

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
35604	TCP-1

**IREDELL COUNTY**  
**TRAFFIC CONTROL, MARKING & DELINEATION**

I-4411

**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
1115.01	FLASHING ARROW PANELS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - INTERCHANGES
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
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TIP PROJECT:

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APPROVED:	PLAN PREPARED BY: N.C.D.O.T. TRAFFIC CONTROL, MARKING & DELINEATION UNIT
DATE: 10/31/06	
SEAL	J.S. BOURNE, P.E. TRAFFIC CONTROL ENGINEER
	L.G. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
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# PROJECT NOTES

PROJ. REFERENCE NO.	SHEET NO.
I-4411	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 UNDESIRE 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. I-77 (NB & SB)	6:00 A.M. TO 10:00 PM MONDAY THROUGH THURSDAY AND FROM 6:00 A.M. FRIDAY TO 8:00 P.M. SUNDAY

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

### ROAD NAME

1. I-77 (NB & SB)

### HOLIDAY

- FOR ANY EVENT THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 10:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR A SUNDAY, THEN UNTIL 10:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 10:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 10:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 10:00 P.M. TUESDAY.
- FOR THANKSGIVING, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 10:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 10:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS.
- FOR ANY NASCAR EVENT AT LOWES MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00 A.M. THE MONDAY OF THE WEEK OF THE RACE AND 10:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF THE RACE.

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

ROAD NAME	OPERATION
1. LANGTREE RD. (SR 1102)	TRAFFIC SHIFT

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) 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.
- F) 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.
- G) 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.
- H) 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.
- I) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- J) 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.
- K) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

- L) 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 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.
- M) DO NOT EXCEED A DIFFERENCE OF 2 inches IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT 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.

P) PROVIDE PERMANENT SIGNING.

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

R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.

S) INSTALL BLACK ON ORANGE "BUMP" SIGNS (W8-1) 500 FT (150m) IN ADVANCE OF THE UNEVEN AREA.

### TRAFFIC BARRIER

T) 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.

U) 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 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.

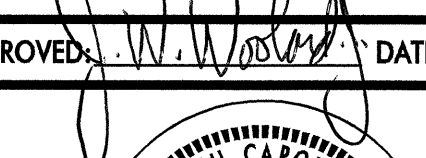
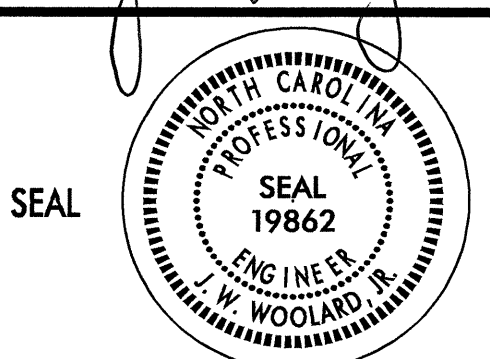
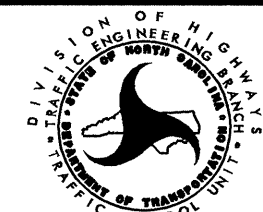
### TRAFFIC CONTROL DEVICES

- V) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADIUS, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.
- W) 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.
- X) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
1. ALL ROADS	POLYUREA	SNOWPLOWABLE
2. PROPOSED STRUCTURE	POLYUREA	PERMANENT RAISED

APPROVED: 	DATE: 11/22/06	<b>PROJECT NOTES</b>		
	SCALE: NONE			
	DATE: 10/06	REVISIONS		
	DWG. BY: DAH			
	DESIGN BY: DAH			
	REVIEWED BY: JWW			



# PROJECT NOTES

PROJ. REFERENCE NO. SHEET NO.

I-4411 TCP-3

## TEMPORARY PAVEMENT MARKING SCHEDULE

### GENERAL NOTES (CON'T)

Z) 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
2. STRUCTURE OVER I-77	REMOVABLE TAPE	TEMPORARY RAISED

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

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

CC) TRACE THE EDGE OF PROPOSED MONOLITHIC ISLANDS WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO INSTALLATION OF A PROPOSED MONOLITHIC ISLAND.

DD) 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

EE) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

#### MISCELLANEOUS

FF) 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.

GG) PLACE DRUMS TO DELINEATE EXISTING AND/OR PROPOSED ISLANDS AFTER REMOVAL AND/OR BEFORE INSTALLATION.

### LOCAL NOTES

THE FOLLOWING LOCAL NOTES APPLY WHEN SPECIFIED BY TRAFFIC CONTROL PHASING UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

#### LOCAL NOTE NO. 1:

IF THE TRUCKS DELIVERING THE GIRDERS USE THE SHOULDER OF I-77 TO PARK WHILE AWAITING INSTALLATION, THEN USE SHEET TCP-28 TO CLOSE THE SHOULDER. THESE TRUCKS MUST USE THEIR HAZARD LIGHTS AFTER DARK. OTHERWISE, MAINTAIN AT LEAST 40 FT. OF CLEARANCE BETWEEN THESE VEHICLES AND AN OPEN LANE OF TRAFFIC.

#### LOCAL NOTE NO. 2

WHEN USING ROADWAY STANDARD DRAWING 1101.03, SHEET 6 OF 9, SUBSTITUTE CONES IN PLACE OF DRUMS.

#### LOCAL NOTE NO. 3

WHEN USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9 TO CLOSE A LANE ON I-77, PLACE A CHANGEABLE MESSAGE SIGN (CMS) 1/2 MILE IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN FOR THE LANE CLOSURE (OR AS DIRECTED BY THE ENGINEER).

MESSAGE NO. 1 SHOULD READ AS FOLLOWS:  
"RIGHT (OR LEFT) LANE CLOSED"

MESSAGE NO. 2 SHOULD READ AS FOLLOWS:  
"REDUCE SPEED AHEAD"

#### LOCAL NOTE NO. 4

USING ROADWAY STANDARD DRAWING 1101.03, SHEET 2 OF 9, CLOSE -YREV- (LANGTREE RD.) AND PLACE TRAFFIC ON OFF-SITE DETOUR WHILE RUNNING INTERSTATE TRAFFIC UP THE RAMPS. AT THE END OF THE WORK PERIOD PLACE TRAFFIC BACK ON -YREV- AND REMOVE OR COVER OFF-SITE DETOUR SIGNING.

SYMBOL	DESCRIPTION	QUANTITY BREAKDOWN	PAY ITEM	TOTAL QUANTITY
<b>PAVEMENT MARKING LINES</b>				
PA	WHITE EDGELINE	54884 FT.	PAINT (4")	110630 FT.
PB	YELLOW EDGELINE	1678 FT.		
PC	10 FT. WHITE SKIP	2472 FT.		
PD	2 FT. WHITE MINI SKIP	638 FT.		
PE	WHITE SOLID LANE LINE	3262 FT.		
PI	YELLOW DOUBLE CENTER	47696 FT.		
<b>PAVEMENT MARKING SYMBOLS</b>				
P6	WHITE EDGELINE	127500 FT.	PAINT (6")	307556 FT.
P7	YELLOW EDGELINE	123790 FT.		
PK	10 FT. WHITE SKIP	52232 FT.		
PL	2 FT. WHITE MINI SKIP	2414 FT.		
PM	WHITE SOLID LANE LINE	1620 FT.		
<b>PAVEMENT MARKING CHARACTERS</b>				
PS	WHITE DIAGONAL	200 FT.	PAINT (8")	200 FT.
<b>PAVEMENT MARKING SYMBOLS</b>				
P1	WHITE GORELINE	9498 FT.	PAINT (12")	9498 FT.
<b>PAVEMENT MARKING SYMBOLS</b>				
P4	WHITE STOPBAR	484 FT.	PAINT (24")	484 FT.
RK	10 FT. WHITE SKIP	280 FT.	REMOVABLE TAPE (4")	2427 FT.
RD	2 FT. WHITE MINI SKIP	47 FT.		
RI	YELLOW DOUBLE CENTER	2100 FT.		
<b>PAVEMENT MARKING CHARACTERS</b>				
RV	YELLOW DIAGONAL	84 FT.	REMOVABLE TAPE (8")	84 FT.
<b>PAVEMENT MARKING SYMBOLS</b>				
QA	LEFT TURN ARROW	46 EA.	PAINT PAVEMENT MARKING SYMBOL	204 EA.
QB	RIGHT TURN ARROW	62 EA.		
QC	STRAIGHT ARROW	74 EA.		
QD	COMBO STRAIGHT/LEFT ARROW	12 EA.		
QE	COMBO STRAIGHT/RIGHT ARROW	10 EA.		
<b>PAVEMENT MARKING CHARACTERS</b>				
QI	ALPHANUMERIC	64 EA.	PAINT PAVEMENT MARKING CHARACTER	64 EA.
<b>PAVEMENT MARKERS</b>				
<b>TEMPORARY RAISED PAVEMENT MARKERS</b>				
MH	YELLOW & YELLOW	313 EA.		
MI	CRYSTAL & RED	1415 EA.		

APPROVED: <i>J.W. Woolary</i>	DATE: 10/31/06	<b>PROJECT NOTES &amp; TEMPORARY PAVEMENT MARKING SCHEDULE</b>							
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# PROJECT PHASING

PROJ. REFERENCE NO.	SHEET NO.
I-4411	TCP-4

## PHASE I

STEP 1 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 7, SHEET TCP-32, INSTALL ADVANCE WARNING SIGNS IN ACCORDANCE WITH SHEET TCP-27 THROUGH TCP-29.

NOTE: STEPS 2 THROUGH 5 MAY BE PERFORMED CONCURRENTLY.

NOTE: DO NOT CONSTRUCT THE PROPOSED MONOLITHIC CONCRETE ISLANDS ON LANGTREE RD. (SR 1102) (-YREV-) UNTIL PHASE II, STEPS 8 AND 13.

NOTE: PRIOR TO BEGINNING THE WORK OF STEP 2, INSTALL "NO PARKING SIGNS" (R8-3) AT 500 FT. INTERVALS ON BOTH SIDES OF THE NORTHBOUND AND SOUTHBOUND LANES OF I-77

STEP 2 -- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9, CONSTRUCT THE TEMPORARY PAVEMENT ADJACENT TO THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7 AND TCP-8 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.) THE ROADWAY AND TRAFFIC SHALL RETURN TO THE EXISTING ELEVATION AND PATTERN RESPECTIVELY AT THE END OF THE WORKDAY.

-- STA. 14+00 +/- -L- TO STA. 62+00 +/- -L- (SB)  
 -- STA. 15+00 +/- -L- TO STA. 62+00 +/- -L- (NB)

-- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9 INSTALL PORTABLE CONCRETE BARRIER ON THE TEMPORARY PAVEMENT AS SHOWN ON TCP-7, CUT SECTION C-C' IN THE FOLLOWING LOCATIONS:

-- STA. 29+00 +/- -L- TO STA. 61+00 +/- -L- (NB)  
 -- STA. 14+00 +/- -L- TO STA. 61+50 +/- -L- (SB)

STEP 3 -- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9, BEGIN CONSTRUCTION OF THE TEMPORARY PAVEMENT ADJACENT TO THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7 AND TCP-8 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.) THE ROADWAY AND TRAFFIC SHALL RETURN TO THE EXISTING ELEVATION AND PATTERN RESPECTIVELY AT THE END OF THE WORKDAY.

-- STA. 62+00 +/- -L- TO STA. 105+45 +/- -L- (SB)  
 -- STA. 62+00 +/- -L- TO STA. 117+87 +/- -L- (NB)  
 -- STA. 120+20 +/- -L- TO STA. 125+25 +/- -L- (NB)

NOTE: USE DRUMS TO KEEP TRAFFIC OFF THE TEMPORARY PAVEMENT UNTIL TRAFFIC IS SHIFTED OUTSIDE (PHASE I, STEP 7.)

-- AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF THE LEFT SIDE OF LANGTREE RD. (SR 1102) (-YREV-) INCLUDING THE END BENTS OF THE PROPOSED STRUCTURE OVER I-77, PROPOSED RAMP "A" (-RPA-), PROPOSED RAMP "B" (-RPB-), PROPOSED RAMP "C" (-RPC-), PROPOSED RAMP "D" (-RPD-), THE TIE INS WITH THE REALIGNED ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-) IN THE FOLLOWING LOCATIONS UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY MARKINGS (SEE CONSTRUCTION PLANS AND SHEET TCP-7, TCP-9D THROUGH 9F):

-- STA. 24+50 +/- -YREV- TO STA. 27+59.20 -YREV-  
 -- STA. 30+60.20 -YREV- TO STA. 34+18 +/- -YREV-  
 -- STA. 19+00 +/- -RPA- TO STA. 28+57 +/- -RPA-  
 -- STA. 17+50 +/- -RPB- TO STA. 22+75 +/- -RPB-  
 -- STA. 23+00 +/- -RPC- TO STA. 28+90 +/- -RPC-  
 -- STA. 13+50 +/- -RPD- TO STA. 19+42 +/- -RPD-  
 -- STA. 10+00 +/- -SRA- TO STA. 10+50 +/- -SRA-  
 -- STA. 10+00 +/- -SRB- TO STA. 10+50 +/- -SRB-  
 -- STA. 10+00 +/- -SRC- TO STA. 10+50 +/- -SRC-

NOTE: USE TYPE III BARRICADES WITH "ROAD CLOSED" (R11-2) SIGNS TO CLOSE ACCESS TO PROPOSED RAMPS "A", "B", "C", "D", REALIGNED ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-).

NOTE: DO NOT CONSTRUCT THE MONOLITHIC CONCRETE ISLAND AT THE TOP OF PROPOSED RAMP "A" (-RPA-) UNTIL PHASE II, STEP 8.

-- BEHIND BARRIER/AWAY FROM TRAFFIC BEGIN THE CONSTRUCTION OF THE PROPOSED RAMPS "A", "B", "C", AND "D" ALONG THE TEMPORARY PAVEMENT ON THE NORTHBOUND AND SOUTHBOUND LANES OF I-77, UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7, TCP-9D THROUGH TCP-9F.)

-- STA. 10+00 +/- -RPA- TO STA. 15+00 +/- -RPA-  
 -- STA. 10+00 +/- -RPB- TO STA. 13+50 +/- -RPB-  
 -- STA. 8+33 +/- -RPC- TO STA. 14+50 +/- -RPC-  
 -- STA. 10+00 +/- -RPD- TO STA. 13+50 +/- -RPD-

-- AWAY FROM TRAFFIC, CONSTRUCT THE REALIGNMENTS OF ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-) IN THE FOLLOWING LOCATIONS UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE. PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) FOR THE INTERMEDIATE TRAFFIC PATTERN TO BE UTILIZED DURING PHASE II CONSTRUCTION. (SEE CONSTRUCTION PLANS AND SHEET TCP-7, TCP-9D THROUGH 9F):

-- STA. 10+50 +/- -SRA- TO STA. 29+00 +/- -SRA-  
 -- STA. 10+50 +/- -SRB- TO STA. 19+00 +/- -SRB-  
 -- STA. 10+50 +/- -SRC- TO STA. 33+00 +/- -SRC-

-- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, BEGIN THE CONSTRUCTION OF REALIGNED ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-) UP TO THE EDGE AND ELEVATION OF THEIR RESPECTIVE EXISTING ALIGNMENTS IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEET TCP-7)

-- STA. 29+00 +/- -SRA- TO STA. 33+75 +/- -SRA-  
 -- STA. 19+00 +/- -SRB- TO STA. 25+00 +/- -SRB-  
 -- STA. 33+00 +/- -SRC- TO STA. 38+00 +/- -SRC-

NOTE: USE TYPE III BARRICADES WITH "ROAD CLOSED" (R11-2) SIGNS TO DENY ACCESS TO REALIGNED ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-) WITH THEIR RESPECTIVE EXISTING ALIGNMENTS.

-- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, BEGIN THE CONSTRUCTION OF BOTH THE LEFT AND RIGHT SIDES OF LANGTREE RD. (SR 1102) (-YREV-), UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY MARKINGS IN THE FOLLOWING LOCATIONS. (SEE CONSTRUCTION PLANS AND SHEET TCP-7, TCP-9D THROUGH TCP-9F.)

-- STA. 11+00 +/- -YREV- TO STA. 24+50 +/- -YREV-

-- STA. 34+18 +/- -YREV- TO STA. 48+50 +/- -YREV-

STEP 4 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, COMPLETE BOTH THE RIGHT AND LEFT SIDES OF LANGTREE RD. (SR 1102) (-YREV-), AND THE TIE INS WITH THE REALIGNMENTS OF ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), SR 1104 (-SRC-) UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY PAVEMENT MARKINGS AS BEGUN IN THE FOLLOWING LOCATIONS IN STEP 3 (SEE CONSTRUCTION PLANS AND SHEET TCP-7, TCP-9D THROUGH TCP-9F.)

-- STA. 11+00 +/- -YREV- TO STA. 24+50 +/- -YREV-  
 -- STA. 34+18 +/- -YREV- TO STA. 48+50 +/- -YREV-  
 -- STA. 10+00 +/- -SRA- TO STA. 10+50 +/- -SRA-  
 -- STA. 10+00 +/- -SRB- TO STA. 10+50 +/- -SRB-  
 -- STA. 10+00 +/- -SRC- TO STA. 10+50 +/- -SRC-

NOTE: RELOCATE THE EXISTING STATIONARY "STOP" SIGNS AT THE INTERSECTIONS OF LANGTREE RD. (SR 1102) (-YREV-) WITH REALIGNED ALCOVE RD. (SR 1206) (-SRA-), MECKLYNN RD. (SR 1205) (-SRB-), AND SR 1104 (-SRC-) AS DIRECTED BY THE ENGINEER.

-- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9 AND WORKING IN A CONTINUOUS MANNER TO COMPLETE EACH TIE IN DURING A SINGLE WORK PERIOD, CONSTRUCT THE TIE IN OF EXISTING ALCOVE RD. (SR 1206), MECKLYNN RD. (SR 1205) AND SR 1104 WITH THEIR RESPECTIVE PROPOSED REALIGNMENTS (-SRA-, -SRB-, AND -SRC-) UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) IN THE FINAL TRAFFIC PATTERN IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS, SHEET TCP-7 AND SHEETS PM-9, PM-11, AND PM-12.):

-- STA. 29+00 +/- -SRA- TO STA. 33+75 +/- -SRA-  
 -- STA. 19+00 +/- -SRB- TO STA. 25+00 +/- -SRB-  
 -- STA. 33+00 +/- -SRC- TO STA. 38+00 +/- -SRC-

-- REMOVE TRAFFIC CONTROL DEVICES AND SHIFT TRAFFIC ONTO THE NEW ALIGNMENT OF -SRA-, -SRB-, AND -SRC- BY THE END OF THE WORKDAY.

-- BEHIND BARRIER/AWAY FROM TRAFFIC CONSTRUCT THE PROPOSED RAMPS "A", "B", "C", UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY MARKINGS IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7, TCP-9D THROUGH 9F.)

-- STA. 15+00 +/- -RPA- TO STA. 19+00 +/- -RPA-  
 -- STA. 13+50 +/- -RPB- TO STA. 17+50 +/- -RPB-  
 -- STA. 14+50 +/- -RPC- TO STA. 23+00 +/- -RPC-

-- BEHIND BARRIER/AWAY FROM TRAFFIC COMPLETE CONSTRUCTION OF PROPOSED RAMPS "A", "B", "C", AND "D" UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY MARKINGS IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7, TCP-9D THROUGH TCP-9F.)

-- STA. 10+00 +/- -RPA- TO STA. 15+00 +/- -RPA-  
 -- STA. 19+00 +/- -RPA- TO STA. 28+57 +/- -RPA-  
 -- STA. 10+00 +/- -RPB- TO STA. 13+50 +/- -RPB-  
 -- STA. 17+50 +/- -RPC- TO STA. 22+75 +/- -RPC-  
 -- STA. 8+33 +/- -RPC- TO STA. 14+50 +/- -RPC-  
 -- STA. 23+00 +/- -RPC- TO STA. 28+90 +/- -RPC-  
 -- STA. 10+00 +/- -RPD- TO STA. 19+42 +/- -RPD-

-- PLACE PCB AND TEMPORARY CRASH CUSHIONS ON THE EXISTING INSIDE SHOULDER ON -L- FROM STA. 45+50 +/- TO STA. 48+60 +/- (SEE SHEET TCP-9)

BEHIND PCB / AWAY FROM TRAFFIC CONSTRUCT THE INTERIOR MEDIAN BENT OF THE LEFT SIDE (STAGE 1) OF THE PROPOSED STRUCTURE OVER I-77. (SEE SHEET TCP-9)

-- AWAY FROM TRAFFIC COMPLETE THE CONSTRUCTION OF THE END BENTS OF THE LEFT SIDE OF THE PROPOSED STRUCTURE OVER I-77 AS BEGUN IN STEP 3 (SEE CONSTRUCTION PLANS.)

STEP 5 -- UTILIZING THE RAMPS IN CONJUNCTION WITH SHEETS TCP-9A THROUGH 9C, AND TCP-9G, THE CONTRACTOR MAY BEGIN INSTALLATION OF THE GIRDERS FOR THE LEFT SIDE OF BOTH SPAN "A" AND SPAN "B" OF THE PROPOSED STRUCTURE OVER I-77 (SEE CONSTRUCTION PLANS AND LOCAL NOTES NO. 1, NO. 2, AND NO. 4 ON SHEET TCP-3).

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# PROJECT PHASING

PROJ. REFERENCE NO.	SHEET NO.
I-4411	TCP-5

STEP 6 -- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9, COMPLETE THE CONSTRUCTION OF THE TEMPORARY PAVEMENT ADJACENT TO THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) IN THE FOLLOWING LOCATIONS AS BEGUN IN STEP 3. (SEE CONSTRUCTION PLANS, SHEETS TCP-7 AND TCP-8 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.)

-- STA. 62+00 +/- -L- TO STA. 105+45 +/- -L- (SB)  
 -- STA. 62+00 +/- -L- TO STA. 117+87 +/- -L- (NB)  
 -- STA. 120+20 +/- -L- TO STA. 125+25 +/- -L- (NB)

NOTE: USE DRUMS TO KEEP TRAFFIC OFF THE TEMPORARY PAVEMENT UNTIL TRAFFIC IS SHIFTED OUTSIDE.

-- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 AS NECESSARY, BEGIN THE OBLITERATION AND REMOVAL OF EXISTING MECKLYNN RD. (SR 1205), ALCOVE RD. (SR 1206) AND SR 1104 (SEE CONSTRUCTION PLANS.)

-- BEGIN THE INSTALLATION OF, BUT DO NOT ACTIVATE THE PROPOSED TRAFFIC SIGNALS AT THE INTERSECTIONS OF LANGTREE RD. (SR 1102)(-YREV-) AND PROPOSED RAMP "A", "B", "C", AND "D" (SEE SIGNAL PLANS).

COMPLETE THE WORK OF PHASE I, STEPS 7 THRU 10 IN 60 CONSECUTIVE CALENDAR DAYS AFTER AND INCLUDING THE DAY THE WORK IS BEGUN. SEE INTERMEDIATE CONTRACT TIME NO. 2 AND LIQUIDATED DAMAGES.

STEP 7 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, REMOVE THE EXISTING PAVEMENT MARKINGS AND MARKERS ON BOTH THE NORTHBOUND AND SOUTHBOUND LANES OF I-77 AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) FOR AN INTERMEDIATE TRAFFIC PATTERN UTILIZING THE NEWLY CONSTRUCTED TEMPORARY PAVEMENT ADJACENT TO THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77, INSTALL ADVANCED WARNING SIGNS IN ADVANCE OF THE SHIFTS AND SHIFT TRAFFIC INTO THIS PATTERN IN THE FOLLOWING LOCATIONS. (SEE SHEETS TCP-11 THROUGH 14 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.)

-- STA. 15+20 +/- -L- TO STA. 125+16 +/- -L- (NB)  
 -- STA. 14+20 +/- -L- TO STA. 132+00 +/- -L- (SB)

NOTE: IF UNABLE TO COMPLETE EITHER THE NORTHBOUND OR SOUTHBOUND LANES MARKING/MARKER REMOVAL/REPLACEMENT OF PHASE I, STEP 7 IN A SINGLE WORK PERIOD, THEN TRANSITION THE PROPOSED MARKINGS/MARKERS FOR THE INTERMEDIATE PATTERN BACK TO THE EXISTING PATTERN PRIOR TO THE END OF THE WORK PERIOD IN ACCORDANCE WITH THE TYPICAL PLAN NO. 1 AS DETAILED ON SHEET TCP-10)

STEP 8 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS ADJACENT TO THE INSIDE TRAVEL LANE OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) IN THE FOLLOWING LOCATIONS: (SEE SHEETS TCP-11 THROUGH TCP-14 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.)

-- STA. 15+85 +/- -L- TO STA. 109+21 +/- -L- (SB)  
 -- STA. 17+29 +/- -L- TO STA. 123+51 +/- -L- (NB)

STEP 9 -- BEHIND BARRIER, AWAY FROM TRAFFIC, PERFORM THE FOLLOWING:

-- CONSTRUCT THE INSIDE PAVED SHOULDERS OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) INCLUDING THE REMOVAL AND RESETTING OF THE EXISTING MEDIAN GUARDRAIL IN THE FOLLOWING LOCATIONS (SEE CONSTRUCTION PLANS AND SHEETS TCP-7, 8, AND 11 THROUGH 14.)

-- STA. 16+10 +/- -L- TO STA. 108+40 +/- (SB)  
 -- STA. 18+10 +/- -L- TO STA. 123+26 +/- (NB)

STEP 10 -- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9, PERFORM THE FOLLOWING (SEE LOCAL NOTE NO. 3 ON SHEET TCP-3):

-- REMOVE THE PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS ADJACENT TO THE INSIDE TRAVEL LANE OF BOTH NORTHBOUND AND SOUTHBOUND I-77 (-L-) IN THE FOLLOWING LOCATIONS AS PLACED IN STEP 8:

-- STA. 15+85 +/- -L- TO STA. 109+21 +/- -L- (SB)  
 -- STA. 17+29 +/- -L- TO STA. 123+51 +/- -L- (NB)

-- REMOVE THE EXISTING TEMPORARY PAVEMENT MARKINGS AND MARKERS ON BOTH THE NORTHBOUND AND SOUTHBOUND LANES OF I-77 (PHASE I, STEP 7) AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) FOR AN INTERMEDIATE TRAFFIC PATTERN UTILIZING THE NEWLY CONSTRUCTED INSIDE PAVED SHOULDERS, INSTALL ADVANCED WARNING SIGNS IN ADVANCE OF THE SHIFTS AND SHIFT TRAFFIC INTO THIS PATTERN IN THE FOLLOWING LOCATIONS. (SEE SHEETS TCP-18 THROUGH TCP-20.)

-- STA. 15+20 +/- -L- TO STA. 123+51 +/- -L- (NB)  
 -- STA. 14+20 +/- -L- TO STA. 117+30 +/- -L- (SB)

NOTE: IF UNABLE TO COMPLETE EITHER THE NORTHBOUND OR SOUTHBOUND LANES MARKING/MARKER REMOVAL/REPLACEMENT OF PHASE I, STEP 7 IN A SINGLE WORK PERIOD, THEN TRANSITION THE PROPOSED MARKINGS/MARKERS FOR THE INTERMEDIATE PATTERN BACK TO THE EXISTING PATTERN PRIOR TO THE END OF THE WORK PERIOD IN ACCORDANCE WITH THE TYPICAL PLAN NO. 2 AS DETAILED ON SHEET TCP-15.)

STEP 11 -- UTILIZING THE INTERCHANGE RAMP IN CONJUNCTION WITH SHEETS TCP-9A THROUGH 9C, AND TCP-9G COMPLETE THE INSTALLATION OF THE GIRDERS FOR THE LEFT SIDE OF BOTH SPAN "A" AND SPAN "B" OF THE PROPOSED STRUCTURE OVER I-77. (SEE CONSTRUCTION PLANS AND LOCAL NOTES NO. 1, NO. 2, AND NO. 4 ON SHEET TCP-3)

STEP 12 -- AWAY FROM TRAFFIC, COMPLETE THE CONSTRUCTION OF THE LEFT SIDE OF LANGTREE RD. (SR 1102)(-YREV-) INCLUDING THE SUPERSTRUCTURE OF THE PROPOSED STRUCTURE OVER I-77 ((PLACE TEMPORARY PAVEMENT MARKINGS (REMOVABLE TAPE) ON THE PROPOSED STRUCTURE)), IN THE FOLLOWING LOCATIONS AS BEGUN IN STEP 3 (SEE CONSTRUCTION PLANS AND SHEET TCP-7 AND TCP-21 THROUGH TCP-23.)

-- STA. 24+50 +/- -YREV- TO STA. 34+18 +/- -YREV-

-- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, INSTALL PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS ALONG THE LEFT SIDE OF LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 24+75 +/- -YREV- TO STA. 34+50 +/- -YREV- (SEE SHEET TCP-22.)

NOTE: ANCHOR THE PORTABLE CONCRETE BARRIER ON THE PROPOSED STRUCTURE OVER I-77.

STEP 13 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, SHIFT -YREV- TO THE PATTERN SHOWN ON SHEETS TCP-9D THROUGH 9F.

## PHASE II

NOTE: STEPS 1 THROUGH 2 MAY BE PERFORMED CONCURRENTLY

STEP 1 -- UTILIZING THE RAMPS, IN CONJUNCTION WITH TCP-9A THROUGH 9C, AND TCP-9G AS NECESSARY, OBLITERATE AND REMOVE THE EXISTING STRUCTURE OVER I-77 WITH THE EXCEPTION OF THE FOUNDATION OF THE EXISTING MEDIAN BENT.

STEP 2 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS ADJACENT TO THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77 IN THE FOLLOWING LOCATIONS: (SEE LOCAL NOTE NO. 3 ON SHEET TCP-3 AND SHEET TCP-18 THROUGH 20.)

-- STA. 19+21 +/- -L- TO STA. 123+51 +/- -L- (NB)  
 -- STA. 17+75 +/- -L- TO STA. 107+75 +/- -L- (SB)

NOTE: STEPS 3 THRU 5 MAY BE PERFORMED CONCURRENTLY

STEP 3 -- BEHIND BARRIER/AWAY FROM TRAFFIC BEGIN THE CONSTRUCTION OF THE PROPOSED OUTSIDE PAVED SHOULDER ALONG THE NORTHBOUND AND SOUTHBOUND LANES OF I-77 UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE IN THE FOLLOWING LOCATIONS CONSTRUCTION PLANS AND SHEETS TCP-16 THROUGH TCP-20.)

-- STA. 18+00 +/- -L- TO STA. 105+50 +/- -L- (SB)  
 -- STA. 21+00 +/- -L- TO STA. 123+26 +/- -L- (NB)

STEP 4 -- BEHIND GUARDRAIL / AWAY FROM TRAFFIC PERFORM THE FOLLOWING:

-- INSTALL TEMPORARY SHORING ON I-77 FROM 46+20 +/- -L- TO STA. 46+90 +/- -L- 6' LEFT AND 6' RIGHT OF THE CENTERLINE. (SEE SHEET TCP-20A)

CONSTRUCT THE INTERIOR MEDIAN BENT OF THE RIGHT SIDE OF THE PROPOSED STRUCTURE OVER I-77. (SEE SHEET TCP-20A AND CONSTRUCTION PLANS)

STEP 5 -- BEHIND BARRIER/AWAY FROM TRAFFIC COMPLETE THE CONSTRUCTION OF THE PROPOSED OUTSIDE PAVED SHOULDER ALONG BOTH THE NORTHBOUND AND SOUTHBOUND LANES OF I-77, UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE IN THE FOLLOWING LOCATIONS AS BEGUN IN PHASE I, STEP 2 AND PHASE II, STEP 3 (SEE CONSTRUCTION PLANS AND SHEETS TCP-18 THROUGH TCP-20).

-- STA. 18+00 +/- -L- TO STA. 105+50 +/- -L- (SB)  
 -- STA. 21+00 +/- -L- TO STA. 123+26 +/- -L- (NB)

-- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 AS NECESSARY, COMPLETE THE OBLITERATION AND REMOVAL OF EXISTING MECKLYNN RD. (SR 1205), ALCOVE RD. (SR 1206) AND SR 1104 AS BEGUN IN PHASE I, STEP 6 (SEE CONSTRUCTION PLANS.)

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# PROJECT PHASING

PROJ. REFERENCE NO. SHEET NO.

I-4411

TCP-6

STEP 6 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, REMOVE THE PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS FROM THE OUTSIDE TRAVEL LANES OF BOTH NORTHBOUND AND SOUTHBOUND I-77 IN THE FOLLOWING LOCATIONS AS PLACED IN PHASE II, STEP 1. USE DRUMS AND TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS (R11-2) TO KEEP THE PROPOSED RAMP AND ACCEL/DECEL LANES CLOSED TO TRAFFIC. (SEE LOCAL NOTE NO. 3 ON SHEET TCP-3.)

-- STA. 19+21 +/- -L- TO STA. 123+51 +/- -L- (NB)

-- STA. 17+75 +/- -L- TO STA. 107+75 +/- -L- (SB)

STEP 7 -- USE ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9 TO PERFORM THE FOLLOWING:

-- BEGIN THE CONSTRUCTION OF THE RIGHT SIDE LANGTREE RD. (SR 1102)(-YREV-) UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE IN THE FOLLOWING LOCATIONS. (SEE CONSTRUCTION PLANS AND SHEETS TCP-16 AND TCP-22):

-- STA. 24+50 +/- -YREV- TO STA. 27+59.20 -YREV-

-- STA. 30+60.20 -YREV- TO STA. 34+18 +/- -YREV-

NOTE: STEPS 8 AND 9 MAY BE PERFORMED CONCURRENTLY

STEP 8 -- UTILIZING THE RAMP, IN CONJUNCTION WITH SHEET TCP-9A AS NECESSARY, CONSTRUCT THE RIGHT SIDE OF THE PROPOSED STRUCTURE OVER I-77 FROM STA. 27+59.20 -YREV- TO STA. 30+60.20 -YREV- (SEE CONSTRUCTION PLANS AND SHEETS TCP-16 AND TCP-22 AND LOCAL NOTE NO. 2 ON SHEET TCP-3.)

STEP 9 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, COMPLETE THE CONSTRUCTION OF THE RIGHT SIDE LANGTREE RD. (SR 1102)(-YREV-) UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE IN COURSE IN THE FOLLOWING LOCATIONS AS BEGUN PHASE II, STEP 5. (SEE CONSTRUCTION PLANS AND SHEETS TCP-16 AND TCP-22):

-- STA. 24+50 +/- -YREV- TO STA. 27+59.20 -YREV-  
-- STA. 30+60.20 -YREV- TO STA. 34+18 +/- -YREV-

STEP 10 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, PERFORM THE FOLLOWING:

-- REMOVE THE PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS FROM LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 24+75 +/- -YREV- TO STA. 34+50 +/- -YREV- AS PLACED IN PHASE I, STEP 12. USE DRUMS AND TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS (R11-2) TO KEEP THE RIGHT SIDE OF THE PROPOSED STRUCTURE OVER I-77 CLOSED TO TRAFFIC.

-- CONSTRUCT THE PROPOSED MONOLITHIC ISLAND ON LANGTREE RD. (SR 1102)(-YREV-) IN THE FOLLOWING LOCATIONS ONLY:

-- STA. 17+80 +/- -YREV- TO STA. 22+48 +/- -YREV-

-- STA. 23+25 +/- -YREV- TO STA. 26+55 +/- -YREV-

-- STA. 31+00 +/- -YREV- TO STA. 34+00 +/- -YREV-

-- STA. 35+00 +/- -YREV- TO STA. 38+74 +/- -YREV-

STEP 11 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) IN THE FINAL TRAFFIC PATTERN ON BOTH THE NORTHBOUND AND SOUTHBOUND LANES OF I-77. USE DRUMS AND TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS (R11-2) TO KEEP THE PROPOSED RAMP AND ACCEL/DECEL LANES CLOSED TO TRAFFIC. (SEE SHEETS PM-2 THROUGH PM-8.)

STEP 12 -- INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS IN THE FINAL TRAFFIC PATTERN ON LANGTREE RD. (SR 1102)(-YREV-) AND OPEN TO TRAFFIC IN THE FINAL PATTERN IN THE FOLLOWING SEQUENCE: (SEE SHEETS PM-9 THROUGH PM-11 AND LOCAL NOTE NO. 3 ON SHEET TCP-3.)

A. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT) (REMOVABLE TAPE - STRUCTURE) AND MARKERS (TEMPORARY RAISED) IN THE FINAL TRAFFIC PATTERN ON THE EASTBOUND SIDE OF LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 17+80 +/- -YREV- TO STA. 43+00 +/- -YREV-. REMOVE AND REPLACE ANY CONFLICTING MARKINGS AND MARKERS AT THE TIE INS OF MECKLYNN RD. (SR 1205)(-SRB-) AND SR 1104 (-SRC-), PLACE A TEMPORARY YELLOW EDGELINE FROM STA. 14+00 +/- -YREV- TO STA. 17+00 +/- -YREV-. INSTALL PORTABLE "KEEP RIGHT" SIGNS (R4-7), ACTIVATE CHANGEABLE MESSAGE SIGNS ON BOTH ENDS OF LANGTREE RD (SR 1102)(-YREV-) AND SHIFT EASTBOUND TRAFFIC TO THE FINAL TRAFFIC PATTERN ON THE EASTBOUND SIDE OF LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 17+80 +/- -YREV- TO STA. 43+00 +/- -YREV- WHILE MAINTAINING WESTBOUND TRAFFIC IN IT'S CURRENT POSITION. USE DRUMS TO DELINEATE TRAFFIC SHIFTS, GORE AREAS AND TO CLOSE OFF ALL TURN LANES TO THE PROPOSED RAMP. PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS (R11-2) TO DENY ACCESS TO PROPOSED RAMP. (SEE SHEETS TCP-24 THROUGH TCP-26).

B. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, AND AS DIRECTED BY THE ENGINEER, REMOVE THE EXISTING TEMPORARY PAVEMENT MARKINGS FROM THE WESTBOUND SIDE OF LANGTREE RD. (SR 1102)(-YREV-) AND INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT) AND MARKERS (TEMPORARY RAISED) IN THE FINAL TRAFFIC PATTERN ON THE WESTBOUND SIDE OF LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 11+00 +/- -YREV- TO STA. 48+50 +/- -YREV-. REMOVE AND REPLACE ANY CONFLICTING MARKINGS AND MARKERS AT THE TIE IN OF ALCOVE RD. (SR 1206)(-SRA-) AND OPEN THE WESTBOUND SIDE OF LANGTREE RD. (SR 1102)(-YREV-) TO WESTBOUND TRAFFIC IN THE FINAL PATTERN. USE DRUMS TO CLOSE OFF THE TURN LANES ON TO THE PROPOSED RAMP. KEEP TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS (R11-2) IN PLACE TO DENY ACCESS TO THE PROPOSED RAMP.

STEP 13 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, CONSTRUCT THE PROPOSED MONOLITHIC CONCRETE ISLAND ON LANGTREE RD. (SR 1102)(-YREV-) FROM STA. 38+74 +/- -YREV- TO STA. 42+93 +/- -YREV- (SEE CONSTRUCTION PLANS)

NOTE: STEP 14 MAY BE PERFORMED EARLIER PROVIDED SIGNING DOES NOT CONFLICT WITH CURRENT TRAFFIC PATTERNS, OR IS COVERED.

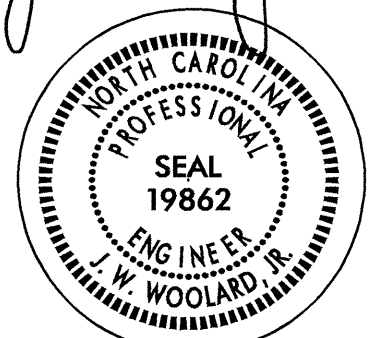

STEP 14 -- USING ROADWAY STANDARD 1101.02, SHEET 1, 3, AND 5 OF 9, 1101.03, SHEET 6 OF 9, AND 1101.07, SHEET 1 AND 2, INSTALL ALL PERMANENT SIGNING THROUGHOUT THE PROJECT. (SEE SIGNING PLANS AND LOCAL NOTES NO. 2 AND 3 ON SHEET TCP-3.)

STEP 15 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1 OF 9, COMPLETE AND ACTIVATE THE TRAFFIC SIGNALS AT THE INTERSECTIONS OF LANGTREE RD. (SR 1102)(-YREV-) AND THE PROPOSED RAMP AS BEGUN IN PHASE II, STEP 5 AND OPEN THE ENTIRE PROJECT TO THE FINAL TRAFFIC PATTERN. (SEE SIGNAL PLANS AND SHEETS PM-2 THROUGH PM-12.)

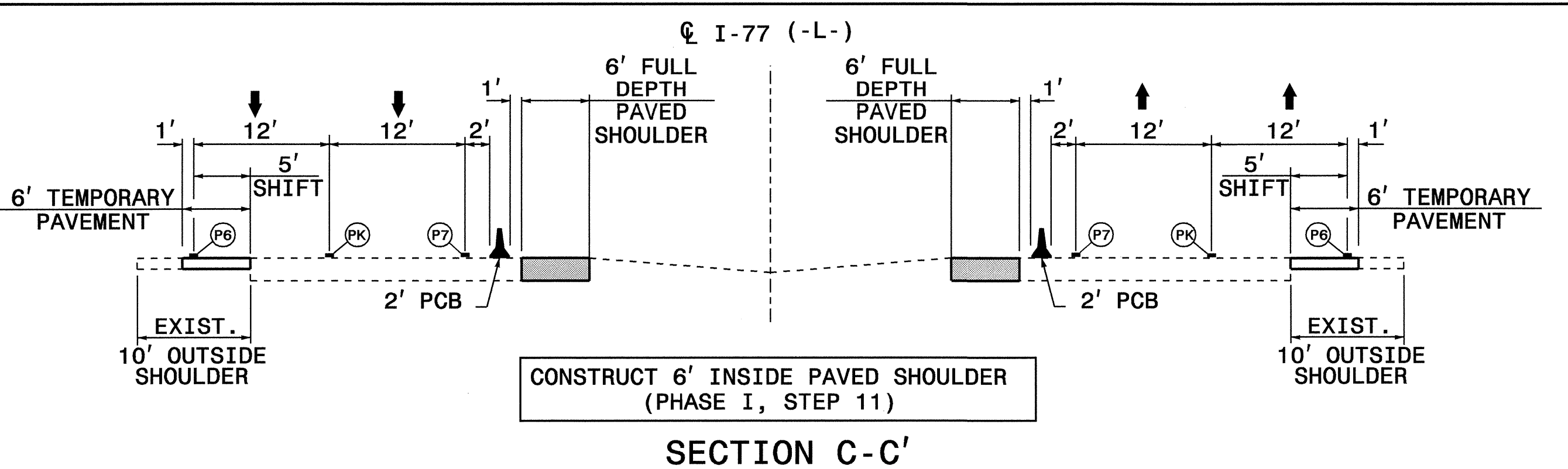
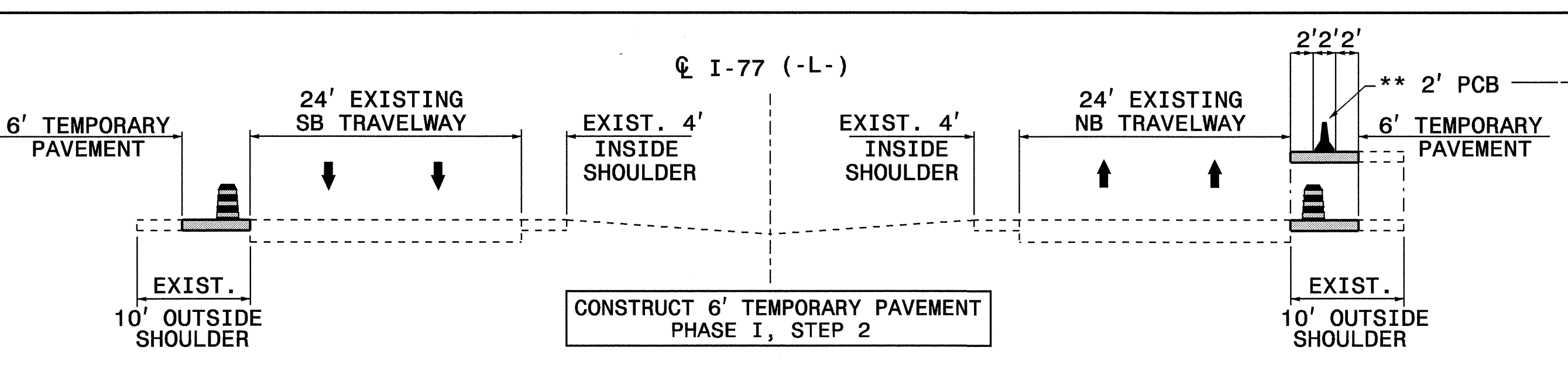
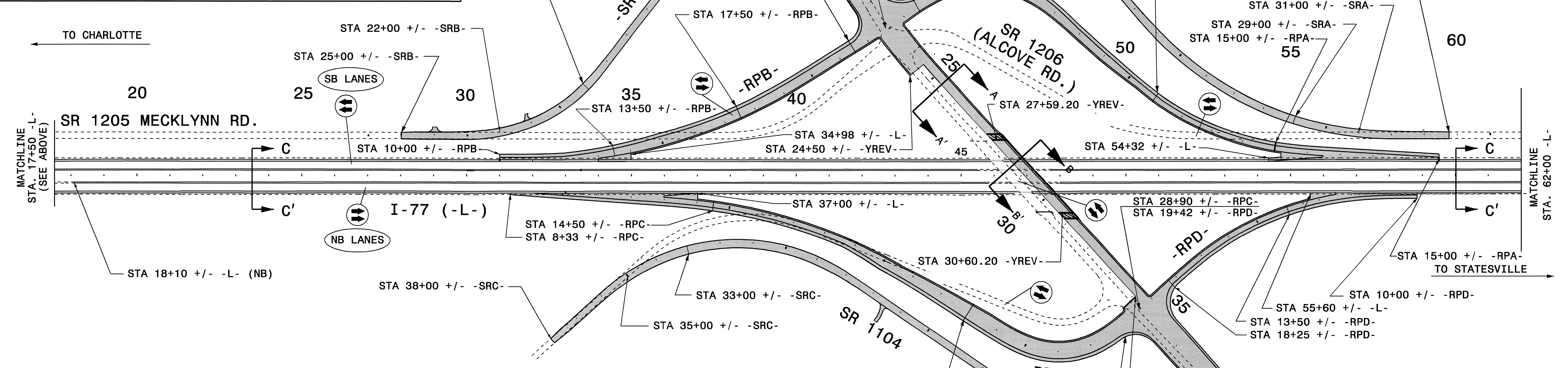
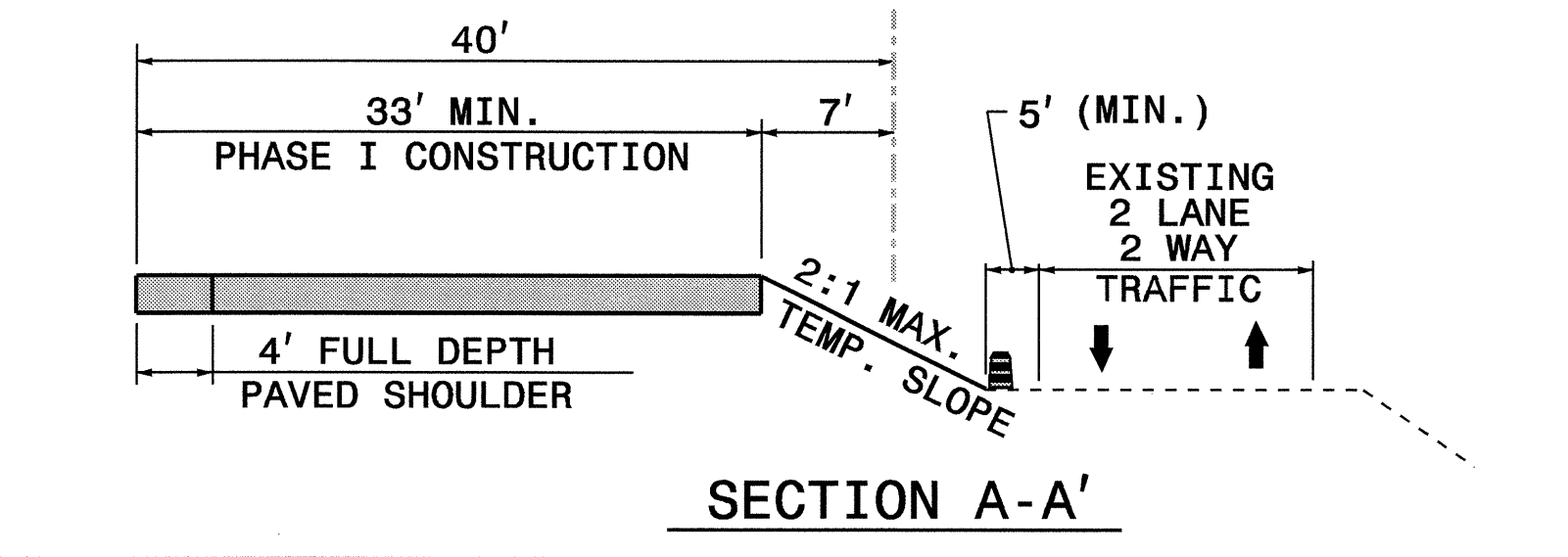
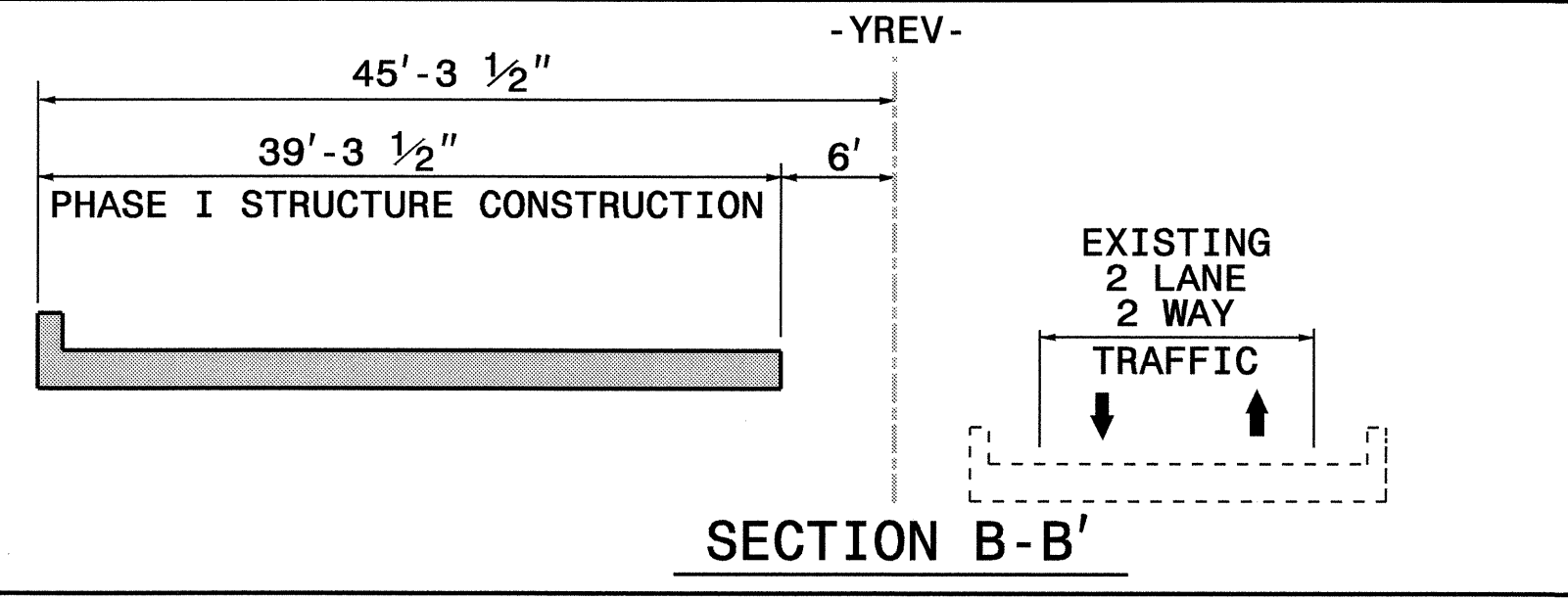
## PHASE III

STEP 1 -- USING ROADWAY STANDARD DRAWING 1101.02, SHEETS 1, 3, 6 AND 7, PLACE THE FINAL LIFT OF SURFACE COURSE, FINAL PAVEMENT MARKINGS (POLYUREA) AND MARKINGS (SNOWPLOWABLE) THROUGHOUT THE ENTIRE PROJECT. (SEE CONSTRUCTION PLANS AND SHEETS PM-2 THROUGH PM-12 AND LOCAL NOTE NO. 3 ON SHHET TCP-3).

STEP 2 -- REMOVE ALL TRAFFIC CONTROL DEVICES WITH TRAFFIC OPEN TO THE FINAL TRAFFIC PATTERN THROUGHOUT THE ENTIRE PROJECT.

APPROVED: <i>J.W. Woolard</i> DATE: 10/31/06		<b>PROJECT PHASING</b>	
SEAL 	SCALE: NONE		REVISIONS
	DATE: 10/06		
	DWG. BY: DAH		
	DESIGN BY: DAH		
	REVIEWED BY: JWW		





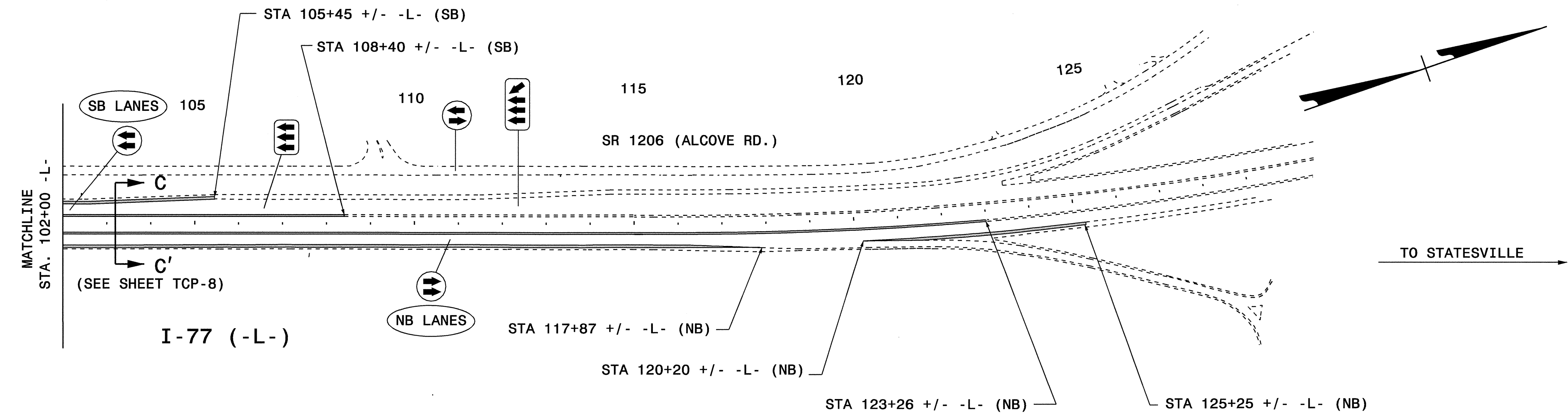
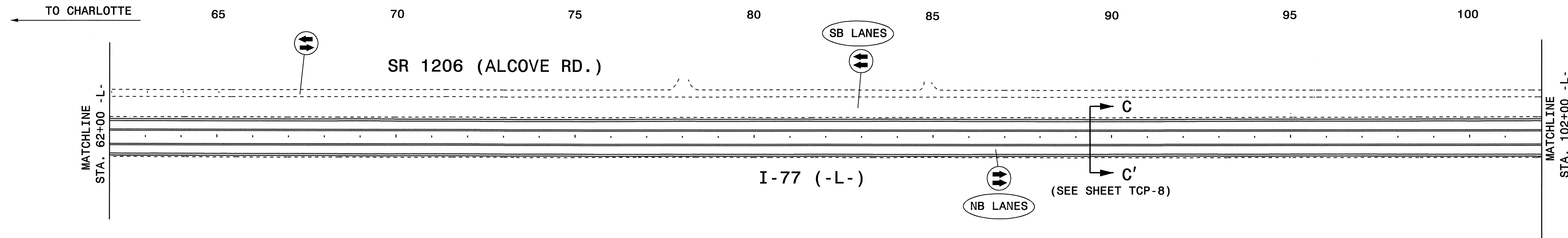
\*\* FOR PHASE I, STEP 2, FROM STA. 29+00 +/- -L- TO STA. 61+00 +/- -L- (NB) AND FROM STA. 14+00 +/- -L- TO STA. 61+50 +/- -L- (SB).

APPROVED: *W. Wood* DATE: 10/31/06

PROFESSIONAL SEAL 19862

PHASE I OVERVIEW		REVISIONS	
SCALE:	NONE		
DATE:	10/06		
DWG. BY:	DAH		
DESIGN BY:	DAH		
REVIEWED BY:	JWW		

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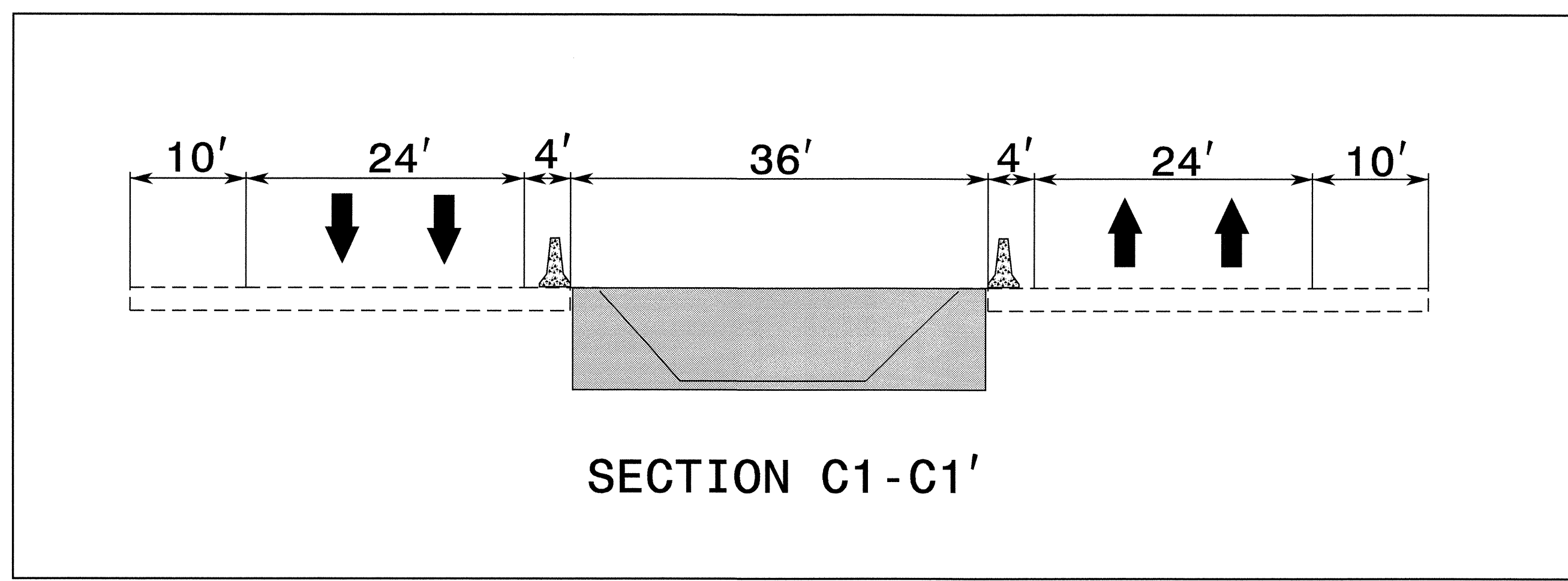
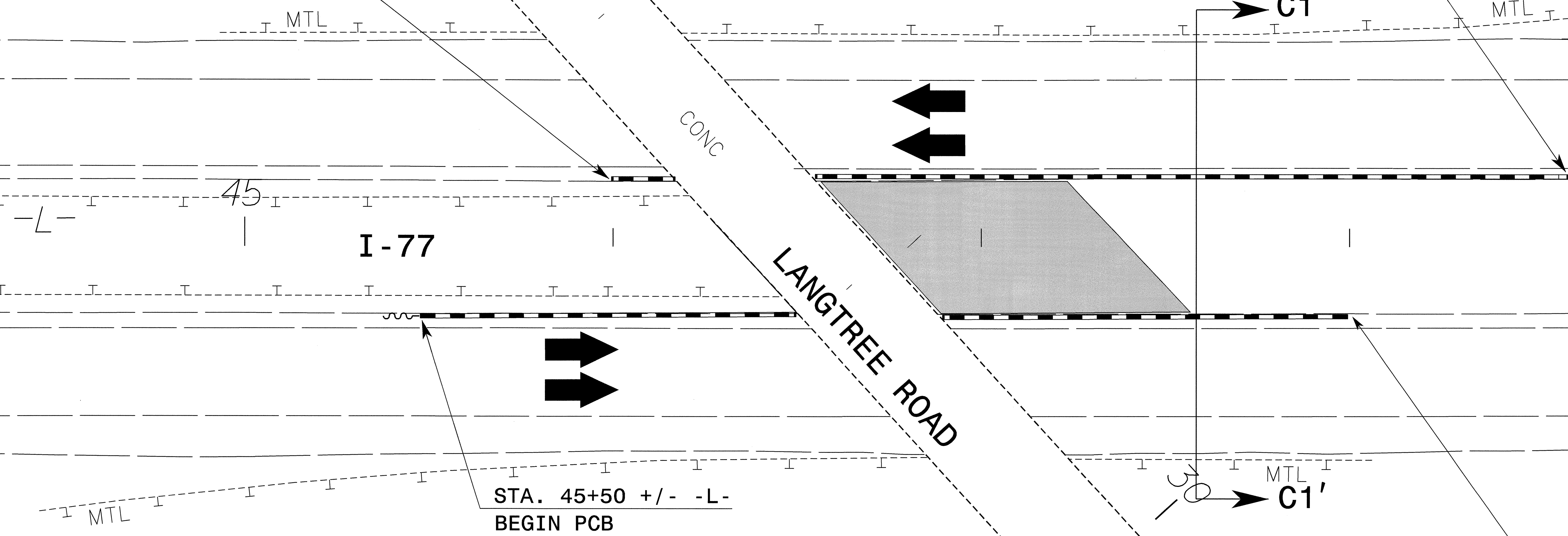
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 ahayes AT WZTC22424

APPROVED: <i>J.W. Woolard</i> DATE: 10/31/06	<b>PHASE I OVERVIEW</b>								
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	DATE: 10/06								
	DWG. BY: DAH								
	DESIGN BY: DAH								
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REVISIONS									
	CADD FILE								



STA. 46+00 +/- -L-  
BEGIN PCB

STA. 48+60 +/- -L-  
END PCB



APPROVED: *J.W. Woolard* DATE: 10/21/06  
 SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 19862  
 J.W. WOOLARD, JR.

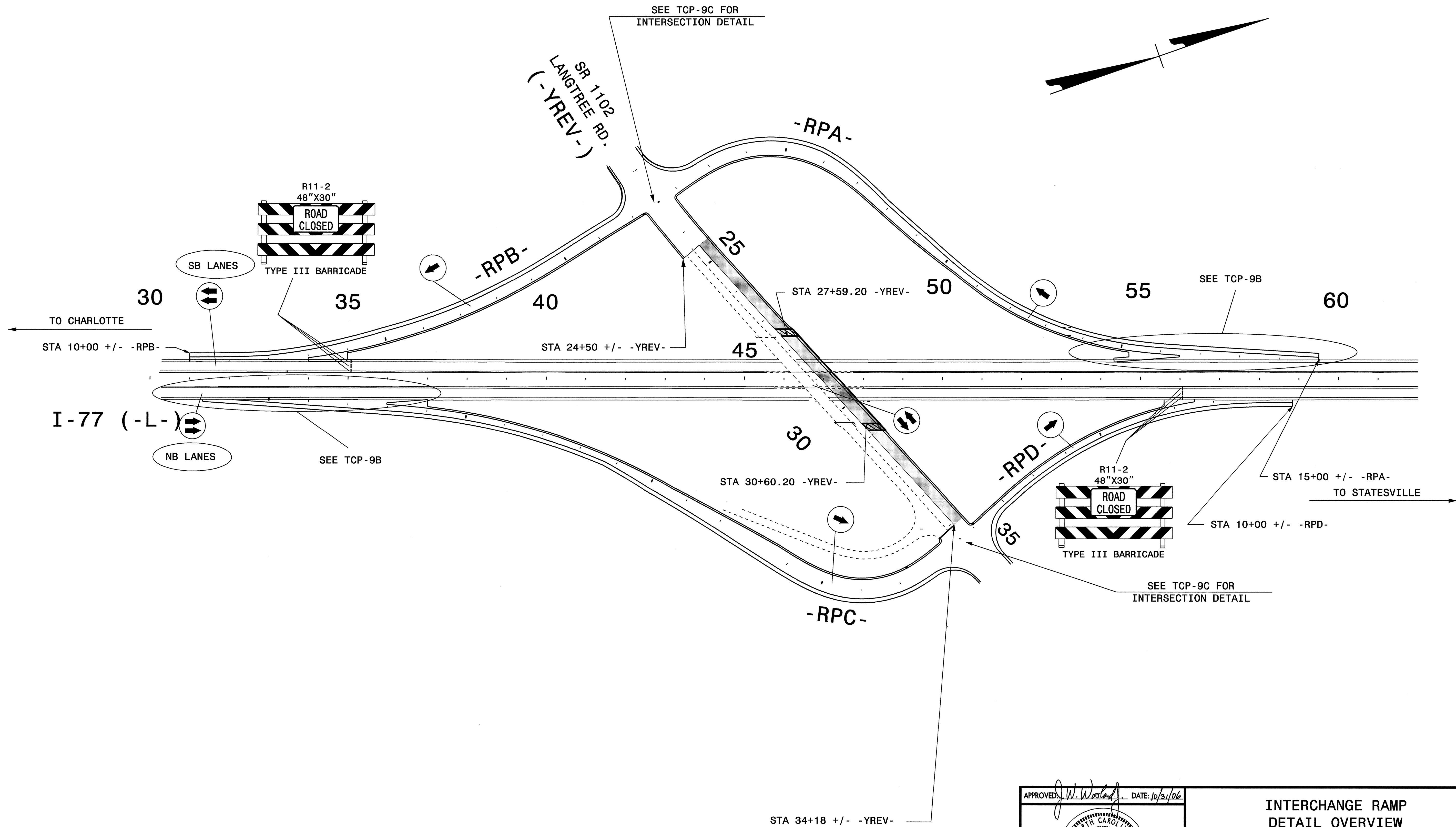
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 DESIGN BY: DAH  
 REVIEWED BY: JWW



REVISIONS	

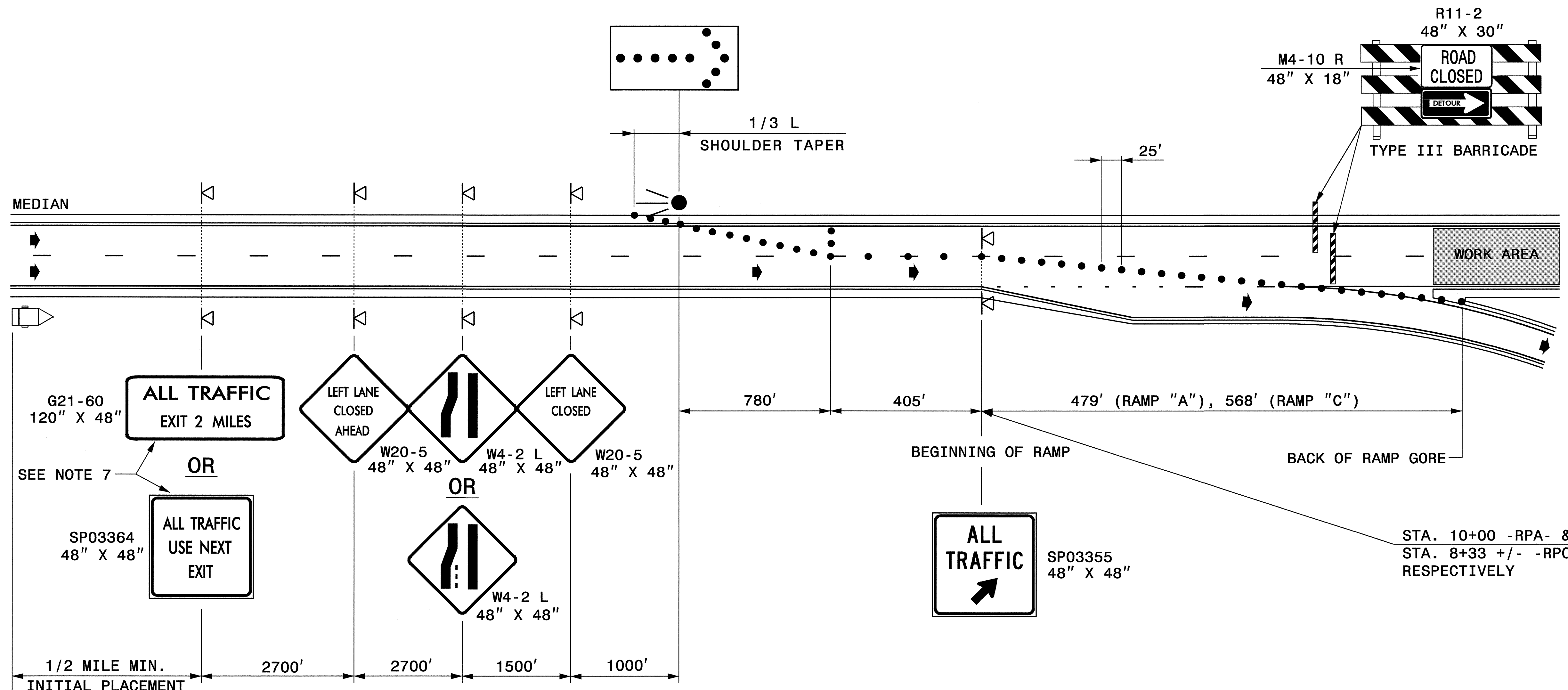
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 ahaves AT WZTC22424

APPROVED: <i>J.W. Woolard</i> DATE: 10/3/06	<b>INTERCHANGE RAMP DETAIL OVERVIEW</b>	
SCALE: NONE		REVISIONS
DATE: 10/06		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		CADD FILE





**GENERAL NOTES**

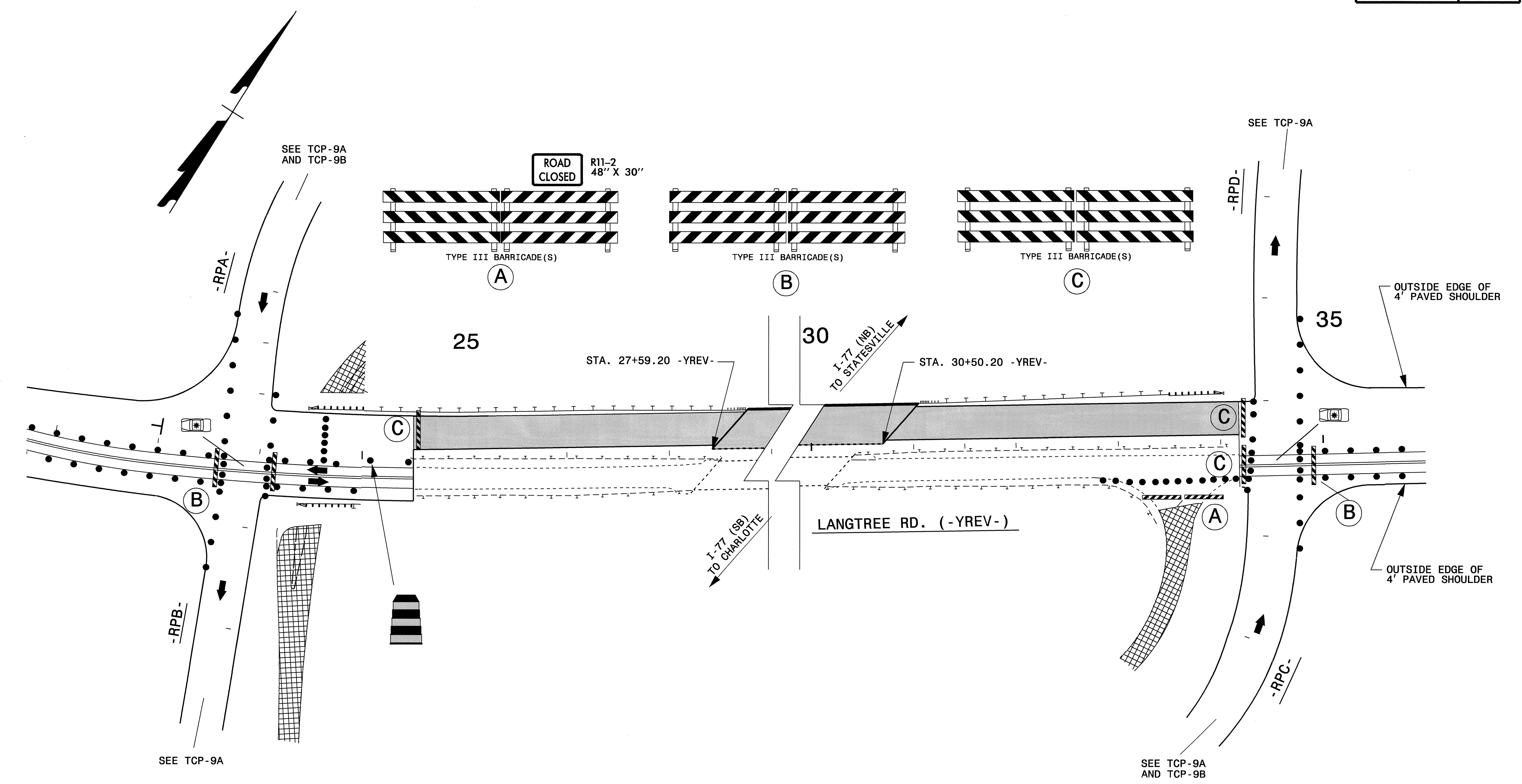
- 1-USE STATIONARY SIGNS FOR LONG TERM OPERATIONS (LONGER THAN 3 DAYS).
- 2-IF NECESSARY USE FLAGGERS OR POLICE OFFICERS TO DIRECT TRAFFIC AT RAMP TERMINAL AS DIRECTED BY THE PLANS OR THE ENGINEER.
- 3-IF RAMP TERMINAL IS SIGNALIZED, SIGNALS MAY BE PLACED IN FLASH MODE.
- 4-PLACE CHANGEABLE MESSAGE SIGN ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. INITIALLY LOCATE THE SIGN APPROXIMATELY 1/2 MILE IN ADVANCE OF THE G21-60 SIGN OR THE SP03364 SIGN (WHICHEVER IS APPLICABLE). IF IT IS ANTICIPATED THAT TRAFFIC WILL BACK UP TO WHERE THE SIGN IS LOCATED, PLACE THE SIGN APPROXIMATELY 1/2 MILE PRIOR TO ANTICIPATED BACKUPS. MONITOR BACKUPS, SUCH THAT, FOR FUTURE LANE CLOSURES THE SIGN IS PLACED APPROXIMATELY 1/2 MILE PRIOR TO WHERE TRAFFIC IS ANTICIPATED TO BACK UP.
- 5-DISPLAY CHANGEABLE MESSAGE SIGN (CMS) MESSAGES AS SHOWN OR AS DEEMED NECESSARY BY THE ENGINEER. USE NO MORE THAN 2 MESSAGE DISPLAYS WITH ANY CYCLE UNLESS ADDITIONAL CHANGEABLE MESSAGE SIGNS ARE USED.
- 6-REFER TO STD. 1101.11 SHEETS 1 AND 4 FOR VALUES OF "L" AND SIGN SPACING.
- 7-FOR SPEED LIMITS LESS THAN 55 MPH USE SP03364 SIGN. FOR SPEED LIMITS GREATER THAN OR EQUAL TO 55 MPH USE G21-60 SIGN.

MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED AHEAD	ALL TRAFFIC EXIT

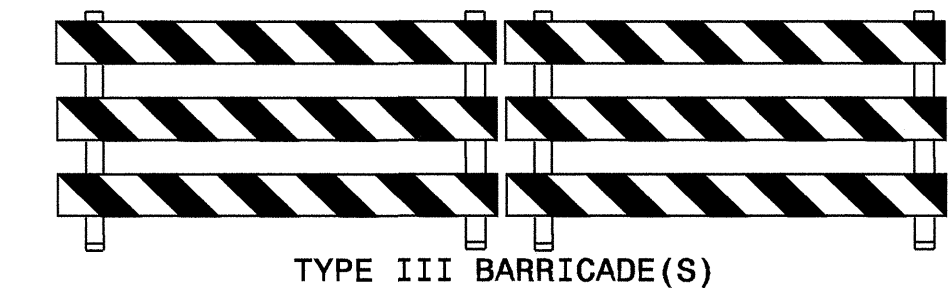
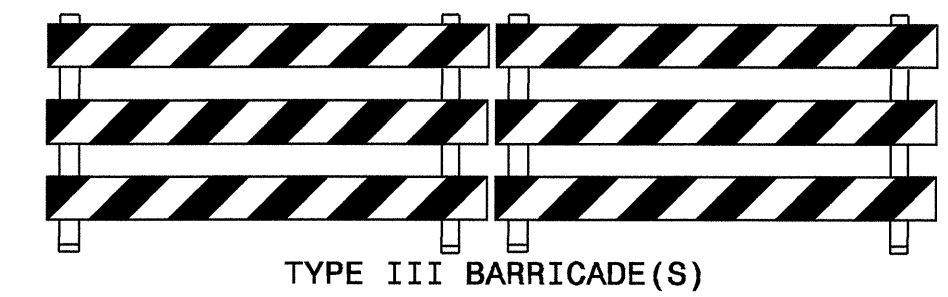
CHANGEABLE MESSAGE SIGN

APPROVED: <i>J.W. Woolard</i> DATE: 10/5/06	<b>TRAFFIC DETOURED VIA INTERCHANGE RAMP DETAIL</b>	
SEAL		
	SCALE: NONE	
	DATE: 10/06	
	DWG. BY: DAH	
	REVIEWED BY: JWW	
		REVISIONS
		CADD FILE

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 dhayes AT WZTC22424



ROAD CLOSED  
R11-2  
48" X 30"



25

30

35

STA. 27+59.20 -YREV-

STA. 30+50.20 -YREV-

LANGTREE RD. (-YREV-)

I-77 (SB)  
TO CHARLOTTE

I-77 (NB)  
TO STATESVILLE

SEE TCP-9A

SEE TCP-9A  
AND TCP-9B

SEE TCP-9A

SEE TCP-9A  
AND TCP-9B

OUTSIDE EDGE OF  
4' PAVED SHOULDER

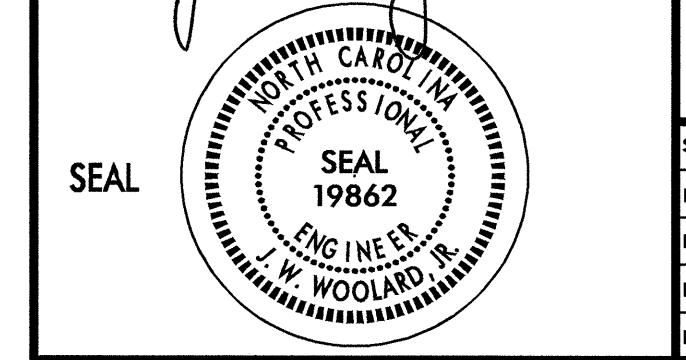
OUTSIDE EDGE OF  
4' PAVED SHOULDER

SEE SHEET TCP-3 FOR TEMPORARY  
PAVEMENT MARKING SCHEDULE

LEGEND

- PROPOSED CONSTRUCTION
- PAVEMENT REMOVAL

APPROVED: *J.W. Woolard* DATE: 10/31/06



INTERCHANGE  
RAMP DETAIL

SCALE: NONE  
DATE: 10/06  
DWG. BY: DAH  
DESIGN BY: DAH  
REVIEWED BY: JWW

REVISIONS	

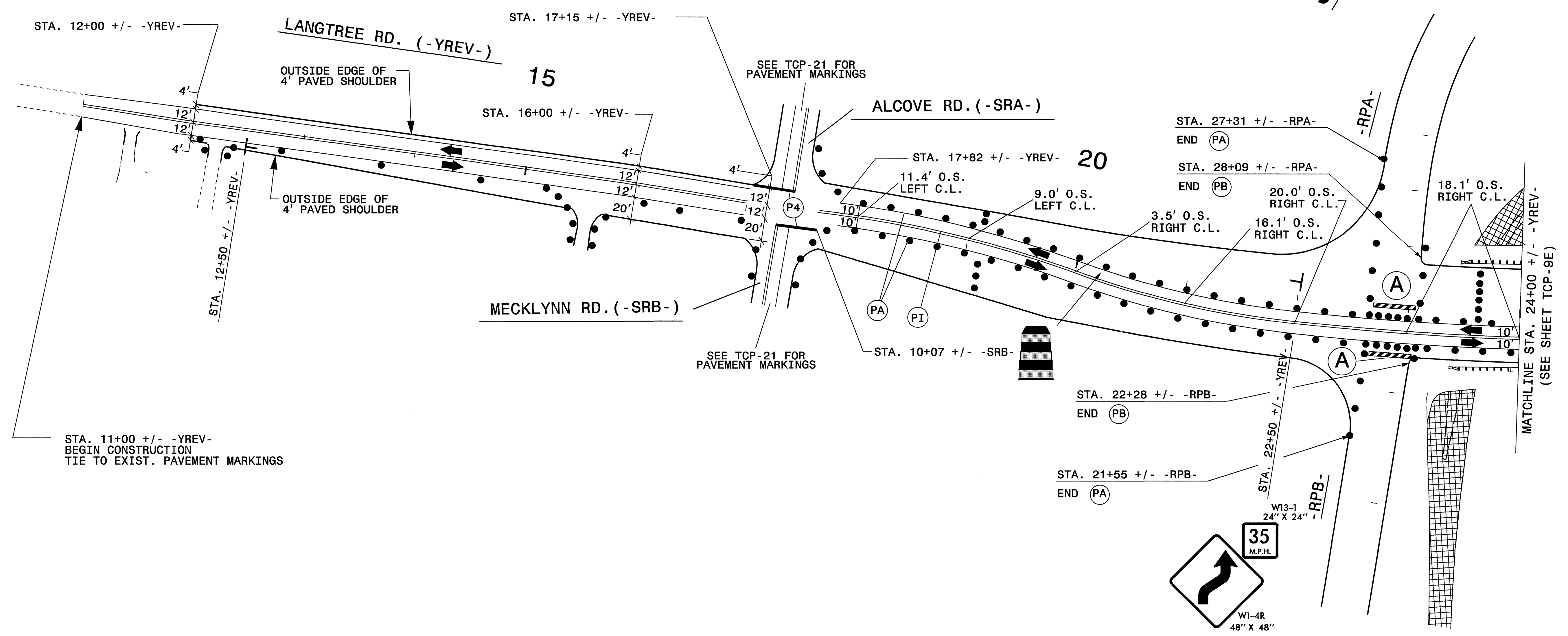
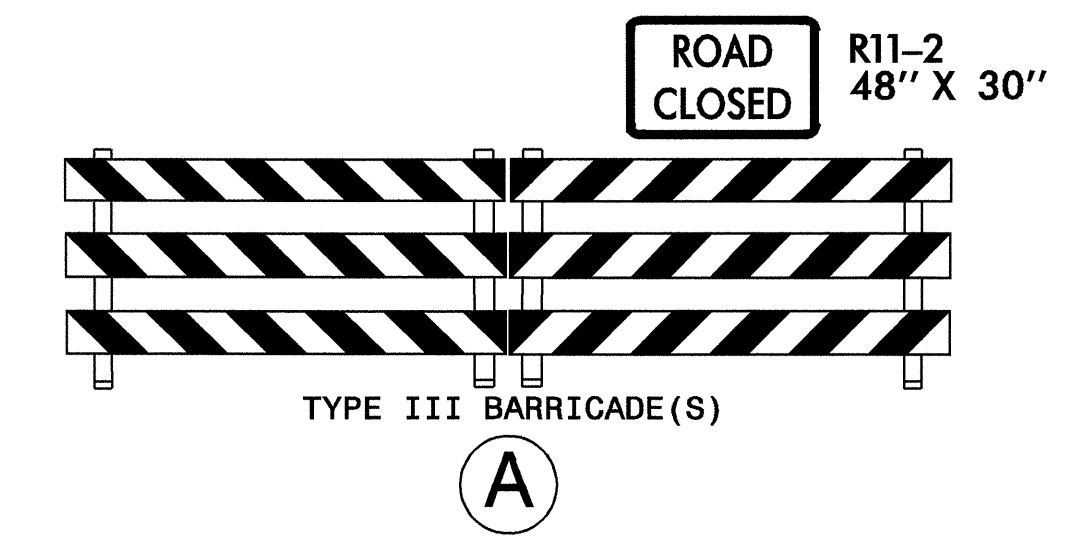
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 dhayes AT WZTC22424



**NOTES**

PLACE TEMPORARY PAINT PAVEMENT MARKINGS, WITH THE EXCEPTION OF THE STOPBARS, IN THE FINAL TRAFFIC PATTERN AS DETAILED ON SHEETS PM-8 AND PM-11 ON ALCOVE RD. (-SRA-) AND MECKLYNN RD. (-SRB). PLACE THE STOPBARS IN ACCORDANCE WITH RSD 1205.04, SHEET 1 OF 2 RESPECTIVE TO THE PHASE II INTERMEDIATE TRAFFIC PATTERN.

DIMENSIONS TO THE 4" WHITE EDGLINES ARE MEASURED FROM THE OUTSIDE EDGE OF THE PROPOSED 4' PAVED SHOULDER

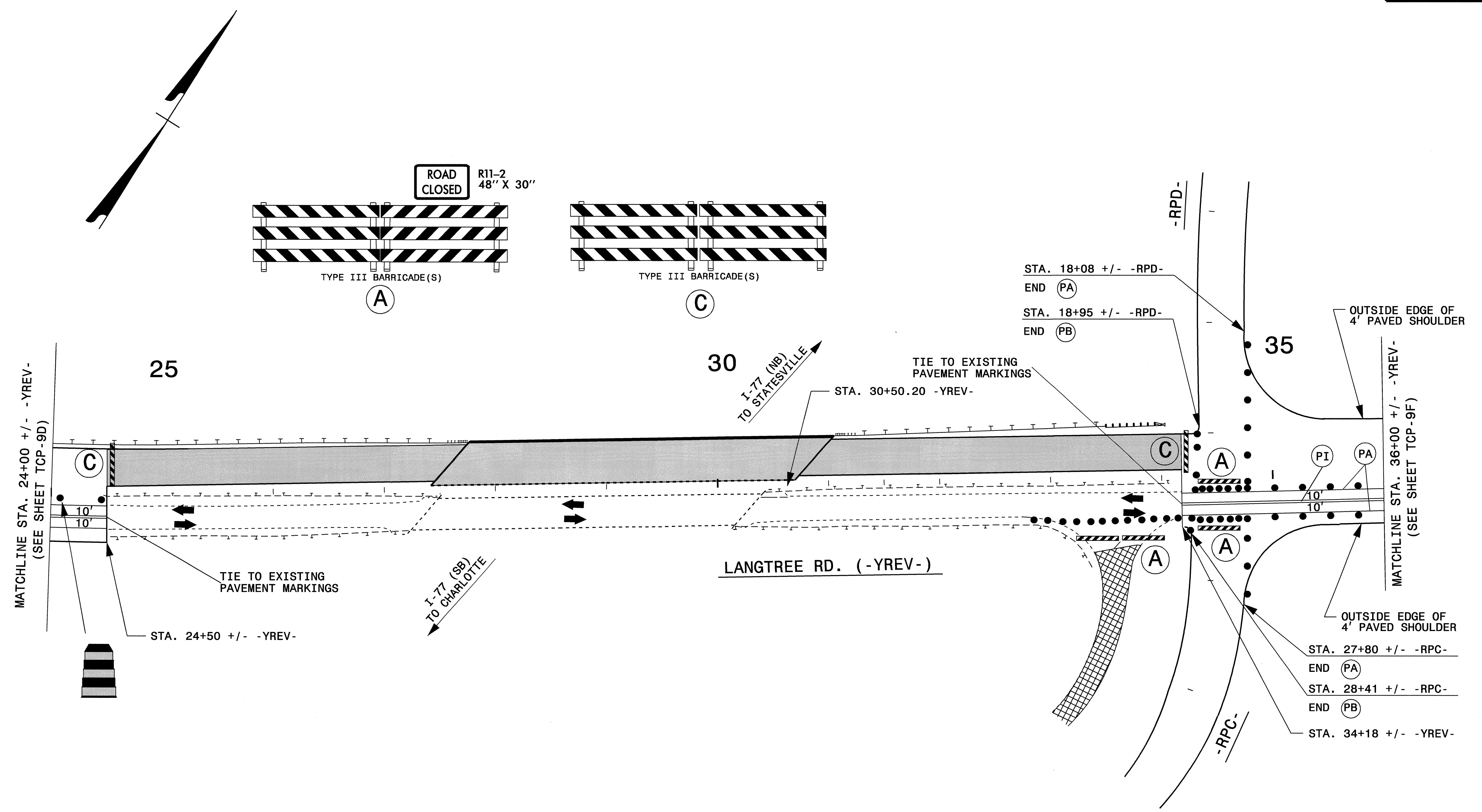


SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE



APPROVED: <i>J.W. Woodard</i> DATE: 10/3/06	<b>PHASE I STEP 5 DETAIL</b>	
	SCALE: NONE	
	DATE: 1006	
	DWG. BY: DAH	
	DESIGN BY: DAH	
REVIEWED BY: JWW	REVISIONS	

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 dhayes AT WZTC22424



MATCHLINE STA. 24+00 +/- -YREV-  
(SEE SHEET TCP-9D)

25

STA. 24+50 +/- -YREV-

TIE TO EXISTING PAVEMENT MARKINGS

I-77 (SB)  
TO CHARLOTTE

30

I-77 (NB)  
TO STATESVILLE

STA. 30+50.20 -YREV-

LANGTREE RD. (-YREV-)

STA. 18+08 +/- -RPD-  
END (PA)  
STA. 18+95 +/- -RPD-  
END (PB)

TIE TO EXISTING PAVEMENT MARKINGS

-RPD-

35

OUTSIDE EDGE OF 4' PAVED SHOULDER

MATCHLINE STA. 36+00 +/- -YREV-  
(SEE SHEET TCP-9F)

OUTSIDE EDGE OF 4' PAVED SHOULDER

STA. 27+80 +/- -RPC-  
END (PA)  
STA. 28+41 +/- -RPC-  
END (PB)  
STA. 34+18 +/- -YREV-

SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

- LEGEND**
- PROPOSED CONSTRUCTION
  - PAVEMENT REMOVAL

APPROVED: *[Signature]* DATE: 10/31/06

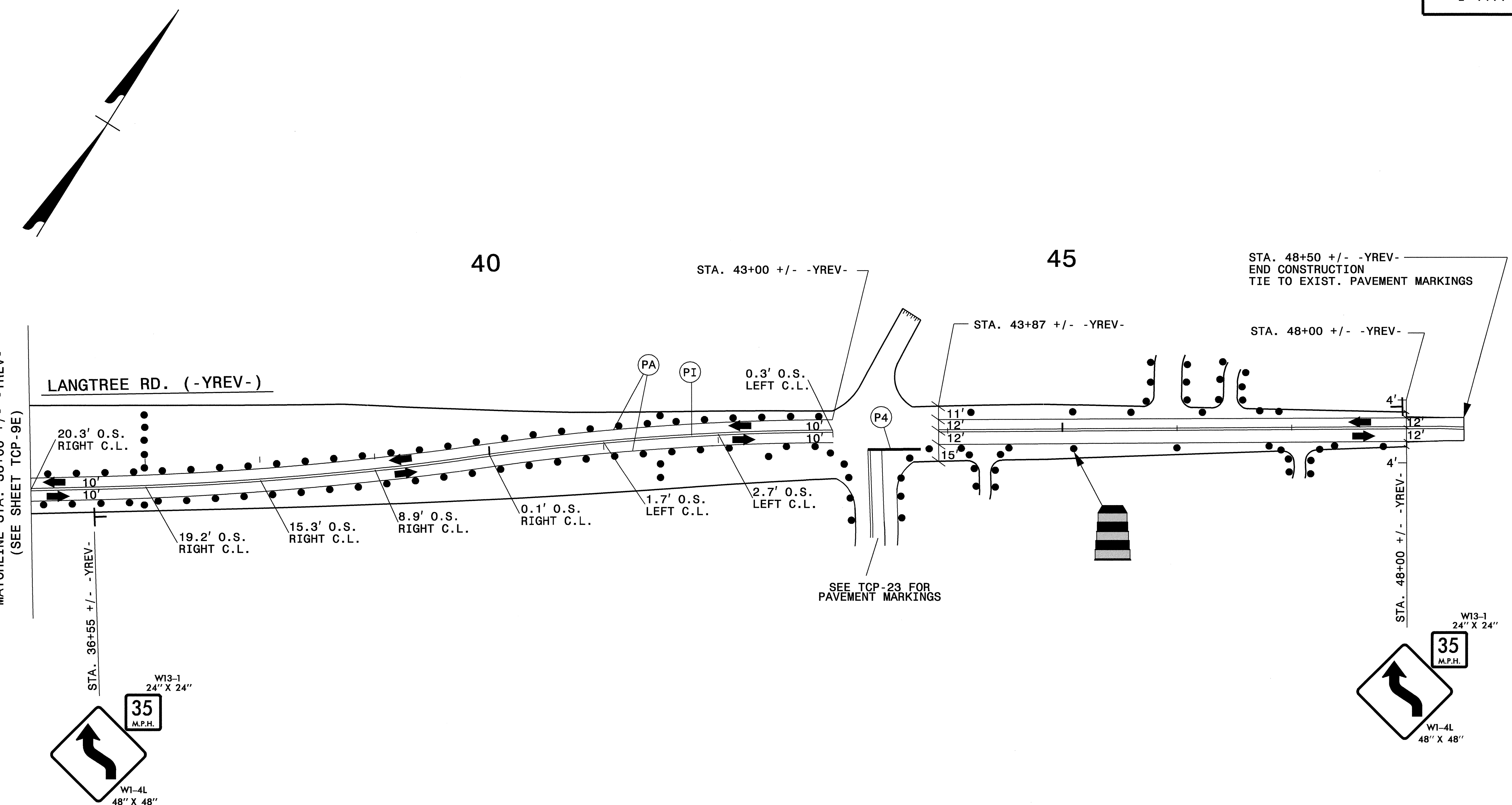
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**PHASE I  
STEP 5 DETAIL**

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DATE: 10/06		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW	CADD FILE	

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**NOTES**

PLACE TEMPORARY PAINT PAVEMENT MARKINGS, WITH THE EXCEPTION OF THE STOPBARS, IN THE FINAL TRAFFIC PATTERN AS DETAILED ON SHEETS PM-10 ON SR 1104 (-SRC). PLACE THE STOPBARS IN ACCORDANCE WITH RSD 1205.04, SHEET 1 OF 2 RESPECTIVE TO THE PHASE II INTERMEDIATE TRAFFIC PATTERN.

DIMENSIONS TO THE 4" WHITE EDGELINES ARE MEASURED FROM THE OUTSIDE EDGE OF THE PROPOSED 4' PAVED SHOULDER

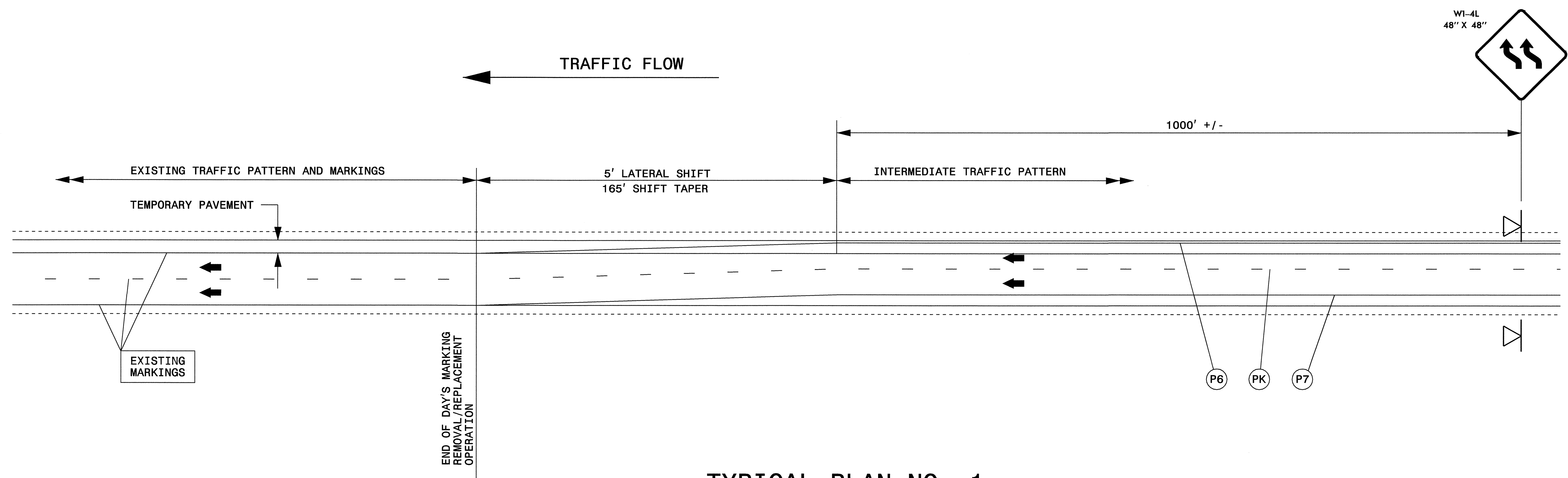
SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

APPROVED: <i>J.W. Woodard</i> DATE: 10/31/06	<b>PHASE I STEP 5 DETAIL</b>	
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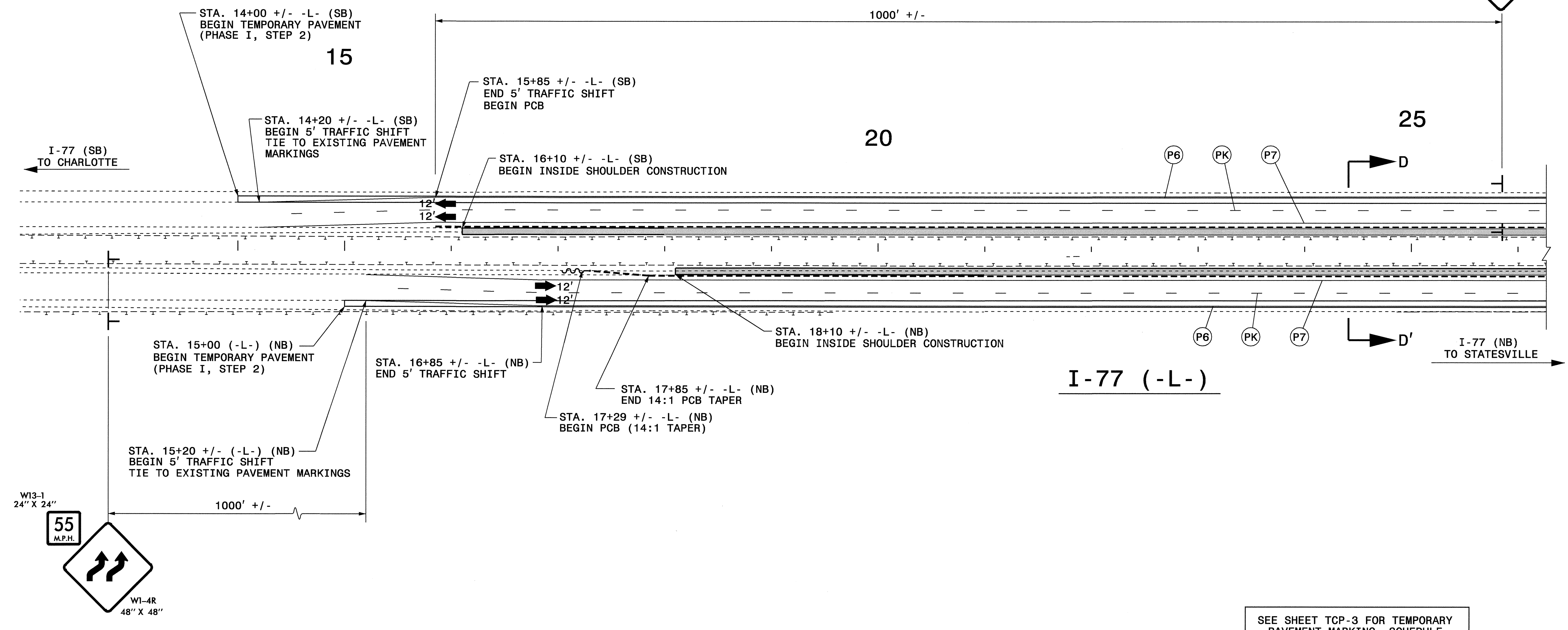
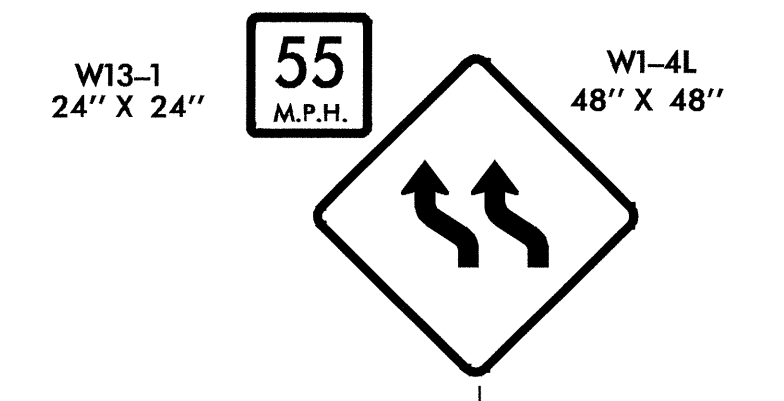
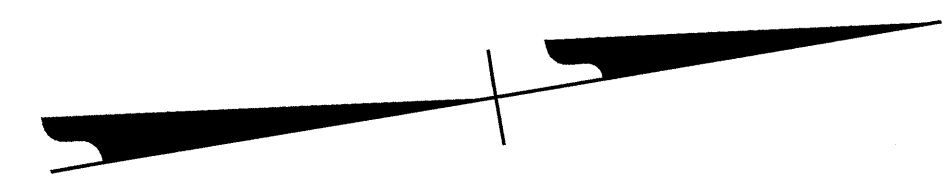
### TYPICAL PLAN NO. 1

TRANSITIONING TEMPORARY MARKINGS/MARKERS  
BACK INTO THE EXISTING PATTERN AT THE CONCLUSION OF THE WORK PERIOD  
(RELATIVE TO TRAFFIC FLOW)

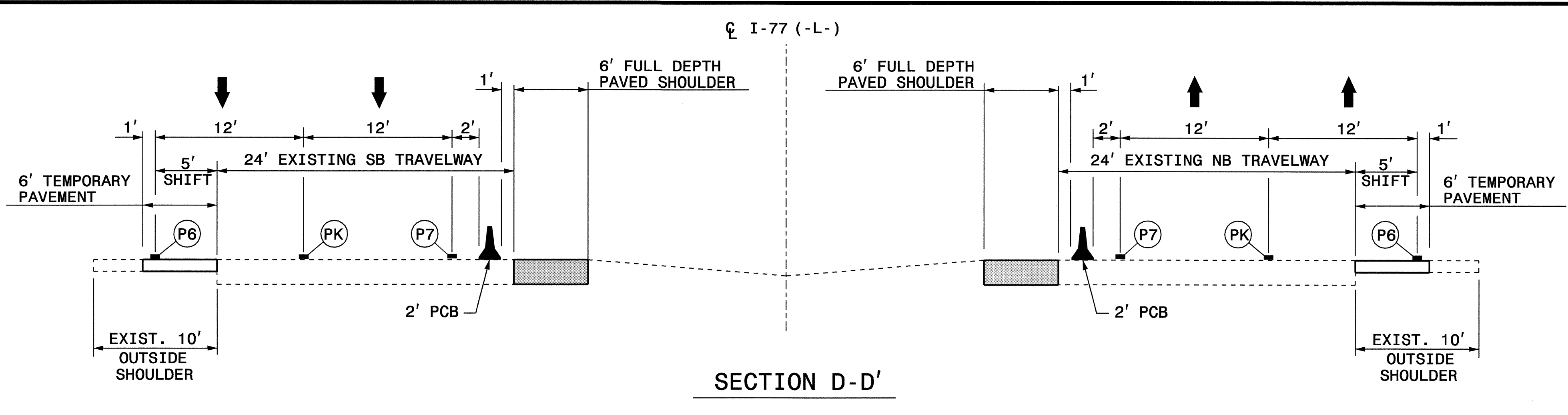
SEE SHEET TCP-3 FOR TEMPORARY  
PAVEMENT MARKING SCHEDULE

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APPROVED: <i>J.W. Woodard</i>	DATE: 10/31/06	<b>PHASE I, STEP 7 DETAIL (PAVEMENT MARKING TRANSITION)</b>	
SCALE: NONE	DATE: 10/06		REVISIONS
DWG. BY: DAH	DESIGN BY: DAH		
REVIEWED BY: JWW			



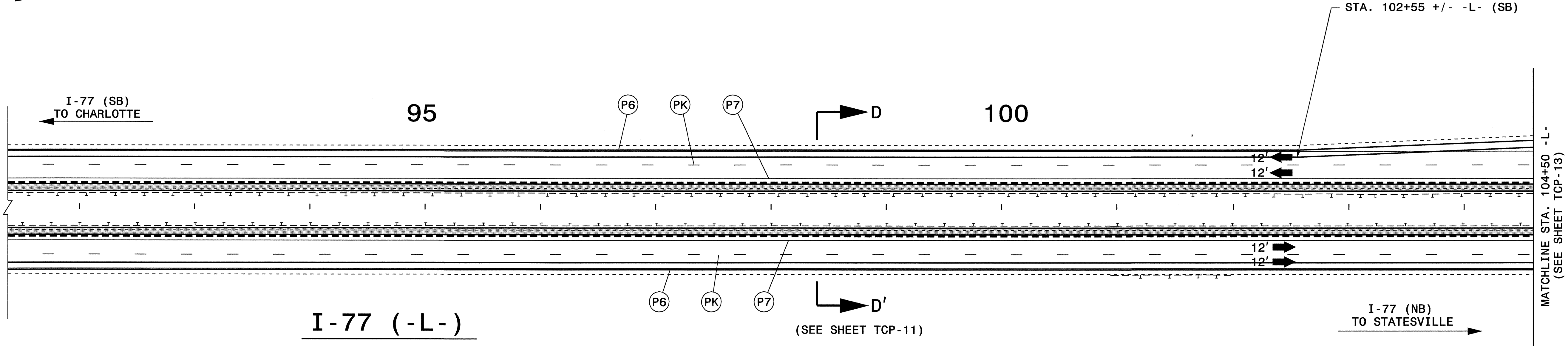
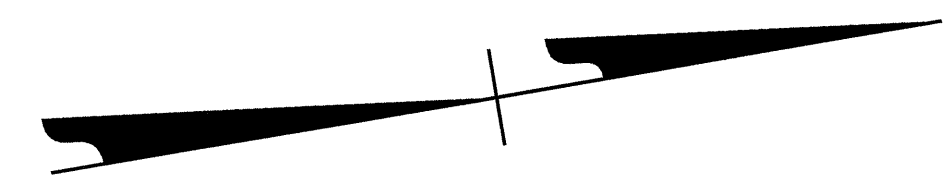
SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE



APPROVED: <i>J.W. Woolard</i>	DATE: 10/31/06	<b>PHASE I, STEPS 8 THROUGH 9 DETAIL (INSIDE SHOULDER CONSTRUCTION)</b>		
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	DESIGN BY: DAH	REVIEWED BY: JWW		

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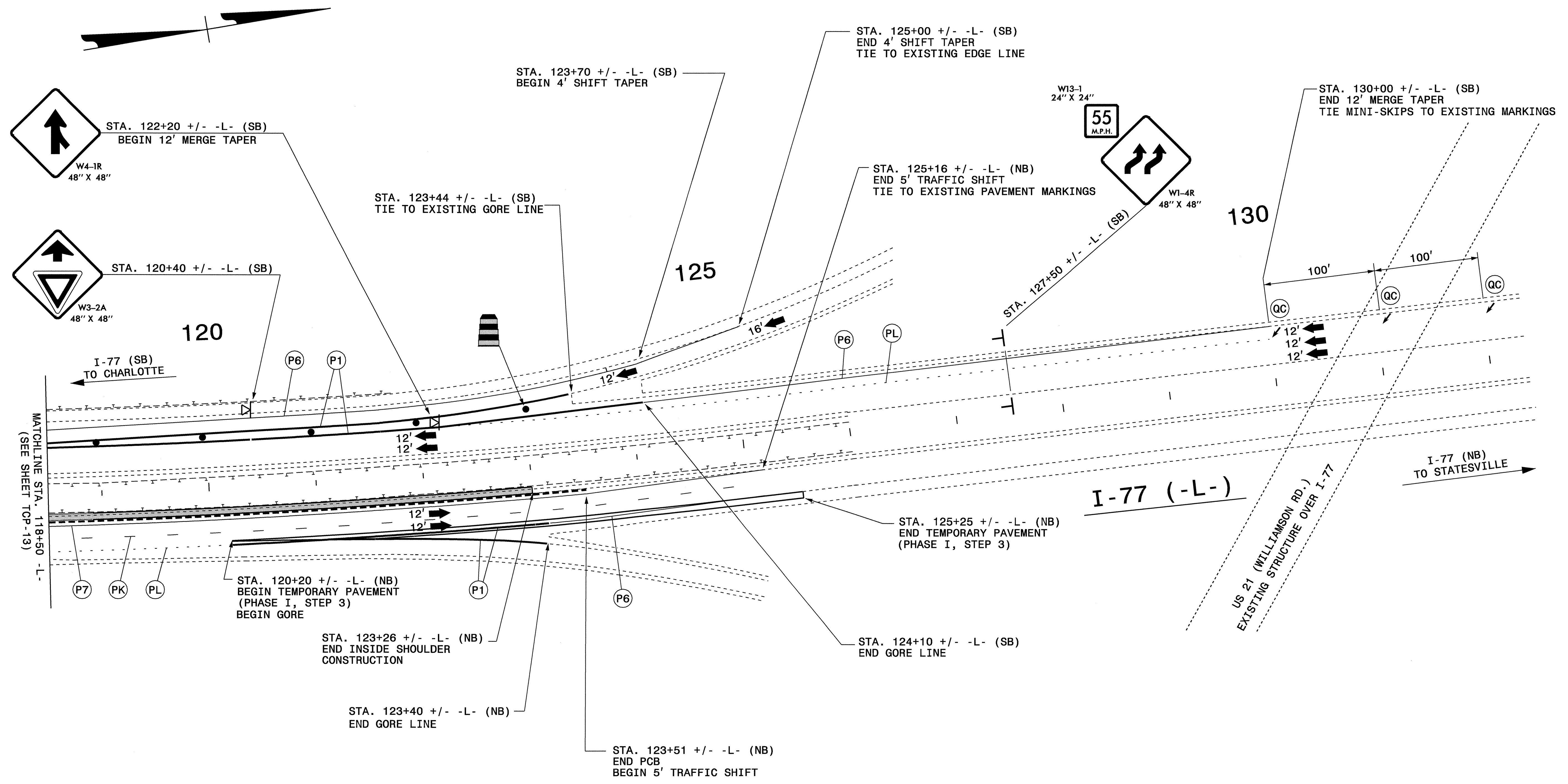
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APPROVED: <i>J. W. Woolard</i> DATE: 10/31/06	<b>PHASE I,          STEPS 8 THROUGH 9 DETAIL          (INSIDE SHOULDER CONSTRUCTION)</b>	
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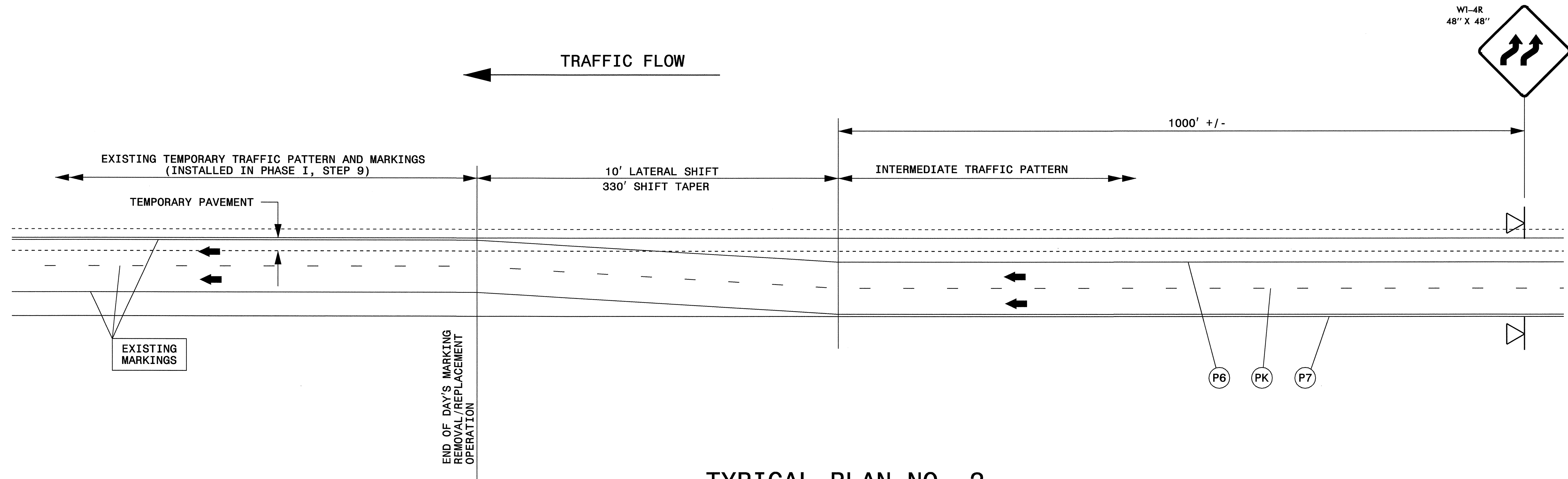




SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

APPROVED: <i>J.W. Woolard</i>	DATE: 10/31/06	<b>PHASE I, STEPS 8 THROUGH 9 DETAIL (INSIDE SHOULDER CONSTRUCTION)</b>	
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**TYPICAL PLAN NO. 2**

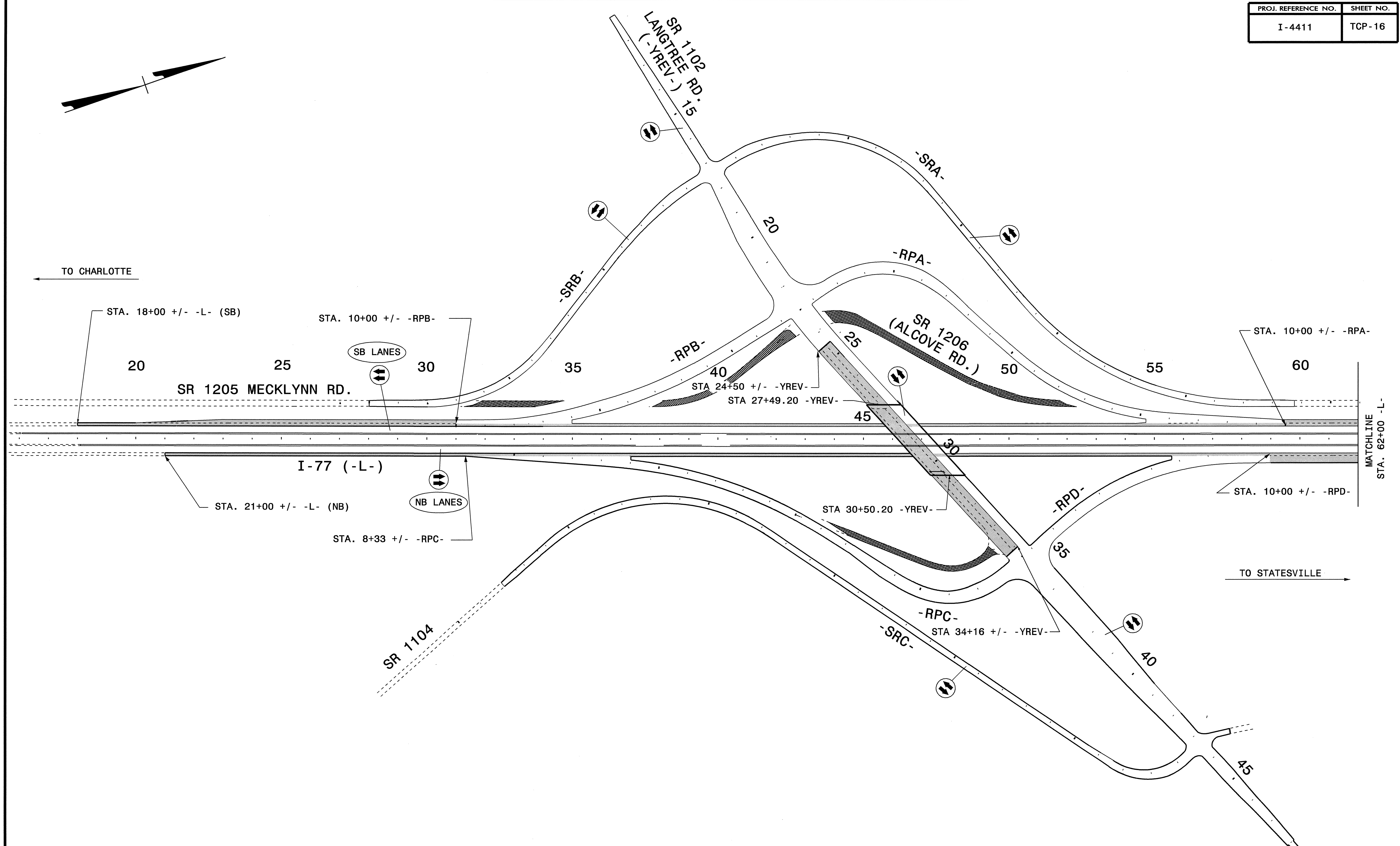
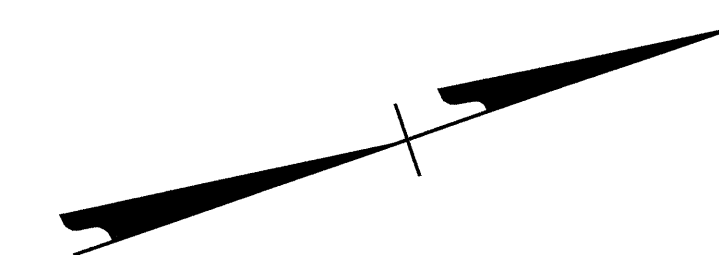
TRANSITIONING TEMPORARY MARKINGS/MARKERS  
 BACK INTO THE EXISTING PATTERN AT THE CONCLUSION OF THE WORK PERIOD  
 (RELATIVE TO TRAFFIC FLOW)

SEE SHEET TCP-3 FOR TEMPORARY  
 PAVEMENT MARKING SCHEDULE

APPROVED: <i>[Signature]</i>	DATE: 10/21/06	<b>PHASE I, STEP 10 DETAIL          (PAVEMENT MARKING TRANSITION)</b>											
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	DATE: 10/06	<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS							
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DWG. BY: DAH	<table border="1"> <tr> <td>CADD FILE</td> </tr> </table>		CADD FILE										
CADD FILE													
DESIGN BY: DAH													
REVIEWED BY: JWW													

30-OCT-2006 14:51 NSP:co\TIPProjects\14411\traffic\trafficcontrol\tcp\i-4411\_tc\_new\_phase 1 details.dgn  
 d:\dfs\3001\atw\1222424





TO CHARLOTTE

TO STATESVILLE

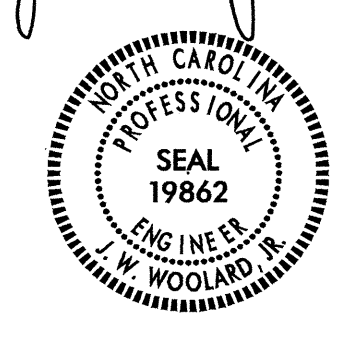
MATCHLINE  
STA. 62+00 -L-

30-OCT-2006 14:54  
\\dot\adferoot\NSPProj\TIPProjects\14411\Traffic\TrafficControl\top\1-411.tc\_new\_phase ii details.dgn  
ahayes AT WZTC22424

**LEGEND**

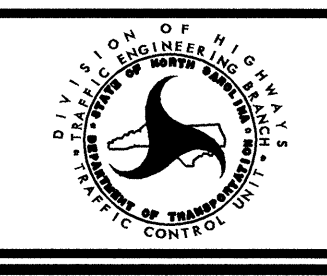
	PROPOSED CONSTRUCTION
	PAVEMENT REMOVAL

APPROVED: *J.W. Woolard* DATE: 10/31/06

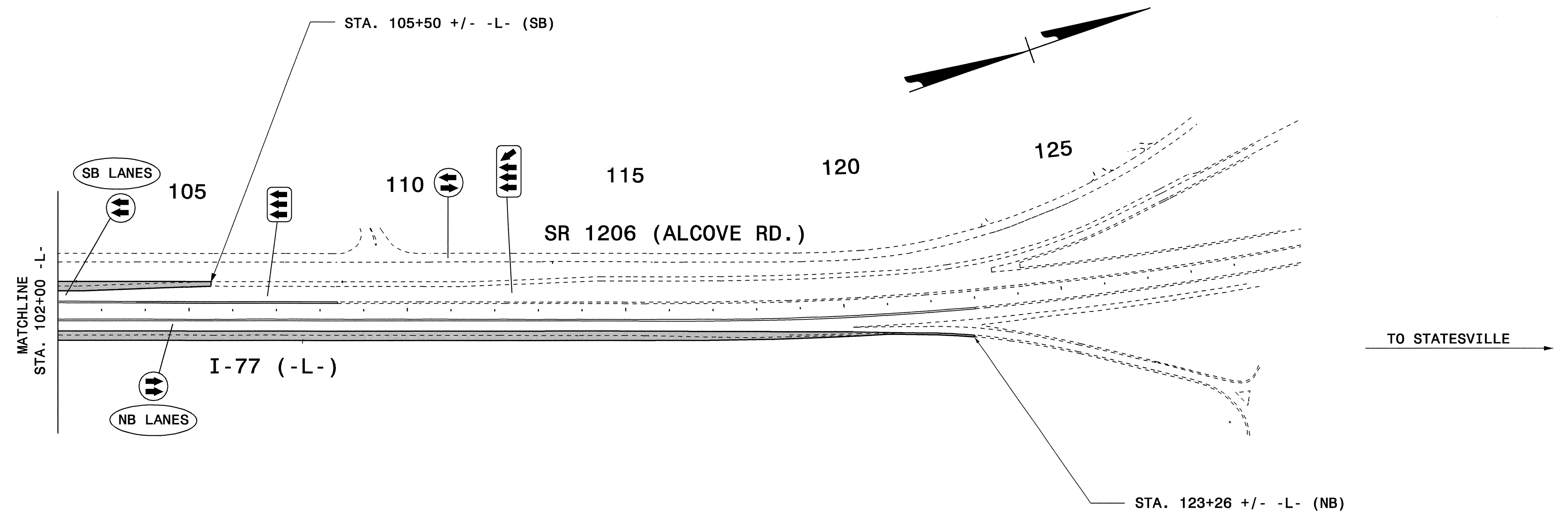
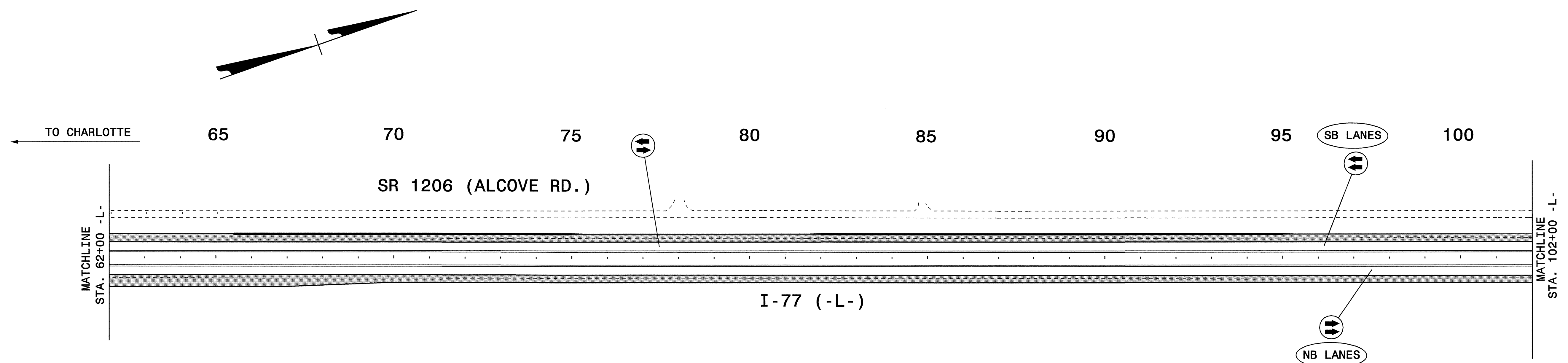


**PHASE II OVERVIEW**

SCALE: NONE  
DATE: 10/06  
DWG. BY: DAH  
DESIGN BY: DAH  
REVIEWED BY: JWW



REVISIONS	



**LEGEND**

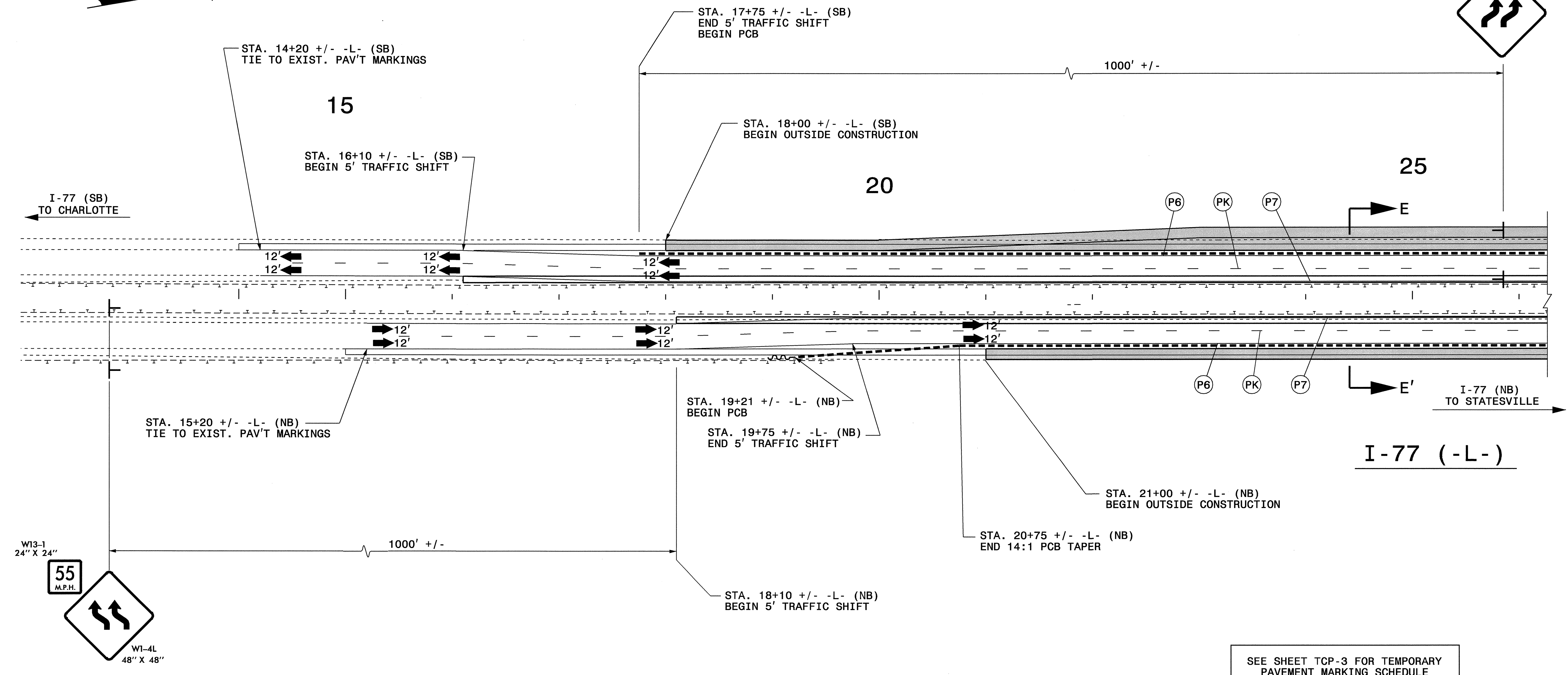
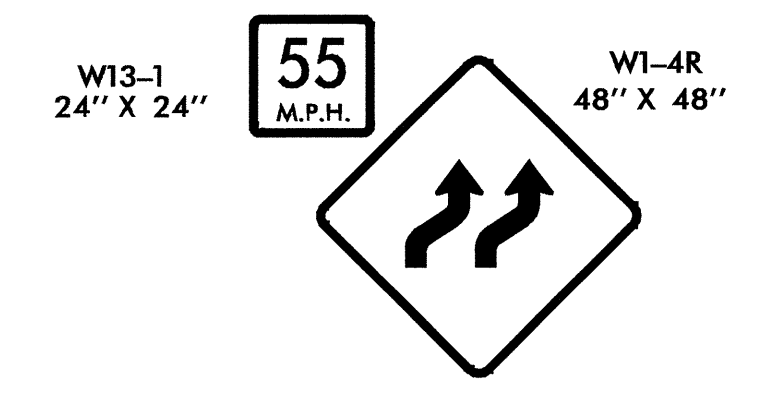
	PROPOSED CONSTRUCTION
	ON-GOING CONSTRUCTION
	PAVEMENT REMOVAL

APPROVED: \_\_\_\_\_ DATE: 2/10/05

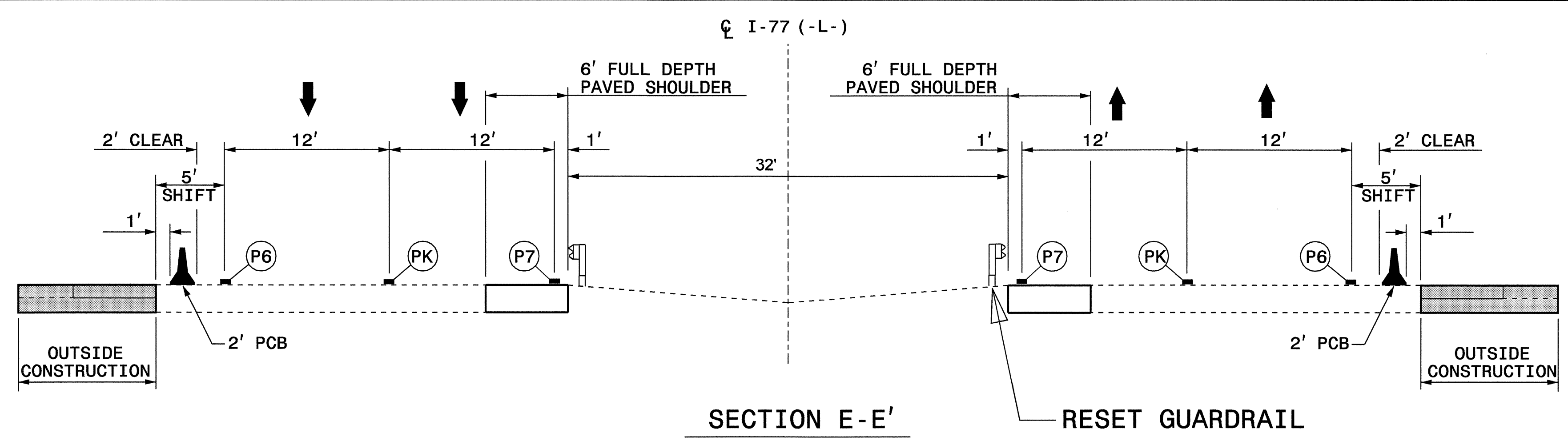
<b>PHASE II OVERVIEW</b>	
SCALE: NONE	REVISIONS
DATE: 9/04	
DWG. BY: DAP	
DESIGN BY: DAP	
REVIEWED BY: JWW	

I:\0-FEB-2005 lit26  
 \e\ts-cc\ts01\4411\TCP\1-4411\_TC-Phase II\Detail.dgn  
 ddparker AT 11:11:26 AM 2/10/05



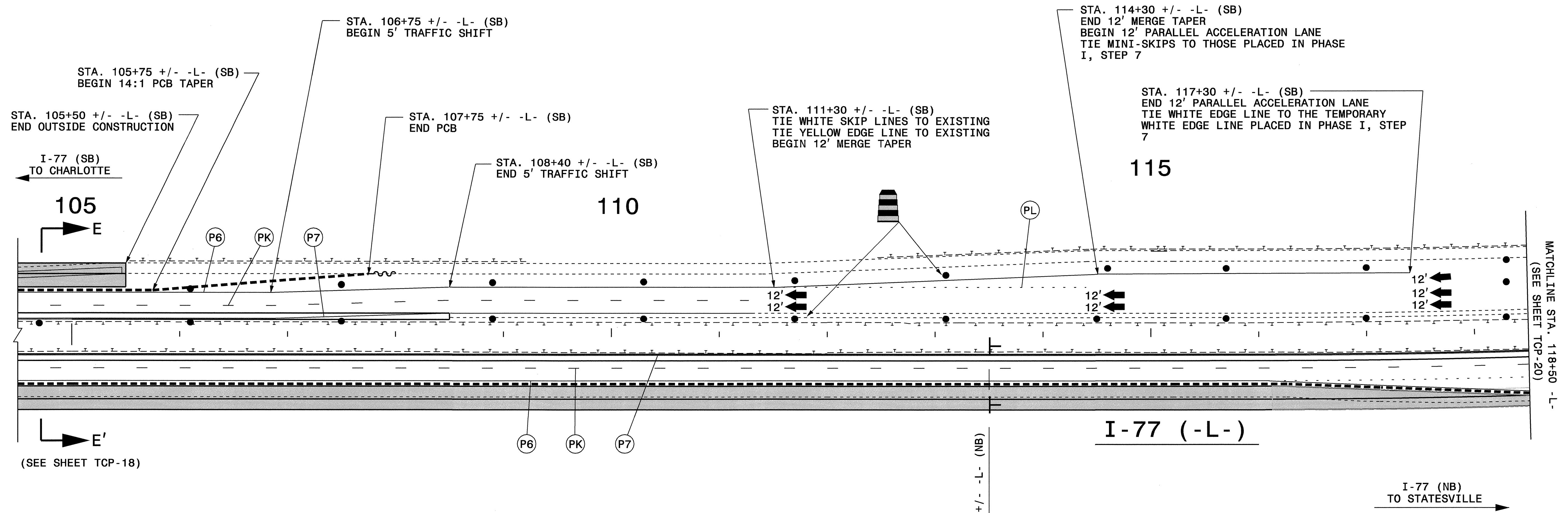
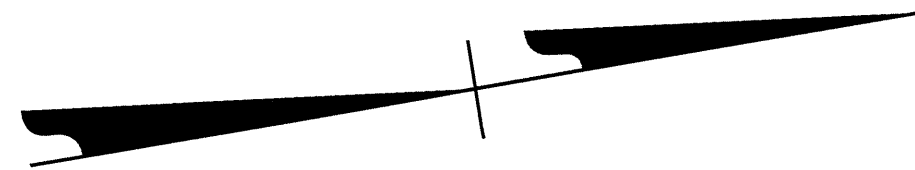


SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

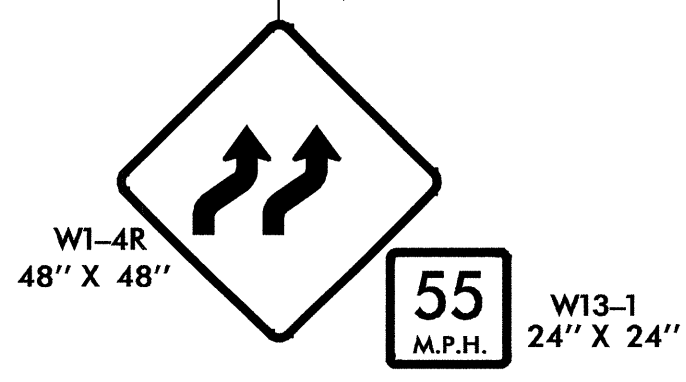


APPROVED: <i>J.W. Woolard</i> DATE: 10/31/06	<b>PHASE II, STEP 3 DETAIL (OUTSIDE SHOULDER CONSTRUCTION)</b>									
SCALE: NONE	DATE: 10/06	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS							
REVISIONS										
DWG. BY: DAH	DESIGN BY: DAH									
REVIEWED BY: JWW										

30-001-2006 14454  
 \\dot\dfs\0010\NSP\Proj\TIPProjects-1\4411\trafficcontrol\Top\I-4411.tc.new\_phase ii details.dgn  
 ahays AT WZTC22424



SEE SHEET TCP-3 FOR TEMPORARY  
PAVEMENT MARKING SCHEDULE



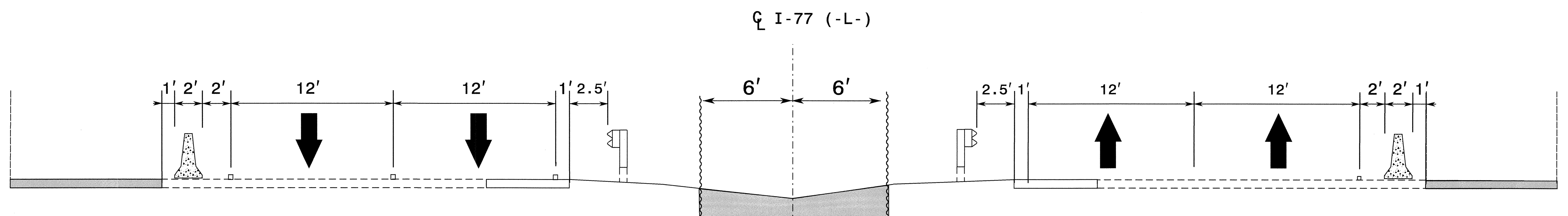
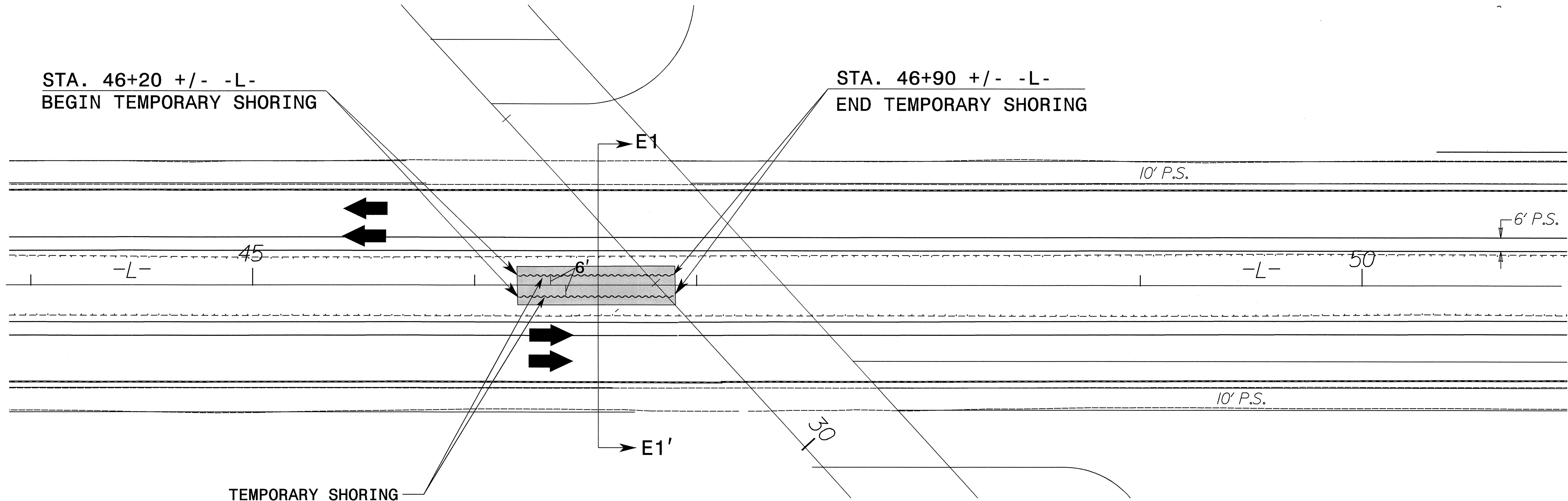
30-OCT-2006 14:55  
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 chaves AT WZTC22424

APPROVED: <i>J.W. Woolard</i> DATE: 10/31/06	<b>PHASE II, STEP 3 DETAIL (OUTSIDE SHOULDER CONSTRUCTION)</b>	
SCALE: NONE		REVISIONS
DATE: 10/06		
DWG. BY: DAH		
DESIGN BY: DAH		
REVIEWED BY: JWW		CADD FILE





UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma = 120$  pcf  
 UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma' = 60$  pcf  
 FRICTION ANGLE,  $\phi = 30^\circ$   
 COHESION,  $c = 0$  psf



SECTION E1 - E1'

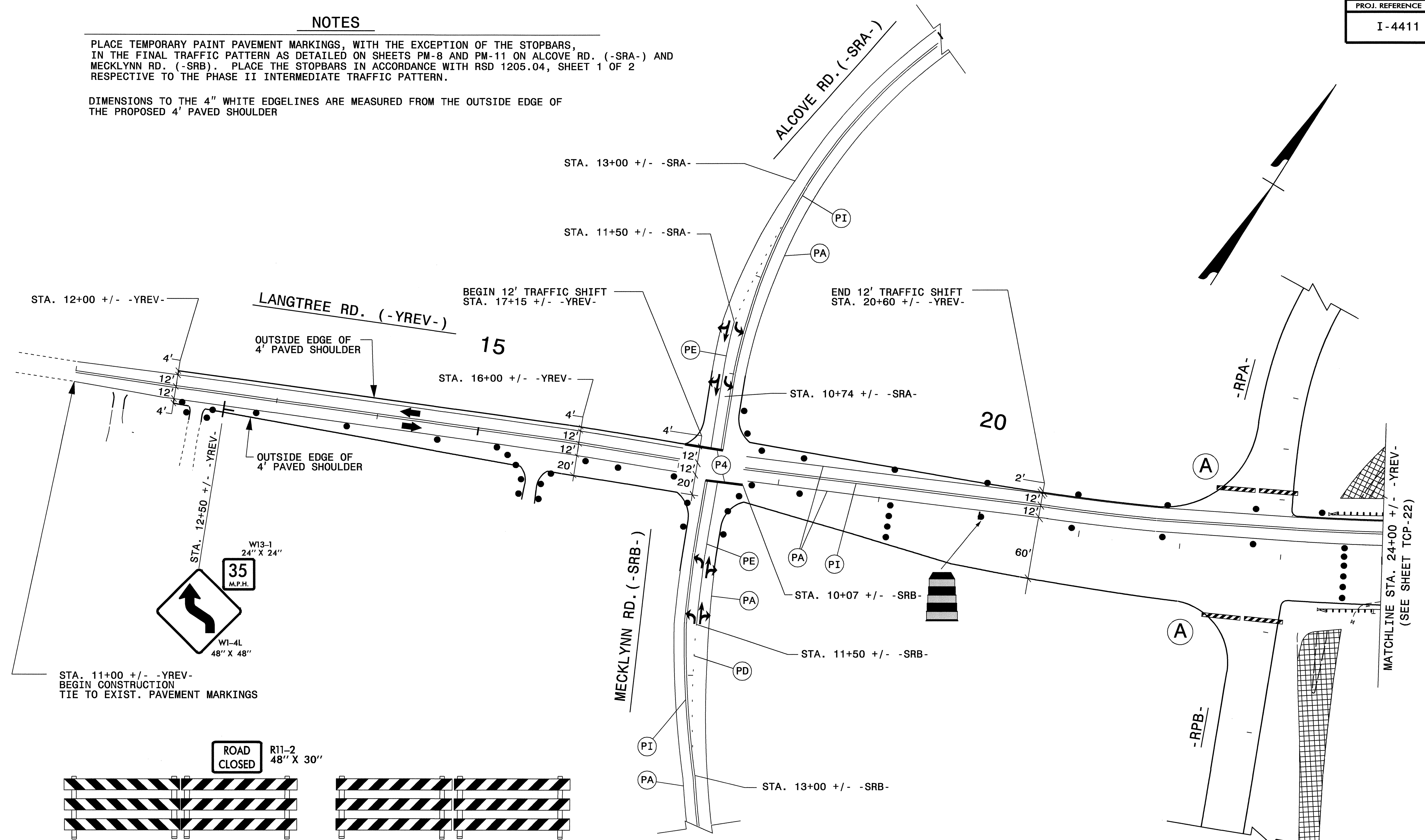
APPROVED: <i>J.W. Woolard</i> DATE: 1/3/07	<b>PHASE II, STEP 5</b>	
	SCALE: NONE	
	DATE: 03/06	
	DWG. BY: JWW	
	DESIGN BY: JWW	
REVIEWED BY: JWW	REVISIONS	

02-JAN-2007 15:53  
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 ahayes

**NOTES**

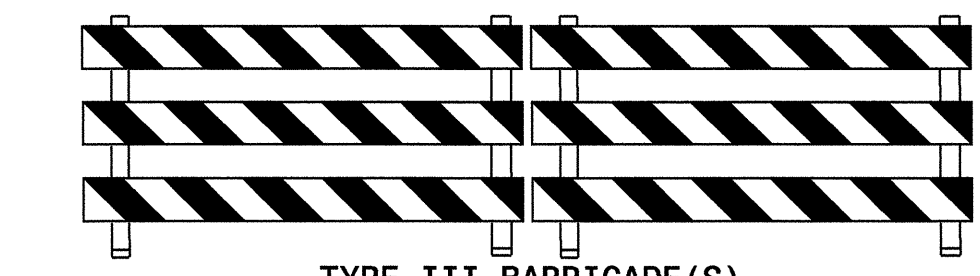
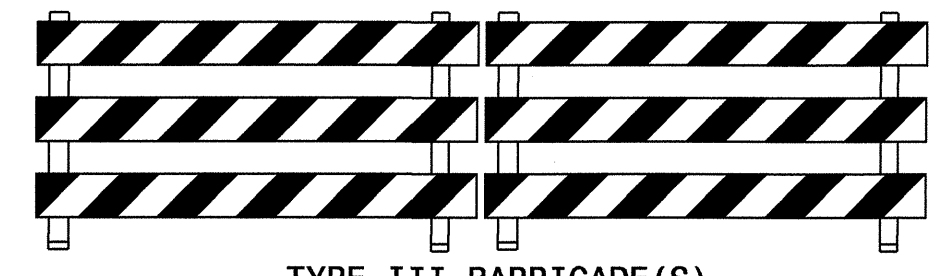
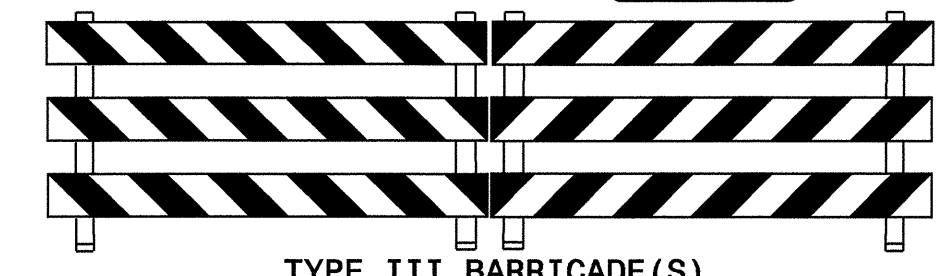
PLACE TEMPORARY PAINT PAVEMENT MARKINGS, WITH THE EXCEPTION OF THE STOPBARS, IN THE FINAL TRAFFIC PATTERN AS DETAILED ON SHEETS PM-8 AND PM-11 ON ALCOVE RD. (-SRA-) AND MECKLYNN RD. (-SRB). PLACE THE STOPBARS IN ACCORDANCE WITH RSD 1205.04, SHEET 1 OF 2 RESPECTIVE TO THE PHASE II INTERMEDIATE TRAFFIC PATTERN.

DIMENSIONS TO THE 4" WHITE EDGELINES ARE MEASURED FROM THE OUTSIDE EDGE OF THE PROPOSED 4' PAVED SHOULDER



STA. 11+00 +/- -YREV-  
BEGIN CONSTRUCTION  
TIE TO EXIST. PAVEMENT MARKINGS

ROAD CLOSED R11-2  
48" X 30"



SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

**LEGEND**

	PROPOSED CONSTRUCTION
	PAVEMENT REMOVAL

APPROVED: *W. Woodard* DATE: 10/31/06

SEAL

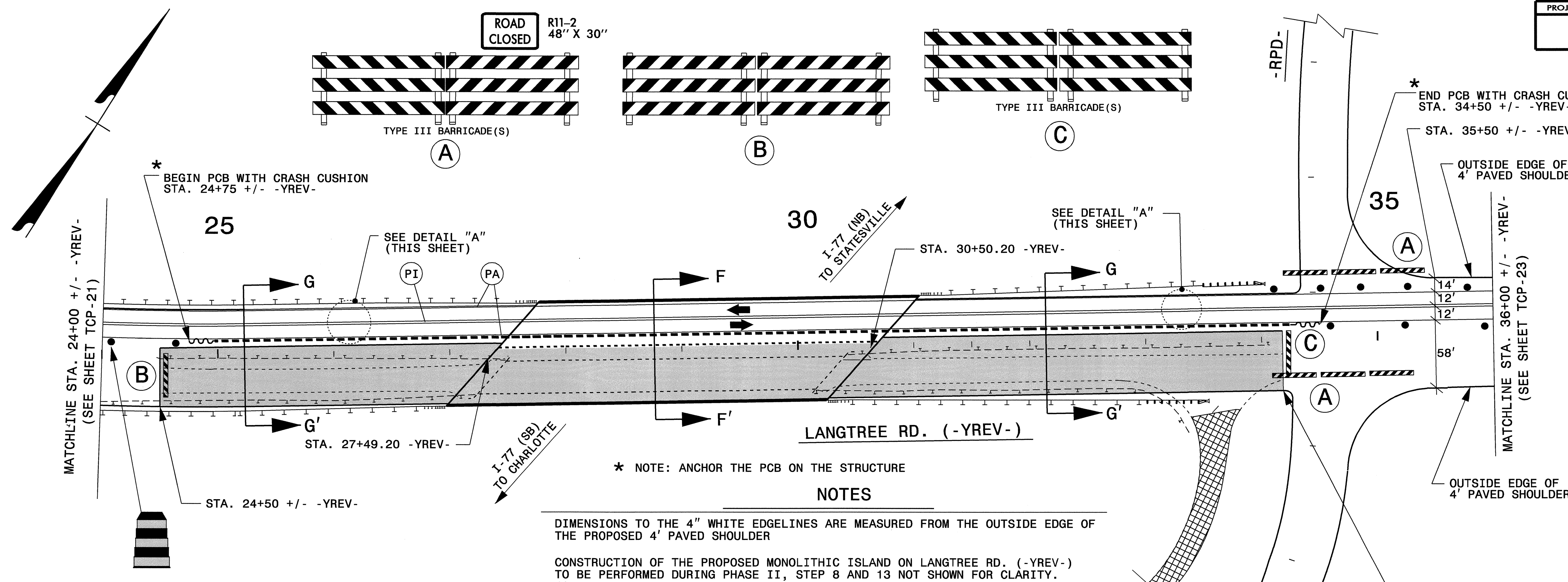
**PHASE II  
STEPS 5 & 7 DETAIL**

SCALE:	NONE
DATE:	10/06
DWG. BY:	DAH
DESIGN BY:	DAH
REVIEWED BY:	JWW

REVISIONS

CADD FILE

30-OCT-2006 14:55 \\dot\dfs\root\0\NSP\o\TIPProjects\14411\trafficcontrol\tcp\1-4411.tc.new\_phase ii details.dgn ahayes AT WTC22424

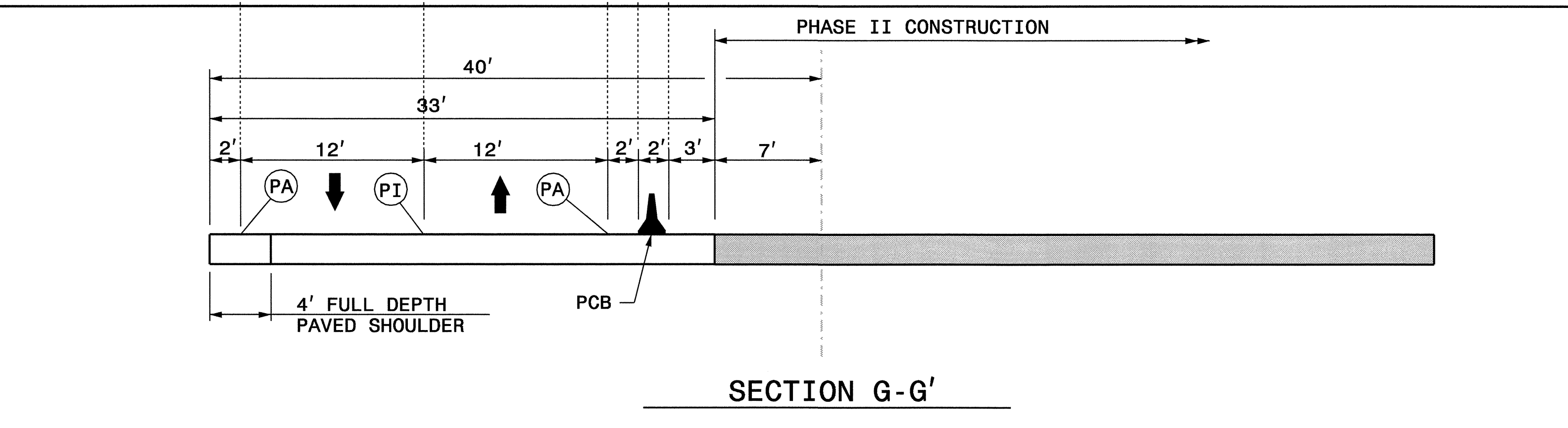
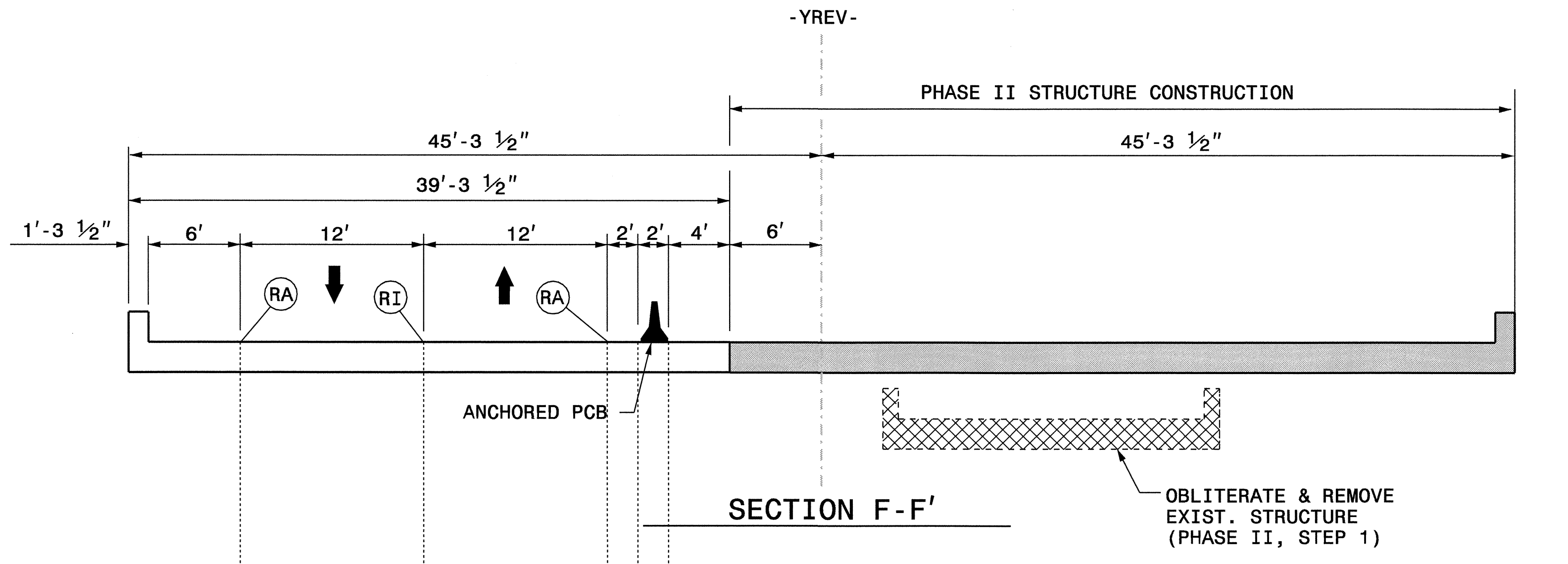


**NOTES**

\* NOTE: ANCHOR THE PCB ON THE STRUCTURE

DIMENSIONS TO THE 4" WHITE EDGELINES ARE MEASURED FROM THE OUTSIDE EDGE OF THE PROPOSED 4' PAVED SHOULDER

CONSTRUCTION OF THE PROPOSED MONOLITHIC ISLAND ON LANGTREE RD. (-YREV-) TO BE PERFORMED DURING PHASE II, STEP 8 AND 13 NOT SHOWN FOR CLARITY. (SEE PROJECT PHASING, SHEET TCP-5 AND TCP-6.)

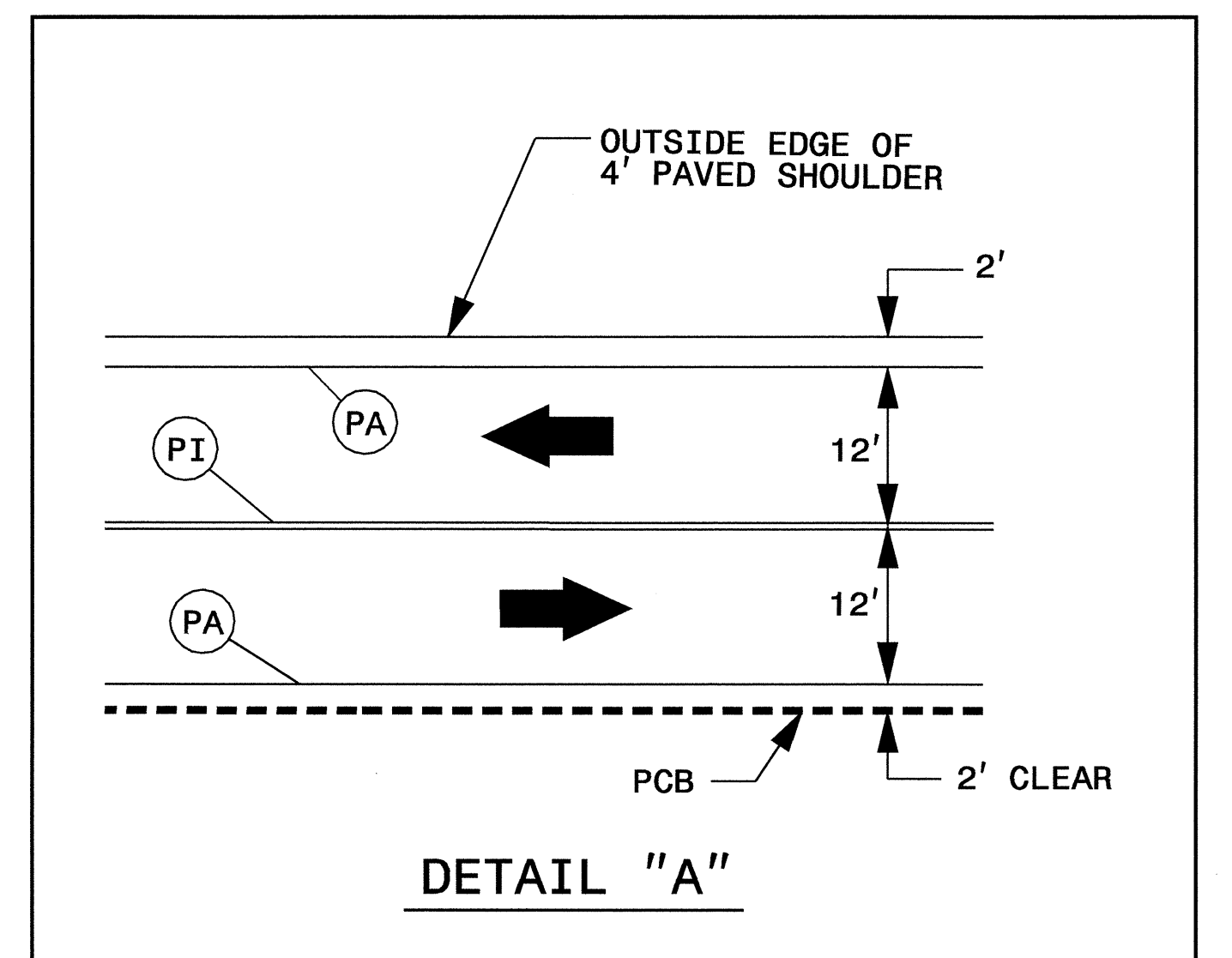


SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

**LEGEND**

PROPOSED CONSTRUCTION

PAVEMENT REMOVAL



APPROVED: *J.W. WOODARD* DATE: 10/31/06

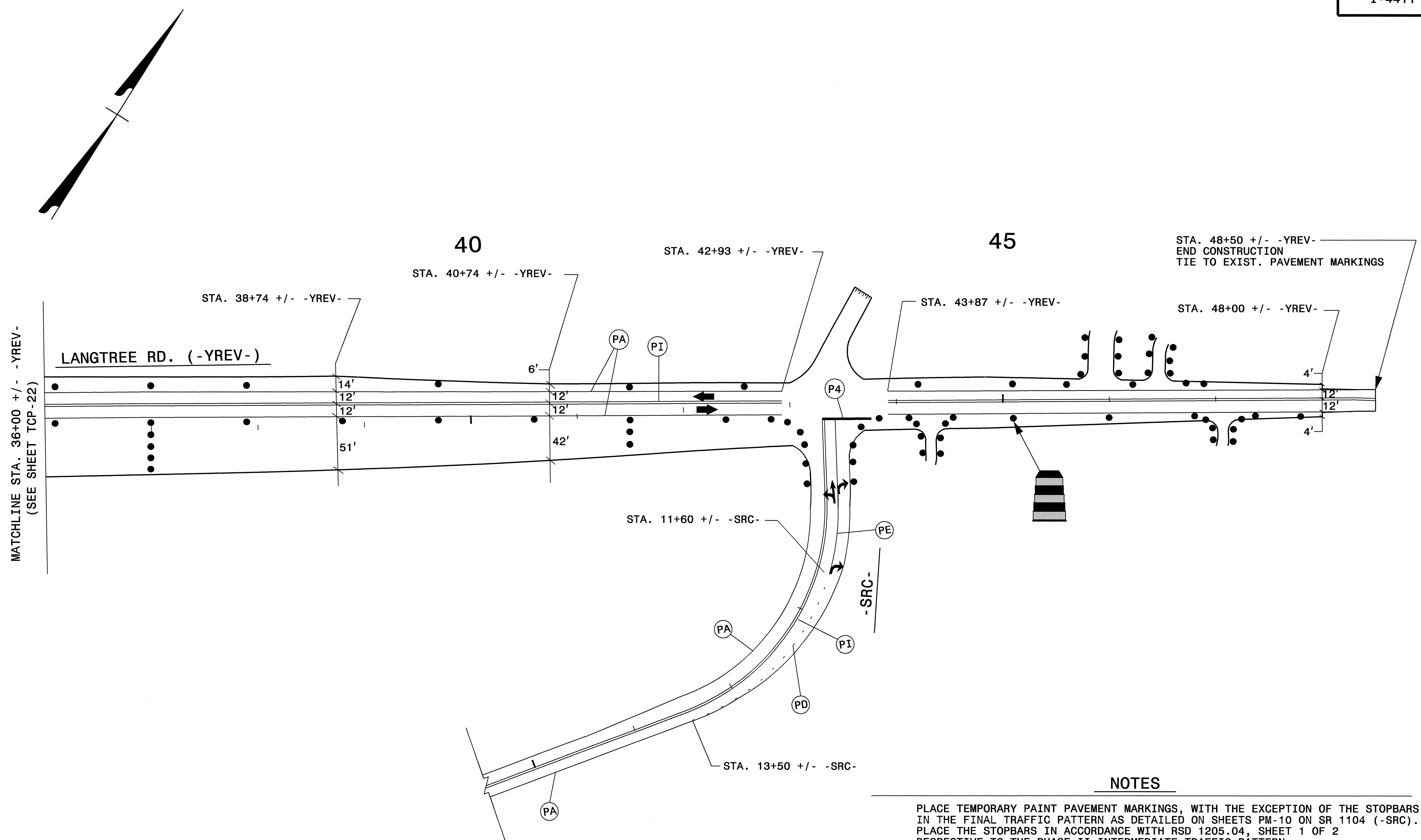
SEAL:

**PHASE II STEPS 5 & 7 DETAIL**

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REVISIONS											
DATE:	1006										
DWG. BY:	DAH										
DESIGN BY:	DAH										
REVIEWED BY:	JWW	CADD FILE									

30-OCT-2006 14:56 \\dot\dfsroot\NSPProj\TIPProjects\1441\Traffic\TrafficControl\top\1-411-tc-new\_phase II details.dgn





**NOTES**

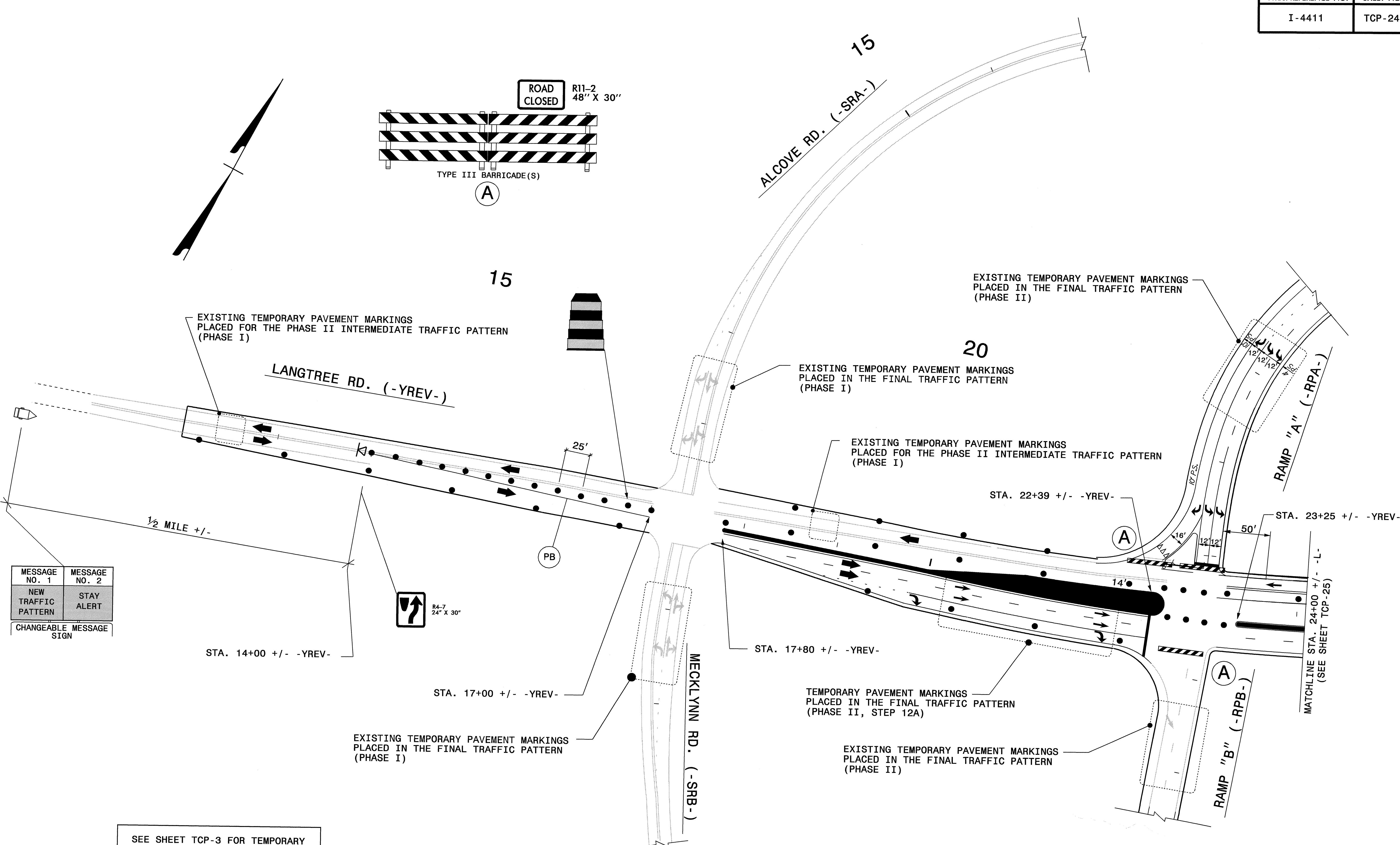
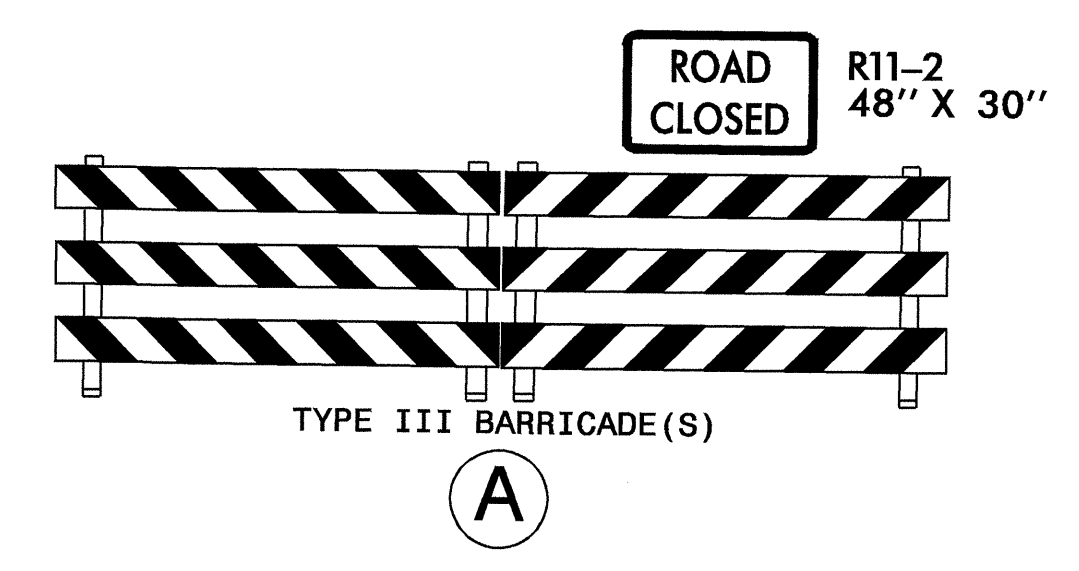
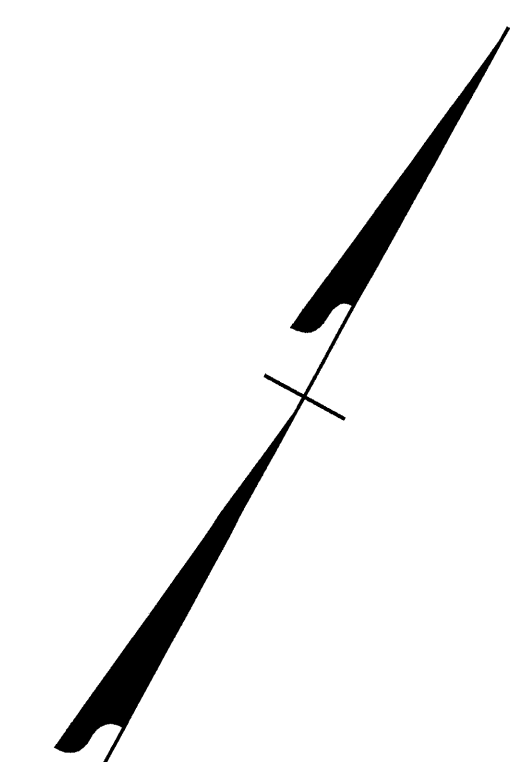
PLACE TEMPORARY PAINT PAVEMENT MARKINGS, WITH THE EXCEPTION OF THE STOPBARS, IN THE FINAL TRAFFIC PATTERN AS DETAILED ON SHEETS PM-10 ON SR 1104 (-SRC). PLACE THE STOPBARS IN ACCORDANCE WITH RSD 1205.04, SHEET 1 OF 2 RESPECTIVE TO THE PHASE II INTERMEDIATE TRAFFIC PATTERN.

DIMENSIONS TO THE 4" WHITE EDGELINES ARE MEASURED FROM THE OUTSIDE EDGE OF THE PROPOSED 4' PAVED SHOULDER

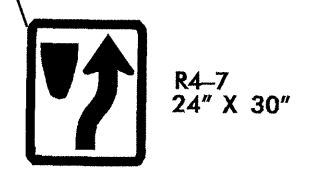
SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

APPROVED: <i>J.W. Woodard</i> DATE: 10/31/06	<b>PHASE II STEPS 5 &amp; 7 DETAIL</b>	
	SCALE: NONE	
	DATE: 10/06	
	DWG. BY: DAH	
	DESIGN BY: DAH	
REVIEWED BY: JWW	REVISIONS	

30-OCT-2006 14:56  
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 chaves AT WZTC22424



MESSAGE NO. 1	MESSAGE NO. 2
NEW TRAFFIC PATTERN	STAY ALERT
CHANGEABLE MESSAGE SIGN	



SEE SHEET TCP-3 FOR TEMPORARY PAVEMENT MARKING SCHEDULE

30-OCT-2006 14:56  
 \\dot\dfsroot\NSP\proj\TIP\Projects\14411\Traffic\TrafficControl\top\I-4411\_tc\_new\_phase II details.dgn  
 anayes AT WZTC2424

APPROVED: <i>[Signature]</i>	DATE: 10/21/06	<b>PHASE II STEP 12A DETAIL</b>	
SCALE: NONE	DATE: 10/06		REVISIONS
DWG. BY: DAH	DESIGN BY: DAH		
REVIEWED BY: JWW			

EXISTING TEMPORARY PAVEMENT MARKINGS  
PLACED FOR THE PHASE II INTERMEDIATE TRAFFIC PATTERN  
(PHASE I)

MATCHLINE STA. 24+00 +/- -L-  
(SEE SHEET TCP-24)

STA. 30+50 +/- -YREV-

LANGTREE RD. (-YREV-)

STA. 33+80 +/- -YREV-

RAMP "D" (-RPD-)

EXISTING TEMPORARY PAVEMENT MARKINGS  
PLACED IN THE FINAL TRAFFIC PATTERN  
(PHASE II)

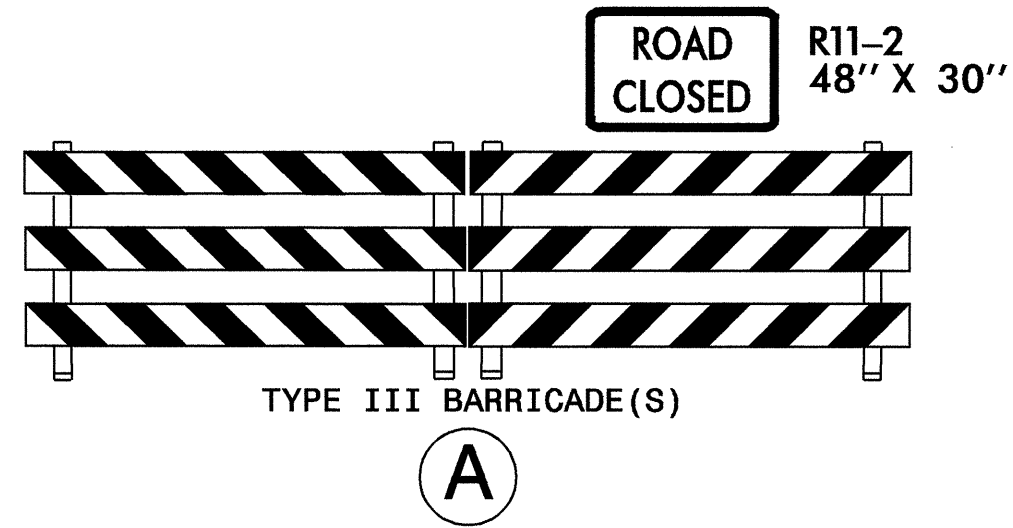
STA. 35+12 +/- -YREV-

MATCHLINE STA. 36+00 +/- -L-  
(SEE SHEET TCP-26)

TEMPORARY PAVEMENT MARKINGS  
PLACED IN THE FINAL TRAFFIC PATTERN  
(PHASE II, STEP 12A)

STA. 34+03 +/- -YREV-

EXISTING TEMPORARY PAVEMENT MARKINGS  
PLACED IN THE FINAL TRAFFIC PATTERN  
(PHASE II)



RAMP "C" (-RPC-)

APPROVED: *J.W. Woodard* DATE: 10/31/06

SEAL

PHASE II  
STEP 12A DETAIL

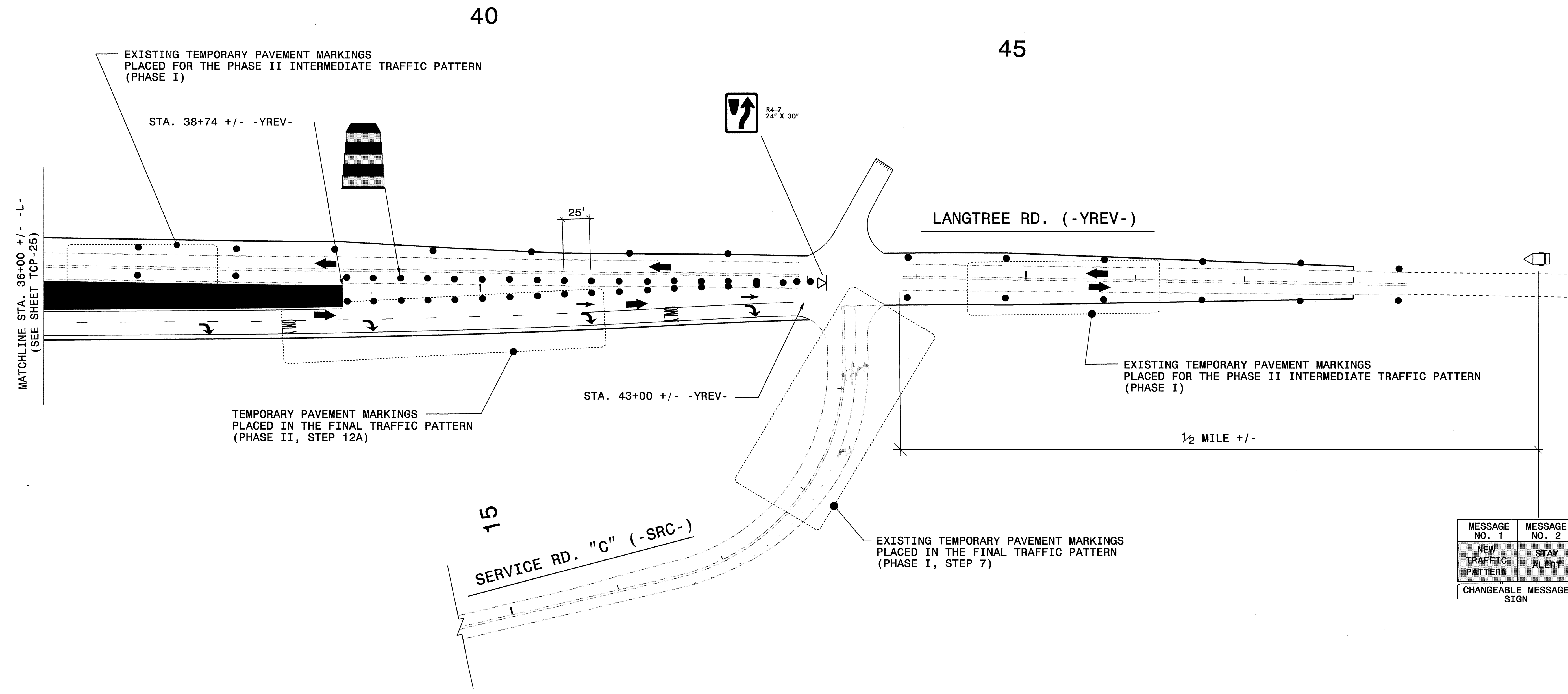
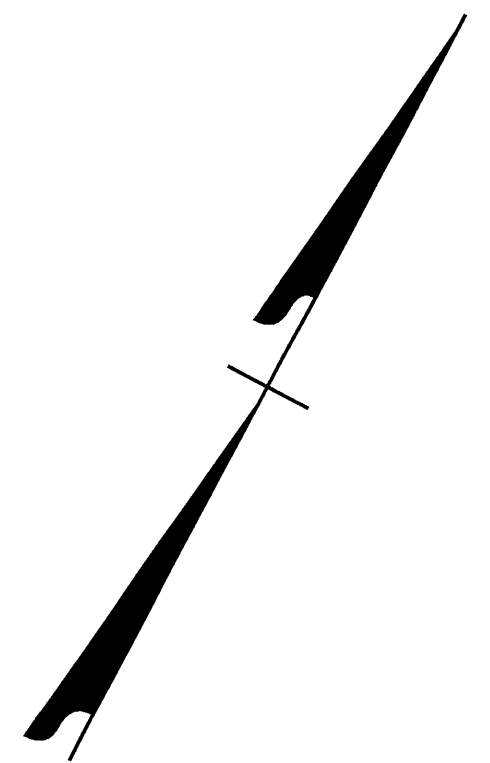
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DATE:	10/06
DWG. BY:	DAH
DESIGN BY:	DAH
REVIEWED BY:	JWW



REVISIONS	

30-OCT-2006 14:57  
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 ahayes AT WZTC22424





MESSAGE NO. 1	MESSAGE NO. 2
NEW TRAFFIC PATTERN	STAY ALERT
CHANGEABLE MESSAGE SIGN	

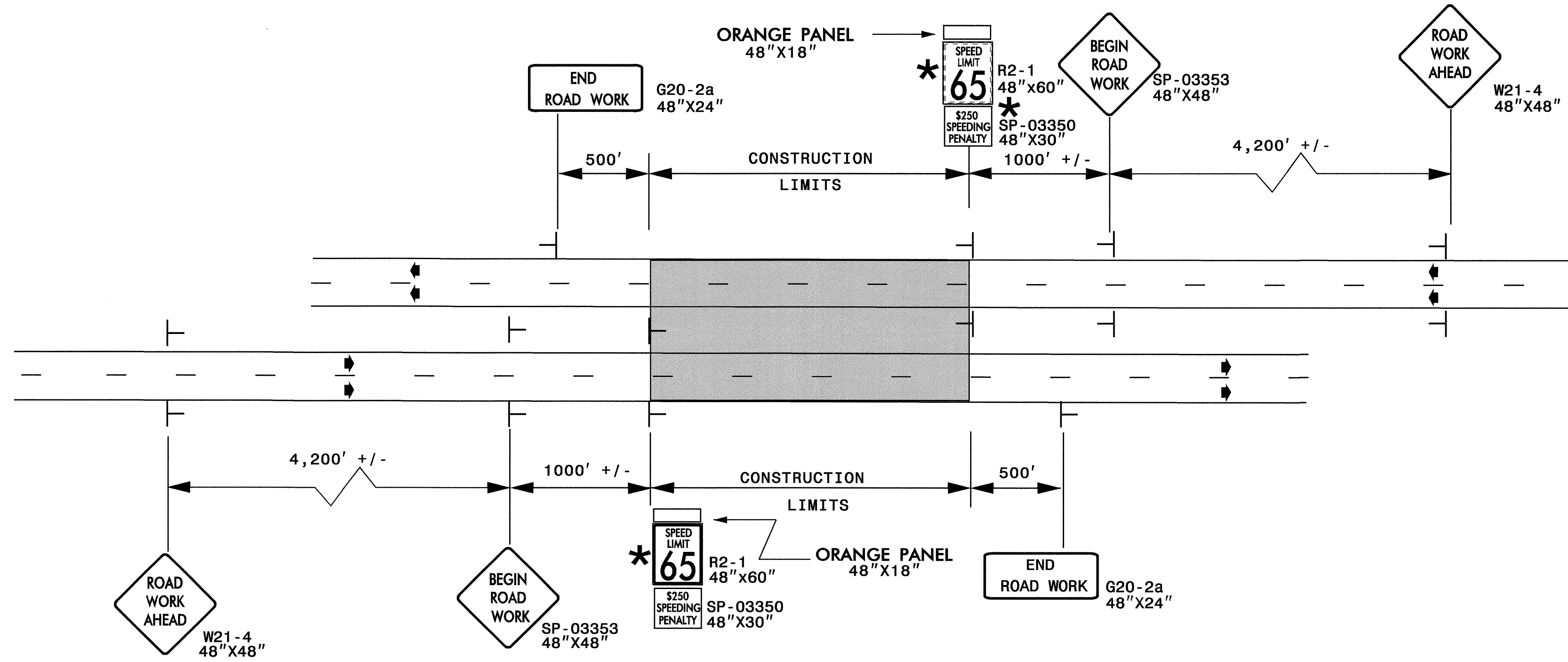
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 ahaves AT WZTC22424

APPROVED: <i>W. Woodard</i> DATE: 10/31/06	<b>PHASE II STEP 12A DETAIL</b>		
	SCALE: NONE		
	DATE: 10/06		REVISIONS
	DWG. BY: DAH		
	DESIGN BY: DAH		
REVIEWED BY: JWW		CADD FILE	

# ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

PROJ. REFERENCE NO. I-4411	SHEET NO. TCP-27
-------------------------------	---------------------

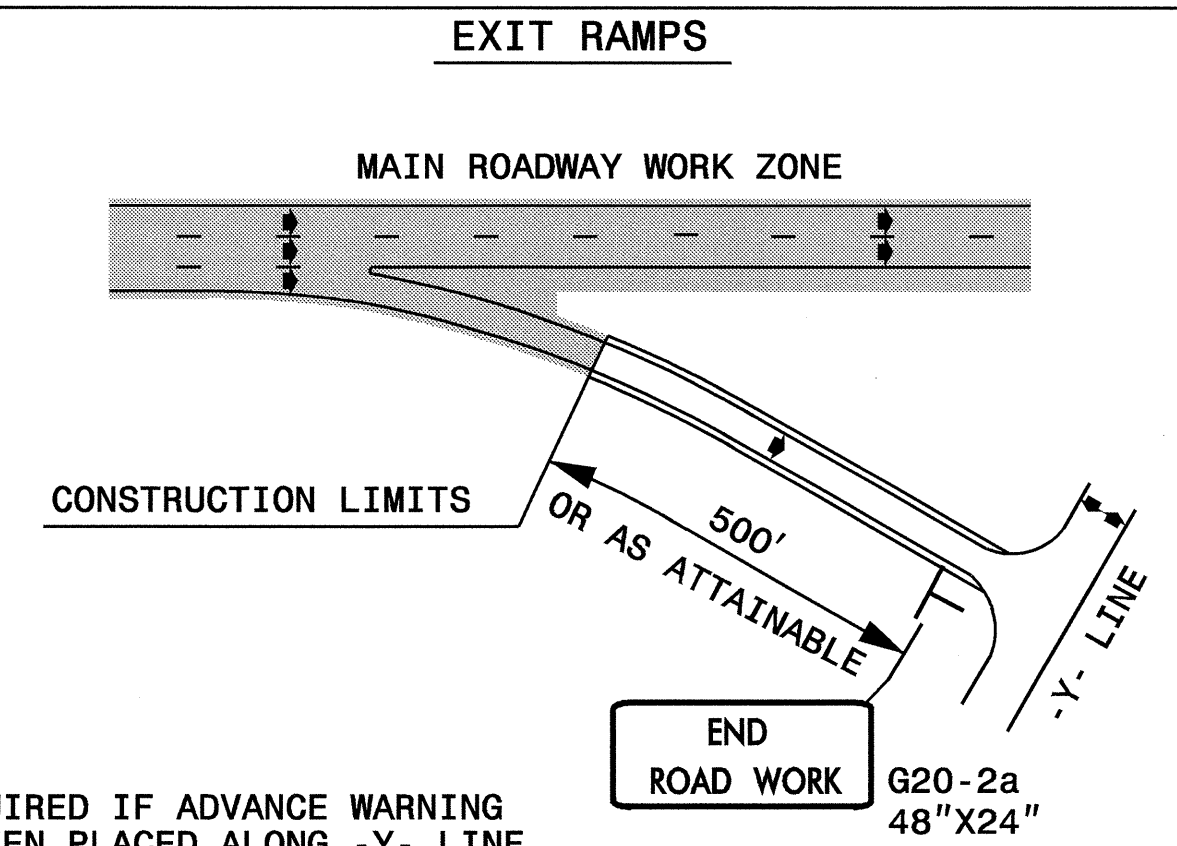
## DETAIL A



LEGEND	
	STATIONARY SIGN
▶	DIRECTION OF TRAFFIC FLOW

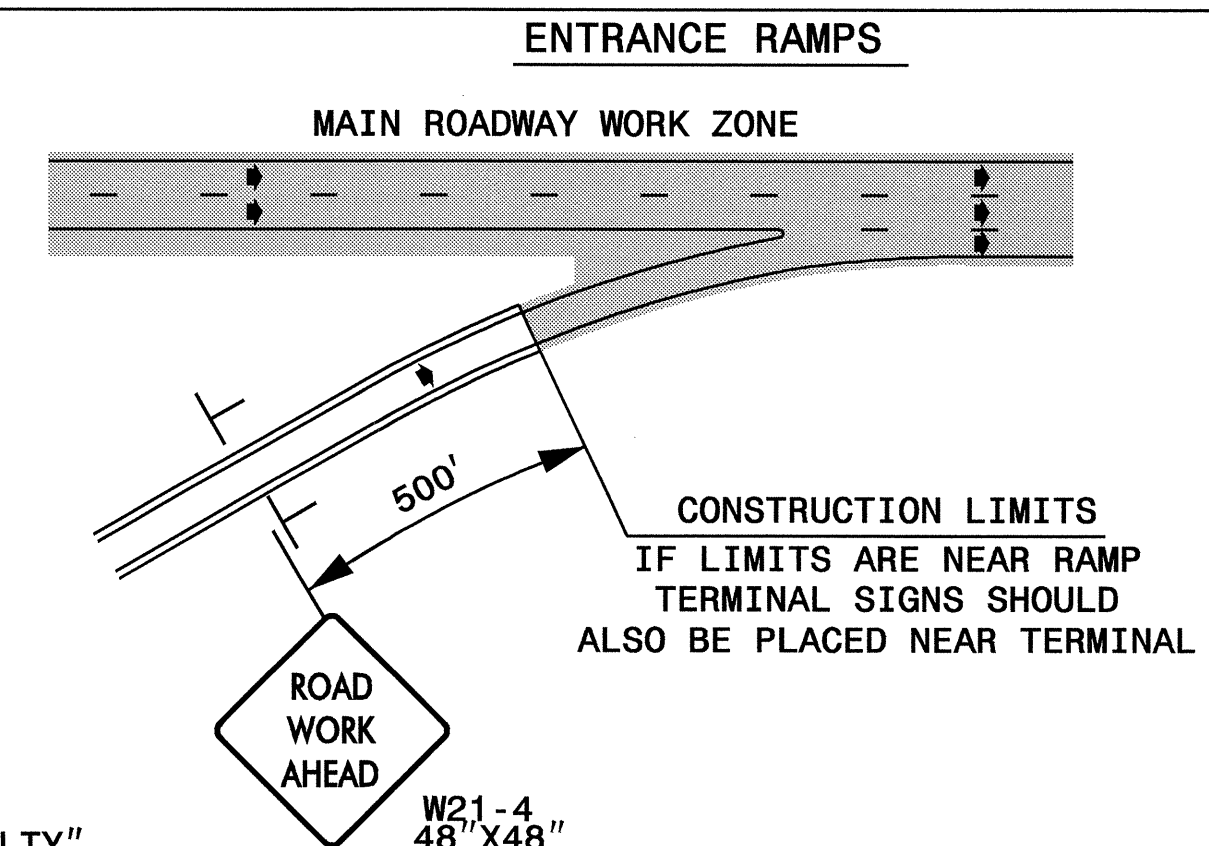
\* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

## DETAIL B



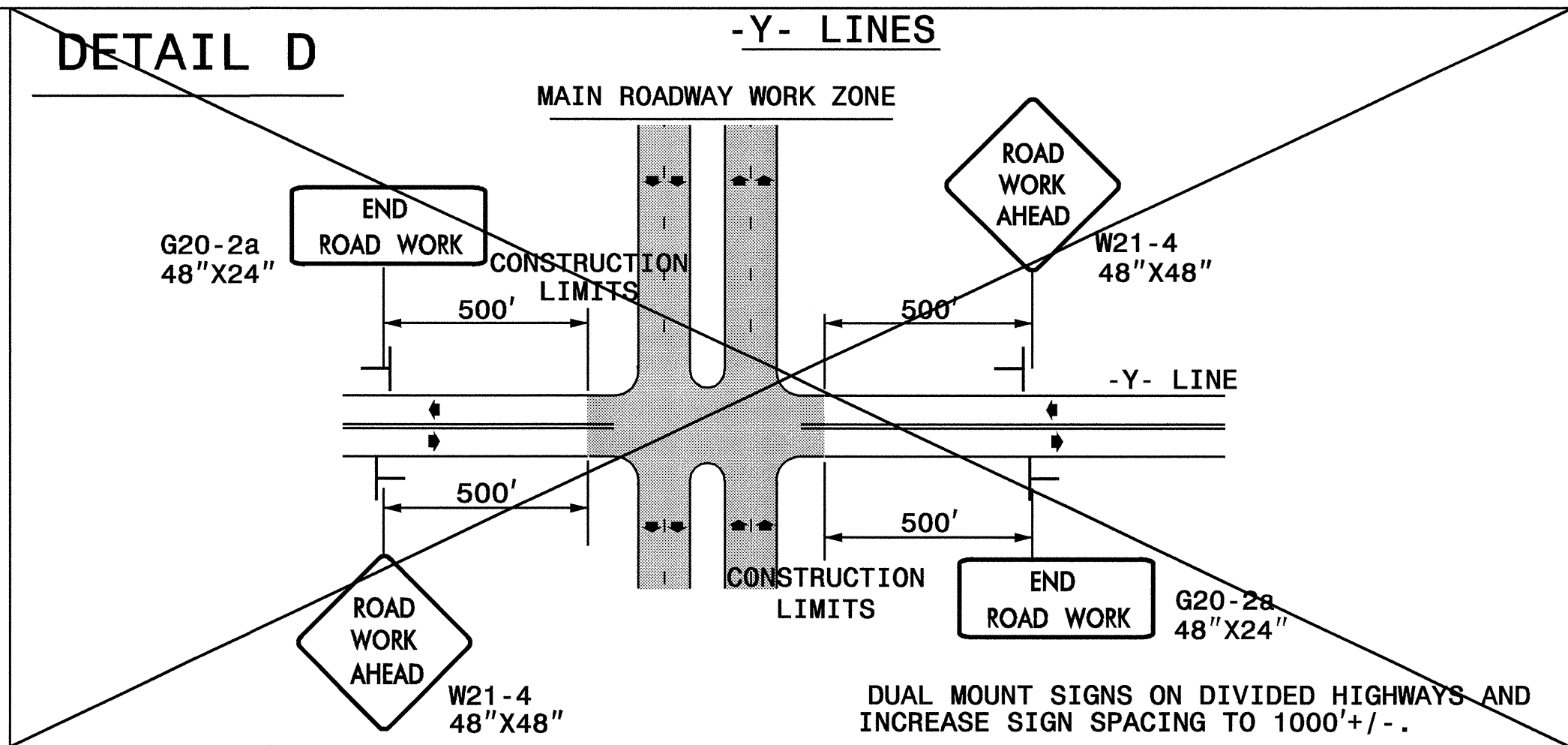
NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

## DETAIL C



\*\* USE THE "\$250 SPEEDING PENALTY" SUPPLEMENTAL SIGN ONLY IF AN ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

## DETAIL D



DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 1000'+/-.

## 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.

APPROVED: _____	DATE: _____	<b>ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)</b>		
	SCALE: NONE			
	DATE: 8/03			REVISIONS
	DWG. BY: JI			03/04
	DESIGN BY: JI			
REVIEWED BY: JWW				

10-FEB-2005 13:26 \\ets-cctf\01\7441\TC-Advanced Warning Signs.dgn AT TET206426

### SP 03353

SIGN NUMBER: SP-03353	BACKG COLOR: Fluorescent Orange	DESIGN BY: CL DOWNEY	CHECKED BY: CHECKED	STD #: W20-1
TYPE: A	COPY COLOR: Black	PROJECT ID: ALL PROJECTS	DIV: DIV	DATE: Aug 20, 2003
QUANTITY: 1				

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16.0 Sq.Ft.

BORDER TYPE: FLUSH  
 RECESS: 0.59"  
 WIDTH: 0.75"  
 RADII: 1.38"

NO. Z BARS: N/A  
 LENGTH: N/A

MAT'L:

USE NOTES: 2, 4  
 1. Legend and border shall be direct applied Type VII reflective sheeting.  
 2. Legend and border shall be direct applied non-reflective sheeting.  
 3. Shields shall be Type VII reflective sheeting on 0.032" (0.8mm) aluminum and demountable.  
 4. Background shall be Type VII reflective sheeting.  
 5. Background shall be Type I reflective sheeting.  
 6. Center arrow(s) vertically on sign.  
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

BORDER  
 R=1.38"  
 TH=0.75"  
 IN=0.59"

LETTER POSITIONS

Letter spacings are to start of next letter

Letter	B	E	G	I	N	R	O	A	D	W	O	R	K
Spacing	22.4	5.3	4.6	5.4	2.5	3.8	23.4	5.2	5.6	3.8	23.4	5.2	4
Series/Size	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7	C7
Text Length	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6

Spacing Factor is 1 unless specified otherwise

FILENAME: SPECISHAK

NORTH CAROLINA D.O.T. SIGN DETAIL

### SP 03350

SIGN NUMBER: SP-03350	BACKG COLOR: White	DESIGN BY: CL DOWNEY	CHECKED BY: DIV	STD #: REGULATORY
TYPE: D	COPY COLOR: Black	PROJECT ID:	DIV: DIV	DATE: Aug 18, 2003
QUANTITY: 1				

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 2'-6"  
 TOTAL AREA: 10.0 Sq.Ft.

BORDER TYPE: FLUSH  
 RECESS: 0.4"  
 WIDTH: 0.5"  
 RADII: 1.5"

NO. Z BARS: N/A  
 LENGTH: N/A

MAT'L:

USE NOTES: 2, 4  
 1. Legend and border shall be direct applied Type III reflective sheeting.  
 2. Legend and border shall be direct applied non-reflective sheeting.  
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.  
 4. Background shall be Type III reflective sheeting.  
 5. Background shall be Type I reflective sheeting.  
 6. Center arrow(s) vertically on sign.  
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

BORDER  
 R=1.5"  
 TH=0.5"  
 IN=0.4"

LETTER POSITIONS

Letter spacings are to start of next letter

Letter	\$	2	5	0	S	P	E	E	D	I	N	G
Spacing	15.1	5.3	4.6	4.2	3.5	15.4	8.1	4.8	4.5	4	4	4.6
Series/Size	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6
Text Length	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6

Spacing Factor is 1 unless specified otherwise

FILENAME: 250

NORTH CAROLINA D.O.T. SIGN DETAIL

#### GENERAL NOTES FOR THE "BEGIN ROAD WORK" SIGN

- SIGN SP-03353 "BEGIN ROAD WORK" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS
- WHEN USED, INSTALL SIGN SP-03353 "BEGIN ROAD WORK" ACCORDING TO DETAIL A ON SHEET TCP-27.

#### GENERAL NOTES FOR THE "\$250 SPEEDING PENALTY" SIGN

- SIGN SP-03350 "\$250 SPEEDING PENALTY" IS USED ONLY WHEN ORDINANCED BY THE TRAFFIC ENGINEERING AND SAFETY SYSTEMS BRANCH.
- SIGN SP-03350 "\$250 SPEEDING PENALTY" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS
- WHEN USED, MOUNT SIGN SP-03350 "\$250 SPEEDING PENALTY" BELOW SIGN R2-1 "SPEED LIMIT XX" (SEE DETAIL A ON SHEET TCP-27) AND SIGN W21-4 "ROAD WORK AHEAD" (SEE DETAIL C ON SHEET TCP-27).

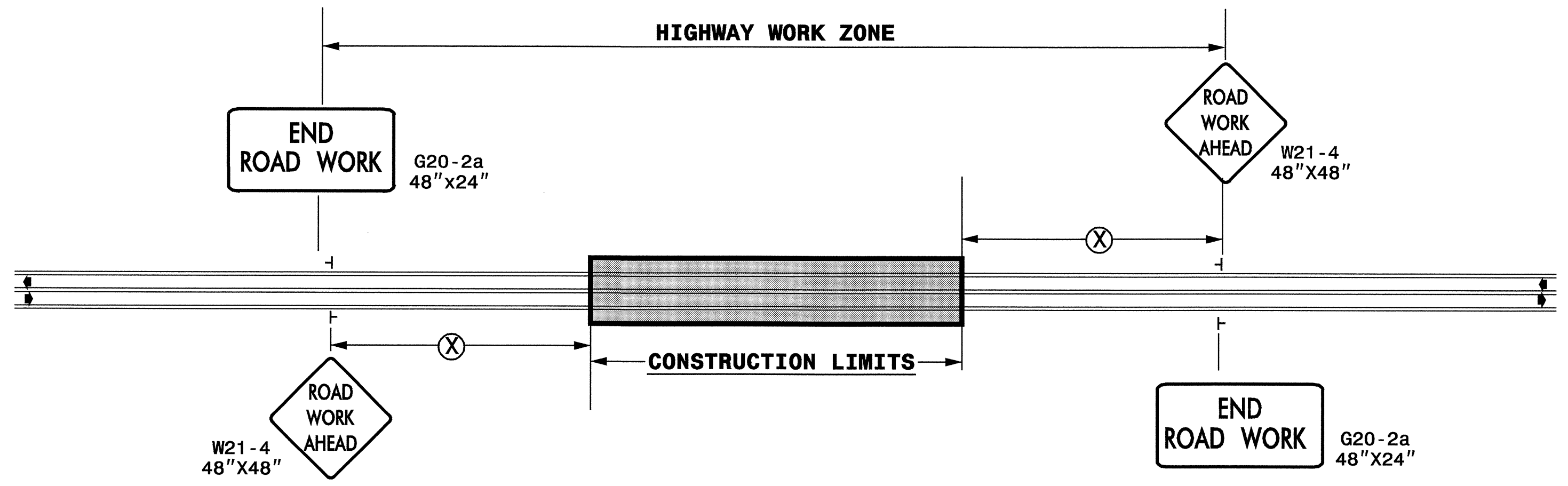
STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

DETAIL DRAWING FOR  
 WORK ZONE SIGNS  
 \$250 PENALTY SIGN

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR ADVANCED WORK ZONE WARNING SIGN DESIGNS	
	SCALE: NONE		REVISIONS
	DATE: 0803		0404
	DESIGN BY: _____		
	REVIEWED BY: JWW		



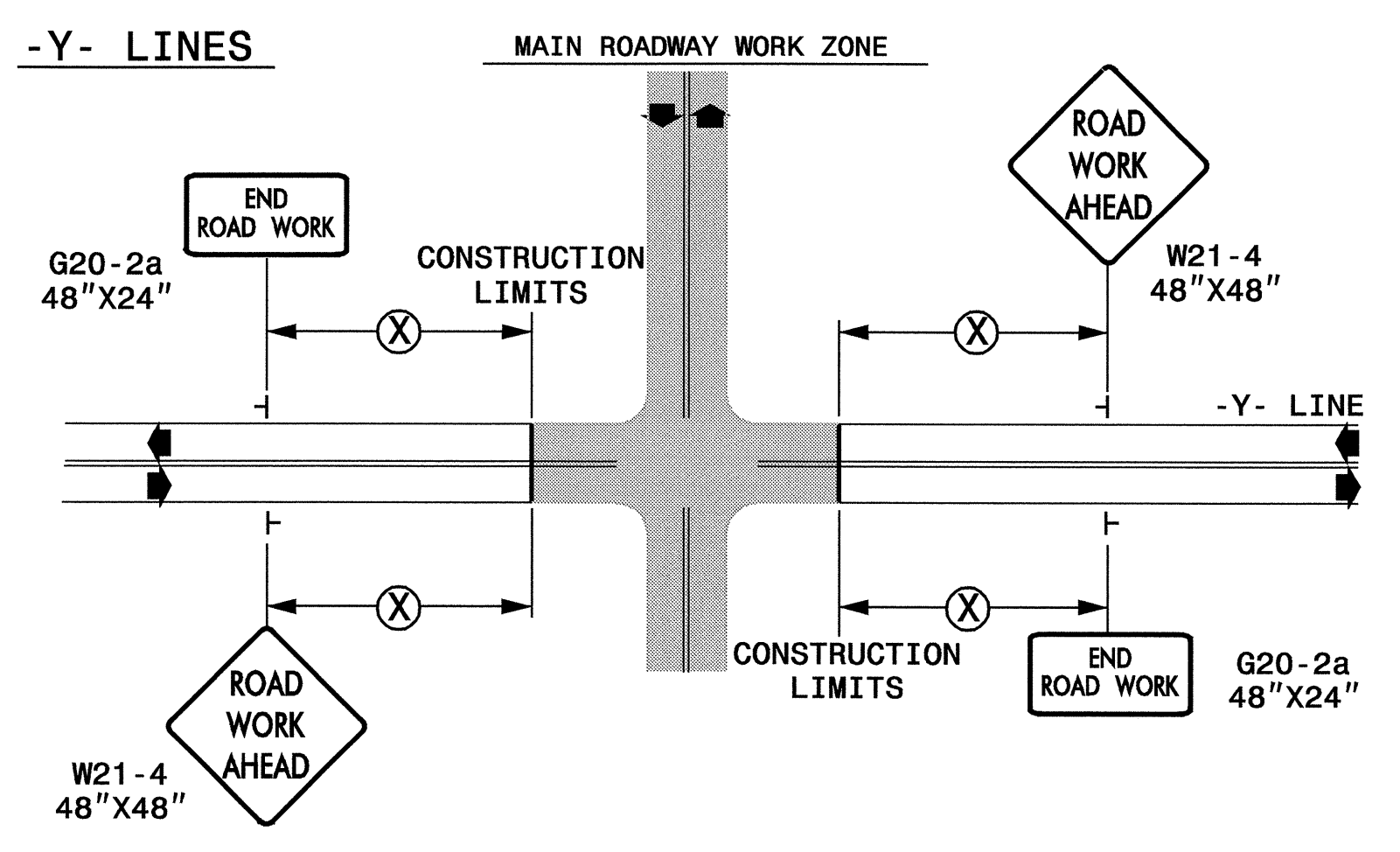
**TWO-WAY UNDIVIDED & URBAN FREEWAYS (L-LINES)**



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

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

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



**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

**DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS**

APPROVED: _____	DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
SCALE: NONE	REVISIONS		
DATE: _____	7-98 10/01		
DWG. BY: _____	10-98 03/04		
DESIGN BY: _____	01/01		
REVIEWED BY: JWW	CADD FILE		

10-FEB-2005 13:27 \\efs-cdfs01\4411\TC-Advanced Warning Signs.dgn daprker AT TETC206426