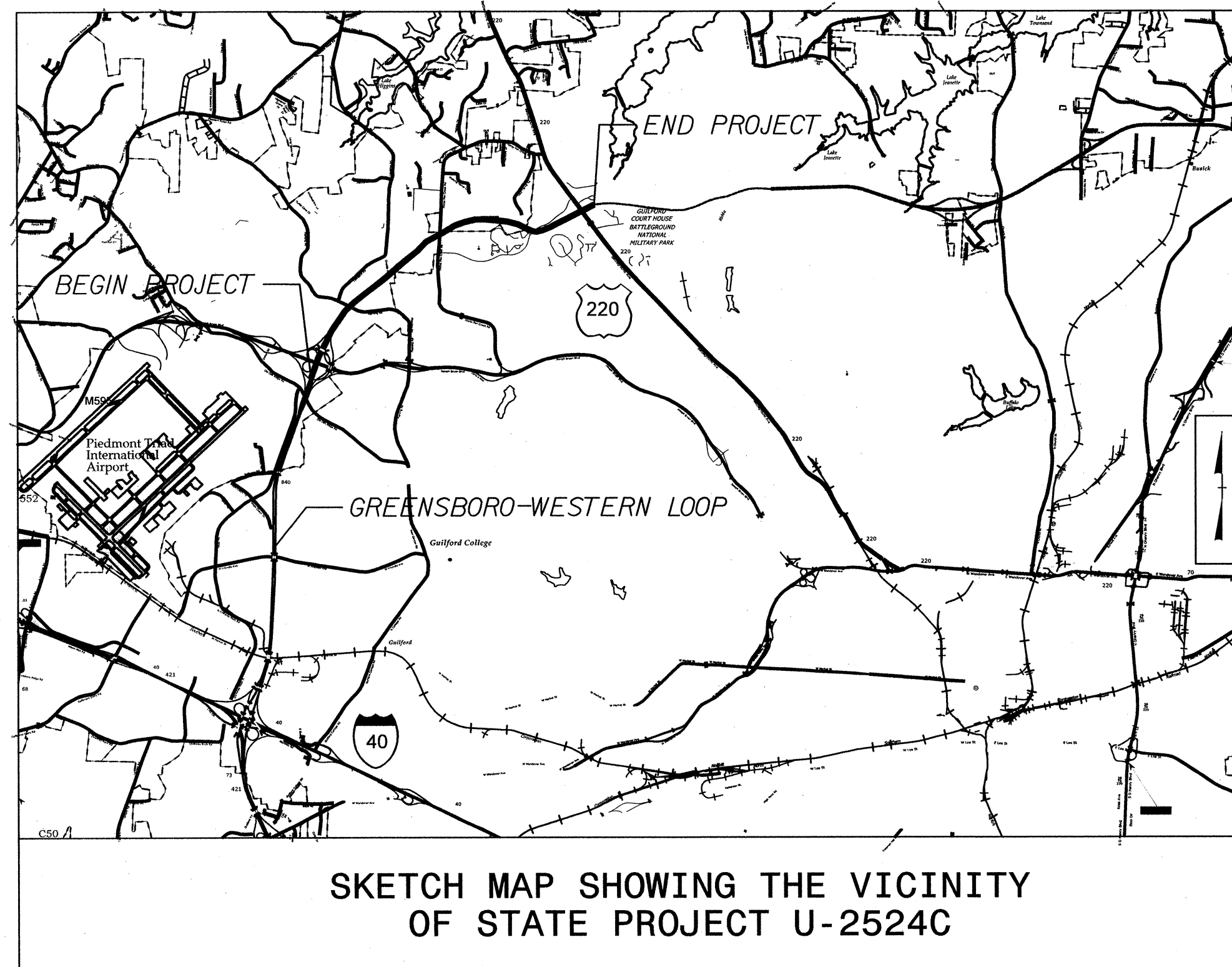
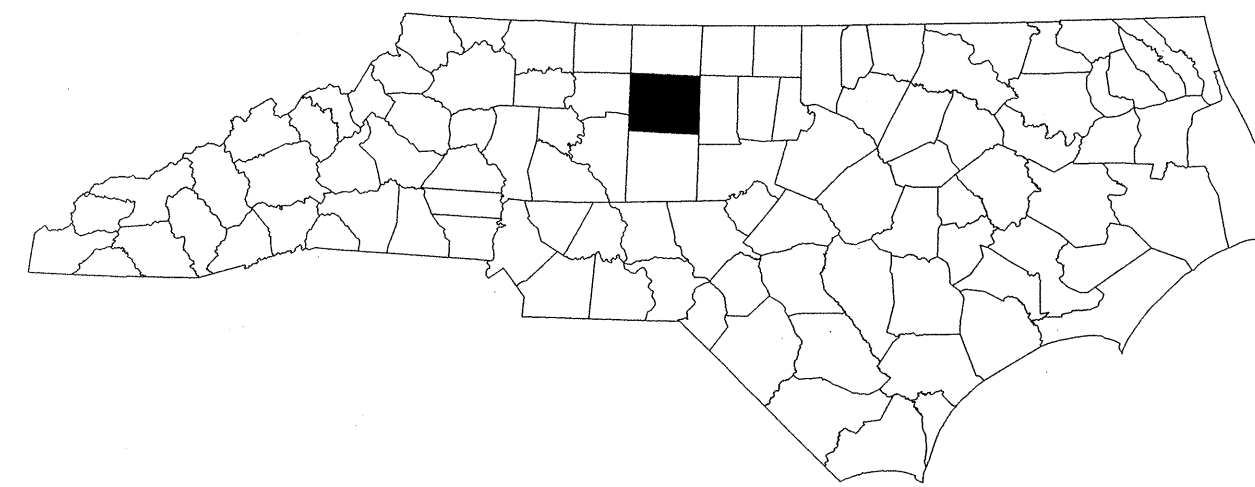


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**GUILFORD COUNTY**



SKETCH MAP SHOWING THE VICINITY  
OF STATE PROJECT U-2524C

**INDEX OF SHEETS**

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING
TMP-1B & C	GENERAL NOTES AND LOCAL NOTES
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2A	TEMPORARY SHORING DATA
TMP-3 THRU 3C	PHASING
TMP-4 THRU 5	PROJECT LAYOUT
TMP-6 THRU 25	TEMPORARY TRAFFIC CONTROL DETAILS

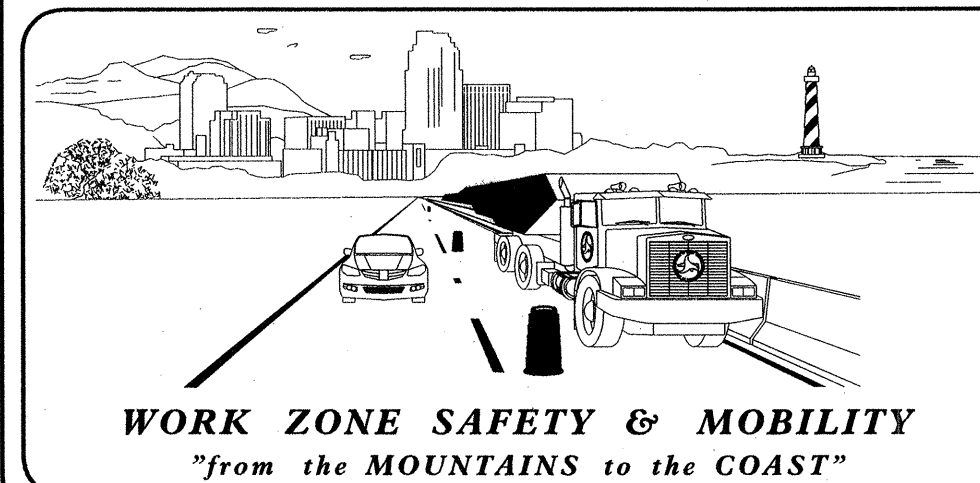
SHEET NO.

TMP-1

**TIP PROJECT: U-2524C**

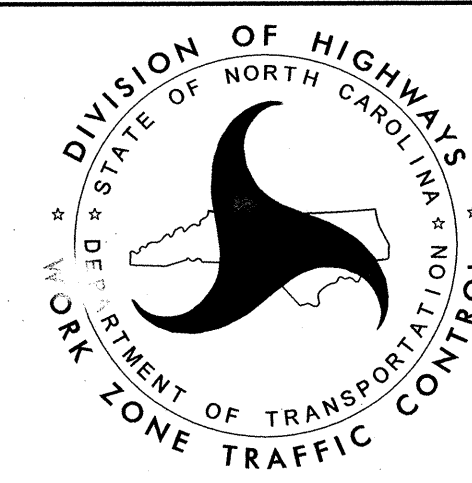
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**N.C.D.O.T. WORK ZONE TRAFFIC CONTROL**  
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561  
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)  
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, PE STATE TRAFFIC MANAGEMENT ENGINEER  
J. S. KITE, Jr., PE TRAFFIC CONTROL PROJECT ENGINEER  
D. W. BISSETTE, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
TRAFFIC CONTROL DESIGN ENGINEER



PLANS PREPARED BY:  
**PARSONS**  
RALEIGH, NORTH CAROLINA  
FOR NORTH CAROLINA DEPT. OF TRANSPORTATION

APPROVED: *Jeremy D. Hei*  
DATE: 6-11-13

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:

<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSSES
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	DRUMS
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	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMP
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.

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

### TRAFFIC CONTROL DEVICES

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

### TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

### SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

### PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

### PAVEMENT MARKERS

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

### PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

### TEMPORARY PAVEMENT MARKING

- TAPE (4")
- CA 4" WHITE EDGE LINE (COLD APPLIED PLASTIC, TYPE IV)
- CI 4" YELLOW DOUBLE CENTER (COLD APPLIED PLASTIC, TYPE IV)
- PAINT (4")
- P8 2 FT. - 6 FT./SP WHITE MINISKIP
- PA WHITE EDGELINE
- PB YELLOW EDGELINE
- PC 10 FT WHITE SKIP
- PD 3 FT. - 9 FT./SP WHITE MINISKIP
- PE WHITE SOLID LANE LINE
- PI YELLOW DOUBLE CENTER
- PAINT (8")
- PP YELLOW DIAGONAL
- PAINT (24")
- P2 WHITE STOPBAR
- P3 WHITE CROSSWALK LINE

APPROVED: <i>Jonathan D. Poirier</i> DATE: 6-11-13 		<b>ROADWAY STANDARD DRAWINGS &amp; LEGEND</b>
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# MANAGEMENT STRATEGIES

CONSTRUCTION WILL BE PHASED SO THAT ALL -Y- LINE TRAFFIC WILL BE MAINTAINED.

DRIVEWAYS AND -Y- LINES WILL BE MAINTAINED

DURING CONSTRUCTION OF THE PROJECT, THE DRIVEWAYS TO FIRE STATION, SCHOOL, AND ACADEMY WILL BE KEPT OPEN AT ALL TIMES. NO EQUIPMENT OR MATERIALS WILL BE PARKED OR PLACED ON THESE PROPERTIES AT ANY TIME.

## 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.

### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANE AS FOLLOWS:	DAY AND TIME RESTRICTIONS
SR 2085 (Bryan Blvd.)	Monday through Sunday 7:00 a.m. to 7:00 p.m.
SR 2136 (Fleming Rd.)	Monday through Friday 7:00 a.m. to 9:00 a.m. 3:00 p.m. to 7:00 p.m.
SR 2182 (Horse Pen Creek Rd.)	Monday through Friday 7:00 a.m. to 9:00 a.m. 3:00 p.m. to 7:00 p.m.
US 220 (Battleground Ave)	Monday through Sunday 7:00 a.m. to 7:00 p.m.

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

ROAD NAME
SR 2126 (Bryan Blvd.)
SR 2136 (Fleming Rd)
SR 2182 (Horse Pen Creek Rd)
US-220 (Battleground Ave)

### 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 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND.
- FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) 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

- D) 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.
- E) 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.
- F) 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.
- G) 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.
- H) 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

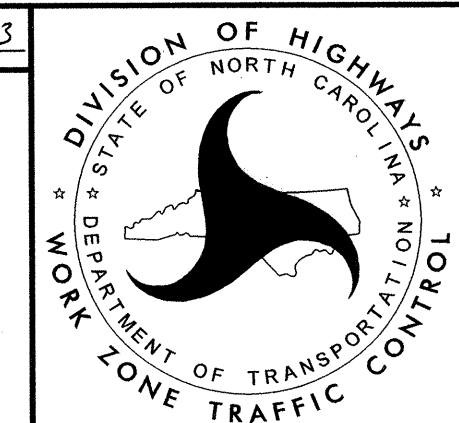
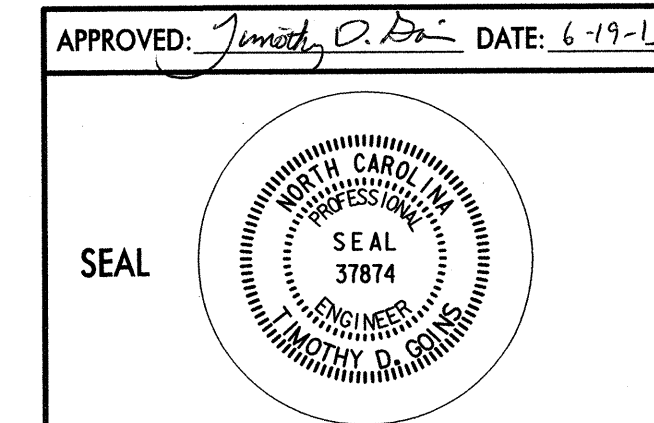
- I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 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.
- J) 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) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

- L) 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.
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- N) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.



# TRANSPORTATION OPERATIONS PLAN

## GENERAL NOTES

### TRAFFIC BARRIER

O) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL 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 TRAFFIC CONTROL 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 TRAFFIC CONTROL 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.

P) 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 IMPACT 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:

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

Q) 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.

R) 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

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMPORARY

T) 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.

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

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

### MISCELLANEOUS

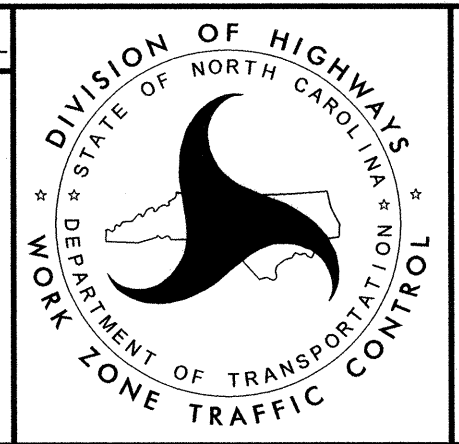
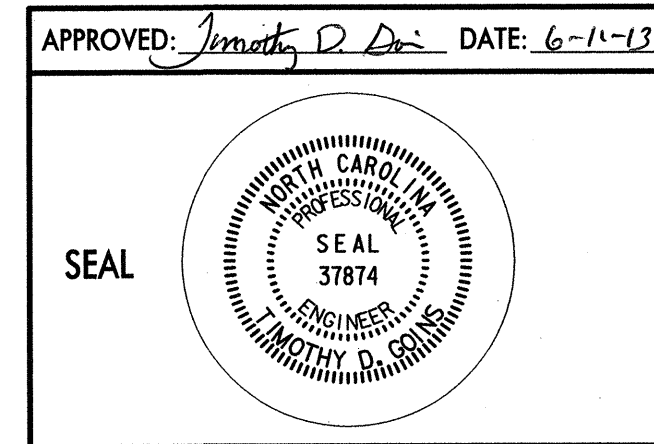
W) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

X) 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) 250' AND 500' RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

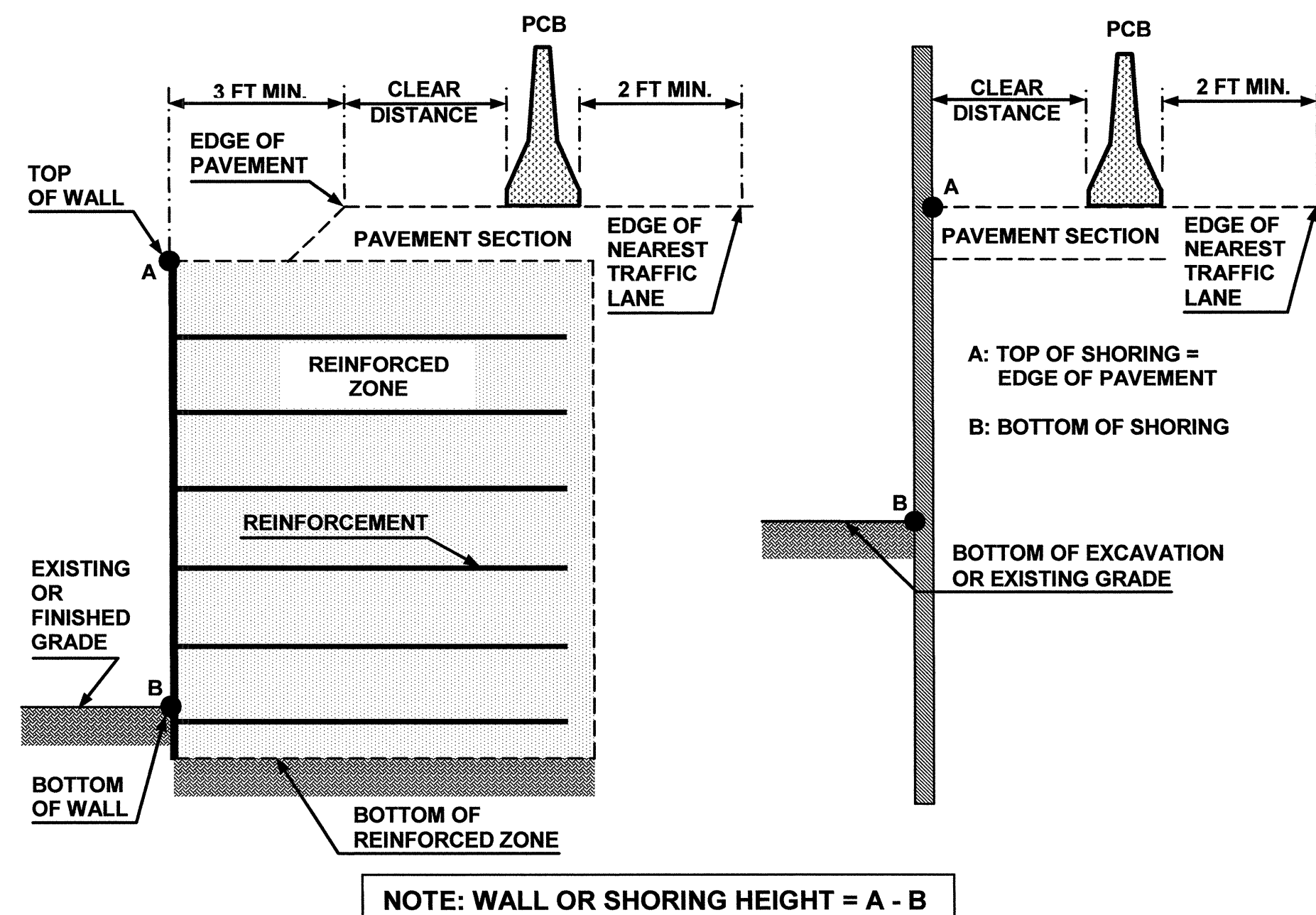
Y) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

Z) 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.).

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**TRANSPORTATION  
 OPERATIONS  
 PLAN**



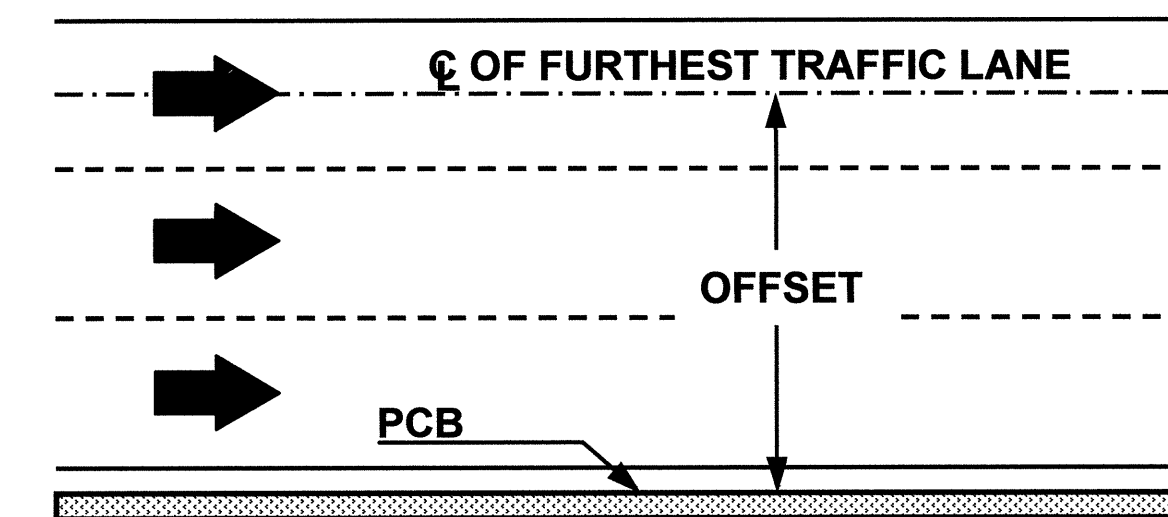
## FIGURE A

### NOTES

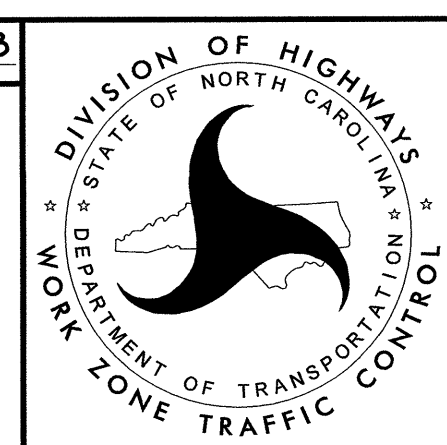
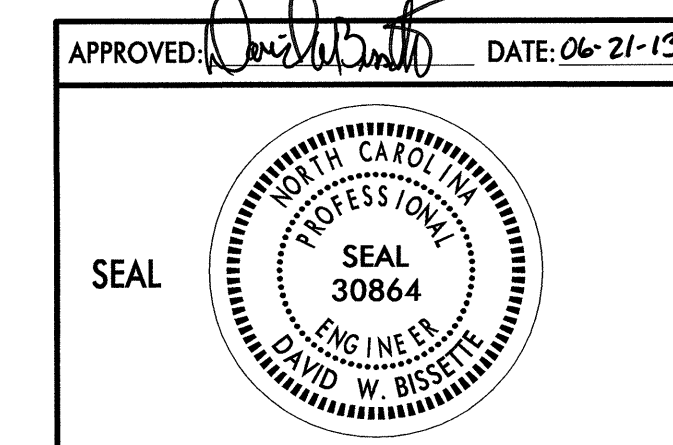
- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE 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.

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



PORTABLE CONCRETE BARRIER  
AT  
TEMPORARY SHORING LOCATIONS

# TEMPORARY SHORING DATA

## SHORING LOCATION NO. 1

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

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

DESIGN TEMPORARY SHORING FROM STATION 21+24± -Y2-, 5.0 FT RIGHT, TO STATION 24+49± -Y2-, 5.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUND WATER ELEVATION = 826.5 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 21+24± -Y2-, 5.0 FT RIGHT, TO STATION 24+49± -Y2-, 5.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 21+24± -Y2-, 5.0 FT RIGHT, TO STATION 24+49± -Y2-, 5.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 21+24± -Y2-, 5.0 FT RIGHT, TO STATION 24+49± -Y2-, 5.0 FT RIGHT.

## SHORING LOCATION NO. 2

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

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

DESIGN TEMPORARY SHORING FROM STATION 21+24± -Y2-, 0.0 FT RIGHT, TO STATION 21+42± -Y2-, 0.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUND WATER ELEVATION = 826.5 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 21+24± -Y2-, 0.0 FT RIGHT, TO STATION 21+42± -Y2-, 0.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 21+24± -Y2-, 0.0 FT RIGHT, TO STATION 21+42± -Y2-, 0.0 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 21+24± -Y2-, 0.0 FT RIGHT, TO STATION 21+42± -Y2-, 0.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

## SHORING LOCATION NO. 3

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

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

DESIGN TEMPORARY SHORING FROM STATION 24+25± -Y2-, 0.0 FT RIGHT, TO STATION 24+49± -Y2-, 0.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
 FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
 COHESION ( $c$ ) = 0 LB/SF  
 GROUND WATER ELEVATION = 826.5 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 24+25± -Y2-, 0.0 FT RIGHT, TO STATION 24+49± -Y2-, 0.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

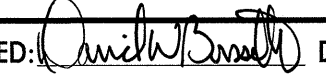

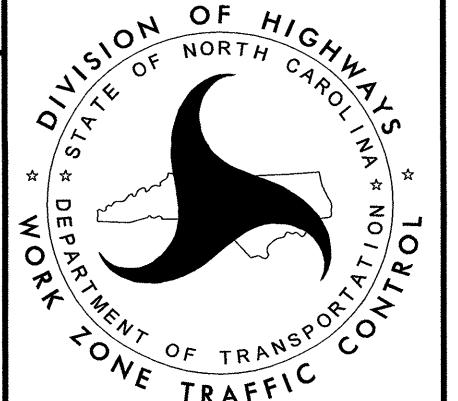
DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 24+25± -Y2-, 0.0 FT RIGHT, TO STATION 24+49± -Y2-, 0.0 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 24+25± -Y2-, 0.0 FT RIGHT, TO STATION 24+49± -Y2-, 0.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

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 MAY 2, 2013 AND SEALED BY PROFESSIONAL ENGINEER, JAMES R BATTS, JR., P.E., LICENSE # 18899.

6/18/2013 10:00:00 AM C:\Users\jrbatts\Documents\Projects\U2524C\TrafficControl\Top\U-2524C-Tc-TMP-2A.dgn User: jrbatts

APPROVED:  DATE: 06-18-13			<b>TEMPORARY SHORING NOTES</b>
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7/2/99

# AREA 1

## MAINLINE (-L-) FROM STA. 217+15 +/- TO STA. 417+69, INCLUDING RAMPS & ONEIDA RD (-Y1-)

### PHASE I

STEP 1:  
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01 SHEET 1, 2, AND 3 OF 3.  
INSTALL TYPE III BARRICADE ON ALL STUBBED OUT RAMPS AND LOOPS AT BRYAN BLVD INTERCHANGE AS SHOWN ON TMP-4.

STEP 2:  
AWAY FROM TRAFFIC, BEGIN CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- L- FROM STA. 217+15 +/- TO STA. 271+50 +/-
- L- FROM STA. 276+00 +/- TO STA. 329+00 +/-
- L- FROM STA. 334+50 +/- TO STA. 379+45 +/-
- L- FROM STA. 421+53 +/- TO STA. 422+45 +/-
- RPA- FROM STA. 32+81 +/- TO STA. 45+28 +/-
- CD- FROM STA. 67+25 +/- TO STA. 93+92 +/-
- LPB- FROM STA. 3+90 +/- TO STA. 12+73 +/-
- RPBD- FROM STA. 32+80 +/- TO STA. 51+09 +/- (BEGIN BRIDGE)
- RPBD- FROM STA. 54+09 +/- (END BRIDGE) TO STA. 61+59 +/- (BEGIN BRIDGE)
- RPD- FROM STA. 32+83 +/- TO STA. 64+89 +/-
- RPAY4- FROM STA. 14+56 +/- TO STA. 17+93 +/-
- RPDY4- FROM STA. 13+69 +/- TO STA. 16+23 +/-
- SPAY4- FROM STA. 0+00 +/- TO STA. 3+19 +/-
- SPDY4- FROM STA. 0+00 +/- TO STA. 2+20 +/-
- SPBY4- FROM STA. 0+00 +/- TO STA. 3+50 +/-
- RPBY4- FROM STA. 7+68 +/- TO STA. 11+35 +/-
- SPCY4- FROM STA. 0+00 +/- TO STA. 4+02 +/-
- RPCY4- FROM STA. 8+29 +/- TO STA. 11+78 +/-

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

- L- FROM STA. 379+45.00 LT TO STA. 383+60 LT
- L- FROM STA. 379+45.00 RT TO STA. 383+60 RT
- L- FROM STA. 390+44 +/- LT/RT TO STA. 402+88 +/- LT/RT
- L- FROM STA. 411+25 +/- LT/RT TO STA. 421+69 +/- LT/RT
- RPAY4- FROM STA. 04+50.43 TO STA. 14+56.22
- RPBY4- FROM STA. 00+00.00 TO STA. 07+68.14
- RPCY4- FROM STA. 00+00.00 TO STA. 08+29.75
- RPDY4- FROM STA. 05+81.20 TO STA. 13+69.35

CLOSE -Y1- (ONEIDA RD) ACCESS AT -L- MAINLINE AND BEGIN CONSTRUCTION UP TO AND INCLUDING THE FINAL LAYER AT -Y1- STA. 10+63 +/- (CUL-DE-SAC)

### PHASE II

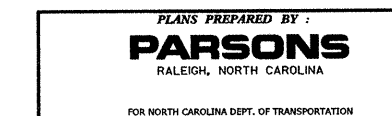
ALL WORK WILL BEGIN UPON COMPLETION OF AREAS 1 THROUGH 5 UP TO THE FINAL LAYER OF SURFACE COURSE AND TRAFFIC IS IN FINAL PATTERNS.

STEP 1:  
AWAY FROM TRAFFIC, PLACE THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- L- FROM STA. 217+15 +/- TO STA. 379+45 +/-
- RPA- FROM STA. 32+81 +/- TO STA. 45+28 +/-
- CD- FROM STA. 67+25 +/- TO STA. 93+92 +/-
- LPB- FROM STA. 3+90 +/- TO STA. 12+73 +/-
- RPBD- FROM STA. 32+83 +/- TO STA. 57+09 +/-
- RPBD- FROM STA. 54+09 +/- TO STA. 61+59 +/-
- RPD- FROM STA. 32+80 +/- TO STA. 64+89 +/-
- RPAY4- FROM STA. 14+56 +/- TO STA. 17+93 +/-
- RPDY4- FROM STA. 13+69 +/- TO STA. 16+23 +/-
- SPAY4- FROM STA. 0+00 +/- TO STA. 3+19 +/-
- SPDY4- FROM STA. 0+00 +/- TO STA. 2+20 +/-
- SPBY4- FROM STA. 0+00 +/- TO STA. 3+50 +/-
- RPBY4- FROM STA. 7+68 +/- TO STA. 11+35 +/-
- SPCY4- FROM STA. 0+00 +/- TO STA. 4+02 +/-
- RPCY4- FROM STA. 8+29 +/- TO STA. 11+78 +/-

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 13 OF 15 AS NEEDED, PLACE FINAL PAVEMENT MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS ON ALL REMAINING ALIGNMENTS

STEP 3:  
UPON PROJECT ACCEPTANCE BY THE ENGINEER, OPEN ALL ROADWAYS TO FINAL TRAFFIC PATTERN



PROJ. REFERENCE NO.	SHEET NO.
U-2524C	TMP-3

# AREA 2

## FLEMING RD (-Y-) SEE TMP-6 THRU TMP-9

### PHASE I

MAINTAIN TRAFFIC IN EXISTING TWO LANE - TWO WAY PATTERN ON -Y-.

STEP 1:  
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3.

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING:

INSTALL DRUMS AND BARRICADES AS SHOWN ON TMP-6

CONSTRUCT -YDTR- FROM STA. 11+99 +/- TO STA. 24+58 UP TO THE EXISTING EDGE AND ELEVATION.

STEP 3:

USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

TIE -YDTR- INTO THE EXISTING ROADWAY

REMOVE THE TRAFFIC CONTROL DEVICES ON -YDTR-

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -YDTR- FROM STATION 11+99 +/- TO STATION 24+58 +/- AS SHOWN ON TMP-8. REMOVE ANY CONFLICTING MARKINGS ON -Y-

USING ROADWAY STANDARD DRAWING 1101.03 SHEET 3 OF 9 INSTALL TRAFFIC CONTROL DEVICES, SHIFT TRAFFIC TO A TWO-LANE, TWO-LANE PATTERN ON -YDTR- AND CLOSE THE EXISTING -Y- AS SHOWN ON TMP-8.

### PHASE II

MAINTAIN TRAFFIC ON TWO LANE - TWO WAY PATTERN ON -YDTR-

STEP 1:  
USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING:

CONSTRUCT THE PROPOSED -Y- ROADWAY SECTION UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM STA. 19+50 +/- TO STA. 23+61.33 AND FROM STA. 26+01.08 TO STA. 31+50 +/-

CONSTRUCT PROPOSED -Y- STRUCTURE FROM STA. 23+61.33 TO STA. 26+01.08

STEP 2:  
INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN AS SHOWN IN THE PAVEMENT MARKING PLANS ALONG -Y- FROM STA. 21+00.00 TO STA. 28+50.00.

REMOVE SIGNS AND DEVICES CLOSING -Y- AND SHIFT TRAFFIC FROM -YDTR- ONTO -Y- IN THE FINAL PATTERN

INSTALL DRUMS AND BARRICADES CLOSING DETOUR AS PREVIOUSLY PLACED IN PHASE I.

### PHASE III

MAINTAIN TRAFFIC IN A TWO LANE - TWO WAY PATTERN ON -Y-

STEP 1:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AND FLAGGERS AS NEEDED, REMOVE -YDTR- AND COMPLETE CONSTRUCTION OF PROPOSED -Y-

STEP 2:  
CONSTRUCT PROPOSED -L- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM STA. 271+50 +/- TO STA. 276+00 +/-

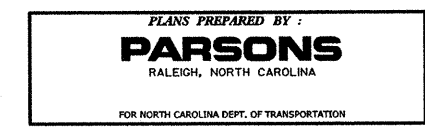
STEP 3:  
FROM -Y- STA. 17+37.08 TO 31+57.39, PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PERMANENT PAVEMENT MARKINGS (SEE PAVEMENT MARKING PLANS) ON -Y-.

OPEN -Y- TO THE FINAL TRAFFIC PATTERN

APPROVED: <i>Imuth, D. B.</i> DATE: 6-11-13		PHASING

10-JUN-2013 10:51 U:\U-2524C\TrafFicControl\TCP\TMP\_CK\_PLANS\U-2524C\_TC\_TCP\_03.dgn \$\$\$USERNAME\$\$\$

7/2/99



PROJ. REFERENCE NO.	SHEET NO.
U-2524C	TMP-3A

# AREA 3

## HORSEPEN CREEK RD (-Y2-)

### (SEE TMP-10 THRU TMP-15)

#### PHASE I

MAINTAIN TRAFFIC IN EXISTING 2 LANE - 2 WAY PATTERN.

STEP 1:  
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3.

INTERMEDIATE CONTRACT TIME: THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED OF PHASE 1 STEP 2 IN 3 CONSECUTIVE CALENDAR DAYS.

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE INSTALLATION OF COMMUNICATIONS CABLE AS SHOWN ON THE ITS AND SIGNALS PLAN SHEETS 27 THRU 30.

STEP 3:  
USING ROADWAY STANDARD DRAWING 1101.04, CLOSE THE SHOULDER RT OF -Y2- FROM STA. 17+80 +/- TO STA. 28+03 +/-

USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, CONSTRUCT -Y2DTR- FROM STA. 17+80 +/- TO STA. 28+03 +/- UP TO THE EXISTING EDGE AND ELEVATION

STEP 4:  
USING ROADWAY STANDARD DRAWING 1101.03 SHEET 3 OF 9 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

TIE -Y2DTR- INTO THE EXISTING ROADWAY

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y2DTR- FROM STA. 17+80 +/- TO STA. 28+01 +/- AS SHOWN ON TMP-12. REMOVE ANY CONFLICTING MARKINGS ON -Y2-

SHIFT EXISTING TRAFFIC TO A TWO-LANE TWO-WAY PATTERN ON -Y2DTR-

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9 AND CLOSE -Y2- TO TRAFFIC AS SHOWN ON TMP-12.

#### PHASE II

MAINTAIN TRAFFIC IN A TWO LANE - TWO WAY PATTERN ON -Y2DTR-.

STEP 1:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, PERFORM THE FOLLOWING WORK AS SHOWN ON TMP-12:

INSTALL PORTABLE CONCRETE BARRIER RT OF -Y2- FROM 5.4' +/- RT OF STA. 20+00 +/- TO 8.2' +/- RT OF STA. 25+50 +/-

STEP 2:  
WORKING BEHIND PORTABLE CONCRETE BARRIER, AND USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, INSTALL TEMPORARY SHORING LOCATION 1, 5.0' +/- RT OF -Y2- FROM STA. 21+24 +/- TO STA. 24+49 +/-

STEP 3:  
WORKING BEHIND PORTABLE CONCRETE BARRIER AND USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 15 AS NEEDED, PERFORM THE FOLLOWING WORK:

CONSTRUCT THE LEFT SIDE OF THE STRUCTURE ON -Y2-

CONSTRUCT THE APPROACH ROADWAY UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- Y2- FROM STA. 15+50 +/- TO STA. 21+41 +/- (BEGIN BRIDGE)
- Y2- FROM STA. 24+25 +/- (END BRIDGE) TO STA. 28+00 +/-

INSTALL TEMPORARY SHORING LOCATION 2, 0.0' +/- RT OF -Y2- STA. 21+24 +/- TO 0.0' +/- RT OF -Y2- STA. 21+42 +/-

INSTALL TEMPORARY SHORING LOCATION 3, 0.0' +/- RT OF -Y2- STA. 24+25 +/- TO 0.0' +/- RT OF -Y2- STA. 24+49 +/-

STEP 4:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, AND WORKING IN A CONTINUOUS MANNER, COMPLETE THE FOLLOWING AS SHOWN ON TMP-14:

INSTALL PORTABLE CONCRETE BARRIER AT THE FOLLOWING LOCATION:

1' +/- LT OF -Y2- FROM STA. 20+00 +/- TO 2.5' +/- RT OF -Y2- STA. 25+50 +/-

INSTALL TEMPORARY PAVEMENT MARKINGS IN THE TEMP PATTERN ON -Y2- AS SHOWN ON TMP-14.

#### PHASE II (CONT'D)

REMOVE SIGNS AND DEVICES CLOSING -Y2- AND SHIFT TRAFFIC ONTO -Y2- IN THE TEMP PATTERN AS SHOWN ON TMP-14.

INSTALL SIGNS FOR TEMPORARY PATTERN ON -Y2-

#### PHASE III

MAINTAIN TRAFFIC IN THE TEMP PATTERN AS SHOWN ON TMP-14

STEP 1:  
REMOVE PORTABLE CONCRETE BARRIER USED IN PHASE II STEP 1.

WORKING BEHIND PORTABLE CONCRETE BARRIER AND USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, CONSTRUCT THE RIGHT SIDE OF THE STRUCTURE ON -Y2-

CONSTRUCT THE APPROACH ROADWAY TO THE EXISTING EDGE AND ELEVATION AND UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- Y2- FROM STA. 16+03 +/- TO STA. 19+74 +/-
- Y2- FROM STA. 25+77 +/- TO STA. 28+00 +/-

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS FASHION:

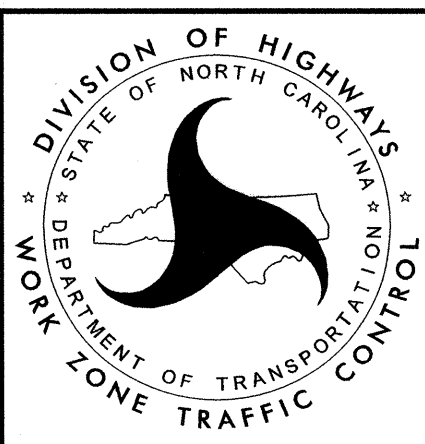
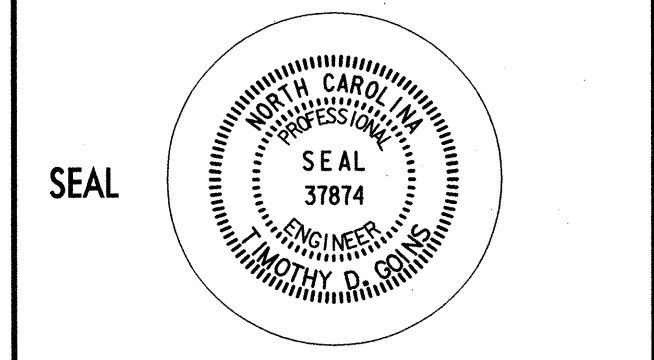
REMOVE PORTABLE CONCRETE BARRIER ALONG -Y2- USED IN PHASE II STEP 4. PLACE THE FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS ALONG -Y2-. (SEE PAVEMENT MARKING PLANS)

PLACE TRAFFIC IN FINAL PATTERN IN -Y2-

CONSTRUCT PROPOSED -L- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM STA. 329+00 +/- TO STA. 334+50 +/-

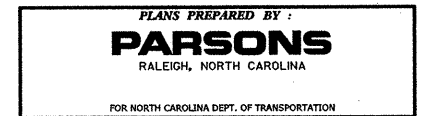
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\$\$\$\$\$USERNAME\$\$\$\$\$

APPROVED: *Jessie R. Davis* DATE: 6-19-13



PHASING





PROJ. REFERENCE NO.	SHEET NO.
U-2524C	TMP-3B

# AREA 4

## DRAWBRIDGE PKWY (-Y3-)

### (SEE TMP-16 THRU TMP-18)

#### PHASE I

MAINTAIN TRAFFIC IN EXISTING 2 LANE - 2 WAY PATTERN.

STEP 1:  
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3.

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, PERFORM THE FOLLOWING WORK AS SHOWN ON TMP-16A:

INSTALL DRUMS

BEGIN CONSTRUCTION UP TO THE EXISTING EDGE AND ELEVATION AND UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE OF THE FOLLOWING:

- Y3- FROM STA. 17+00 +/- TO STA. 42+20 +/-
- DRV1- FROM STA. 10+22 +/- TO STA. 13+02 +/-
- DRV4- FROM STA. 10+50 +/- TO STA. 11+00 +/-
- DRV5- FROM STA. 10+25 +/- TO STA. 11+00 +/-

CONSTRUCT -Y3DET- UP TO THE EXISTING EDGE AND ELEVATION FROM STA. 11+82 +/- TO STA. 19+46 +/-

STEP 3:

USING ROADWAY STANDARD DRAWING 1101.03 SHEET 3 OF 9 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

COMPLETE AND TIE -Y3DET- INTO THE EXISTING ROADWAY

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y3DET- FROM STA. 10+50 +/- TO STA. 21+00 +/- . REMOVE ANY CONFLICTING MARKINGS ON DRAWBRIDGE PARKWAY.

SHIFT EXISTING TRAFFIC TO A TWO-LANE, TWO-WAY PATTERN ON -Y3DET-

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9 AND CLOSE -Y3- TO TRAFFIC AS SHOWN ON TMP-17A.

#### PHASE II

MAINTAIN TRAFFIC IN A TWO LANE - TWO WAY PATTERN ON -Y3DET-

STEP 1:  
CONSTRUCT THE PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

- L- FROM STA. 383+60 +/- LT TO STA. 388+00 +/- LT
- L- FROM STA. 383+60 +/- RT TO STA. 386+83 +/- RT

STEP 2:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, REMOVE THE EXISTING PAVEMENT ON -Y3- AS SHOWN ON TMP-17A.

STEP 3:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, PLACE TEMPORARY PAVEMENT MARKERS AND MARKINGS IN THE FINAL PATTERN AS SHOWN IN THE PAVEMENT MARKING PLANS ALONG -Y3- FROM STA. 17+00 +/- TO STA. 42+20 +/- .

REMOVE SIGNS AND DEVICES CLOSING -Y3- AND SHIFT TRAFFIC FROM -Y3DET- ONTO -Y3- IN THE FINAL PATTERN AS SHOWN ON TMP-18.

STEP 4:  
PLACE THE FINAL LAYER OF SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS (SEE PAVEMENT MARKING PLANS) ON -Y3- .

OPEN -Y3- TO THE FINAL TRAFFIC PATTERN.

#### PHASE III

MAINTAIN TRAFFIC ON TWO LANE - TWO WAY PATTERN ON -Y3-

STEP 1:  
USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

REMOVE -Y3DET-

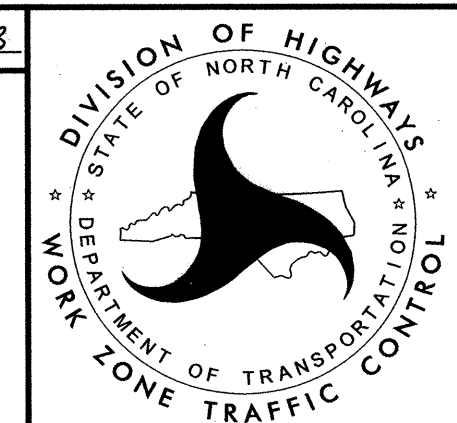
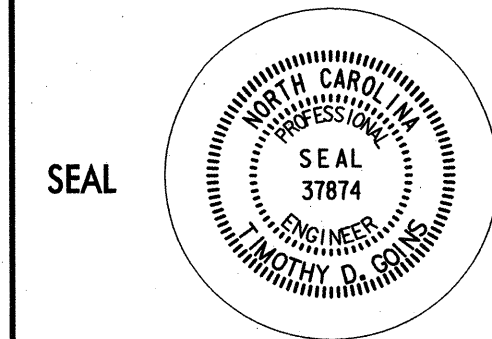
CONSTRUCT THE PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

- L- FROM STA. 388+00 +/- LT TO STA. 390+44 +/- LT
- L- FROM STA. 386+83 +/- RT TO STA. 390+44 +/- RT

7/2/99

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\$\$\$\$\$USERNAME\$\$\$\$\$

APPROVED: *Imothy D. De...* DATE: 6-11-13



PHASING

# AREA 5

## BATTLEGROUND AVE -Y4-

### SEE TMP-19 THRU TMP-25)

### PHASE I

MAINTAIN TRAFFIC IN EXISTING PATTERN.

STEP 1:  
 INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3.

STEP 2:  
 PLACE ADVANCE WARNING SIGNS STATING "SIDEWALK CLOSED AHEAD" ON THE LEFT AND RIGHT SIDE OF -Y4- PRIOR TO EACH INTERSECTION AT DRAWBRIDGE PARKWAY AND COTSWOLD AVENUE. THEN CLOSE THE SIDEWALK ON THE LEFT AND RIGHT SIDE OF -Y4- BETWEEN DRAWBRIDGE PARKWAY AND COTSWOLD AVENUE.

STEP 3:  
 USING ROADWAY STANDARD DRAWING 1101.03 SHEET 3 OF 9 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y4- FROM STA. 18+50 +/- TO STA. 37+50 +/- . REMOVE ANY CONFLICTING MARKINGS ON -Y4- .

INSTALL ANCHORED CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS ALONG THE LEFT AND RIGHT SIDE OF -Y4- AS SHOWN ON TMP-19.

SHIFT EXISTING TRAFFIC TO A FOUR LANE, TWO WAY PATTERN AS SHOWN ON TMP-19.

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9.

STEP 4:  
 USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING:

CONSTRUCT UP TO AND INCLUDING THE EXISTING EDGE AND ELEVATION INCLUDING TEMPORARY SINGLE FACED BARRIER (SEE TMP-19) ADJACENT TO BENTS:

-Y4DET\_LT- FROM STA. 11+46 +/- TO STA. 19+25 +/-  
 -Y4DET\_RT- FROM STA. 11+22 +/- TO STA. 18+98 +/-

CONSTRUCT TEMPORARY BENTS LEFT AND RIGHT OF -Y4- AS SHOWN ON TMP-19.

STEP 5:  
 BEGIN WEDGING AND WIDENING UP TO FLUSH WITH THE TOP OF EXISTING PAVEMENT AT THE FOLLOWING LOCATION:

-Y4- FROM STA. 26+70 +/- TO STA. 29+00 +/- LEFT  
 -Y4- FROM STA. 28+10 +/- TO STA. 31+70 +/- RIGHT

STEP 6:  
 CONSTRUCT THE PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

-L- FROM STA. 402+88 +/- TO (TEMP. BENT 1) STA. 407+00 +/- LT  
 -L- FROM STA. 402+88 +/- TO (TEMP. BENT 1) STA. 407+00 +/- RT

STEP 7:  
 USING ROADWAY STANDARD DRAWING 1101.03 SHEET 3 OF 9 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y4DET\_LT- AND -Y4DET\_RT- AND TIE TO EXISTING PAVEMENT MARKINGS ON -Y4- . REMOVE ANY CONFLICTING MARKINGS ON -Y4- .

SHIFT EXISTING TRAFFIC TO A TWO LANE , ONE WAY PATTERN ON EACH DETOUR AS SHOWN ON TMP-21.

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9 AND CLOSE -Y4- TO TRAFFIC AS SHOWN ON TMP-21.

### PHASE II

MAINTAIN TRAFFIC ON -Y4DET\_LT- AND -Y4DET\_RT- IN A TWO LANE, ONE WAY PATTERN AS SHOWN ON TMP-21.

STEP 1:  
 CONSTRUCT THE PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

-L- FROM (TEMP. BENT 1)STA. 407+00 +/- TO (TEMP. BENT 2)STA. 408+33 +/- LT  
 -L- FROM (TEMP. BENT 1)STA. 407+00 +/- TO (TEMP. BENT 2)STA. 408+33 +/- RT

STEP 2:  
 USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING IN A CONTINUOUS MANNER:

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y4\_SHIFT- DETOUR FROM STA. 10+00 +/- TO STA. 18+97 +/- AS SHOWN ON TMP-23.  
 REMOVE ANY CONFLICTING MARKINGS ON -Y4- .

SHIFT EXISTING TRAFFIC ON -Y4DET\_LT- TO A TWO LANE, ONE WAY PATTERN ON -Y4\_SHIFT- DETOUR AS SHOWN ON TMP-23.

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9 AND CLOSE -Y4DET\_LT- TO TRAFFIC AS SHOWN ON TMP-23.

### PHASE III

MAINTAIN TRAFFIC IN TWO LANE, ONE WAY PATTERNS ON -Y4DET\_RT- AND -Y4\_SHIFT- DETOUR AS SHOWN ON TMP-23.

STEP 1:  
 CONSTRUCT THE PROPOSED STRUCTURES AT THE FOLLOWING LOCATIONS:

-L- FROM (TEMP. BENT 2)STA. 408+33 +/- LT TO STA. 411+25 +/-  
 -L- FROM (TEMP. BENT 2)STA. 408+33 +/- RT TO STA. 411+25 +/-

STEP 2:  
 IN A CONTINUOUS FASHION, REMOVE ANCHORED CONCRETE BARRIER ALONG THE LEFT AND RIGHT SIDE OF -Y4- USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 11 OF 15 AS NEEDED TO MAINTAIN TRAFFIC.

PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -Y4- FROM STA. 21+00 TO STA. 42+50 AS SHOWN ON TMP-25. REMOVE ANY CONFLICTING MARKINGS ON -Y4- .

SHIFT EXISTING TRAFFIC TO A FOUR LANE, TWO WAY PATTERN ON -Y4- AS SHOWN ON TMP-25.

INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON ROADWAY STANDARD DRAWING 1101.03, SHEET 3 OF 9 AND CLOSE -Y4DET\_RT- AS SHOWN ON TMP-25.

REMOVE SIGNS AND DEVICES CLOSING -Y4- AND SHIFT TRAFFIC ONTO -Y4- IN THE TEMPORARY PATTERN AS SHOWN ON TMP-25.

### PHASE IV

MAINTAIN TRAFFIC IN A FOUR LANE, TWO WAY PATTERN ON -Y4- AS SHOWN ON TMP-25.

STEP 1:  
 USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, PERFORM THE FOLLOWING:

CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

-Y4- LT FROM STA. 21+00 +/- TO STA. 26+70 +/-  
 -Y4- LT FROM STA. 29+00 +/- TO STA. 39+00 +/-  
 -Y4- RT FROM STA. 21+00 +/- TO STA. 28+10 +/-  
 -Y4- RT FROM STA. 31+70 +/- TO STA. 39+00 +/-  
 -DRV2- FROM STA. 10+50 +/- TO STA. 11+48 +/-  
 -DRV3- FROM STA. 10+75 +/- TO STA. 11+95 +/-

PLACE THE FIRST LIFT OF FINAL SURFACE COURSE THROUGHOUT THE LIMITS OF -Y4- AS SHOWN IN THE ROADWAY PLANS.

PLACE TEMPORARY PAINT PAVEMENT MARKINGS IN THE FINAL PATTERN AS SHOWN IN THE PAVEMENT MARKING PLANS ALONG -Y4- .

INSTALL THE KEYED-IN MONOLITHIC ISLANDS AS SHOWN IN THE ROADWAY PLANS.

INSTALL SIGNS FOR FINAL PATTERN ON -Y4-

REMOVE -Y4DET\_LT- AND -Y4DET\_RT- INCLUDING TEMPORARY SINGLE FACED BARRIER ADJACENT TO BENTS (SEE TMP-19) AND REMOVE TEMPORARY BENTS.

CONSTRUCT UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

-RPAY4- FROM STA. 17+93 +/- TO STA. 19+25 +/-  
 -RPBY4- FROM STA. 11+35 +/- TO STA. 13+24 +/-  
 -RPCY4- FROM STA. 11+78 +/- TO STA. 13+11 +/-  
 -RPDY4- FROM STA. 16+23 +/- TO STA. 17+42 +/-  
 -SPAY4- FROM STA. 03+19 +/- TO STA. 04+28 +/-  
 -SPBY4- FROM STA. 03+50 +/- TO STA. 05+49 +/-  
 -SPCY4- FROM STA. 04+02 +/- TO STA. 05+00 +/-  
 -SPDY4- FROM STA. 02+20 +/- TO STA. 03+60 +/-

STEP 2:  
 USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15 AS NEEDED, COMPLETE THE FOLLOWING:

PLACE THE FINAL LIFT OF SURFACE COURSE THROUGHOUT THE LIMITS OF -Y4- AS SHOWN IN THE ROADWAY PLANS.

PLACE THE FINAL PAVEMENT MARKINGS IN THE FINAL PATTERN ON -Y4- AS SHOWN IN THE PAVEMENT MARKING PLANS.

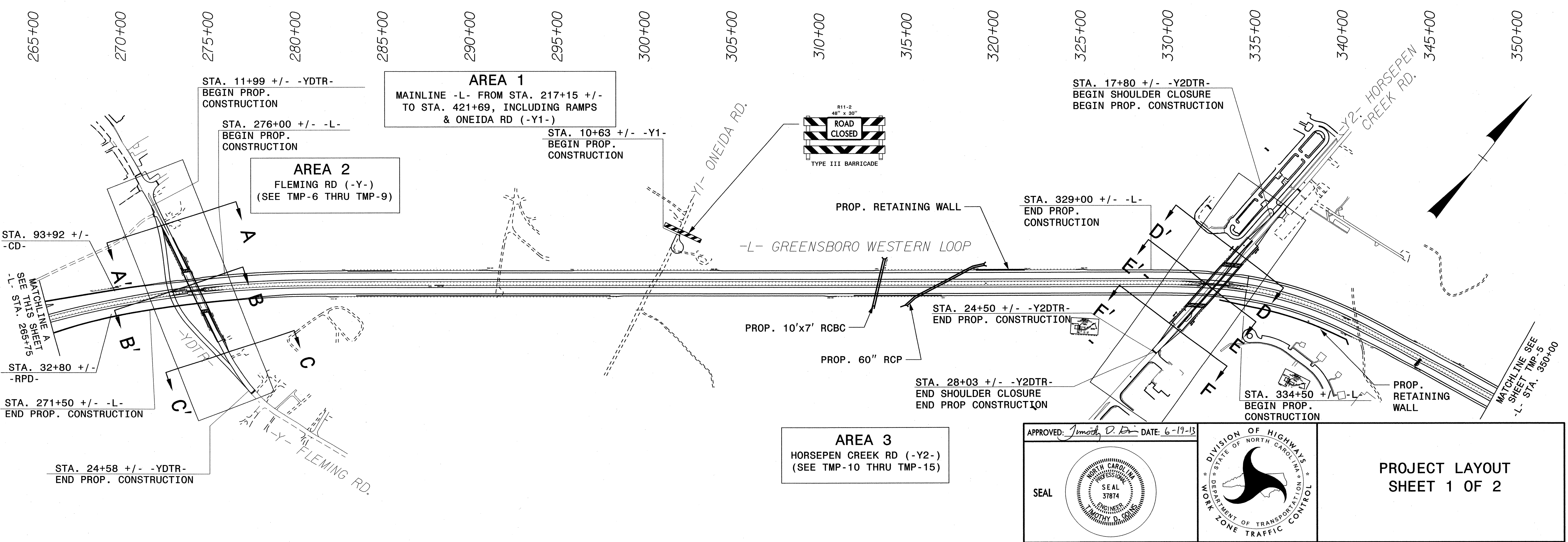
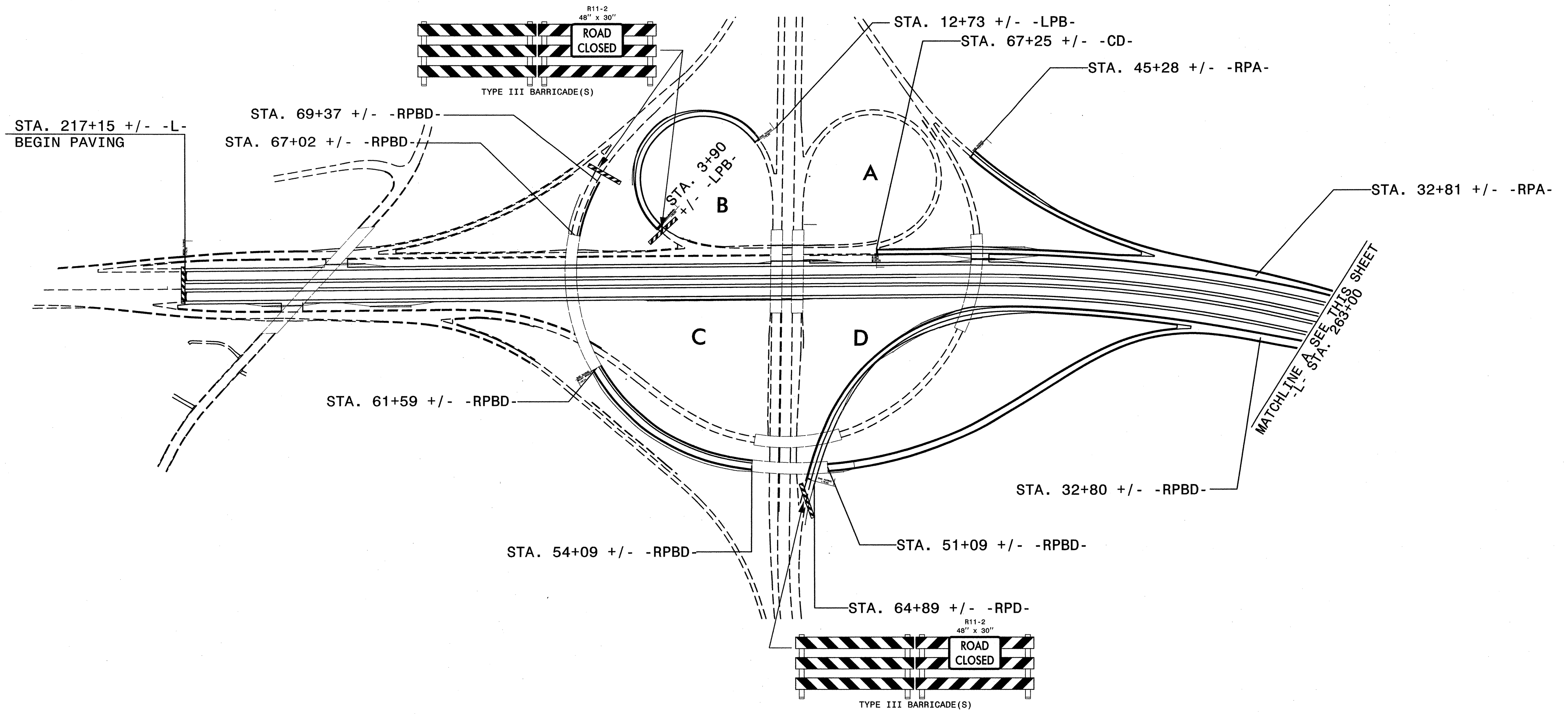
PLACE FINAL PAVEMENT MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS ON ALL REMAINING ALIGNMENTS IN PHASE IV STEP 1

STEP 3:  
 UPON PROJECT ACCEPTANCE BY THE ENGINEER, OPEN ALL ROADWAYS TO FINAL TRAFFIC PATTERN

I:\JUN-2013\030\U-2524C\TrafficControl\TCP\TMP\CK PLANS\U-2524C\_TC\_TCP\_03C.dgn  
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APPROVED: *Jessie D. Lee* DATE: *6-11-13*

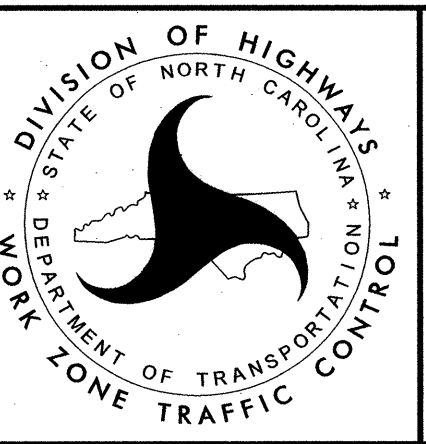
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APPROVED: *Imad D. Di* DATE: 6-19-13

SEAL



**PROJECT LAYOUT**  
 SHEET 1 OF 2

350+00 355+00 360+00 365+00 370+00 375+00 380+00 385+00 390+00 395+00 400+00 405+00 410+00 415+00 420+00 425+00 430+00 435+00

**AREA 1**  
MAINLINE -L- FROM STA. 217+15 +/- TO STA. 421+69, INCLUDING RAMPS

**AREA 4**  
DRAWBRIDGE PKWY (-Y3-) (SEE TMP-16 THRU TMP-18)

**AREA 5**  
BATTLEGROUND AVE (-Y4-) (SEE TMP-19 THRU TMP-25)

MATCHLINE SEE SHEET TMP-4  
-L- STA. 350+00

PROPOSED RETAINING WALL  
-L- GREENSBORO WESTERN LOOP

STA. 17+00 +/- -Y3-  
BEGIN PROP. CONSTRUCTION

BEGIN BRIDGE  
STA. 379+45.00 -L-

G  
-Y3- DRAWBRIDGE PKWY  
G'

STA. 11+82 +/- -Y3DTR-  
BEGIN PROP. CONSTRUCTION

STA. 19+46 +/- -Y3DTR-  
END PROP. CONSTRUCTION

STA. 20+00 +/- -Y4-  
BEGIN PROP. CONSTRUCTION

STA. 42+20 +/- -Y3-  
END PROP. CONSTRUCTION

STA. 5+49 +/- -SPBY4-  
END PROP. CONSTRUCTION

STA. 11+22 +/- -Y4DET RT-  
BEGIN PROP. CONSTRUCTION  
END BRIDGE  
STA. 7+68.14 -RPBY4-

END BRIDGE  
STA. 8+29.75 -RPCY4-

STA. 13+11 +/- -RPCY4-  
END PROP. CONSTRUCTION

STA. 5+00 +/- -SPCY4-  
END PROP. CONSTRUCTION

STA. 18+98 +/- -Y4DET RT-  
END PROP. CONSTRUCTION

STA. 41+62 +/- -Y4-  
END PROP. CONSTRUCTION

STA. 11+46 +/- -Y4DET LT-  
BEGIN PROP. CONSTRUCTION

STA. 13+24 +/- -RPBY4-  
END PROP. CONSTRUCTION

STA. 3+42 +/- -SPAY4-  
END PROP. CONSTRUCTION

STA. 19+25 +/- -RPAY4-  
END PROP. CONSTRUCTION

END BRIDGE  
STA. 14+56.22 -RPAY4-

BEGIN BRIDGE  
STA. 4+50.43 -RPAY4-

END BRIDGE  
STA. 421+53.86 -L-

END BRIDGE  
STA. 421+33.94 -L-

BEGIN BRIDGE  
STA. 5+81.20 -RPDY4-

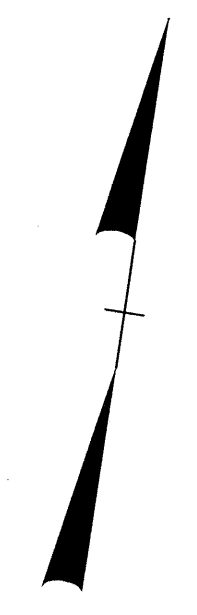
END BRIDGE  
STA. 13+69.35 -RPDY4-

STA. 16+23 +/- -RPDY4-  
END PROP. CONSTRUCTION

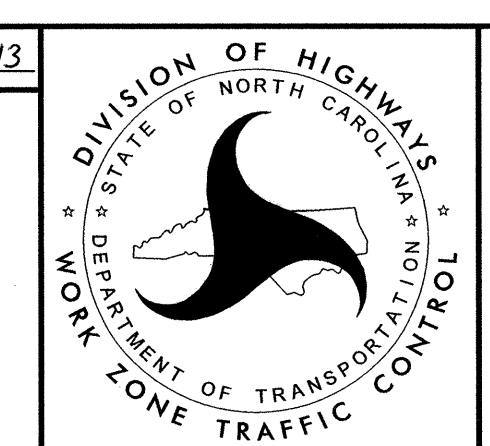
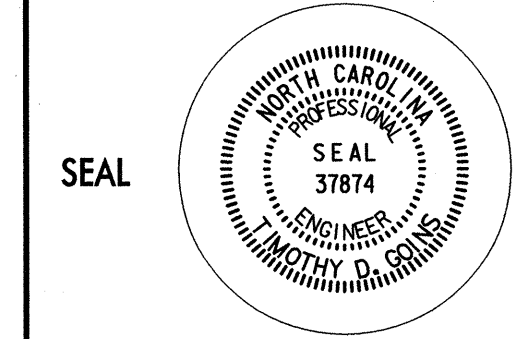
STA. 2+20 +/- -SPDY4-  
END PROP. CONSTRUCTION

STA. 18+98 +/- -Y4DET LT-  
END PROP. CONSTRUCTION

-Y4- BATTLEGROUND AVE.



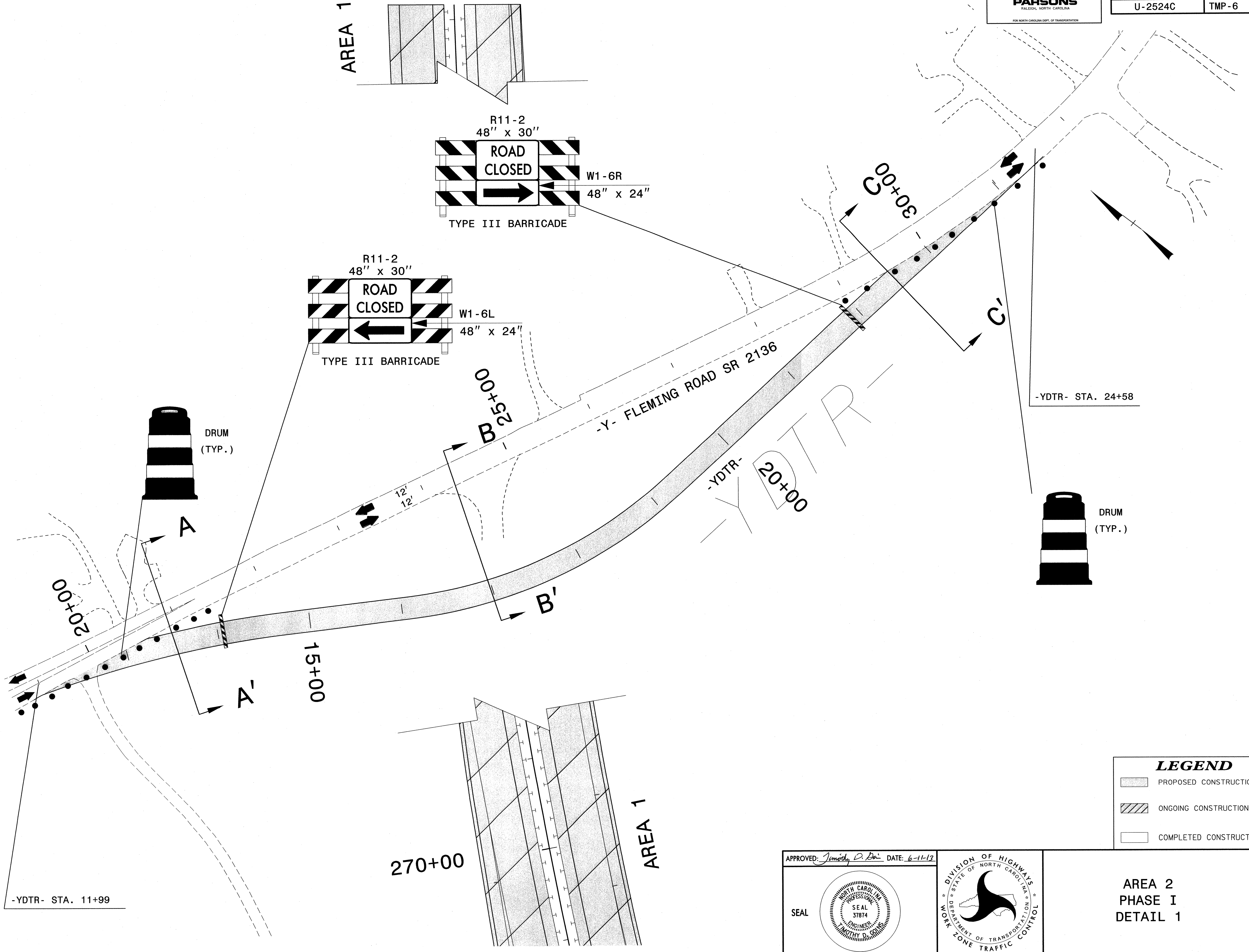
APPROVED: *Janet D. Eni* DATE: 6-11-13



**PROJECT LAYOUT**  
SHEET 2 OF 2

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7/2/99



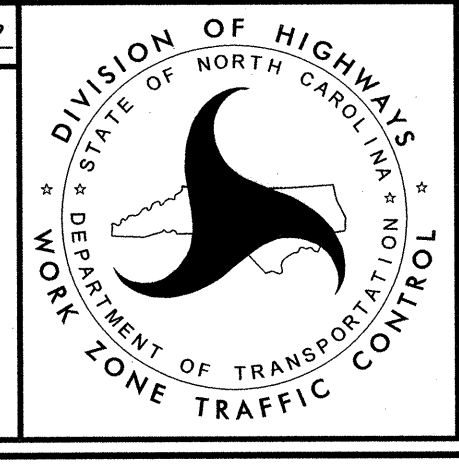
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**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

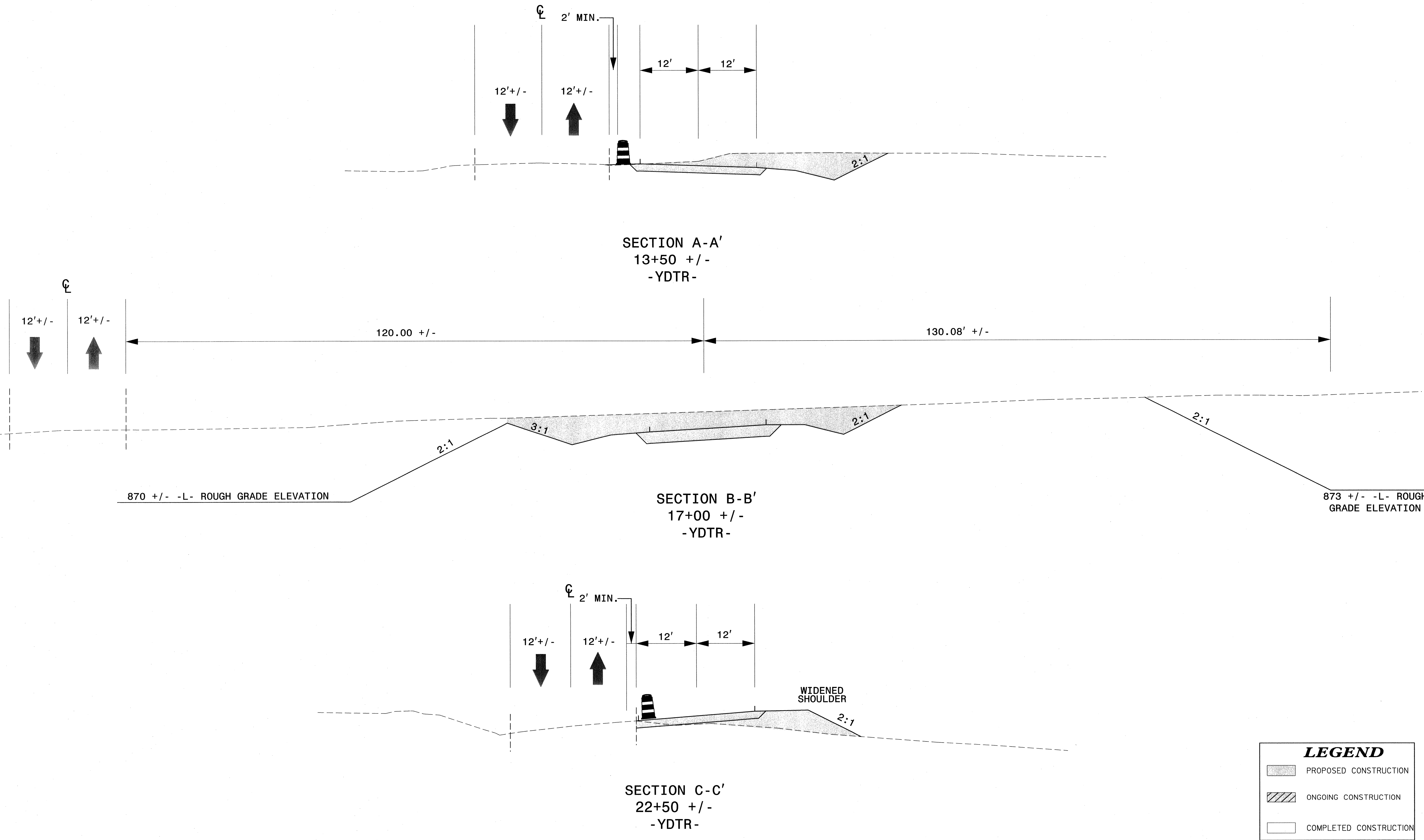
APPROVED: *Jeremy D. De...* DATE: 6-11-13

SEAL



**AREA 2  
PHASE I  
DETAIL 1**

7/2/99



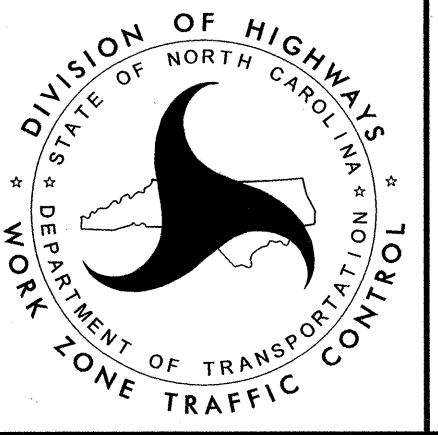
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	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

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APPROVED: *Janette D. Be...* DATE: 6-11-13

SEAL

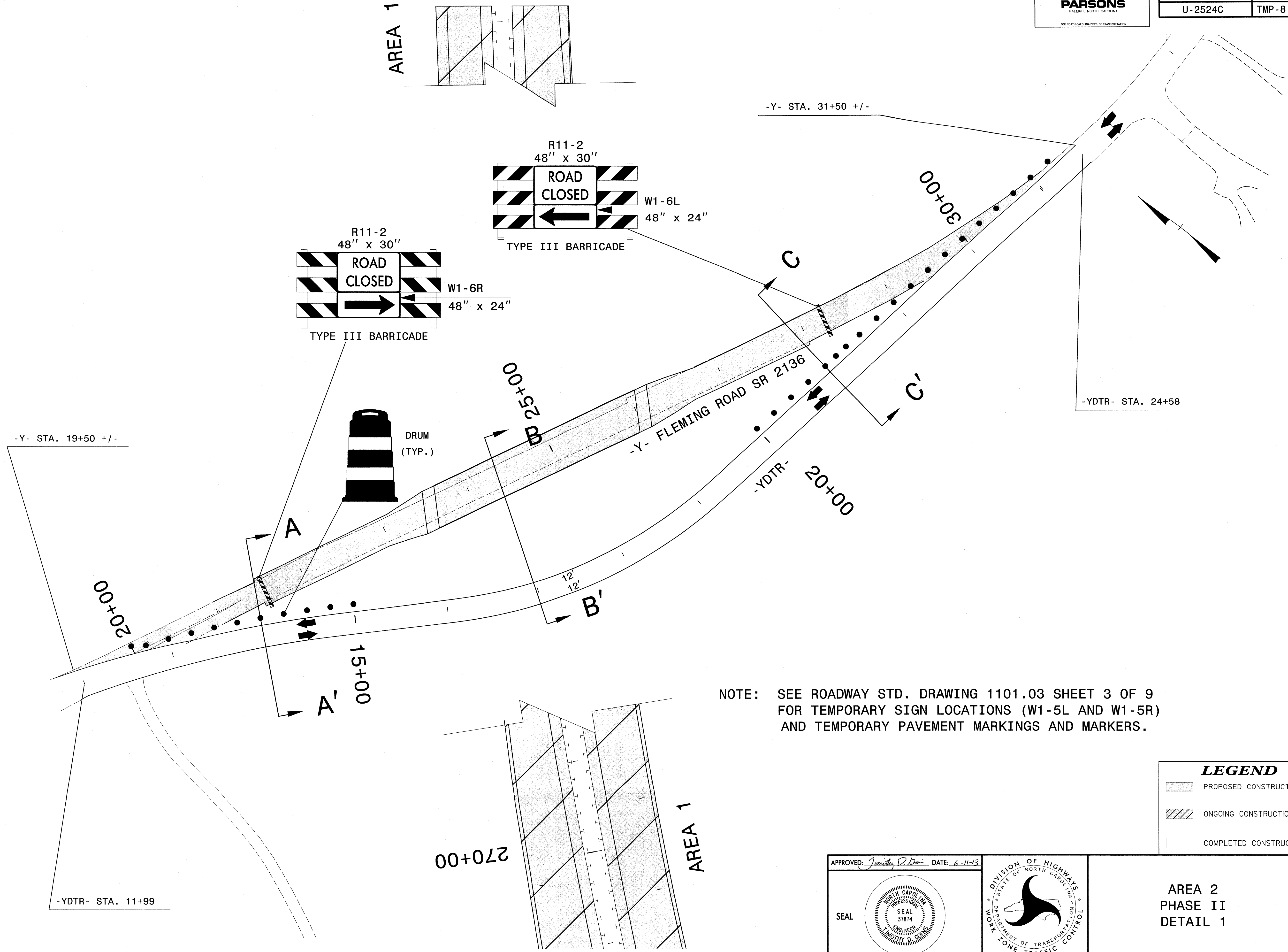


AREA 2  
 PHASE I  
 DETAIL 1  
 SECTION VIEWS

7/2/99

PLANS PREPARED BY  
**PARSONS**  
RALEIGH, NORTH CAROLINA  
FOR NORTH CAROLINA DEPT. OF TRANSPORTATION

PROJ. REFERENCE NO. U-2524C	SHEET NO. TMP-8
--------------------------------	--------------------



NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS.

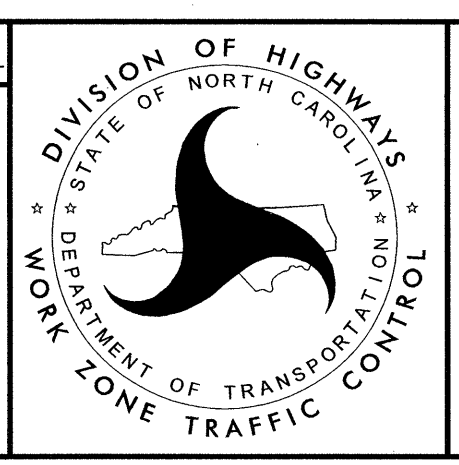
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	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

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APPROVED: *Jeremy D. De...* DATE: 6-11-13

SEAL

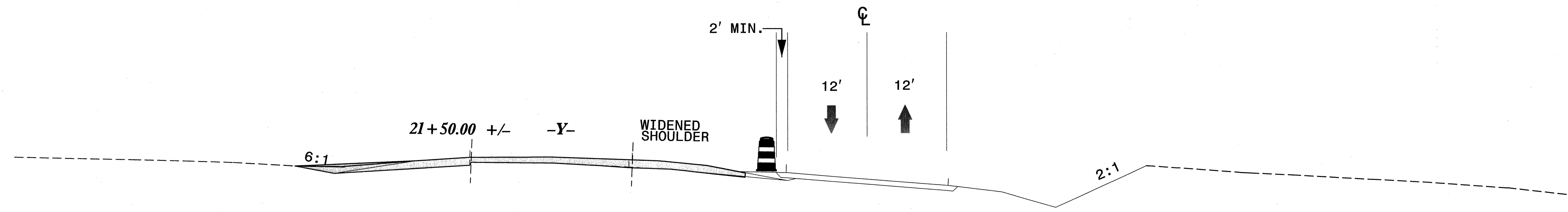


**AREA 2  
PHASE II  
DETAIL 1**

7/2/99

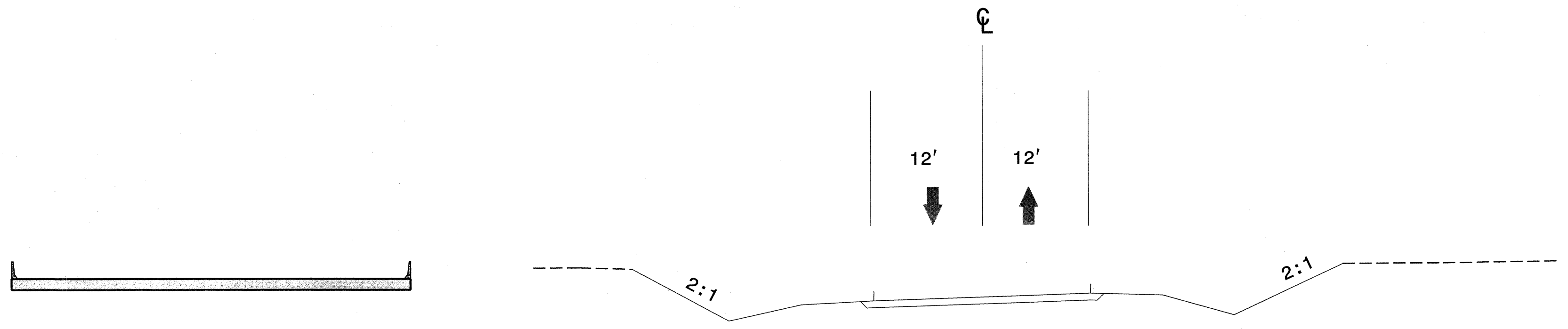
PLANS PREPARED BY  
**PARSONS**  
RALEIGH, NORTH CAROLINA  
FOR NORTH CAROLINA DEPT. OF TRANSPORTATION

PROJ. REFERENCE NO.	SHEET NO.
U-2524C	TMP-9

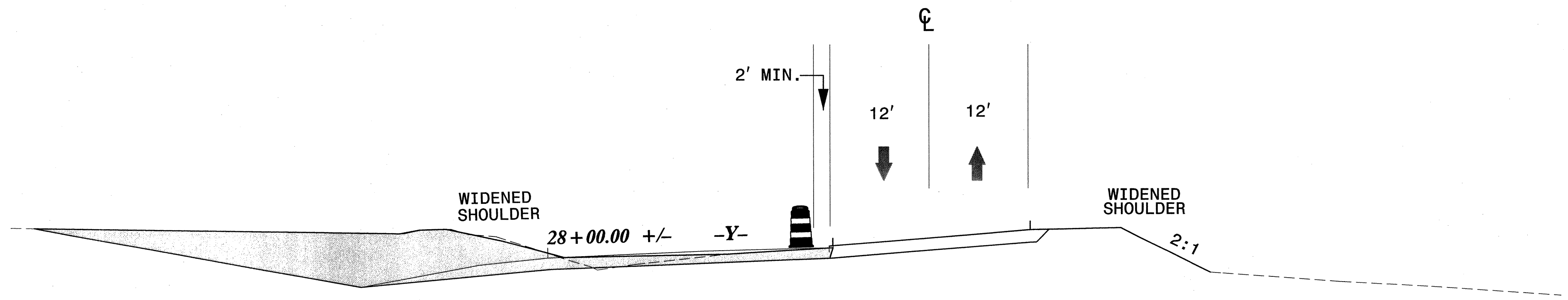


SECTION A-A'  
14+00 +/-  
-YDTR-

-Y- STA. 24+39.79 +/-



SECTION B-B'  
17+00 +/-  
-YDTR-



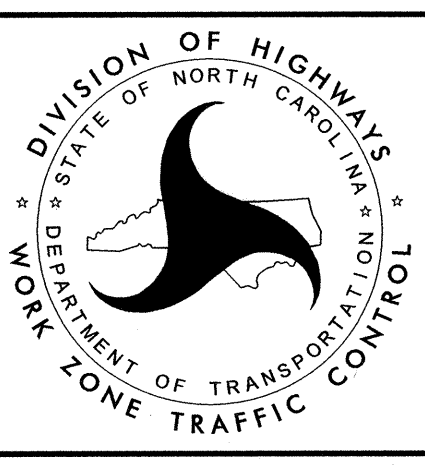
SECTION C-C'  
21+00 +/-  
-YDTR-

**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jonathan D. De...* DATE: 6-1-13

SEAL

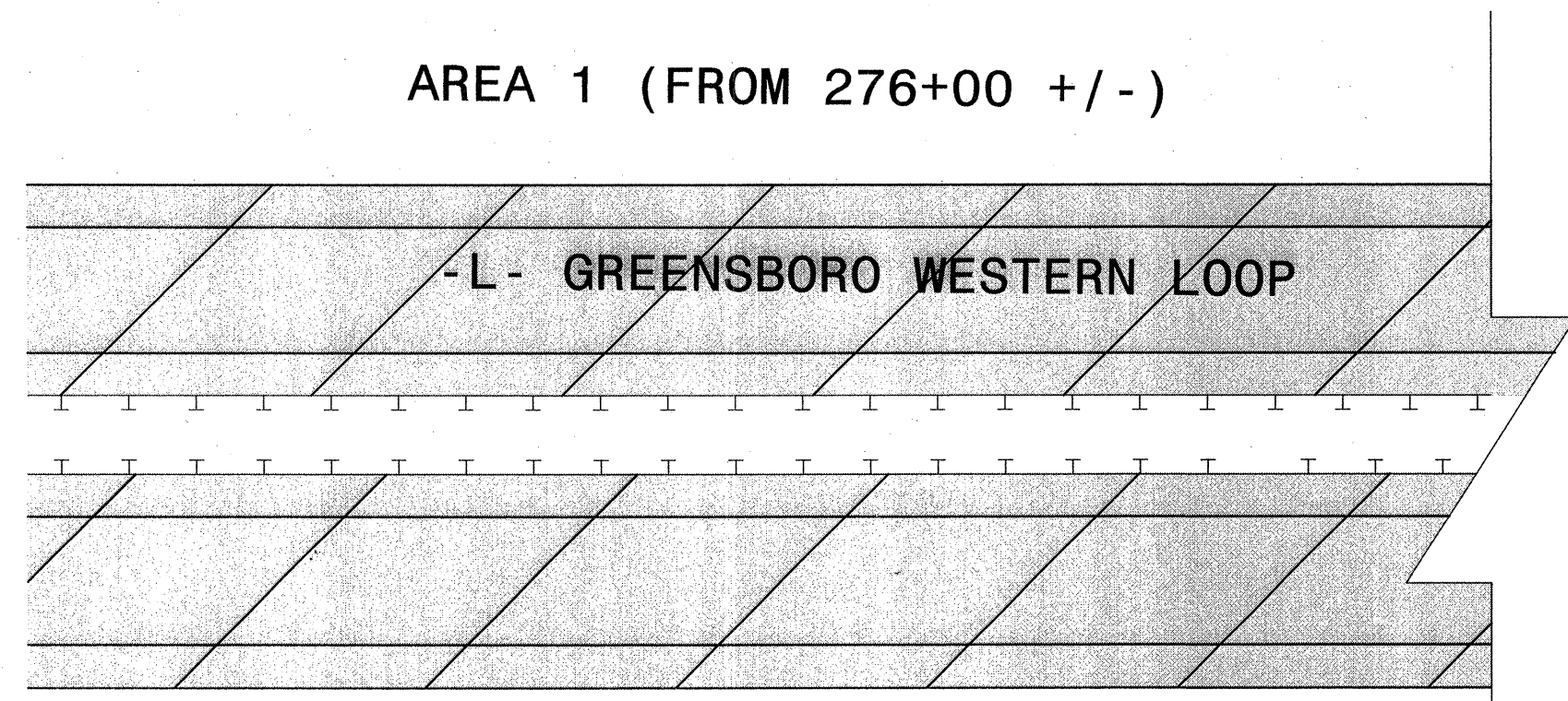


AREA 2  
PHASE II  
SECTION VIEWS

10 JUN 2013 11:00 AM  
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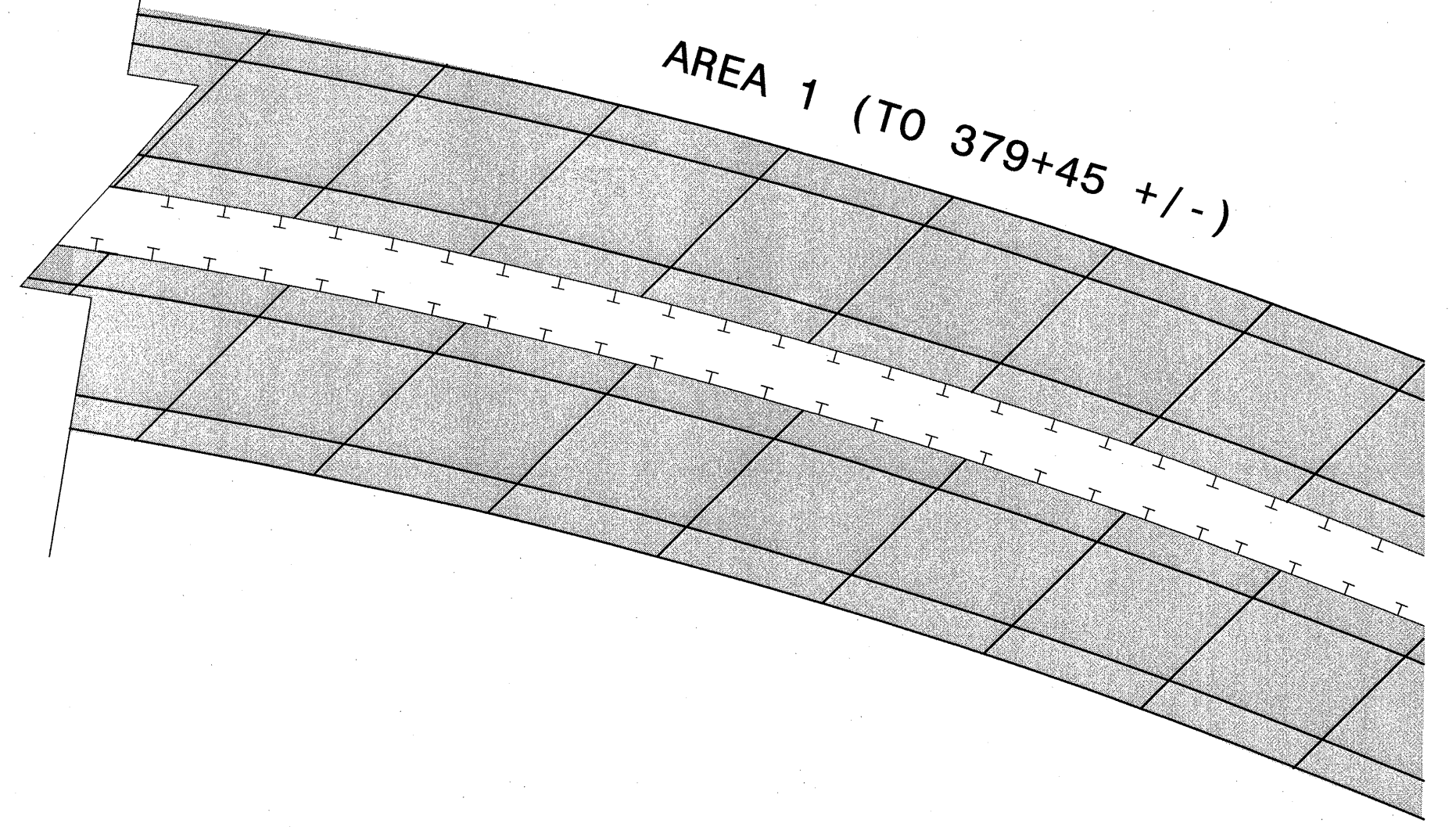
325+00  
 (-L-)



-Y2- STA. 17+80 +/-  
 20+00  
 (-Y2DTR-)

-Y2DTR- STA.  
 17+80 +/-

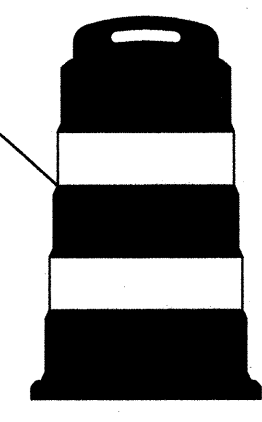
335+00  
 (-L-)



-Y2DTR- STA. 24+50 +/-

25+00  
 (-Y2DTR-)

-Y2- HORSEPEN CREEK RD.



-Y2DTR- STA. 27+21 +/-

NOTE: SEE ROADWAY STD. DRAWING 1101.04 FOR TEMPORARY SIGN (W21-5) AND DRUM LOCATIONS.

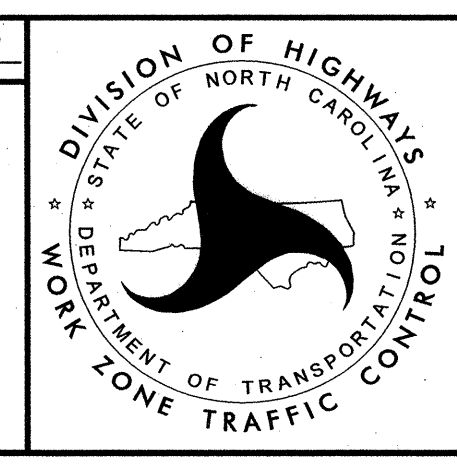
-Y2- STA. 28+01 +/-

**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

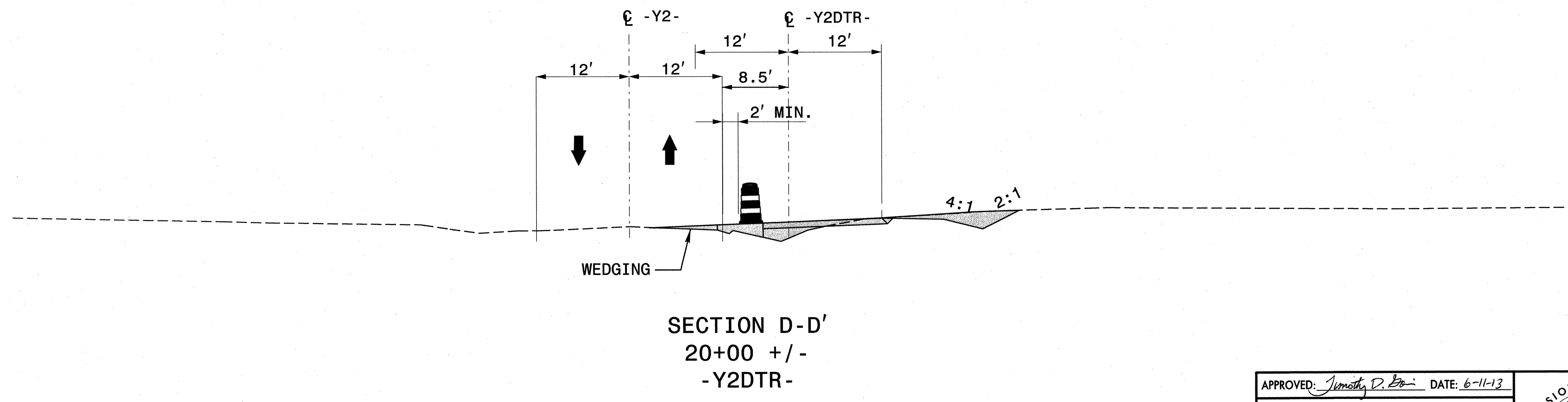
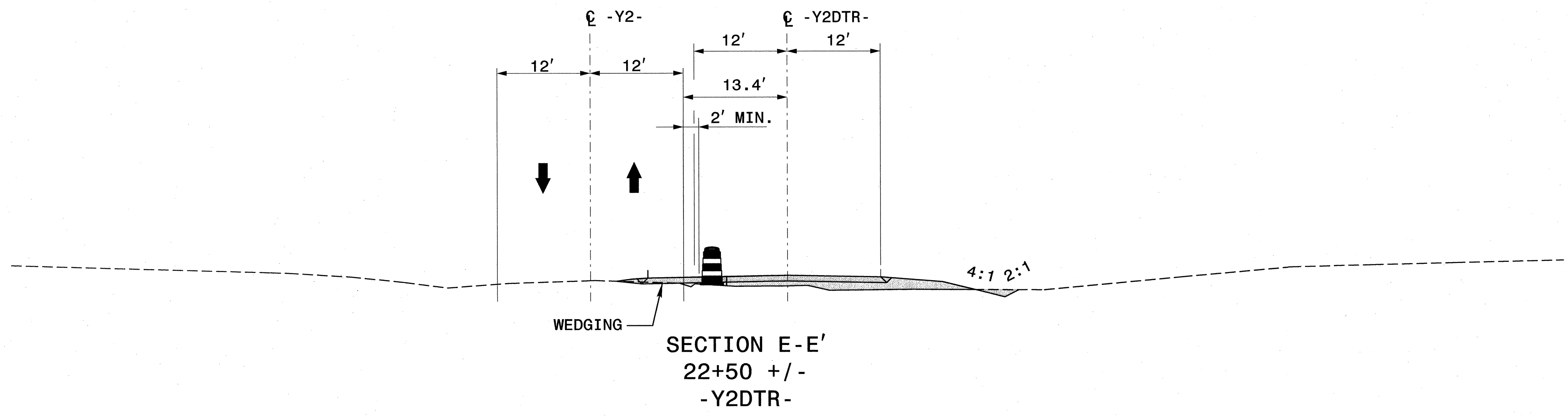
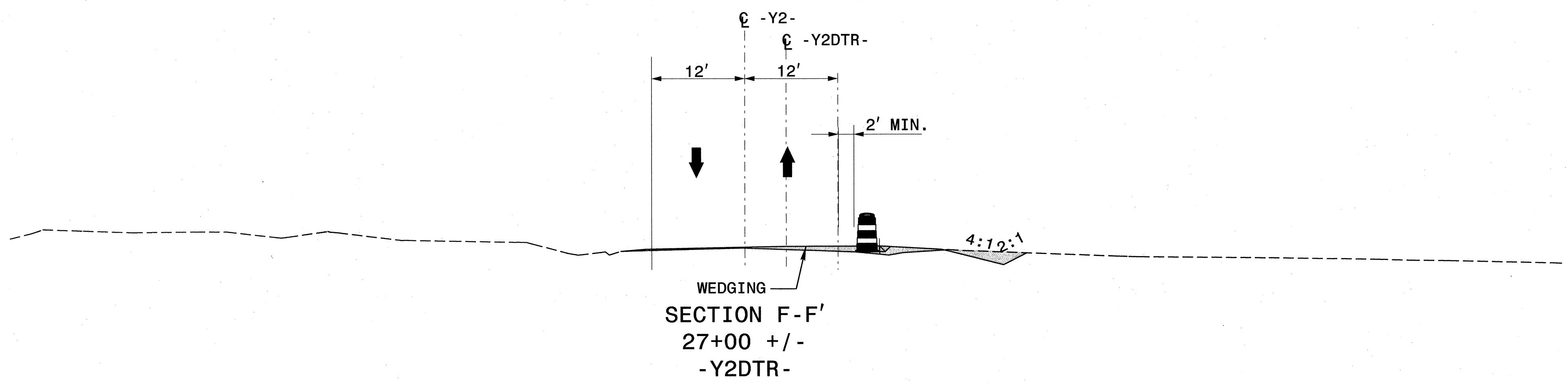
APPROVED: *Janeth D. Bo...* DATE: 6-11-13

SEAL



AREA 3  
 PHASE I DETAIL 1

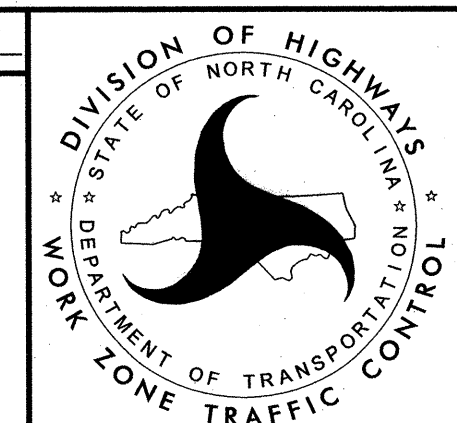
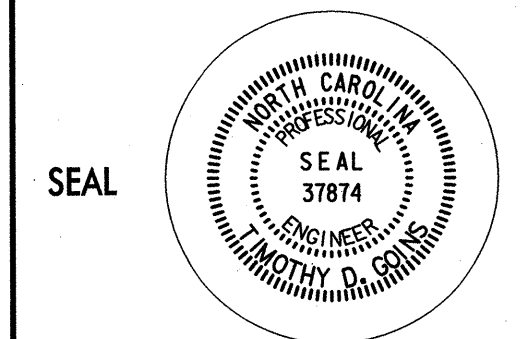
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 \$\$\$USERNAME\$\$\$



**LEGEND**

	PROPOSED CONSTRUCTION (TEMPORARY DETOUR)
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Janetha D. Br...* DATE: 6-11-13



AREA 3  
 PHASE I  
 DETAIL 1  
 SECTION VIEWS

7/2/99

IO-JUN-2013 10:52  
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 \$\$\$USERNAME\$\$\$

NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS. USE 35 MPH ADVISORY SPEED PANELS IN CONJUNCTION WITH THE TEMPORARY SIGNS. (SEE GENERAL NOTE 7)

1 QUANTITY = 3604 SF  
TEMPORARY SHORING  
FROM -Y2- STA. 21+24 +/-, 5.0' +/- RT.  
TO -Y2- STA. 24+49 +/-, 5.0' +/- RT.  
MAX HT = 12.3'  
AVG HT = 11.6'  
(SEE SHEET TMP-2A FOR TEMPORARY SHORING NOTES)

-Y2- STA. 20+00 +/-  
BEGIN PCB  
(5.4' RT.)

END TEMP PVMT  
-Y2- 19+50  
25' +/- LT.

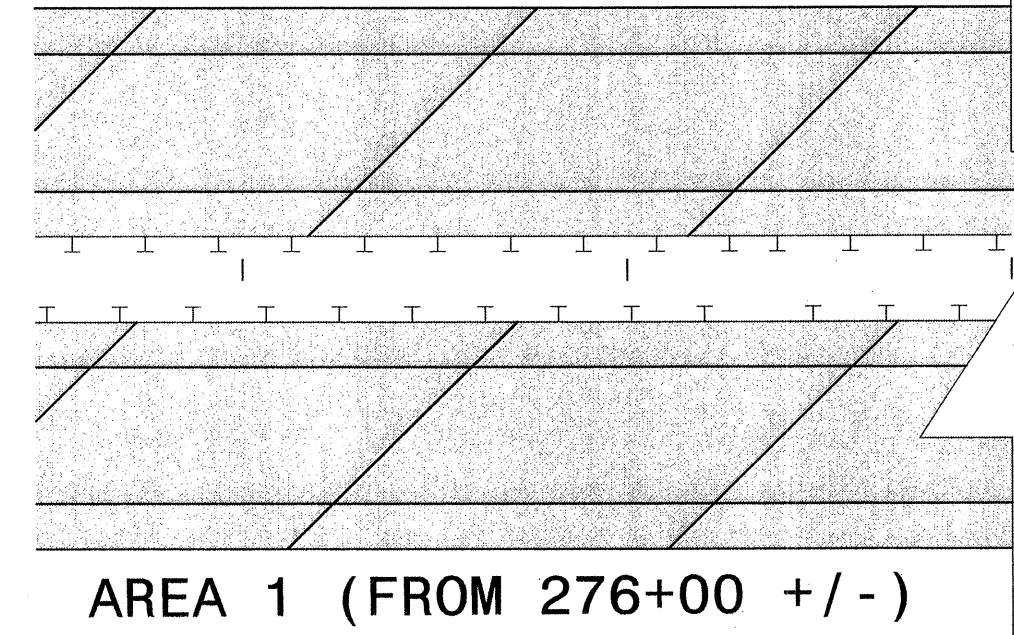
2 QUANTITY = 175 SF  
TEMPORARY SHORING  
FROM -Y2- STA. 21+24 +/-, 0.0' +/- RT.  
TO -Y2- STA. 21+42 +/-, 0.0' +/- RT.  
MAX HT = 12.3'  
AVG HT = 7.5'  
(SEE SHEET TMP-2A FOR TEMPORARY SHORING NOTES)

3 QUANTITY = 174 SF  
TEMPORARY SHORING  
FROM -Y2- STA. 24+25 +/-, 0.0' +/- RT.  
TO -Y2- STA. 24+49 +/-, 0.0' +/- RT.  
MAX HT = 12.3'  
AVG HT = 7.5'  
(SEE SHEET TMP-2A FOR TEMPORARY SHORING NOTES)

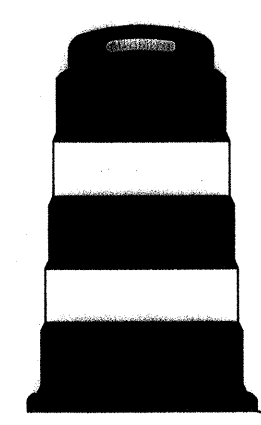
**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

-L- GREENSBORO WESTERN LOOP



AREA 1 (FROM 276+00 +/-)



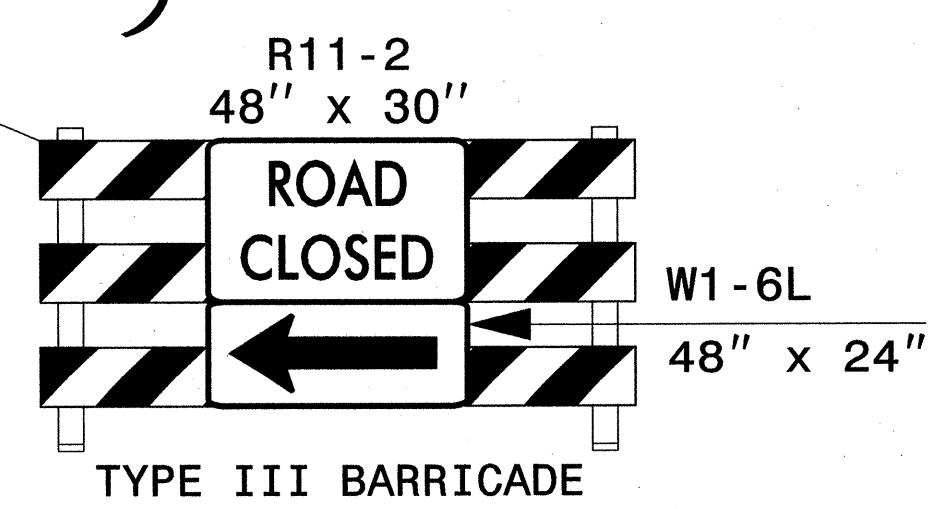
-Y2- STA. 25+77 +/-

-Y2- STA. 25+50 +/-  
END PCB  
(8.2' +/- RT)

-Y2- STA. 28+00 +/-

END TEMP PVMT  
-Y2- 27+29  
EXIST. EOP LT.

BEGIN TEMP PVMT  
-Y2- 26+00  
22' +/- LT.



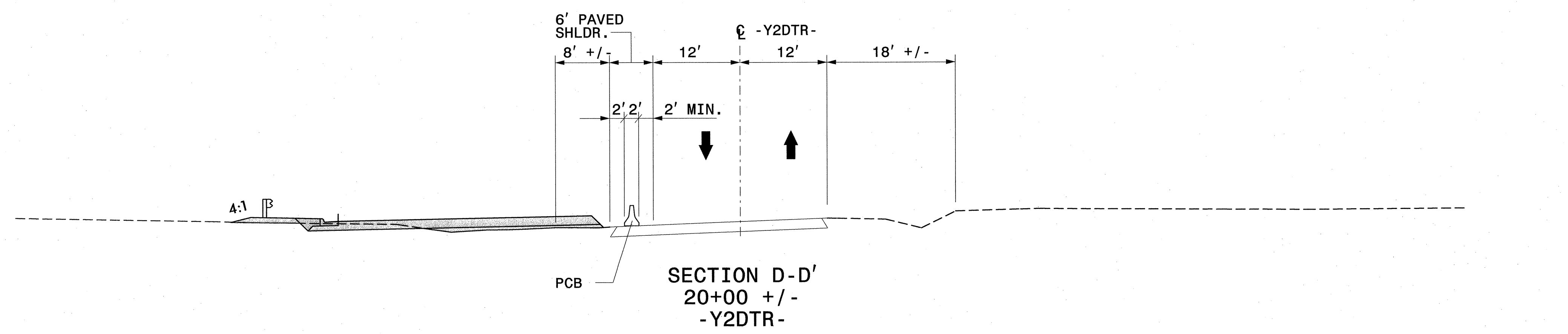
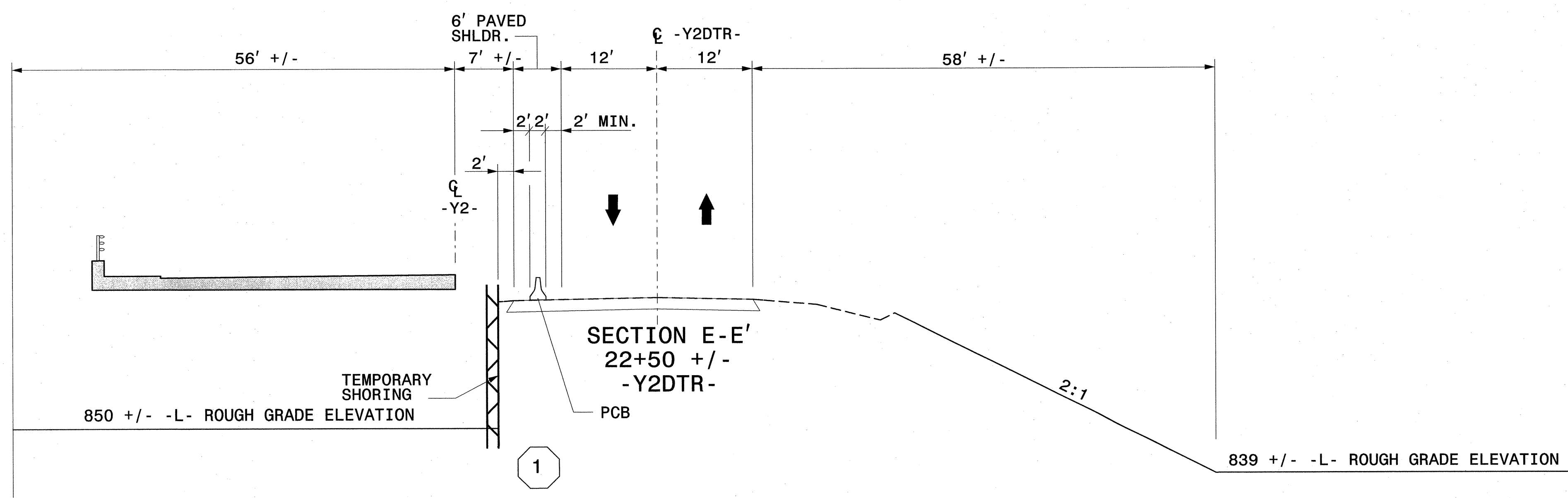
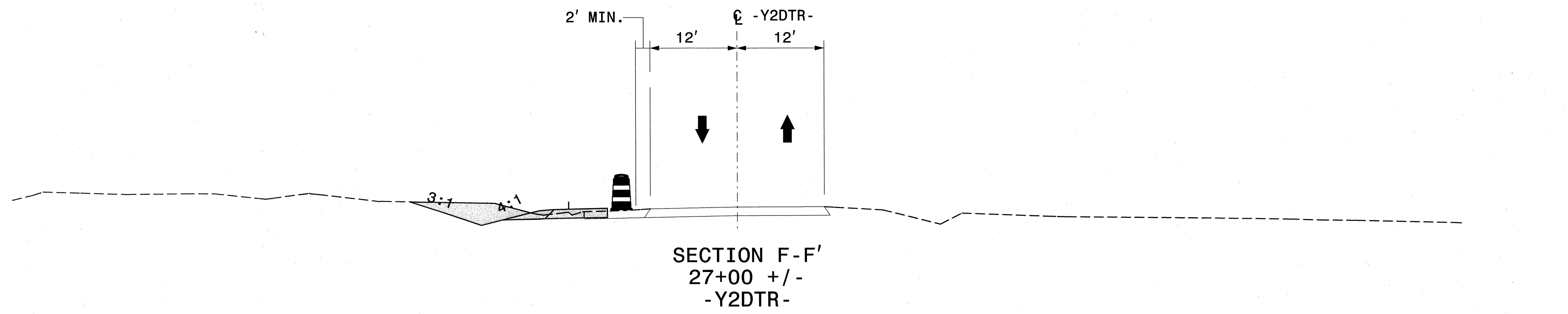
APPROVED: *Janet D. Bo...* DATE: 6-11-13

SEAL

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

AREA 3  
PHASE II DETAIL 1

10-JUN-2013 10:52:41 AM C:\Users\jbo...TrafficControl\TCP\TMP\CK PLANS\U-2524C.TC.TCP.12.dgn

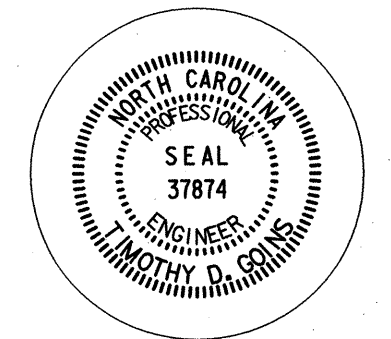
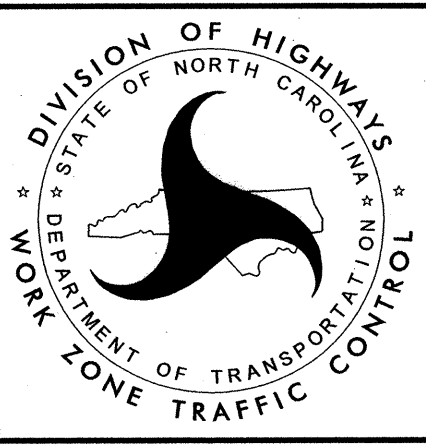


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *James D. Br...* DATE: 6-11-13

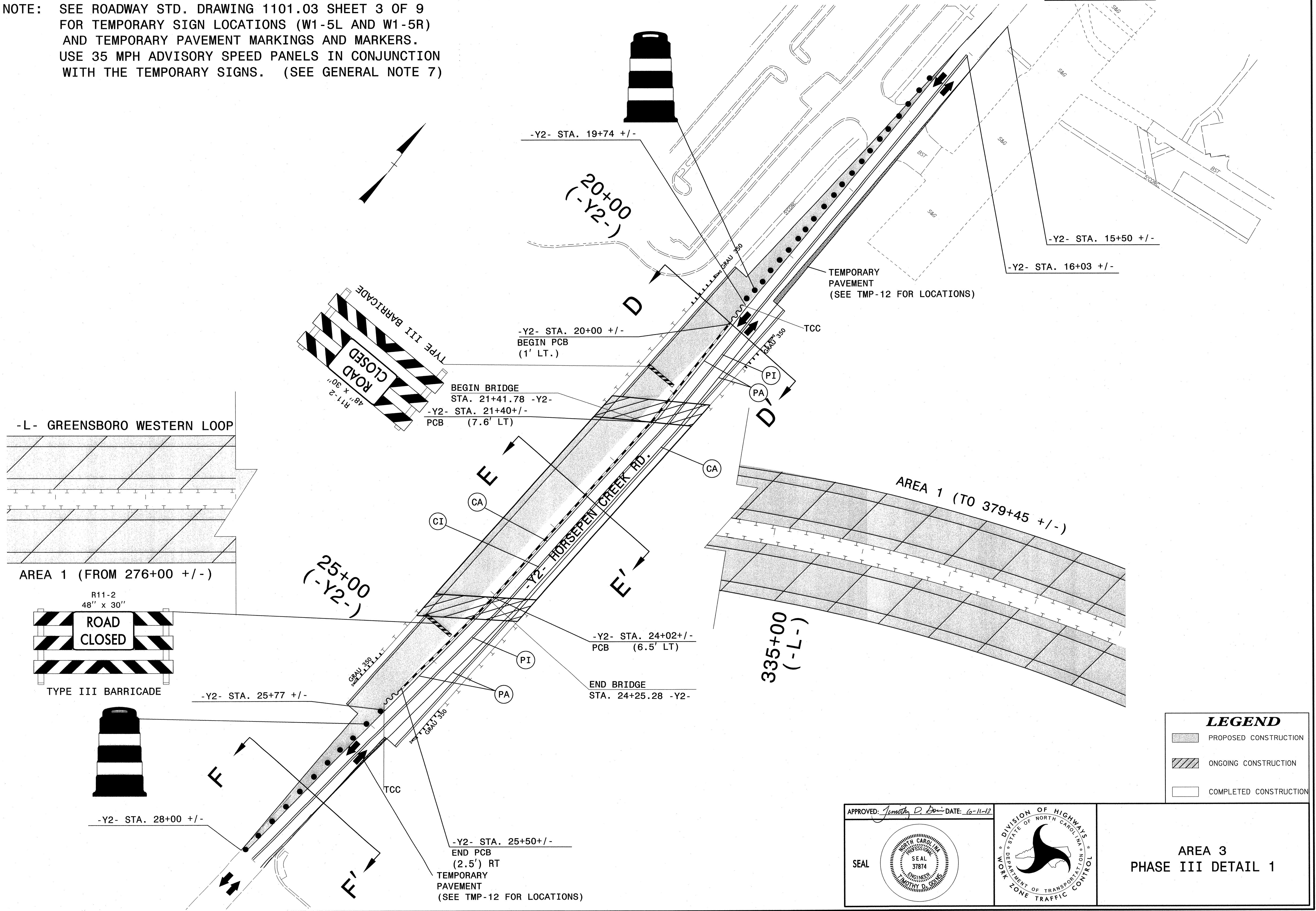
SEAL

AREA 3  
 PHASE II  
 DETAIL 1  
 SECTION VIEWS

7/2/99  
 I0-JUN-2013 10:52  
 I:\U-2524C\TrafficControl\TCP\TMP\CK PLANS\U-2524C\_TC\_TCP\_13.dgn  
 \$\$\$USERNAME\$\$\$

**NOTE:** SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS. USE 35 MPH ADVISORY SPEED PANELS IN CONJUNCTION WITH THE TEMPORARY SIGNS. (SEE GENERAL NOTE 7)



**LEGEND**

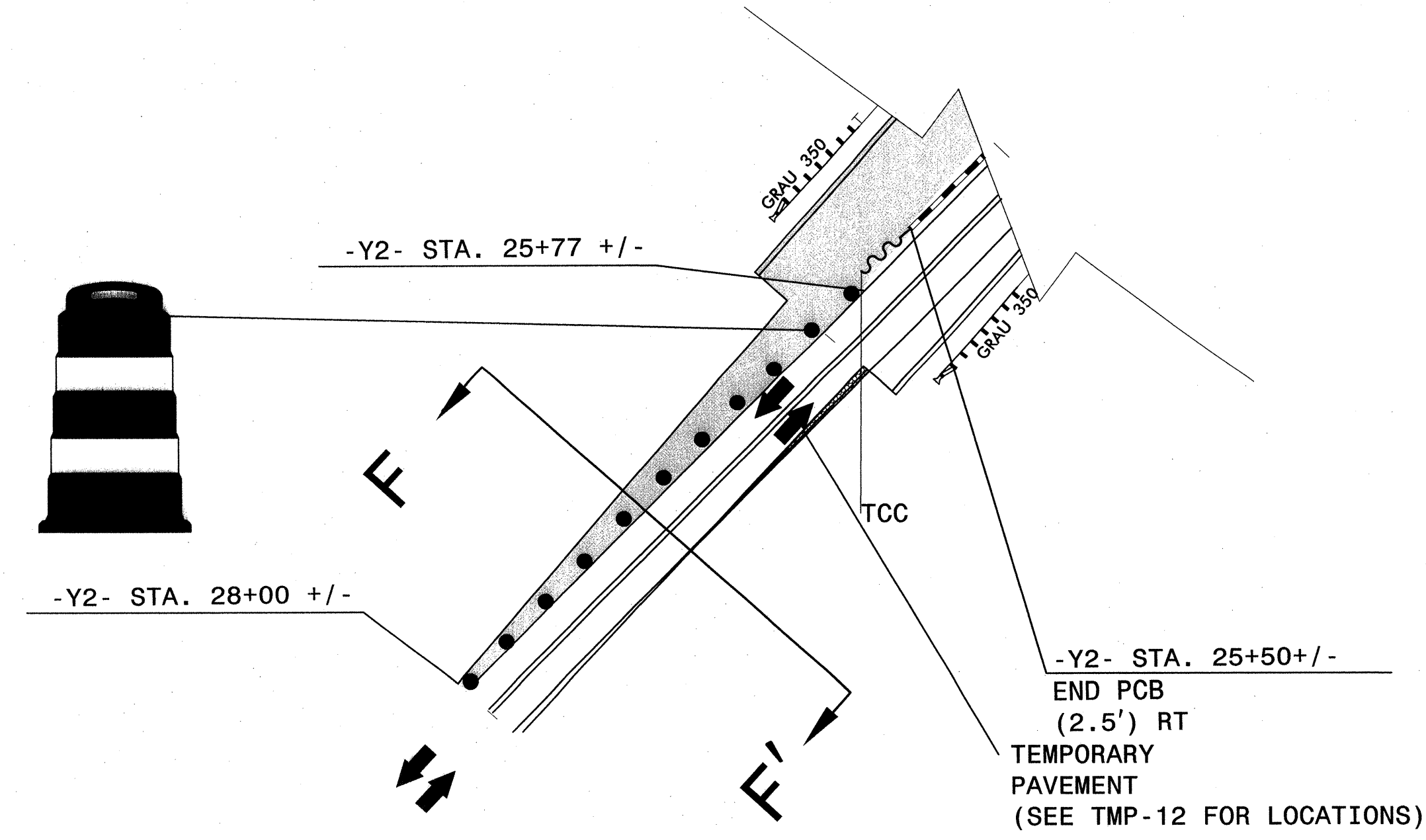
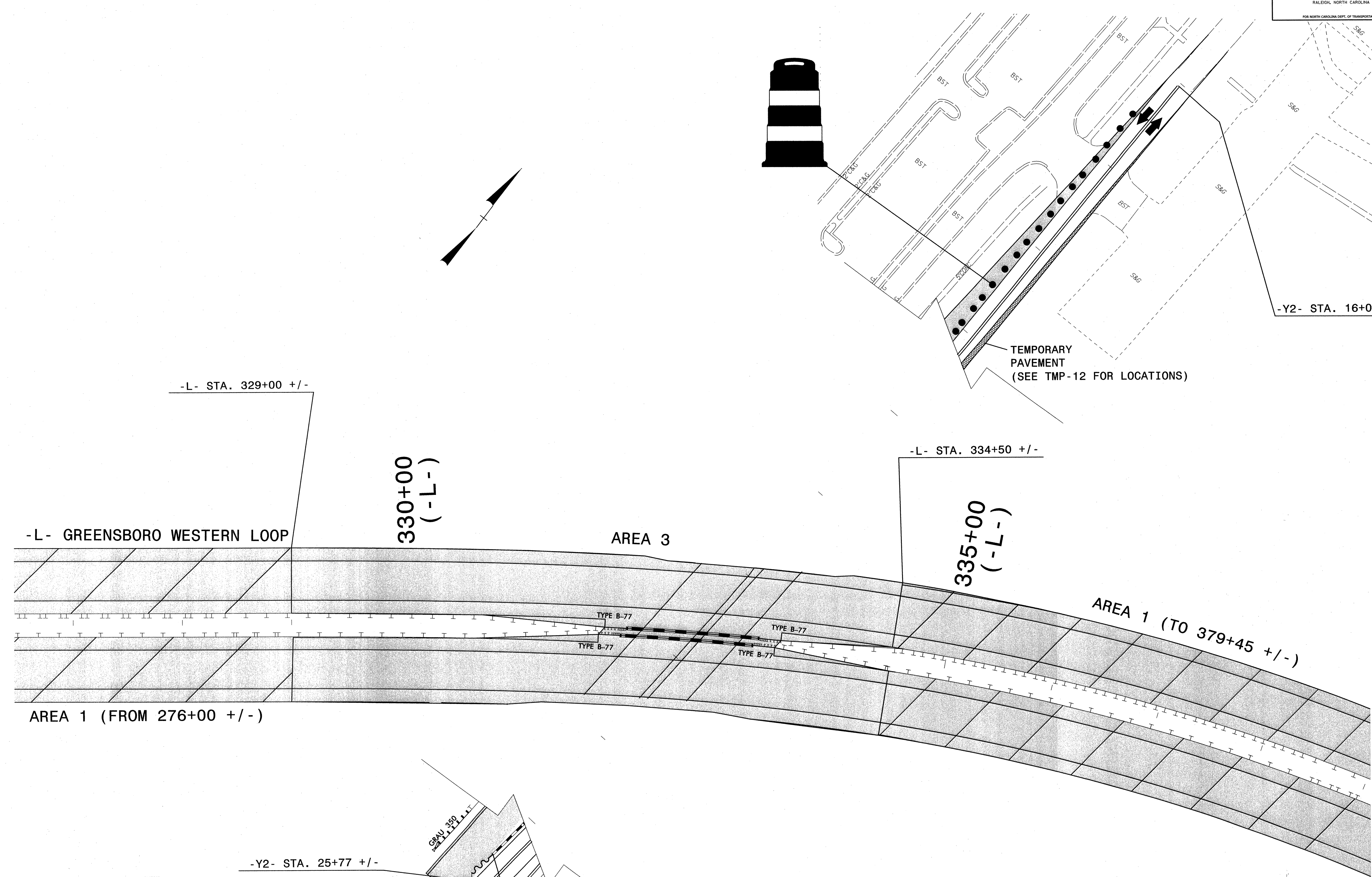
	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jonathan D. Don* DATE: 6-11-13

**AREA 3**  
**PHASE III DETAIL 1**

7/27/99  
 U:\JUN-2013\10-20\44\TrafficControl\TCP\TMP\CK PLANS\U-2524C.TC.TCP\_14.dgn  
 \$\$\$USERNAME\$\$\$

7/2/09  
 10-JUN-2013 10:52  
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 \$\$\$USERNAME\$\$\$

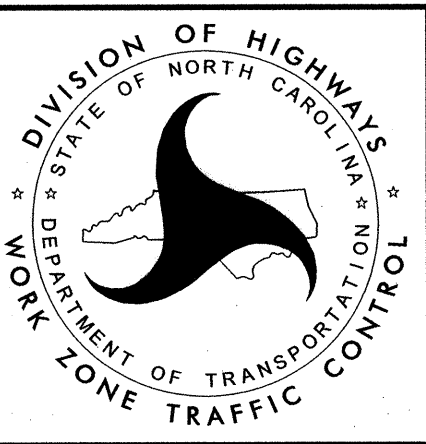


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

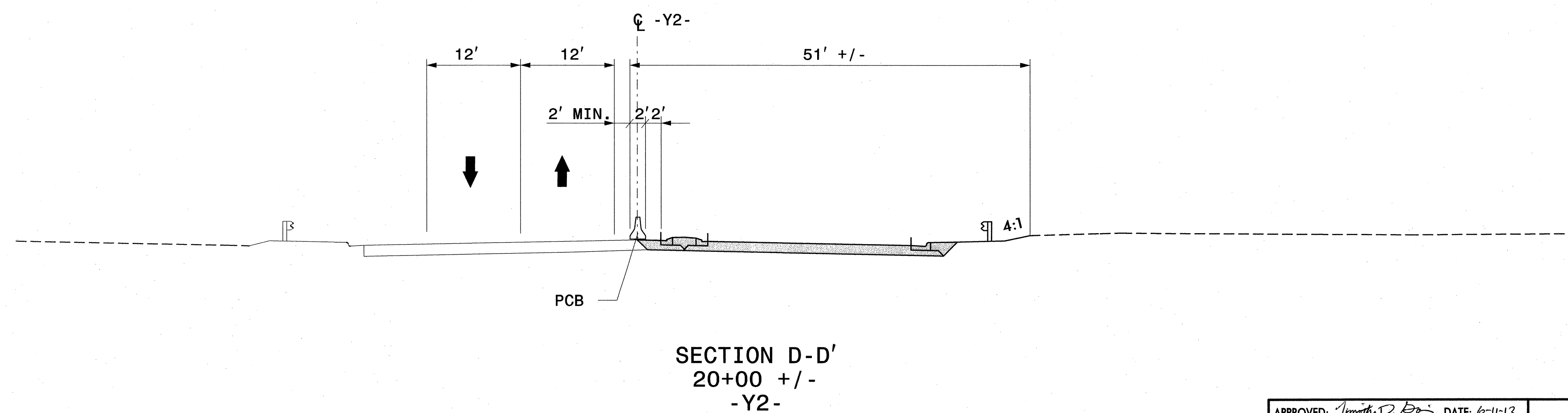
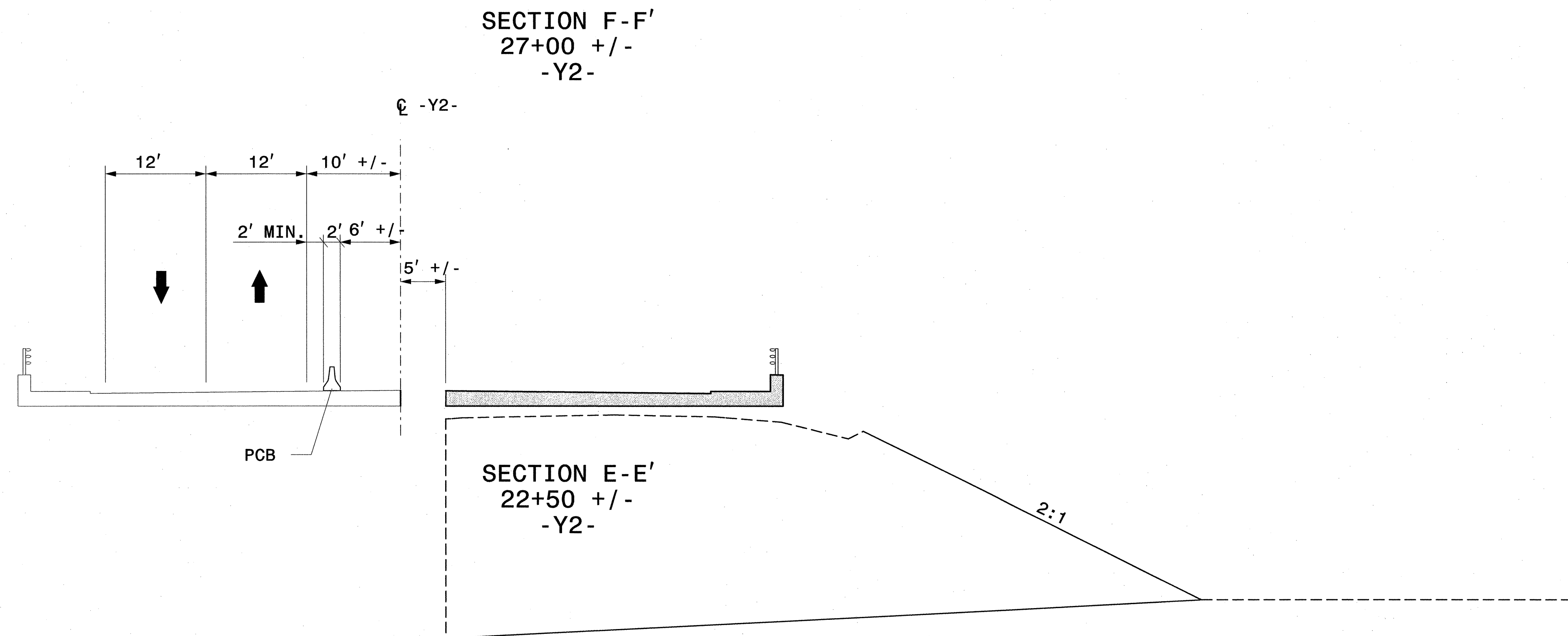
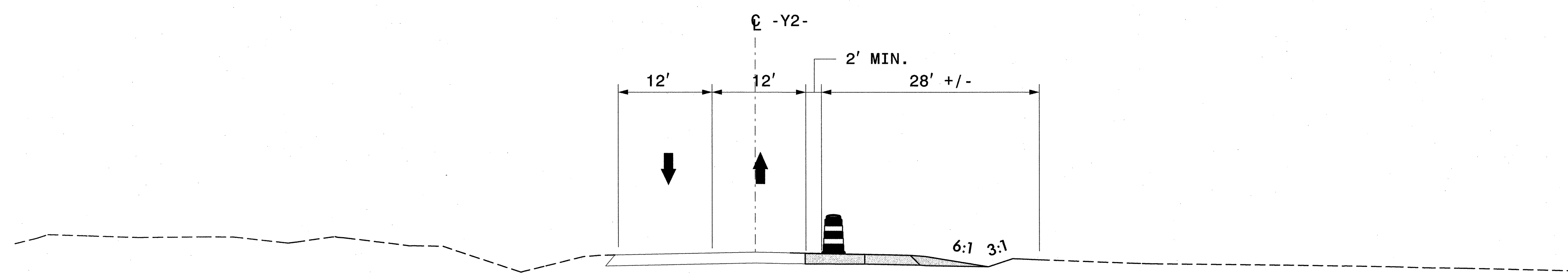
APPROVED: *Jeremy D. Br...* DATE: 6-11-13

SEAL



**AREA 3**  
**PHASE III DETAIL 1**

7/2/99

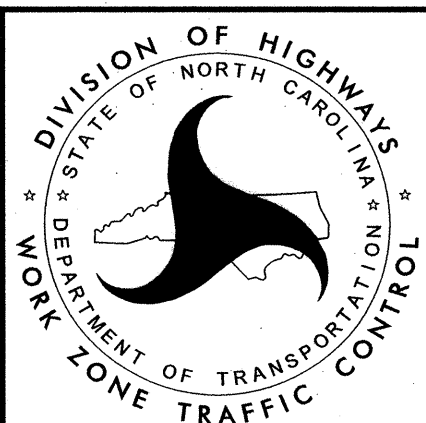


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jimmy D. Bo...* DATE: 6-11-13

SEAL



**AREA 3  
 PHASE III  
 DETAIL 1  
 SECTION VIEWS**

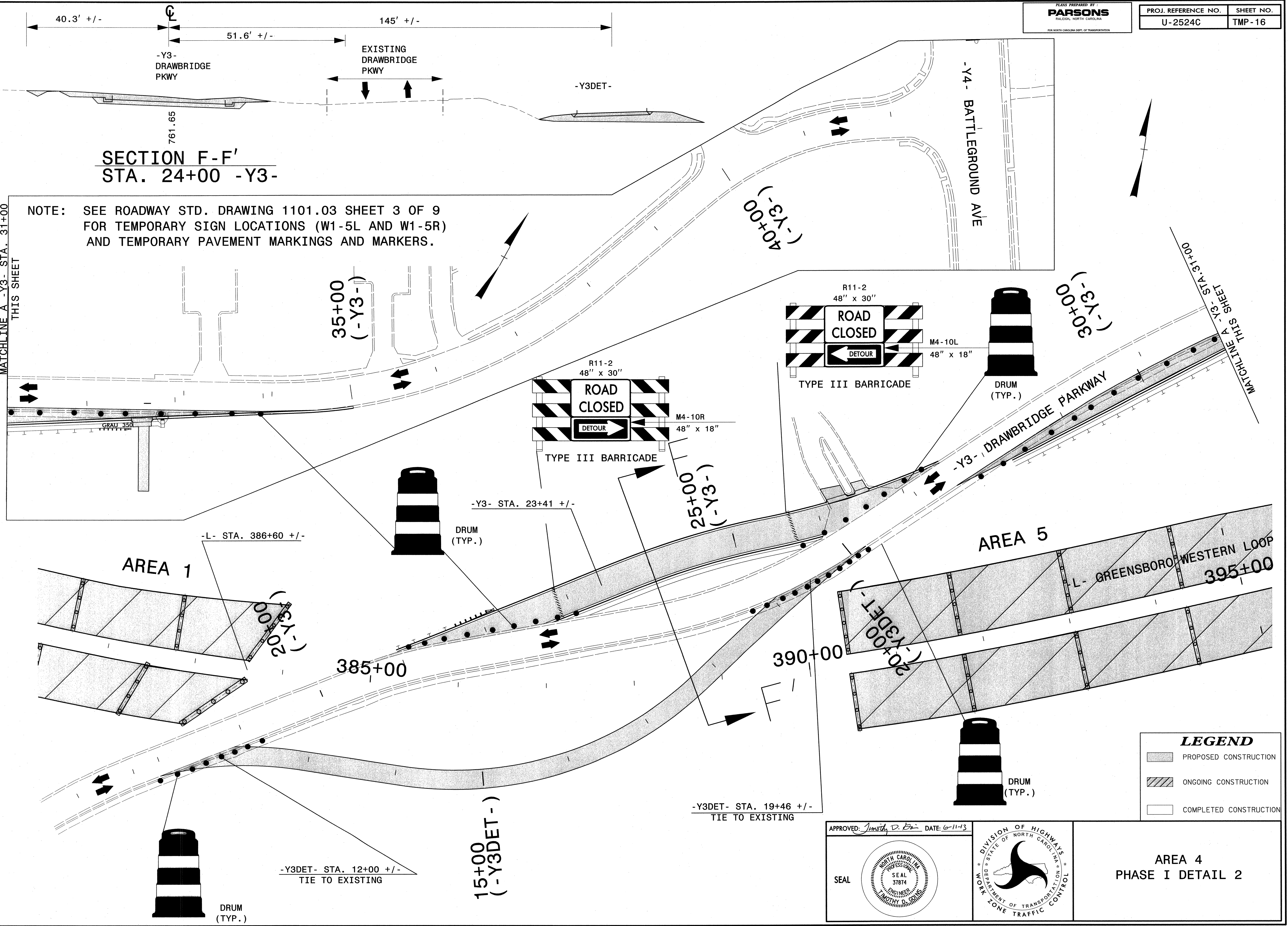
I:\JUN-2013\12:18  
 3555\$USER\NAME\$\$\$\$  
 I:\JUN-2013\12:18  
 3555\$USER\NAME\$\$\$\$

**SECTION F-F'**  
**STA. 24+00 -Y3-**

NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS.

MATCHLINE A -Y3- STA. 31+00 THIS SHEET

MATCHLINE A -Y3- STA. 31+00 THIS SHEET



**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jessie D. [Signature]* DATE: 6-11-13

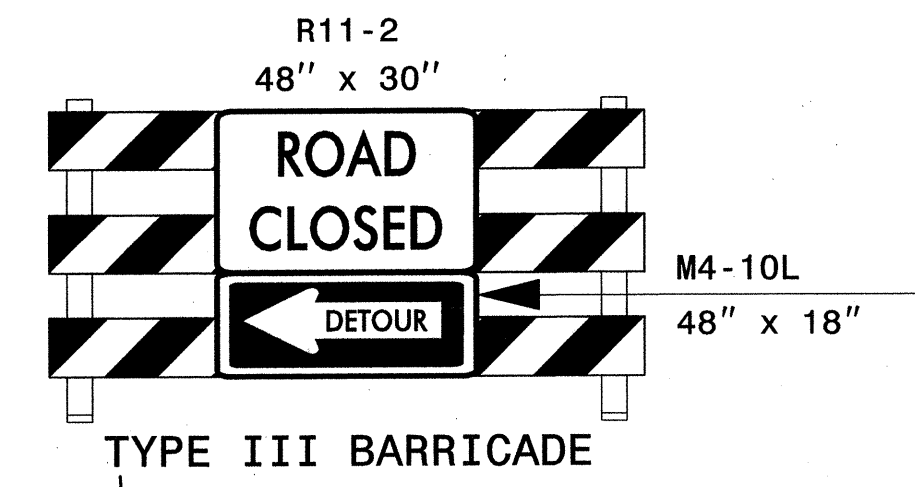
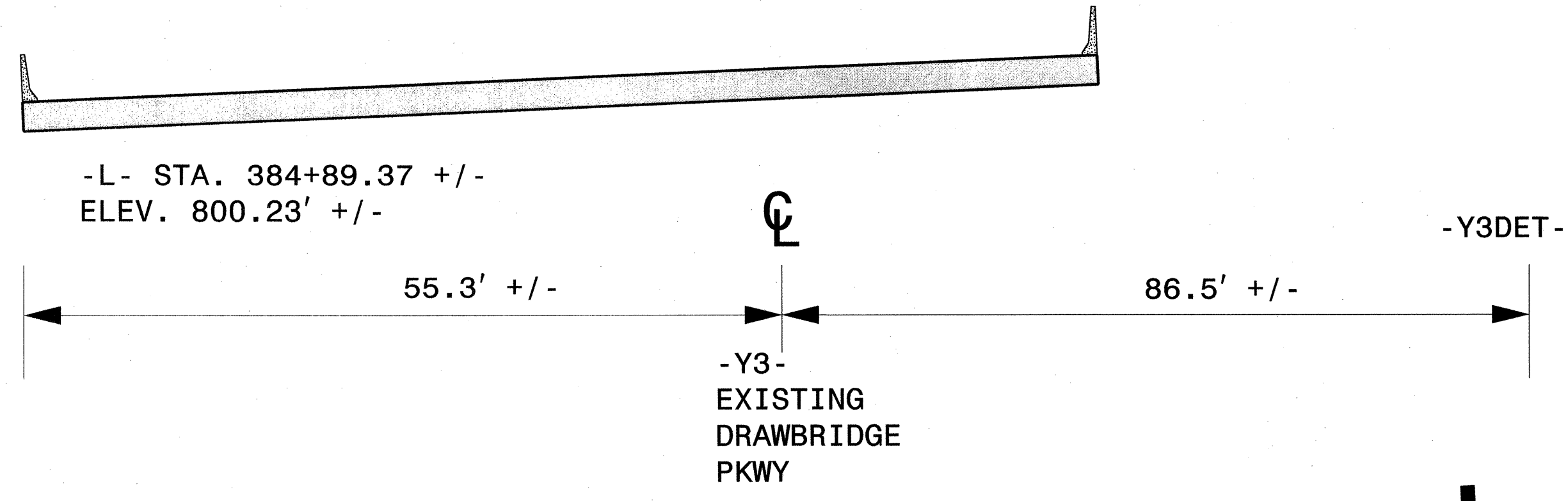
SEAL

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

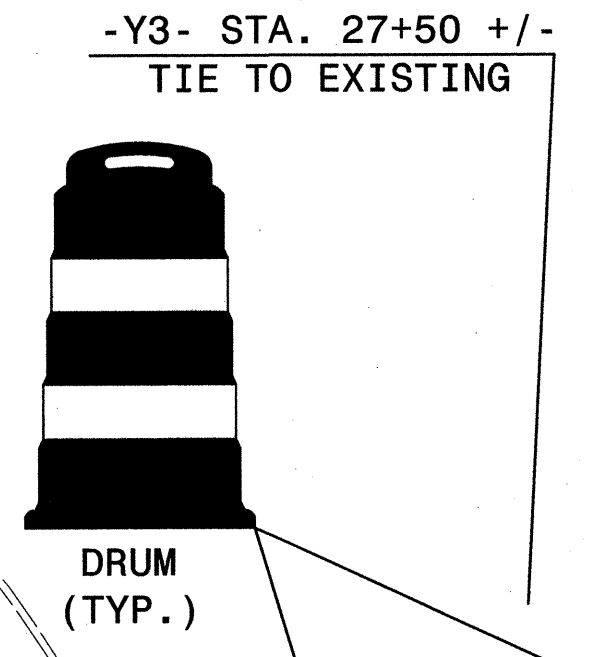
**AREA 4**  
**PHASE I DETAIL 2**

7/2/99  
 11-JUN-2013 12:48  
 I:\U-2524C\TrafficControl\TCP\TMP\_CK\_PLANS\U-2524C\_TC\_TCP\_16.dgn  
 \$\$\$USERNAME\$\$\$



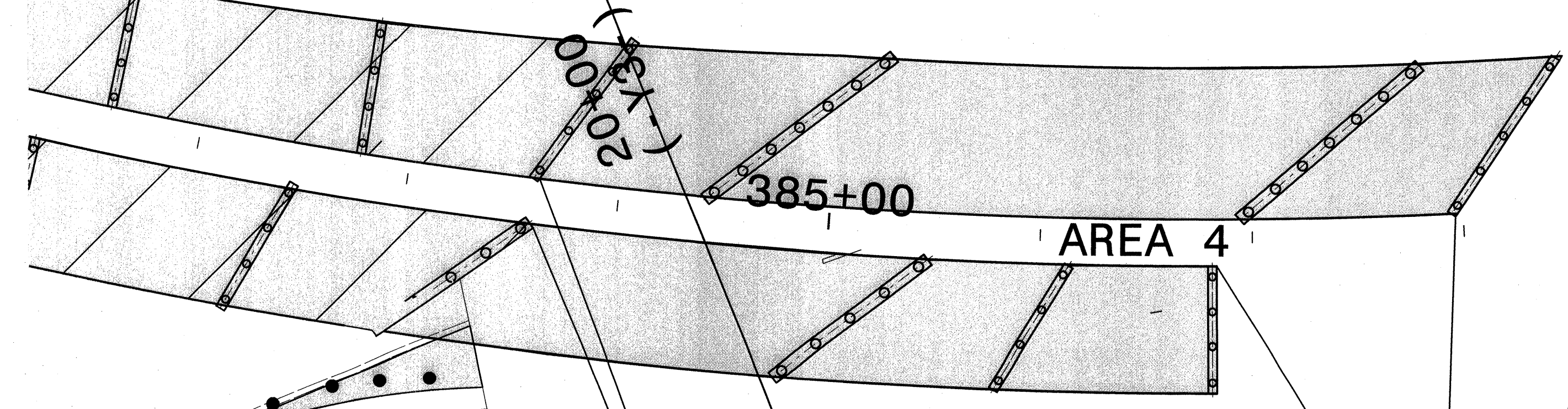


**SECTION F-F'**  
 STA. 20+00 -Y3-

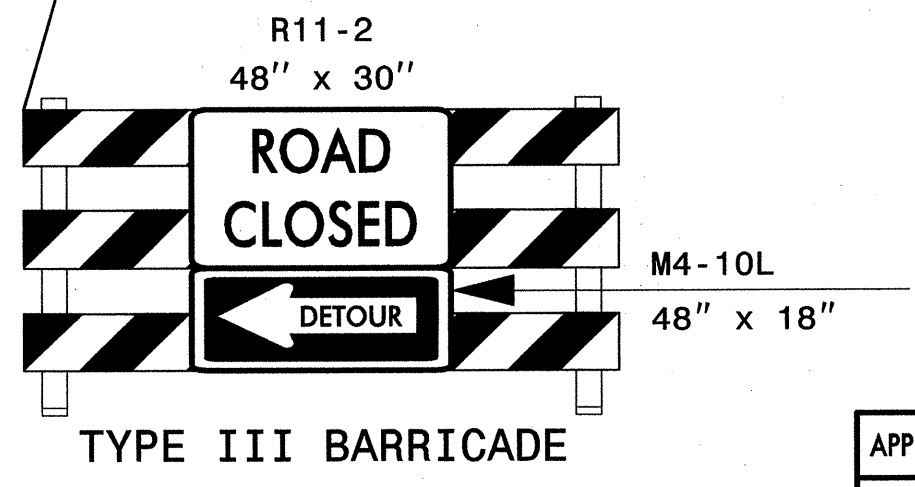


**AREA 1**  
 (FROM 379+45 +/-)

**AREA 1 (TO 402+88 +/-)**

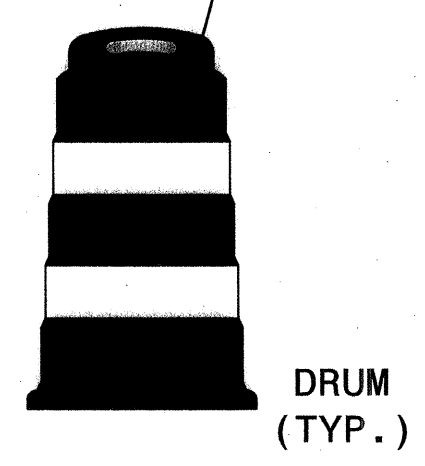


NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS.



**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION



-L- STA. 386+83 +/-

-L- STA. 388+00 +/-

-L- STA. 383+60 +/-

15+00 (-Y3DET-)

APPROVED: *Jonathan D. ...* DATE: 6-11-13

SEAL

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

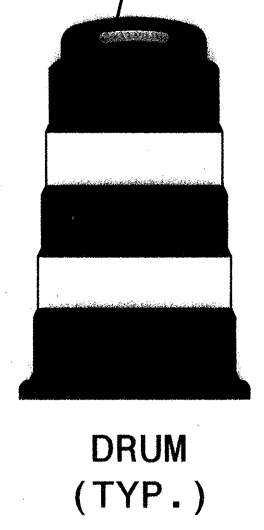
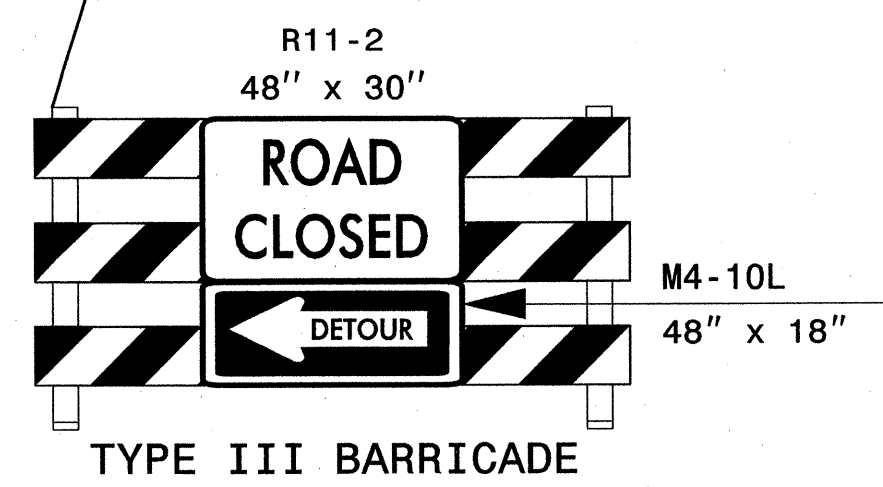
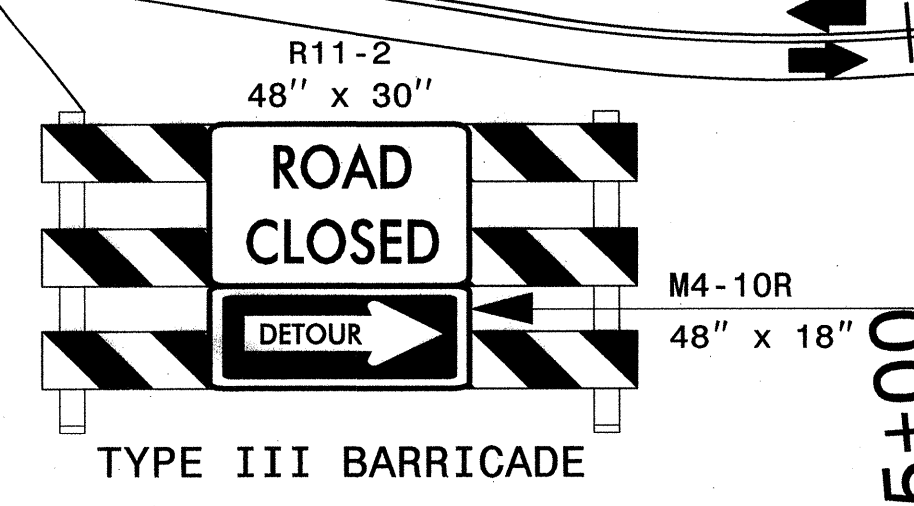
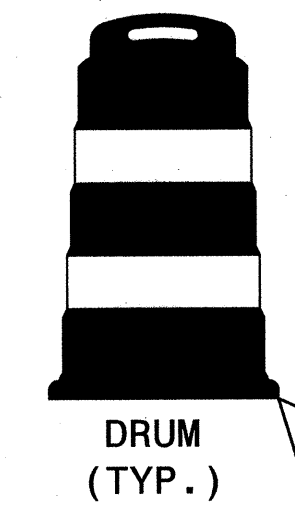
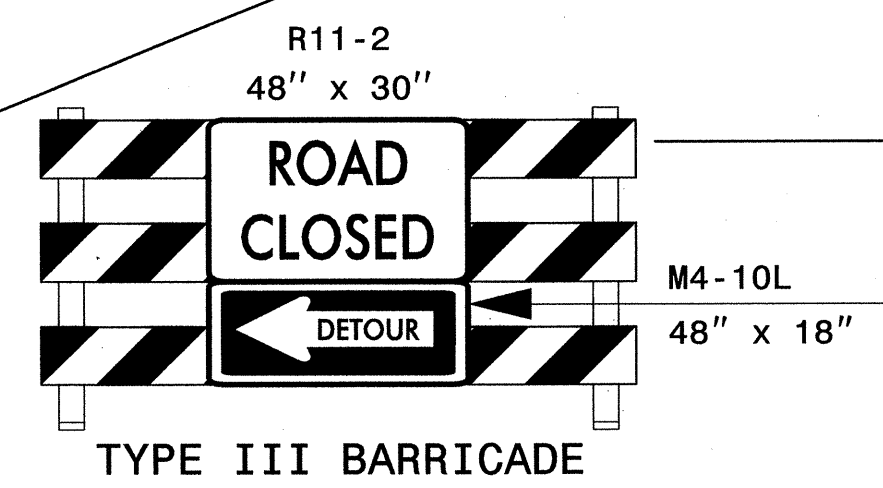
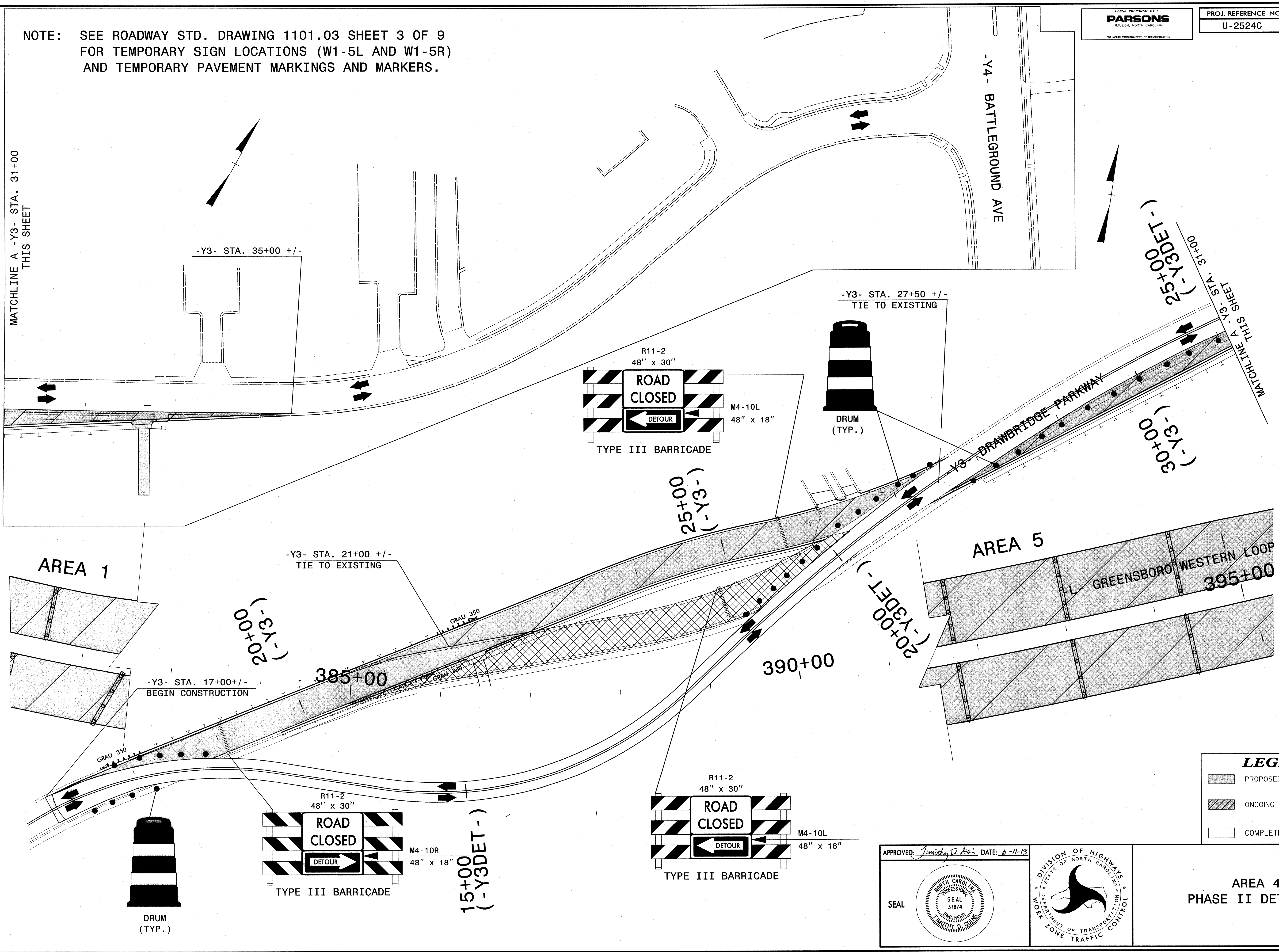
**AREA 4**  
 PHASE II DETAIL 1

7/2/99  
 I:\JUN-2013\218\U-2524C\TrafficControl\TCP\TMP\_CK\_PLANS\U-2524C\_TC\_TCP\_17.dgn  
 \$\$\$USERNAME\$\$\$

NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS.

MATCHLINE A -Y3- STA. 31+00 THIS SHEET

MATCHLINE A -Y3- STA. 31+00 THIS SHEET



**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jonathan D. [Signature]*, DATE: 6-11-13

SEAL

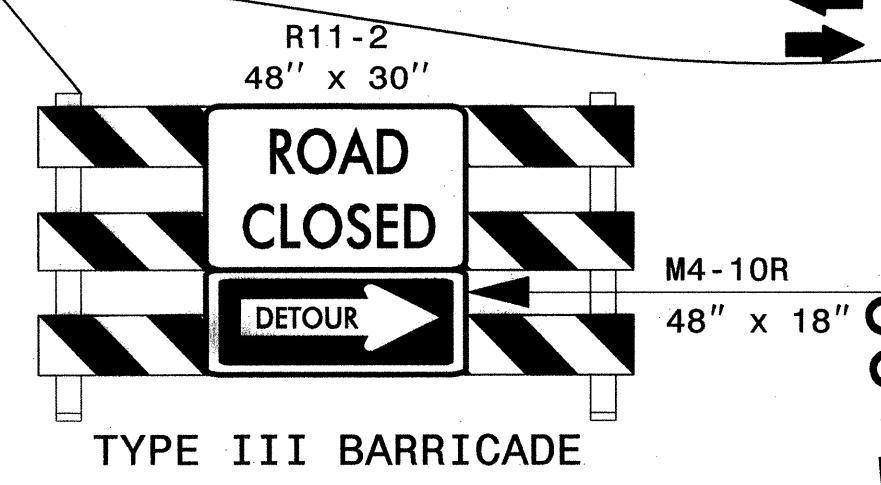
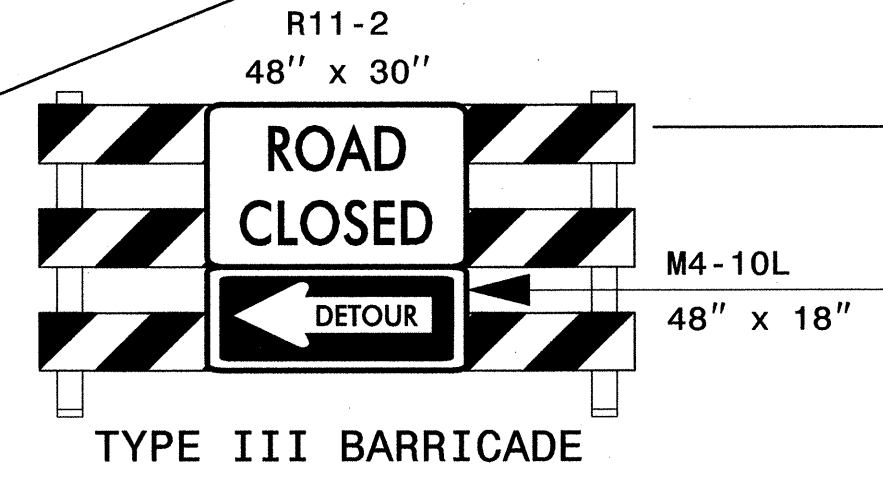
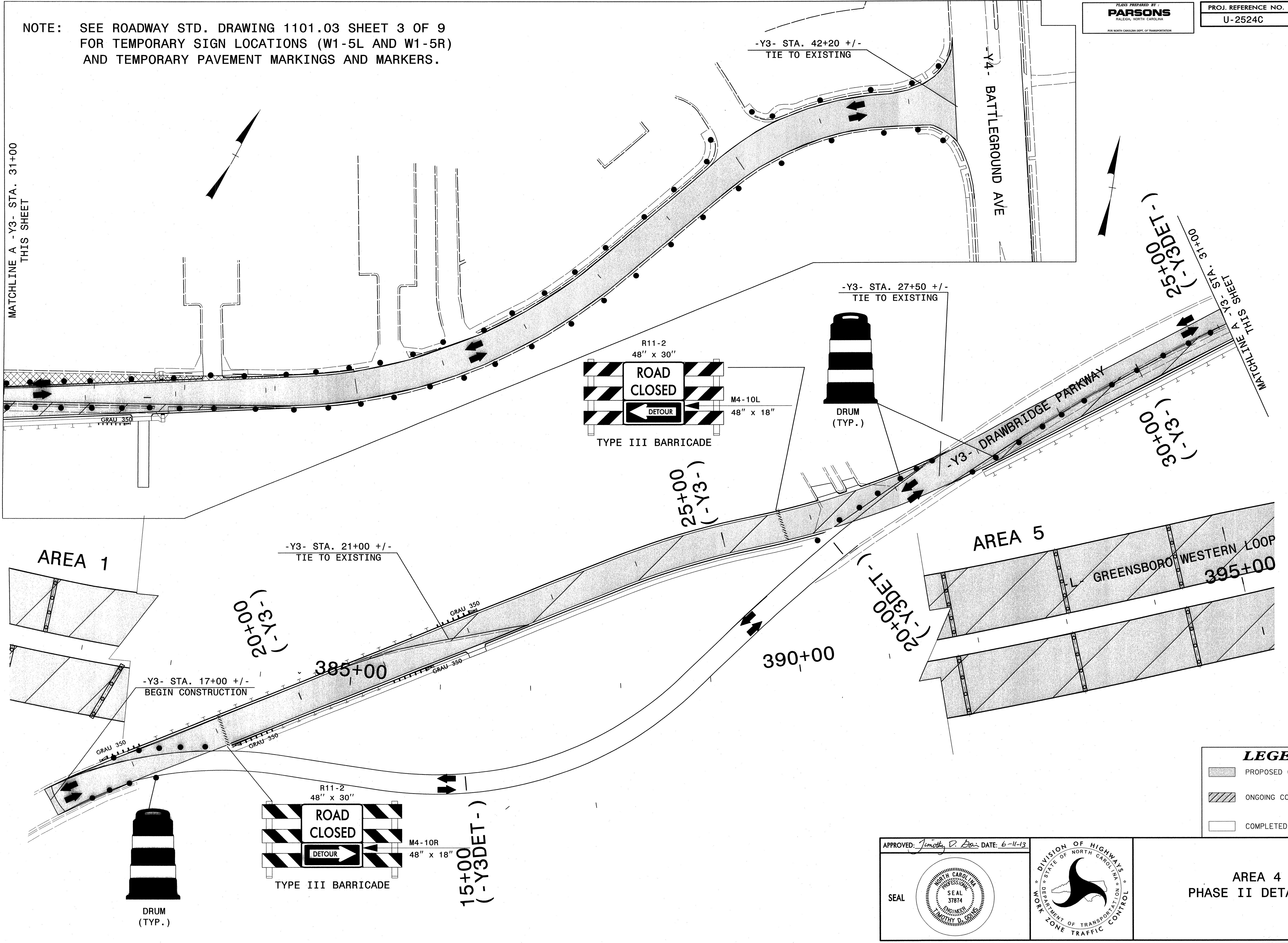
**AREA 4**  
**PHASE II DETAIL 2**

10-JUN-2013 10:53 J:\U-2524C\TrafficControl\TCP\TMP\_CK\_PLANS\U-2524C-TC\_TCP\_ITA.dgn \$\$\$USERNAME\$\$\$

NOTE: SEE ROADWAY STD. DRAWING 1101.03 SHEET 3 OF 9 FOR TEMPORARY SIGN LOCATIONS (W1-5L AND W1-5R) AND TEMPORARY PAVEMENT MARKINGS AND MARKERS.

MATCHLINE A -Y3- STA. 31+00 THIS SHEET

MATCHLINE A -Y3- STA. 31+00 THIS SHEET



**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

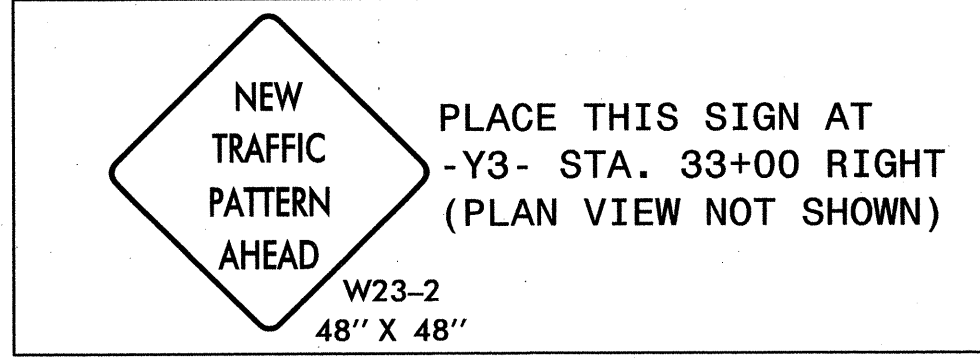
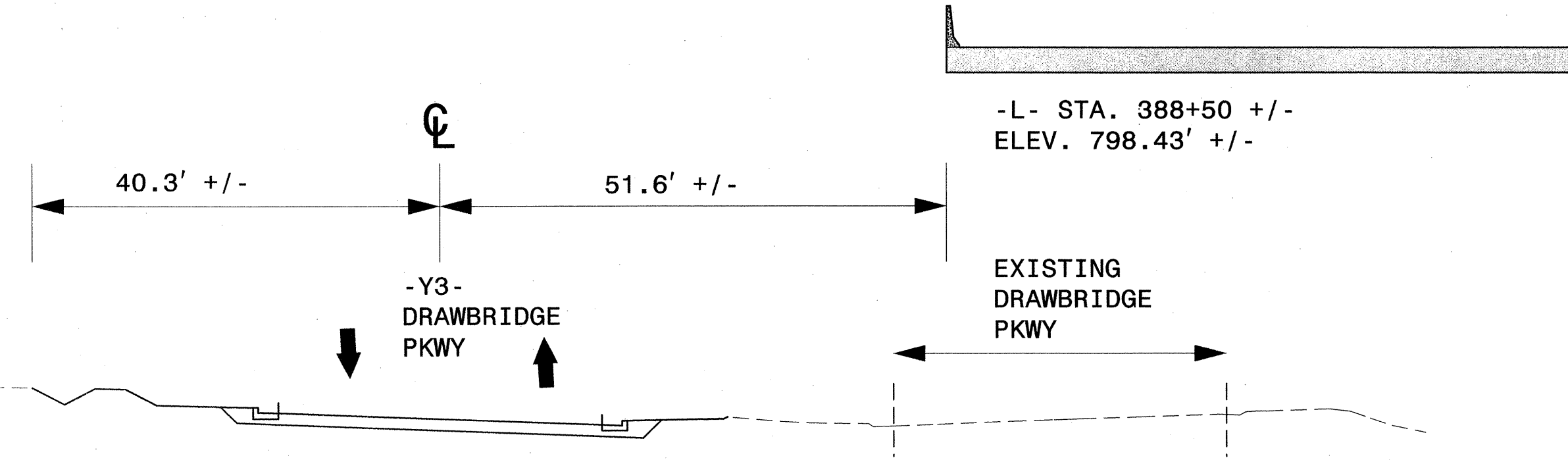
APPROVED: *Janetha D. Boaz* DATE: 6-11-13

SEAL

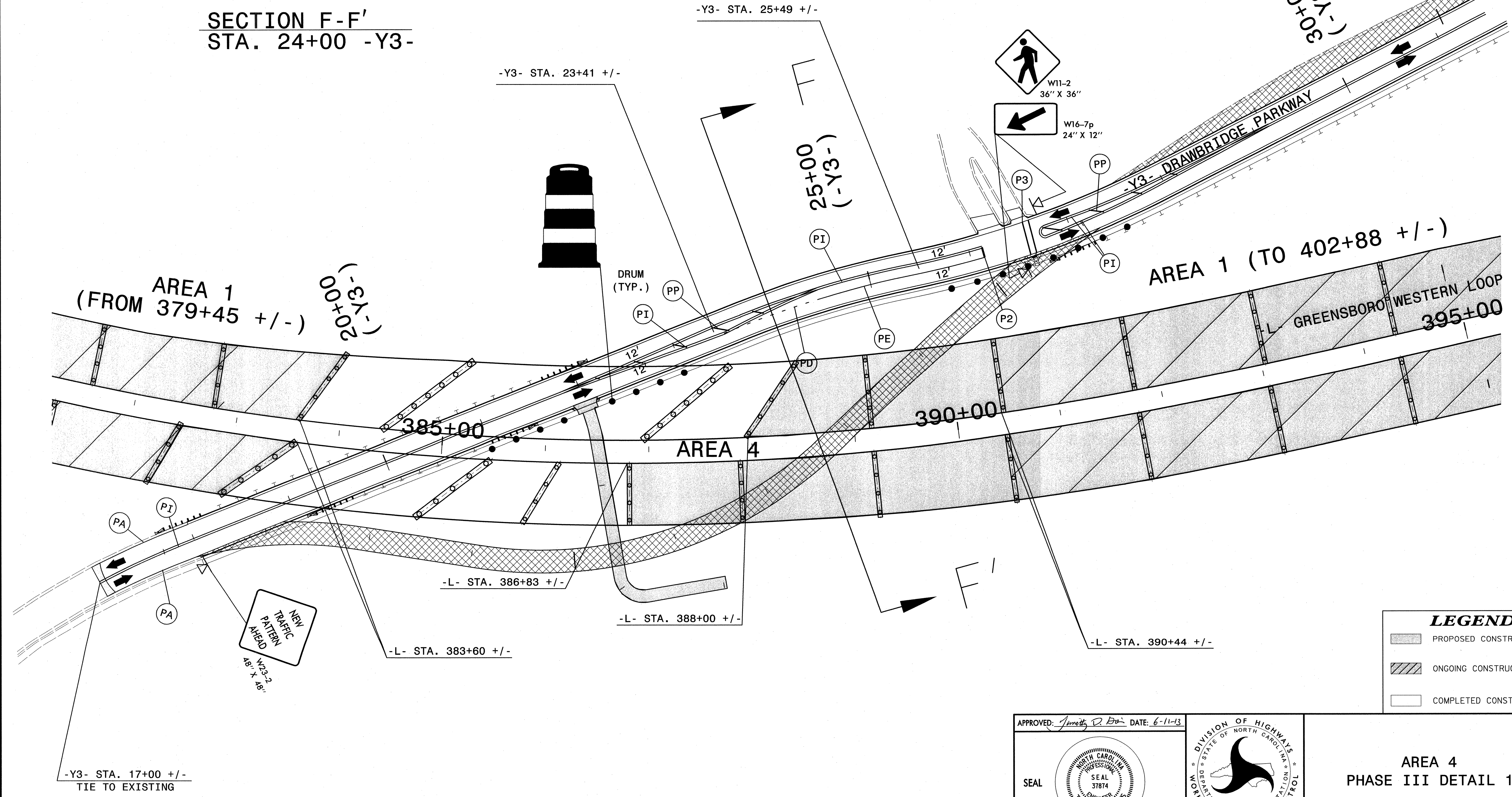
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
WORK ZONE TRAFFIC CONTROL

**AREA 4  
PHASE II DETAIL 2**

10-JUN-2013 10:53 J:\U-2524C\TrafficControl\TCP\TMP-CK PLANS\U-2524C-TC.TCP.17B.dgn \$\$\$SERNAME\$\$\$



NOTE: COMPLETE WORK TO  
 -Y3- STA. 42+20.20 +/-  
 TIE TO EXISTING



**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *James D. Bo...* DATE: 6-11-13

SEAL

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

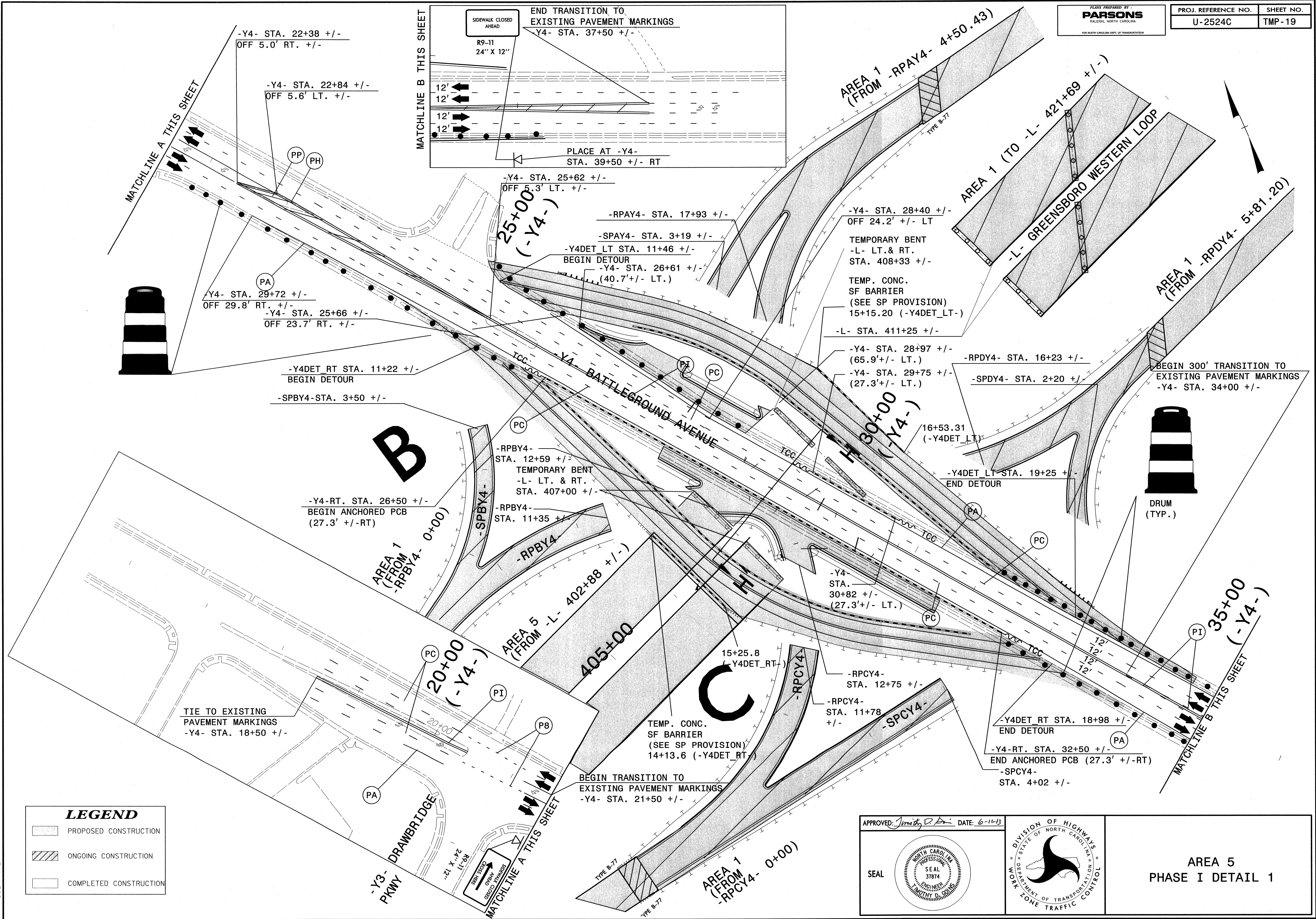
AREA 4  
 PHASE III DETAIL 1

7/27/99  
 I:\JUN-2013\248\U-2524C\TrafficControl\TCP\TMP\CK PLANS\U-2524C\_TC\_TCP\_18.dgn  
 \$\$\$USERNAME\$\$\$

7/2/99

PLANS PREPARED BY  
**PARSONS**  
RALEIGH, NORTH CAROLINA  
FOR NORTH CAROLINA DEPT. OF TRANSPORTATION

PROJ. REFERENCE NO. SHEET NO.  
U-2524C TMP-19

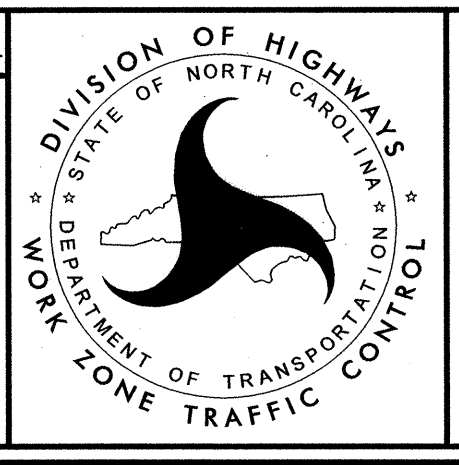


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jimmy D. ...* DATE: 6-11-13

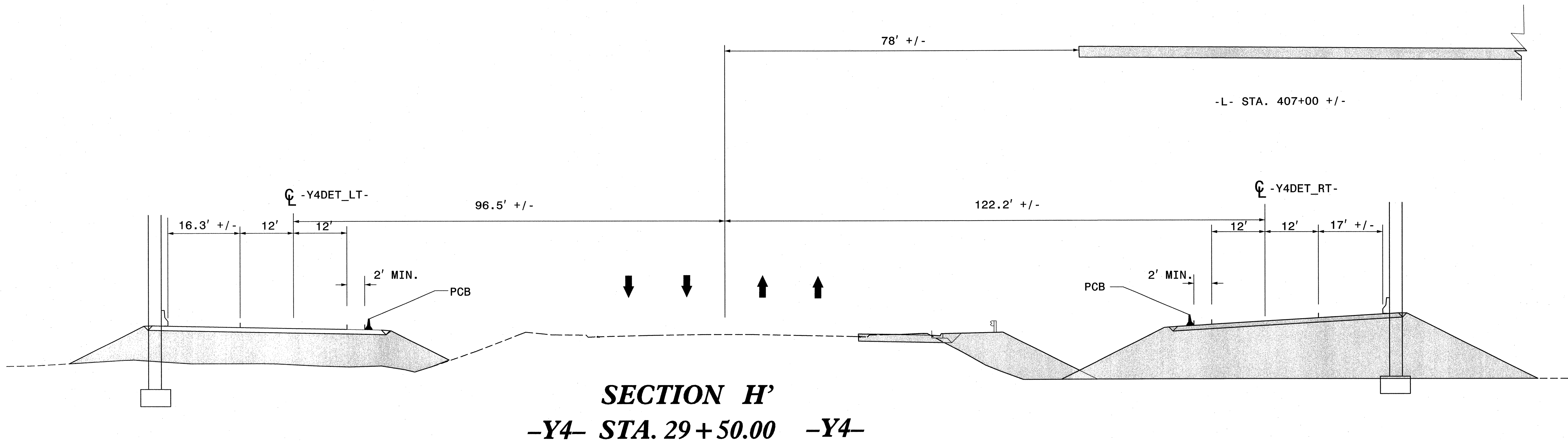
SEAL



AREA 5  
PHASE I DETAIL 1

11-JUN-2013 12:18  
J:\U-2524C\T\Office\TrafficControl\TCP\TMP\CK PLANS\U-2524C-TC-TCP.19.dgn  
\$\$\$\$\$USER\$NAME\$\$\$\$\$

7/2/99



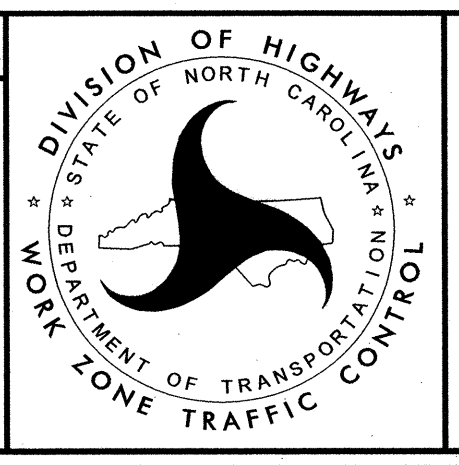
**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

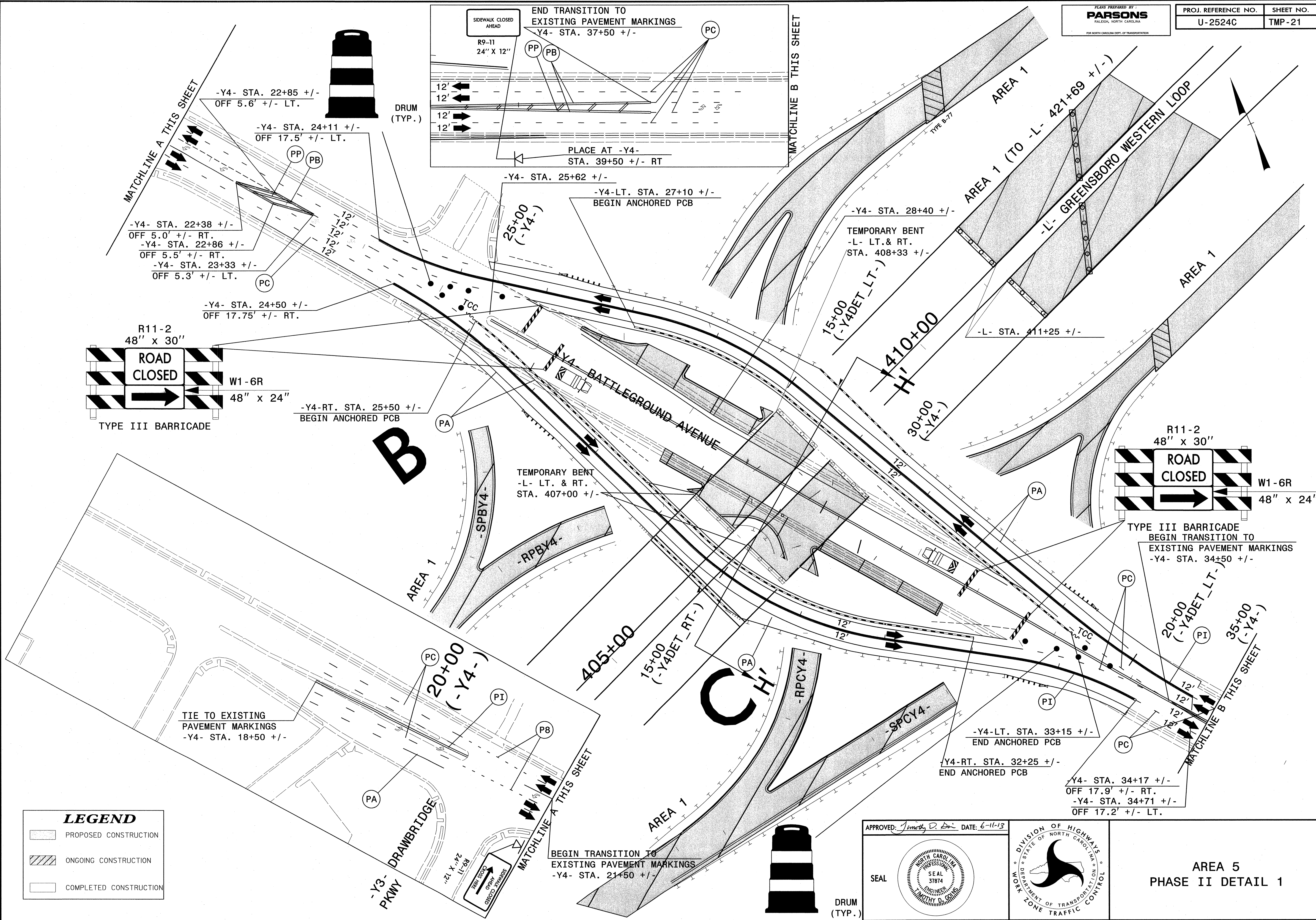
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 \$\$\$\$SERVNAME\$\$\$

APPROVED: *Timothy D. Do...* DATE: 6-11-13

SEAL



**AREA 5**  
**PHASE II**  
**DETAIL 2**  
**SECTION VIEW**

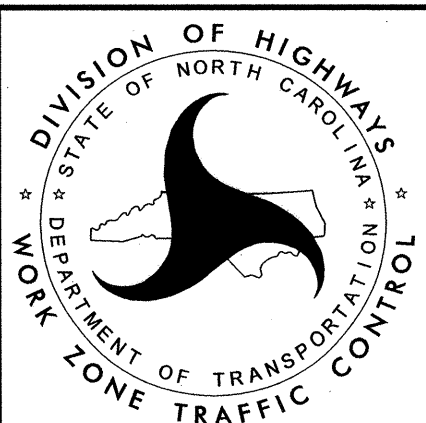


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

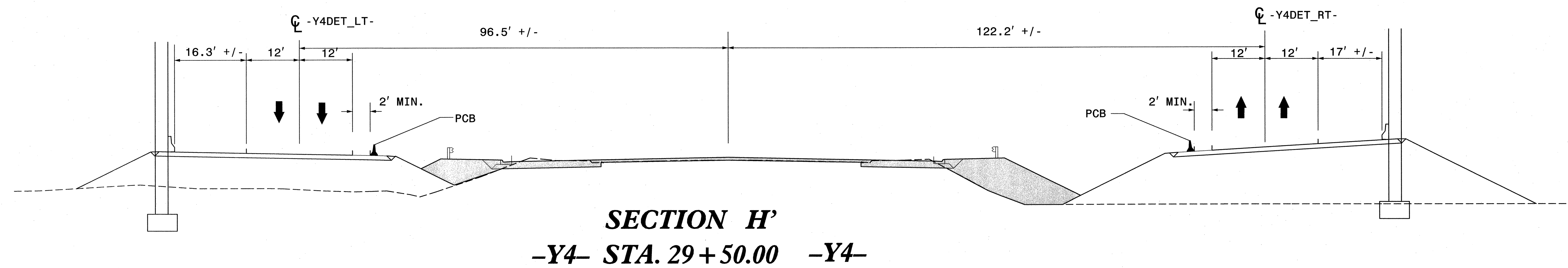
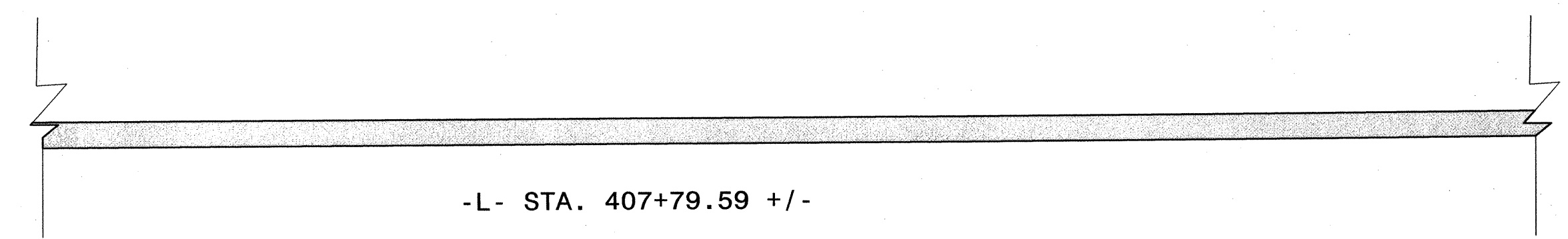
APPROVED: *Jimmy D. Dr...* DATE: 6-11-13

SEAL



AREA 5  
PHASE II DETAIL 1

7/2/99  
11-JUN-2013 12:48  
U:\U-2524C\TrafficControl\TCP\TMP\_CK\_PLANS\U-2524C\_TC\_TCP\_21.dgn  
\$\$\$USERNAME\$\$\$

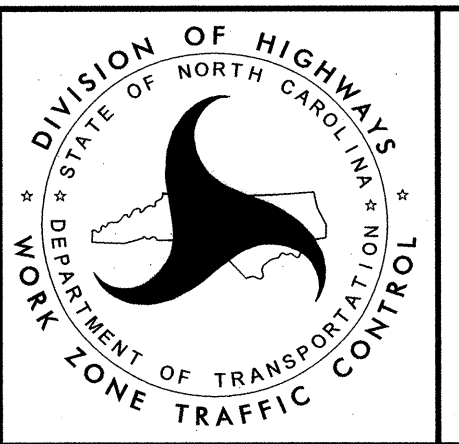


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jeremy D. ...* DATE: 6-11-13

SEAL



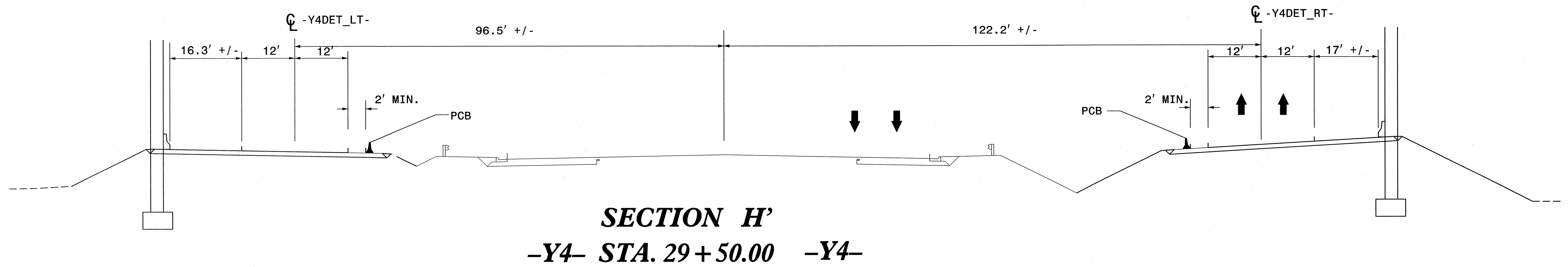
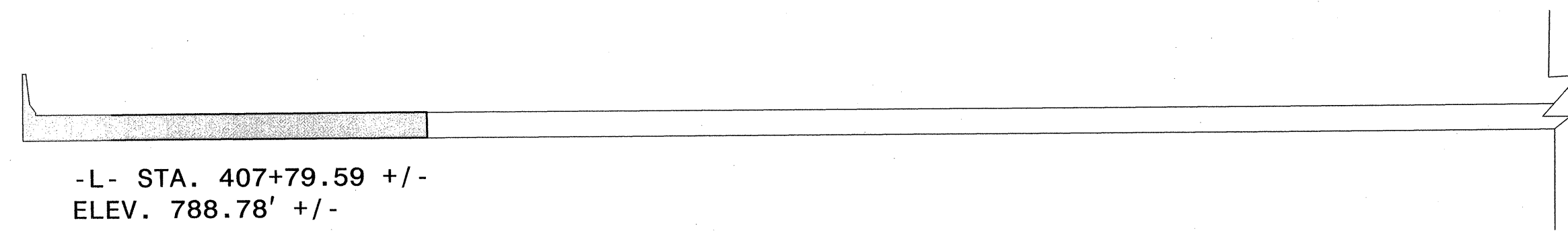
AREA 5  
 PHASE II  
 DETAIL 2  
 SECTION VIEW

7/2/99  
 I:\JUN-2013\249  
 I:\U-2524C\TrafficControl\TCP\TMP\CK PLANS\U-2524C\_TC\_TCP\_22.dgn  
 \$\$\$USERNAME\$\$\$





7/2/99



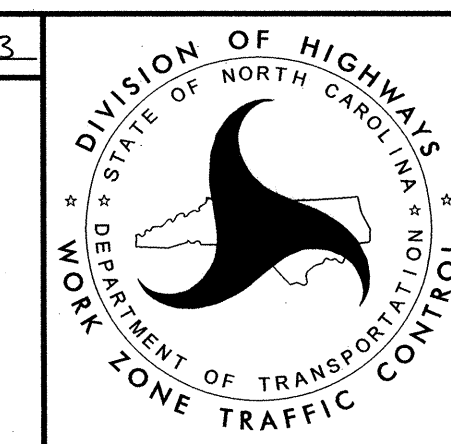
10-JUN-2013 10:53  
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 \$\$\$USERNAME\$\$\$

**LEGEND**

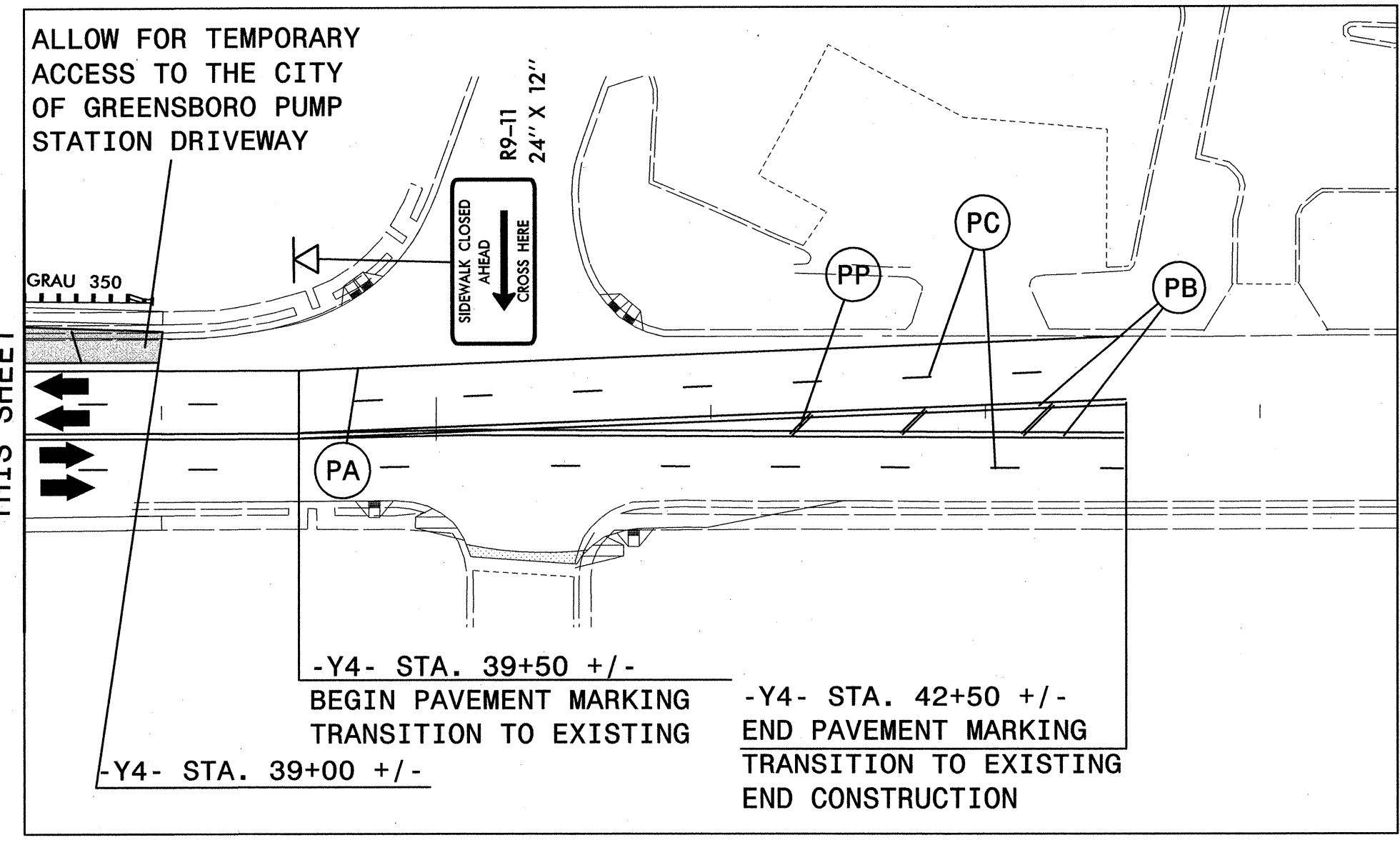
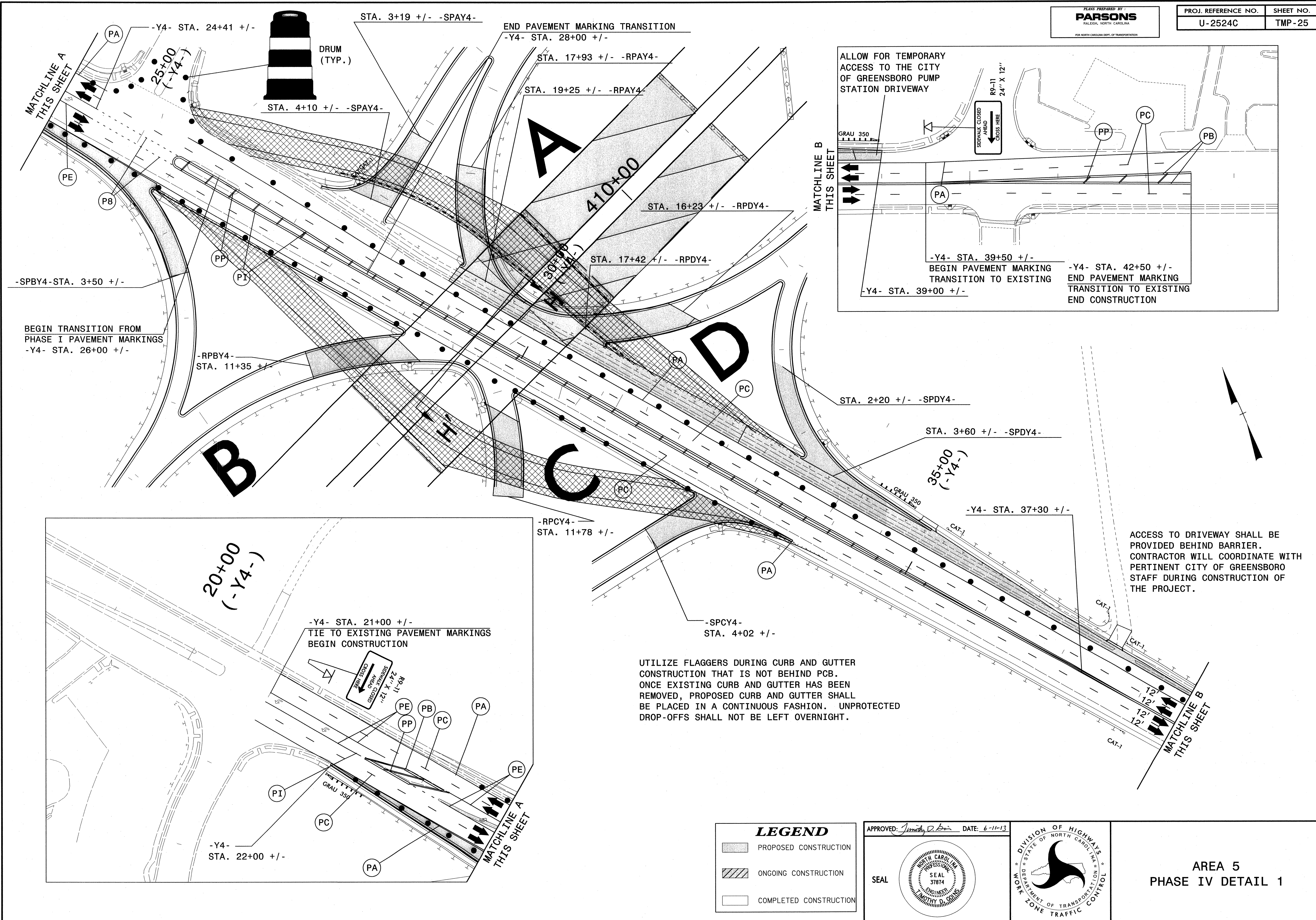
	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jeremy D. Bo...* DATE: 6-11-13

SEAL



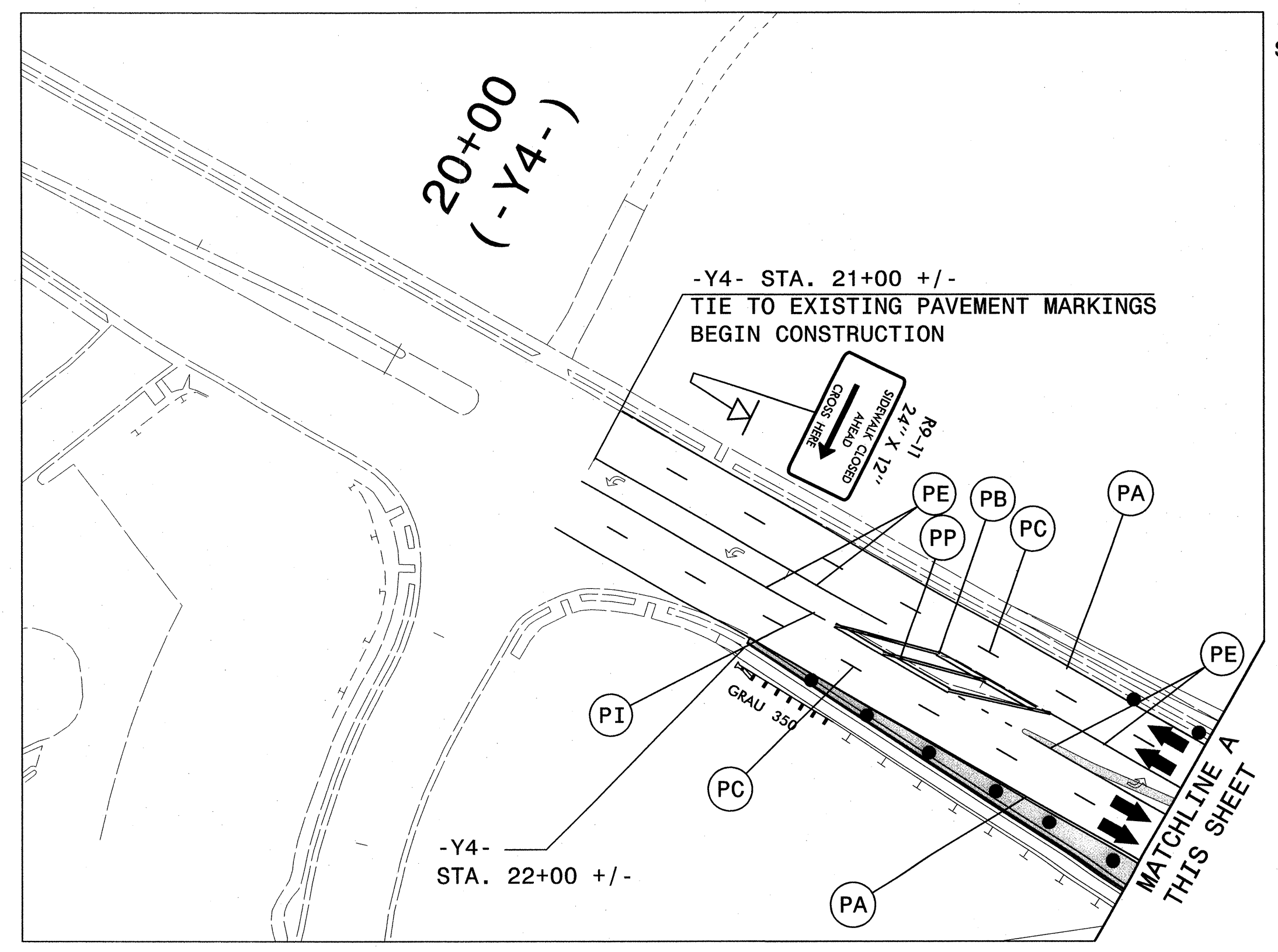
AREA 5  
 PHASE II  
 DETAIL 2  
 SECTION VIEW



BEGIN TRANSITION FROM PHASE I PAVEMENT MARKINGS  
 -Y4- STA. 26+00 +/-

ACCESS TO DRIVEWAY SHALL BE PROVIDED BEHIND BARRIER. CONTRACTOR WILL COORDINATE WITH PERTINENT CITY OF GREENSBORO STAFF DURING CONSTRUCTION OF THE PROJECT.

UTILIZE FLAGGERS DURING CURB AND GUTTER CONSTRUCTION THAT IS NOT BEHIND PCB. ONCE EXISTING CURB AND GUTTER HAS BEEN REMOVED, PROPOSED CURB AND GUTTER SHALL BE PLACED IN A CONTINUOUS FASHION. UNPROTECTED DROP-OFFS SHALL NOT BE LEFT OVERNIGHT.

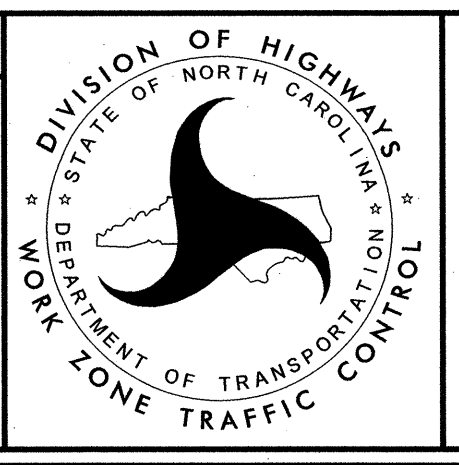


**LEGEND**

	PROPOSED CONSTRUCTION
	ONGOING CONSTRUCTION
	COMPLETED CONSTRUCTION

APPROVED: *Jessie D. ...* DATE: 6-11-13

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 37874



AREA 5  
 PHASE IV DETAIL 1

7/22/99  
 I:\JUN-2013\219\219\TrafficControl\TCP\TMP\CK PLANS\U-2524C-1.C.TCP.25.dgn  
 \$\$\$\$USERNAME\$\$\$\$