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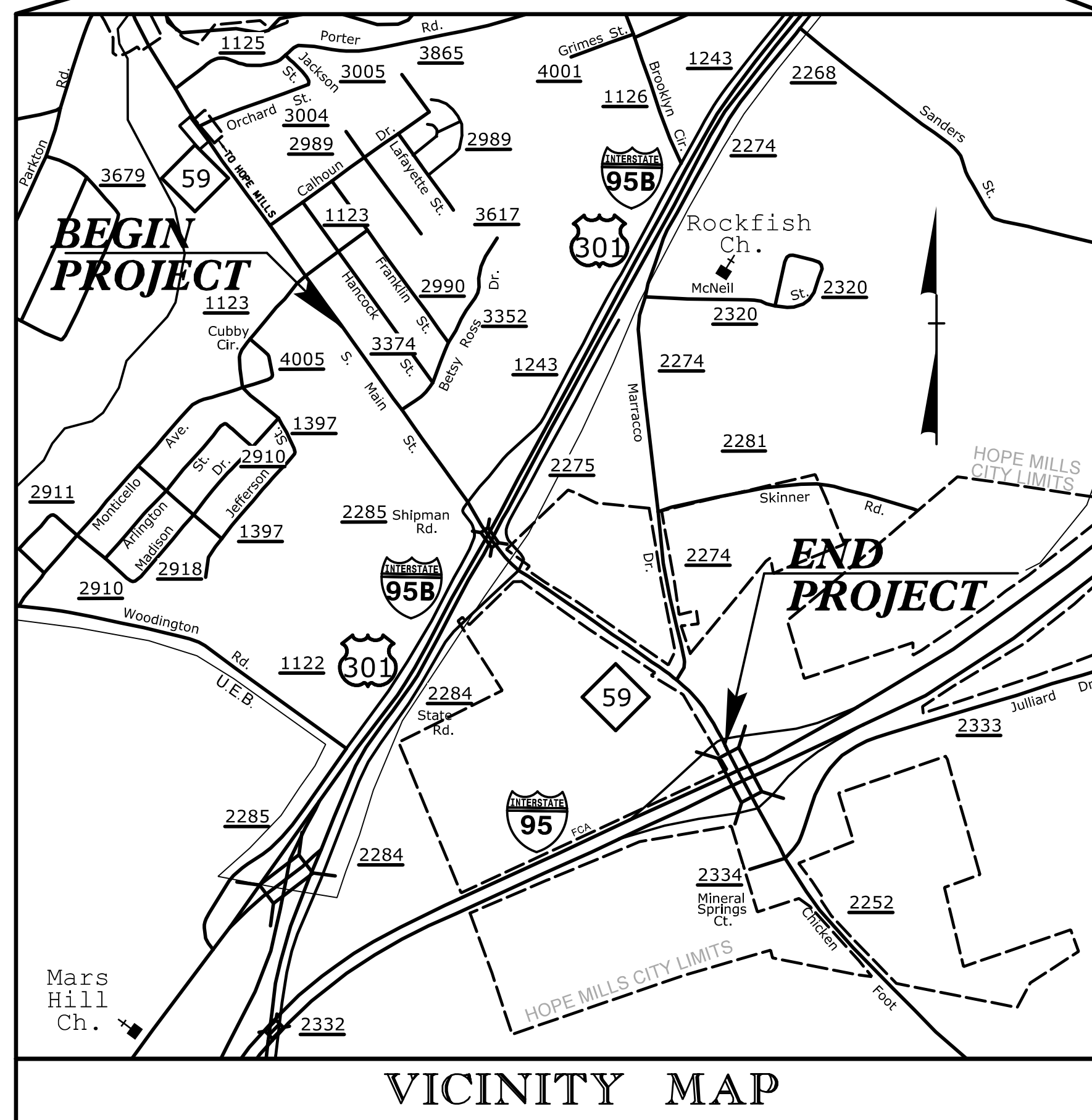
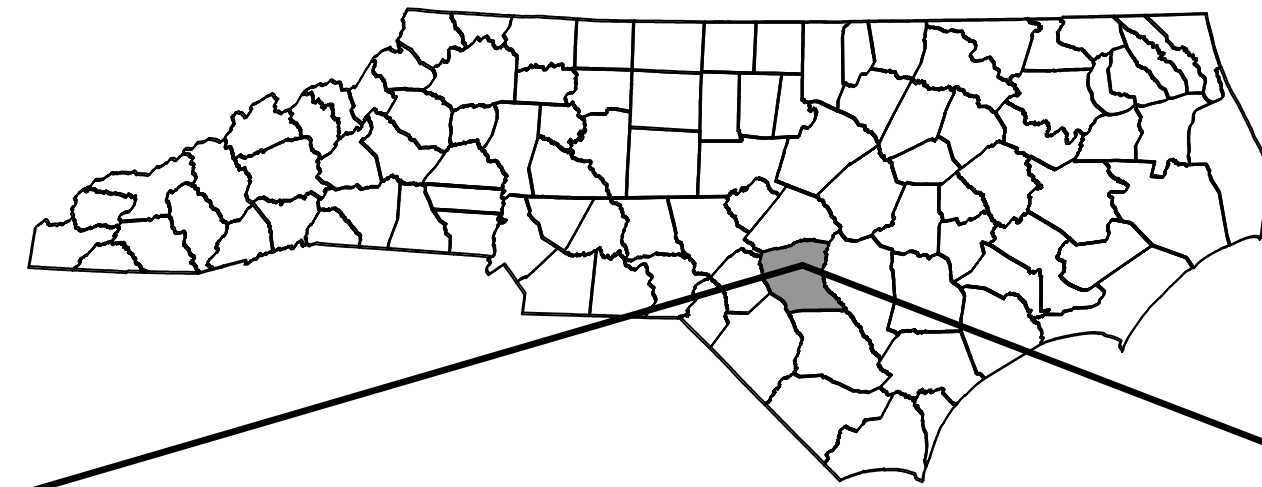
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CUMBERLAND COUNTY



LOCATION: BRIDGE NO. 22 OVER I-95 BUSINESS /US 301 ON NC 59

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SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGENDS
TMP-1B & 1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A	TEMPORARY SHORING DATA
TMP-2B	SPECIAL SIGN DESIGNS
TMP-2C	TEMPORARY DETOUR 1 (-Y3A- 48" RCP)
TMP-2D	TEMPORARY DETOUR 2 (-Y3A- 36" RCP)
TMP-2E	TEMPORARY DETOUR 3 (-Y4- 42" RCP)
TMP-2F	TEMPORARY DETOURS 4, 5 & 6 (-Y3- TIE TO -Y3A-, -L- 54" RCP, -Y3- 2' 48" RCP)
TMP-2G	TEMPORARY DETOUR 7 (-RP1B- & -LP1B-)
TMP-2H	TEMPORARY DETOUR 8(-RP1D- & -LP1D-)
TMP-2I	TEMPORARY DETOUR 9 (-SR1C-)
TMP-2J	TEMPORARY DETOUR 10 (I-95B NORTHBOUND)
TMP-2K	TEMPORARY DETOUR 11 (I-95B SOUTHBOUND)
TMP-2L	TEMPORARY DETOUR 12 (-Y5-)
TMP-3 - 3B	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I OVERVIEW
TMP-5 - 18	TEMPORARY TRAFFIC CONTROL PHASE I DETAILS
TMP-19 & 19A	TEMPORARY TRAFFIC CONTROL PHASE I CUT SECTIONS
TMP-20	TEMPORARY TRAFFIC CONTROL PHASE II OVERVIEW
TMP-21 - 27	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-28	TEMPORARY TRAFFIC CONTROL PHASE II CUT SECTIONS
TMP-29 - 33	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

L. D. STOUCHEK, PE TRAFFIC CONTROL PROJECT ENGINEER
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TRAFFIC CONTROL DESIGN ENGINEER

APPROVED: Lois D. Stoucho, P.E.
DATE: 2/5/2018

SEAL

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
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TIP PROJECT: B-4491

2/1/2018 N:\TCP\B-4491\Tc_01 Title.dgn HNTB

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1101.11	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	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
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 RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
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.
- WORK AREA
- REMOVAL
- WEDGE / WIDEN (USING FLAGGERS)
- TEMPORARY PAVEMENT

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

PAVEMENT MARKERS

- CRYSTAL / CRYSTAL
- CRYSTAL / RED
- YELLOW / YELLOW

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION	PAY ITEM
	<u>PAVEMENT MARKING LINES</u>	
	COLD APPLIED PLASTIC (TYPE 4) (4")	
CA	WHITE EDGELINE	
CI	YELLOW DOUBLE CENTER LINE	
	<u>PAINT (4")</u>	
P8	2 FT / 6 FT SP WHITE MINISKIP	
PA	WHITE EDGELINE	
PB	YELLOW EDGELINE	
PC	10FT. WHITE SKIP	
PD	3FT - 9FT/SP WHITE MINISKIP	
PE	WHITE SOLID LANE LINE	
PI	YELLOW DOUBLE CENTER LINE	
	<u>PAINT (8")</u>	
PN	WHITE GORELINE	
PP	YELLOW DIAGONAL	
	<u>PAINT (24")</u>	
P2	WHITE STOP BAR	

PAVEMENT MARKING SYMBOLS & CHARACTERS

	PAINT SYMBOL
QA	LEFT TURN ARROW
QB	RIGHT TURN ARROW
QC	STRAIGHT ARROW
QE	COMBO STRAIGHT/RIGHT
QI	ALPHANUMERIC CHAR
QP	MERGE ARROW

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTES FOR NUMBER OF APPLICATIONS.

	PAVEMENT MARKERS
	TEMPORARY RAISED
MH	YELLOW & YELLOW
MI	CRYSTAL & RED

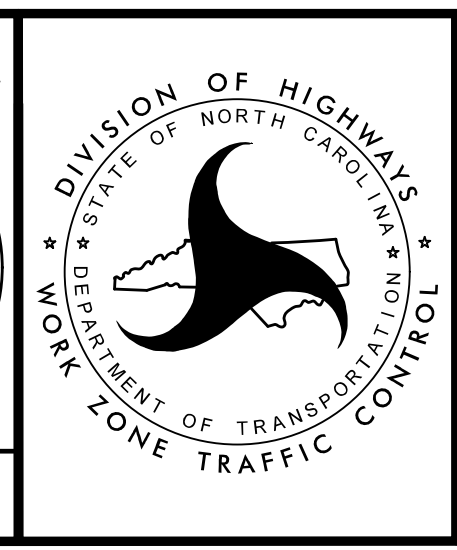
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APPROVED: *Lori D. Stoucho, P.E.*
DATE: 2/5/2018

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TRANSPORTATION MANAGEMENT PLAN

ROADWAY STANDARD DRAWINGS & LEGENDS

MANAGEMENT STRATEGIES

THE OBJECTIVE OF THIS PROJECT IS TO REPLACE THE EXISTING BRIDGE AND REALIGN I-95 BUS RAMPS WITH THE FINAL LAYER OF SURFACE COURSE PLACED ALONG THE ENTIRE PROJECT IN THE FINAL STEPS.

PHASE I BEGINS BY COMPLETING DRAINAGE WORK ON -Y3A- AND -Y4- THAT REQUIRE THE USE OF SR 2275 FOR TEMPORARY NIGHT TIME DETOURS. ONCE DRAINAGE WORK IS COMPLETED, SR 2275 MAY BE CLOSED TO BEGIN CONSTRUCTION OF STRUCTURE. TEMPORARY PAVEMENT AND TEMPORARY PORTABLE CONCRETE BARRIER IS PROPOSED TO SHIFT EXISTING -LP1B- TRAFFIC TO CONSTRUCT BRIDGE STRUCTURE. COMPLETES CONSTRUCTION OF THE LEFT SIDE OF -L- USING FLAGGERS, TEMPORARY SHORING AND WATER FILLED BARRIER TO MAINTAIN TRAFFIC. BEGINS CONSTRUCTION OF RAMPS AND LOOPS AWAY FROM TRAFFIC. COMPLETES -Y3A- AND -Y3-. COMPLETES CENTER SUPPORT FOUNDATION BEHIND PORTABLE CONCRETE BARRIER USING TEMPORARY SHORING AND LANE CLOSURES. COMPLETES -SR1B- AND -SR1D- USING FLAGGERS TO COMPLETE TIE-INS TO EXISTING AND SHIFTS TRAFFIC TO -SR1B- AND -SR1D- TO COMPLETE WORK ON RAMPS AND LOOPS. AFTER COMPLETION OF -Y3A- AND THE INTERSECTION OF -Y3A- AND -Y3-, COMPLETES CONSTRUCTION OF 54" PIPE ON -L- USING NIGHT TIME ROAD CLOSURES AND DETOURING TRAFFIC TO -Y3- AND -Y3A-.

PHASE II WORK SHIFTS TRAFFIC TO THE LEFT SIDE OF -L- TO COMPLETE -L- WIDENING. COMPLETES -SRC1-, -LP1B-, -LP1D- AND -RP1D- USING DETOURS. COMPLETES THE OUTSIDE SHOULDERS OF -Y2- USING LANE CLOSURES. COMPLETES REMOVAL OF THE EXISTING STRUCTURE.

PHASE III SHIFTS TRAFFIC TO OUTSIDE LANES OF -L- TO COMPLETE CONSTRUCTION OF MEDIANS. UPON COMPLETION OF -L-, COMPLETE RESURFACING, THE PLACEMENT OF FINAL SURFACE COURSE, AND FINAL PAVEMENT MARKING / MARKERS.

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 59 (-L-) 4-LANE, 2-WAY I-95 BUS (-Y2-)	MONDAY THRU FRIDAY 6:00 AM - 8:00 AM & 4:00 PM - 6:00 PM
NC 59 (-L-) 2-LANE, 2-WAY	MONDAY THRU FRIDAY 6:00 AM - 6:00 PM

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

ROAD NAME
NC 59 (-L-) I-95 BUS (-Y2-) SOUTHERN BLVD (SR 1243) US 301 SERVICE RD (SR 2275) SHIPMAN RD (SR 2285) MARRACCO DR (SR 2274)

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.

GENERAL NOTES

- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- FOR THE HOPE MILLS CHRISTMAS PARADE, BETWEEN THE HOURS OF 6:00 P.M. THE FRIDAY OF THE WEEKEND OF THE CHRISTMAS PARADE AND 6:00 P.M. THE SUNDAY AFTER THE CHRISTMAS PARADE.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
MARRACCO DR (-Y3A-)	MONDAY THRU SUNDAY 6:00 AM - 9:00 PM
CROSSOVER (-Y4-)	MONDAY THRU SUNDAY 6:00 AM - 9:00 PM
NC 59 (-L-)	MONDAY THRU SUNDAY 6:00 AM - 9:00 PM

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
I-95 BUS (-Y2-)	MONDAY THRU SUNDAY 6:00 AM - 9:00 PM	30 MINUTES BRIDGE DEMO & GIRDER INSTALL

E) 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 CLOSURE REQUIREMENTS

- 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.
- 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.
- 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAINS WITHIN THE CLOSED TRAVEL LANE.
- 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.
- DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON -L- (NC 59).

GENERAL NOTES

PAVEMENT EDGE DROP OFF REQUIREMENTS

- 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.
- 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' IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

N) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

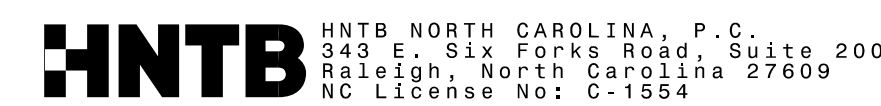
SIGNING

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

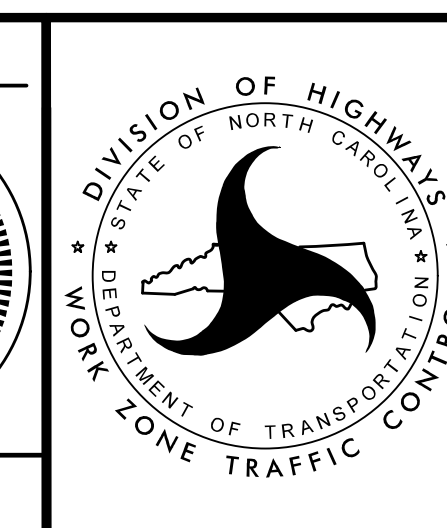
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DocuSigned by:
Lori D. Stoucho, P.E.
APPROVED: _____
DATE: 2/5/2018

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TRANSPORTATION
MANAGEMENT PLAN

**MANAGEMENT
STRATEGIES &
GENERAL NOTES**

GENERAL NOTES (CONTINUED)

TRAFFIC BARRIER

T) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN 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.

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

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

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

TRAFFIC CONTROL DEVICES

V) WHEN LANE CLOSURES ARE NOT IN EFFECT, SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPENED TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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

X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

GENERAL NOTES

PAVEMENT MARKINGS AND MARKERS

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

<u>ROAD NAME</u>	<u>MARKING</u>	<u>MARKER</u>
ASPHALT SURFACES	PAINT	TEMPORARY RAISED
PERMANENT CONCRETE	COLD APPLIED PLASTIC TYPE 4 - REMOVABLE TAPE	TEMPORARY RAISED

Z) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

AA) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

BB) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

CC) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

DD) PROVIDE AND OPERATE 4 ADDITIONAL CMS'S TO BE USED AS DIRECTED BY THE ENGINEER.

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

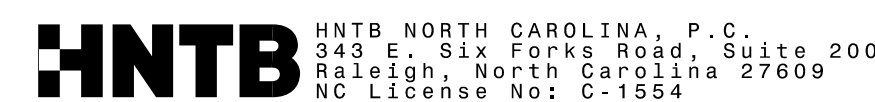
FF) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION, AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT AND 1000 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

GG) 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.

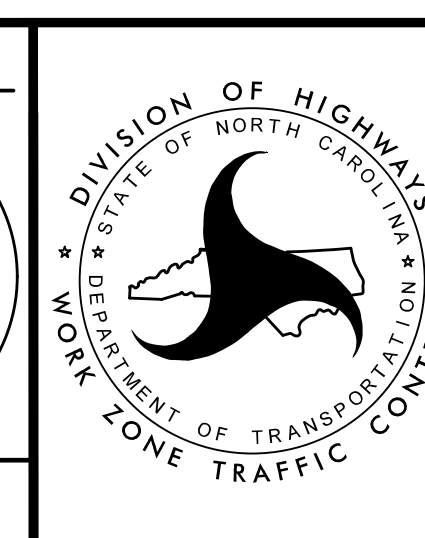
HH) CONTACT CUMBERLAND COUNTY SCHOOLS AT (910)678-2590 AT LEAST ONE MONTH PRIOR TO ROAD CLOSURE.

II) CONTACT CUMBERLAND COUNTY EMERGENCY SERVICES AT (910)867-1369 AT LEAST ONE MONTH PRIOR TO ROAD CLOSURE.

2/5/2018
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HNTB



APPROVED: <i>Lori D. Stouchko, P.E.</i>
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TRANSPORTATION
MANAGEMENT PLAN

**MANAGEMENT
STRATEGIES &
GENERAL NOTES**

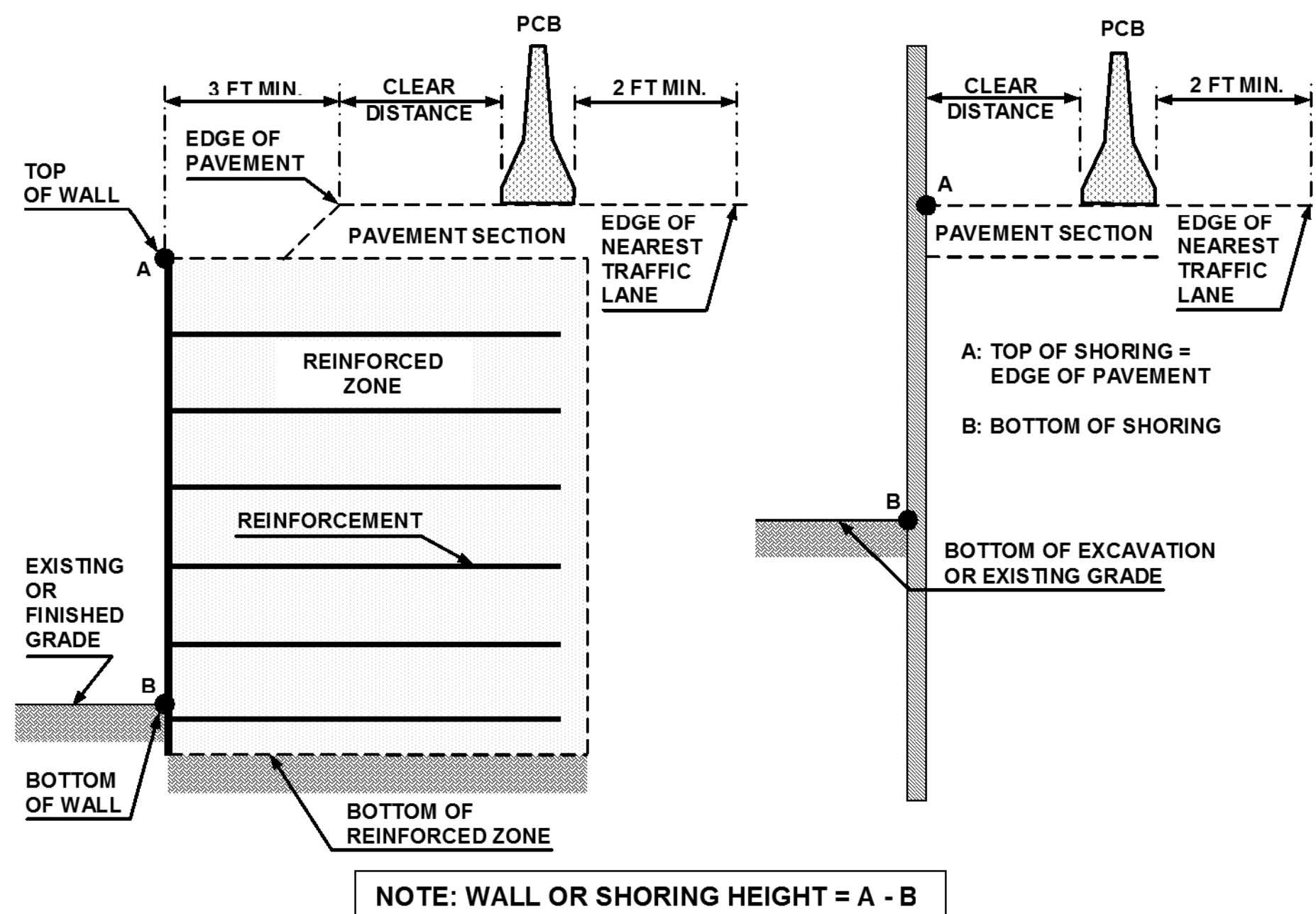


FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.
- 9- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- 10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

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

* See Figure Below

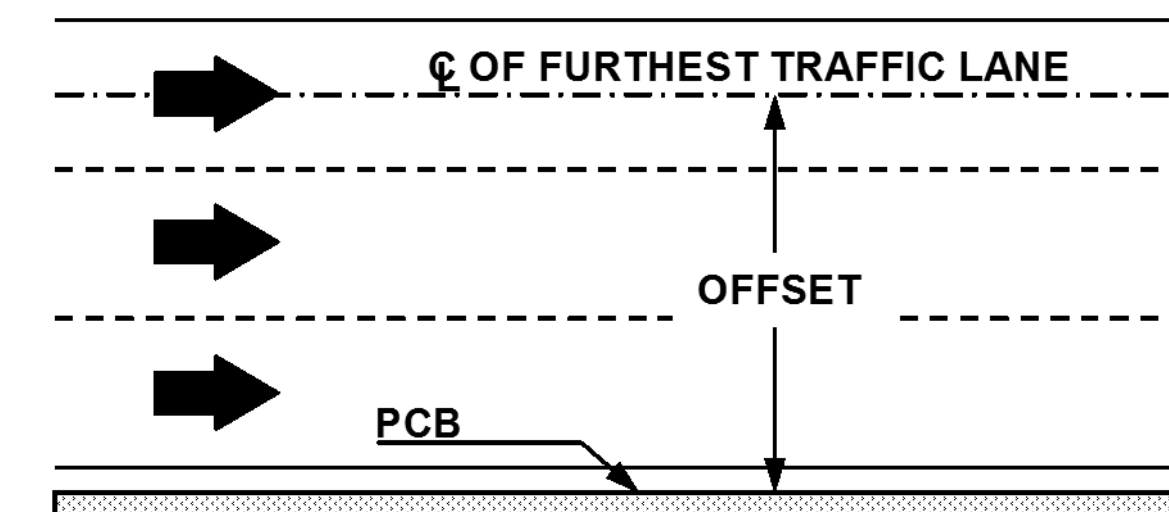


FIGURE B

2/1/2018
TCP\B-4491_tc_02A_shor-ing.dgn
HNBT

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DATE: 2/5/2018

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

PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

SHORING NOTES

TEMPORARY SHORING NO. ①

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

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

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 45+50 ±, 8.5 FT RIGHT, TO STATION 51+10 ±, 30.2 FT RIGHT.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 45+50 ±, 8.5 FT RIGHT, TO STATION 51+10 ±, 30.2 FT RIGHT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING NO. 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.

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 53+50 ±, 34.7 FT RIGHT, TO STATION 55+33 ±, 55.0 FT RIGHT.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 53+50 ±, 34.7 FT RIGHT, TO STATION 55+33 ±, 55.0 FT RIGHT. SEE 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 NO. 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 -Y2- 31+13 ±, 10.0 FT RIGHT, TO STATION -Y2- 32+31 ±, 10.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (γ) = 120 LB/CF
- FRICTION ANGLE (Ø) = 30 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = 155.0 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y2- 31+13 ±, 10.0 FT RIGHT, TO STATION -Y2- 32+31 ±, 10.0 FT RIGHT.

AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -Y2- 31+13 ±, 10.0 FT RIGHT, TO STATION -Y2- 32+31 ±, 10.0 FT RIGHT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 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 -Y2- 31+13 ±, 10.0 FT LEFT, TO STATION -Y2- 32+31 ±, 10.0 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT (γ) = 120 LB/CF
- FRICTION ANGLE (Ø) = 30 DEGREES
- COHESION (c) = 0 LB/SF
- GROUNDWATER ELEVATION = 155.0 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y2- 31+13 ±, 10.0 FT LEFT, TO STATION -Y2- 32+31 ±, 10.0 FT LEFT.

AT THE CONTRACTOR*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -Y2- 31+13 ±, 10.0 FT LEFT, TO STATION -Y2- 32+31 ±, 10.0 FT LEFT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 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.

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 51+10 ±, 30.2 FT RIGHT, TO STATION 51+57 ±, 32.5 FT RIGHT.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 51+10 ±, 30.2 FT RIGHT, TO STATION 51+57 ±, 32.5 FT RIGHT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

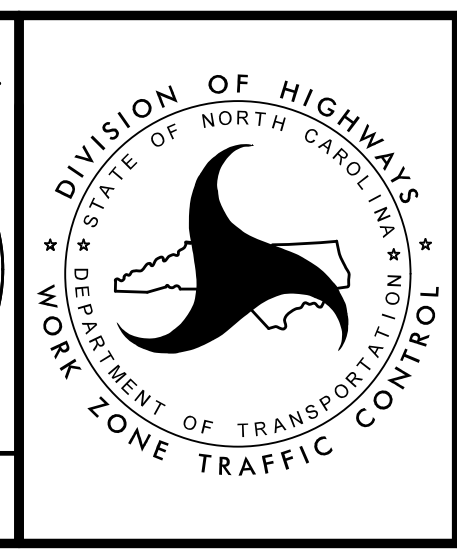
THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON 06/23/2017 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN TUN ZAN, LICENSE #030943.



APPROVED: *Lori D. Stouchko, P.E.*
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 DATE: 2/5/2018

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TRANSPORTATION
MANAGEMENT PLAN

SHORING NOTES

2/1/2018
 \\TCP\B-4491_tc_02A_shor-ing.dgn
 HNTB

SIGN NUMBER: SP-1 BACKG COLOR: Fluorescent Orange
 TYPE: D COPY COLOR: Black
 QUANTITY: 5

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"
 HEIGHT: 2'-6"
 TOTAL AREA: 10.0 Sq.Ft.

BORDER TYPE: RECESSED
 RECESS: 0.38"
 WIDTH: 0.38"
 RADII: 1.5"
 MAT'L: 0.125" ALUMINUM

NO. Z BARS: N/A
 LENGTH: N/A

DESIGN BY: TRT CHECKED BY: ADK
 PROJECT ID: B-4491 DIV: 06 DATE: August 2017

BORDER
 R=1.5"
 TH=0.38"
 IN=0.38"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Letter spacings are to start of next letter											Series/Size Text Length
	M	A	R	R	A	C	C	O			C 2000
6.6	4.8	4.7	4.4	3.9	4.6	4.4	4.4	3.5	6.6		34.7
	D	R	I	V	E						C 2000
14.9	4.6	4.4	1.7	4.6	3.1	14.9					18.2

SIGN NUMBER: SP-2 BACKG COLOR: Fluorescent Orange
 TYPE: D COPY COLOR: Black
 QUANTITY: 4

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 3'-6"
 HEIGHT: 2'-6"
 TOTAL AREA: 8.8 Sq.Ft.

BORDER TYPE: RECESSED
 RECESS: 0.38"
 WIDTH: 0.38"
 RADII: 1.5"
 MAT'L: 0.125" ALUMINUM

NO. Z BARS: N/A
 LENGTH: N/A

DESIGN BY: TRT CHECKED BY: ADK
 PROJECT ID: B-4491 DIV: 06 DATE: August 2017

BORDER
 R=1.5"
 TH=0.38"
 IN=0.38"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Letter spacings are to start of next letter											Series/Size Text Length
	S	H	I	P	M	A	N				C 2000
6.7	4.4	4.7	2.2	4.6	4.8	4.7	3.4	6.7			28.6
	R	O	A	D							C 2000
12.7	4.3	4.3	4.7	3.4	12.7						16.6

SIGN NUMBER: SP-3 BACKG COLOR: Orange
 TYPE: D COPY COLOR: Black
 QUANTITY: 3

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 3'-6"
 HEIGHT: 2'-6"
 TOTAL AREA: 8.8 Sq.Ft.

BORDER TYPE: RECESSED
 RECESS: 0.38"
 WIDTH: 0.38"
 RADII: 1.5"
 MAT'L: 0.125" ALUMINUM

NO. Z BARS:
 LENGTH:

DESIGN BY: NKV CHECKED BY: TRT
 PROJECT ID: B-4491 DIV: 06 DATE: September 2017

BORDER
 R=1.5"
 TH=0.38"
 IN=0.38"

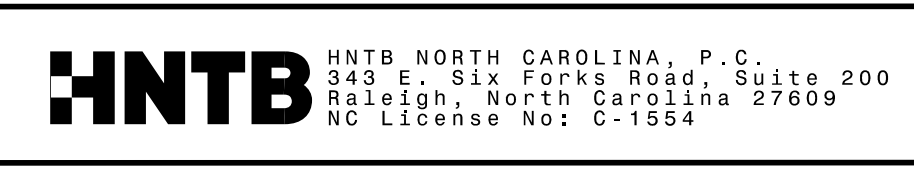
Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Letter spacings are to start of next letter											Series/Size Text Length
	S		M	A	I	N					C 2000
8.8	3.4	6	4.8	4.7	2.2	3.4	8.8				24.4
	S	T	R	E	E	T					C 2000
9.5	3.9	3.9	4.4	4.1	3.6	3.1	9.5				22.9

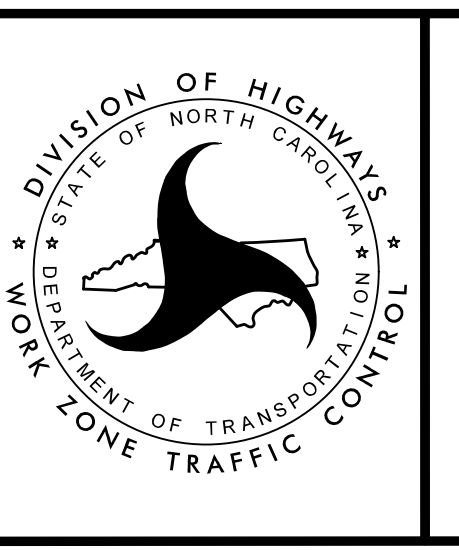
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 B-4491-02B sign designs.dgn
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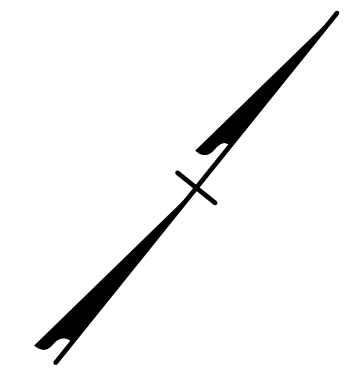
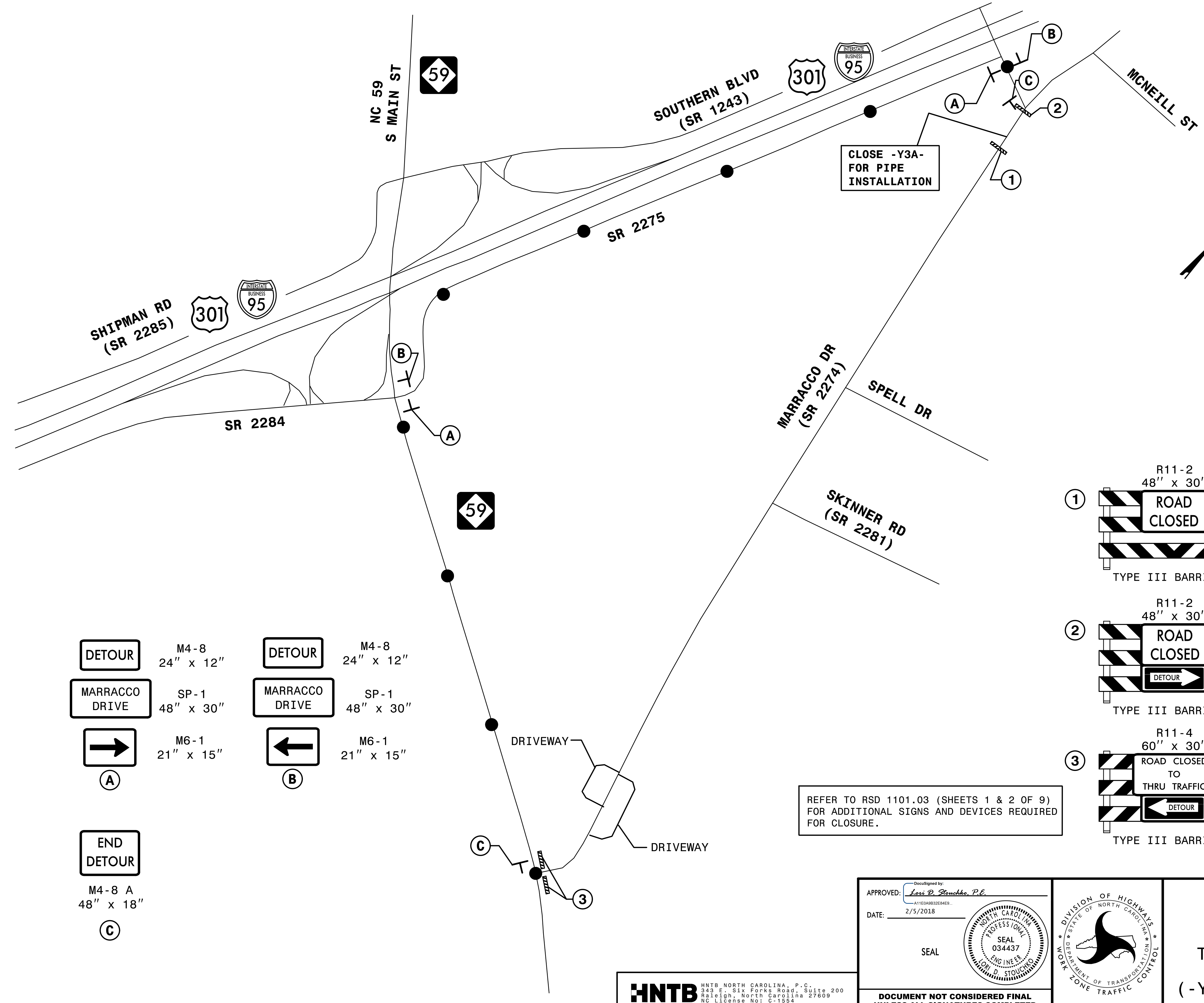
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TRANSPORTATION
 MANAGEMENT PLAN

SPECIAL
 SIGN DESIGNS



- | | |
|--|--|
| DETOUR
M4-8
24" x 12" | DETOUR
M4-8
24" x 12" |
| MARRACCO DRIVE
SP-1
48" x 30" | MARRACCO DRIVE
SP-1
48" x 30" |
| →
M6-1
21" x 15" | ←
M6-1
21" x 15" |
| (A) | (B) |
| END DETOUR
M4-8 A
48" x 18" | |
| (C) | |

- | | | | |
|----------|--------------------|------------------------------------|---------------------|
| 1 | R11-2
48" x 30" | ROAD CLOSED | |
| | | | TYPE III BARRICADE |
| 2 | R11-2
48" x 30" | ROAD CLOSED | M4-10R
48" x 18" |
| | | DETOUR → | TYPE III BARRICADE |
| 3 | R11-4
60" x 30" | ROAD CLOSED TO THRU TRAFFIC | M4-10L
48" x 18" |
| | | DETOUR ← | TYPE III BARRICADE |

REFER TO RSD 1101.03 (SHEETS 1 & 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.

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L:\B-4491\Tc_02C detour L.Y3A-48.dgn
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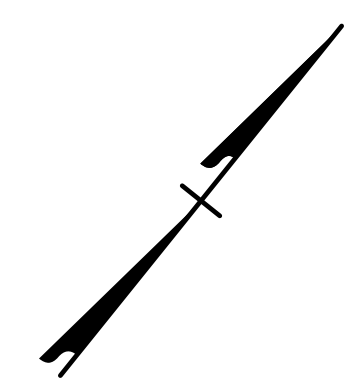
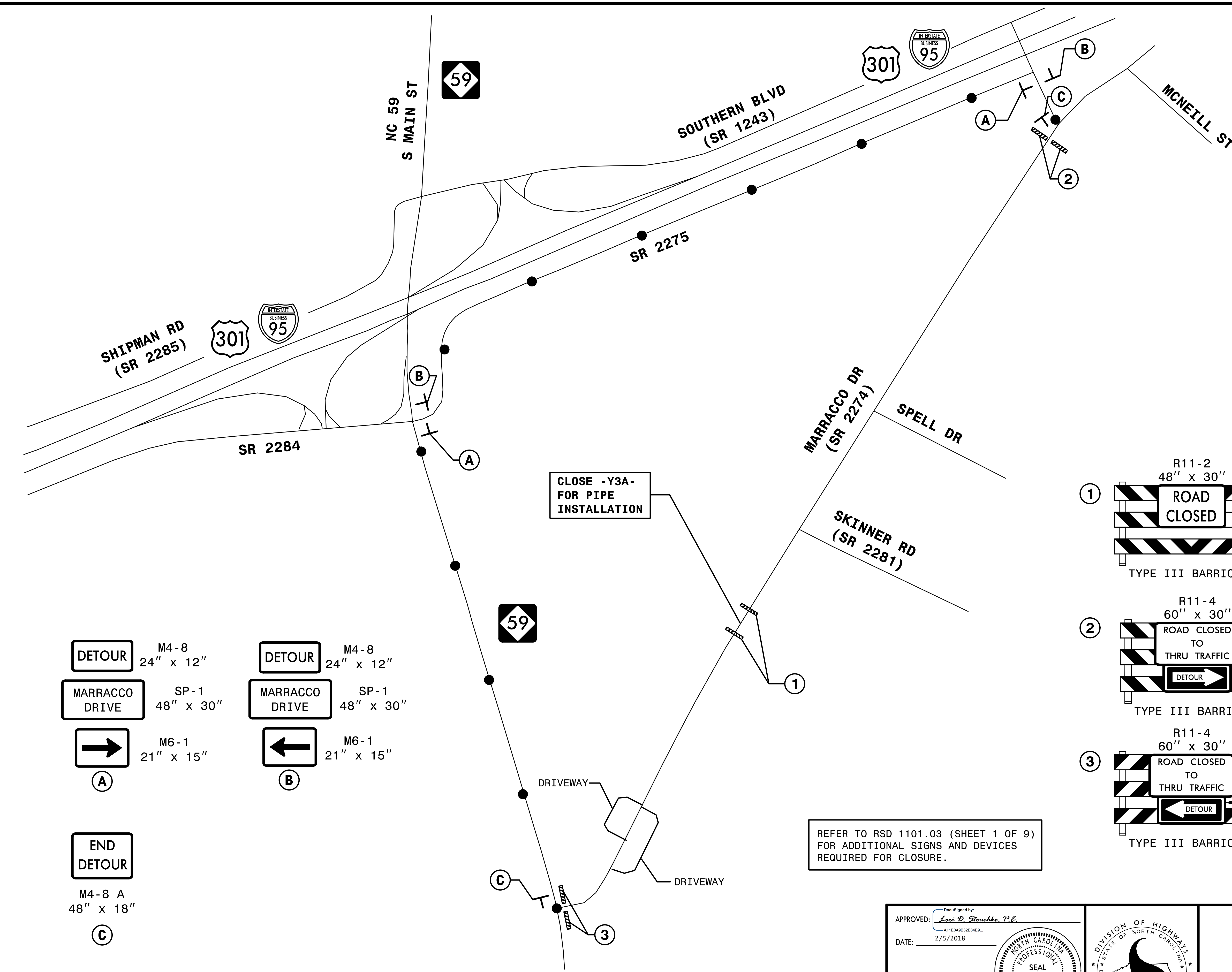
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TRANSPORTATION MANAGEMENT PLAN

TEMPORARY TRAFFIC CONTROL DETOUR 1 (-Y3A- AT 48" PIPE)



- | | |
|--------|-----------|
| DETOUR | M4-8 |
| | 24" x 12" |
- | | |
|----------------|-----------|
| MARRACCO DRIVE | SP-1 |
| | 48" x 30" |
- | | |
|---|-----------|
| → | M6-1 |
| | 21" x 15" |
- (A)
- | | |
|--------|-----------|
| DETOUR | M4-8 |
| | 24" x 12" |
- | | |
|----------------|-----------|
| MARRACCO DRIVE | SP-1 |
| | 48" x 30" |
- | | |
|---|-----------|
| ← | M6-1 |
| | 21" x 15" |
- (B)
- | | |
|--------|-----------|
| END | M4-8 A |
| DETOUR | 48" x 18" |
- (C)

CLOSE -Y3A-
FOR PIPE
INSTALLATION

REFER TO RSD 1101.03 (SHEET 1 OF 9)
FOR ADDITIONAL SIGNS AND DEVICES
REQUIRED FOR CLOSURE.

- | | | |
|---|--------------------|-----------|
| ① | R11-2 | 48" x 30" |
| | ROAD CLOSED | |
| | TYPE III BARRICADE | |
- | | | |
|---|-----------------------------|-----------|
| ② | R11-4 | 60" x 30" |
| | ROAD CLOSED TO THRU TRAFFIC | M4-10R |
| | DETOUR → | 48" x 18" |
| | TYPE III BARRICADE | |
- | | | |
|---|-----------------------------|-----------|
| ③ | R11-4 | 60" x 30" |
| | ROAD CLOSED TO THRU TRAFFIC | M4-10L |
| | ← DETOUR | 48" x 18" |
| | TYPE III BARRICADE | |

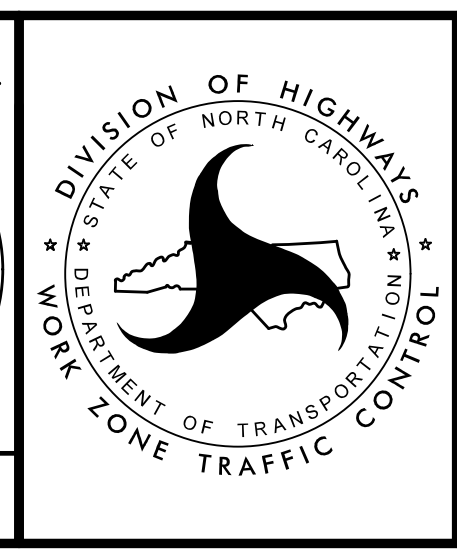
2/1/2018
B-4491-TC-02D detour 2 -Y3A-36.dgn
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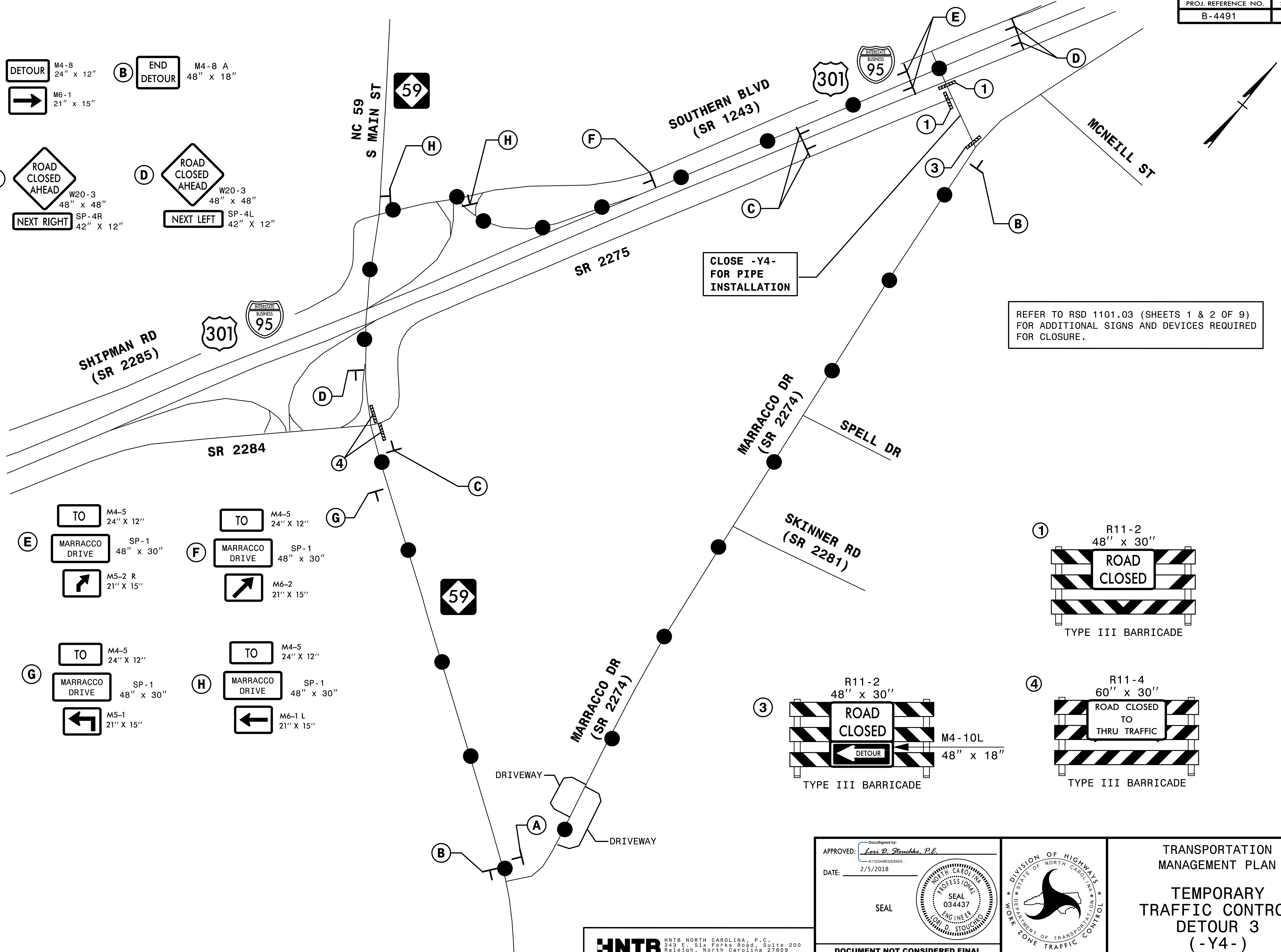


TRANSPORTATION
MANAGEMENT PLAN

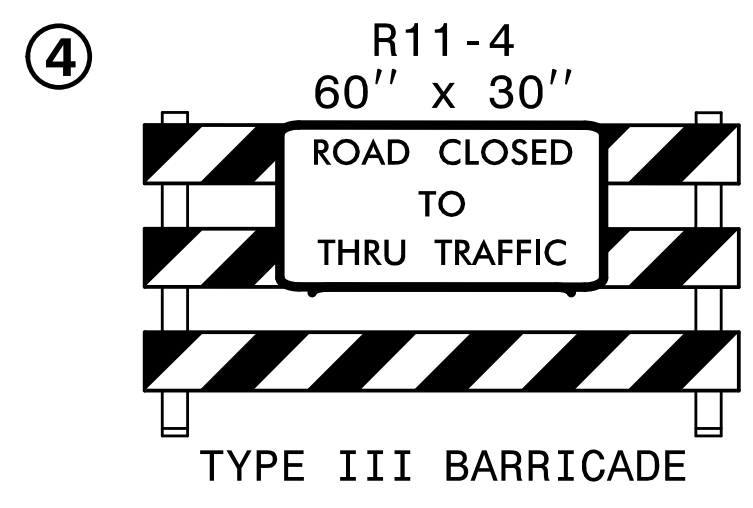
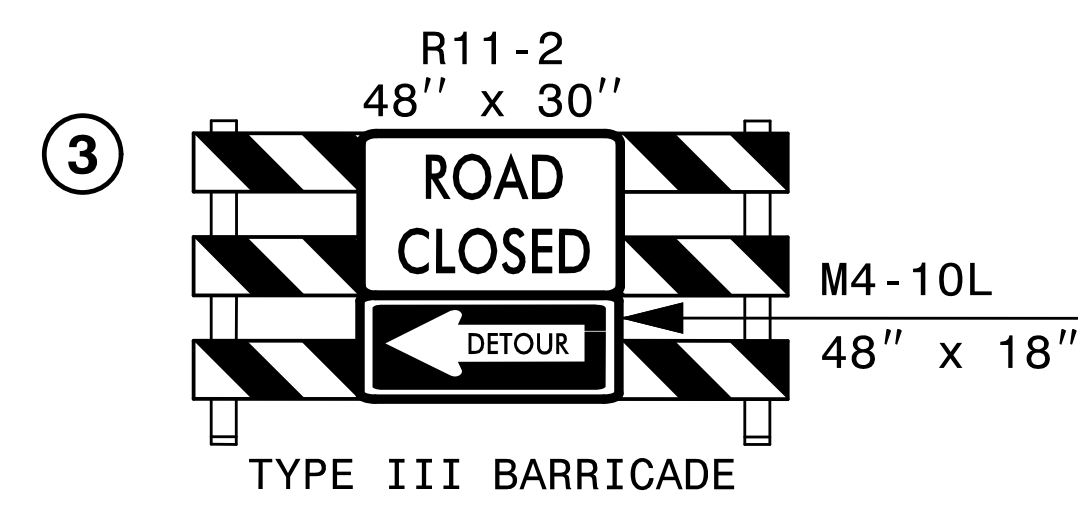
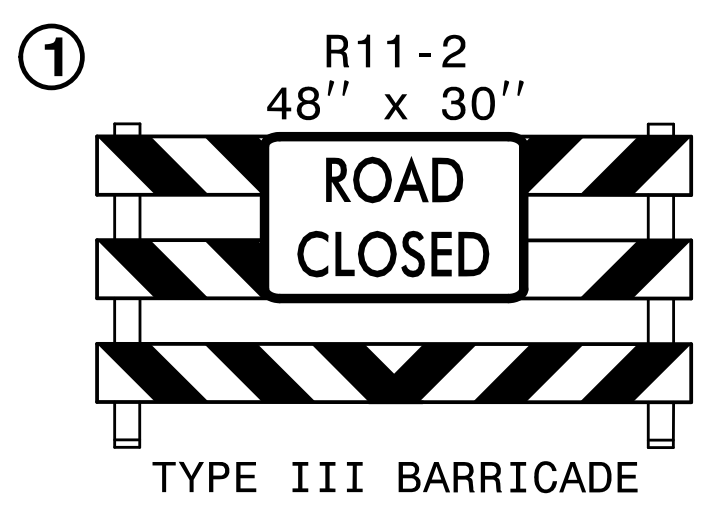
TEMPORARY
TRAFFIC CONTROL
DETOUR 2
(-Y3A- AT 36" PIPE)

- A** DETOUR M4-8 24" x 12"
M6-1 21" x 15"
- B** END DETOUR M4-8 A 48" x 18"
- C** ROAD CLOSED AHEAD W20-3 48" x 48"
NEXT RIGHT SP-4R 42" x 12"
- D** ROAD CLOSED AHEAD W20-3 48" x 48"
NEXT LEFT SP-4L 42" x 12"

- E** TO M4-5 24" x 12"
MARRACCO DRIVE SP-1 48" x 30"
M5-2 R 21" x 15"
- F** TO M4-5 24" x 12"
MARRACCO DRIVE SP-1 48" x 30"
M6-2 21" x 15"
- G** TO M4-5 24" x 12"
MARRACCO DRIVE SP-1 48" x 30"
M5-1 21" x 15"
- H** TO M4-5 24" x 12"
MARRACCO DRIVE SP-1 48" x 30"
M6-1 L 21" x 15"



REFER TO RSD 1101.03 (SHEETS 1 & 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.



2/1/2018
B-4491L.tc.02E detour 3.y4.dgn
HNTB

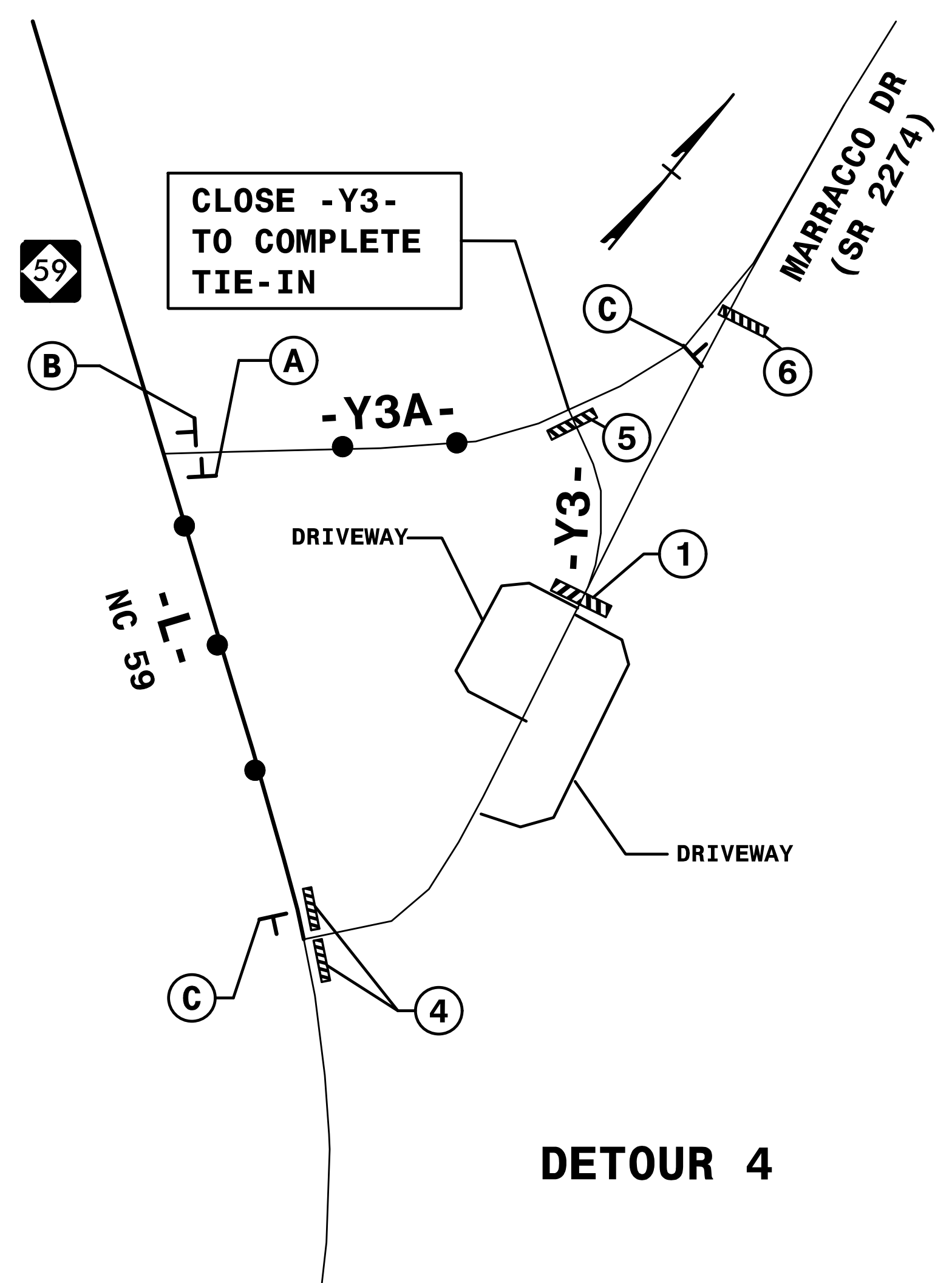


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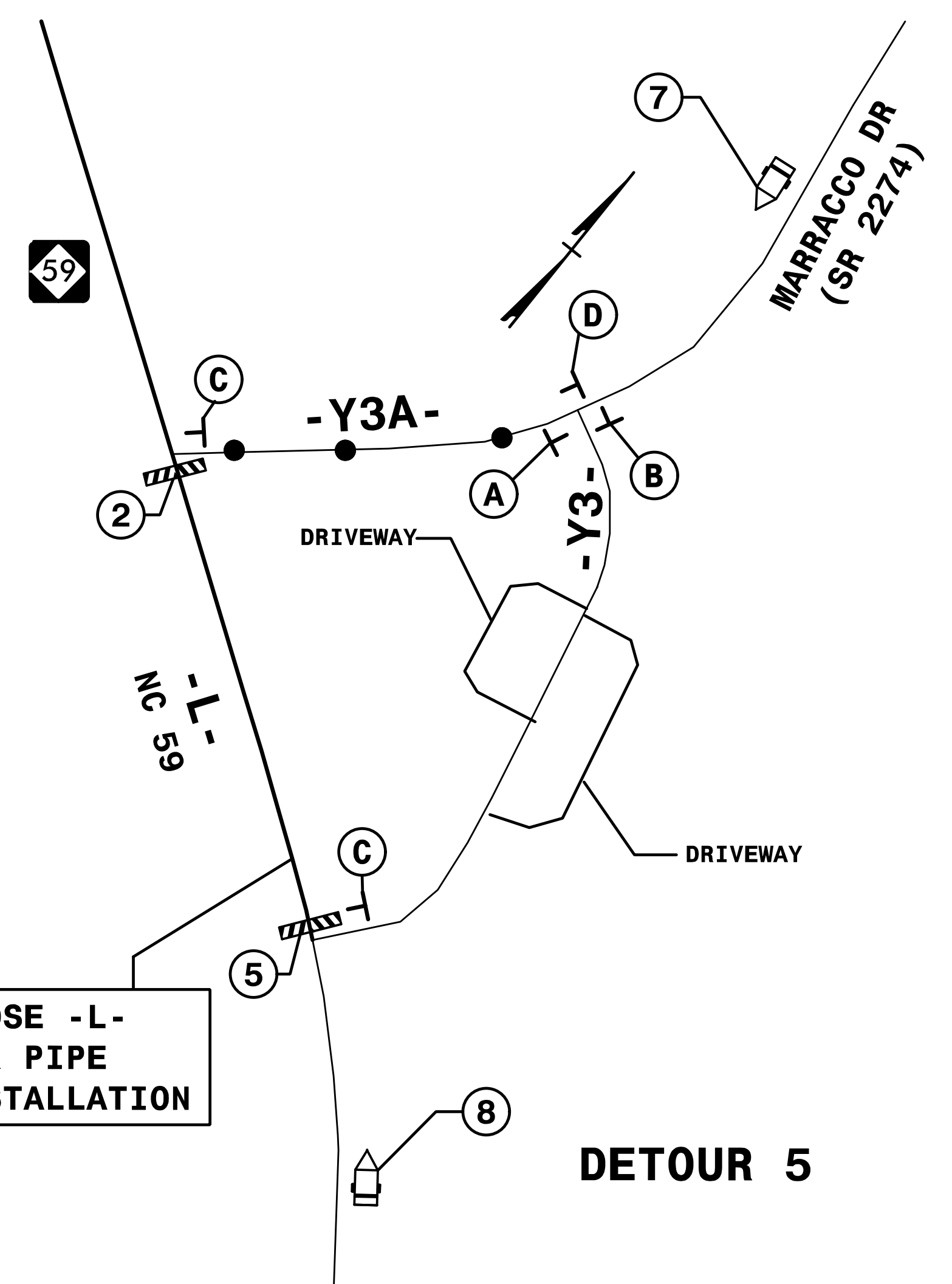


TRANSPORTATION MANAGEMENT PLAN

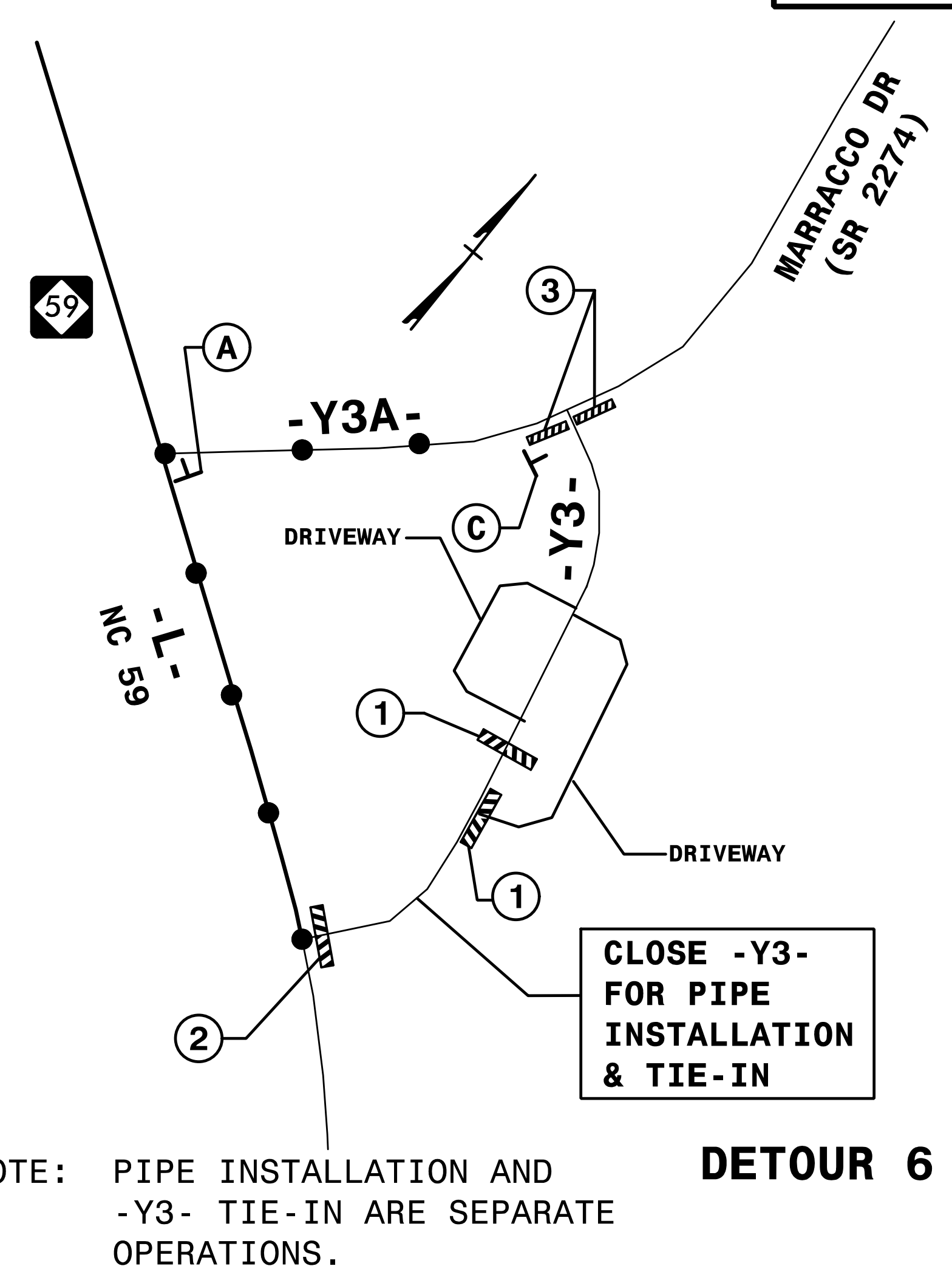
TEMPORARY TRAFFIC CONTROL DETOUR 3 (-Y4-)



DETOUR 4

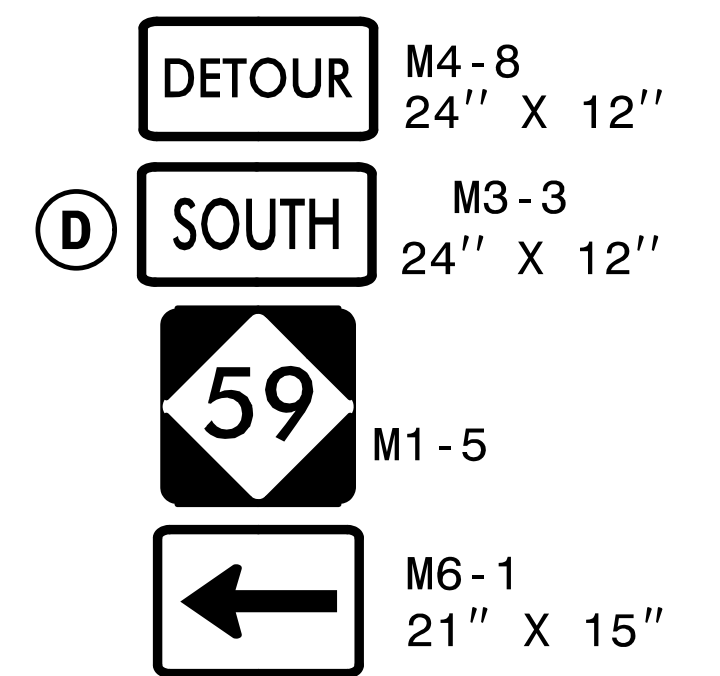
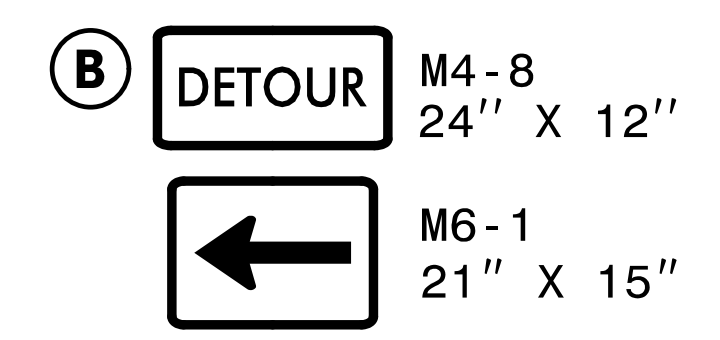
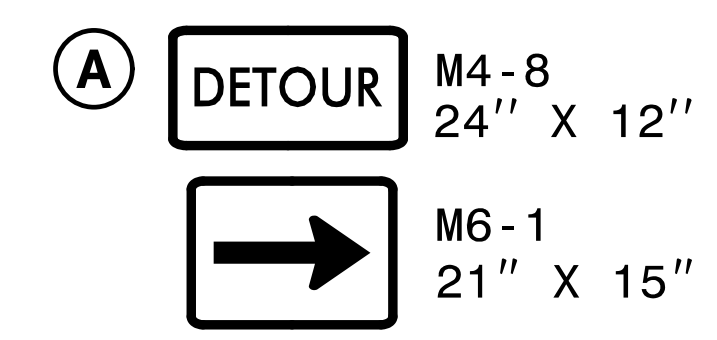
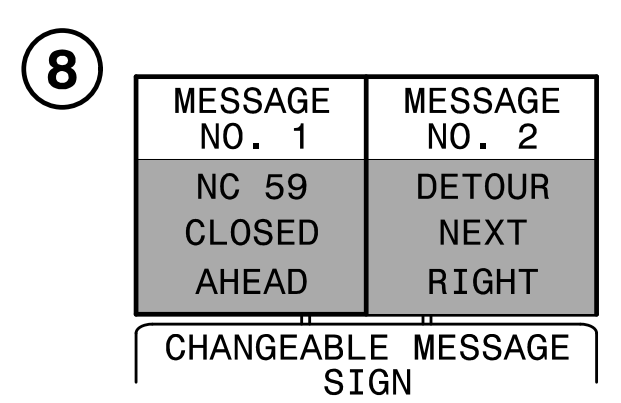
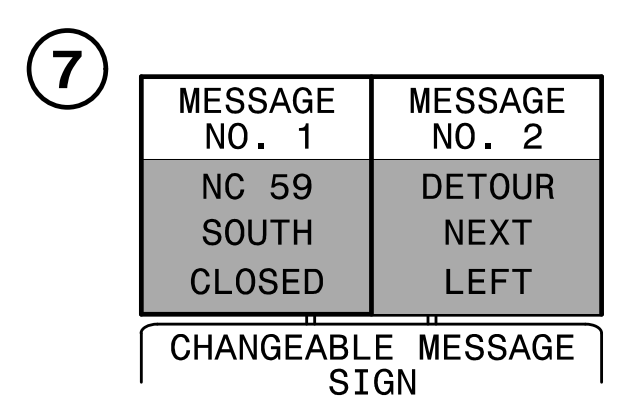
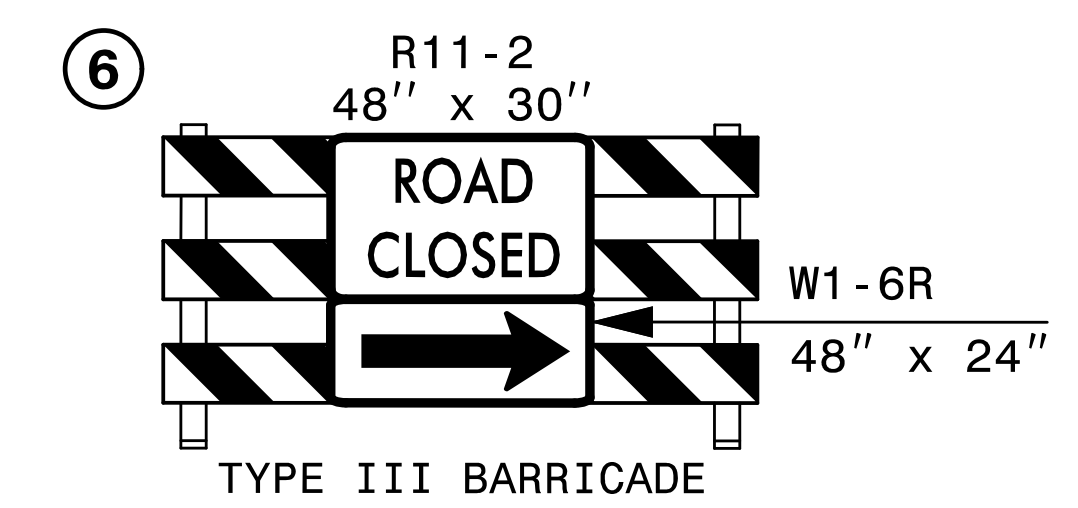
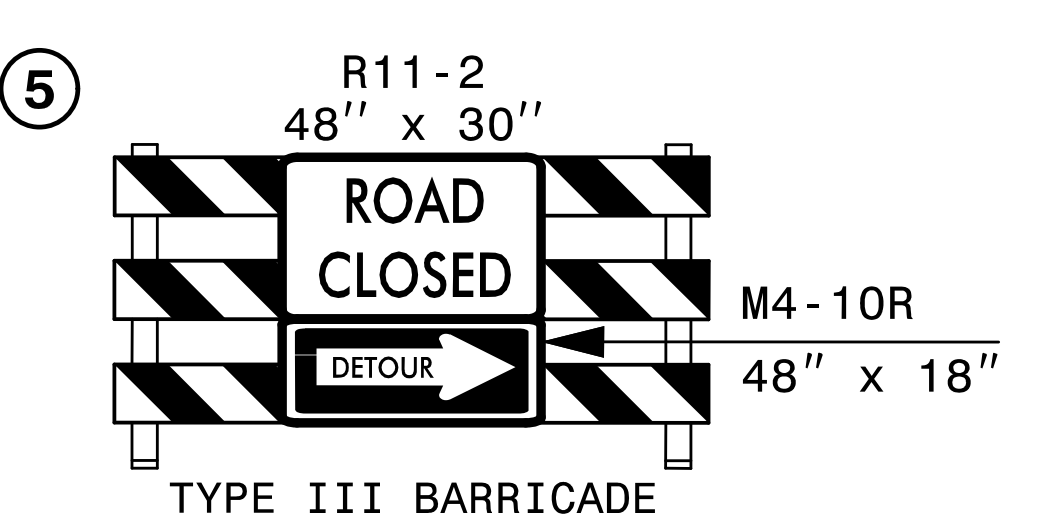
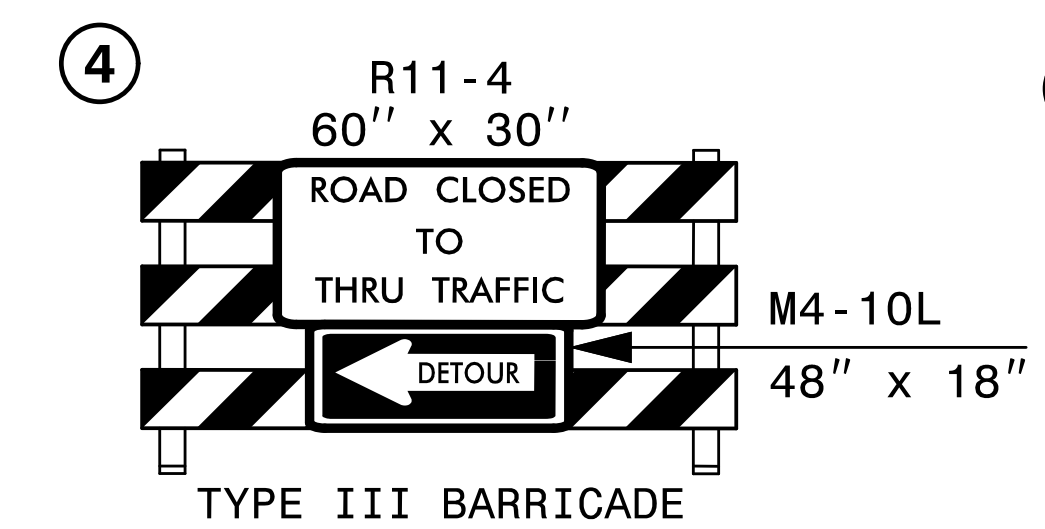
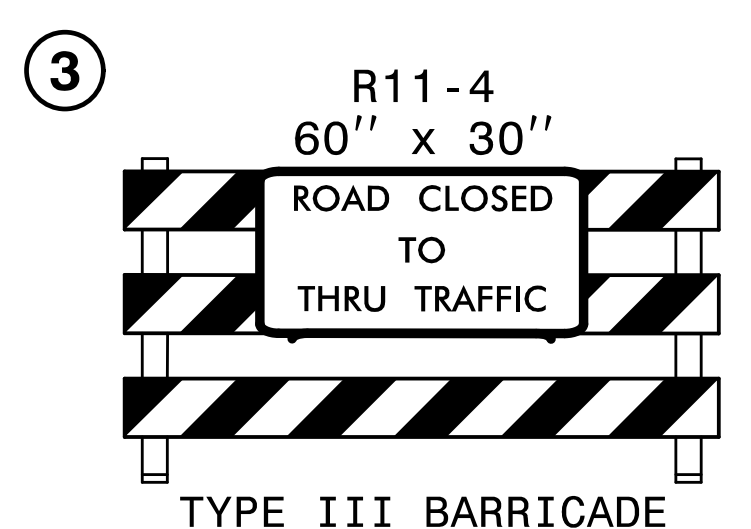
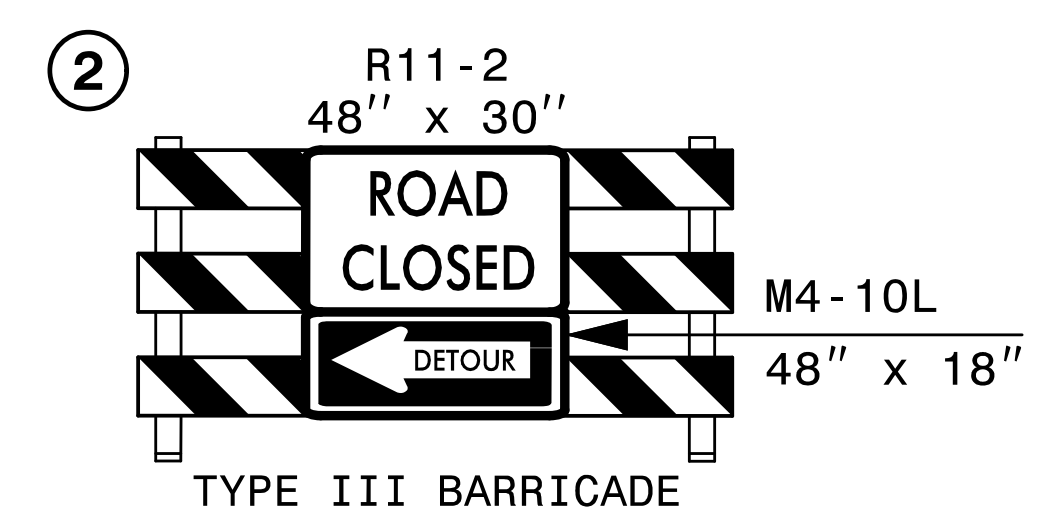
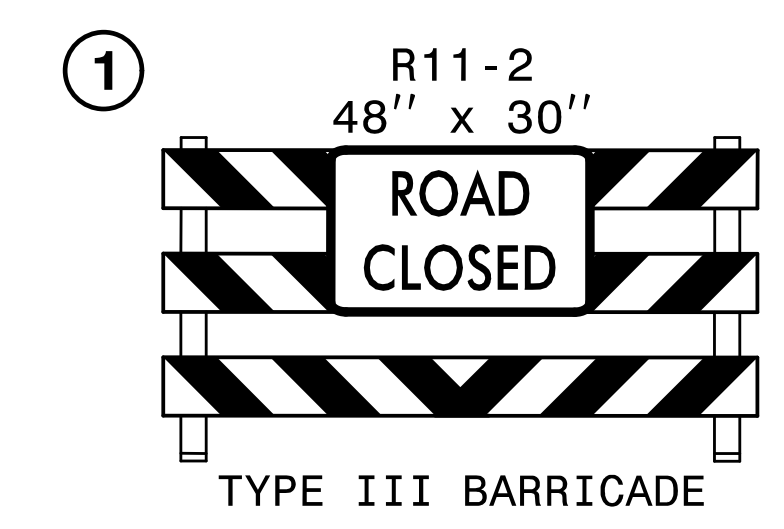


DETOUR 5



DETOUR 6

NOTE: PIPE INSTALLATION AND -Y3- TIE-IN ARE SEPARATE OPERATIONS.

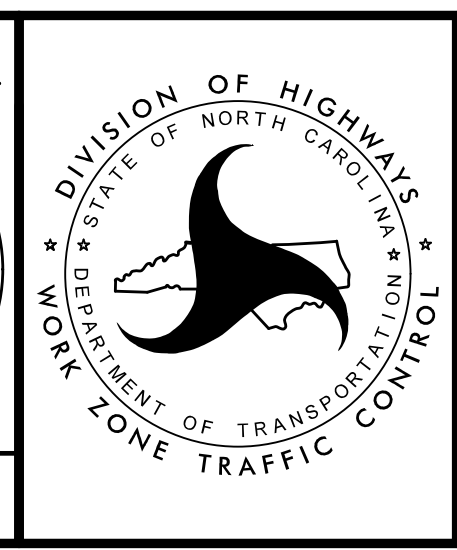


REFER TO RSD 1101.03 (SHEETS 1 & 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.

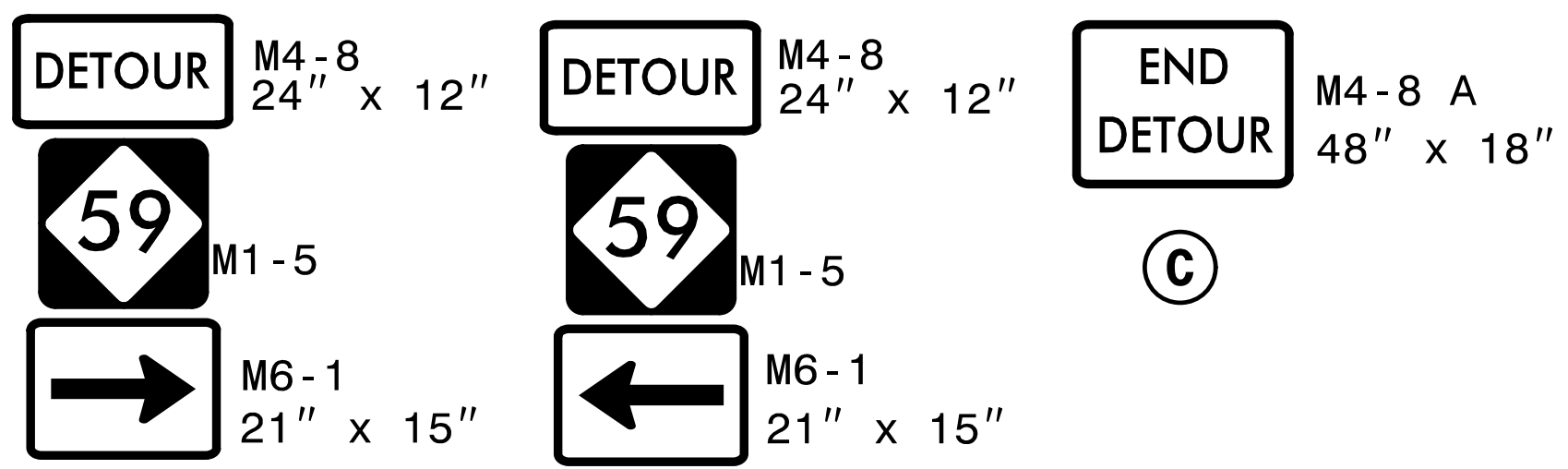
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HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

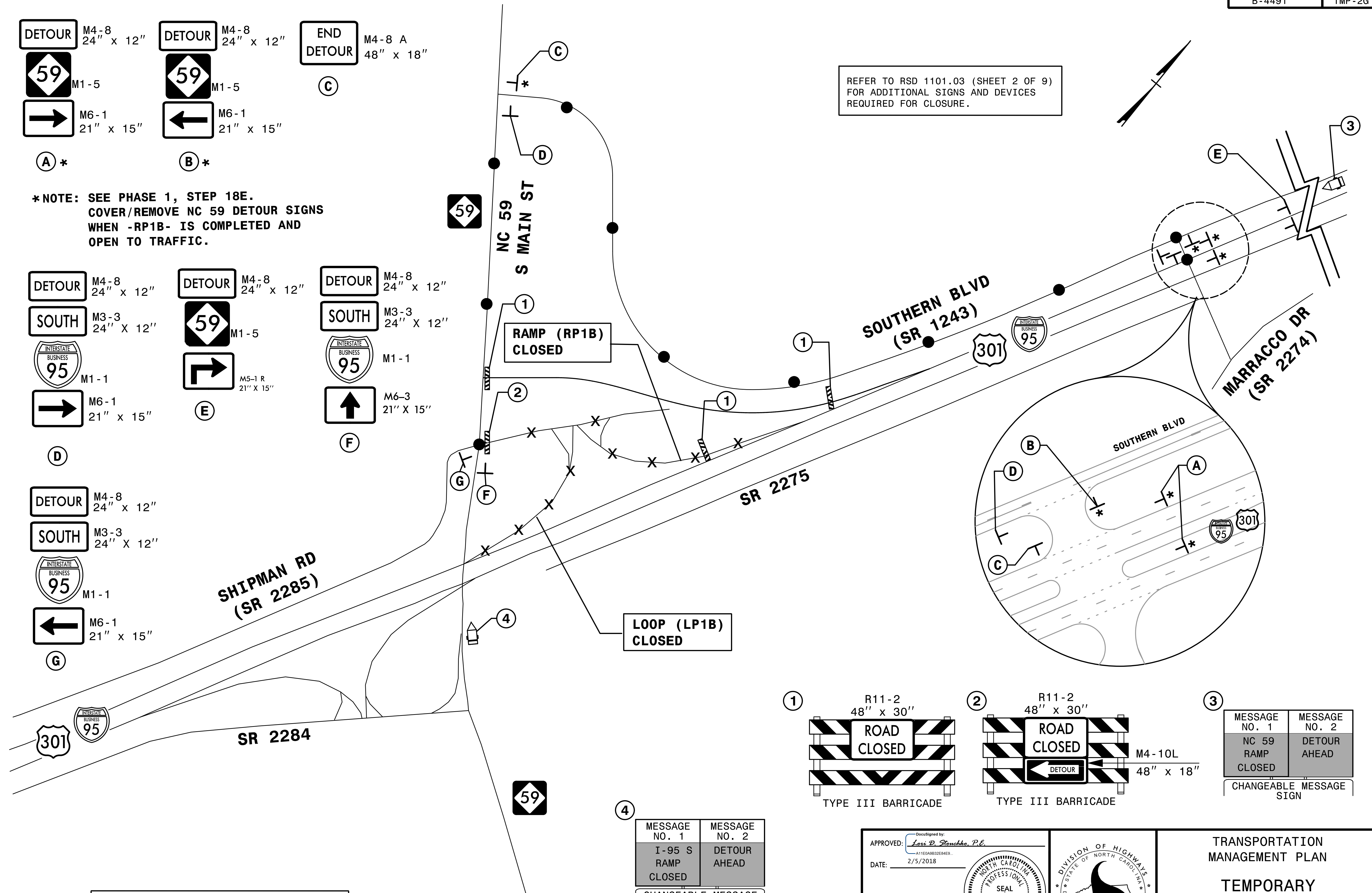
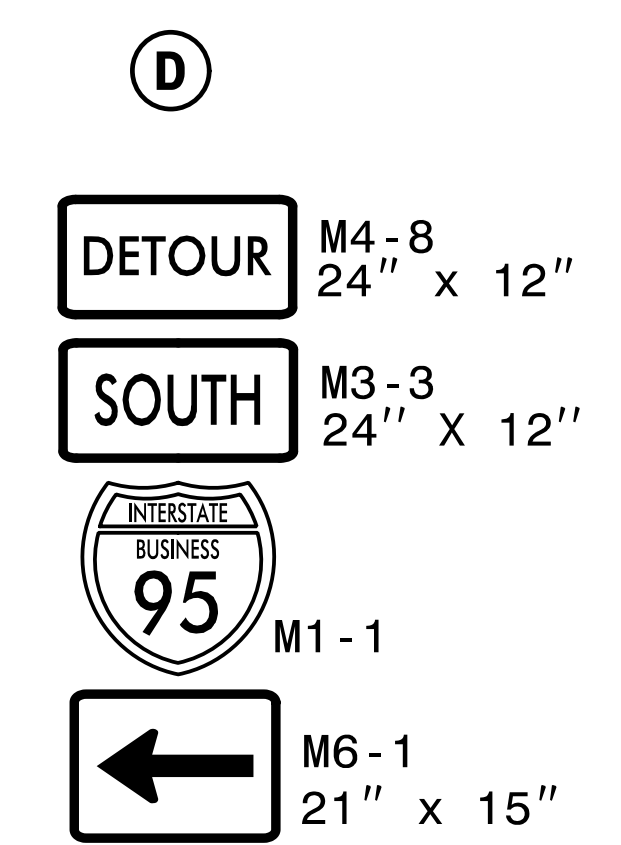
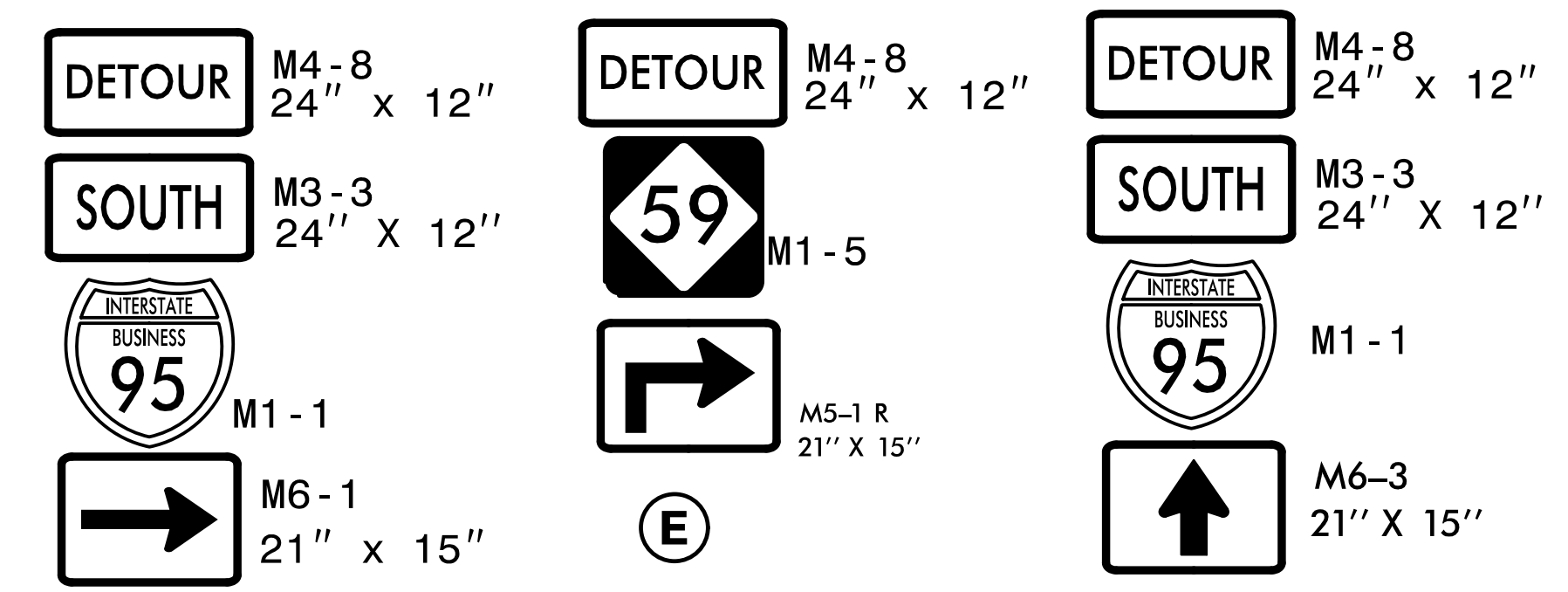
APPROVED: *Lori D. Bouckko, P.E.*
DATE: 2/5/2018
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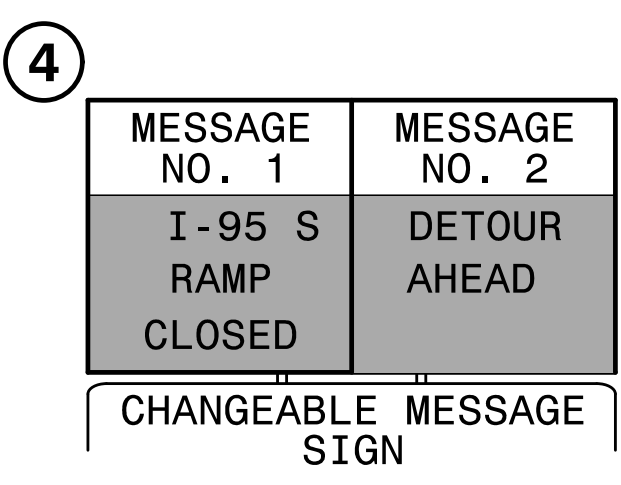
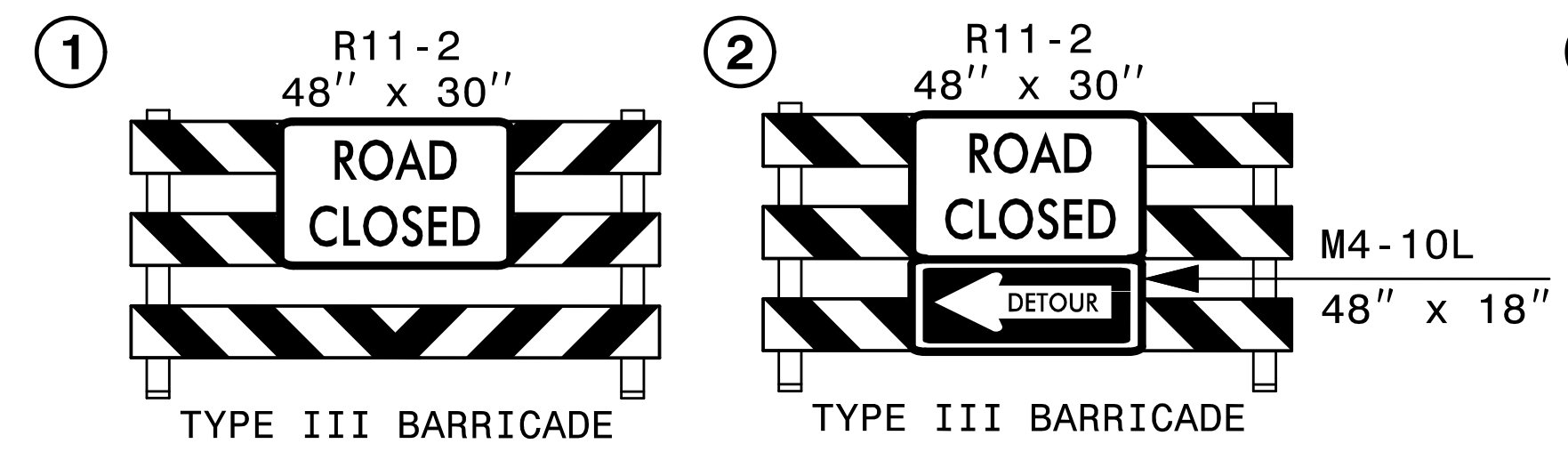
TRANSPORTATION MANAGEMENT PLAN
TEMPORARY TRAFFIC CONTROL
DETOURS 4, 5 & 6
(-Y3- AT -L- / -Y3A-)



***NOTE: SEE PHASE 1, STEP 18E.
COVER/REMOVE NC 59 DETOUR SIGNS
WHEN -RP1B- IS COMPLETED AND
OPEN TO TRAFFIC.**



REFER TO RSD 1101.03 (SHEET 2 OF 9)
FOR ADDITIONAL SIGNS AND DEVICES
REQUIRED FOR CLOSURE.



NOTES:
1) PLACE CMS BOARDS AS PER THE ENGINEER

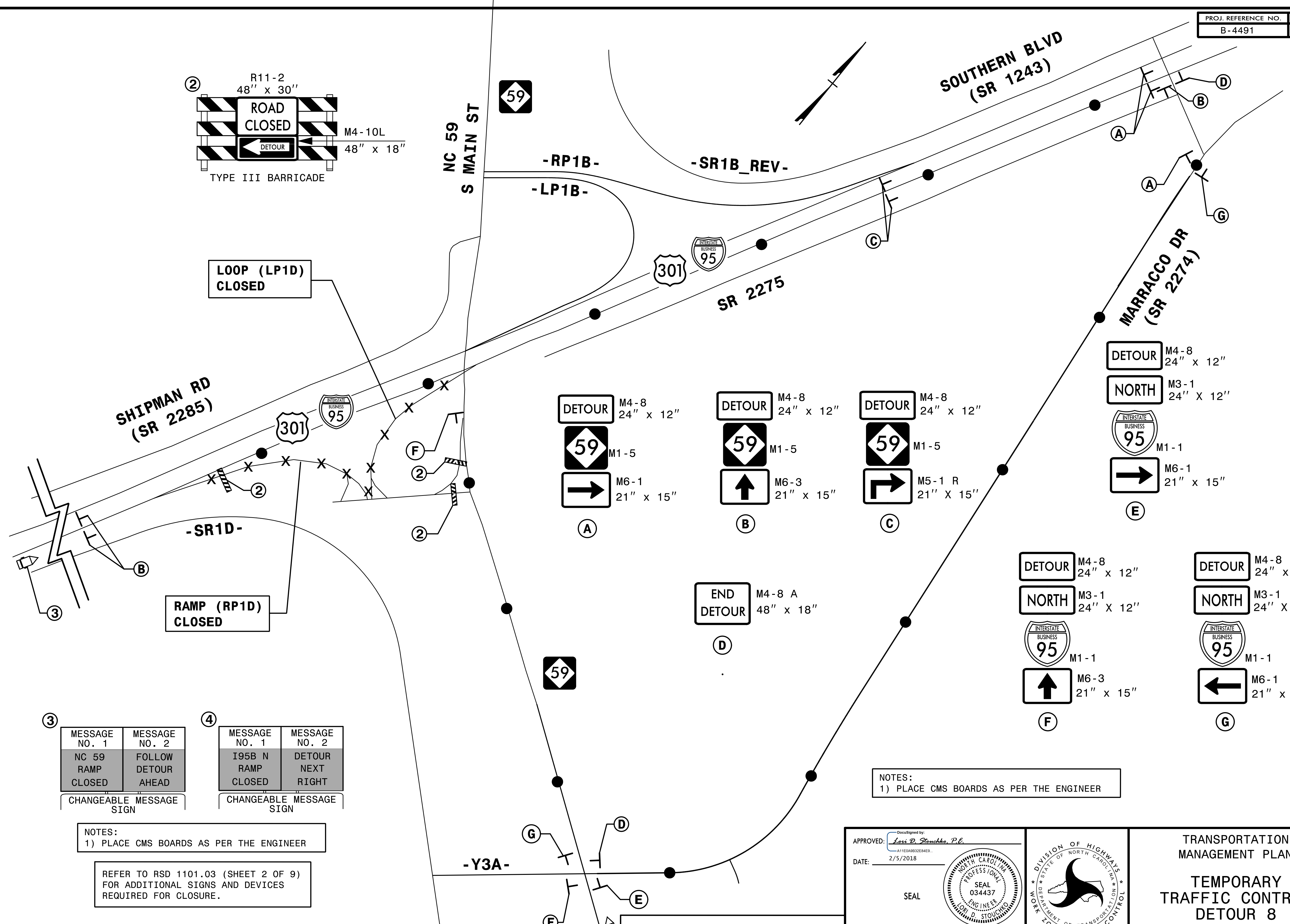
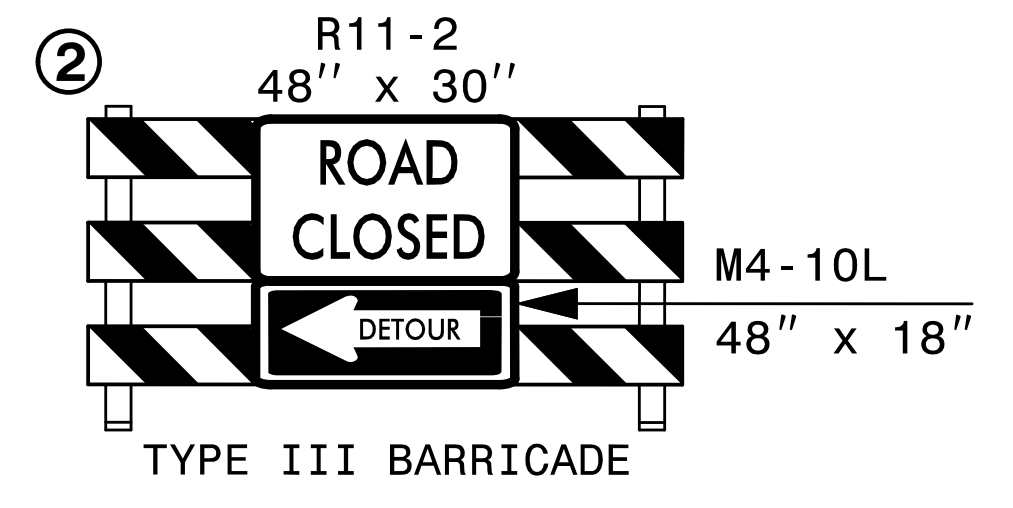
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DATE: 2/5/2018
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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN
**TEMPORARY
TRAFFIC CONTROL
DETOUR 7
(RP1B AND LP1B)**

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2/1/2018
B-4491-TC-02G detour 7.RP1B-LPIB.dgn
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③

MESSAGE NO. 1	MESSAGE NO. 2
NC 59 RAMP CLOSED	FOLLOW DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

④

MESSAGE NO. 1	MESSAGE NO. 2
I95B N RAMP CLOSED	DETOUR NEXT RIGHT

CHANGEABLE MESSAGE SIGN

NOTES:
1) PLACE CMS BOARDS AS PER THE ENGINEER

REFER TO RSD 1101.03 (SHEET 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.

NOTES:
1) PLACE CMS BOARDS AS PER THE ENGINEER

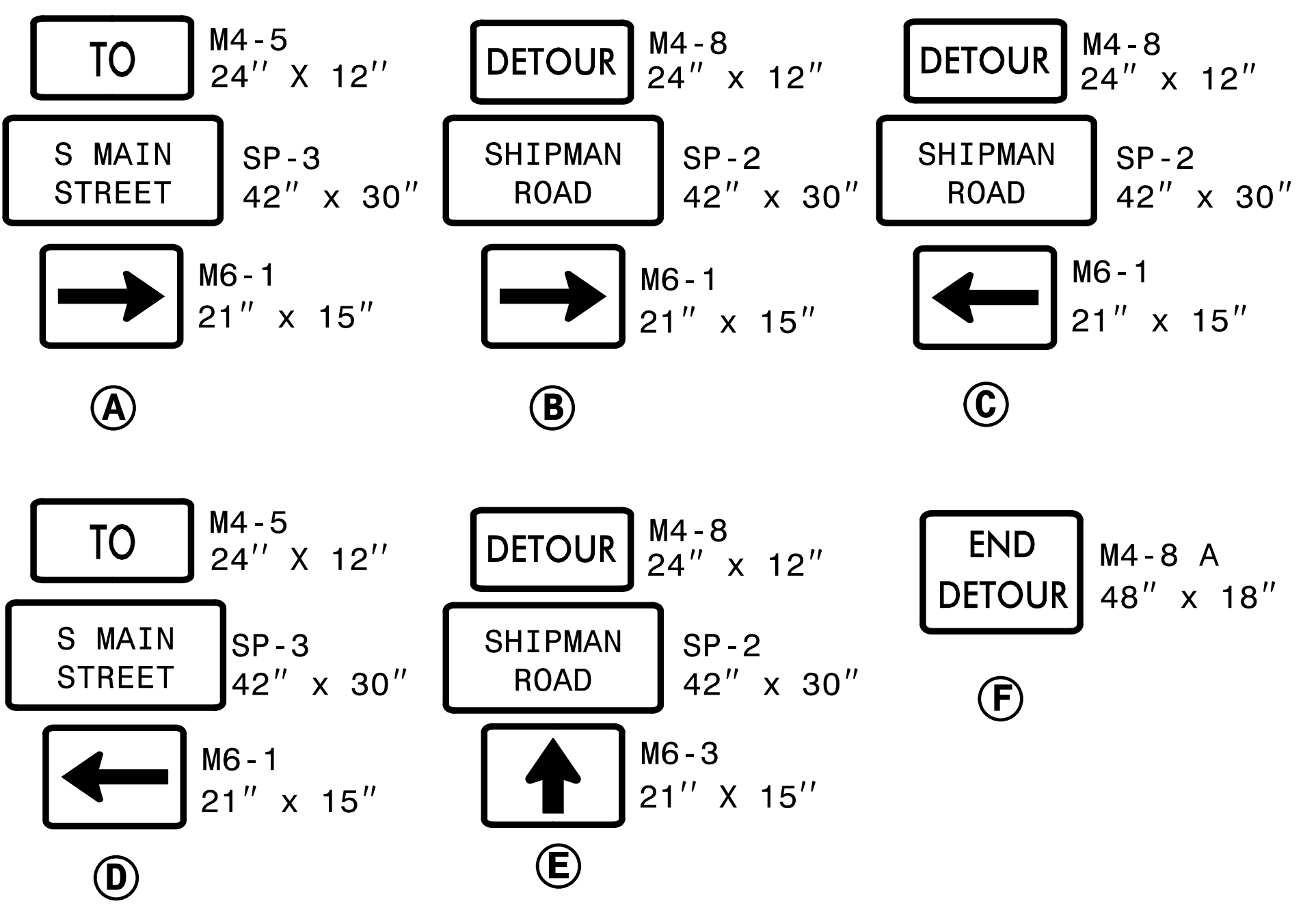
2/1/2018
B-4491-TC-02H detour 8.RPID-LPID.dgn
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NC License No: C-1554

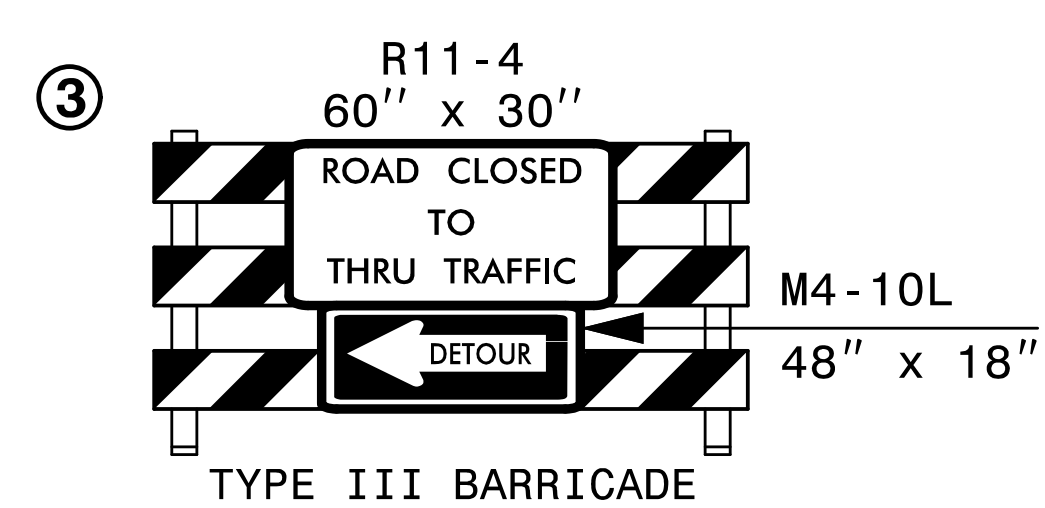
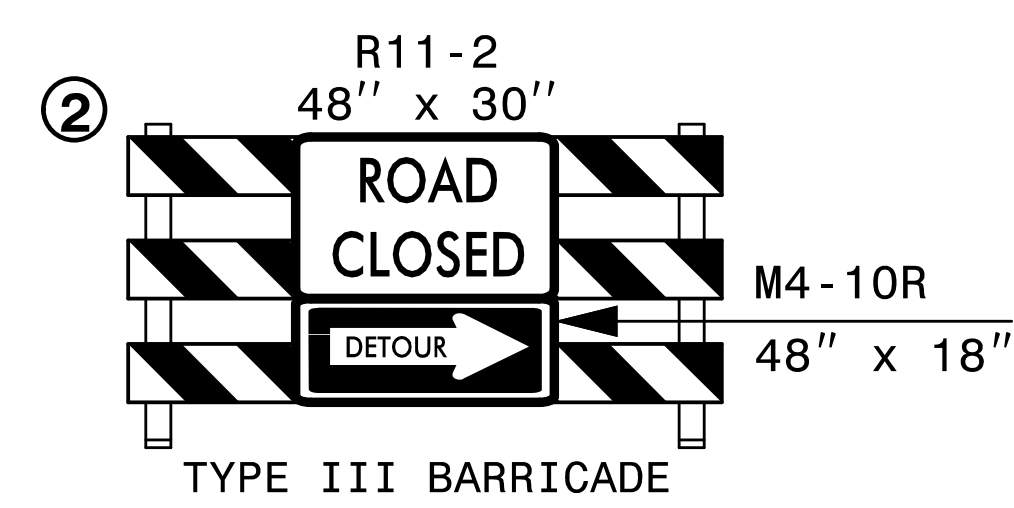
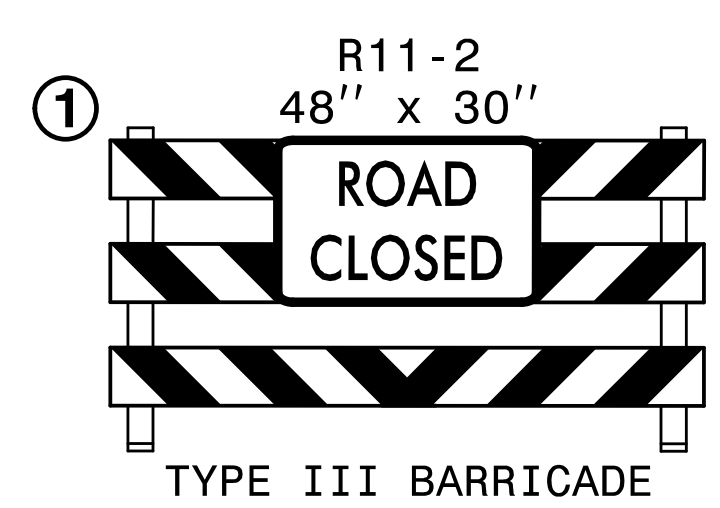
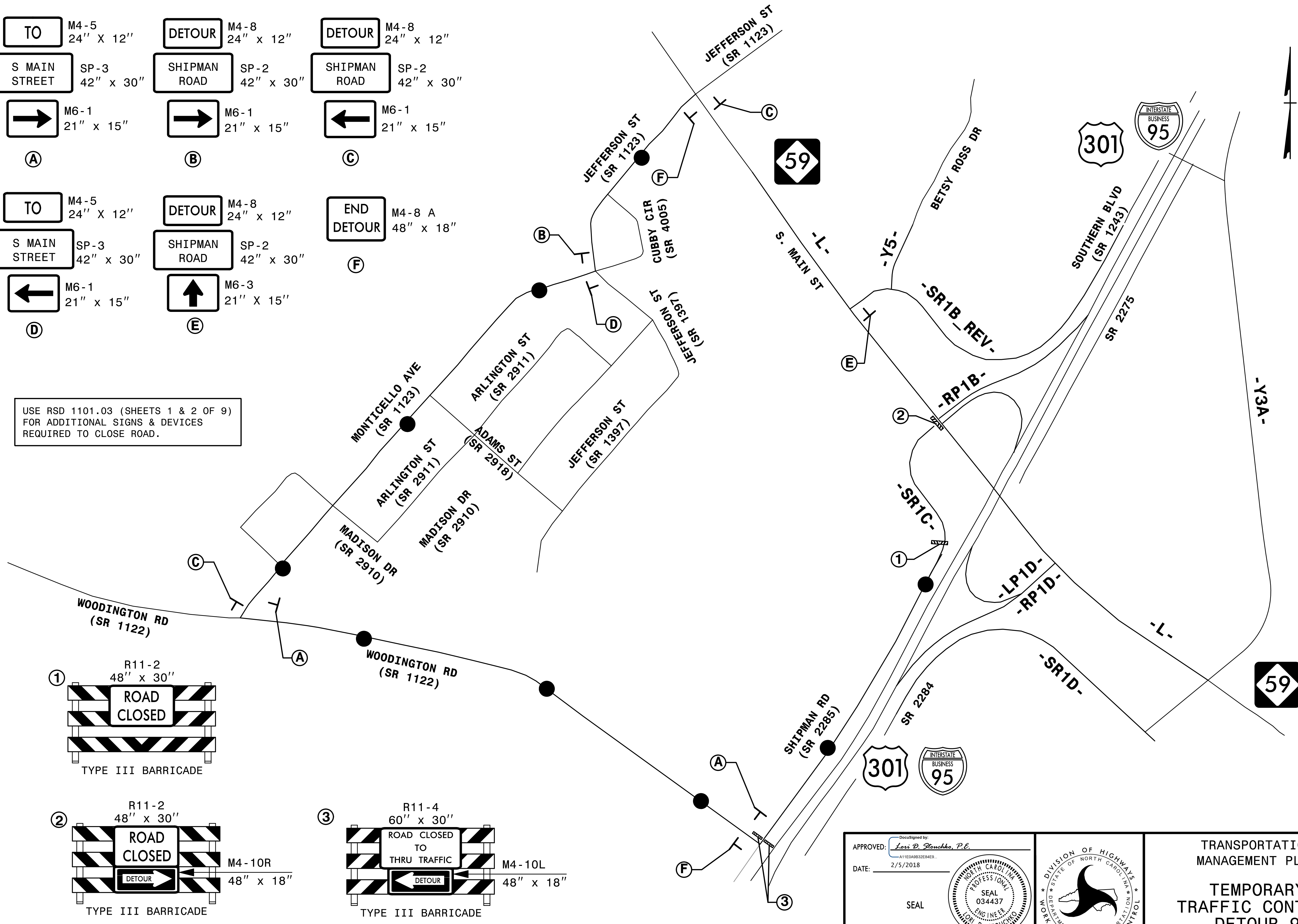
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN
TEMPORARY TRAFFIC CONTROL DETOUR 8 (RP1D AND LP1D)



USE RSD 1101.03 (SHEETS 1 & 2 OF 9) FOR ADDITIONAL SIGNS & DEVICES REQUIRED TO CLOSE ROAD.



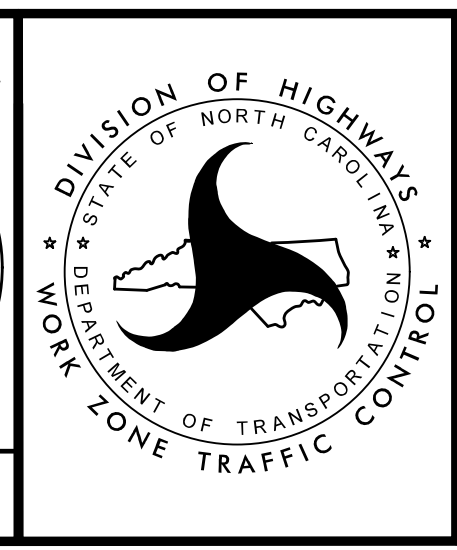
2/1/2018
21-B-4491-1c-021 detour 9_SRIC.dgn
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DATE: 2/5/2018

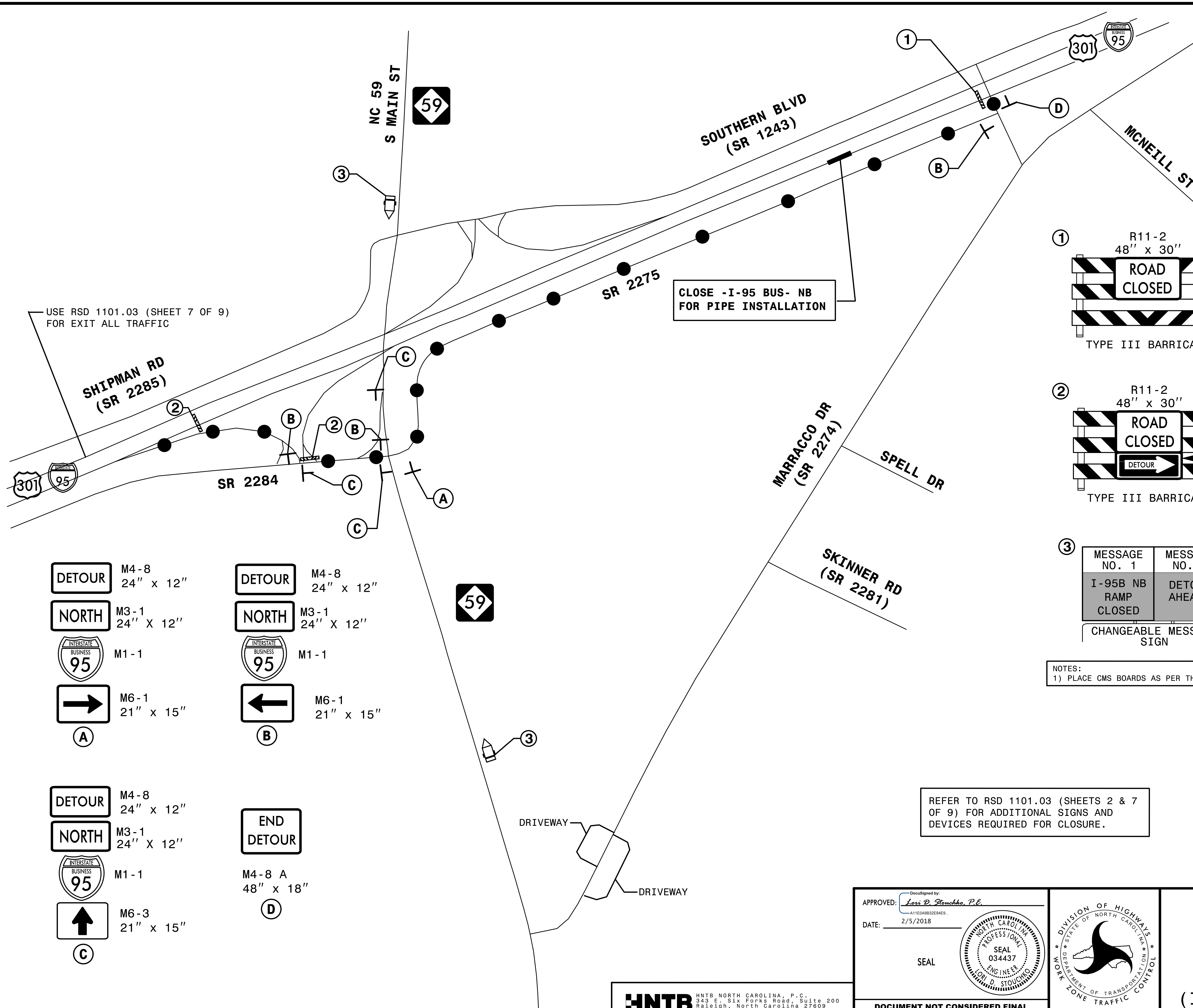
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TRANSPORTATION
MANAGEMENT PLAN

TEMPORARY
TRAFFIC CONTROL
DETOUR 9
(-SR1C-)



- | | | | |
|------------|-------------------|------------|---------------------|
| | M4-8
24" x 12" | | M4-8
24" x 12" |
| | M3-1
24" x 12" | | M3-1
24" x 12" |
| | M1-1 | | M1-1 |
| | M6-1
21" x 15" | | M6-1
21" x 15" |
| (A) | | (B) | |
| | M4-8
24" x 12" | | M4-8 A
48" x 18" |
| | M3-1
24" x 12" | (D) | |
| | M1-1 | | |
| | M6-3
21" x 15" | | |
| (C) | | | |

- 1** R11-2
48" x 30"

TYPE III BARRICADE
- 2** R11-2
48" x 30"

TYPE III BARRICADE
- 3**

MESSAGE NO. 1	MESSAGE NO. 2
I-95B NB RAMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

NOTES:
1) PLACE CMS BOARDS AS PER THE ENGINEER

REFER TO RSD 1101.03 (SHEETS 2 & 7 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.

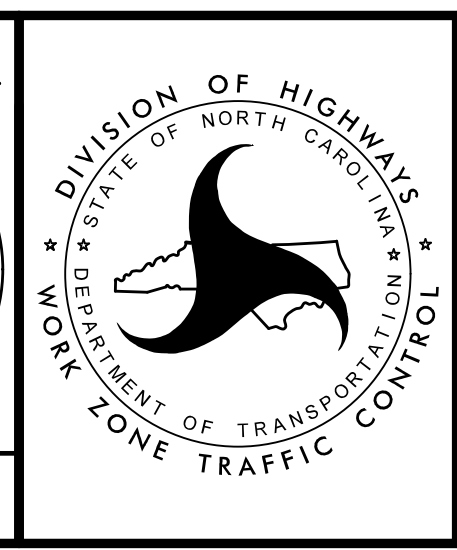
2/1/2018
B-4491-02J detour 195BNORTH.dgn
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DATE: 2/5/2018

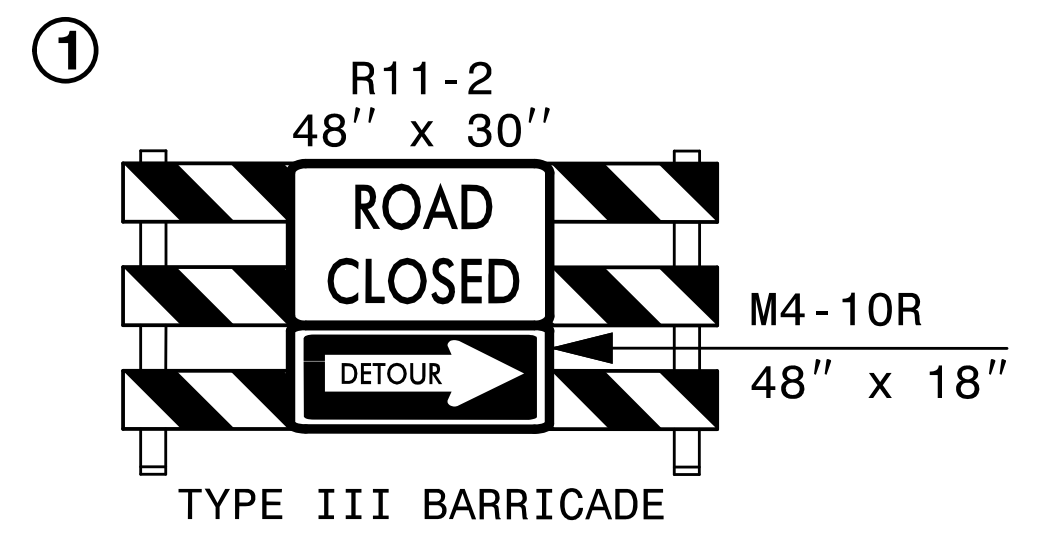
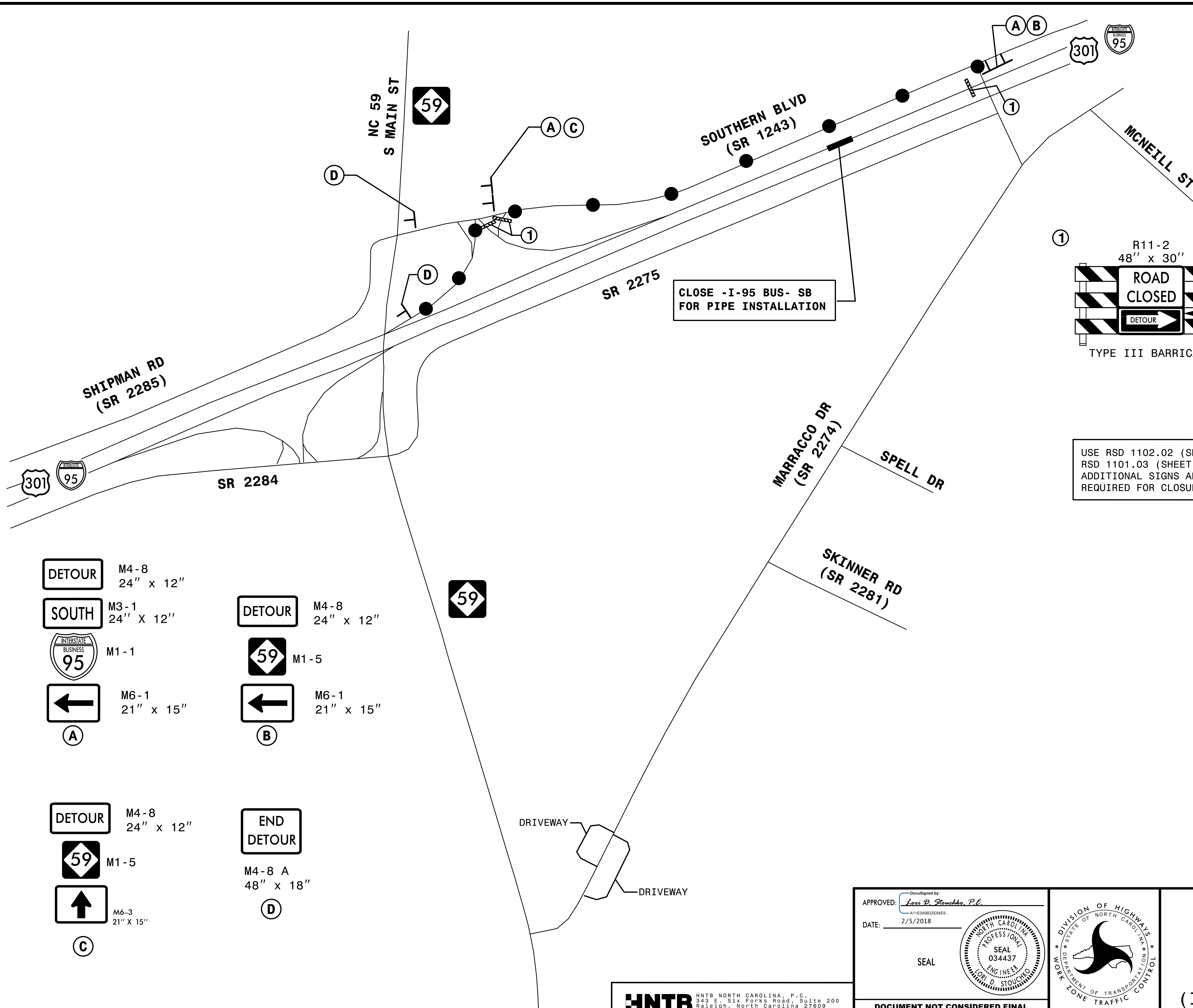
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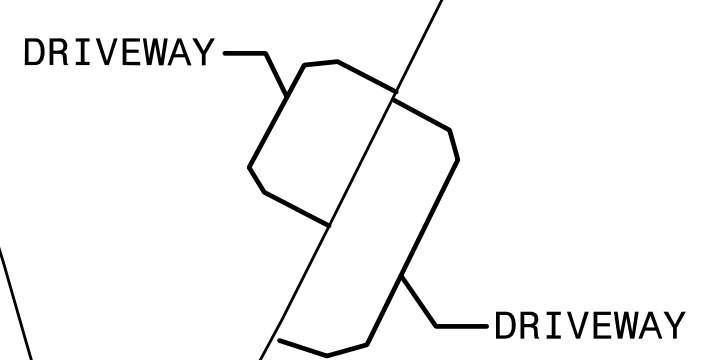
TRANSPORTATION MANAGEMENT PLAN

TEMPORARY TRAFFIC CONTROL DETOUR 10 (I-95B NORTHBOUND)



USE RSD 1102.02 (SHEET 4 OF 15) & RSD 1101.03 (SHEET 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES REQUIRED FOR CLOSURE.

- DETOUR M4-8 24" x 12"
- SOUTH M3-1 24" x 12"
- INTERSTATE BUSINESS 95 M1-1
- ← M6-1 21" x 15"
- (A)
- DETOUR M4-8 24" x 12"
- 59 M1-5
- ← M6-1 21" x 15"
- (B)
- DETOUR M4-8 24" x 12"
- 59 M1-5
- ↑ M6-3 21" x 15"
- (C)
- END DETOUR M4-8 A 48" x 18"
- (D)



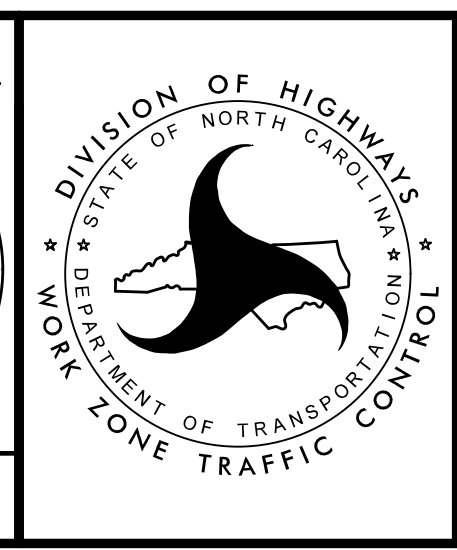
2/1/2018
\\B-4491.LC.02K detour 195BSOUTH.dgn
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Raleigh, North Carolina 27609
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DATE: 2/5/2018

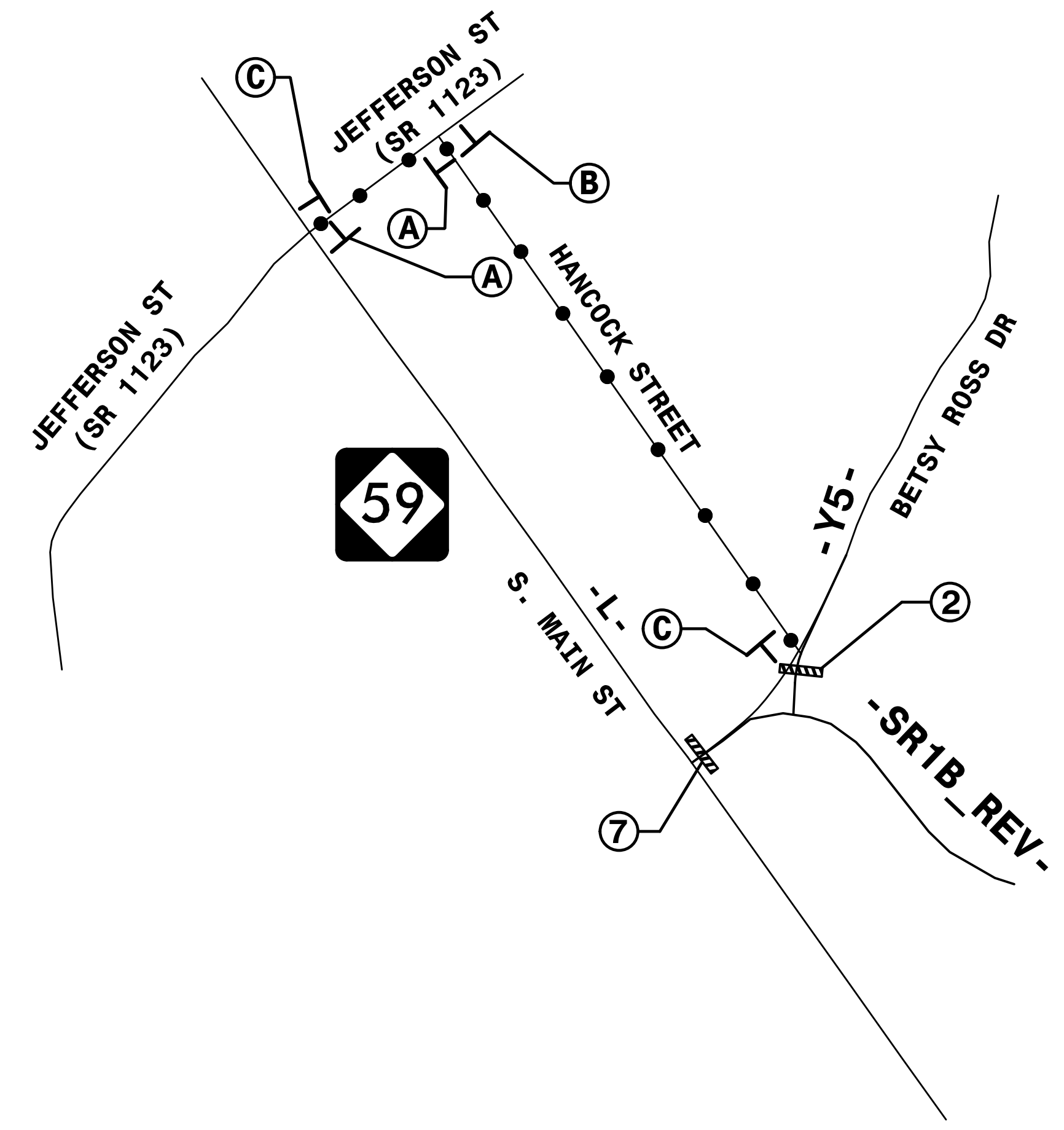
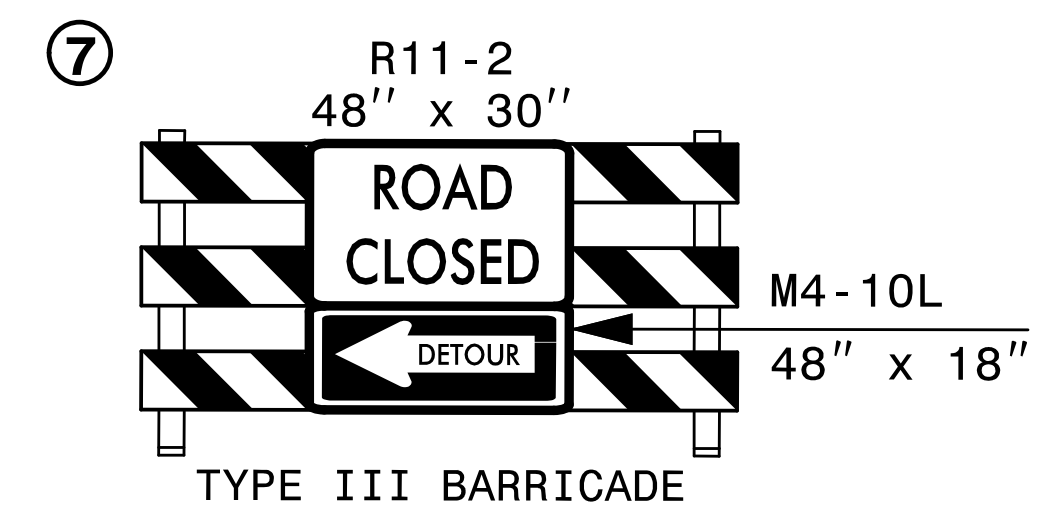
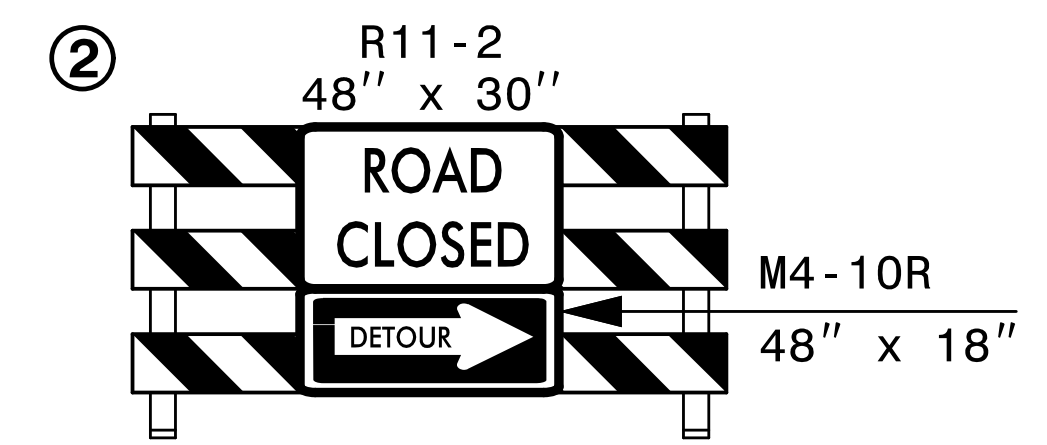
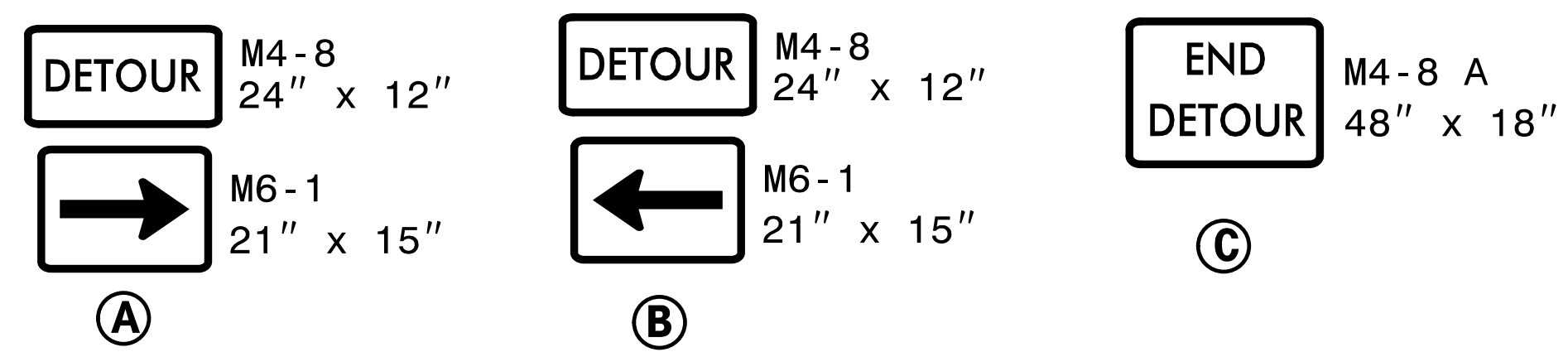
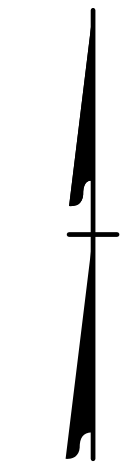
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TRANSPORTATION
MANAGEMENT PLAN

TEMPORARY
TRAFFIC CONTROL
DETOUR 11
(I-95B SOUTHBOUND)



REFER TO RSD 1101.03 (SHEET 2 OF 9)
FOR ADDITIONAL SIGNS AND DEVICES
REQUIRED FOR CLOSURE.

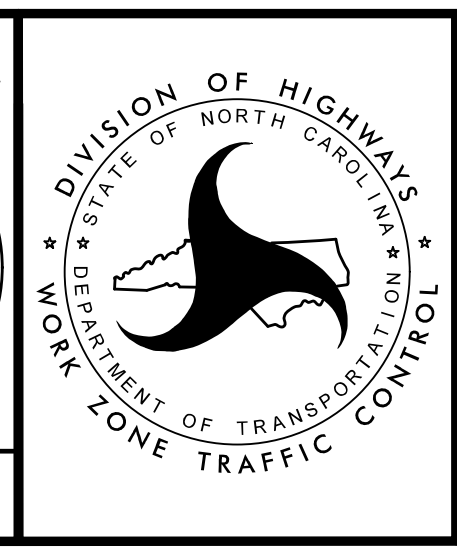
2/1/2018
21-B-4491-TC-02L detour 12.Y5.dgn
HNTB



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DATE: 2/5/2018

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TRANSPORTATION
MANAGEMENT PLAN

TEMPORARY
TRAFFIC CONTROL
DETOUR 12
(-Y5-)

PHASING

PROJ. REFERENCE NO. B-4491	SHEET NO. TMP-3
-------------------------------	--------------------

NOTES:

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.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE A COMBINATION OF INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, AND TEMPORARY DITCHES.

PAVE PROPOSED CONSTRUCTION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER IN THE PHASING.

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWING" AND PCB DENOTES "PORTABLE CONCRETE BARRIER".

PHASE I (SEE TMP-4 FOR OVERVIEW)

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L- (NC 59), -Y2- AND ALL ROADS THAT INTERSECT NC 59 WITHIN THE PROJECT LIMITS ACCORDING TO RSD 1101.01.

NOTE: REFER TO SHEETS TMP-5 THRU TMP-13 FOR STEP 2 DETAILS.

STEP 2: AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF -SR1B_REV- (STA 18+50+/- TO STA 30+50+/-), -SR1E-, -RP1B- (STA 18+50+/- TO -L-), -LP1B- (STA 15+20+/- TO -L-), -SR1C- (STA 11+50+/- TO STA 18+00+/-), -LP1D- (STA 16+40+/- TO -18+32+/-), -RP1D- (STA 19+00+/- TO STA 21+95+/-), -SR1D- (STA 8+25+/- TO STA 23+00+/-), -Y3A- (STA 41+40+/- TO -L- & -L- TO -SR1D-), AND -Y3- (-Y3A- TO STA 11+00).

NOTE: REFER TO SHEETS TMP-7 & TMP-7A FOR STEP 3 DETAILS.

STEP 3: USING RSD 1101.02 (SHEETS 3 & 9 OF 14) AS NEEDED COMPLETE THE FOLLOWING:

3A: REMOVE THE EXISTING CONCRETE ISLAND ON THE RIGHT SIDE OF I-95 BUS SB (-Y2-) BETWEEN STA 30+71+/- AND STA 31+13+/- (BETWEEN -Y2- AND THE EXISTING ENTRANCE RAMP). REPAIR PAVEMENT TO PROVIDE A SMOOTH TRANSITION FROM THE EXISTING ENTRANCE RAMP TO I-95 BUS SB.

3B: CONSTRUCT TEMPORARY PAVEMENT ON THE LEFT SHOULDER OF EXISTING ENTRANCE RAMP TO I-95 BUS SB.

PLACE TEMPORARY PAVEMENT ON THE EXISTING OUTSIDE SHOULDER OF I-95 BUS SB (-Y2-) FOR THE PLACEMENT OF TEMPORARY PCB ON -Y2- FROM STA 31+29+/- TO STA 32+90+/-.

3C: PLACE TEMPORARY PAVEMENT MARKINGS ON EXISTING LOOP A IN THE NEW TEMPORARY PATTERN AND SHIFT TRAFFIC TO NEW TEMPORARY PATTERN.

3D: PLACE TEMPORARY PCB, BEGINNING ON THE RIGHT SHOULDER OF THE EXISTING ENTRANCE RAMP TO I-95 BUS SB (-Y2- STA 28+90+/-) AND ENDING ON THE OUTSIDE SHOULDER OF -Y2- SB STA 32+90+/-.

3E: PLACE TEMPORARY PCB ON THE OUTSIDE SHOULDER OF EXISTING I-95 BUS NB (-Y2-) FROM -Y2- STA 31+15+/- ALONG THE EXISTING ENTRANCE RAMP (-Y2- STA 34+50+/-).

NOTE: REFER TO SHEETS TMP-11 & TMP-12 FOR STEP 4 DETAILS.

STEP 4: COMPLETE THE FOLLOWING:

4A: USING NIGHT TIME ROAD CLOSURES, AND RSD 1101.03 (SHEETS 1 & 2 OF 9) COMPLETE THE FOLLOWING:
 * USING DETOUR 1 (TMP-2C) CLOSE -Y3A- TO TRAFFIC FROM -Y4- TO -Y3A- STA 15+50+/- AND CONSTRUCT THE 48" RCP ON -Y3A-.
 * USING DETOUR 2 (TMP-2D) CLOSE -Y3A- TO TRAFFIC AT THE 36" RCP NEAR STA 38+00 AND CONSTRUCT THE 36" RCP ON -Y3A-.
 * USING DETOUR 3 (TMP-2E) CLOSE -Y4- TO TRAFFIC FROM -Y2- (I-95 BUS) TO MARRACCO DR (-Y3A-) AND CONSTRUCT THE 42" RCP ON -Y4- AT STA 10+50+/- THE 42" LATERAL PIPE RT OF -Y4-, AND THE 42" PIPE CROSSING -Y4- AT STA 12+50+/- PROVIDE TEMPORARY CONNECTION TO EXISTING 18" AT STRUCTURE 0813.

4B: USING SHOULDER CLOSURES AS NEEDED, INSTALL DRAINAGE SYSTEM FROM 0813 TO 0811.

PHASE I (CONTINUED) (SEE TMP-4 FOR OVERVIEW)

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 4C IN ONE WEEKEND FROM 9:00 PM FRIDAY TO 6:00 AM THE FOLLOWING MONDAY. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

4C: USING RSD 1101.03 (SHEET 7 OF 9) & DETOUR 10 (TMP-2J), CLOSE I-95 BUS NORTH AND INSTALL 36" PIPE ACROSS I-95 BUS NORTH (-Y2-).

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 4D IN ONE WEEKEND FROM 9:00 PM FRIDAY TO 6:00 AM THE FOLLOWING MONDAY. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

4D: USING RSD 1101.03 (SHEET 2 OF 9) & DETOUR 11 (TMP-2K), CLOSE I-95 BUS SOUTH AND INSTALL 36" PIPE ACROSS I-95 BUS SOUTH (-Y2-).

NOTE: REFER TO SHEETS TMP-5, TMP-7 & TMP-11 FOR STEP 5 DETAILS.

STEP 5: COMPLETE THE FOLLOWING:

5A: USING TYPE III BARRICADES, CLOSE SR 2275 AT PROPOSED TURNAROUND AND AT NC 59 (-L-).

USING RSD 1101.02 (SHEET 1 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NECESSARY, COMPLETE SIGNAL UPGRADE AND ACTIVATE TEMPORARY SIGNAL 06-0955T1 AT THE INTERSECTION OF EXISTING SR 2284 AND -L-.

5B: CONSTRUCT TURNAROUND AND REMOVE ABANDONED PAVEMENT ON SR 2275 USING FLAGGERS AS NECESSARY TO MAINTAIN DRIVEWAY ACCESS.

USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, WIDEN AND WEDGE -Y4-.

COMPLETE CONSTRUCTION OF -SR1E- AND OPEN TO TRAFFIC.

NOTE: REFER TO SHEETS TMP-5 & TMP-6 FOR STEP 6 DETAILS.

STEP 6: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, CONSTRUCT -L- FROM STA 30+75+/- TO STA 45+00+/- CONSTRUCT TEMPORARY WEDGING ON EXISTING NC 59 AS NECESSARY TO PROVIDE A SMOOTH TRANSITION FROM -L- STA 45+00+/- TO THE EXISTING PAVEMENT.

NOTE: REFER TO SHEET TMP-6 FOR STEP 7 DETAILS.

STEP 7: COMPLETE THE FOLLOWING:

7A: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON EXISTING SR 1243 AND SHIFT TRAFFIC TO NEW TEMPORARY PATTERN.

7B: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, CONSTRUCT TEMPORARY PAVEMENT ON THE LEFT SIDE OF EXISTING NC 59 (-L-) FROM STA 45+00+/- TO SR 1243 AND ON SR 1243 AS SHOWN. PLACE TEMPORARY PCB ON THE LEFT SIDE OF EXISTING NC 59 (-L-) FROM STA 44+67+/- TO STA 51+70+/- AS SHOWN.

NOTE: REFER TO SHEETS TMP-6 THRU TMP-9 FOR STEP 8 DETAILS.

STEP 8: BEHIND BARRIER, AND USING TEMPORARY SHORING #1 AS NEEDED, BEGIN CONSTRUCTION OF THE LEFT SIDE OF -L- FROM STA 45+00+/- TO STA 51+00+/-.

BEHIND EXISTING GUARDRAIL ON NC 59 BEGIN CONSTRUCTION OF THE LEFT SIDE OF -L- FROM STA 53+50+/- TO THE APPROACH SLAB AT STA 54+67+/- USE TEMPORARY SHORING #2 AS NEEDED.

BEHIND BARRIER AND EXISTING GUARDRAIL, BEGIN CONSTRUCTION OF END BENTS.

BEHIND EXISTING GUARDRAIL ON NC 59 BEGIN CONSTRUCTION OF -L- FROM THE APPROACH SLAB AT STA 57+05+/- TO STA 60+00+/-.

USING RSD 1101.02 (SHEETS 1 & 2 OF 14) AND FLAGGERS AS NEEDED, BEGIN CONSTRUCTION OF THE LEFT SIDE OF -L- FROM STA 60+00+/- TO STA 64+68+/-.

USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, BEGIN WIDENING AND WEDGING OF LEFT SIDE OF -L- FROM STA 64+68+/- TO STA 68+50+/- PROVIDE TEMPORARY WEDGING ON EXISTING NC 59 FROM 64+68+/- TO STA 68+50+/- UP TO EDGE OF PROPOSED WEDGING OF LEFT SIDE OF -L- (EOP OF MEDIAN C&G) TO MAINTAIN EXISTING TRAFFIC. PROVIDE TEMPORARY WEDGING FROM EXISTING NC 59 TO STA 68+50+/- AS NEEDED TO MAINTAIN EXISTING TRAFFIC.

PHASE I (CONTINUED) (SEE TMP-4 FOR OVERVIEW)

NOTE: REFER TO SHEETS TMP-7, TMP-12 & TMP-13 FOR STEP 9 DETAILS.

STEP 9: WORKING IN A CONTINUOUS MANNER COMPLETE STEPS 9A THRU 9F.

9A: USING RSD 1101.02 (SHEET 3 OF 14) CLOSE THE INSIDE LANES ON -Y2- TO TRAFFIC AND BEGIN CONSTRUCTION OF PROPOSED INSIDE SHOULDERS OF -Y2- SB FROM STA 15+54+/- TO STA 35+35+/- AND -Y2- NB FROM STA 21+50+/- TO 35+35+/-.

9B: PLACE CRASH CUSHIONS AND TEMPORARY PCB WITH 2' MIN OFFSET FROM THE OPEN TRAVEL LANES ON -Y2- SB FROM STA 27+10+/- TO STA 33+50+/- AND ON -Y2- NB FROM STA 30+00+/- TO STA 36+36+/-.

9C: BEHIND BARRIER AND USING TEMPORARY SHORING #3 AND #4 AS NEEDED, CONSTRUCT THE CENTER BENT OF THE PROPOSED STRUCTURE. UPON COMPLETION OF FOOTING, REMOVE SHORING AND RESET THE TEMPORARY PORTABLE CONCRETE BARRIER ON THE SHOULDERS OF SB AND NB -Y2- WITH A 2' OFFSET FROM TRAVEL LANE AND REOPEN THE INSIDE LANES.

9D: BEHIND TEMPORARY PCB, CONSTRUCT THE PROPOSED BARRIER, AND THE GUARDRAIL AT THE APPROACHES OF THE PROPOSED BARRIER ON -Y2-.

BEGIN CONSTRUCTION OF BRIDGE AND APPROACH SLABS.

9E: REMOVE THE TEMPORARY PCB ON THE INSIDE SHOULDERS OF -Y2-.

9F: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, COMPLETE CONSTRUCTION OF THE PROPOSED INSIDE SHOULDERS OF -Y2- FROM STA 15+54+/- TO STA 35+35+/- NOTE: ONCE THE PCB HAS BEEN RESET TO THE SHOULDER, REMOVE ONLY AS MUCH EXISTING SHOULDER AS CAN BE REPLACED DURING ONE WORK DAY.

NOTE: STEPS 10 AND 11 MAY BE COMPLETED CONCURRENTLY.

NOTE: REFER TO SHEETS TMP-5, TMP-6, TMP-12, & TMP-16 FOR STEP 10 DETAILS.

STEP 10:

10A: USING A ROAD CLOSURE, RSD 1101.03 (SHEETS 1 & 2 OF 9), & DETOUR 12 (TMP-2L), WIDEN AND WEDGE -Y5- FROM STA 13+25+/- TO -SR1B_REV- AND -SR1B_REV- FROM 30+50 TO -L-. UPON COMPLETION OF -Y5- AND -SR1B_REV-, PLACE TEMPORARY PAVEMENT MARKINGS ON -Y5- AND -SR1B_REV- FROM -Y5- TO -L- AND OPEN TO TRAFFIC.

10B: COMPLETE -SR1B_REV- FROM STA 18+50+/- TO STA 30+50+/-

USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, WIDEN AND WEDGE -SR1B_REV- FROM STA 10+15+/- TO STA 18+50+/-.

10C: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN ON -SR1B_REV- AND SHIFT TRAFFIC TO NEW TEMPORARY PATTERN ON -SR1B_REV- USING DRUMS AND TYPE III BARRICADES.

10D: AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF THE FOLLOWING:
 * -RP1B- FROM STA 13+07+/- TO STA 18+50+/-
 * -LP1B- FROM STA 13+32+/- TO STA 15+20+/-

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TRANSPORTATION
 MANAGEMENT PLAN
PHASING

PHASING

PHASE I (CONTINUED)

(SEE TMP-4 FOR OVERVIEW)

NOTE: REFER TO SHEETS TMP-8, TMP-10, TMP-11, TMP-13, TMP-15 & TMP-17 FOR STEP 11 DETAILS.

STEP 11: COMPLETE THE FOLLOWING:

- 11A: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, REMOVE EXISTING MONOLITHIC ISLAND ON EXISTING SR 2284 AS SHOWN AND REPAIR EXISTING PAVEMENT, CONSTRUCT TEMPORARY PAVEMENT ON EXISTING SR 2284 (-SR1D-), PLACE TEMPORARY PAVEMENT MARKINGS AND SHIFT TRAFFIC TO NEW TEMPORARY ALIGNMENT ON SR 2284. (TMP-13)
- 11B: AWAY FROM TRAFFIC, COMPLETE CONSTRUCTION AND PLACE TEMPORARY PAVEMENT MARKINGS ON THE FOLLOWING:
 - * -Y3- FROM -Y3A- TO STA 11+00+/-.
 - * -Y3A- FROM STA 41+40+/- TO -L- AND FROM -L- TO -SR1D-.
 - * -SR1D- FROM STA 8+25+/- TO STA 23+00+/-.
- 11C: USING RSD 1101.02 (SHEETS 1 & 2 OF 14) AND FLAGGERS AS NEEDED, COMPLETE CONSTRUCTION OF THE FOLLOWING:
 - * WIDEN AND WEDGE -Y3A- STA 41+40+/- TO -Y3A- STA 37+55+/-.
 - * WIDEN AND WEDGE -L- FROM STA 64+68+/- TO STA 75+00+/-.
 - * WIDEN AND WEDGE -SR1D- FROM STA 23+00+/- TO STA 29+50+/-.
 - * INSTALL TEMPORARY SIGNAL 06-1356T1 AT THE INTERSECTION OF -Y3A- AND -L-.
- 11D: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON -Y3A-, -L-, AND -SR1D-, ACTIVATE TEMPORARY SIGNAL 06-1356T1 AT THE INTERSECTION OF -Y3A- AND -L-, AND USE DRUMS AND BARRICADES TO SHIFT TRAFFIC TO NEW TEMPORARY PATTERN ON -Y3A- AND -SR1D-.
- 11E: AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF -RP1D- FROM STA 13+06+/- TO STA 19+00+/-.

NOTE: REFER TO SHEET TMP-15 FOR STEP 12 DETAILS.

STEP 12: COMPLETE THE FOLLOWING:

- 12A: USING RSD 1101.03 (SHEETS 1 & 2 OF 9) AND DETOUR 4 (TMP-2F), CLOSE EXISTING MARRACCO DR (SR 2274 FROM -Y3A- TO -Y3- STA 12+40+/-).
- 12B: WORKING IN A CONTINUOUS MANNER, CONSTRUCT -Y3- FROM STA 11+00+/- TO STA 12+40+/-, PLACE TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN, AND OPEN -Y3- TO TRAFFIC.

NOTE: REFER TO SHEETS TMP-14, TMP-16 & TMP-17 FOR STEP 13 DETAILS.

STEP 13: USING RSD 1101.02 (SHEET 3, 9 & 10 OF 14), CONSTRUCT THE FOLLOWING:

- NOTE: REMOVE ONLY AS MUCH EXISTING SHOULDER AS CAN BE REPLACED DURING ONE WORK DAY.
- * -RP1B- FROM -Y2- SB TO STA 13+07+/- AND THE OUTSIDE WIDENING OF -Y2- SB FROM STA 15+54+/- TO STA 21+20+/-.
 - * -LP1B- FROM -Y2- SB TO STA 12+50+/- AND THE OUTSIDE WIDENING OF -Y2- SB FROM STA 27+00+/- TO STA 29+75+/-.
 - * -LP1D- FROM -Y2- NB TO STA 13+00+/- AND THE OUTSIDE WIDENING OF -Y2- NB FROM STA 35+25+/- TO STA 39+82+/-.
 - * -RP1D- FROM -Y2- NB TO STA 13+06+/- AND THE OUTSIDE WIDENING OF -Y2- NB FROM STA 43+00+/- TO STA 48+50+/-.

NOTE: REFER TO SHEETS TMP-9 & TMP-15 FOR STEPS 14, 15 & 16 DETAILS.

STEP 14: WORKING IN A CONTINUOUS MANNER AND USING RSD 1101.03 (SHEETS 1 & 2 OF 9), AND DETOUR 6 (TMP-2F), CLOSE EXISTING MARRACCO DR (SR 2274) AND INSTALL THE DOUBLE 48" PIPES ACROSS -Y3- AND USING FLAGGERS CONSTRUCT -Y3- FROM STA 12+40+/- TO STA 15+70+/-.

STEP 15: USING NIGHT TIME ROAD CLOSURES, RSD 1101.03 (SHEETS 1 AND 2 OF 9) AND DETOUR 5 (TMP-2F), CONSTRUCT 54" RCP ON -L-.

STEP 16: WORKING IN A CONTINUOUS MANNER AND USING RSD 1101.03 (SHEETS 1 & 2 OF 9), AND DETOUR 6 (TMP-2F), CLOSE EXISTING MARRACCO DR (SR 2274) AND CONSTRUCT -Y3- FROM STA 15+70+/- TO -L-. OPEN -Y3-.

PHASE I (CONTINUED)

(SEE TMP-4 FOR OVERVIEW)

NOTE: REFER TO SHEETS TMP-6, TMP-7, TMP-8, TMP-9, TMP-14, TMP-16 & TMP-17 FOR STEP 17 DETAILS.

STEP 17: COMPLETE THE FOLLOWING:

- * LEFT SIDE OF -L- FROM STA 45+00+/- TO STA 51+00+/-.
- * LEFT SIDE OF -L- FROM STA 53+50+/- TO STA 54+67+/-.
- * -L- FROM STA 54+67+/- TO STA 60+00+/- INCLUDING STRUCTURE.
- * LEFT SIDE OF -L- FROM STA 60+00+/- TO STA 68+50+/-.

USING RSD 1101.02 (SHEETS 1 AND 2 OF 14) AND FLAGGERS AS NECESSARY.

- * -RP1B- FROM STA 13+07+/- TO -L- AND PLACE TEMPORARY PAVEMENT MARKINGS IN PHASE II PATTERN.
- * -LP1B- FROM STA 13+32+/- TO -L-.
- * -LP1D- FROM STA 16+40+/- TO STA 18+32+/-.
- * -RP1D- FROM STA 13+06+/- TO STA 21+95+/-.

USING RSD 1101.02 (SHEETS 1 & 2 OF 14) AND FLAGGERS AS NECESSARY, WIDEN AND WEDGE -L- FROM STA 75+00+/- TO STA 88+10+/-.

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 18 IN 14 DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

NOTE: REFER TO SHEET TMP-18 STEP 18 DETAILS.

STEP 18: COMPLETE THE FOLLOWING:

- 18A: USING RSD 1101.03 (SHEETS 1 & 2 OF 9), DETOUR 7 (TMP-2G) AND LAW ENFORCEMENT AS NEEDED, PLACE DETOUR SIGNS, CLOSE THE EXISTING I-95 BUS SB RAMPS TO TRAFFIC, DETOUR TRAFFIC, PERFORM UPGRADE AND ACTIVATE TEMPORARY SIGNAL 06-0946T1 AT SHIPMAN DR AND -L-.
- 18B: USING RSD 1101.02 (SHEETS 1, 2 & 3 OF 14) AND FLAGGERS AS NEEDED, RESET AND EXTEND TEMPORARY PCB ON THE LEFT SIDE OF NC 59 (-L-) FROM STA 51+10+/- TO STA 53+40+/-.
- 18C: CONSTRUCT THE LEFT SIDE OF -L- FROM STA 51+00+/- TO STA 53+50+/- USING TEMPORARY SHORING #5 AS NEEDED.
 - INSTALL TEMPORARY SIGNAL 06-0946T2 AT THE INTERSECTION OF -L- AND -RP1B-/-LP1B-.
- 18D: USING RSD 1101.03 (SHEETS 1 & 2 OF 9), DETOUR 8 (TMP-2H) AND DETOUR 9 (TMP-2I), CLOSE THE EXISTING I-95 BUS NB RAMPS AND SHIPMAN RD (-SR1C-) TO TRAFFIC.
- 18E: USING RSD 1101.02 (SHEETS 1, 2 & 3 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NEEDED, SHIFT TRAFFIC TO TEMPORARY PHASE II PATTERN ON -L- AND -RP1B- BY COMPLETING THE FOLLOWING:
 - * PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN IN PHASE II ON -L-, -RP1B- AND -Y2- FOR -RP1B-.
 - * PLACE TEMPORARY PCB ON -L- AS SHOWN IN PHASE II,
 - * ACTIVATE TEMPORARY SIGNAL 06-0946T2 AT THE INTERSECTION OF -L- AND -RP1B-.
 - * PERFORM UPGRADE TO TEMPORARY SIGNAL 06-1356T2 AND ACTIVATE AT THE INTERSECTION OF -Y3A- AND -L-.
- 18F: REMOVE/COVER DETOUR SIGNS FOR THE -RP1B- PORTION OF DETOUR 7. MAINTAIN CLOSURE OF EXISTING I-95 BUS SB EXIT RAMP WITH TYPE III BARRICADES. (SEE TMP-2G)

PHASE II

(SEE TMP-20 FOR OVERVIEW)

WORKING IN A CONTINUOUS MANNER, COMPLETE STEPS 1 THRU 4:

NOTE: REFER TO SHEETS TMP-23 & TMP-26 FOR STEP 1 DETAILS

STEP 1: COMPLETE THE FOLLOWING:

- 1A: CONSTRUCT -LP1B- FROM STA 12+50+/- TO STA 13+32+/- AWAY FROM TRAFFIC.
 - WIDEN OUTSIDE LANE OF -Y2- SB FROM STA 29+75+/- TO STA 33+00+/- USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED.
- 1B: USING RSD 1101.02 (SHEET 3 OF 14), PLACE TEMPORARY MARKINGS ON -LP1B- AND -Y2- FOR -LP1B- IN PHASE II PATTERN AND OPEN -LP1B- TO TRAFFIC.
- 1C: REMOVE/COVER DETOUR SIGNS FOR THE -LP1B- DETOUR.

NOTE: REFER TO SHEETS TMP-23 & TMP-24 FOR STEP 2 DETAILS

STEP 2: BEGIN REMOVAL OF EXISTING BRIDGE STRUCTURE USING RSD 1101.03 (SHEET 9 OF 9) FOR ROLLING ROAD BLOCK.

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF -L-(RT) FROM STA 60+00+/- TO STA 68+50+/-.

NOTE: REFER TO SHEET TMP-23 FOR STEP 3 DETAILS

STEP 3: COMPLETE THE FOLLOWING:

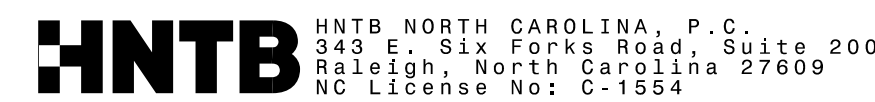
- 3A: CONSTRUCT -RP1D- FROM STA 21+95+/- TO -L- AND -L- FROM STA 61+00+/- TO STA 62+50+/- USING RSD 1101.02 (SHEET 1 OF 14).
 - USING RSD 1101.02 (SHEET 2 OF 14), FLAGGERS AS NEEDED, INSTALL TEMPORARY SIGNAL 06-0955T2 AT THE INTERSECTION OF -L- AND -RP1D-.
- 3B: USING RSD 1101.02 (SHEET 1 AND 3 OF 14), PLACE TEMPORARY PAVEMENT MARKINGS ON -RP1D- AND ON -Y2- FOR -RP1D-, ACTIVATE TEMPORARY SIGNAL 06-0955T2 AND OPEN -RP1D- TO TRAFFIC.
- 3C: REMOVE/COVER DETOUR SIGNS FOR THE -RP1D- DETOUR.

NOTE: REFER TO SHEETS TMP-23 & TMP-27 FOR STEP 4 DETAILS

STEP 4: COMPLETE THE FOLLOWING:

- 4A: CONSTRUCT -LP1D- FROM STA 13+00+/- TO STA 16+40+/- AWAY FROM TRAFFIC.
 - WIDEN OUTSIDE LANE OF -Y2- NB FROM STA 33+00+/- TO STA 35+00+/- USING RSD 1101.02 (SHEET 3 OF 14).
- 4B: PLACE TEMPORARY MARKING ON -LP1D- AND ON -Y2- FOR -LP1D- USING RSD 1101.02 (SHEET 3 OF 14).
- 4C: REMOVE DRUMS FROM LEFT TURN LANE ON -L-, REMOVE TYPE III BARRICADE FROM -LP1D-, ACTIVATE TEMPORARY SIGNAL 06-0955T3 AND OPEN -LP1D- TO TRAFFIC.
- 4D: REMOVE/COVER DETOUR SIGNS FOR THE -LP1D- DETOUR.

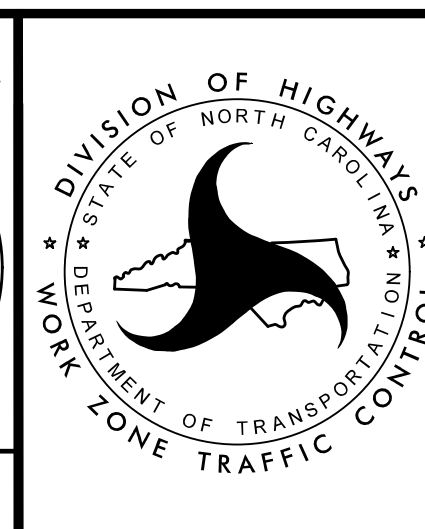
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TRANSPORTATION
MANAGEMENT PLAN

PHASING

PHASING

PHASE II (CONTINUED) (SEE TMP-20 FOR OVERVIEW)

NOTE: REFER TO SHEETS TMP-22, TMP-23 & TMP-27 FOR STEP 5 DETAILS

STEP 5: COMPLETE THE FOLLOWING:

- 5A: CONSTRUCTION OF -SR1C- FROM -L- TO STA 11+50+/- AND THE RIGHT SIDE OF -L- FROM STA 45+00+/- TO STA 54+67+/- . REMOVE SHORING #1, #2 AND #5.

AWAY FROM TRAFFIC, COMPLETE -SR1C- FROM STA 11+50+/- TO STA 18+00+/- .

WIDEN AND WEDGE -SR1C- FROM STA 18+00+/- TO STA 21+82+/- .

USING RSD 1101.02 (SHEETS 1, 2 & 3 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NEEDED, INSTALL TEMPORARY SIGNAL 06-0946T3 AT THE INTERSECTION OF -SR1C- AND -L- .
- 5B: PLACE TEMPORARY MARKINGS ON -SR1C- .
- 5C: REMOVE TEMPORARY PCB ON -L- FROM STA 42+36+/- TO STA 59+24+/- .
- 5D: ACTIVATE TEMPORARY SIGNAL 06-0946T3 AND OPEN -SR1C- TO TRAFFIC.
- 5E: REMOVE/COVER DETOUR SIGNS FOR THE SHIPMAN RD (SR 2285) DETOUR.

NOTE: REFER TO SHEETS TMP-22, TMP-23, TMP-24 TMP-26, & TMP-27 FOR STEP 1 DETAILS

STEP 6: USING RSD 1101.03 (SHEET 9 OF 9), COMPLETE REMOVAL OF EXISTING STRUCTURE.

AWAY FROM TRAFFIC, REMOVE ANY REMAINING ABANDONED PAVEMENT.

USING RSD 1101.02 (SHEET 3 OF 14), COMPLETE THE CONSTRUCTION OF -L- FROM STA 60+00+/- TO STA 61+00+/- AND FROM STA 62+50+/- TO STA 68+50+/- .

USING RSD 1101.02 (SHEETS 1, 2 & 3 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NEEDED, INSTALL AND COVER TEMPORARY SIGNAL 06-0955T4 AT THE INTERSECTION OF -L- AND -LP1D-/-RP1D- AND COVER HEADS.

USING RSD 1101.02 (SHEET 3, 9 AND 10 OF 14) CONSTRUCT THE FOLLOWING:
NOTE: REMOVE ONLY AS MUCH EXISTING SHOULDER AS CAN BE REPLACED DURING ONE WORK DAY.

- * OUTSIDE SHOULDER ON -Y2- SB FROM STA 33+00+/- TO STA 41+50+/-
- * OUTSIDE SHOULDER ON -Y2- NB FROM STA 39+82+/- TO STA 42+96+/-
- * OUTSIDE SHOULDER ON -Y2- SB FROM STA 21+20+/- TO STA 27+00+/-
- * OUTSIDE SHOULDER ON -Y2- NB FROM STA 21+50+/- TO STA 33+00+/- .

PHASE III (SEE TMP-29 THRU TMP-33 FOR DETAILS)

STEP 1: USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS AND LAW ENFORCEMENT AS NEEDED, PLACE TEMPORARY PAVEMENT MARKINGS ON -L- IN PHASE III PATTERN, ACTIVATE TEMPORARY SIGNAL 06-0955T4 AT THE INTERSECTION OF -L- AND -LP1D-/-RP1D- , UPGRADE AND ACTIVATE TEMPORARY SIGNAL 06-0946T4 AT -L- AND -SR1C- AND SHIFT TRAFFIC INTO PHASE III PATTERN.

STEP 2: SHIFTING TRAFFIC TO SHOULDER AS NECESSARY, CONSTRUCT PROPOSED MEDIANS ON -L- .

NOTE: NO DETAIL SHEETS PROVIDED FOR STEPS 3 AND 4.

STEP 3: USING RSD 1101.02 (SHEETS 1, 3, 9, 10, 11 & 12 OF 14), RESURFACE THE FOLLOWING:
 * -Y2- SBL FROM STA 11+96+/- TO 15+54+/-
 * -Y2- NBL FROM STA 11+96+/- TO 21+50+/-
 * -Y2- FROM STA 35+35+/- TO 48+50+/-
 * -Y3A- FROM STA 13+30+/- TO STA 37+55+/-
 * -SR1B_REV- FROM 592' PRIOR TO STA 10+15+/- TO STA 10+15+/-

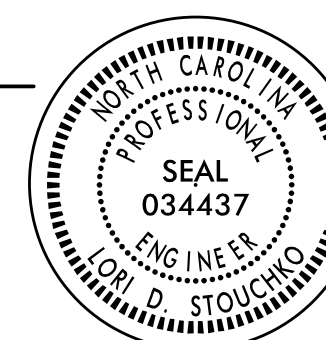
USING RSDE 1101.02 (SHEETS 1 & 3 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NEEDED, INSTALL AND COVER FINAL SIGNALS 06-0946 AT THE INTERSECTION OF -L- AND -SR1C-/-RP1B-/-LP1B- AND 06-1357 AT THE INTERSECTION OF -L- AND I-95 RAMPS.

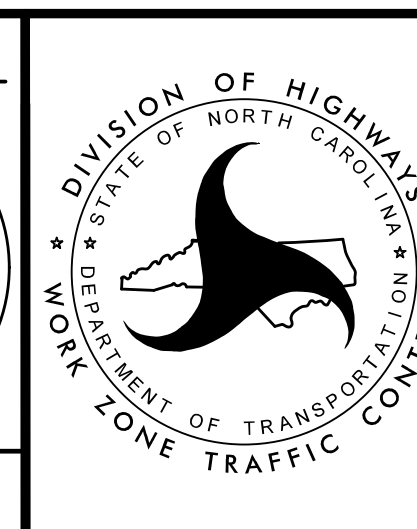
STEP 4: USING RSD 1101.02 (SHEETS 1, 3, 9, 10, 11 & 12 OF 14), FLAGGERS AND LAW ENFORCEMENT AS NEEDED, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS, ACTIVATE FINAL SIGNALS 06-0946 AT THE INTERSECTION OF -L- AND -SR1C-/-RP1B-/-LP1B- AND 06-1357 AT THE INTERSECTION OF -L- AND I-95 RAMPS, UPGRADE AND ACTIVATE FINAL SIGNALS 06-0955 AT THE INTERSECTION OF -L- AND -LP1D-/-RP1D- AND 06-1356 AT THE INTERSECTION OF -L- AND -Y3A- AND SHIFT TRAFFIC TO FINAL PATTERN.

STEP 5: REMOVE TEMPORARY TRAFFIC CONTROL DEVICES.

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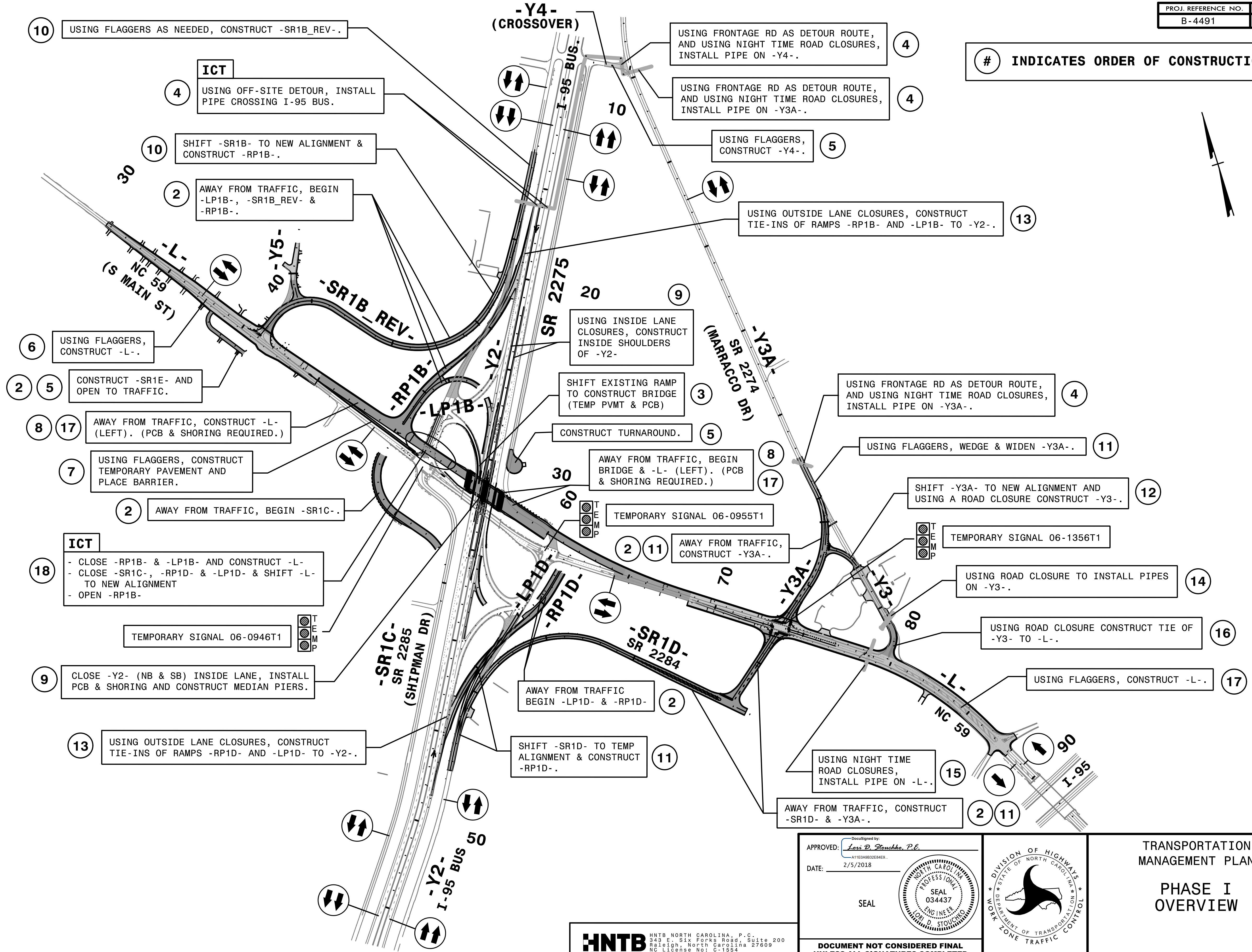
HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
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DATE: 2/5/2018	A11ED09B32E4E9
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TRANSPORTATION MANAGEMENT PLAN
PHASING

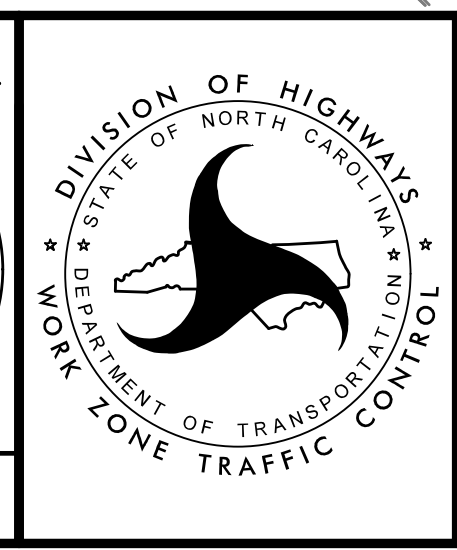
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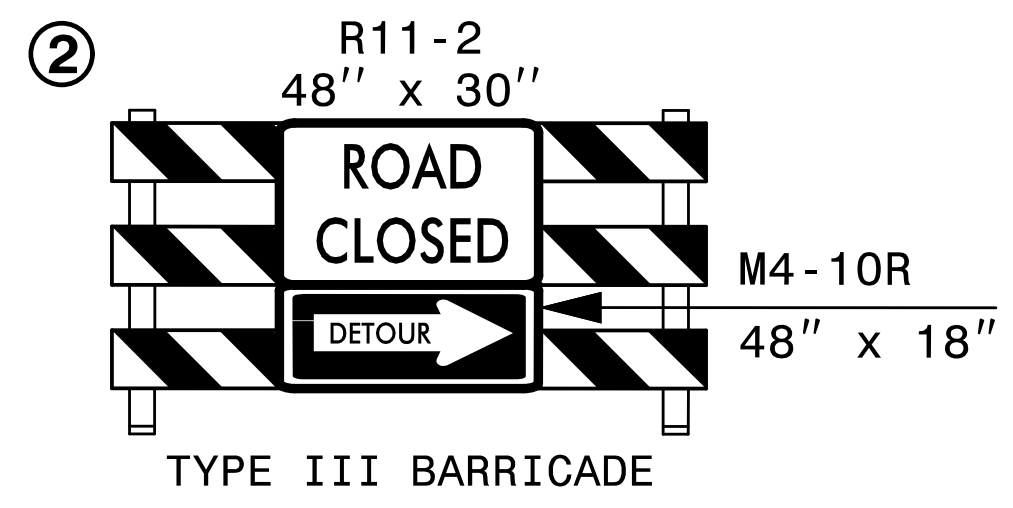
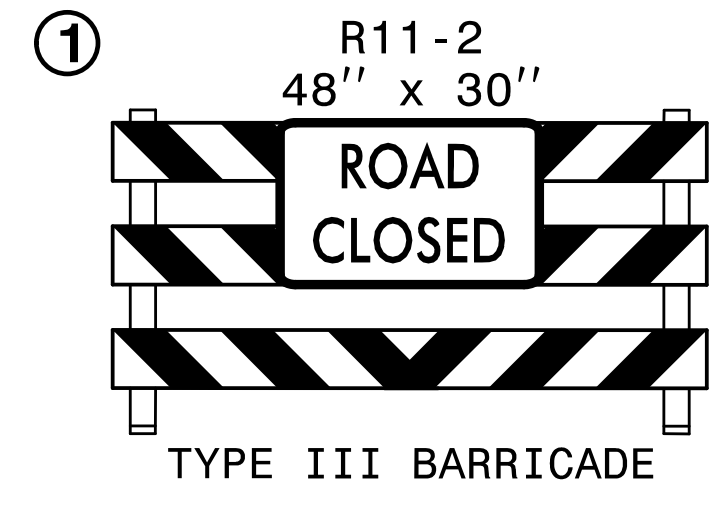
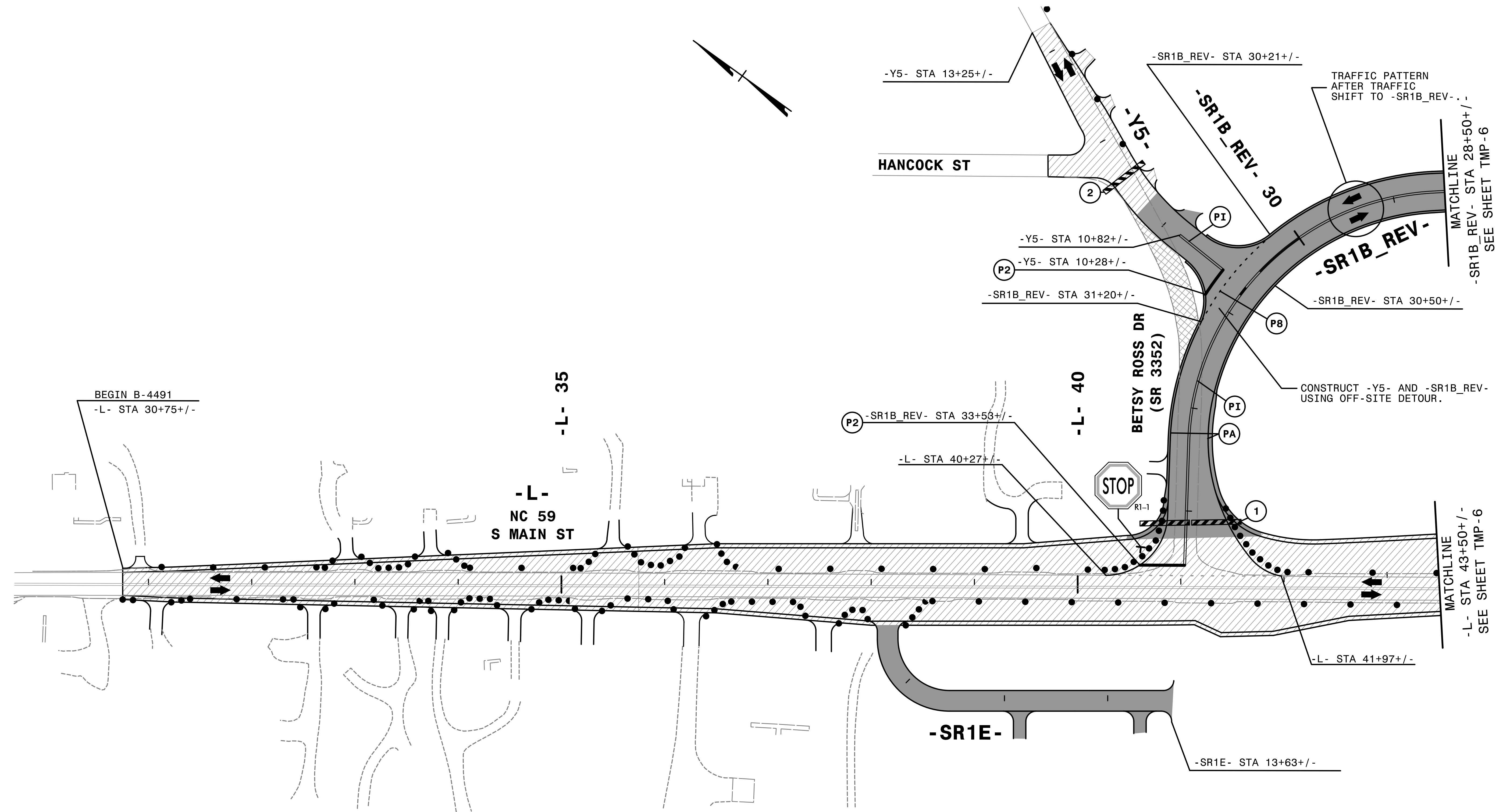
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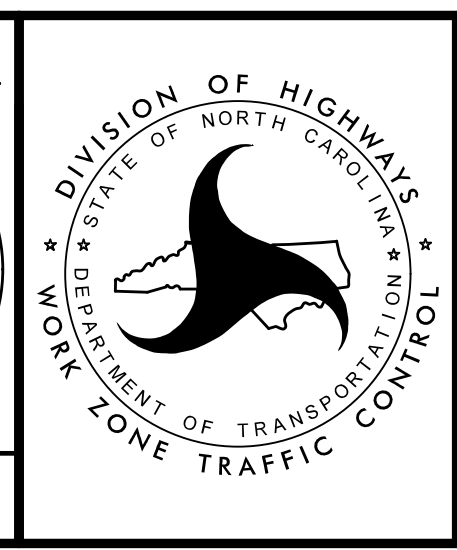
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 OVERVIEW



REMOVE CONFLICTING PAVEMENT MARKING.

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 DATE: 2/5/2018
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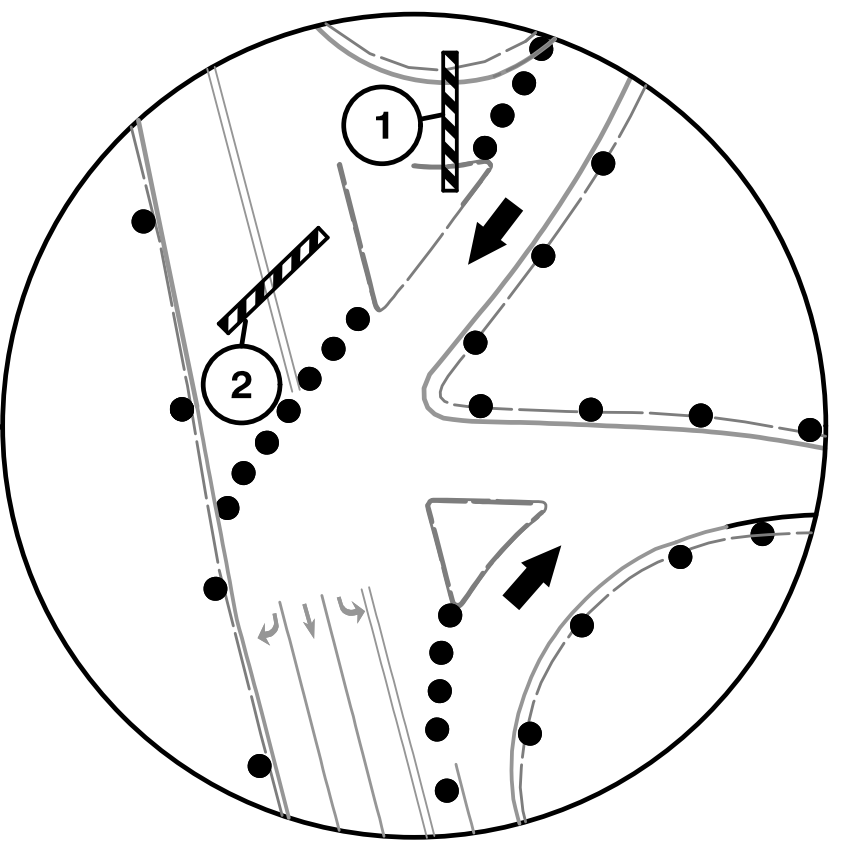
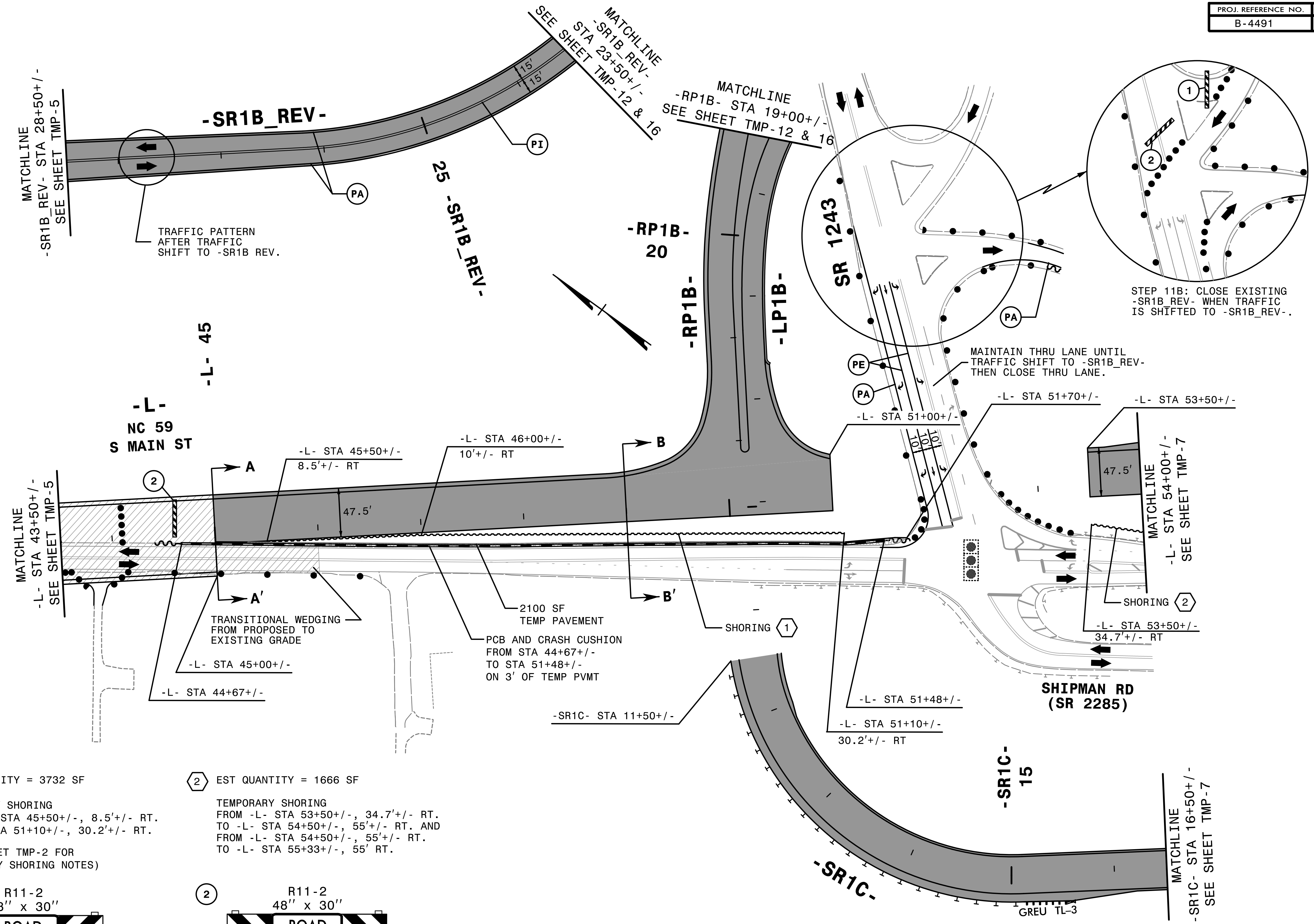
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TRANSPORTATION MANAGEMENT PLAN
 PHASE I
 DETAIL

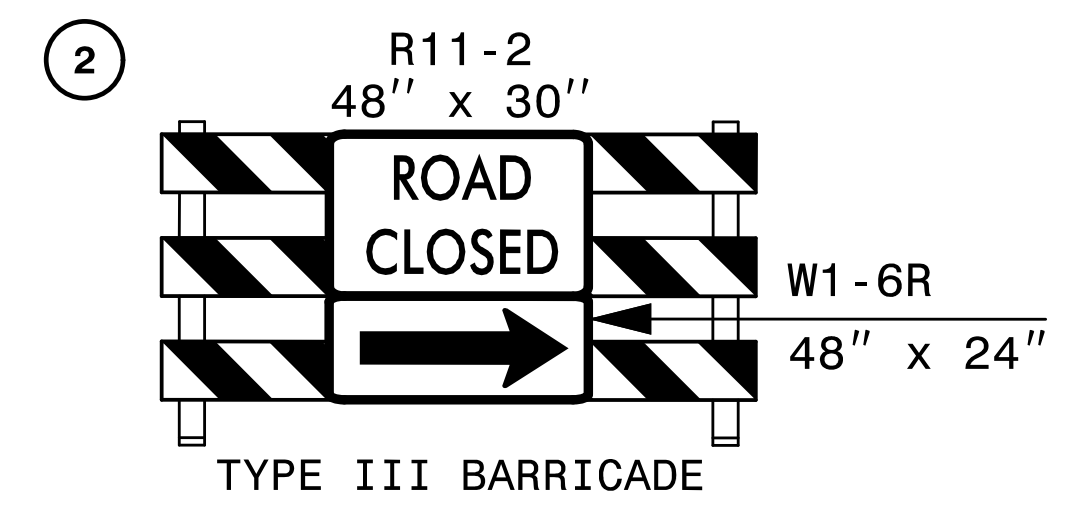
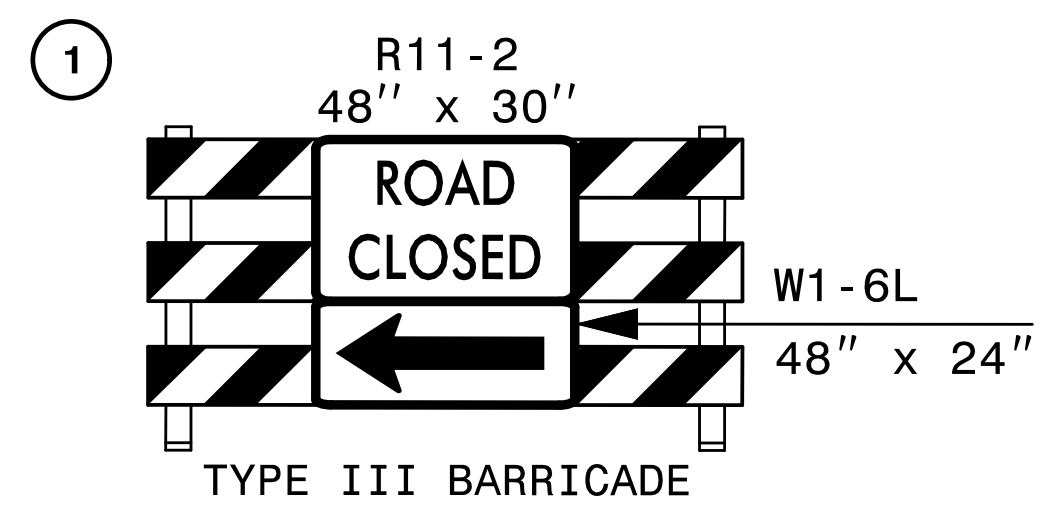
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 HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554



(1) EST QUANTITY = 3732 SF
 TEMPORARY SHORING
 FROM -L- STA 45+50+/-, 8.5'+/- RT.
 TO -L- STA 51+10+/-, 30.2'+/- RT.
 (SEE SHEET TMP-2 FOR TEMPORARY SHORING NOTES)

(2) EST QUANTITY = 1666 SF
 TEMPORARY SHORING
 FROM -L- STA 53+50+/-, 34.7'+/- RT.
 TO -L- STA 54+50+/-, 55'+/- RT. AND
 FROM -L- STA 54+50+/-, 55'+/- RT.
 TO -L- STA 55+33+/-, 55' RT.



REFER TO SHEETS TMP-19 FOR CUT SECTION(S).

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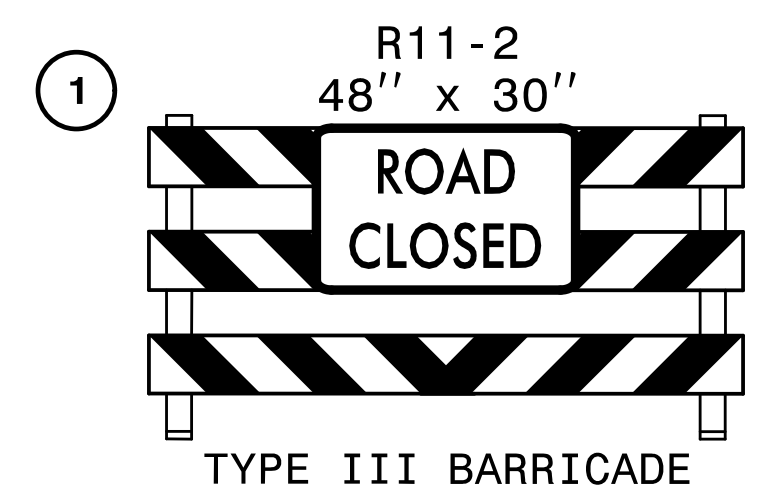
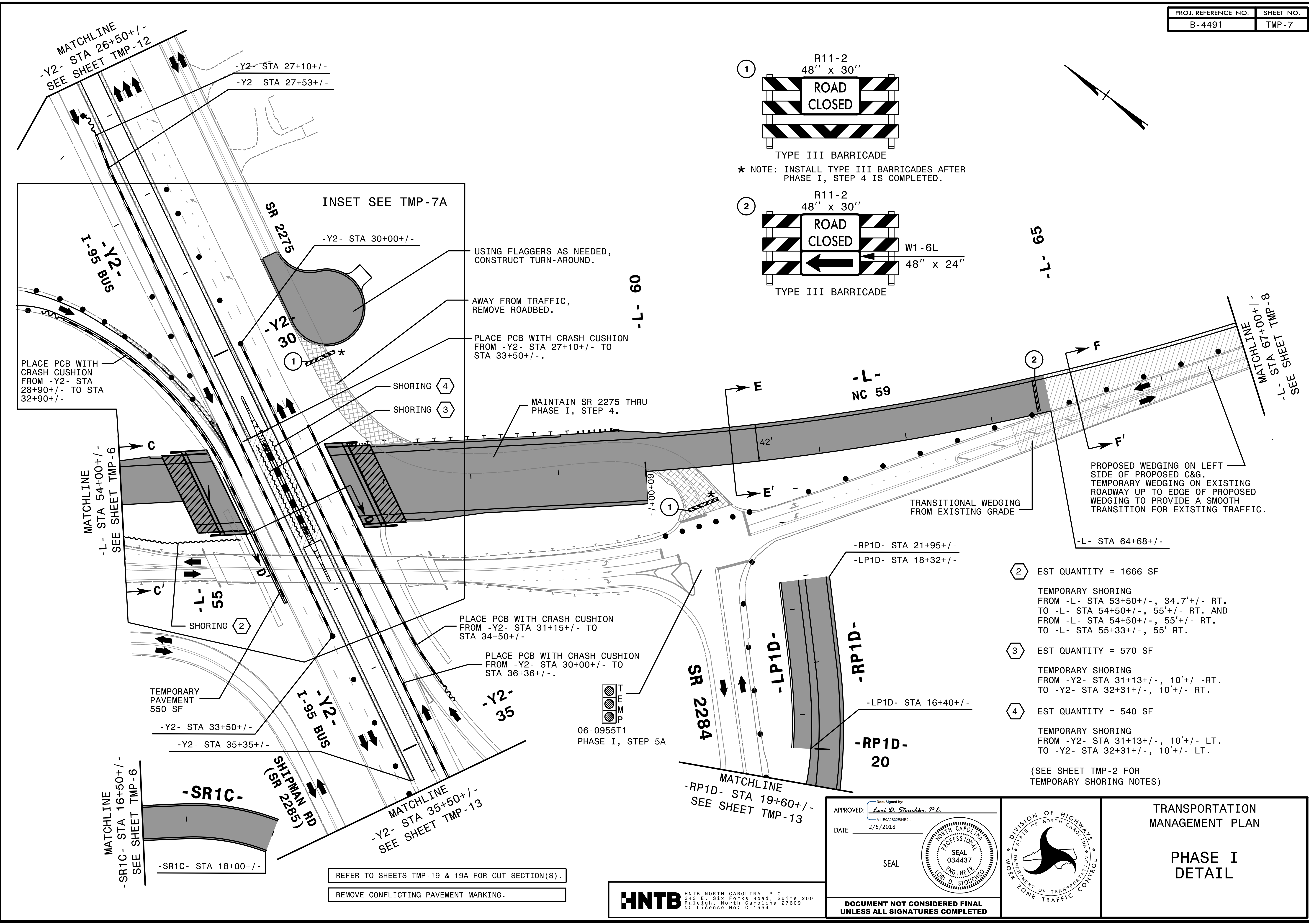
TRANSPORTATION MANAGEMENT PLAN

PHASE I DETAIL

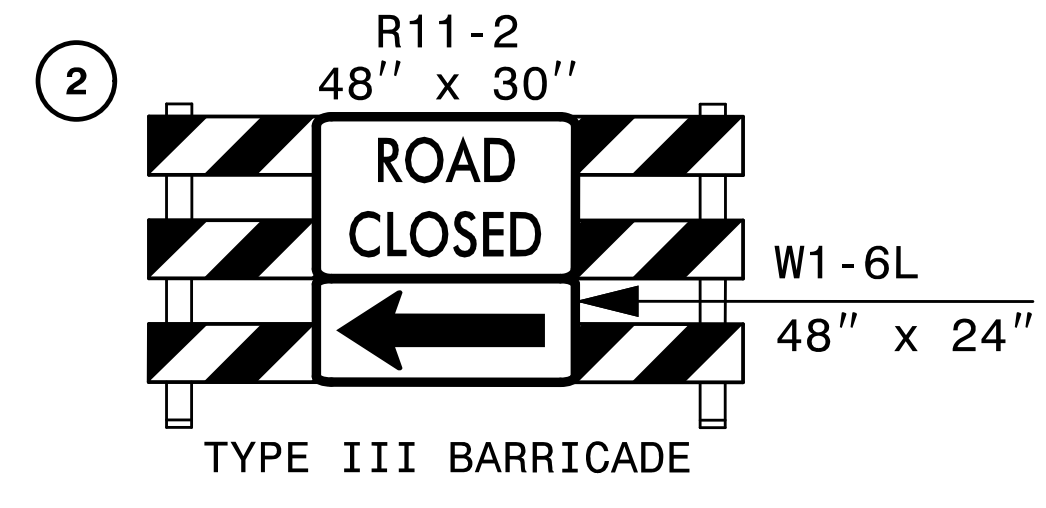
DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

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* NOTE: INSTALL TYPE III BARRICADES AFTER PHASE I, STEP 4 IS COMPLETED.



- ② EST QUANTITY = 1666 SF
TEMPORARY SHORING
FROM -L- STA 53+50+/-, 34.7'+/- RT.
TO -L- STA 54+50+/-, 55'+/- RT. AND
FROM -L- STA 54+50+/-, 55'+/- RT.
TO -L- STA 55+33+/-, 55' RT.
 - ③ EST QUANTITY = 570 SF
TEMPORARY SHORING
FROM -Y2- STA 31+13+/-, 10'+/- -RT.
TO -Y2- STA 32+31+/-, 10'+/- RT.
 - ④ EST QUANTITY = 540 SF
TEMPORARY SHORING
FROM -Y2- STA 31+13+/-, 10'+/- LT.
TO -Y2- STA 32+31+/-, 10'+/- LT.
- (SEE SHEET TMP-2 FOR TEMPORARY SHORING NOTES)

REFER TO SHEETS TMP-19 & 19A FOR CUT SECTION(S).
REMOVE CONFLICTING PAVEMENT MARKING.

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DATE: 2/5/2018

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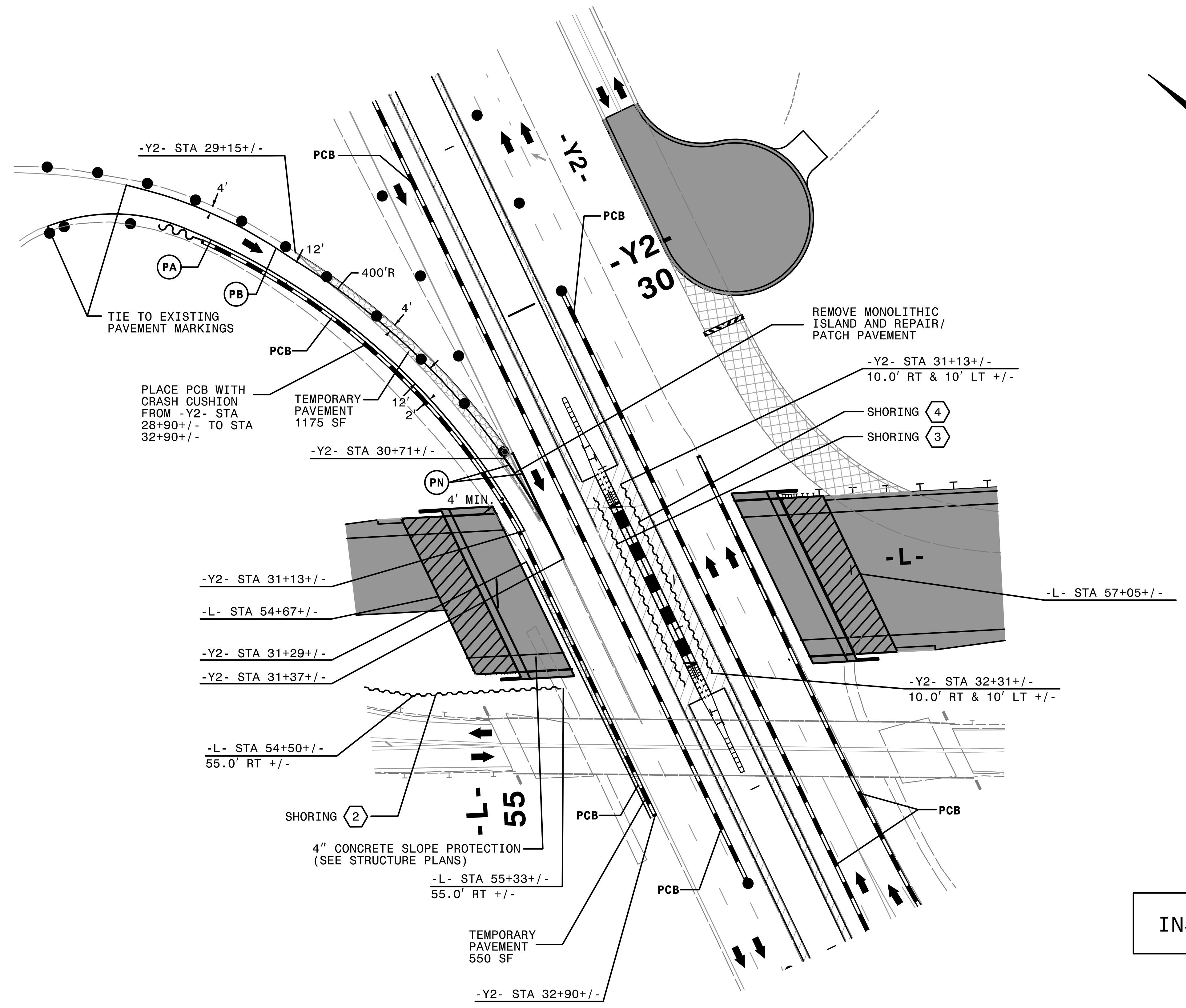
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

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INSET FROM SHEET TMP-7

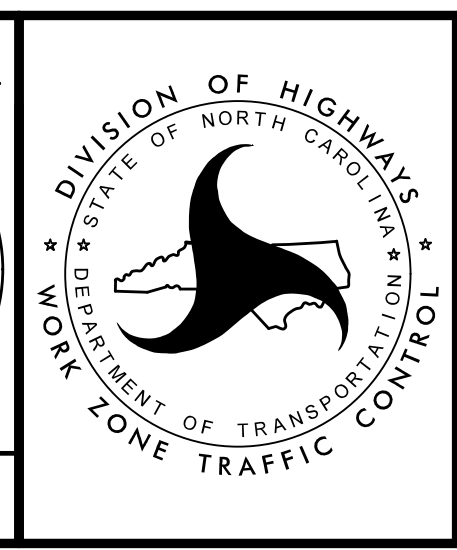
REFER TO SHEET TMP-7.
REMOVE CONFLICTING PAVEMENT MARKING.



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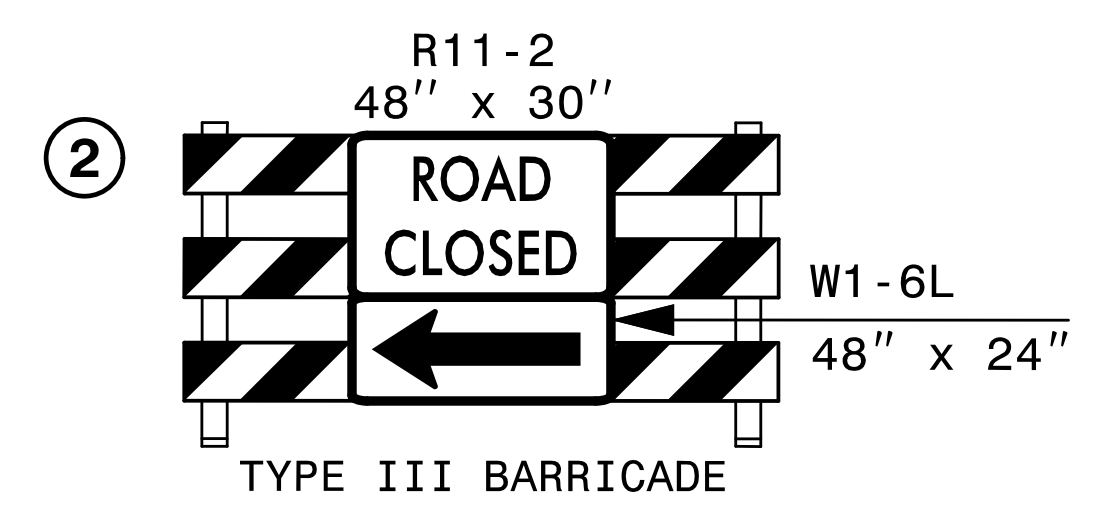
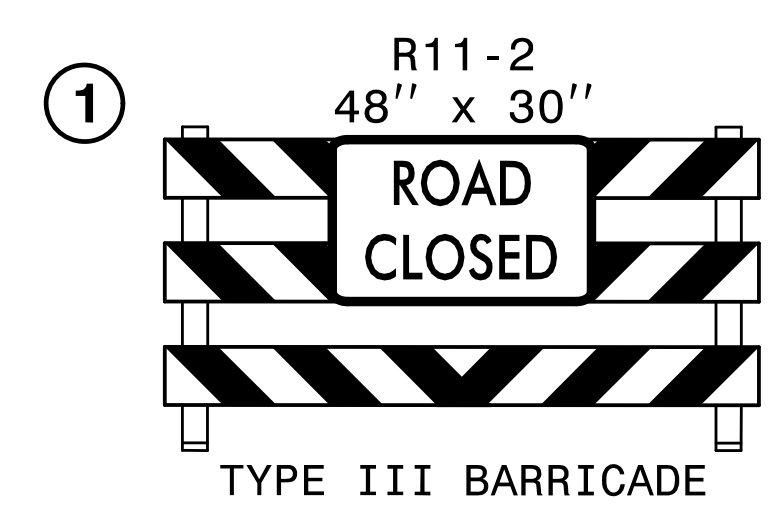
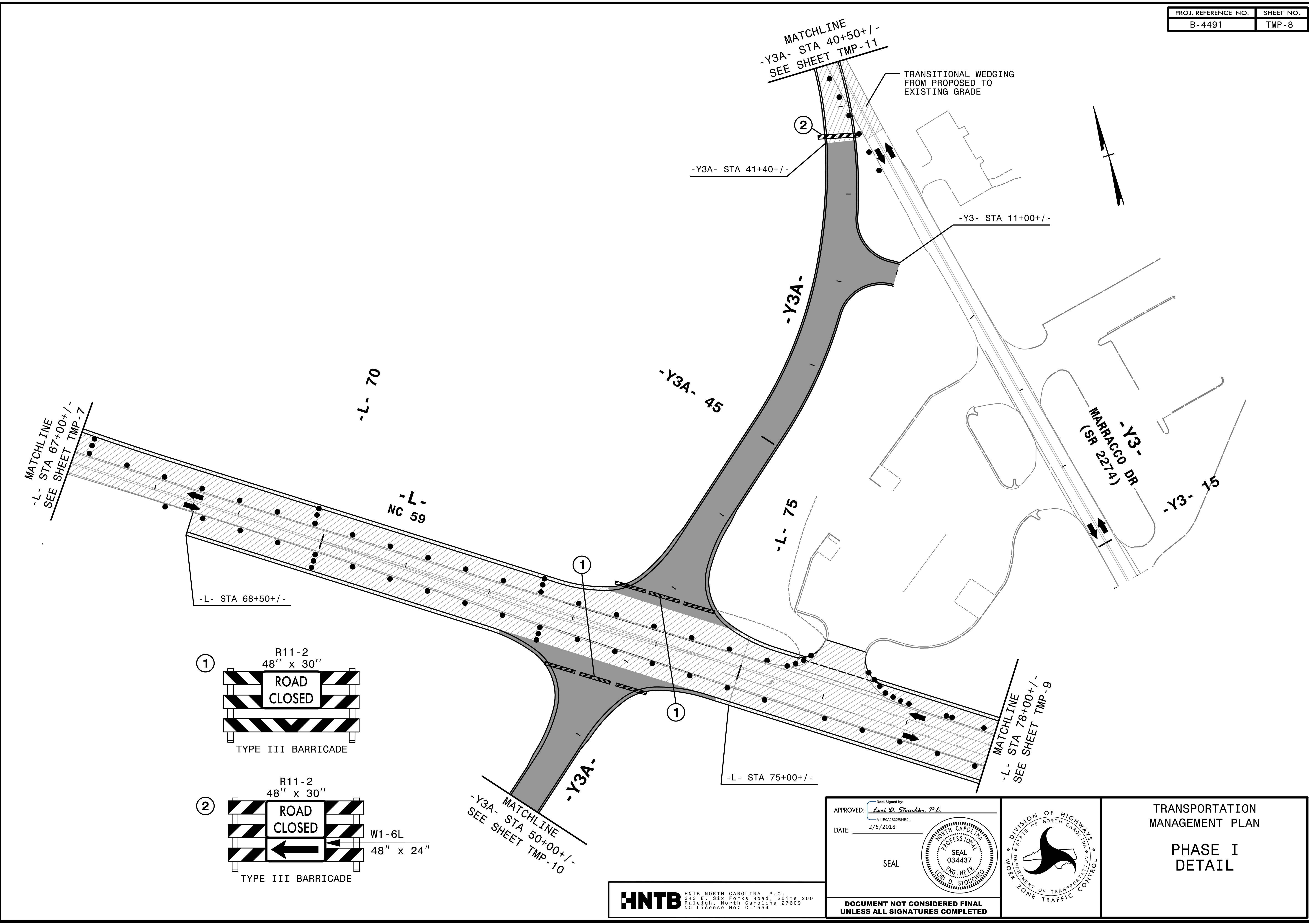
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

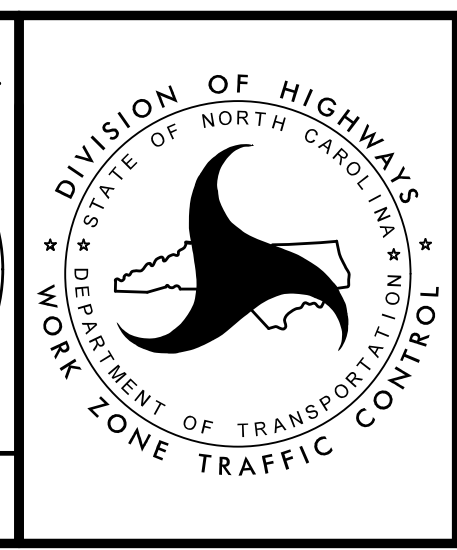
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MATCHLINE
-Y3A- STA 50+00+/-
SEE SHEET TMP-10

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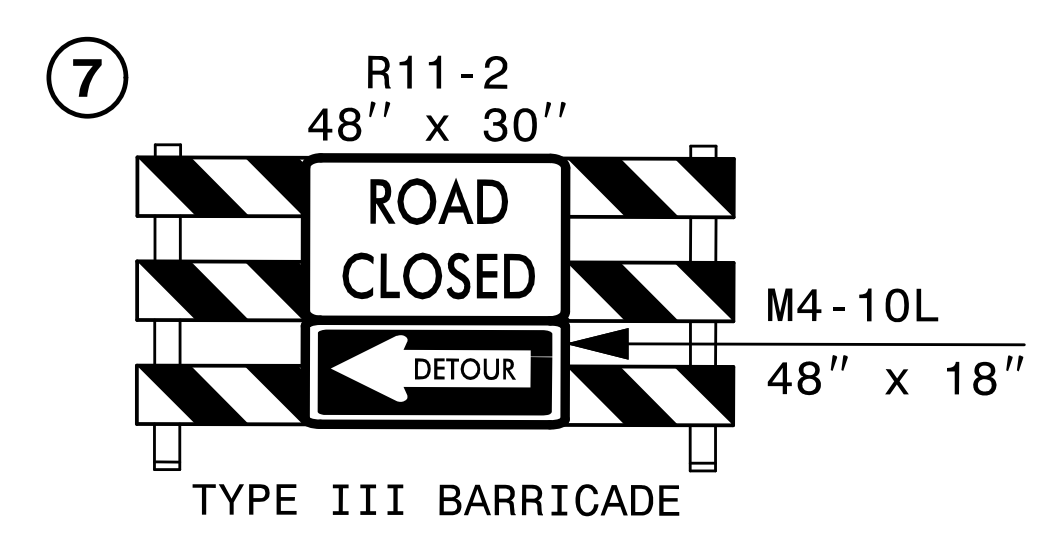
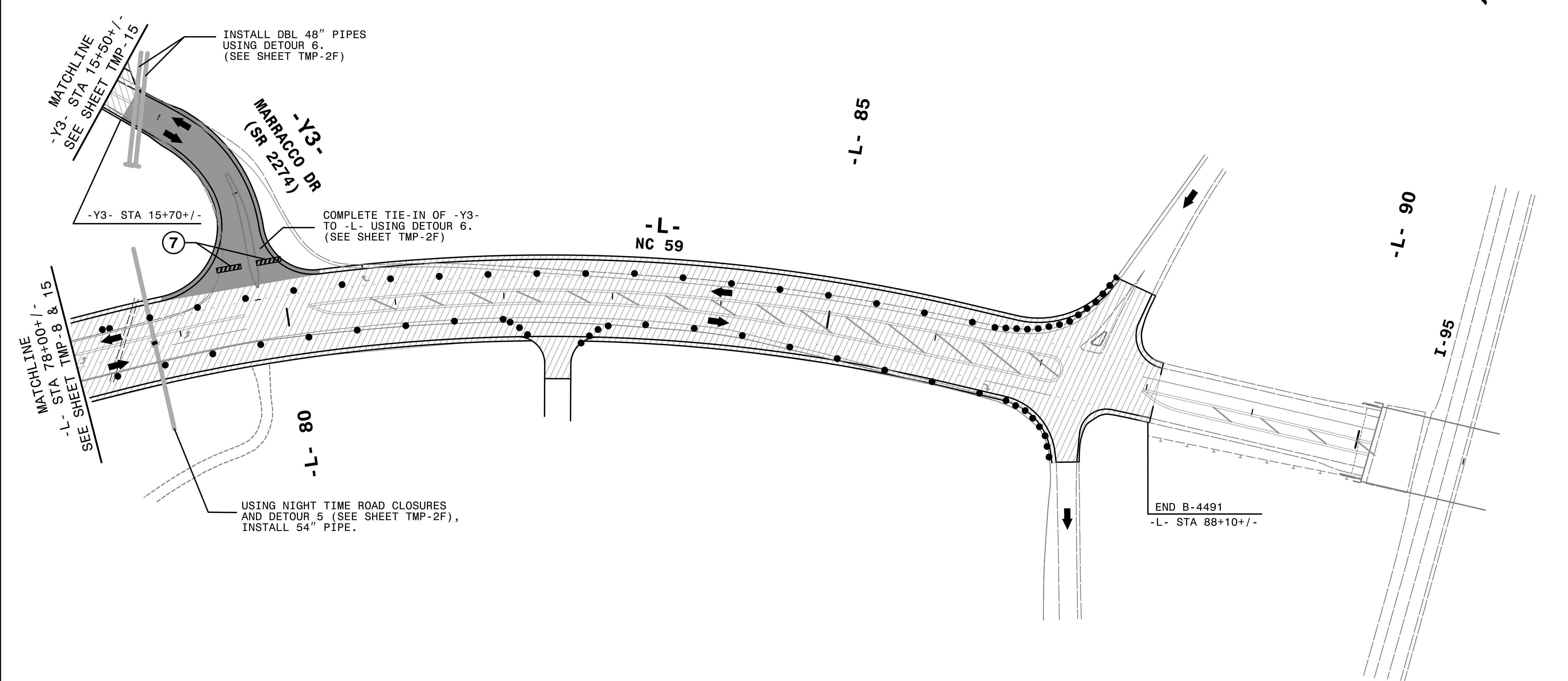
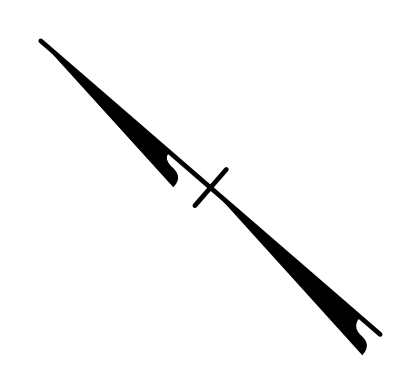
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NORTH CAROLINA
PROFESSIONAL
ENGINEER
LORI D. STOUCHO
034437



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

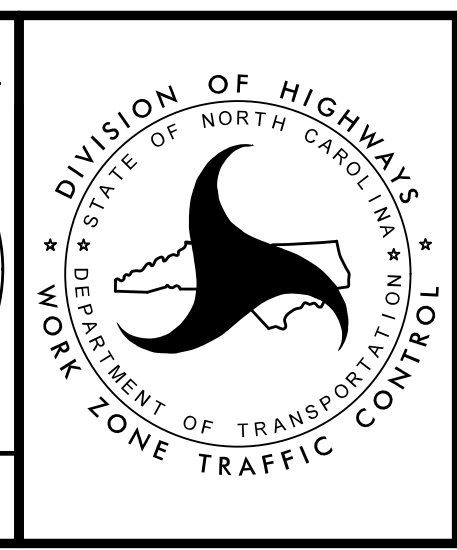
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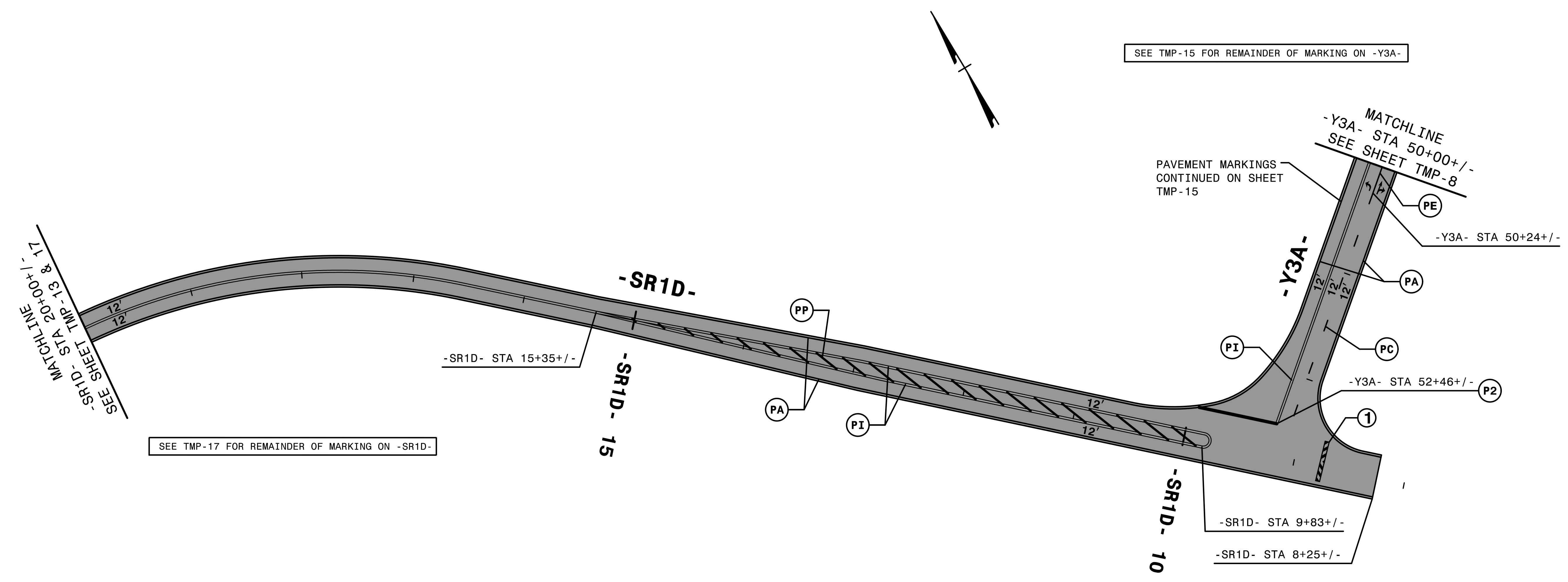
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 SEAL 034437
 LORI D. STOUCHO



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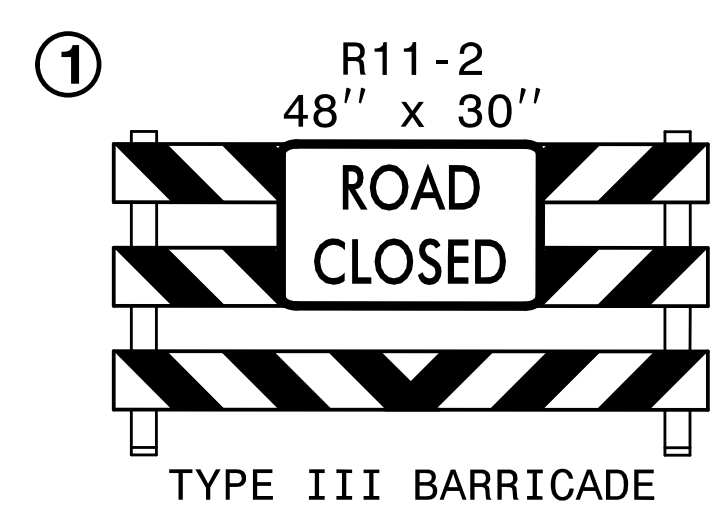
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 DETAIL

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SEE TMP-17 FOR REMAINDER OF MARKING ON -SR1D-

SEE TMP-15 FOR REMAINDER OF MARKING ON -Y3A-



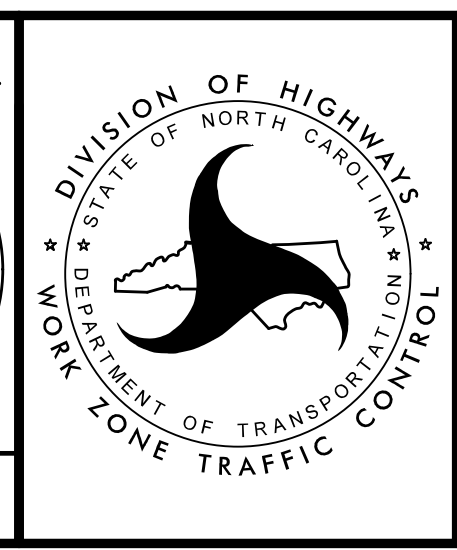
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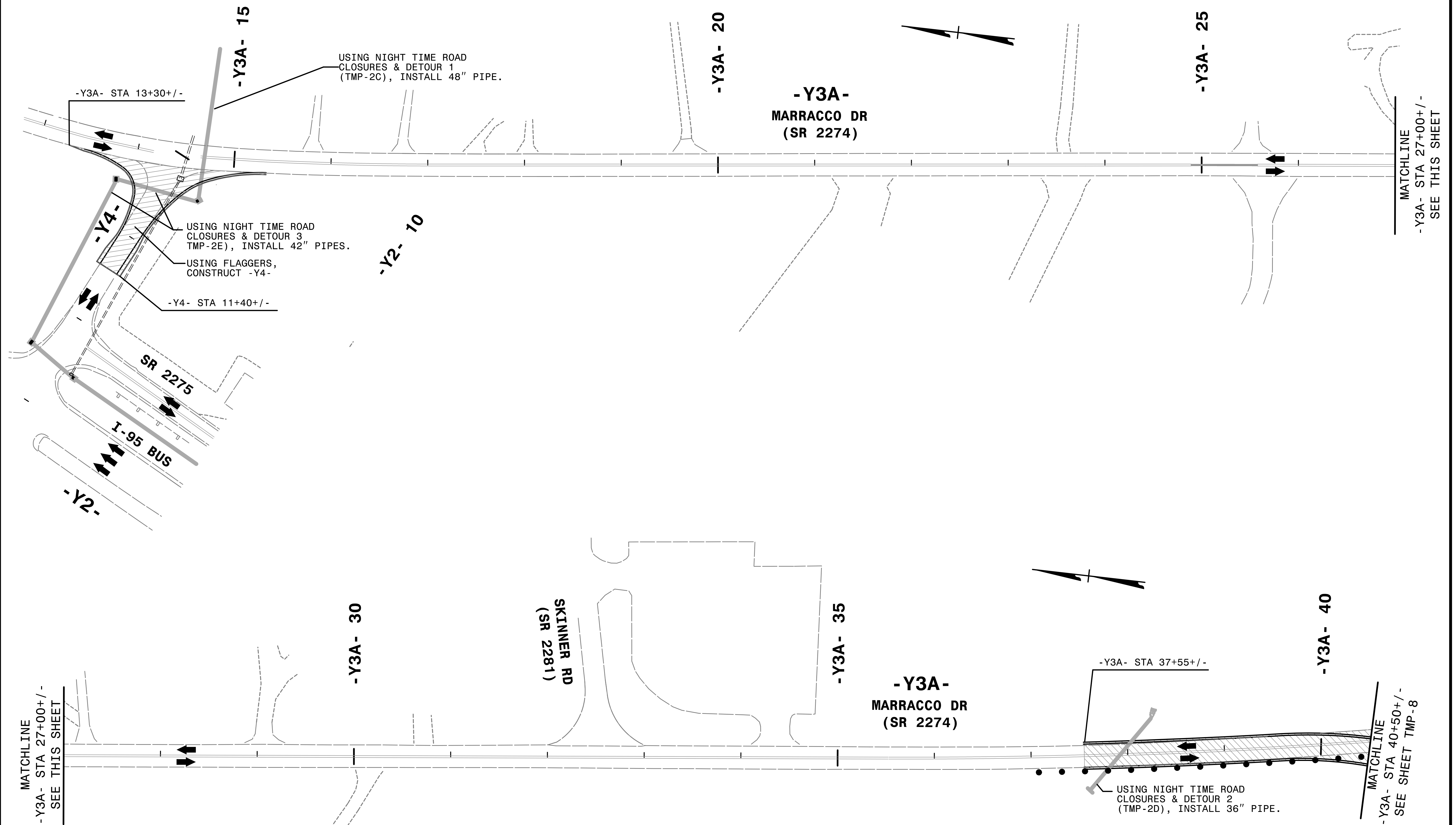
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



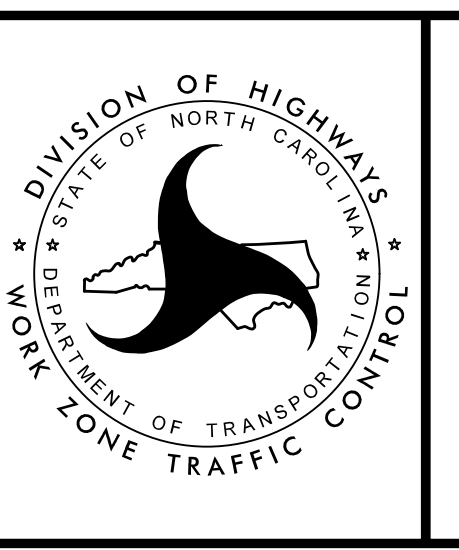
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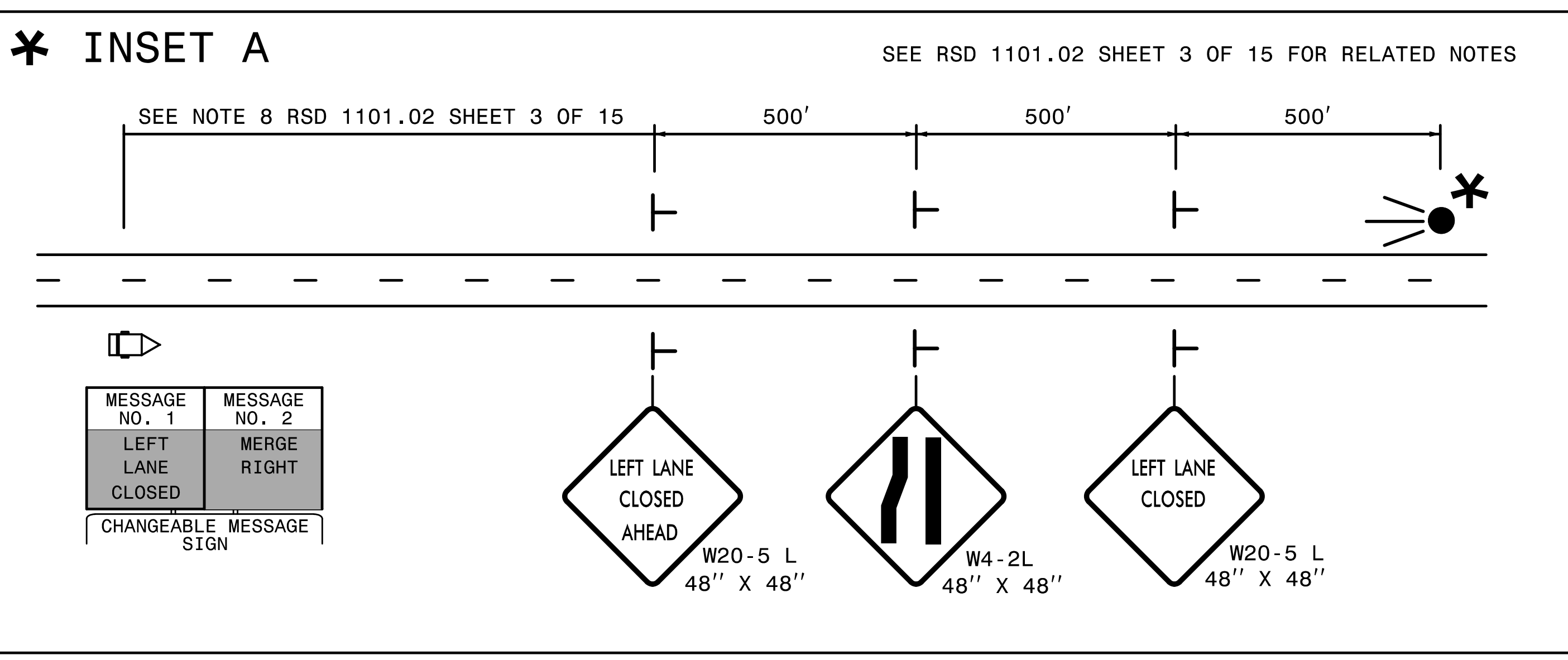
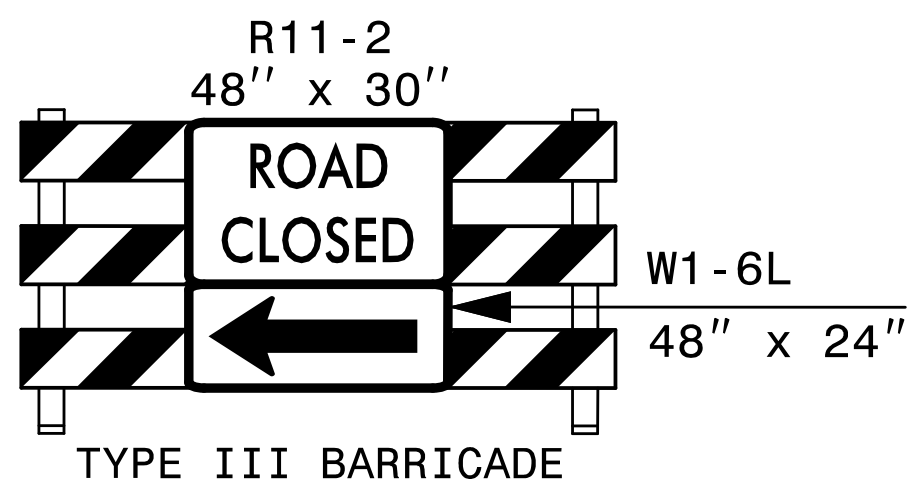
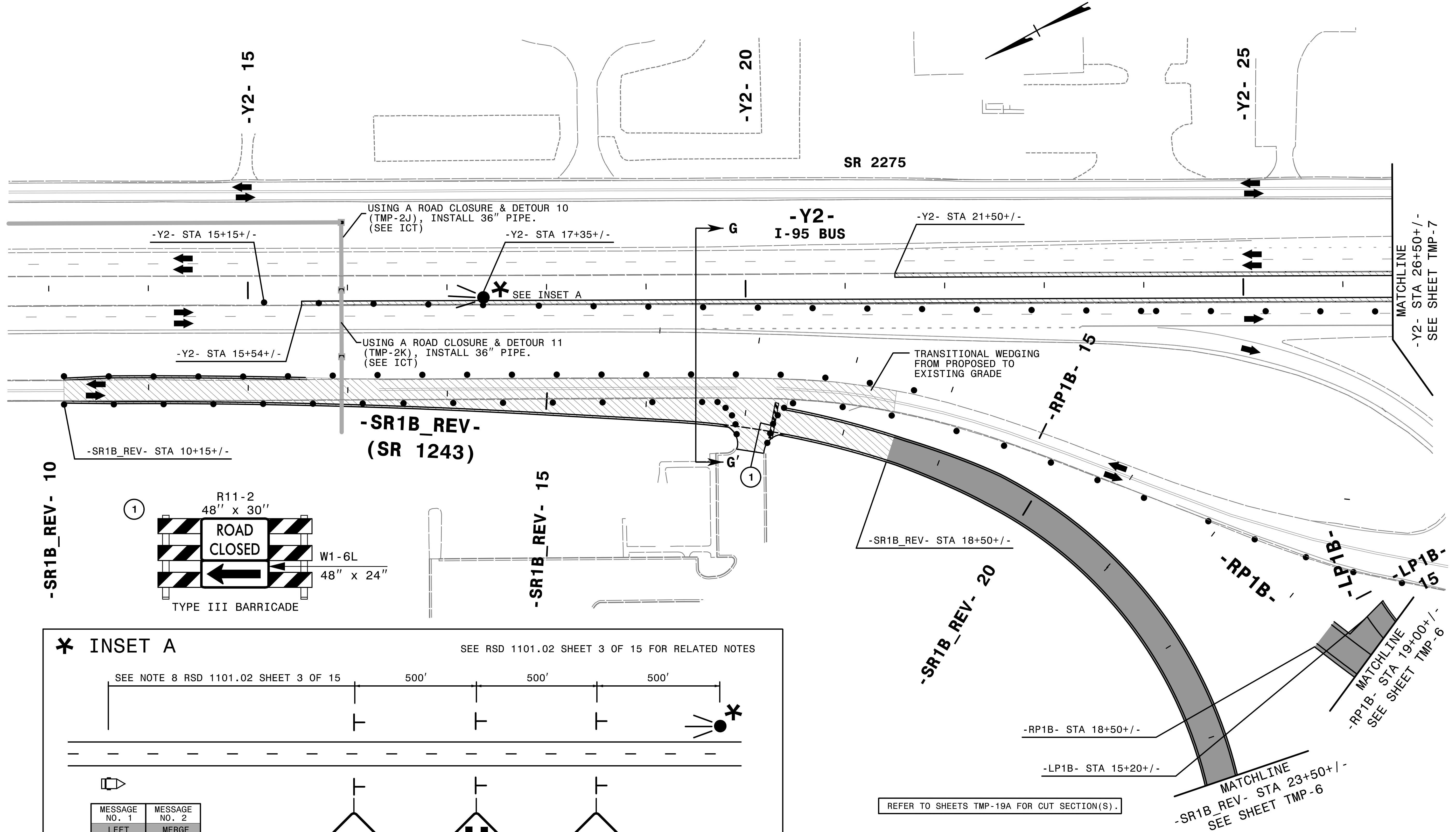
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TRANSPORTATION
 MANAGEMENT PLAN

PHASE I
 DETAIL

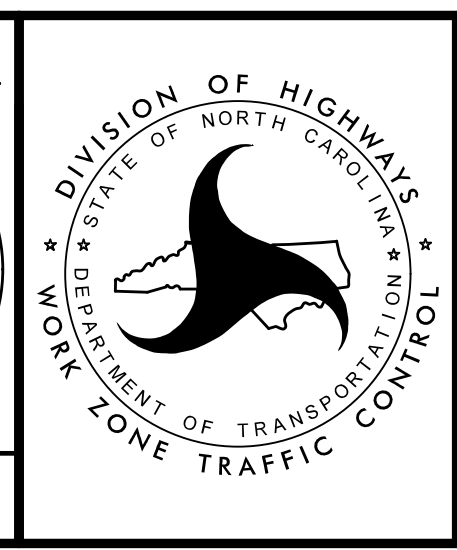


REFER TO SHEETS TMP-19A FOR CUT SECTION(S).

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DATE: 2/5/2018

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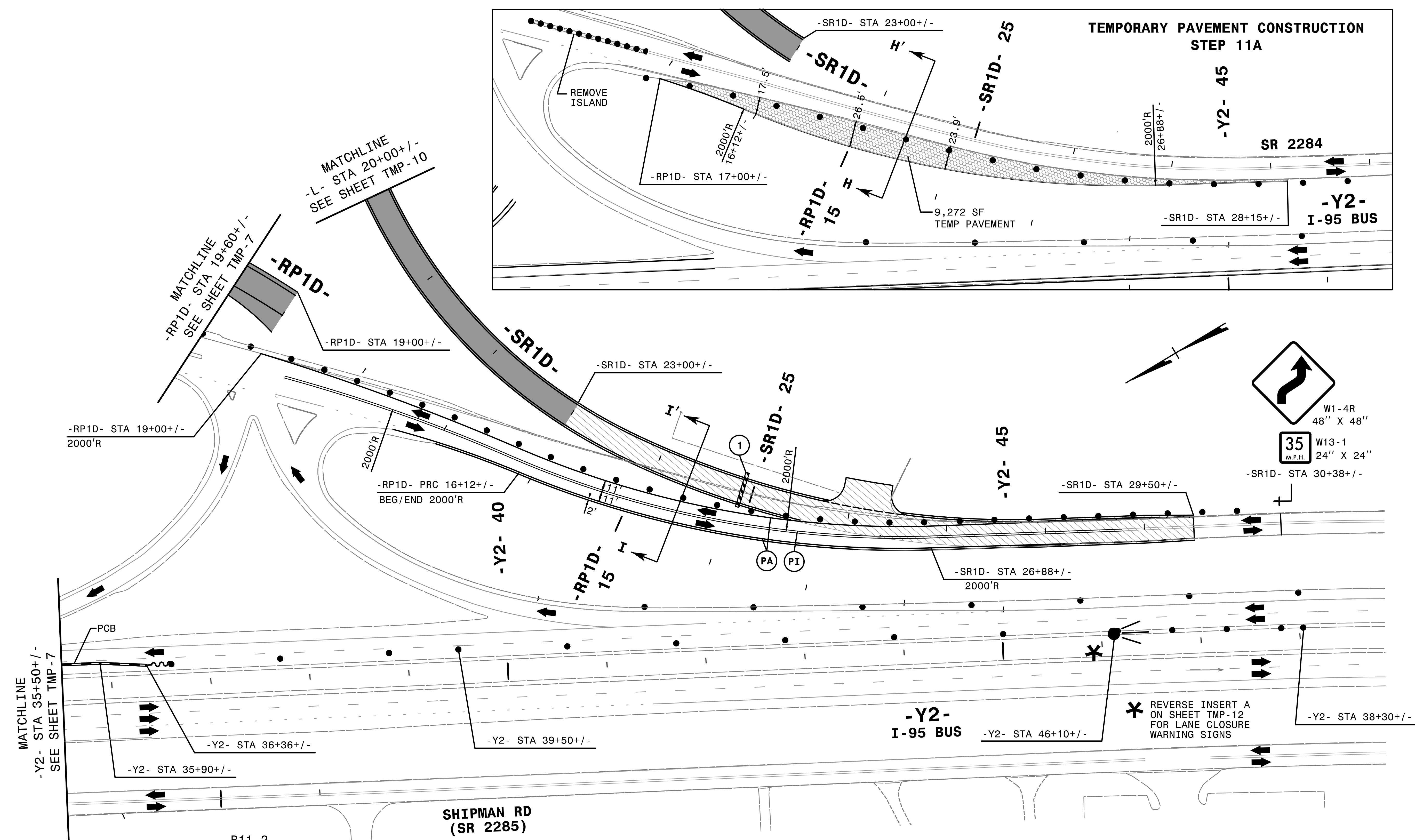
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PHASE I
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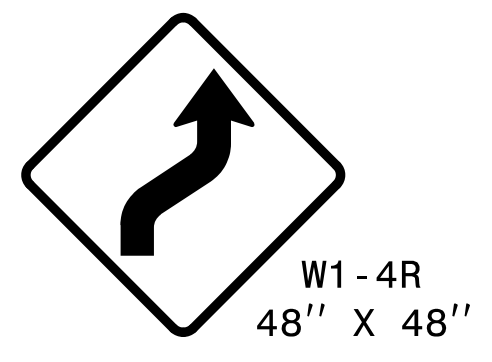
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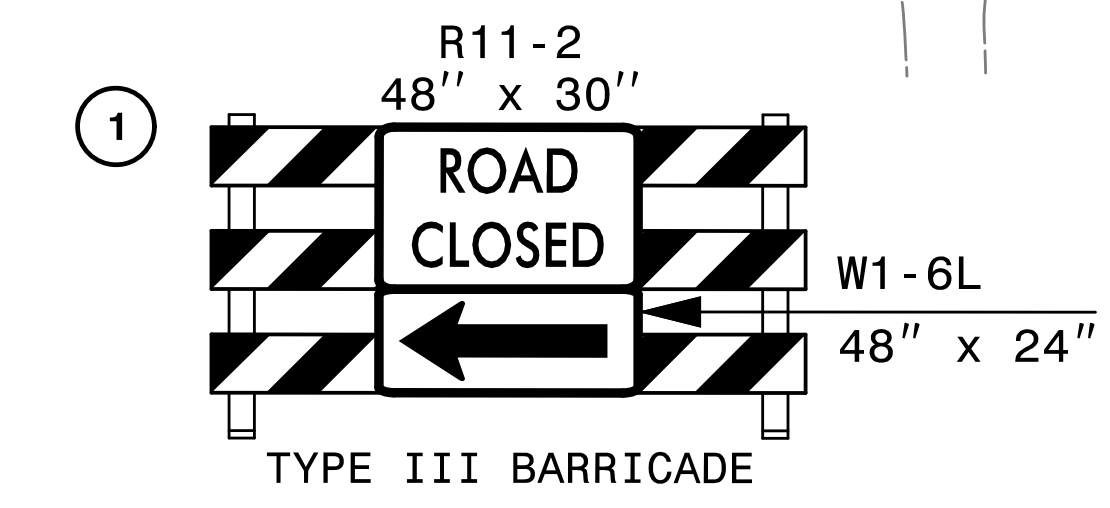
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TEMPORARY PAVEMENT CONSTRUCTION STEP 11A



MATCHLINE -Y2- STA 35+50+/- SEE SHEET TMP-7



REFER TO SHEETS TMP-19A FOR CUT SECTION(S).

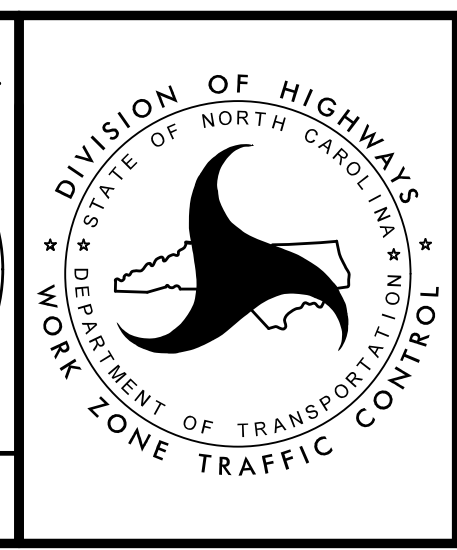
REMOVE CONFLICTING PAVEMENT MARKING.

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AT11E0A832E4E8
 DATE: 2/5/2018

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ENGINEER
 LORI D. STOUCHKO
 PROFESSIONAL ENGINEER
 NORTH CAROLINA
 SEAL 034437

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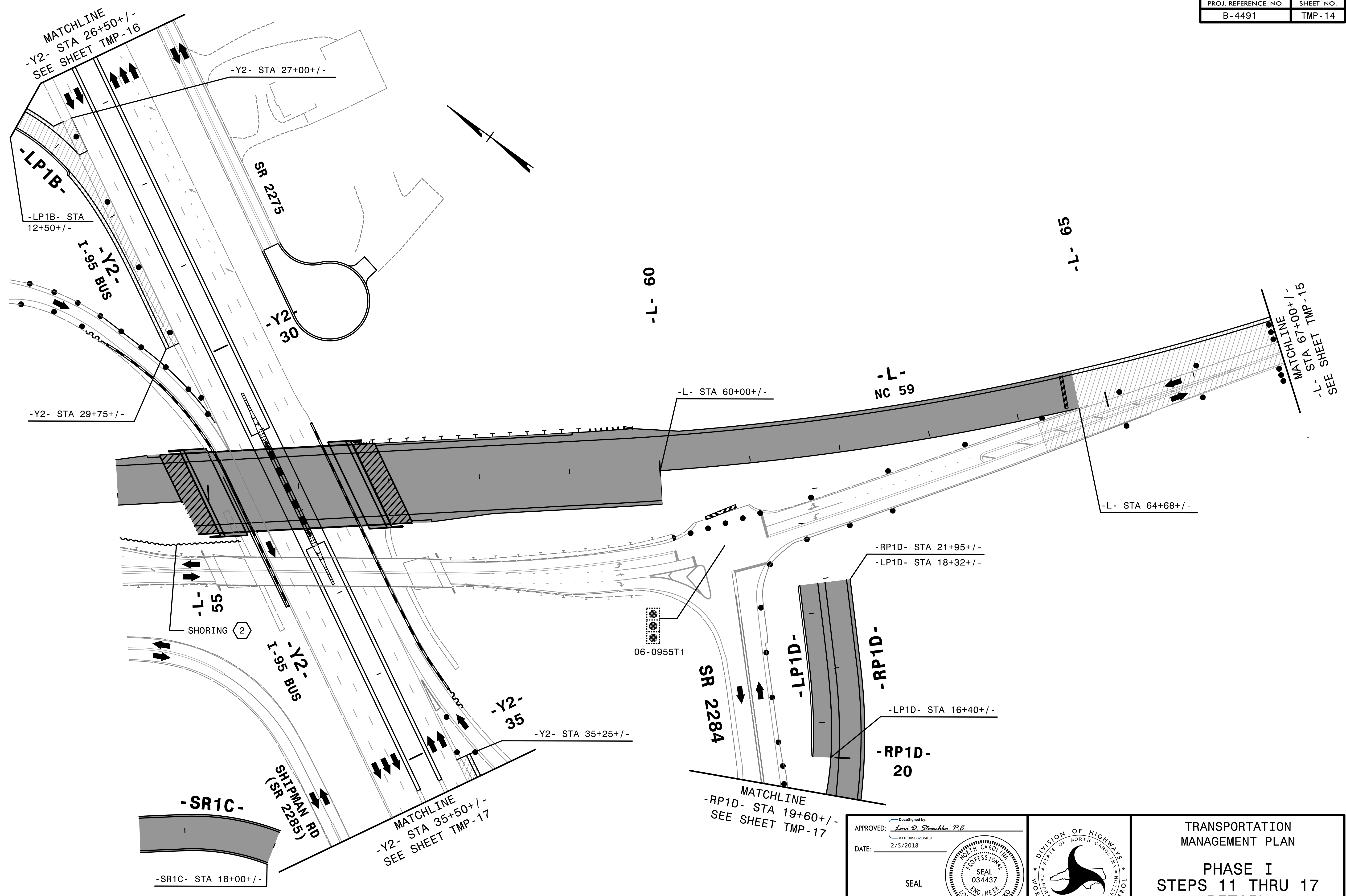
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PHASE I
DETAIL

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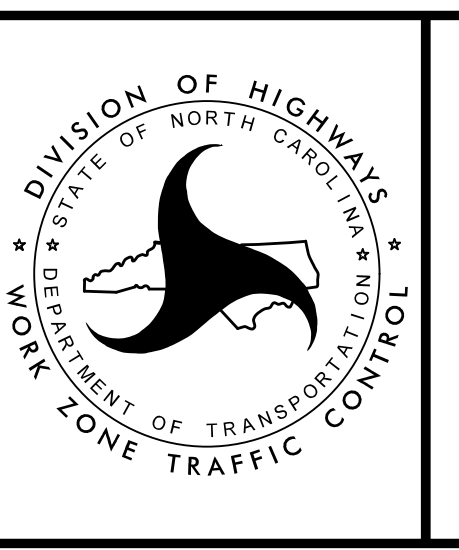
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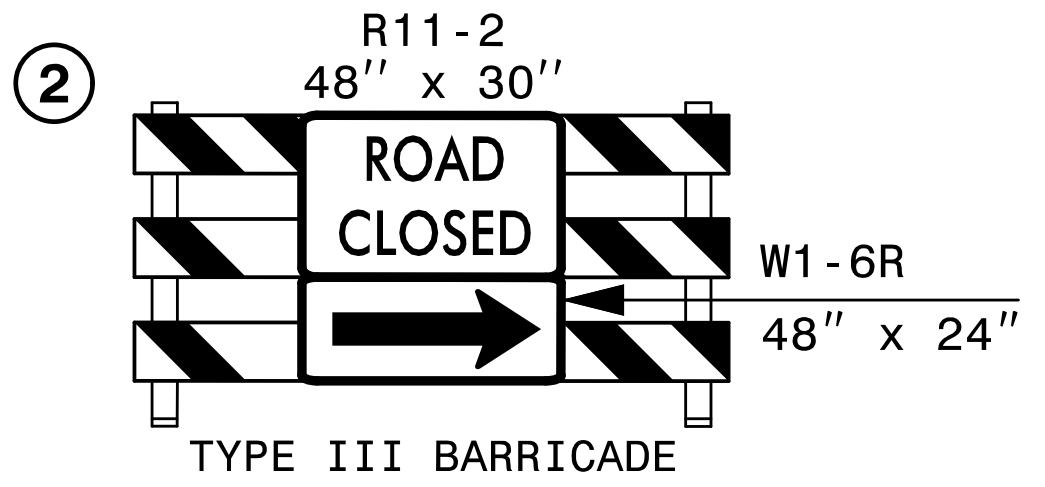
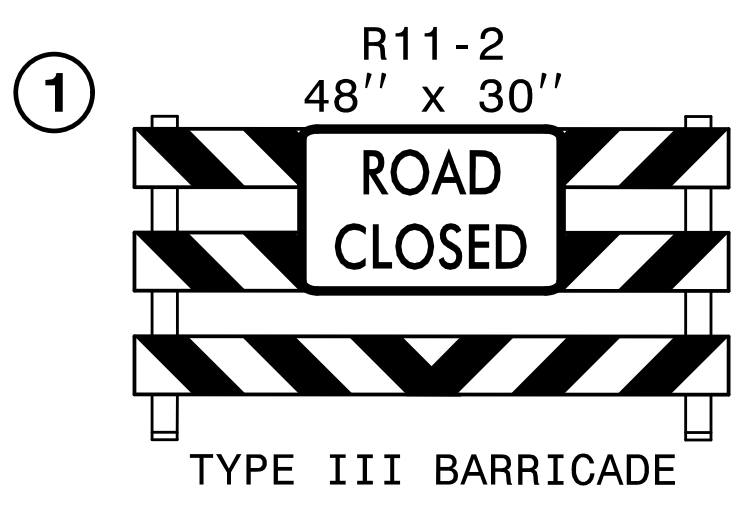
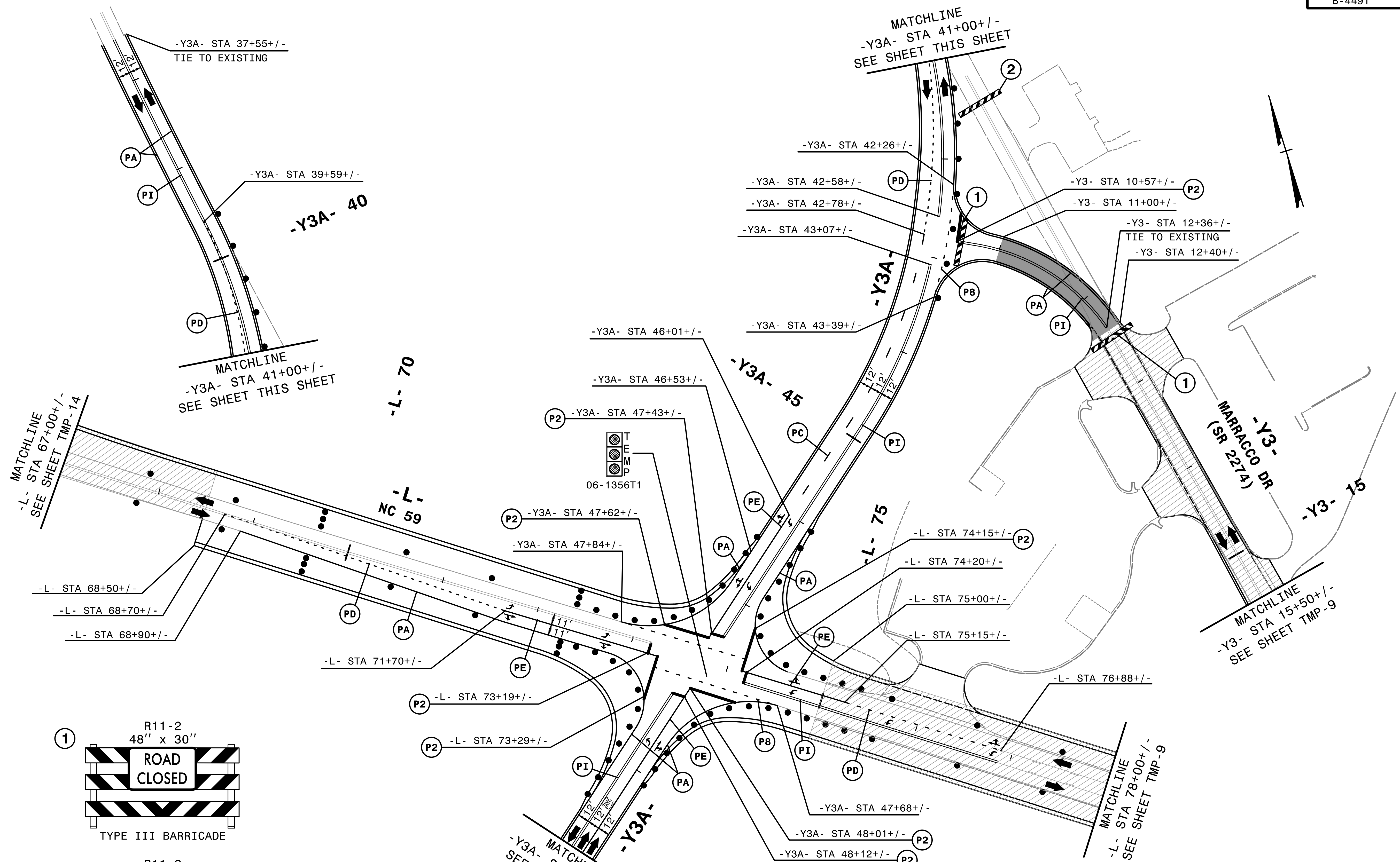
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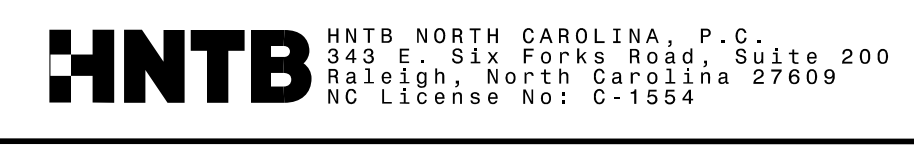
TRANSPORTATION
MANAGEMENT PLAN

PHASE I
STEPS 11 THRU 17
DETAIL



-Y3A- MATCHLINE
-Y3A- STA 50+00+/-
SEE SHEET TMP-10
FOR TEMPORARY
PAVEMENT MARKINGS

REMOVE CONFLICTING PAVEMENT MARKING.



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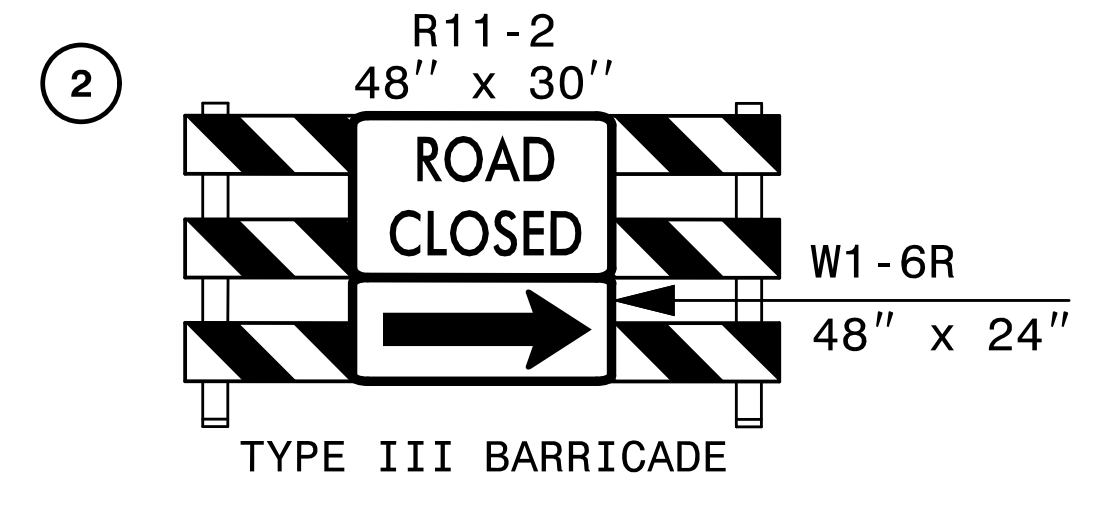
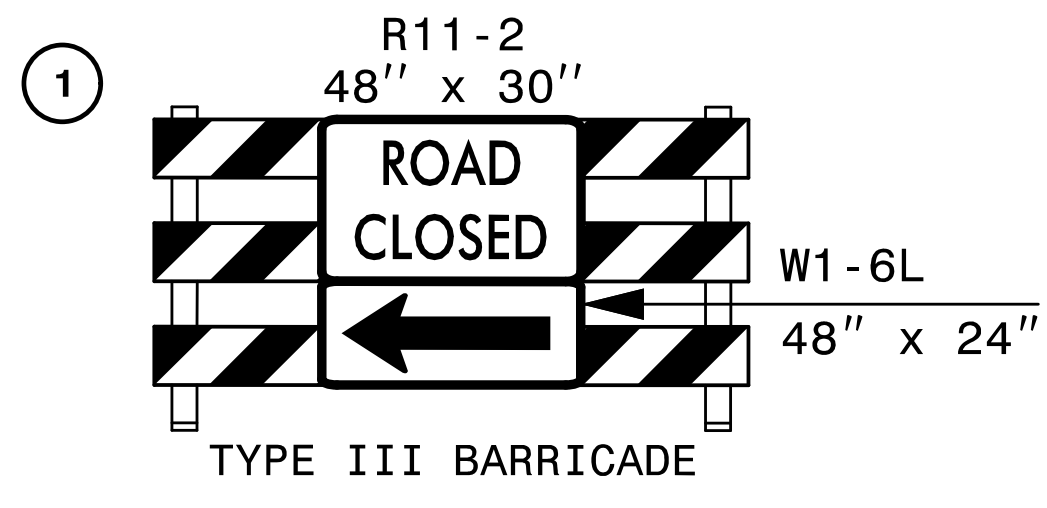
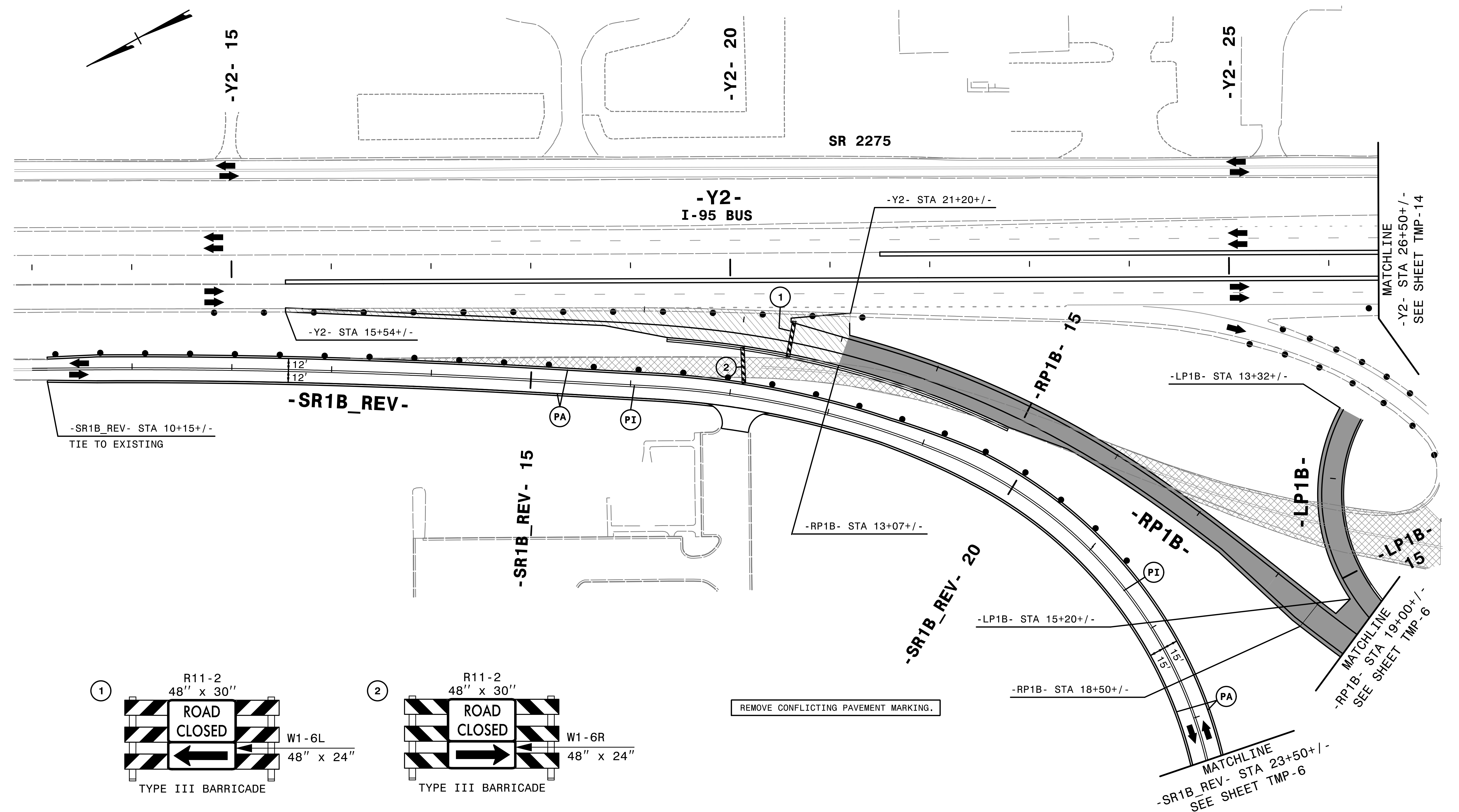
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

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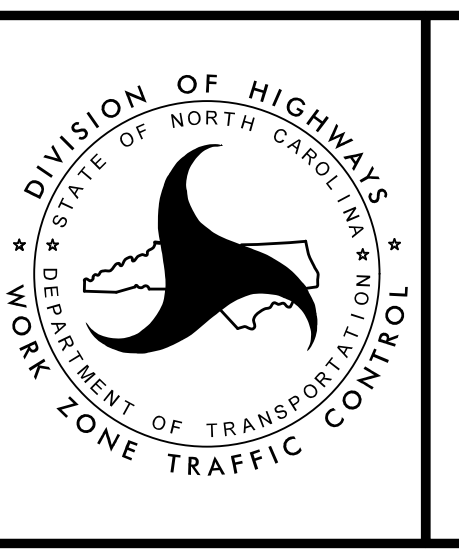


REMOVE CONFLICTING PAVEMENT MARKING.

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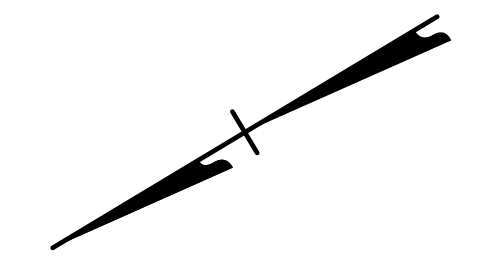
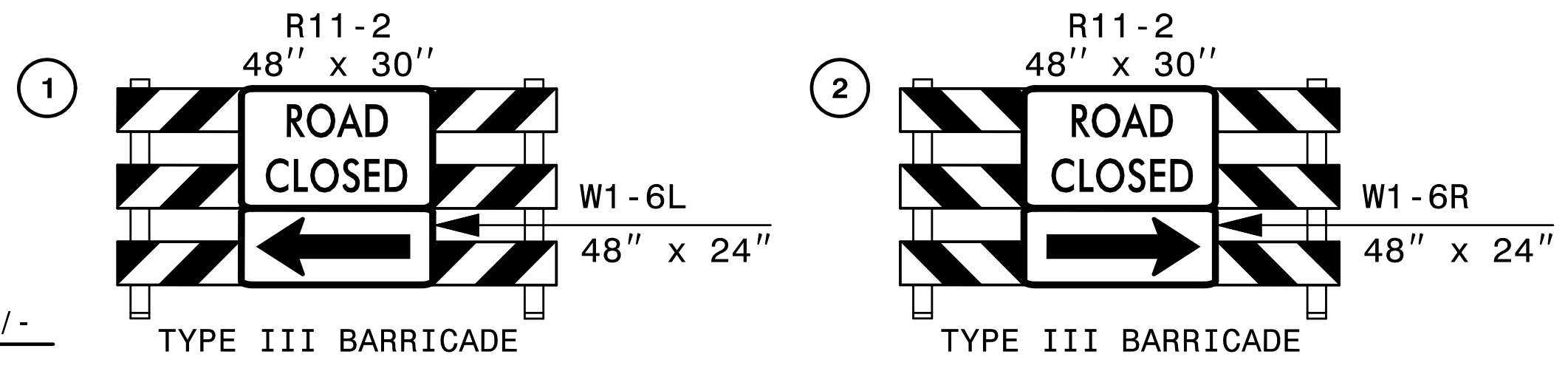
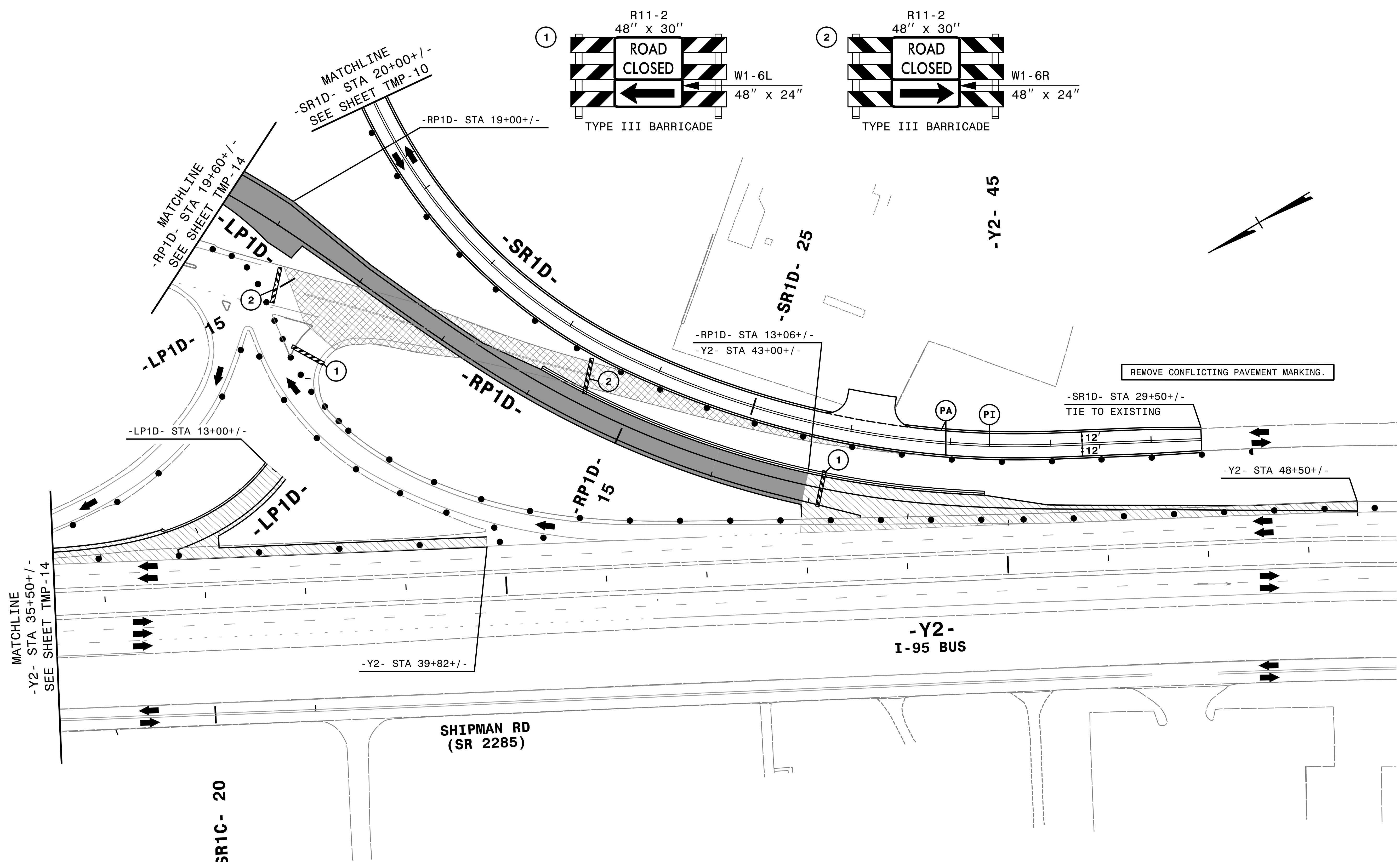
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SEAL 034437
LORI D. STOUCHO



TRANSPORTATION
MANAGEMENT PLAN
PHASE I
STEPS 11 THRU 17
DETAIL

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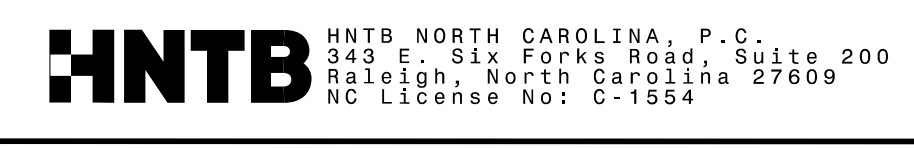
REMOVE CONFLICTING PAVEMENT MARKING.

-SR1D- STA 29+50+/-
TIE TO EXISTING

-Y2-
I-95 BUS

SHIPMAN RD
(SR 2285)

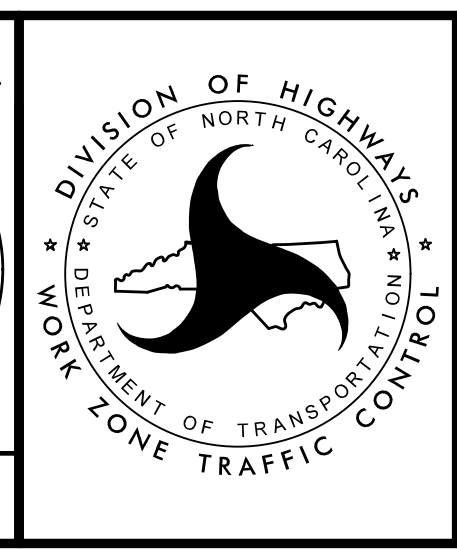
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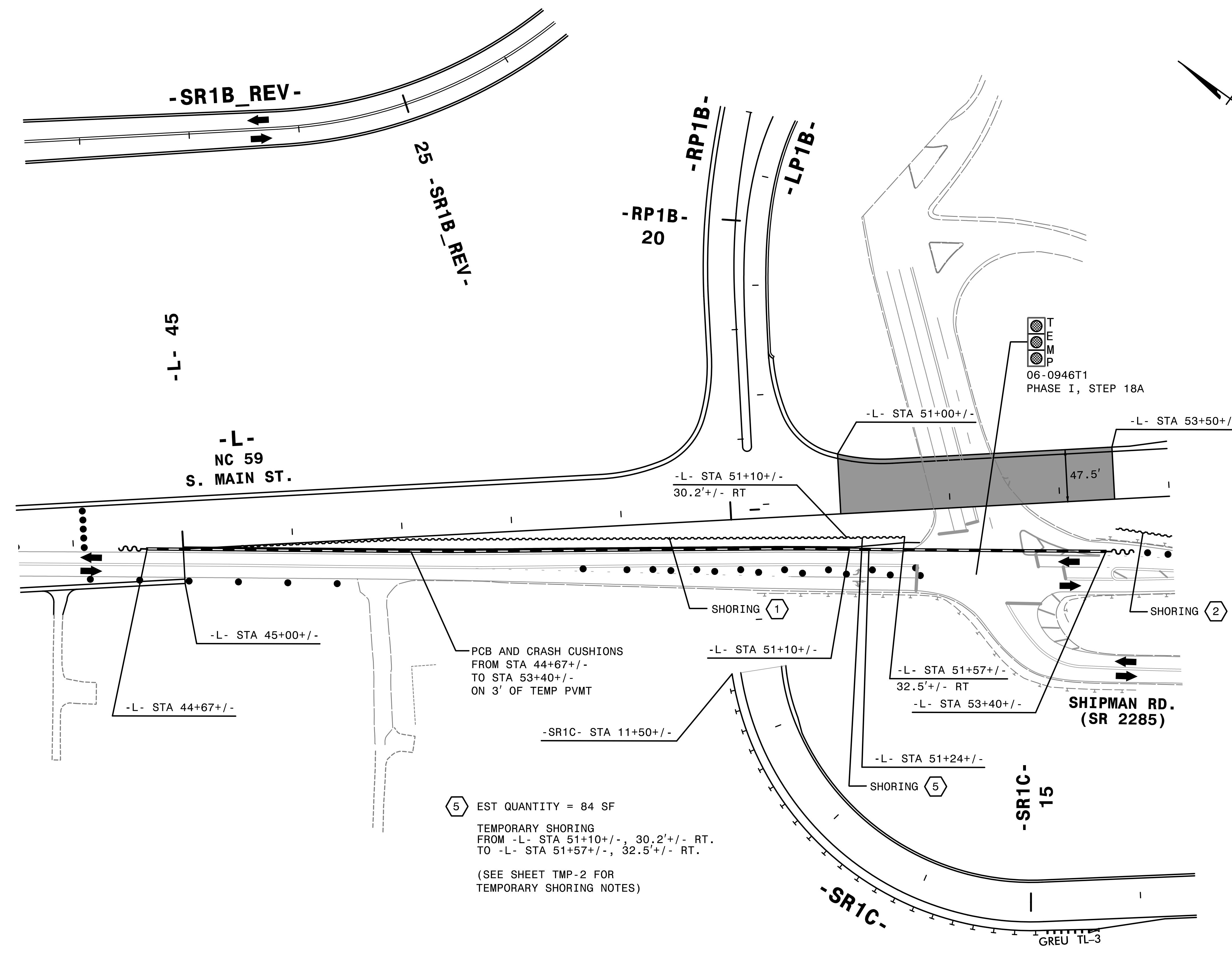
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
STEPS 11 THRU 17
DETAIL



5 EST QUANTITY = 84 SF
 TEMPORARY SHORING
 FROM -L- STA 51+10+/-, 30.2' +/- RT.
 TO -L- STA 51+57+/-, 32.5' +/- RT.
 (SEE SHEET TMP-2 FOR
 TEMPORARY SHORING NOTES)

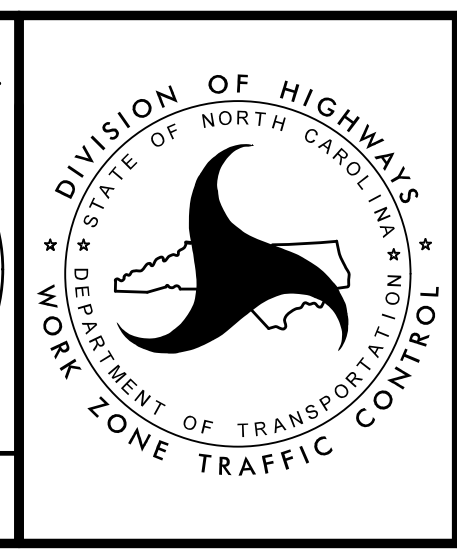
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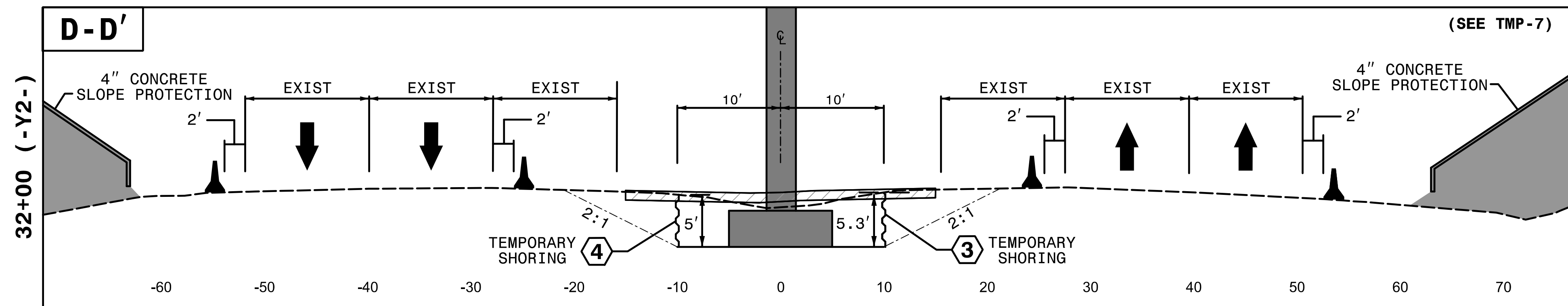
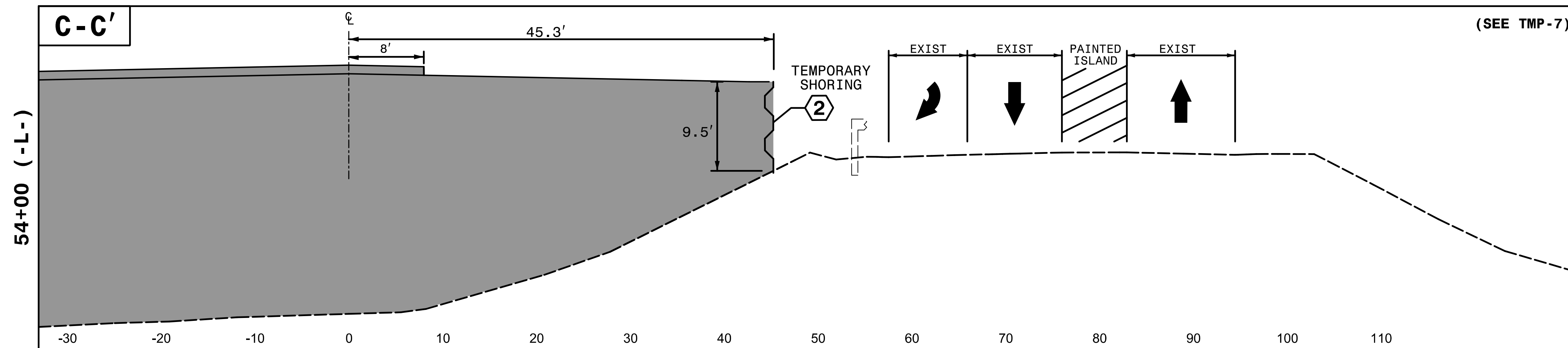
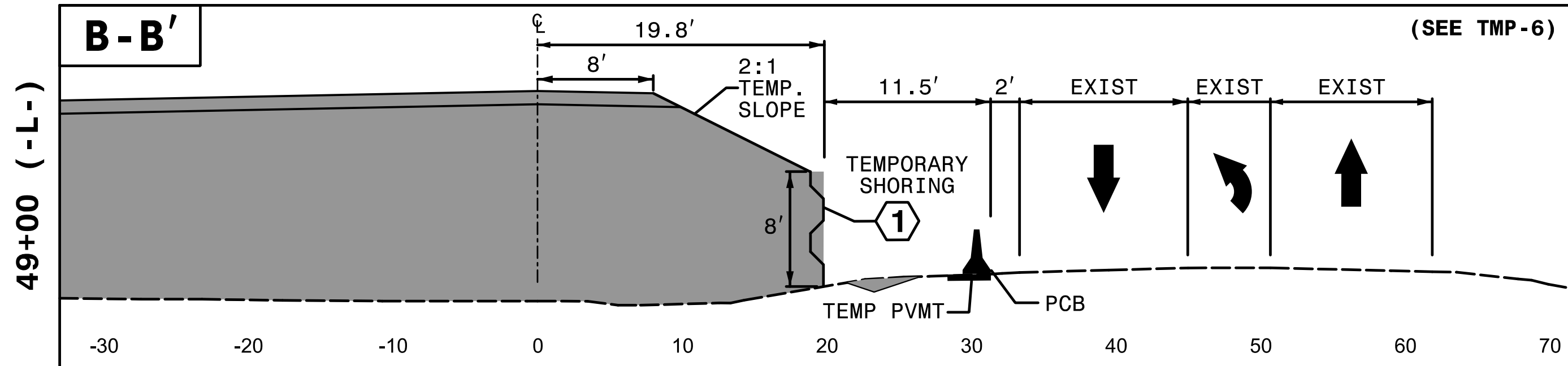
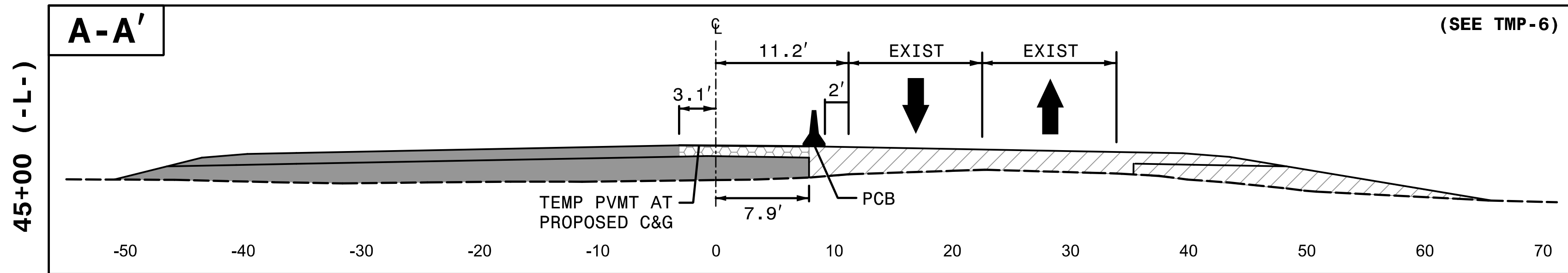
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TRANSPORTATION
 MANAGEMENT PLAN

PHASE I
 STEP 18
 DETAIL



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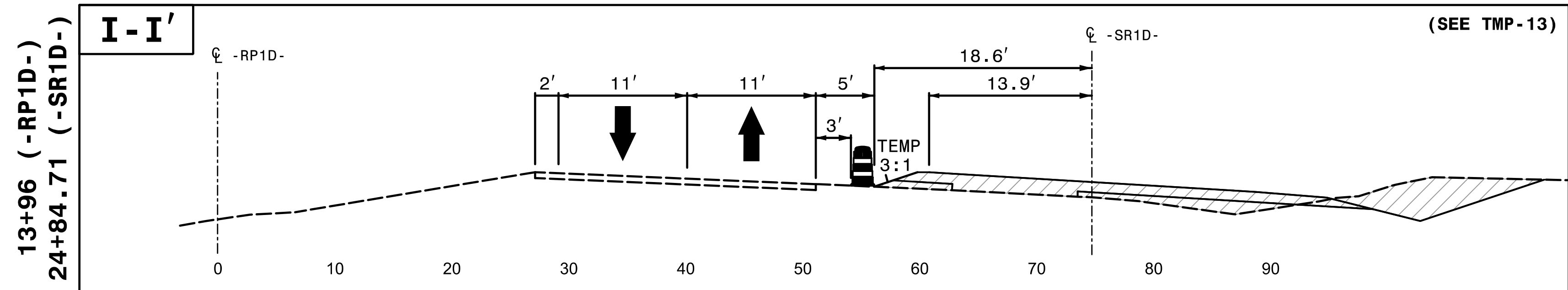
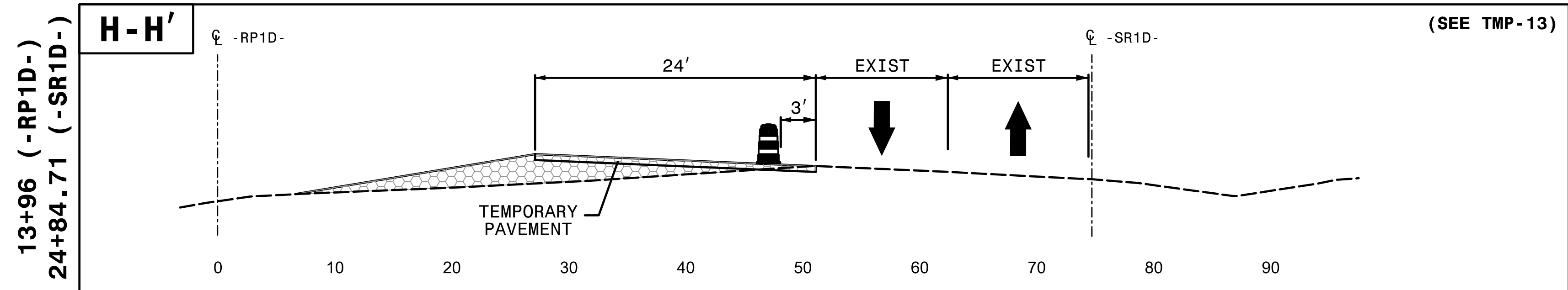
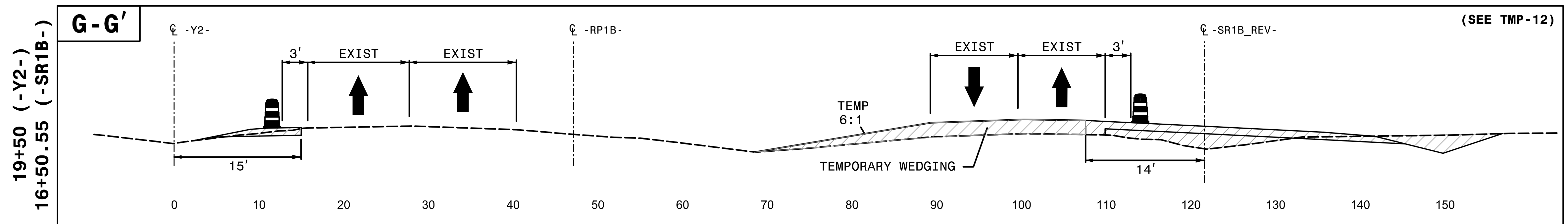
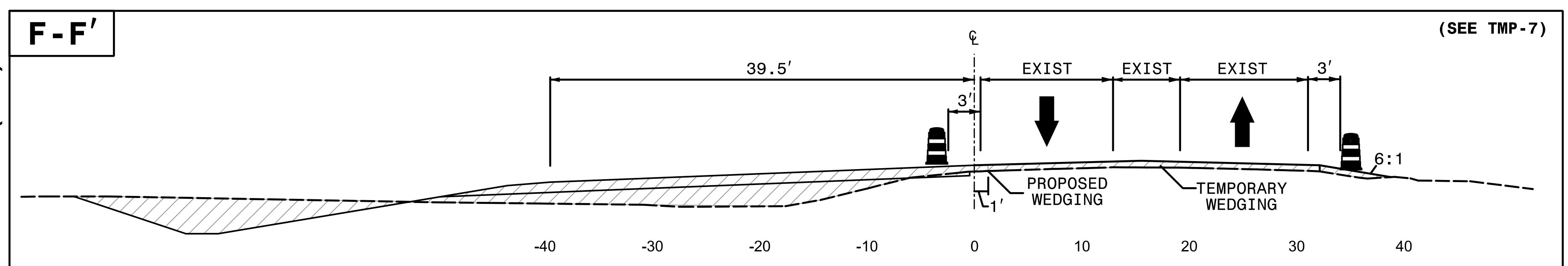
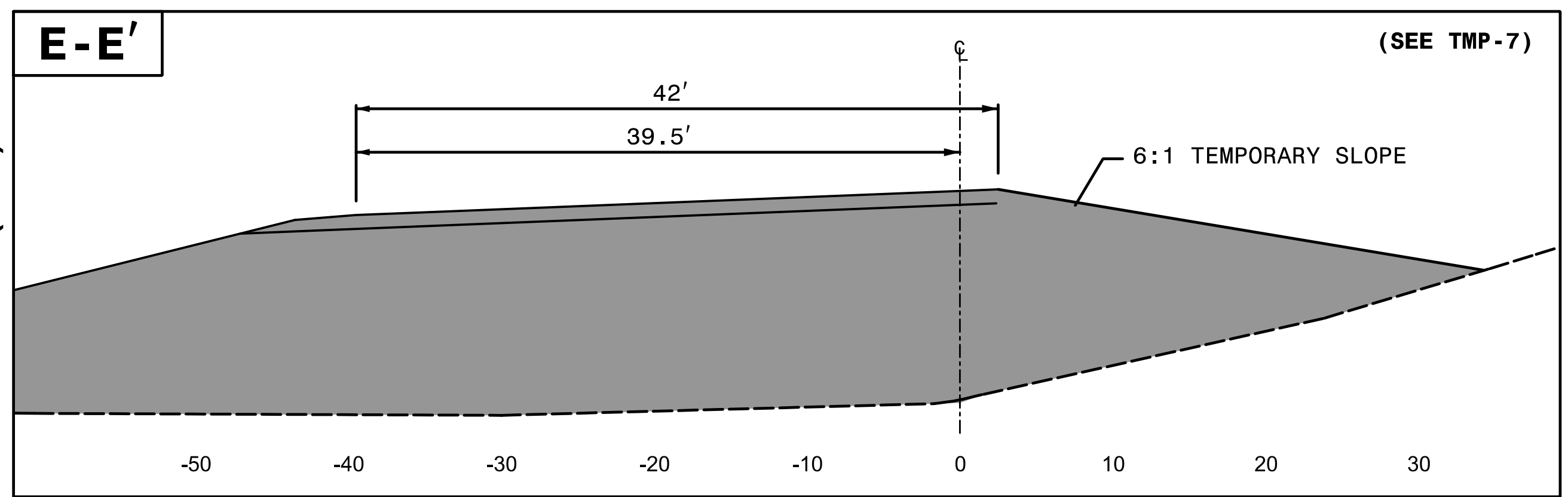
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TRANSPORTATION
MANAGEMENT PLAN

PHASE I
CUT SECTIONS



2/1/2018
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 DATE: 2/5/2018

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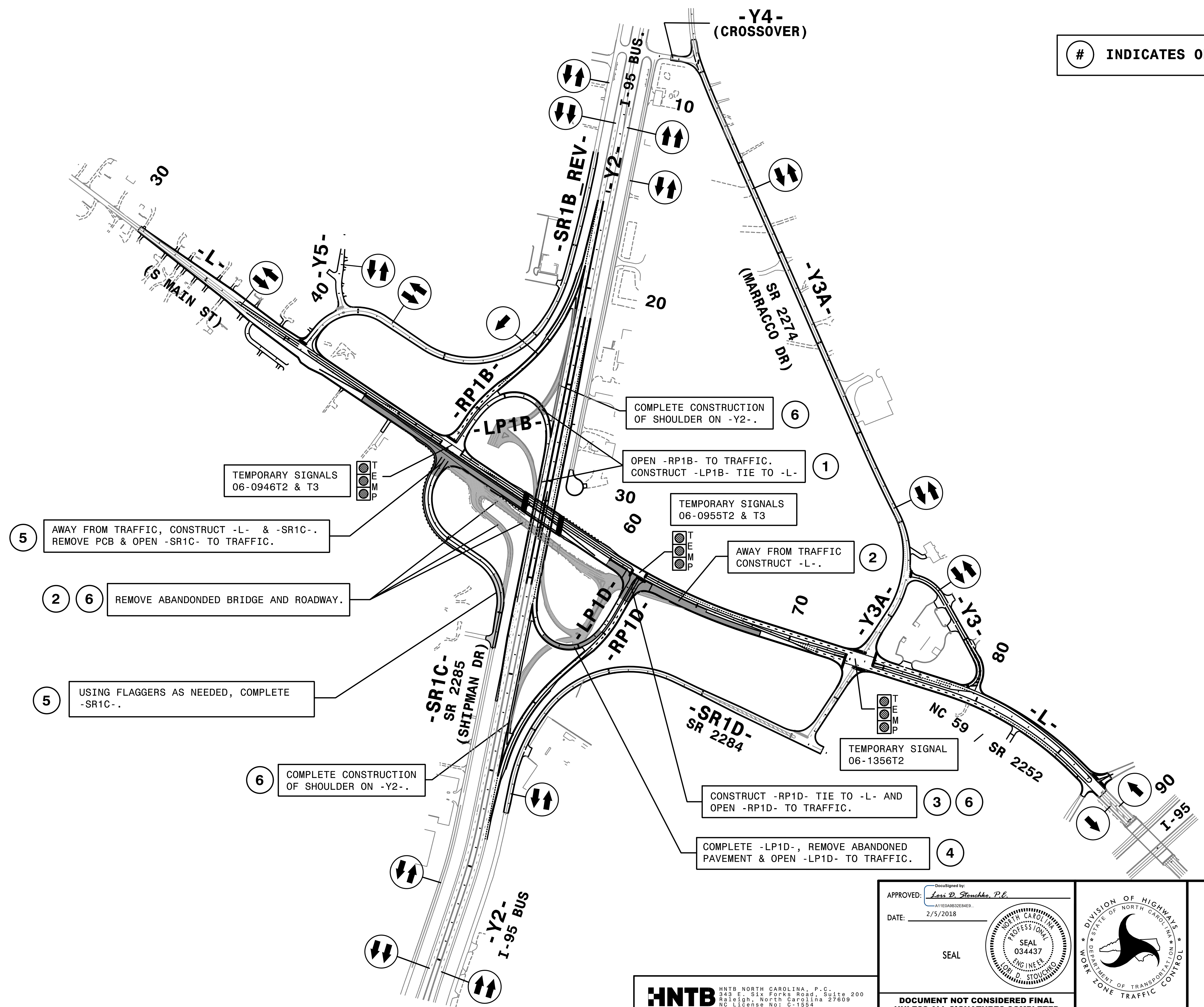
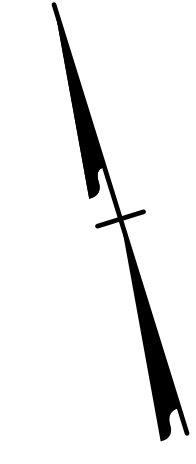
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TRANSPORTATION
 MANAGEMENT PLAN

PHASE I
 CUT SECTIONS

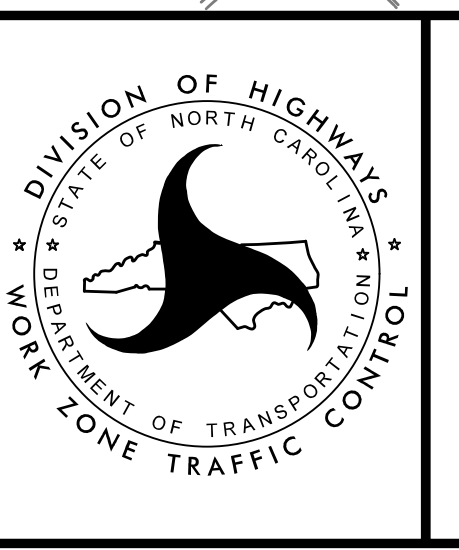
INDICATES ORDER OF CONSTRUCTION



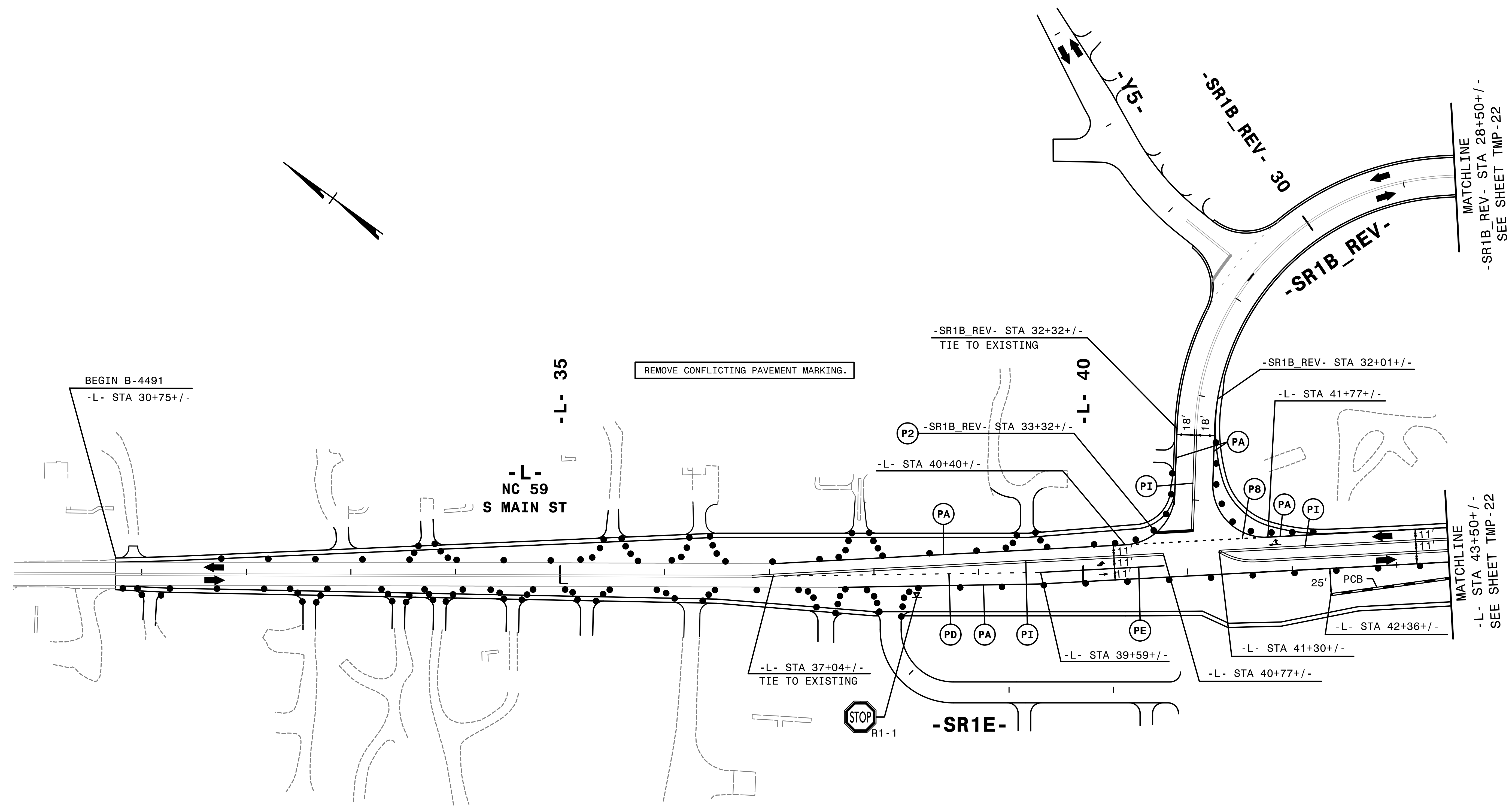
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 PHASE II
 OVERVIEW



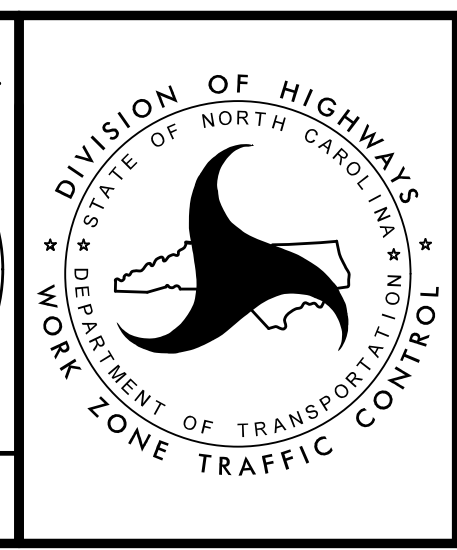
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TRANSPORTATION
 MANAGEMENT PLAN

PHASE II
 DETAIL

TEMPORARY SIGNAL NOTES:

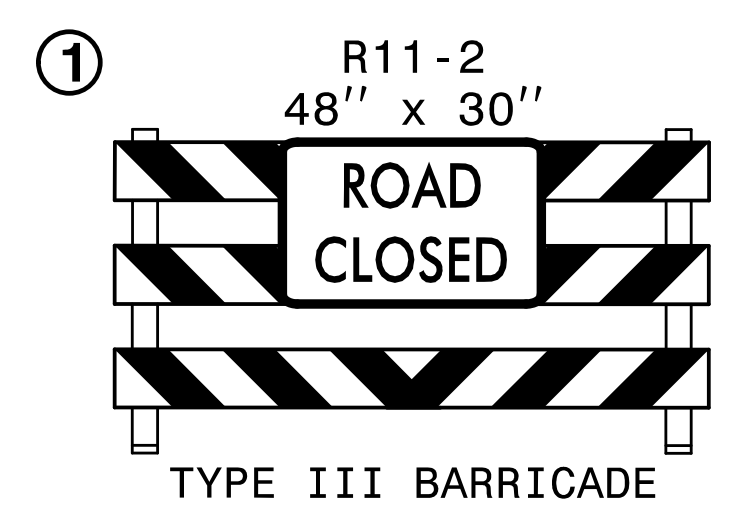
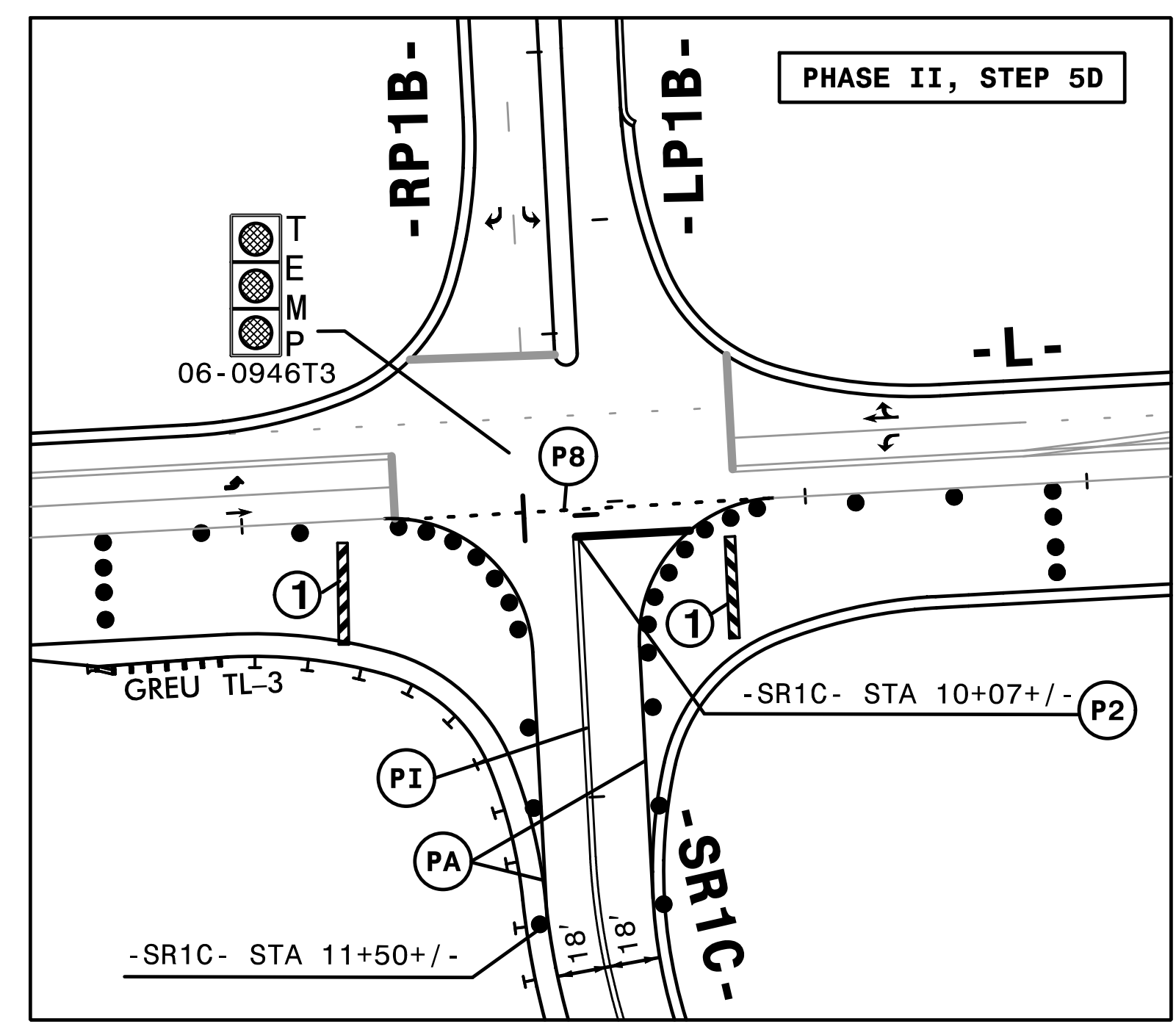
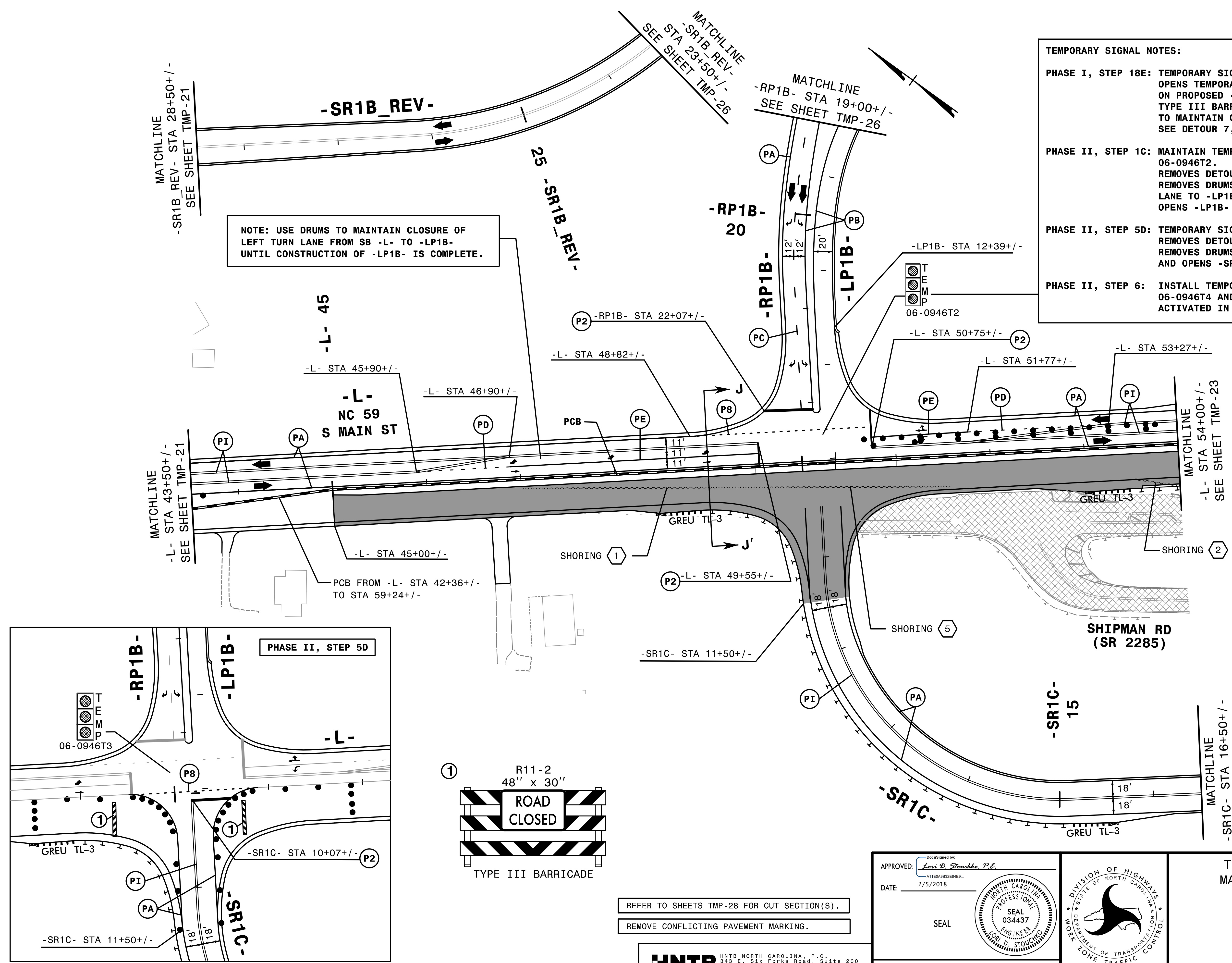
PHASE I, STEP 18E: TEMPORARY SIGNAL 06-0946T2 OPENS TEMPORARY PATTERNS ON PROPOSED -L- & -RP1B-. USES TYPE III BARRICADES AND DRUMS TO MAINTAIN CLOSURE OF -LP1B-. SEE DETOUR 7, SHEET TMP-2G.

PHASE II, STEP 1C: MAINTAIN TEMPORARY SIGNAL 06-0946T2. REMOVES DETOUR 7 (TMP-2G), REMOVES DRUMS FROM LEFT TURN LANE TO -LP1B- FROM SB -L- AND OPENS -LP1B- TO TRAFFIC.

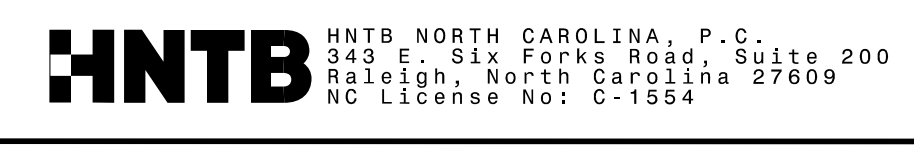
PHASE II, STEP 5D: TEMPORARY SIGNAL 06-0946T3 REMOVES DETOUR 9 (TMP-2I), REMOVES DRUMS FROM LEFT TURN AND OPENS -SR1C- TO TRAFFIC.

PHASE II, STEP 6: INSTALL TEMPORARY SIGNAL 06-0946T4 AND COVER HEADS UNTIL ACTIVATED IN PHASE III, STEP 1.

NOTE: USE DRUMS TO MAINTAIN CLOSURE OF LEFT TURN LANE FROM SB -L- TO -LP1B- UNTIL CONSTRUCTION OF -LP1B- IS COMPLETE.



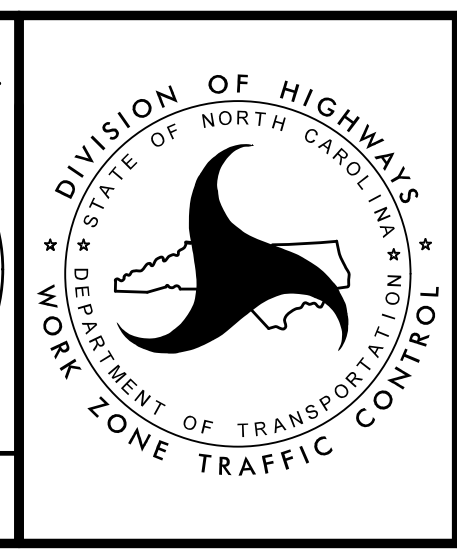
REFER TO SHEETS TMP-28 FOR CUT SECTION(S).
 REMOVE CONFLICTING PAVEMENT MARKING.



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 DATE: 2/5/2018

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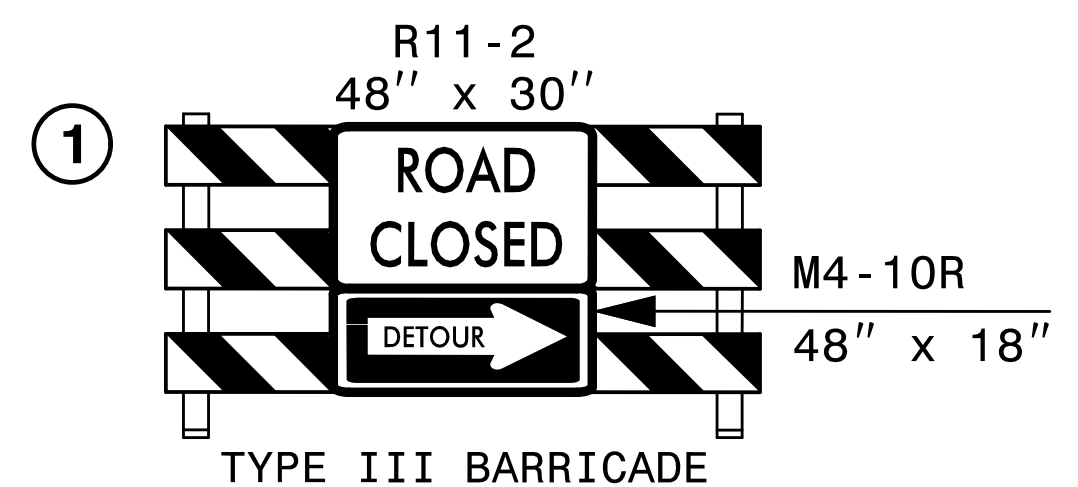
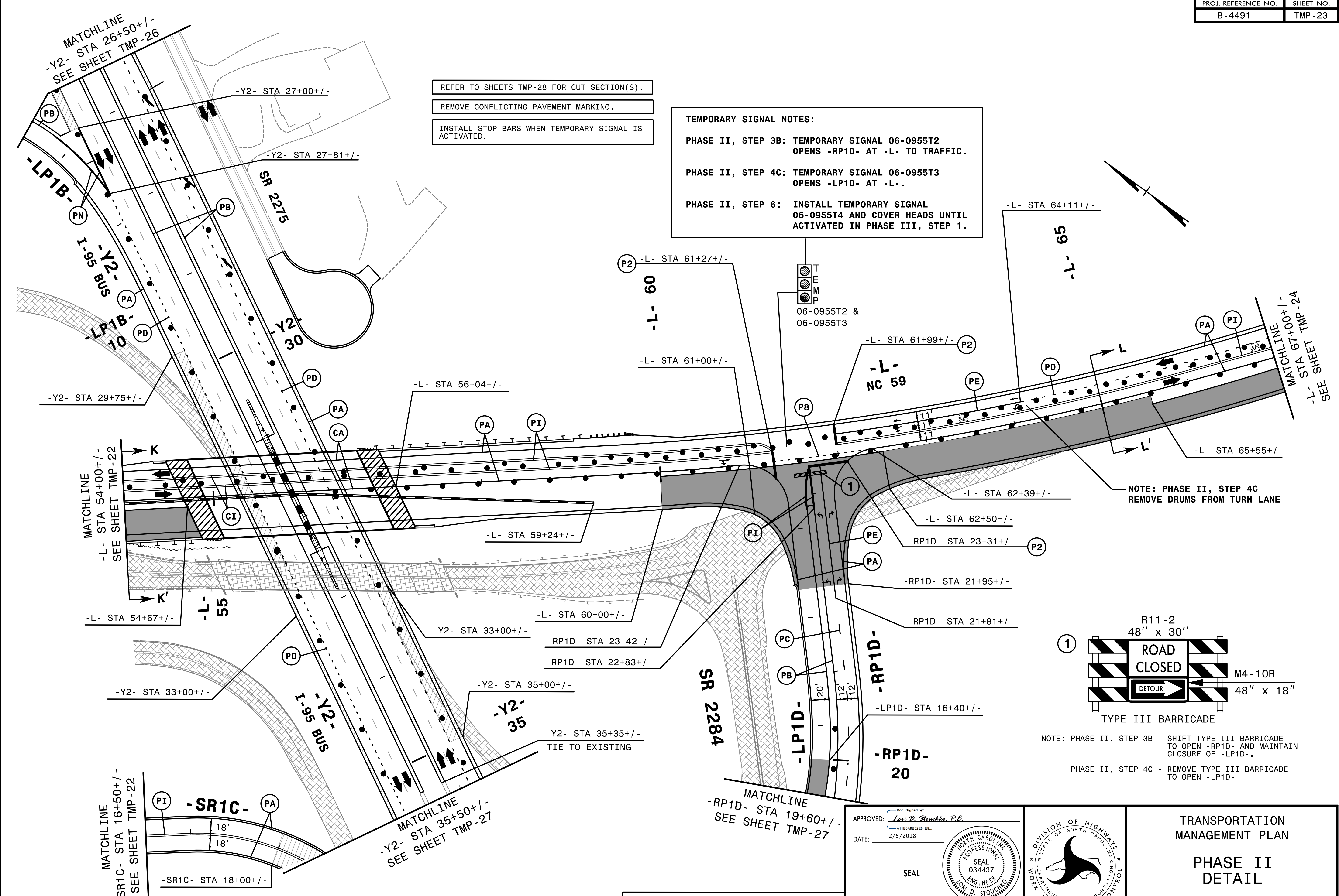
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TRANSPORTATION MANAGEMENT PLAN

PHASE II DETAIL

2/1/2018
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Lori D. Roucho, P.E.
A11E6A8B32E4E9

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DATE: 2/5/2018

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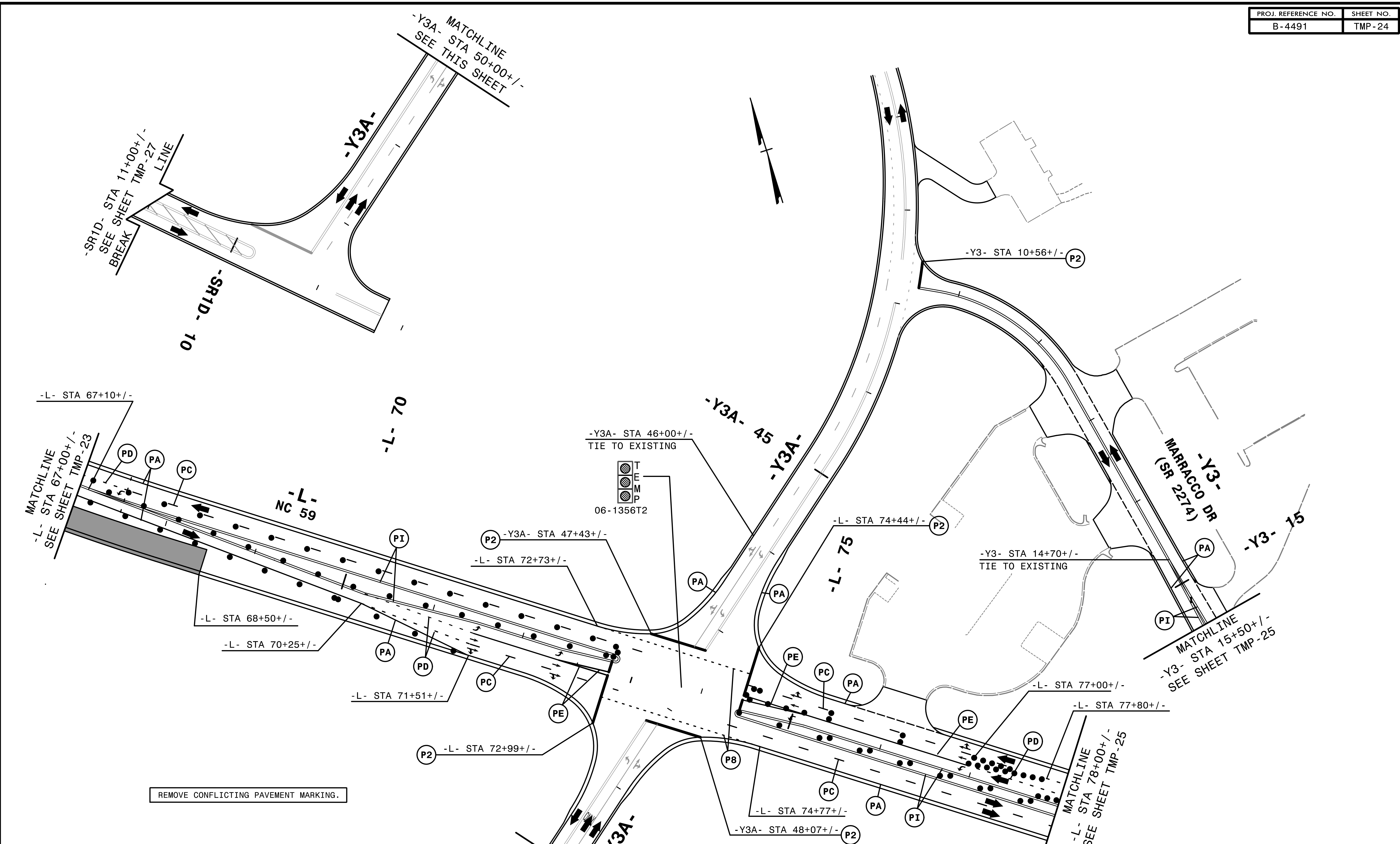
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TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL

2/1/2018
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-L- STA 67+10+/-

MATCHLINE
-L- STA 67+00+/-
SEE SHEET TMP-23

-L- STA 68+50+/-

-L- STA 70+25+/-

-L- STA 71+51+/-

-L- STA 72+99+/-

-Y3A- STA 47+43+/-

-L- STA 72+73+/-

-Y3A- STA 46+00+/-
TIE TO EXISTING

TEMP
06-1356T2

-Y3A- 45
-Y3A-

-L- STA 74+44+/-

-L- STA 74+77+/-

-Y3A- STA 48+07+/-

-Y3- STA 10+56+/-

-Y3- STA 14+70+/-
TIE TO EXISTING

-L- STA 77+00+/-

-L- STA 77+80+/-

MATCHLINE
-L- STA 78+00+/-
SEE SHEET TMP-25

MARRACCO DR
(SR 2274)

MATCHLINE
-Y3- STA 15+50+/-
SEE SHEET TMP-25

REMOVE CONFLICTING PAVEMENT MARKING.

MATCHLINE
-Y3A- STA 50+00+/-
SEE THIS SHEET

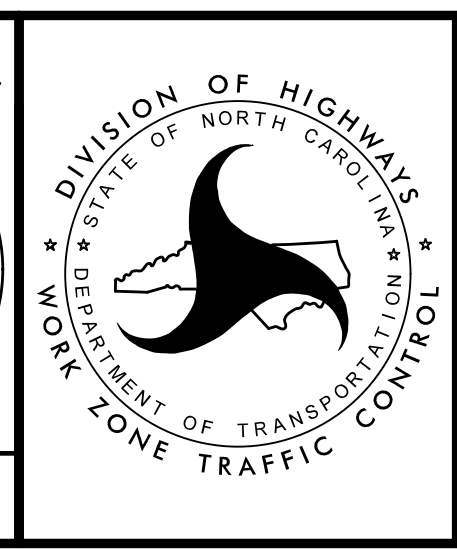
2/1/2018
\\TC\B-4491_tc_24_P2d4.dgn
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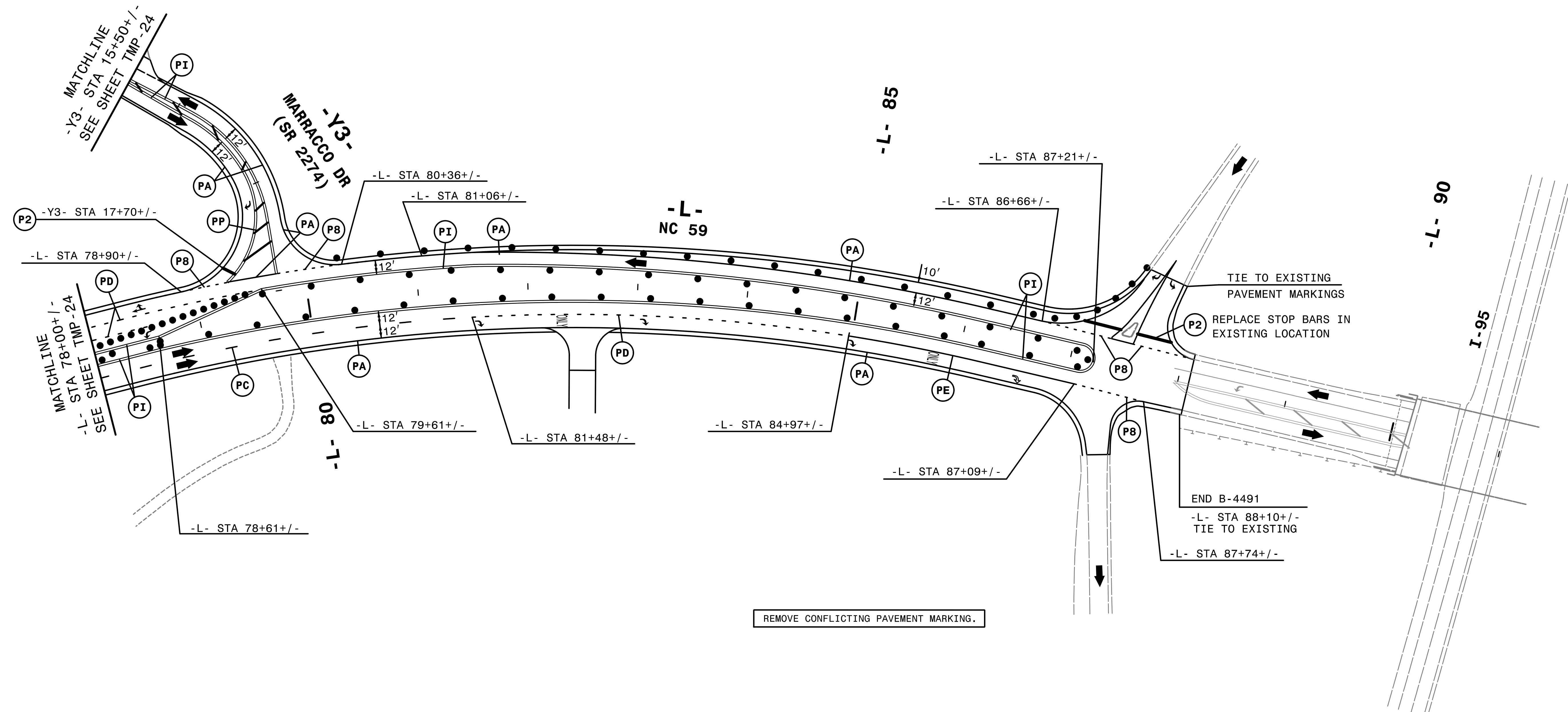
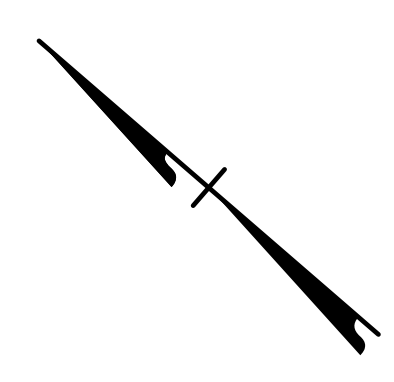
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TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



2/1/2018
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 \TCP\B-4491_tc_25_P2.dwg

REMOVE CONFLICTING PAVEMENT MARKING.

TIE TO EXISTING PAVEMENT MARKINGS
 P2 REPLACE STOP BARS IN EXISTING LOCATION

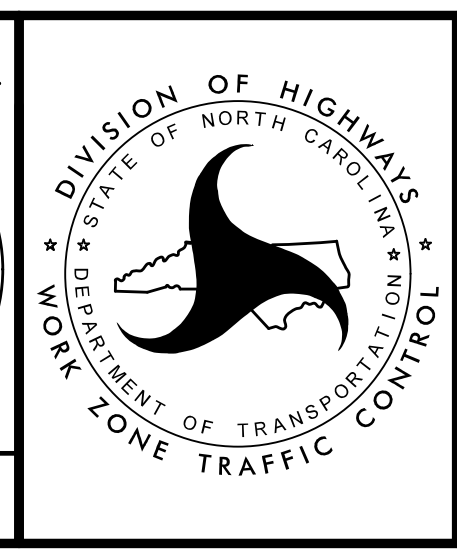
END B-4491
 -L- STA 88+10+/- TIE TO EXISTING
 -L- STA 87+74+/-



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A11E0A9B32E84E9
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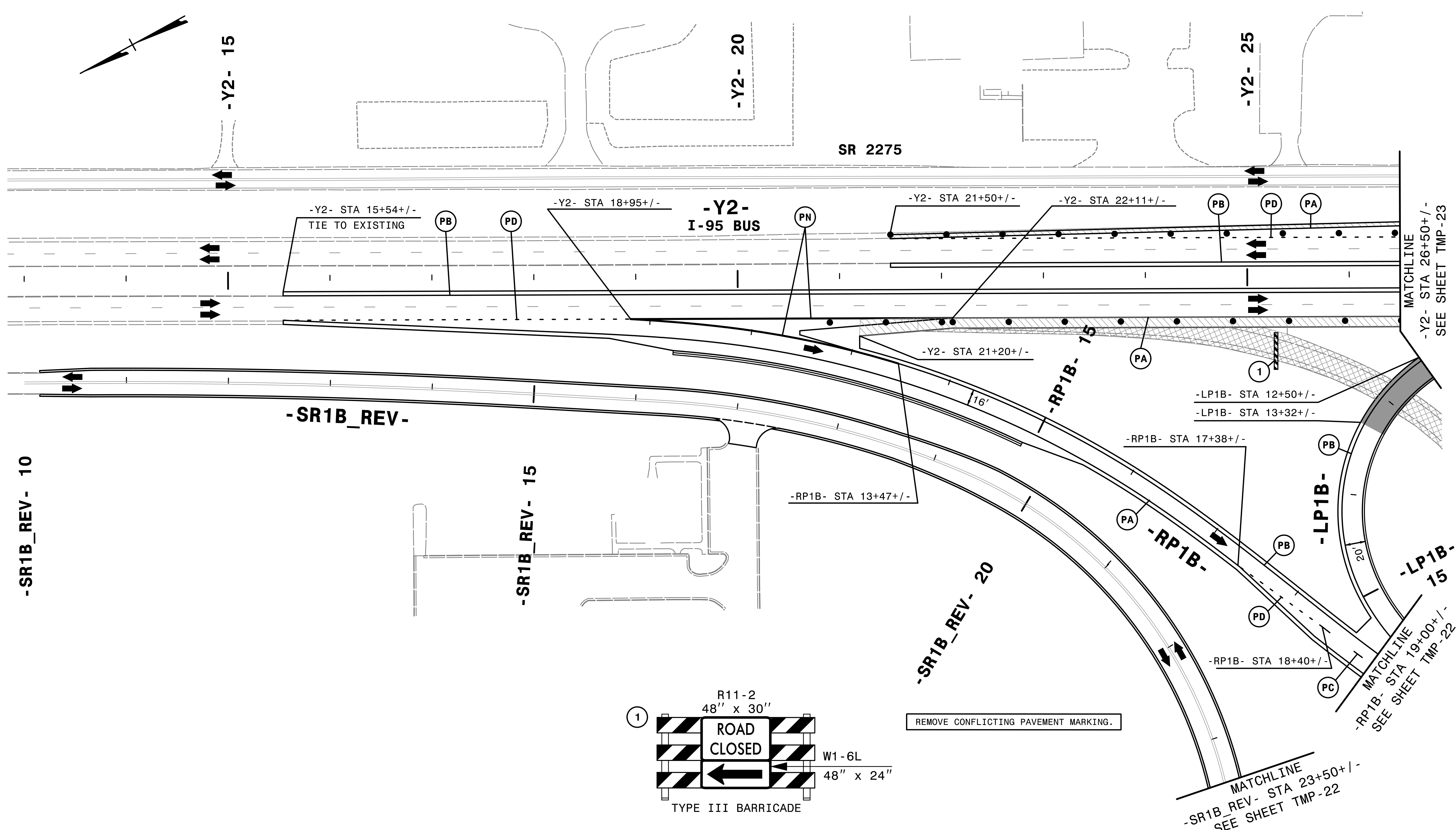
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TRANSPORTATION MANAGEMENT PLAN

PHASE II DETAIL



-SR1B_REV- 10

-SR1B_REV-

-SR1B_REV- 15

-Y2- I-95 BUS

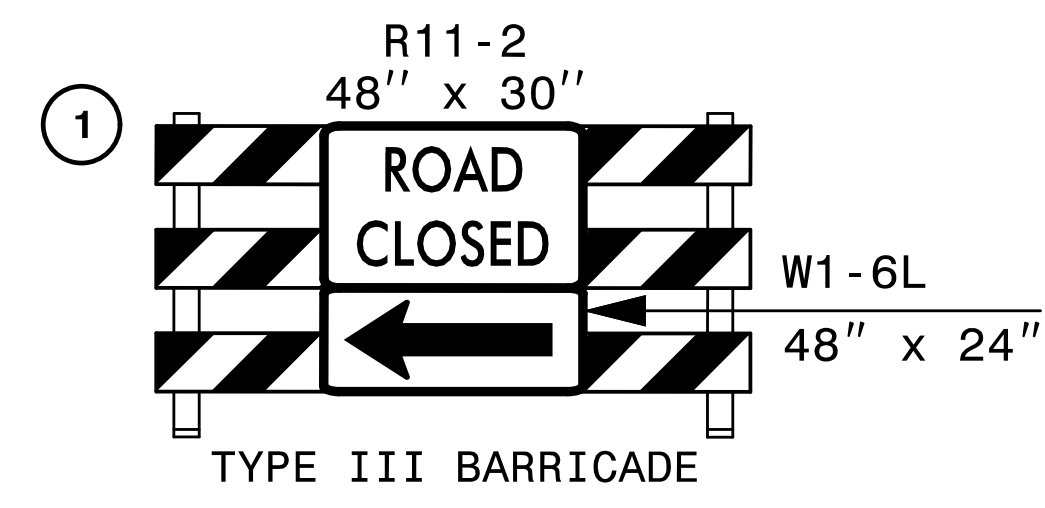
-SR1B_REV- 20

-RP1B- 15

-RP1B-

-LP1B-

-LP1B- 15



REMOVE CONFLICTING PAVEMENT MARKING.

MATCHLINE
-SR1B_REV- STA 23+50+/-
SEE SHEET TMP-22

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HNTB

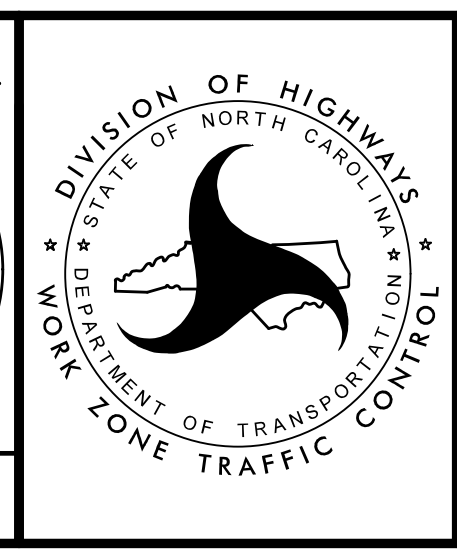
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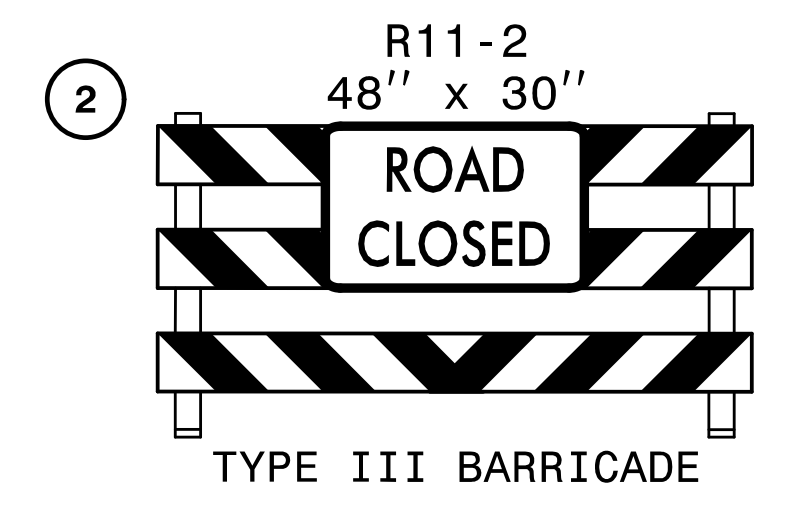
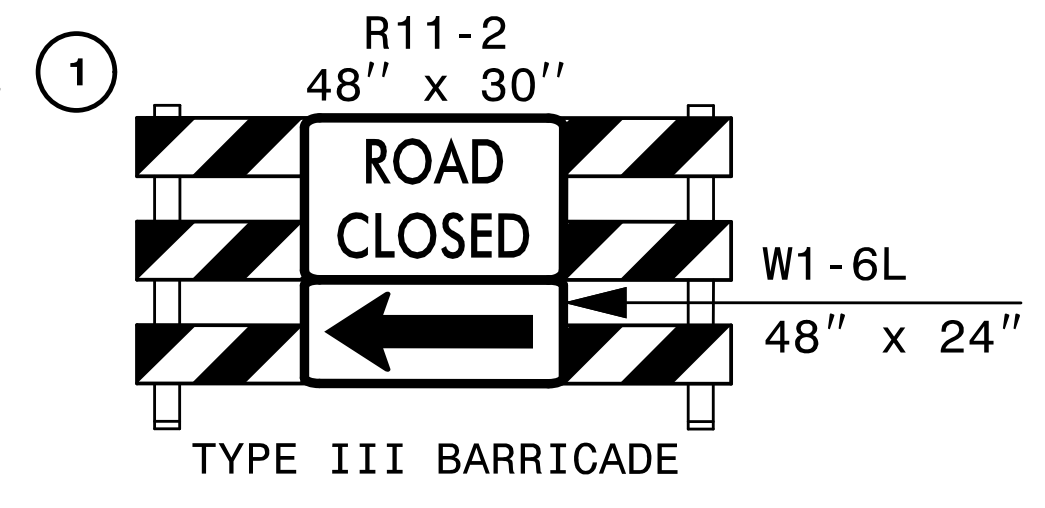
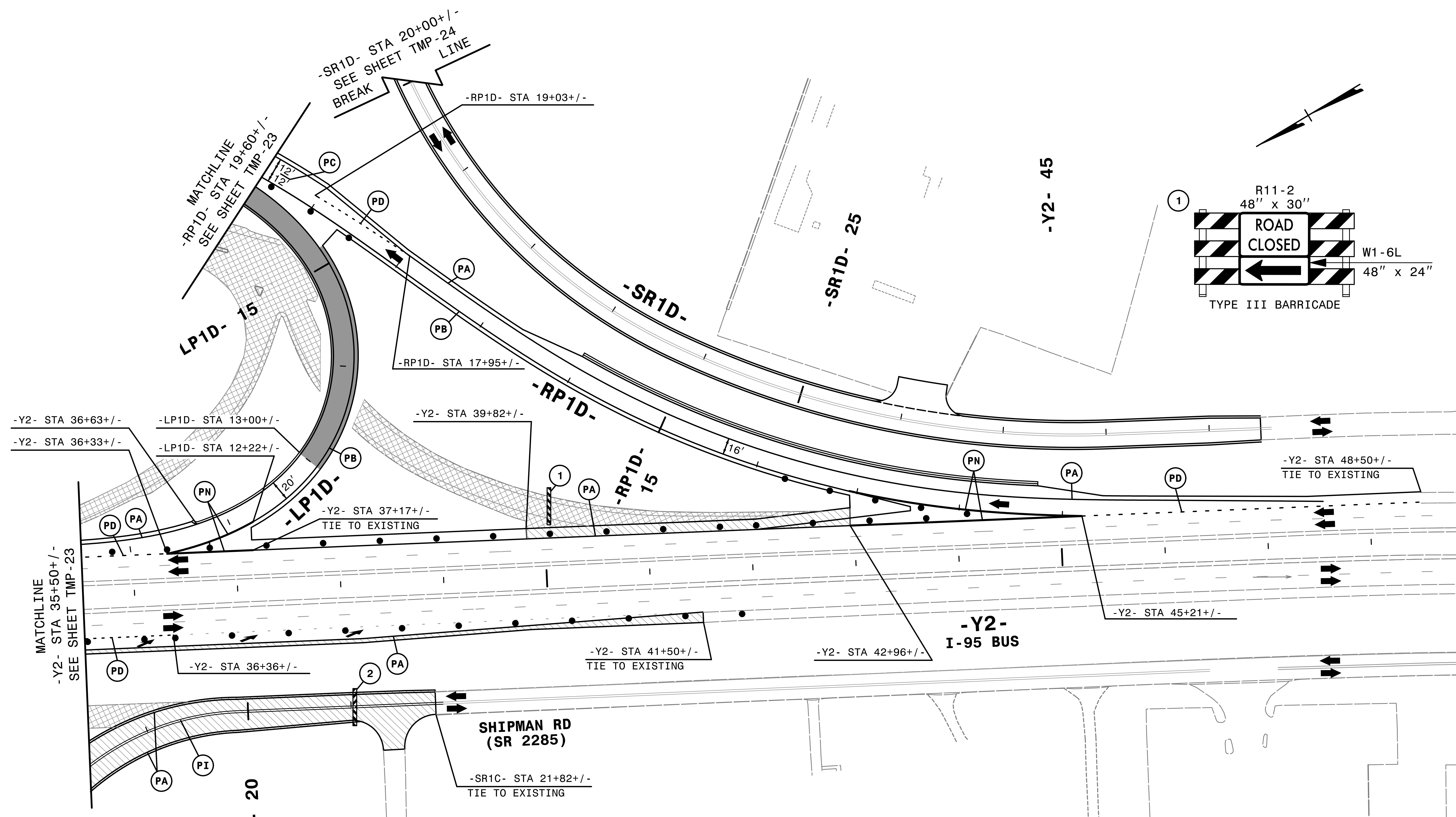
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TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



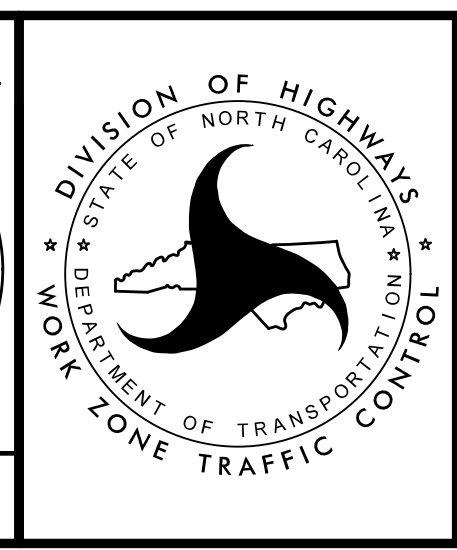
REMOVE CONFLICTING PAVEMENT MARKING.

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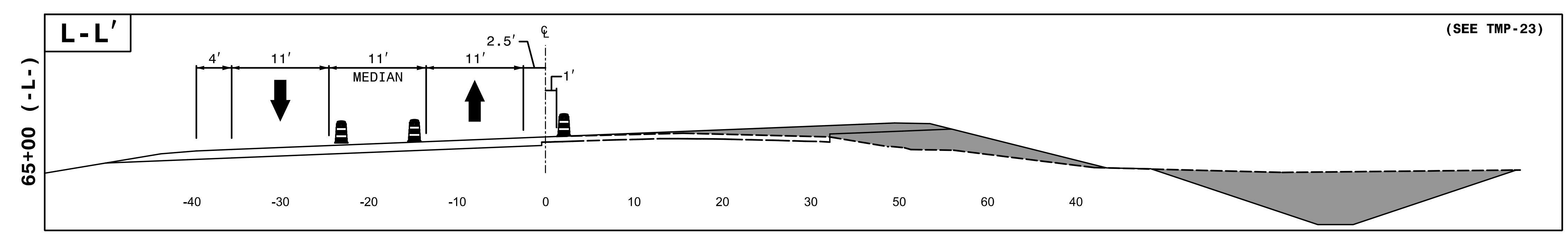
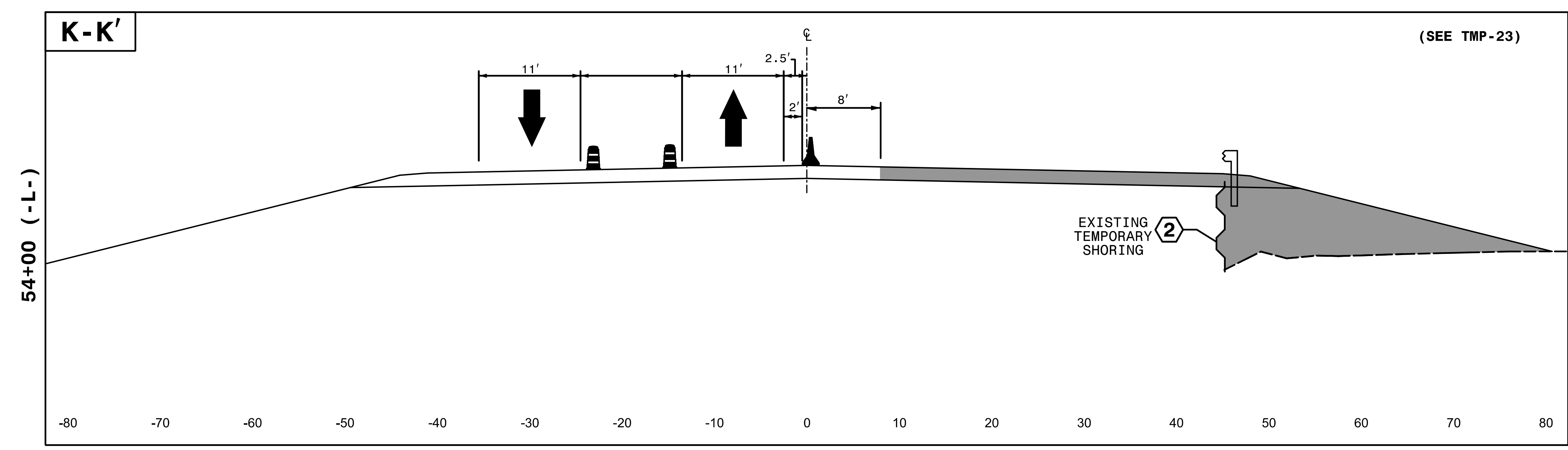
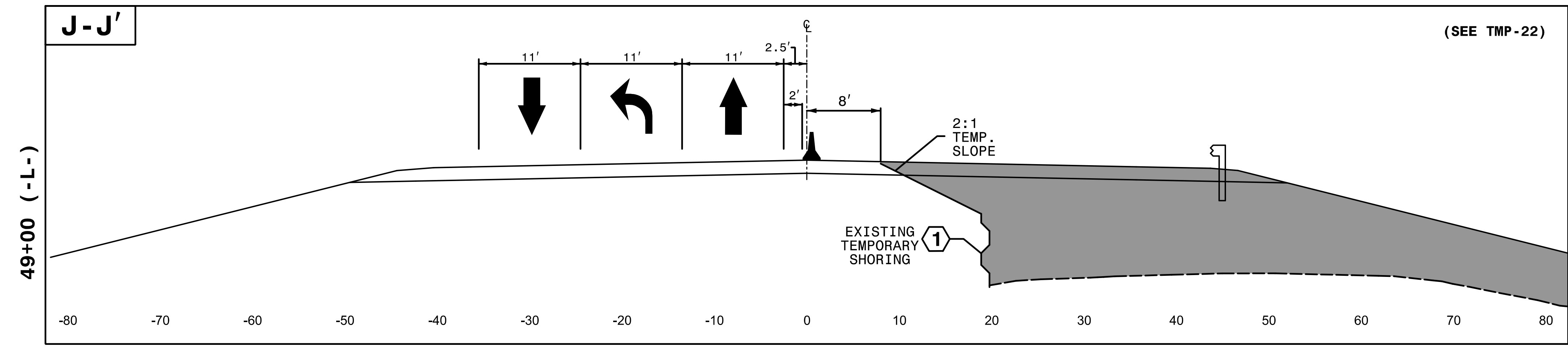
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 SEAL 034437
 LORI D. STOUCHKO

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TRANSPORTATION
 MANAGEMENT PLAN
 PHASE II
 DETAIL



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DATE: 2/5/2018

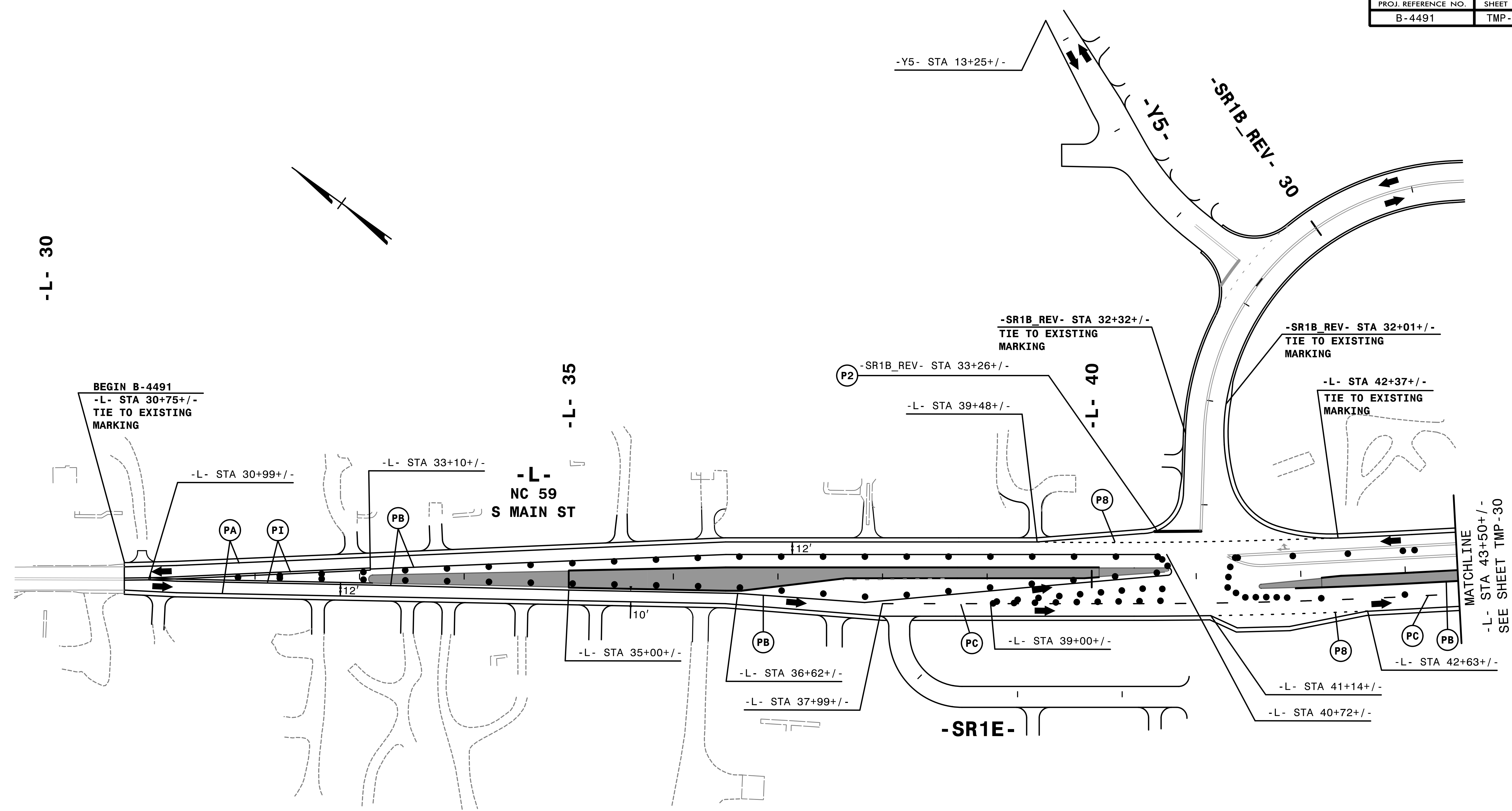
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MANAGEMENT PLAN

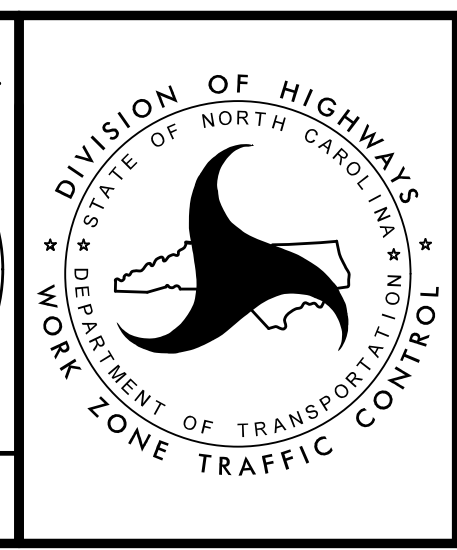
PHASE II
CUT SECTIONS



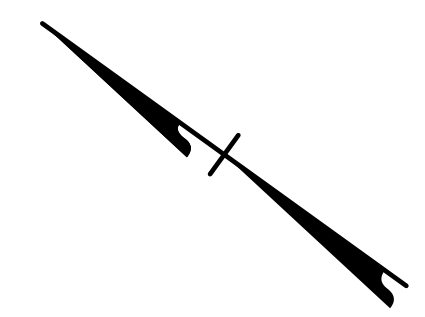
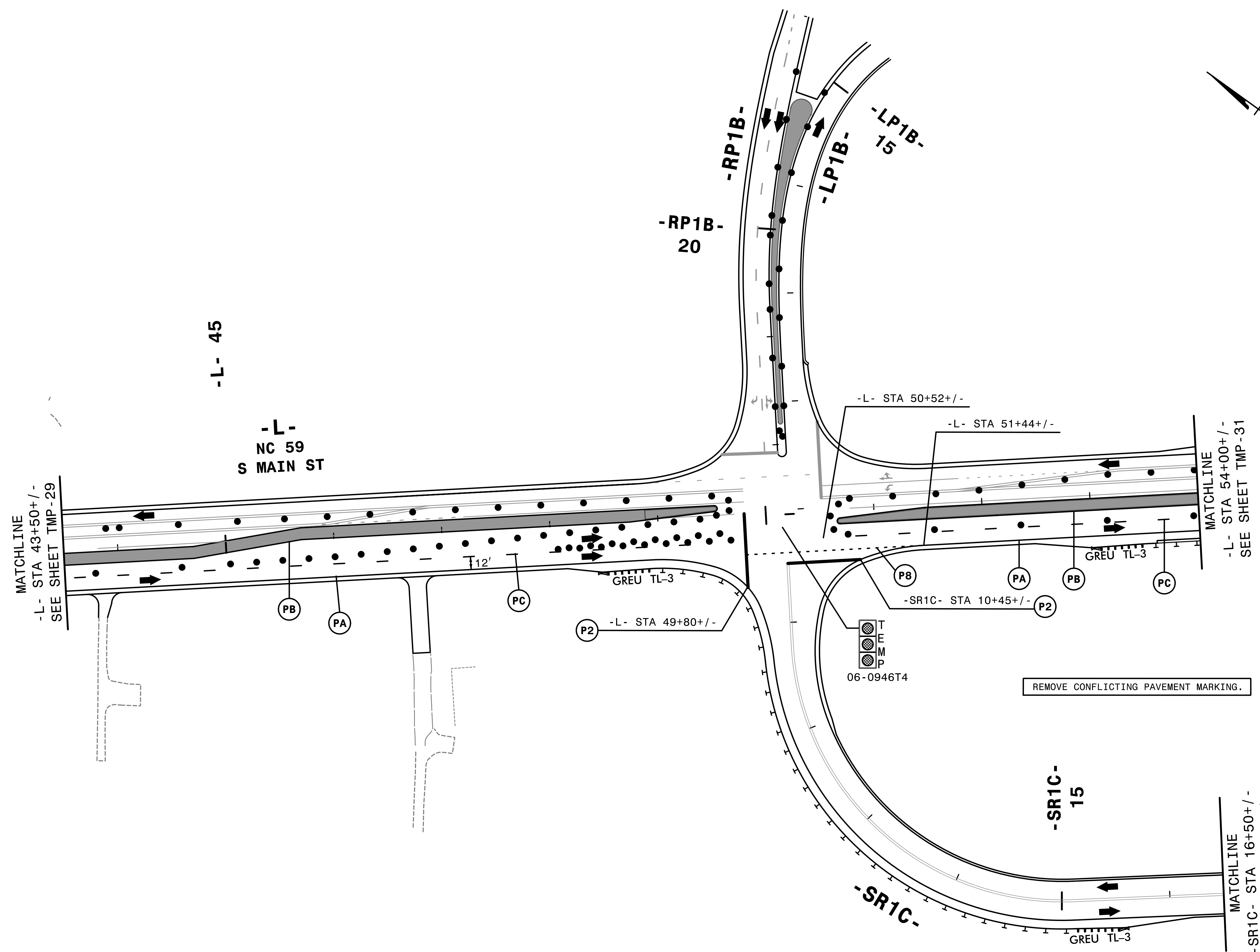
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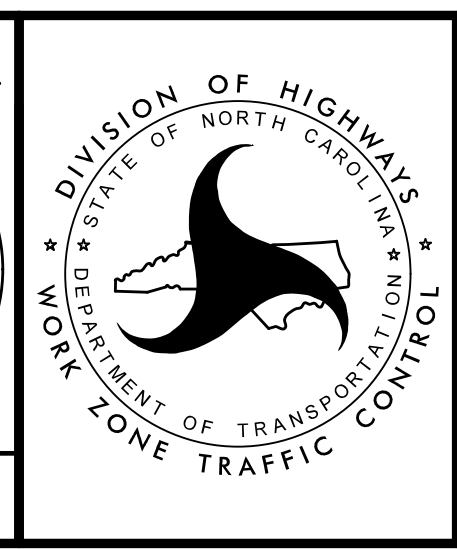
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 DETAIL



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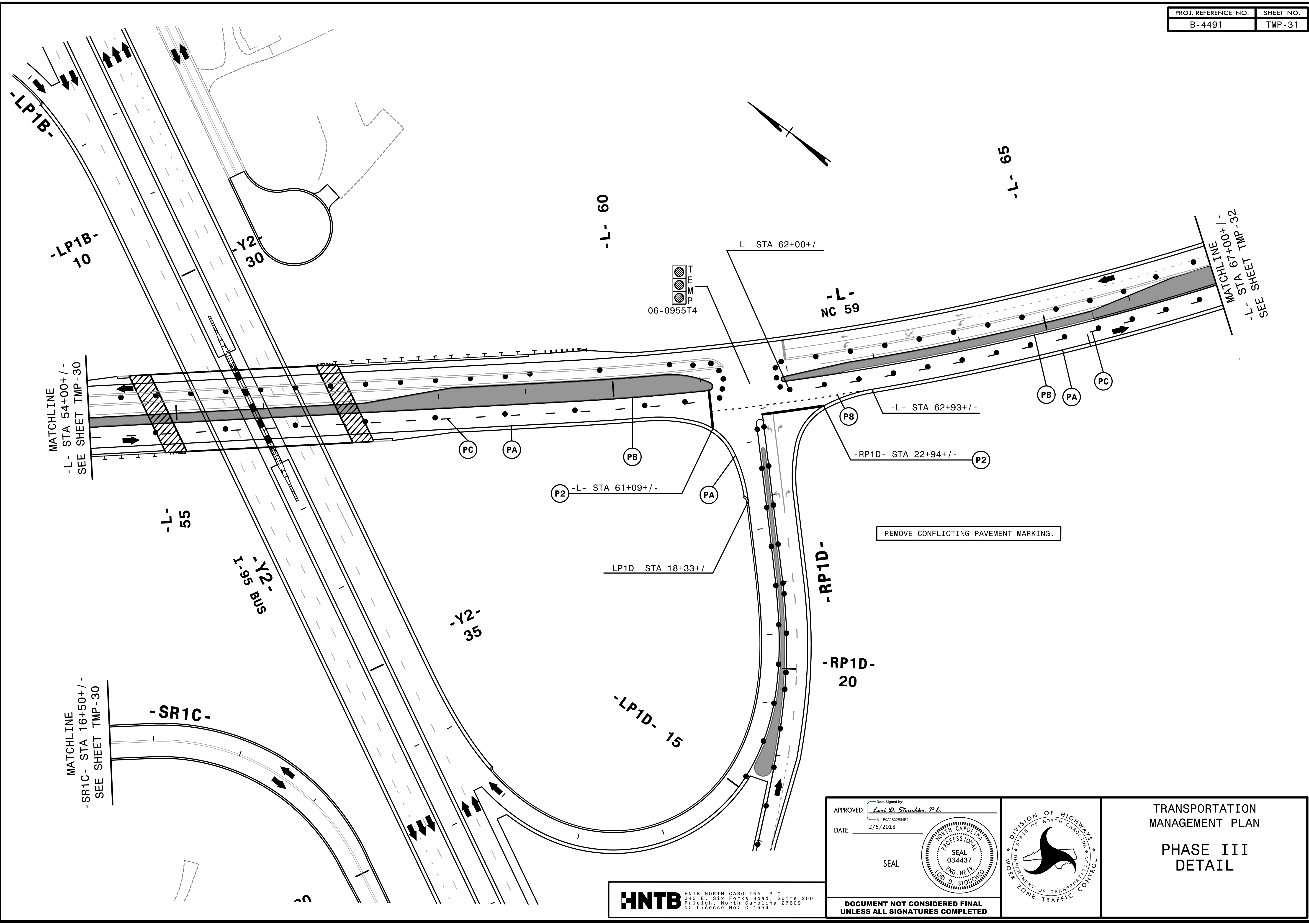
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DIVISION OF HIGHWAYS
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 DETAIL

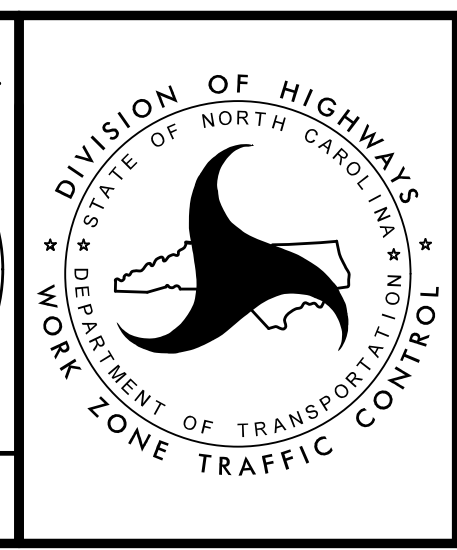


REMOVE CONFLICTING PAVEMENT MARKING.

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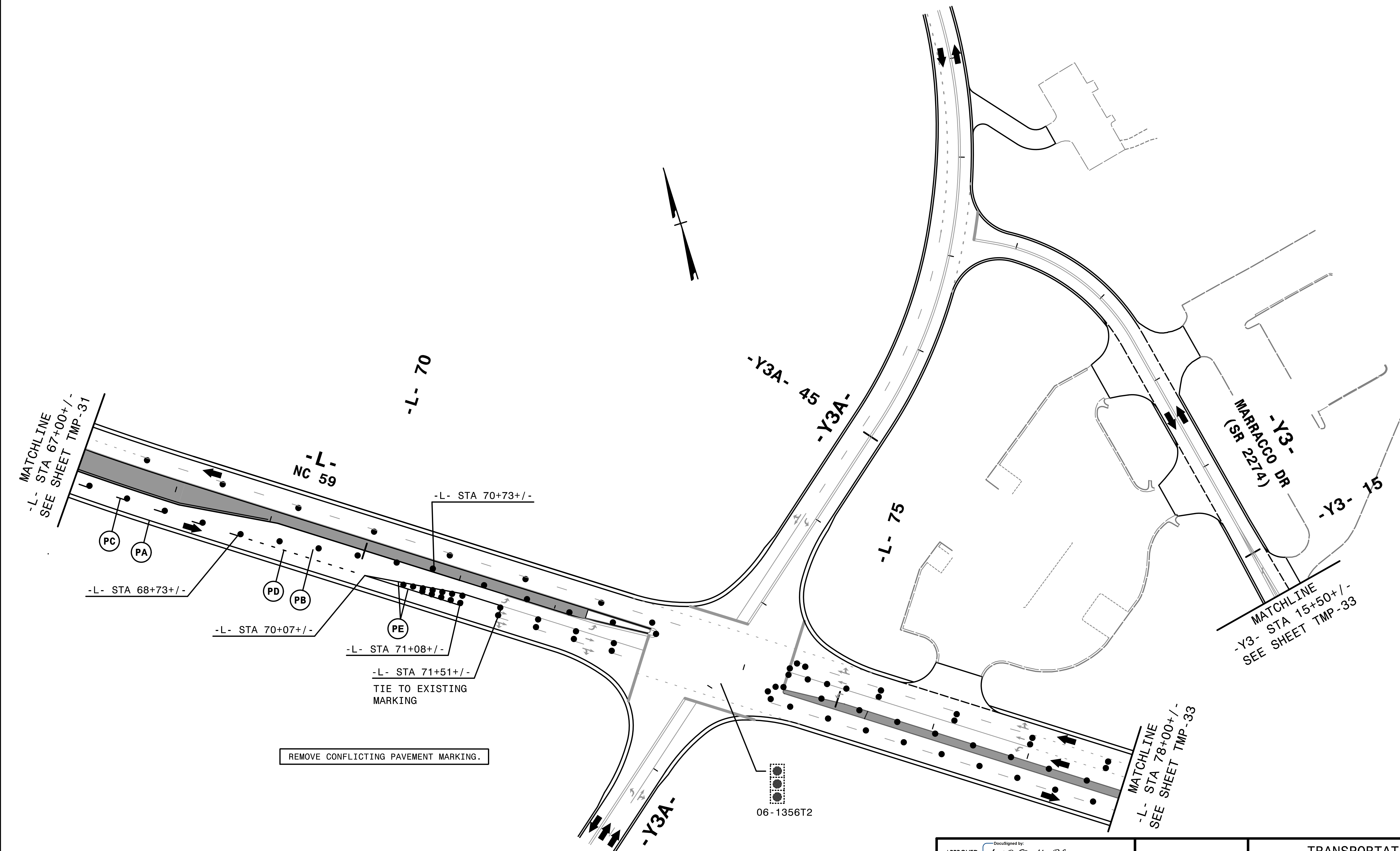
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TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL



MATCHLINE
-L- STA 67+00+/-
SEE SHEET TMP-31

PC PA

-L- STA 68+73+/-

PD PB

-L- STA 70+07+/-

-L- STA 70+73+/-

-L- STA 71+08+/-

-L- STA 71+51+/-
TIE TO EXISTING
MARKING

REMOVE CONFLICTING PAVEMENT MARKING.

-Y3A- 45
-Y3A-

-L- 75

MARRACCO DR
(SR 2274)

-Y3- 15

MATCHLINE
-Y3- STA 15+50+/-
SEE SHEET TMP-33

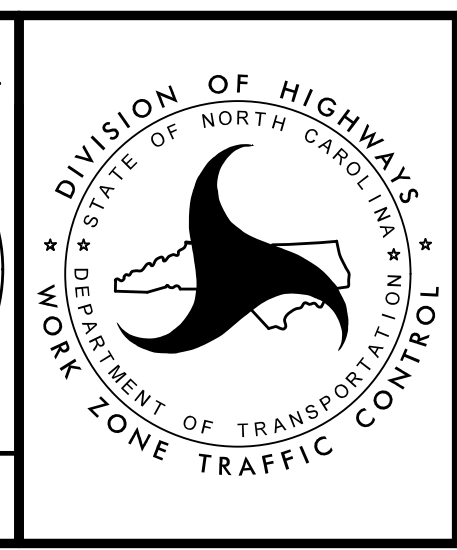
MATCHLINE
-L- STA 78+00+/-
SEE SHEET TMP-33

06-1356T2

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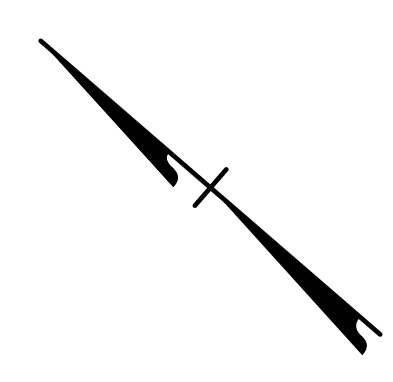
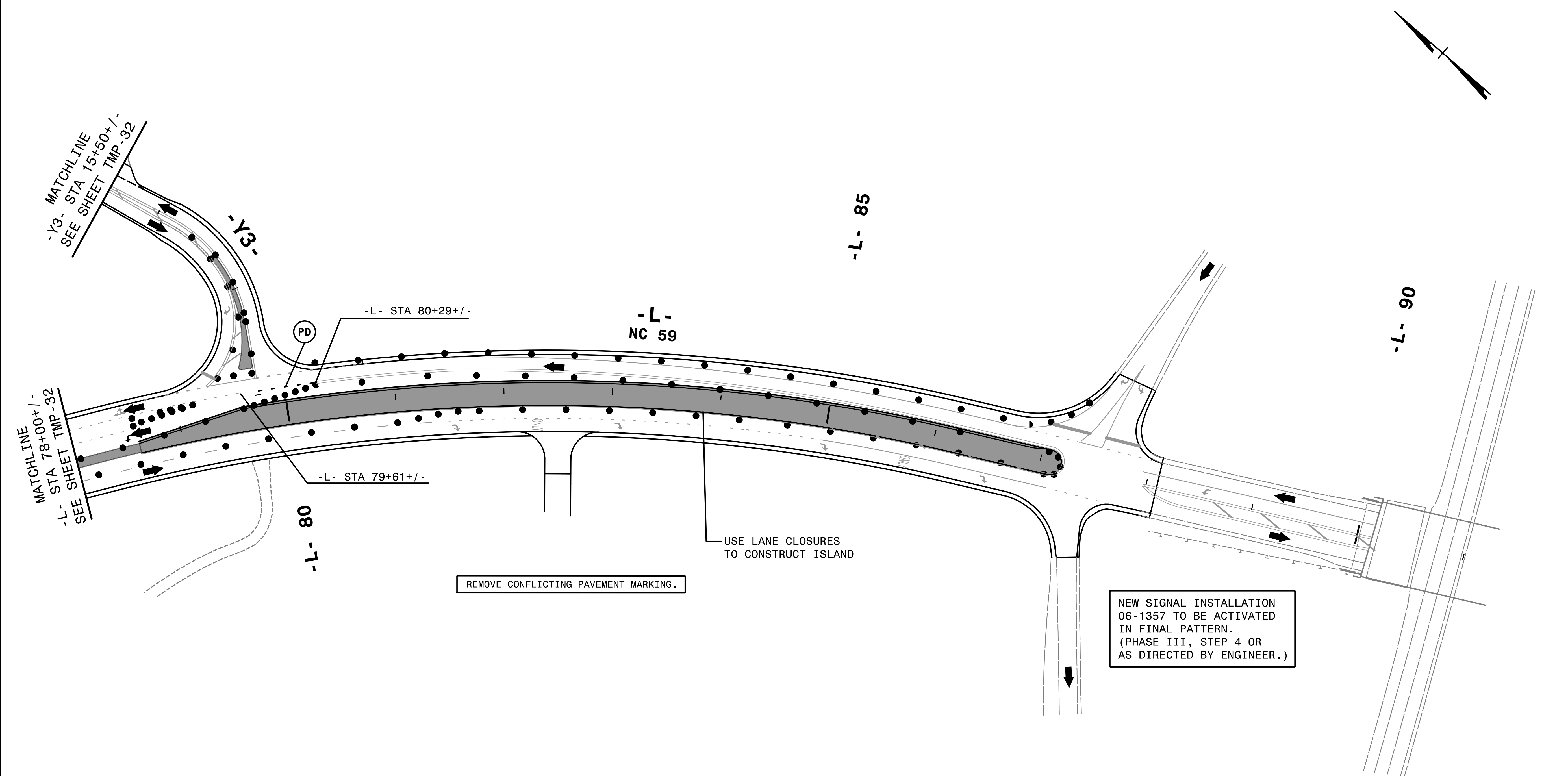
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SEAL 034437
LORI D. STOUCHKO



TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL

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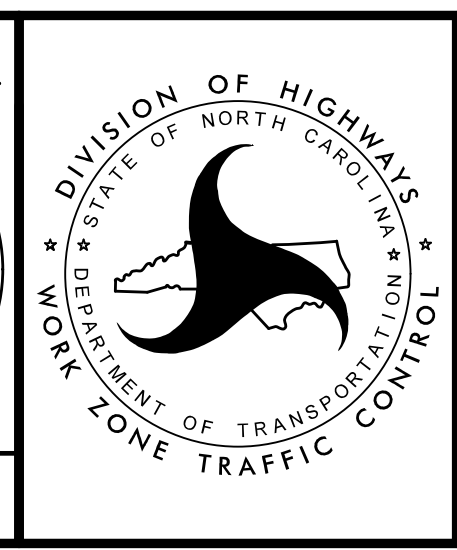
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**TRANSPORTATION
 MANAGEMENT PLAN**

**PHASE III
 DETAIL**