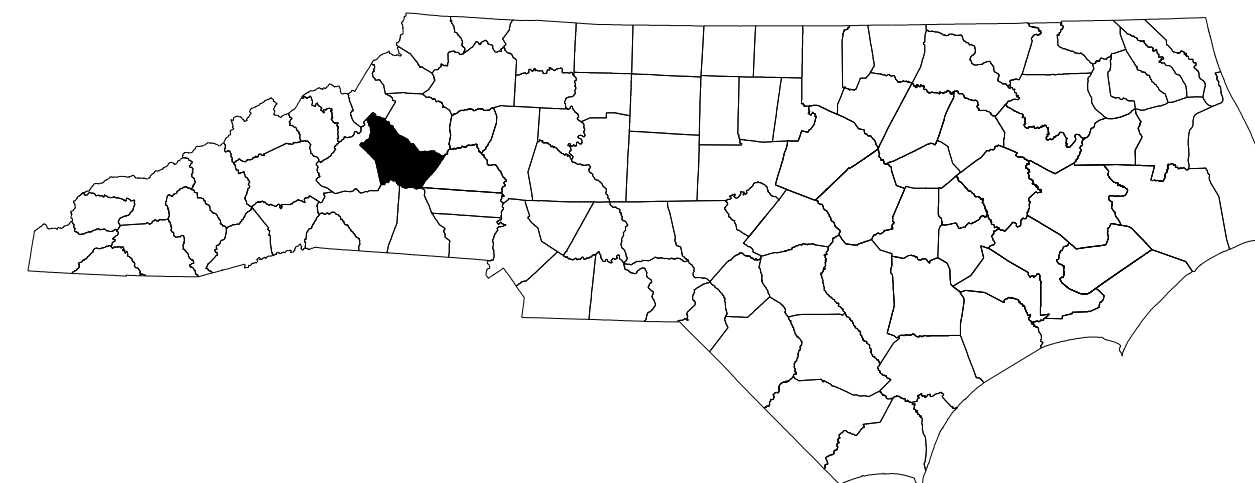


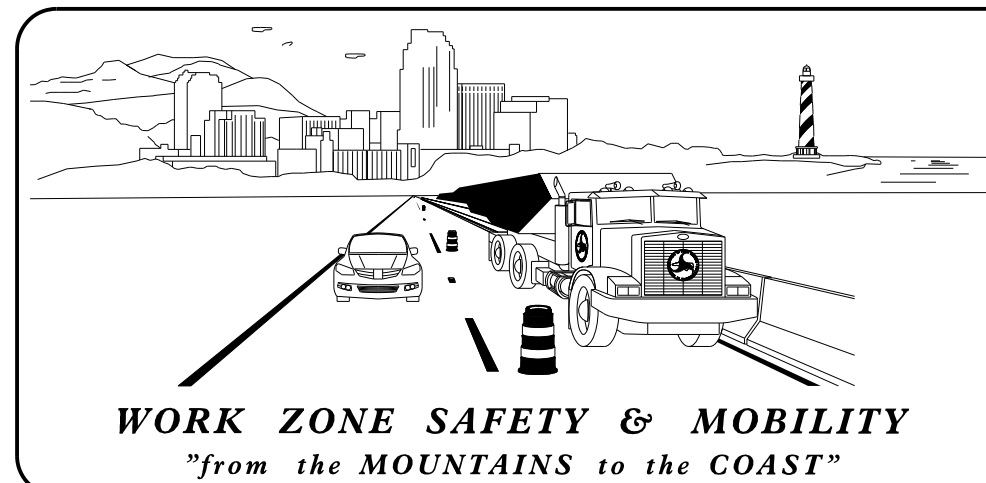
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BURKE COUNTY



BRIDGE REHABILITATION - BRIDGE 10 OVER RHODHISS  
LAKE ON SR 1001 (MALCOLM BLVD.)



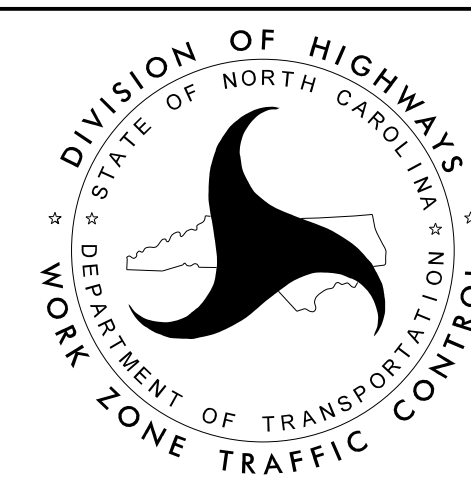
PLANS PREPARED BY:

KARMEN DAIS

NCDOT CONTACTS:

DON PARKER, P.E.  
PROJECT ENGINEER

ROGER GARRETT  
PROJECT DESIGN ENGINEER



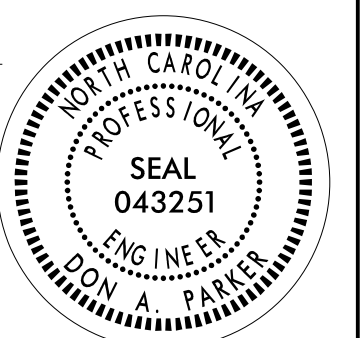
INDEX OF SHEETS

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	TRANSPORTATION OPERATIONS PLAN AND PHASING
TMP-2	SPECIAL SIGN DESIGNS
TMP-3	OFFSITE DETOUR ROUTE AND ROAD CLOSURE
TMP-4	SIGNS AND DEVICES FOR OFFSITE DETOUR ROUTE
TMP-5	CMS SUGGESTED MESSAGES

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

APPROVED: Don A. Parker  
DATE: 1/23/2018

SEAL



SHEET NO.

TMP-1

41665.5D

TIP PROJECT:

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	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
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

EXIST. PVMT.

NORTH ARROW

PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL

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

APPROVED: Don A. Parker  
DATE: 1/23/2018

ROADWAY STANDARD  
DRAWINGS & LEGEND

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PROJ. REFERENCE NO.	SHEET NO.
41665.5D	TMP-1B

## MANAGEMENT STRATEGIES

THE OFFSITE DETOUR ROUTE FOR THE DURATION OF THE PROJECT:

- US-70
- US-321
- SR 1933 (SOUTHWEST BLVD)

## 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 UNDESIRABLE 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.

## TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- B) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFFSITE DETOUR ROUTE AS SHOWN  
IN THE TRAFFIC CONTROL PLANS.

- C) 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 OFFSITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.



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

## PAVEMENT MARKINGS AND MARKERS

- E) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

## PHASING

- STEP 1. THIRTY (30) DAYS PRIOR TO ROAD CLOSURE, OR AS DIRECTED BY THE ENGINEER, ACTIVATE CMS BOARDS NOTIFYING PUBLIC OF UPCOMING CLOSURE.
- STEP 2. USING ROADWAY STANDARD DRAWINGS 1101.03, SHEET 1, TMP-3, TMP-4, AND TMP-5, INSTALL OFFSITE DETOUR SIGNS AND TRAFFIC CONTROL DEVICES AND CLOSE SR 1001 (MALCOLM BLVD / CONNELLY SPRINGS RD) TO TRAFFIC. INSTALL WATER FILLED BARRIER STAGGERED AT BRIDGE CLOSURE POINT BEHIND THE BARRICADES.
- STEP 3. COMPLETE BRIDGE REHABILITATION IN ACCORDANCE WITH STRUCTURE PLANS.
- STEP 4. REMOVE ALL TRAFFIC CONTROL DEVICES AND DETOUR SIGNS AND OPEN SR 1001 (MALCOLM BLVD / CONNELLY SPRINGS ROAD) TO TRAFFIC.

APPROVED: <u>Don A. Parker</u> <small>40048286281541D...</small>  DATE: <u>1/23/2018</u>		
<h2 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN AND PHASING</h2>		
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		



[illegible]

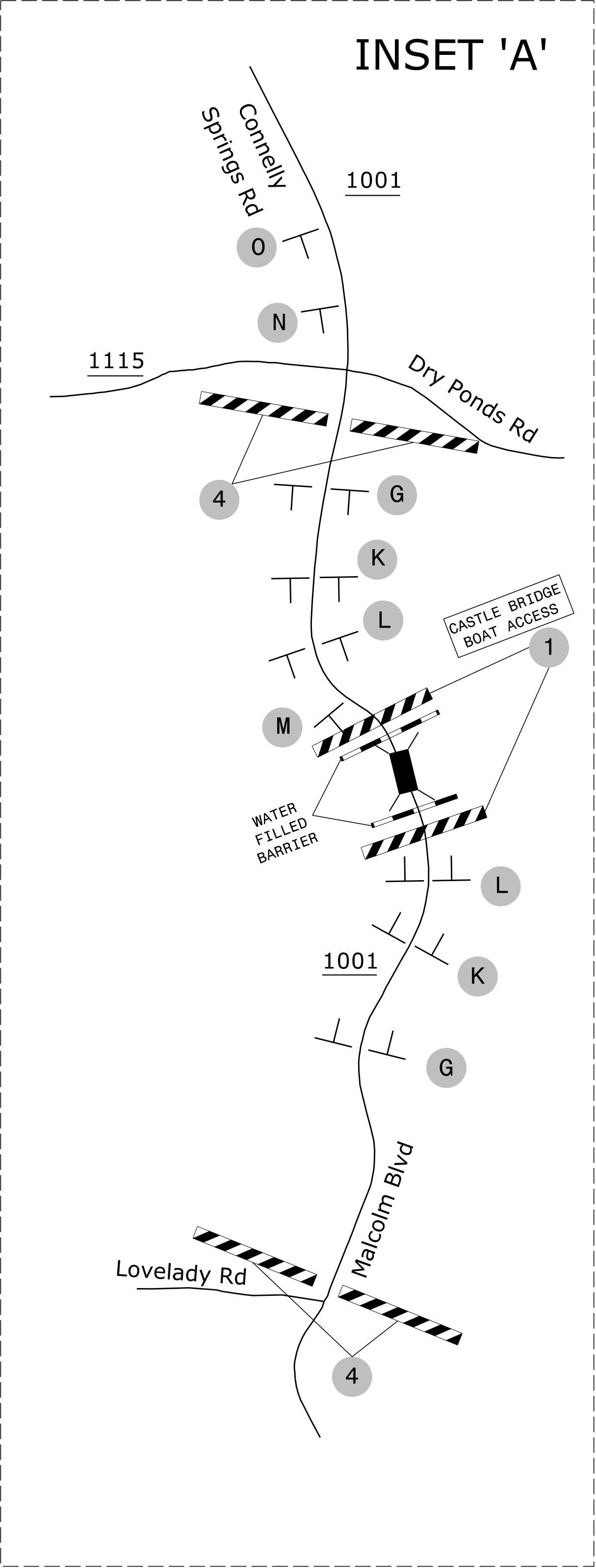
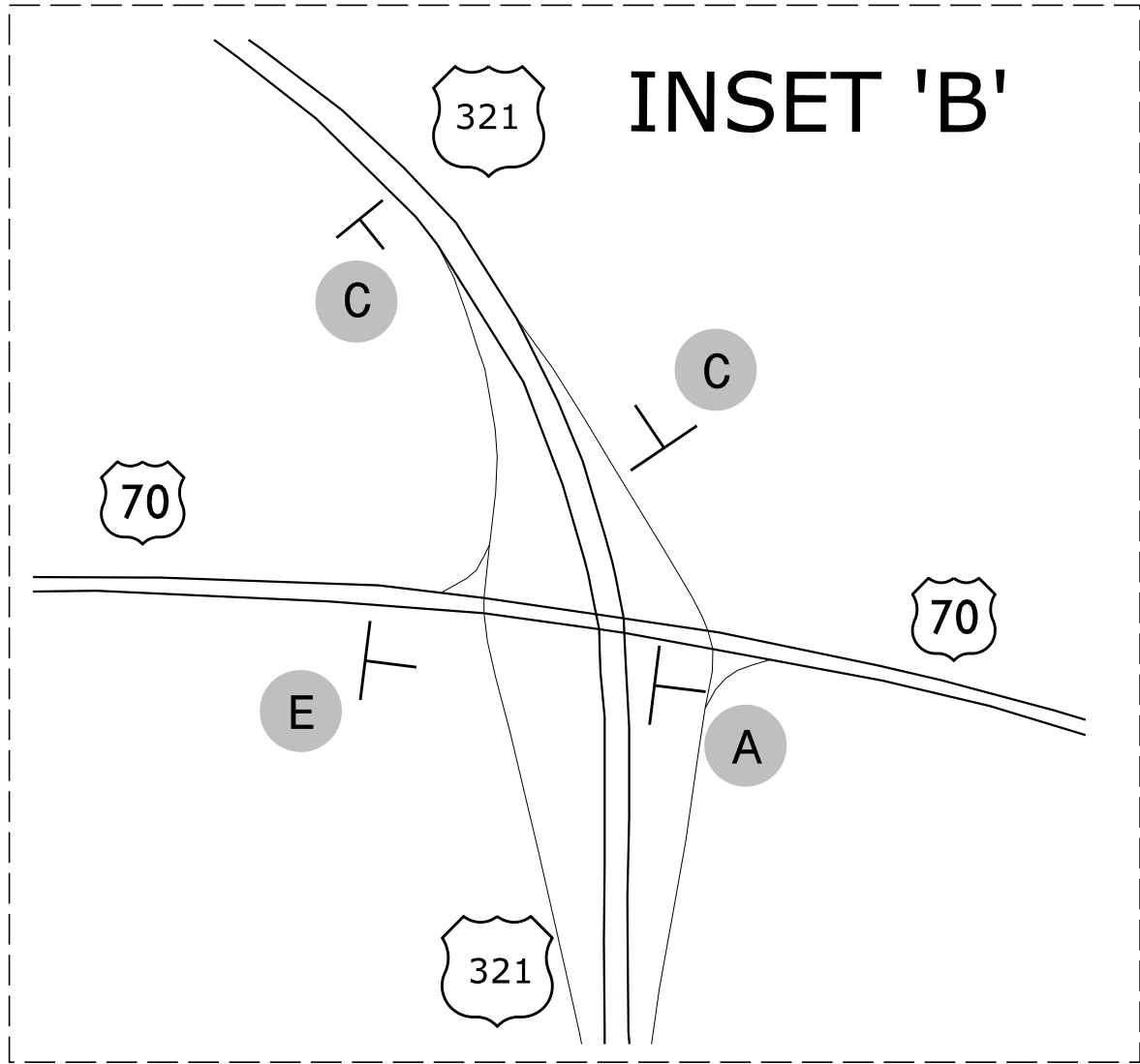
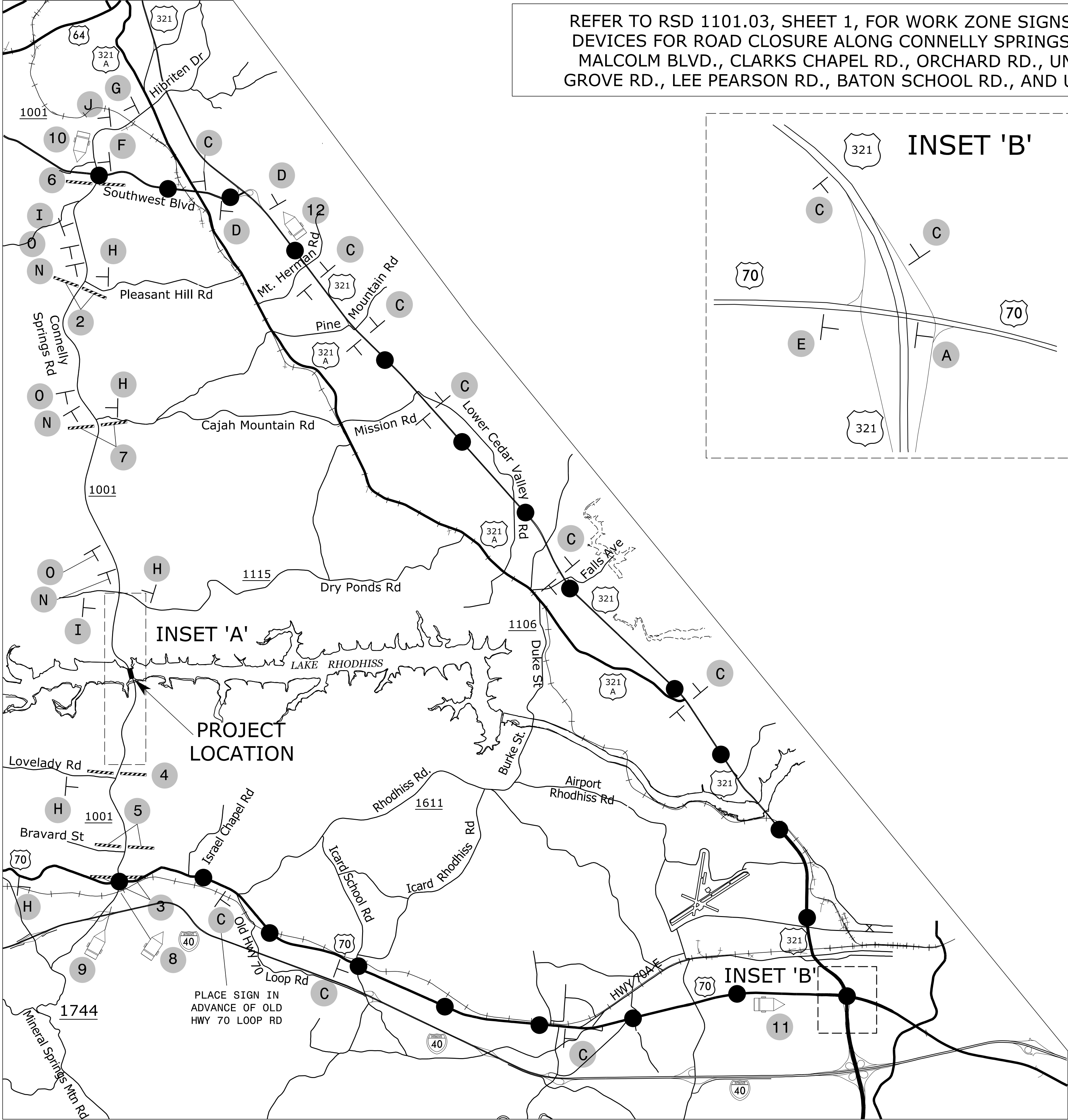
SIGN NUMBER: SP18022	BACKG COLOR: Fluorescent Orange	DESIGN BY: jgm										
TYPE: D	COPY COLOR: Black	CHECKED BY: KLJ										
		LOCATION:										
QUANTITY: 1		Jan 22, 2018										
SIGN WIDTH: 2'-6"		DIV: 13										
HEIGHT: 3'-0"												
TOTAL AREA: 7.5 Sq.Ft.												
BORDER TYPE: FLUSH												
RECESS: 0.47"												
WIDTH: 0.63"												
RADII: 1.5"												
NO. Z BARS: LENGTH:	MAT'L: 0.080" (2.0 mm) ALUMINUM											
USE NOTES:												
1. Legend and border shall be direct applied black non-reflective sheeting. 2. Background shall be Grade B fluoresent orange retroreflective sheeting.												
<p style="margin-top: 10px;">BORDER R=1.5" TH=0.63" IN=0.47"</p> <p style="text-align: right; margin-right: 50px;">Spacing Factor is 1 unless specified otherwise</p>												
LETTER POSITIONS												
<b>Letter spacings are to start of next letter</b>												Series/Size Text Length
	T	R	U	C	K							C 2000 17.3
6.4	3.3	3.7	3.8	3.8	2.8	6.3						
	T	U	R	N								C 2000 13.6
8.2	3.3	3.9	3.7	2.8	8.2							
	A	R	O	U	N	D						C 2000 22
4	3.9	3.6	3.9	3.9	3.9	2.8	4					

FILENAME: 2018 Sign Designs

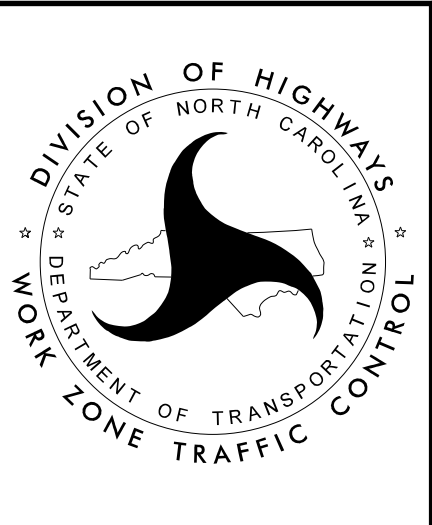
NORTH CAROLINA D.O.T. SIGN DETAIL

[illegible]

REFER TO RSD 1101.03, SHEET 1, FOR WORK ZONE SIGNS AND DEVICES FOR ROAD CLOSURE ALONG CONNELLY SPRINGS RD., MALCOLM BLVD., CLARKS CHAPEL RD., ORCHARD RD., UNION GROVE RD., LEE PEARSON RD., BATON SCHOOL RD., AND US-70.

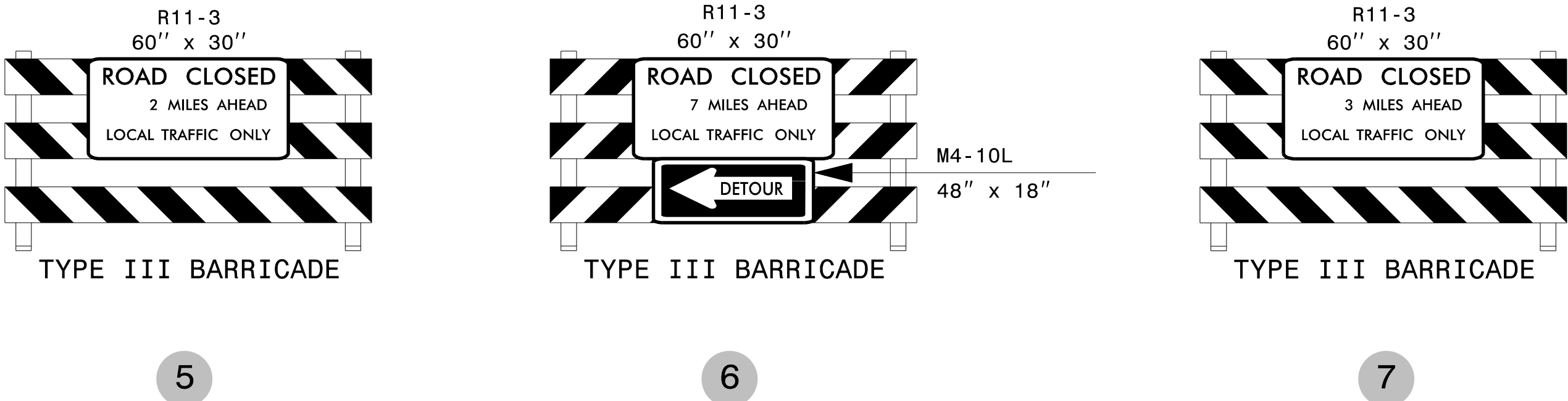
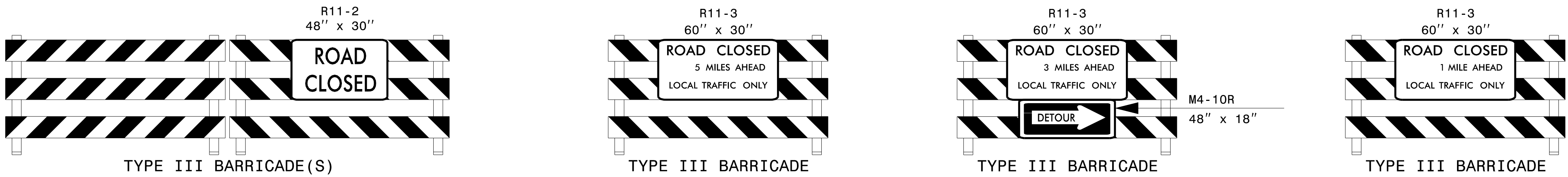
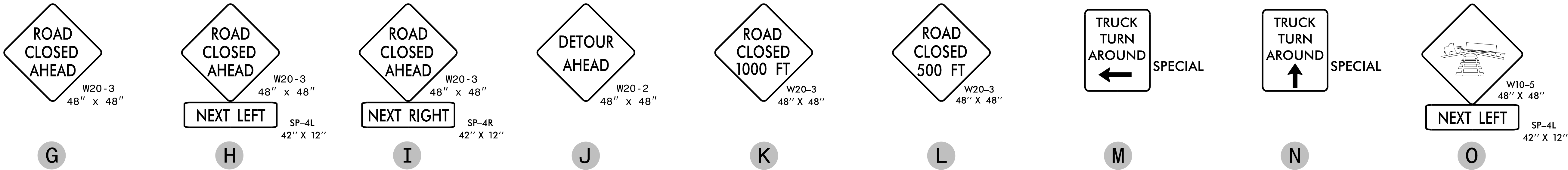
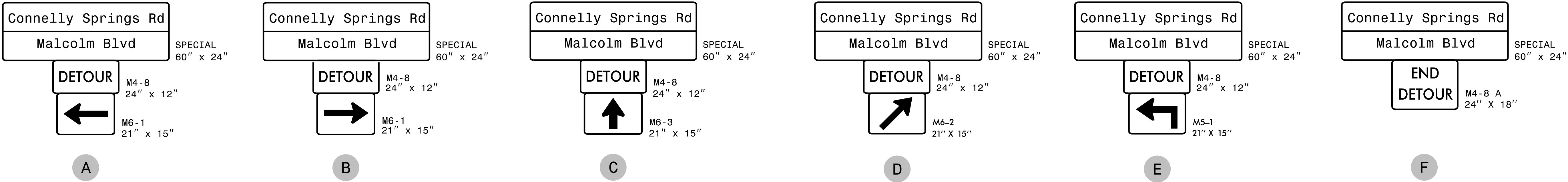


APPROVED: *Don A. Parker*  
DATE: 1/24/2018  
NORTH CAROLINA PROFESSIONAL SEAL 043251  
ENGINEER DON A. PARKER  
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OFFSITE DETOUR  
ROUTE AND  
ROAD CLOSURE





APPROVED: *Don A. Parker*  
4DD48286261841D...

DATE: 1/23/2018

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SIGNS AND DEVICES  
FOR OFFSITE  
DETOUR ROUTE

BEFORE ROAD CLOSURE		DURING ROAD CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AT LAKE	STARTING MM/DD	ROAD CLOSED AT LAKE	DETOUR RIGHT AT SIGNAL
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
8		8	

BEFORE ROAD CLOSURE		DURING ROAD CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AT LAKE	STARTING MM/DD	ROAD CLOSED AT LAKE	DETOUR USE US 70 E
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
9		9	

THIS CMS NEEDS TO BE LOCATED IN ADVANCE OF ALPINE ST DUE TO LIMITED SHOULDER AREA

BEFORE ROAD CLOSURE		DURING ROAD CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AT LAKE	STARTING MM/DD	ROAD CLOSED AT LAKE	DETOUR NEXT LEFT
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
10		10	


DURING ROAD CLOSURE		DURING ROAD CLOSURE	
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
CONNELLY MALCOLM DETOUR	USE US 321 NORTH	CONNELLY MALCOLM DETOUR	USE OFF RAMP 1000 FT
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
11		12	

NOTE: USE CHANGEABLE MESSAGE SIGNS TO ADVERTISE ROAD CLOSURE 30 DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. LOCATIONS OF CMS FOR ADVERTISEMENT SHALL BE DETERMINED BY THE ENGINEER.


NOTE: USE 3 DRUMS TO DELINEATE EACH CMS ALONG SHOULDER LOCATIONS.

APPROVED: *Don A. Parker*

DATE: 1/24/2018



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UNLESS ALL SIGNATURES COMPLETED



CMS SUGGESTED MESSAGES