

PROJECT: 40129

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**PLAN FOR PROPOSED
TRAFFIC CONTROL, MARKING & DELINEATION
NASH COUNTY**

STATE PROJECT REFERENCE NO.		SHEET NO.
40129		TCP - 1
STATE WBS NO.	F. A. PROJ. NO.	DESCRIPTION
40129		PE

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:

STD. NO.	TITLE
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 ACCESSES
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
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, TEMP. PAVEMENT MARKING SCHEDULE AND INDEX OF SHEETS
TCP-2	PROJECT NOTES
TCP-3	PHASING
TCP-4 THRU TCP-7	PHASING OVERVIEWS
TCP-8	OFFSITE DETOUR
PM-1	FINAL PAVEMENT MARKING SCHEDULE
PM-1A	CROSSWALK AND STOP BAR PAVEMENT MARKING DETAIL
PM-2 THRU PM-4	FINAL PAVEMENT MARKING PLAN
SN-1	SIGN DESIGN

TEMP. PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	PAVEMENT MARKINGS
		PAINT (4")
PA	WHITE EDGELINE	
PC	10 FT. WHITE SKIP	
PF	10 FT. YELLOW SKIP	
PH	YELLOW SINGLE CENTER	
PI	YELLOW DOUBLE CENTER	
		PAINT (24")
P2	WHITE STOPBAR	

LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - PROPOSED PVMT. EXIST. PVMT.
 - WORK AREA
 - REMOVAL OF EXISTING PAVEMENT
- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
 - TYPE II BARRICADE
 - TYPE III BARRICADE
 - CONE
 - DRUM
 - FLASHING ARROW PANEL (TYPE C)
 - TYPE 'B' WARNING LIGHT
 - STATIONARY SIGN
 - PORTABLE SIGN
 - STATIONARY OR PORTABLE SIGN
 - WARNING FLAGS
 - 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

<p>APPROVED: _____</p> <p>DATE: _____</p>	<p>PLAN PREPARED FOR N.C.D.O.T. BY: SEPI</p> <p style="font-size: small;">1025 Wade Avenue Raleigh, NC 27605 Tel: 919-789-9077 Fax: 919-789-9591 License: C-2197</p>
<p>SEAL</p>	<p>CLIFTON T. REGISTER, PE PROJECT ENGINEER</p> <p>T. A. HARRIS DESIGNER</p>

GENERAL NOTES

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

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING 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.
- C) 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.

- D) 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.
- E) 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.

DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION ON -L- SR 1727 (KINGSTON AVE)

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 OPEN TRAVEL LANE THAT HAS A 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.
- G) 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) 300 FT IN ADVANCE AND A MINIMUM OF ONCE 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 (CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SIGNING)

- I) INSTALL ADVANCE WORK ZONE WARNING SIGNS NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- J) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- K) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- M) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 300 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- N) 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.
- O) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. PAVEMENT MARKINGS AND MARKERS
- P) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL ROADS	THERMOPLASTIC	N/A
- Q) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.
- R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	N/A
- S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

TEMPORARY / FINAL SIGNALS

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

NOTE: CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.

\$\$\$SYTIME\$\$\$
 \$\$\$DCN\$\$\$
 \$\$\$USERNAME\$\$\$

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APPROVED: _____	DATE: _____

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

GENERAL NOTES

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED FOR EACH PIPE INSTALLATION THAT REQUIRES A DETOUR AND SHALL PLACE AND MAINTAIN TRAFFIC ON SAME.

THE TIME OF AVAILABILITY FOR THIS INTERMEDIATE CONTRACT TIME WILL BE THE TIME THE CONTRACTOR BEGINS THE WORK.

THE COMPLETION TIME FOR THIS INTERMEDIATE CONTRACT TIME WILL BE THE TIME WHICH IS SEVENTY-TWO (72) CONSECUTIVE HOURS AFTER THE CONTRACTOR BEGINS THIS WORK.

PHASE I

- STEP 1. USING RDWY STANDARD 1101.01, INSTALL ADVANCE WARNING SIGNS ON -L- LINE AND ALL -Y- LINES
- STEP 2. WITH TRAFFIC IN EXISTING PATTERN AND USING RDWY STANDARD 1101.02, SHEET 1 OF 9, INSTALL LANE CLOSURES AS NEEDED AND BEGIN CONSTRUCTION OF THE FOLLOWING AS SHOWN ON TCP-4 THRU TCP-6
- PROPOSED DRAINAGE ALONG -L- AS REQUIRED FROM -L- STA.10+38+/- TO -L- STA. 64+36+/- . SEE TCP-5 THRU TCP-8 AND STEP 3 WHEN CONSTRUCTING CROSS DRAINAGE IN AREAS 1 & 2.
 - WIDEN AND WEDGE, UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -L- STA.10+38+/- TO -L- STA.64+36+/- .
 - CURB AND GUTTER AND SIDEWALK FROM -L- STA. 10+38+/- LT. TO -L- STA. 64+36+/- LT. AND -L- STA. 13+23 +/- RT. TO -L- STA.64+36+/- RT.
- STEP 3. WITH TRAFFIC IN EXISTING PATTERN AND USING RDWY STANDARD 1101.03, SHEET 1 OF 9, CLOSE -L- LINE TO TRAFFIC (SEE TCP-8 FOR DETOUR) AND WORK IN A CONTINUOUS MANNER TO CONSTRUCT CROSS DRAINAGE AS FOLLOWS:
- NOTE: CONTRACTOR SHALL COMPLETE ONE ROAD CLOSURE AREA AND OPEN -L- TO TRAFFIC BEFORE CLOSING ANOTHER AREA.
- AREA 1. CLOSE -L- AND -Y3- (BOONE ST.) AND INSTALL DUAL 48" PIPES AT -L- STA. 47+50+/- . SEE TCP-5.
 - AREA 2. CLOSE -L- AND INSTALL DUAL 36" PIPES AT -L- STA. 61+50+/- . SEE TCP-6.
- STEP 4. INSTALL TEMPORARY PAVEMENT MARKINGS (SEE TCP-7) FROM -L- STA.10+50+/- TO -L- STA.14+00+/- .

PHASE II

- STEP 1. SHIFT TRAFFIC TO NEW PATTERN (SEE TCP-7) AND USING RDWY STANDARD 1101.02, SHEET 1 OF 9, INSTALL LANE CLOSURES AS NEEDED AND COMPLETE CONSTRUCTION OF THE FOLLOWING:
- CURB AND GUTTER AND DRIVEWAY FROM -L- STA. 10+38+/- TO -L- STA. 13+25+/- .

PHASE III

- STEP 1. WITH TRAFFIC IN EXISTING PATTERN AND USING RDWY STANDARD 1101.02, SHEET 1 OF 9, INSTALL LANE CLOSURES AS NEEDED AND CONSTRUCT THE FOLLOWING:
- CONSTRUCT THE FINAL SURFACE COURSE FROM -L- STA. 10+38+/- TO -L- STA. 64+36+/- .
 - ADJUST EXISTING SIGNAL AS REQUIRED (BY STATE FORCES).
 - INSTALL PAVEMENT MARKINGS FOR FINAL TRAFFIC PATTERN (SEE PM-2 THRU PM-4) AND OPEN ALL LANES TO TRAFFIC.

NOTE: CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.

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APPROVED: _____ DATE: _____

SEAL

PROFESSIONAL ENGINEER
SEAL 028392
01-31-2018

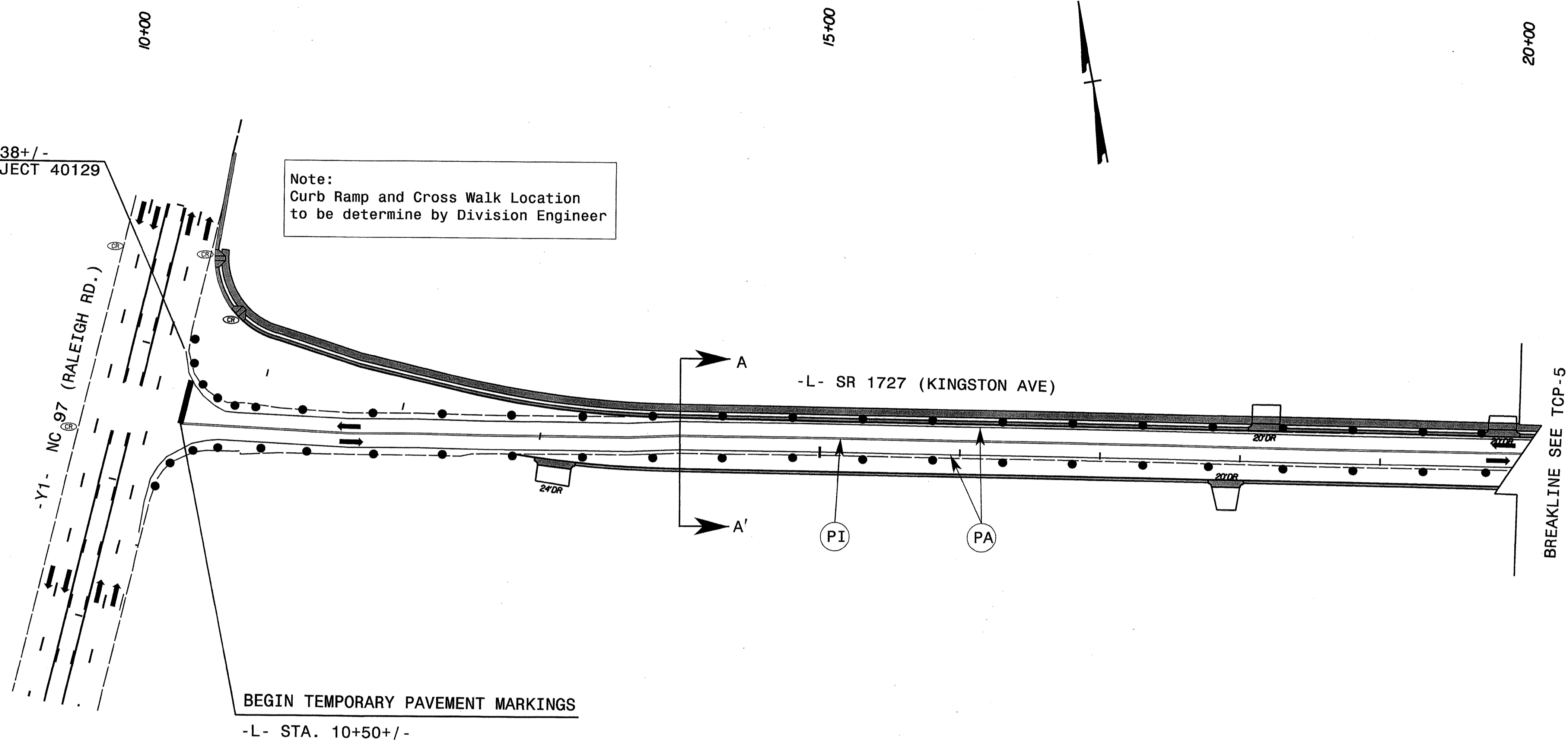
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASING

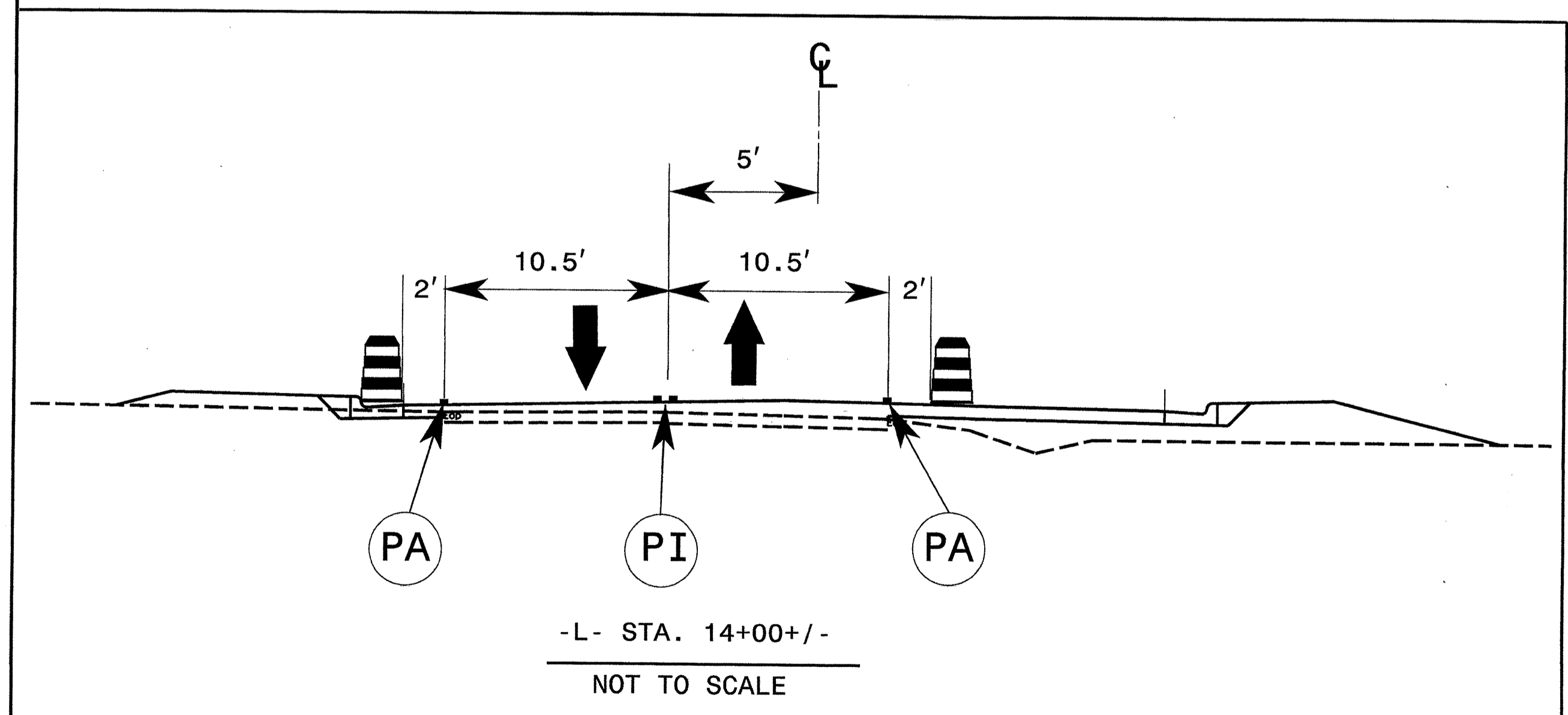
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\$\$\$ SUBMITTALS \$\$\$
\$\$\$ SURVEYING \$\$\$
\$\$\$ DESIGN \$\$\$
\$\$\$ CONSTRUCTION \$\$\$
\$\$\$ MAINTENANCE \$\$\$

-L- STA. 10+38+/-
BEGIN WBS PROJECT 40129

Note:
Curb Ramp and Cross Walk Location
to be determine by Division Engineer



CROSS SECTION VIEW A-A'



NOTE: CONTRACTOR SHALL MAINTAIN
ACCESS TO DRIVEWAYS AT ALL TIMES.

APPROVED: _____ DATE: _____

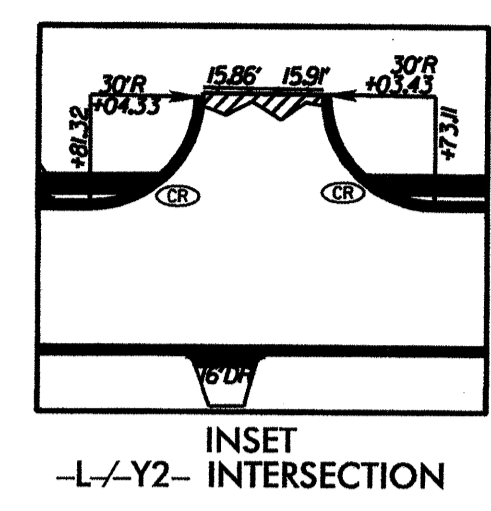
PHASE I, STEPS 2
THRU 3

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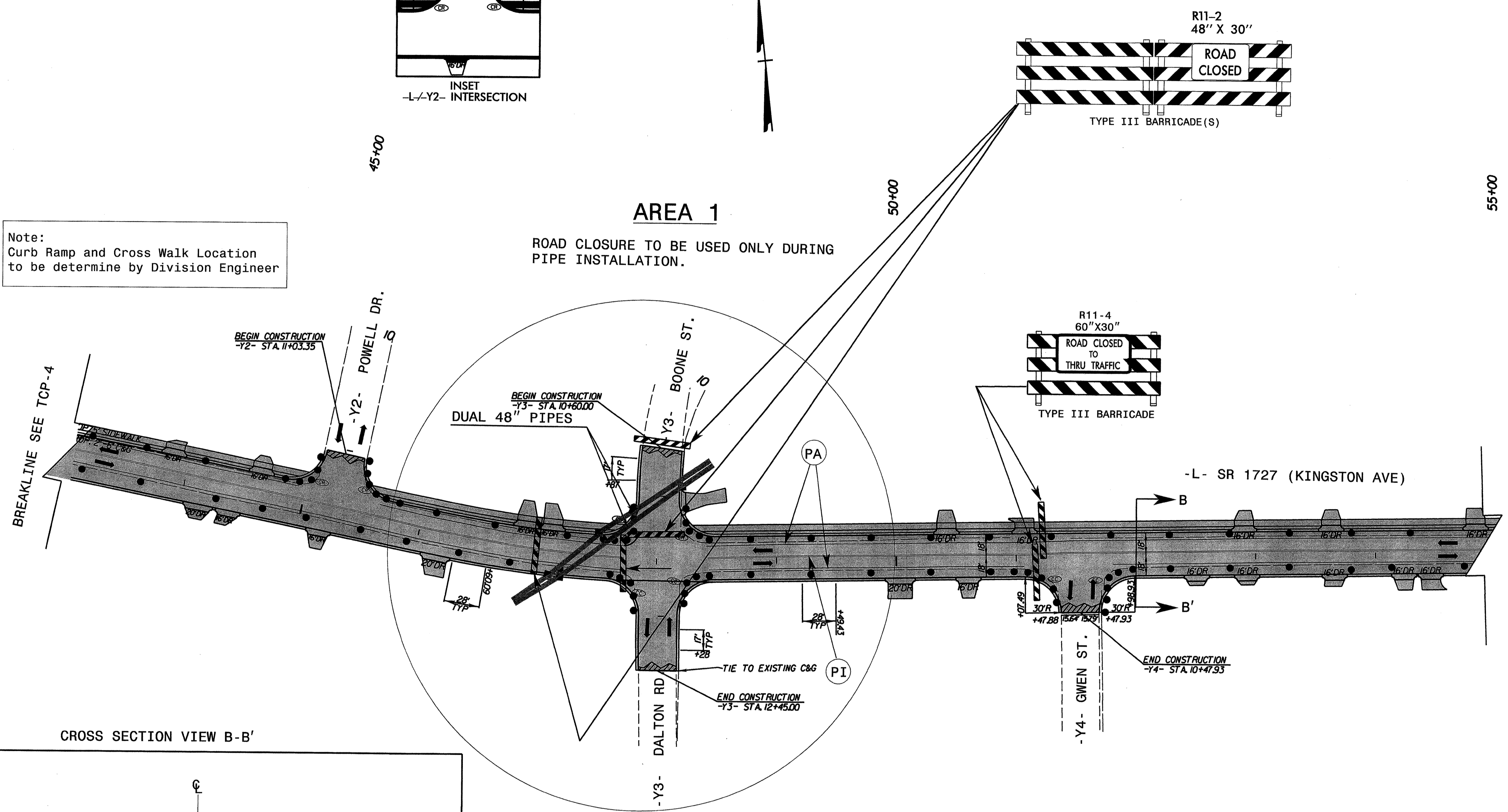
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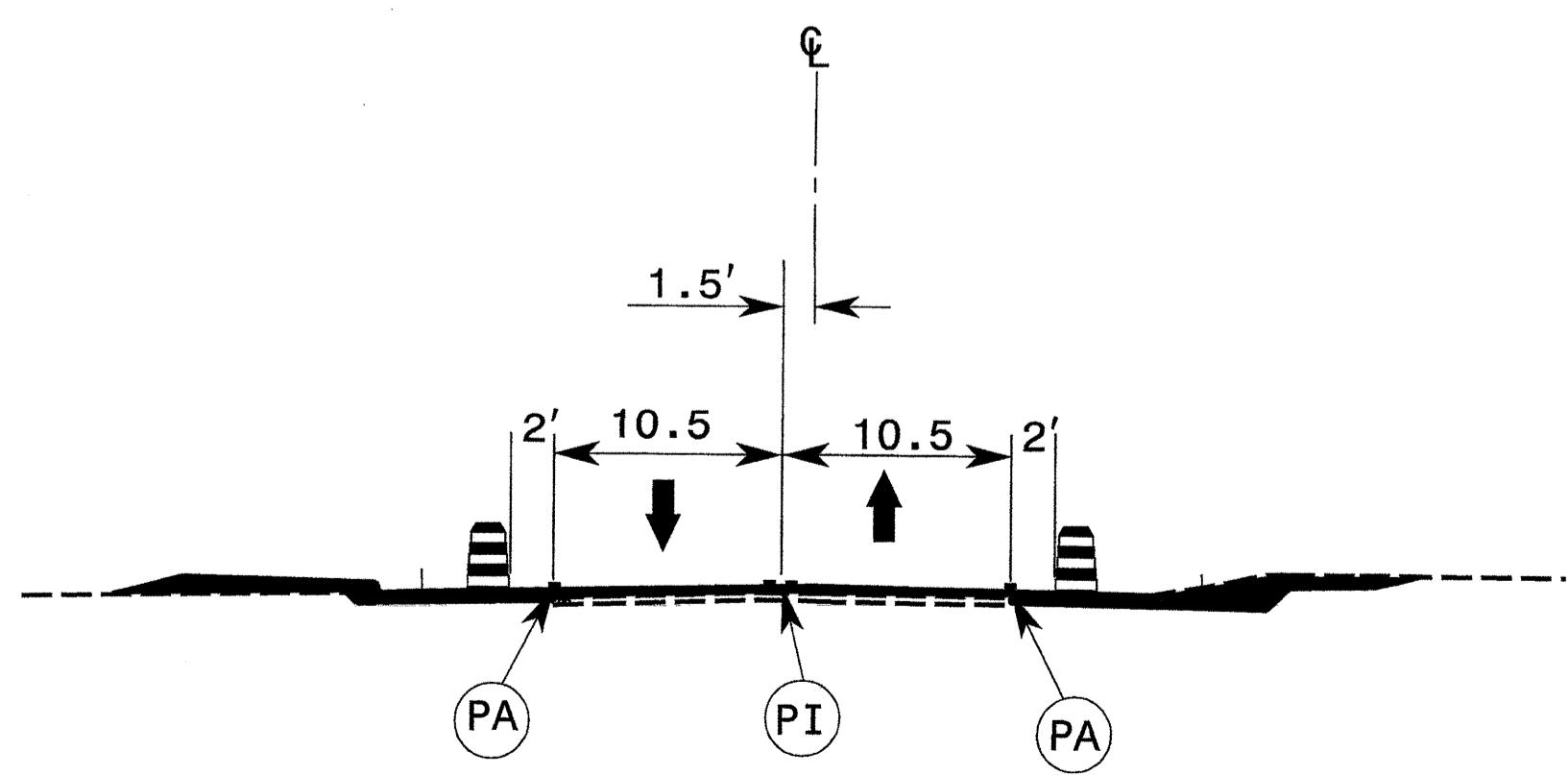


Note:
Curb Ramp and Cross Walk Location
to be determine by Division Engineer

AREA 1
ROAD CLOSURE TO BE USED ONLY DURING
PIPE INSTALLATION.



CROSS SECTION VIEW B-B'



-L- STA. 52+00 +/-
NOT TO SCALE

NOTE: CONTRACTOR SHALL MAINTAIN
ACCESS TO DRIVEWAYS AT ALL TIMES.

APPROVED: _____ DATE: _____

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**PHASE I, STEPS 2
THRU 3**

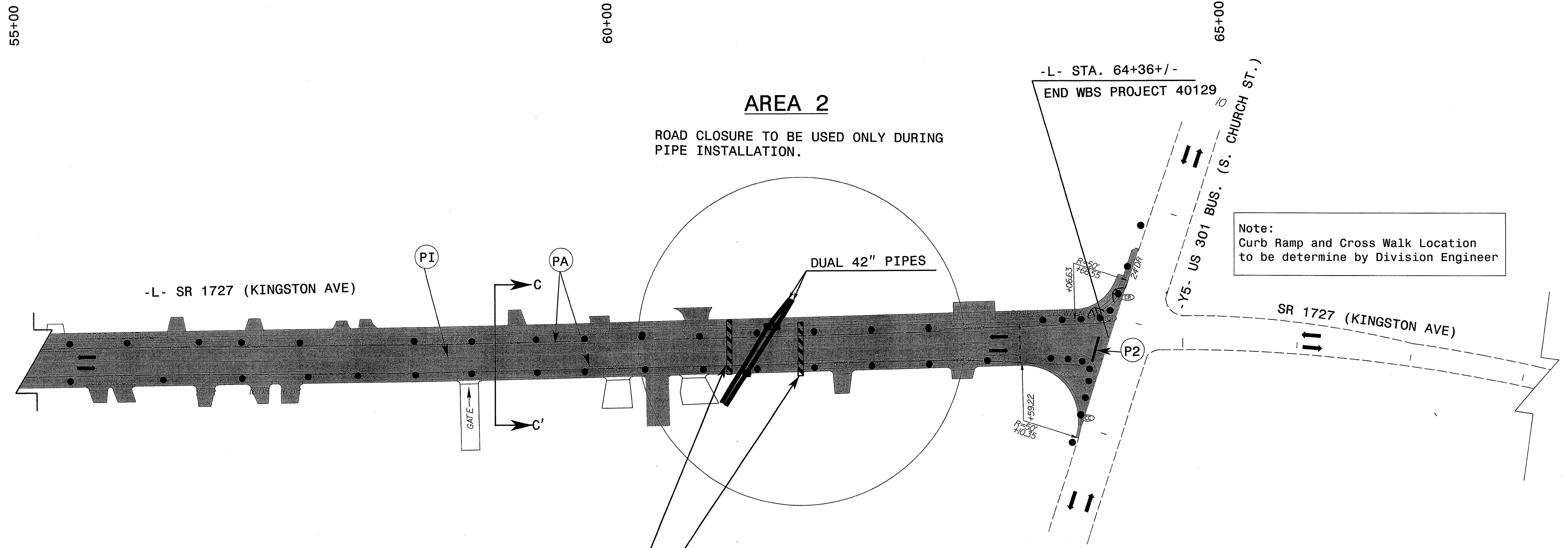
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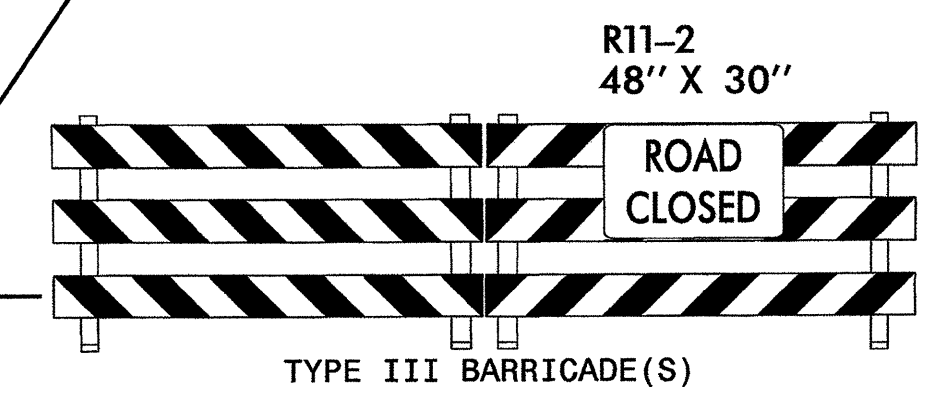
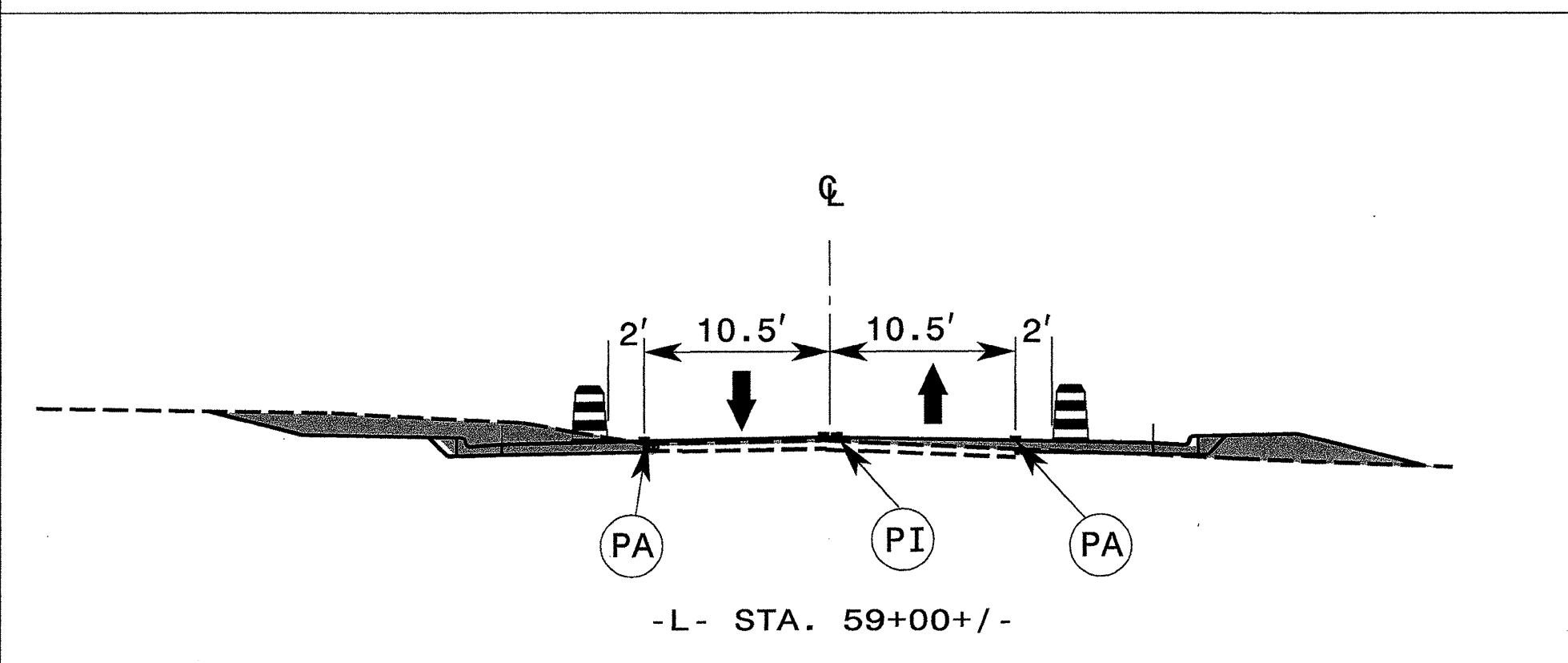
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MATCH LINE SEE TCP-5



Note:
Curb Ramp and Cross Walk Location
to be determine by Division Engineer

CROSS SECTION VIEW C-C'



NOTE: CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.

APPROVED: _____ DATE: _____

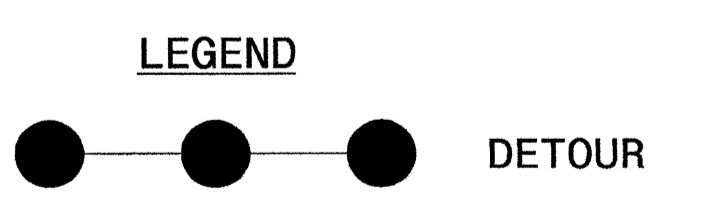
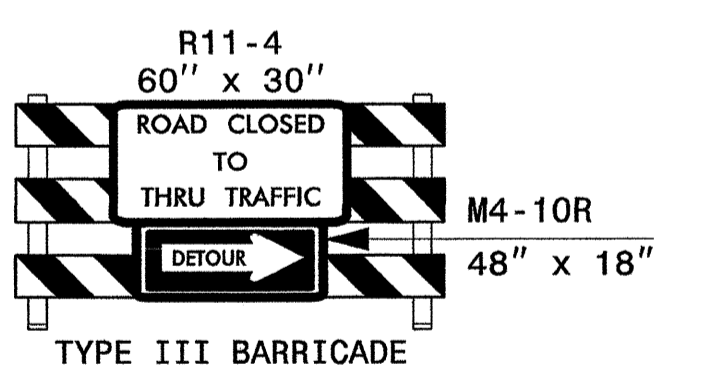
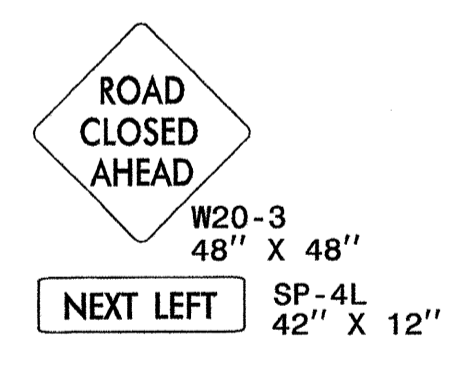
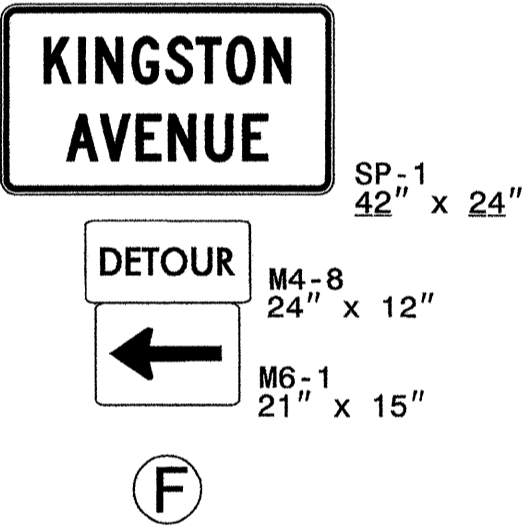
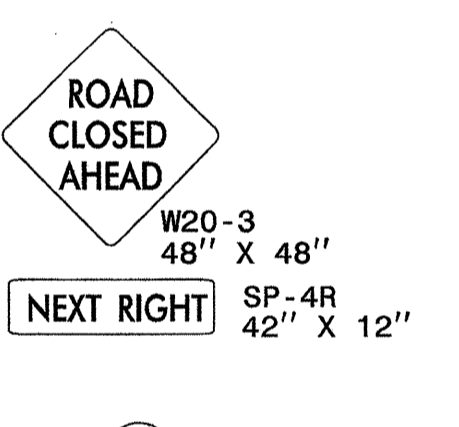
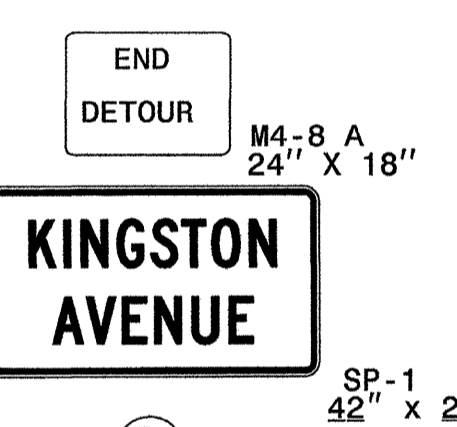
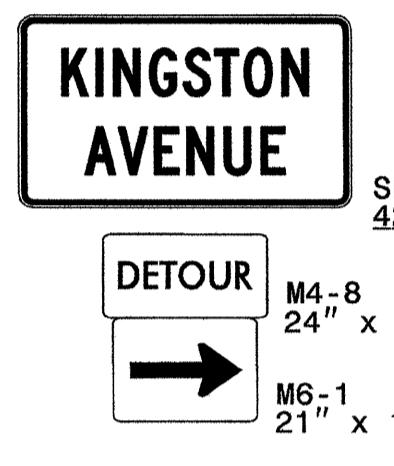
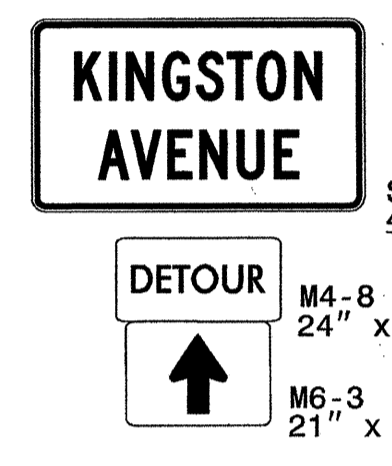
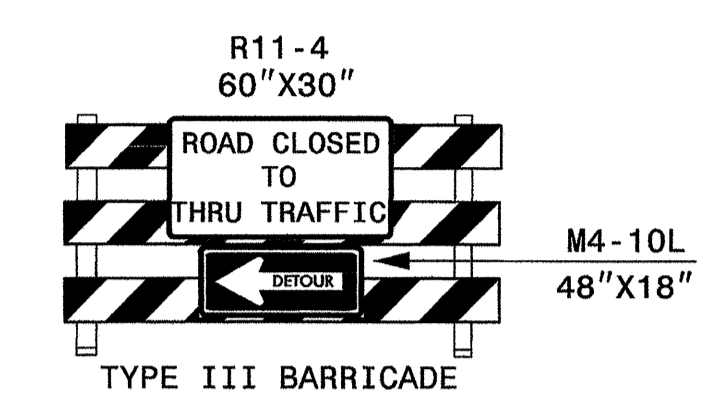
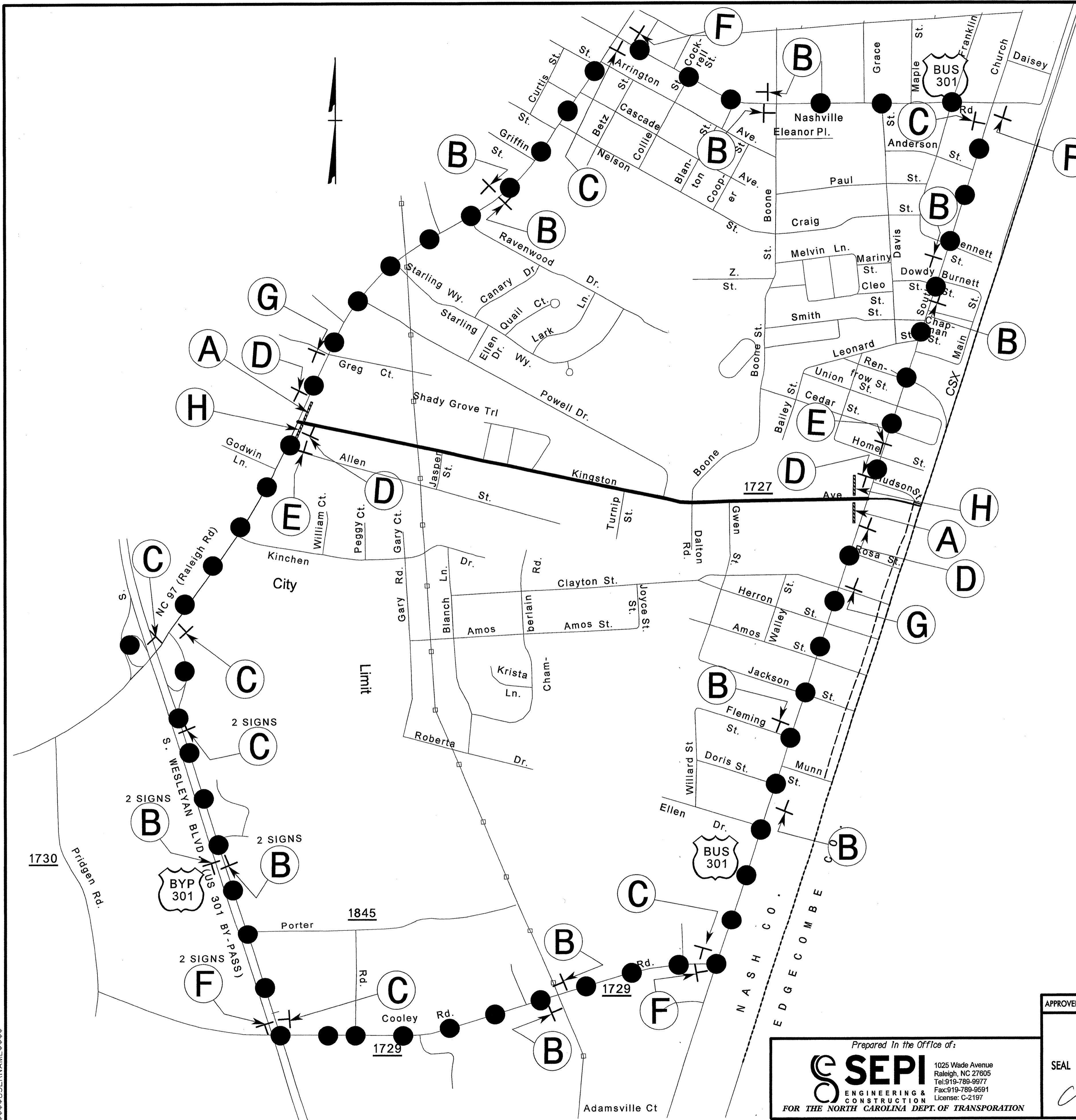
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1-16-13

PHASE I, STEPS 2
THRU 3

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SEE ROADWAY STANDARD NO. 1101.03, SHEET 1 OF 9, FOR ADVANCE WARNING SIGNS AND NOTES.

*****SYTIME*****
*****DCN*****
*****SERNAME*****

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APPROVED: _____ DATE: _____
SEAL
NORTH CAROLINA PROFESSIONAL SEAL
028392
12-14-2012

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

KINGSTON AVE.
OFF-SITE DETOUR