

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

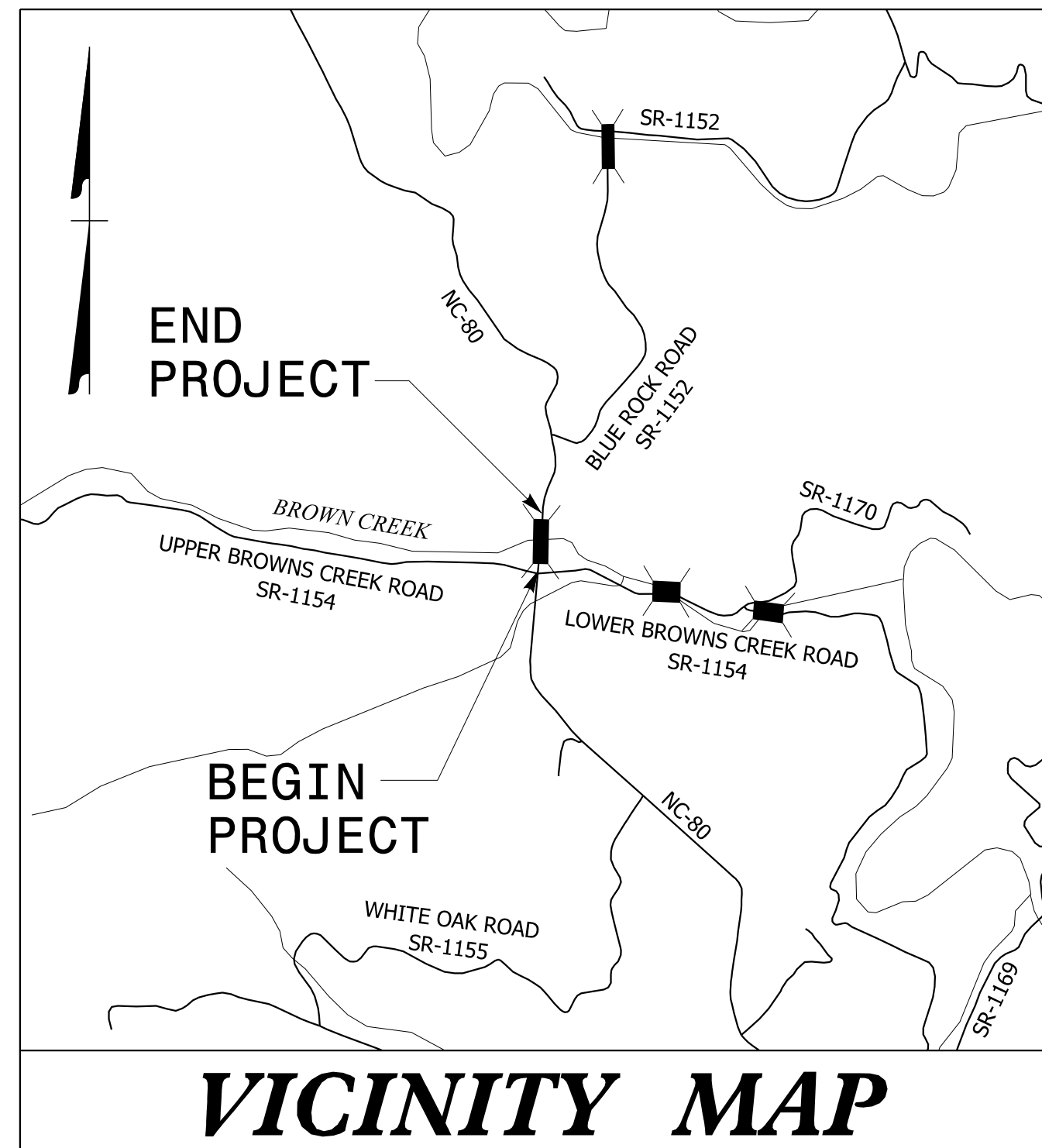
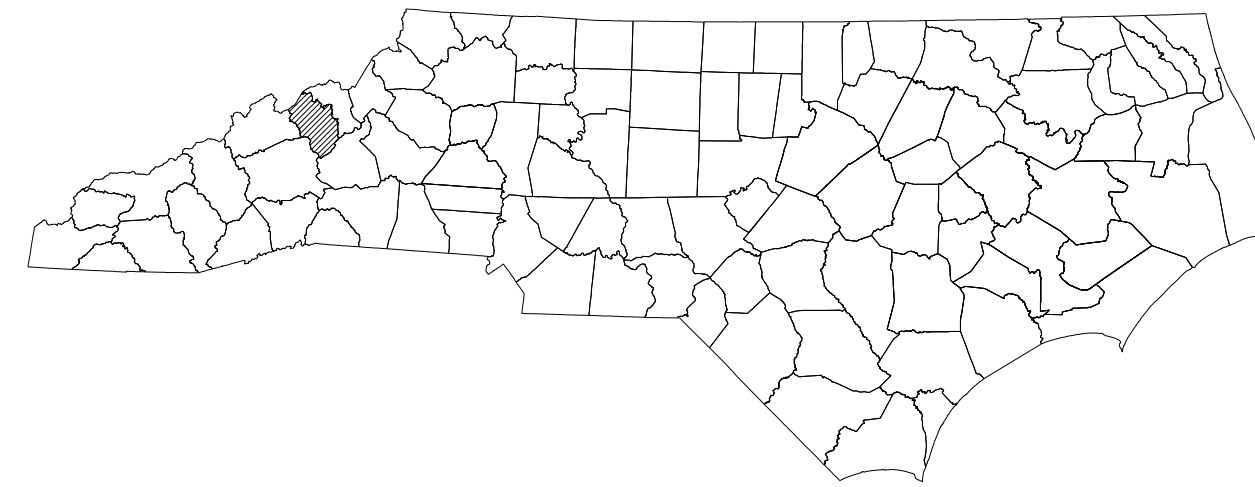
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

YANCEY COUNTY



LOCATION: BRIDGE NO. 49 OVER BROWNS CREEK ON NC 80

INDEX OF SHEETS

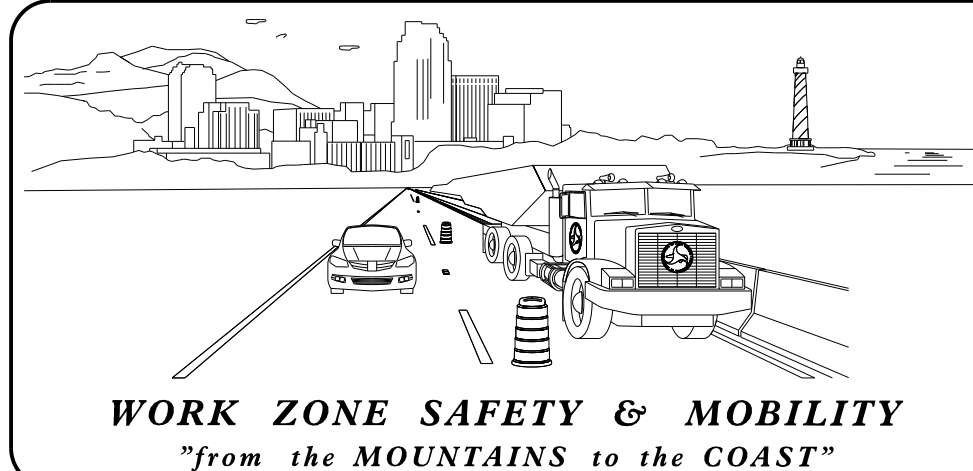
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-6	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

SHEET NO.
TMP-1

B-5864

TIP PROJECT:

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



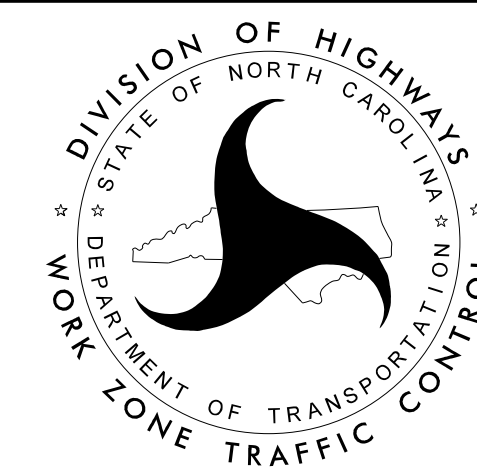
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 814-5000 FAX: (919) 771-2745

J.E. HUMMER, PhD, P.E. **STATE TRAFFIC MANAGEMENT ENGINEER**

DON PARKER, P.E. **TRAFFIC CONTROL PROJECT ENGINEER**

ROGER GARRETT **TRAFFIC CONTROL PROJECT DESIGN ENGINEER**

TRAFFIC CONTROL DESIGN ENGINEER



Plans Prepared By:
DRMP
DRMP, Inc.
8000 Regency Parkway, Suite 175
Cary, NC 27518
NC License No. C-2213 (919) 650-1038

LISA M. MOON, P.E.
ADAM J. DAVIS, P.E.

APPROVED: *Lisa M. Moon*
DATE: 12/9/2017

SEAL



ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - CONTRACT STANDARDS AND DEVELOPMENT 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
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

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

- WORK AREA
- REMOVAL
- WEDGE AND/OR WIDEN (USING FLAGGERS)
- MILL

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY
- PORTABLE

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 MARKING

	PAINT	
PA	WHITE EDGE LINE	(4")
PI	YELLOW DOUBLE CENTER LINE	(4")
P2	WHITE STOP BAR	(24")
MH	YELLOW & YELLOW TEMPORARY RAISED MARKER	
MM	CRYSTAL & CRYSTAL TEMPORARY RAISED MARKER	

12/7/2017 R:\B5864\TrafficControl\TCP\B5864.TC_TCP_TSH.dgn User:rlawton

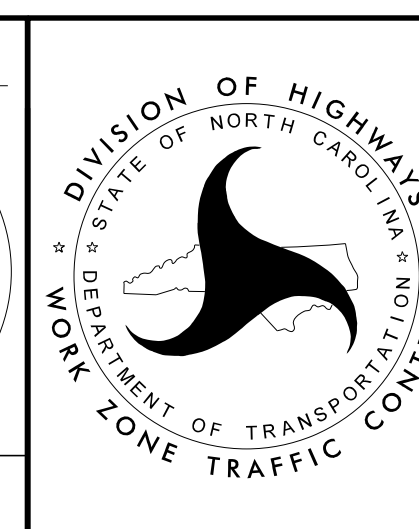


APPROVED: Lisa M. Moon

DATE: 12/9/2017

SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



ROADWAY STANDARD DRAWINGS & LEGEND

PROJ. REFERENCE NO.	SHEET NO.
B-5864	TMP-2

MANAGEMENT STRATEGIES

THIS PROJECT HAS BEEN PHASED TO CONSTRUCT THE PROPOSED BRIDGE AWAY FROM TRAFFIC USING AN ONSITE DETOUR. THE DETOUR WILL CONSIST OF A TWO-WAY ONE LANE TRAFFIC PATTERN THAT UTILIZES A TEMPORARY BRIDGE AND TEMPORARY PORTABLE TRAFFIC SIGNALS. AFTER CONSTRUCTION OF THE PROPOSED BRIDGE IS COMPLETED, THE ONSITE DETOUR WILL BE REMOVED.

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.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) 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.
- B) 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.
- C) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- D) 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.
- E) 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.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

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

- I) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- J) 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.

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
NC 80	PAINT	TEMPORARY RAISED

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

12/7/2017 R:\B5864\TrafficControl\TCP\B5864_Tc_TCP_Top.dgn User:rlawton

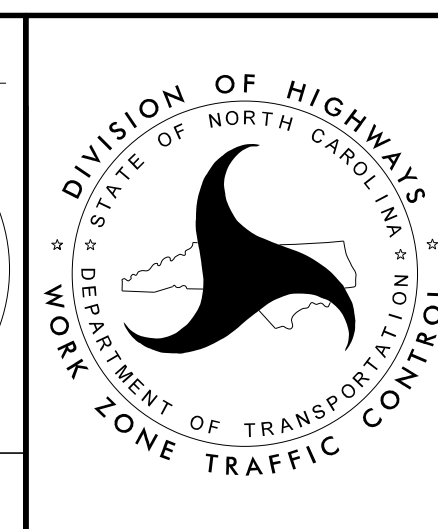


APPROVED: *Lisa M. Moon*

DATE: 12/9/2017

SEAL

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



**TRANSPORTATION
OPERATIONS PLAN**

PHASING

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER

PHASE I

STEP 1:
INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.01, SHEET 3 OF 3, AND TMP-4.

STEP 2:
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 1 AND 2 OF 15 AS NECESSARY, CONSTRUCT THE FOLLOWING AS SHOWN ON TMP-4:

- -DET- STA 10+37+/- TO STA 18+24+/-, INCLUDING TEMPORARY BRIDGE, EXCEPT FOR TIE-INS TO EXISTING NC 80.
- TEMPORARY DRIVEWAY TIES AT -DET- STA 12+43+/- AND -DET- STA 16+02 +/- (SEE ROADWAY PLANS FOR ADDITIONAL DETAILS).
- TEMPORARY TIE TO -DRV1-.
 - (A) MAINTAIN DRIVEWAY -DRV1- AT EXISTING LOCATION UNTIL TEMPORARY DRIVEWAY CONNECTION IS COMPLETED FOR TIE TO -DET- (SEE INSET A ON TMP-4).
 - (B) SHIFT TRAFFIC TO DRIVEWAY.
 - (C) COMPLETE -DET- CONSTRUCTION AT ORIGINAL DRIVEWAY LOCATION.
- TEMPORARY TIE TO PADDOCK DRIVE.
- WHERE POSSIBLE, INSTALL SIGNS AS SHOWN ON TMP-5 IN 'TYPICAL FOR SIGN PLACEMENT' AND COVER IN PREPARATION OF UPCOMING TRAFFIC SHIFT.

THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK REQUIRED IN PHASE I, STEP 3 WITHIN A SINGLE WEEKEND PERIOD BETWEEN 7:00 PM FRIDAY AND 6:00 AM MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 3:
USING RSD 1101.02, SHEETS 1, 2, AND 11 OF 15, WORKING IN A CONTINUOUS MANNER, PERFORM THE FOLLOWING TO SHIFT TRAFFIC TO NEW PATTERN AS SHOWN ON TMP-5:

- COMPLETE TIE-IN BETWEEN -DET- AND NC 80 WITH ANY NECESSARY WEDGING TO FINALIZE -DET- DESIGN.
- FINISH INSTALLATION OF ANY REMAINING SIGNS USING TYPICAL INSET "TYPICAL FOR SIGN PLACEMENT" SHOWN ON TMP-5. INSTALL PROPOSED TEMPORARY SIGNALS, PAVEMENT MARKINGS, MARKERS, AND DEVICES.
- CONFIRM OPERATION OF PORTABLE SIGNALS, UNCOVER SIGNING AS NECESSARY AND SHIFT TRAFFIC TO TWO-WAY ONE-LANE TRAFFIC PATTERN ACROSS DETOUR BRIDGE.

PHASE II

STEP 1:
AWAY FROM TRAFFIC AND USING RSD 1101.02, SHEETS 1 AND 2 OF 15, PERFORM THE FOLLOWING WORK AS SHOWN ON TMP-5:

- REMOVE EXISTING BRIDGE.
- COMPLETE CONSTRUCTION OF PROPOSED BRIDGE.
- CONSTRUCT -DRV2- (COORDINATE WITH PROPERTY OWNERS).
- CONSTRUCT -L- FROM STA 10+39+/- TO STA 18+39+/-, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, EXCEPT FOR TIE-INS TO ON-SITE DETOUR. (SEE STEP TWO FOR CONSTRUCTION IN TIE-IN AREAS.)

PHASE II (CONTINUED)

THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK REQUIRED IN PHASE II, STEPS 2A WITHIN A SINGLE WEEKEND PERIOD BETWEEN 7:00 PM FRIDAY AND 6:00 AM MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 2:
USING RSD 1101.02, SHEETS 1, 2, AND 11 OF 15, PERFORM THE FOLLOWING WORK:

- (A) COMPLETE CONSTRUCTION OF -L- AT TIE-INS TO -DET- BY MILLING AND PAVING AS NECESSARY TO GET TO THE FINAL DESIGN, UP TO BUT NOT INCLUDING FINAL SURFACE COURSE. INSTALL TEMPORARY PAVEMENT MARKINGS, MARKERS, AND DEVICES AS SHOWN ON TMP-6 AND SHIFT TRAFFIC TO FINAL TWO-LANE TWO-WAY PATTERN ON NC 80. IMMEDIATELY COVER OR REMOVE SIGNS ASSOCIATED WITH ON-SITE DETOUR AND DEACTIVATE SIGNALS. ALSO, COMPLETE CONSTRUCTION OF TEMPORARY TIE-IN OF -DRV1- TO -L-.
- (B) REMOVE TEMPORARY SIGNALS AND ANY REMAINING SIGNS ASSOCIATED WITH THE ON-SITE DETOUR (AS LABELED IN INSET "TYPICAL FOR SIGN PLACEMENT" SHOWN ON TMP-5).

PHASE III

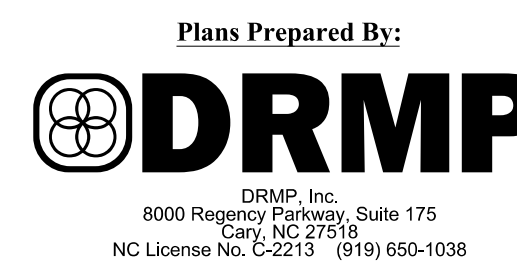
STEP 1:
AWAY FROM TRAFFIC, USING RSD 1101.02, SHEETS 1, 2, AND 11 OF 15 AS NECESSARY, PERFORM THE FOLLOWING WORK:

- REMOVE DETOUR BETWEEN -L- STA 10+39+/- AND STA 18+39+/-.
- COMPLETE CONSTRUCTION OF -DRV1-.
- COMPLETE PADDOCK DRIVE ACCESS.

STEP 2:
USING RSD 1101.02, SHEET 1 OF 15 AS NECESSARY, COMPLETE THE FOLLOWING WORK:

- SHIFT TRAFFIC TO FINAL PATTERN ON ALL ROADWAYS AND DRIVEWAYS.
- PLACE FINAL LAYER OF SURFACE COURSE ON -L- FROM STA 10+39+/- TO STA 18+39+/-.
- PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON THE PROJECT PER THE PAVEMENT MARKING PLANS.
- ENSURE ALL PERMANENT TRAFFIC CONTROL DEVICES ARE IN PLACE AND REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.

12/7/2017 R:\B5864\Traffic\TrafficControl\TCP\B5864.TC_TCP_Top.dgn User:rlawton

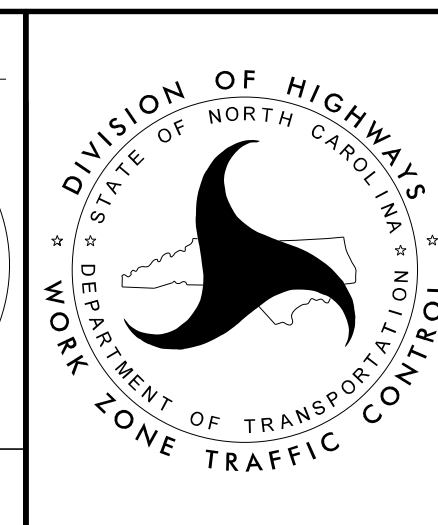


APPROVED: *Lisa M. Moon*

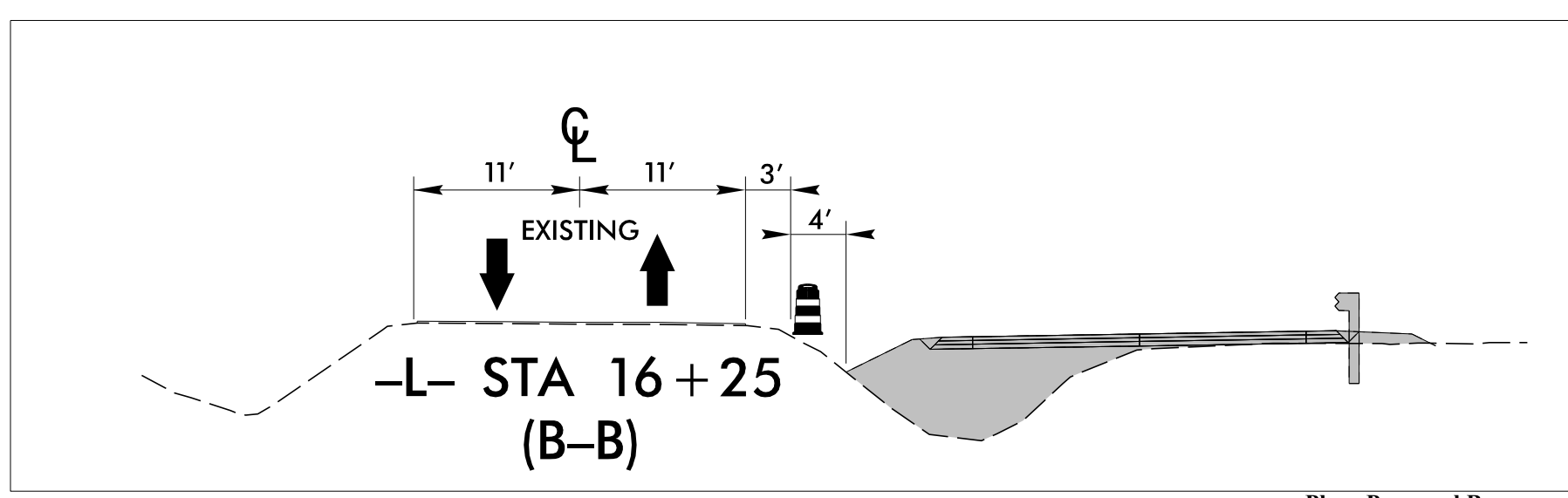
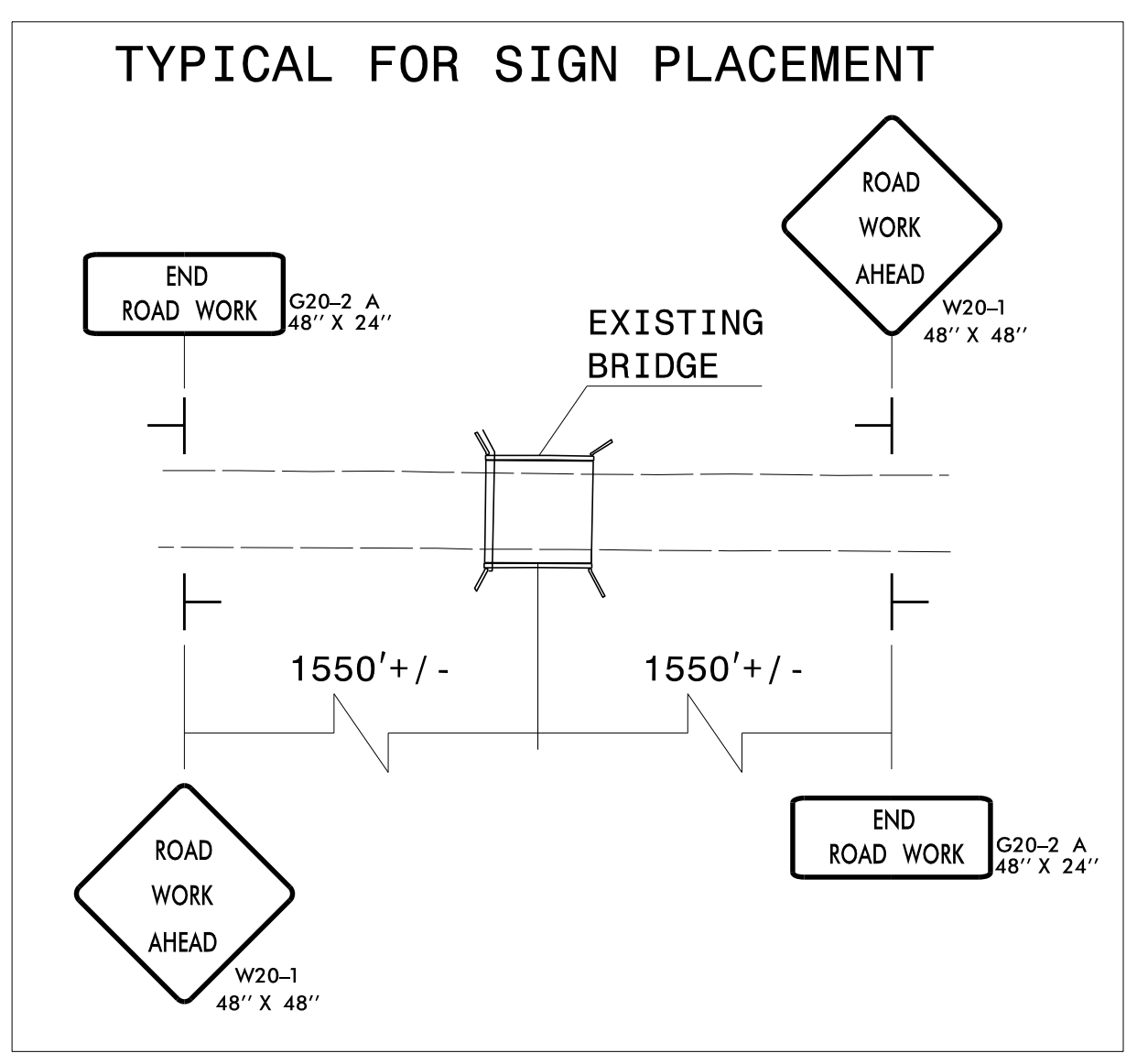
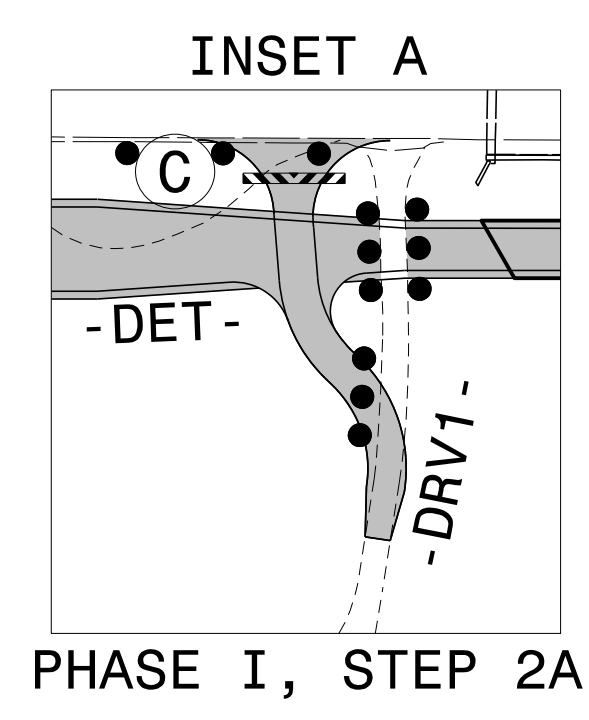
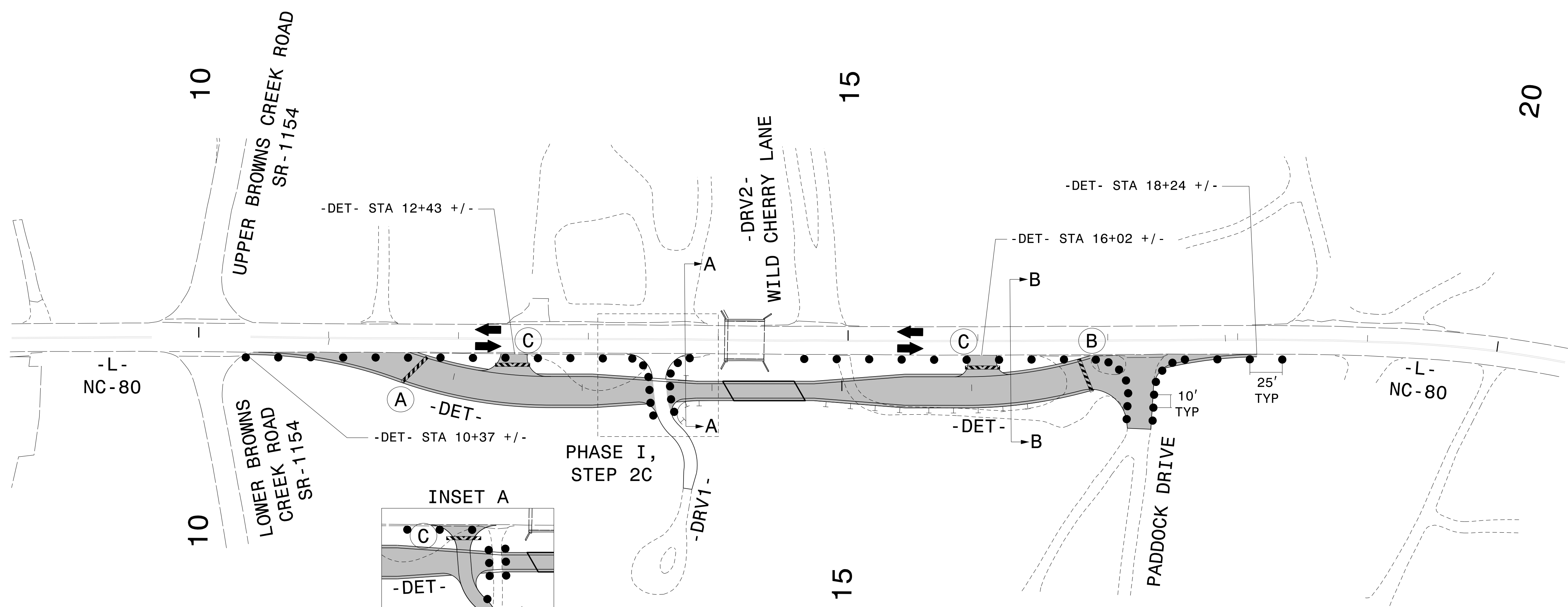
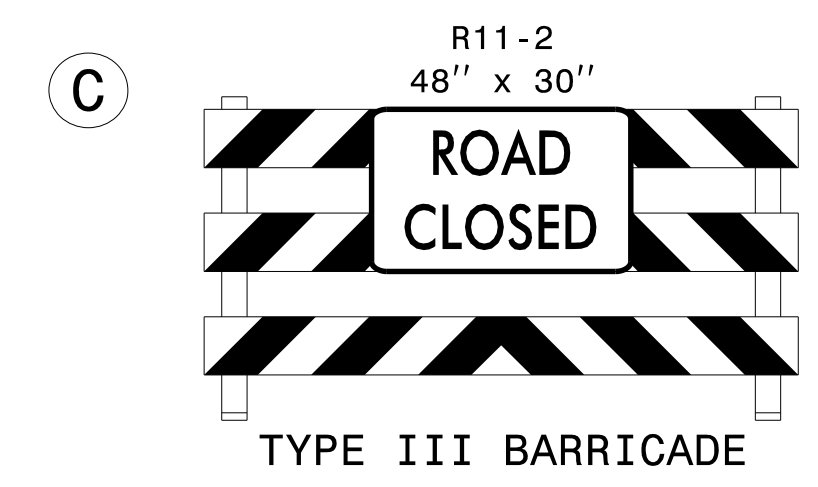
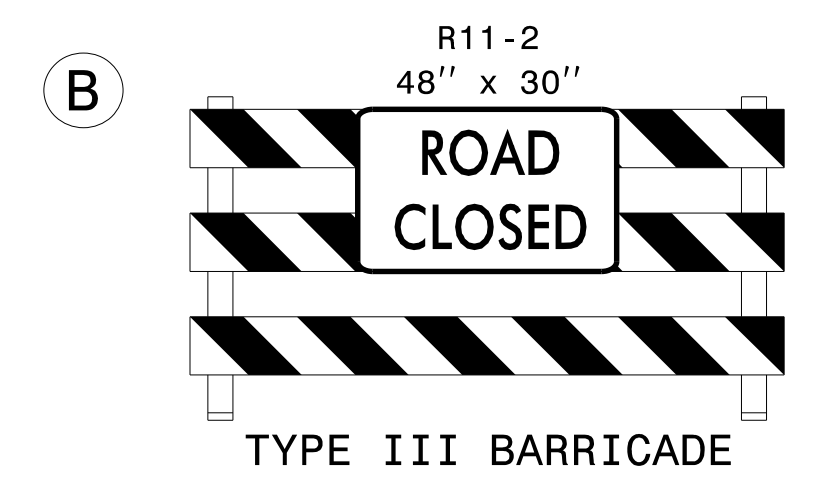
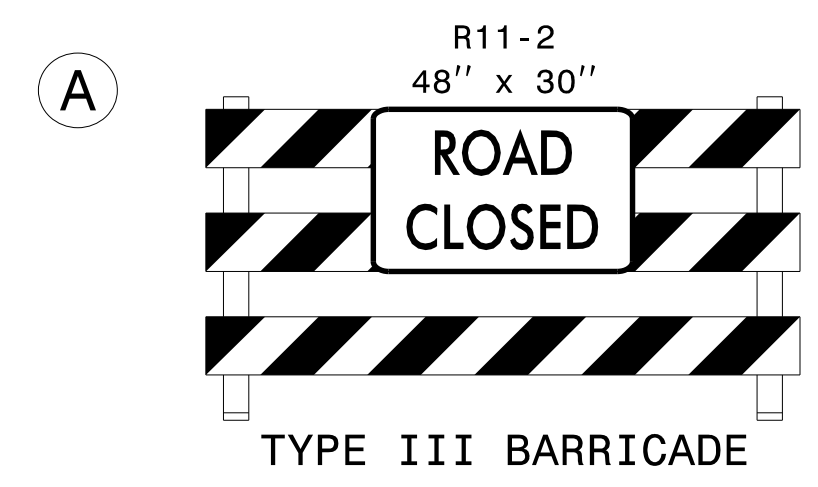
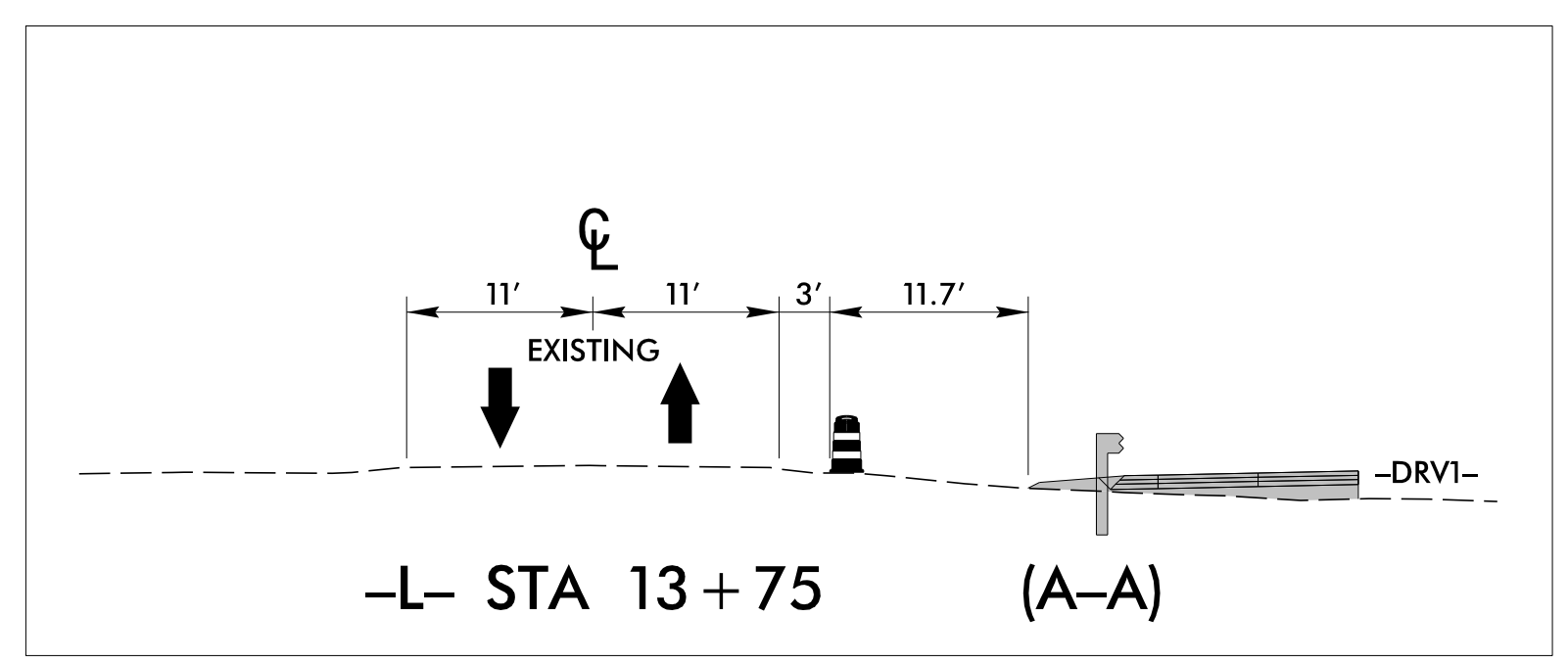
DATE: 12/9/2017

SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

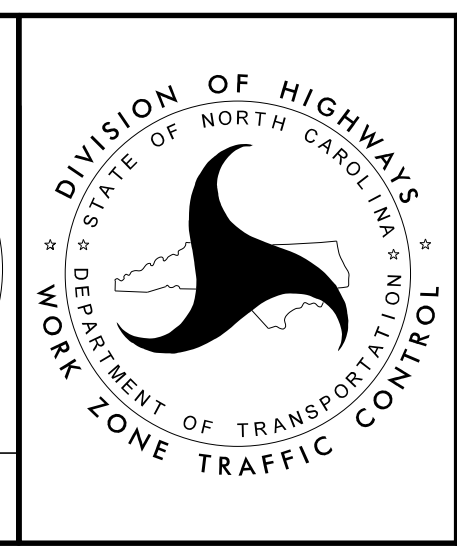


TEMPORARY TRAFFIC CONTROL PHASING



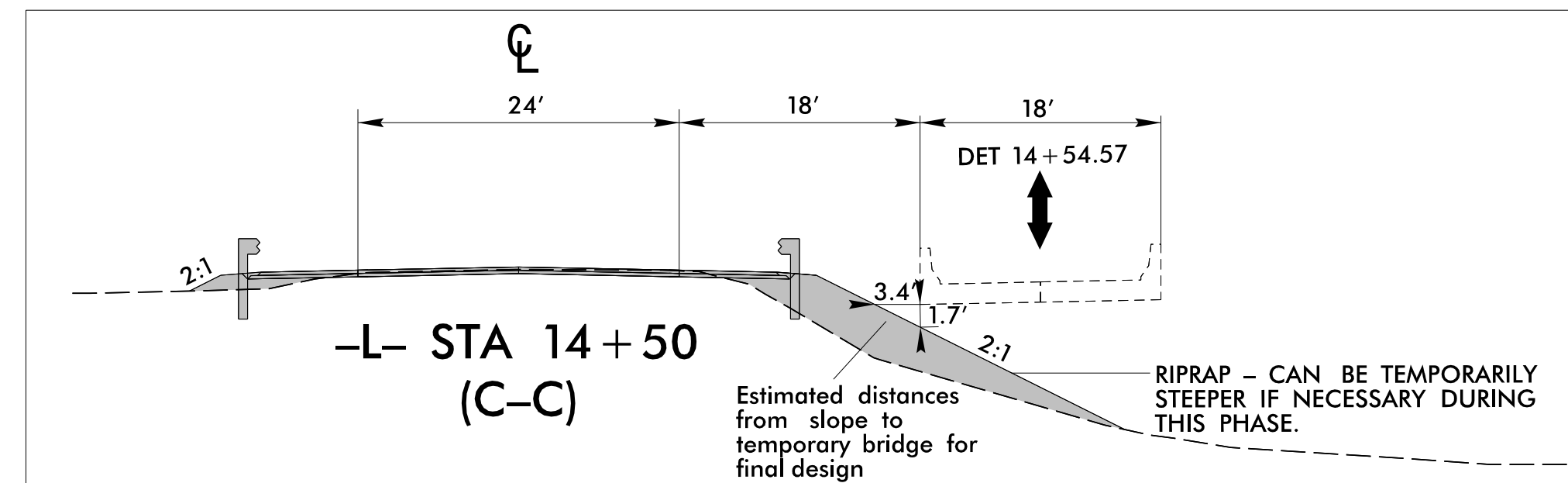
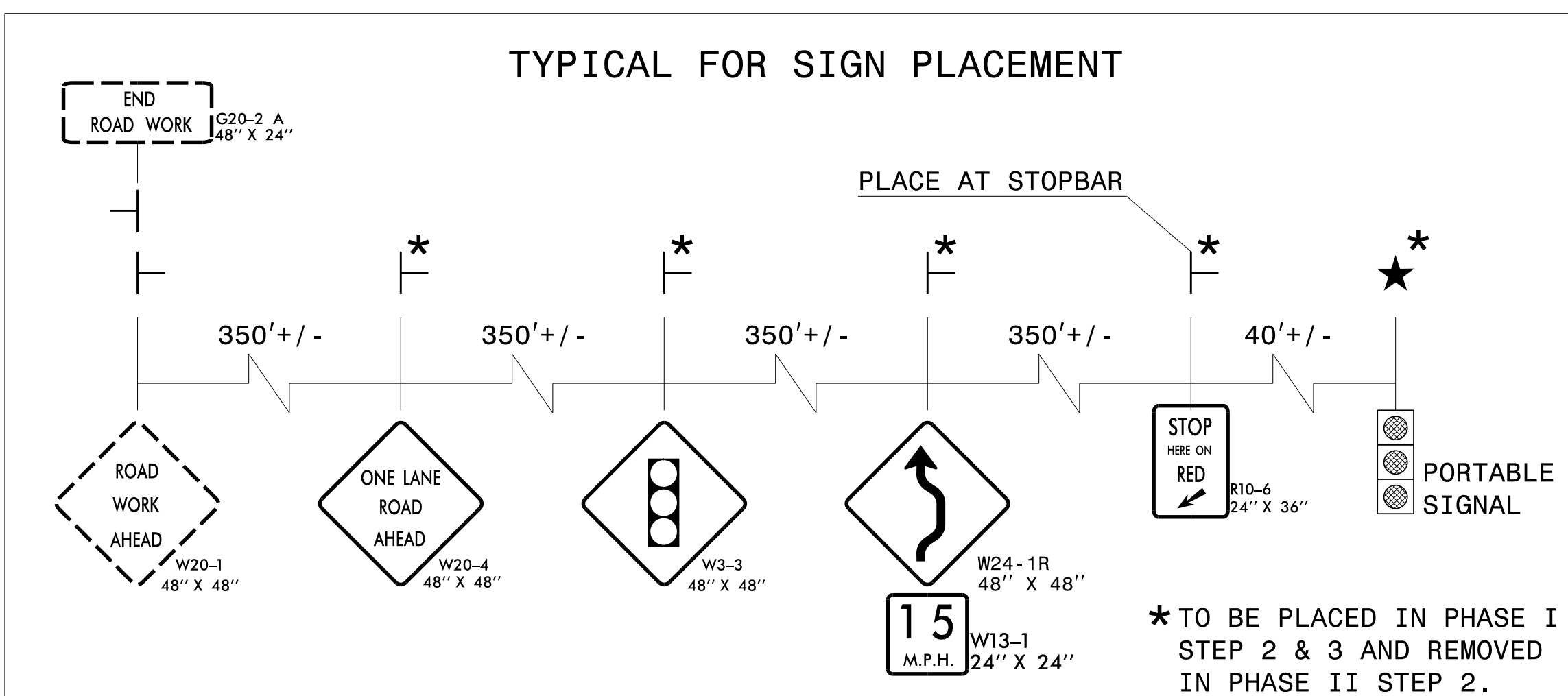
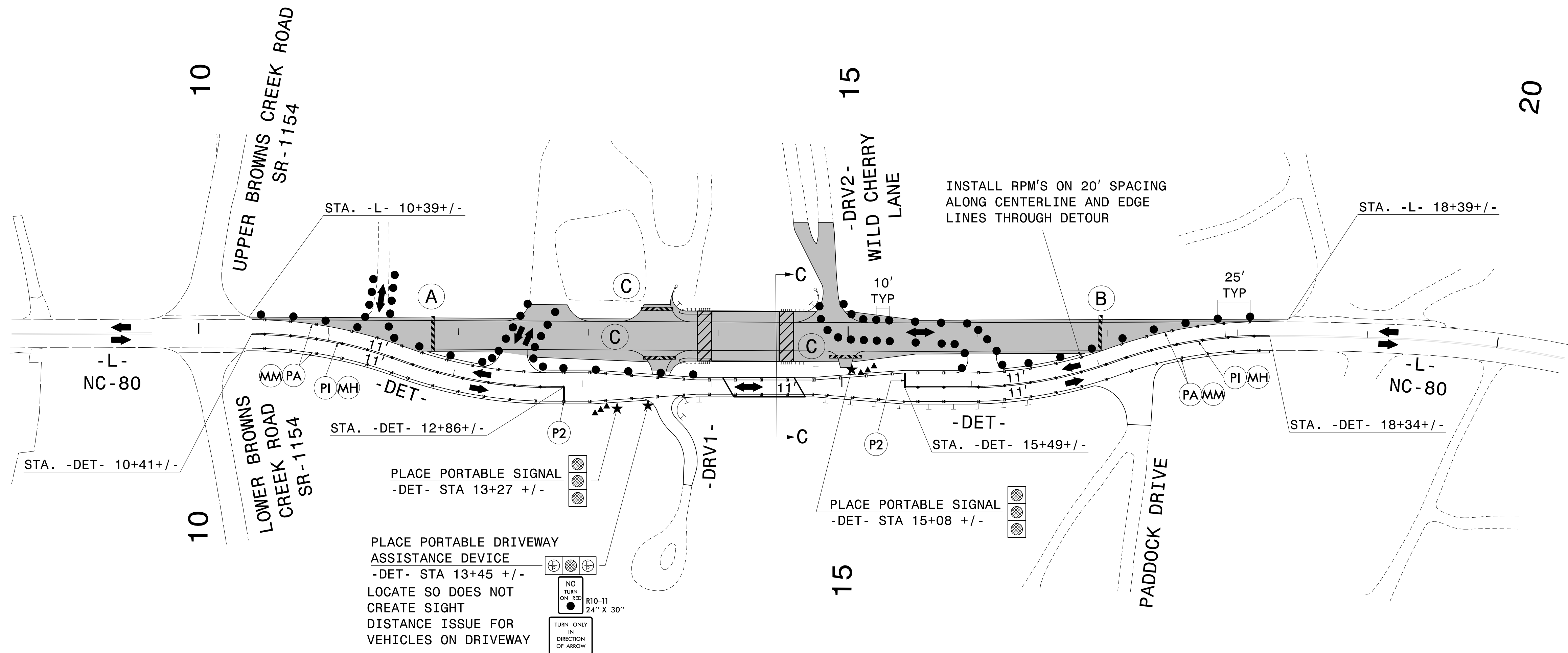
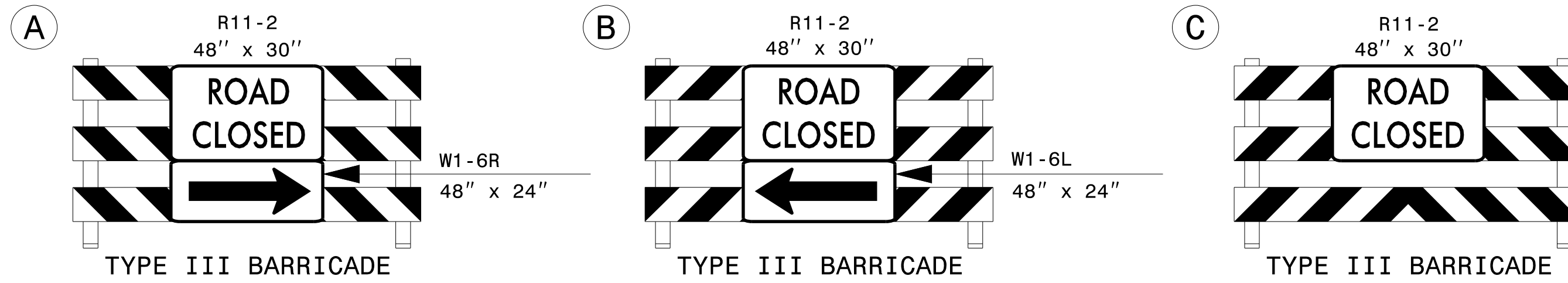
Plans Prepared By:
DRMP
DRMP, Inc.
8000 Regency Parkway, Suite 175
Cary, NC 27516
NC License No. C-2213 (919) 650-1038

APPROVED: *Lisa M. Moon*
DATE: 12/9/2017
SEAL
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TEMPORARY
TRAFFIC CONTROL
PHASE I DETAIL

12/7/2017
R:\B5864\TrafficControl\TCP\B5864.TC_TCP_PSH01.dgn
User:rlawton

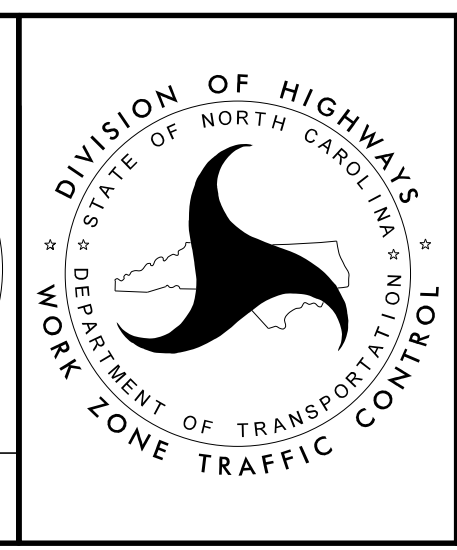


12/7/2017 R:\B5864\TrafficControl\TCP\B5864.TC_TCP_PSH02.dgn User:rlawton

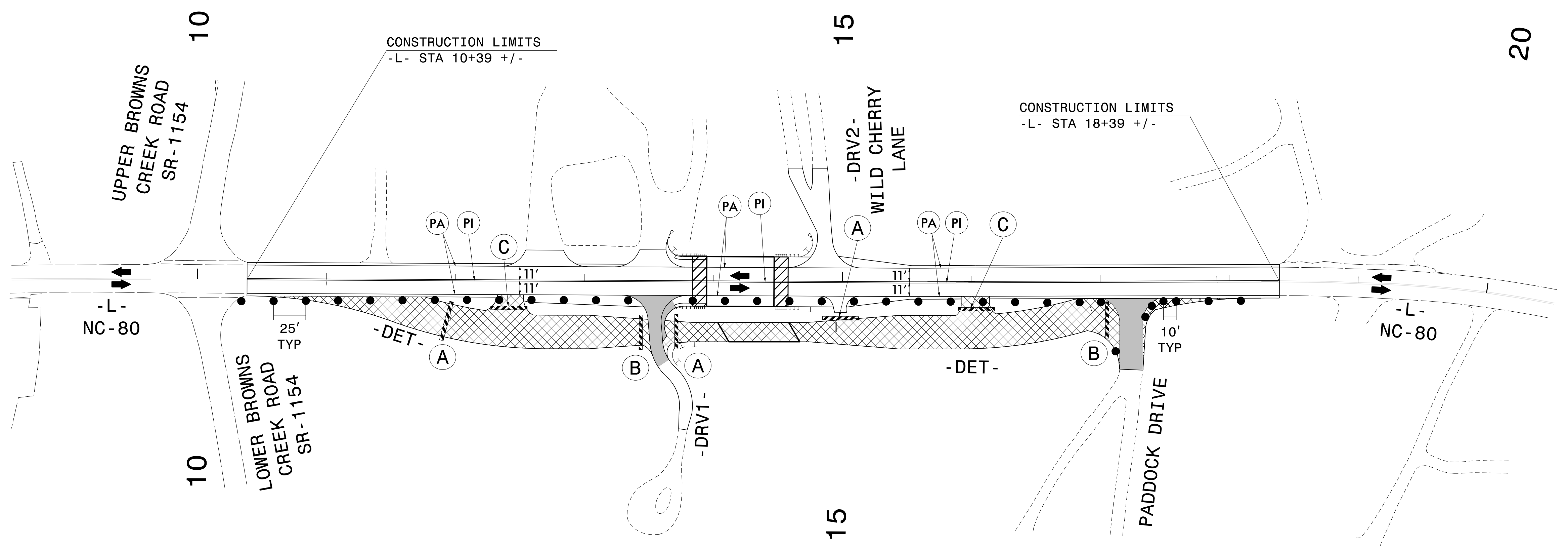
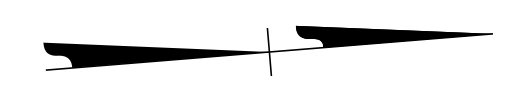
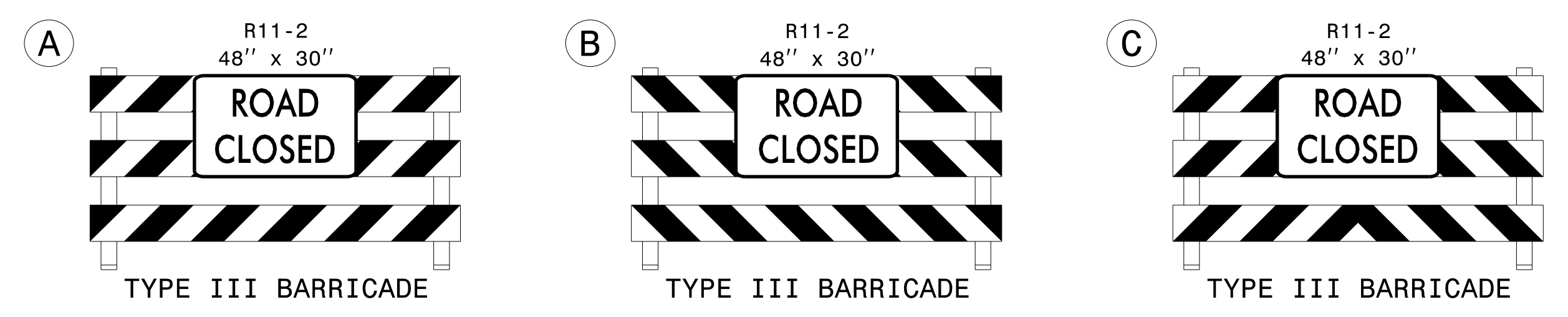
Plans Prepared By:
DRMP
 DRMP, Inc.
 8000 Regency Parkway, Suite 175
 Cary, NC 27515
 NC License No. C-2213 (919) 650-1038

APPROVED: *Lisa M. Moon*
 DATE: 12/9/2017
 SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



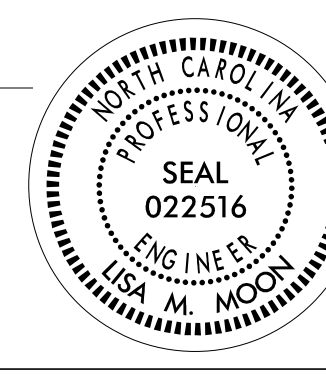
TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

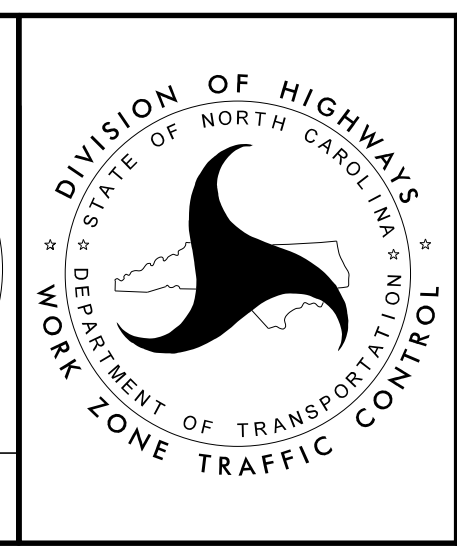


12/7/2017
 R:\B5864\TrafficControl\TCP\B5864.TC_TCP_PSH03.dgn
 User:rlawton

Plans Prepared By:

 DRMP, Inc.
 8000 Regency Parkway, Suite 175
 Cary, NC 27513
 NC License No. C-2213 (919) 650-1038

APPROVED: *Lisa M. Moon*
 DATE: 12/9/2017
 SEAL

 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



TEMPORARY
 TRAFFIC CONTROL
 PHASE III DETAIL