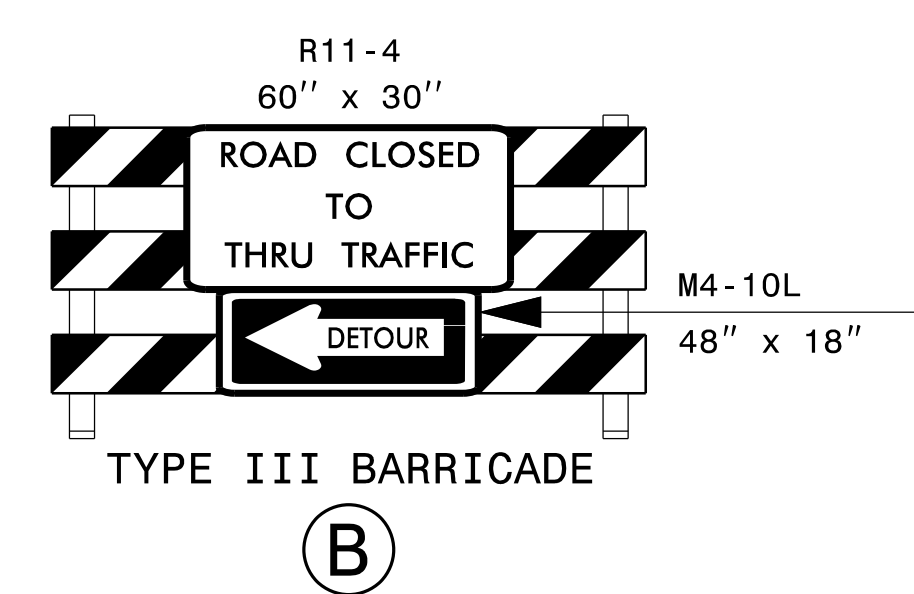
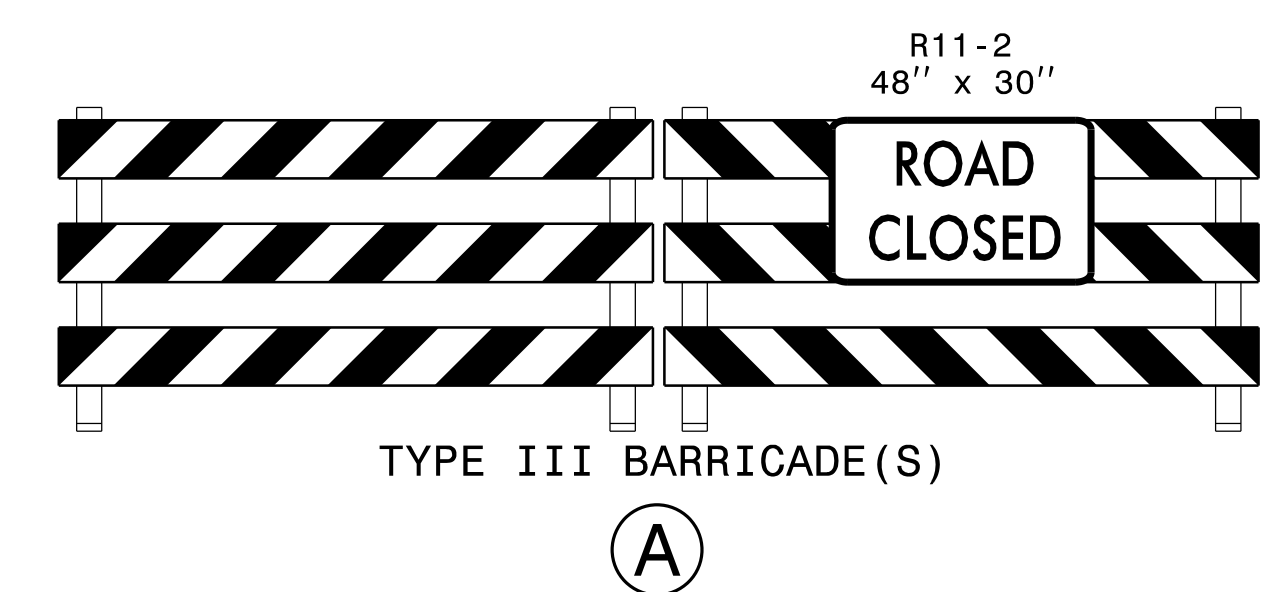
DocuSigned by: APPROVED <i>William J. Hamilton</i> A05600704648484 DATE: 2/23/2023 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER WILLIAM J. HAMILTON SEAL 32396	DIVISION OF HIGHWAYS NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	<h2>DETOUR SIGNING</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

-Y7- DETOUR - LEE STREET VIA DELLWOOD ROAD



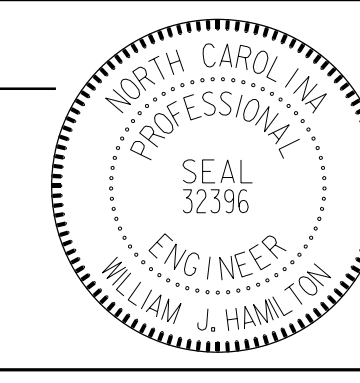
PROPOSED DETOUR
 DETOUR ROUTE ●●●●●
 DETOUR LENGTH 0.3 MILES

PROJ. REFERENCE NO. U-5839	SHEET NO. TMP-28
Infrastructure Consulting Services, Inc.	
 RKA RAMEY KEMP ASSOCIATES 8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262 NC License No. F-1489 www.rameykemp.com	



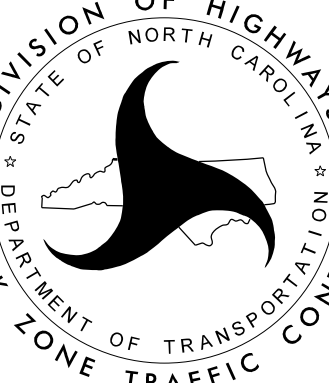
APPROVED: *William J. Hamilton*
 DATE: 2/23/2023

SEAL



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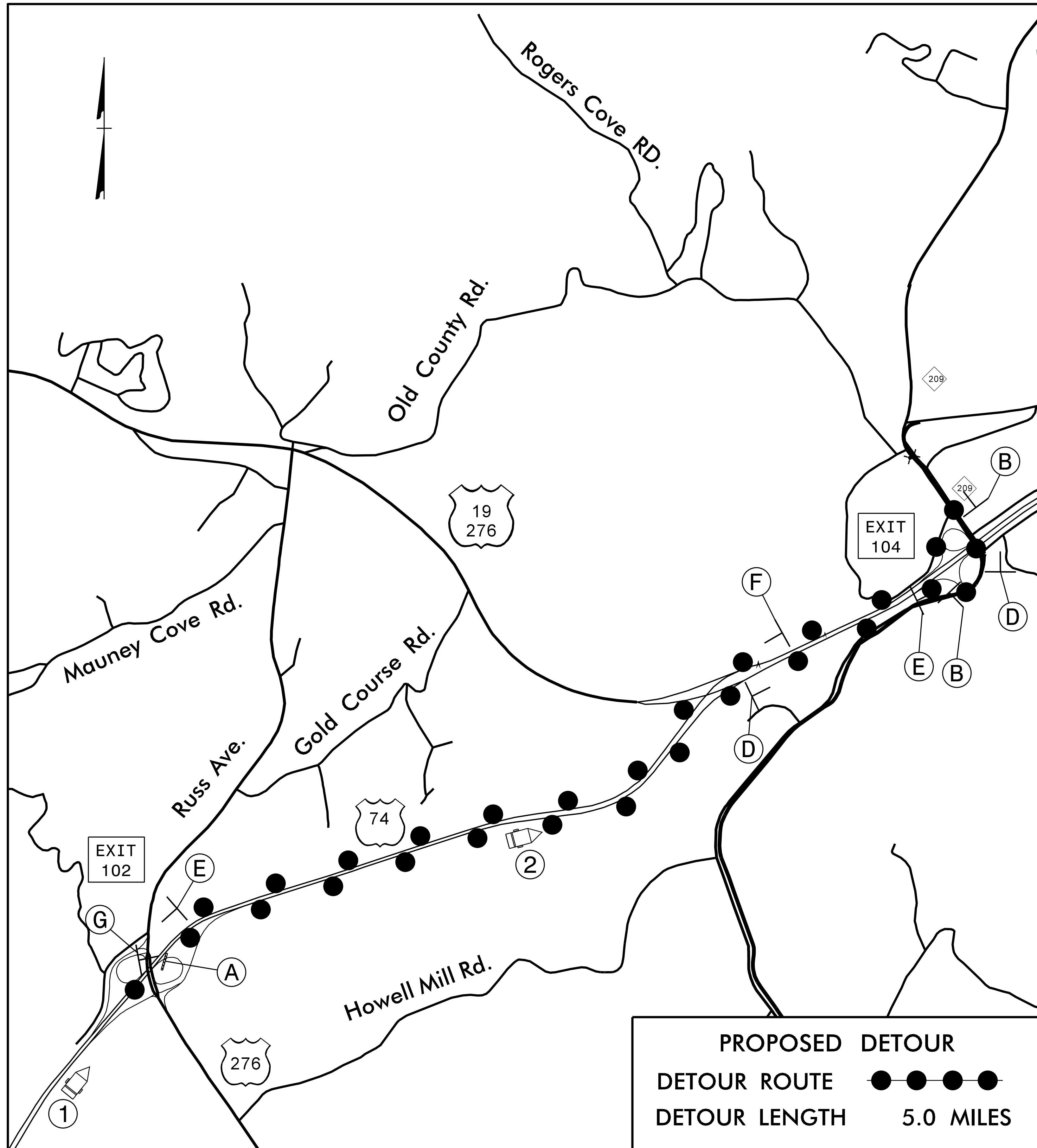
DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL



DETOUR SIGNING

-Y21LPB- DETOUR - VIA US 74 EXIT 104

PROJ. REFERENCE NO.	SHEET NO.
U-5839	TMP-29
Infrastructure Consulting Services, Inc.	
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<small>NC License No. F-1489 www.rameykemp.com</small>	



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 102B CLOSED	DETOUR TO EXIT 104

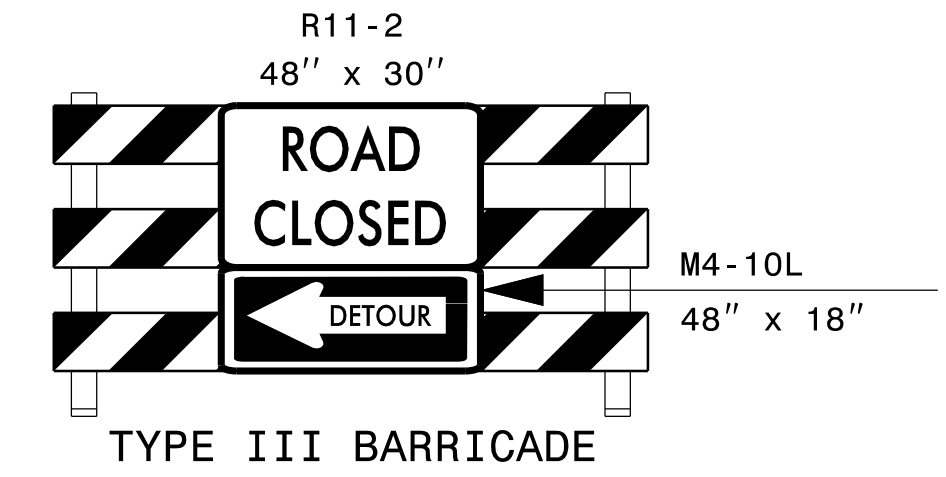
CHANGEABLE MESSAGE SIGN

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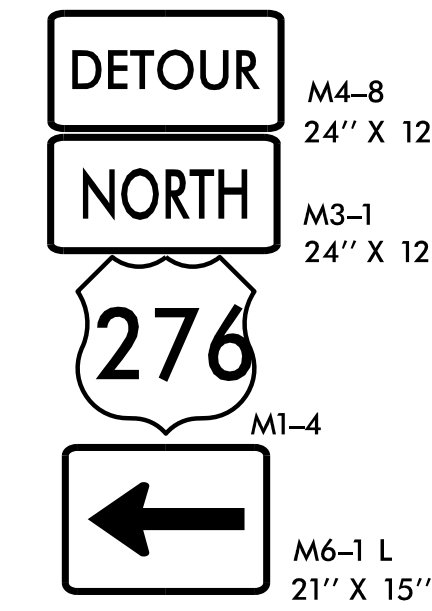
MESSAGE NO. 1	MESSAGE NO. 2
US 276 NORTH	DETOUR TO EXIT 104

CHANGEABLE MESSAGE SIGN

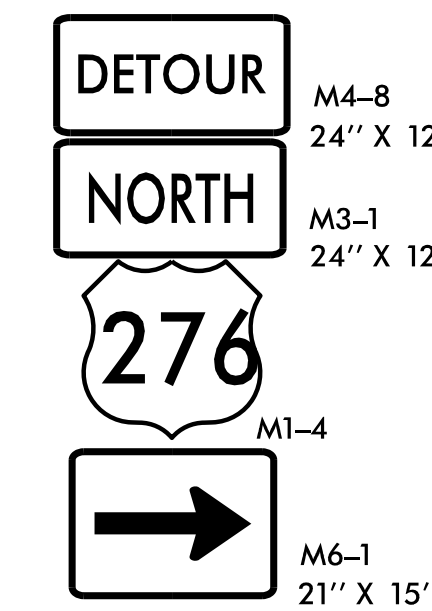
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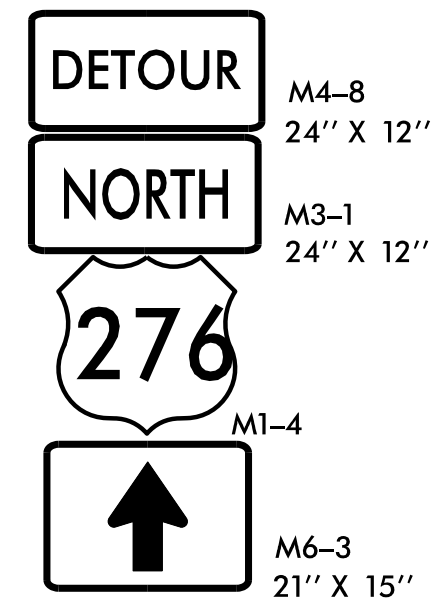
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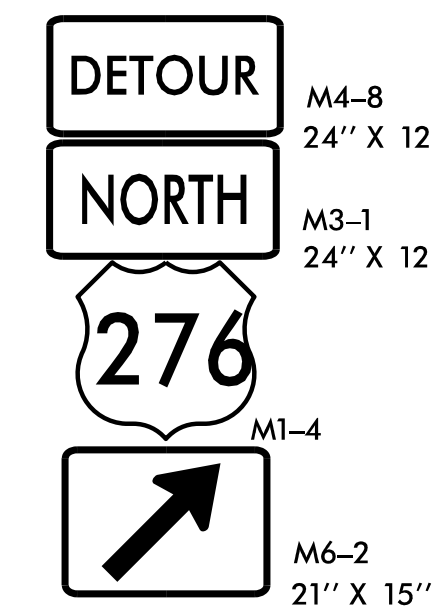
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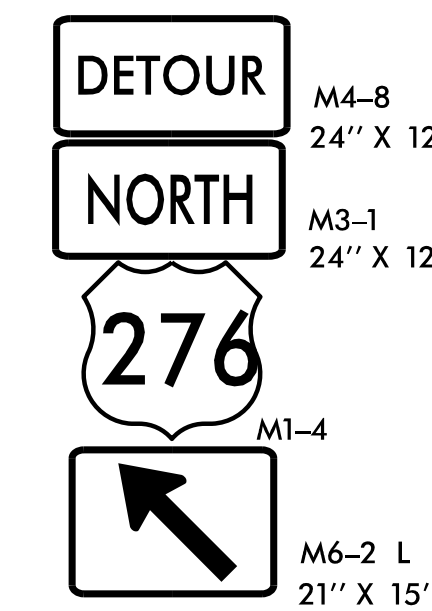
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PROPOSED DETOUR

DETOUR ROUTE ●●●●●

DETOUR LENGTH 5.0 MILES

APPROVED: *William J. Hamilton*


DATE: 2/23/2023

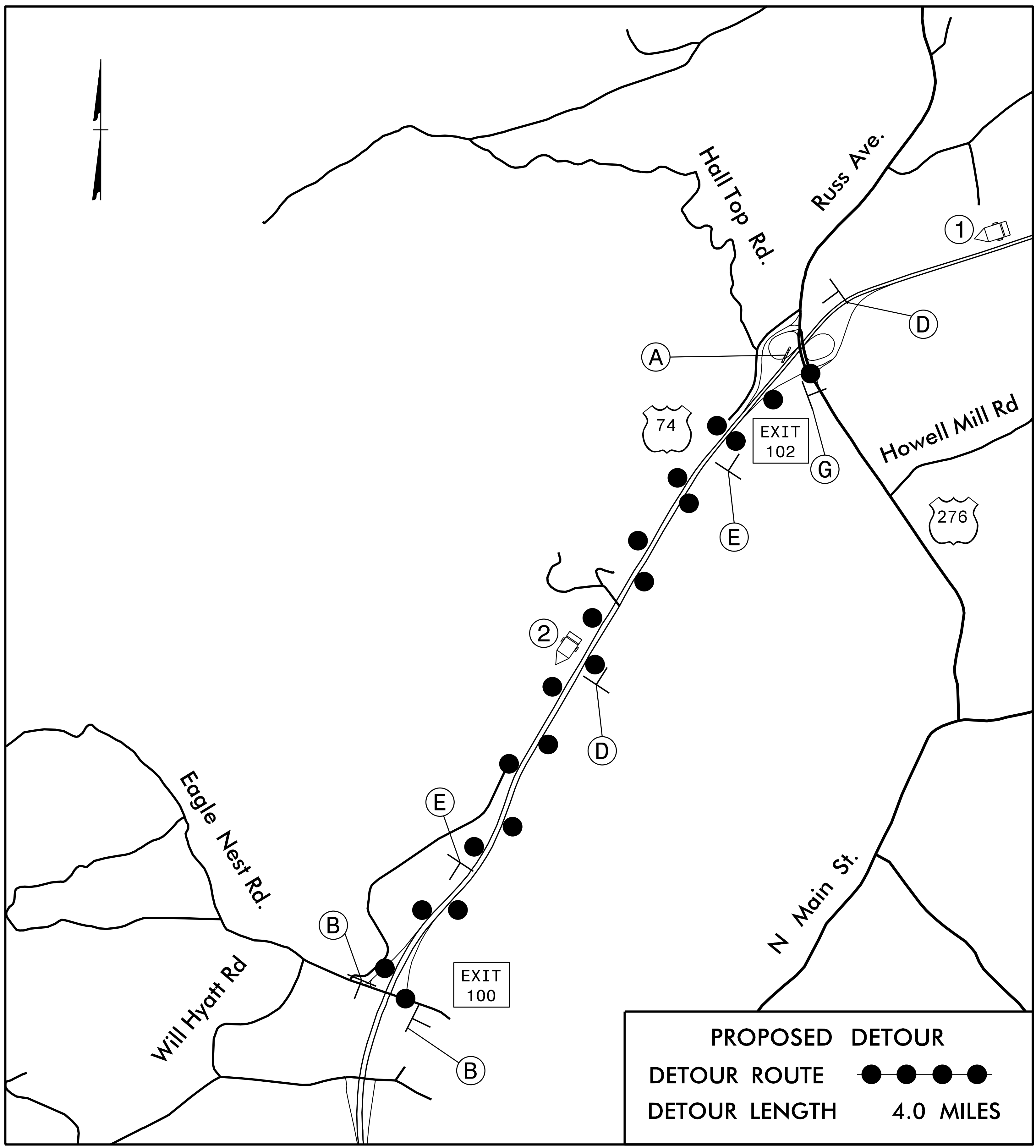
SEAL

DETOUR SIGNING

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-Y21LPD- DETOUR - VIA US 74 EXIT 100

PROJ. REFERENCE NO.	SHEET NO.
U-5839	TMP-30
Infrastructure Consulting Services, Inc.	
 RKA RAMEY KEMP ASSOCIATES <small>8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262</small>	
<small>NC License No. F-1489 www.rameykemp.com</small>	



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 102	DETOUR TO
CLOSED	EXIT 100

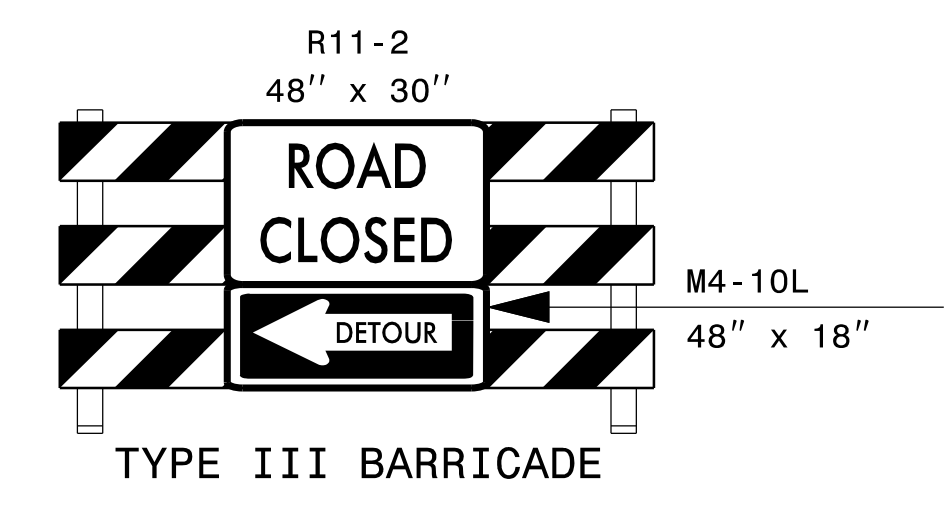
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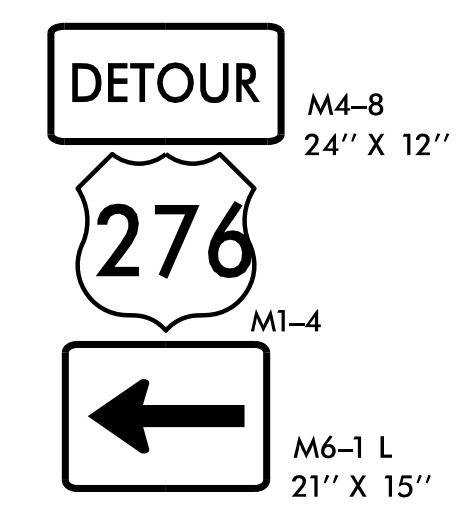
MESSAGE NO. 1	MESSAGE NO. 2
US 276	DETOUR TO
	EXIT 100

CHANGEABLE MESSAGE SIGN

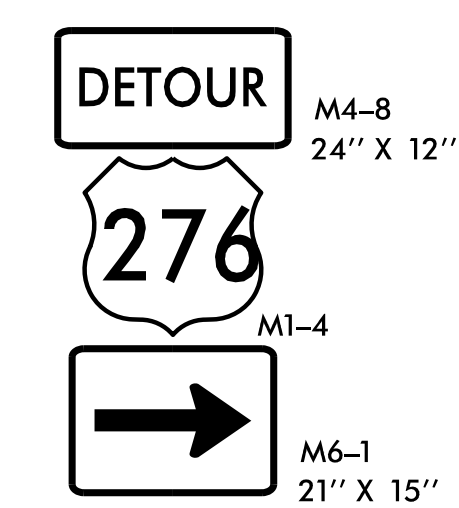
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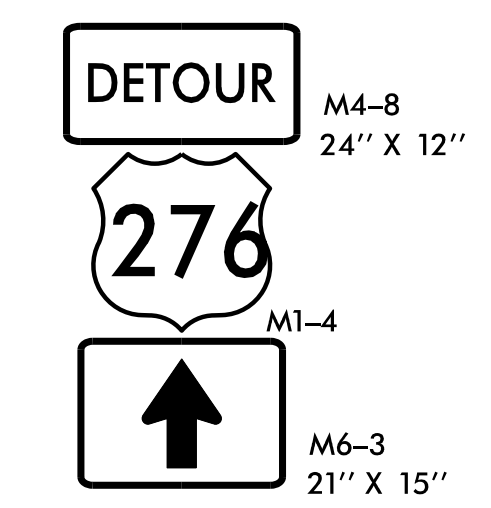
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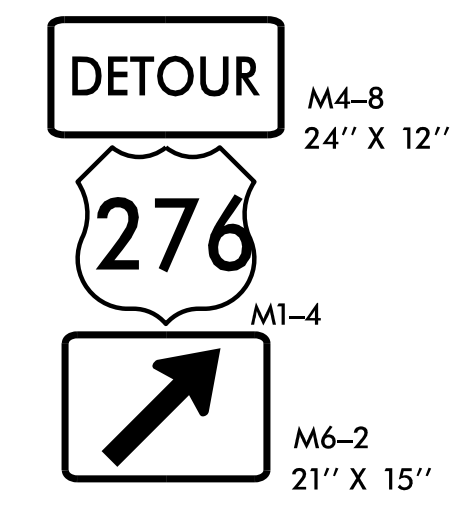
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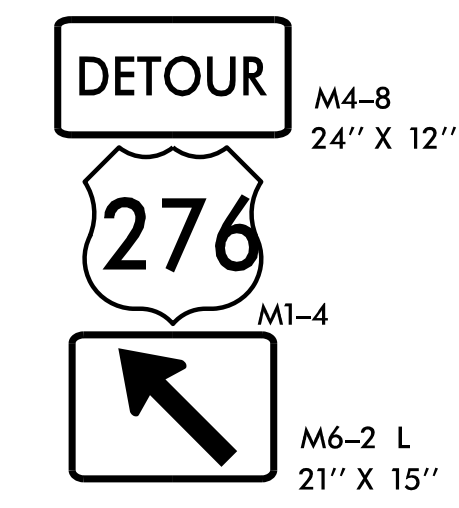
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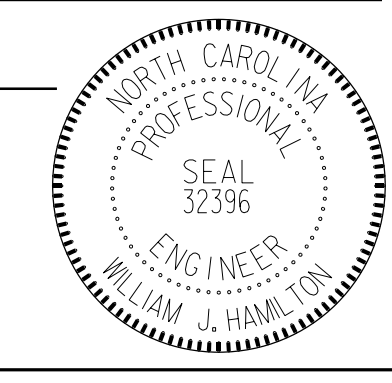



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PROPOSED DETOUR
 DETOUR ROUTE ●●●●●
 DETOUR LENGTH 4.0 MILES

APPROVED: *William J. Hamilton*
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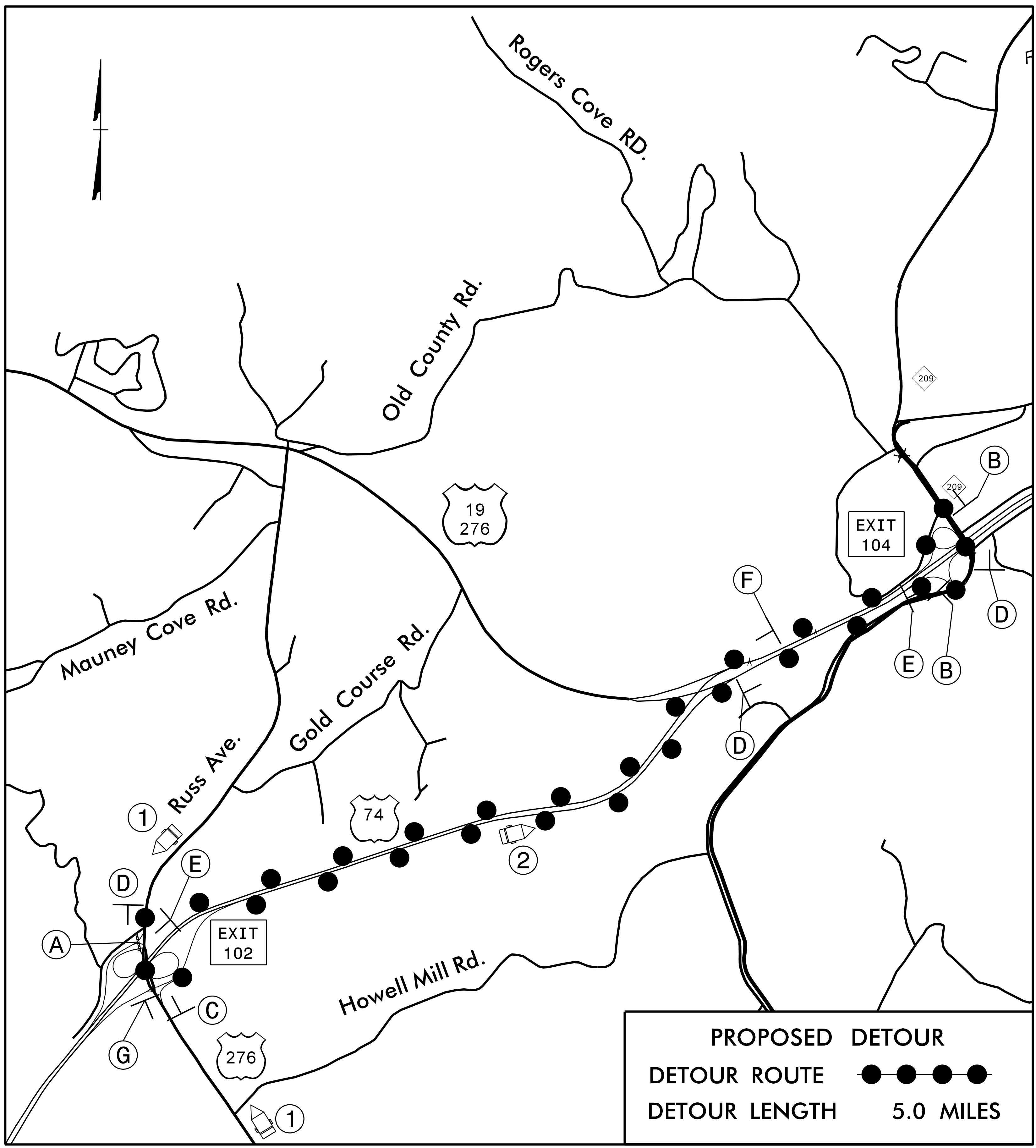



DETOUR SIGNING

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-Y21RPD- DETOUR - VIA US 74 EXIT 104

PROJ. REFERENCE NO.	SHEET NO.
U-5839	TMP-31
Infrastructure Consulting Services, Inc.	
 RKA RAMEY KEMP ASSOCIATES <small>8210 University Executive Park Drive, Suite 220 Charlotte, NC 28262</small>	



PROPOSED DETOUR

DETOUR ROUTE ●●●●●

DETOUR LENGTH 5.0 MILES

MESSAGE NO. 1	MESSAGE NO. 2
US 74 WB RAMP CLOSED	DETOUR TO US 74 EB

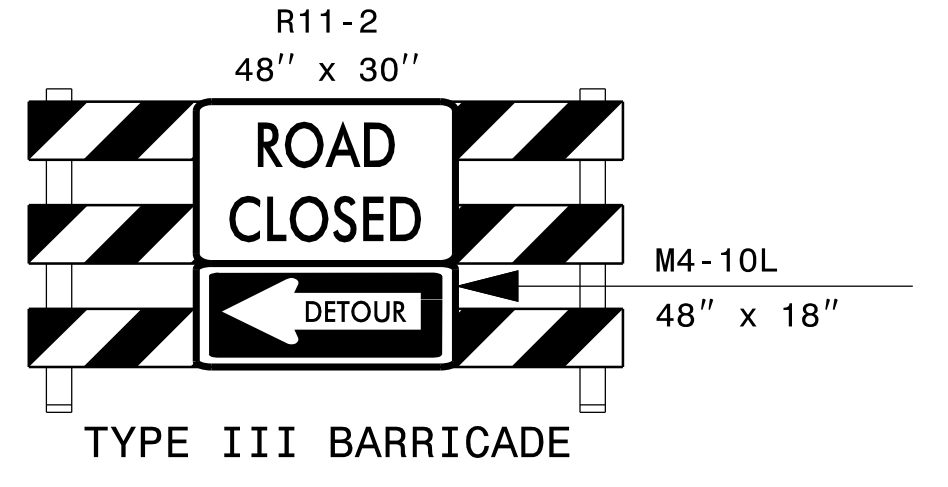
CHANGEABLE MESSAGE SIGN

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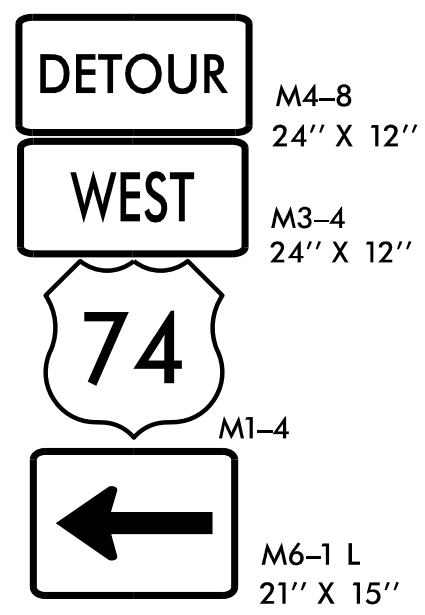
MESSAGE NO. 1	MESSAGE NO. 2
US 74 WB	DETOUR TO EXIT 104

CHANGEABLE MESSAGE SIGN

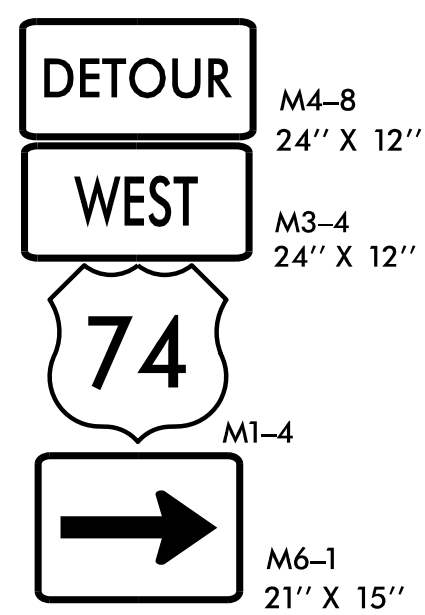
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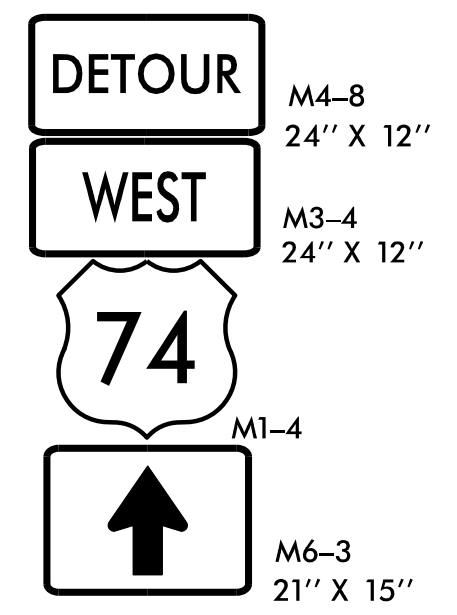
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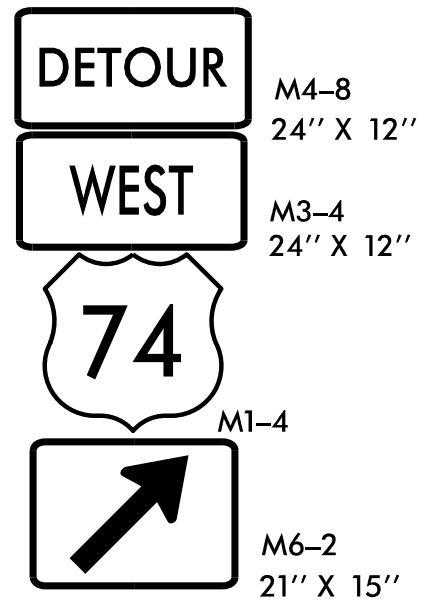
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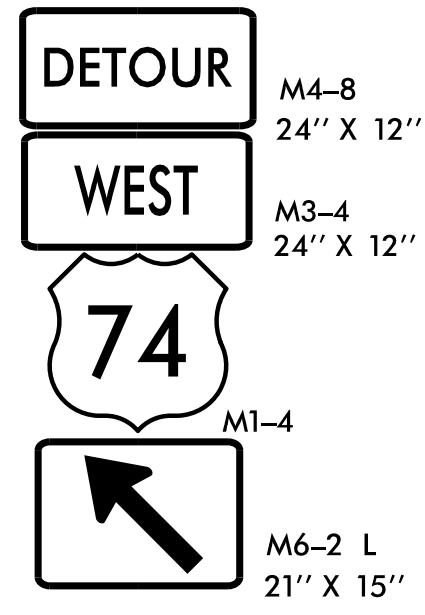
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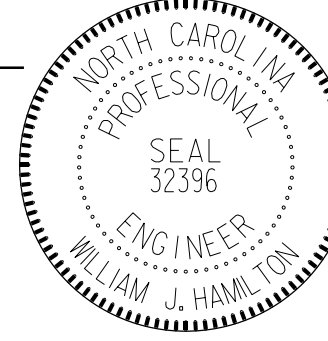
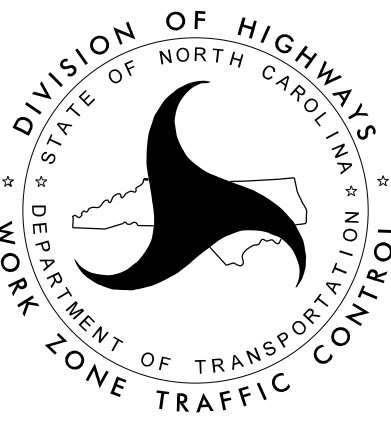


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APPROVED: *William J. Hamilton*
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DATE: 2/23/2023

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