

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
B-4534	TCP-1

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

B-4534

ROADWAY STANDARD DRAWINGS

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

STD. NO.	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
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
1205.03	PAVEMENT MARKINGS - INTERCHANGES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS
1264.02	PLACEMENT OF OBJECT MARKERS

INDEX OF SHEETS

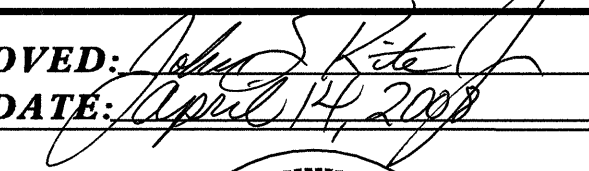

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2 & TCP-2A	PROJECT NOTES
TCP-3	TRAFFIC CONTROL PHASING
TCP-3A	TEMP SHORING NOTES
TCP-3B	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TCP-4 THRU TCP-6	PHASE I
TCP-7	ISLAND CONSTRUCTION DETAIL AND LANE CLOSURE DETAIL
TCP-8	DETOUR ROUTE FOR CLOSURE OF RAMP 'A'
TCP-9	DETOUR ROUTE FOR CLOSURE OF I-85 BUS ON-RAMP
TCP-10	DETOUR ROUTE FOR CLOSURE OF I-85 FOR INSTALLING GIRDERS
TCP-11	DETOUR ROUTE FOR CLOSURE OF I-40 BUS FOR TIE-IN WORK
TCP-12	PROPOSED DMS MESSAGING
TCP-13 THRU TCP-17	I-40 EB BUS CLOSURE DETAIL
TCP-18	ADVANCED WORK ZONE WARNING SIGNS
SD-1	SPECIAL SIGN DESIGN
PM-1	FINAL PAVEMENT MARKING SCHEDULE AND TEMPORARY PAVEMENT MARKING SCHEDULE
PM-2 THRU PM-3	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 SKINNY DRUM
 - FLASHING ARROW PANEL (TYPE C)
 - STATIONARY SIGN
 - PORTABLE SIGN
 - STATIONARY OR PORTABLE SIGN
 - CRASH CUSHION
 - CHANGEABLE MESSAGE SIGN
 - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
 - POLICE
 - FLAGGER
- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
 - YELLOW/YELLOW PAVEMENT MARKER
 - CRYSTAL/RED PAVEMENT MARKER
 - PAVEMENT MARKING SYMBOLS

IO-APR-2008 16:20 \\dot\gis\proj\10\proj\10\TrafficControl\B4534\TrafficControl\Tcp\b4534_tc_btcp.dgn AT WZT0237460 derRichardson

TIP PROJECT:

APPROVED:  DATE: <u>April 14, 2008</u>	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT
SEAL 	J. S. BOURNE, PE <u>TRAFFIC CONTROL ENGINEER</u>
	J. S. KITE, PE <u>TRAFFIC CONTROL PROJECT ENGINEER</u>
	D. A. PARKER <u>TRAFFIC CONTROL PROJECT DESIGN ENGINEER</u>
	D. E. RICHARDSON <u>TRAFFIC CONTROL DESIGN ENGINEER</u>

PROJECT NOTES

PROJ. REFERENCE NO.	SHEET NO.
B-4534	TCP-2

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
-L- (I-40 BUS)	MONDAY THRU FRIDAY 6AM TO 9AM & 4PM TO 6PM
-Y- (I-85 BUS)	MONDAY THRU FRIDAY 6AM TO 9AM & 4PM TO 6PM

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

ROAD NAME
-L- (I-40 BUS)
-Y- (I-85 BUS)

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 4:00 P.M. DECEMBER 31ST TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 4:00 P.M. THURSDAY AND 9:00 A.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 4:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY AND 9:00 A.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00 P.M. TUESDAY TO 9:00 A.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
-L- (I-40 BUSINESS)	6AM MONDAY TO 11PM FRIDAY (SEE ICT NO. 4)
-Y- (I-85 BUSINESS)	6AM MONDAY TO 11PM FRIDAY (SEE ICT NO. 2)

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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 15 FT OF AN AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) 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.
- I) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

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 AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- K) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

I2-MAY-2008 09:37
\\dot\dfsroot\0101 AT WZTC237460
C:\Program Files\Autodesk\AutoCAD 2008\Projects\B4534\TrafficControl\Top\B4534_top_btcp.dgn
derichardson

APPROVED: DATE: 3/29/08 SEAL	<h2 style="margin: 0;">PROJECT NOTES</h2>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td style="width: 50%;">SCALE: NONE</td> <td style="width: 50%;">REVISIONS</td> </tr> <tr> <td>DATE: 09/07</td> <td></td> </tr> <tr> <td>DWG. BY: DR</td> <td></td> </tr> <tr> <td>DESIGN BY: DR</td> <td></td> </tr> <tr> <td>REVIEWED BY: DAP</td> <td></td> </tr> </table>	SCALE: NONE	REVISIONS	DATE: 09/07		DWG. BY: DR		DESIGN BY: DR		REVIEWED BY: DAP	
SCALE: NONE	REVISIONS											
DATE: 09/07												
DWG. BY: DR												
DESIGN BY: DR												
REVIEWED BY: DAP												

PROJECT NOTES (CONT'D)

PROJ. REFERENCE NO. B-4534	SHEET NO. TCP-2A
-------------------------------	---------------------

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 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- N) PROVIDE PERMANENT SIGNING.
- O) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.
- P) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC BARRIER

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

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

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

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

- 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.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

- T) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	THERMOPLASTIC	SNOWPLOWABLE
PROPOSED BRIDGE	POLYUREA	SNOWPLOWABLE

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMP RAISED
PROPOSED BRIDGE	COLD APPLIED PLASTIC (TYPE 4)	TEMP RAISED

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

MISCELLANEOUS

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

28-MAR-2008 07:55
\\dot\dfsroot\01\proj\01\tr\01\tr\proj\projects-b\4534\tr\aff\tr\trafficcontrol\top\4534_fc_bt\top.dgn
rspeince AT MZ12210J

APPROVED: DATE: 3/28/08	<h2 style="margin: 0;">PROJECT NOTES</h2>	REVISIONS						
 SEAL JOHN S. KITE, P.E. 022104	SCALE: NONE DATE: 09/07 DWG. BY: DR DESIGN BY: DR REVIEWED BY: DAP	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; height: 20px;"> </td><td style="width: 50%; height: 20px;"> </td></tr> <tr><td style="width: 50%; height: 20px;"> </td><td style="width: 50%; height: 20px;"> </td></tr> <tr><td style="width: 50%; height: 20px;"> </td><td style="width: 50%; height: 20px;"> </td></tr> </table>						

TRAFFIC CONTROL PHASING

PHASE I

- STEP 1 - INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS. SEE TCP-18.
 - RELOCATE EXISTING "GUILFORD BATTLEGROUND" SIGN TO -L- STA 19+00+/- OR AS DIRECTED BY THE ENGINEER.
- STEP 2 - INSTALL DETOUR SIGNING AND CMS FOR RAMP A DETOUR ROUTE. SEE TCP-8.
- STEP 3 - USING RSD 1101.02, SHEET 5 OF 9, INSTALL PCB AND WHITE EDGELINE ON I-40 BUS.
 - USING RSD 1101.02, SHEET 3 OF 9, INSTALL PCB ON -Y-. SEE TCP-4 THRU TCP-6.
 - COVER EXISTING "RANDLEMAN RD ¼ MILE" OVERHEAD AT -L- STA 24+40+/-.
- STEP 4 - INSTALL DETOUR SIGNING FOR CLOSURE OF ON RAMP FROM RANDLEMAN RD TO I-85 BUS SB. SEE TCP-9.
- STEP 5 - USING RSD 1101.02, SHEET 3 OF 9, INSTALL TEMPORARY SHORING. SEE TCP-3A, TCP-3B AND TCP-5.
- STEP 6 - BEHIND PCB, CONSTRUCT THE PROPOSED BRIDGE AND APPROACHES:
 -L- 19+50+/- TO 41+50+/- (INCLUDING UPRIGHTS FOR SIGN ASSEMBLY 'A' AT -L- STA 21+80+/- AND THE LEFT SIDE UPRIGHT FOR SIGN ASSEMBLY 'B' AT -L- STA 34+50+/- (SEE SIGNING PLANS)
 RAMP C 10+00 TO 16+50+/- (SEE TCP-4 THRU TCP-6)
- NOTE: WHEN INSTALLING PROPOSED BRIDGE GIRDERS, CLOSE AND DETOUR I-85 BUS SB. SEE INTERMEDIATE CONTRACT TIME NO 2 AND TCP-10 FOR DETOUR ROUTE.
- STEP 7 - USING RSD 1101.03, SHEET 9 OF 9 TO INSTALL OVERHEAD TRUSS AND SIGNS FOR SIGN ASSEMBLY 'A' AT -L- STA 21+80+/- AND REMOVE EXISTING OVERHEAD ASSEMBLY AT -L- STA 24+40+/-.

PHASE II

COMPLETE STEPS 1 THRU 7 IN ACCORDANCE WITH INTERMEDIATE CONTRACT TIME NO 3 AND LIQUIDATED DAMAGES.






COMPLETE STEPS 1 THRU 4 IN ACCORDANCE WITH INTERMEDIATE CONTRACT TIME NO 4 AND LIQUIDATED DAMAGES.

- STEP 1 - USING TCP-13 THRU TCP-17, CLOSE I-40 EB BUS. DETOUR TRAFFIC ONTO ROUTE SHOWN ON TCP-11.
- STEP 2 - RE-OPEN ON-RAMP TO I-85 SB.
 - AWAY FROM TRAFFIC, PAVE THE TIE INS BETWEEN EXISTING AND PROPOSED ALIGNMENTS, UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE.
- STEP 3 - INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT). SEE PM-2 AND PM-3.
 - INSTALL PCB ON I-40 BUS EB AS SHOWN ON TCP-7.
 - INSTALL PCB ON I-85 BUS NB AS SHOWN ON TCP-7.
- STEP 4 - REOPEN I-40 BUS EB.
- STEP 5 - BEHIND PCB, CONSTRUCT CONCRETE ISLAND FROM -L- 35+28+/- TO 41+00+/- . SEE TCP-7.
 - BEHIND PCB, INSTALL ALL DRAINAGE.

COMPLETE STEPS 6 AND 7 IN ACCORDANCE WITH INTERMEDIATE CONTRACT TIME NO 5 AND LIQUIDATED DAMAGES.

- STEP 6 - USING RSD 1101.03, SHEET 7 OF 9, CLOSE I-40 BUS EB. DETOUR TRAFFIC ONTO RAMP A. SEE TCP-7.
 - USING RSD 1101.03, SHEET 7 OF 9, CLOSE I-85 BUS NB. DETOUR TRAFFIC ONTO RAMP A. SEE TCP-7.
- STEP 7 - REMOVE PCB AND OPEN TO FINAL PATTERN.
- STEP 8 - REMOVE EXIST BRIDGE AND APPROACHES. SEE TCP-10 FOR DETOUR ROUTE AND INTERMEDIATE CONTRACT TIME NO 2.
- STEP 8A- USING RSD 1101.03, SHEET 9 OF 9 TO COMPLETE SIGN ASSEMBLY 'B' AT -L- STA 34+50+/- (SEE SIGNING PLANS.)
- STEP 9 - USING RSD 1101.02, SHEETS 5 AND 6 OF 9, AND TCP-7 WHERE NECESSARY, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL MARKINGS AND MARKERS ON ALL LINES.
- STEP 10- REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES.

10-APR-2008 16:21
 \\dot\dfsroot\01\Projects\B4534\Traffic\TrafficControl\top\b4534_top.btop.dgn
 AT WZTC237460
 derlcharlson

APPROVED:  DATE: 4/14/07 <div style="text-align: center;">  SEAL JOHN S. KITE ENGINEER STATE OF NORTH CAROLINA LICENSE NO. 022104 </div>	TRAFFIC CONTROL PHASING <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SCALE: NONE</td> <td rowspan="4" style="text-align: center;">  </td> <td>REVISIONS</td> </tr> <tr> <td>DATE: 04/07</td> <td></td> </tr> <tr> <td>DWG. BY: DR</td> <td></td> </tr> <tr> <td>DESIGN BY: DR</td> <td></td> </tr> <tr> <td>REVIEWED BY: DAP</td> <td></td> <td></td> </tr> </table>	SCALE: NONE		REVISIONS	DATE: 04/07		DWG. BY: DR		DESIGN BY: DR		REVIEWED BY: DAP			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 40px;"> </td> <td style="width: 50%; height: 40px;"> </td> </tr> <tr> <td style="width: 50%; height: 40px;"> </td> <td style="width: 50%; height: 40px;"> </td> </tr> </table>				
SCALE: NONE		REVISIONS																
DATE: 04/07																		
DWG. BY: DR																		
DESIGN BY: DR																		
REVIEWED BY: DAP																		

TEMPORARY SHORING NOTES

TEMPORARY SHORING NO. 1

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

DO NOT USE A TEMPORARY MSE WALL FROM STATION 32+27 -L-, TIE TO EXIST WALL TO STATION 32+90 -L-, 58 FT RT.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 32+27 -L-, TIE TO EXIST WALL TO STATION 32+90 -L-, 58 FT RT, USE THE FOLLOWING SOIL PARAMETERS:

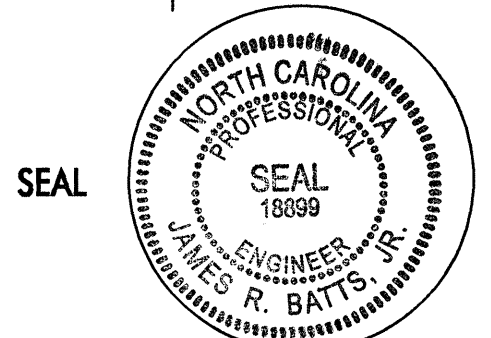
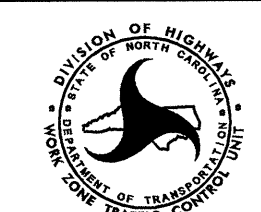
- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma = 60$ PCF
- FRICTION ANGLE, $\phi = 30$ DEGREES
- COHESION, $c = 0$ PSF

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 32+27 -L-, TIE TO EXIST WALL TO STATION 32+90 -L-, 58 FT RT, MAY NOT PENETRATE BELOW ELEVATION 737 FT DUE TO THE PRESENCE OF AN OBSTRUCTION, VERY DENSE OR HARD SOIL, WEATHERED OR HARD ROCK.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

06-MAR-2008 08:31 \\dot\dfseroot01\Proj\Tipp\Projects-b\4534\Traffic\Trafficcontrol\top\b4534-tc_btop.dgn der\charlson AT WZTC237460

APPROVED: <i>James R. Batts</i> DATE: 3/14/09		TEMPORARY SHORING NOTES	
	SCALE: NONE		REVISIONS
	DATE:		
	DWG. BY:		
	DESIGN BY:		
	REVIEWED BY:		

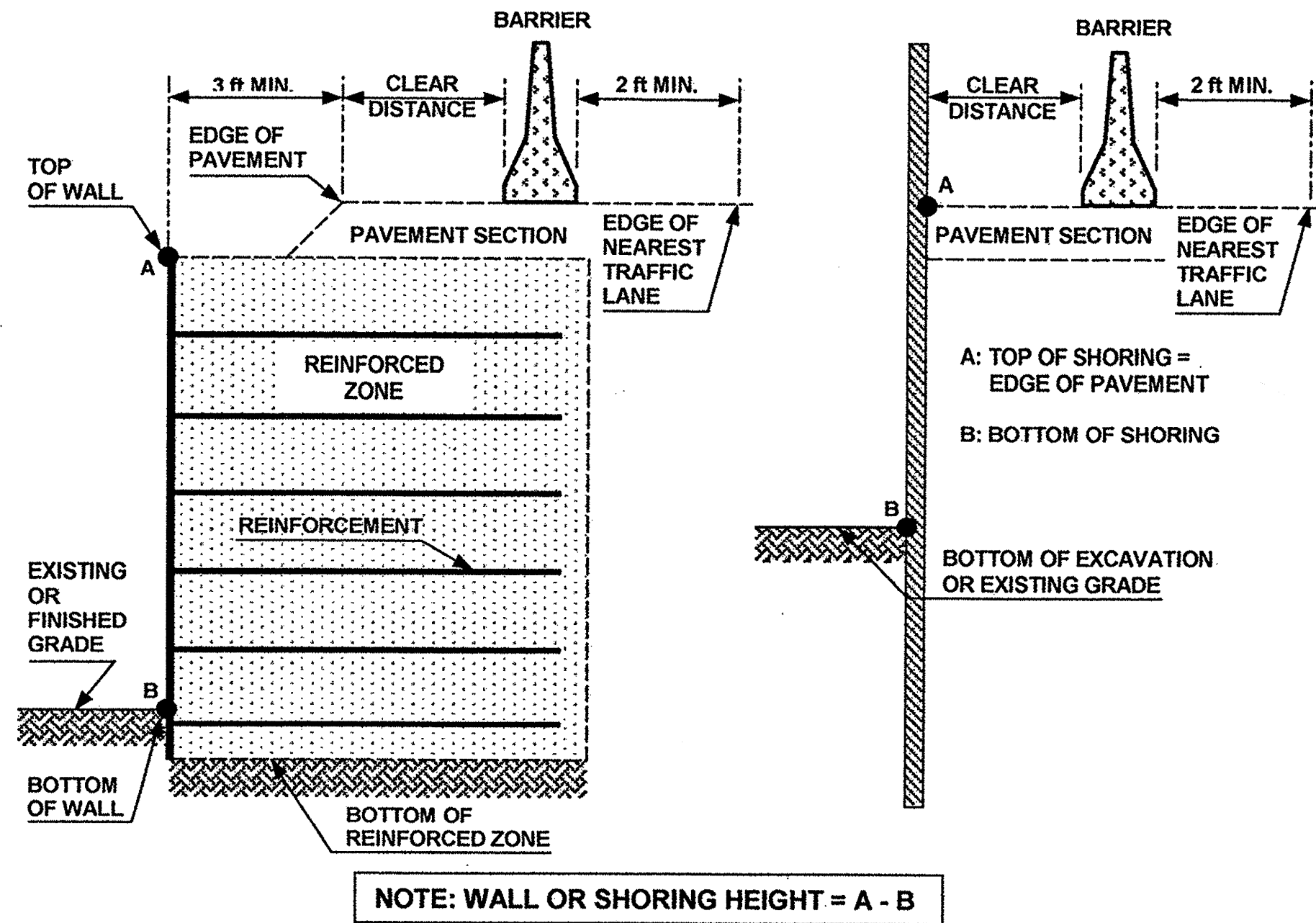


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.
- PROVIDE PORTABLE CONCRETE BARRIER TO PROTECT TEMPORARY SHORING IF SHORING IS LOCATED WITHIN THE CLEAR ZONE AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE.
- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED PCB, ANCHORED PCB OR AN OREGON BARRIER FROM THE TABLE SHOWN IN FIGURE B. FOR TRAFFIC LANES AND PORTABLE CONCRETE BARRIER LOCATED ABOVE AND BEHIND TEMPORARY SHORING, THE FOLLOWING ARE DEFINED AS:

CLEAR DISTANCE - HORIZONTAL DISTANCE FROM THE BACK FACE OF THE BARRIER TO THE EDGE OF PAVEMENT FOR TEMPORARY MSE WALL OR TO THE FACE OF NON-ANCHORED TEMPORARY SHORING AS SHOWN IN FIGURE A.

OFFSET - HORIZONTAL DISTANCE FROM THE FRONT FACE OF THE BARRIER TO CENTERLINE OF THE FURTHEST TRAFFIC LANE AS SHOWN IN FIGURE B FOR 3 TRAFFIC LANES.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET AN UNANCHORED PCB AGAINST THE TRAFFIC SIDE OF THE SHORING AND DESIGN SHORING FOR TRAFFIC IMPACT OR USE THE "SURCHARGE CASE WITH TRAFFIC IMPACT" FOR THE STANDARD TEMPORARY SHORING.
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: [HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/WZTC/DESRES/ENGLISH/DESREENG.HTML](http://www.ncdot.org/doh/preconstruct/wztc/desres/english/desreeng.html)
- UNLESS NOTED OTHERWISE ON THE PLANS, SET PORTABLE CONCRETE BARRIER WITH A MINIMUM DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A.
- FOR PORTABLE CONCRETE BARRIER ABOVE AND BEHIND TEMPORARY MSE WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200' IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	Pavement Type	Offset * ft	Design Speed, mph					
			<30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
	>56	32	36	42	45	47	51	
	Concrete	<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
		26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
50-56		26	26	28	32	35	38	
>56	26	27	29	32	36	38		
Anchored PCB or Oregon Barrier	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB or Oregon Barrier	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

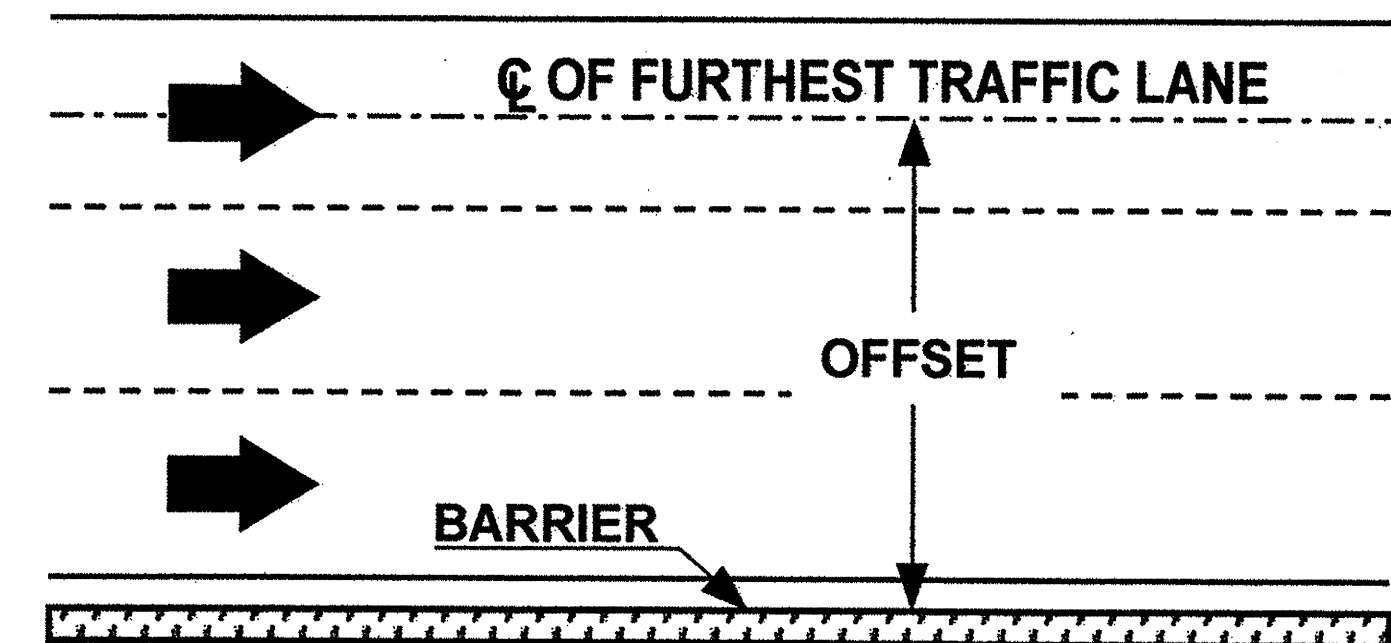
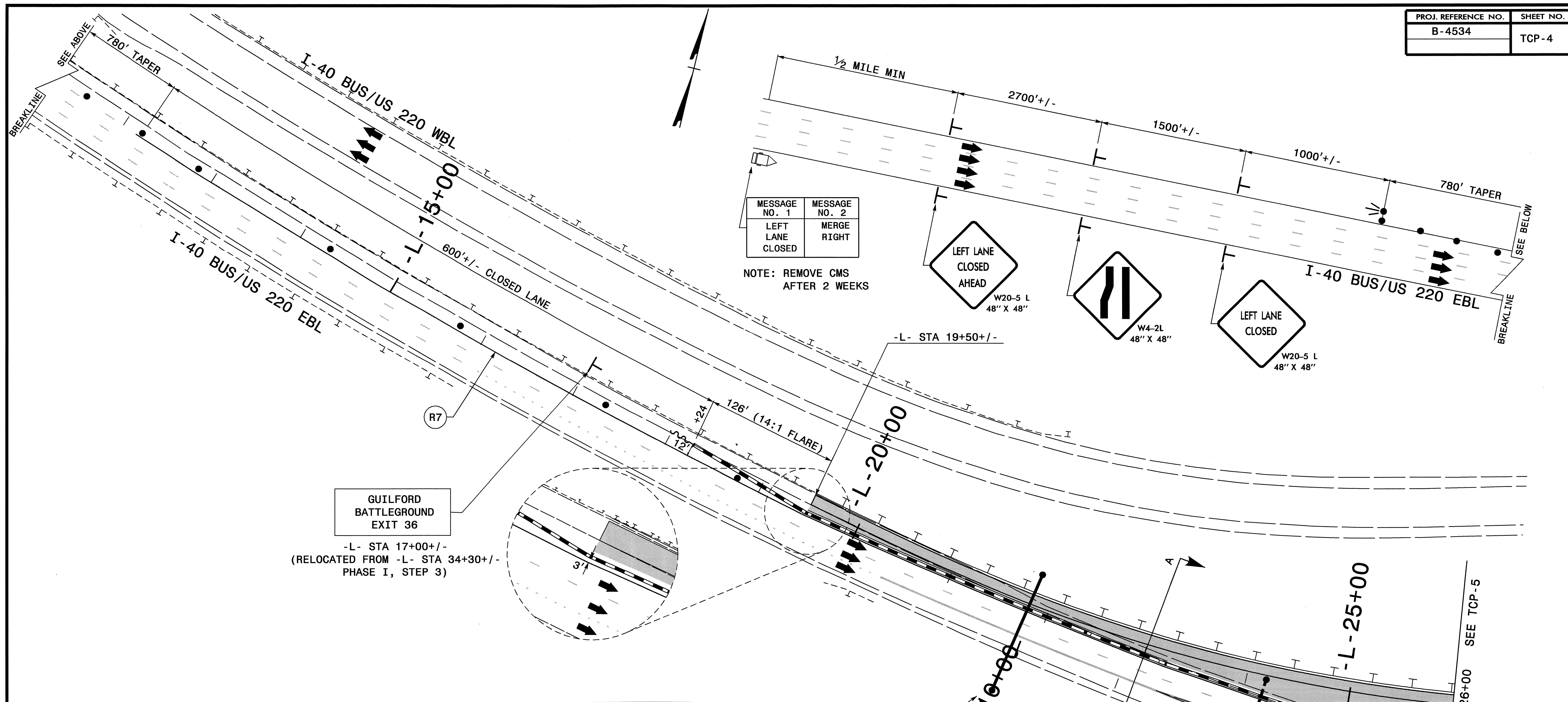


FIGURE B

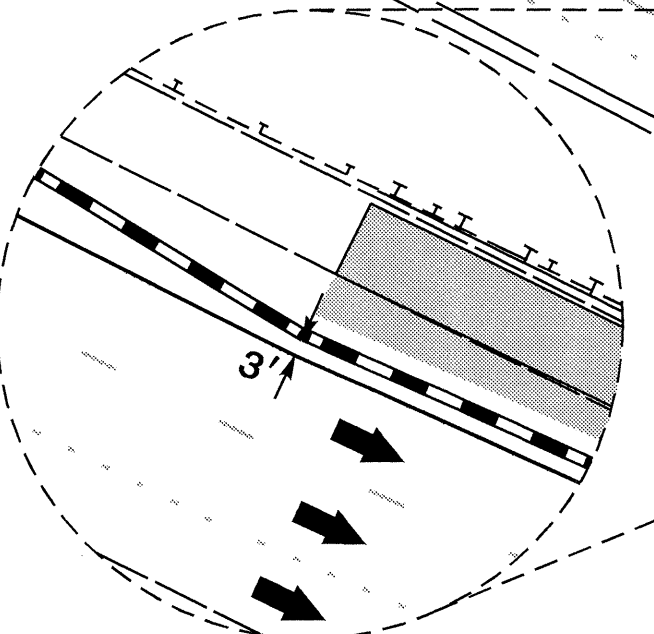
APPROVED: _____ <i>Joseph J. Lak</i>	DATE: _____	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS	
	DESIGN BY: JI	REVISIONS	
	DATE: 3/07		
	AWG. BY: JI		
	REVIEWED BY: JI		



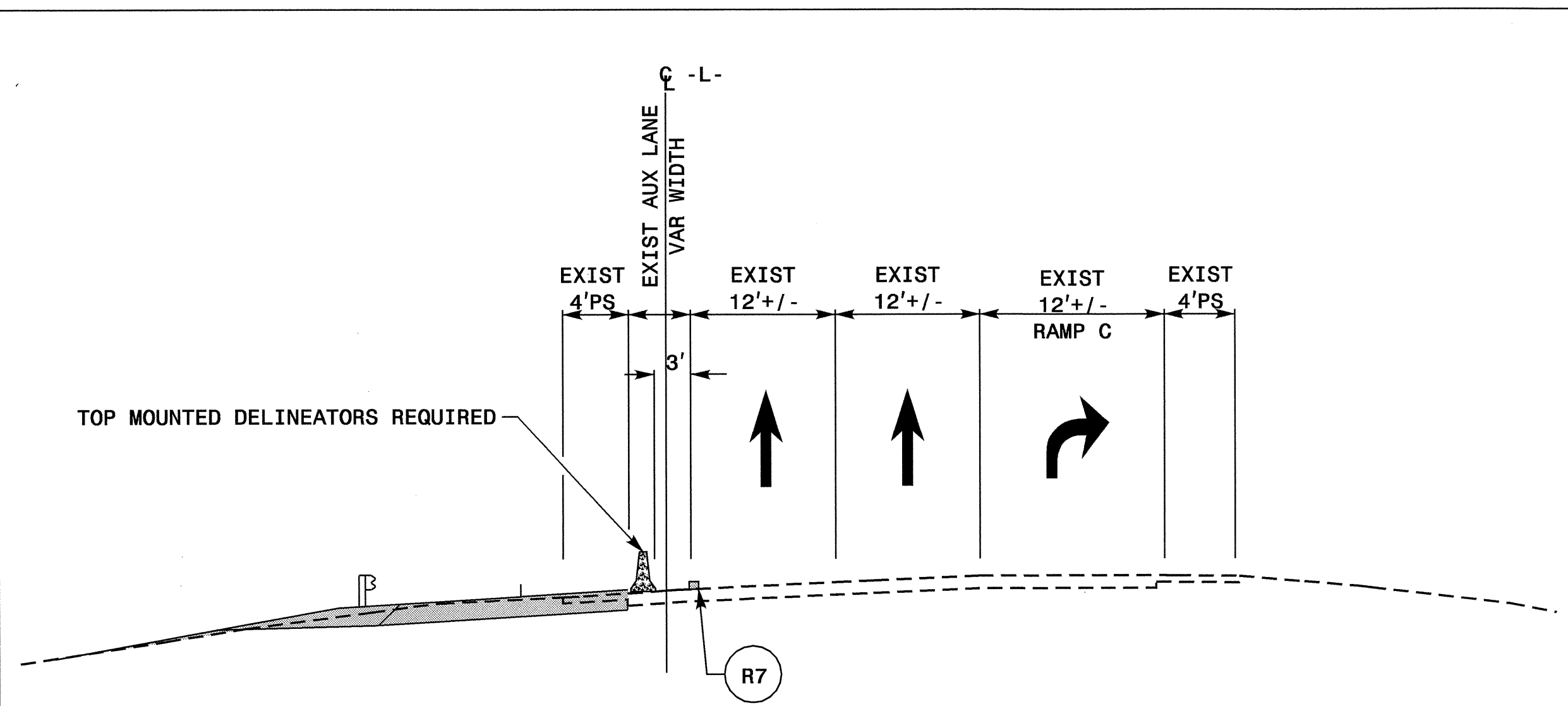
MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT

NOTE: REMOVE CMS AFTER 2 WEEKS

GUILFORD BATTLEGROUND EXIT 36
 -L- STA 17+00+/-
 (RELOCATED FROM -L- STA 34+30+/-
 PHASE I, STEP 3)



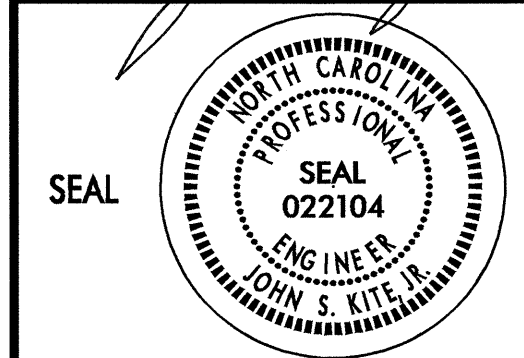
CUT SECTION A-A -L- 23+00



OVERHEAD SIGN ASSEMBLY 'A'
 -L- STA 21+80+/-
 INSTALL BOTH UPRIGHTS DURING PHASE I, STEP 6.
 USE ROLLING ROAD BLOCK, AS DIRECTED BY THE ENGINEER,
 TO INSTALL OVERHEAD TRUSS AND SIGNS PHASE I, STEP 7.

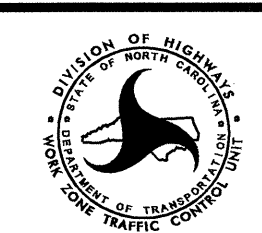
EXIST OVERHEAD SIGN ASSEMBLY
 -L- STA 24+40+/-
 REMOVE OR COVER "RANDLEMAN RD NEXT LEFT" SIGN
 DURING PHASE I CONSTRUCTION. REMOVE ENTIRE
 ASSEMBLY DURING PHASE I, STEP 7.

APPROVED: [Signature] DATE: 4/8/08



PHASE I

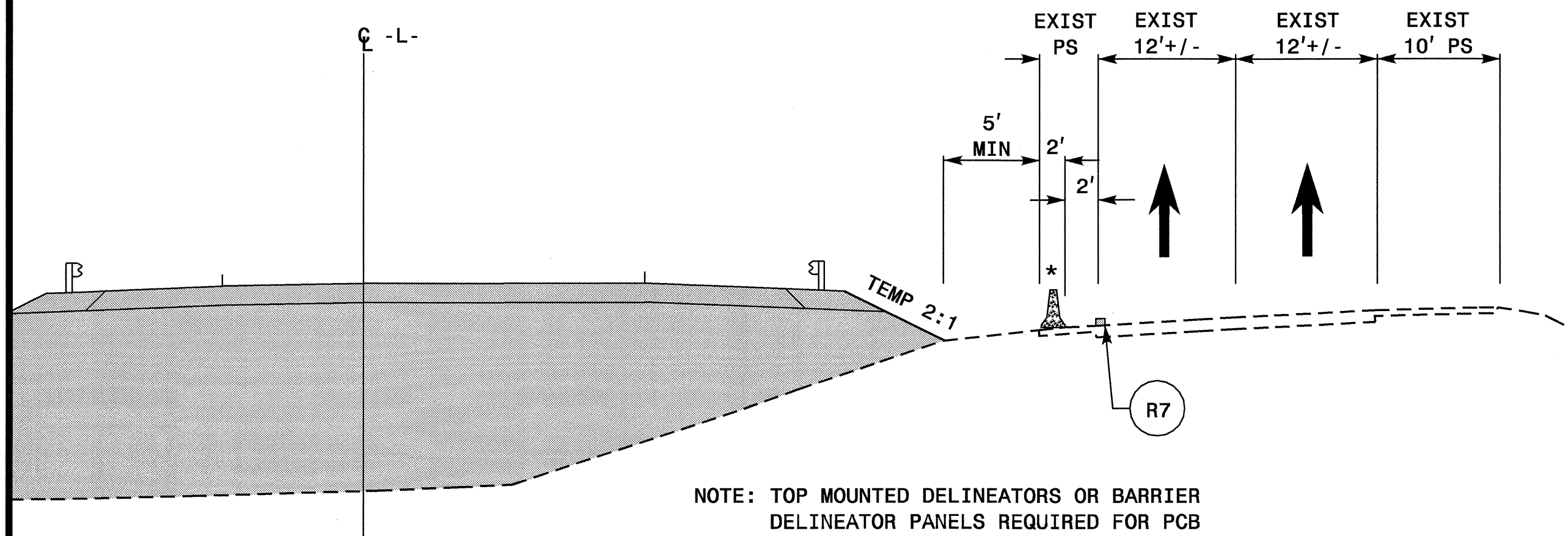
SCALE:	NONE
DATE:	09/07
DWG. BY:	DR
DESIGN BY:	DR
REVIEWED BY:	DAP



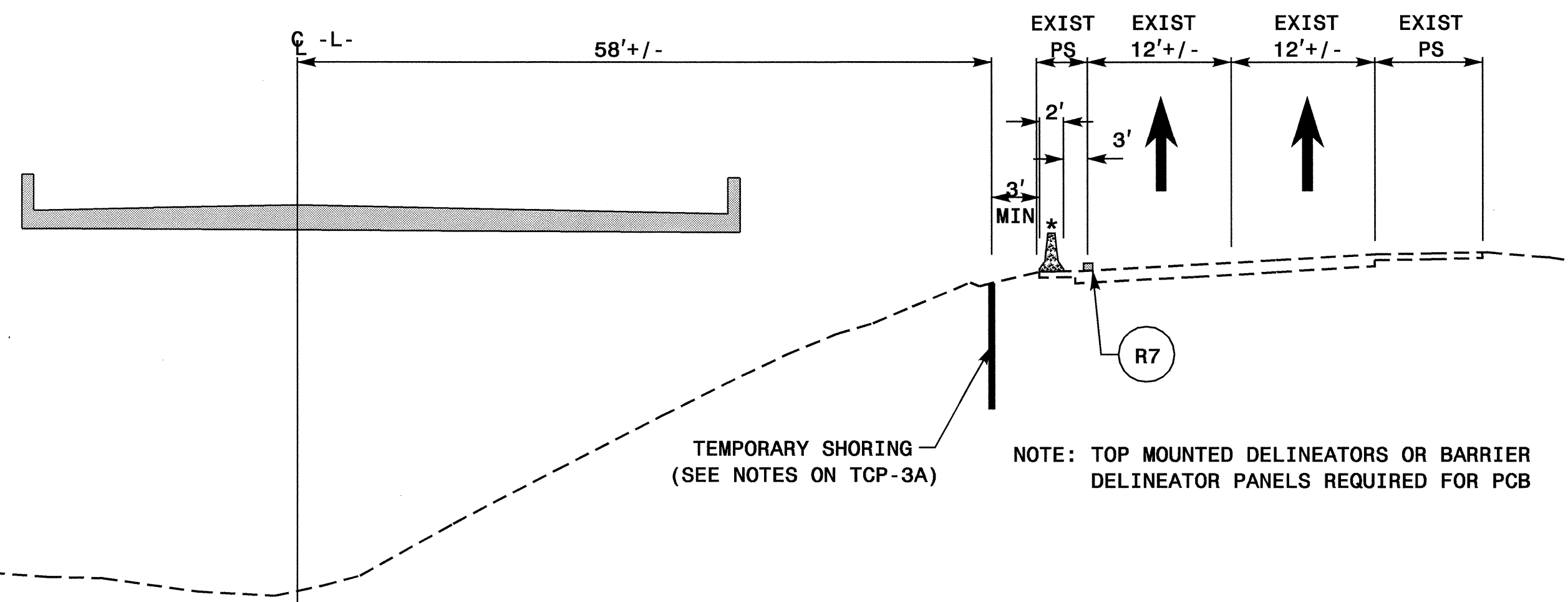
REVISIONS

08-APR-2008 07:44
 \\dot\dfsroot\01\Proj\Tribproj\projects-b\4534\traffico\tr\top\4534.tc_tcp04.dgn
 AT PZTC237460
 derichardson

CUT SECTION B-B -L- 28+50



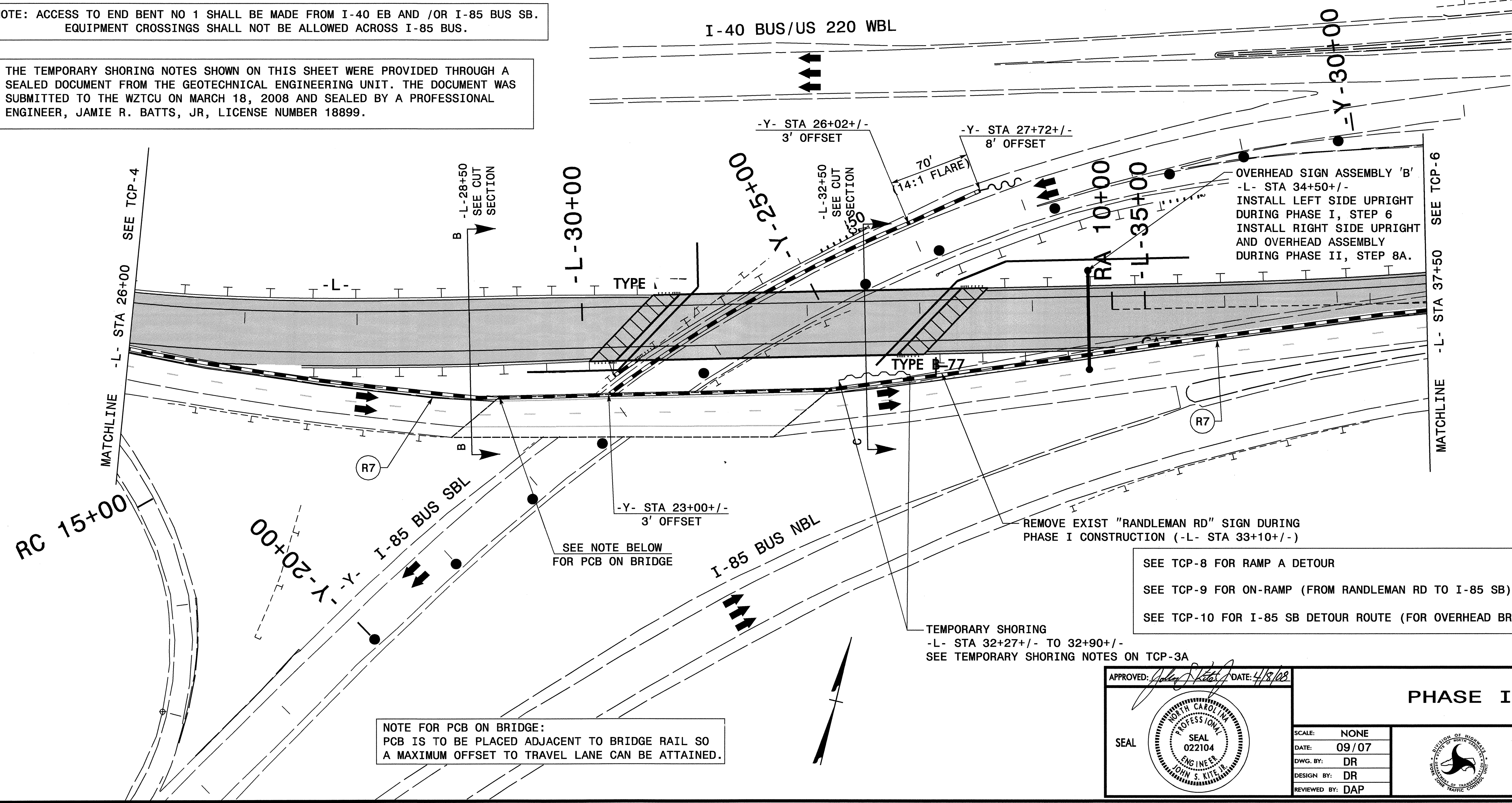
CUT SECTION C-C -L- 32+50



PROJ. REFERENCE NO. B-4534	SHEET NO. TCP-5
-------------------------------	--------------------

NOTE: ACCESS TO END BENT NO 1 SHALL BE MADE FROM I-40 EB AND /OR I-85 BUS SB. EQUIPMENT CROSSINGS SHALL NOT BE ALLOWED ACROSS I-85 BUS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTCU ON MARCH 18, 2008 AND SEALED BY A PROFESSIONAL ENGINEER, JAMIE R. BATTS, JR, LICENSE NUMBER 18899.

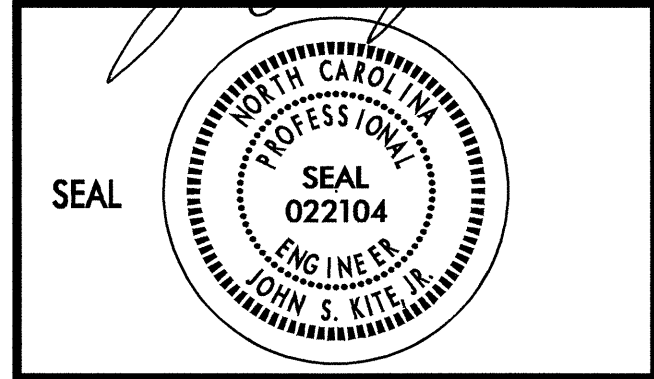


NOTE FOR PCB ON BRIDGE:
PCB IS TO BE PLACED ADJACENT TO BRIDGE RAIL SO A MAXIMUM OFFSET TO TRAVEL LANE CAN BE ATTAINED.

SEE TCP-8 FOR RAMP A DETOUR
SEE TCP-9 FOR ON-RAMP (FROM RANDLEMAN RD TO I-85 SB) DETOUR ROUTE
SEE TCP-10 FOR I-85 SB DETOUR ROUTE (FOR OVERHEAD BRIDGE WORK)

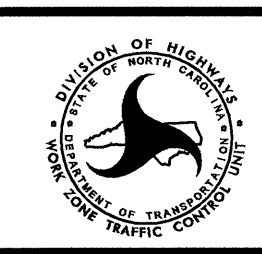
TEMPORARY SHORING
-L- STA 32+27 +/- TO 32+90 +/-
SEE TEMPORARY SHORING NOTES ON TCP-3A

APPROVED: [Signature] DATE: 4/8/08



PHASE I

SCALE:	NONE
DATE:	09/07
DWG. BY:	DR
DESIGN BY:	DR
REVIEWED BY:	DAP



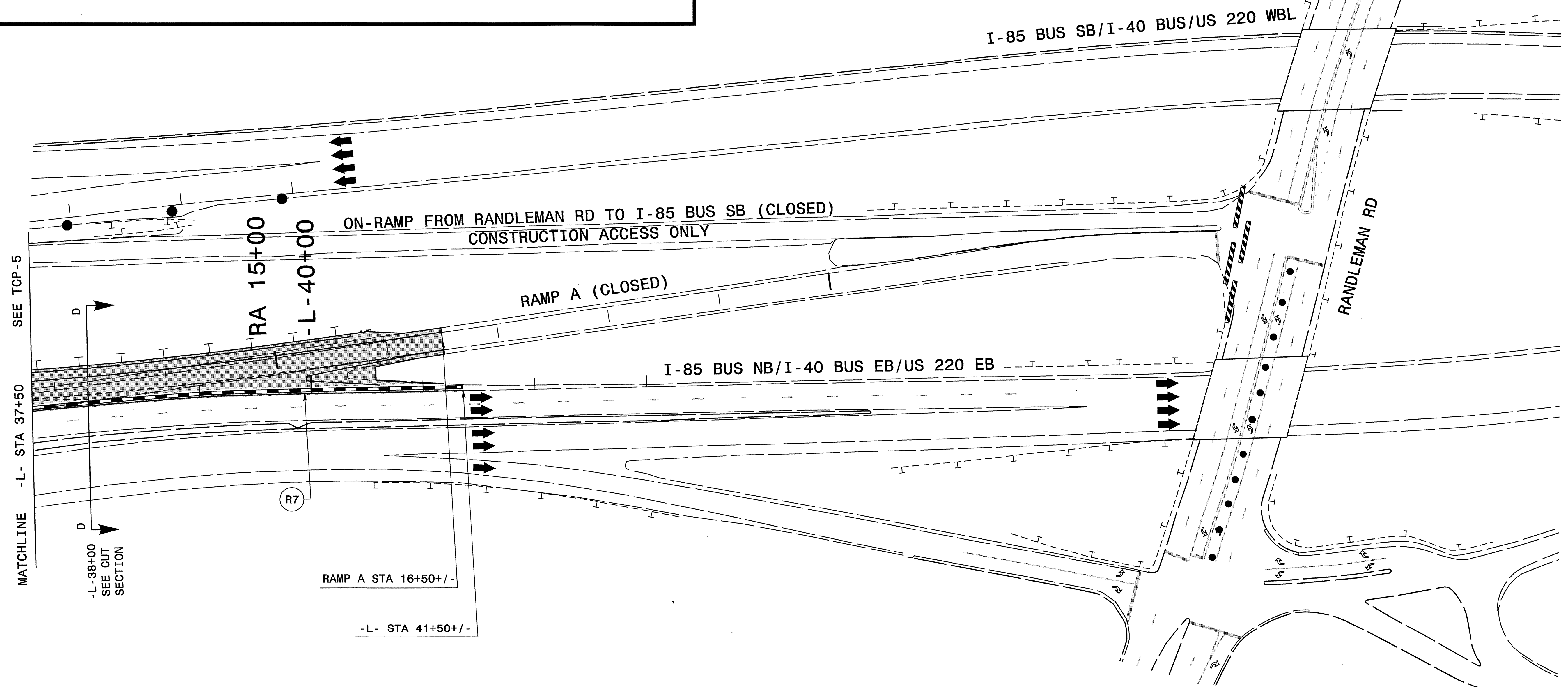
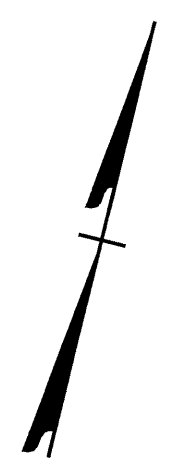
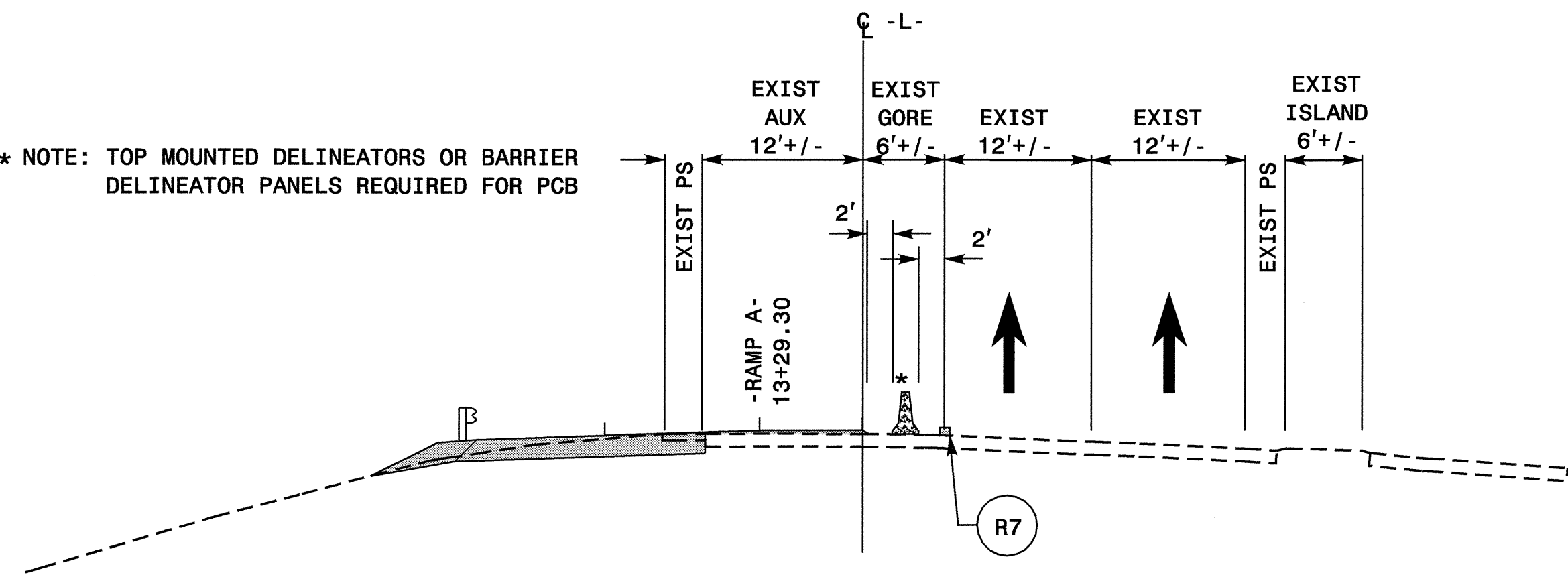
REVISIONS

08-APR-2008 07:46 \\dot\dfs\root\0\Pro\Tipp\Projects-b\4534\traffic\tr\offic\tr\top\b4534.tc_top05.dgn AT WZTC237460 defichardson

CUT SECTION D-D -L- 38+00

PROJ. REFERENCE NO.	SHEET NO.
B-4534	TCP-6

* NOTE: TOP MOUNTED DELINEATORS OR BARRIER DELINEATOR PANELS REQUIRED FOR PCB



10-APR-2008 16:22
D:\dfs\road\01\Proj\TrafficControl\TrafficControl\TCP\B4534_tcp06.dgn
derichardson AT WZTC237460

SEE TCP-8 FOR RAMP A DETOUR.
SEE TCP-9 FOR ON-RAMP (FROM RANDLEMAN RD TO I-85 BUS SB) DETOUR ROUTE.
SEE TFP-10 FOR I-85 BUS SB DETOUR ROUTE (FOR OVERHEAD BRIDGE WORK).

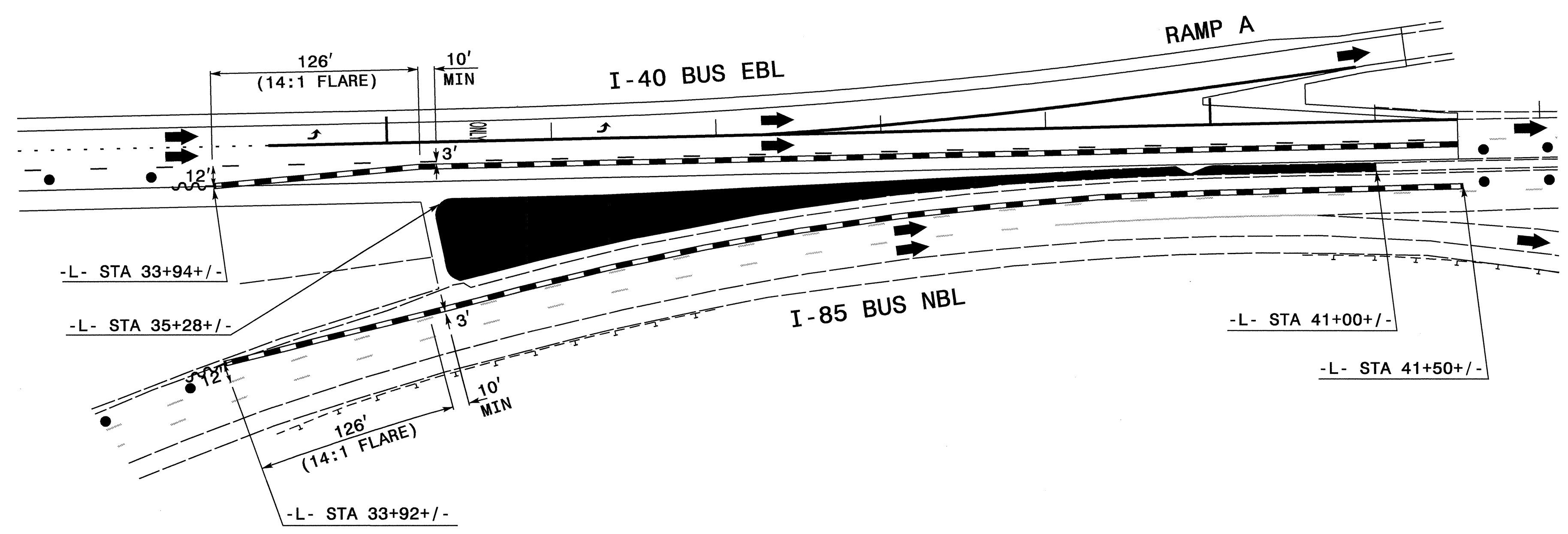
APPROVED: *[Signature]* DATE: 4/4/08

SEAL

PHASE I

SCALE:	NONE		<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											
DATE:	09/07										
DWG. BY:	DR										
DESIGN BY:	DR										
REVIEWED BY:	DAP	CADD FILE									

NOTE: PLACE TEMPORARY MARKINGS (PAINT) IN THE FINAL PATTERN. SEE PM-2 AND PM-3.



TRAFFIC CONTROL FOR PHASE II, STEP 5

USING RSD 1101.02, SHEET 5 OF 9, CLOSE THE RIGHT TWO LANES OF I-40/I-85 BUS SO THAT TRAFFIC IS IN IT'S 2 LANE, 1 WAY PATTERN 1000' BEFORE RAMP C.

INSTALL CMS BOARDS AT THE FOLLOWING LOCATIONS TO ALERT THRU TRAFFIC TO USE THE RIGHT LANE:

MESSAGE NO. 1	MESSAGE NO. 2
THRU TRAFFIC	USE RIGHT LANE

MESSAGE NO. 1	MESSAGE NO. 2
THRU TRAFFIC	USE RIGHT LANE

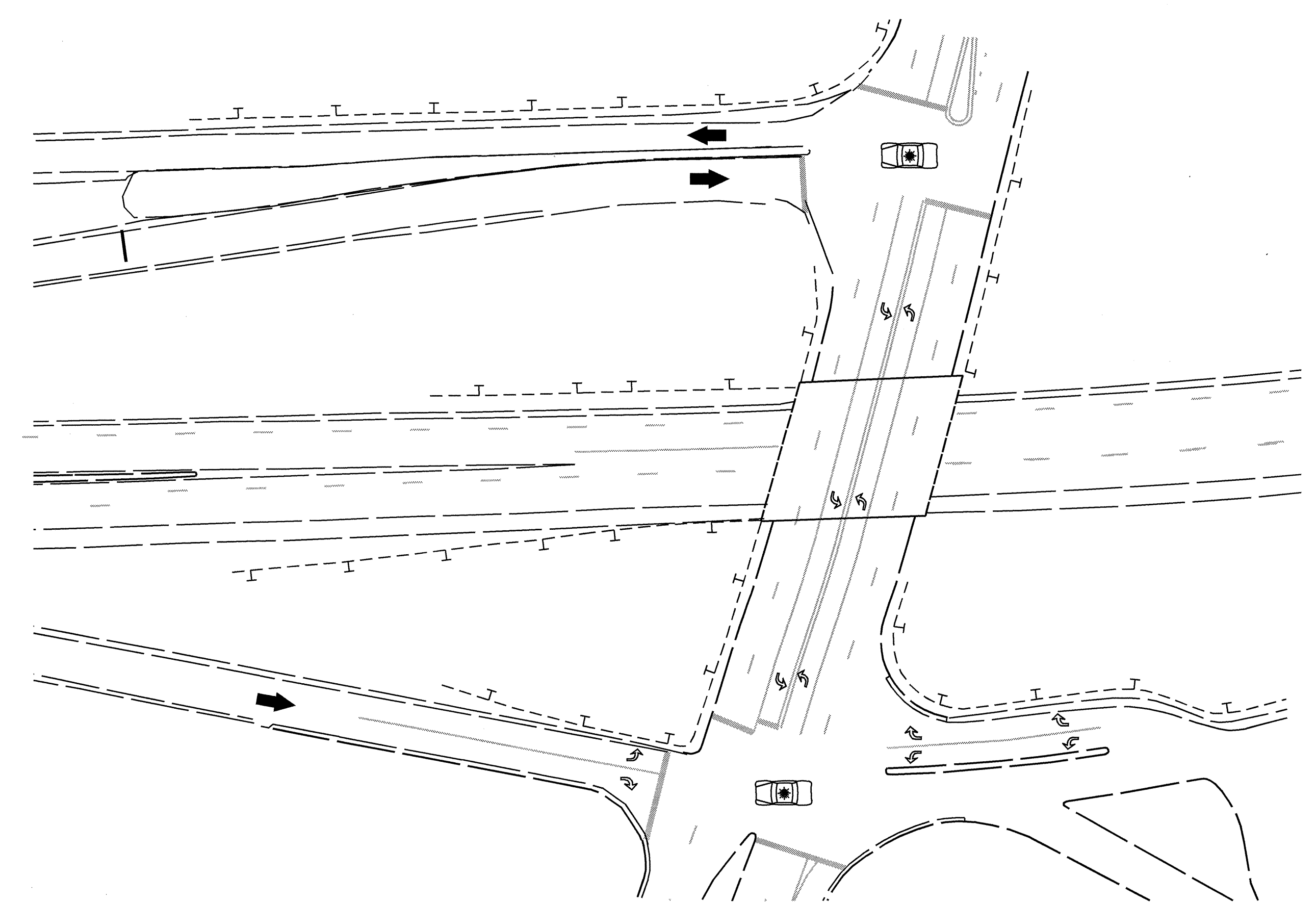
CMS 1

CMS 2

LOCATED BEHIND DRUMS IN CLOSED LANE APPROX 500' IN ADVANCE OF RAMP C

LOCATED BEHIND DRUMS IN CLOSED LANE AT APPROX -L- STA 26+50+/-

DETAIL FOR CONCRETE ISLAND CONSTRUCTION (PHASE II, STEP 5)



TRAFFIC CONTROL FOR PHASE II, STEP 6

USING EXISTING DRUMS, CREATE A 660 FT TAPER BEGINNING AT -L- STA 30+70+/- TO CLOSE THE REMAINING THRU LANE TO SHIFT TRAFFIC ONTO RAMP A. PLACE A FLASHING ARROW PANEL AT THE BEGINNING OF THE TAPER AT -L- STA 30+70+/-.

REVISE CMS MESSAGING AS FOLLOWS:

MESSAGE NO. 1	MESSAGE NO. 2
ALL TRAFFIC EXIT	USE LEFT LANE

MESSAGE NO. 1	MESSAGE NO. 2
ALL TRAFFIC EXIT	USE LEFT LANE

CMS 1

CMS 2

DETAIL FOR PCB REMOVAL (PHASE II, STEP 6)

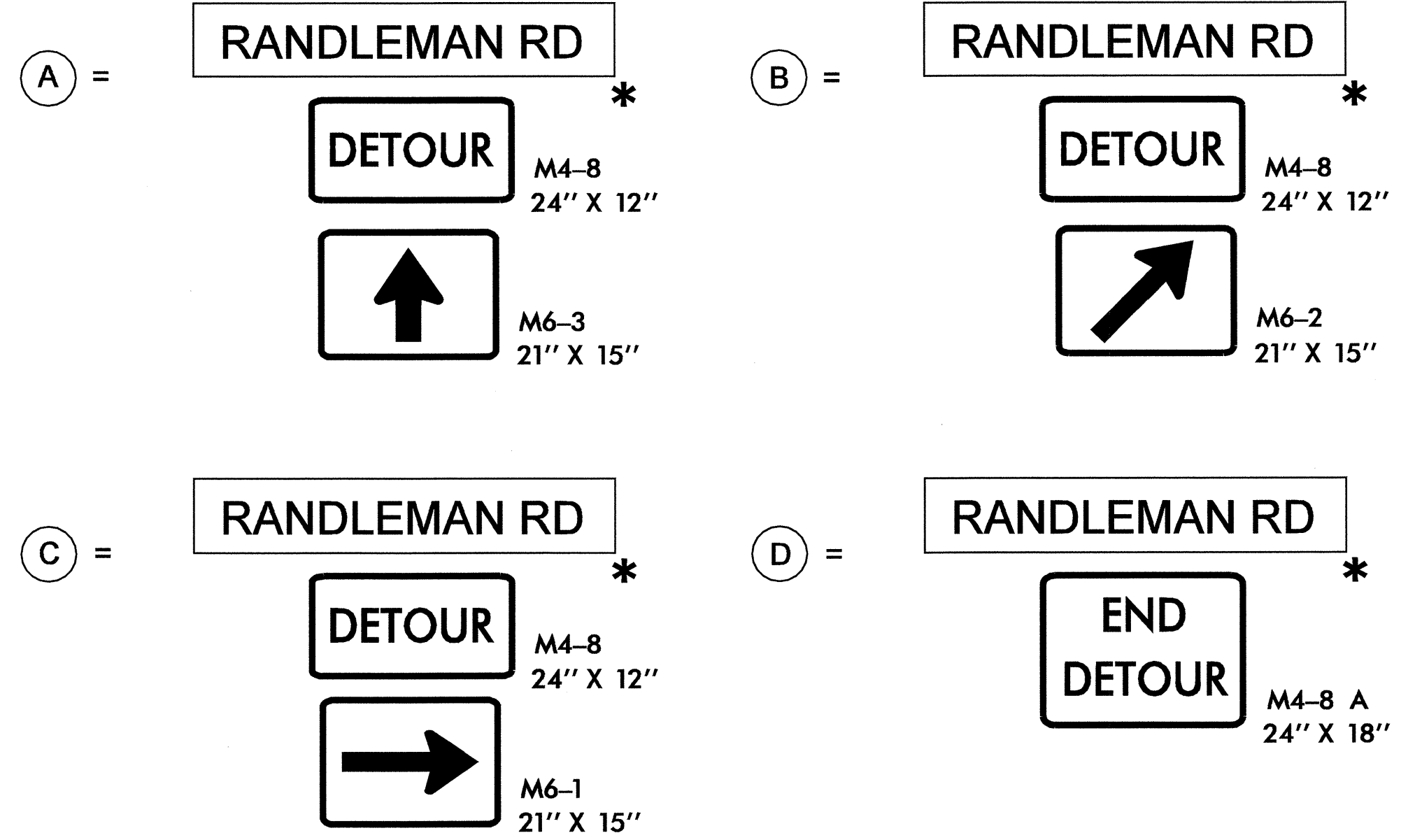
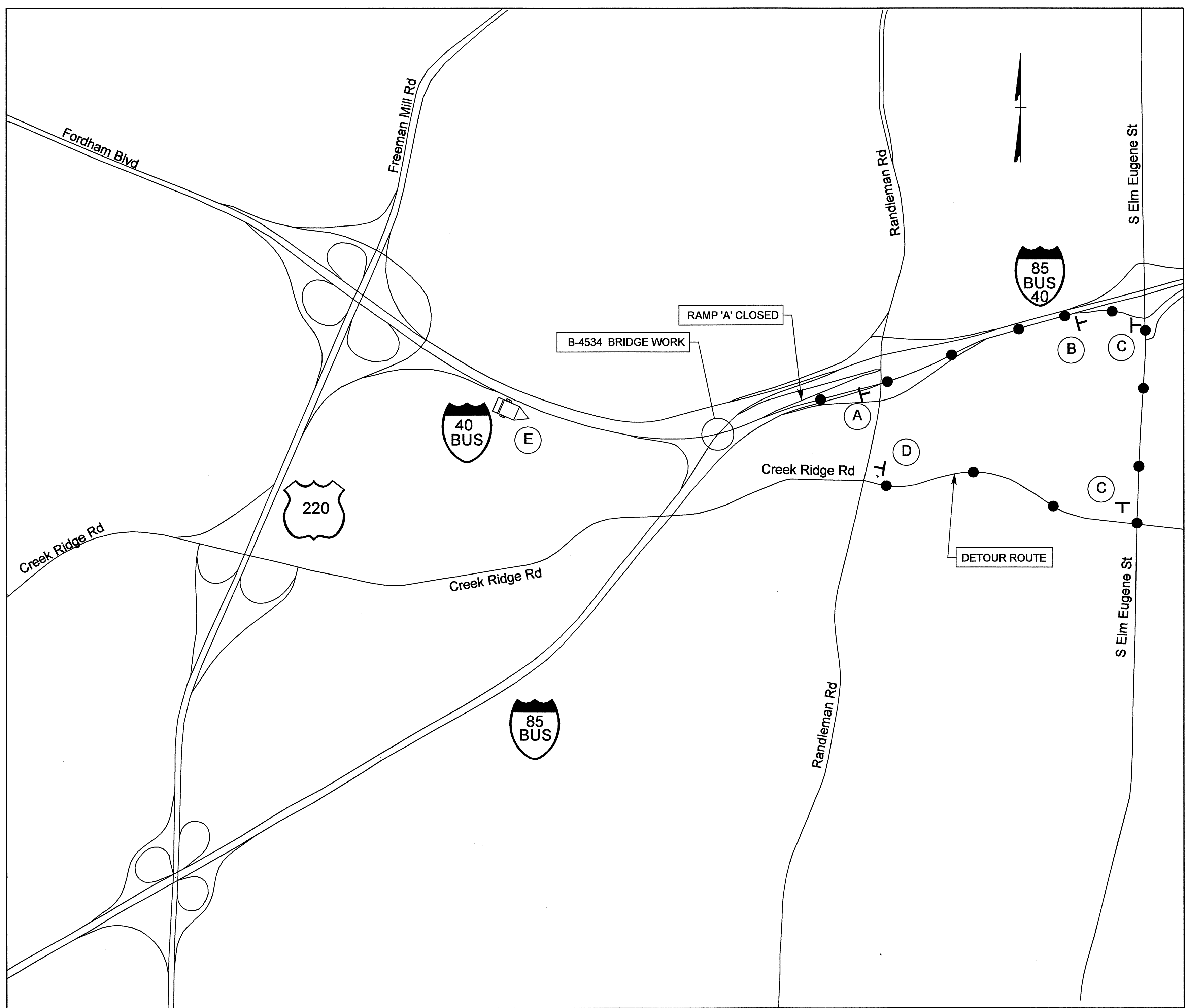
APPROVED: <i>John S. Kite, Jr.</i> DATE: 3/28/08	ISLAND CONST DETAIL AND LANE CLOSURE DETAIL				<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS											
SEAL	SCALE: NONE	DATE: 09/07	REVIEWED BY: DAP								
	DWG. BY: DR	DESIGN BY: DR	CADD FILE								

28-MAR-2008 12:29 \\dot\dfsroot\01\Proj\Tipp\Projects-b\4534\Traffic\TrafficControl\top\b4534_top07.dgn derichardson AT WZTC237460

* SEE SD-1 FOR SPECIAL SIGN DESIGN

PHASE I, STEP 2

RAMP A (TO MAKE TIE IN) DETOUR BEYOND WORK ZONE VIA ELM EUGENE ST TO CREEK RIDGE RD



(E) =

MESSAGE NO. 1	MESSAGE NO. 2
RANDLEMAN RD EXIT CLOSED	FOLLOW DETOUR 1/2 MILE

NOTE: CMS TO BE PLACED AT END OF RAMP FROM US 220 ON I-40 AND APPROX 1/2 MILE PRIOR TO RAMP ON I-85 BUS NB

DMS 15
 RANDLEMAN RD
 EXIT CLOSED
 FOLLOW DETOUR

DMS 21
 RANDLEMAN RD
 EXIT CLOSED
 FOLLOW DETOUR

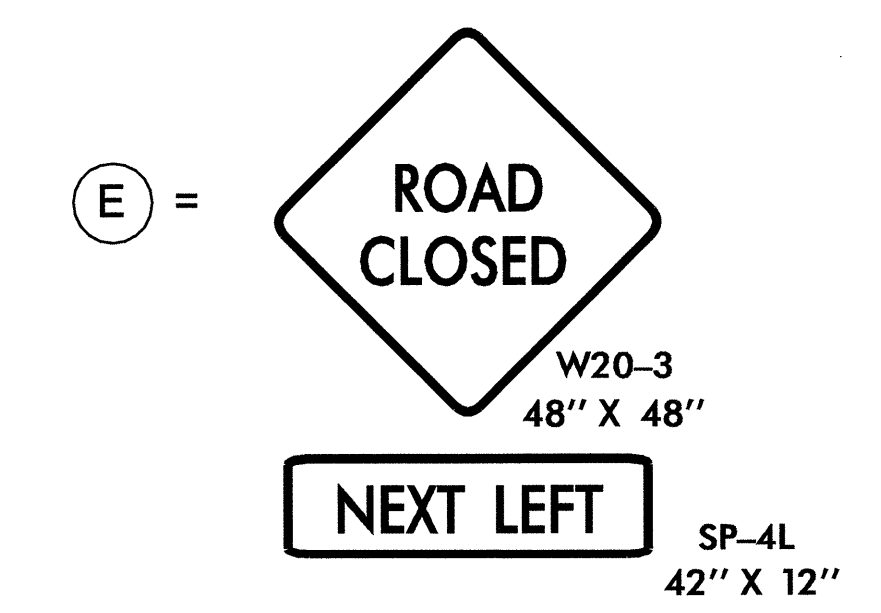
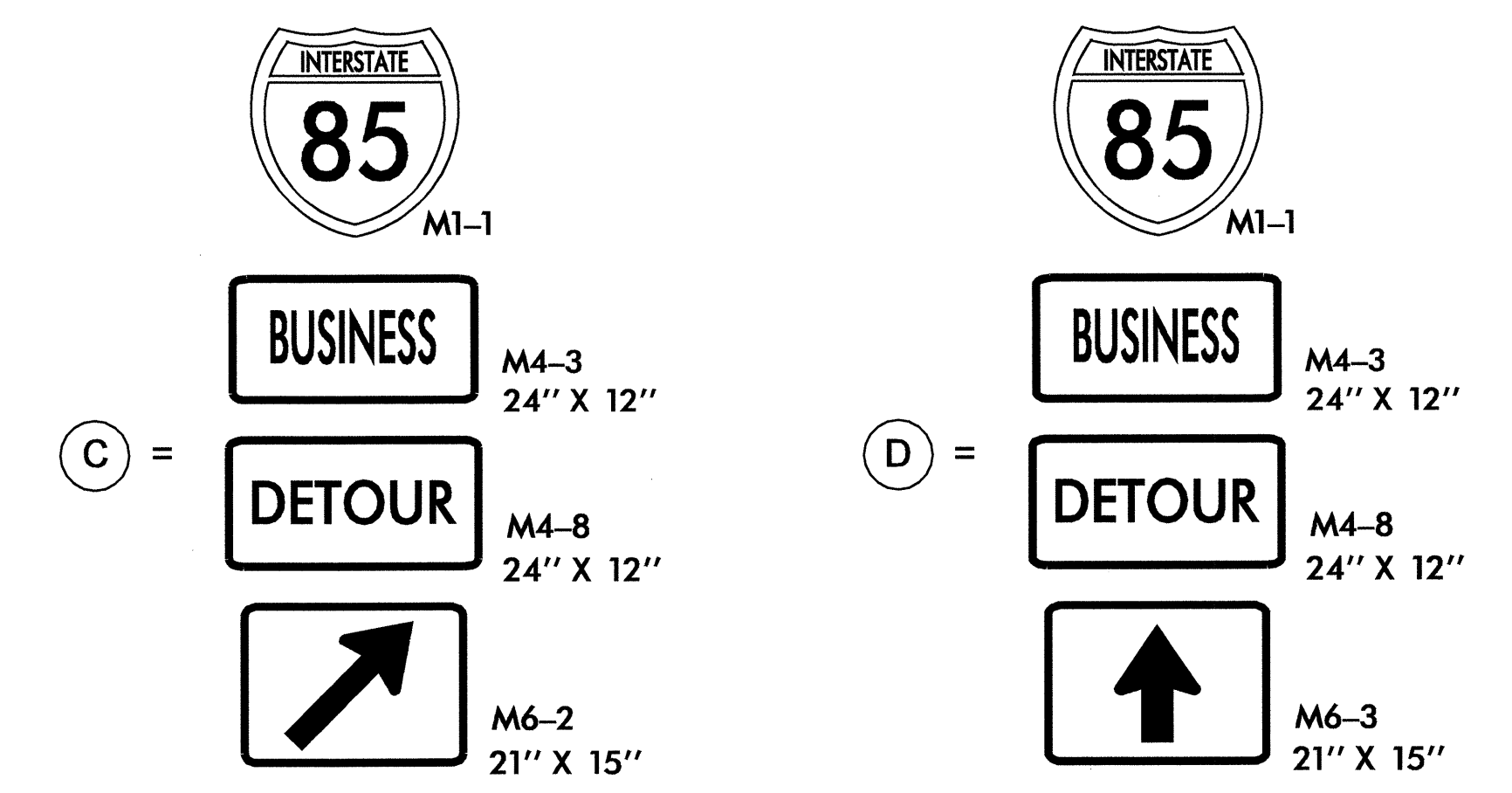
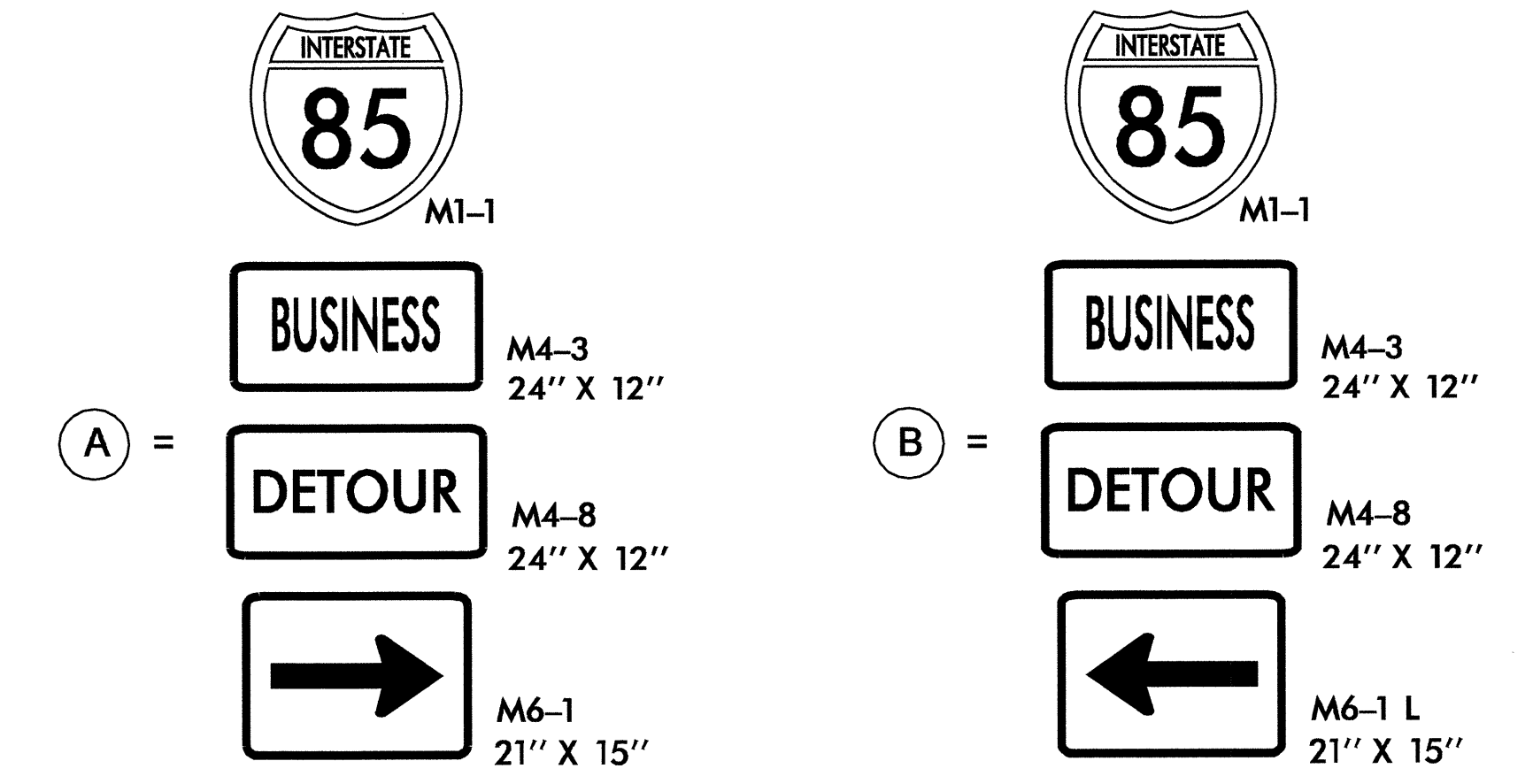
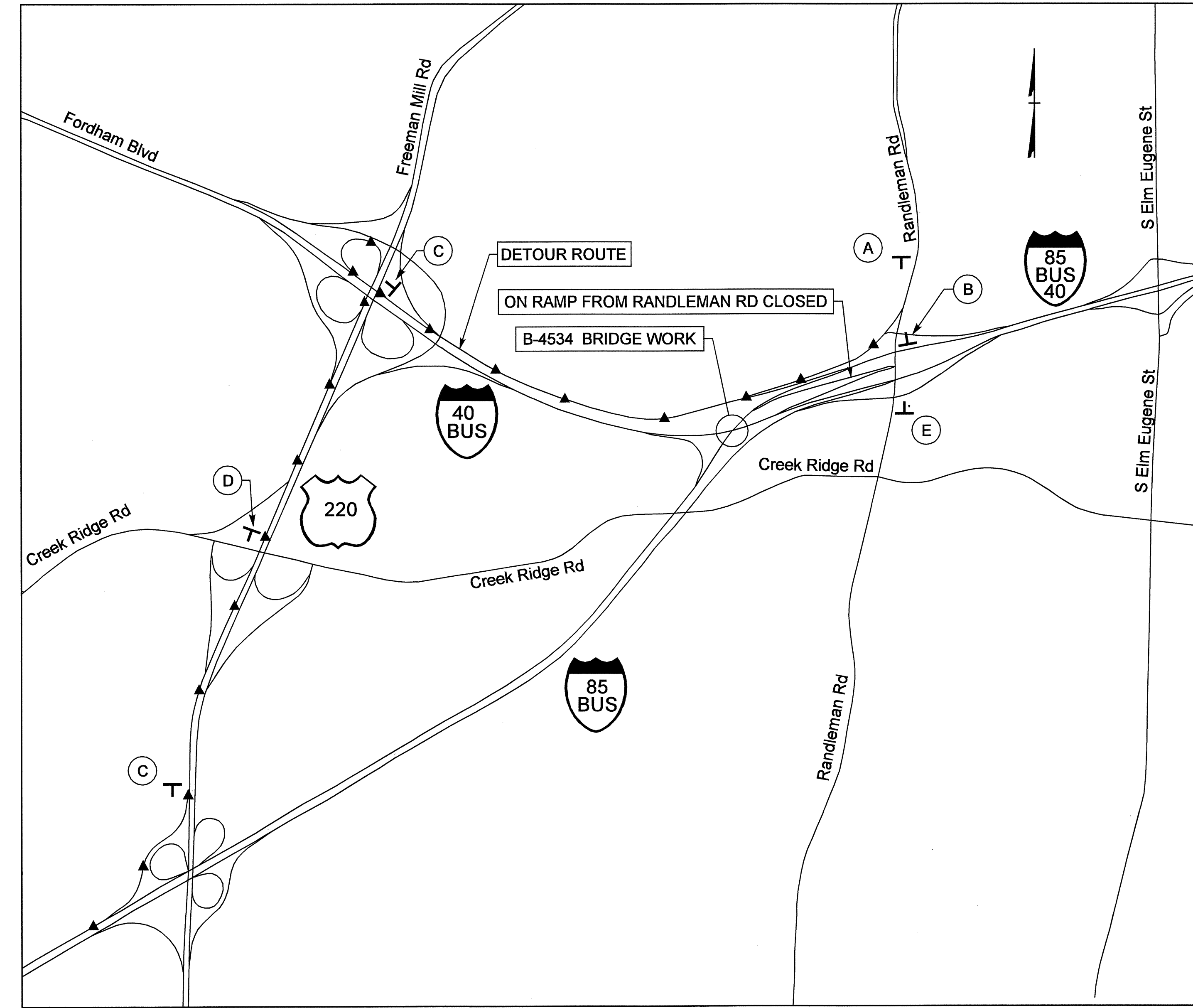
SEE TCP-12 FOR DMS LOCATIONS
 COORDINATE WITH TRIAD TMC

APPROVED: <i>[Signature]</i> DATE: 4/17/08	DETOUR ROUTE FOR CLOSURE OF RAMP 'A'								
	SCALE: NONE								
	DATE: 04/07		<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
	REVISIONS								
DWG. BY: DER	<table border="1"> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>								
DESIGN BY: DER									
REVIEWED BY: DAP									

IO-APR-2008 16:24
 \\dot\dfsroot\0\Proj\TIP\proj\projects-b\4534\traffic\trafficcontrol\top\b4534_tc_operation_map.dgn
 der\char-dson AT WZTC237460

PHASE I, STEP 4

CLOSE ON RAMP (FROM RANDLEMAN RD TO I-85SB)
 DETOUR - VIA I-40 TO US 220 SB



I-85 SOUTH
 ALTERNATE ROUTE
 USE US220 SOUTH

DMS 06

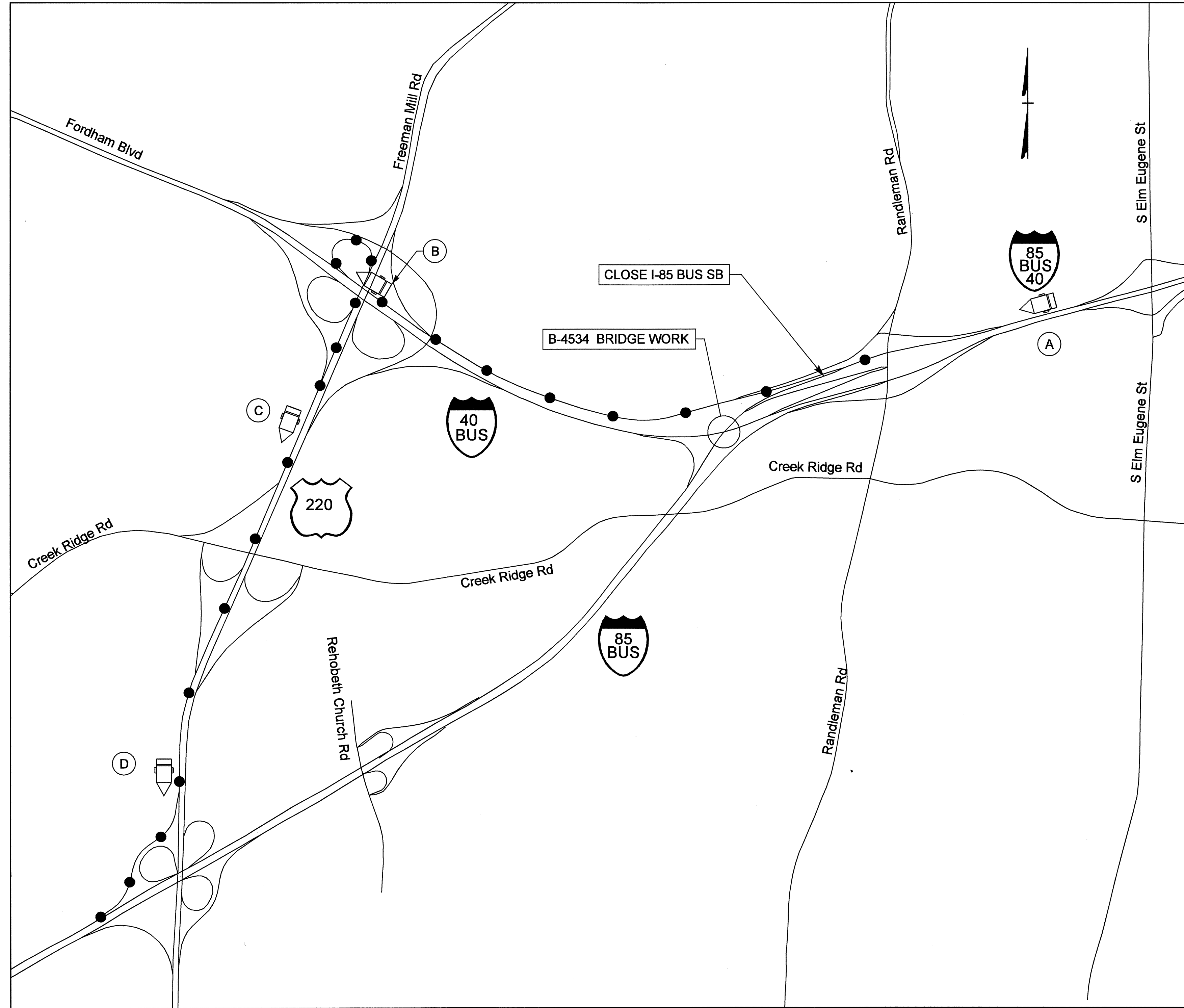
SEE TCP-12 FOR DMS LOCATIONS
 COORDINATE WITH TRIAD TMC

APPROVED:	DATE: 4/14/08	DETOUR ROUTE FOR CLOSURE OF I-85 BUS ON-RAMP	
	SCALE: NONE		
DATE: 04/07	DWG. BY: DER		
DESIGN BY: DER	REVIEWED BY: DAP		
CADD FILE			

10-APR-2008 16:25
 \dot\files\dot\0101\Proj\TIP\Projects-B\4534\Traffic\TrafficControl\top\b4534_to_operation_map.dgn
 AT WZTC237460
 der\char-dson

PHASE I, STEP 7
&
PHASE II, STEP 8

I-85 BUS SB (TO DO OVERHEAD BRIDGE WORK) USE I-40 W TO US 220



(A) (TO BE PLACED BETWEEN ELM ST RAMP AND RANDLEMAN RD EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
I-85 SB EXIT CLOSED	USE US 220 SOUTH

(B) (TO BE PLACED BETWEEN US 220 NB EXIT AND US 220 SB EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
I-85 SB TRAFFIC EXIT HERE	FOLLOW US 220 SOUTH

(C) (TO BE PLACED BETWEEN I-40 RAMP AND CREEK RIDGE RD EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
I-85 SOUTH DETOUR	FOLLOW US 220 SOUTH

(D) (TO BE PLACED 500' PRIOR TO I-85 SB EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
I-85 SOUTH DETOUR	EXIT HERE

SEE TCP-12 FOR DMS LOCATIONS
COORDINATE WITH TRIAD TMC

DMS 02

I-85 BUS SOUTH
CLOSED FOR WORK
USE US220 SOUTH

DMS 04

I-85 BUS SOUTH
CLOSED FOR WORK
TAKE US220 SOUTH

DMS 06

I-85 BUS SOUTH
DETOUR ROUTE
TAKE US220 SOUTH

APPROVED: *[Signature]* DATE: 4/14/09

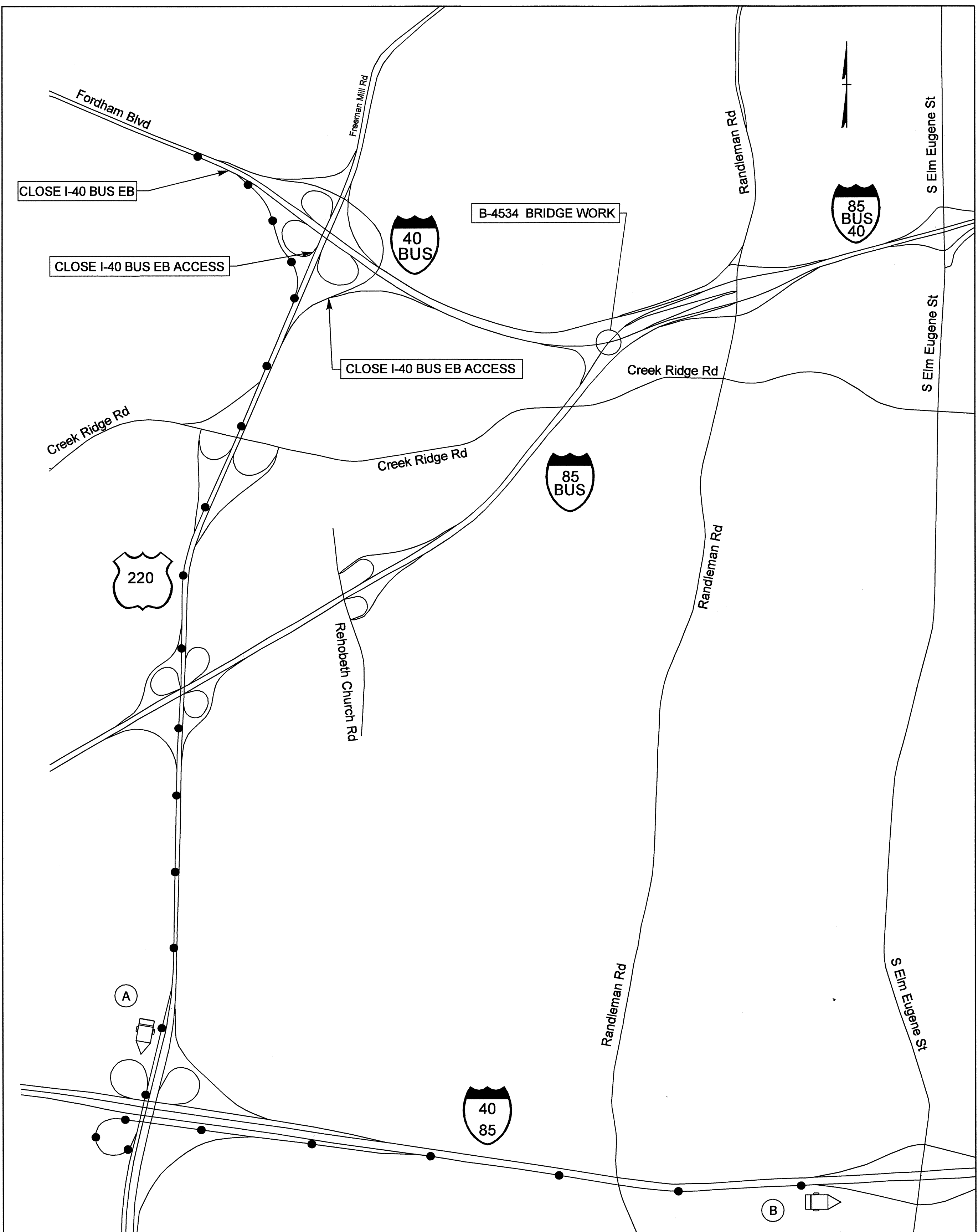
DETOUR ROUTE FOR
CLOSURE OF I-85 BUS
FOR INSTALLING GIRDERS

SCALE: NONE		REVISIONS
DATE: 04/07		
DWG. BY: DER		
DESIGN BY: DER		
REVIEWED BY: DAP		

10-APR-2008 16:26
 \\dot\dfsroot\01\Proj\Tipp\projects-b\4534\trafficcontrol\top\b4534_to_operation_map.dgn
 AT WZTC237460
 derichardson

PHASE II, STEP 1

I-40 EB CLOSURE (FOR TIE IN WORK ON WEST END)



(A) (TO BE PLACED 500' PRIOR TO I-85 EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
I-40 BUS TRAFFIC	EXIT HERE

(B) (TO BE PLACED 500' PRIOR TO ELM-EUGENE ST EXIT) =

MESSAGE NO. 1	MESSAGE NO. 2
GRNSBRO TRAFFIC	USE THIS EXIT

DMS 14
**I-40 BUS CLOSED
 ALL TRAFFIC
 USE US220 SOUTH**

DMS 15
**I-40 BUS CLOSED
 ALL TRAFFIC
 USE US220 SOUTH**

DMS 20
**GREENSBORO
 TRAFFIC FOLLOW
 ELM-EUGENE ST**

COORDINATE WITH TRIAD TMC

SEE TCP-12 FOR DMS LOCATIONS
 SEE TCP-13 THRU TCP-18 FOR I-40 CLOSURE DETAILS

23-APR-2008 11:32 \\dot\dfsroot\01\Proj\Tipp\projects-b\4534\traffic\trafficcontrol\top\b4534_tc_operation_map.dgn
 der\char-dson AT W:\TC237460

APPROVED: <i>[Signature]</i> DATE: 4/2/07	DETOUR ROUTE FOR CLOSURE OF I-40 BUS FOR TIE IN WORK	
SCALE: NONE		REVISIONS
DATE: 04/07		
DWG. BY: DER		
DESIGN BY: DER		
REVIEWED BY: DAP		

NOTES
 - UNLESS OTHERWISE PROPOSED, DISPLAY THE FOLLOWING MESSAGES DURING ALL WORK PHASES.
 - COORDINATE MESSAGING WITH TRIAD TMC

DMS 02
 I-85 BUS SOUTH
 WORK ZONE AHEAD

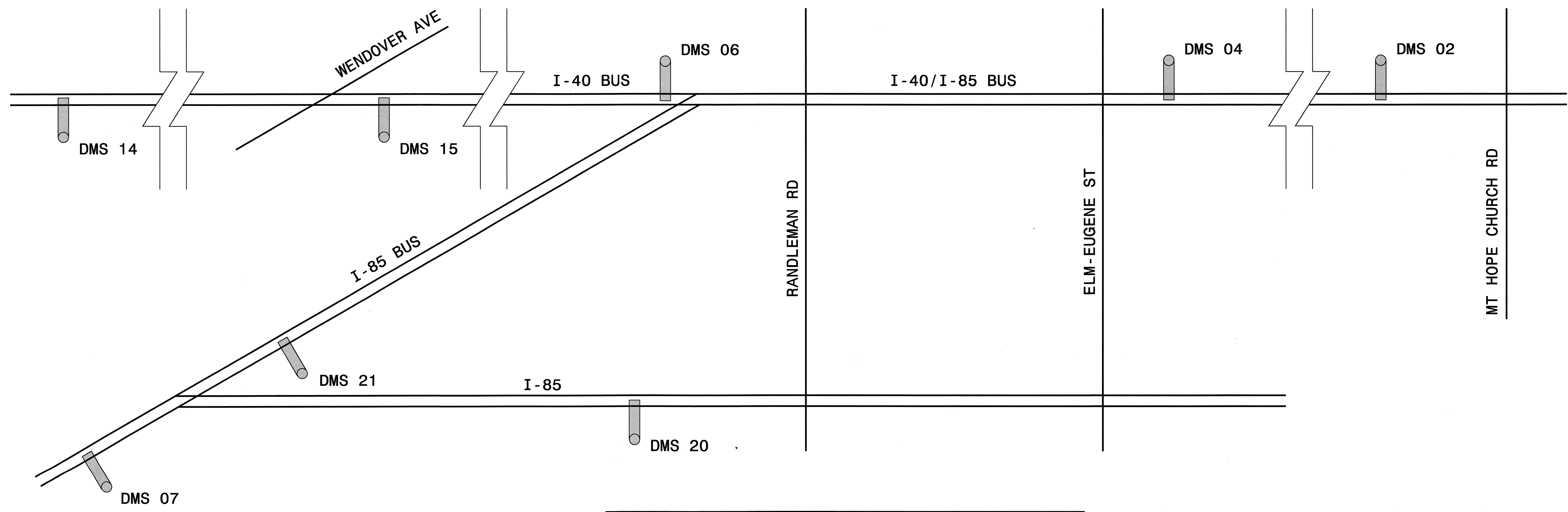
DMS 04
 I-85 BUS SOUTH
 WORK ZONE AHEAD

DMS 07
 I-85 BUS NORTH
 WORK ZONE AHEAD

DMS 14
 I-40 BUS EAST
 WORK ZONE AHEAD

DMS 15
 I-40 BUS EAST
 WORK ZONE AHEAD

DMS 21
 I-85 BUS NORTH
 WORK ZONE AHEAD



DMS LEGEND

DMS 02 = I-40/I-85 SB 0.94 MILES SOUTH OF MT HOPE CHURCH RD
 DMS 04 = I-85 BUS/I-40 0.43 MILES NORTH OF ELM-EUGENE ST
 DMS 06 = I-40 WB 0.39 MILES WEST OF RANDLEMAN RD
 DMS 07 = I-85 NB 0.8 MILES NORTH OF GROOMETOWN RD
 DMS 14 = I-40 EB AT MM 208
 DMS 15 = I-40 EB AT WENDOVER AVE
 DMS 20 = I-85 AT RANDLEMAN RD
 DMS 21 = I-85 BUS NB AT HOLDEN RD

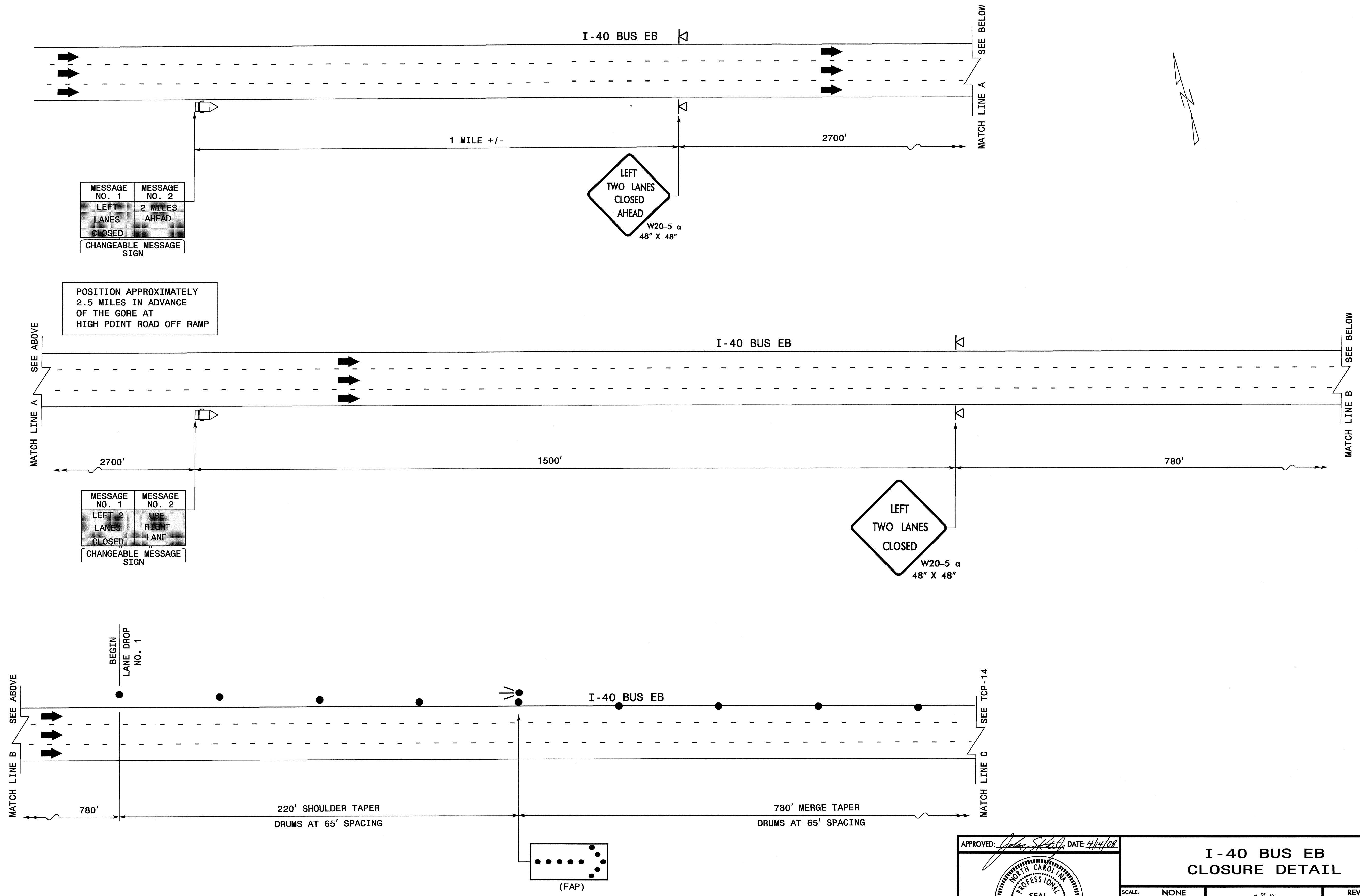
APPROVED: *[Signature]* DATE: 4/14/07

SEAL
 JOHN S. KITE
 ENGINEER
 022104
 PROFESSIONAL ENGINEER
 NORTH CAROLINA

PROPOSED DMS MESSAGING

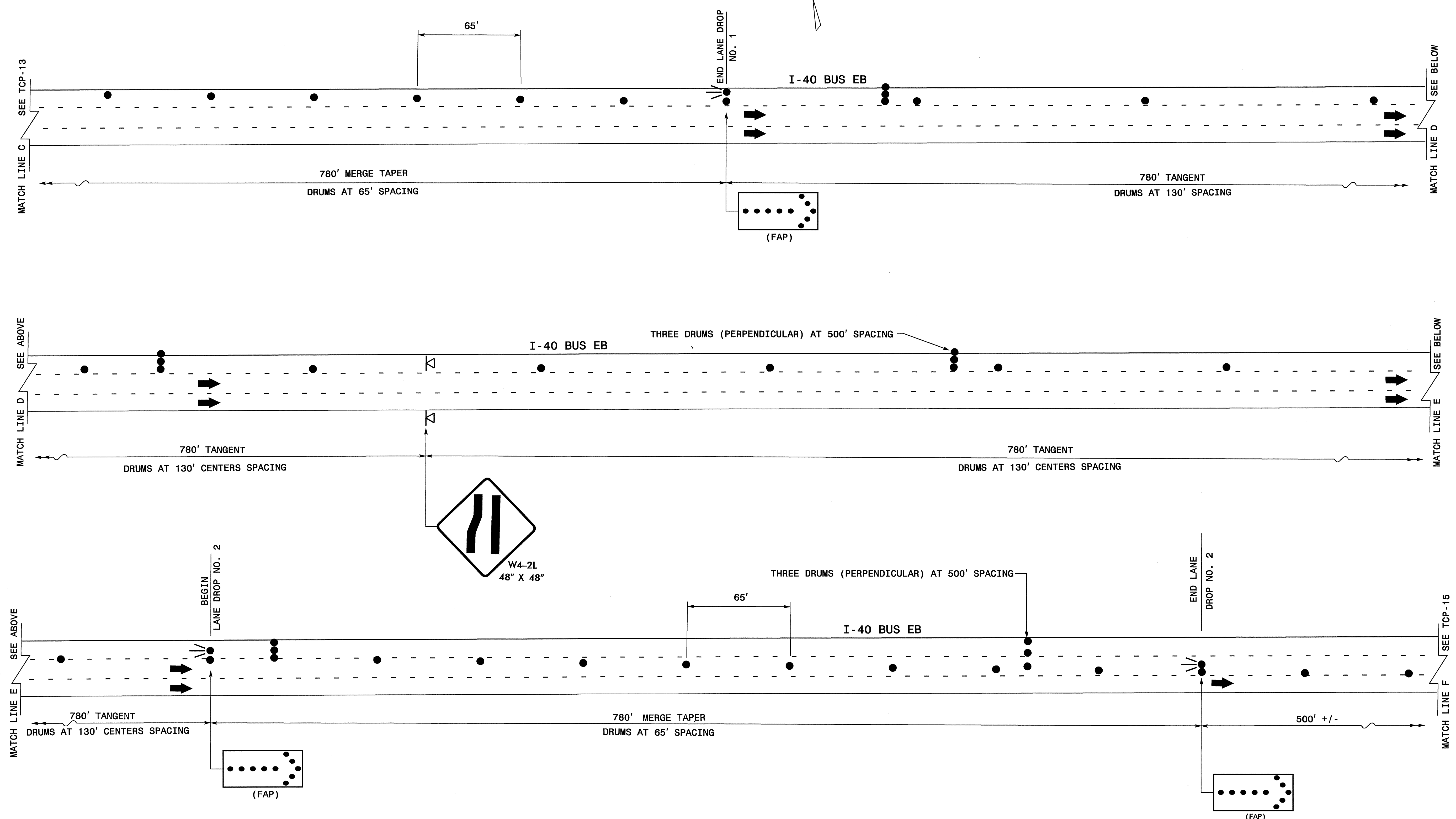
SCALE:	NONE		REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>								
DATE:	04/07										
DWG. BY:	DER										
DESIGN BY:	DER										
REVIEWED BY:	DAP	CADD FILE									

I:\APP-2008_07-01\dot\dfsroot\Projects\B4534\Traffic\TrafficControl\top\B4534_tc.operation_map.dgn
 WZTC237460
 derichardson



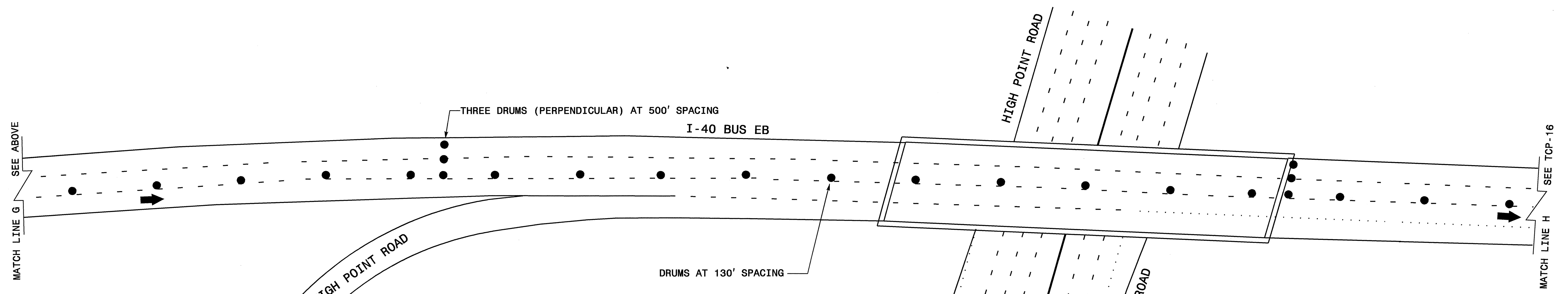
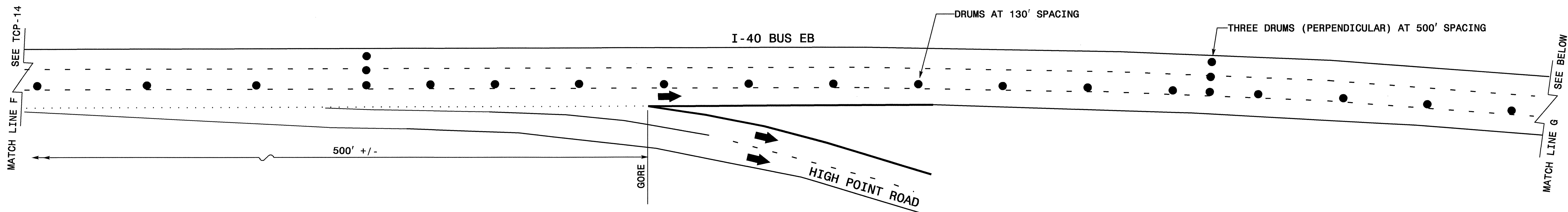
I:\APR-2008_07-04\DOT\dfs\0010\Proj\ppr\projects-b\4534\trafficcontrol\top\spence design.dgn
 AT WZTC237460
 derichardson

APPROVED: <i>John S. Kite</i> DATE: 4/14/08 	I-40 BUS EB CLOSURE DETAIL					
	SCALE: NONE DATE: 1/2008 DWG. BY: JRS DESIGN BY: JRS REVIEWED BY: DAP		REVISIONS <table border="1"> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>			

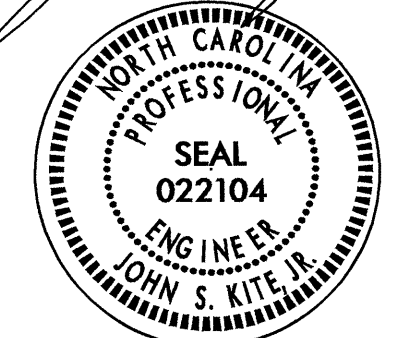
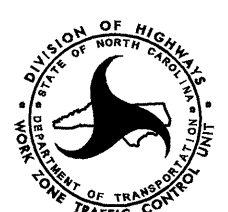


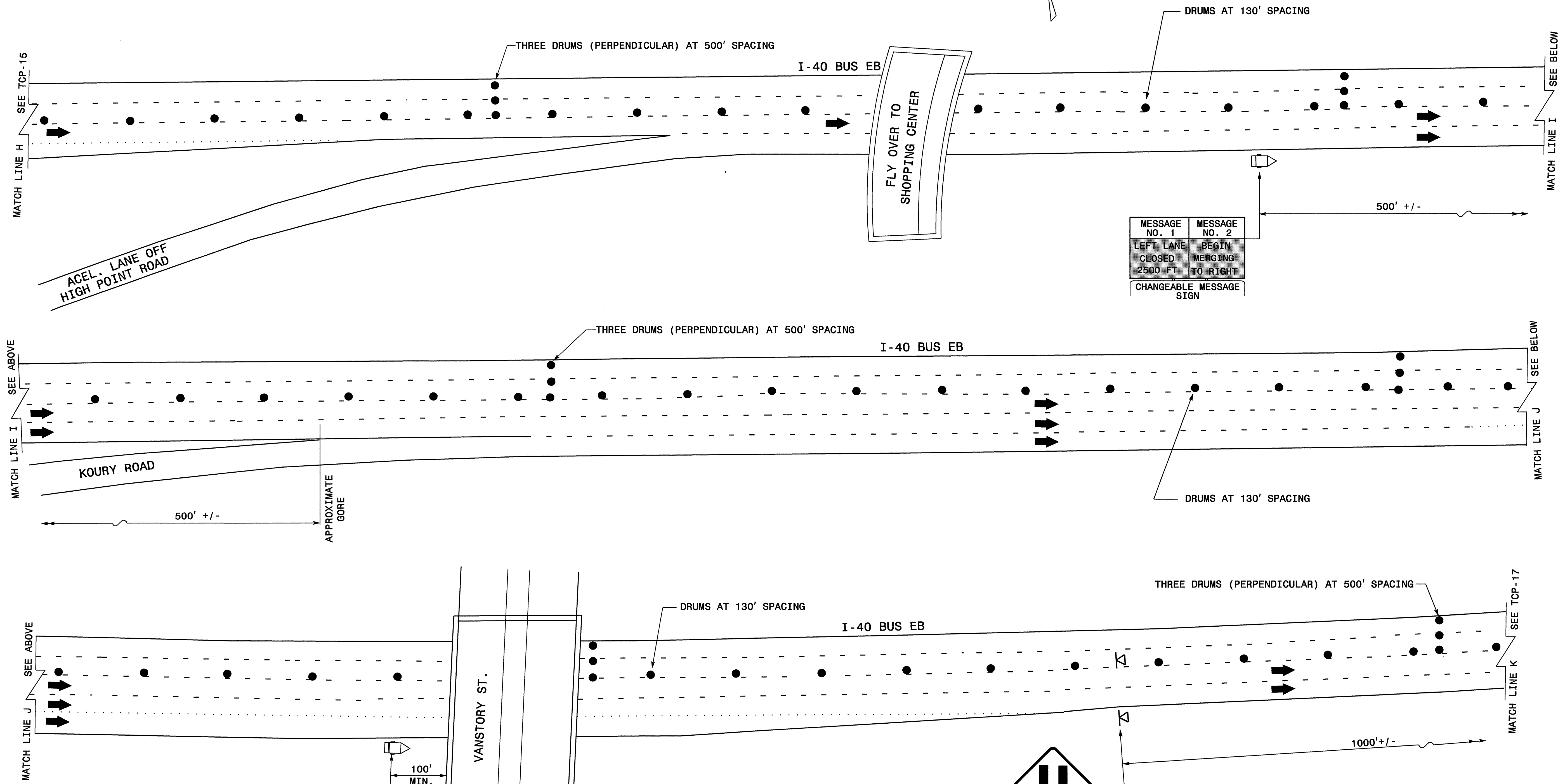
I:\APR-2008_07405
 \Dot\Gis\root01\AT WZTC237460
 \Proj\Hipp\projects-b\4534\Traffic\control\Top\spence design.dgn
 deRitchardson

APPROVED: <i>[Signature]</i> DATE: 1/14/08 	I-40 BUS EB CLOSURE DETAIL							
	SCALE: NONE DATE: 1/2008 DWG. BY: JRS DESIGN BY: JRS REVIEWED BY: DAP		REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>					

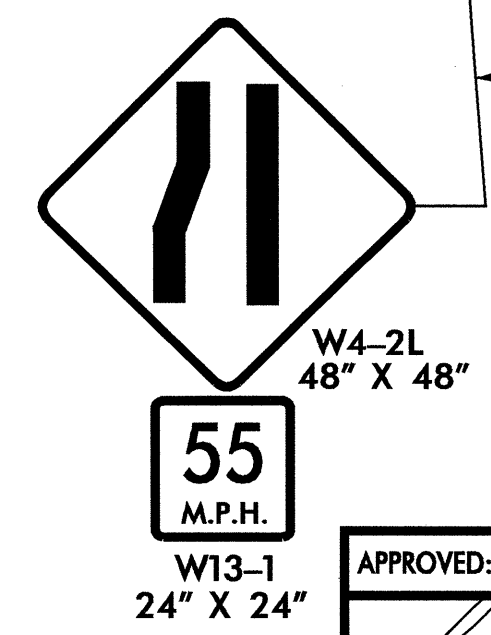


I-APR-2008 07:05
 \\dot\dfsroot\01\AT\WZTC237460\Projects\b4534\traffic\trafficcontrol\top\spence design.dgn
 der\char-dson

APPROVED: <i>[Signature]</i> DATE: 4/14/08 	I-40 BUS EB CLOSURE DETAIL							
SCALE: NONE DATE: 1/2008 DWG. BY: JRS DESIGN BY: JRS REVIEWED BY: DAP		REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						



MESSAGE NO. 1	MESSAGE NO. 2
ALL TRAFFIC	USE NEXT EXIT
CHANGEABLE MESSAGE SIGN	



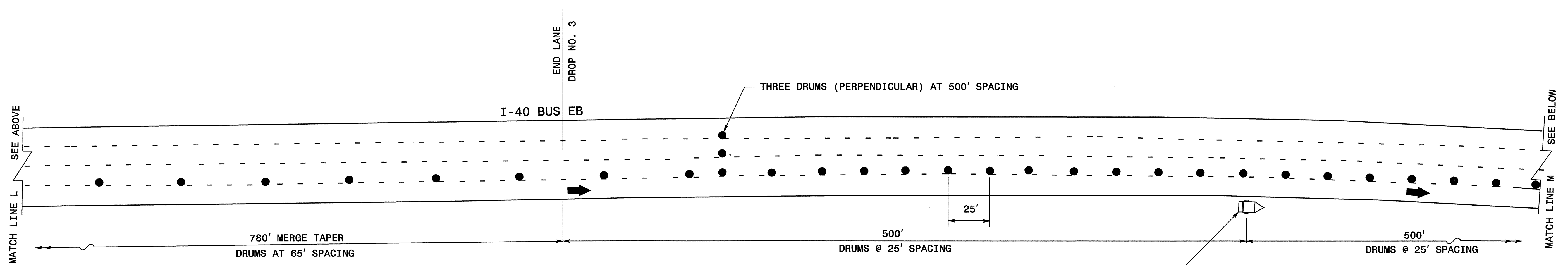
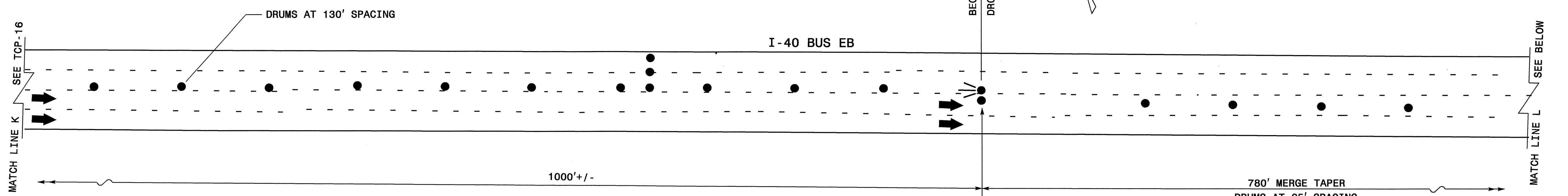
APPROVED: *[Signature]* DATE: 4/4/08

SEAL

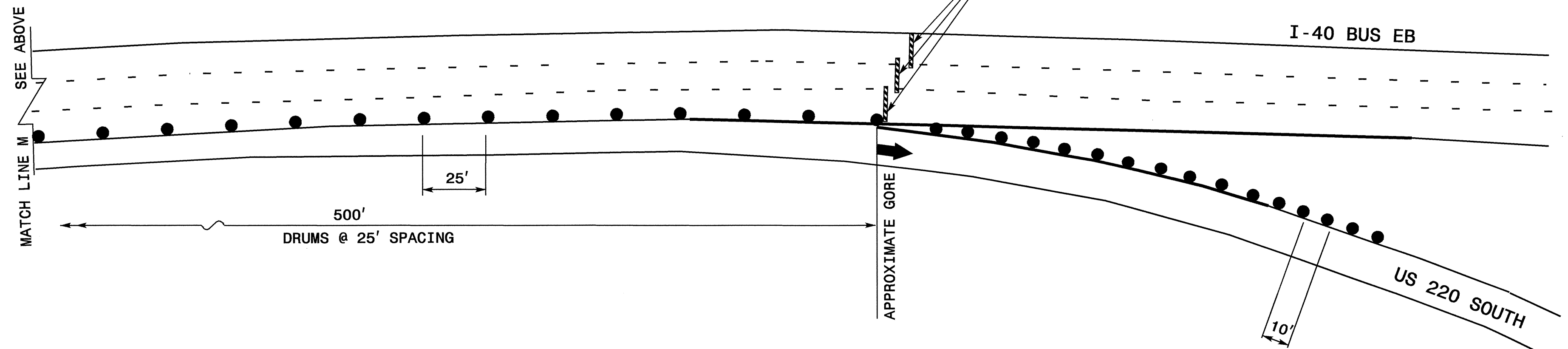
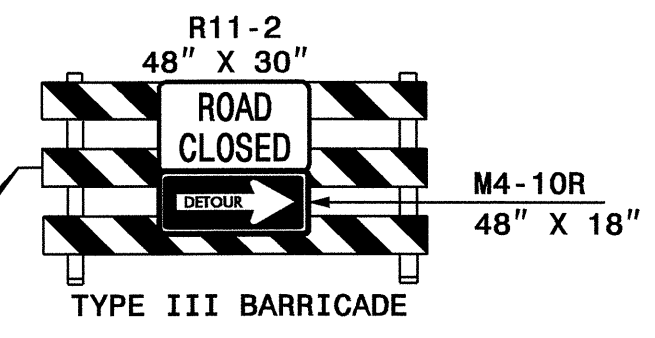
I-40 BUS EB CLOSURE DETAIL

SCALE: NONE		<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										
DATE: 1/2008										
DESIGN BY: JRS										
REVIEWED BY: DAP										

I:\APR-2008_07\06
 \Dot\Gif\sc00f01\Proj\Hippo\Projects-b\4534\traffic\trafficcontrol\tcp\spence design.dgn
 AT WZTC237460
 derichardson



MESSAGE NO. 1	MESSAGE NO. 2
ALL TRAFFIC EXIT	SPEED 45 MPH
CHANGEABLE MESSAGE SIGN	



APPROVED: *John S. Kite* DATE: 1/14/08

SEAL

SEAL
022104
ENGINEER
JOHN S. KITE, P.E.

I-40 BUS EB CLOSURE DETAIL

SCALE: NONE		REVISIONS
DATE: 1/2008		
DWG. BY: JRS		
DESIGN BY: JRS		
REVIEWED BY: DAP		

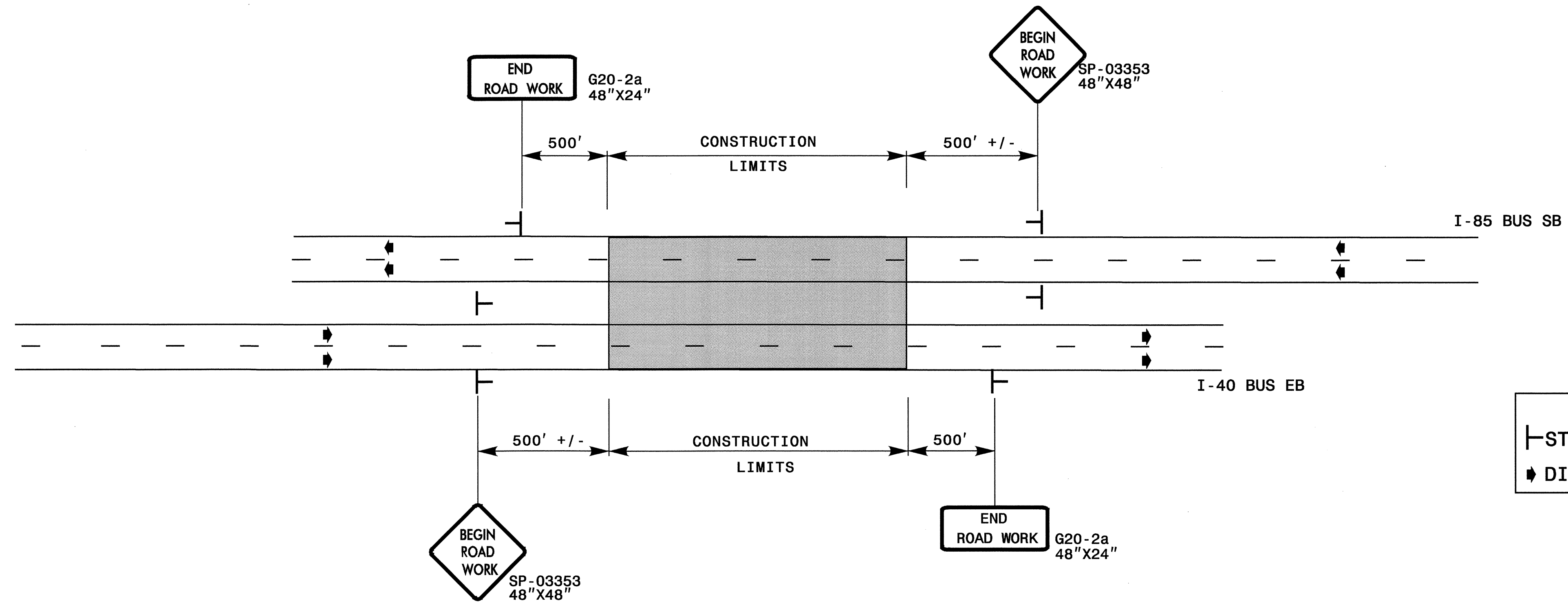
CADD FILE

I:\APR-2008_07-07\Dot\dfs\00701\Proj\TIP\Proj\TrafficControl\top\spence design.dgn
 AT WZTC237460
 derfchar-dson

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

PROJ. REFERENCE NO.	SHEET NO.
B-4534	TCP-18

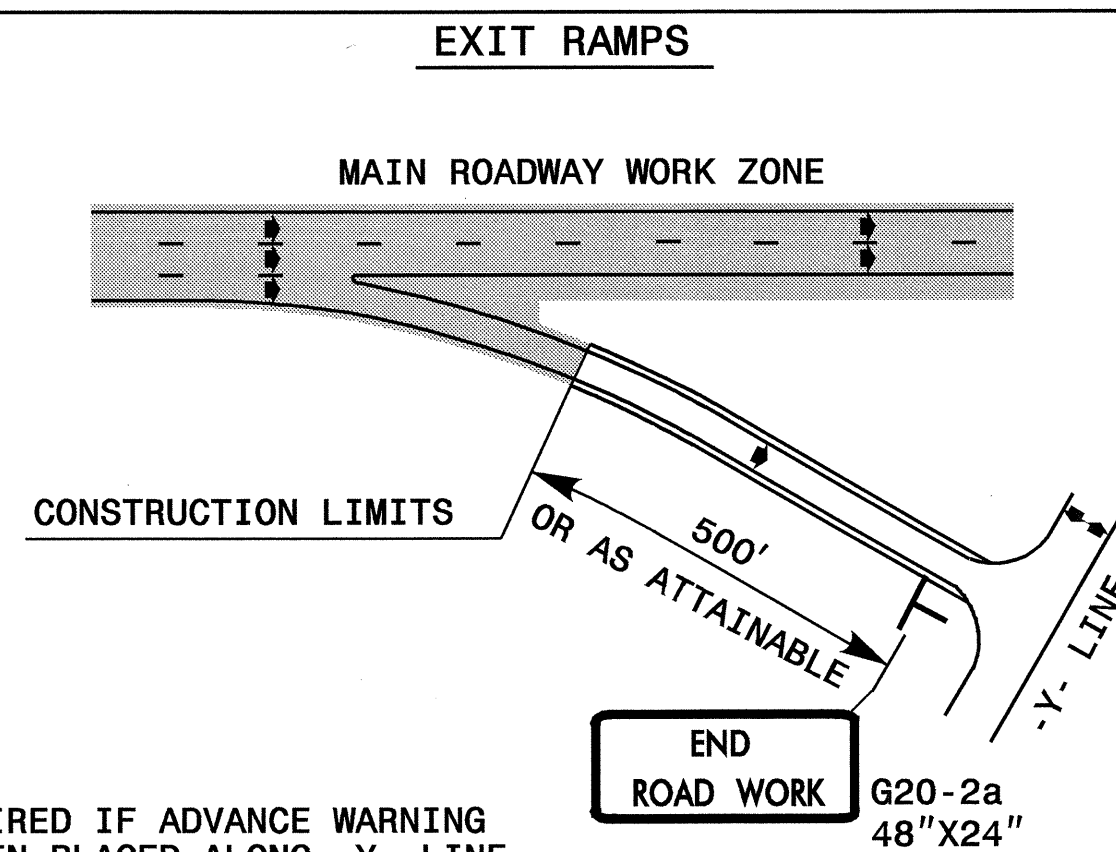
DETAIL A



LEGEND	
—	STATIONARY SIGN
→	DIRECTION OF TRAFFIC FLOW

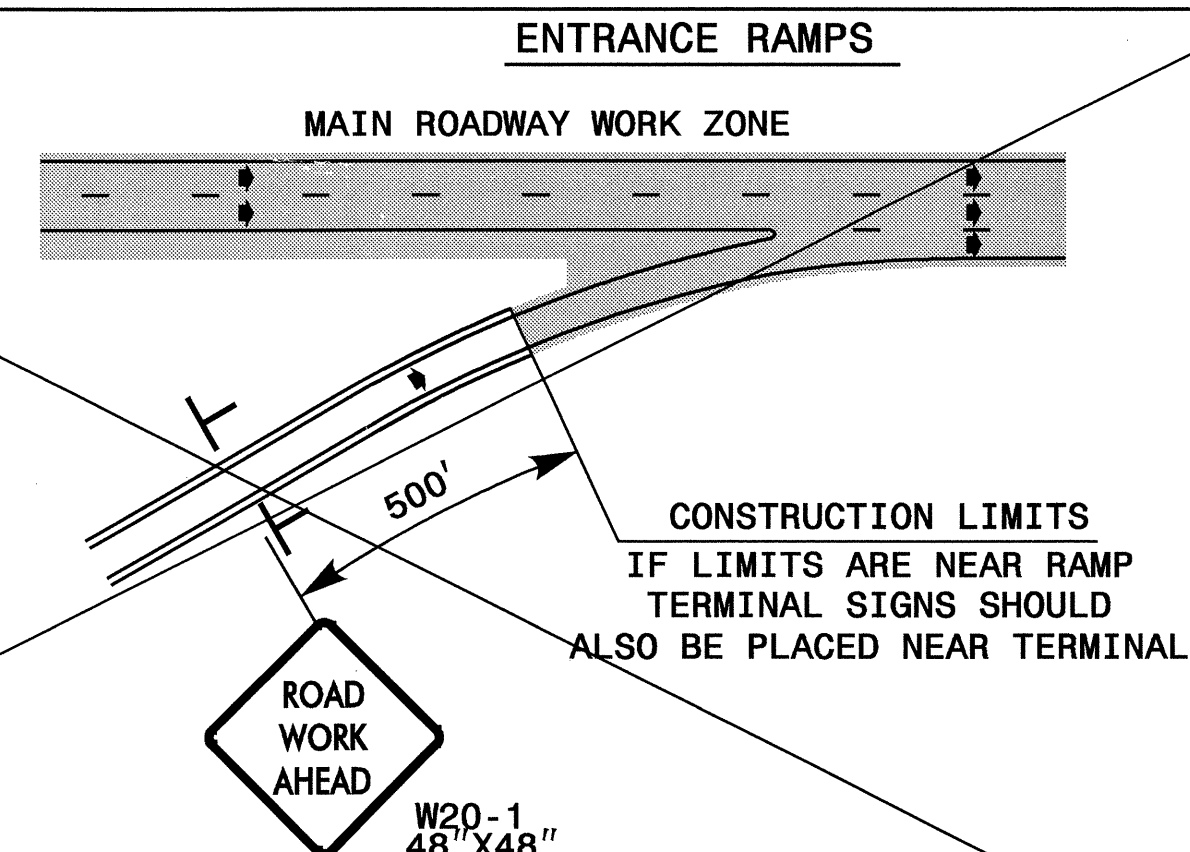
* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

DETAIL B

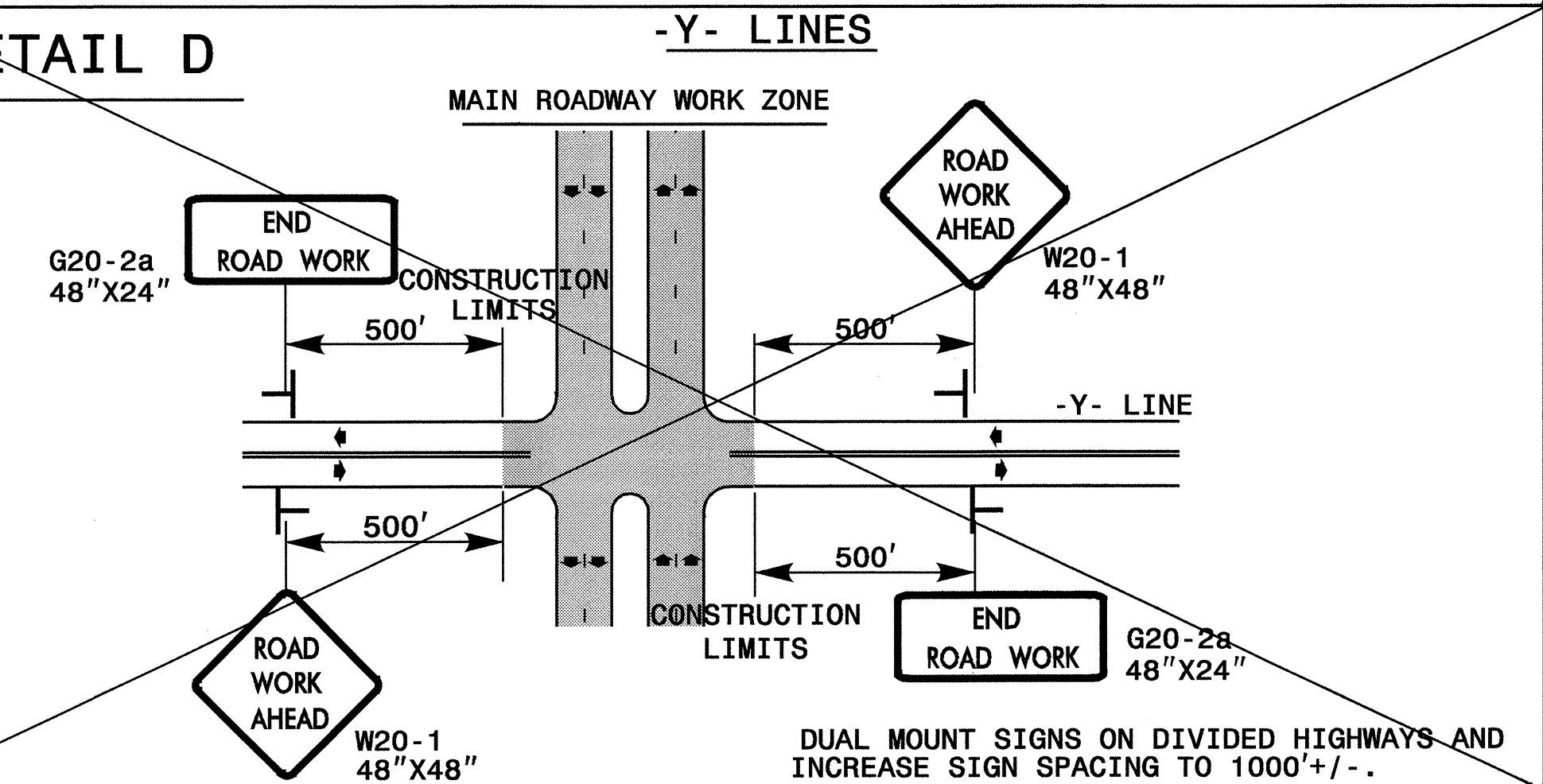


NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



DETAIL D



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: <i>[Signature]</i> DATE: 3/23/03	ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)	
	SCALE: NONE	REVISIONS
	DATE: 8/03	03/04
	DWG. BY: JI	
	DESIGN BY: JI	
	REVIEWED BY: DAP	

28-MAR-2008 14:31
 \\dot\dfsroot\01\Proj\TIP\projects-b\4534\Traffic\Traffic\top\4534_top_awzws.dgn
 AT: WZTC237460
 derichardson