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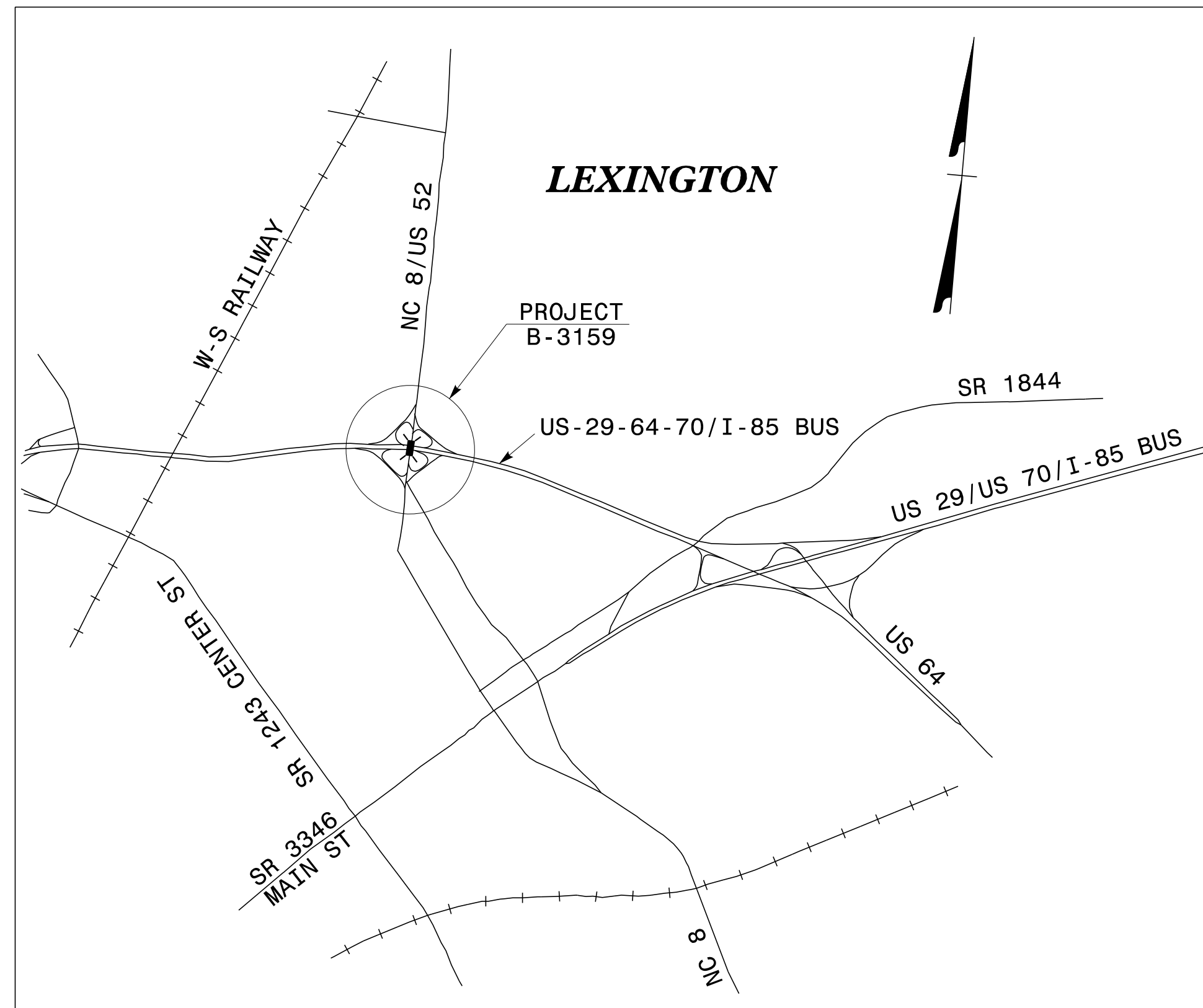
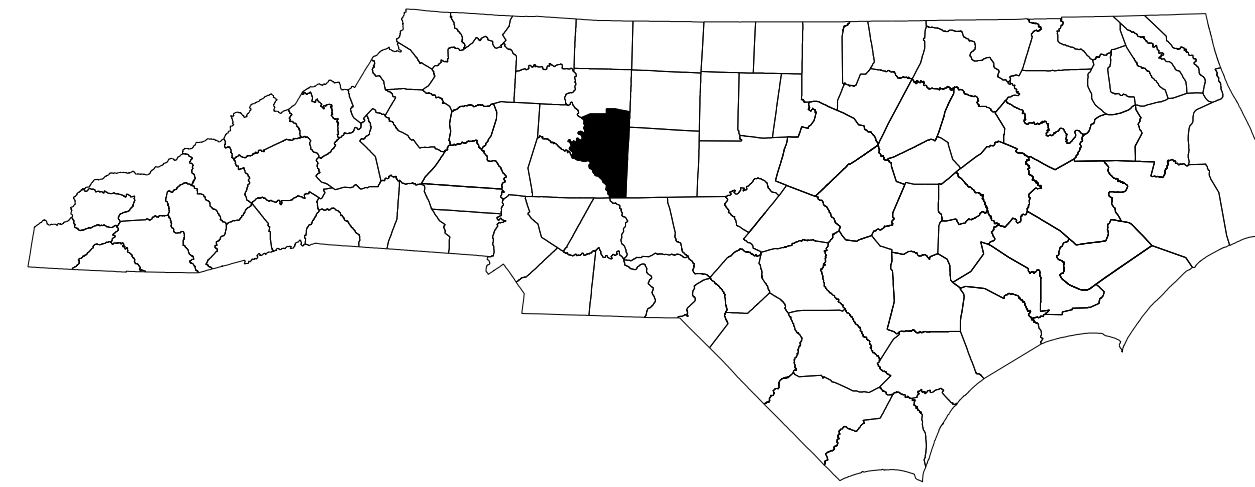
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

DAVIDSON COUNTY



VICINITY MAP

LOCATION: BRIDGE NO 27 OVER US 29-64-70/I-85 BUS ON NC 8/US 52
TYPE OF WORK: GRADING, DRAINAGE, PAVING, RETAINING WALL, SIGNALS & STRUCTURE

INDEX OF SHEETS

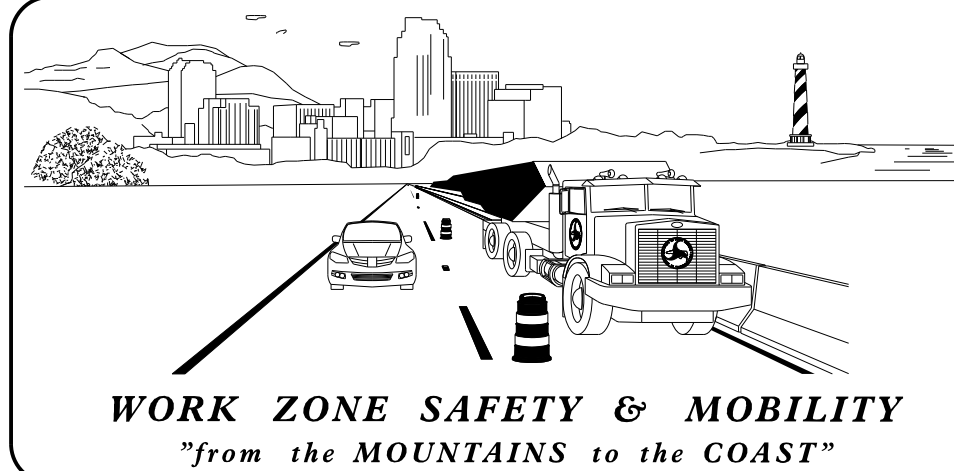
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B THRU TMP-1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A THRU TMP-2B	TEMPORARY SHORING NOTES
TMP-2C	PIEDMONT DR. (Y7) DETOUR ROUTE
TMP-2D	PEDESTRIAN DETOUR ROUTE
TMP-2E	SPECIAL SIGN DESIGNS
TMP-2F	LONG TERM LANE CLOSURE DETAIL (> 3 DAYS)
TMP-3 THRU TMP-3A	PHASING
TMP-4 THRU TMP-10	PHASE I DRAWINGS
TMP-11 THRU TMP-17	PHASE II DRAWINGS
TMP-18	PHASE III DRAWINGS

SHEET NO.
TMP-1

B-3159

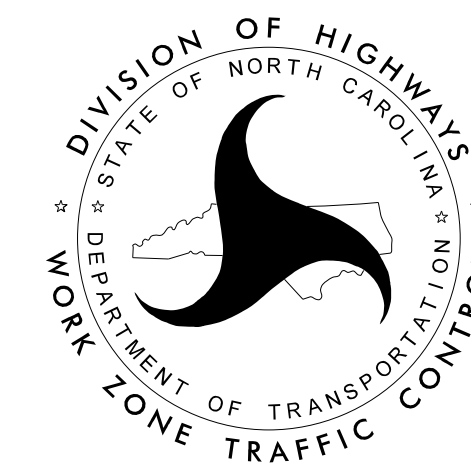
TIP PROJECT:

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N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, PE STATE TRAFFIC MANAGEMENT ENGINEER
D. W. BISSETTE, PE TRAFFIC CONTROL PROJECT ENGINEER
M. H. STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER
D. E. RICHARDSON TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *David Bisette*
DATE: 7/7/2015

SEAL

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 2012 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
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
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

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

- WORK AREA
- REMOVAL
- USER DEFINED (IF NEEDED)
- USER DEFINED (IF NEEDED)

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

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

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKINGS & MARKERS

4" PAINT

- PA WHITE EDGELINE
- PB YELLOW EDGELINE
- PC 10 FT WHITE SKIP
- PD 2 FT WHITE MINI SKIP
- PE WHITE SOLID LANE LINE
- PI YELLOW DOUBLE CENTER LINE

8" PAINT

- PR WHITE GORELINE
- PV YELLOW DIAGONAL
- PX WHITE CROSSWALK LINE

24" PAINT

- P4 WHITE STOPBAR

4" COLD APPLIED (TYPE IV)

- CA WHITE EDGELINE
- CB YELLOW EDGELINE
- CC 10 FT WHITE SKIP
- CD 2 FT WHITE MINI SKIP
- CE WHITE SOLID LANE LINE
- CI YELLOW DOUBLE CENTER LINE

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APPROVED: <small>ECCD908CB7548C...</small> DATE: 7/7/2015 SEAL		
<h2>ROADWAY STANDARD DRAWINGS & LEGEND</h2>		

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 UNDESIRE 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
-L-/-Y2- NC 8	MONDAY THRU FRIDAY FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM

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

ROAD NAME
-L-/-Y2- NC 8

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 AM DECEMBER 31st TO 6:00 PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN UNTIL 6:00 PM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 7:00 AM THURSDAY AND 6:00 PM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 AM FRIDAY TO 6:00 PM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 6:00 PM THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 PM THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 AM FRIDAY AND 6:00 PM TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 AM TUESDAY TO 6:00 PM MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- FOR THE LEXINGTON BBQ FESTIVAL, AS DIRECTED BY THE ENGINEER, BETWEEN THE HOURS OF 7:00 AM THE FRIDAY BEFORE THE FESTIVAL AND 6:00 PM THE SUNDAY FOLLOWING THE FESTIVAL.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	CONTRACTOR SHALL ONLY BE ALLOWED TO CLOSE THE ROAD FOR THE FOLLOWING OPERATIONS
-Y- I-85 BUSINESS	5:00 AM MONDAY THRU 10:00 PM FRIDAY 5:00 AM SATURDAY THRU 10:00 PM SATURDAY 5:00 AM SUNDAY THRU 10:00 PM SUNDAY	NC 8 BUSINESS OVERHEAD WORK

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
-Y- I-85 BUSINESS	5:00 AM MONDAY THRU 10:00 PM FRIDAY 5:00 AM SATURDAY THRU 10:00 PM SATURDAY 5:00 AM SUNDAY THRU 10:00 PM SUNDAY	THIRTY (30) MINS FOR EXISTING PEDESTRIAN BRIDGE OVERHEAD DEMOLITION IN A SINGLE WEEKEND

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 AND SHOULDER CLOSURE REQUIREMENTS

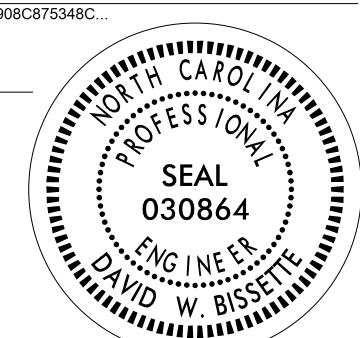

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- K) DO NOT INSTALL MORE THAN 1 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON I-85 BUS.
- L) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

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

SIGNING

- O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- P) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- AND
- PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- Q) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- AND
- COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

APPROVED: <i>David Bisette</i> <small>ECDC08C21534C...</small> DATE: 7/7/2015 SEAL			<h1 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN</h1>
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GENERAL NOTES (CONT'D)

SIGNING (CONT'D)

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

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 OPEN 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 TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMP RAISED
PROPOSED BRIDGE	COLD APPLIED (TYPE IV)	TEMP 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.

PAVEMENT MARKINGS AND MARKERS (CONT'D)

- CC) TRACE THE EXISTING AND/OR PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND/OR INSTALLATION. PLACE DRUMS TO DELINEATE ANY EXISTING AND/OR PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL OR BEFORE INSTALLATION.

MISCELLANEOUS

- DD) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- EE) 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.
- FF) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

MANAGEMENT STRATEGIES

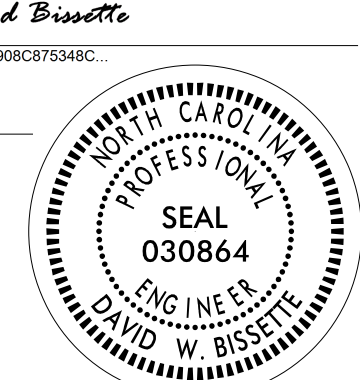

CONSTRUCT STAGE ONE OF NC 8 APPROACHES USING LANE CLOSURES AND FLAGGERS. CONSTRUCT OVERHEAD WORK FOR STAGE ONE OF THE NEW NC 8 BRIDGE OVER I-85 BUSINESS USING AN "UP AND OVER" STRATEGY FOR THE I-85 BUSINESS TRAFFIC AT NIGHT. CONSTRUCT PIEDMONT DRIVE WITH TRAFFIC DETOURED OFF SITE. CONSTRUCT NEW RAMP A, LOOP A AND RAMP C. INSTALL TEMPORARY SIGNALS.

ONCE TRAFFIC IS SHIFTED TO PHASE TWO PATTERN, CONSTRUCT TEMPORARY RAMP B. REMOVE THE EXISTING BRIDGE OVER I-85 BUSINESS. USING AN "UP AND OVER" STRATEGY FOR THE I-85 BUSINESS TRAFFIC AT NIGHT. CONSTRUCT STAGE TWO OF NC 8 APPROACHES USING LANE CLOSURES AND FLAGGERS. CONSTRUCT OVERHEAD WORK FOR STAGE TWO OF THE NEW NC 8 BRIDGE OVER I-85 BUS. USING AN "UP AND OVER" STRATEGY FOR THE I-85 BUSINESS TRAFFIC AT NIGHT. COMPLETE CONSTRUCTION OF LOOPS B AND D.

INSTALL FINAL SIGNALS AND SHIFT ALL TRAFFIC TO FINAL PATTERNS.

LOCAL NOTES

- 1- THE NCDOT RESIDENT ENGINEER WILL NOTIFY THE DAVIDSON COUNTY EMERGENCY MANAGEMENT SERVICES DIRECTOR (336.242.2270) OF THE BRIDGE REMOVAL 30 DAYS PRIOR TO ROAD CLOSURE.
- 2- THE NCDOT RESIDENT ENGINEER WILL NOTIFY THE TRANSPORTATION DIRECTOR (336.479.0084 - CITY SCHOOLS) AND (336.242.5569 - COUNTY SCHOOLS) OF THE BRIDGE REMOVAL 30 DAYS PRIOR TO ROAD CLOSURE.
- 3- WHEN CLOSING SEVENTH ST TO TRAFFIC, ENGINEER IS TO COORDINATE WITH LOCAL BUSINESSES AND RESIDENCES ABOUT CLOSURE.
- 4- NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- 5- THE NCDOT RESIDENT ENGINEER WILL NOTIFY THE COMMUNICATIONS OFFICE 30 DAYS PRIOR TO PEDESTRIAN BRIDGE REMOVAL AND DETOUR.

APPROVED: <i>David Bisette</i> <small>ECDC08CR75348C</small> DATE: 7/7/2015 SEAL			<h1 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN</h1>
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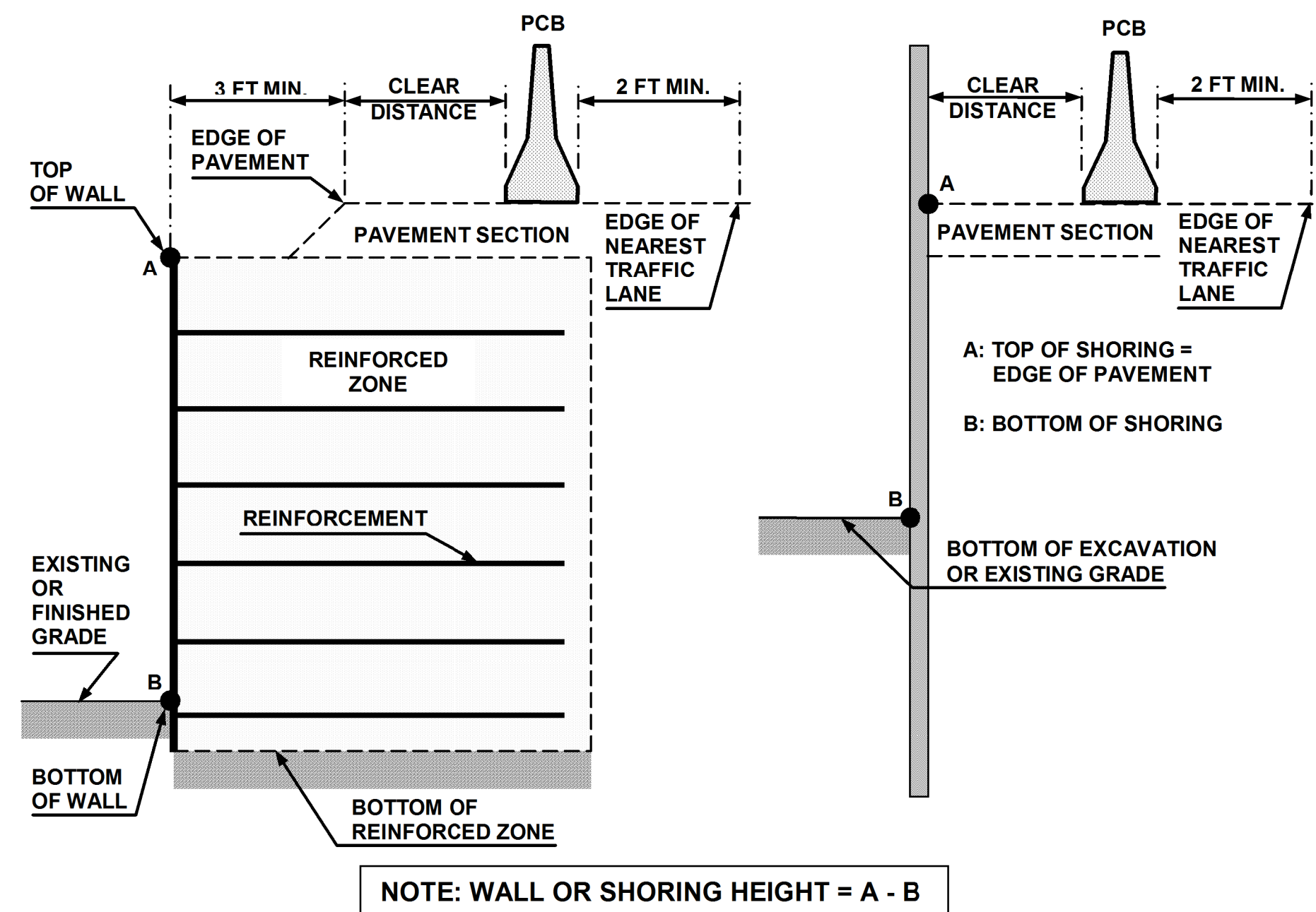


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 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).
- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 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.
- 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.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

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

* See Figure Below

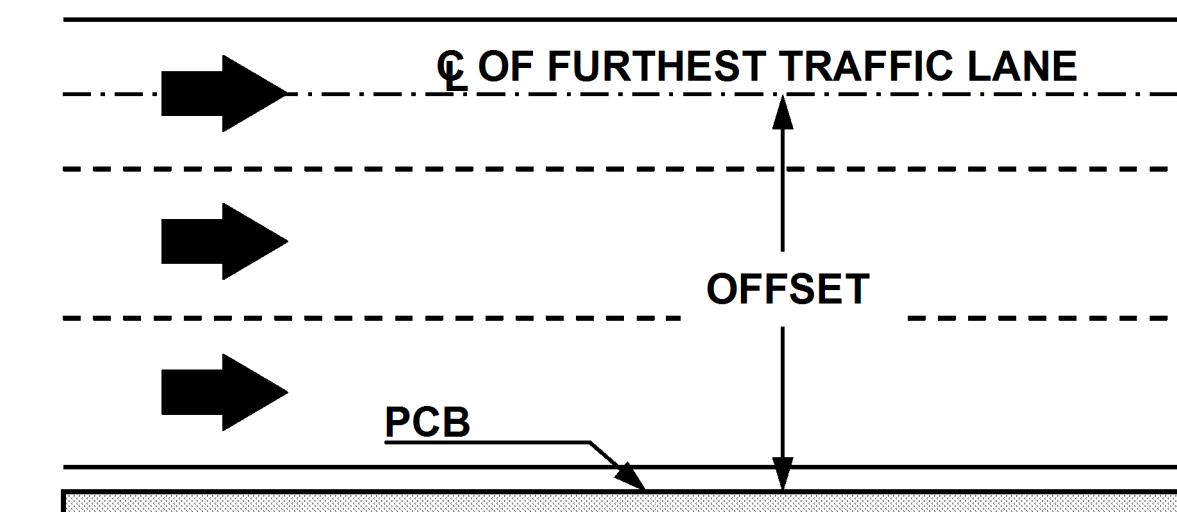


FIGURE B

APPROVED: <i>David Bisette</i> <small>ECDC08CR75348C</small> DATE: 7/7/2015 SEAL			PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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SHORING LOCATION NO 1 (SEE TMP-5)

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 12+30+/-, 9' LT, TO STATION -L- 12+90+/-, 9' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 32 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 768 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 12+30+/-, 9' LT, TO STATION -L- 12+90+/-, 9' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 12+30+/-, 9' LT, TO STATION -L- 12+90+/-, 9' LT MAY NOT PENETRATE BELOW ELEVATION 760 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 12+30+/-, 9' LT, TO STATION -L- 12+90+/-, 9' LT.

SHORING LOCATION NO 2 (SEE TMP-5)

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 13+95+/-, 9' LT, TO STATION -L- 14+50+/-, 9' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 32 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 768 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 13+95+/-, 9' LT, TO STATION -L- 14+50+/-, 9' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 13+95+/-, 9' LT, TO STATION -L- 14+50+/-, 9' LT MAY NOT PENETRATE BELOW ELEVATION 746 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 13+95+/-, 9' LT, TO STATION -L- 14+50+/-, 9' LT.

SHORING LOCATION NO 3 (SEE TMP-5)

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 12+15+/-, 4' LT, TO STATION -L- 12+75+/-, 4' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 768 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 12+15+/-, 4' LT, TO STATION -L- 12+75+/-, 4' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 12+15+/-, 4' LT, TO STATION -L- 12+75+/-, 4' LT MAY NOT PENETRATE BELOW ELEVATION 760 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

SHORING LOCATION NO 4 (SEE TMP-5)

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 14+10+/-, 4' LT, TO STATION -L- 14+70+/-, 4' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 768 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 14+10+/-, 4' LT, TO STATION -L- 14+70+/-, 4' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 14+10+/-, 4' LT, TO STATION -L- 14+70+/-, 4' LT MAY NOT PENETRATE BELOW ELEVATION 746 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

SHORING LOCATION NO 5 (SEE TMP-7)

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

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

DESIGN TEMPORARY SHORING FROM STATION -Y- NBL 25+41+/-, 6' RT, TO STATION -Y- NBL 25+97+/-, 6' RT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 770 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y- NBL 25+41+/-, 6' RT, TO STATION -Y- NBL 25+97+/-, 6' RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -Y- NBL 25+41+/-, 6' RT, TO STATION -Y- NBL 25+97+/-, 6' RT MAY NOT PENETRATE BELOW ELEVATION 756 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y- NBL 25+41+/-, 6' RT, TO STATION -Y- NBL 25+97+/-, 6' RT.

SHORING LOCATION NO 6 (SEE TMP-7)

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

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

DESIGN TEMPORARY SHORING FROM STATION -Y- SBL 25+41+/-, 6' LT, TO STATION -Y- SBL 25+97+/-, 6' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 770 FT

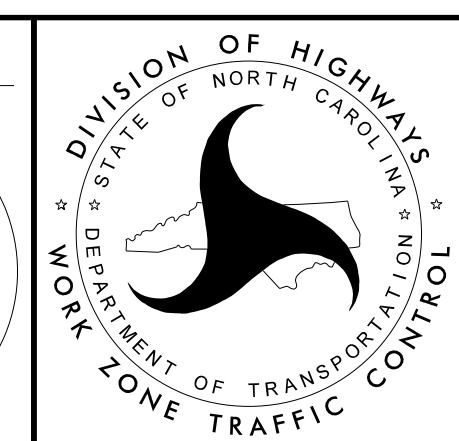
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y- SBL 25+41+/-, 6' LT, TO STATION -Y- SBL 25+97+/-, 6' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -Y- SBL 25+41+/-, 6' LT, TO STATION -Y- SBL 25+97+/-, 6' LT MAY NOT PENETRATE BELOW ELEVATION 756 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y- SBL 25+41+/-, 6' LT, TO STATION -Y- SBL 25+97+/-, 6' LT.

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 JUNE 1, 2015 AND SEALED BY A PROFESSIONAL ENGINEER, SHIPING YANG, PHD, PE, LICENSE # 031361.

APPROVED: *David Bisette*
 DATE: 7/7/2015
 SEAL



TEMPORARY SHORING NOTES

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SHORING LOCATION NO 7 (SEE TMP-7)

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

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

DESIGN TEMPORARY SHORING FROM STATION -Y- 25+41+/-, 6' LT, TO STATION -Y- 25+41+/-, 6' RT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 770 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y- 25+41+/-, 6' LT, TO STATION -Y- 25+41+/-, 6' RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -Y- 25+41+/-, 6' LT, TO STATION -Y- 25+41+/-, 6' RT MAY NOT PENETRATE BELOW ELEVATION 750 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y- 25+41+/-, 6' LT, TO STATION -Y- 25+41+/-, 6' RT.

SHORING LOCATION NO 8 (SEE TMP-16)

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 -Y- NBL 24+84+/-, 6' RT, TO STATION -Y- NBL 25+41+/-, 6' RT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 770 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y- NBL 24+84+/-, 6' RT, TO STATION -Y- NBL 25+41+/-, 6' RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -Y- NBL 24+84+/-, 6' RT, TO STATION -Y- NBL 25+41+/-, 6' RT MAY NOT PENETRATE BELOW ELEVATION 750 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y- NBL 24+84+/-, 6' RT, TO STATION -Y- NBL 25+41+/-, 6' RT.

SHORING LOCATION NO 9 (SEE TMP-16)

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 -Y- SBL 24+84+/-, 6' LT, TO STATION -Y- SBL 25+41+/-, 6' LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 770 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y- SBL 24+84+/-, 6' LT, TO STATION -Y- SBL 25+41+/-, 6' LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -Y- SBL 24+84+/-, 6' LT, TO STATION -Y- SBL 25+41+/-, 6' LT MAY NOT PENETRATE BELOW ELEVATION 750 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y- SBL 24+84+/-, 6' LT, TO STATION -Y- SBL 25+41+/-, 6' LT.

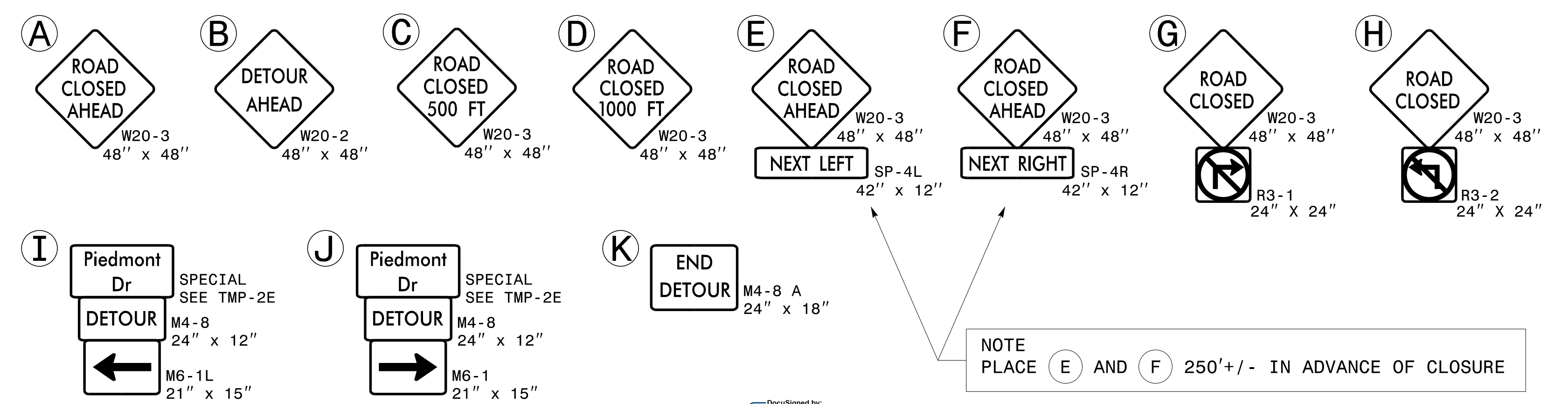
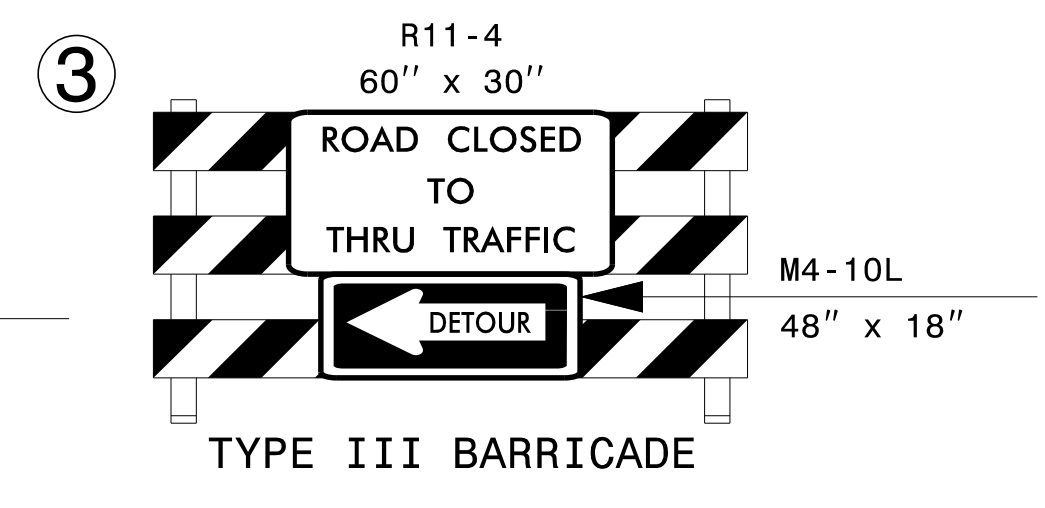
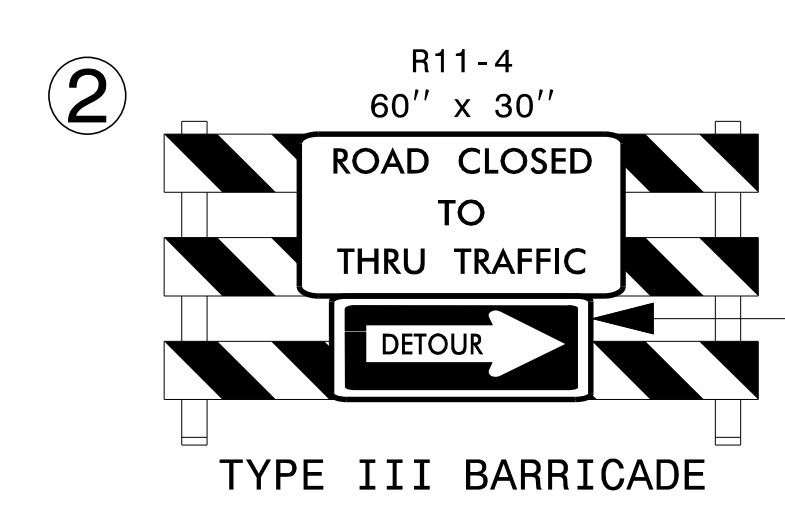
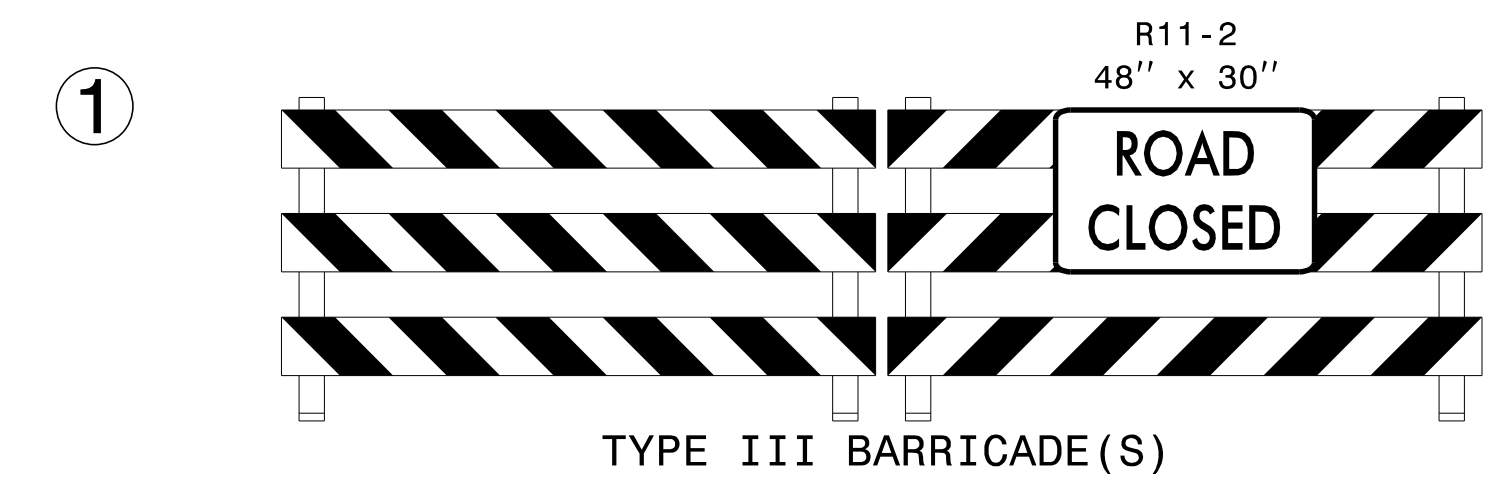
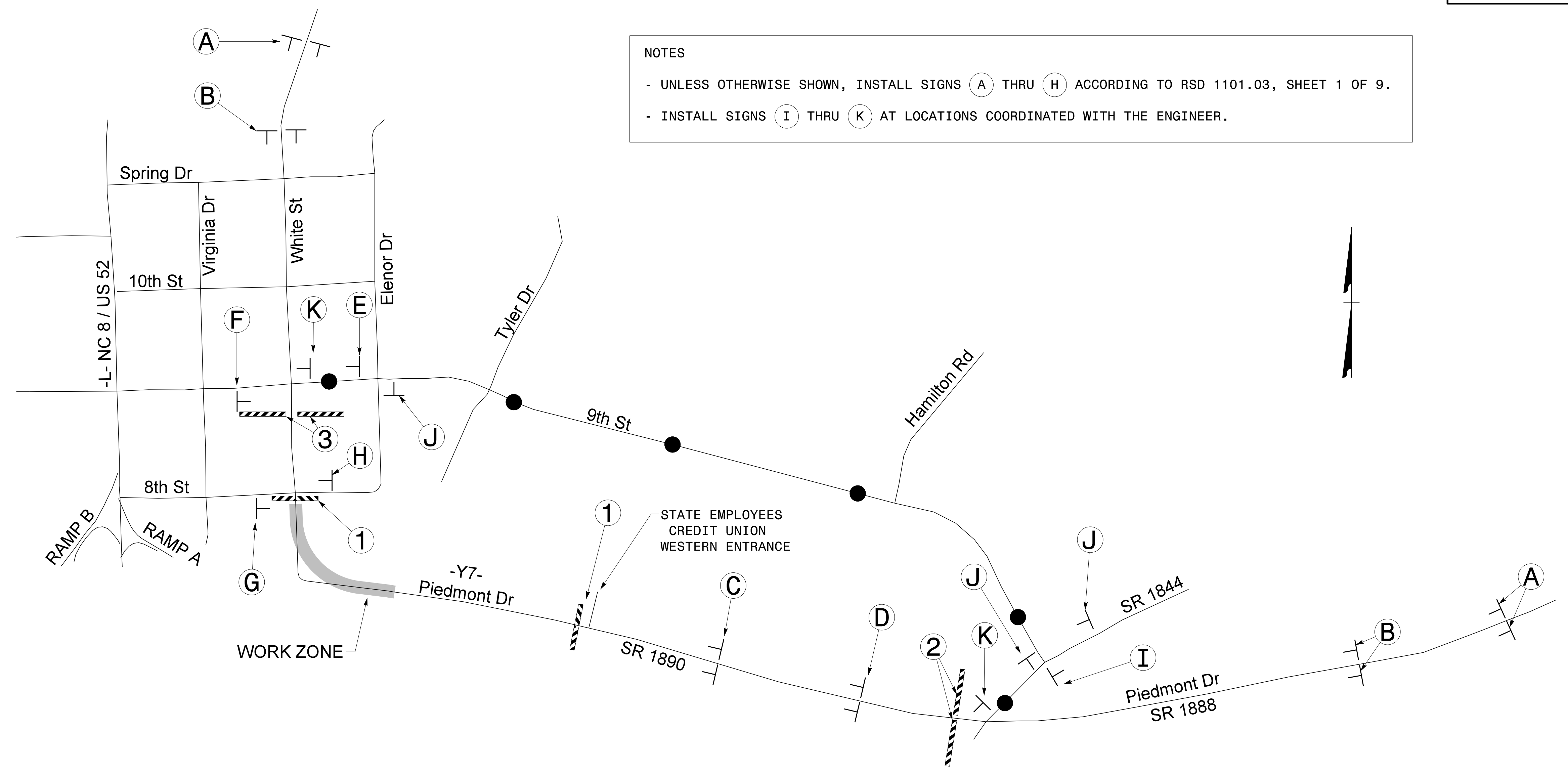
THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON JUNE 1, 2015 AND SEALED BY A PROFESSIONAL ENGINEER, SHIPING YANG, PHD, PE, LICENSE # 031361.

APPROVED: <i>David Bisette</i> DATE: 7/7/2015 SEAL			TEMPORARY SHORING NOTES
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7/7/2015
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 User:derlchardson

NOTES

- UNLESS OTHERWISE SHOWN, INSTALL SIGNS (A) THRU (H) ACCORDING TO RSD 1101.03, SHEET 1 OF 9.
- INSTALL SIGNS (I) THRU (K) AT LOCATIONS COORDINATED WITH THE ENGINEER.



NOTE PLACE (E) AND (F) 250'+/- IN ADVANCE OF CLOSURE

APPROVED: *David Bisette* DATE: 7/7/2015

SEAL

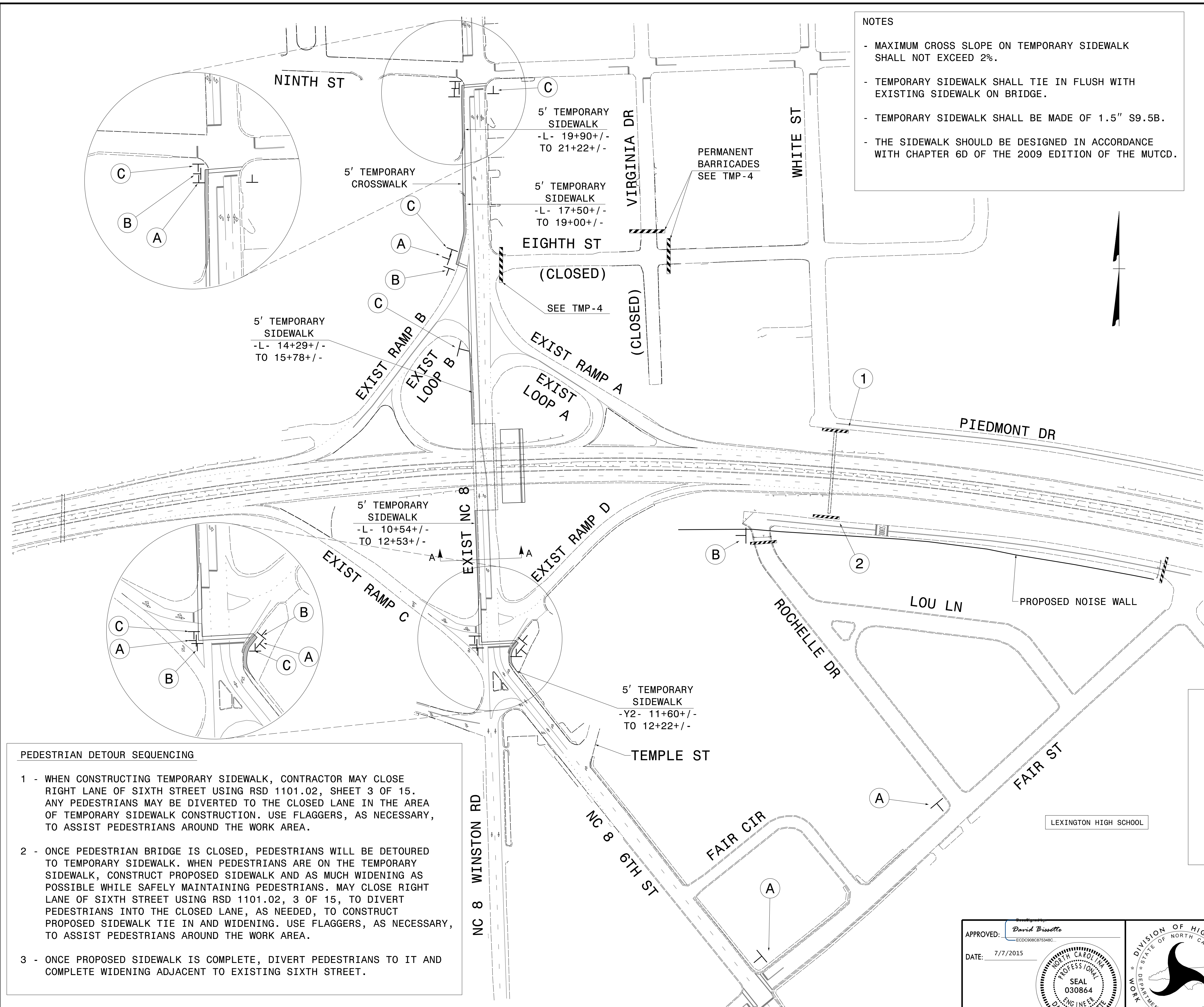
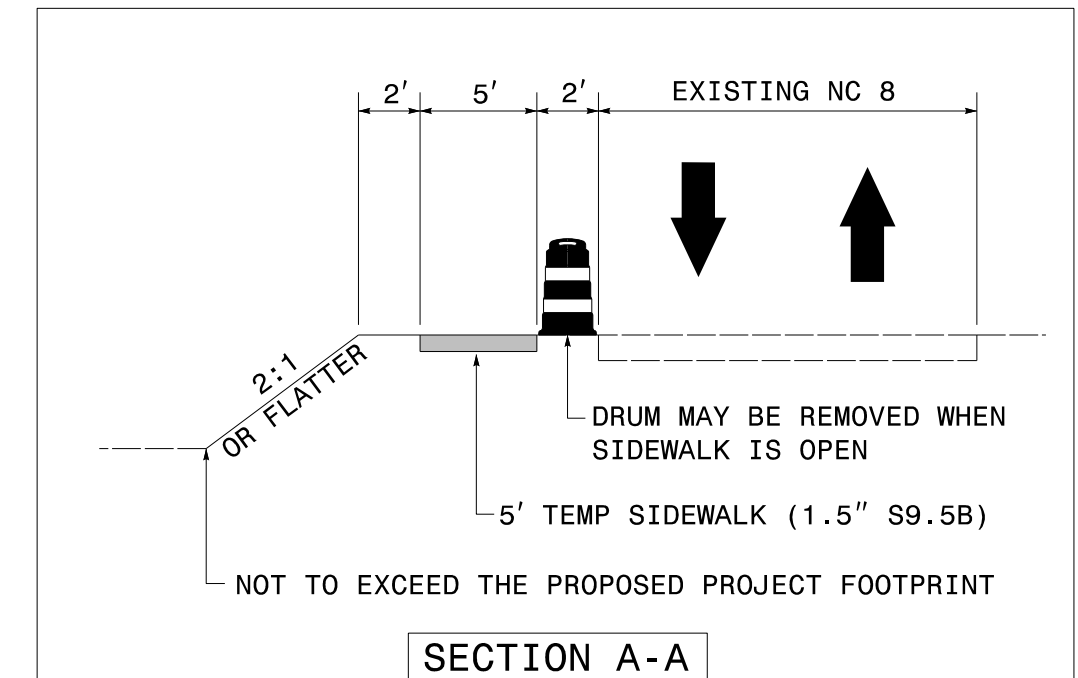
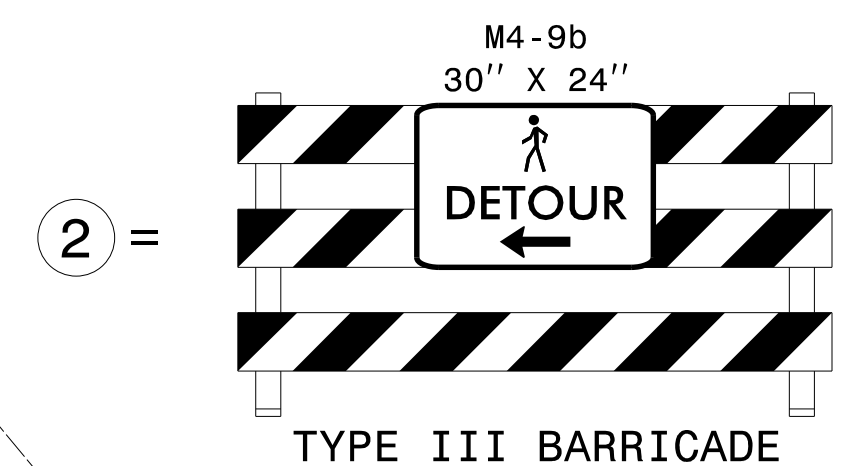
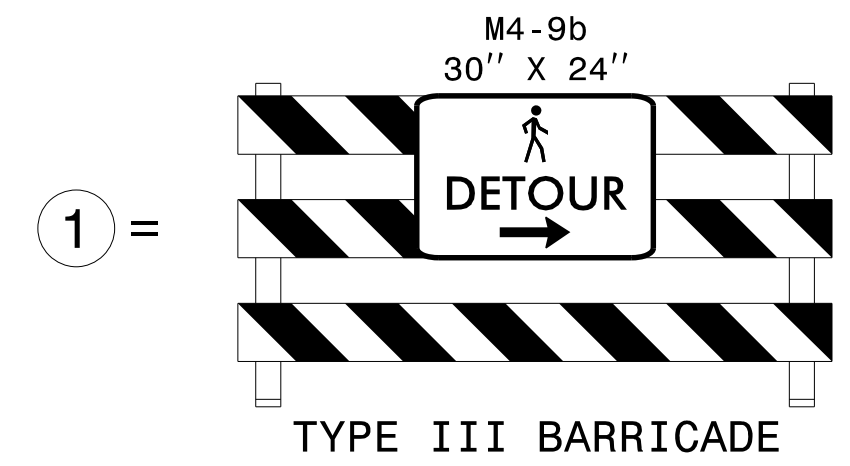
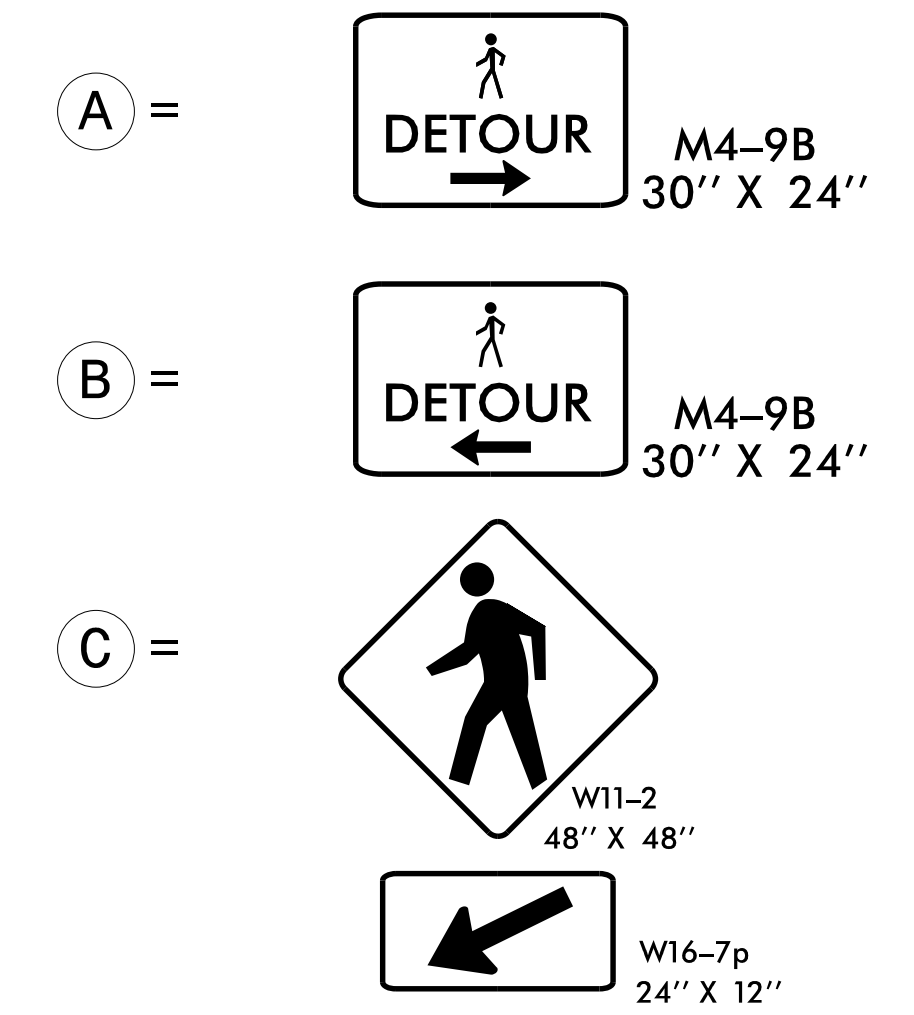


PIEDMONT DRIVE (Y7) DETOUR ROUTE

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NOTES

- MAXIMUM CROSS SLOPE ON TEMPORARY SIDEWALK SHALL NOT EXCEED 2%.
- TEMPORARY SIDEWALK SHALL TIE IN FLUSH WITH EXISTING SIDEWALK ON BRIDGE.
- TEMPORARY SIDEWALK SHALL BE MADE OF 1.5" S9.5B.
- THE SIDEWALK SHOULD BE DESIGNED IN ACCORDANCE WITH CHAPTER 6D OF THE 2009 EDITION OF THE MUTCD.



PEDESTRIAN DETOUR SEQUENCING

- 1 - WHEN CONSTRUCTING TEMPORARY SIDEWALK, CONTRACTOR MAY CLOSE RIGHT LANE OF SIXTH STREET USING RSD 1101.02, SHEET 3 OF 15. ANY PEDESTRIANS MAY BE DIVERTED TO THE CLOSED LANE IN THE AREA OF TEMPORARY SIDEWALK CONSTRUCTION. USE FLAGGERS, AS NECESSARY, TO ASSIST PEDESTRIANS AROUND THE WORK AREA.
- 2 - ONCE PEDESTRIAN BRIDGE IS CLOSED, PEDESTRIANS WILL BE DETOURED TO TEMPORARY SIDEWALK. WHEN PEDESTRIANS ARE ON THE TEMPORARY SIDEWALK, CONSTRUCT PROPOSED SIDEWALK AND AS MUCH WIDENING AS POSSIBLE WHILE SAFELY MAINTAINING PEDESTRIANS. MAY CLOSE RIGHT LANE OF SIXTH STREET USING RSD 1101.02, 3 OF 15, TO DIVERT PEDESTRIANS INTO THE CLOSED LANE, AS NEEDED, TO CONSTRUCT PROPOSED SIDEWALK TIE IN AND WIDENING. USE FLAGGERS, AS NECESSARY, TO ASSIST PEDESTRIANS AROUND THE WORK AREA.
- 3 - ONCE PROPOSED SIDEWALK IS COMPLETE, DIVERT PEDESTRIANS TO IT AND COMPLETE WIDENING ADJACENT TO EXISTING SIXTH STREET.

APPROVED: *David Bisette*
ECDCOR/CRT/SHC

DATE: 7/7/2015



PEDESTRIAN DETOUR ROUTE

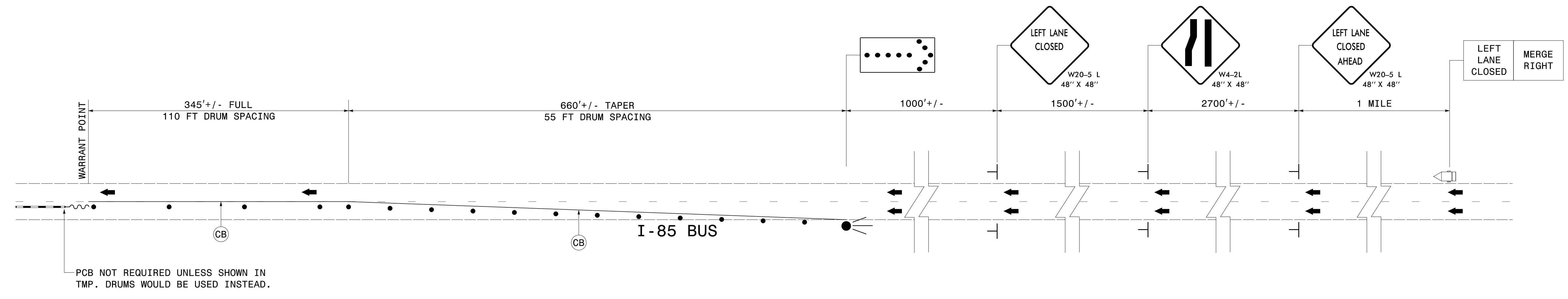
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 User: dcr/charlson

<p>SIGN NUMBER: TC-1 BACKG COLOR: Fluorescent Orange TYPE: STATIONARY COPY COLOR: Black QUANTITY: SEE PLANS</p> <p>SIGN WIDTH: 3'-6" HEIGHT: 2'-0" TOTAL AREA: 7.0 Sq.Ft.</p> <p>BORDER TYPE: INSET RECESS: 0.38" WIDTH: 0.63" RADII: 1.5"</p> <p>NO. Z BARS: LENGTH:</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>MAT'L: 0.080" (2.0 mm) ALUMINUM</p>	SYMBOL	X	Y	WID	HT																																																			<p>DESIGN BY: S Johns CHECKED BY: Jun 05, 2015 PROJECT ID: B-3159 LOCATION: US 29-64-70 @ NC 8/US 52 DIV: 9</p> <div style="text-align: center;"> </div> <p style="text-align: right;">Spacing Factor is 1 unless specified otherwise</p>																																																																																																																	
SYMBOL	X	Y	WID	HT																																																																																																																																																																						
<p>USE NOTES: 1,2</p> <p>1. Legend and border shall be direct applied black non-reflective sheeting. 2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.</p>																																																																																																																																																																										
<p>LETTER POSITIONS</p> <p>Letter spacings are to start of next letter</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="11">Letter spacings are to start of next letter</th> <th>Series/Size</th> </tr> <tr> <th></th> <th>P</th> <th>i</th> <th>e</th> <th>d</th> <th>m</th> <th>o</th> <th>n</th> <th>t</th> <th></th> <th></th> <th>Text Length</th> </tr> </thead> <tbody> <tr> <td></td> <td>4.1</td> <td>4.9</td> <td>1.9</td> <td>4.1</td> <td>4.8</td> <td>6.8</td> <td>4.6</td> <td>4.1</td> <td>2.4</td> <td>4.1</td> <td>D 2000 33.7</td> </tr> <tr> <td></td> <td></td> <td>D</td> <td>r</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>D 2000 7.6</td> </tr> <tr> <td></td> <td>17.2</td> <td>5.3</td> <td>2.3</td> <td>17.2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>FILENAME: WZTC NORTH CAROLINA D.O.T. SIGN DETAIL</p>			Letter spacings are to start of next letter											Series/Size		P	i	e	d	m	o	n	t			Text Length		4.1	4.9	1.9	4.1	4.8	6.8	4.6	4.1	2.4	4.1	D 2000 33.7			D	r								D 2000 7.6		17.2	5.3	2.3	17.2																																																																																																																			
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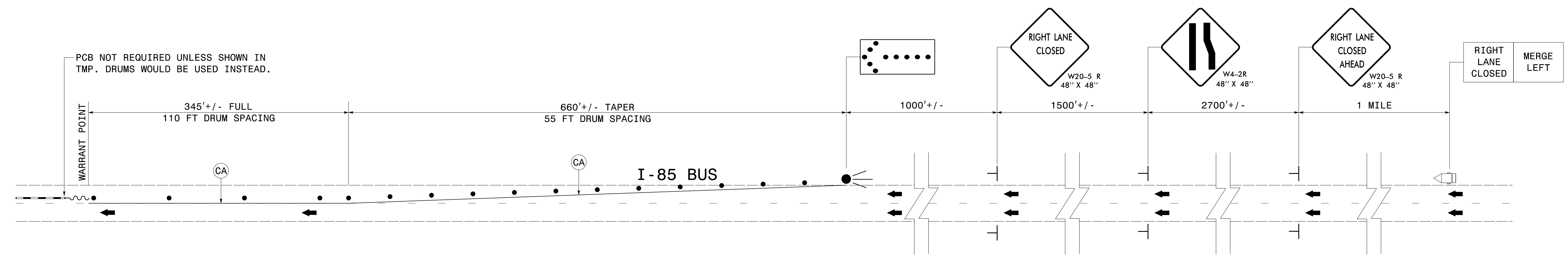
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 User: derichardson

<p>APPROVED: <i>Ron King</i> <small>13ETAF78BA4446</small></p> <p>DATE: 6/26/2015</p> <p>SEAL</p>			<p>SPECIAL SIGN DESIGN</p>
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THIS SHEET APPLIES TO LANE CLOSURES IN PLACE FOR LONGER THAN 3 DAYS



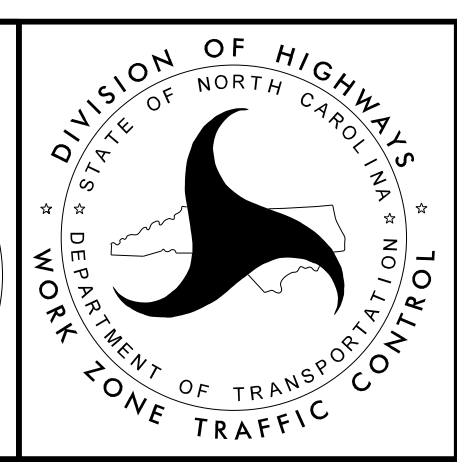
PCB NOT REQUIRED UNLESS SHOWN IN TMP. DRUMS WOULD BE USED INSTEAD.



PCB NOT REQUIRED UNLESS SHOWN IN TMP. DRUMS WOULD BE USED INSTEAD.

7/7/2015
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 User:derichardson

APPROVED: *David Bisette*
 ECDCR08CR7548C
 DATE: 7/7/2015



LONG TERM LANE
 CLOSURE DETAIL
 (> 3 DAYS)

NOTES:

- UNLESS OTHERWISE STATED, CONSTRUCT PAVEMENTS UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE.
- UTILIZE SHEET TMP-2F FOR LANE CLOSURES IN PLACE FOR LONGER THAN 3 CONSECUTIVE DAYS.

PHASE I

- STEP 1 - INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.01.
- STEP 2 - PERMANENTLY CLOSE EIGHTH ST AND VIRGINIA DR. SEE ROADWAY PLANS AND TMP-4.
- USING RSD 1101.02, SHEETS 1, 2 AND 3 OF 15 AS NECESSARY, BEGIN CONSTRUCTION (-L-, -Y-, RAMP A, LOOP A, RAMP C, LOOP C) AS SHOWN ON TMP-4.
 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15, CONSTRUCT TEMPORARY SIDEWALK ALONG NC 8 AND STRIPE TEMPORARY CROSSWALKS ALONG NC 8 AND ACROSS SIDE STREETS AND INSTALL ALL NECESSARY PEDESTRIAN SIGNING AS SHOWN ON TMP-2D AND TMP-4.
- CONSTRUCT THE FOLLOWING IN SEQUENCE:
- A) USING RSD 1101.02, SHEETS 1 AND 2 OF 15, CONSTRUCT TEMPORARY PAVEMENT ALONG NC 8 FOR PCB. AS SHOWN ON TMP-4.
 - USING RSD 1101.02, SHEET 3 OF 15, CONSTRUCT TEMPORARY PAVEMENT ON SIDE OF EXIST LOOP A, EXIST LOOP B AND I-85 BUS FOR PCB AS SHOWN ON TMP-4.
 - B) USING RSD 1101.02, SHEETS 1 AND 2 OF 15, INSTALL PCB ALONG NC 8 AND ATTACH TO BRIDGE AS SHOWN ON TMP-5. USING RSD 1101.02, SHEET 3 OF 15, INSTALL PCB ALONG I-85 BUS SB AS SHOWN ON TMP-5. THEN, BEHIND BARRIER, INSTALL TEMPORARY SHORING LOCATIONS 1, 2, 3 & 4. SEE TMP-2A AND TMP-5.
 - C) USING RSD 1101.02, SHEET 3 OF 15, BEGIN CONSTRUCTION OF STAGE I PROPOSED BRIDGE END BENTS, RETAINING WALLS, PAVEMENT AND GUARDRAIL ON NC 8 AND I-85 BUS AS SHOWN ON TMP-5.
- STEP 3 - DETOUR PEDESTRIANS TO TEMPORARY SIDEWALK AND PERMANENTLY CLOSE EXISTING PEDESTRIAN BRIDGE OVER I-85 BUS. CLOSE SR 1895 WITH PERMANENT BARRICADES. BEGIN CONSTRUCTION OF NOISE WALL. WHEN COMPLETE, INSTALL GUARDRAIL AS SHOWN ON TMP-2D & TMP-4.
- STEP 4 - USING RSD 1101.03, SHEET 9 OF 9 AND GENERAL NOTE 'C', REMOVE EXISTING PEDESTRIAN BRIDGE. SEE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 5 - CONSTRUCT THE FOLLOWING IN SEQUENCE:
- A) COMPLETE NOISE WALL AS SHOWN ON TMP-5 & 6.
 - B) USING RSD 1101.02, SHEET 3 OF 15, CONSTRUCT -Y- FROM 29+60+/- TO 37+20+/- AS SHOWN ON TMP-4.
 - C) USING RSD 1101.02, SHEET 3 OF 15, INSTALL TEMPORARY PAVEMENT MARKINGS ON -Y- FROM 29+60+/- TO 37+20+/- AS SHOWN ON TMP-5 & 6.
 - D) PLACE EXIST RAMP D TRAFFIC ON NEWLY CONSTRUCTED LANE AS SHOWN ON TMP-5 & 6.

WORK IN CONTINUOUS MANNER TO COMPLETE WORK DESCRIBED IN PHASE I, STEP 6 IN 90 CONSECUTIVE DAYS. (MAY BE DONE SIMULTANEOUSLY WITH STEP 7)

- STEP 6 - CONSTRUCT THE FOLLOWING IN SEQUENCE:
- A) USING RSD 1101.03, SHEET 1 OF 9, AND TMP-2C, CLOSE -Y7- (PIEDMONT DR) AND DETOUR TRAFFIC.
 - B) AWAY FROM TRAFFIC, CONSTRUCT -Y7- PIEDMONT DRIVE AS SHOWN ON TMP-5 & 6.
 - C) PLACE TEMPORARY MARKINGS IN FINAL PATTERN ON -Y7- (PIEDMONT DR) AS SHOWN ON TMP-7 & 8.
 - D) COVER AND REMOVE ALL DETOUR SIGNING AND OPEN PIEDMONT DRIVE TO FINAL TRAFFIC PATTERN AS SHOWN ON TMP-7 & 8.
- STEP 7 - USING RSD 1101.02, SHEET 3 OF 15, BEGIN CONSTRUCTION OF RAMP A FROM 15+50+/- TO -Y- 39+00+/- . AS SHOWN ON TMP-5 AND 6.
- USING RSD 1101.02, SHEET 3 OF 15, COMPLETE CONSTRUCTION OF STAGE I PROPOSED BRIDGE END BENTS, RETAINING WALLS, PAVEMENT AND GUARDRAIL ON I-85 BUS BEGUN IN STEP 2.
 - REMOVE PCB AND INSTALL TEMPORARY PAVEMENT MARKINGS TO EXISTING ACCELERATION LANE FOR EXISTING LOOP A AS SHOWN ON TMP-7.
- STEP 8 - USING RSD 1101.02, SHEET 3 OF 15, INSTALL PCB ON I-85 BUS MEDIAN LANES AS SHOWN ON TMP-7. SEE TMP-2F FOR LONG TERM LANE CLOSURE SET UP ASSOCIATED WITH THIS PATTERN.

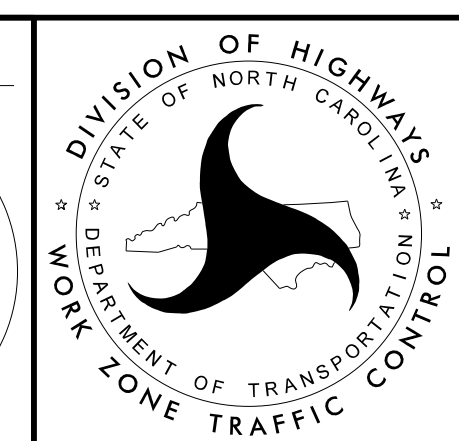
PHASE I (CONT'D)

- STEP 9 - BEHIND PCB, CONDUCT THE FOLLOWING OPERATIONS:
- REMOVE EXISTING MEDIAN GUARDRAIL FROM -Y- 22+90+/- TO 25+97+/- AS SHOWN ON TMP-7.
 - CONSTRUCT TEMPORARY PAVEMENT IN -Y- MEDIAN FOR PCB AS SHOWN ON TMP-7.
 - INSTALL TEMPORARY SHORING LOCATIONS 5, 6 & 7. THEN, CONSTRUCT FOOTING AND CENTER BENT IN I-85 BUS MEDIAN FOR STAGE 1 OF PROPOSED BRIDGE. SEE TMP-7.
- STEP 10 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15, REMOVE EXISTING CONCRETE ISLANDS ON NC 8 AND REPLACE WITH PROPOSED PAVEMENT AS SHOWN ON TMP-7.
- PERMANENTLY CLOSE 7TH ST (-Y3-) AND BEGIN EXISTING PAVEMENT REMOVAL AS SHOWN ON TMP-7.
 - RELOCATE PCB TO I-85 BUS MEDIAN SHOULDER AS SHOWN ON TMP-10.
- STEP 11 - USING RSD 1101.03, SHEET 7 OF 9, AND TMP-9, COMPLETE PROPOSED STAGE 1 BRIDGE OVER I-85 BUS REQUIRING ROAD CLOSURE. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 12 - CONSTRUCT THE FOLLOWING IN SEQUENCE:
- A) INSTALL AND COVER TEMPORARY SIGNAL AT EXISTING RAMP B AND -L-. SEE SIGNAL PLANS.
 - B) CLOSE EXISTING RAMP A AND LOOP A. UNCOVER TEMPORARY SIGNAL AND DETOUR EXISTING RAMP A AND LOOP A TRAFFIC TO EXISTING RAMP B AND LOOP B. SEE TMP-10.
 - C) USING RSD 1101.03, SHEET 3 OF 15 AS NECESSARY, CONSTRUCT THE REMAINING SECTIONS OF RAMP A AND LOOP A. SEE TMP-10.
- USING FLAGGERS, COMPLETE RAMP C TIE IN TO EDGE AND ELEVATION OF EXISTING. SEE TMP-10.
 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15 WHERE NECESSARY, COMPLETE CONSTRUCTION OF PHASE I UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

PHASE II

- STEP 1 - INSTALL ALL DEVICES NECESSARY FOR UPCOMING TRAFFIC SHIFT. COVER SIGNS UNTIL NEEDED, AS DIRECTED BY THE ENGINEER. SEE RSD 1101.03, SHEET 3 OF 9 AND TMP-11 & 12.
- AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS FOR THE PHASE II TRAFFIC PATTERN AS MUCH AS POSSIBLE. SEE TMP-11 & 12.
 - USING LANE CLOSURES AS NECESSARY, INSTALL PCB ON NC 8 ACCORDING TO TMP-11 & 12.
 - INSTALL AND COVER TEMPORARY SIGNALS AT -L-/RAMP A/LOOP A AND -L-/RAMP C/RAMP D. SEE TMP-11 & 12 AND SIGNAL PLANS.
- NOTE - WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEP 2 IN A SINGLE WORK PERIOD.
- STEP 2 - TIE IN -L- NC 8 IN THE FOLLOWING SEQUENCE:
- A) USING FLAGGERS AND RSD 1101.02, SHEETS 1, 2, AND 3 OF 15, TIE IN ALL LANES OF -L- NC 8 UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE AND PLACE TEMPORARY CENTER LINES AND RIGHT EDGELINE AS MUCH AS POSSIBLE WITHOUT INTERFERING WITH TRAFFIC. SEE TMP-11 & 12.
 - B) POSITION FLAGGERS AT THE INTERSECTIONS OF 6TH ST/RAMP C/RAMP D AND RAMP A/RAMP B TO MANAGE TRAFFIC UPON NC 8 TRAFFIC SHIFT.
 - C) USE FLAGGERS AND/OR POLICE TO MANAGE TRAFFIC AND PEDESTRIANS AT NC 8 AND ALL INTERSECTING RAMPS OR SIDE STREETS.
 - D) USING DRUMS AND BARRICADES, CLOSE OLD NC 8 FROM TRAFFIC AND SWITCH WB NC 8 TRAFFIC TO NEWLY CONSTRUCTED LANES. SIMULTANEOUSLY, DIRECT PEDESTRIANS TO STAGE ONE OF NEW BRIDGE AND NEWLY CONSTRUCTED SIDEWALKS.
 - E) WITH WB NC 8 TRAFFIC IN NEW LANES, TIE IN THE REMAINDER OF THE PAVEMENT MARKINGS AND MARKERS INCLUDING RAMP C. SEE TMP-11 & 12.

APPROVED: *David Bisette*
ECDC08CR75348C...
 DATE: 7/7/2015



PHASING

PHASE II, STEP 2 (CONT'D)

- F) SWITCH EB NC 8 TRAFFIC TO NEWLY CONSTRUCTED LANES. SIMULTANEOUSLY, SHIFT TRAFFIC TO NEW RAMP C AND USE DRUMS AND TYPE 3 BARRICADES WITH ROAD CLOSED SIGN ATTACHED TO CLOSE EXISTING RAMP C AS SHOWN ON TMP-11 & 12.
 - G) USING FLAGGERS AND/OR POLICE, UNCOVER TEMPORARY SIGNALS AT SHIFTED NC 8/RAMP A/EXIST RAMP B AND SHIFTED NC 8/RAMP C/EXIST RAMP D AND RE-OPEN ALL RAMPS TO NEW TRAFFIC PATTERNS WITH -L- NC 8.
- STEP 3 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15, CONSTRUCT TEMPORARY TIE IN FOR RAMP B. INTALL AND COVER TEMPORARY SIGNAL AT -L-/RAMP A/RAMP B. PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -L- NC 8 AS SHOWN ON TMP-14. SIMULTANEOUSLY, UNCOVER TEMPORARY SIGNAL AND OPEN -L-/RAMP A/RAMP B TO TEMPORARY PATTERN AND CLOSE EXISTING LOOP A AS SHOWN ON TMP-14.
- (STEPS 4 AND 5 MAY BE PERFORMED SIMULTANEOUSLY)
- STEP 4 - USING RSD 1101.03, SHEET 7 OF 9, AND TMP-13, REMOVE OLD NC 8 BRIDGE OVER I-85 BUS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 5 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15, AS NECESSARY, BEGIN -L- PHASE II CONSTRUCTION AS SHOWN ON TMP-14 & 15.
- USING RSD 1101.02, SHEET 3 OF 15, CONSTRUCT END BENTS AND MSE WALLS FOR STAGE TWO OF PROPOSED BRIDGE AS SHOWN ON TMP-14 & 15.
 - USING RSD 1101.02, SHEET 3 OF 15, REMOVE EXISTING LOOP B AND CONSTRUCT -Y- 18+85+/- TO 25+44+/- AND -Y- 22+15+/- TO 25+44+/- AS SHOWN ON TMP-14 & 15.
 - AWAY FROM TRAFFIC, COMPLETE REMAINING PORTION OF LOOP C AS SHOWN ON TMP-15.
- STEP 6 - USING RSD 1101.02, SHEET 3 OF 15, RELOCATE PCB INTO I-85 BUS MEDIAN LANES AS SHOWN ON TMP-16. SEE TMP-2F FOR LONG TERM LANE CLOSURE.
- STEP 7 - BEHIND PCB, INSTALL TEMPORARY SHORING LOCATIONS 8 & 9. THEN, CONSTRUCT FOOTING AND CENTER BENT IN I-85 BUS MEDIAN FOR STAGE 2 OF PROPOSED BRIDGE AS SHOWN ON TMP-16.
- REMOVE AND REPLACE EXISTING GUARDRAIL ALONG I-85 BUS.
- STEP 8 - USING RSD 1101.03, SHEET 7 OF 9, AND TMP-17, AS NEEDED, COMPLETE PROPOSED STAGE 2 BRIDGE OVER I-85 BUS REQUIRING ROAD CLOSURE. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- USING RSD 1101.02, SHEET 3 OF 15, REMOVE PCB.
- STEP 9 - USING RSD 1101.02, 3 OF 15, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -L- AND RAMP A TO GO TO THE PATTERN SHOWN ON TMP-11. ADJUST TEMPORARY SIGNAL TO WORK WITH THIS PATTERN AS PREVIOUSLY UTILIZED IN PHASE II, STEP 2. USE TYPE 3 BARRICADES WITH ROAD CLOSED SIGN ATTACHED TO CLOSE TEMP RAMP B.
- STEP 10 - USING RSD 1101.02, SHEETS 1 AND 2 OF 15 WHERE NECESSARY, COMPLETE CONSTRUCTION OF -L- UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.
- USING RSD 1101.02, SHEET 3 OF 15, CONSTRUCT -Y- SBL OUTSIDE 16+75+/- TO 22+15+/- . SEE ROADWAY PLANS. PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS IN FINAL PATTERN AND OPEN LOOP A TO FINAL PATTERN AS SHOWN ON TMP-18.

PHASE III

- STEP 1 - INSTALL ALL PROPOSED SIGNS NECESSARY FOR UPCOMING TRAFFIC SHIFT. COVER SIGNS UNTIL NEEDED, AS DIRECTED BY THE ENGINEER.
- AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS FOR THE FINAL TRAFFIC PATTERN.
 - INSTALL AND COVER ALL TRAFFIC SIGNALS NECESSARY FOR THE FINAL TRAFFIC PATTERN.

PHASE III (CONT'D)

NOTE - WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEP 2 IN A SINGLE WORK PERIOD. ALL PAVEMENT MARKINGS MENTIONED IN STEP 2 ARE TEMPORARY AND IN THE FINAL PATTERN.

STEP 2 - TIE IN -L- NC 8 AS FOLLOWS:

- A) USING FLAGGERS AND RSD 1101.02, SHEETS 1, 2, AND 3 OF 15, TIE IN ALL LANES OF -L- NC 8 UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE AND PLACE TEMPORARY CENTER LINES AND RIGHT EDGELINE AS MUCH AS POSSIBLE WITHOUT INTERFERRING WITH TRAFFIC.
- B) POSITION FLAGGERS AT THE INTERSECTIONS OF 6TH ST/RAMP C/LOOP C AND RAMP A/LOOP B TO MANAGE TRAFFIC DURING NC 8 TRAFFIC SHIFT.
- C) USE FLAGGERS AND/OR POLICE TO MANAGE TRAFFIC AND PEDESTRIANS AT NC 8 AND ALL INTERSECTING RAMPS AND SIDE STREETS. OPEN LOOP C TO TRAFFIC.
- D) SWITCH SB NC 8 TRAFFIC TO FINAL PATTERN IN NEWLY CONSTRUCTED LANES.
- E) WITH SB NC 8 TRAFFIC IN NEW LANES, TIE IN THE REMAINDER OF THE PAVEMENT MARKINGS AND MARKERS AND REMOVE PCB FROM PHASE II LOCATION. SIMULTANEOUSLY, PERMANENTLY CLOSE EXIST RAMP D. SEE PM PLANS.
- F) SWITCH NB NC 8 TRAFFIC TO FINAL PATTERN.
- G) USING FLAGGERS AND/OR POLICE, UNCOVER ALL FINAL SIGNALS AND RE-OPEN ALL RAMPS AND LOOPS TO FINAL TRAFFIC PATTERNS.



STEP 3 - USING RSD 1101.02, SHEETS 1, 2 OR 3 OF 15 WHERE NECESSARY, CONSTRUCT THE FOLLOWING:

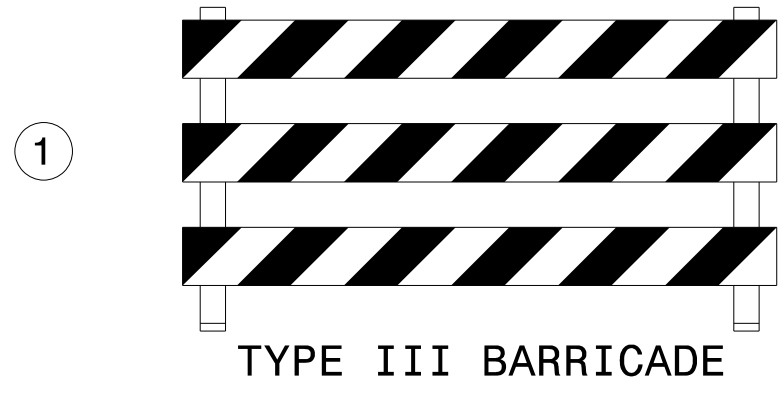
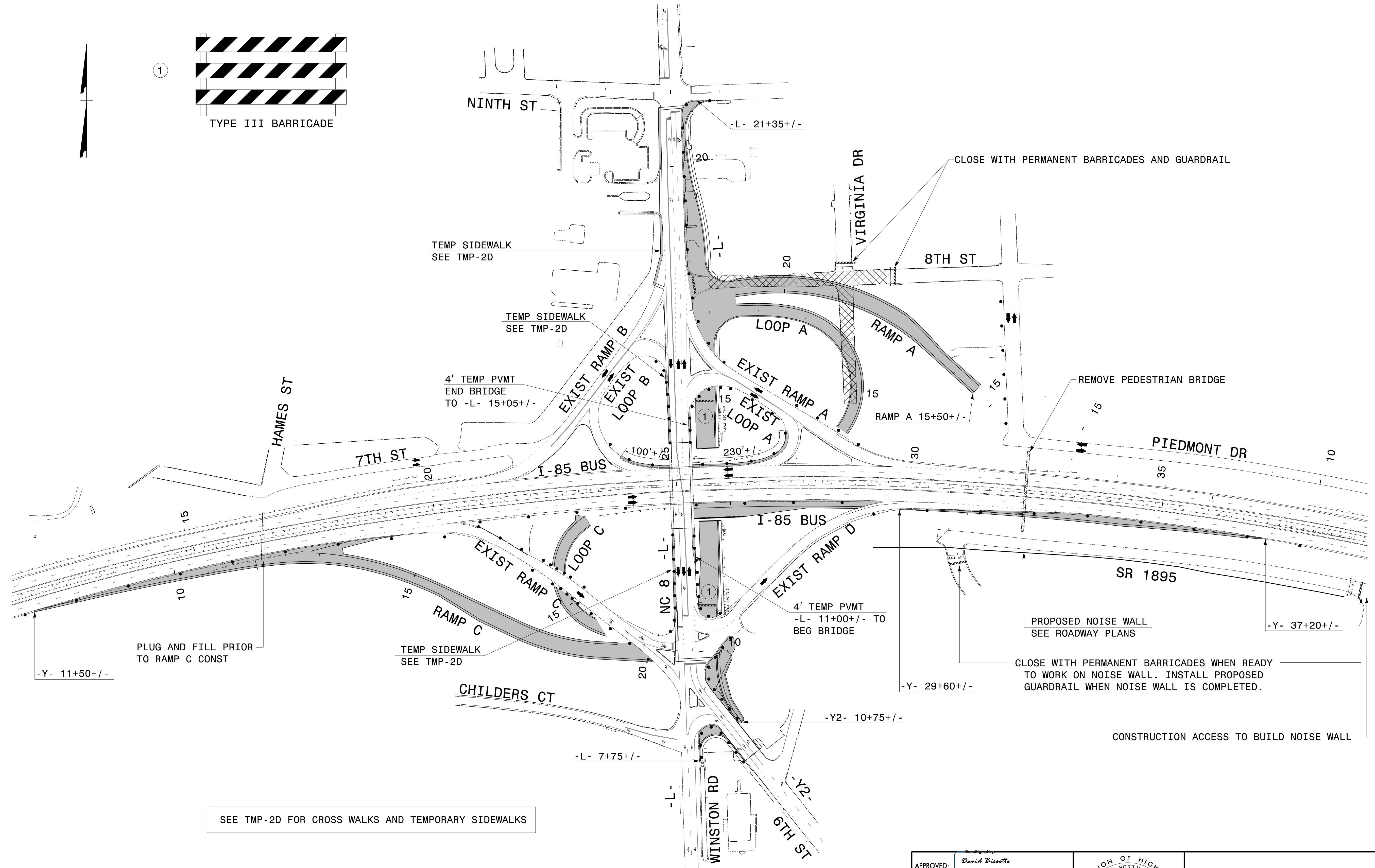
- COMPLETE EXISTING PAVEMENT REMOVAL AS PER THE ROADWAY PLANS.
- INSTALL ALL PROPOSED CONCRETE ISLANDS. SEE TMP-18.
- COMPLETE EXISTING GUARDRAIL REMOVAL AND INSTALLATION OF PROPOSED GUARDRAIL ALONG I-85 BUS.

STEP 4 - USING RSD 1101.02, SHEETS 1, 2 OR 3 OF 15, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS IN FINAL PATTERN ON ALL ROADS. SEE PM PLANS.

STEP 5 - REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

7/7/2015 R:\TIP\Projects-B\B3159\TrafficControl\TCP\B3159_TC_TMP03A.dgn User:derlchardson

APPROVED: <i>David Bisette</i> <small>ECDCR08CR75348C...</small> DATE: 7/7/2015 		<h1>PHASING</h1>
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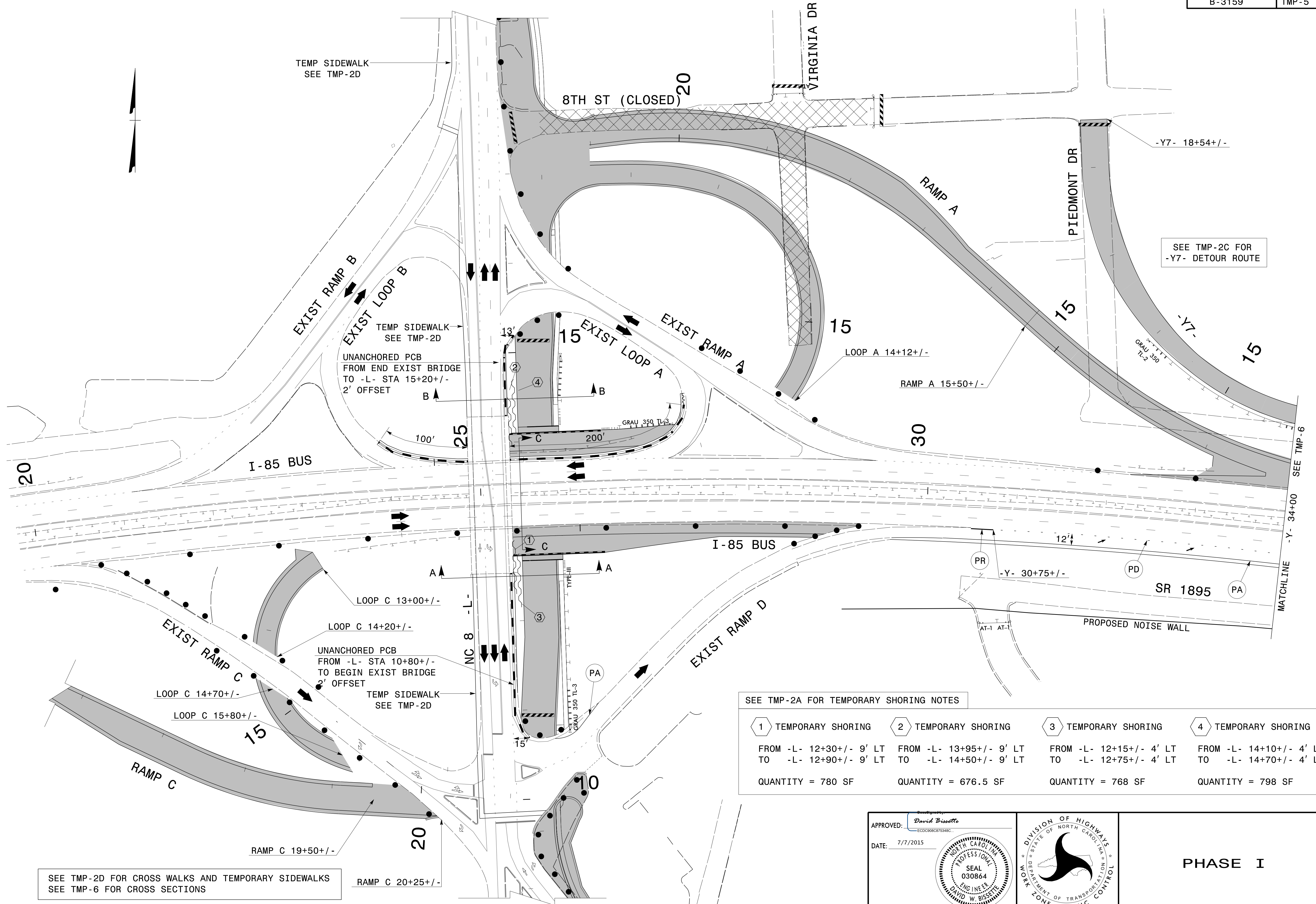
SEE TMP-2D FOR CROSS WALKS AND TEMPORARY SIDEWALKS

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 User:derichardson

APPROVED: *David Bisette*
 ECDCR/CRT/SHAC
 DATE: 7/7/2015



**PHASE I
OVERVIEW**



SEE TMP-2C FOR
-Y7- DETOUR ROUTE

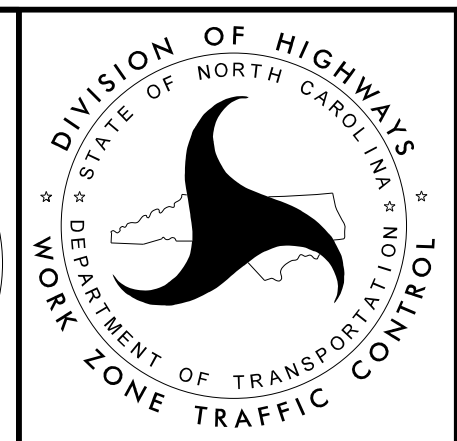
SEE TMP-2A FOR TEMPORARY SHORING NOTES

1	2	3	4
TEMPORARY SHORING	TEMPORARY SHORING	TEMPORARY SHORING	TEMPORARY SHORING
FROM -L- 12+30+/- 9' LT TO -L- 12+90+/- 9' LT	FROM -L- 13+95+/- 9' LT TO -L- 14+50+/- 9' LT	FROM -L- 12+15+/- 4' LT TO -L- 12+75+/- 4' LT	FROM -L- 14+10+/- 4' LT TO -L- 14+70+/- 4' LT
QUANTITY = 780 SF	QUANTITY = 676.5 SF	QUANTITY = 768 SF	QUANTITY = 798 SF

SEE TMP-2D FOR CROSS WALKS AND TEMPORARY SIDEWALKS
SEE TMP-6 FOR CROSS SECTIONS

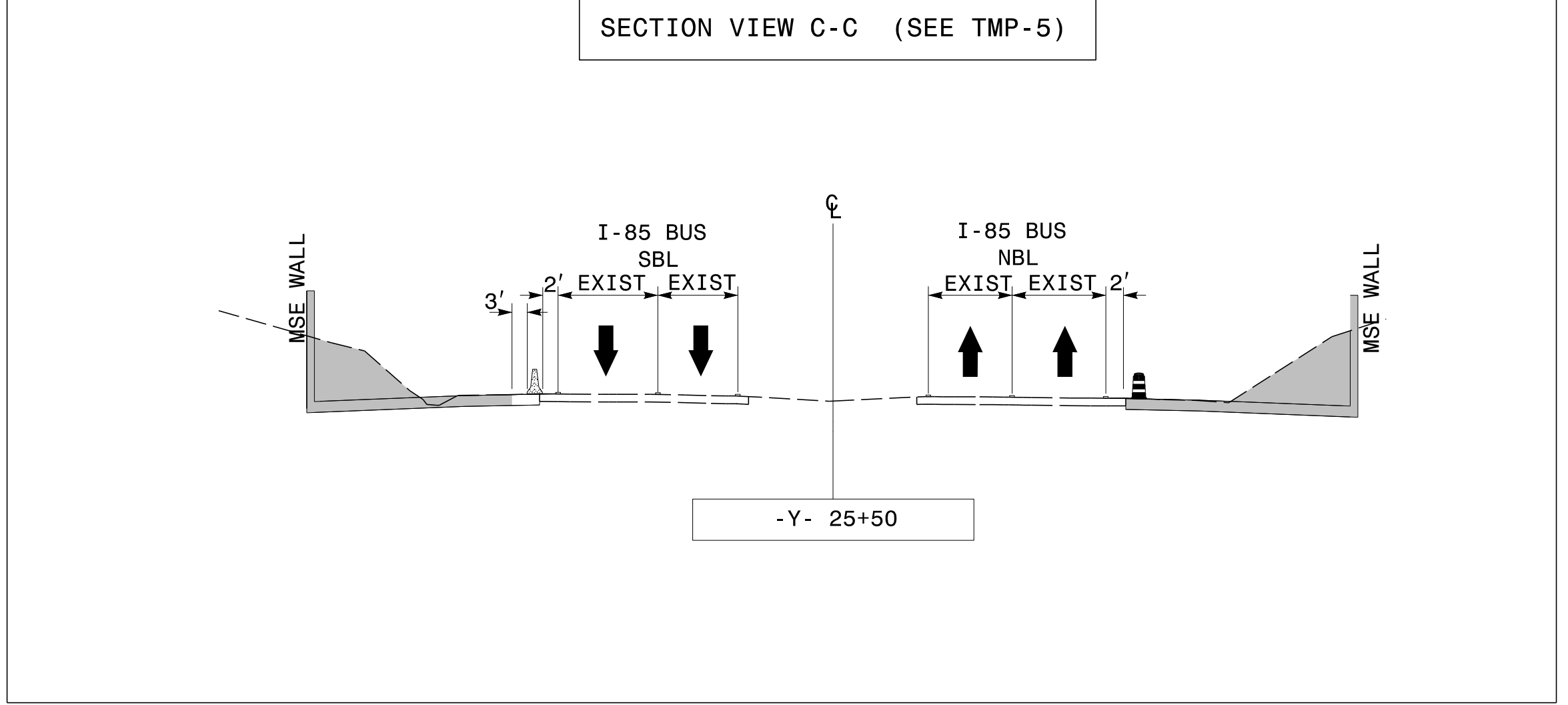
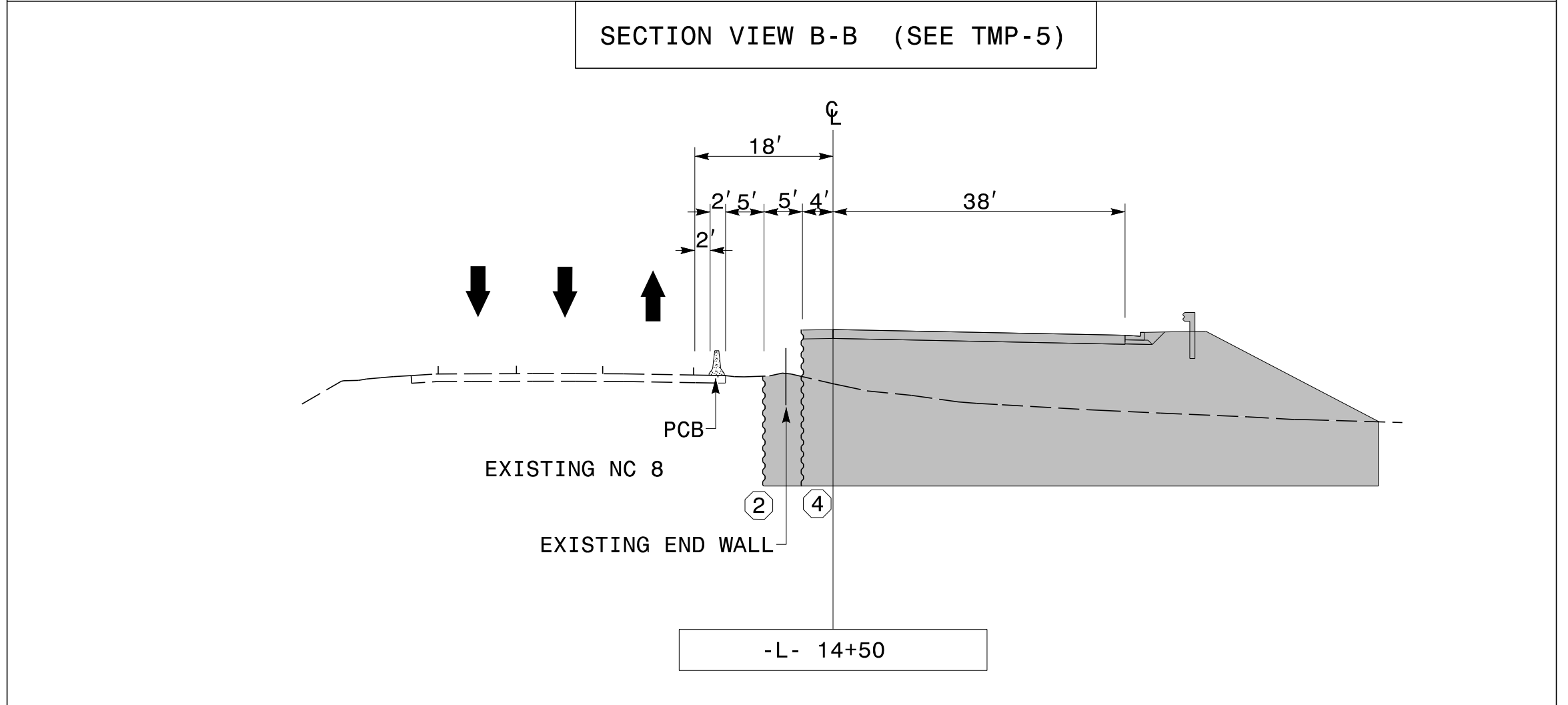
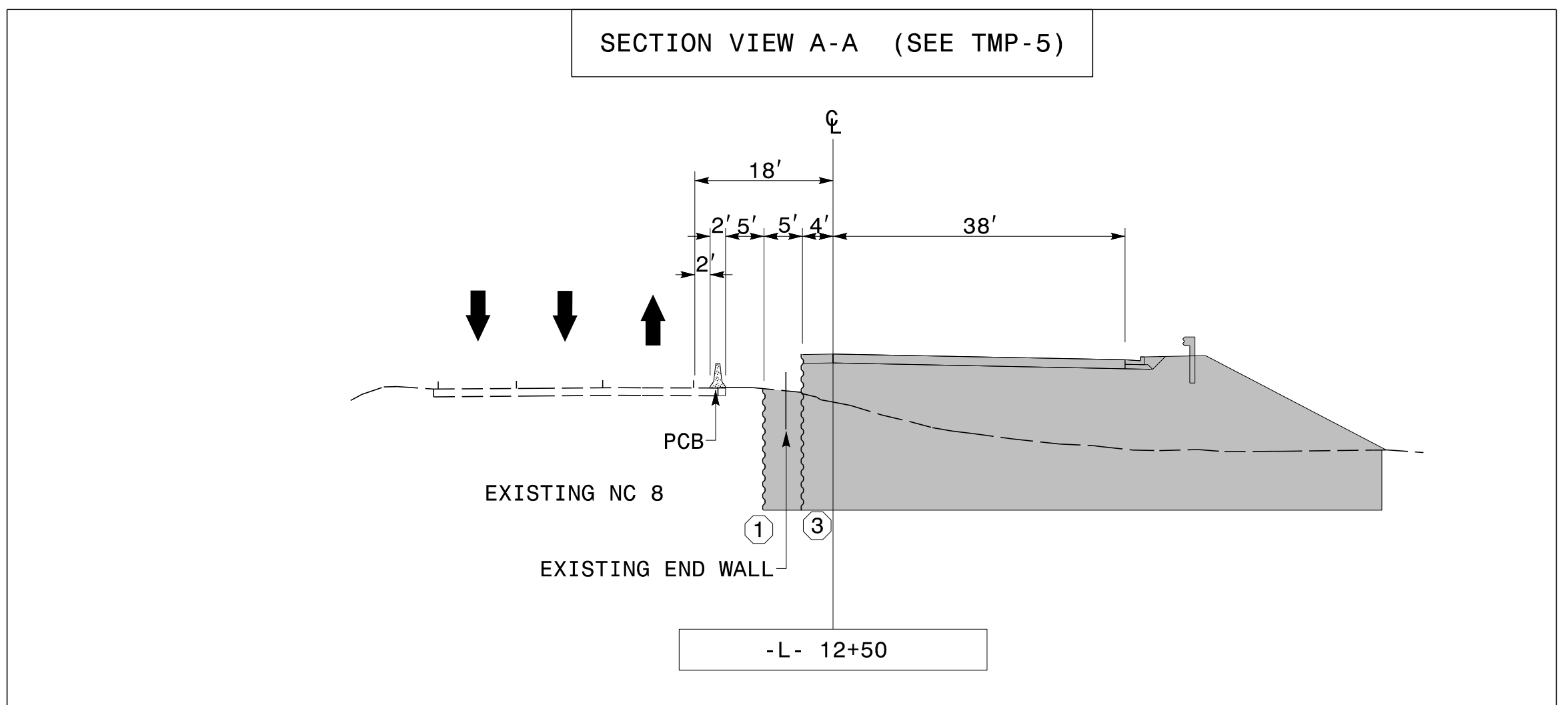
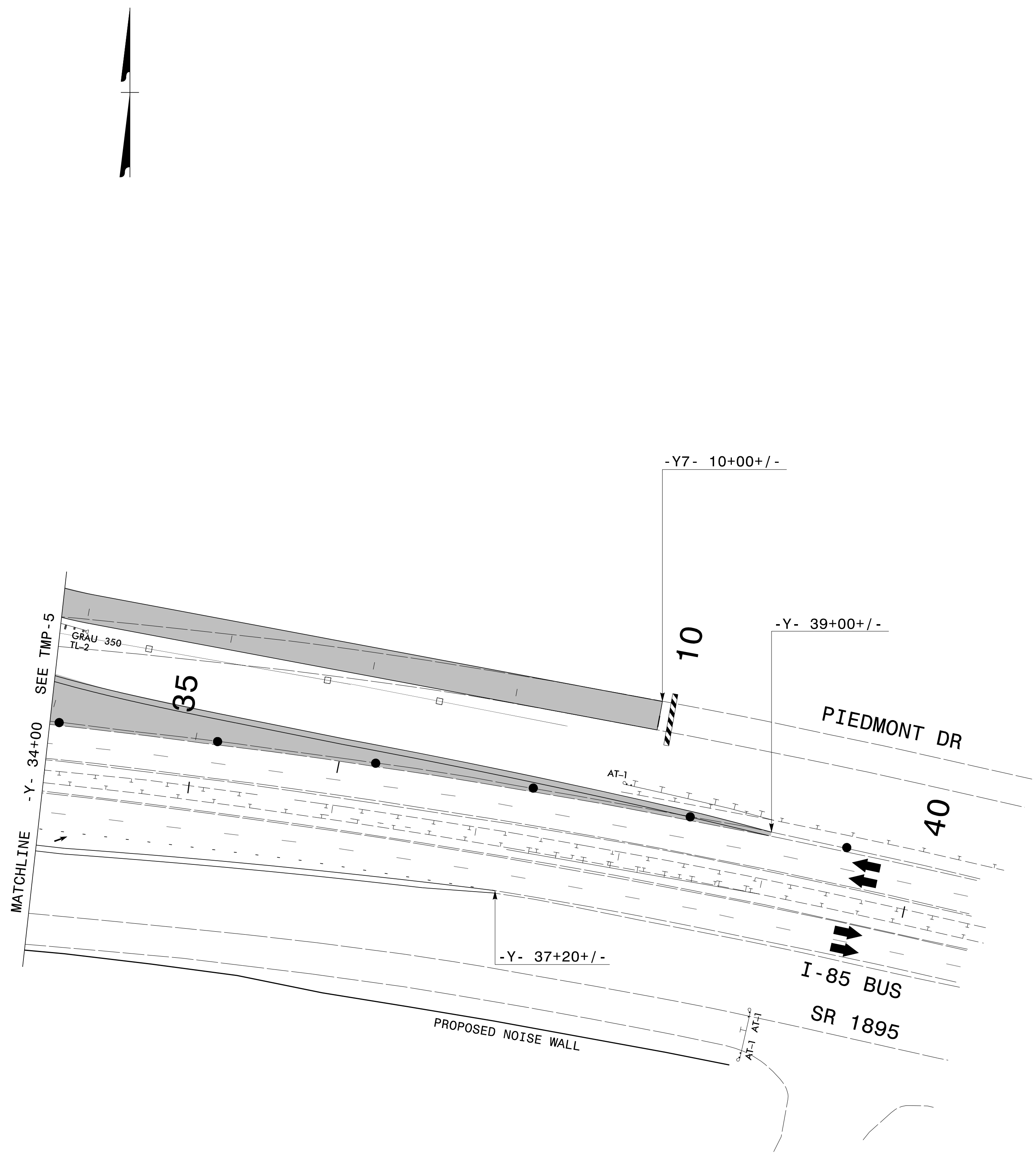
APPROVED: *David Bisette*
DATE: 7/7/2015

PROFESSIONAL SEAL
030864
DAVID W. BISSETTE
ENGINEER



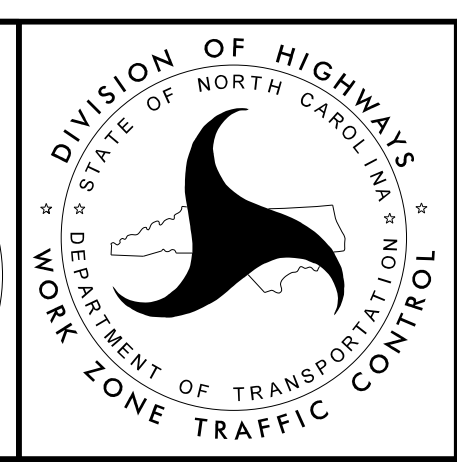
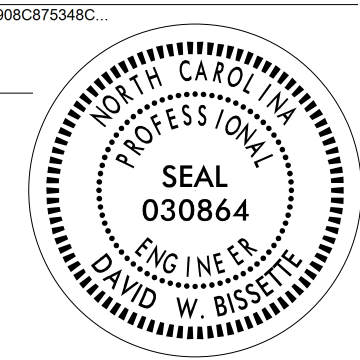
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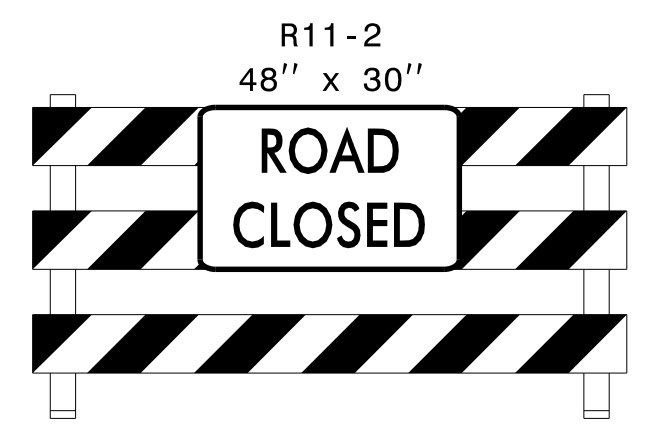
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 User:derichardson

APPROVED: *David Bisette*
 ECDCR03R75349C
 DATE: 7/7/2015



PHASE I

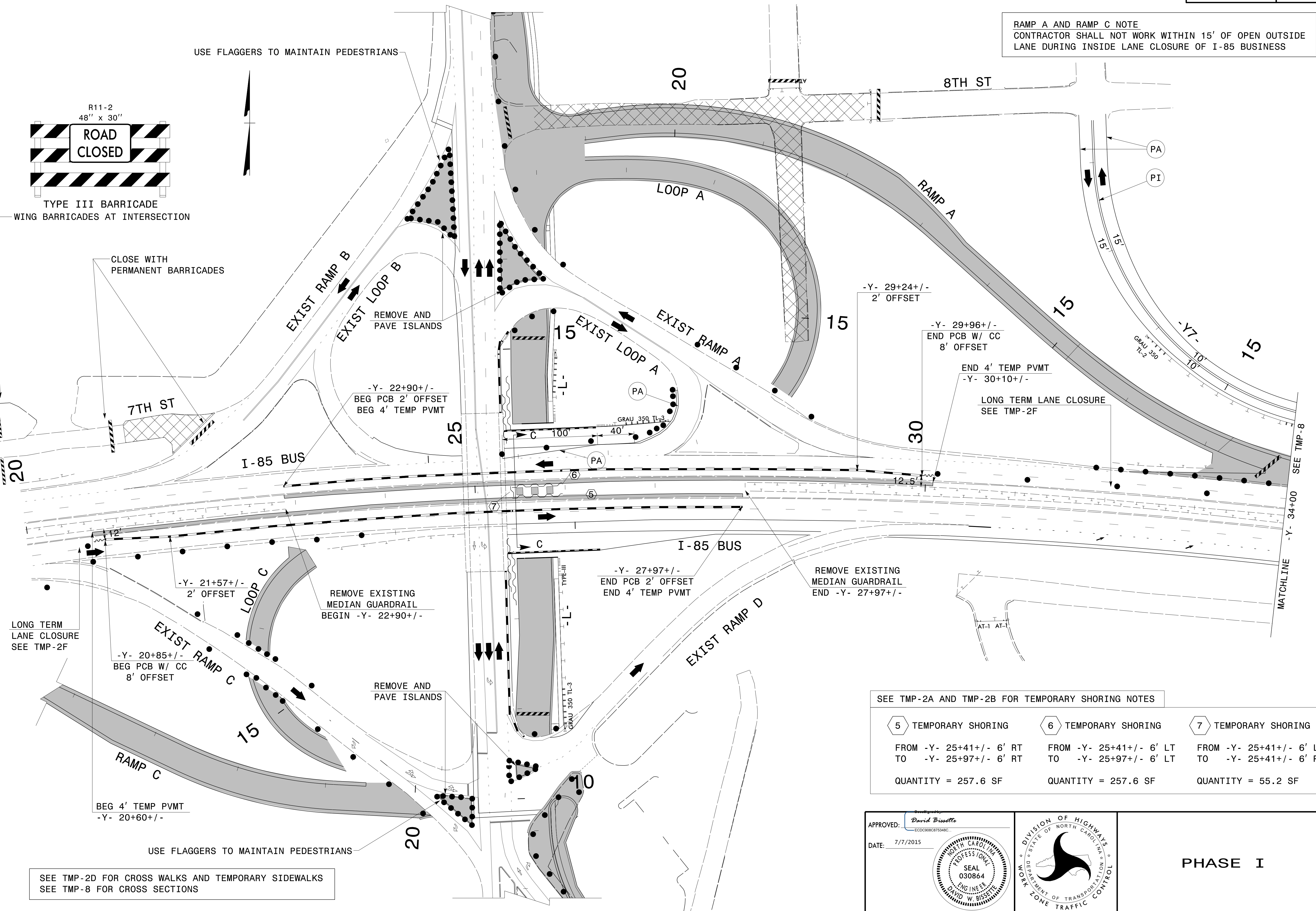
RAMP A AND RAMP C NOTE
 CONTRACTOR SHALL NOT WORK WITHIN 15' OF OPEN OUTSIDE LANE DURING INSIDE LANE CLOSURE OF I-85 BUSINESS



TYPE III BARRICADE
 WING BARRICADES AT INTERSECTION

USE FLAGGERS TO MAINTAIN PEDESTRIANS

CLOSE WITH PERMANENT BARRICADES



LONG TERM LANE CLOSURE
 SEE TMP-2F

SEE TMP-2D FOR CROSS WALKS AND TEMPORARY SIDEWALKS
 SEE TMP-8 FOR CROSS SECTIONS

SEE TMP-2A AND TMP-2B FOR TEMPORARY SHORING NOTES

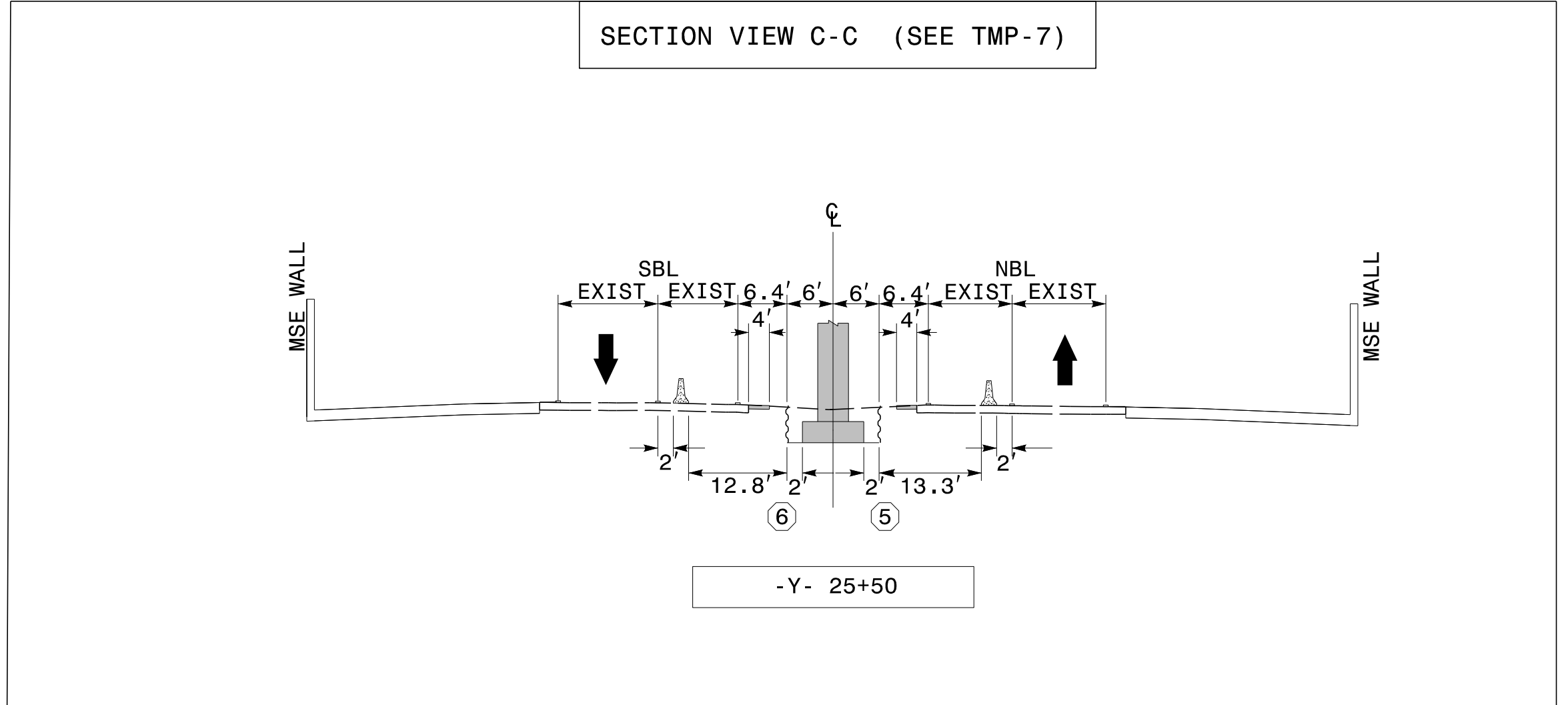
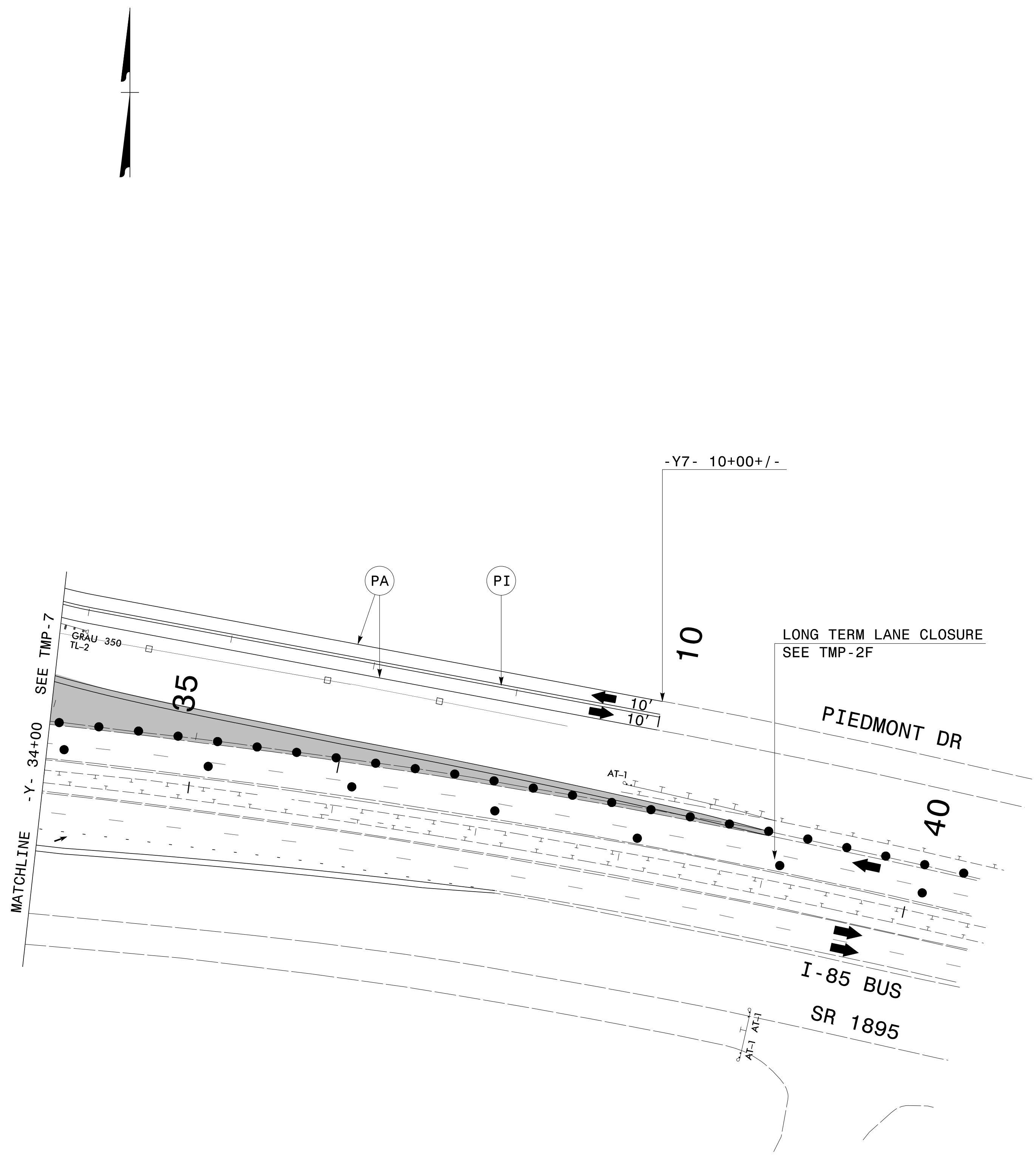
5	6	7
TEMPORARY SHORING	TEMPORARY SHORING	TEMPORARY SHORING
FROM -Y- 25+41+/- 6' RT TO -Y- 25+97+/- 6' RT	FROM -Y- 25+41+/- 6' LT TO -Y- 25+97+/- 6' LT	FROM -Y- 25+41+/- 6' LT TO -Y- 25+41+/- 6' RT
QUANTITY = 257.6 SF	QUANTITY = 257.6 SF	QUANTITY = 55.2 SF

APPROVED: *David Bisette*
 ECDC08CR7548C...
 DATE: 7/7/2015



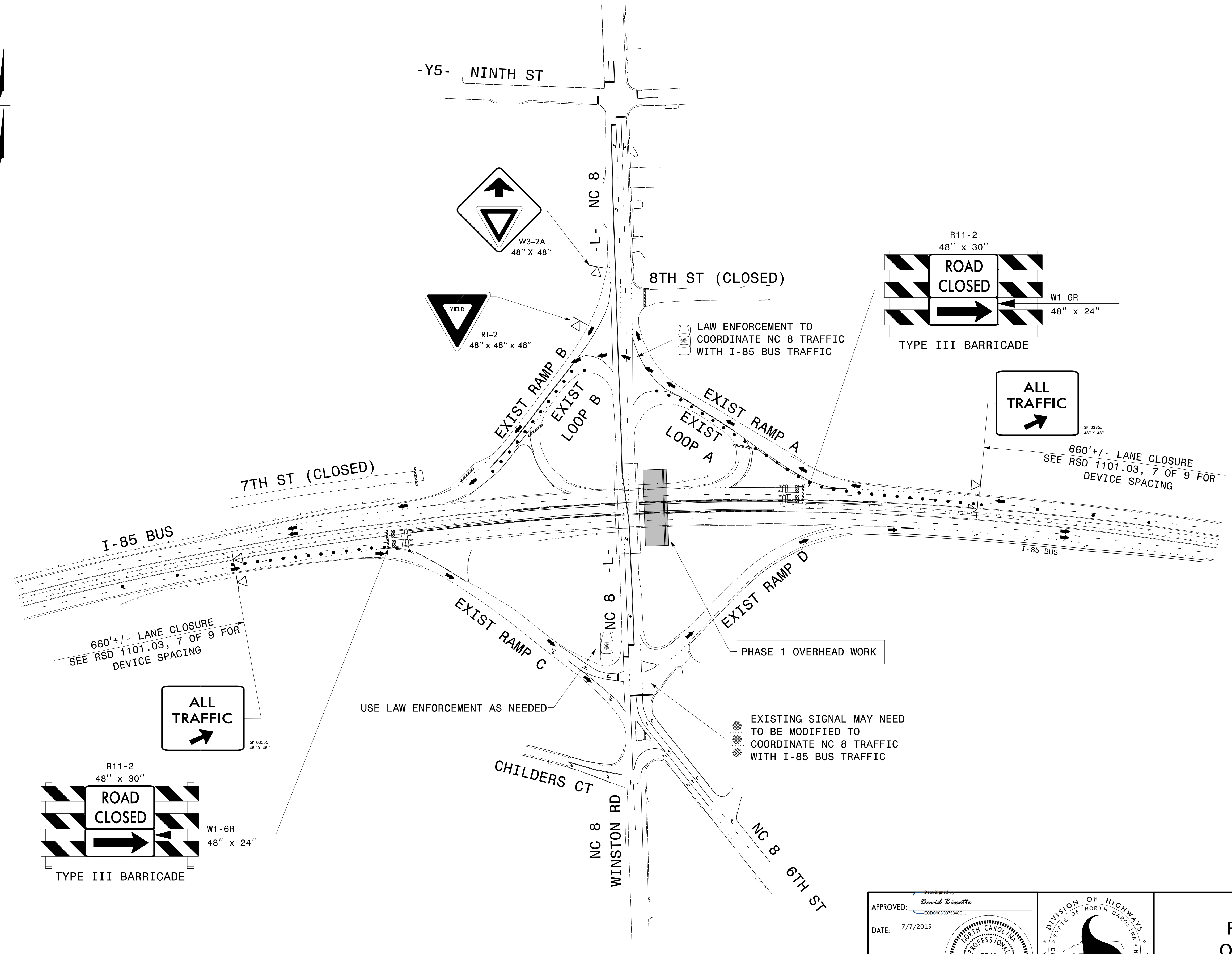
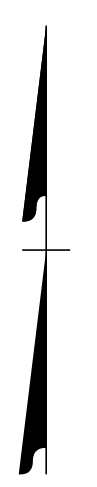
PHASE I

7/7/2015
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 User:derichardson



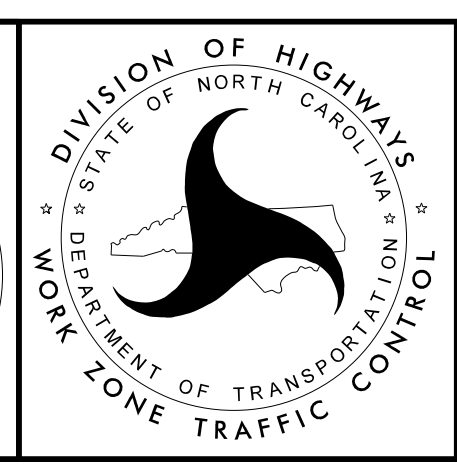
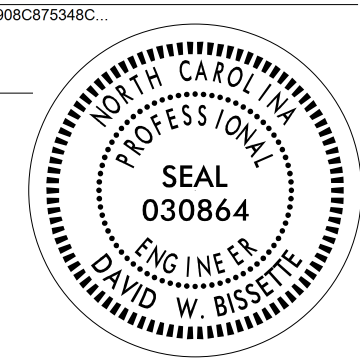
7/7/2015
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 User:derichardson

APPROVED: <i>David Bisette</i> <small>ECDCR08C75348C...</small> DATE: 7/7/2015			<h1>PHASE I</h1>
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7/7/2015
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 User:derichardson

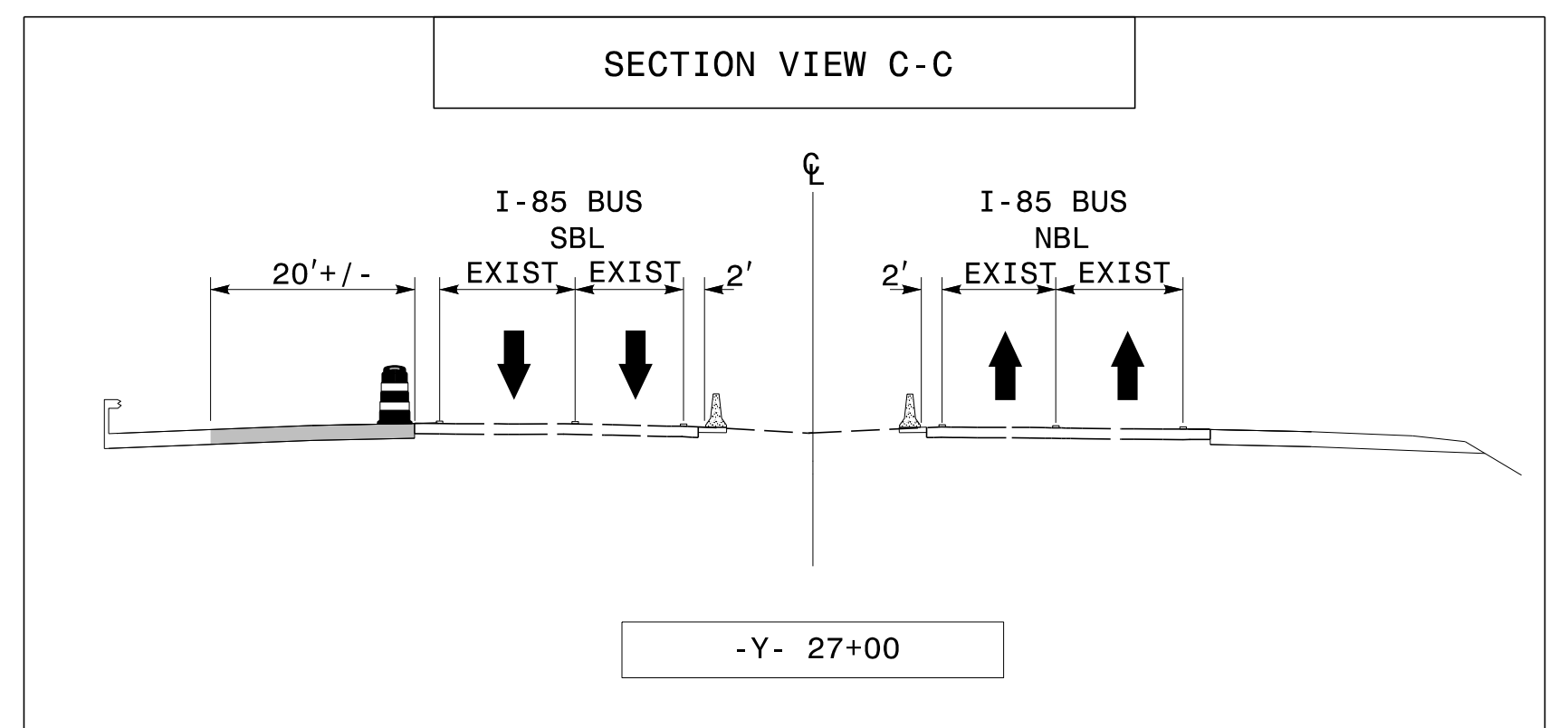
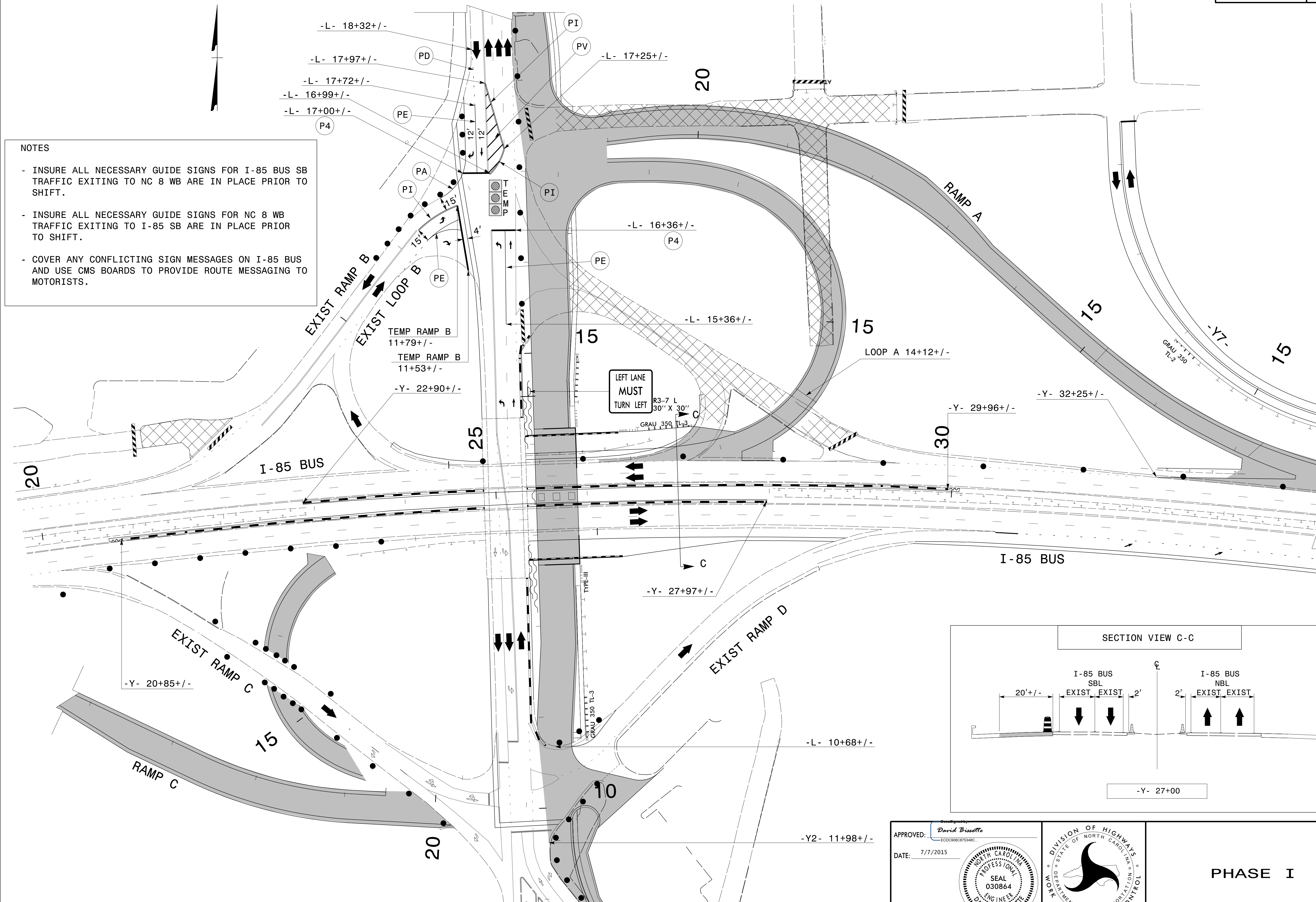
APPROVED: *David Bisette*
 ECDCOR/CRT/S4BC
 DATE: 7/7/2015



**PHASE I
 OVERVIEW
 (UP & OVER)**

NOTES

- INSURE ALL NECESSARY GUIDE SIGNS FOR I-85 BUS SB TRAFFIC EXITING TO NC 8 WB ARE IN PLACE PRIOR TO SHIFT.
- INSURE ALL NECESSARY GUIDE SIGNS FOR NC 8 WB TRAFFIC EXITING TO I-85 SB ARE IN PLACE PRIOR TO SHIFT.
- COVER ANY CONFLICTING SIGN MESSAGES ON I-85 BUS AND USE CMS BOARDS TO PROVIDE ROUTE MESSAGING TO MOTORISTS.



APPROVED: *David Bisette*
ECDCOR/CRT/S&C

DATE: 7/7/2015

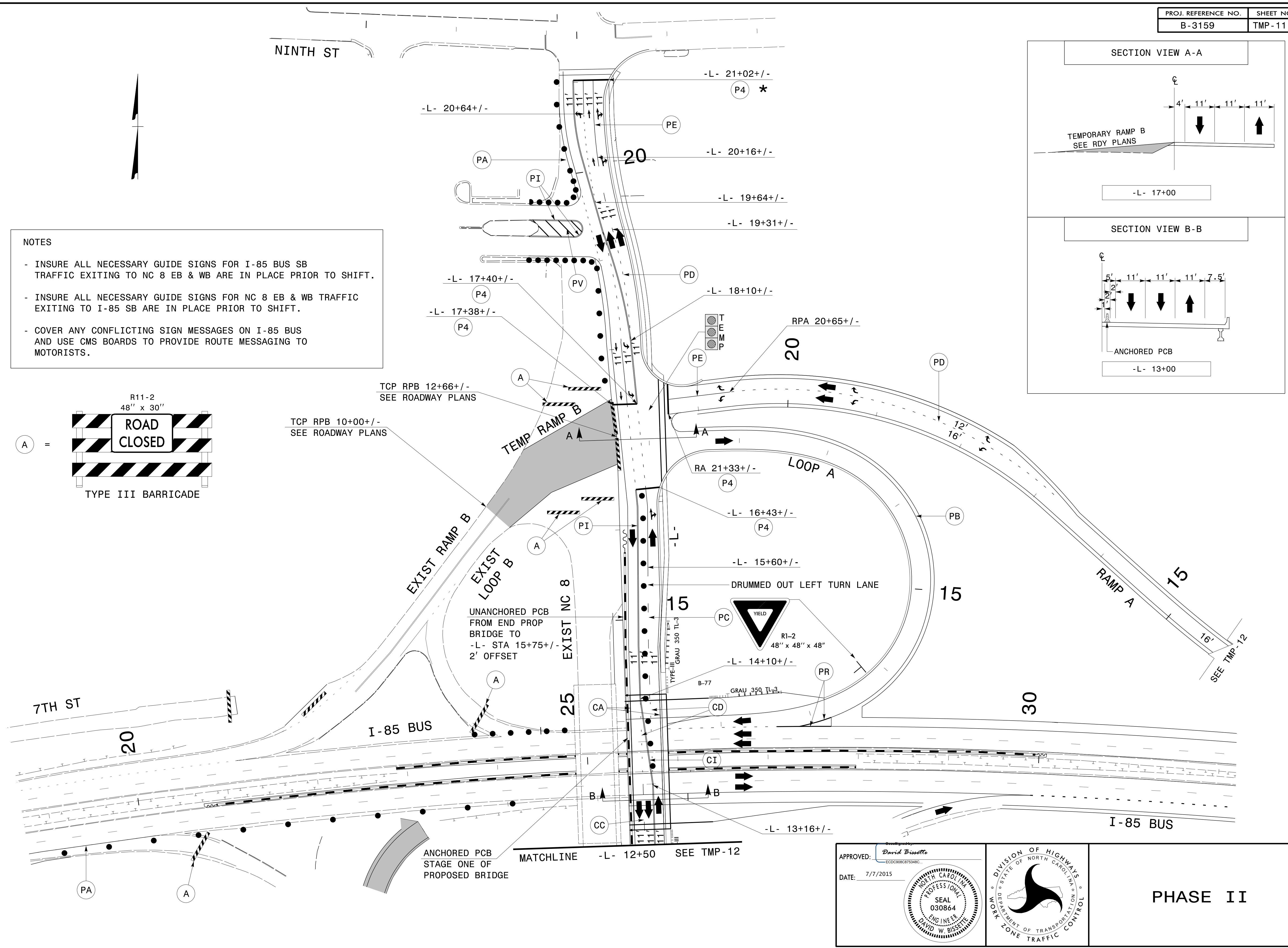
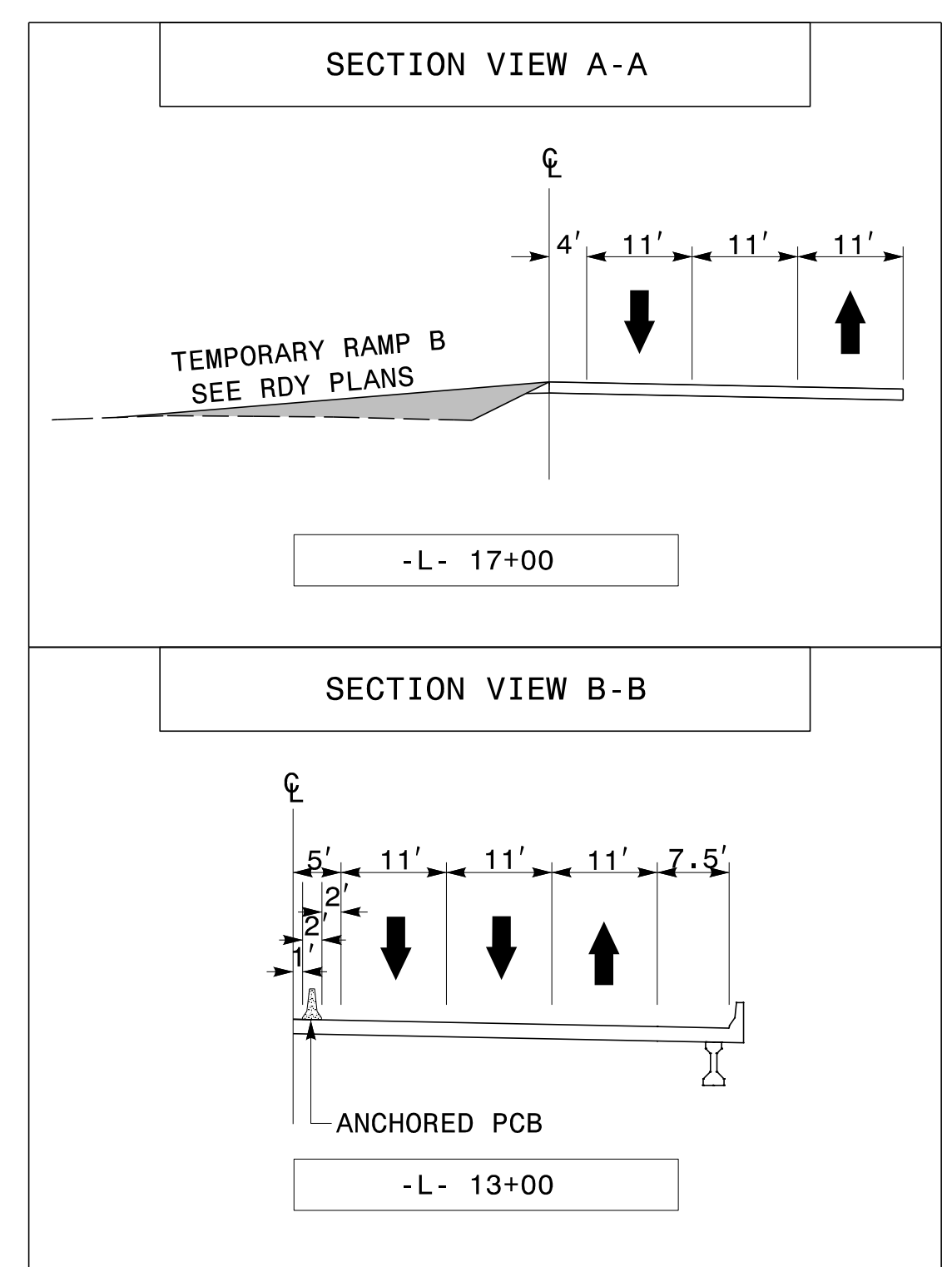
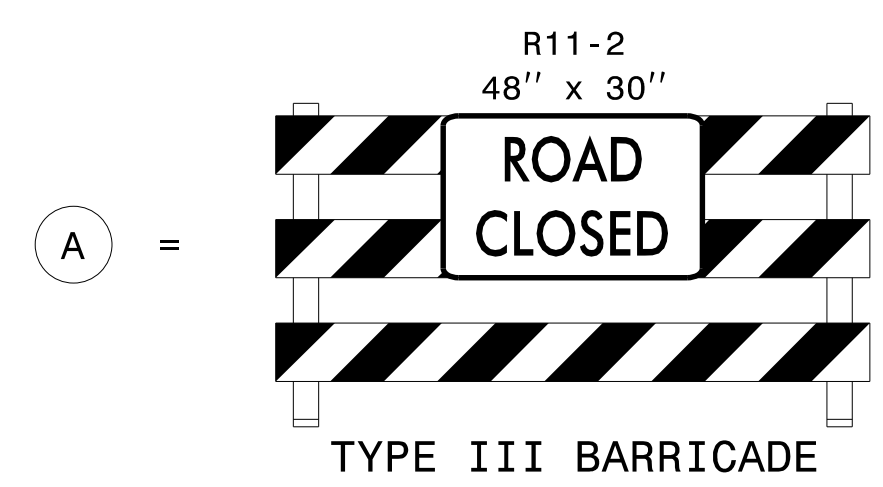


PHASE I

7/7/2015
 R:\TIP\Projects-B\B3159\TrafficControl\TCP\B3159_TC_TMP10.dgn
 User: derichardson

NOTES

- INSURE ALL NECESSARY GUIDE SIGNS FOR I-85 BUS SB TRAFFIC EXITING TO NC 8 EB & WB ARE IN PLACE PRIOR TO SHIFT.
- INSURE ALL NECESSARY GUIDE SIGNS FOR NC 8 EB & WB TRAFFIC EXITING TO I-85 SB ARE IN PLACE PRIOR TO SHIFT.
- COVER ANY CONFLICTING SIGN MESSAGES ON I-85 BUS AND USE CMS BOARDS TO PROVIDE ROUTE MESSAGING TO MOTORISTS.

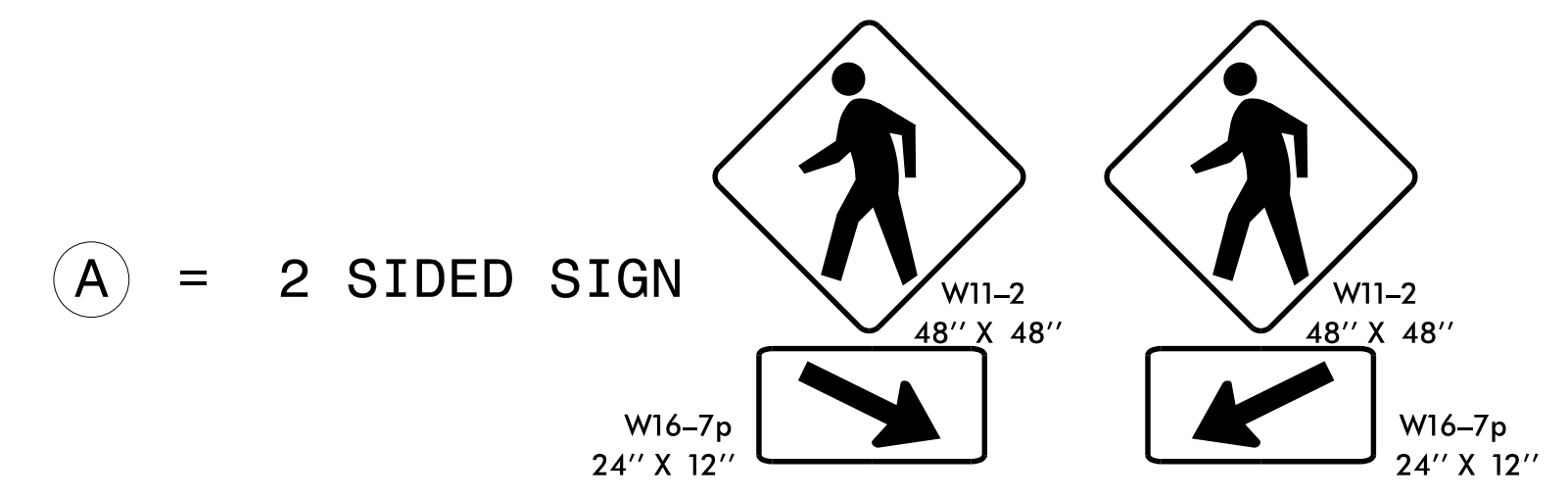
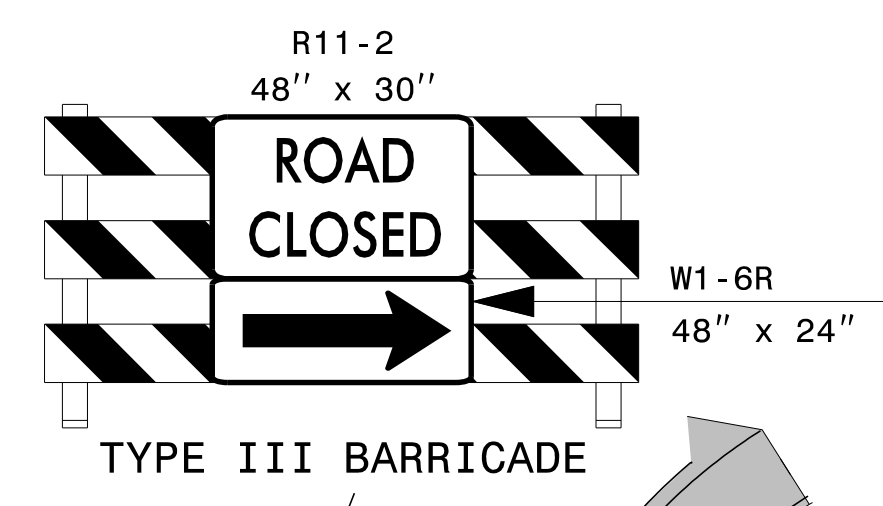


7/7/2015
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 User:derichardson

APPROVED: David Bisette
 DATE: 7/7/2015

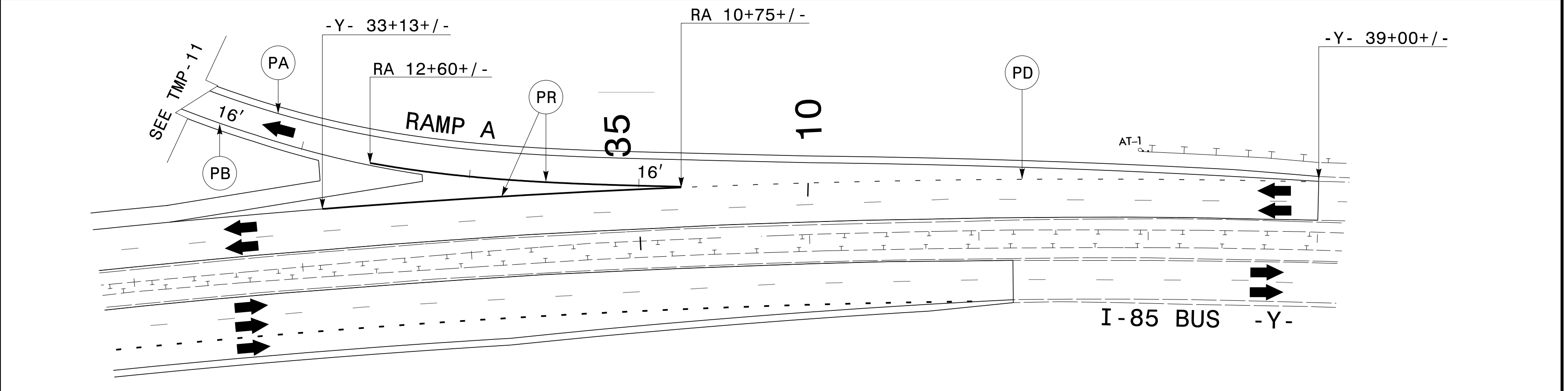
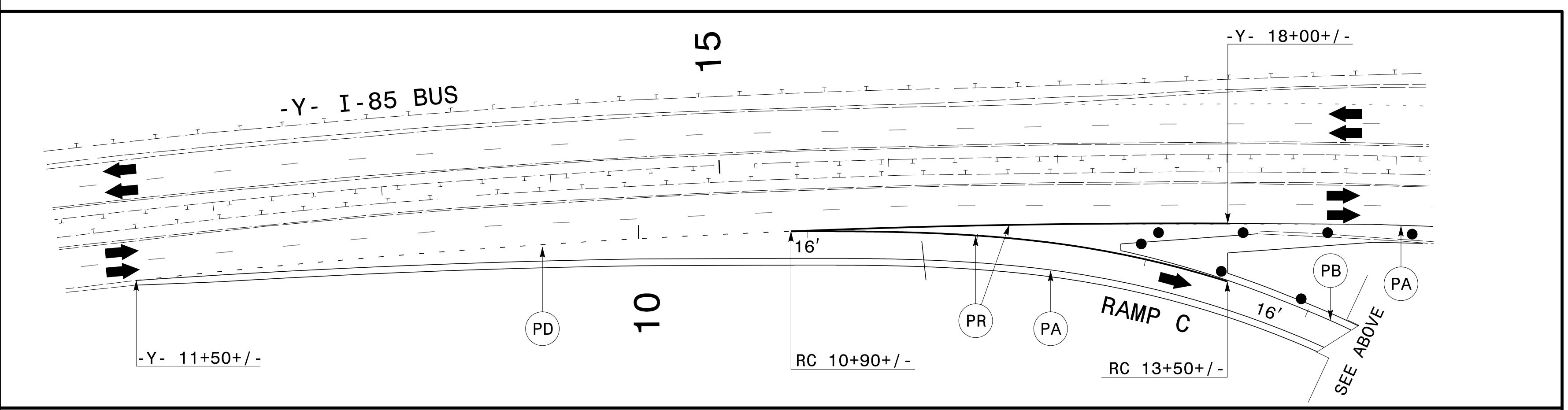
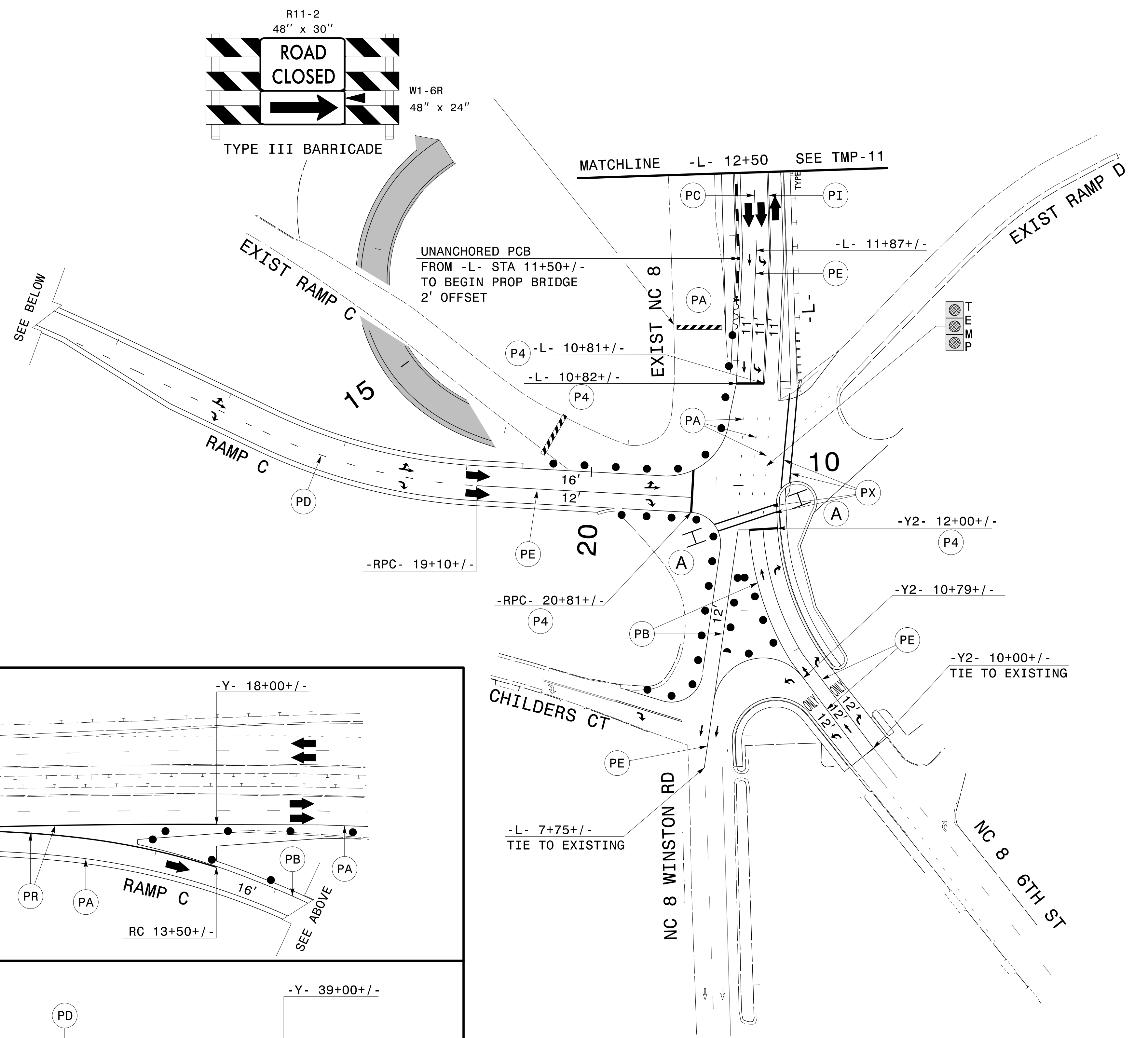


PHASE II



NOTE

- INSURE ALL NECESSARY GUIDE SIGNS FOR I-85 BUS NB TRAFFIC EXITING TO NC 8 EB & WB ARE IN PLACE PRIOR TO SHIFT.
- INSURE ALL NECESSARY GUIDE SIGNS FOR NC 8 EB AND WB TRAFFIC EXITING TO I-85 BUS SB ARE IN PLACE PRIOR TO SHIFT
- COVER ANY CONFLICTING SIGN MESSAGES ON I-85 BUS AND USE CMS BOARDS TO PROVIDE ROUTE MESSAGING TO MOTORISTS.



APPROVED: *David Bisette*
ECDCR/CRT/SHAC

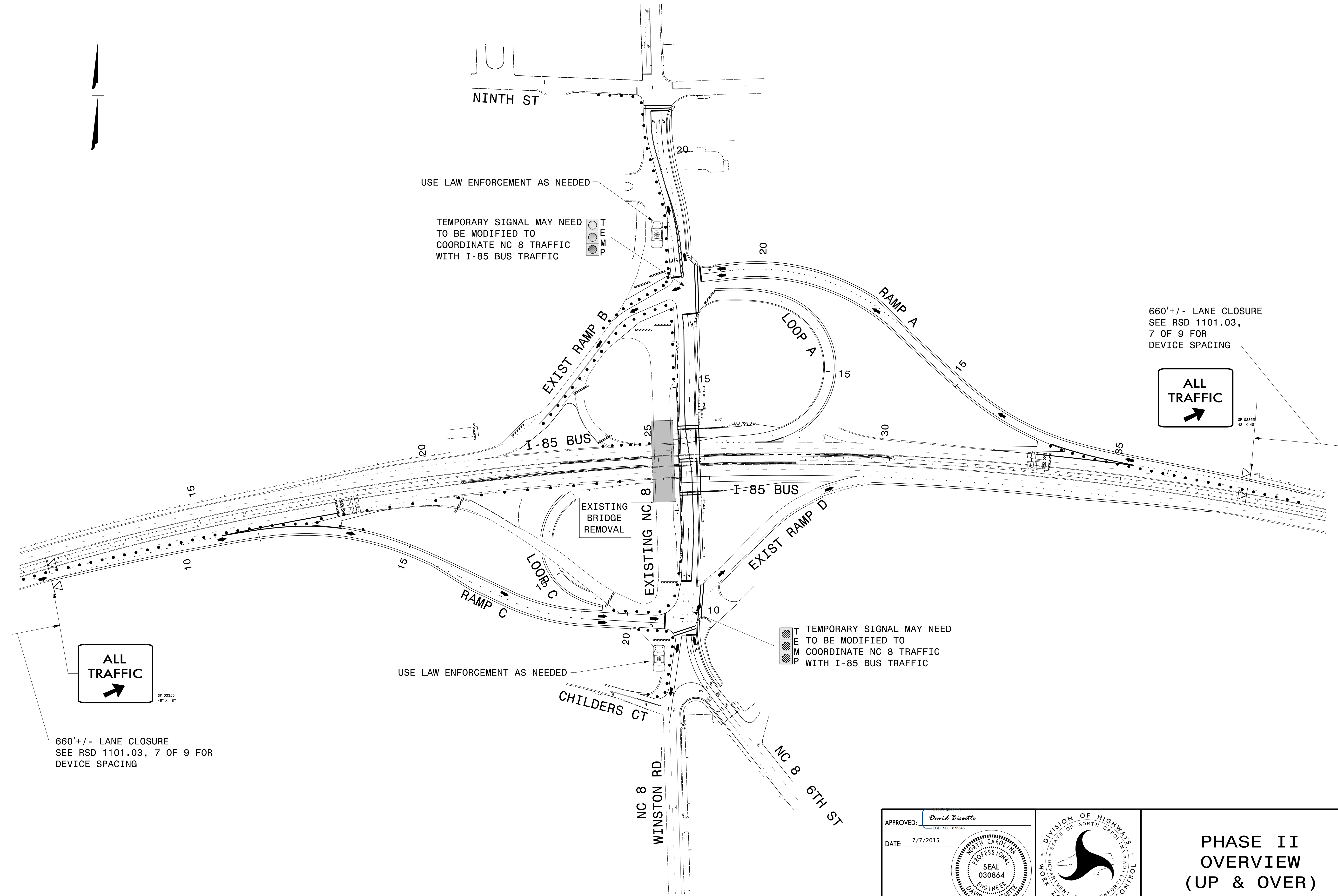
DATE: 7/7/2015



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

PHASE II

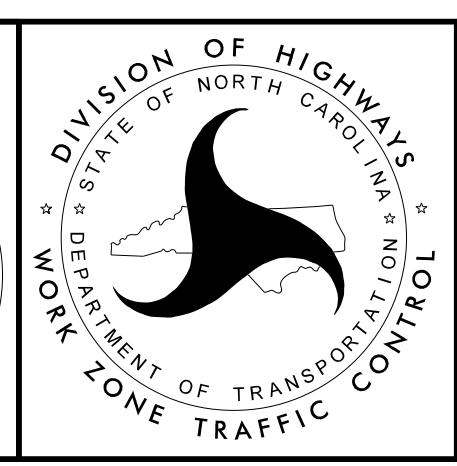
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 User: dcrichardson



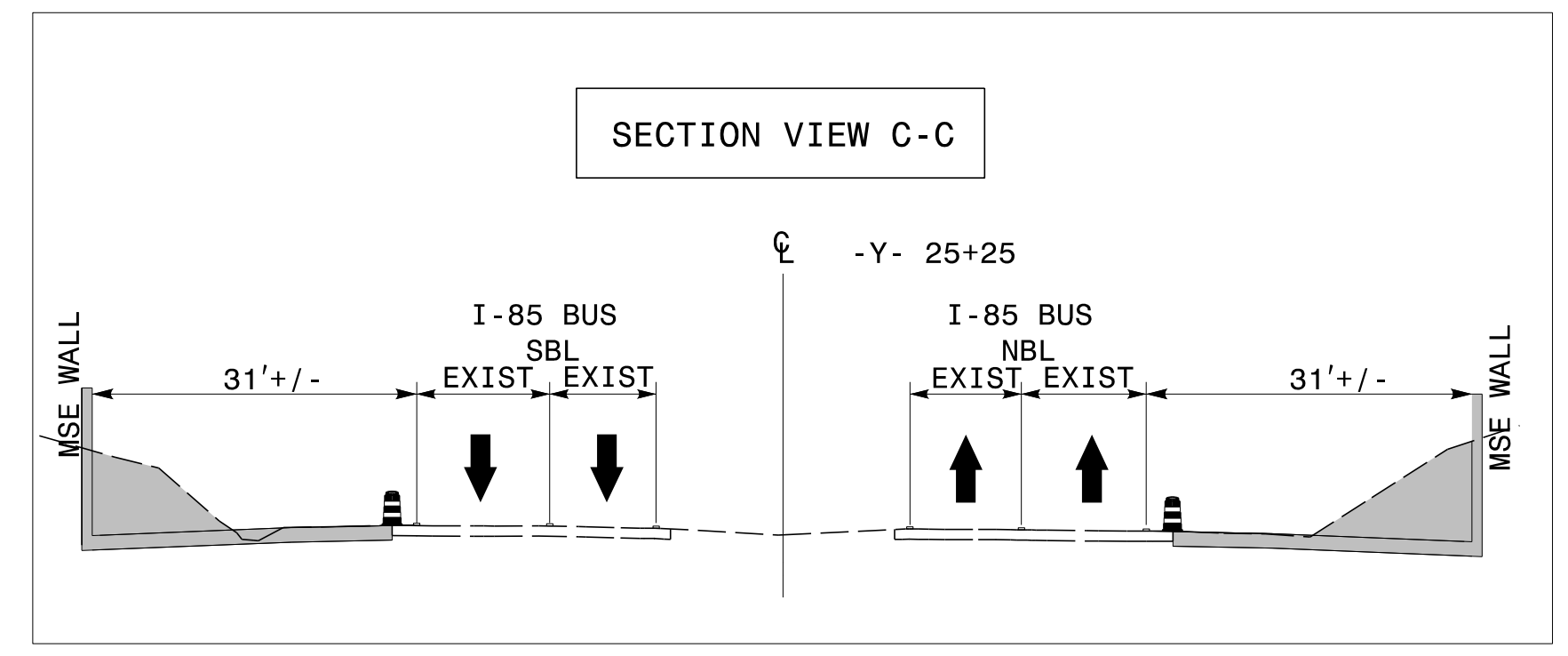
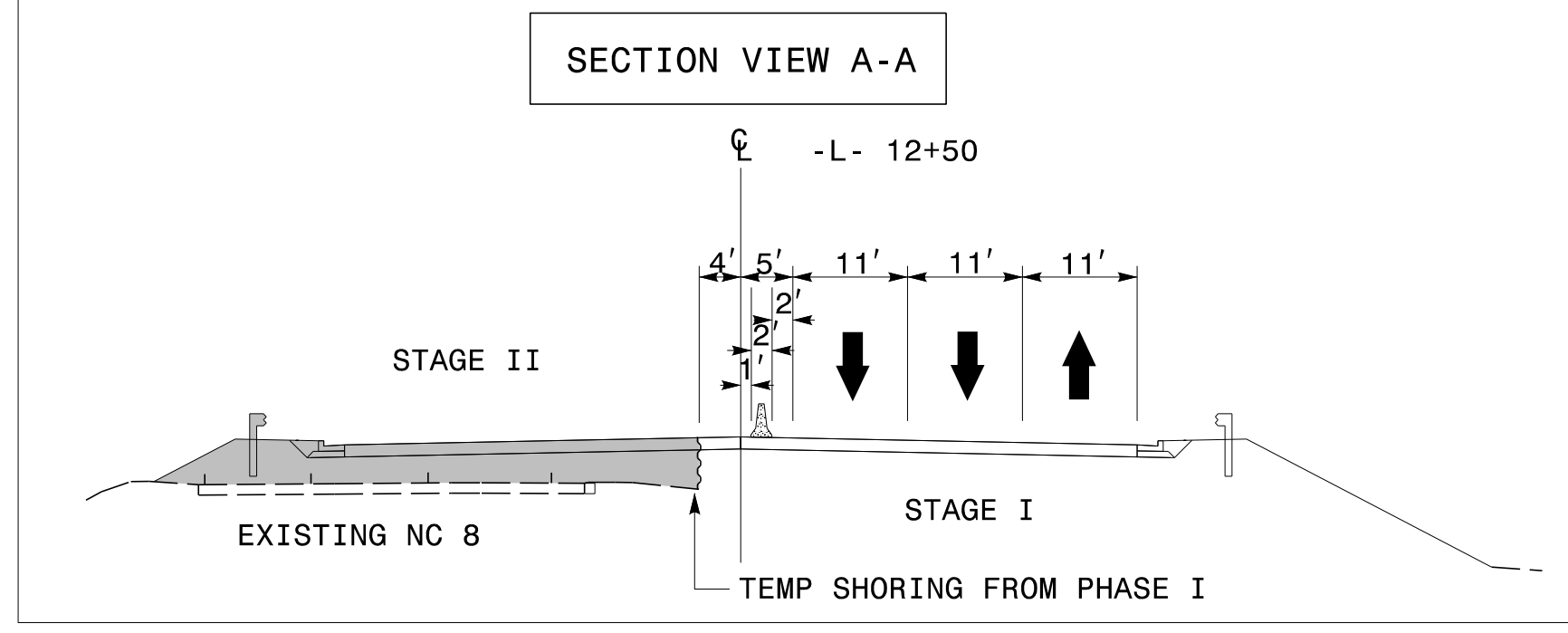
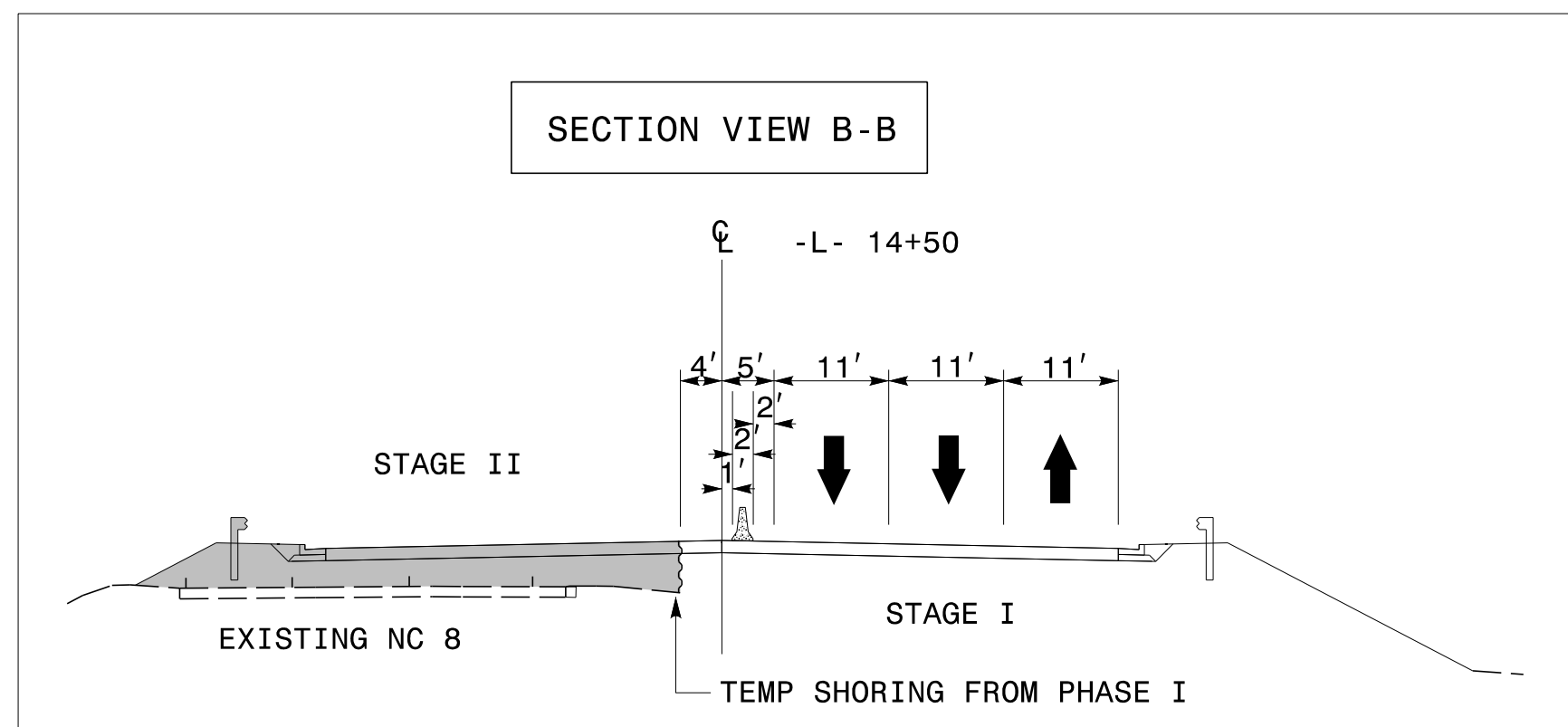
7/7/2015
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 User:derichardson

APPROVED: *David Bisette*
ECDCR/CRT/S48C

DATE: 7/7/2015

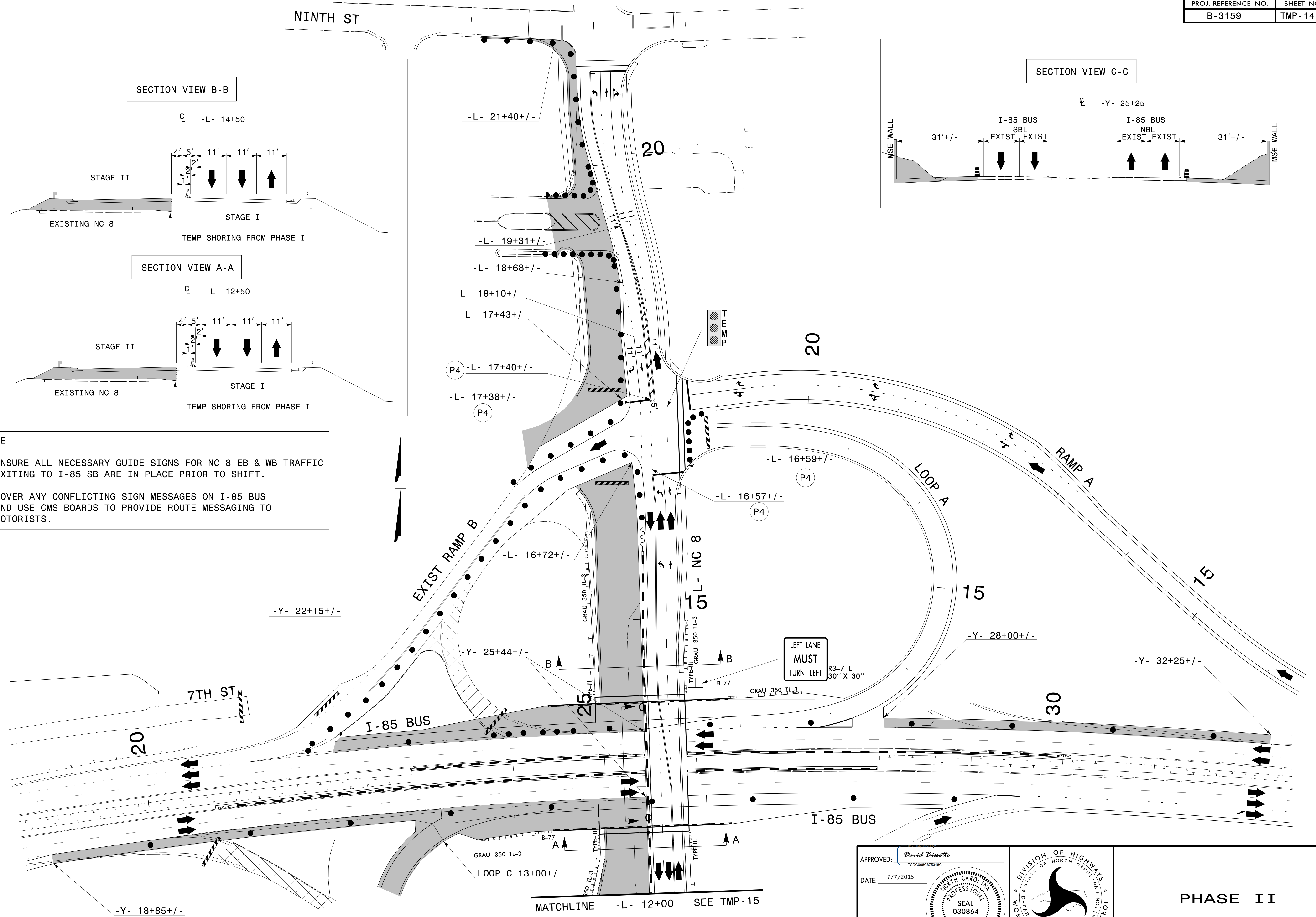


PHASE II
 OVERVIEW
 (UP & OVER)



NOTE

- INSURE ALL NECESSARY GUIDE SIGNS FOR NC 8 EB & WB TRAFFIC EXITING TO I-85 SB ARE IN PLACE PRIOR TO SHIFT.
- COVER ANY CONFLICTING SIGN MESSAGES ON I-85 BUS AND USE CMS BOARDS TO PROVIDE ROUTE MESSAGING TO MOTORISTS.

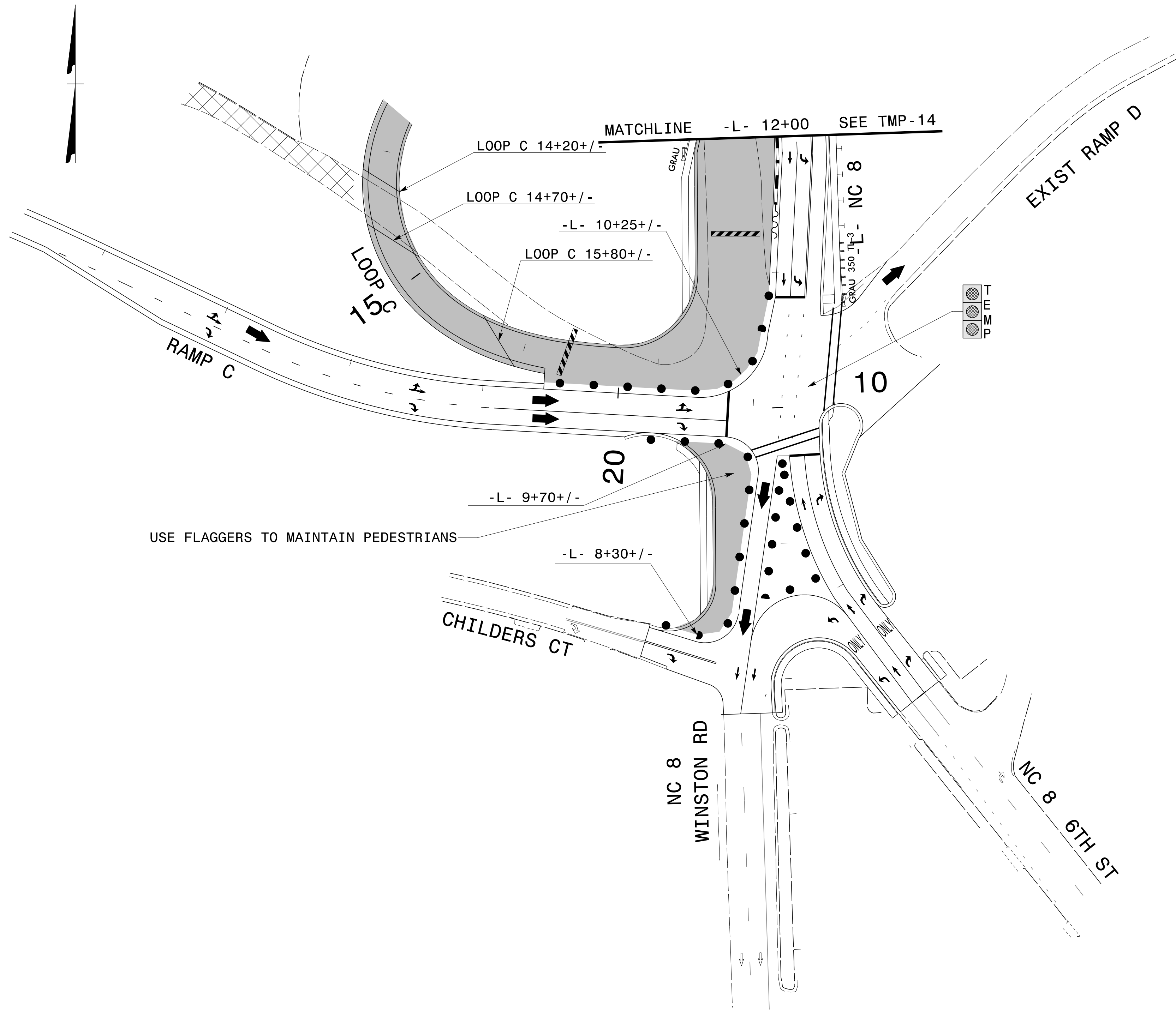


APPROVED: David Bisette
 DATE: 7/7/2015
 PROFESSIONAL SEAL 030864
 ENGINEER DAVID W. BISSETTE



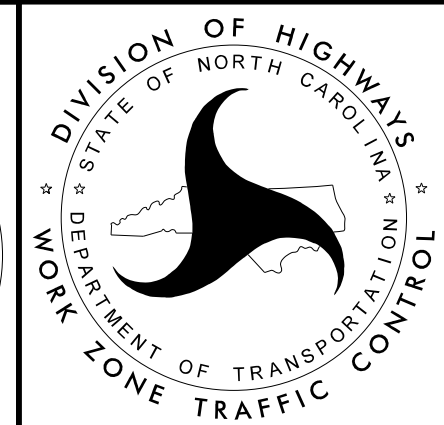
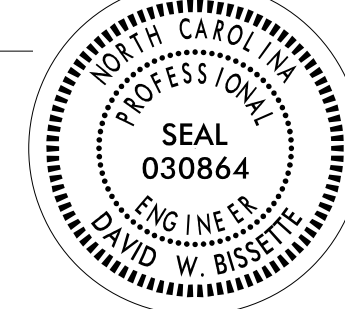
PHASE II

7/7/2015
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 User: dcrichardson

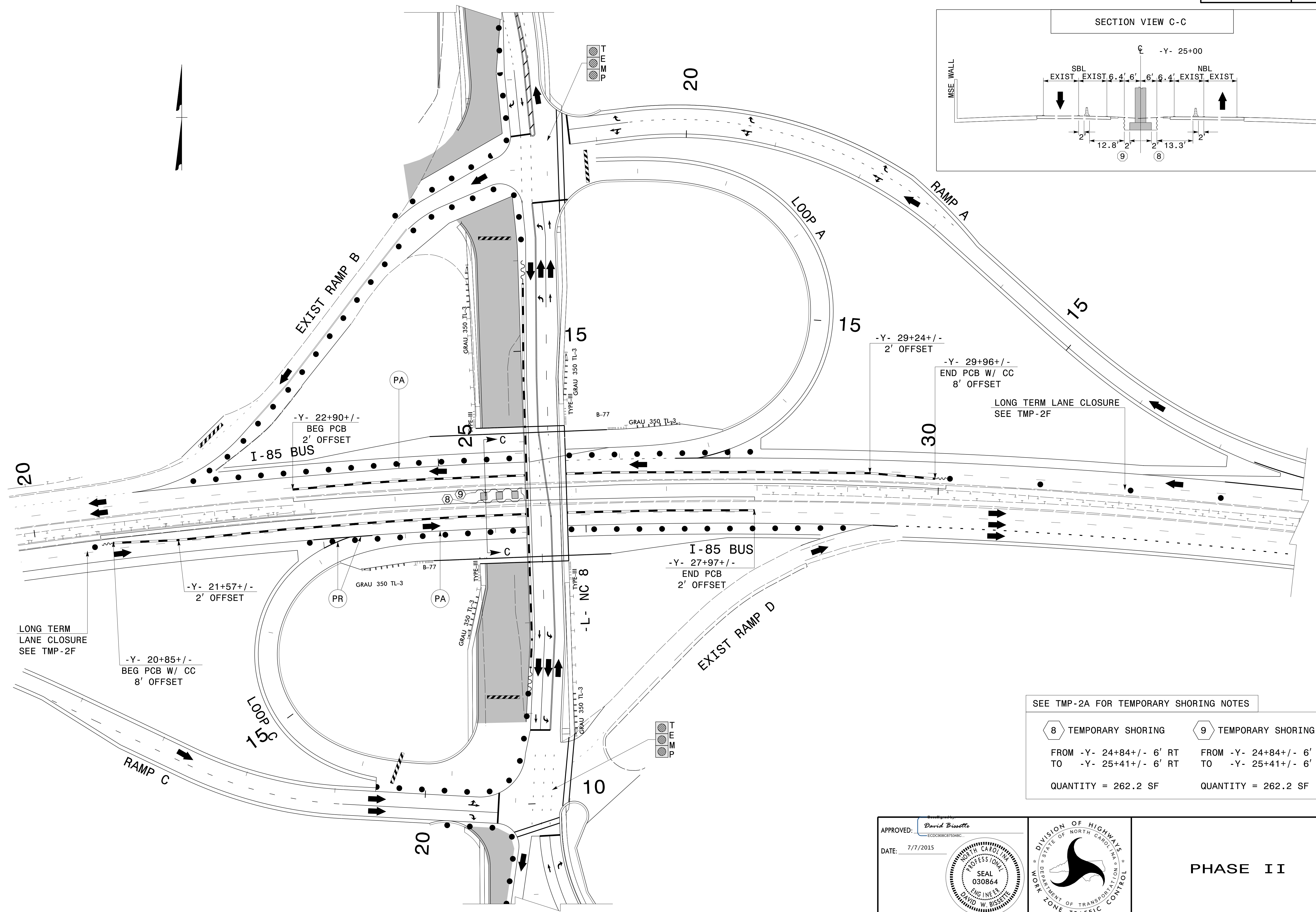
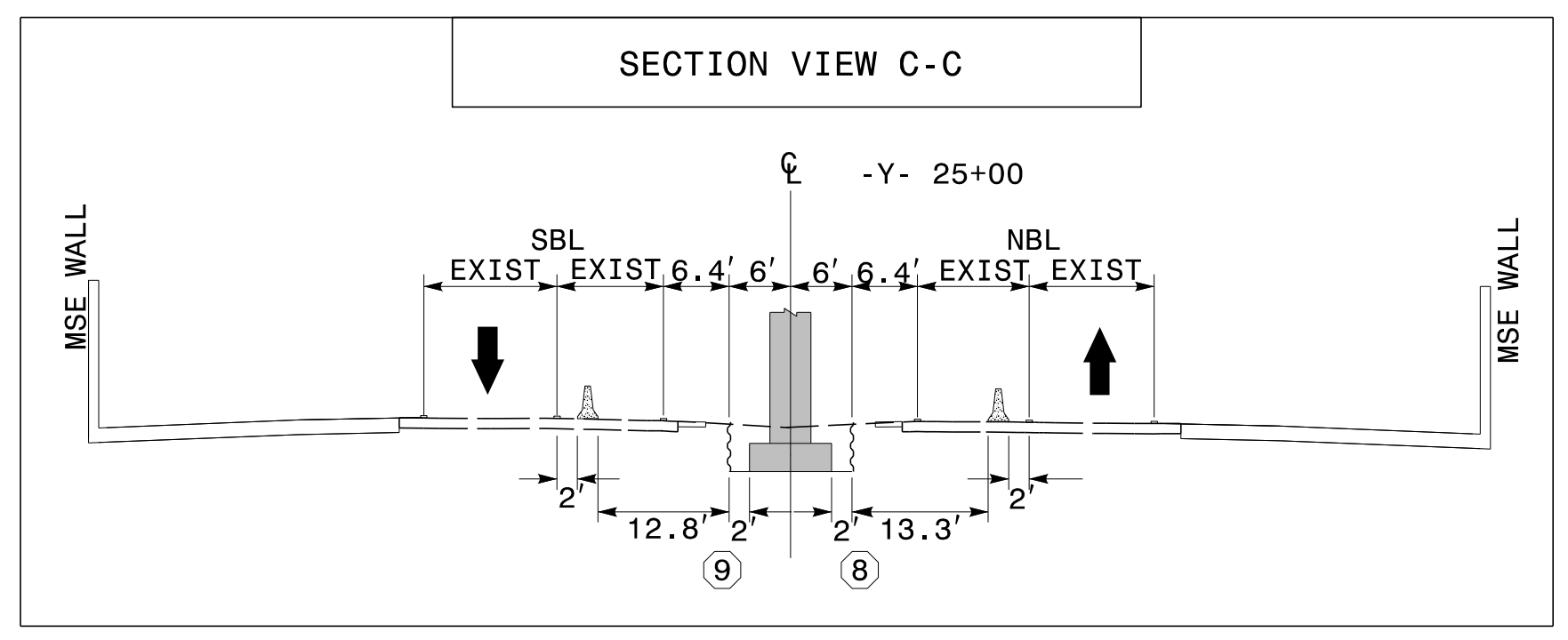


7/7/2015
 R:\TIP\Projects-B\B3159\TrafficControl\TCP\B3159_TC_TMP15.dgn
 User:derichardson

APPROVED: *David Bisette*
ECDCR08C75348C
 DATE: 7/7/2015



PHASE II



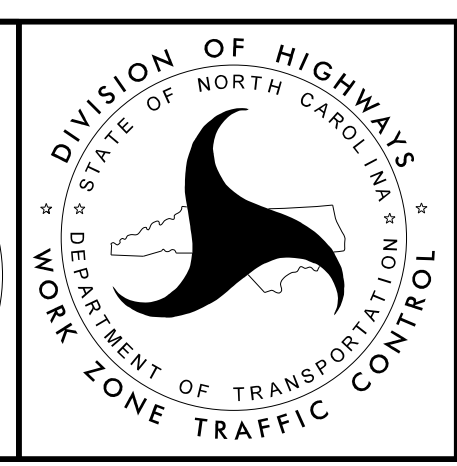
SEE TMP-2A FOR TEMPORARY SHORING NOTES

8	TEMPORARY SHORING	9	TEMPORARY SHORING
FROM -Y- 24+84+/- 6' RT TO -Y- 25+41+/- 6' RT		FROM -Y- 24+84+/- 6' LT TO -Y- 25+41+/- 6' LT	
QUANTITY = 262.2 SF		QUANTITY = 262.2 SF	

APPROVED: *David Bisette*
ECDCR/CRT/S48C

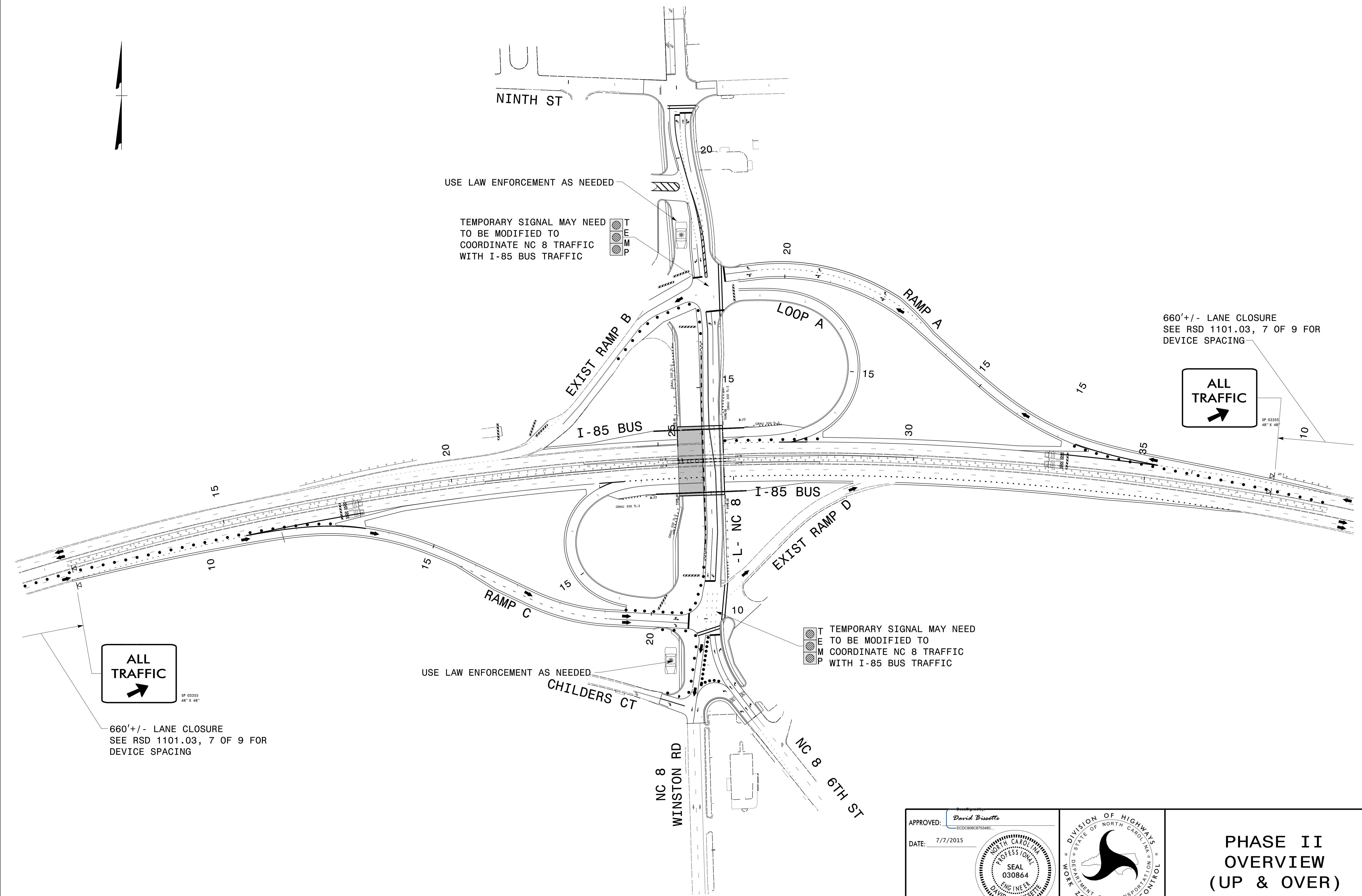
DATE: 7/7/2015

PROFESSIONAL SEAL
030864
ENGINEER
DAVID W. BISSETTE



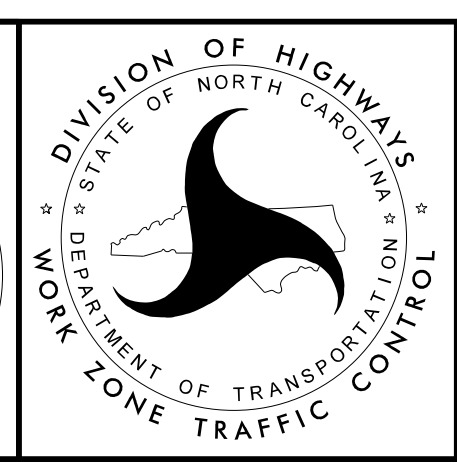
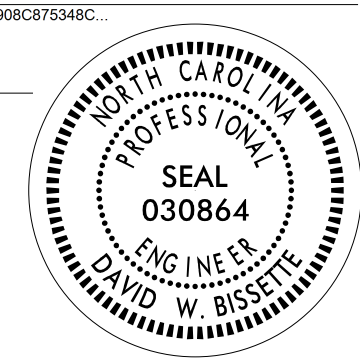
PHASE II

7/7/2015
 R:\TIP\Projects-B\B3159\TrafficControl\TCP\B3159_TC_TMP16.dgn
 User:derichardson

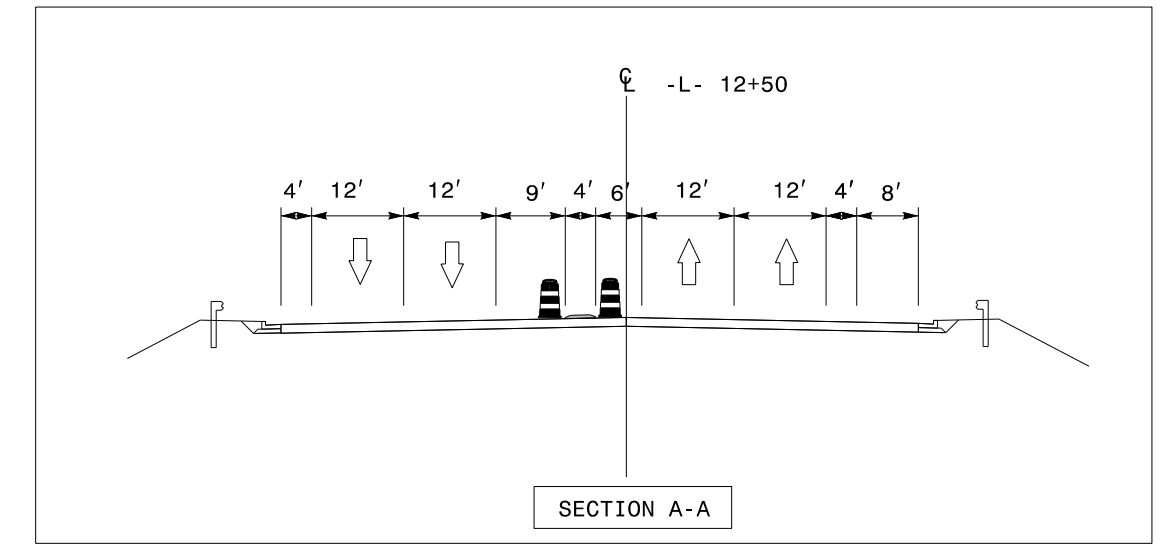
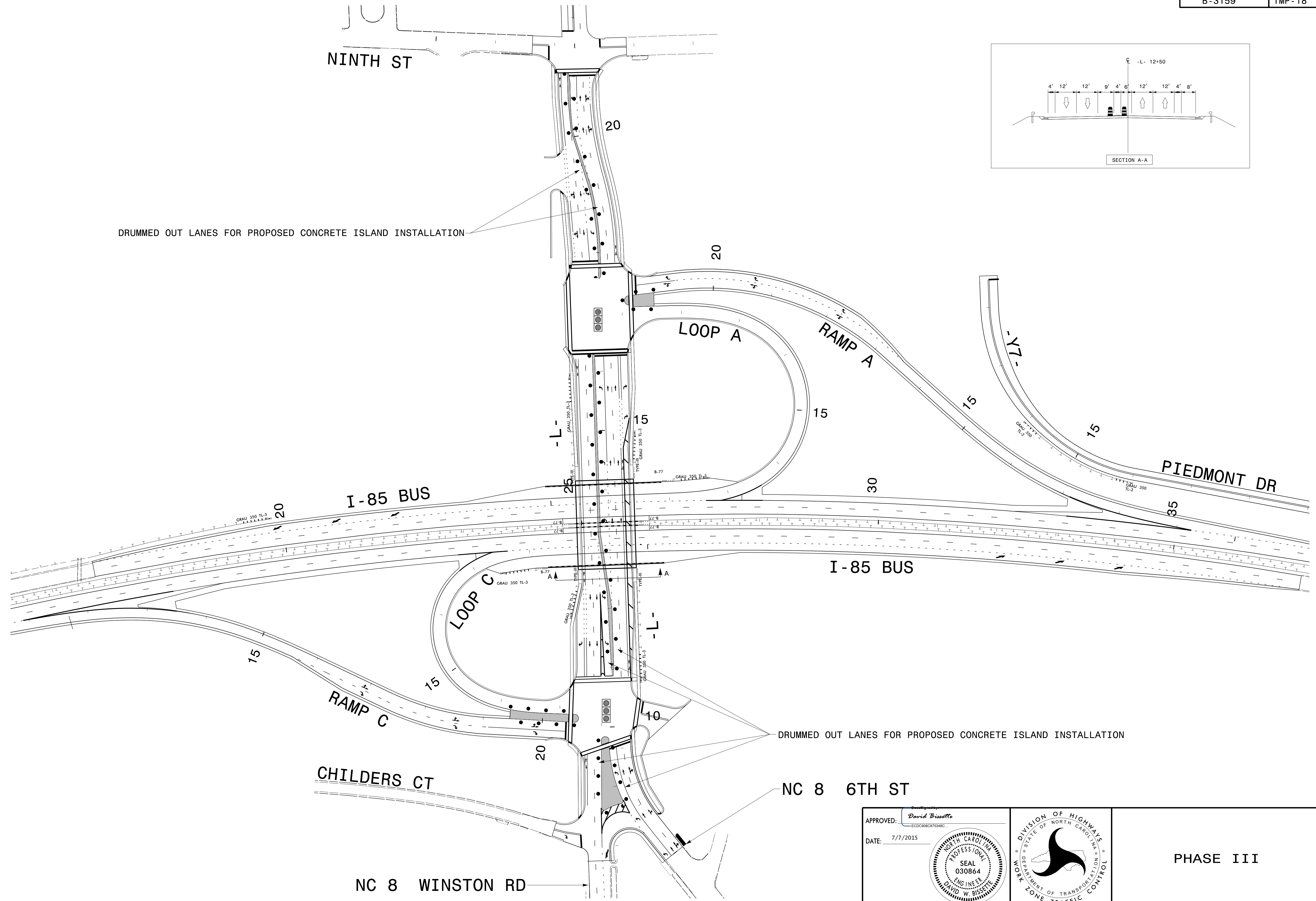


7/7/2015
 R:\TIP\Projects-B\B3159\TrafficControl\CP\B3159_TC_TMP17_0v.dgn
 User:derichardson

APPROVED: *David Bisette*
 ECOCORC/TS/SHC
 DATE: 7/7/2015



**PHASE II
 OVERVIEW
 (UP & OVER)**



7/7/2015
 R:\TIP\Projects-B\B3159\TrafficControl\CP\B3159_TC_TMP18.dgn
 User:derichardson

APPROVED: <i>David Bisette</i> <small>ECDCR/CRT/S48C</small>			PHASE III
DATE: 7/7/2015			