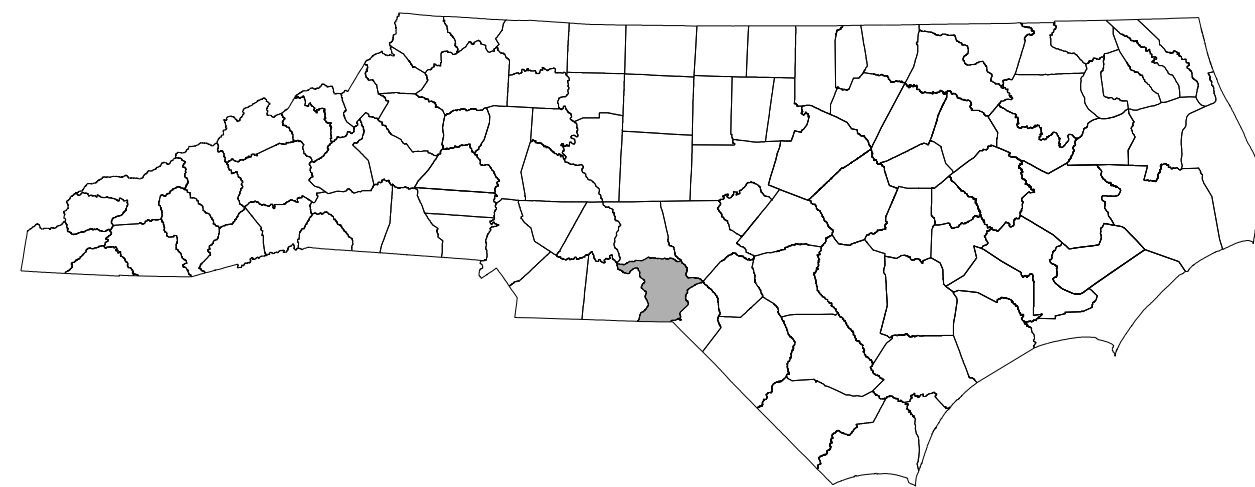


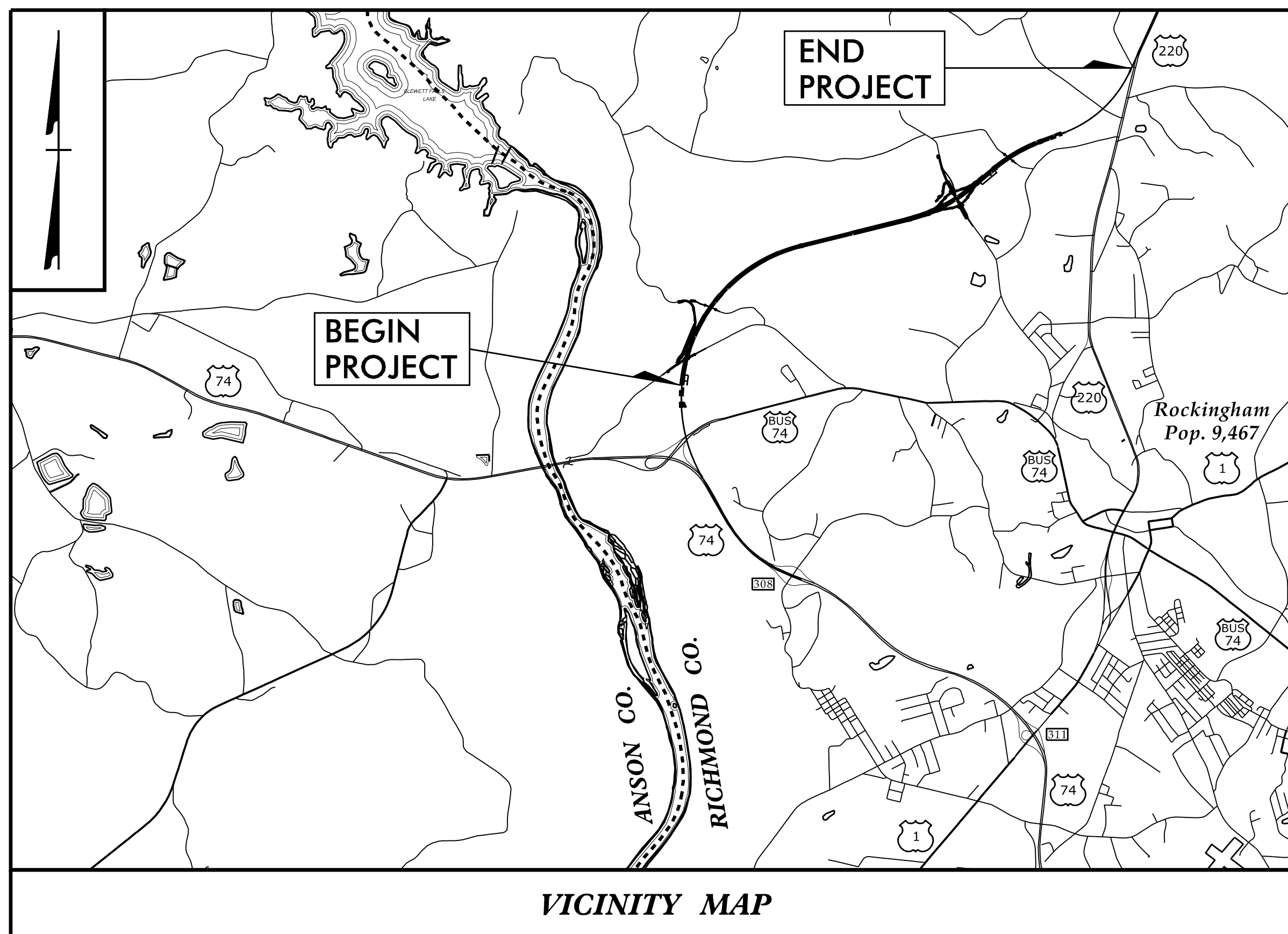
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**RICHMOND COUNTY**

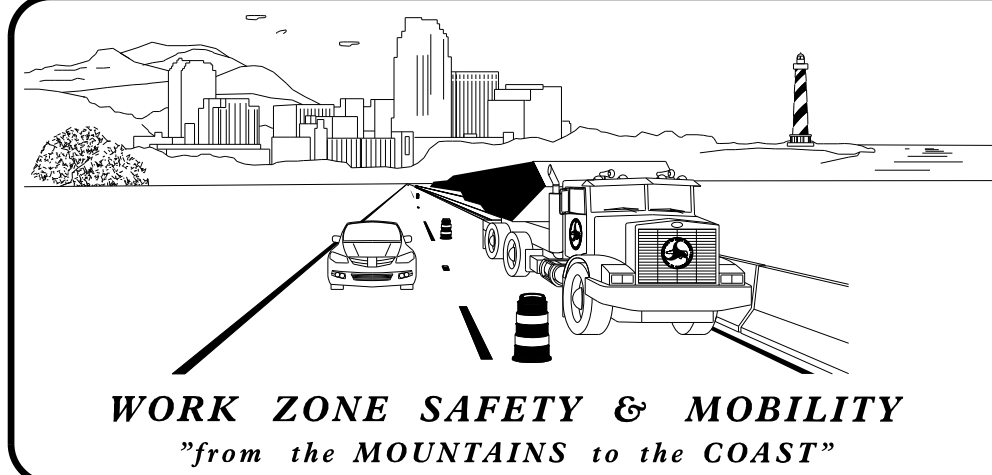


**LOCATION: I-73/74 FROM 0.3 MILES SOUTH OF SR 1140 (OLD CHARLOTTE HIGHWAY) TO NORTH OF SR 1304 (HARRINGTON ROAD)**



VICINITY MAP

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 USER: BSCOTT  
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 PENTABLE: NCDOT\_tcp.tbl  
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 DATE: 7/2/2019



PLANS PREPARED BY:

MICHELLE WARD, P.E.  
PROJECT ENGINEER

CHRIS HARNDEN  
DESIGN ENGINEER

NCDOT CONTACTS:

KEN THORNEWELL, P.E.  
PROJECT ENGINEER

ALLA LYUDMIRSKAYA  
DESIGN ENGINEER



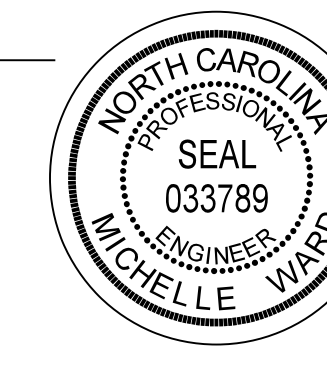
**HDR** HDR Engineering, Inc. of the Carolinas  
 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601  
 N.C.B.E.L.S. License Number: F-0116

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

APPROVED: *Michelle Ward*

DATE: 7/3/2019

SEAL



**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: (MANAGEMENT STRATEGIES AND GENERAL NOTES)
TMP-2 AND TMP-2A	SPECIAL SIGN DESIGNS
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	PROJECT LAYOUT
TMP-5 AND TMP-6	TRAFFIC CONTROL DETAILS - AREA 2
TMP-7 AND TMP-8	TRAFFIC CONTROL DETAILS - AREA 3

SHEET NO.  
TMP-1

**R-3421B**

**TIP PROJECT:**







# ROADWAY STANDARD DRAWINGS


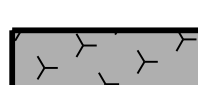


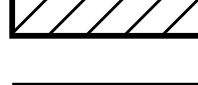
THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
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
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY - DRUMS
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
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
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
-  CONTINUING CONSTRUCTION
-  REMOVAL
-  WEDGING
-  TEMPORARY PAVEMENT









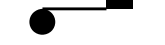


### SIGNALS

-  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 PANEL (TYPE C)
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
-  CHANGEABLE MESSAGE SIGN

### TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN




### PAVEMENT MARKERS

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

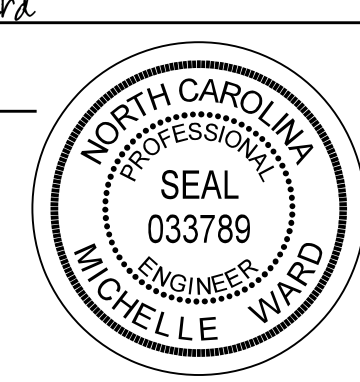
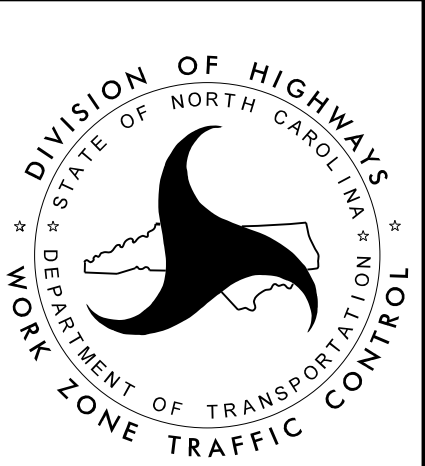
### PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

### TEMPORARY PAVEMENT MARKING

-  P2 PAINT 24" WHITE STOPBAR
-  PA PAINT 4" WHITE EDGELINE
-  PI PAINT 4" YELLOW DOUBLE CENTER

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APPROVED: <i>Michelle Ward</i> DATE: 7/3/2019			<h2>ROADWAY STANDARD DRAWINGS &amp; LEGEND</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

# MANAGEMENT STRATEGIES

THE PROJECT IS SEPARATED INTO THREE DISTINCT WORK AREAS. EACH AREA CAN BE COMPLETED INDEPENDENTLY OF EACH OTHER, UNTIL PLACEMENT OF THE FINAL LAYER OF SURFACE COURSE AND FINAL MARKINGS AND MARKERS, AS STATED IN THE PHASING.

AREA 1 CONSISTS OF THE MAINLINE (-L-) CONSTRUCTION, INCLUDING ALL RAMPS.

AREA 2 CONSISTS OF THE NEW -SR1- ALIGNMENT; RECONSTRUCTION OF OLD CHARLOTTE HWY (-Y3-); AND THE REALIGNMENT, PERMANENT CLOSURE AND CONSTRUCTION OF TURNAROUNDS ON BLEWITT FALLS ROAD (-Y4-).

AREA 3 CONSISTS OF CONSTRUCTING THE REALIGNMENT OF CARTLEDGE CREEK ROAD (-Y5-), THE NEW -SR6- ALIGNMENT AND PERMANENT CLOSURE AND CONSTRUCTION OF TURNAROUNDS ON DAVE KINGS ROAD (-Y6-).

IN AREA 1, PHASE 1, CONSTRUCTION OF THE ENTIRE MAINLINE (-L-) CAN BEGIN, INCLUDING RAMPS AT THE -Y5- INTERCHANGE, EXCEPT IN LOCATIONS THAT WILL BLOCK ACCESS TO RESIDENCES AND FARMLANDS OR INTERFERE WITH EXISTING TRAFFIC PATTERNS ON OLD CHARLOTTE HIGHWAY (-Y3-), BLEWITT FALLS ROAD (-Y4-), CARTLEDGE CREEK ROAD (-Y5-) AND DAVE KINGS ROAD (-Y6-).

IN AREA 1, PHASE 2, MAINLINE WORK MAY BEGIN AT OLD CHARLOTTE HWY (-Y3-) AND CARTLEDGE CREEK ROAD (-Y5-) DURING CLOSURE OF THOSE TWO ROADS (SEE AREA 2 AND 3 PHASING). ONCE -Y3- AND -Y5- CONSTRUCTION IS COMPLETE AND OPEN TO TRAFFIC, AND BLEWITT FALLS ROAD (-Y4-) AND DAVE KINGS ROAD (-Y6-) ARE PERMANENTLY CLOSED, THE MAINLINE (-L-) MAY BE CONSTRUCTED WHERE IT CROSSES THOSE TWO LOCATIONS.

IN AREA 1, PHASE 3, ALL WORK THAT WAS BEGUN EARLIER IS COMPLETED (INCLUDING THE FINAL LAYER OF SURFACE COURSE), FINAL MARKINGS AND MARKERS ARE PLACED (INCLUDING EXTENDING ONTO THE R-3421C PROJECT), AND I-73/74 IS OPENED TO THE FINAL PATTERN (INCLUDING RAMPS). THE PLACEMENT OF THE FINAL MARKINGS AND MARKERS AND OPENING OF THE MAINLINE (-L-) TO THE FINAL TRAFFIC PATTERN WILL BE COMPLETED IN CONJUNCTION WITH THE OPENING OF AREAS 2 AND 3 TO THE FINAL PATTERN.

IN AREA 2, PHASE 1, WORK WILL BEGIN ON -SR1- FROM OLD CHARLOTTE HWY (-Y3-) TO JUST BEFORE BLEWITT FALLS ROAD (-Y4-) AS WELL AS THE WIDENING OF -SR1- AT THE TIE-IN WITH BLEWITT FALLS ROAD (-Y4-). IN PHASE 1, STEP 2, THE TIE-IN OF -SR1- AND BLEWITT FALLS ROAD (-Y4-) IS COMPLETED, USING INCIDENTAL STONE AS NECESSARY. DURING THE TIE-IN CONSTRUCTION, TRAFFIC MAY BE MAINTAINED ON THE EXISTING BLEWITT FALLS ROAD ALIGNMENT OR IN A TEMPORARY PATTERN USING THE PROPOSED -SR1- AND -Y4- ALIGNMENTS, ON EITHER STONE BASE OR ON COMPLETED PAVEMENT. AT THIS TIME, -SR1- IS NOT OPENED TO OLD CHARLOTTE HIGHWAY (-Y3-). IN STEP 3, -SR1- AND BLEWITT FALLS ROAD (-Y4-) ARE OPENED TO THE FINAL PATTERN. EXISTING BLEWITT FALLS ROAD WILL REMAIN OPEN TO BE UTILIZED AS AN OFF-SITE DETOUR ROUTE FOR OLD CHARLOTTE HIGHWAY (-Y3-) CONSTRUCTION IN PHASE 2.

IN AREA 2, PHASE 2, OLD CHARLOTTE HIGHWAY (-Y3-) IS CLOSED AND TRAFFIC DETOURED VIA -SR1- AND BLEWITT FALLS ROAD (-Y4-), WHILE CONSTRUCTION IS COMPLETED. OLD CHARLOTTE HIGHWAY (-Y3-) WILL BE RE-OPENED TO THE FINAL PATTERN AND BLEWITT FALLS ROAD (-Y4-) WILL BE PERMANENTLY CLOSED AND TURNAROUNDS CONSTRUCTED.

IN AREA 2, PHASE 3, THE FINAL LAYER OF SURFACE COURSE AND FINAL MARKINGS AND MARKERS ARE PLACED AND ALL TRAFFIC IS PLACED IN THE FINAL PATTERN. THIS WILL BE COMPLETED IN CONJUNCTION WITH THE OPENING OF AREAS 1 AND 3 TO THE FINAL PATTERN.

IN AREA 3, PHASE 1, -SR6- AND CARTLEDGE CREEK ROAD (-Y5-) FROM EXISTING CARTLEDGE CREEK ROAD TO JUST PAST THE -SR6- INTERSECTION WILL BE CONSTRUCTED. IN ADDITION, CONSTRUCTION MAY BEGIN ON -Y5- AT THE TIE-IN TO EXISTING CARTLEDGE CREEK ROAD.

IN AREA 3, PHASE 2, CARTLEDGE CREEK ROAD (-Y5-) IS CLOSED AND TRAFFIC DETOURED VIA DAVE KINGS ROAD (-Y6-) AND CRESTVIEW DRIVE. LOCAL TRAFFIC WILL BE SHIFTED TO THE NEW -Y5- AND -Y6- ALIGNMENTS. DURING THE CLOSURE, CONSTRUCTION IS COMPLETED ON CARTLEDGE CREEK ROAD (-Y5-). ONCE COMPLETE, CARTLEDGE CREEK ROAD (-Y5-) WILL OPEN TO THE FINAL PATTERN WITH DRUMS BLOCKING LEFT TURN ACCESS ONTO THE RAMPS UNTIL THEY OPEN IN THE NEXT PHASE. AT THIS TIME, DAVE KINGS ROAD (-Y6-) WILL BE PERMANENTLY CLOSED AND TURNAROUNDS CONSTRUCTED.

IN AREA 3, PHASE 3, THE FINAL LAYER OF SURFACE COURSE AND FINAL MARKINGS AND MARKERS ARE PLACED AND ALL TRAFFIC IS PLACED IN THE FINAL PATTERN. THIS WILL BE COMPLETED IN CONJUNCTION WITH THE OPENING OF AREAS 1 AND 2 TO THE FINAL PATTERN.

# GENERAL NOTES

PROJ. REFERENCE NO. R-3421B	SHEET NO. TMP-1B
<div style="font-size: x-small; display: inline-block; vertical-align: middle;">                 HDR Engineering, Inc. of the Carolinas                  555 Fayetteville St., Suite 900 Raleigh, N.C. 27601                  N.C.B.E.L.S. License Number: F-0116             </div>	

SIGNING

K) 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.

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

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

M) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

P) 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.

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
-SR1-, -SR6-, SR 1140/OLD CHARLOTTE HWY (-Y3-), SR 1141/BLEWITT FALLS RD (-Y4-), SR 1005/CARTLEDGE CREEK RD (-Y5-)	PAINT	NONE
-Y3- BRIDGE	COLD APPLIED PLASTIC TYPE IV	NONE

S) 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.

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

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

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

MISCELLANEOUS

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

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

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

TIME RESTRICTIONS

A) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY & TIME RESTRICTIONS	DURATION & OPERATION
I-73/74/US 220	MONDAY THRU SUNDAY 5:00 A.M. TO 10:00 P.M.	30 MINUTES FOR OVERHEAD SIGN INSTALLATIONS & REMOVAL OF EXISTING OVERHEAD SIGNS

HAULING REQUIREMENTS

B) 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

C) 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.

D) 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.

E) 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.

F) 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.

G) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) 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.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500' IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

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 REVISIONS

APPROVED: <i>Michelle Ward</i> DATE: 7/3/2019 <div style="text-align: center;"> </div>		<h2 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN: MANAGEMENT STRATEGIES AND GENERAL NOTES</h2>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		

**SIGN NUMBER:** SP-01      **BACKG COLOR:** Fluorescent Orange  
**TYPE:** STATIONARY      **COPY COLOR:** Black  
**QUANTITY:** SEE PLANS

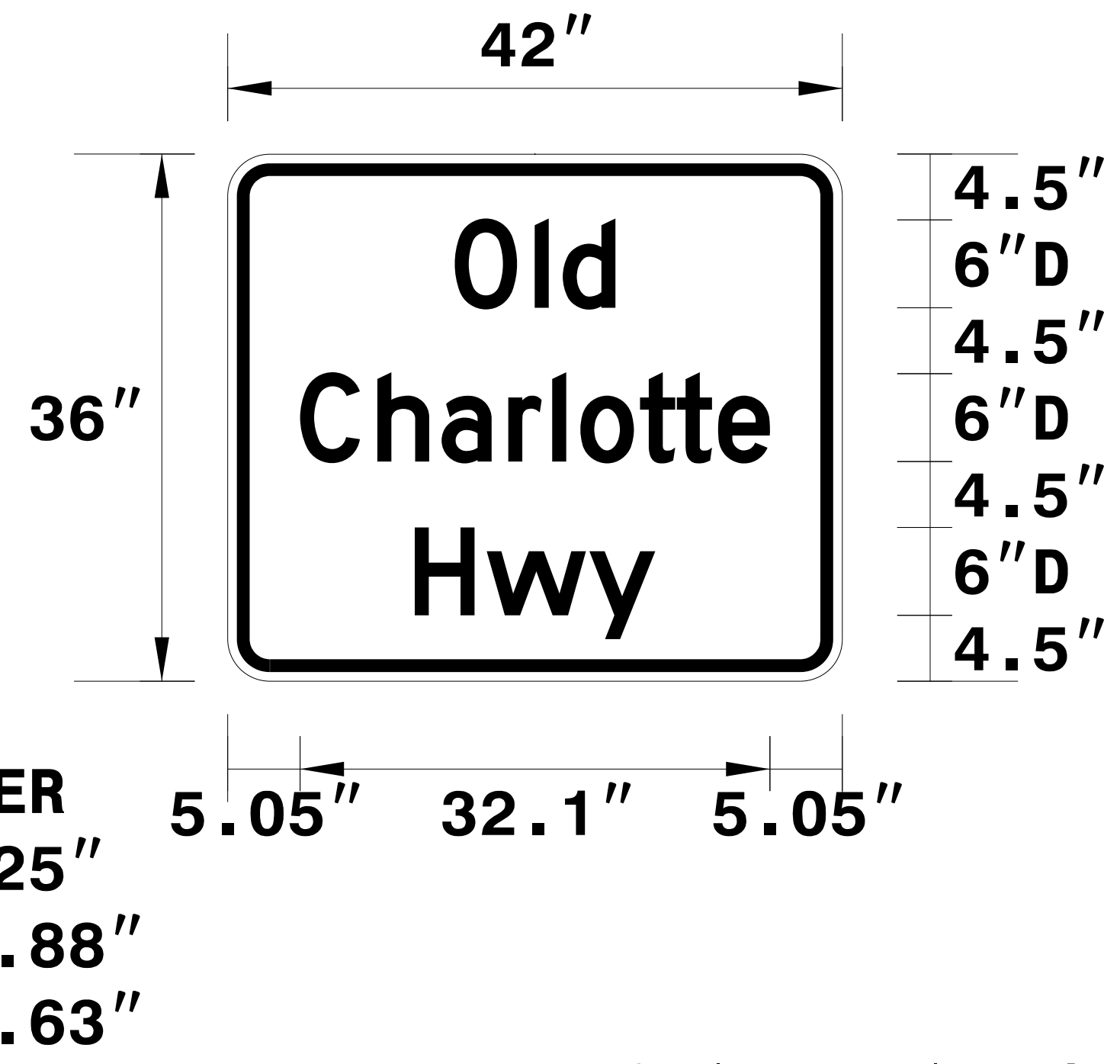
SYMBOL	X	Y	WID	HT

**SIGN WIDTH:** 3'-6"  
**HEIGHT:** 3'-0"  
**TOTAL AREA:** 10.5 Sq.Ft.

**BORDER TYPE:** INSET  
**RECESS:** 0.63"  
**WIDTH:** 0.88"  
**RADII:** 2.25"

**MAT'L:** 0.080" (2.0 mm) ALUMINIUM

**DESIGN BY:** R DRAYTON      **CHECKED BY:** D KERNS  
**PROJECT ID:** R-3421B      **DATE:** Jun 10, 2019  
**DIV:** 8



- USE NOTES:** 1,2
1. Legend and border shall be direct applied black non-reflective sheeting.
  2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

Spacing Factor is 1 unless specified otherwise

**LETTER POSITIONS**

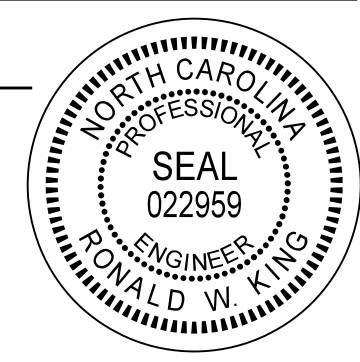
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												Text Length
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	c	h	a	r	l	o	t	t	e			D 2000
5	5.3	4.4	4.6	3	1.9	4.1	2.5	2.8	3.5	4.9		32.1
	H	w	y									D 2000
12.8	4.9	7	4.5	12.8								16.4

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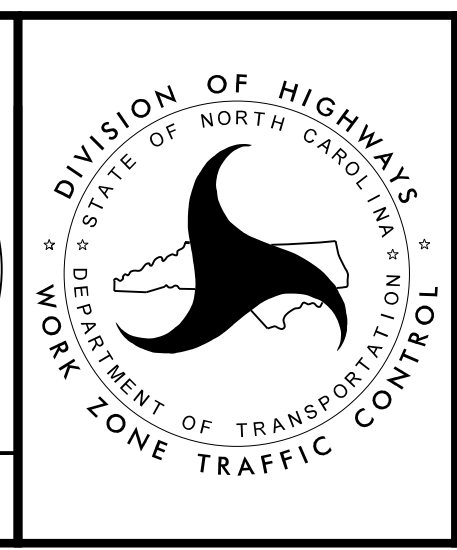
NORTH CAROLINA D.O.T. SIGN DETAIL

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APPROVED: *Ron King*  
 DATE: 7/3/2019  
 SEAL



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



**SPECIAL SIGN DESIGNS**

<p><b>SIGN NUMBER: SP-02</b>  <b>TYPE: STATIONARY</b>  <b>QUANTITY: SEE PLANS</b>  <b>SIGN WIDTH: 3'-6"</b>  <b>HEIGHT: 3'-0"</b>  <b>TOTAL AREA: 10.5 Sq.Ft.</b>  <b>BORDER TYPE: INSET</b>  <b>RECESS: 0.63"</b>  <b>WIDTH: 0.88"</b>  <b>RADII: 2.25"</b></p>	<p><b>BACKG COLOR: Fluorescent Orange</b>  <b>COPY COLOR: Black</b></p> <table border="1"> <thead> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </thead> <tbody> <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> </tbody> </table> <p><b>MAT'L: 0.080" (2.0 mm) ALUMINUM</b></p>	SYMBOL	X	Y	WID	HT																					<p><b>DESIGN BY: R DRAYTON</b>  <b>PROJECT ID: R-3421B</b></p> <p><b>CHECKED BY: D KERNS</b>  <b>DATE: Jun 10, 2019</b>  <b>DIV: 8</b></p>
SYMBOL	X	Y	WID	HT																							

**USE NOTES: 1,2**

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

**LETTER POSITIONS**

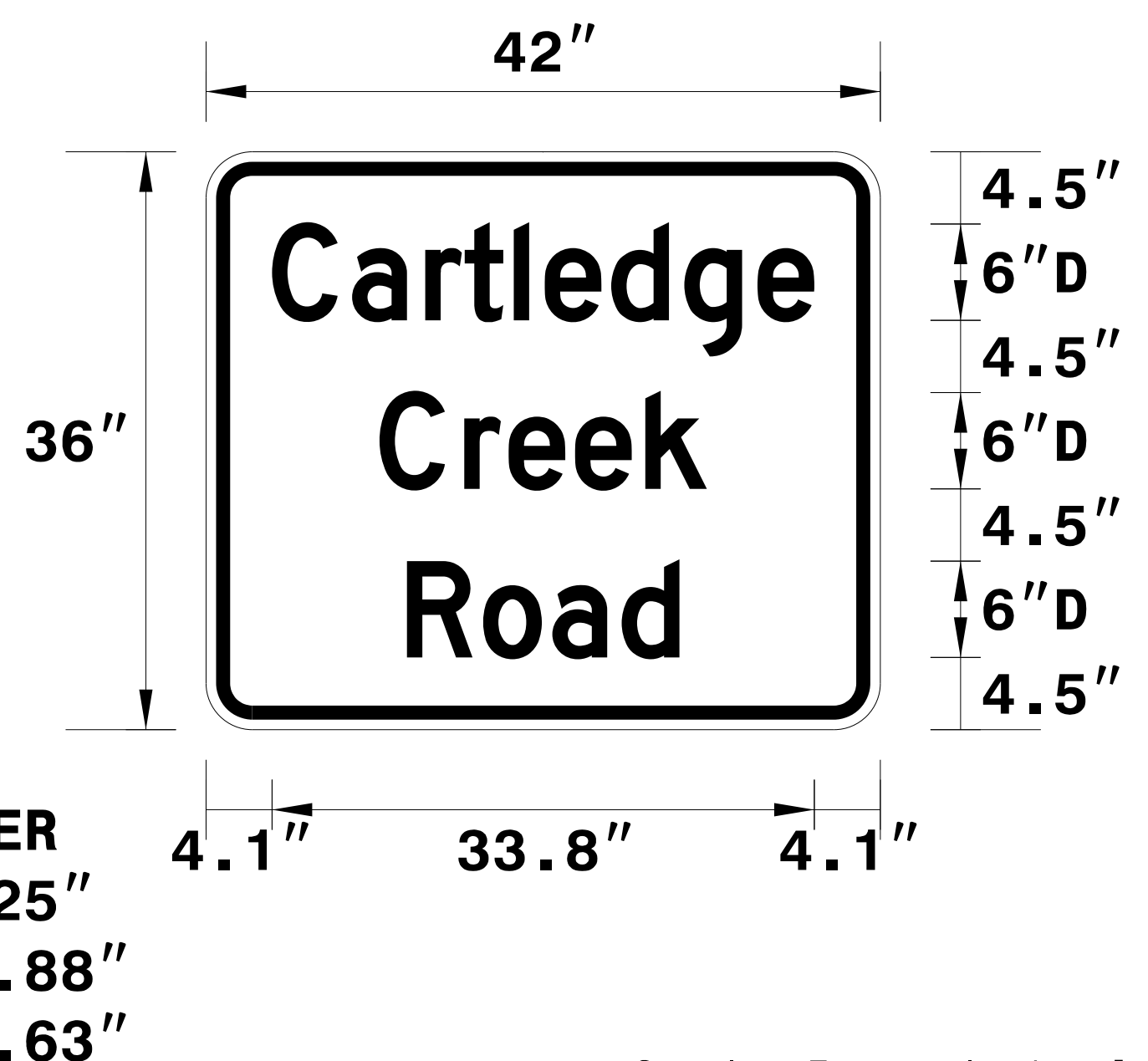
Letter spacings are to start of next letter													Series/Size	
													Text	Length
	C	a	r	t	l	e	d	g	e					D 2000
4.1	5	4.6	2.5	3.1	1.9	4.1	4.6	4.6	3.5	4.1				33.8
	C	r	e	e	k									D 2000
10.8	5.3	2.8	4.1	4.4	3.8	10.8								20.4
	R	o	a	d										D 2000
12.5	4.7	4.3	4.3	3.6	12.5									17

**BORDER**  
**R=2.25"**  
**TH=0.88"**  
**IN=0.63"**

Spacing Factor is 1 unless specified otherwise

**FILENAME: Guidesign\_English**

**NORTH CAROLINA D.O.T. SIGN DETAIL**



PLOT DRIVER: NCDOT\_pdf\_color\_eng\_50.plt  
 USER: BSCOTT  
 DATE: 7/2/2019 5:43:31 PM  
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**REVISIONS**

APPROVED: *Ren King*  
 DATE: 7/3/2019


SEAL

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

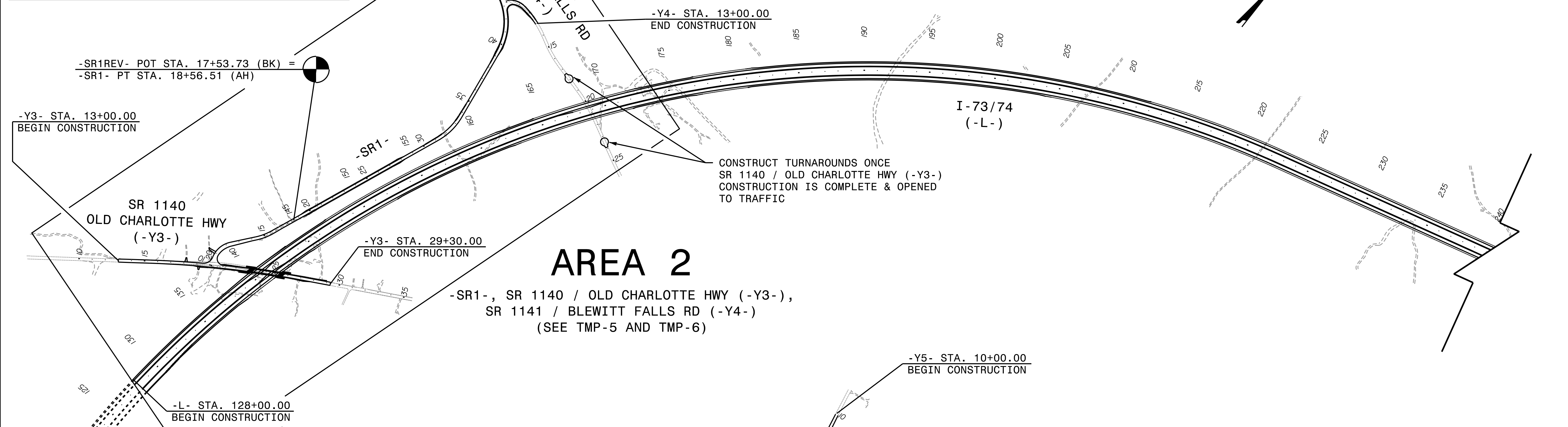


**SPECIAL SIGN DESIGNS**

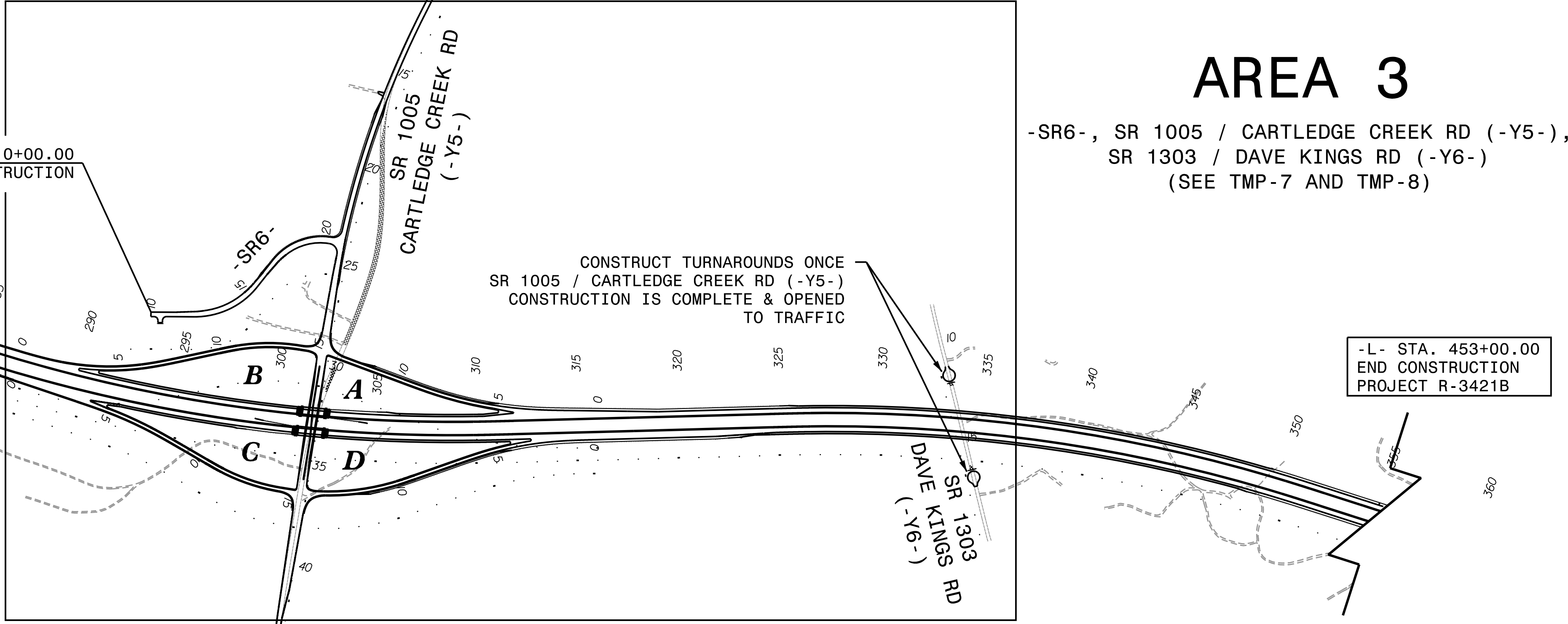


PROJ. REFERENCE NO. R-3421B	SHEET NO. TMP-4
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

**AREA 1**  
 MAINLINE -L- FROM STA. 128+00.00 +/- TO  
 STA. 453+00.00, INCLUDING ALL RAMPS



**AREA 2**  
 -SR1-, SR 1140 / OLD CHARLOTTE HWY (-Y3-),  
 SR 1141 / BLEWITT FALLS RD (-Y4-)  
 (SEE TMP-5 AND TMP-6)

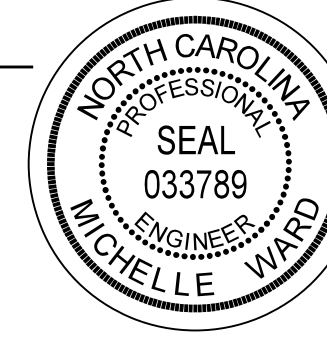


**AREA 3**  
 -SR6-, SR 1005 / CARTLEDGE CREEK RD (-Y5-),  
 SR 1303 / DAVE KINGS RD (-Y6-)  
 (SEE TMP-7 AND TMP-8)

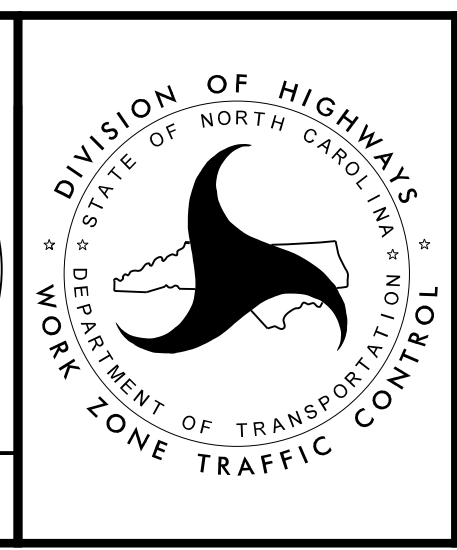
APPROVED: *Michelle Ward*

DATE: 7/3/2019

SEAL



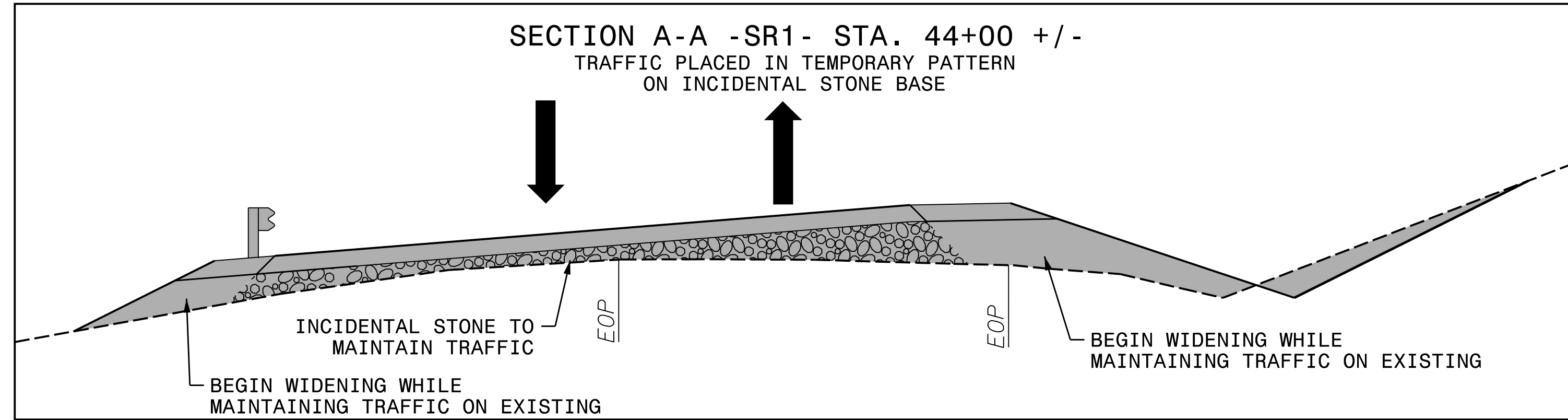
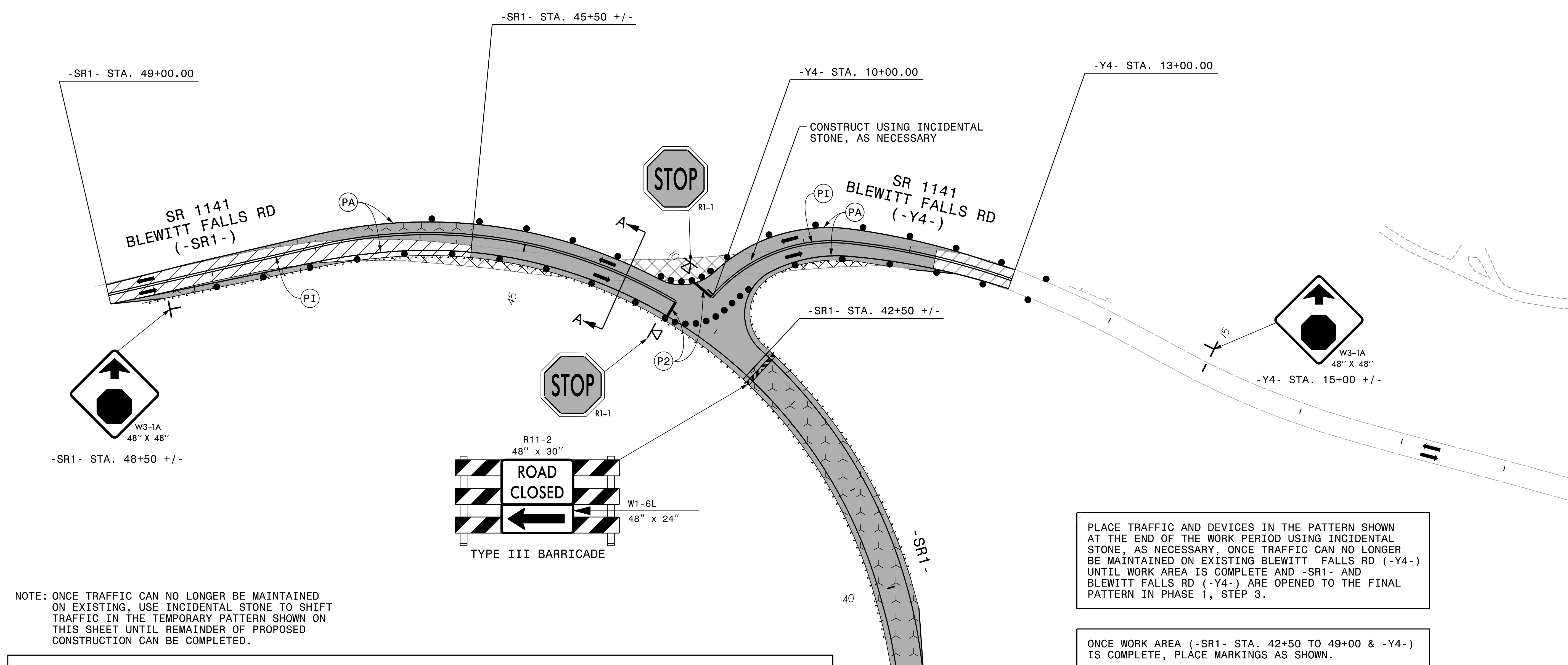
DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED



PROJECT LAYOUT

PLOT DRIVER: NCDOT\_pdf\_color\_eng\_50.pit  
 USER: BSCOTT  
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REVISIONS



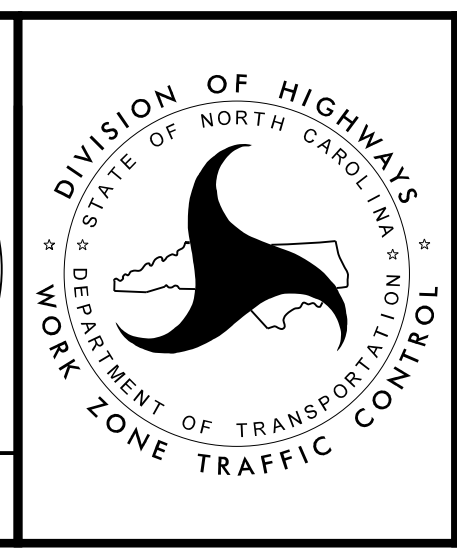
PLACE TRAFFIC AND DEVICES IN THE PATTERN SHOWN AT THE END OF THE WORK PERIOD USING INCIDENTAL STONE, AS NECESSARY, ONCE TRAFFIC CAN NO LONGER BE MAINTAINED ON EXISTING BLEWITT FALLS RD (-Y4-) UNTIL WORK AREA IS COMPLETE AND -SR1- AND BLEWITT FALLS RD (-Y4-) ARE OPENED TO THE FINAL PATTERN IN PHASE 1, STEP 3.

ONCE WORK AREA (-SR1- STA. 42+50 TO 49+00 & -Y4-) IS COMPLETE, PLACE MARKINGS AS SHOWN.

REVISIONS

APPROVED: *Michelle Ward*  
DATE: 7/3/2019

SEAL



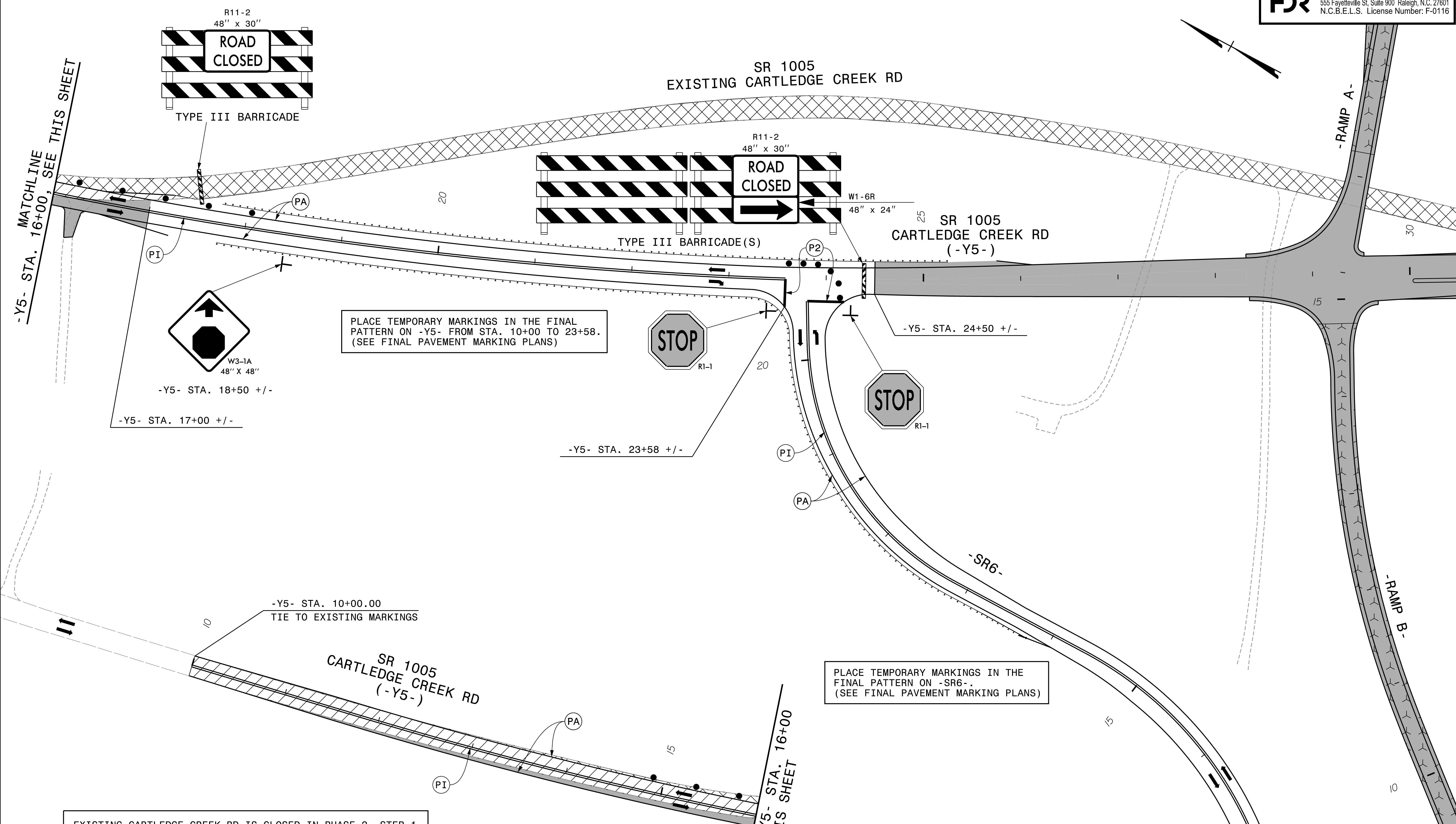
**AREA 2  
PHASE 1, STEP 2**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

PLOT DRIVER: NCDOT\_pdf\_color\_eng\_50.pit  
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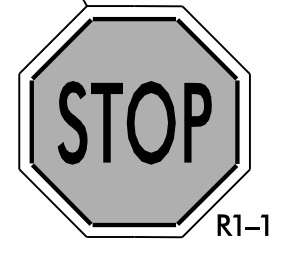
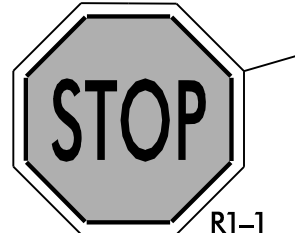
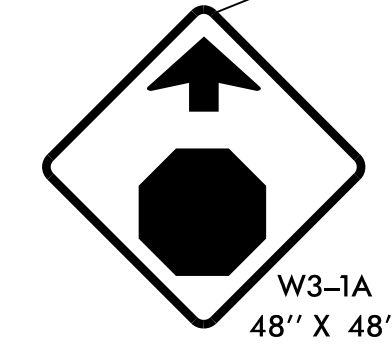
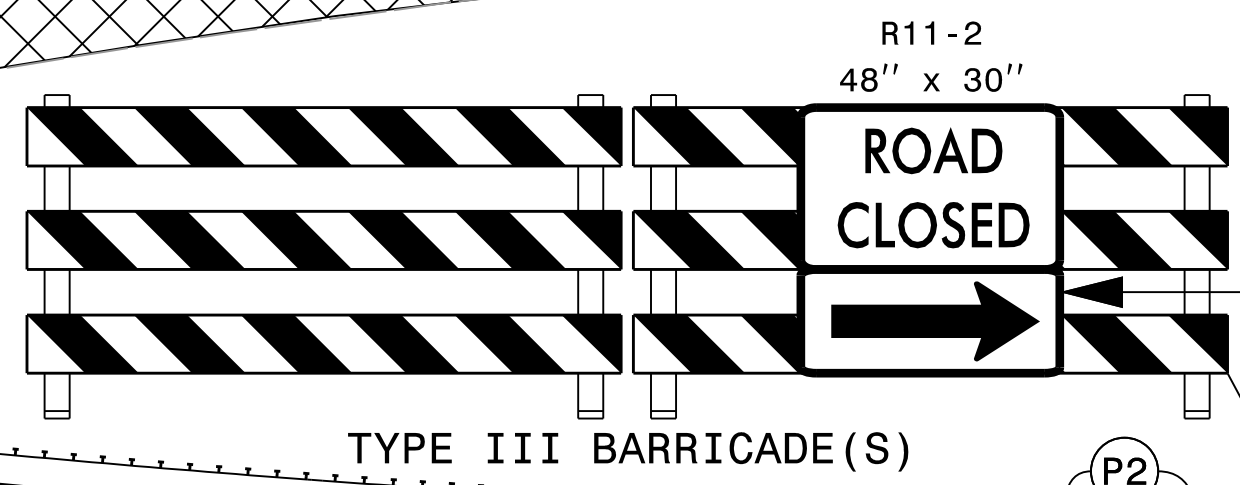
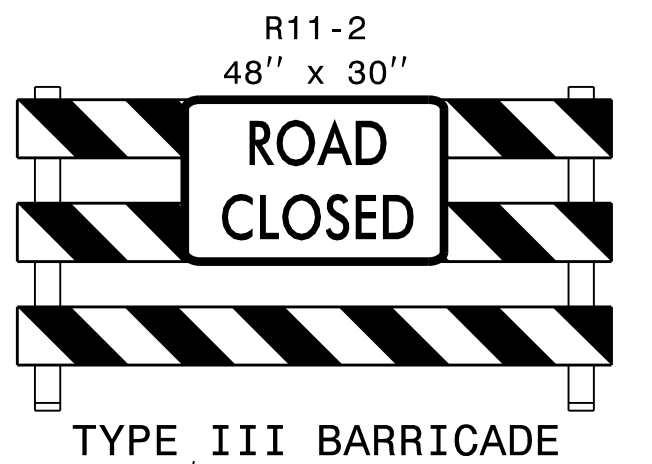






MATCHLINE -Y5- STA. 16+00, SEE THIS SHEET

MATCHLINE -Y5- STA. 16+00 SEE THIS SHEET



PLACE TEMPORARY MARKINGS IN THE FINAL PATTERN ON -Y5- FROM STA. 10+00 TO 23+58. (SEE FINAL PAVEMENT MARKING PLANS)

PLACE TEMPORARY MARKINGS IN THE FINAL PATTERN ON -SR6-. (SEE FINAL PAVEMENT MARKING PLANS)

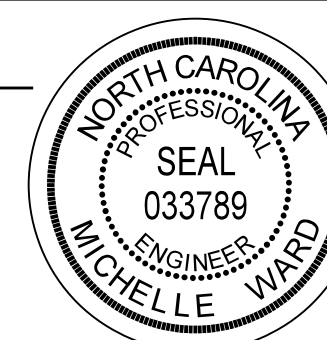
EXISTING CARTLEDGE CREEK RD IS CLOSED IN PHASE 2, STEP 1 AND LOCAL TRAFFIC PLACED ON NEW -Y5- AND -SR6-.

IN PHASE 2, STEP 2, TIE IN OF -Y5- TO EXISTING CARTLEDGE CREEK RD IS COMPLETED AND TEMPORARY MARKINGS PLACED.

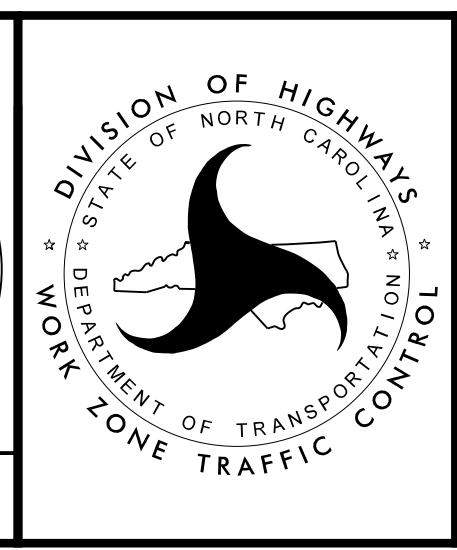
APPROVED: *Michelle Ward*

DATE: 7/3/2019

SEAL



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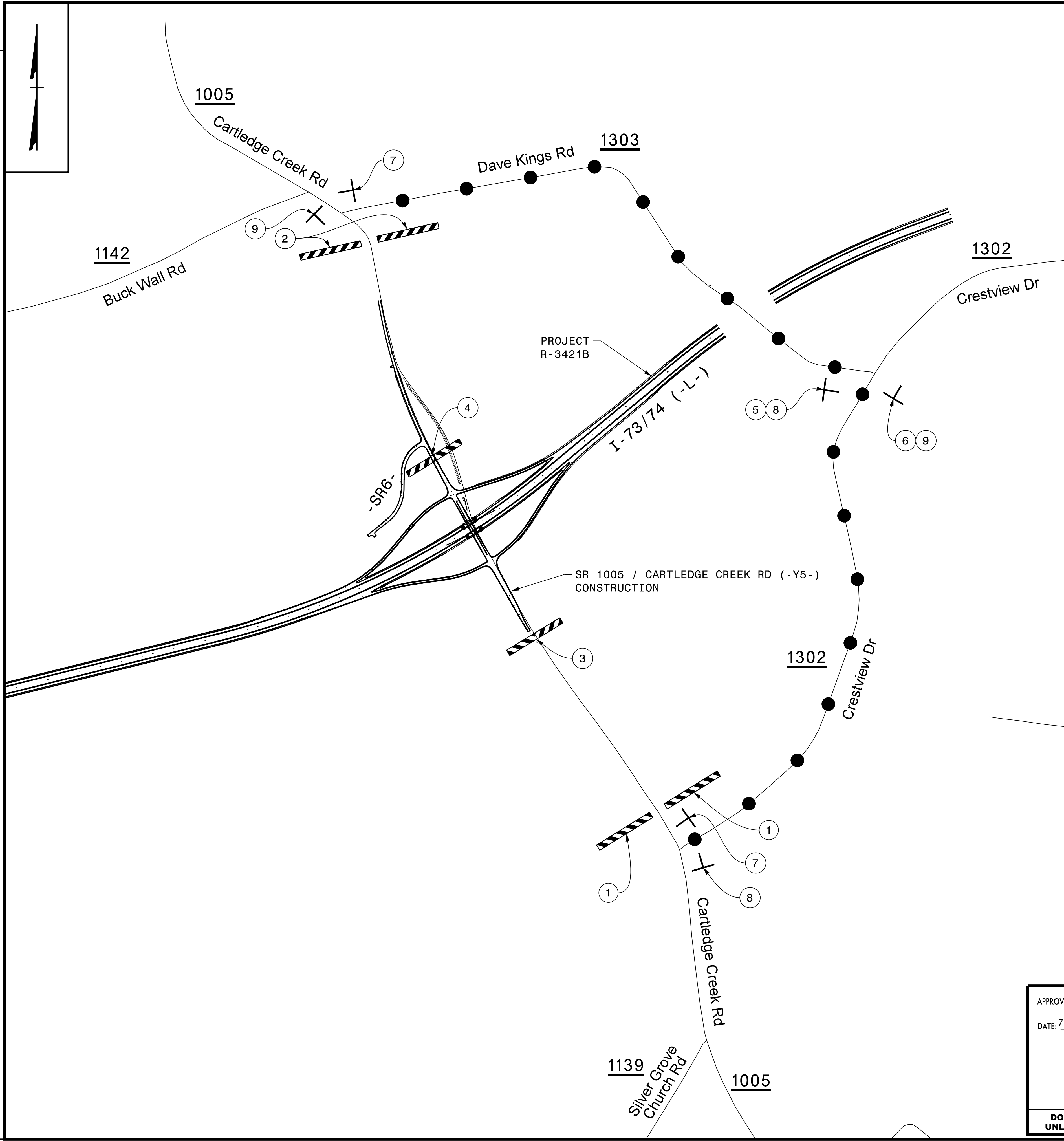
AREA 3  
PHASE 2, STEPS 1 & 2

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REVISIONS

PLOT DRIVER: NCDOT\_pdfs\_color\_eng\_50.dpt  
 USER: BSCOTT  
 FILE: p:\p\fwapp\TFA01\SouthEast\Tampa\Documents\000166\CON0079759\CON0095471\00000000248138\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Traffic\TrafficControl\TCP\R-3421B\_TMP\_TMP-08.dgn

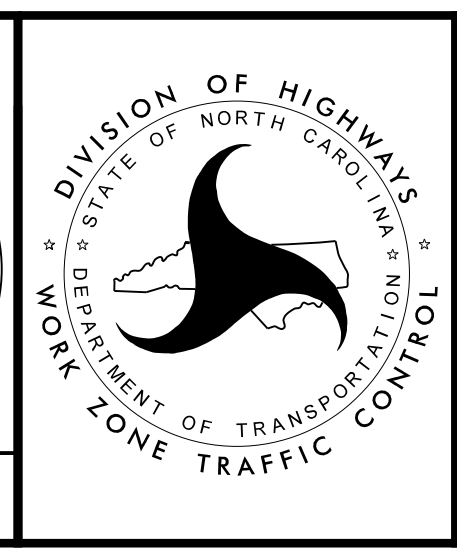
REVISIONS



1  TYPE III BARRICADE	PROJ. REFERENCE NO. R-3421B	SHEET NO. TMP-8
2  TYPE III BARRICADE		
3  TYPE III BARRICADE(S)		
4  TYPE III BARRICADE(S)		W1-6R 48'' x 24''
5 	6 	7 
8 	9 	
●●●●● DETOUR ROUTE		
NOTES: 1. REFER TO RSD 1101.03 SHEET 1 OF 9 FOR PLACEMENT OF ADDITIONAL SIGNS AND BARRICADES. 2. SEE SHEET TMP-2A FOR SPECIAL SIGN DESIGN.		

APPROVED: *Michelle Ward*  
 DATE: 7/3/2019

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AREA 3  
 DETOUR ROUTE  
 SR 1005  
 CARTLEDGE CREEK RD  
 (-Y5-)

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED