

CONTRACT: 33567.1.1 TIP PROJECT: B-4223

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

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

STATE PROJECT REFERENCE NO.		SHEET NO.
B-4223		TCP-1
STATE WBS NO.	F.A. PROJ. NO.	DESCRIPTION
33567.1.1	BRSTP-0210(4)	PE

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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
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

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND INDEX OF SHEETS & TEMPORARY PAVEMENT MARKING SCHEDULE
TCP-2	GENERAL NOTES
TCP-3	PHASING
TCP-4 & TCP-5	PHASE I
TCP-6 & TCP-7	PHASE II
TCP-8	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS
PM-1	ADVANCED WORK ZONE WARNING SIGNS
PM-2-PM-4	FINAL PAVEMENT MARKING SCHEDULE
	FINAL PAVEMENT MARKING PLAN

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

TEMP. PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION PAVEMENT MARKINGS	INTERMEDIATE PAY ITEM PAINT (4")	PAYMENT ITEM QUANTITY BREAKDOWN	TOTAL QUANTITY
PA	WHITE EDGELINE (2X)		19800 LF	
PI	YELLOW DOUBLE CENTER (2X)		19800 LF	
			TOTAL	39600 LF
MARKERS				
TEMPORARY RAISED PAVEMENT MARKERS				
MH	YELLOW & YELLOW		44 EA	
			TOTAL	44 EA

NOTES:

- 1) AS DIRECTED BY THE ENGINEER, TEMPORARY PAVEMENT MARKING (PAINT) MAY BE USED TO STRIPE THE FINAL TRAFFIC PATTERN ON (-L-). THIS SCHEDULE INCLUDES QUANTITIES FOR PLACING TWO APPLICATIONS OF PAINT ON THE FINAL SURFACE OF NEW ASPHALT WITH PERMANENT TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE UNTIL THE PROPOSED FINAL PAVEMENT MARKING (THERMOPLASTIC /COLD APPLIED) IS APPLIED.
- 2) FOR EACH PAINT PAVEMENT MARKING ITEM, 1X IMPLIES A SINGLE APPLICATION, 2X IMPLIES TWO APPLICATIONS, AND 3X IMPLIES THREE APPLICATIONS.

PLAN REVIEWED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT

J. STUART BOURNE, PE TRAFFIC CONTROL ENGINEER
 JOSEPH ISHAK, PE TRAFFIC CONTROL PROJECT ENGINEER
 HABIB LAWANDOS TRAFFIC CONTROL PROJECT DESIGN ENGINEER
 WALID DAKDUK TRAFFIC CONTROL DESIGN ENGINEER

APPROVED: _____
 DATE: _____

SEAL



6/27/04

PLAN PREPARED FOR N.C.D.O.T. BY: SEPI ENGINEERING GROUP
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R.L. WEBBER PROJECT ENGINEER
 R. DRAYTON DESIGN ENGINEER

GENERAL NOTES

PROJ. REFERENCE NO. B-4223	SHEET NO. TCP-2
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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. -L- (NC 210)	7:00 A.M. TO 8:30 A.M. MON. THRU FRI.

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

ROAD NAME
1. -L- (NC 210)

HOLIDAY

1. FOR ANY EVENT THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 8:30 A.M. MONDAY.
3. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:30 A.M. TUESDAY.
4. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.

5. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:30 A.M. TUESDAY.

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 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.
- 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.
- I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON -L- (NC 210).

PAVEMENT EDGE DROP OFF REQUIREMENTS

- J) 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.

- K) DO NOT EXCEED A DIFFERENCE OF 2 inches (50mm) 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

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

SIGNING

- M) 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.

- N) STATE FORCES WILL BE RESPONSIBLE FOR PERMANENT SIGNING

- O) STATE FORCES WILL BE RESPONSIBLE FOR DETOUR SIGNING OFF THE PROJECT LIMITS.

- P) STATE FORCES WILL COVER OR REMOVE ALL DETOUR SIGNS OFF THE PROJECT LIMITS WHEN DETOUR IS NOT IN OPERATION.

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

TRAFFIC BARRIER

- R) INSTALL MOVABLE/PORTABLE CONCRETE BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE MOVABLE/PORTABLE CONCRETE 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.

ONCE MOVABLE/PORTABLE CONCRETE BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE MOVABLE/PORTABLE CONCRETE BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET MOVABLE/PORTABLE CONCRETE BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

- S) 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.

OFFSET THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER A MINIMUM OF 40 FT (12m) FROM ONCOMING TRAFFIC OR PROTECT AT ALL TIMES BY A TEMPORARY CRASH CUSHION.

INSTALL MOVABLE/PORTABLE CONCRETE BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE MOVABLE/PORTABLE CONCRETE 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 CLOSED THE SECTION OF THE ROADWAY UNTIL THE BARRIER CAN BE PLACED OR AFTER BARRIER IS REMOVED.

TRAFFIC CONTROL DEVICES

- T) WHEN USING ROADWAY STANDARD NO. 1101.02, DRUMS MAY BE USED IN LIEU OF CONES ON -L- (NC 210).

- U) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT (3m) ON-CENTER IN RADIUS, AND 3 FT (1m) OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.

- V) 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.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
1. -L- (NC 210)	THERMOPLASTIC	SNOWPLOWABLE
2. PROPOSED BRIDGE	COLD APPLIED PLASTIC	PERMANENT RAISED

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

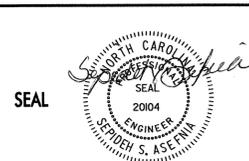
ROAD NAME	MARKING	MARKER
1. ALL ROADS	PAINT	TEMPORARY RAISED

- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

- Z) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.

- AA) 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.

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APPROVED: _____	DATE: _____	GENERAL NOTES	
		SCALE: NONE	REVISIONS
		DATE: 6/06	
		DWG. BY: RCD	
		DESIGN BY: RCD	
		REVIEWED BY: RLW	
		CADD FILE	

THE FOLLOWING CONSTRUCTION PHASING WILL BE DONE USING FLAGGERS AND LANE CLOSURES. ALL LANES WILL BE OPENED TO TWO-LANE TWO-WAY OPERATION AT END OF EACH WORK DAY, UNLESS OTHERWISE NOTED IN THE PLANS.

PHASE I

USING ROADWAY STANDARD DRAWING 1101.02 (SHT. 1 OF 9)
PERFORM THE FOLLOWING:

STEP 1) INSTALL WORK ZONE WARNING SIGNS ALONG NC 210. SEE TCP-8 AND GENERAL NOTES.

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF PROPOSED BRIDGE AND APPROACHES.

STEP 2) USING RDWY STD 1101.02, SHEET 1 OF 7, INSTALL 18" PIPE ACROSS -L- LINE AT -L- STA. 23+00+/-

NARROW EXISTING LANES OF NC 210 TO 11' IN EACH DIRECTION AND SHIFT TRAFFIC AWAY FROM THE PROPOSED -L- LINE FROM -L- STA. 18+00+/- TO -L- STA. 27+00+/- AND FROM -L- STA. 41+50+/- TO -L- STA. 50+00+/- (SEE TCP-4 & TCP-5) AS FOLLOWS:

- A) WITH EXISTING OUTSIDE WESTBOUND EDGELINE REMAINING IN PLACE, INSTALL TEMPORARY DOUBLE YELLOW CENTERLINE ONE FT. LEFT OF EXISTING CENTERLINE.
- B) PLACE TEMPORARY OUTSIDE EASTBOUND EDGELINE TWO FT. LEFT OF EXISTING EDGE LINE AND PLACE TRAFFIC INTO NEW PATTERN

STEP 3) INSTALL PCB ALONG RIGHT SIDE OF EXISTING NC 210 FROM -L- STA. 26+50+/- TO -L- STA. 29+15+/- AND FROM -L- STA. 35+00+/- TO -L- STA. 42+50+/- . SEE TCP-4 AND TCP-5.

INSTALL TEMPORARY SHORING-BARRIER SUPPORTED ALONG THE RIGHT SIDE OF EXISTING NC 210 FROM -L- STA. 28+60+/- TO -L- STA. 29+15+/- AND FROM -L- STA. 35+00+/- TO -L- STA. 42+00+/- . SEE TCP-4 AND TCP-5.

STEP 4) COMPLETE CONSTRUCTION OF PROPOSED BRIDGE AND APPROACHES UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -L- STA. 26+00+/- TO -L- STA. 41+00+/- , RAMPING DOWN TO EXISTING ROADWAY EDGE OF PAVEMENT ELEVATION FROM -L- STA. 18+00+/- TO -L- STA. 26+00+/- AND FROM -L- STA. 41+00+/- TO -L- STA. 50+00+/- . SEE TCP-4 & TCP-5.

PHASE II

CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE THE FOLLOWING WORK IN PHASE II, STEPS 1 AND 2 DURING A WEEKEND IN 59 CONSECUTIVE HOURS. (7PM FRI-6AM MON) (SEE SPECIAL PROVISIONS)

STEP 1) USING RDWY STD. 1101.03, SHEET 1 OF 9, CLOSE NC 210 TO TRAFFIC FROM STA. 20+00 TO STA. 50+00 MAINTAINING ACCESS TO LOCAL DRIVEWAYS. (OFF-SITE DETOUR BY STATE FORCES)

STEP 2) WITH NC 210 CLOSED, CONSTRUCT THE FOLLOWING:

- CONSTRUCT THE TIE-IN OF PROPOSED BRIDGE APPROACHES WITH EXISTING NC 210 UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE FROM -L- STA. 18+00+/- TO -L- STA. 26+00+/- AND FROM -L- STA. 41+00+/- TO -L- STA. 50+00+/- . SEE TCP-6 & TCP-7
- RESET PCB ALONG LEFT SHOULDER OF -L- LINE FROM -L- STA. 38+12+/- TO -L- STA. 42+50+/- . SEE TCP-7
- INSTALL TEMPORARY PAVEMENT MARKING FROM -L- STA. 18+00+/- TO -L- STA. -L- STA. 50+00+/- . SEE TCP-6 & TCP-7.
- REMOVE ROAD CLOSURE AND OPEN US 210 TO TWO WAY, TWO LANE TRAFFIC.

STEP 3) WITH TRAFFIC ON PROPOSED -L- LINE, CONSTRUCT REMAINING SHOULDER ALONG THE LEFT SIDE.

INSTALL REMAINING GUARDRAIL ALONG LEFT SIDE BETWEEN -L- STA. 38+12+/- AND -L- STA. 41+30+/- .

PHASE III

USING ROADWAY STANDARD DRAWING 1101.02 (SHT. 1 OF 9), REMOVE PCB AND PLACE THE FINAL LAYER SURFACE COURSE. TEMPORARY SHORING TO REMAIN IN PLACE AND CUT 1' BELOW PAVEMENT LEVEL OR REMOVED AS DIRECTED BY THE ENGINEER.

INSTALL THE FINAL PAVEMENT MARKING AND MARKERS AND OPEN ALL LANES TO TRAFFIC. (TEMPORARY SHORING TO REMAIN IN PLACE AND/OR REMOVED AS DIRECTED BY THE ENGINEER SEE TCP-5 & PM-1).



APPROVED: _____ DATE: _____



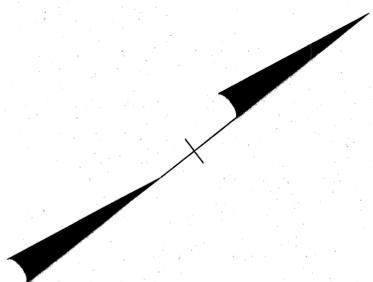
4-26-06

PHASING

SCALE: NONE
DATE: 4/26/06
DWG. BY: CEK
DESIGN BY: RCD
REVIEWED BY: RLW



REVISIONS	



*** SHORING PARAMETERS**
 FOR DESIGN OF TEMPORARY SHORING, USE THE FOLLOWING SOIL PARAMETERS FURNISHED BY NCDOT-DESIGN SERVICES SOIL AND FOUNDATION SECTION:
 FOR THE DESIGN OF TEMPORARY SHORING (BARRIER SUPPORTED) FROM STA. 28+60 +/- -L- TO STA. 29+15 +/- -L-:
 ESTIMATED LENGTH OF SHORING = 55ft.
 UNIT WEIGHT OF SOIL ABOVE WATER TABLE = 120pcf
 UNIT WEIGHT OF SOIL BELOW WATER TABLE = 60pcf
 FRICTION ANGLE $\phi = 30^\circ$
 COHESION $C = 0$ pcf
 ESTIMATED QUANTITY OF TEMPORARY SHORING = 130ft²

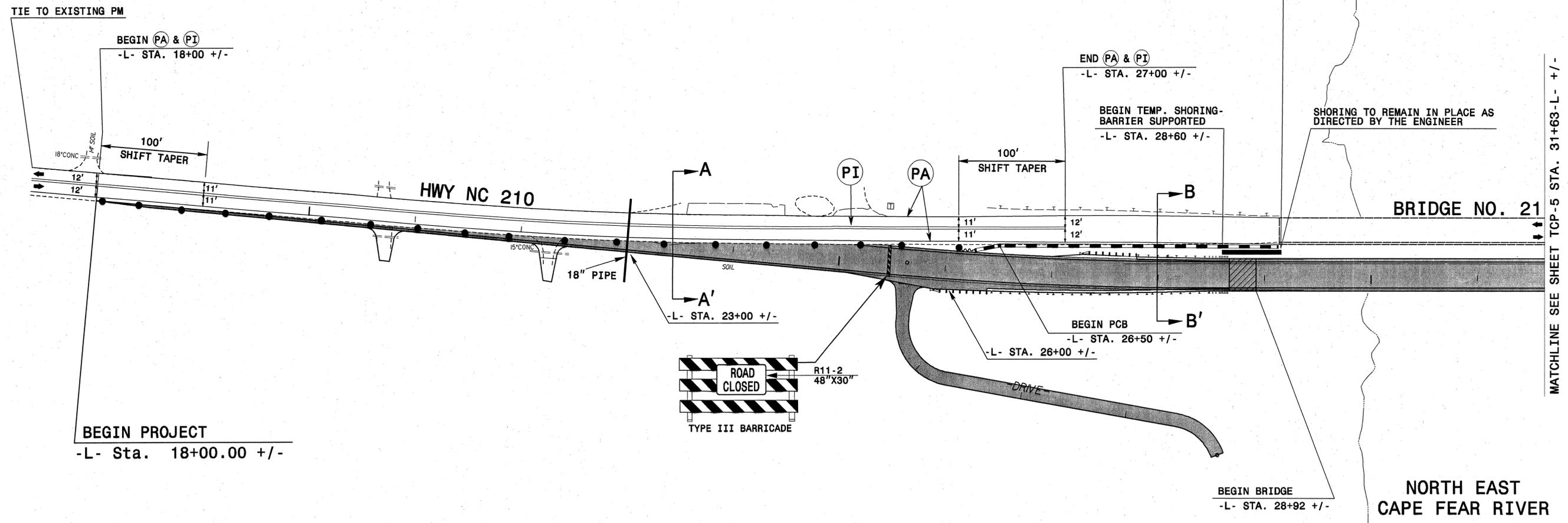
20+00

25+00

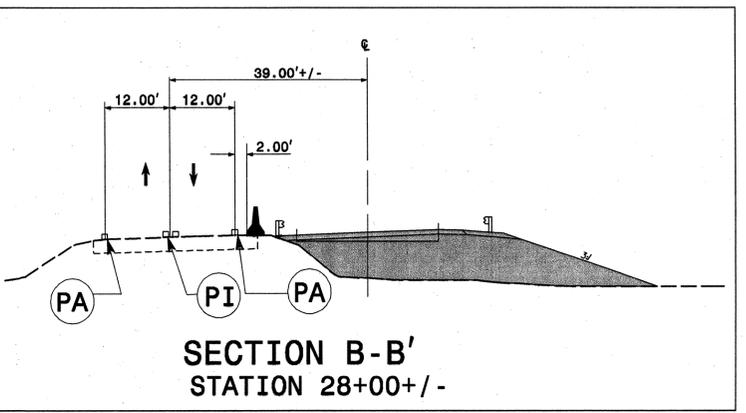
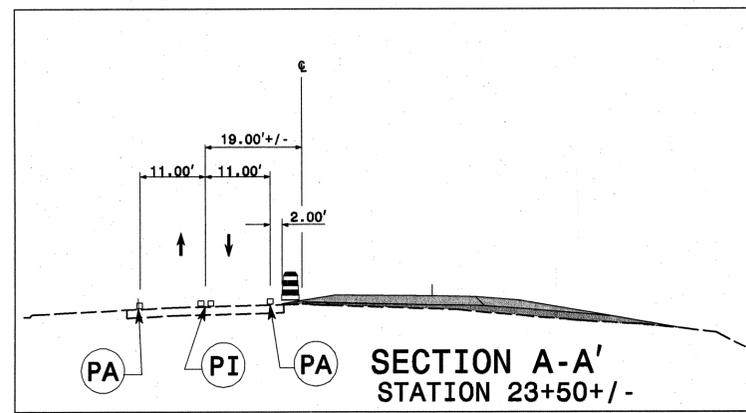
30+00

NORTH EAST
CAPE FEAR RIVER

END TEMP. SHORING- BARRIER SUPPORTED
 END PCB AT EXIST. BRIDGE RAIL USING
 APPROVED ATTACHMENT METHOD SEE
 ROADWAY PLANS SHEET 2-C
 -L- STA. 29+15 +/-



MATCHLINE SEE SHEET TCP-5 STA. 31+63-L +/-



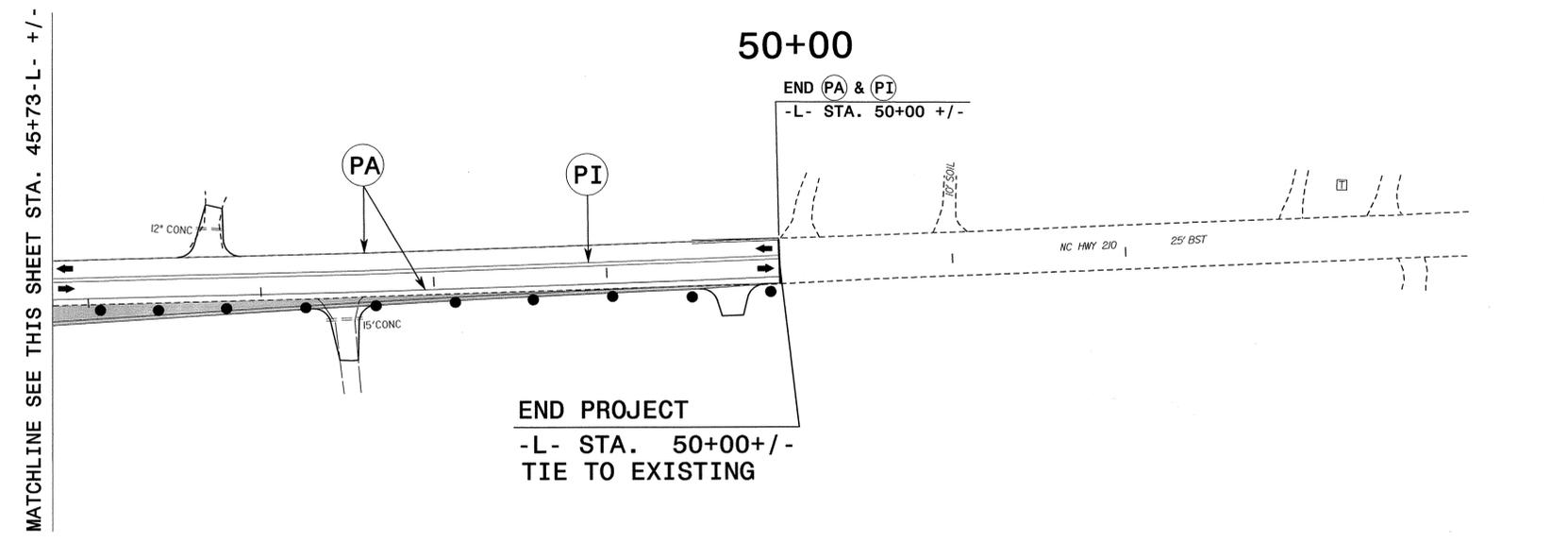
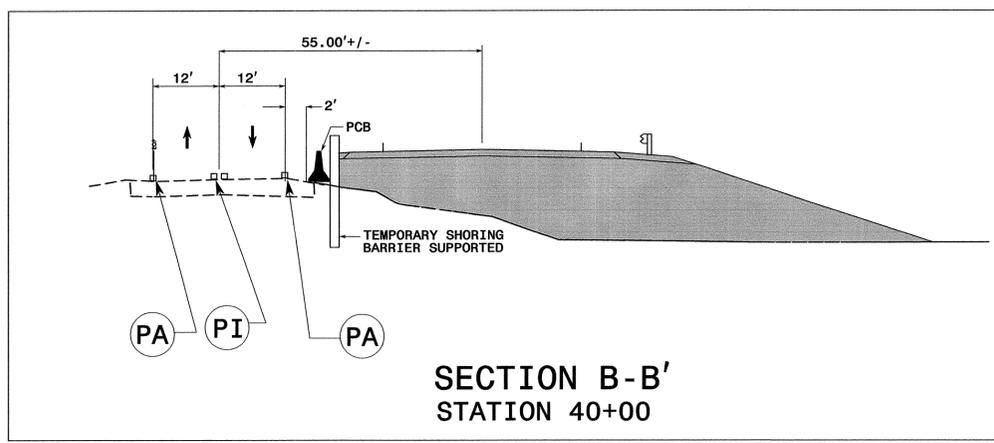
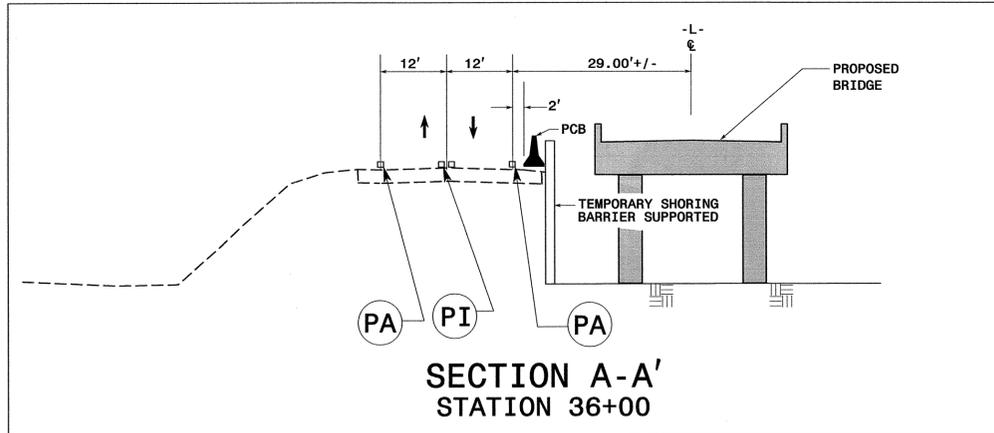
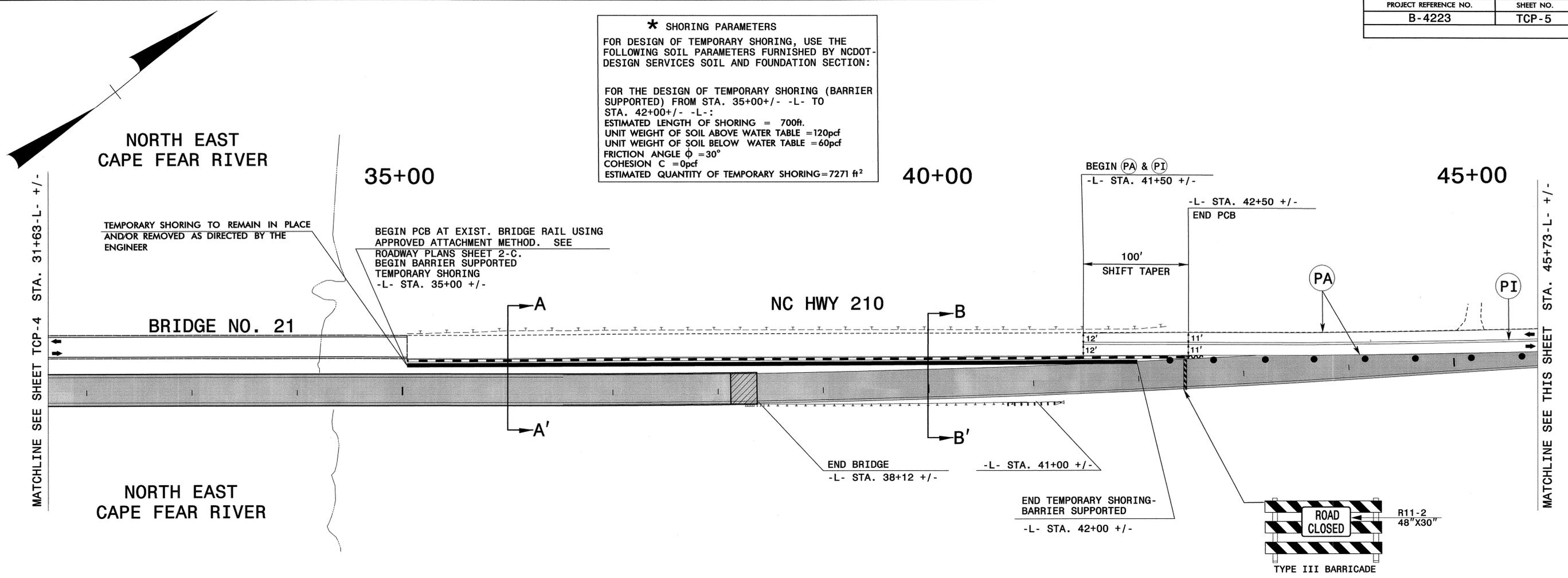
CONSTRUCTION

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APPROVED: _____ DATE: _____	PHASE I	
SCALE: NONE		REVISIONS
DATE: 4/26/06		
DWG. BY: NH		
DESIGN BY: RCD		
REVIEWED BY: RLW		CAD FILE

*** SHORING PARAMETERS**
 FOR DESIGN OF TEMPORARY SHORING, USE THE FOLLOWING SOIL PARAMETERS FURNISHED BY NCDOT-DESIGN SERVICES SOIL AND FOUNDATION SECTION:

FOR THE DESIGN OF TEMPORARY SHORING (BARRIER SUPPORTED) FROM STA. 35+00 +/- -L- TO STA. 42+00 +/- -L-:
 ESTIMATED LENGTH OF SHORING = 700ft.
 UNIT WEIGHT OF SOIL ABOVE WATER TABLE = 120pcf
 UNIT WEIGHT OF SOIL BELOW WATER TABLE = 60pcf
 FRICTION ANGLE $\phi = 30^\circ$
 COHESION $C = 0$ pcf
 ESTIMATED QUANTITY OF TEMPORARY SHORING = 7271 ft²

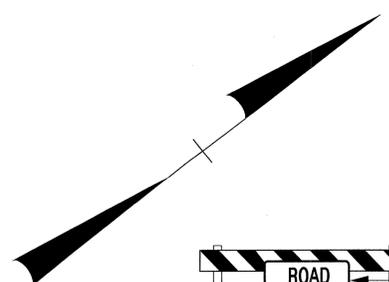


CONSTRUCTION

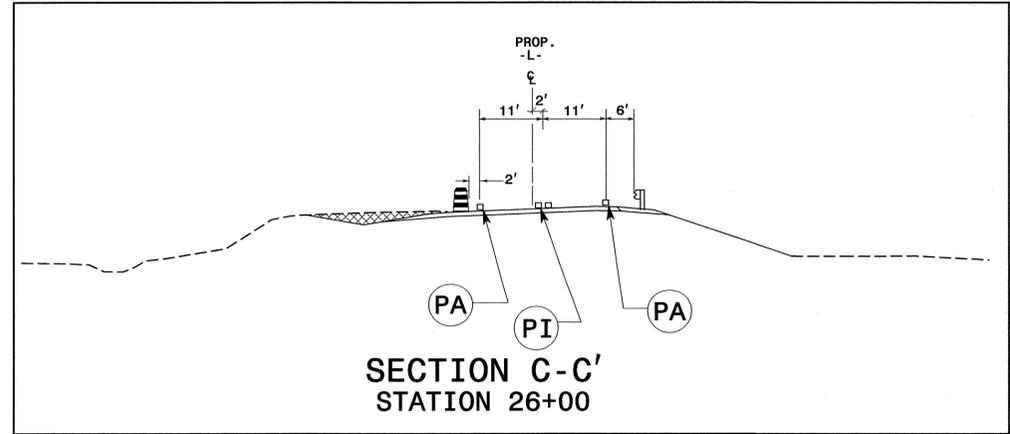
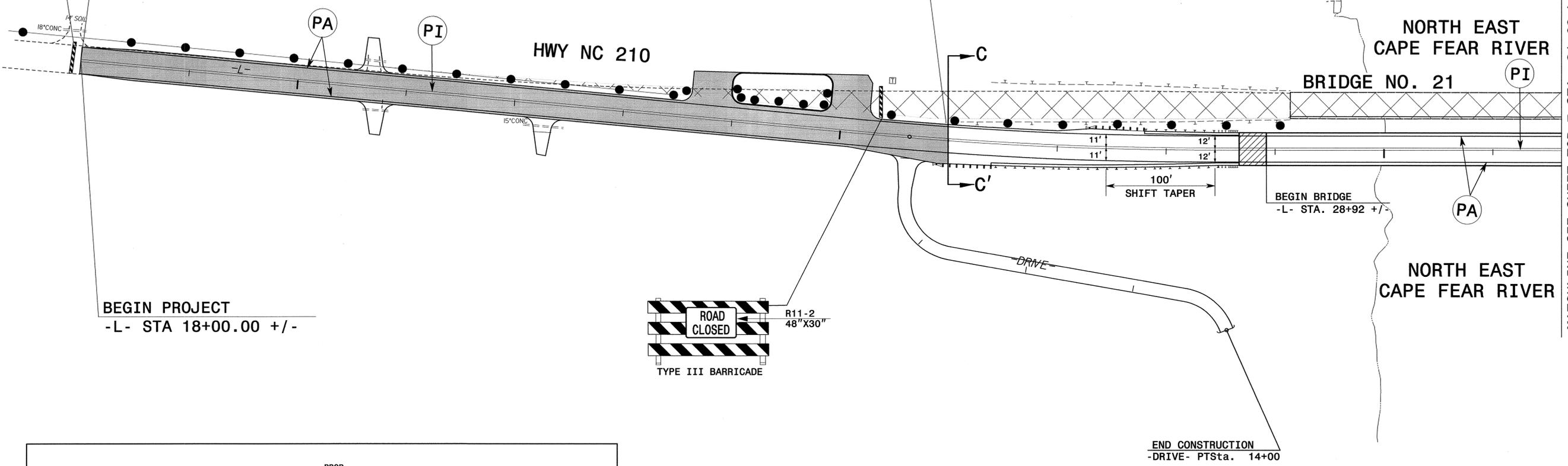
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APPROVED: _____ DATE: _____
 SEAL
 20104
 S. ASEFINI
 6/27/06

PHASE I	
SCALE: NONE	REVISIONS
DATE: 6/06	
DWG. BY: NH	
DESIGN BY: RCD	
REVIEWED BY: RLW	



20+00
TIE TO EXISTING PAVEMENT MARKINGS
BEGIN PA & PI



- REMOVAL OF EXISTING PAVEMENT
- CONSTRUCTION

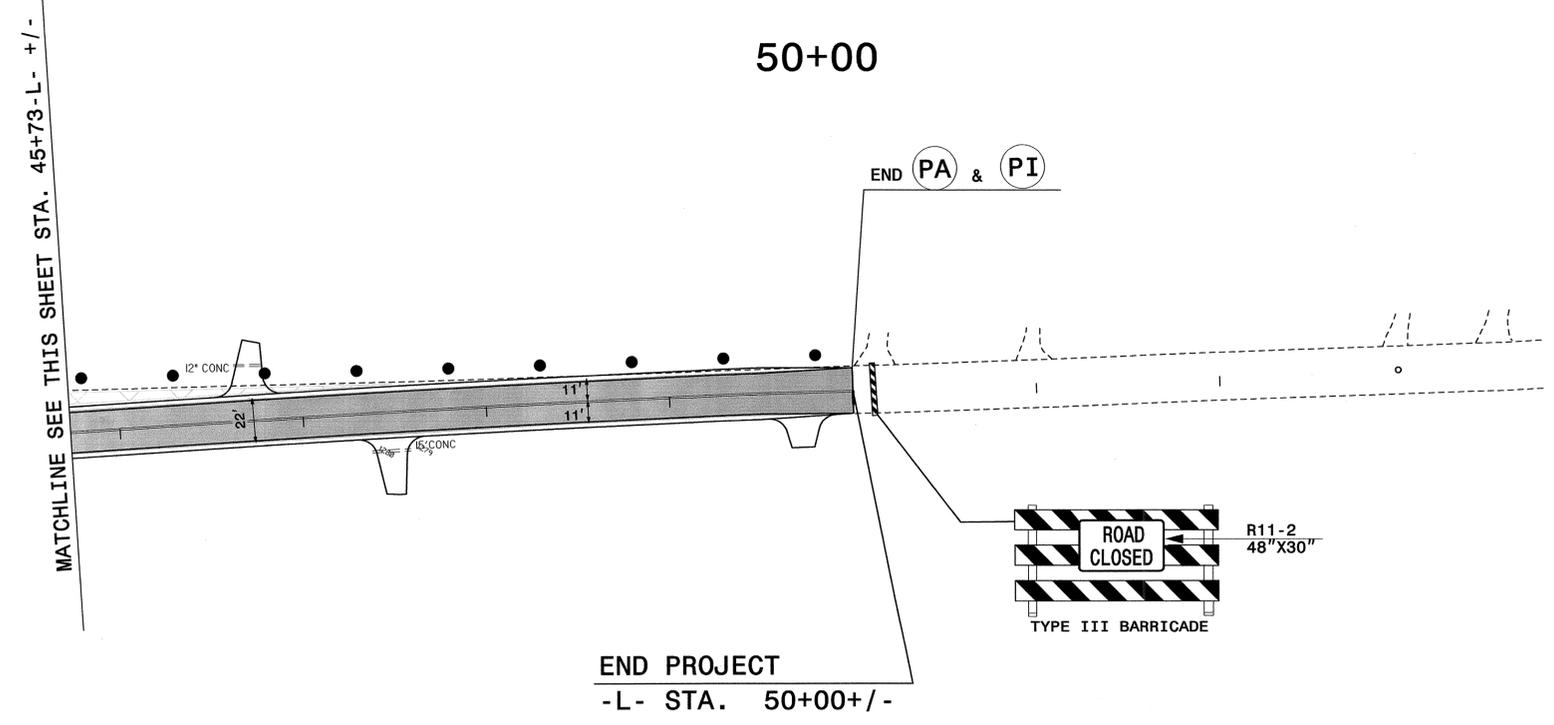
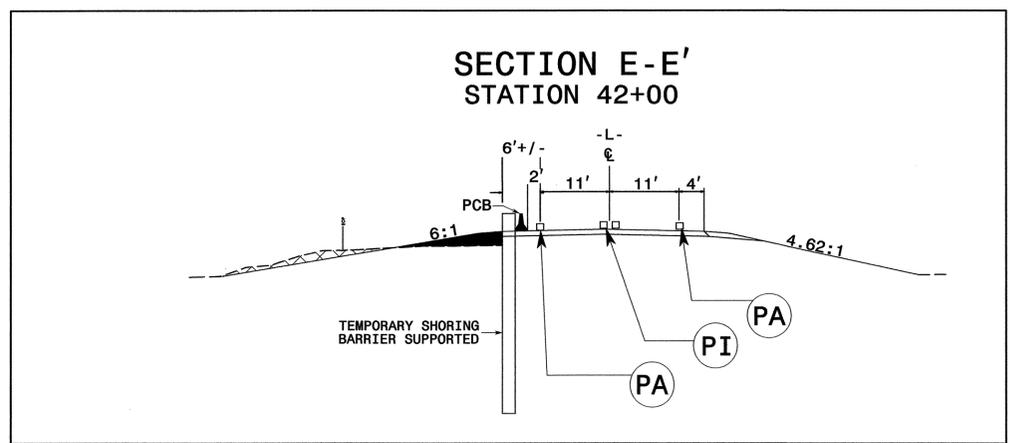
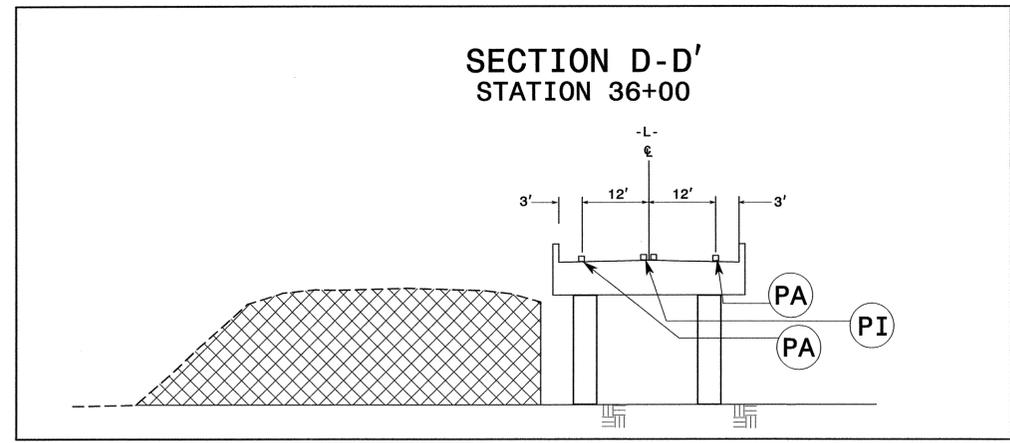
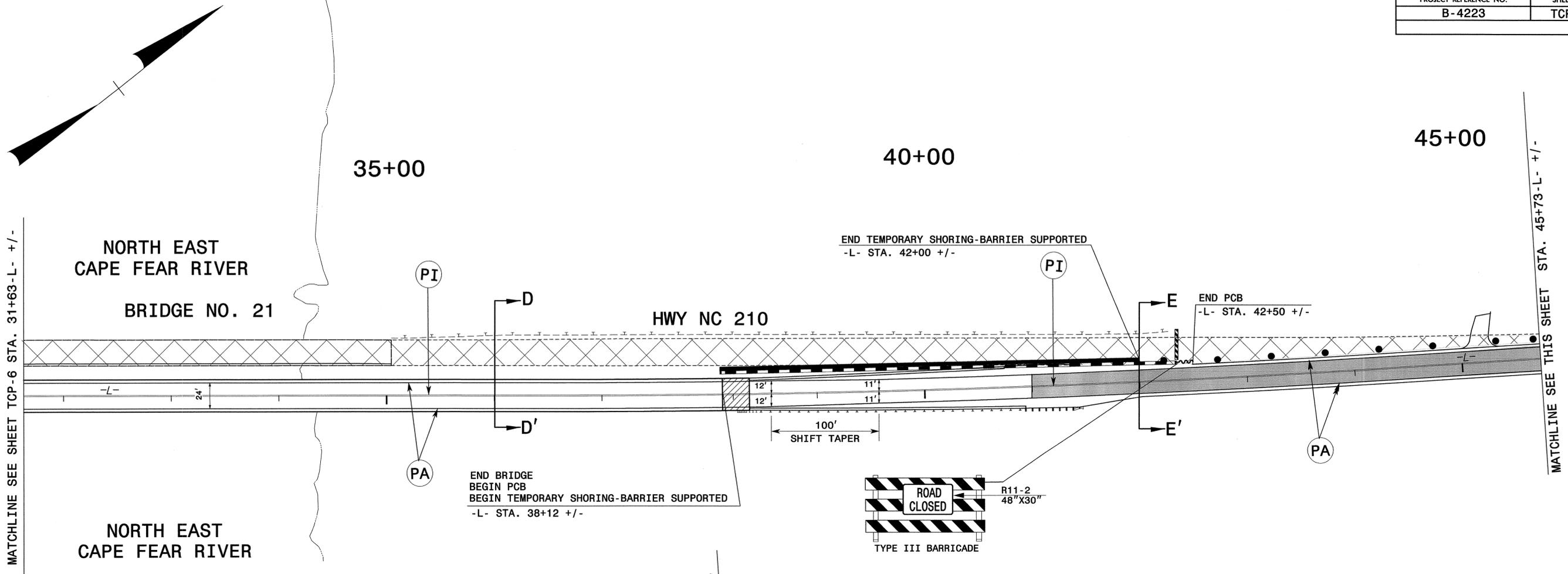
MATCHLINE SEE SHEET TCP-7 STA. 31+63-L-L- +/-

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APPROVED: _____ DATE: _____
SEAL
6/27/06

PHASE II	
SCALE: NONE	REVISIONS
DATE: 6/06	
DWG. BY: NH	
DESIGN BY: RCD	
REVIEWED BY: RLW	





- REMOVAL OF EXISTING PAVEMENT
- CONSTRUCTION

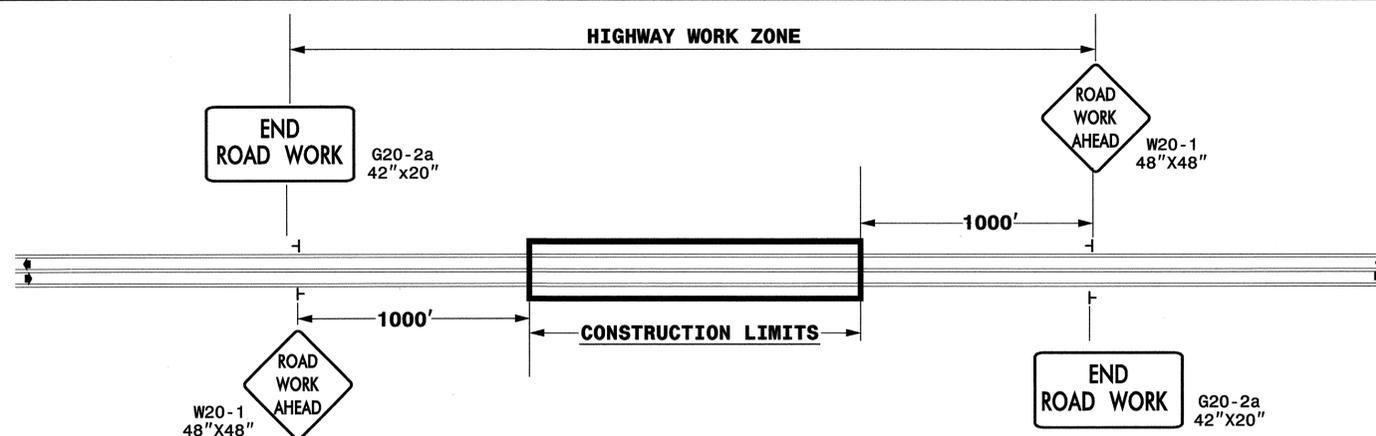
SEPI ENGINEERING GROUP
 2300 Rexwoods Drive
 Suite 370
 Raleigh, NC 27607
 Tel: 919-789-9977 Fax: 789-9591

APPROVED: _____ DATE: _____
 SEAL

 6/27/06

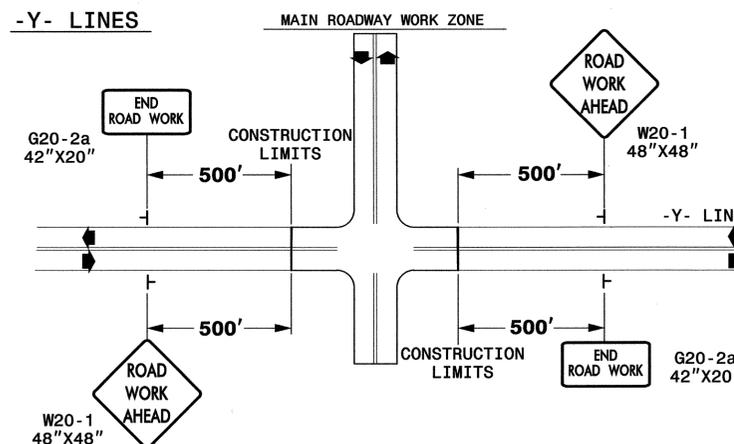
PHASE II	
SCALE: NONE	REVISIONS
DATE: 6/06	
DWG. BY: NH	
DESIGN BY: RCD	
REVIEWED BY: RLW	

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)



DETAIL DRAWING FOR
TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR IX) 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

SHEET 1 OF 1

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
	SCALE: NONE	REVISIONS
	DATE:	7-98 10/01
	DESIGN BY:	10-98
	REVIEWED BY:	01/01