

U-4439 A AND B

TIP PROJECT:

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
35032.1.1	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
ON SLOW COUNTY**

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C., DATED JANUARY 2002 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
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
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
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
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
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

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TCP-14	BARRICADES - TYPE III (REPLACEMENT DETAIL FOR RSD 1145.01)
PM-1 THROUGH PM-7	FINAL PAVEMENT MARKING PLANS & SCHEDULE

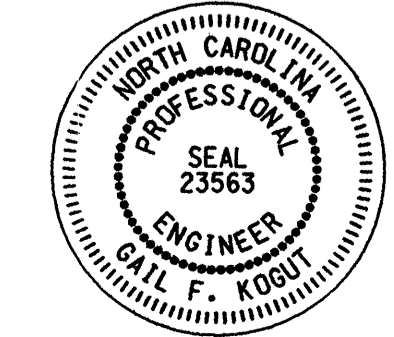
**TEMPORARY PAVEMENT MARKING SCHEDULE**

SYMBOL	DESCRIPTION	PAY ITEM QUANTITY	TOTAL
PAVEMENT MARKINGS			
PAINT (4")			
PA	WHITE EDGELINE (1X)	27454 LF	
PB	YELLOW EDGELINE (2X)	3822 LF	
PC	10 FT. WHITE SKIP (2X)	3220 LF	
PD	2 FT. WHITE MINISKIP (2X)	239 LF	
PE	WHITE SOLID LANE LINE (2X)	1450 LF	
PI	YELLOW DOUBLE CENTER (2X)	25672 LF	
	TOTAL		61857 LF
PAINT (8")			
PR	WHITE GORELINE (1X)	536 LF	
PS	WHITE DIAGONAL (1X)	77 LF	
PV	YELLOW DIAGONAL (2X)	470 LF	
PX	WHITE CROSSWALK (2X)	213 LF	
	TOTAL		1296 LF
PAINT (24")			
P4	WHITE STOPBAR (1X)	311 LF	
	TOTAL		311 LF
PAINT MARKING SYMBOLS			
QA	LEFT TURN ARROW (1X)	14 EA	
QB	RIGHT TURN ARROW (2X)	2 EA	
QC	STRAIGHT ARROW (1X)	12 EA	
QD	COMBO. STRAIGHT/LEFT (1X)	4 EA	
QE	COMBO. STRAIGHT/RIGHT (1X)	6 EA	
	TOTAL		38 EA

NOTE: 1X = ONE (1) APPLICATION FOR EACH PAINT PAVEMENT  
2X = TWO (2) APPLICATIONS FOR EACH PAINT PAVEMENT  
3X = THREE (3) APPLICATIONS FOR EACH PAINT PAVEMENT

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
  - PROPOSED PVMT. EXIST. PVMT.
  - WORK AREA PCB
  - RESURFACING
  - WEDGING
- 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
  - STATIONARY SIGN - DUAL MOUNTED
  - 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
  - CRYSTAL/RED PAVEMENT MARKER
  - PAVEMENT MARKING SYMBOLS

<p>PLAN PREPARED FOR N.C.D.O.T. BY: <b>MA Engineering CONSULTANTS, INC.</b> 598 East Chatham Street, Suite 137, Cary, NC 27511 Phone: 919.237.0220 Fax: 919.237.0221</p>	<p>APPROVED: <i>[Signature]</i> DATE: 02-01-06</p>	<p>PLAN PREPARED FOR: N.C.D.O.T. TRAFFIC CONTROL, MARKING &amp; DELINEATION SECTION</p>
<p><b>R.W. PORTER JR., P.E.</b> PROJECT ENGINEER</p> <p><b>G.F. KOGUT, P.E.</b> DESIGN ENGINEER</p>	<p>SEAL</p> 	<p><b>J.S. BOURNE, P.E.</b> TRAFFIC CONTROL ENGINEER</p> <p><b>M.M. McDIARMID, P.E.</b> TRAFFIC CONTROL PROJECT ENGINEER</p> <p><b>C.B. HOWARD</b> TRAFFIC CONTROL PROJECT DESIGN ENGINEER</p> <p><b>M. McKOY</b> TRAFFIC CONTROL DESIGN ENGINEER</p>

# PROJECT NOTES

PROJ. REFERENCE NO.	SHEET NO.
U-4439 A & B	TCP-2

## GENERAL NOTES

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

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
1. EASTBOUND CURTIS ROAD	MONDAY THROUGH FRIDAY 6:00 AM TO 8:00 AM
2. WESTBOUND CURTIS ROAD	MONDAY THROUGH FRIDAY 4:00 PM TO 6:00 PM

B) DO NOT STOP TRAFFIC FOR MORE THAN 15 MINUTES AS FOLLOWS:

ROAD NAME	OPERATION
1. ALL ROADS	SHIFTING TRAFFIC

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 40 FT (12m) 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.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT (1.5m) 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 (3m) OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- H) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT (5m) OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.

### 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 A DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES (50mm) ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES (75mm) 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 1.5 inches (40mm) IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT (150m) IN ADVANCE AND A MINIMUM OF ONCE EVERY 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 100 FT (31m) FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.
- M) PROVIDE PERMANENT SIGNING.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.
- P) INSTALL BLACK ON ORANGE "BUMP" SIGNS (W8-1) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.

### TRAFFIC CONTROL DEVICES

- Q) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT (3m) ON-CENTER IN RADII, AND 3 FT (1m) OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.
- R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. STAGGER OR OVERLAP BARRICADES TO ALLOW FOR INGRESS OR EGRESS.
- S) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT (150m) CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

### PAVEMENT MARKINGS AND MARKERS

- T) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:
- | ROAD NAME    | MARKING       | MARKER            |
|--------------|---------------|-------------------|
| 1. ALL ROADS | THERMOPLASTIC | RAISED REFLECTIVE |
- U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:
- | ROAD NAME    | MARKING | MARKER |
|--------------|---------|--------|
| 1. ALL ROADS | PAINT   | NONE   |
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- W) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- X) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

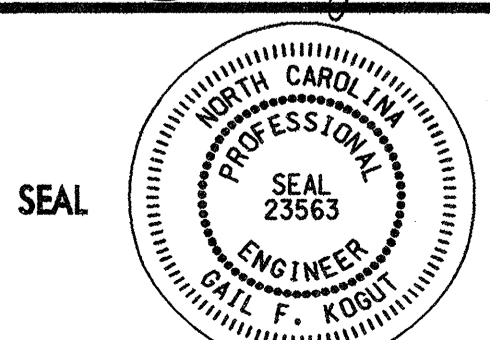
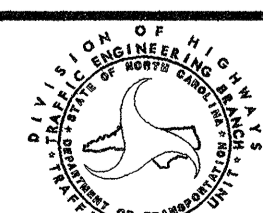
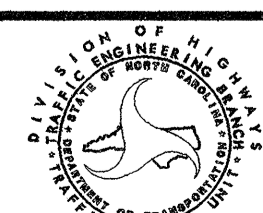
### TEMPORARY/FINAL SIGNALS

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

### MISCELLANEOUS

- AA) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS 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) 500 FT (150m) AND 1000 FT (300m) RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

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APPROVED: <i>Paul F. Kugel</i> DATE: <i>05-21-05</i> 	<h2 style="margin: 0;">PROJECT NOTES</h2>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <tr> <td>SCALE:</td> <td>NONE</td> </tr> <tr> <td>DATE:</td> <td>05-21-03</td> </tr> <tr> <td>DWG. BY:</td> <td>GFK</td> </tr> <tr> <td>DESIGN BY:</td> <td>GFK</td> </tr> <tr> <td>REVIEWED BY:</td> <td>RWP</td> </tr> </table>	SCALE:	NONE	DATE:	05-21-03	DWG. BY:	GFK	DESIGN BY:	GFK	REVIEWED BY:	RWP
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# PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-4439 A & B	TCP-3

- NOTE: DO NOT WORK ON BOTH SIDES OF EXISTING ROADWAY SIMULTANEOUSLY.
- NOTE: ALL DRIVEWAYS SHALL REMAIN ACCESSIBLE AT ALL TIMES.
- NOTE: NOTIFY MARINE CORPS AIR STATION PERSONNEL BEFORE CLOSING LANES OR SHOULDERS AT THE US 17 / CURTIS ROAD INTERSECTION DURING PEAK TRAVEL PERIODS WHEN THE BASE IS UNDER HIGH OR SEVERE SECURITY ALERT STATUS.

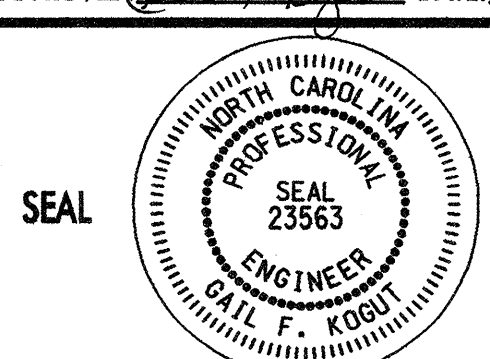
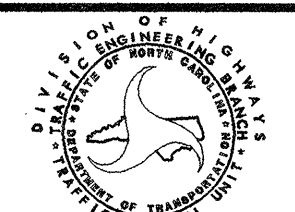
### PHASE I

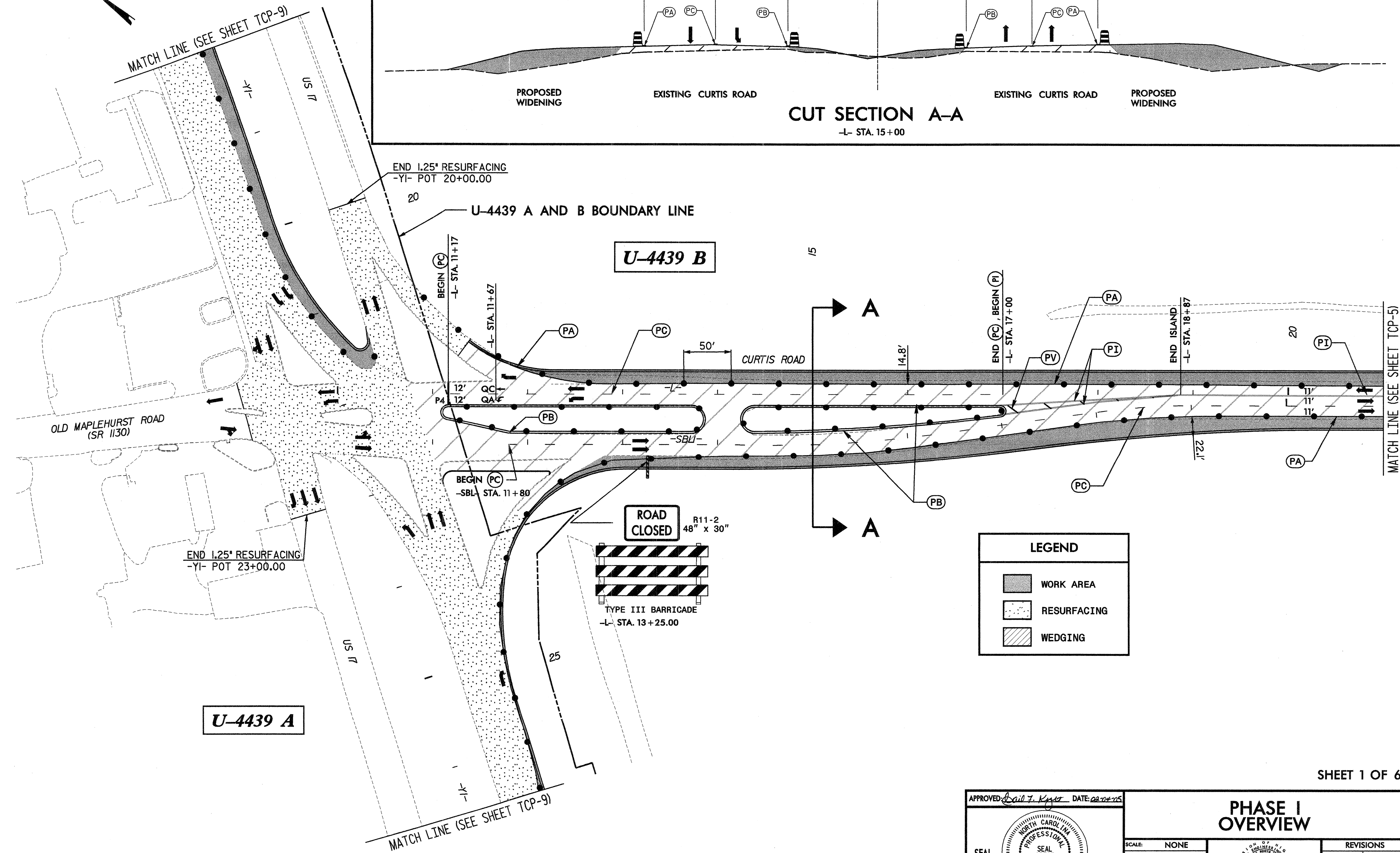
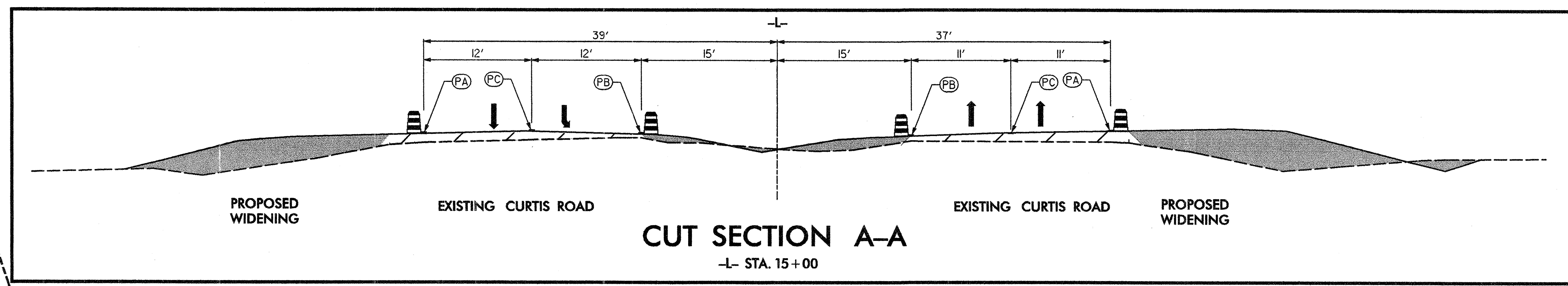
- STEP 1) BEGIN INSTALLATION AND/OR MODIFICATION OF TRAFFIC SIGNALS AS REQUIRED FOR TRAFFIC PATTERNS AT THE US 17/ CURTIS ROAD AND THE CURTIS ROAD/ "A" STREET/ SCHMIDT ROAD INTERSECTIONS.
- STEP 2) CONSTRUCT NEW VISITOR'S CENTER PARKING LOT AND ASSOCIATED DRIVE UP TO AND INCLUDING THE FINAL SURFACE COURSE. (SEE TCP-5)
- STEP 3) USING ROADWAY STANDARD DRAWING NO. 1101.02 (SHEETS 1, 3, AND 4 OF 7) AND REPLACEMENT DETAIL FOR RSD 1101.04, CONSTRUCT WEDGING UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE UNDER TRAFFIC AT THE FOLLOWING LOCATIONS:
- L- STA. 10+77 +/- TO -L- STA. 73+00 +/- (SEE TCP-4 THROUGH TCP-8)
  - SBL1- STA. 10+97 +/- TO -SBL1- STA. 20+40 +/- (SEE TCP-4)
  - Y3- STA. 10+50 +/- TO -Y3- STA. 15+50 +/- (SEE TCP-8)
  - Y4- STA. 10+62 +/- TO -Y4- STA. 14+12 +/- (SEE TCP-8)
- REPLACE ALL EXISTING PAVEMENT MARKINGS THAT HAVE BEEN OBLITERATED WITH TEMPORARY PAVEMENT MARKINGS.
- STEP 4) USING REPLACEMENT DETAIL FOR RSD 1101.04, BEGIN DRAINAGE, WIDENING, AND NEW ROADWAY CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AWAY FROM TRAFFIC AT THE FOLLOWING LOCATIONS:
- L- STA. 11+40 +/- LT. TO -L- STA. 67+92 +/- LT. (SEE TCP-4 THROUGH TCP-8)
  - L- STA. 68+16 +/- LT. TO -L- STA. 73+00 +/- LT. (SEE TCP-8)
  - Y3- STA. 10+50 +/- TO -Y3- STA. 15+50 +/- (SEE TCP-8)
- STEP 5) USING REPLACEMENT DETAIL FOR RSD 1101.04, CONSTRUCT PROPOSED DRAINAGE, WIDENING, AND NEW ROADWAY CONSTRUCTION AT THE FOLLOWING LOCATIONS:
- Y1- STA. 13+00 +/- MED. TO -Y1- STA. 21+28 +/- MED. (SEE TCP-4 AND TCP-9)
  - SBL1- STA. 10+97 +/- RT. TO -SBL1- STA. 20+40 RT. (SEE TCP-4)
  - L- STA. 20+38 +/- RT. TO -L- STA. 31+30 RT. (SEE TCP-4 THROUGH TCP-5)
  - L- STA. 32+00 +/- RT. TO -L- STA. 67+92 RT. (SEE TCP-5 THROUGH TCP-8)
  - L- STA. 68+28 +/- RT. TO -L- STA. 73+00 RT. (SEE TCP-8)
  - Y4- STA. 10+62 +/- TO -Y4- STA. 14+12 +/- (SEE TCP-8)
- NOTE: WORK IN A CONTINUOUS MANNER TO COMPLETE STEP 6.
- STEP 6) USING ROADWAY STANDARD DRAWING NOS. 1101.02 (SHEET 3 OF 7) AND REPLACEMENT DETAIL FOR RSD 1101.04, COMPLETE WIDENING AND NEW ROADWAY CONSTRUCTION UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AWAY FROM TRAFFIC AT THE FOLLOWING LOCATIONS:
- Y1- STA. 20+00 +/- MED TO -Y1- STA. 31+50 +/- MED.
- USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 3 OF 7), PLACE FINAL MARKINGS ON -Y1- (SEE PM-1, PM-2 AND PM-7)
- DO NOT OPEN ANY NEW LANES TO TRAFFIC.
- NOTE: WORK IN A CONTINUOUS MANNER TO COMPLETE STEP 7.
- STEP 7) USING ROADWAY STANDARD DRAWING NO. 1101.02 (SHEET 1 OF 7) SHIFT EXISTING -Y2- TRAFFIC PATTERN INTO A ONE-LANE TWO-WAY PATTERN WITH FLAGGERS. CONSTRUCT PROPOSED -Y2- UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE ONE SIDE AT A TIME FROM -Y2- STA. 10+43 +/- TO -Y2- STA. 11+75 +/-.
- USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 1 OF 7), PLACE FINAL MARKINGS ON -Y2- (SEE PM-3)
- STEP 8) USING REPLACEMENT DETAIL FOR RSD 1101.04, COMPLETE WIDENING AND NEW ROADWAY CONSTRUCTION BEGUN IN STEP 4 UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AWAY FROM TRAFFIC.

### PHASE II

- STEP 1) INSTALL AND/OR MODIFY TRAFFIC SIGNALS AS REQUIRED FOR TRAFFIC PATTERN AT THE CURTIS ROAD/ "A" STREET/ SCHMIDT ROAD INTERSECTION. PLACE TRAFFIC IN PATTERN SHOWN IN DETAIL ON TCP-10.
- STEP 2) USING ROADWAY STANDARD DRAWING NO. 1101.02 (SHEET 4 OF 7) CONSTRUCT MONOLITHIC CONCRETE ISLAND FROM -L- STA. 61+10 TO -L- STA. 67+60. (SEE TCP-10)
- STEP 3) COMPLETE INSTALLATION AND/OR MODIFICATION OF TRAFFIC SIGNALS AS REQUIRED FOR FINAL TRAFFIC PATTERNS AT THE US 17/ CURTIS ROAD AND THE CURTIS ROAD/ "A" STREET/ SCHMIDT ROAD INTERSECTION.
- STEP 4) USING ROADWAY STANDARD DRAWING NOS. 1101.02 (SHEETS 1, 3, AND 4 OF 7) AND REPLACEMENT DETAIL FOR RSD 1101.04, PLACE FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS/MARKERS. (SEE PM-1 THROUGH PM-7)
- STEP 5) OPEN ALL LANES TO TRAFFIC.

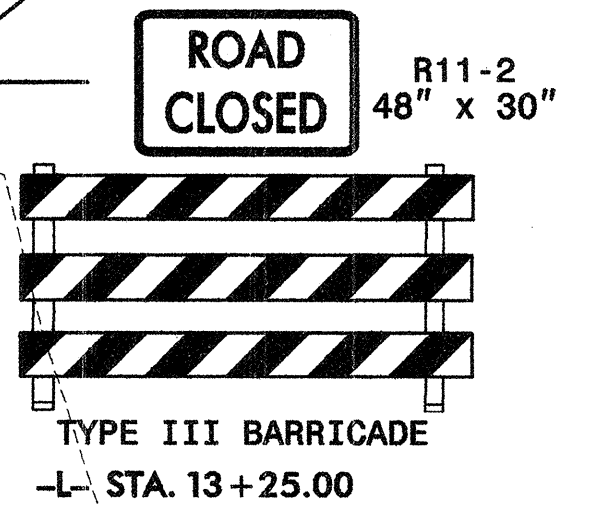
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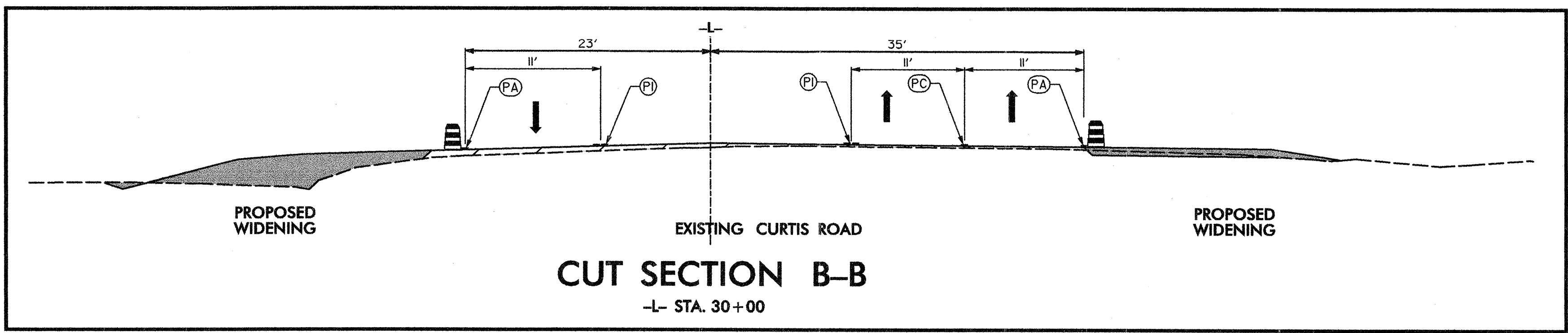
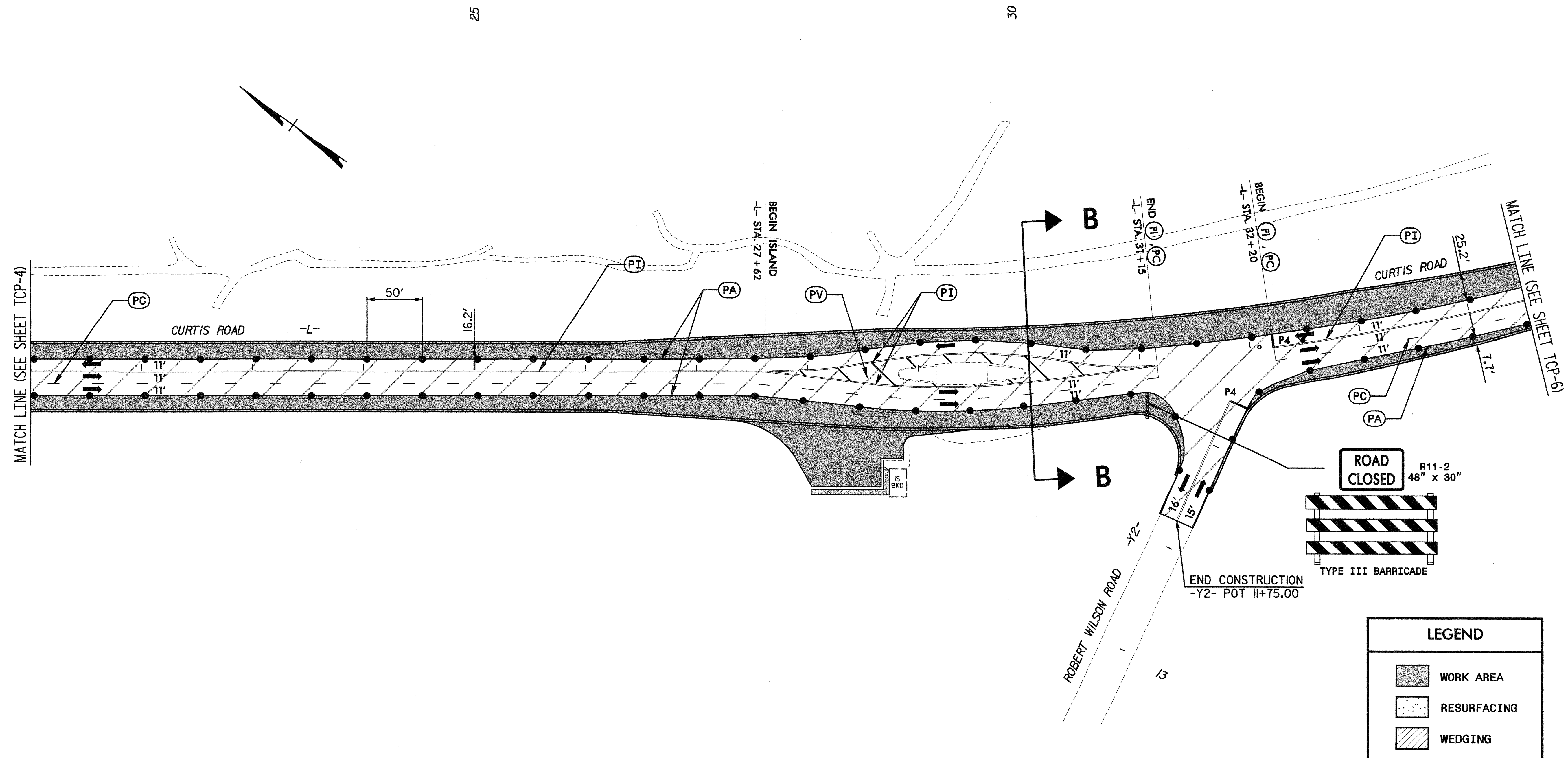
**LEGEND**

- WORK AREA
- RESURFACING
- WEDGING



APPROVED: <i>Gail F. Kogut</i> DATE: 02/08/05	<p><b>PHASE I OVERVIEW</b></p>	SCALE: NONE		REVISIONS
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LEGEND	
	WORK AREA
	RESURFACING
	WEDGING

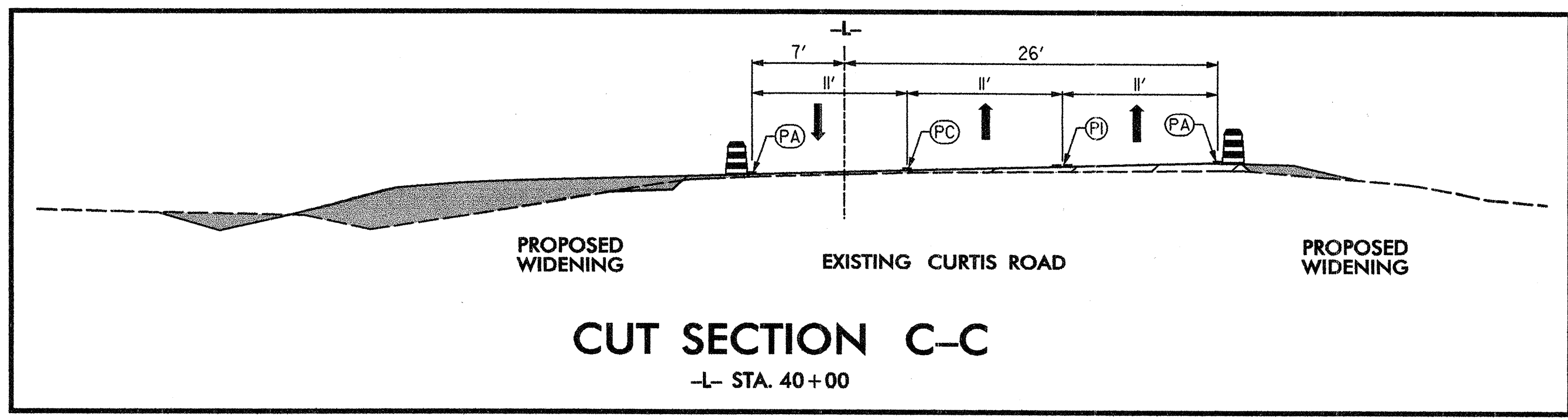
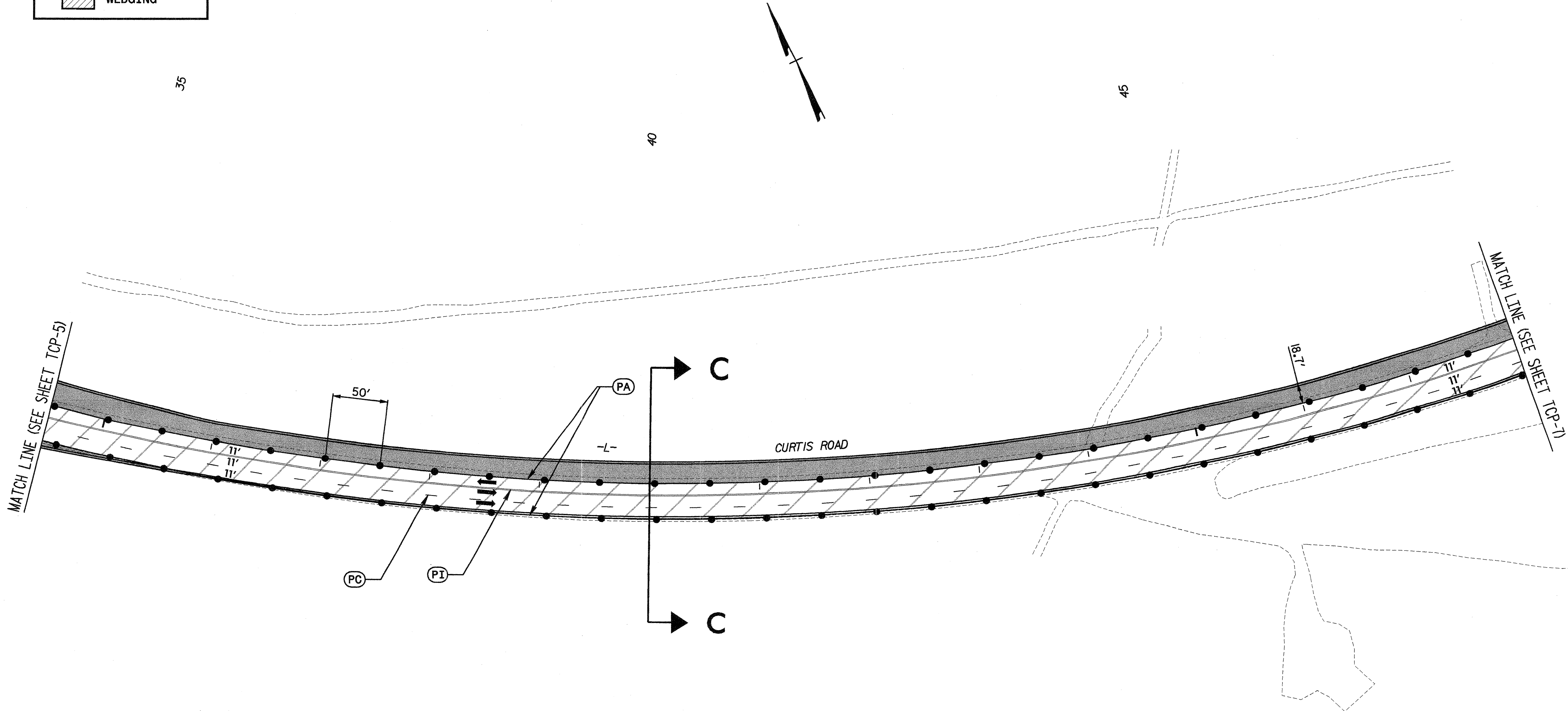
SHEET 2 OF 6

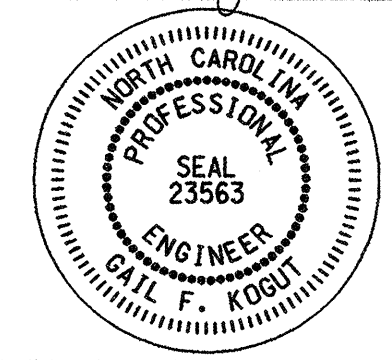

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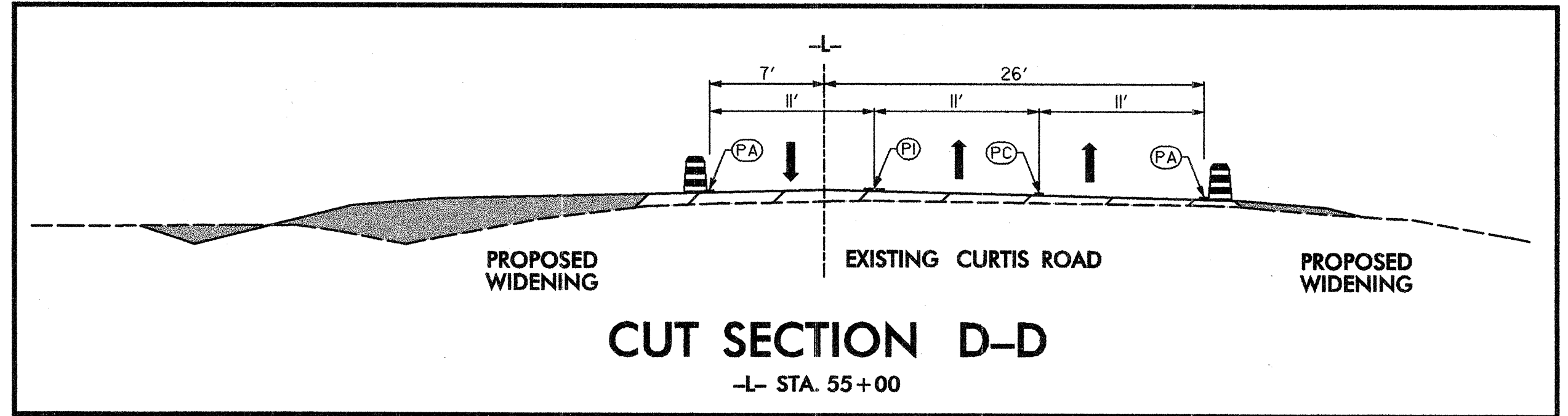
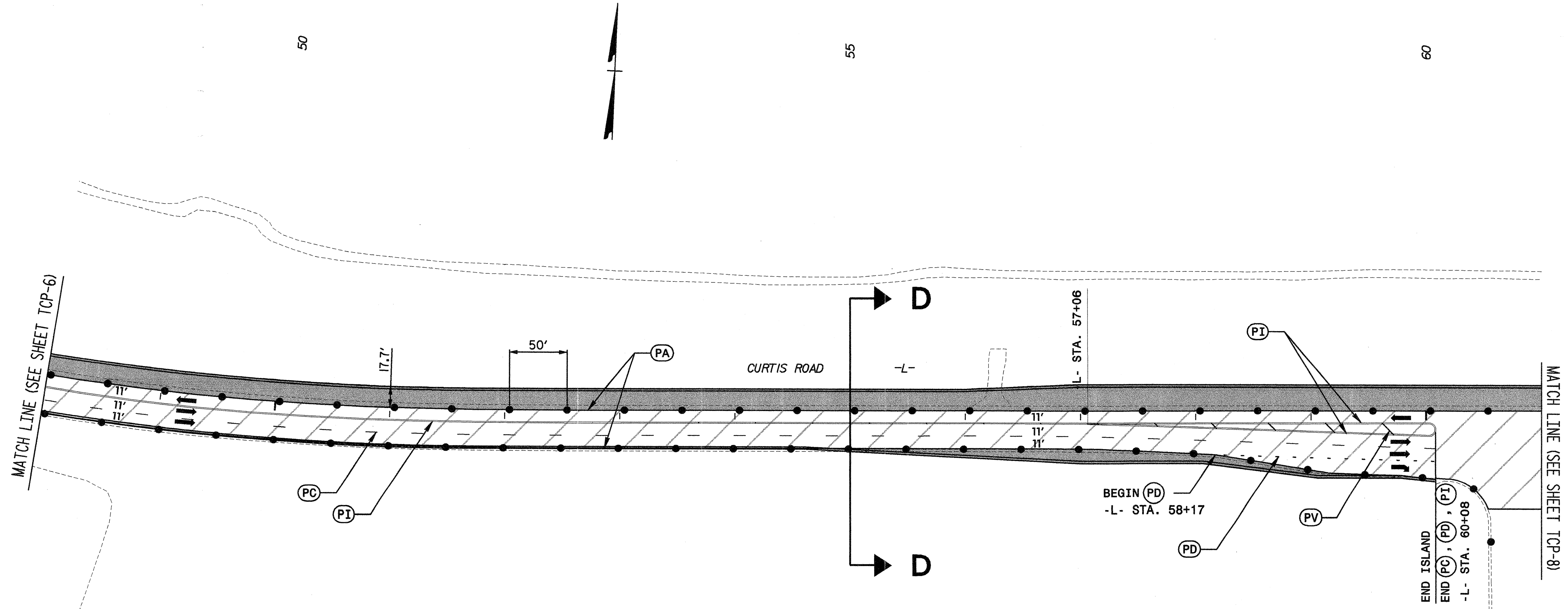
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-  WORK AREA
-  RESURFACING
-  WEDGING



APPROVED: <i>Paul F. Kobl</i> DATE: 02-07-05 	<b>PHASE I OVERVIEW</b>							
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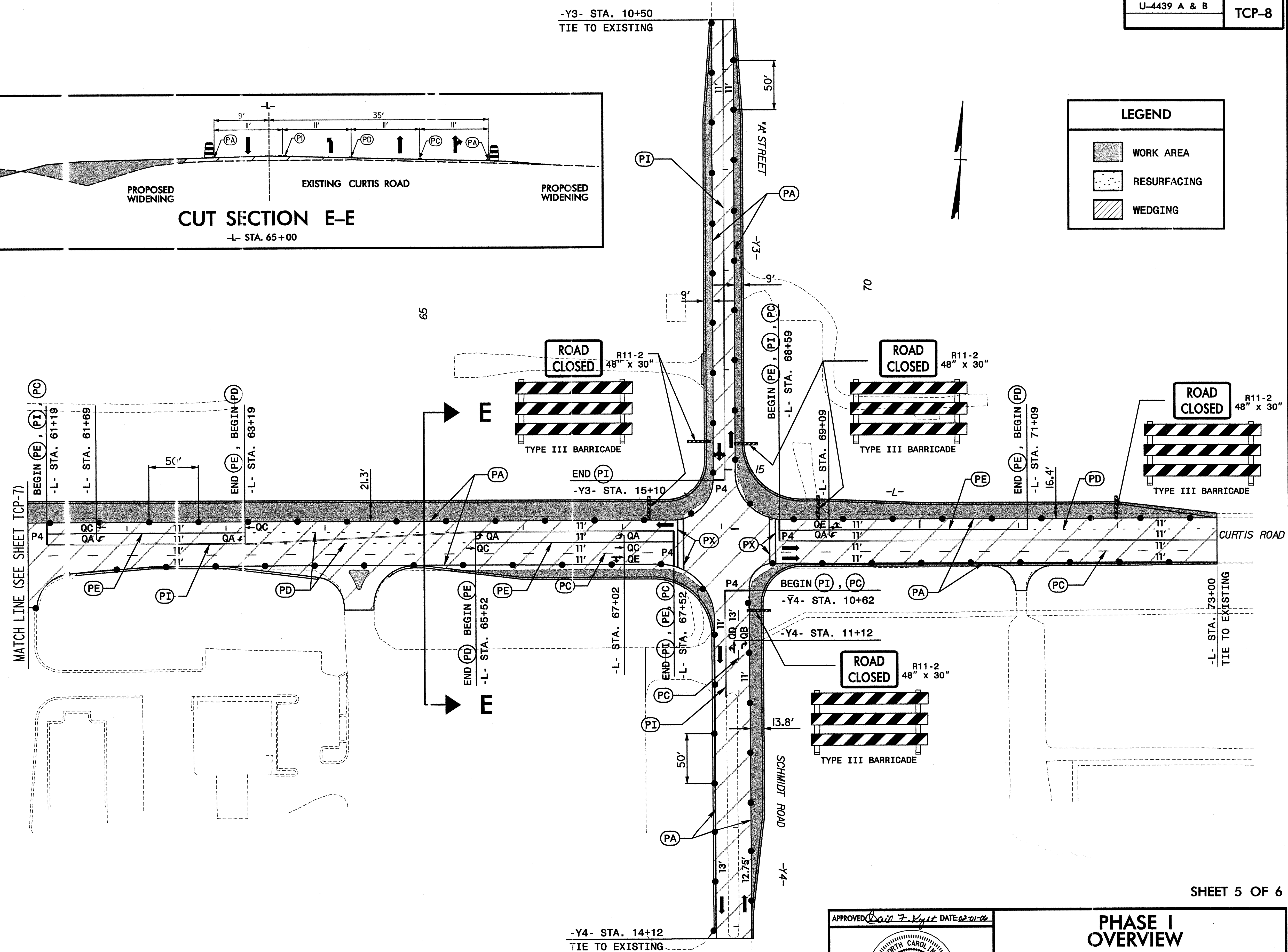
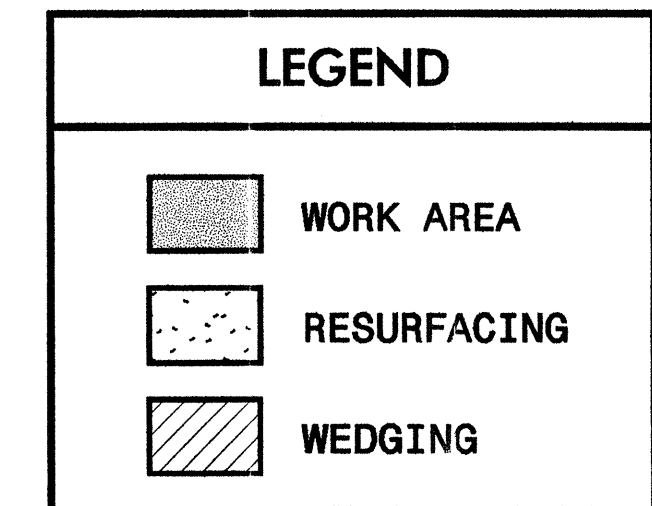
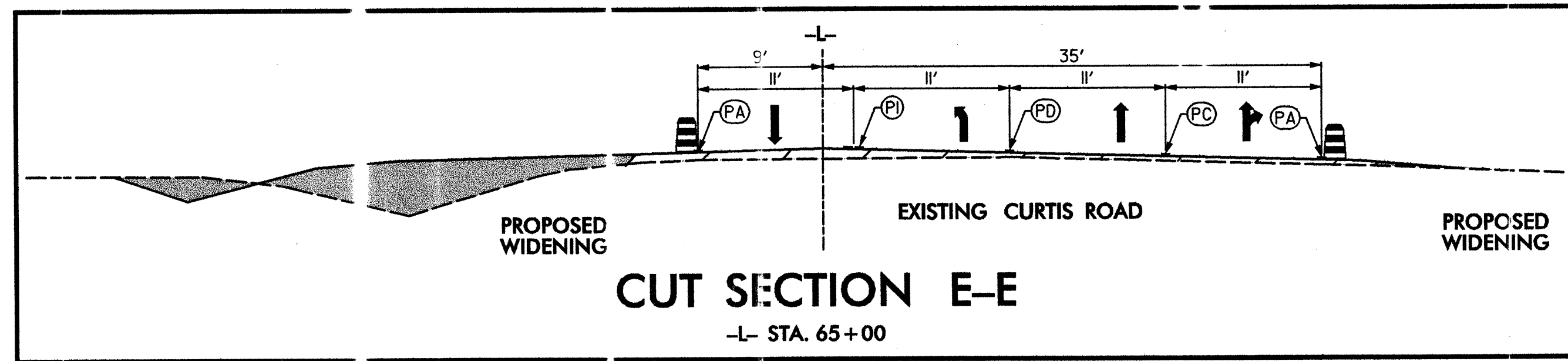
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LEGEND	
	WORK AREA
	RESURFACING
	WEDGING

APPROVED: <i>David G. Kubit</i> DATE: 02-01-05	<b>PHASE I OVERVIEW</b>			
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MATCH LINE (SEE SHEET TCP-7)

APPROVED: *David F. Kogel* DATE: 02-01-06

SEAL

**PHASE I OVERVIEW**


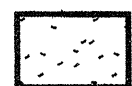

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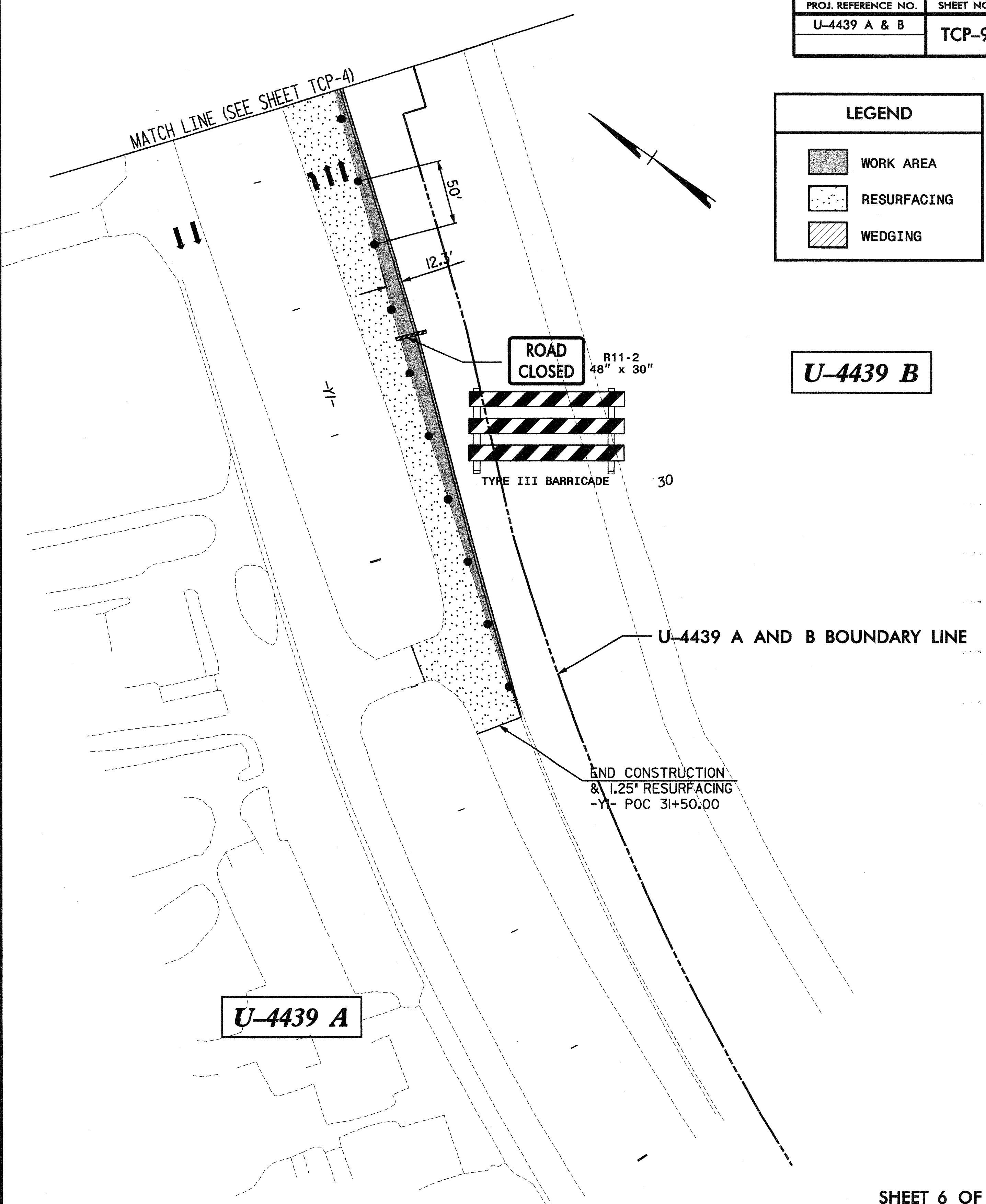
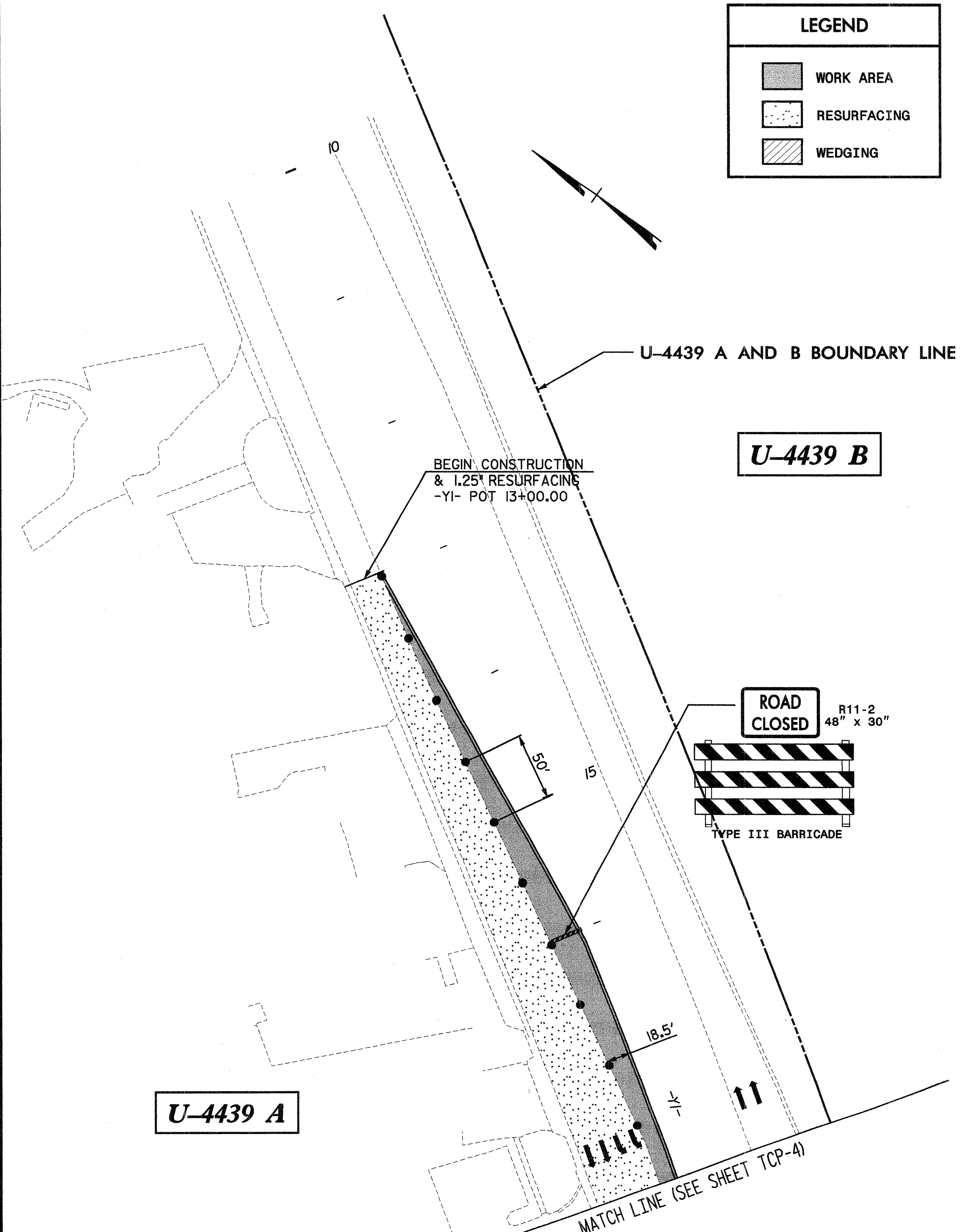


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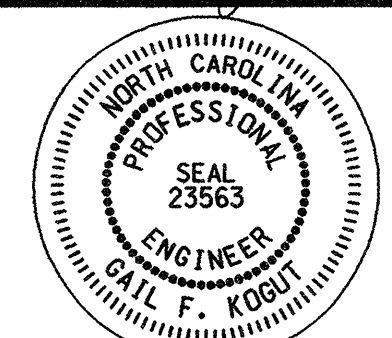
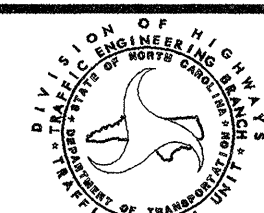
-  WORK AREA
-  RESURFACING
-  WEDGING

**LEGEND**

-  WORK AREA
-  RESURFACING
-  WEDGING

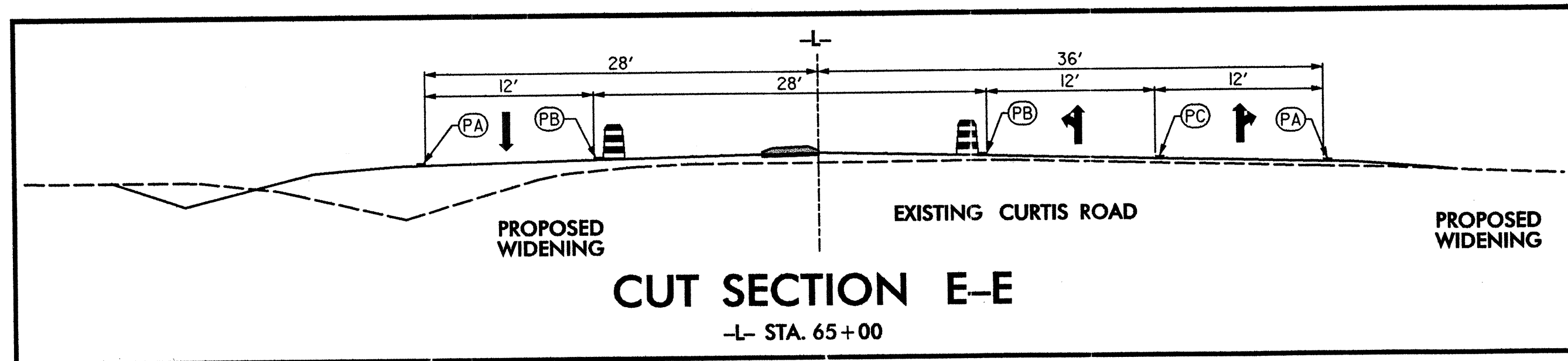
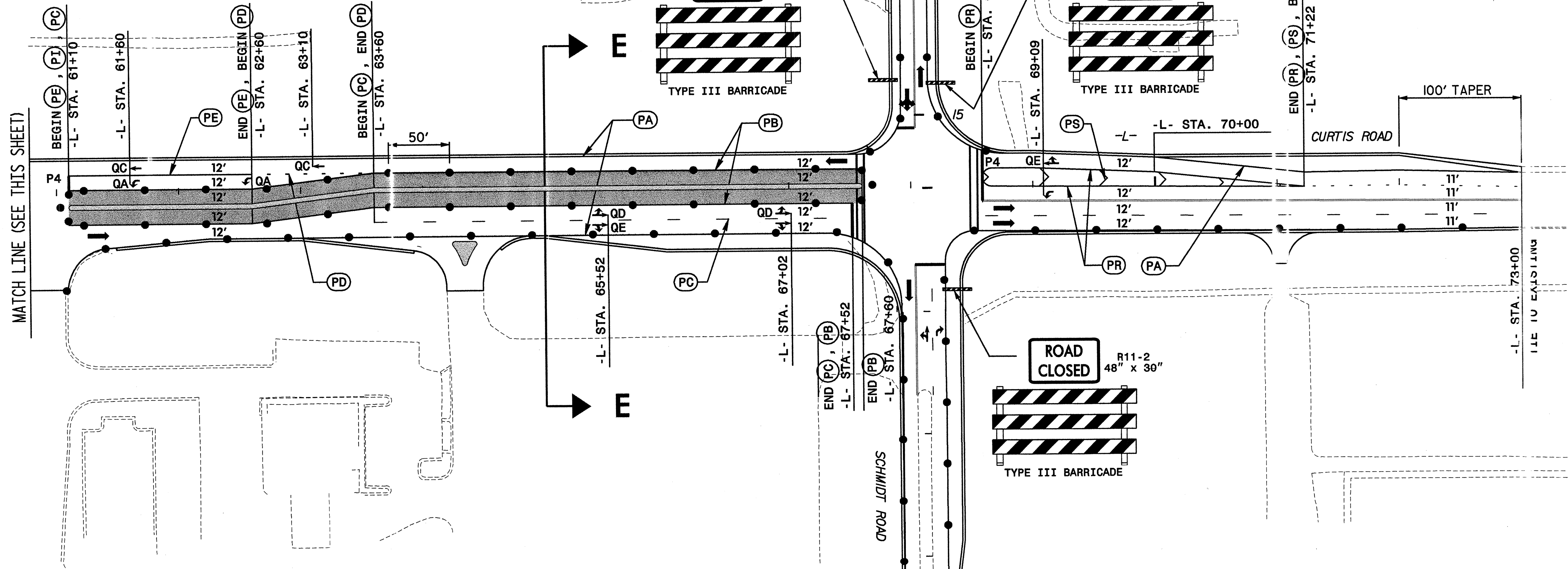
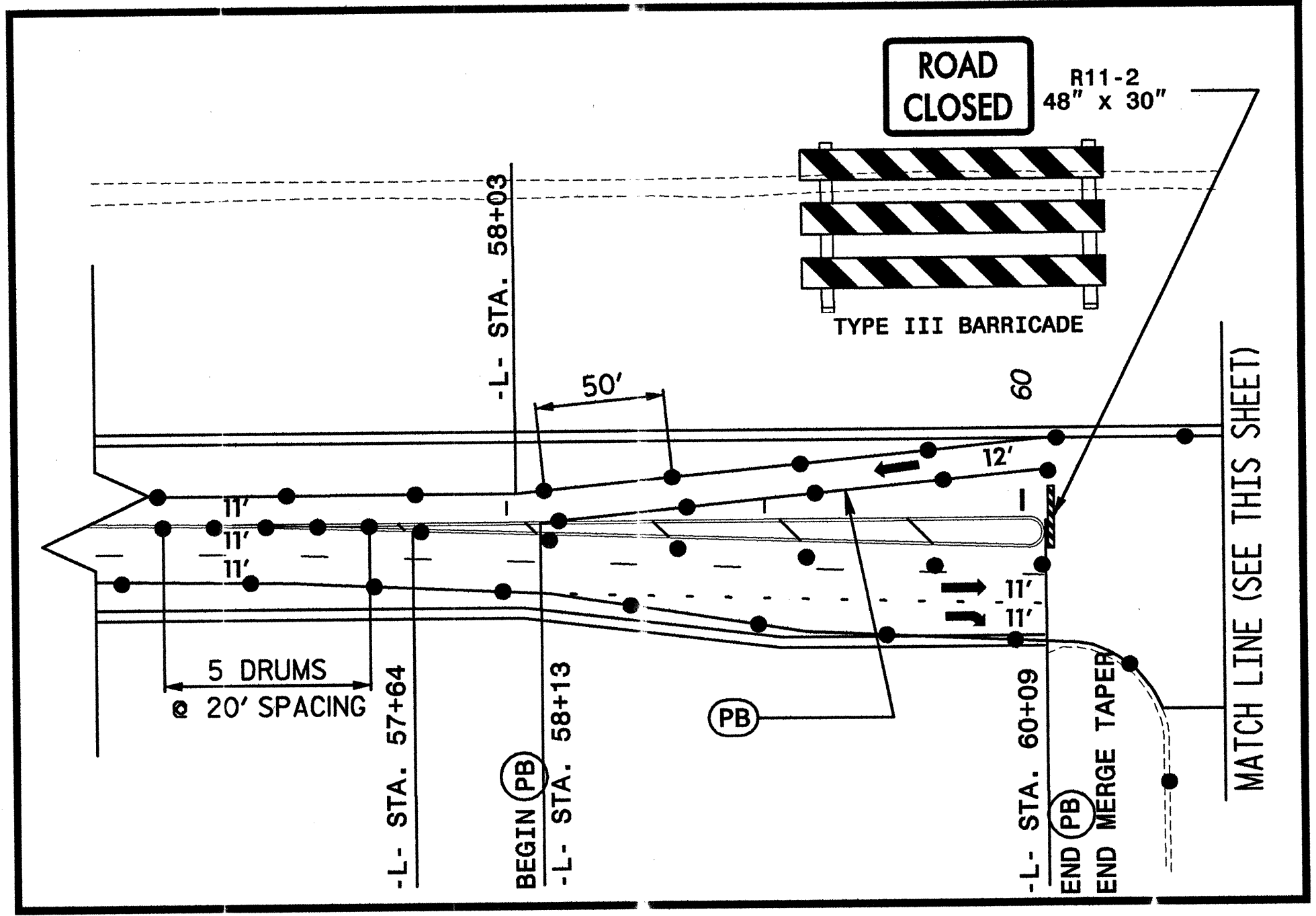


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**LEGEND**

- WORK AREA
- RESURFACING
- WEDGING



APPROVED: *[Signature]* DATE: 02-01-06

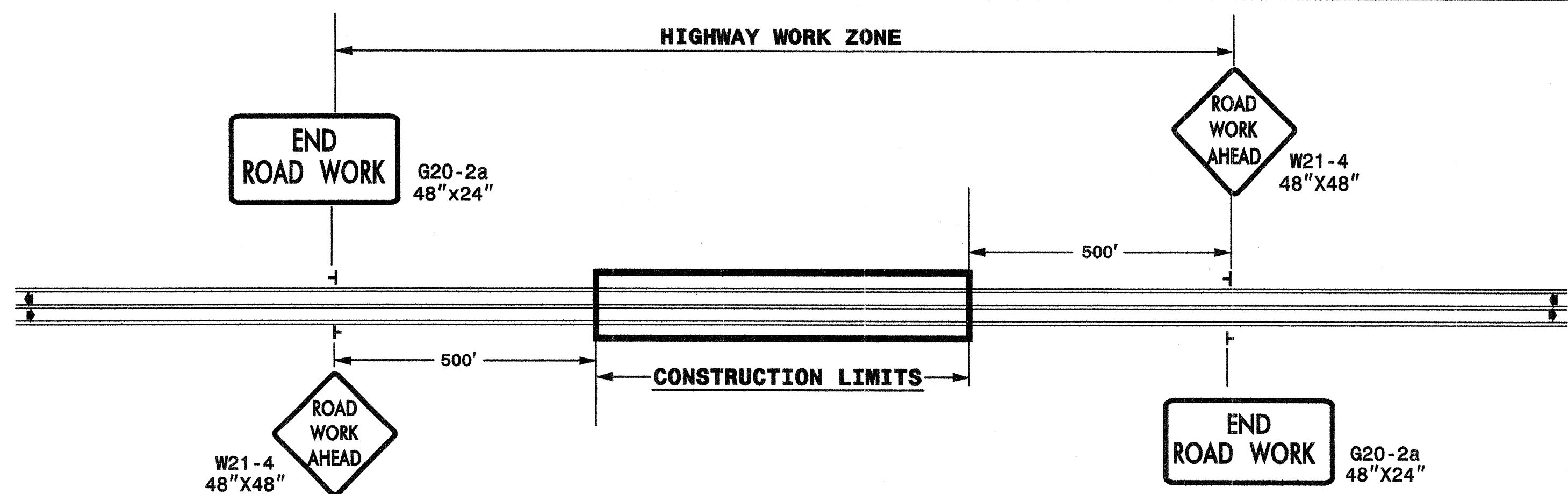
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**PHASE II DETAIL**

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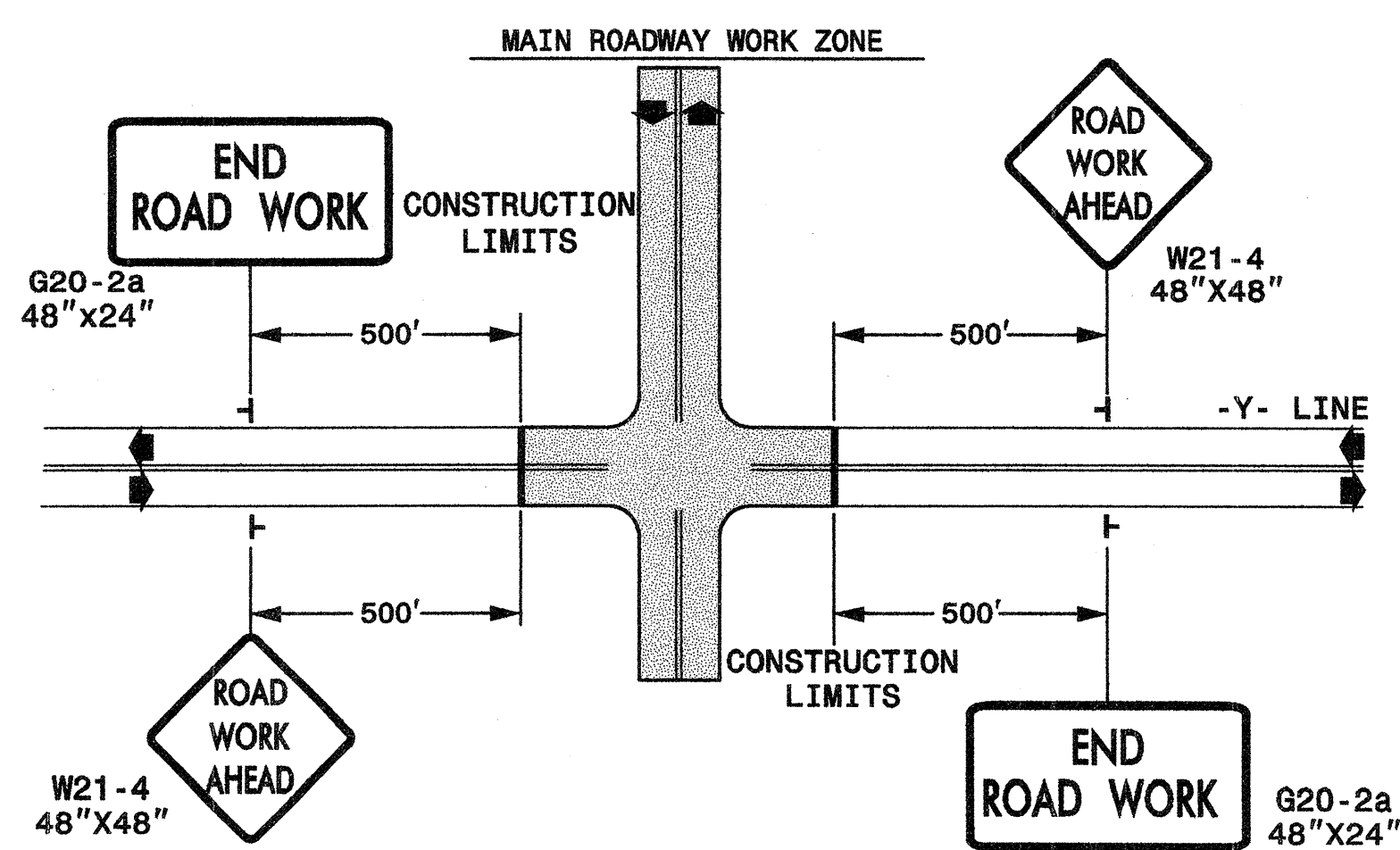
**TWO-WAY UNDIVIDED & URBAN FREEWAYS (L-LINES)**



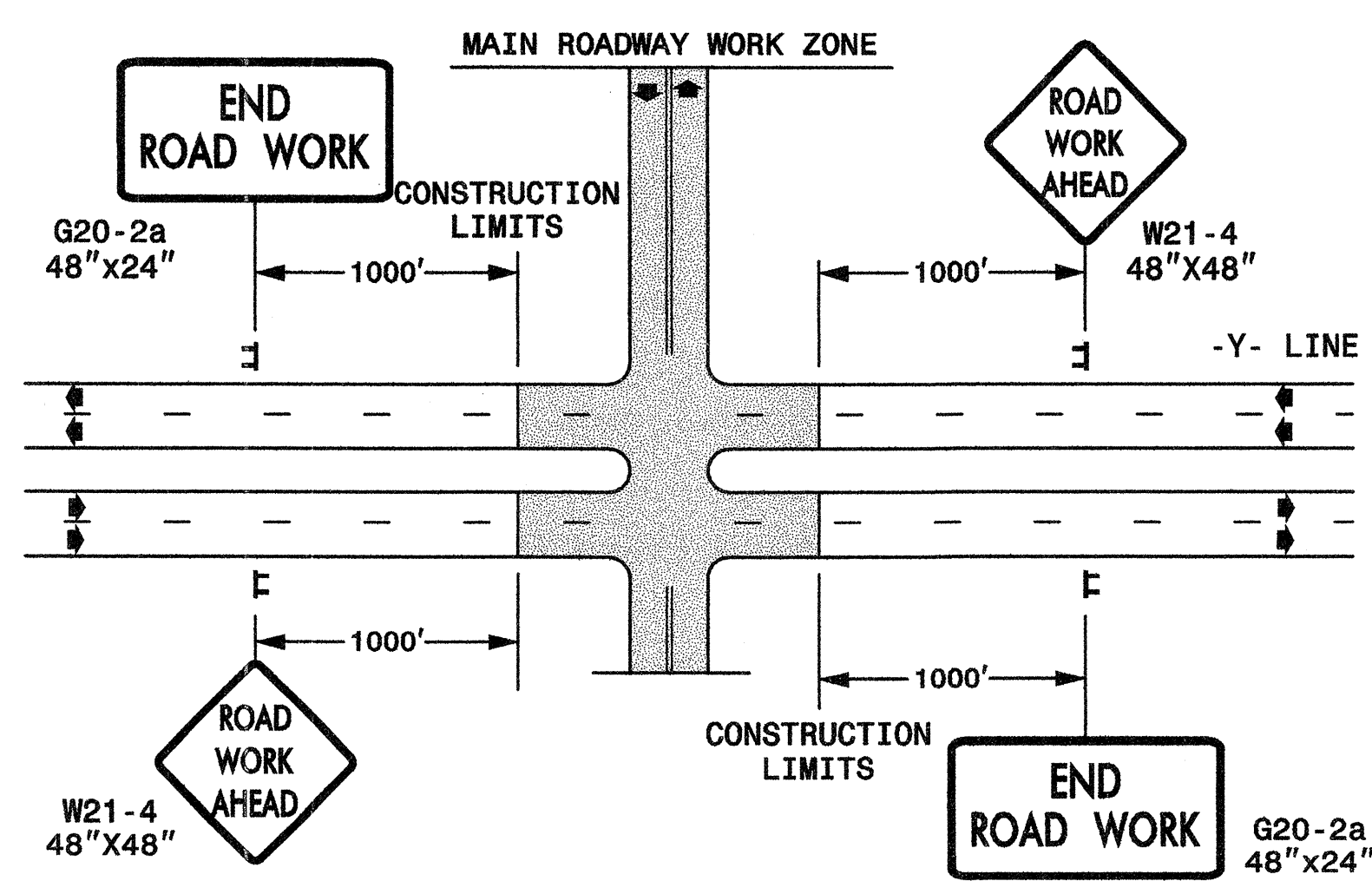
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

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

**FOR USE ON:  
CURTIS ROAD / "A" STREET / SCHMIDT ROAD INTERSECTION  
CURTIS ROAD / ROBERT WILSON ROAD INTERSECTION**



**FOR USE ON:  
CURTIS ROAD / US 17 INTERSECTION**



DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

**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.

**LEGEND**

▬ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
	SCALE: NONE	REVISIONS
	DATE: 02-28-05	7-98 10/01
	DWG. BY:	10-98 03/04
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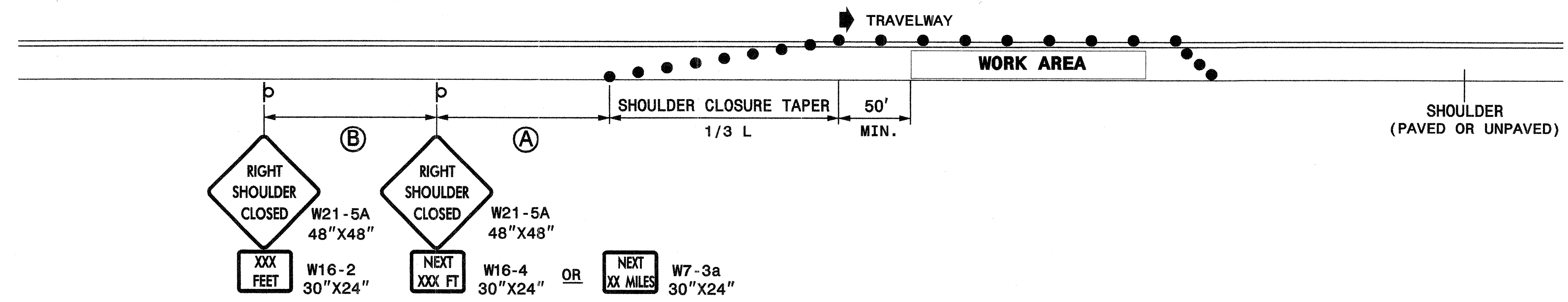
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-05

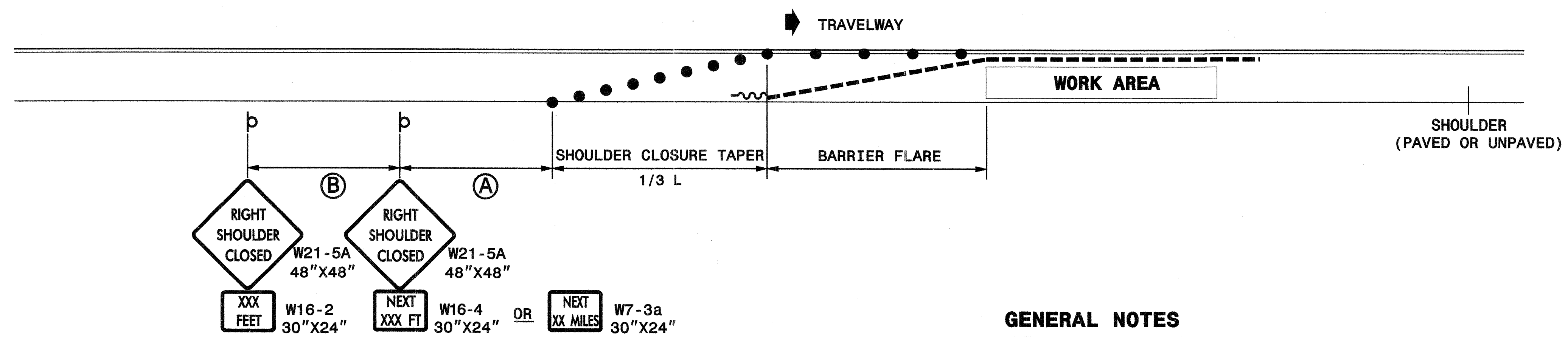
ENGLISH STANDARD DRAWING FOR  
**TEMPORARY SHOULDER CLOSURES**

SHEET 1 OF 1  
**1101D04**

**SHOULDER CLOSURES UTILIZING DRUMS**



**SHOULDER CLOSURES UTILIZING TEMPORARY BARRIER**



**GENERAL NOTES**

- PLACE SHOULDER CLOSURE SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.
- PLACE DRUMS IN THE SHOULDER TAPER AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE MAXIMUM SPACING OF DRUMS ALONG THE WORK AREA AND BARRIER FLARE IS EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- FLARE THE APPROACH END OF PORTABLE CONCRETE BARRIER BEYOND THE SHOULDER AND USE A CRASH CUSHION FOR PROTECTION IF THE EXPOSED END OF THE BARRIER IS WITHIN THE "CLEAR ZONE".
- USE STATIONARY SIGNS FOR LONG TERM OPERATIONS (LONGER THAN 3 DAYS).
- REFER TO STD. 1101.11 SHEETS 1, 3, & 4, FOR "L" DISTANCE, BARRIER FLARE RATES, AND SIGN SPACING.

**LEGEND**

- ~ TEMPORARY CRASH CUSHION
- - - PORTABLE CONCRETE BARRIER
- DRUM
- Ⓟ STATIONARY OR PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

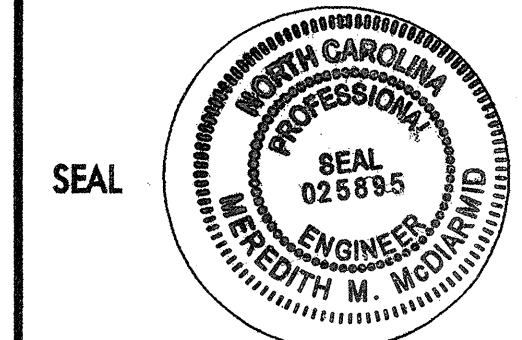
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

1-05

ENGLISH STANDARD DRAWING FOR  
**TEMPORARY SHOULDER CLOSURES**

SHEET 1 OF 1  
**1101D04**

APPROVED: *WMM* DATE: 11/05



**REPLACEMENT DETAIL FOR  
RSD 1101.04**

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STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

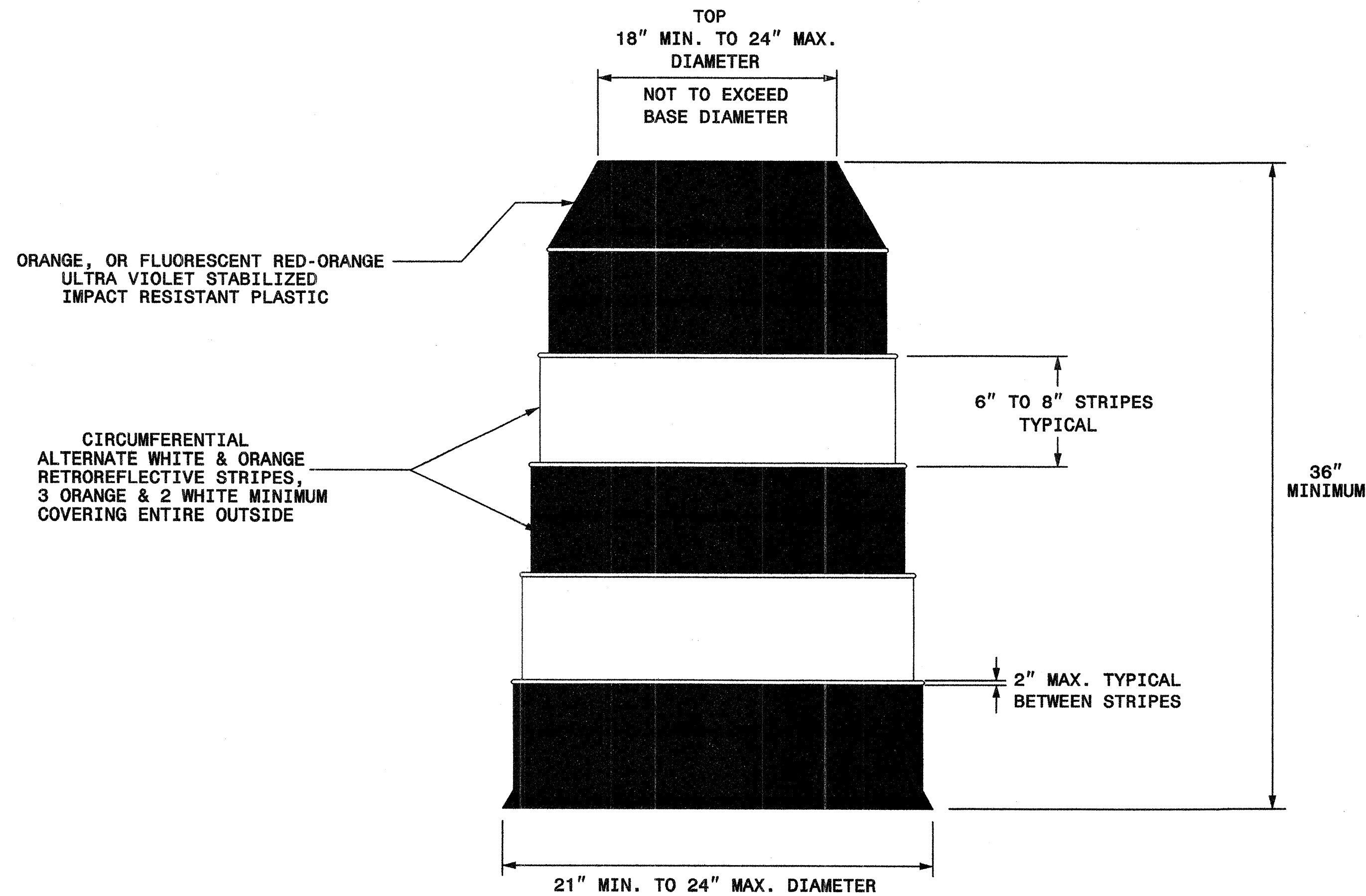
ENGLISH STANDARD DRAWING FOR  
**DRUMS**

SHEET 1 OF 1  
**1130D01**

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**DRUMS**

SHEET 1 OF 1  
**1130D01**



**GENERAL NOTES**

- BALLASTING SHALL BE ACHIEVED BY THE SAND BAG, TIRE-SIDEWALL BALLAST, OR PREFORMED WEIGHTED BASE BALLASTING METHODS. DO NOT PLACE BALLAST ON TOP OF THE DRUM, NOR AS TO PRESENT A HAZARD WHEN STRUCK.
- IF NECESSARY PLACE THE NAME OF THE AGENCY, CONTRACTOR, OR SUPPLIER ON NON-RETROREFLECTIVE DRUM SURFACES. SHOW THE LETTERS AND NUMBERS USING A NON-RETROREFLECTIVE COLOR AND NOT OVER 2" IN HEIGHT.

02/04/2005  
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APPROVED: *W. M. McElmurry* DATE: 2/24/05

SEAL

**REPLACEMENT DETAIL FOR  
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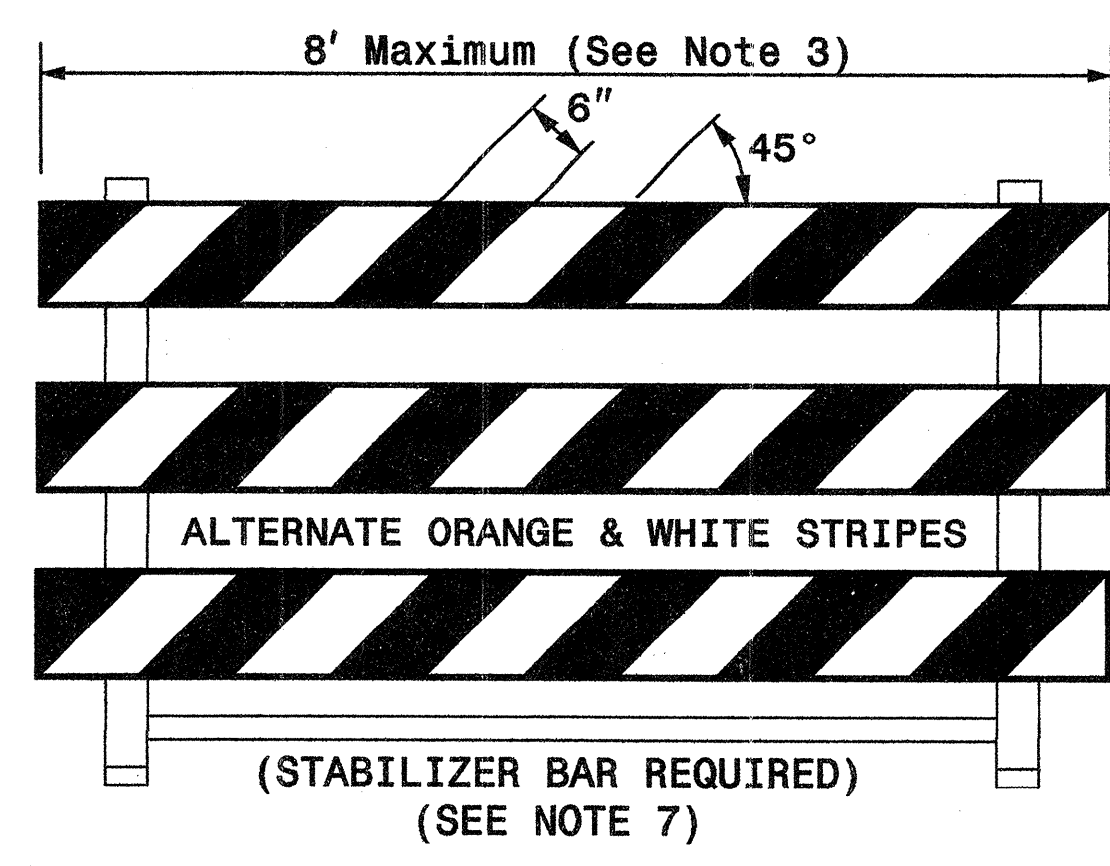
STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

1-05

ENGLISH STANDARD DRAWING FOR  
**BARRICADES**  
 TYPE-III

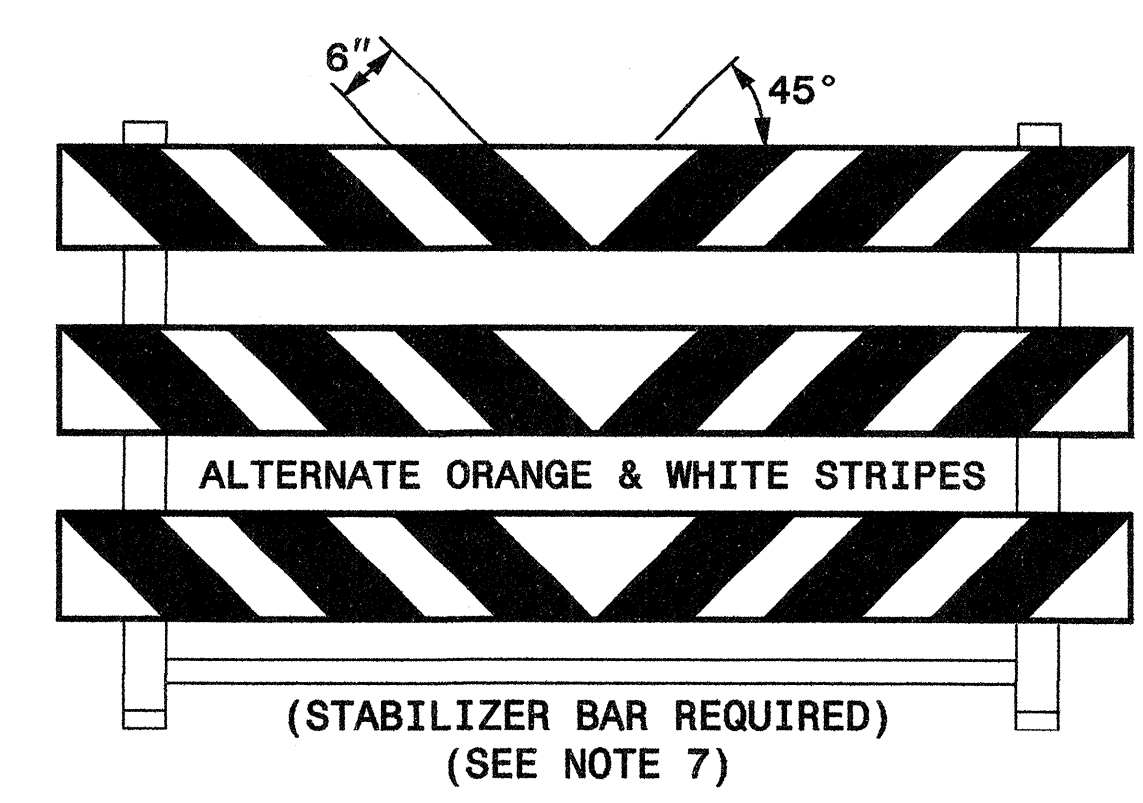
SHEET 1 OF 1  
**1145D01**

**TYPE III BARRICADE**



**TYPE III BARRICADE**

END-OF-ROADWAY APPLICATIONS



**GENERAL NOTES**

- 1) HORIZONTAL RAILS FOR TYPE-III BARRICADES MAY BE HOLLOW/CORRUGATED EXTRUDED RIGID POLYOLEFIN, HIGH DENSITY POLYETHYLENE, OR OTHER NCDOT APPROVED RAILS. BARRICADE RAILS OF FRANGIBLE PLASTICS SUCH AS PVC MAY NOT BE USED. IF APPROVED PLASTIC TYPE RAILS ARE USED, THEY MUST BE FLAME TREATED BY THE MANUFACTURER SO THAT REFLECTIVE SHEETING MAY ADHERE PROPERLY.
- 2) BARRICADES AND BARRICADE RAILS ARE APPROVED AS A SINGLE UNIT.
- 3) BARRICADE SHALL BE LIMITED TO A MAXIMUM LENGTH OF 8 FT UNLESS NCHRP 350 CRASH TESTED AND NCDOT APPROVED.
- 4) ONLY NCDOT APPROVED COMPOSITE AND ROLL-UP SIGNS MAY BE MOUNTED ON THE BARRICADE.
- 5) SIGNS MOUNTED ON BARRICADES SHOULD NOT COVER MORE THAN 50 PERCENT OF THE TOP TWO RAILS OR 33 PERCENT OF THE TOTAL AREA OF THE THREE RAILS.
- 6) USE TYPE VII, VIII OR IX SHEETING ON BOTH SIDES OF THE RAILS.
- 7) BARRICADE MUST BE NCHRP 350 AND NCDOT APPROVED WITH STABILIZER BAR OR ADEQUATE LATERAL BRACING.
- 8) ASSEMBLY OF THE GENERIC BARRICADES MUST BE SELF CERTIFIED BY THE ASSEMBLER.
- 9) BARRICADES USED TO CLOSE A ROADWAY SHALL EXTEND ACROSS THE ENTIRE ROADWAY. WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.
- 10) STRIPES ON WORK ZONE BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE RETROREFLECTIVE STRIPES, SLOPED DOWNWARD TOWARDS THE SIDE WHICH TRAFFIC IS TO PASS OR TURN IN DETOURING. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES. USE RED AND WHITE STRIPES FOR PERMANENT BARRICADES.
- 11) SEE APPROVED PRODUCTS LIST FOR MANUFACTURERS OF APPROVED BARRICADES.
- 12) PLACE MANUFACTURER'S NAME AND FEDERAL HIGHWAY ADMINISTRATION'S NCHRP 350 APPROVAL LETTER NUMBER ON BARRICADE.
- 13) USE SANDBAGS PLACED ON THE LOWER PART OF THE FRAME FOR BALLASTING. DO NOT PLACE SANDBAGS ON TOP OF A STRIPED RAIL. DO NOT BALLAST BARRICADES BY HEAVY OBJECTS SUCH AS ROCKS, CHUNKS OF CONCRETE OR OTHER ITEMS THAT WOULD CAUSE DAMAGE IF THE BARRICADE IS STRUCK BY A VEHICLE.

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1-05

ENGLISH STANDARD DRAWING FOR  
**BARRICADES**  
 TYPE-III

SHEET 1 OF 1  
**1145D01**

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APPROVED: *MM* DATE: 2/24/05

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DESIGN BY: MMM		
REVIEWED BY: MMM		

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