# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO. SHEET NO. U-3303 TCP-1

# PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

# ALAMANCE COUNTY

## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS
1264.02	PLACEMENT OF OBJECT MARKERS

# INDEX OF SHEETS

## SHEET NO. TCP-1 PROJECT NOTES

TITLE LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS.

LEGEND AND INDEX OF SHEETS

TCP-2

TCP-2A

DRIVEWAY DETAIL

TCP-3 & TCP-3A

PHASING

OV-1 AND OV-2

TRAFFIC OPERATION OVERVIEW

TCP-4 THRU TCP-11

TCP-12 THRU TCP-19 PHASE II

TCP-20 THRU TCP-23 PHASE III

TCP-24 & TCP-24A

PROPOSED DETOUR MAPS

TCP-25

RE-TIMED SIGNAL MAP

ADVANCED WORK ZONE WARNING SIGNS

SD-1

SPECIAL SIGN DESIGN DETAIL

PM-1

FINAL PAVEMENT MARKING SCHEDULE

PM-2 THRU PM-10

FINAL PAVEMENT MARKING PLAN

## LEGEND

### **GENERAL**

DIRECTION OF TRAFFIC FLOW

PROPOSED PVMT. ----- EXIST. PVMT.

**WORK AREA** 



REMOVAL OF EXISTING PAVEMENT

### TRAFFIC CONTROL DEVICES

T TYPE I BARRICADE

TYPE III BARRICADE

CONE

SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

STATIONARY SIGN

□ PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

---- CRASH CUSHION

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

**POLICE** 

- FLAGGER

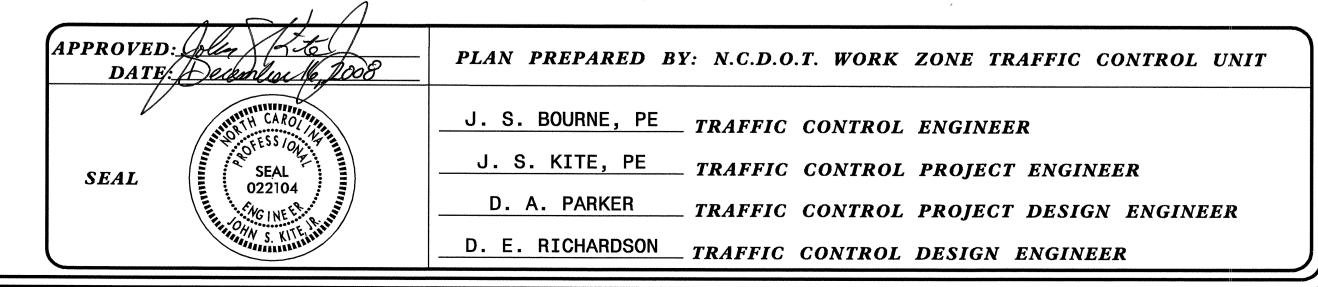
### PAVEMENT MARKINGS

CRYSTAL/CRYSTAL PAVEMENT MARKER

◆ YELLOW/YELLOW PAVEMENT MARKER

CRYSTAL/RED PAVEMENT MARKER

PAVEMENT MARKING SYMBOLS



## GENERAL NOTES

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

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

#### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

#### ROAD NAME

DAY AND TIME RESTRICTIONS

- -Y- HUFFMAN MILL RD MONDAY THRU SATURDAY 7:00AM TO 10:00PM AND SUNDAY 12:00 NOON TO 8:00PM
- -Y1- NC 62/ALAMANCE RD 3) -Y14- NC 54/CHAPEL HILL RD
- 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

- 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY. CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

#### PAVEMENT EDGE DROP OFF REQUIREMENTS

F) 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.

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

#### TRAFFIC PATTERN ALTERATIONS

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

#### SIGNING

- I) 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.
- PROVIDE PERMANENT SIGNING.
- PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.
- COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

#### TRAFFIC CONTROL DEVICES

- SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- P) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- Q) 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.
- R) TWICE DAILY INSPECTION OF TRAFFIC CONTROL DEVICES SHALL BE REQUIRED TO ENSURE DEVICES ARE IN COMPLIANCE WITH ONE-WAY PATTERNS AS SHOWN IN THE PLANS.

#### PAVEMENT MARKINGS AND MARKERS

S) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME

MARKING

MARKER

ALL ROADS

THERMOPLASTIC

PERMANENT RAISED

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

ROAD NAME

MARKING

MARKER

ALL ROADS

PAINT

TEMPORARY RAISED

- U) 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.
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- X) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

### TEMPORARY / FINAL SIGNALS

- Z) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.
- AA) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

#### **MISCELLANEOUS**

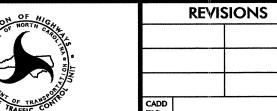
BB) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.

APPROVED: Man Roban DATE: 1/30/09 **SEAL** 

## PROJECT NOTES

NONE 09/08 DR DESIGN BY: DR REVIEWED BY: DP

DWG. BY:



-JAN-2009 15:45 Dot\DfsrootOl\Proj\ notel AT WZTC244748

PROJ. REFERENCE NO. SHEET NO. U-3303 TCP-2A NOTE: THE DRUMS FACING DRIVES ON THE NON-CONSTRUCTION SIDE SHALL HAVE THE ONE WAY SIGNS ATTACHED. DRIVEWAY DETAIL 36" X 12"
USE APPROVED COMPOSITE SUBSTRATE,
SINGLE SIDED ONE WAY SIGN ATTACHED
TO DRUM VIA DRUM HANDLE DRUM MOUNTED SIGNS SHALL BE PAID FOR AS "BARRICADE MOUNTED SIGNS". CONSTRUCTION SIDE 36" X 12"
USE APPROVED COMPOSITE SUBSTRATE,
SINGLE SIDED ONE WAY SIGN ATTACHED
TO DRUM VIA DRUM HANDLE NOTE: TWICE DAILY INSPECTION OF TRAFFIC CONTROL DEVICES SHALL BE REQUIRED TO ENSURE DEVICES ARE IN COMPLIANCE WITH ONE-WAY PATTERNS AS SHOWN IN THE PLANS. NOTE: THE FIRST 2 DRUMS AT DRIVES SHALL HAVE THE ONE WAY SIGNS ATTACHED. PIPE INSTALLATION DETAIL STAGE II OF PIPE INSTALLATION TO BE INSTALLED WITH WESTBOUND TRAFFIC SHIFTED TO EASTBOUND LANE  $\neg$ 200′+/-SHIFT LENGTH = 110' +/-50' BUFFER SPACE 50' BUFFER SPACE SHIFT LENGTH =  $110' + \angle$ MAX DRUM SPACING = 20' MAX DRUM SPACING = 20' APPROVED: Jales Hote DATE: 12/16/08 - STAGE I OF PIPE INSTALLATION DRIVEWAY DETAIL TO BE INSTALLED WITH WESTBOUND TRAFFIC IN EXISTING LANE AND PIPE INSTALLATION DETAIL **REVISIONS** NONE 12/08

#### PHASE I

STEP 1 - INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS ACCORDING TO TCP-26.

NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS. (SEE TCP-4, 5, 8, 9, 11 AND 25)

MAJOR TRAFFIC SHIFT (2 WEEKS PRIOR TO SHIFT PLACE CMS BOARDS TO ADVISE TRAFFIC OF UPCOMING TRAFFIC PATTERN CHANGE)

NOTE: THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE STEPS 3 THRU 4 IN ONE WORK PERIOD.

STEP 2 - USING A SINGLE MOUNTED "ROAD CLOSED 500FT" SIGN (W20-3), CLOSE ALL ACCESS TO -L- (MEBANE ST) FROM THE FOLLOWING -Y- LINES:

- -Y1- LILAC ST
- -Y2- HOLLY HILL LN
- -Y7- BLANCHE DR
- -Y8- MAY DR (NORTH)
- -Y9- TERRACE DR
- -Y10- MIRROR LAKE DR
- -Y10- MIRROR LA -Y11- FLINT ST
- -Y12- ELDERWOOD LN
- -Y13- COLUMBINE LN
- -Y6- TRAIL THREE
- -Y7- TRAIL THREE
- -Y8- AUDREY AVE
- -Y9- TRAIL FOUR
- -Y12- BRYAN ST
- -Y13- FOSTER ST
- INSTALL ALL TRAFFIC OPERATION SIGNS ACCORDING TO TCP-4 THRU TCP-11.
- INSTALL PAVEMENT MARKING SYMBOLS ACCORDING TO TCP-4 THRU TCP-11.

STEP 3 - USING A PILOT CAR, FLAGGERS, AND POLICE TO DIRECT TRAFFIC AT REMAINING INTERSECTIONS, CLOSE ALL EASTBOUND LANES OF -L- (MEBANE ST) IN THE FOLLOWING ORDER:

- A) -Y- HUFFMAN MILL RD (RE-TIME SIGNAL PER SIGNAL PLANS)
- B) -Y3- CATHERINE ST
- C) -Y5- CARDWELL DR
- D) -Y6- DELANEY DR (RE-TIME SIGNAL PER SIGNAL PLANS)
- E) -Y8- MAY DR
- F) -Y1- NC 62 (RE-TIME SIGNAL)
- G) -Y2- TRAIL ONE AND -Y3- TRAIL ONE
- H) -Y4- TRAIL TWO AND -Y5- TRAIL TWO (RE-TIME SIGNAL PER SIGNAL PLANS)
- I) -Y10- TRAIL EIGHT AND -Y11- TRAIL EIGHT
- J) -Y14- NC 54 (RE-TIME SIGNAL PER SIGNAL PLANS)

- USING A PILOT CAR, FLAGGERS AND POLICE, PLACE TRAFFIC INTO WESTBOUND LANES ONLY. (ACCESS LIMITED TO WESTBOUND LANES FROM -Y- LINES AND DRIVEWAYS. SEE TCP-4 THRU TCP-11)

STEP 4 - UPON SHIFTING TRAFFIC TO A ONE LANE, WESTBOUND ONLY TRAFFIC PATTERN ON -L- (MEBANE ST) ADJUST STOP BARS AND STOP SIGNS OR SIGNALS AT THE FOLLOWING:

- -Y3- CATHERINE ST
- -Y5- CARDWELL DR
- -Y6- DELANEY DR
- -Y8- MAY DR
- -Y1- NC 62
- -Y2- TRAIL ONE -Y3- TRAIL ONE
- -Y4- TRAIL TWO
- -Y5- TRAIL TWO
- -Y10- TRAIL EIGHT -Y11- TRAIL EIGHT

NOTE: STEPS 5 THROUGH STEP 7 MAY BE PERFORMED CONCURRENTLY

STEP 5 - AWAY FROM TRAFFIC, AS MUCH AS POSSIBLE, CONSTRUCT EASTBOUND SIDE OF -L- (MEBANE ST) UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. (SEE TCP-4 THRU TCP-11)

NOTE: SEE TCP-2A FOR "DRIVEWAY DETAIL" DEPICTING DRUM MOUNTED "ONE WAY" SIGNS. TWICE DAILY INSPECTION OF THESE SIGNS SHALL BE REQUIRED.

NOTE: SEE "PIPE INSTALLATION DETAIL" ON SHEET TCP-2A FOR CROSS PIPES UNDER MEBANE ST EXCEPT FOR THE DRAINAGE NETWORKS DESCRIBED IN STEP 6 AND STEP 7.

- USING RSD 1101.02, SHEETS 1 AND 3 OF 9, WEDGE AND RESURFACE THE FOLLOWING INTERSECTIONS. LIMITS OF WEDGING/RESURFACING SHALL BE DETERMINED BY THE ENGINEER TO FACILITATE POSITIVE DRAINAGE:

- -L- MEBANE ST AND -Y1- NC 62
- -L- MEBANE ST AND -Y14- NC 54

PHASE I CONT'D

STEP 6 - INSTALL THE PROPOSED DRAINAGE NETWORK AT HUFFMAN MILL RD. AND MEBANE ST BETWEEN STRUCTURES 7 AND 21 IN THE FOLLOWING SEQUENCE, OR AS DIRECTED BY THE ENGINEER

SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES FOR STEP 6A THRU STEP 6C.

- A. PLACE PORTABLE ADVANCE WARNING SIGNS AND CLOSE HUFFMAN MILL RD. IN ACCORDANCE WITH TCP-24.
- B. CONSTRUCT STRUCTURES 15 (PRECAST) AND 16 AND THE 36" CROSS PIPE ACROSS HUFFMAN MILL RD AT -Y- STA 14+75+/-.
- C. RE-OPEN HUFFMAN MILL RD.
- D. USING LANE CLOSURES ON HUFFMAN MILL RD, CONSTRUCT THE PROPOSED PIPE BETWEEN STRUCTURE 8 AND 15, INCLUDING STRUCTURES 8, 10, 11, 12, 13, AND 14. (SEE RSD 1101.02, SHEET 3.)

SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES FOR STEP 6E THROUGH 6G.

- E. USING SHEET TCP-24A, CLOSE MEBANE ST.

F. CONSTRUCT THE PROPOSED PIPE BETWEEN STRUCTURES 4 AND 21, INCLUDING STRUCTURES 7, AND 17 THROUGH 21. CONSTRUCT THE 15" CROSSPIPES ACROSS MEBANE ST. AT -L- STA. 13+15+/- AND 15+05+/-

- G. RE-OPEN MEBANE ST TO ONE-LANE, ONE-WAY TRAFFIC
- H. USING LANE CLOSURES ON HUFFMAN MILL RD. AND WORKING AWAY FROM TRAFFIC ON MEBANE ST. COMPLETE THIS PROPOSED DRAINAGE NETWORK.

STEP 7 - INSTALL THE PROPOSED DRAINAGE NETWORK BETWEEN STRUCTURE 95 AND STRUCTURE 89 (-L- STA 43+50+/-) IN THE FOLLOWING SEQUENCE, OR AS DIRECTED BY THE ENGINEER:

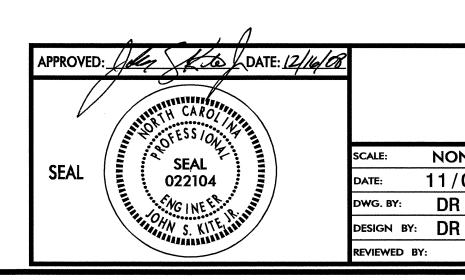
A. DIVERT EXISTING STREAM FLOW TO CONSTRUCT THE 66" OUTFALL PIPE, JUNCTION BOX (STRUCTURE 89), AND BEGIN CONSTRUCTION OF 60" CROSSPIPE.

SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES FOR STEP 7B THRU STEP 7D.

- B. USING SHEET TCP-24A, CLOSE MEBANE ST.
- C. COMPLETE THE INSTALLATION OF THE PROPOSED 60" CROSSPIPE ACROSS ICT EXISTING MEBANE ST.
  - D. RE-OPEN MEBANE ST. TO A ONE-LANE, ONE WAY TRAFFIC PATTERN.
  - E. COMPLETE THE PROPOSED DRAINAGE NETWORK BETWEEN STRUCTURES 95 AND 90.
  - F. DIVERT STREAM FLOW INTO THE PROPOSED DRAINAGE NETWORK.

SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES FOR STEP 7G THRU STEP 7I

- G. USING SHEET TCP-24A, CLOSE MEBANE ST.
- H. REMOVE EXISTING CROSSPIPE AND REPAIR PAVEMENT.
- I. RE-OPEN MEBANE ST. TO A ONE-LANE, ONE WAY TRAFFIC PATTERN.



## PHASING

NONE
11/08
DR
DR
SY:

REVISIONS

REVISIONS

CADD

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S-DEC-2008 14:13

# PHASING (CONT'D)

PROJ. REFERENCE NO.	SHEET NO.
U-3303	TCP-3A
	TUP-SA

#### PHASE II

NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS. (SEE TCP-12, 13, 16, 17, 19 AND 25.)

MAJOR TRAFFIC SHIFT (2 WEEKS PRIOR TO SHIFT, PLACE CMS BOARDS TO ADVISE OF UPCOMING TRAFFIC PATTERN CHANGE.)

NOTE: THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE STEPS 1 THRU 4 IN ONE WORK PERIOD.

STEP 1 - USING A PILOT CAR, FLAGGERS, AND POLICE TO DIRECT TRAFFIC AT INTERSECTIONS, CLOSE ALL WESTBOUND LANES OF -L- (MEBANE ST) IN THE FOLLOWING ORDER:

- A) -Y14- NC 54
- B) -Y10- TRAIL EIGHT AND -Y11- TRAIL EIGHT
- C) -Y4- TRAIL TWO AND -Y5- TRAIL TWO (RE-TIME SIGNAL PER SIGNAL PLANS)
- D) -Y2- TRAIL ONE AND -Y3- TRAIL ONE
- E) -Y1- NC 62 (RE-TIME SIGNAL PER SIGNAL PLANS)
- F) -Y8- MAY DR
- G) -Y6- DELANEY DR (RE-TIME SIGNAL PER SIGNAL PLANS)
- H) -Y5- CARDWELL DR
- I) -Y3- CATHERINE ST
- J) -Y- HUFFMAN MILL RD (RE-TIME SIGNAL PER SIGNAL PLANS)
- USING A PILOT CAR, FLAGEGRS, AND POLICE, PLACE TRAFFIC INTO EASTBOUND LANES ONLY.
  (ACCESS LIMITED TO EASTBOUND LANES FROM -Y- LINES AND DRIVEWAYS. SEE TCP-12 THRU TCP-19.)
- STEP 2 UPON SHIFTING TRAFFIC TO A ONE LANE, EASTBOUND ONLY TRAFFIC PATTERN ON -L- (MEBANE ST) ADJUST STOP BARS AND STOP SIGNS OR SIGNALS AT THE FOLLOWING -Y- LINES:
  - -Y3- CATHERINE ST
  - -Y5- CARDWELL DR
  - -Y6- DELANEY DR
  - -Y8- MAY DR
  - -Y1- NC 62
  - -Y2- TRAIL ONE
  - -Y3- TRAIL ONE
  - -Y4- TRAIL TWO
  - -Y5- TRAIL TWO
  - -Y10- TRAIL EIGHT
  - -Y11- TRAIL EIGHT
  - -Y14- NC 54
- STEP 3 AWAY FROM TRAFFIC, AS MUCH AS POSSIBLE, COMPLETE THE REMAINING DRAINAGE INSTALLATION AND CONSTRUCT WESTBOUND SIDE OF -L- (MEBANE ST) UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

  (SEE TCP-12 THRU TCP-19.)
- NOTE: SEE TCP-2A FOR "DRIVEWAY DETAIL" DEPICTING DRUM MOUNTED "ONE WAY" SIGNS. TWICE DAILY INSPECTION OF THESE SIGNS SHALL BE REQUIRED.

#### PHASE III

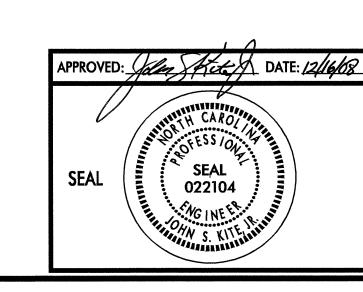
NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS. (SEE TCP-20, 21, 22, 23 AND 25.)

STEP 1 - PLACE TEMPORARY PAINT MARKINGS FOR THE PHASE III TRAFFIC AS FOLLOWS

FOR THE WESTBOUND DIRECTION OF MEBANE ST (CURRENTLY CLOSED) PLACE TEMPORARY PAINT MARKINGS ON THE UP TO BUT NOT INCLUDING LAYER IN THE FINAL TRAFFIC PATTERN FOR THE WESTBOUND DIRECTION AS SHOWN ON SHEETS PM- 2 THRU PM-10 AND TCP-20 THRU TCP-23.

FOR THE EASTBOUND DIRECTION OF MEBANE ST. (CURRENTLY OPEN TO ONE LANE, ONE WAY HEADING EASTBOUND) ADJUST AND/OR PLACE TEMPORARY PAINT MARKINGS AT SIGNALIZED INTERSECTIONS AS SHOWN ON SHEETS TCP-20 THRU TCP-23.

- STEP 2 USING A PILOT CAR, FLAGGERS, AND POLICE TO DIRECT TRAFFIC AT INTERSECTIONS, OPEN BOTH DIRECTIONS OF -L- (MEBANE ST) TO PHASE III TRAFFIC PATTERN (TRAFFIC PLACED IN OUTSIDE LANES ONLY WITH INSIDE LANES DRUMMED OFF) (SEE TCP-20 THRU TCP-23.)
  - RE-TIME ALL NECESSARY SIGNALS PER SIGNAL PLANS.
- STEP 3 WITH THE INSIDE LANES DRUMMED OFF, CONSTRUCT ALL CONCERETE MEDIAN ISLANDS.
- STEP 4 USING RSD 1101.02, SHEET 1 AND 3 OF 9, PLACE THE FINAL LAYER OF SURFACE COURSE ON ALL ROADS.
- STEP 5 USING RSD 1101.02, SHEET 1 AND 3 OF 9, PLACE THE FINAL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON ALL ROADS. (SEE PM-1 THRU PM-10 AND SIGNAL PLANS.)
- STEP 6 REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES AND OPEN THE PROJECT TO THE FINAL TRAFFIC PATTERN.



# PHASING

DATE: 11/08

DWG. BY: DR

DESIGN BY: DR

REVISIONS

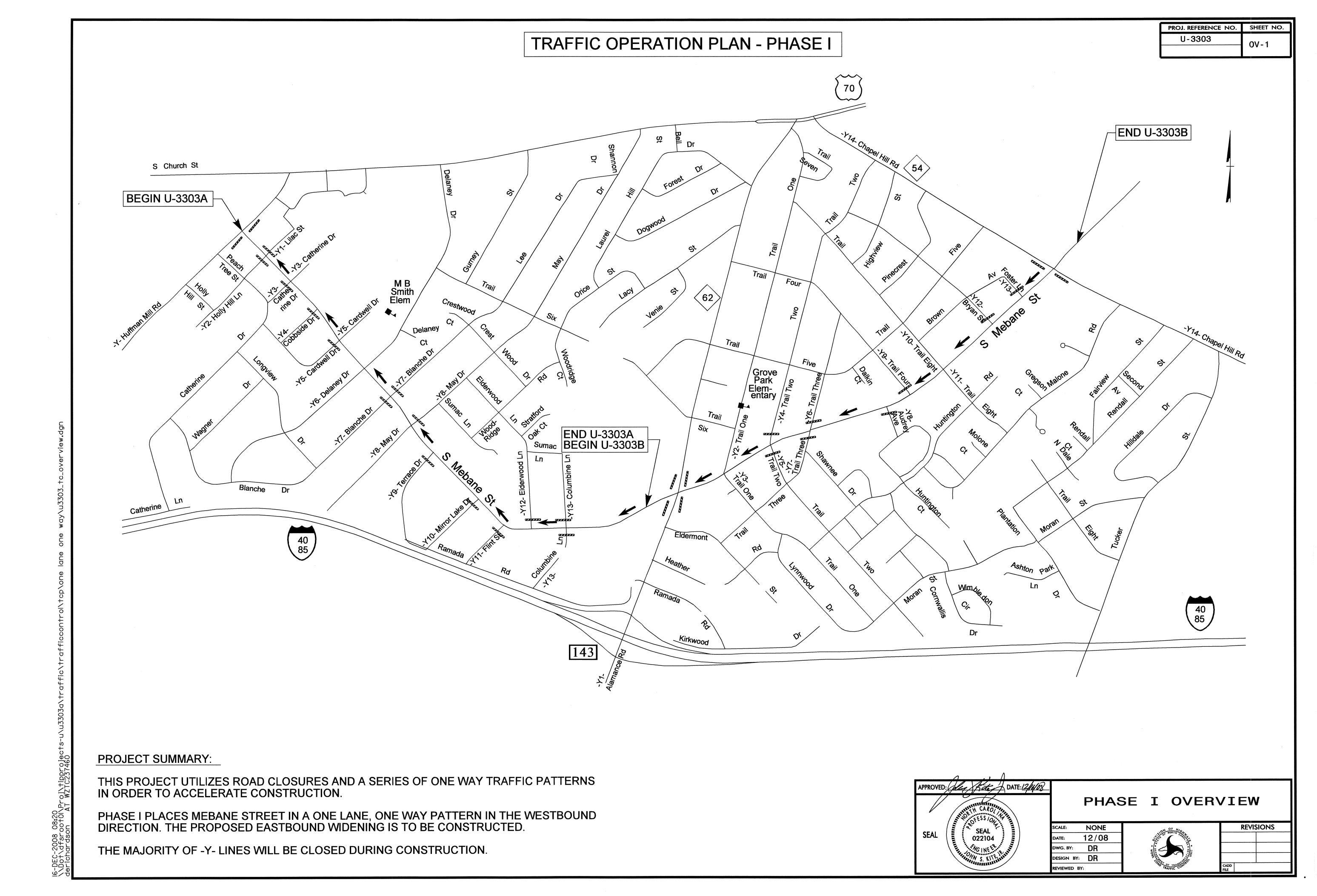
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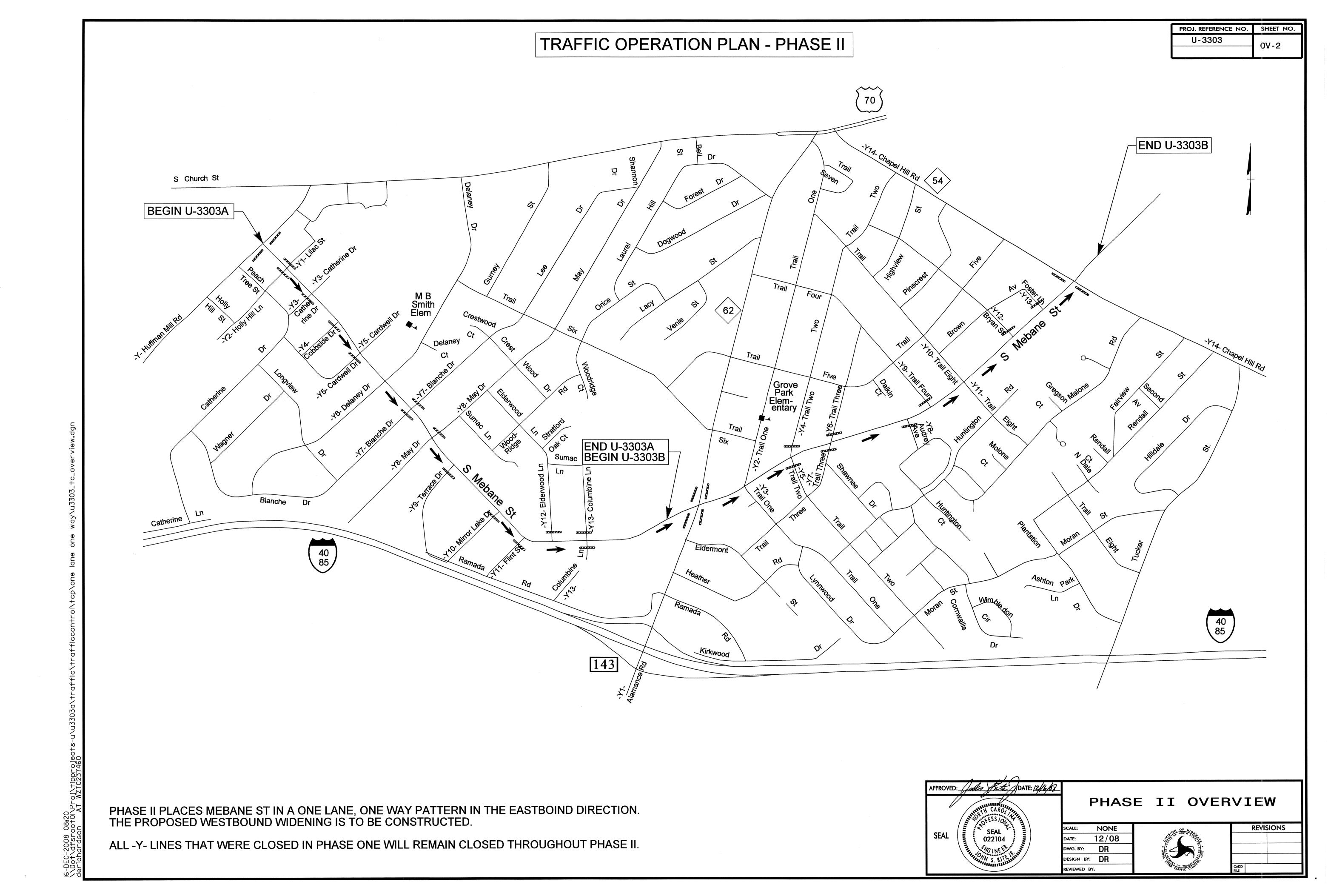
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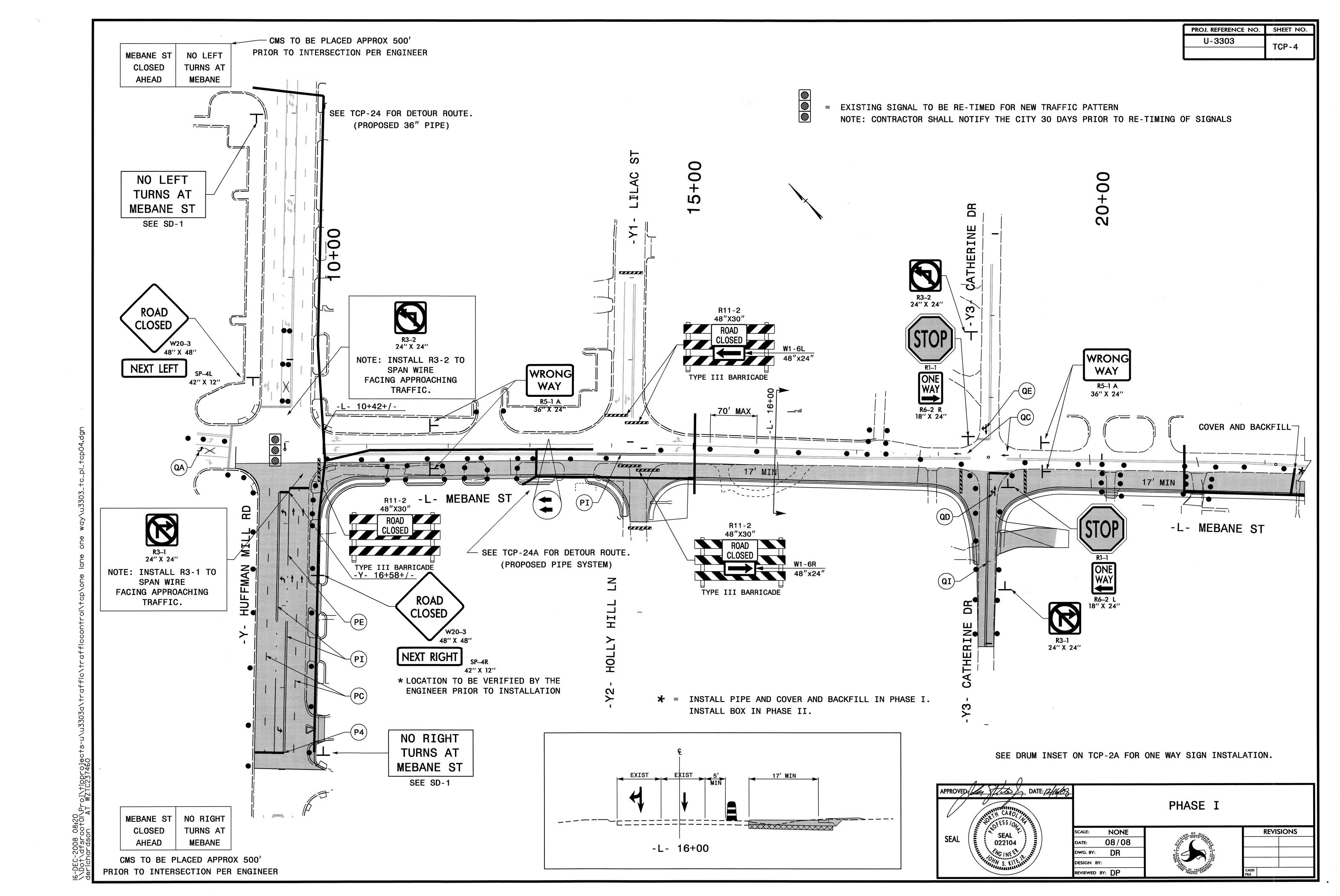
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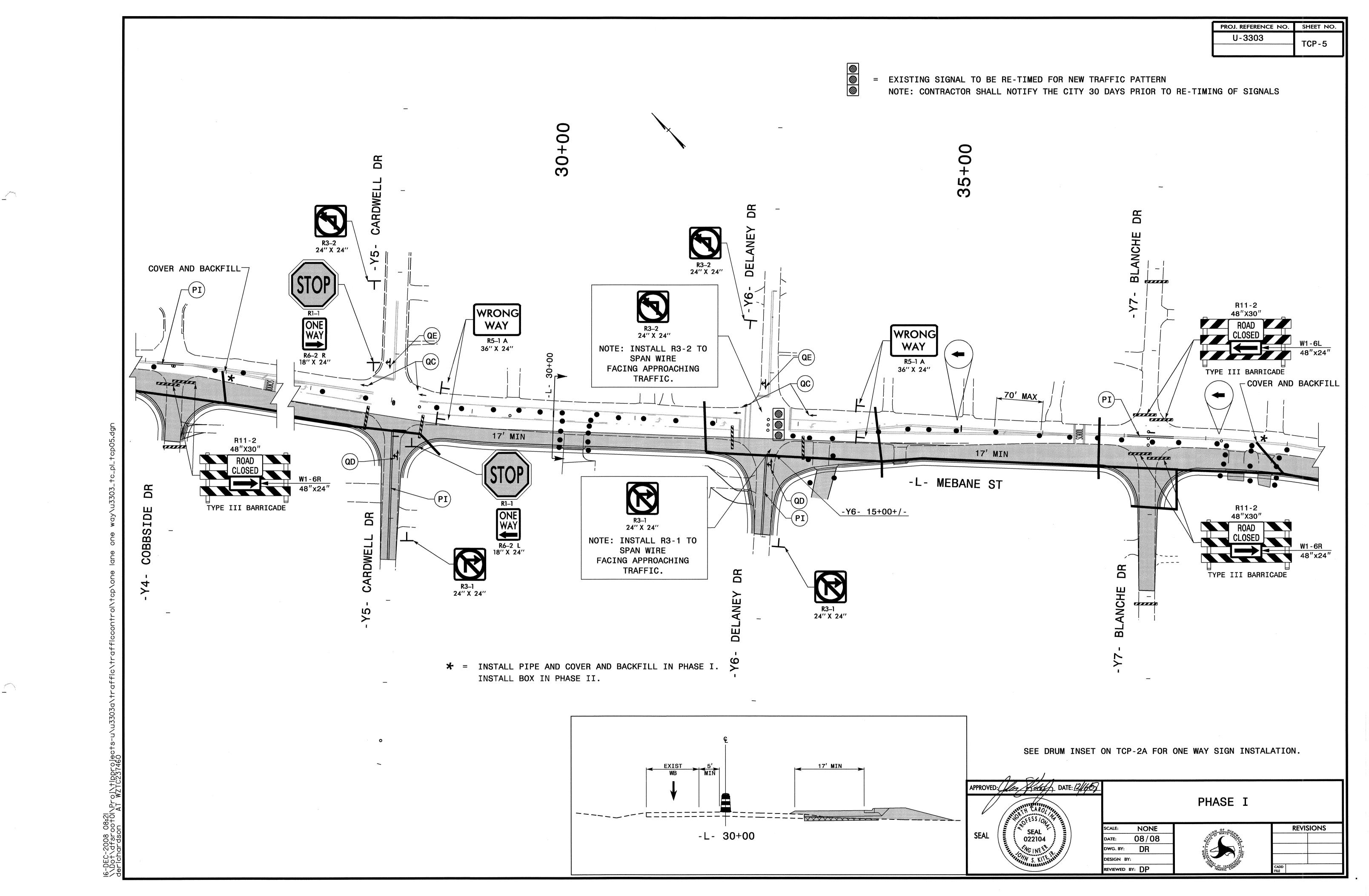
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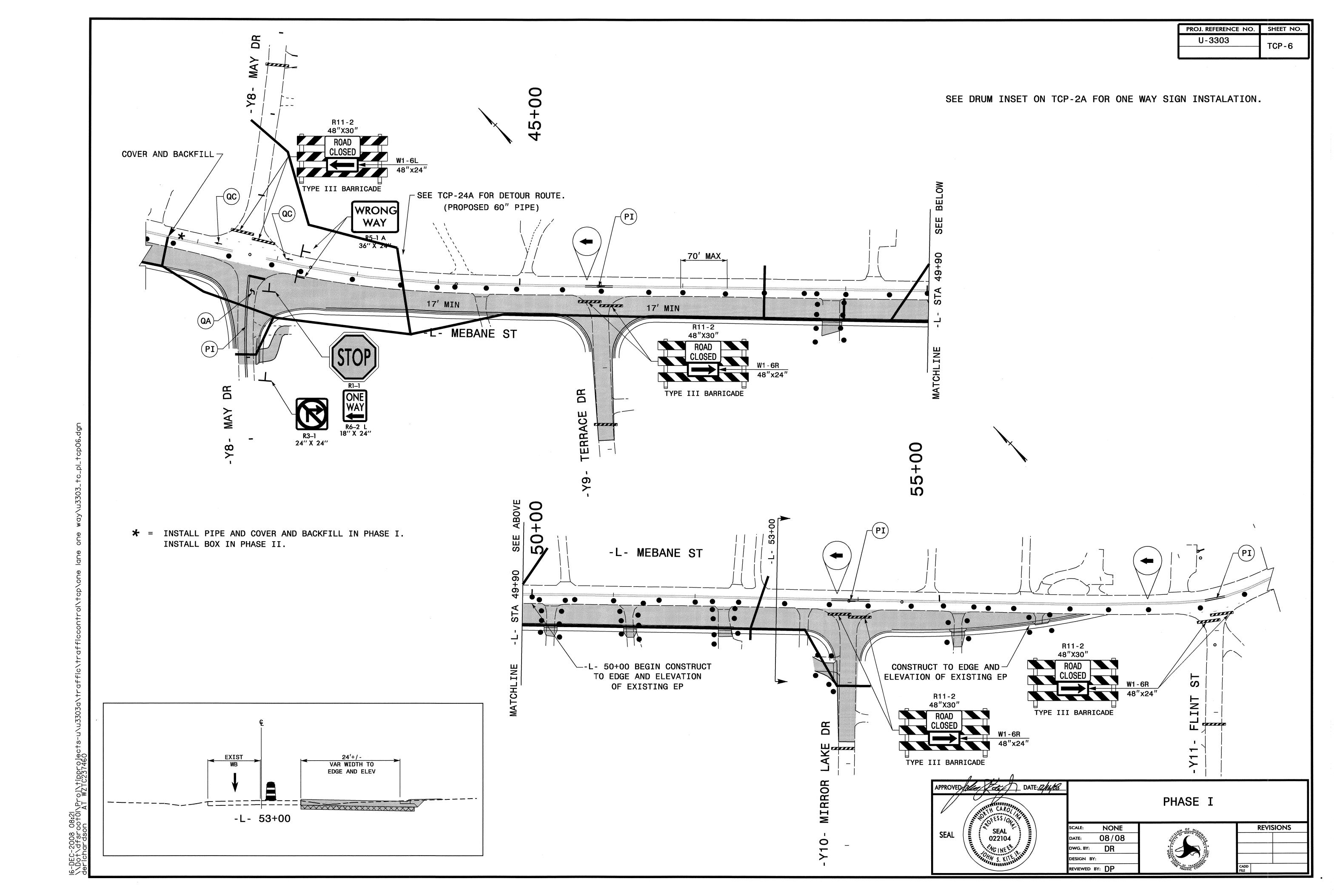
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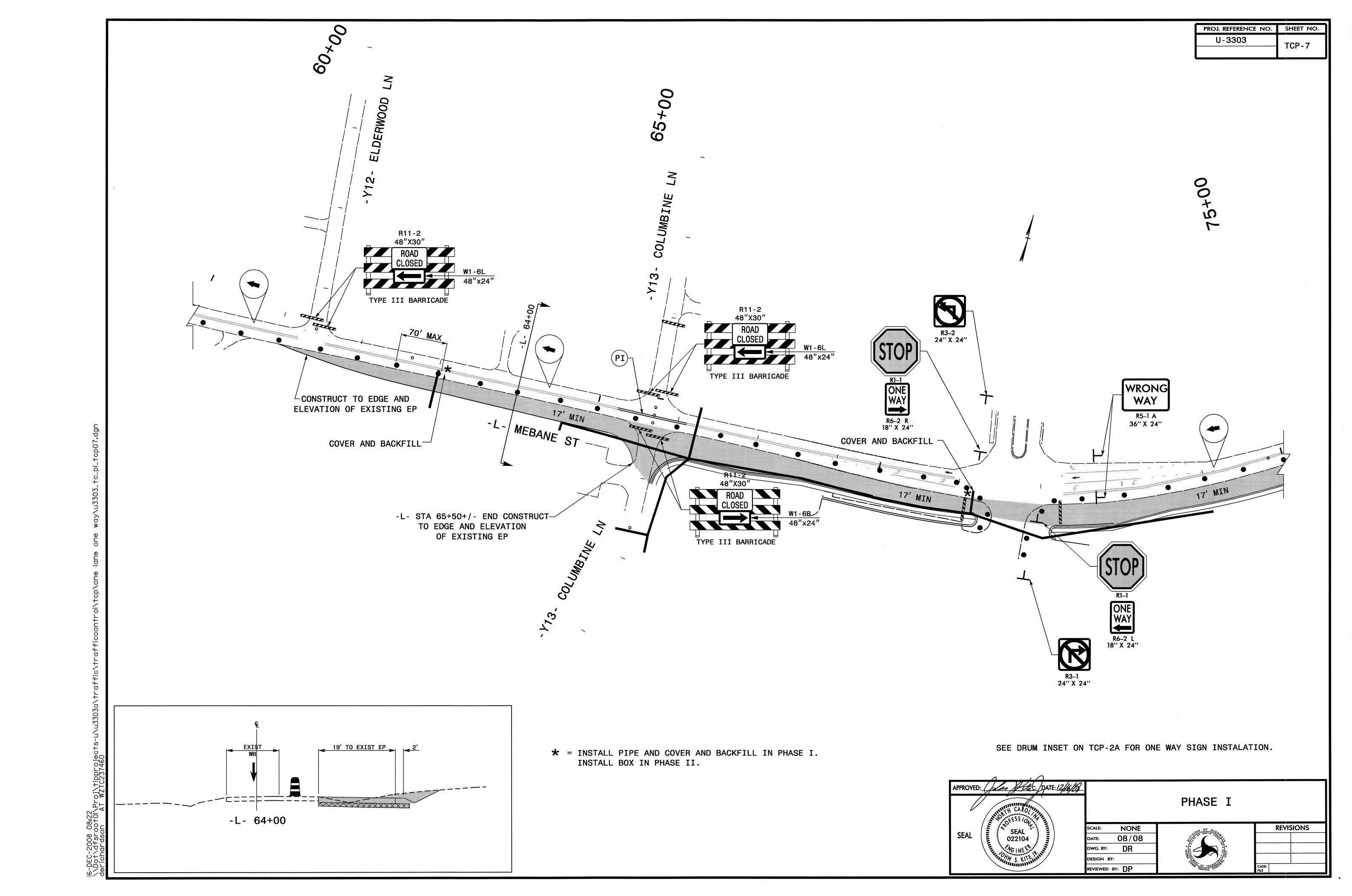


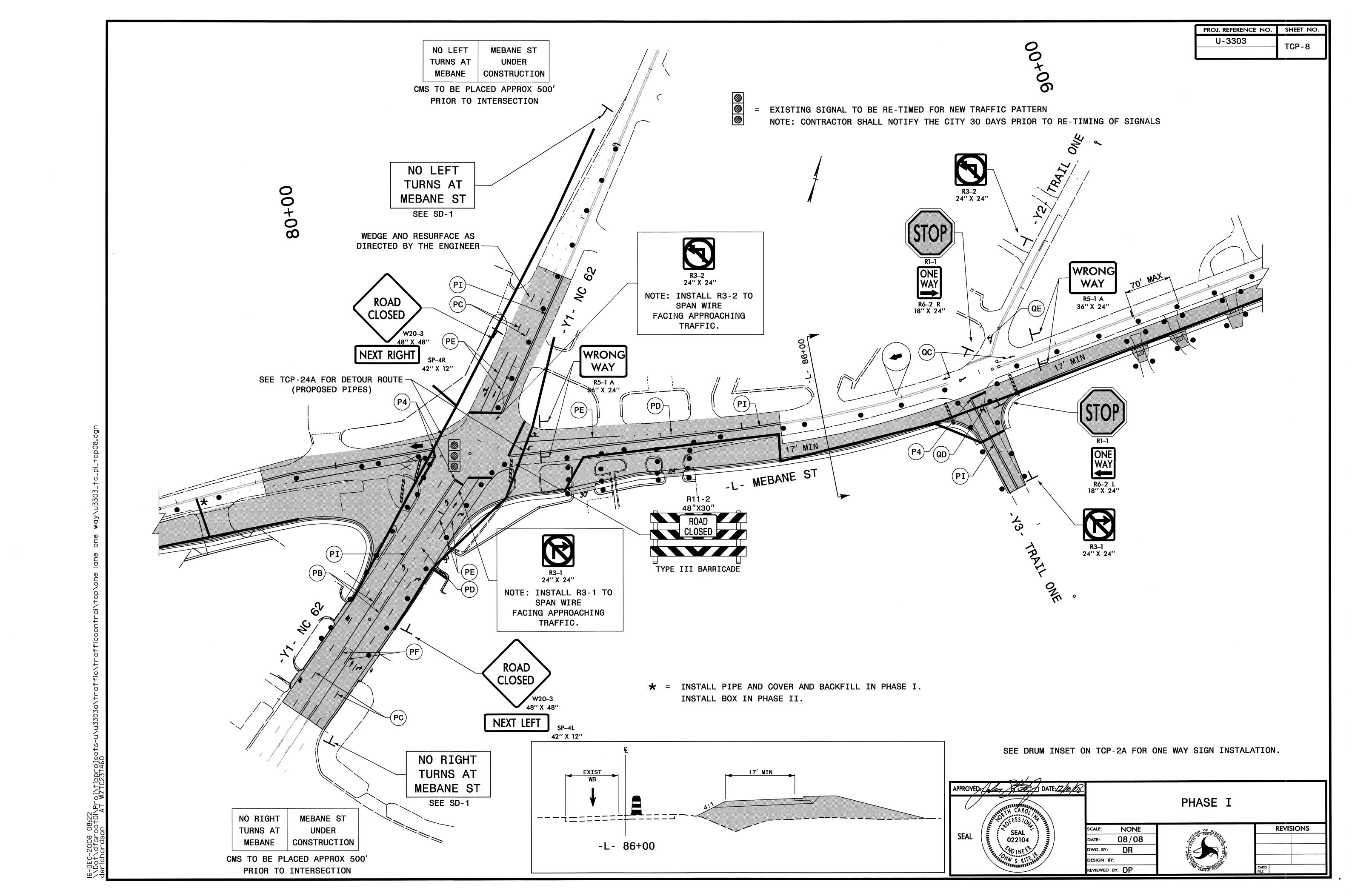


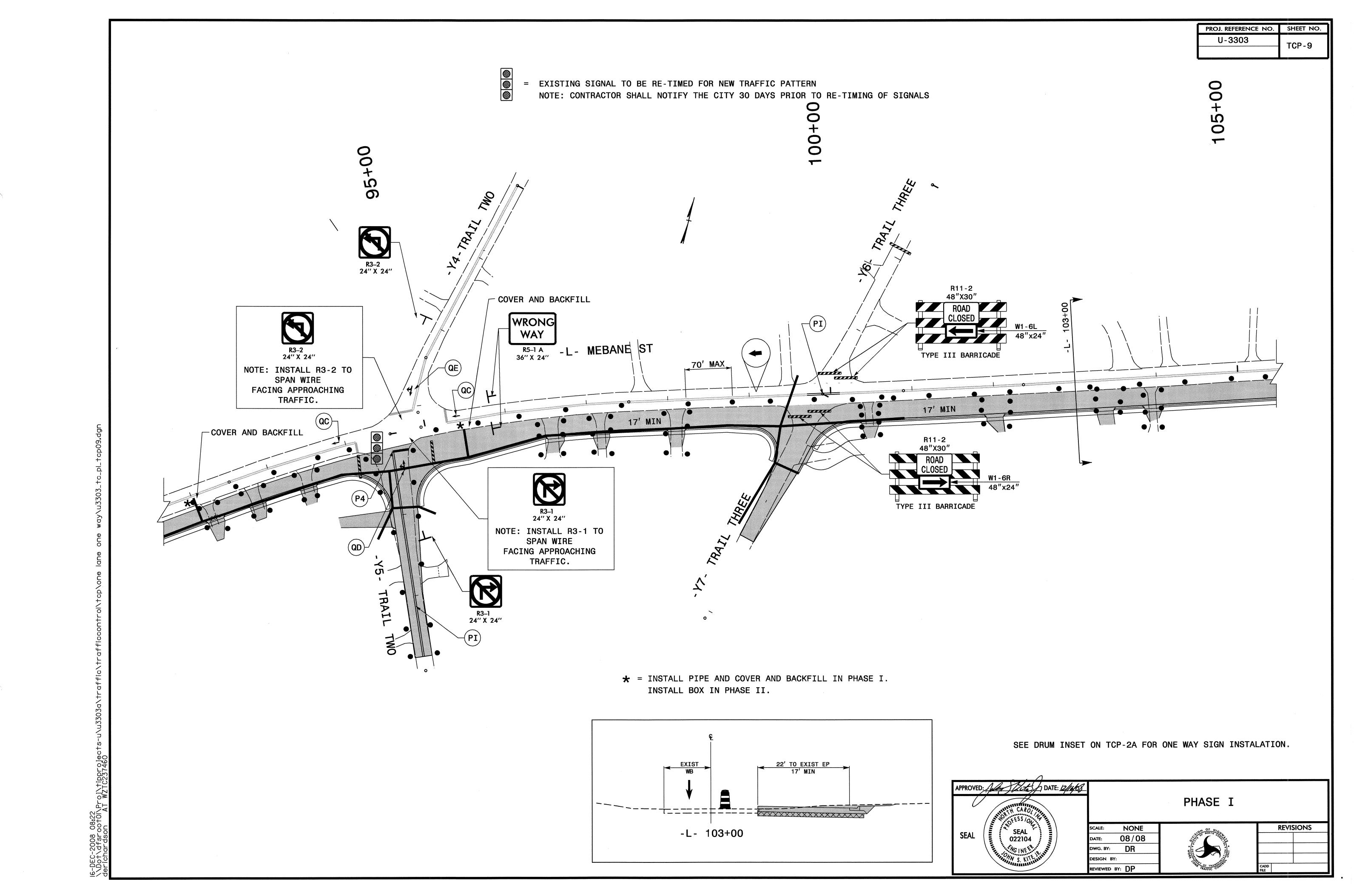


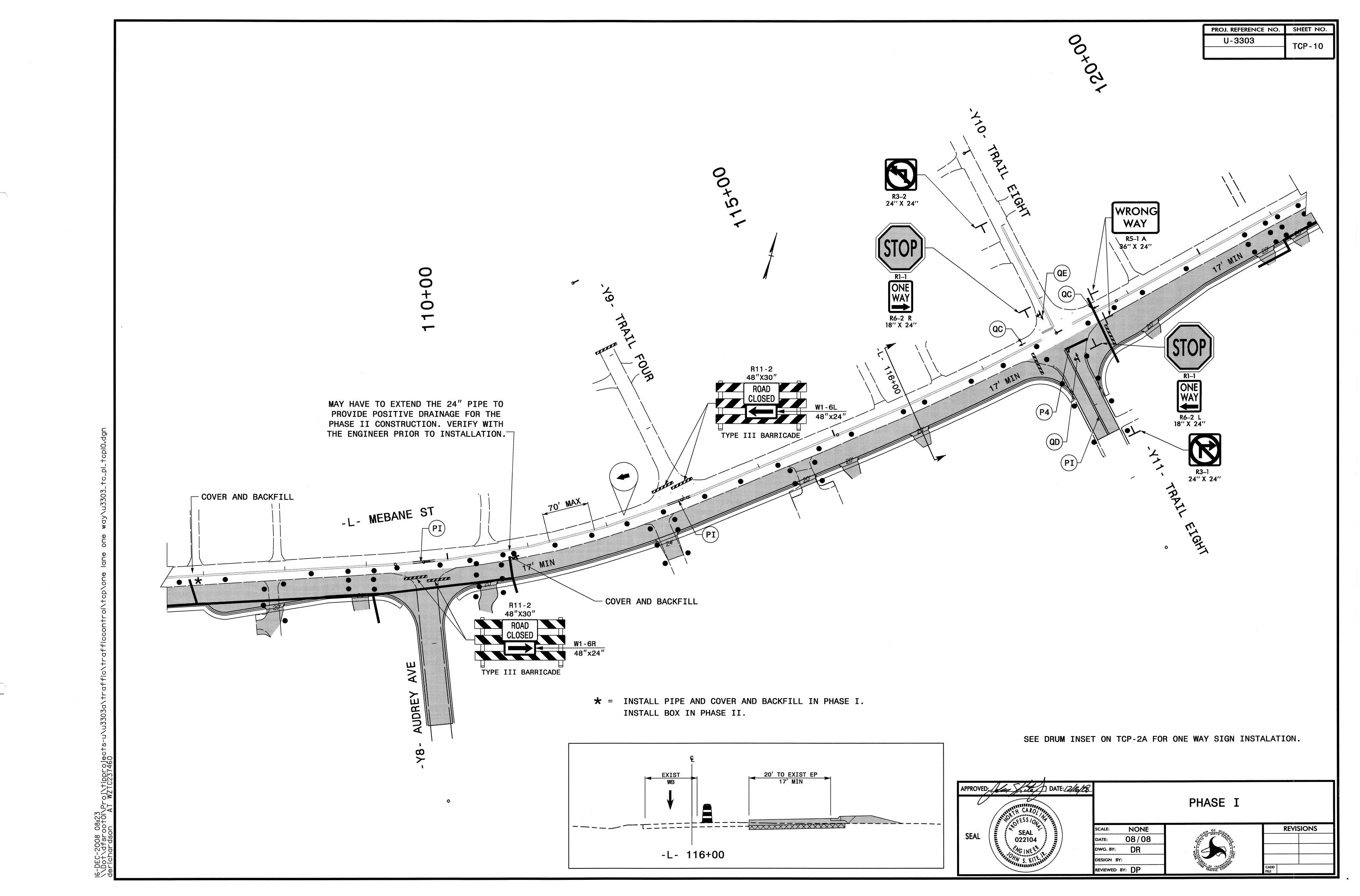






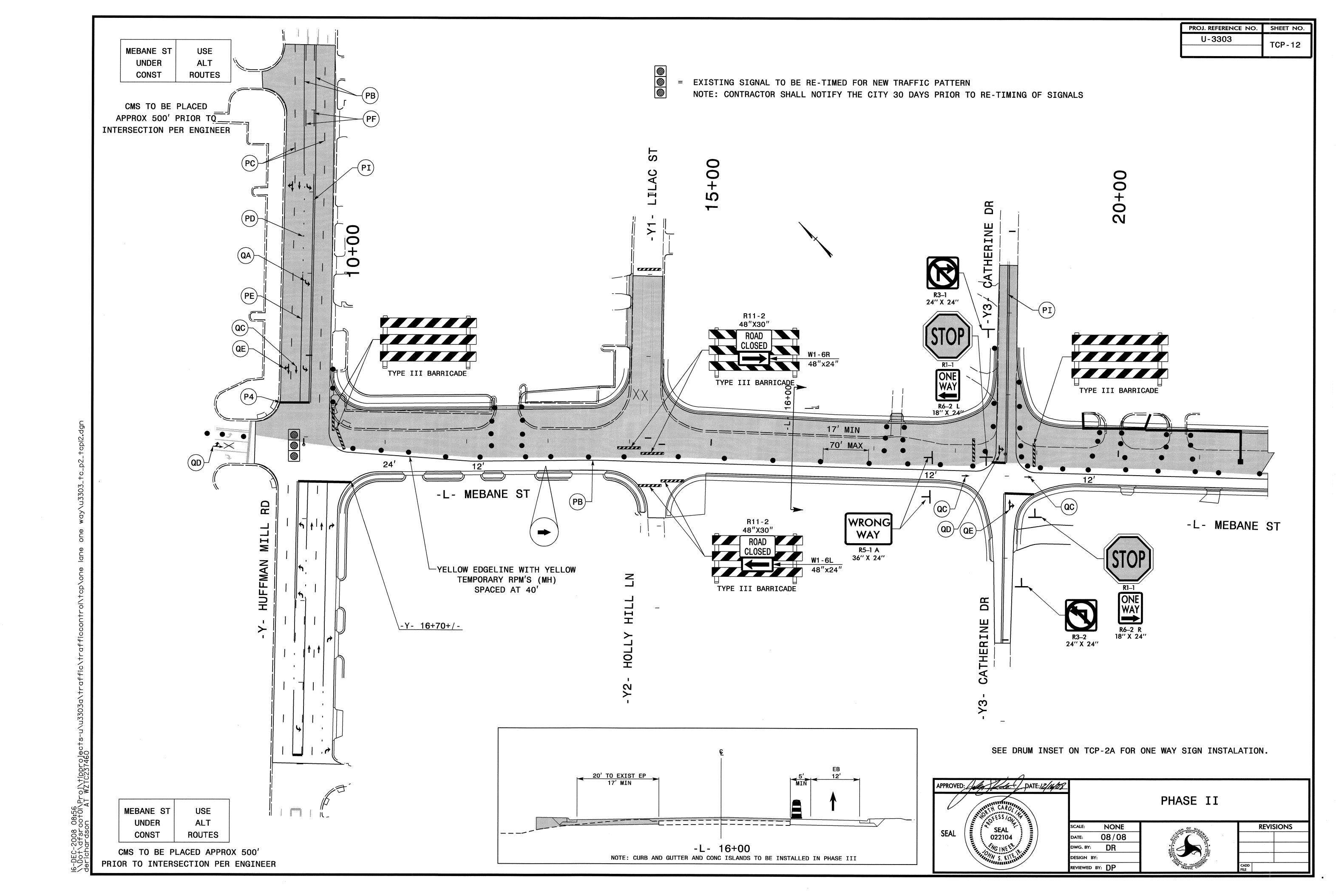






U-3303 = EXISTING SIGNAL TO BE RE-TIMED FOR NEW TRAFFIC PATTERN NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS MEBANE ST USE ALT UNDER CONSTRUCTION ROUTES 00xGEX -Y14- 20+17+/-CMS TO BE LOCATED APPROX 500+ -Y14- 20+11+/-PRIOR TO INTERSECTION PER ENDINEER  $ar{}$  WEDGE AND RESURFACE AS DIRECTED BY THE ENGINEER AFTER INSTALLING ALL CROSS PIPES AS SHOWN -L- 136+56+/--L- STA 141+92+/--L- 136+88+/--Y14- 21+14+/--Y14- 21+24+/-R11-4 60"X30" R11-2 48"X30" MEBANE ST USE ALT UNDER **ROUTES** CONSTRUCTION CMS TO BE LOCATED APPROX 500+ TYPE III BARRICADE PRIOR TO INTERSECTION PER ENDINEER SEE DRUM INSET ON TCP-2A FOR ONE WAY SIGN INSTALATION. 28' TO EXSIT EP 17' MIN APPROVED: Jolen John PATE: 12/14/08 PHASE I REVISIONS NONE SEAL 08/08 -L- 132+00 DWG. BY: DR REVIEWED BY: DP

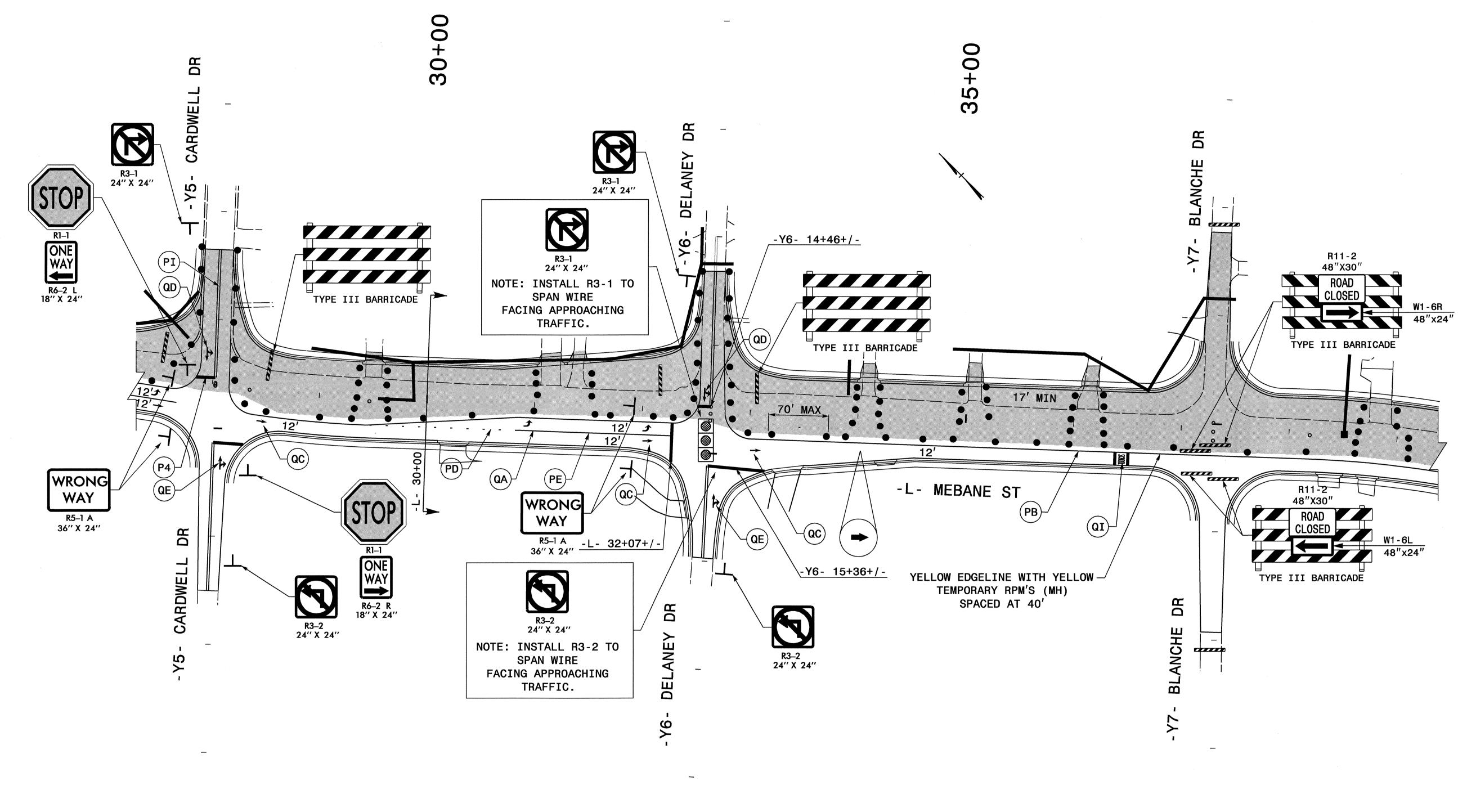
PROJ. REFERENCE NO. SHEET NO. TCP-11

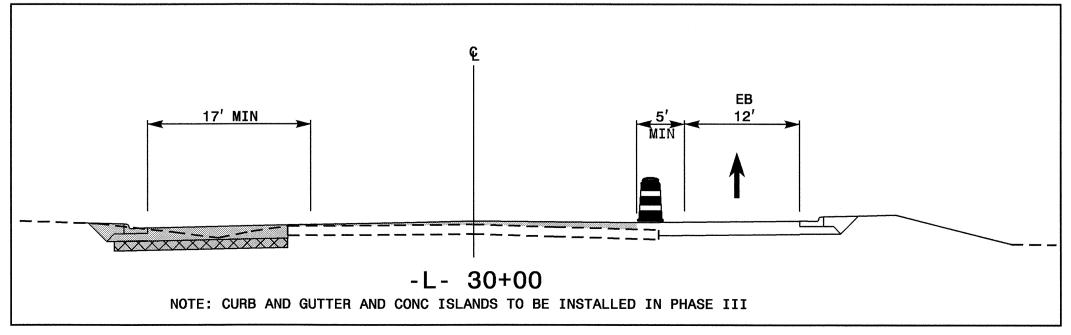


PROJ. REFERENCE NO. SHEET NO.

U-3303
TCP-13

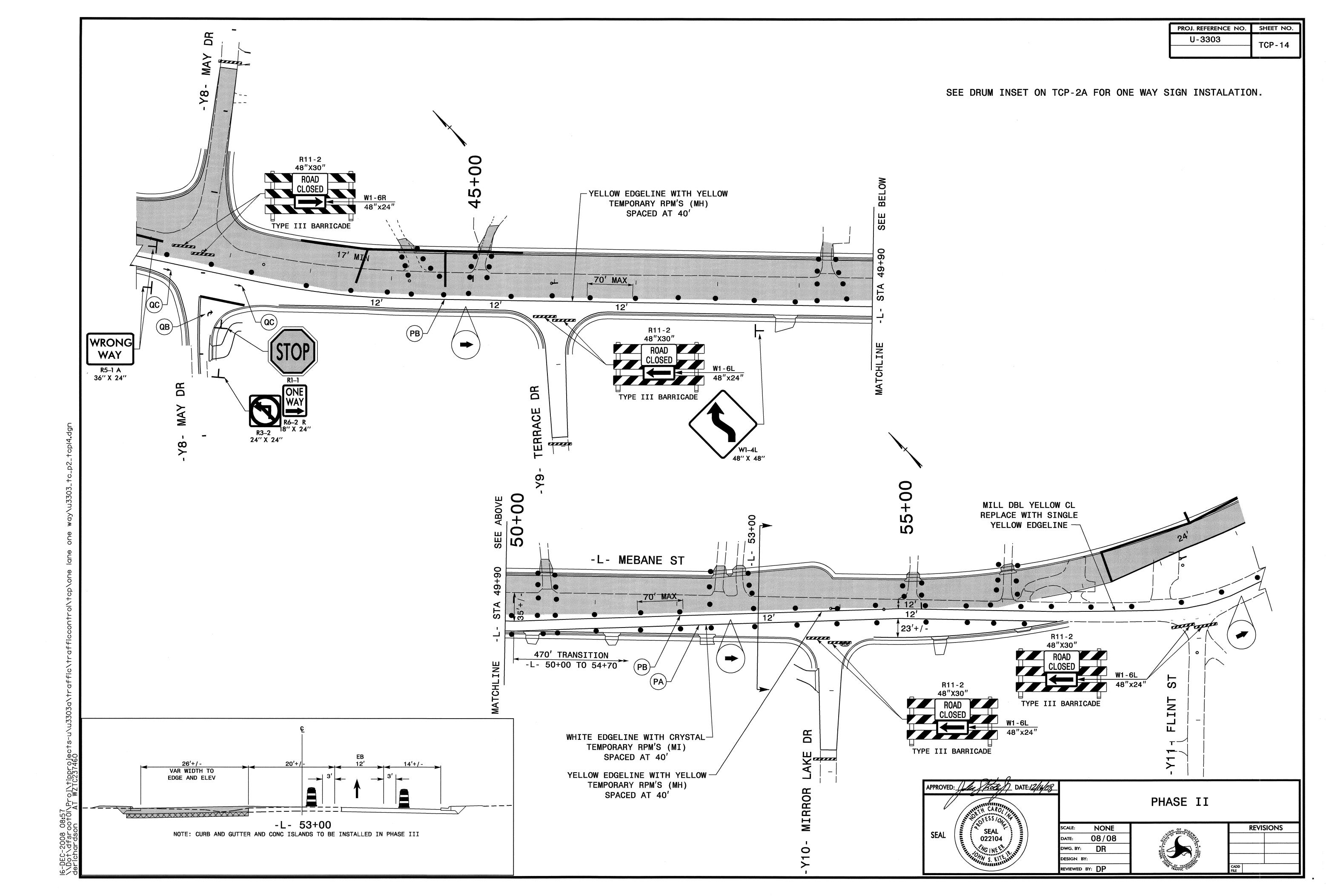
= EXISTING SIGNAL TO BE RE-TIMED FOR NEW TRAFFIC PATTERN
NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS

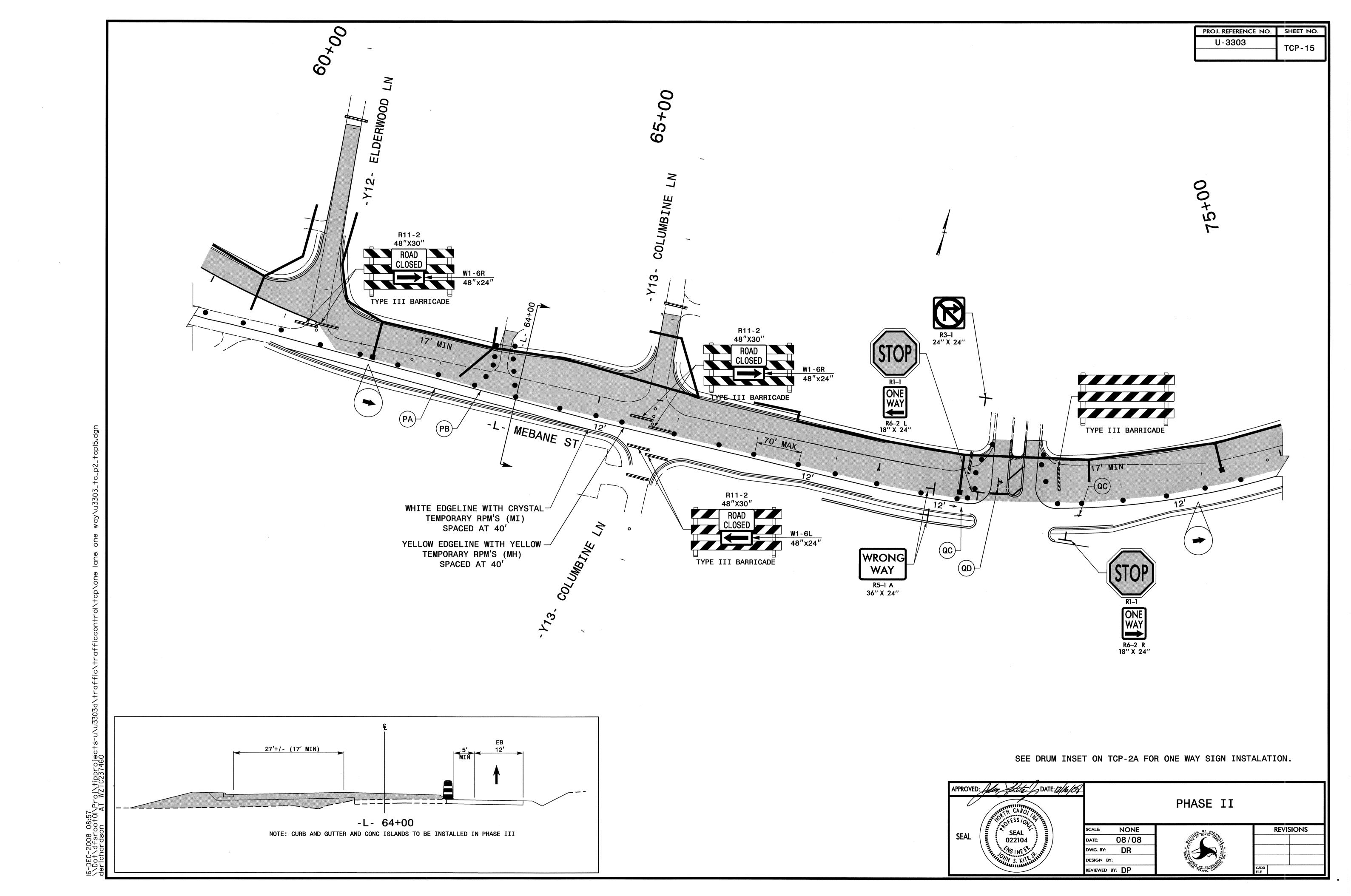


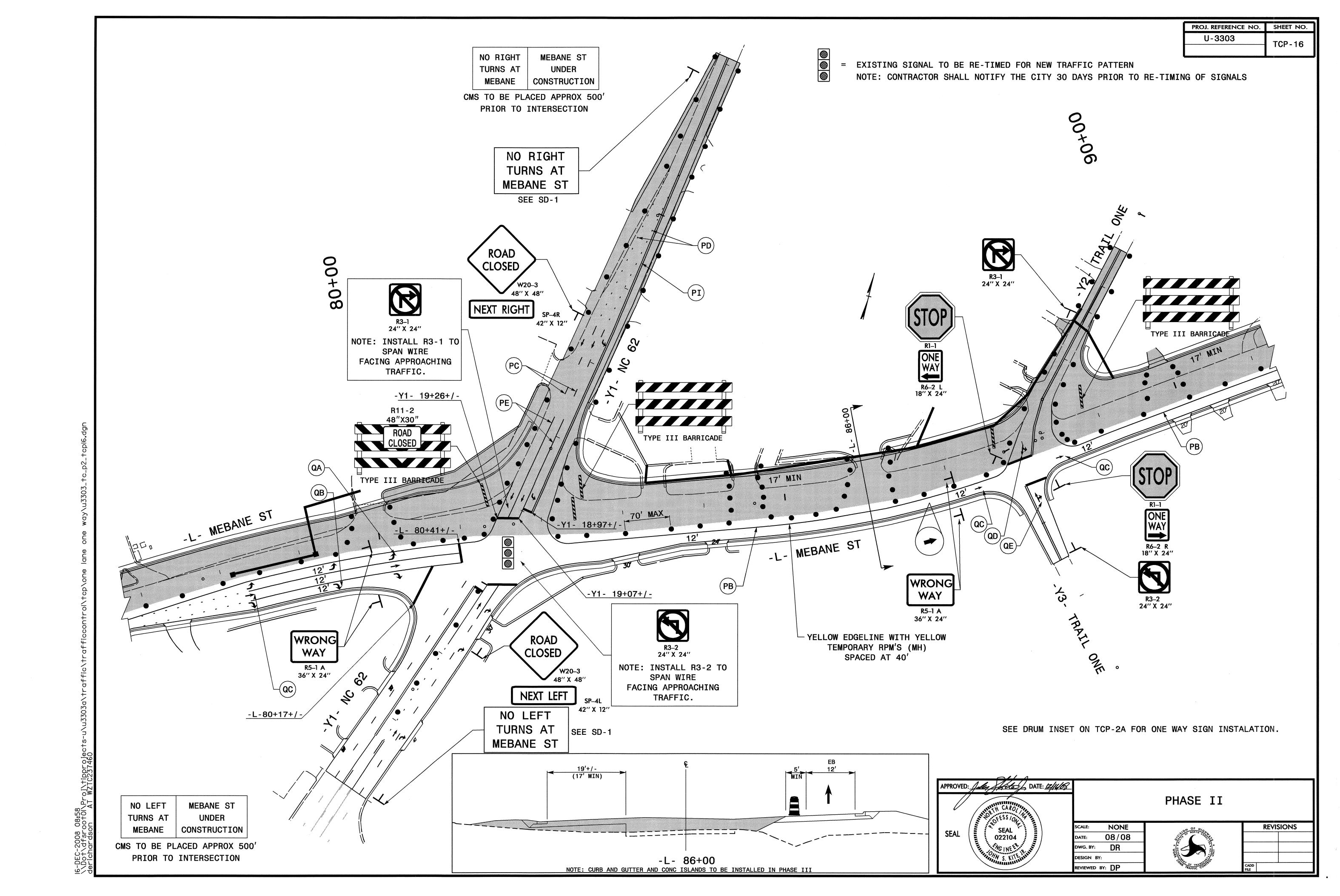


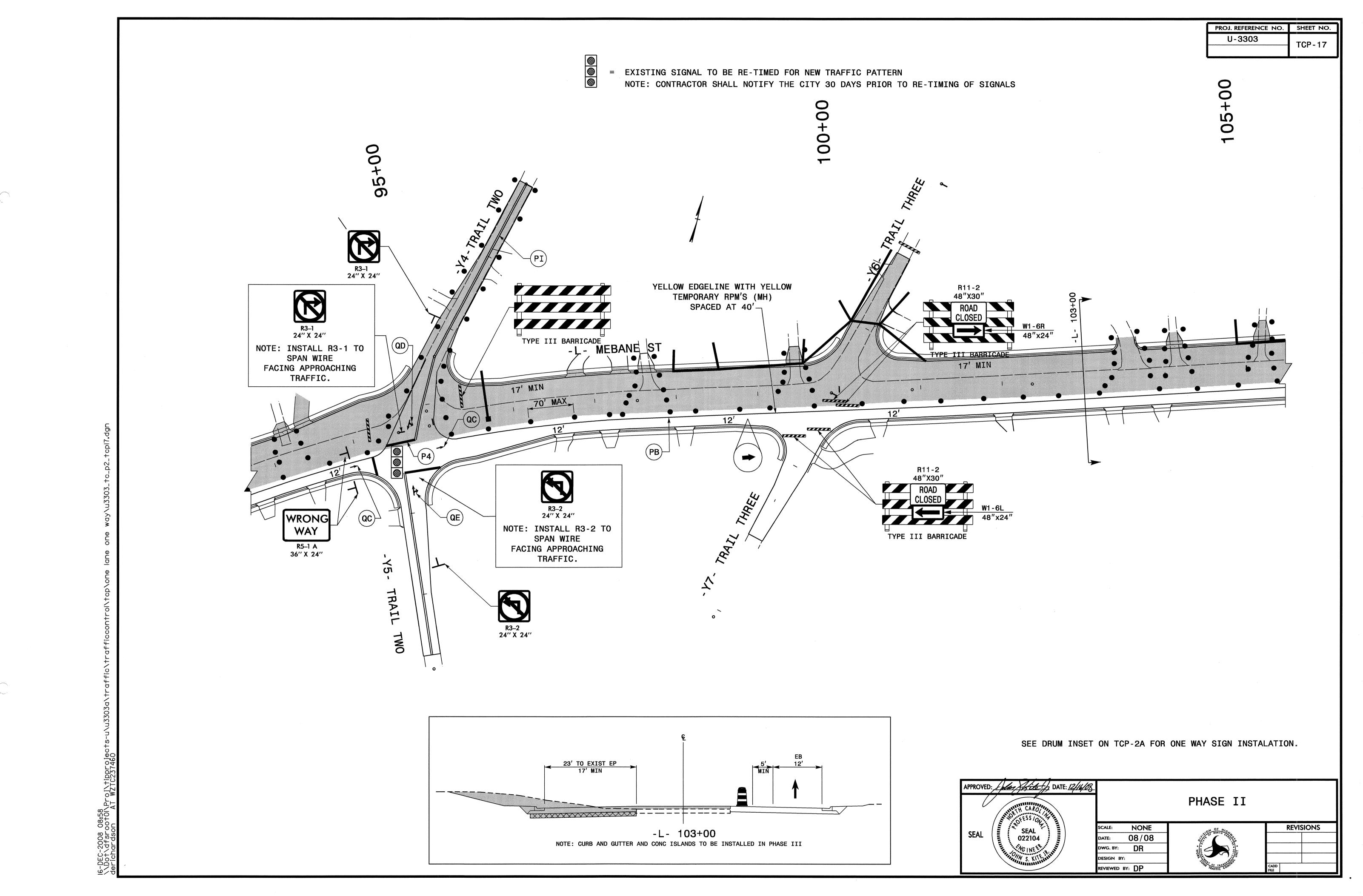
SEE DRUM INSET ON TCP-2A FOR ONE WAY SIGN INSTALATION.

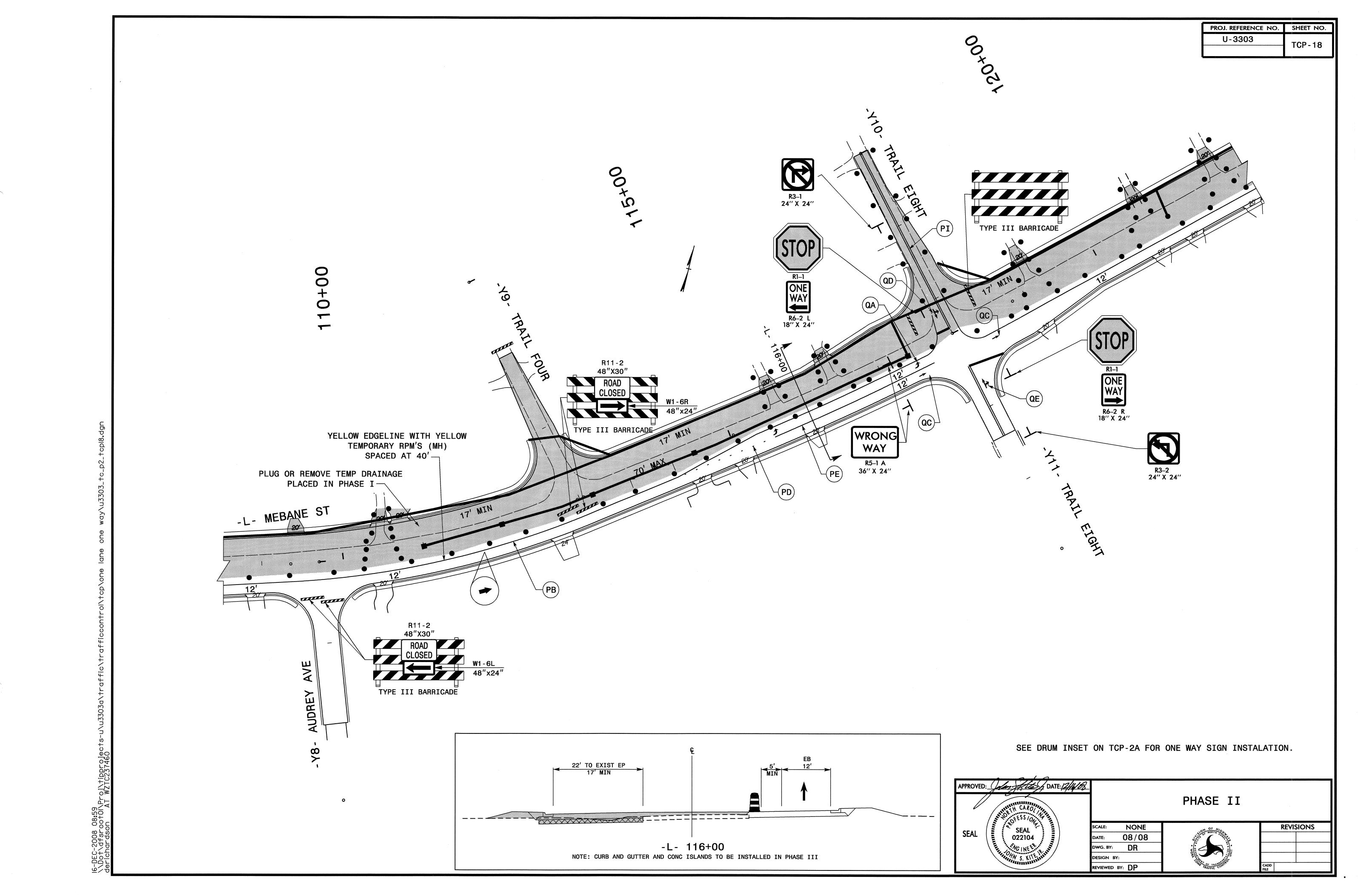
APPROVED: DATE: CAROLINATION CAROLINATION EESS (C. 1944)	<u> </u>	PHASE II	
SEAL SEAL	SCALE: NONE	OH OF HIC.	REVISIONS
SEAL O22104	DATE: 08/08	OF NORTH CARD	
ME LYGINE ELLER	DWG. BY: DR	₩ 10 NO	
S. KITE LINE	DESIGN BY:		
-MINI-	REVIEWED BY: DP	TRAFFIC CONTE	CADD FILE

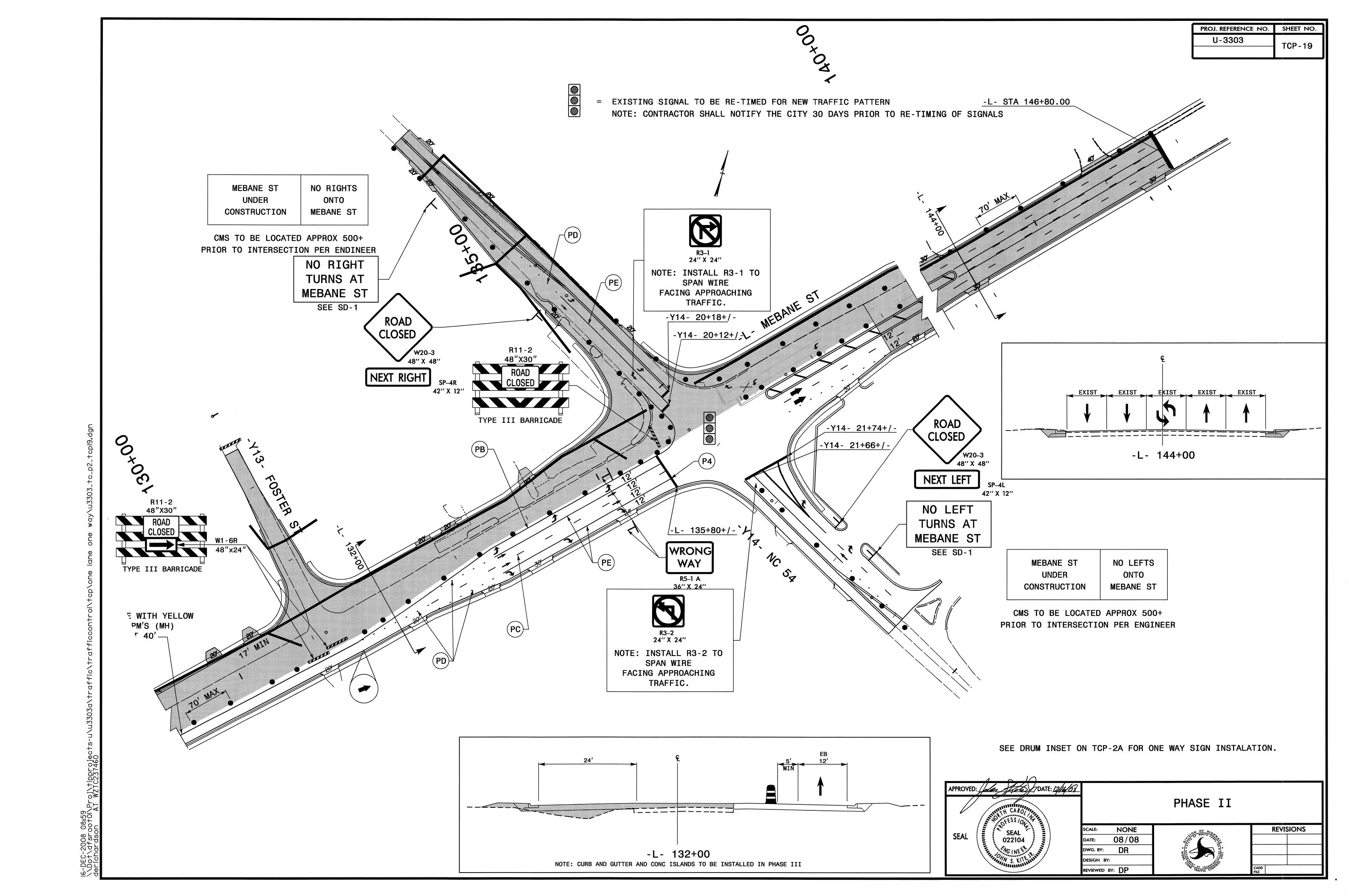


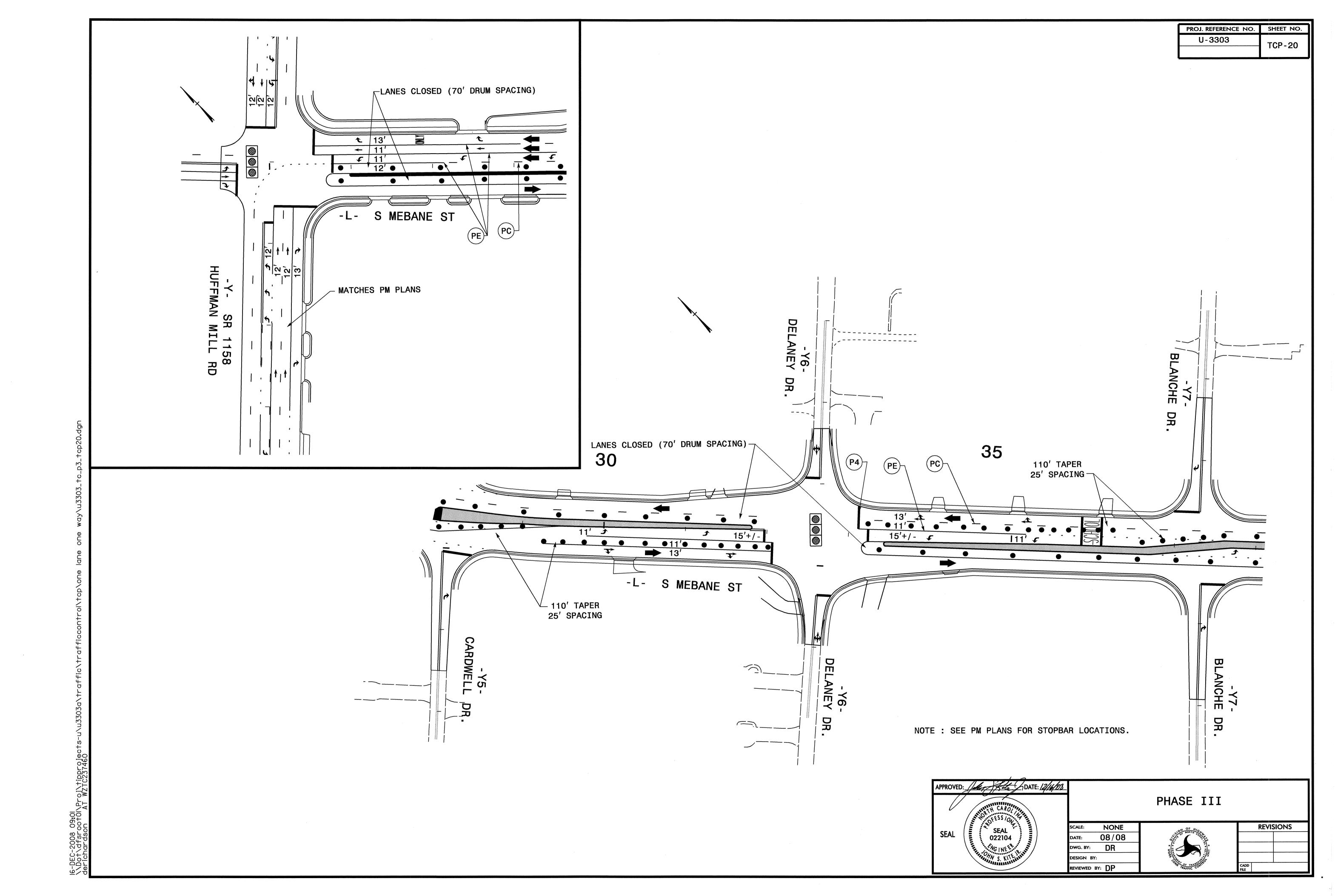




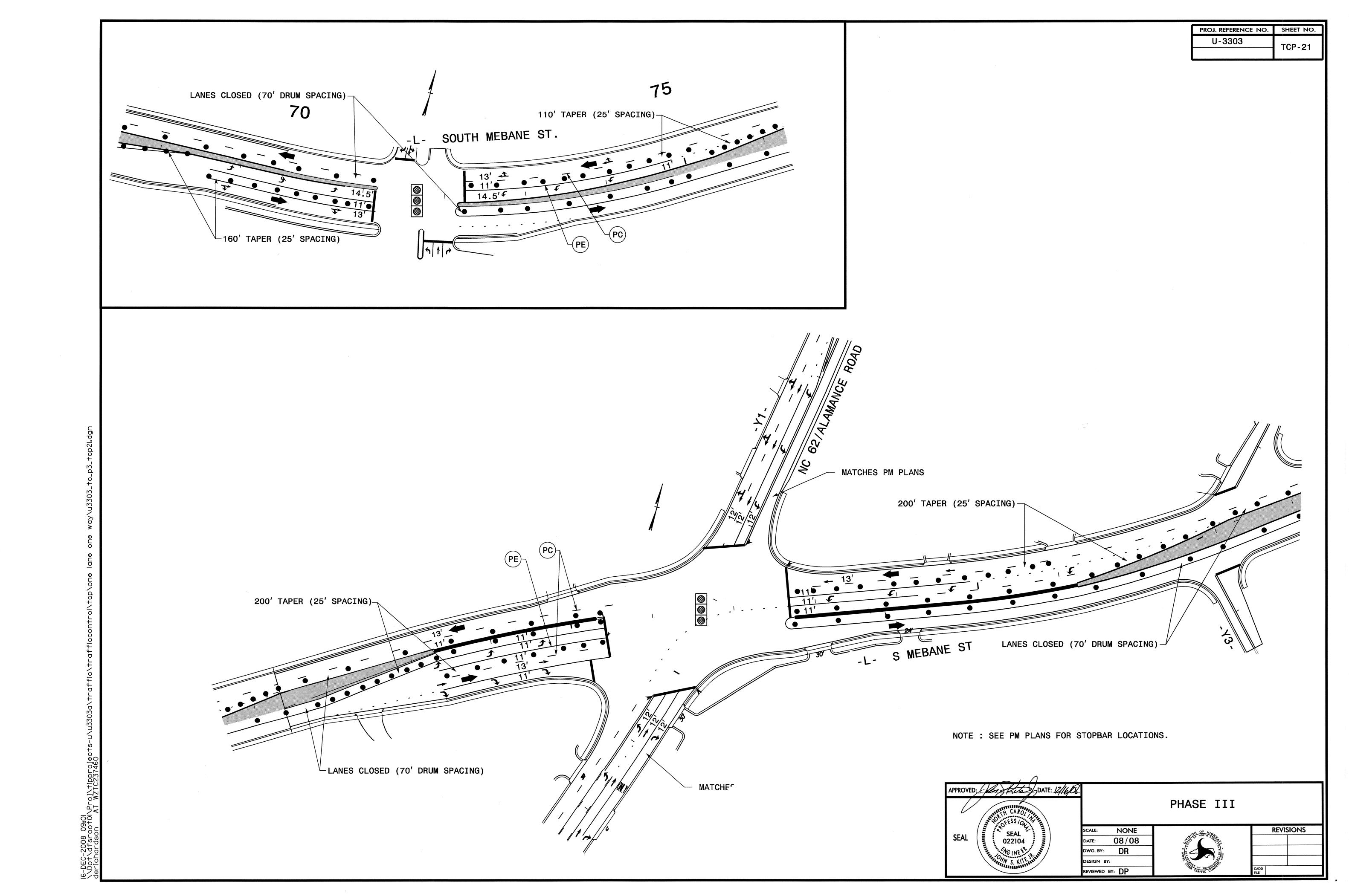








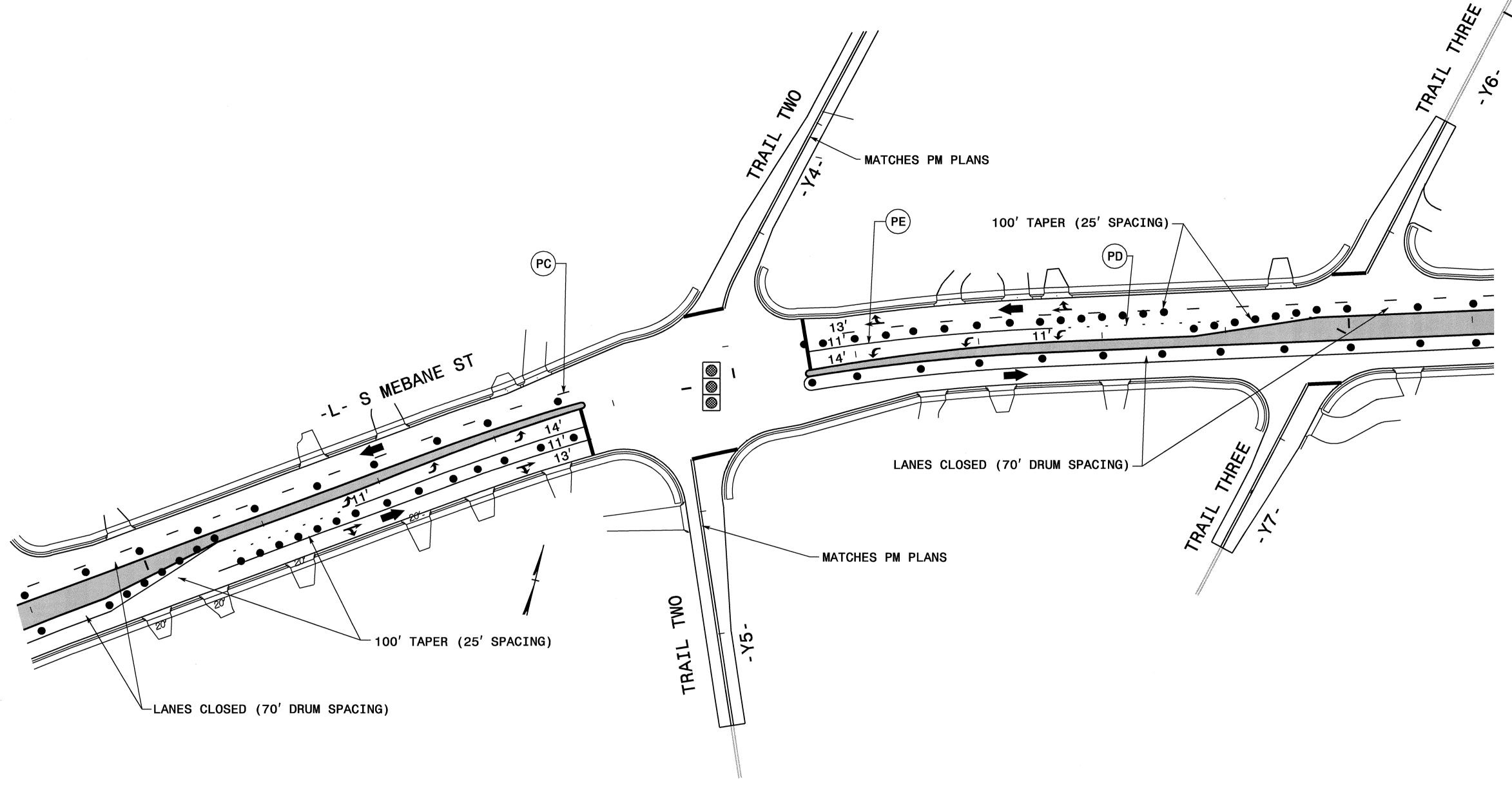
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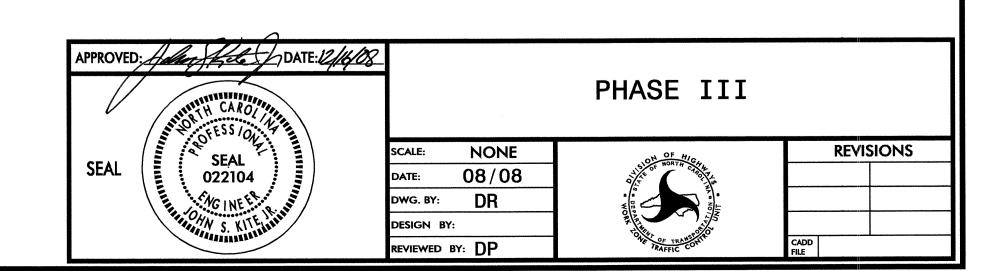
PROJ. REFERENCE NO.

U-3303

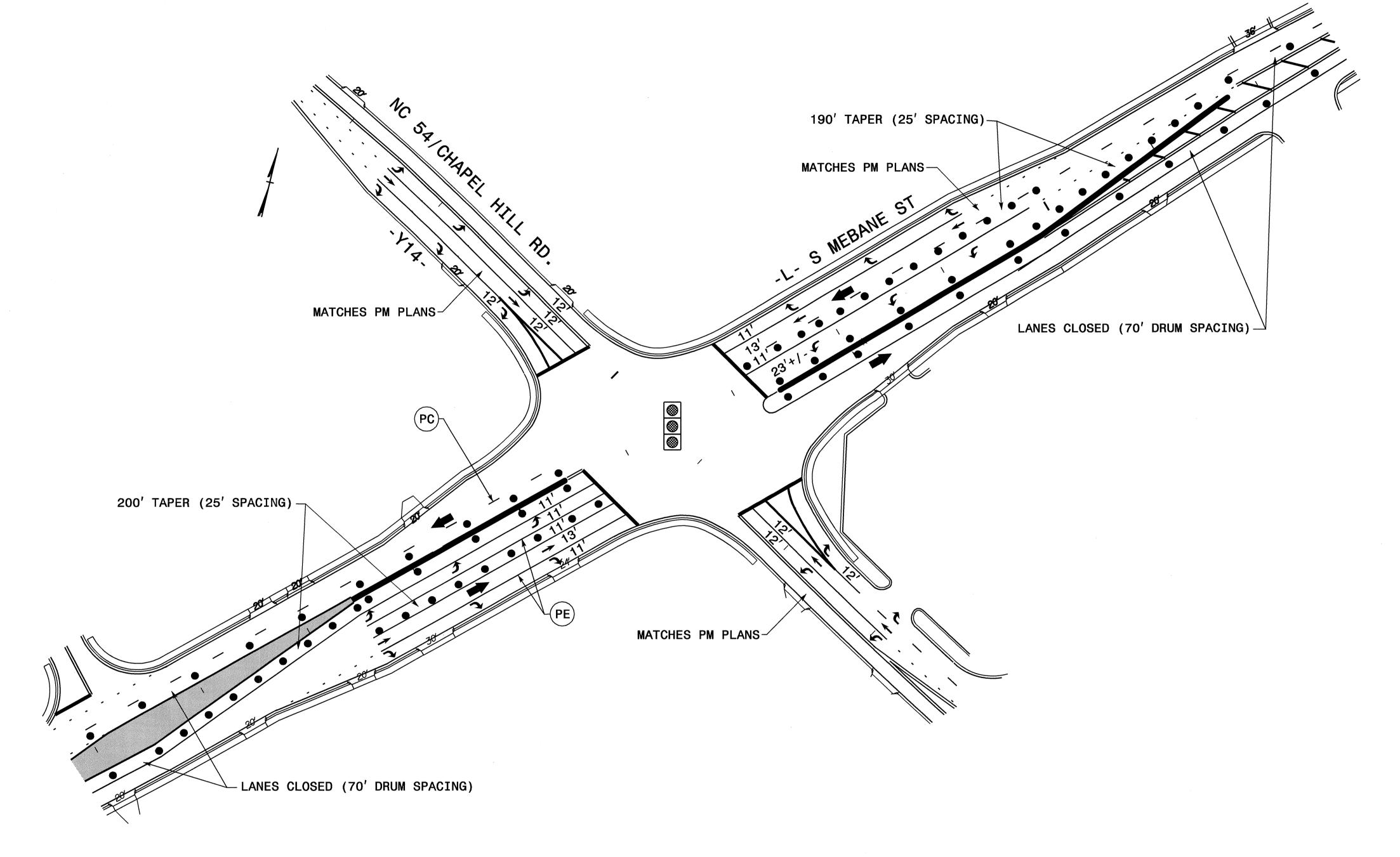
TCP-22



NOTE: SEE PM PLANS FOR STOPBAR LOCATIONS.

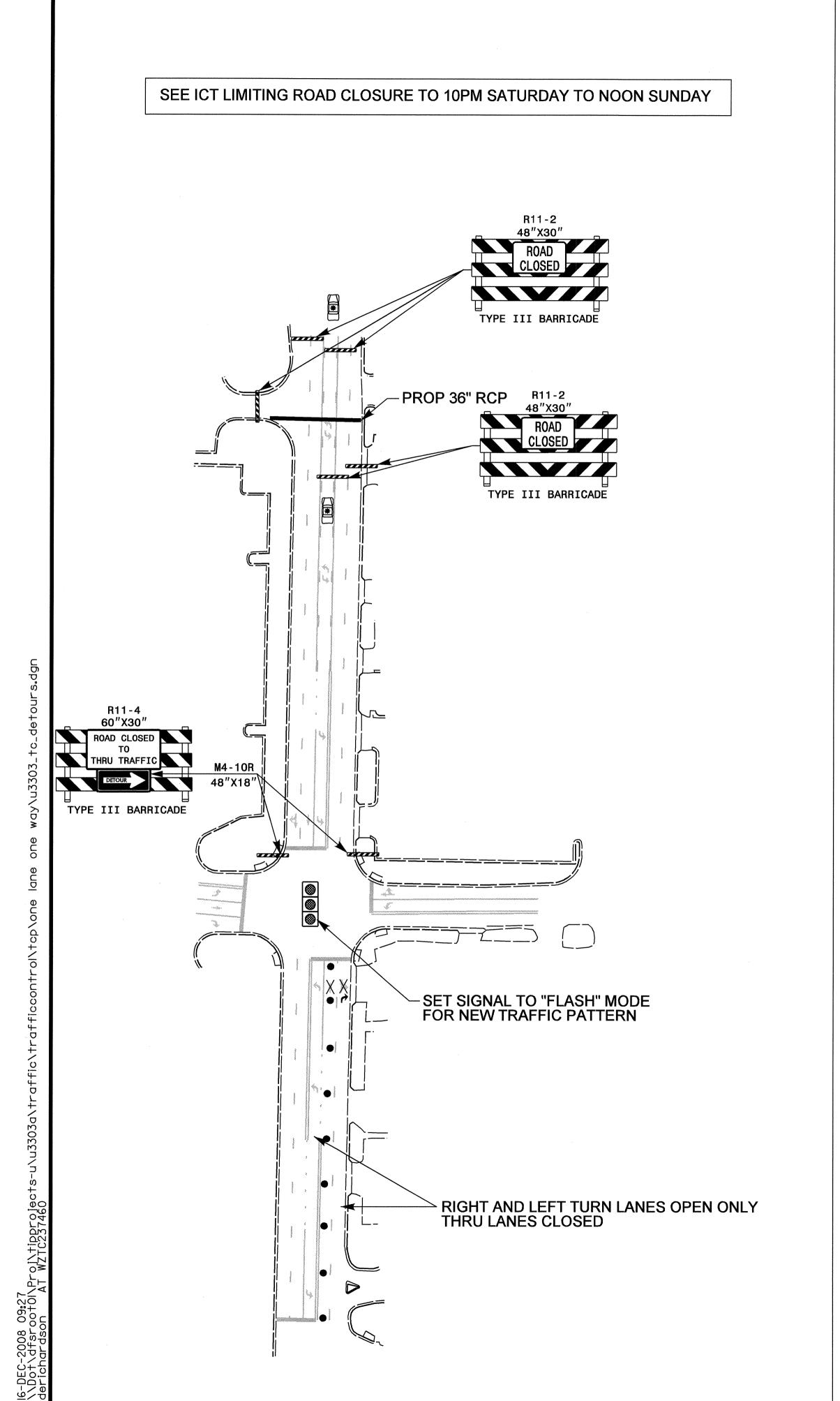


PROJ. REFERENCE NO.	SHEET NO.	
U-3303	TCP-23	
	10F-23	



NOTE: SEE PM PLANS FOR STOPBAR LOCATIONS.

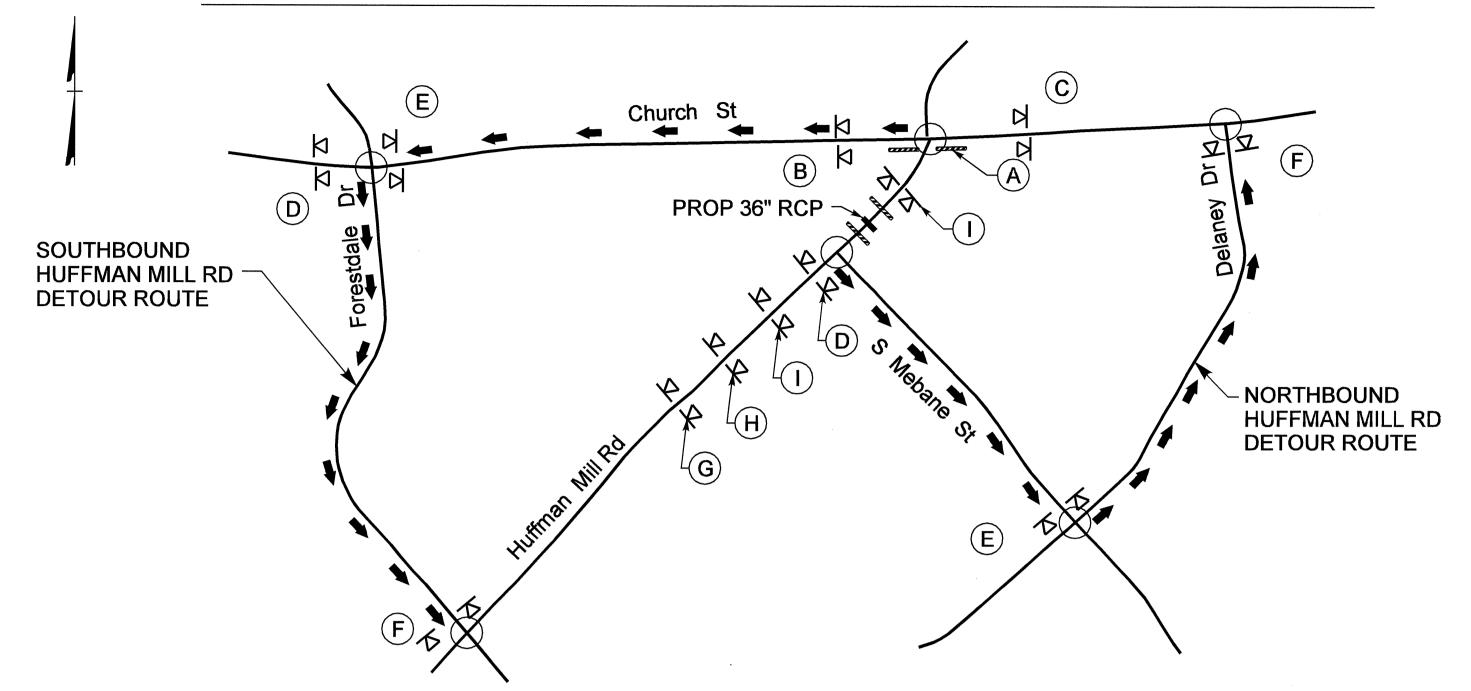
APPROVED: DATE: 12/6,	168	PHASE III	
SEAL SEAL 022104	SCALE: NONE DATE: 08/08	OF HIGH	REVISIONS
SEAL 022104 022104	DWG. BY: DR		
William Control	REVIEWED BY: DP	TRAFFIC CORPORATION	CADD FILE



PROJ. REFERENCE NO. SHEET NO.

U-3303
TCP-24

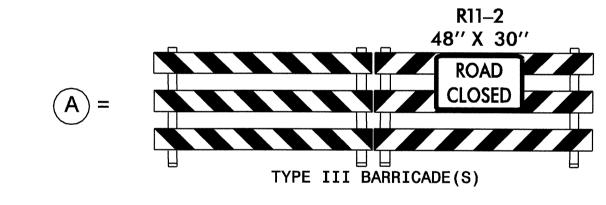
## MAP SHOWING PIPE INSTALLATION DETOUR ROUTE

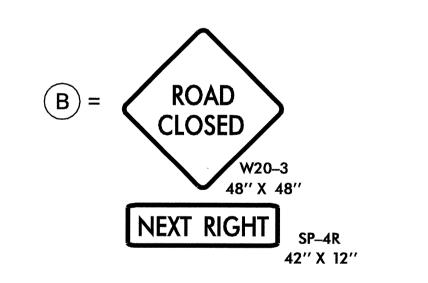


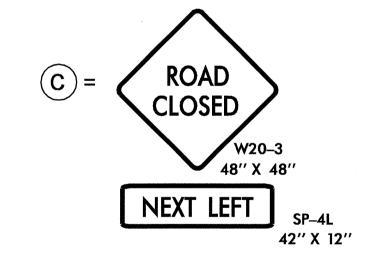
= HUFFMAN MILL RD DETOUR ROUTE

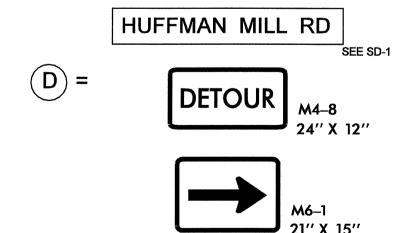
= EXISTING SIGNAL TO BE MODIFIED FOR ROAD CLOSURE

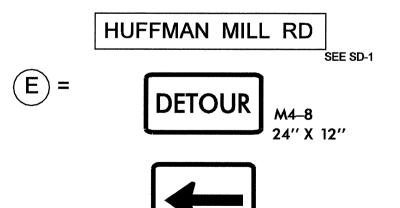
NOTE: CONTRACTOR SHALL NOTIFY THE CITY 30 DAYS PRIOR TO RE-TIMING OF SIGNALS

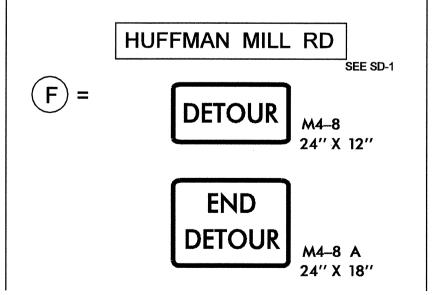


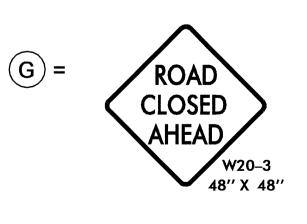


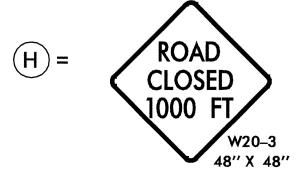




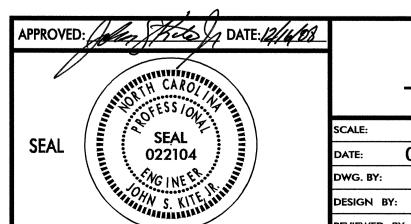












PROP	OSED DET	OUR MAP
-Y1-	HUFFMAN	MILL RD
NONE	. OF <i>u</i> .	REVISION:

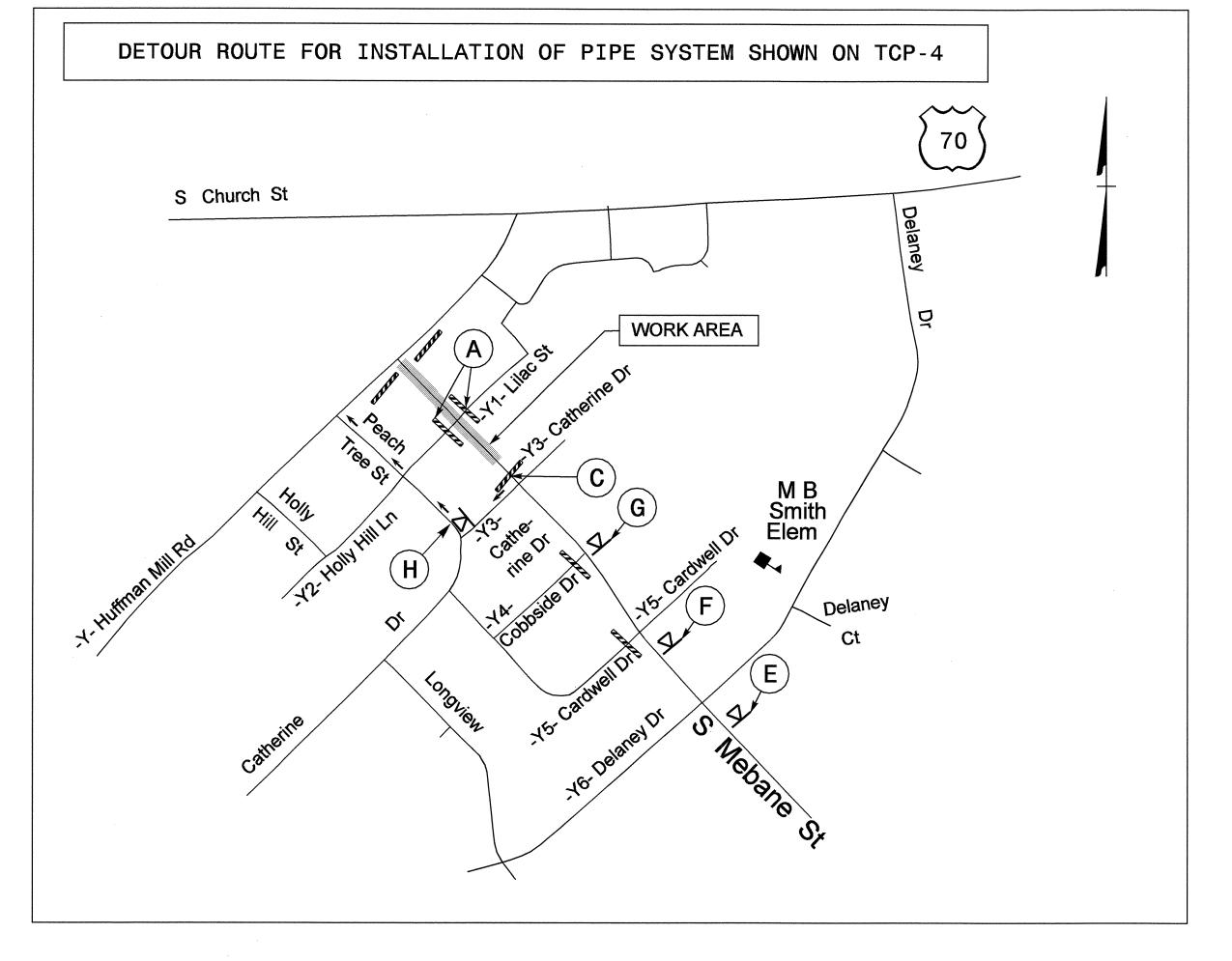
SCALE: NONE

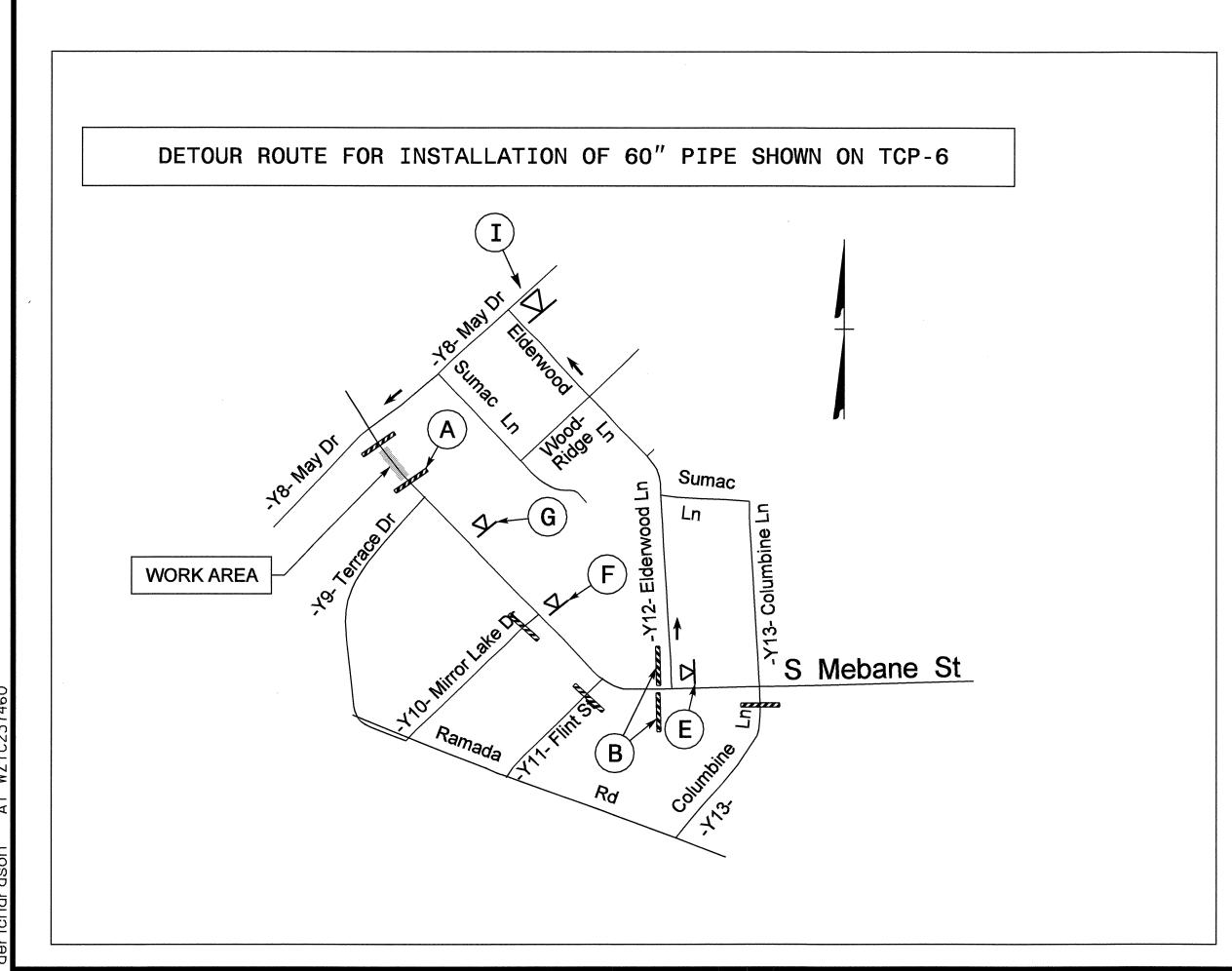
DATE: 09/08

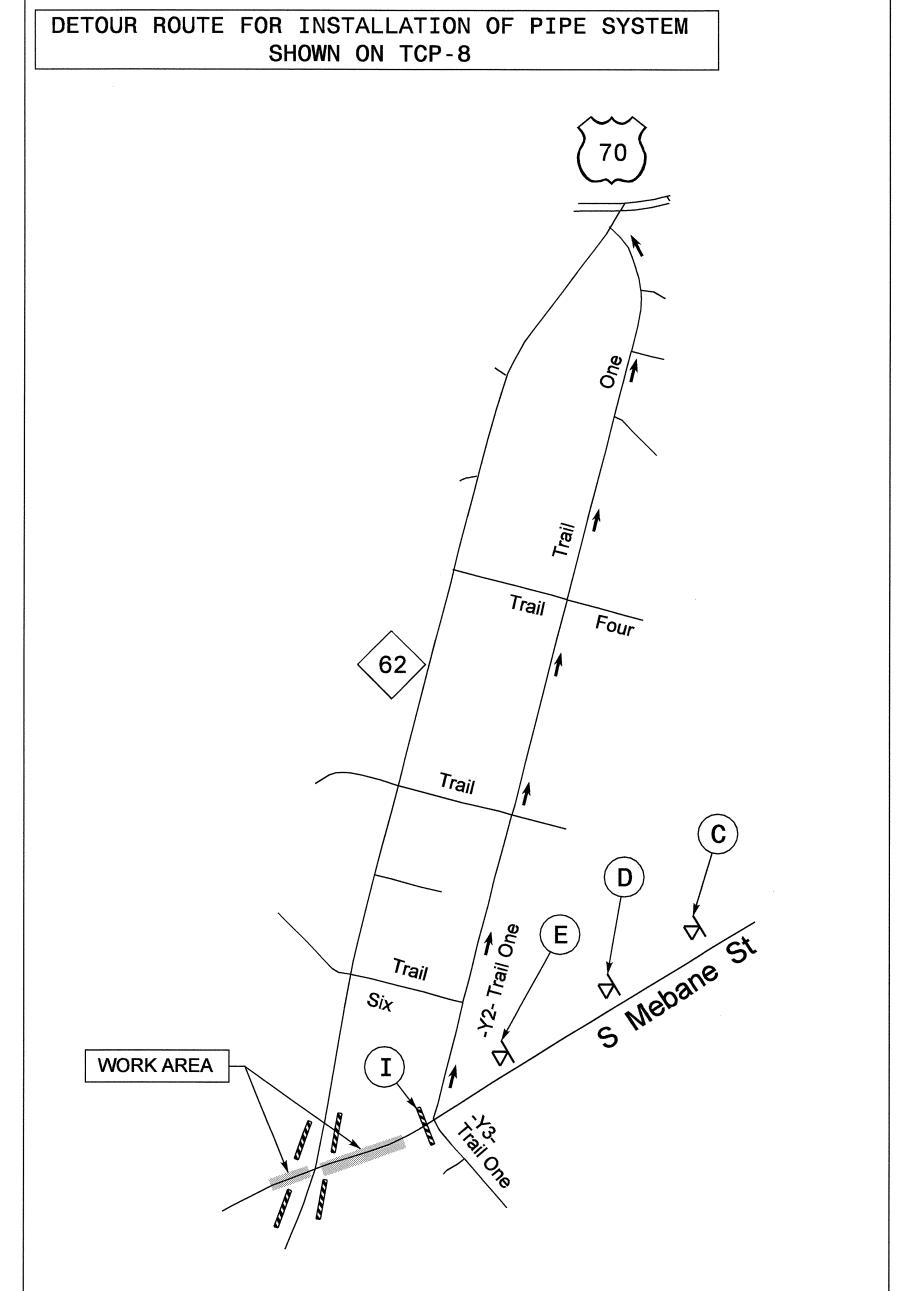
DWG. BY: DR

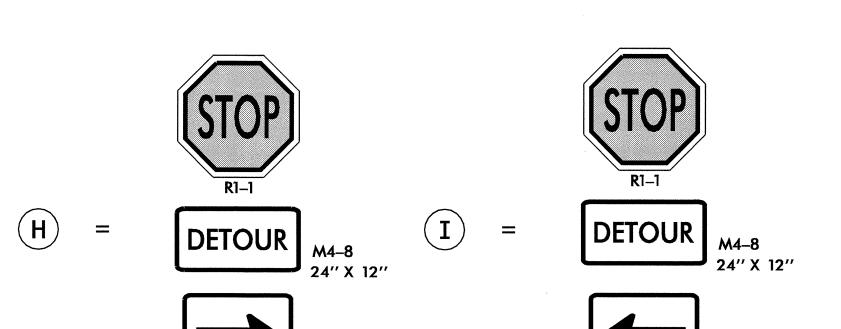
DESIGN BY: DR

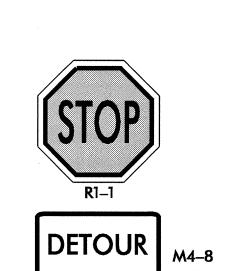
REVIEWED BY:





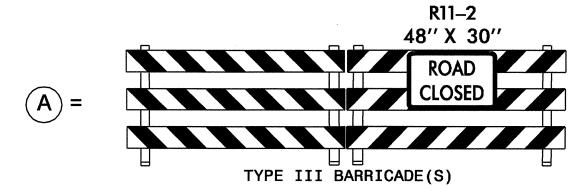






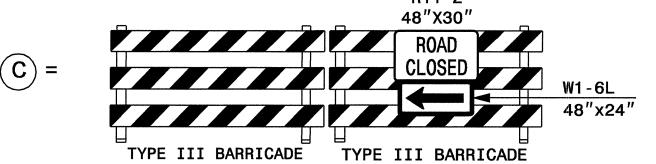


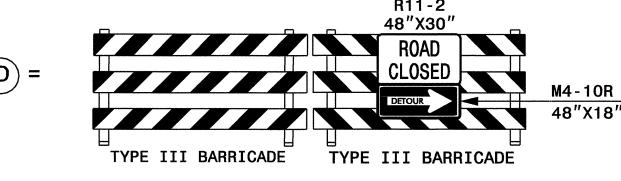
PROJ. REFERENCE NO. SHEET NO. U-3303 TCP-24A



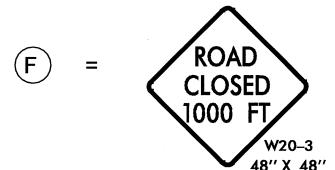


(B) =

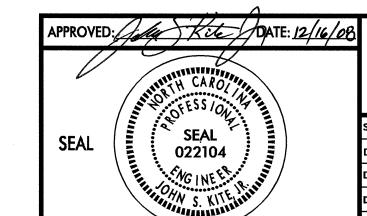






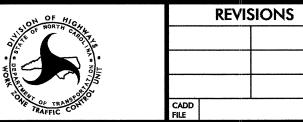






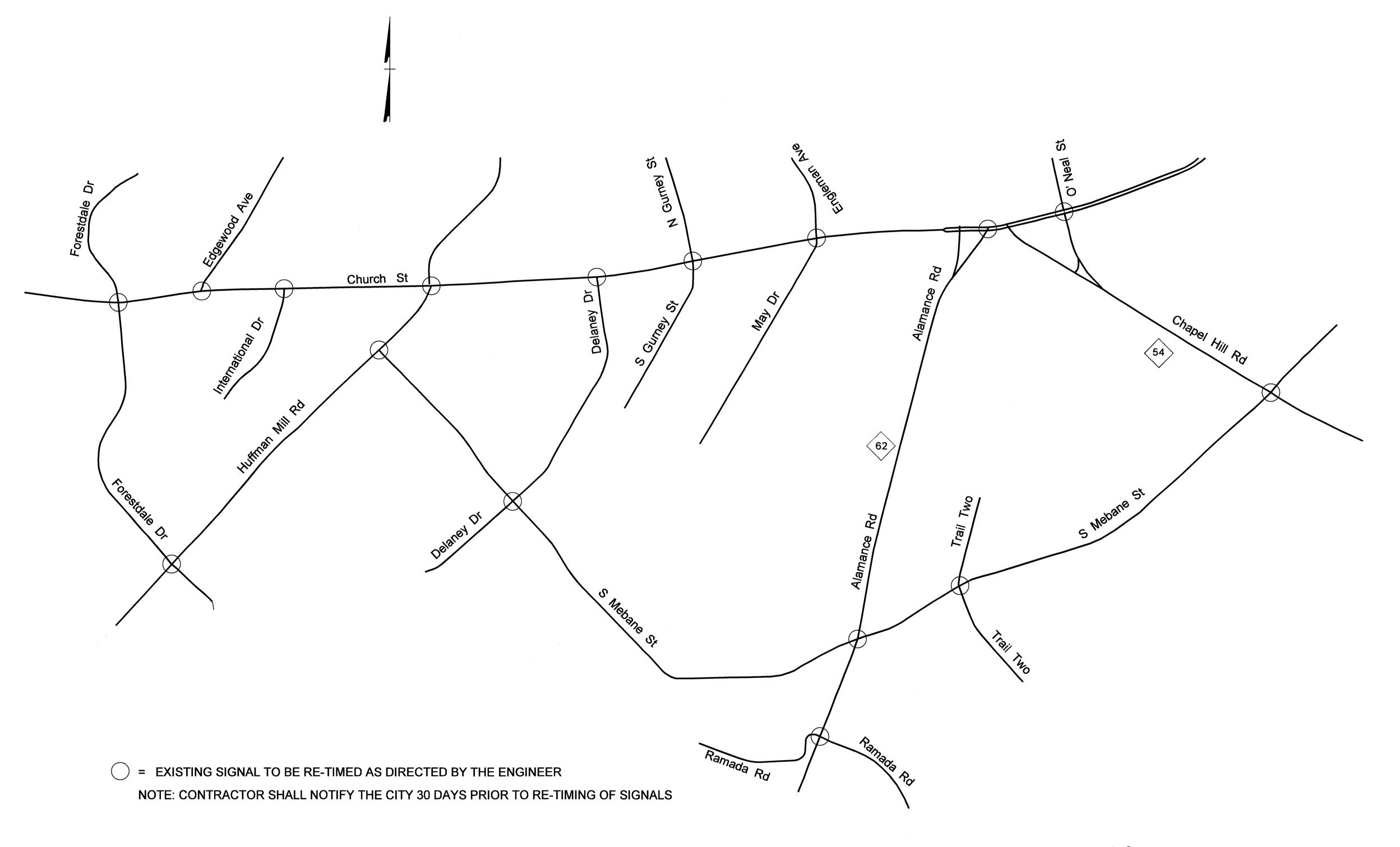
PROPOS	SED	DET	OUR	MAP
- L -	SN	<b>IEBA</b>	NE	ST

SCALE:	NONE	
DATE:	12/08	
DWG. BY:	DR	
DESIGN BY:	DR	
REVIEWED BY	<b>'</b> :	



TCP-25

## MAP SHOWING EXISTING SIGNALS TO BE RE-TIMED DURING OR PRIOR TO TRAFFIC SHIFTS



APPROVED: Holy Holo Ja DATE: 12/6/08

RE-TIMED SIGNAL MAP

09/08

RALEIGH

# TRANSPORTATION HIGHWAYS NORTH 9F SION 0F OF STATE

NG FOR INTOED SIGNS

# SHEET 1 OF 1



SEAL 022104 DWG. BY:

├ STATIONARY SIGN

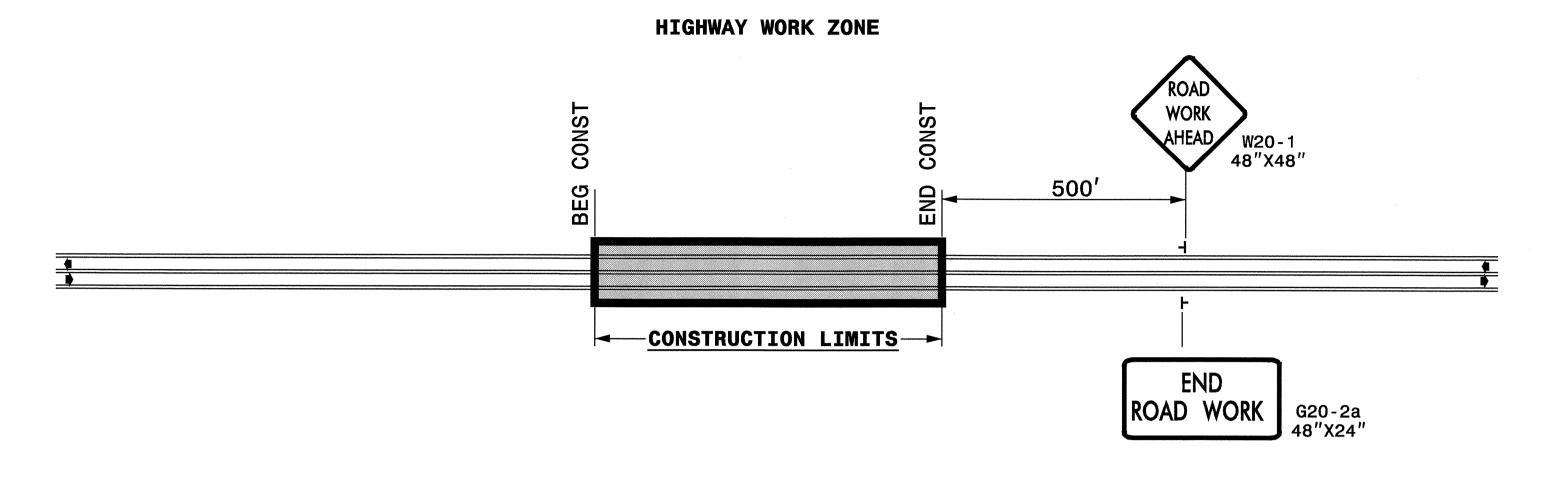
**LEGEND** 

■ DIRECTION OF TRAFFIC FLOW

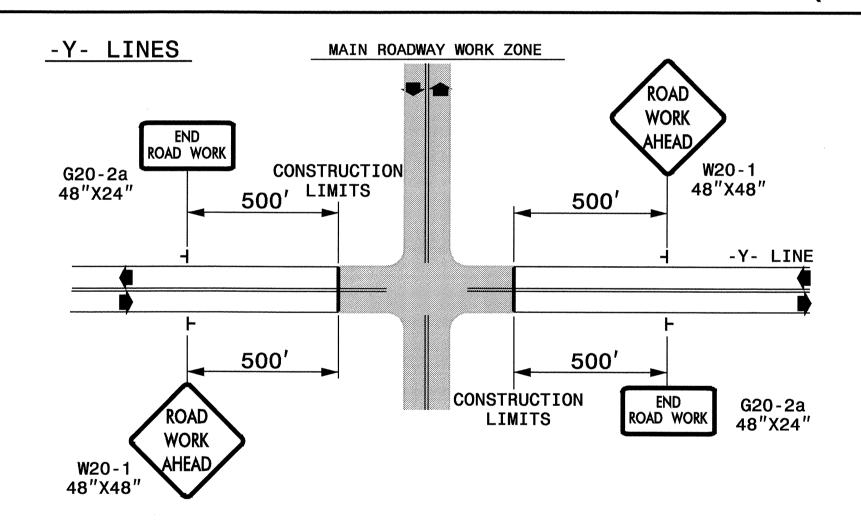
DESIGN BY: REVIEWED BY:

**REVISIONS** 7-98 | 10/01 10-98 | 03/04 01/01 | 11/04





### ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



TO BE USED ON THE FOLLOWING -Y- LINES ONLY:

HUFFMAN MILL RD

NC 62 NC 54

## **GENERAL NOTES**

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

SEAL