

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
U-3804	TCP-1

U-3804

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

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	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, TEMPORARY PAVEMENT MARKING SCHEDULE AND INDEX OF SHEETS
TCP-2	PROJECT NOTES
TCP-3	PHASE I PHASING
TCP-4 THRU TCP-7	PHASE I DETAILS
TCP-8	PHASE II PHASING
TCP-9 THRU TCP-13	PHASE II DETAILS
TCP-14	PHASE III PHASING
TCP-15 THRU TCP-21	PHASE III DETAILS
TCP-22	PHASE IV PHASING
TCP-23 THRU TCP-26	PHASE IV DETAILS
TCP-27	CARVER STREET DETOUR ROUTE
TCP-28	DETAIL DRAWING FOR ADVANCE WORK ZONE SIGNS
SD1 THRU SD-2	SPECIAL SIGN DETAILS

TEMPORARY PAVEMENT MARKING SCHEDULE

(PA)	WHITE EDGE LINE	PAINT (4")	14610 LF
(PB)	YELLOW EDGE LINE	PAINT (4")	10464 LF
(PC)	10 FT. WHITE SKIP	PAINT (4")	598 LF
(PD)	2 FT. WHITE MINISKIP	PAINT (4")	563 LF
(PE)	WHITE LANE LINE	PAINT (4")	5566 LF
(PG)	2 FT. YELLOW MINISKIP	PAINT (4")	28 LF
(PI)	YELLOW DOUBLE CENTER LINE	PAINT (4")	28696 LF
(PS)	WHITE DIAGONAL	PAINT (8")	240 LF
(PV)	YELLOW DIAGONAL	PAINT (8")	40 LF
(PX)	WHITE CROSSWALK LINE	PAINT (8")	1388 LF
(P4)	WHITE STOP BAR	PAINT (24")	1054 LF
(P5)	WHITE CROSSWALK LINE	PAINT (24")	440 LF
(QA)	LEFT TURN ARROW MARKING SYMBOLS	PAINT	42 EA
(QB)	RIGHT TURN ARROW MARKING SYMBOLS	PAINT	22 EA
(QC)	STRAIGHT ARROW MARKING SYMBOLS	PAINT	14 EA
(QE)	COMBO. STRT / RT ARROW MARKING SYMBOLS	PAINT	22 EA
(QI)	ALPHANUMERIC CHARACTERS	PAINT ONLY	16 EA

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

TIP PROJECT:

22-DEC-2009 12:40:06 195566 AT RAL2004601 TCP-Traffic Control\U-3804_REVISD (south end priority)\U-3804_TIPsheet.dgn

PLAN REVIEWED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL SECTION	APPROVED: DATE: 12-22-09	PLAN PREPARED FOR N.C.D.O.T. BY: 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919) 876-6888
STUART BOURNE, PE STATE TRAFFIC MANAGEMENT ENGINEER	SEAL	J.T. BROOKS, PE PROJECT ENGINEER
JOSEPH ISHAK, PE TRAFFIC CONTROL PROJECT ENGINEER		L.M. MOON, PE DESIGN ENGINEER
JENNIFER PORTANOVA, PE TRAFFIC CONTROL PROJ. DESIGN ENGINEER		J.A. WILES DESIGN TECHNICIAN
ALLA LYUDMIRSKAYA TRAFFIC CONTROL DESIGN ENGINEER		

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 UNDESIRE 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
HILLANDALE ROAD	6:00 AM - 7:00 PM MONDAY THRU FRIDAY

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

ROAD NAME
HILLANDALE ROAD

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 PM DECEMBER 31ST TO 6:00 AM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 AM THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 7:00 PM THURSDAY AND 6:00 AM MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 PM FRIDAY 6:00 AM TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 PM THE DAY BEFORE INDEPENDENCE DAY AND 6:00 AM THE DAY AFTER INDEPENDENCE DAY.

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- E) 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.
- F) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- G) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON HILLANDALE ROAD.

GENERAL NOTES (cont.)

PAVEMENT EDGE DROP OFF REQUIREMENTS

- H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAVE AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS.

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.
- I) 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) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- K) 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.
- L) CONTRACTOR WILL BE RESPONSIBLE FOR PERMANENT SIGNING.
- M) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION. COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- Q) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET 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. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

- T) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN THE PAVEMENT MARKING PLAN.
- U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|-----------|---------|------------------|
| ALL ROADS | PAINT | TEMPORARY RAISED |
- V) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- W) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- X) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- Y) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE SKINNY DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

GENERAL NOTES (cont.)

TEMPORARY / FINAL SIGNALS

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

MISCELLANEOUS

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




PEDESTRIANS

- CC) MAINTAIN REASONABLE AND SAFE PEDESTRIAN ACCESS TO ALL BUSINESSES, SCHOOLS AND DWELLINGS IN AREAS AFFECTED BY CONSTRUCTION AT ALL TIMES.
- DD) WHEN CONSTRUCTION ACTIVITIES WILL BLOCK PEDESTRIAN ACCESS TO PEDESTRIAN SIGNAL PUSHBUTTONS, NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE OF SUCH WORK TO HAVE THE TRAFFIC SIGNAL PLACED ON PEDESTRIAN RECALL.
- EE) REFER TO MUTCD SECTION 6D.01, "PEDESTRIAN CONSIDERATIONS" AND SECTION 6D.02, "ACCESSIBILITY CONSIDERATIONS" FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS FOR MAINTAINING PEDESTRIAN TRAFFIC THROUGH WORK AREA.
- FF) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- GG) MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.)

LOCAL NOTES

- LN-1 USE CONES PLACED WITH BASES ABUTTING ONE ANOTHER TO PROVIDE A PEDESTRIAN PATH ACROSS A PORTION OF THE CONSTRUCTION AREA SO THAT PEDESTRIAN TRAFFIC CAN ACCESS NEWLY CONSTRUCTED SIDEWALK. (SEE TCP-11, TCP-15, TCP-16 AND TCP-20)

14-JAN-2010 11:27 G:\TEG\Cur\100008495 U3804 Tcp\Traffic Control\U-3804_REVISED (south end priority)\u-3804_fc_generalnotes.dgn

APPROVED:  DATE: 1/11/10		PROJECT NOTES	
SEAL 			
SCALE:	NONE		REVISIONS
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DWG. BY:	AW		
DESIGN BY:	AW		
REVIEWED BY:	TB		CADD FILE

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RALEIGH, NORTH CAROLINA 27609
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PROJ. REFERENCE NO.	SHEET NO.
U-3804	TCP-3

PHASING

Phase I

OBJECTIVE: CONSTRUCT THE PROPOSED SIDEWALK ON THE WEST SIDE OF -L-. BEGIN PROPOSED CONSTRUCTION ON THE WEST SIDE OF -L- WITHOUT ENCROACHING UPON THE EXISTING SIDEWALK.

- STEP 1:** PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS, PLACE ADVANCED WORK ZONE SIGNING AS SHOWN ON TCP-28.
- STEP 2:** MAINTAIN PEDESTRIAN TRAFFIC ON THE EXISTING SIDEWALK. PLACE SAFETY FENCE ALONG THE BACK SIDE OF THE EXISTING SIDEWALK ON THE WEST SIDE OF -L- FROM STA. 13+80 +/- TO STA. 47+25 +/- AND FROM STA. 54+15 +/- TO STA. 64+46 +/- . REFER TO TCP-4 THRU TCP-7. USING RSD 1101.02, SHEET 1 OF 9, PLACE A HIGH-VISIBILITY CROSSWALK AND ASSOCIATED WARNING SIGNS ON THE WESTERN LEG OF CARVER STREET AS SHOWN ON TCP-6.
- STEP 3:** CLOSE THE EXISTING SIDEWALK ON SOUTH SIDE OF CARVER STREET APPROACHING HILLANDALE AND DETOUR PEDESTRIANS TO THE NORTH SIDE OF CARVER STREET AS SHOWN ON TCP-6, USING THE HIGH-VISIBILITY CROSSWALK PLACED IN THE PRIOR STEP.
- USING RSD 1101.02, SHEET 1 OF 9, CONSTRUCT A TEMPORARY PEDESTRIAN DETOUR ON THE EAST SIDE OF -L- FROM STA. 47+15 +/- TO STA. 54+90 +/- AS SHOWN ON TCP-6 AND TCP-7. PLACE HIGH-VISIBILITY CROSSWALKS AND ASSOCIATED SIGNS AT -L- STA. 47+20 +/- AND -L- STA. 54+80 +/- AS SHOWN ON TCP-6 & TCP-7. DETOUR PEDESTRIAN TRAFFIC NORTH OF -L- STA. 47+20 +/- TO THE EAST SIDE TEMPORARY DETOUR ROUTE.
- STEP 4:** BEGIN CONSTRUCTION OF -L- WEST SIDE PROPOSED AS SHOWN ON TCP-4 THRU TCP-7. DO NOT ENCROACH UPON THE EXISTING SIDEWALK BY MAINTAINING THE 5-FT NO-WORK AREA BETWEEN THE SIDEWALK AND CONSTRUCTION. CONSTRUCT ENOUGH OF THE NEW DRIVEWAY ACROSS -L- FROM BERTLAND AVENUE ON TCP-4 SO THAT PEDESTRIANS CAN CROSS THE DRIVEWAY AS SHOWN IN THE PHASE II DETAILS. MAINTAIN DRIVEWAY ACCESS AS SHOWN ON TCP-5. CONSTRUCT PROPOSED PARKING LOT CURB & GUTTER AS SHOWN ON TCP-5 & TCP-6. PERFORM THE CONSTRUCTION ACTIVITIES AT CARVER STREET SHOWN ON TCP-6 BEHIND THE EXISTING CURB & GUTTER.

STEP 4 (CONT.):

CONSTRUCT ALL PROPOSED DRAINAGE STRUCTURES AND PIPES ADJACENT TO OR BENEATH THE PROPOSED SIDEWALK ALONG THE WEST SIDE OF HILLANDALE ROAD. (DRAINAGE STRUCTURES AND PIPES MUST BE COMPLETED PRIOR TO REROUTING PEDESTRIANS TO NEW SIDEWALK IN PHASE II.)

TO FACILITATE POSITIVE DRAINAGE OF WEST SIDE WIDENING ON HILLANDALE ROAD IN LATER STEPS, USE RSD 1101.02, SHEETS 1 & 2 OF 9, TO CONSTRUCT THE DRAINAGE STRUCTURES AND PIPES LISTED BELOW THAT ARE WITHIN OR IMMEDIATELY ADJACENT TO THE EXISTING TRAVEL WAY. PROVIDE AN OFF-DUTY POLICE OFFICER TO DIRECT TRAFFIC WHILE CONSTRUCTING PROPOSED PIPES AND DRAINAGE STRUCTURES WITHIN OR ADJACENT TO THE HILLANDALE ROAD/CARVER STREET INTERSECTION. REOPEN ALL LANES TO TRAFFIC BY THE END OF EACH WORK PERIOD.

- CONSTRUCT PRECAST DRAINAGE STRUCTURES 1 & 2 IN THE NW CORNER OF THE FRONT STREET INTERSECTION (SEE TCP-4). ENSURE THAT DRAINAGE STRUCTURE 1 IS TRAFFIC-BEARING.
- CONSTRUCT PRECAST DRAINAGE STRUCTURES 78, 79, 81 AND 83 AND THE PROPOSED PIPES BETWEEN THEM ALONG THE SOUTH SIDE OF CARVER STREET -Y- INTERSECTION (SEE TCP-6). ENSURE THAT DRAINAGE STRUCTURES 79 & 81 ARE TRAFFIC BEARING.
- CONSTRUCT PRECAST DRAINAGE STRUCTURE 85 AND PROPOSED PIPE BETWEEN DRAINAGE STRUCTURES 83 AND 85 (SEE TCP-6).
- CONSTRUCT PRECAST STRUCTURE 86 IN THE SW CORNER OF THE CARVER STREET -Y- INTERSECTION (SEE TCP-6).
- CONSTRUCT PRECAST STRUCTURE 101 SOUTH OF THE CAMMIE STREET INTERSECTION (SEE TCP-7).

REVISE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF HILLANDALE ROAD AND CARVER STREET TO RELOCATE POLES IN THE NW AND SW CORNERS OF THE INTERSECTION (SEE TEMPORARY SIGNAL PLANS).

BEGIN CONSTRUCTION OF THE PROPOSED DRAINAGE ON THE WEST SIDE OF PROPOSED HILLANDALE ROAD. CONTINUE TO MAINTAIN POSITIVE DRAINAGE ON -L- UTILIZING THE EXISTING DRAINAGE SYSTEM. DO NOT CONSTRUCT ANY PORTIONS OF THE PROPOSED DRAINAGE SYSTEM ON THE WEST SIDE OF -L- THAT WILL INTERFERE WITH THE PROPER FUNCTION OF THE EXISTING SYSTEM UNTIL THE PROPOSED DRAINAGE SYSTEM CAN BE OPENED TO POSITIVE DRAINAGE FLOW IN A LATER PHASE.

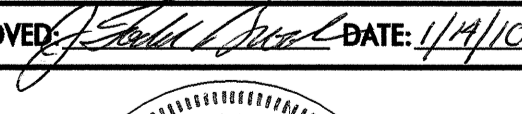
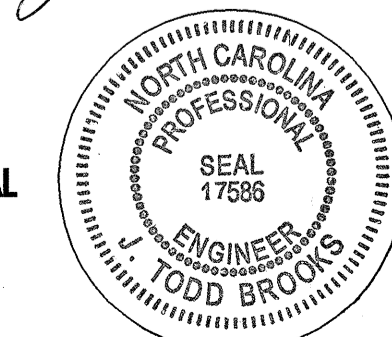
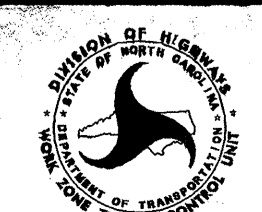
CONSTRUCT THE PROPOSED SIDEWALK ON THE WEST SIDE OF HILLANDALE ROAD FROM FRONT STREET TO CARVER STREET (SEE TCP-4 THRU TCP-6). TIE THE PROPOSED SIDEWALK TO THE EXISTING SIDEWALK AT CARVER STREET AS SHOWN ON TCP-6. CONSTRUCT A TEMPORARY ASPHALT TIE BETWEEN THE EXISTING SIDEWALK AND THE PROPOSED SIDEWALK ON THE SOUTH SIDE OF CARVER STREET AS SHOWN ON TCP-6. CONTINUE TO MAINTAIN PEDESTRIAN TRAFFIC IN THE PHASE I, STEP 3 PATTERN.

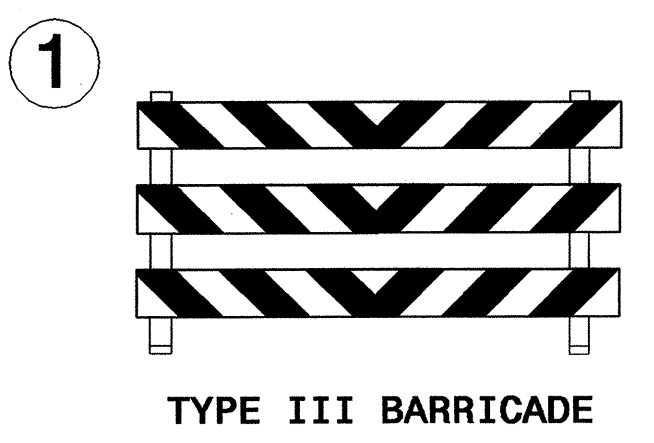
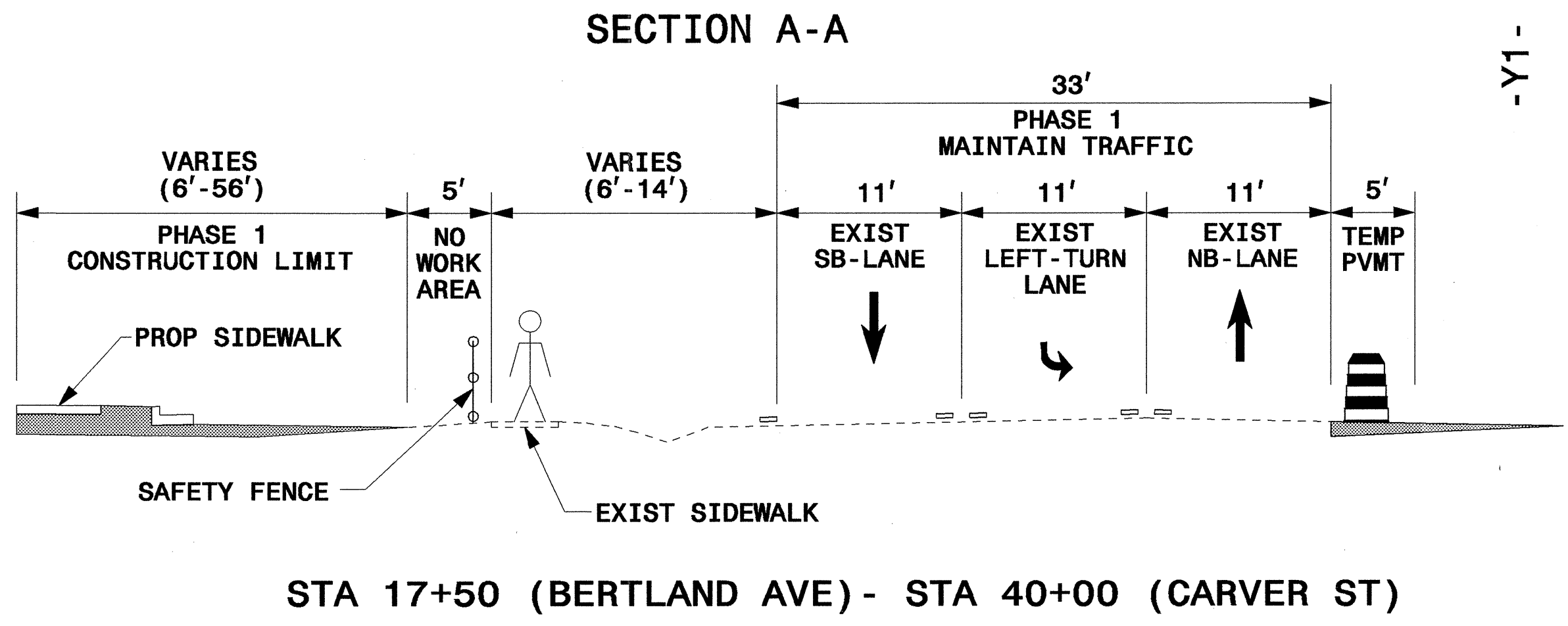
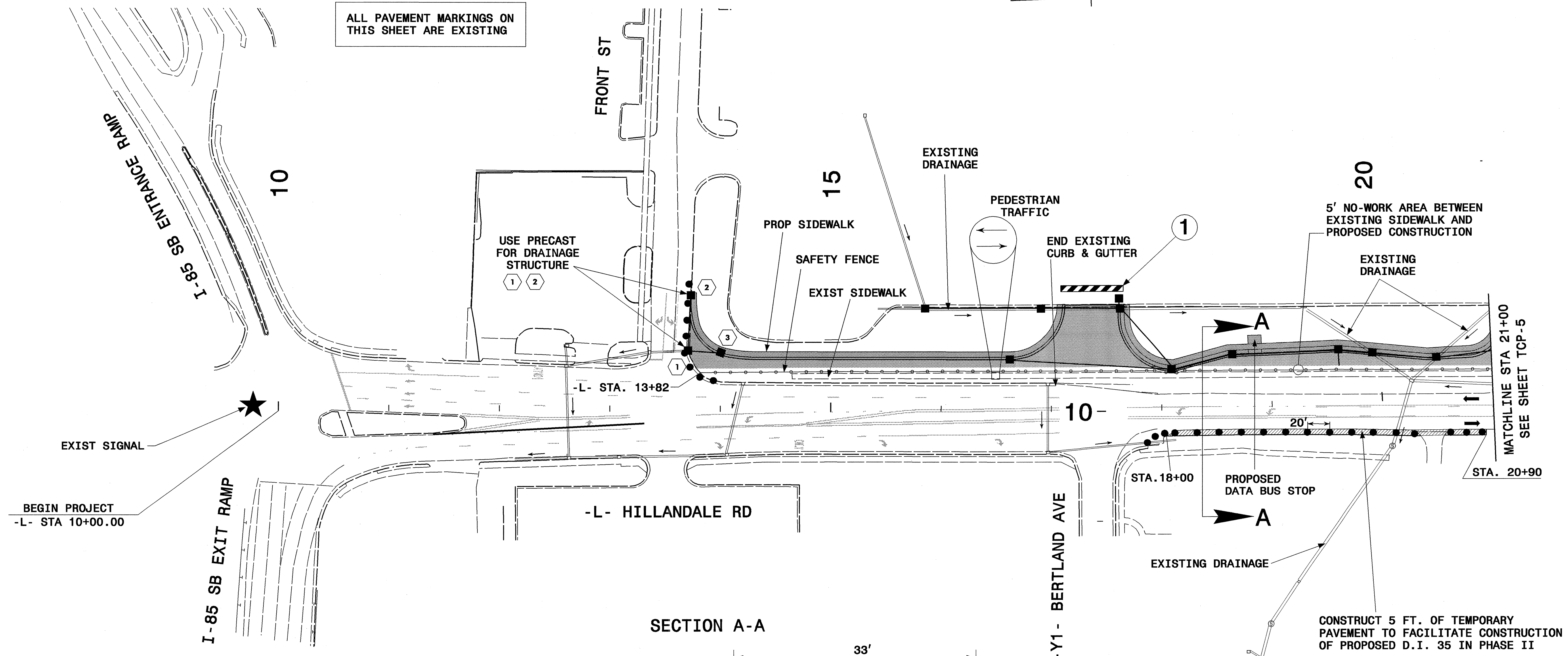
WITHOUT ENCROACHING UPON THE EXISTING SIDEWALK ON THE NORTH SIDE OF CARVER STREET, CONSTRUCT THE PROPOSED -L- WEST SIDE SIDEWALK FROM CARVER STREET TO WHERE IT TIES TO THE EXISTING SIDEWALK AT -L- STA. 54+15 +/- . CONTINUE TO MAINTAIN PEDESTRIAN TRAFFIC NORTH OF -L- STA. 47+20 +/- IN THE PHASE I, STEP 3 PATTERN.

USING RSD 1101.02, SHEET 2 OF 9, CONSTRUCT 5 FEET OF TEMPORARY PAVEMENT FROM STA. 18+00 TO STA. 20+90 AS SHOWN ON TCP-4.

14-JAN-2010 11:29 G:\TECH\CURV\000008495_U3804_TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804_tc_phasing 1.dgn 12054 AT RALEIGH

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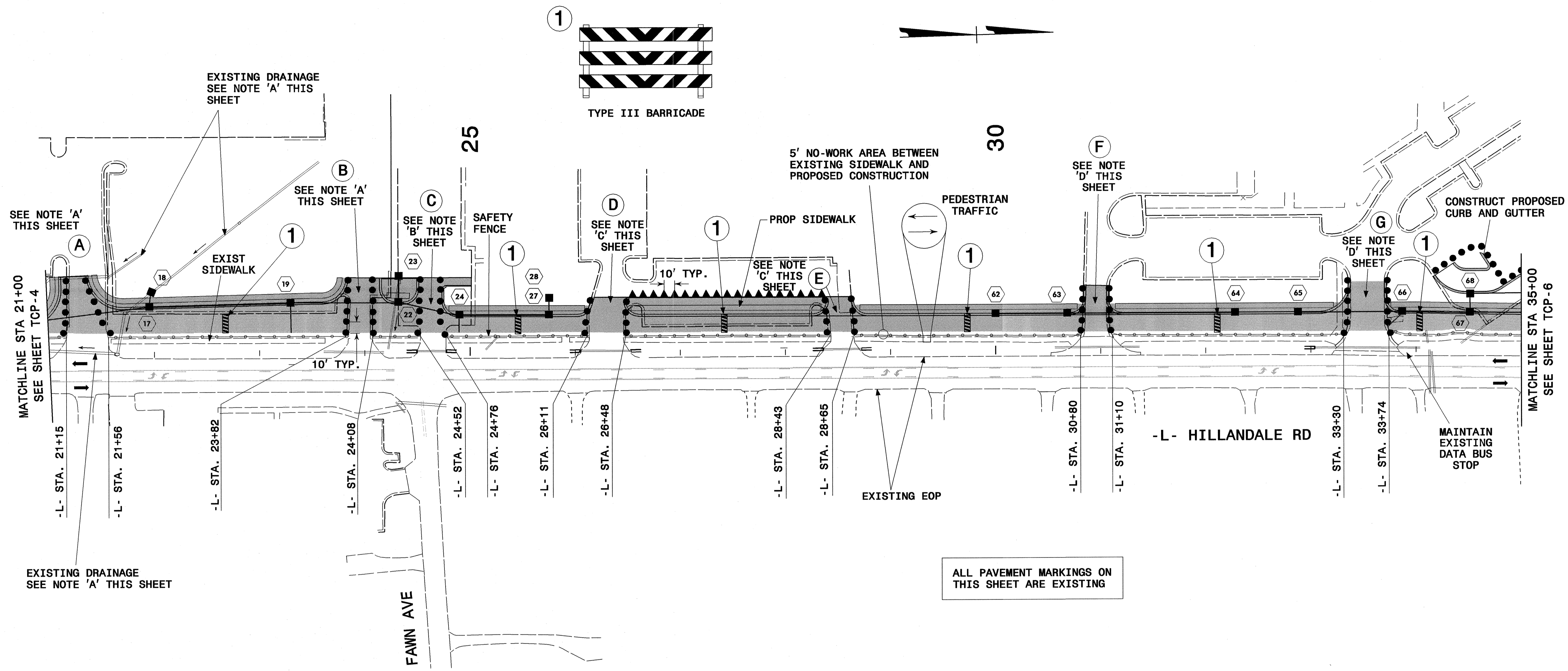
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22-DEC-2009 14:09 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase1.dwg

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APPROVED: <i>[Signature]</i> DATE: 12/24/09	PHASE I DETAIL 1	
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	DATE: 12/22/09	
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NOTE A
 DRIVE (A) INVOLVES UNDERCUT AND DRIVE (B) RAISES THE ENTRANCE GRADE. ALTERNATELY CONSTRUCT DRIVES (A) & (B) THIS SHEET. CLOSE EACH DRIVE WHEN CONSTRUCTING IT AND REROUTE TRAFFIC TO THE OTHER OPEN DRIVEWAY. MAINTAIN TEMPORARY TIES BETWEEN THOSE NEW DRIVEWAY CONNECTIONS AND EXISTING -L-.

NOTE B
 THIS IS THE ONLY ENTRANCE TO THIS BUSINESS. CONSTRUCT DRIVEWAY (C) UNDER TRAFFIC. MAINTAIN A TEMPORARY TIE TO EXISTING -L-.

NOTE C
 CONSTRUCT DRIVEWAYS (D) & (E) UNDER TRAFFIC. MAINTAIN INGRESS AND EGRESS AT ALL TIMES. MAINTAIN TEMPORARY TIES TO EXISTING -L-.

NOTE D
 DRIVE (F) RAISES THE ENTRANCE GRADE AND DRIVE (G) INVOLVES UNDERCUT. ALTERNATELY CONSTRUCT DRIVES (F) & (G) THIS SHEET. CLOSE EACH DRIVE WHEN CONSTRUCTING IT AND REROUTE TRAFFIC TO THE OTHER OPEN DRIVEWAY. MAINTAIN TEMPORARY TIES BETWEEN THOSE NEW DRIVEWAY CONNECTIONS AND EXISTING -L-. MAINTAIN PEDESTRIAN ACCESS BETWEEN THE SCHOOL PROPERTY AND DATA BUS STOP UNDER THE DIRECTION OF THE ENGINEER.

ALL PAVEMENT MARKINGS ON THIS SHEET ARE EXISTING

22-DEC-2009 12:00
 G:\11616\CPJ\1100008495 U3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised phase1 detail 2.dgn
 2054 - AT - RAL36K1MCI

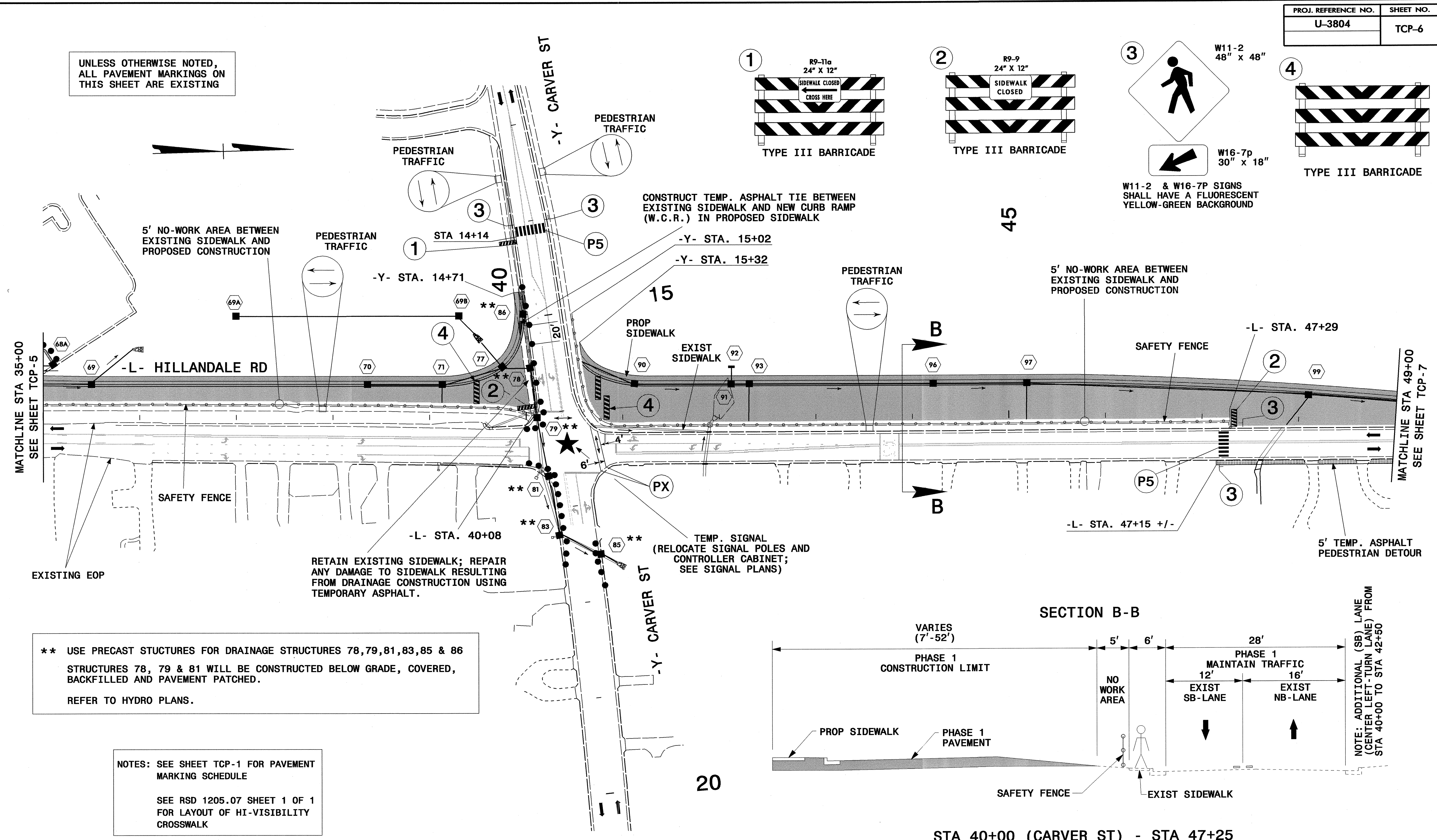
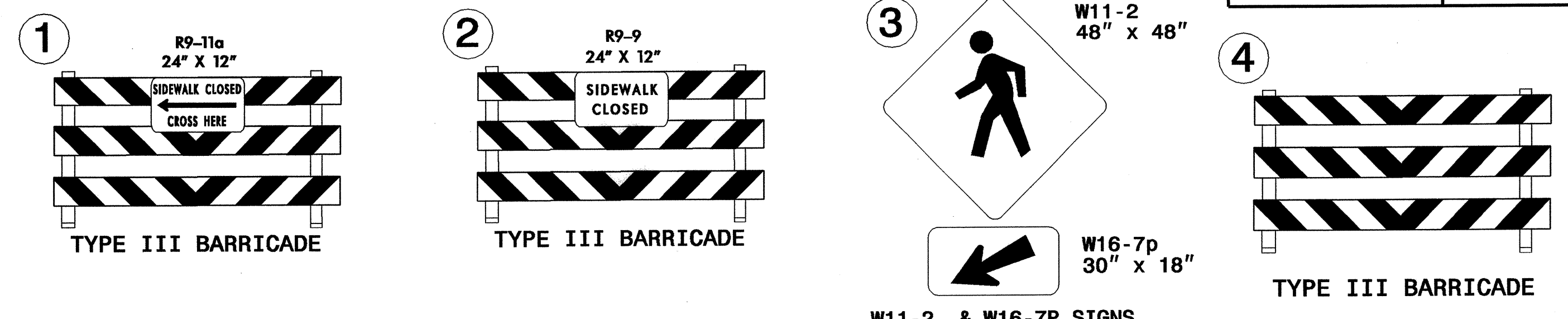
PBS& 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 17686
 TODD BROOKS

PHASE I DETAIL 2

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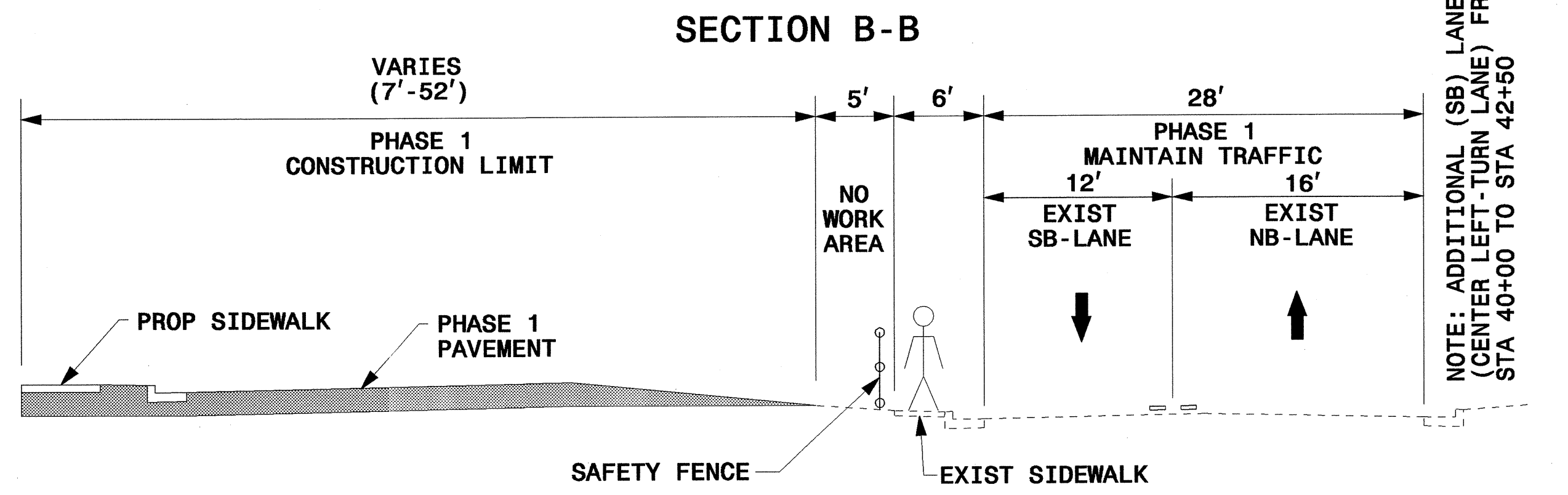
UNLESS OTHERWISE NOTED,
ALL PAVEMENT MARKINGS ON
THIS SHEET ARE EXISTING



** USE PRECAST STRUCTURES FOR DRAINAGE STRUCTURES 78, 79, 81, 83, 85 & 86
STRUCTURES 78, 79 & 81 WILL BE CONSTRUCTED BELOW GRADE, COVERED,
BACKFILLED AND PAVEMENT PATCHED.
REFER TO HYDRO PLANS.

NOTES: SEE SHEET TCP-1 FOR PAVEMENT
MARKING SCHEDULE

SEE RSD 1205.07 SHEET 1 OF 1
FOR LAYOUT OF HI-VISIBILITY
CROSSWALK



STA 40+00 (CARVER ST) - STA 47+25

22-DEC-2009 14:07 G:\TEG\Curr\100008495 U3804 TCP-Traffic Control\U-3804-REVISED (south end priority)\U-3804 revised phase-1 detail 3.dgn

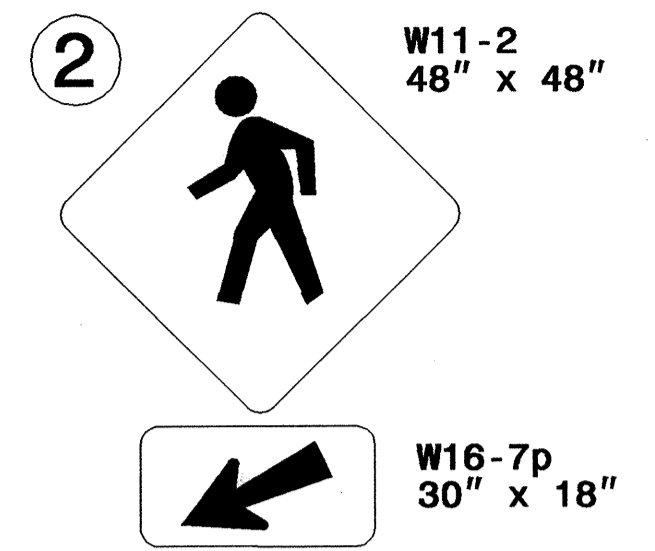
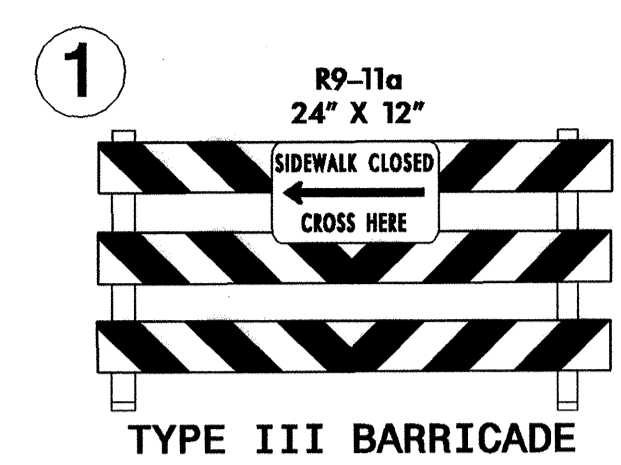
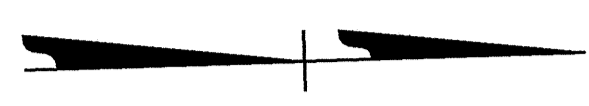
PBS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
J. TODD BROOKS
SEAL 17386

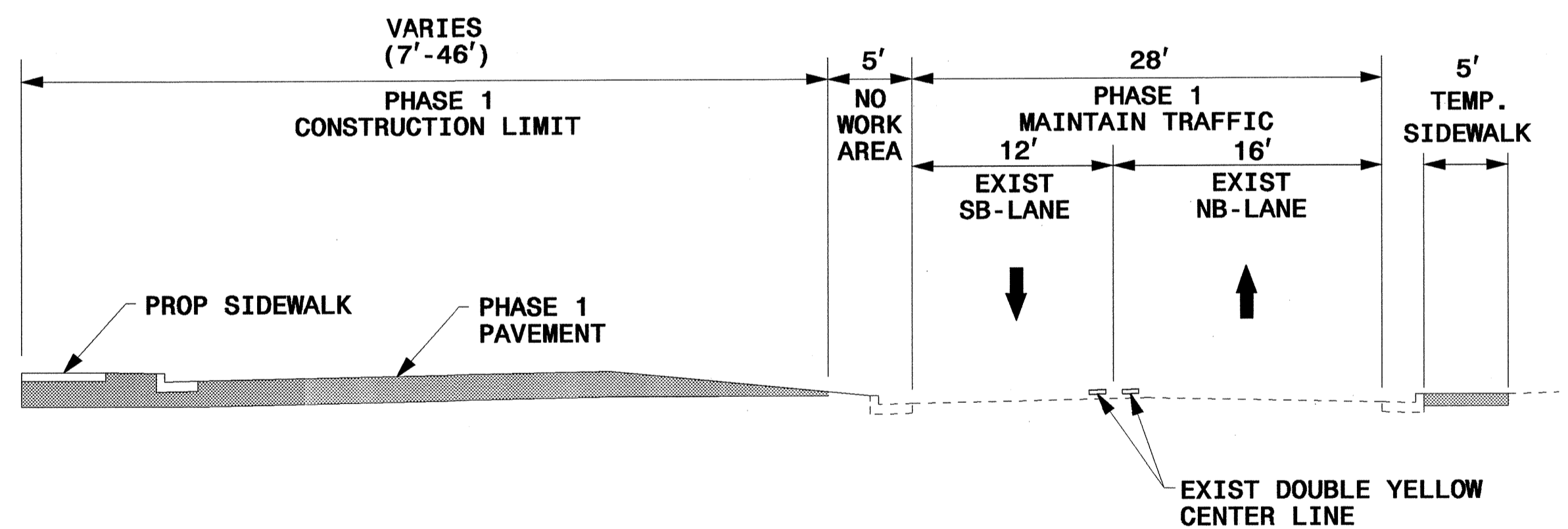
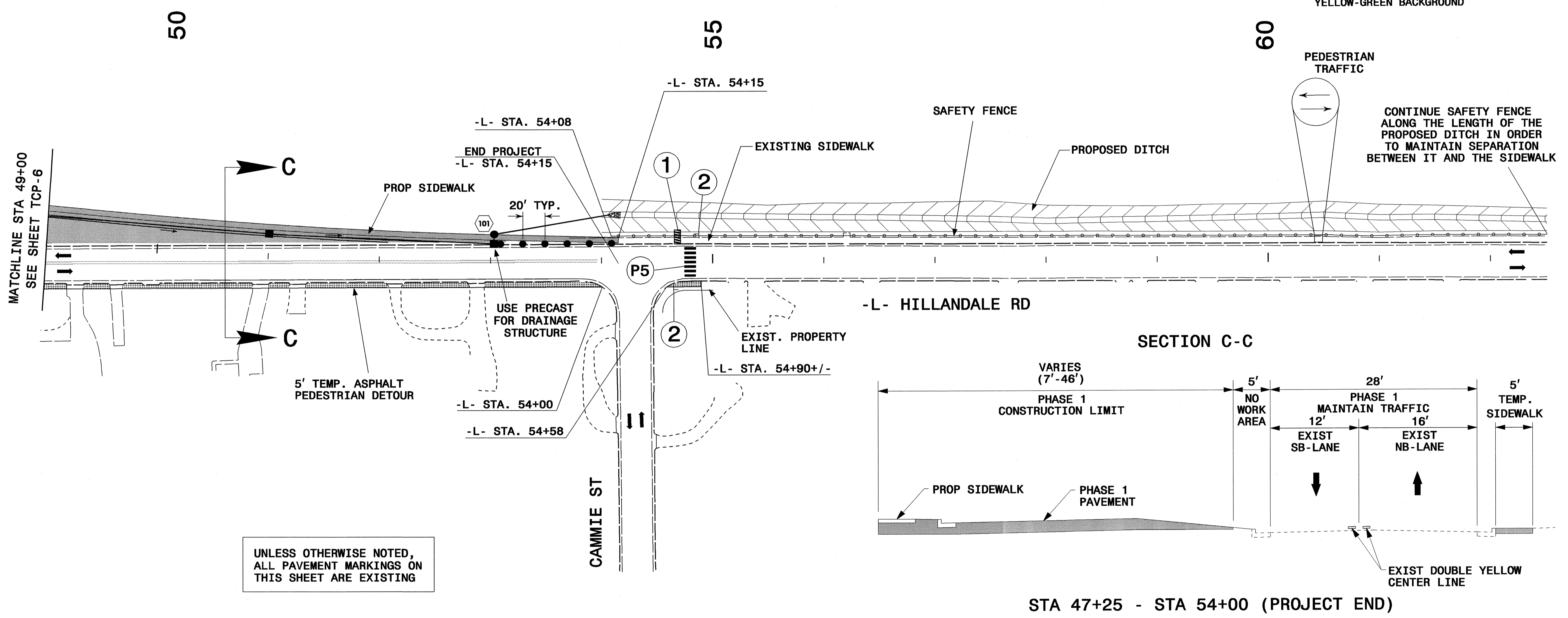
PHASE I DETAIL 3

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REVISIONS										
DATE: 12/22/09										
DWG. BY: AW										
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REVIEWED BY: TB



W11-2 & W16-7P SIGNS SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND



UNLESS OTHERWISE NOTED, ALL PAVEMENT MARKINGS ON THIS SHEET ARE EXISTING

NOTES: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE
SEE RSD 1205.07 SHEET 1 OF 1 FOR LAYOUT OF HI-VISIBILITY CROSSWALK

STA 47+25 - STA 54+00 (PROJECT END)

22-DEC-2009 14:07 E:\COURT\050505\050505\050505\AT\RAL505\YMC1 U3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised phase-1 detail 4.dgn

PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 12/22/09	PHASE I DETAIL 4	
	SCALE: 1:50	
	DATE: 12/22/09	
	DWG. BY: AW	
	DESIGN BY: AW	
REVIEWED BY: TB	REVISIONS	

PHASING

Phase II

OBJECTIVE: COMPLETE CONSTRUCTION OF ISLAND BETWEEN I-85 RAMPS AND BERTLAND AVENUE. EXTEND WESTERN PORTION OF -L- CONSTRUCTION LIMITS IN PREPARATION FOR THE PHASE III TRAFFIC SHIFT.

STEP 1: AS PER DETAIL 'A' ON TCP-9, PLACE SKINNY DRUMS ALONG THE NEWLY CONSTRUCTED GUTTER PAN ON WEST SIDE OF HILLANDALE ROAD FROM FRONT STREET TO -L- STA. 17+00 +/- . PLACE SAFETY FENCE ALONG THE FRONT SIDE OF THE NEWLY CONSTRUCTED SIDEWALK ON WEST SIDE OF HILLANDALE ROAD FROM -L- STA. 18+00 +/- TO -L- STA. 40+00 +/- .

SHIFT PEDESTRIAN TRAFFIC TO THE NEWLY CONSTRUCTED SIDEWALK ON THE WEST SIDE OF HILLANDALE ROAD FROM FRONT STREET TO CARVER STREET AND CLOSE THE EXISTING SIDEWALK.

REOPEN THE EXISTING SIDEWALK ON THE SOUTH SIDE OF CARVER STREET FROM THE INTERSECTION WITH HILLANDALE ROAD TO THE TEMPORARY TIE WITH THE PROPOSED SIDEWALK CONSTRUCTED IN PHASE I AS SHOWN ON TCP-13.

CLOSE THE SIDEWALK ON THE NORTH SIDE OF CARVER STREET AS SHOWN ON TCP-13 AND DETOUR PEDESTRIANS TO SOUTH SIDE OF CARVER STREET. CONTINUE TO UTILIZE THE EXISTING HILLANDALE SIDEWALK AND PEDESTRIAN CROSSINGS ON HILLANDALE ROAD NORTH OF CARVER STREET.

STEP 2: REVISE THE PAVEMENT MARKINGS ON HILLANDALE ROAD BETWEEN FRONT STREET AND CARVER ST TO PHASE II TEMPORARY PATTERN SHOWN ON TCP-9, TCP-12 & TCP-13 AS FOLLOWS:

- USING A FLAGGER WITH FLAGGER AHEAD SYMBOL SIGN (W20-7A) TO SLOW AND TEMPORARILY DETAIN SB TRAFFIC ON HILLANDALE ROAD APPROACHING BERTLAND AVENUE, PLACE A LINE OF DRUMS SPACED 10-FT C-C THRU THE BERTLAND AVENUE INTERSECTION TO TEMPORARILY SHIFT SB TRAFFIC INTO RIGHT SB THRU LANE DEPARTING THE BERTLAND AVENUE INTERSECTION. WITH SB TRAFFIC SHIFTED TO OUTSIDE LANE, REVISE DOUBLE YELLOW CENTERLINE MARKING ON SB HILLANDALE ROAD SOUTH OF BERTLAND AVENUE TO PHASE II TEMPORARY PATTERN SHOWN ON TCP-9.
- USING THE LANE CLOSURE DETAIL ON TCP-11A & TCP-11B TO CLOSE THE RIGHT LANE ON NB HILLANDALE ROAD SOUTH OF BERTLAND AVENUE COMBINED WITH RSD 1101.02, SHEET 1 OF 9, ALTERNATELY CLOSE THE NB AND SB LANES OF HILLANDALE ROAD BETWEEN BERTLAND AVENUE AND JUST SOUTH OF CARVER STREET. WITH TRAFFIC MAINTAINED IN TEMPORARY ONE-LANE, TWO-WAY TRAFFIC PATTERN ON HILLANDALE ROAD, REVISE THE MARKINGS ON HILLANDALE ROAD TO THE PHASE II TWO-LANE, TWO-WAY PATTERN BETWEEN BERTLAND AVENUE AND CARVER STREET AS SHOWN ON TCP-9, TCP-12 & TCP-13.

STEP 3: PERFORM THE FOLLOWING:

EXPAND THE WEST SIDE CONSTRUCTION LIMITS UP TO AND INCLUDING REMOVAL OF THE EXISTING CURB & GUTTER FROM FRONT STREET TO -L- STA. 17+00 +/- (SEE TCP-9). COMPLETE THIS WIDENING, TO INCLUDE THE PORTION BEGUN IN PHASE I, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE TCP-9).

BEGINNING AT -L- STA. 17+00 +/-, TRANSITION THE CONSTRUCTION LIMITS TO A 5-FT NO-WORK AREA AT STA. 17+69 +/- (SEE TCP-9). COMPLETE THIS WIDENING, TO INCLUDE THE PORTION BEGUN IN PHASE I, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

FROM -L- STA. 17+69 +/- TO -L- STA. 20+26 +/-, EXPAND THE WEST SIDE CONSTRUCTION ZONE TO A POINT 5' AWAY FROM THE NEW SOUTHBOUND THRU LANE (SEE TCP-9). COMPLETE THIS WIDENING, TO INCLUDE THE PORTION BEGUN IN PHASE I, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

USING THE DETAIL SHOWN ON TCP-11A & TCP-11B ALONG WITH DETAIL B ON TCP-9, CLOSE THE RIGHT LANE ON HILLANDALE ROAD SOUTH OF BERTLAND AVENUE AND CONSTRUCT THE SE RADIUS OF THE BERTLAND AVENUE INTERSECTION ALONG WITH DRAINAGE STRUCTURES 5 AND 30 (SEE TCP-9). RE-OPEN RIGHT NB LANE OF HILLANDALE ROAD TO TRAFFIC DURING PERIODS OF INACTIVITY.

USING RSD 1101.02, SHEET 1 OF 9 AND THE TEMPORARY PAVEMENT CONSTRUCTED IN PHASE I:

- PARTIALLY CONSTRUCT D. I. 35 BELOW GRADE, CAP WITH TEMPORARY TRAFFIC BEARING COVER, BACKFILL AND PATCH PAVEMENT (SEE TCP-9).
- CONSTRUCT THE PROPOSED PIPE BETWEEN DRAINAGE STRUCTURES 34 AND 35 (SEE TCP-9).

USING RSD 1101.02, SHEET 1 OF 9, CONSTRUCT THE PROPOSED PIPE BETWEEN DRAINAGE STRUCTURES 33 AND 30 (SEE TCP-9).

STEP 3 (CONT.):

THE CONTRACTOR MAY BEGIN WORK ON THE FOLLOWING:

- FROM -L- STA. 20+26 +/- TO -L- STA. 20+74 +/-, EXPAND THE WEST SIDE CONSTRUCTION ZONE TO A POINT 15 FT AWAY FROM THE NEW SOUTHBOUND THRU LANE (SEE TCP-9).
- FROM -L- STA. 20+74 +/- TO -L- STA. 21+60 +/-, EXPAND THE NEW WEST SIDE CONSTRUCTION TO A POINT 8 FT OFF OF THE EXISTING EDGE OF PAVEMENT (SEE TCP-12).
- FROM -L- STA. 21+60 +/- TO -L- STA. 24+85 +/-, EXPAND THE WEST SIDE CONSTRUCTION LIMITS TO A POINT 8 FT OFF OF THE EXISTING EDGE OF PAVEMENT (SEE TCP-12).
- FROM -L- STA. 24+85 +/- TO CARVER STREET, EXPAND THE WEST SIDE CONSTRUCTION LIMITS TO A POINT 29 FT AWAY FROM THE PROPOSED WEST SIDE GUTTER LINE (SEE TCP-12 THRU TCP-13).
- IN ORDER TO MAINTAIN POSITIVE DRAINAGE FLOW DURING CONSTRUCTION, MAKE EVERY EFFORT TO MAINTAIN THE EXISTING DITCH / DRAINAGE FROM STA. 21+60 +/- TO CARVER STREET DURING CONSTRUCTION. UNDER THE DIRECTION OF THE ENGINEER, SUPPLEMENT ANY DISTURBED DRAINAGE WITH TEMPORARY PIPE OR STRUCTURES SO THAT THE EXISTING TRAVEL LANES DO NOT FLOOD DURING CONSTRUCTION.

CONTINUE THE WEST SIDE CONSTRUCTION ON HILLANDALE ROAD NORTH OF CARVER STREET BEGUN IN PHASE I (SEE TCP-13).

USING RSD 1101.02, SHEETS 1 & 2 OF 9, AND A POLICE OFFICER(S) TO DIRECT TRAFFIC AT THE INTERSECTION OF HILLANDALE ROAD AND CARVER STREET, CONSTRUCT THE FOLLOWING PROPOSED DRAINAGE ON THE WEST LEG OF CARVER STREET AS SHOWN ON TCP-13:

- DRAINAGE STRUCTURES 87 & 88 AND THE ASSOCIATED CURB & GUTTER TO COMPLETE THE NW INTERSECTION RADIUS.
- PROPOSED PIPE BETWEEN DRAINAGE STRUCTURES 86 & 87

BEGIN CONSTRUCTION OF TEMPORARY TRAFFIC SIGNAL FOR THE INTERSECTION OF HILLANDALE ROAD AND BERTLAND AVENUE IN PREPARATION FOR TRAFFIC PATTERN CHANGE IN NEXT STEP. (SEE TCP-10 AND TEMPORARY SIGNAL PLAN)

STEP 4: PERFORM THE FOLLOWING WORK TO SHIFT HILLANDALE ROAD TRAFFIC TO THE TEMPORARY PATTERN BETWEEN I-85 AND BERTLAND AVENUE AS SHOWN ON TCP-10:

- USING TCP-11A & TCP-11B, CLOSE THE RIGHT LANE ON NB HILLANDALE ROAD SOUTH OF THE I-85 SB RAMPS.
- PLACE DRUMS SPACED 20 FT C-C TO ALTERNATELY CLOSE THE NB LANES OF HILLANDALE ROAD BETWEEN I-85 AND BERTLAND AVENUE COMBINED WITH RSD 1101.02, SHEET 1 OF 9 TO WEDGE TIE-IN BETWEEN PROPOSED GRADE ON HILLANDALE ROAD IN THE VICINITY OF THE BERTLAND AVENUE INTERSECTION (SEE ROADWAY PLANS) AND TO REVISE MARKINGS TO THE TEMPORARY PATTERN SHOWN ON TCP-10.
- COMPLETE CONSTRUCTION OF AND ACTIVATE THE TEMPORARY TRAFFIC SIGNAL AT THE INTERSECTION OF HILLANDALE ROAD AND BERTLAND AVENUE (SEE TCP-10 AND TEMPORARY SIGNAL PLAN).
- PLACE DRUMS AND SIGNS AND PLACE HILLANDALE ROAD INTO TEMPORARY TRAFFIC PATTERN SHOWN ON TCP-10. MAINTAIN CLOSURE OF RIGHT NORTHBOUND LANE OF HILLANDALE ROAD AS SHOWN ON TCP-11A & TCP-11B.



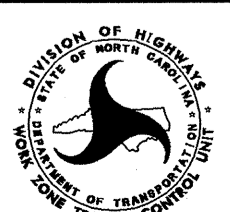
STEP 5: BEHIND THE NB AND SB LANE CLOSURES ON HILLANDALE ROAD BETWEEN I-85 AND BERTLAND AVENUE, CONSTRUCT MEDIAN DRAINAGE STRUCTURES 1 AND 29 AND THE RAISED MEDIAN FROM STA 11+70 +/- -L- TO BERTLAND AVENUE AS SHOWN ON TCP-10. TEMPORARILY CLOSE THE NB LEFT TURN LANE WITH DRUMS SPACED 10 FT C-C AND PROVIDE A POLICE OFFICER AT THE HILLANDALE ROAD/BERTLAND AVENUE INTERSECTION WHEN CONSTRUCTING DRAINAGE STRUCTURE 29 AND THE RAISED MEDIAN BETWEEN STA 14+50 +/- -L- AND BERTLAND AVENUE. REOPEN THE NB LEFT TURN LANE ON HILLANDALE ROAD AT BERTLAND AVENUE BY THE END OF EACH WORK PERIOD.

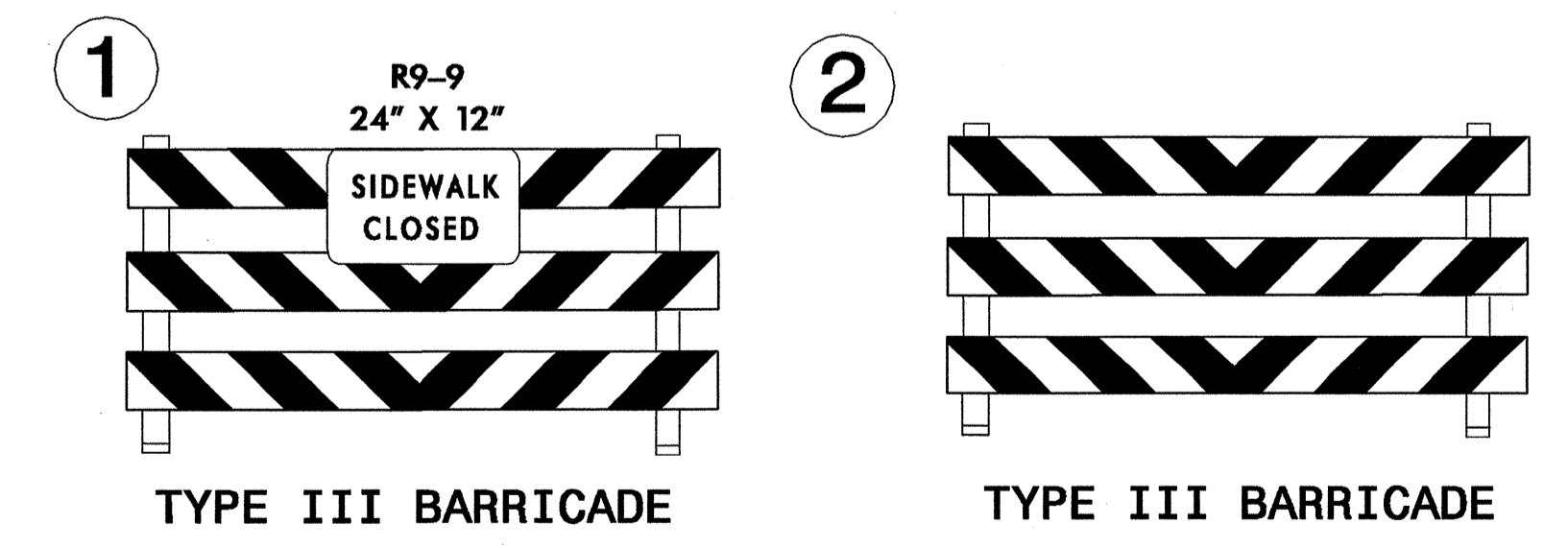
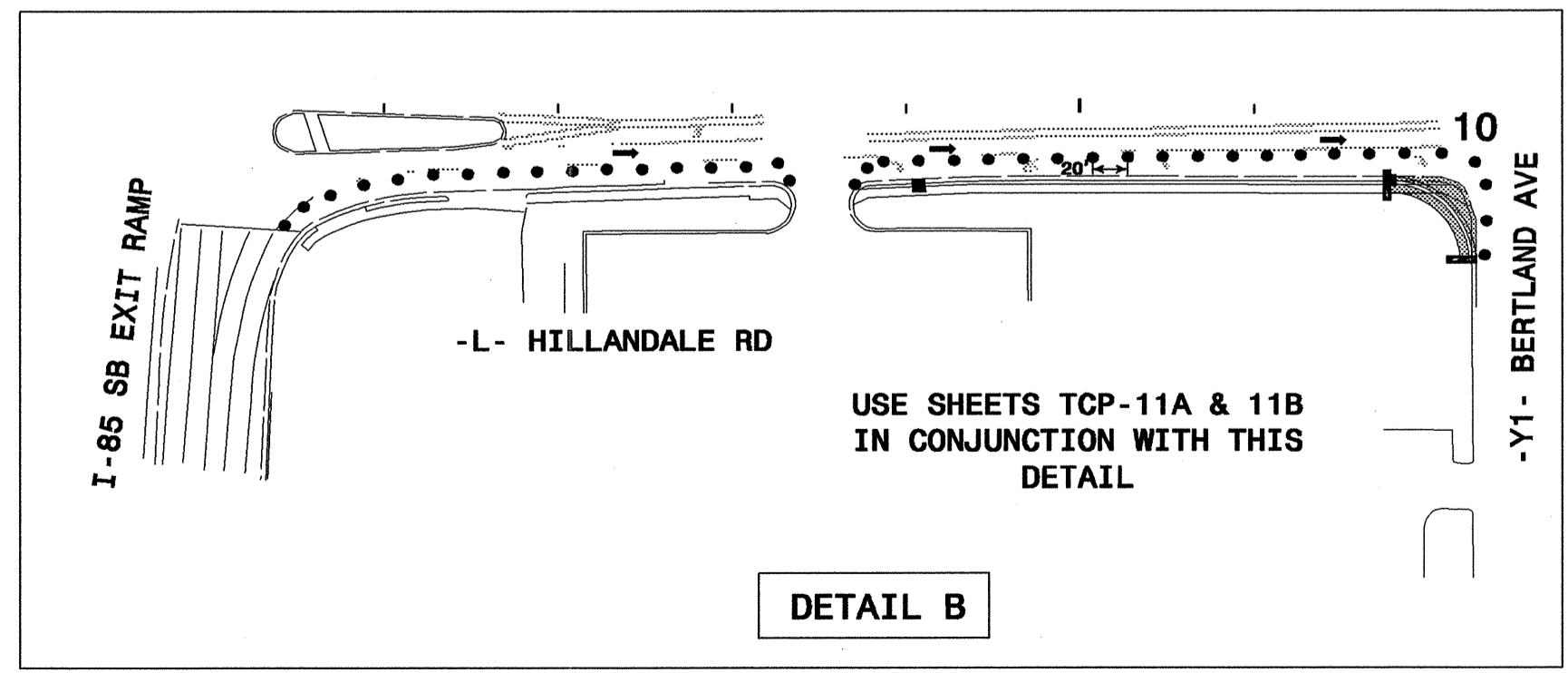
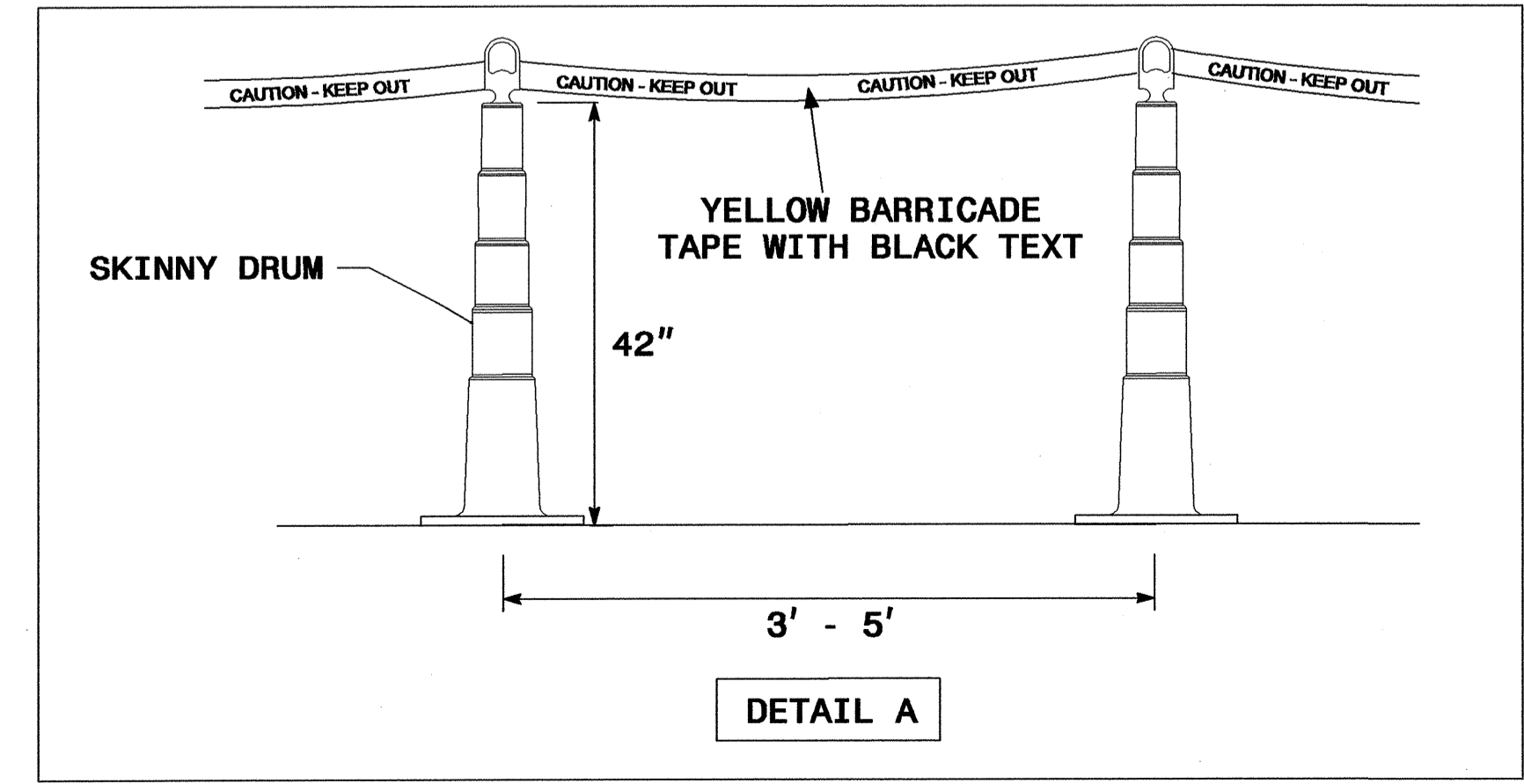
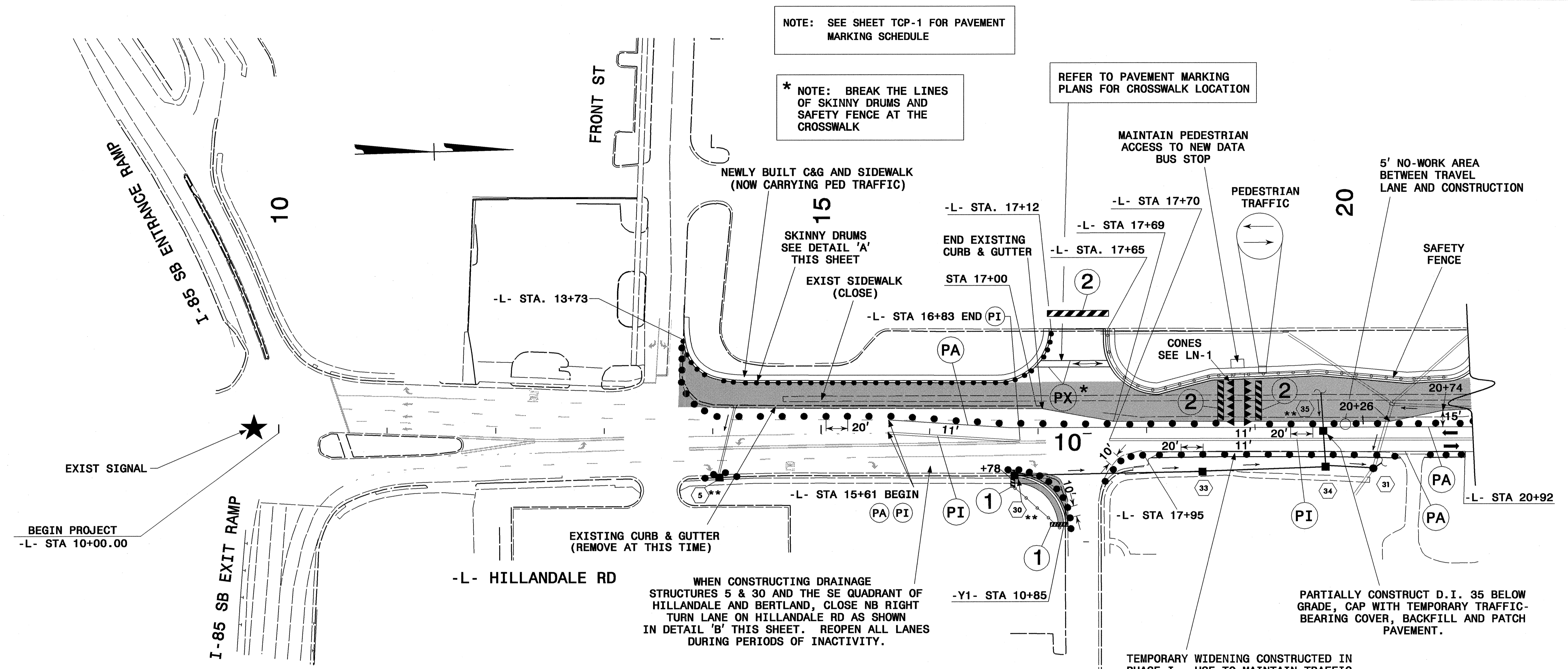
SHIFT DRUMS ON NORTHBOUND HILLANDALE ROAD BETWEEN I-85 AND BERTLAND AVENUE TO ALTERNATELY CLOSE THE NB LANES AND CONSTRUCT THE PROPOSED PIPES BETWEEN DRAINAGE STRUCTURES 1 & 5 AND BETWEEN DRAINAGE STRUCTURES 29 & 30. RETURN NB TRAFFIC TO TEMPORARY PATTERN SHOWN ON TCP-10 BY THE END OF THE WORK PERIOD.

STEP 6: WITH RIGHT NB LANE OF HILLANDALE ROAD STILL CLOSED SOUTH OF THE I-85 SB RAMP INTERSECTION, SHIFT DRUMS ON NORTHBOUND HILLANDALE ROAD BETWEEN I-85 AND BERTLAND AVENUE TO ALTERNATELY CLOSE THE NB LANES AND REVISE THE NORTHBOUND MARKINGS TO THE PATTERN SHOWN ON TCP-11. ONCE MARKINGS HAVE BEEN REVISED, REMOVE DRUMS AND OPEN ALL LANES OF HILLANDALE ROAD TO TRAFFIC SOUTH OF BERTLAND AVENUE.

14-JAN-2010 11:30 G:\TEC\Curr\100008495 U3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804_tc.phasing 2.dgn 12054 AT RALEIGH\YMC

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

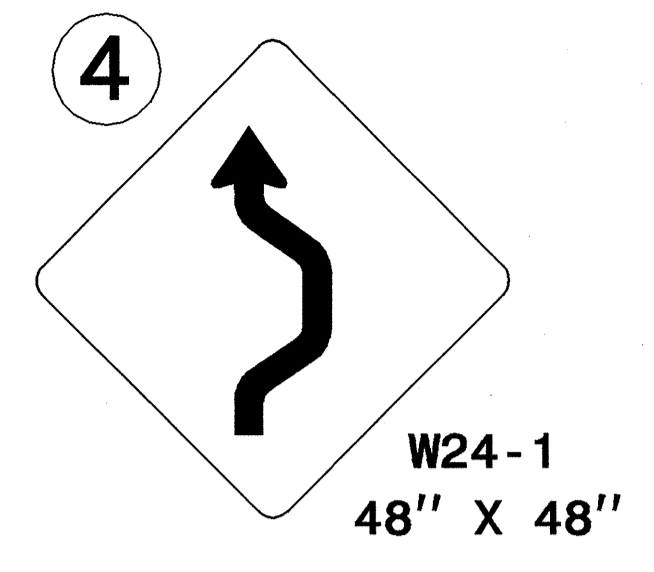
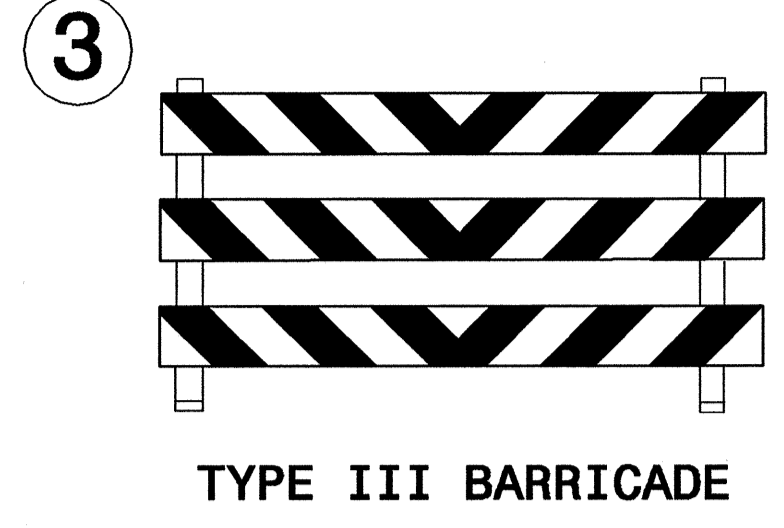
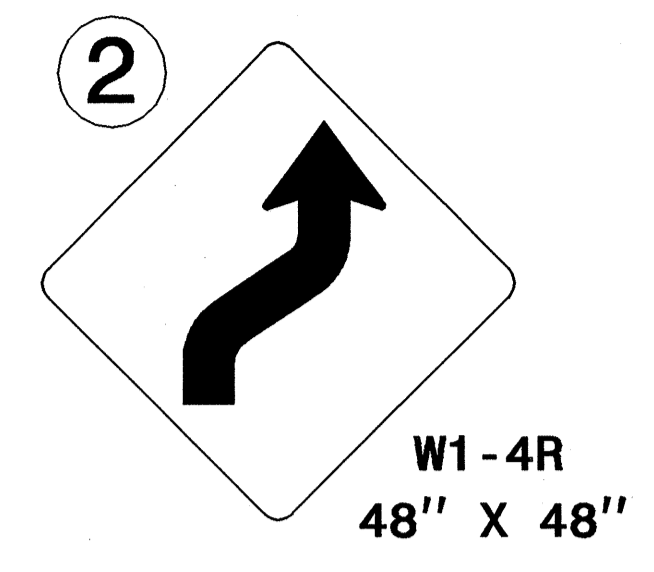
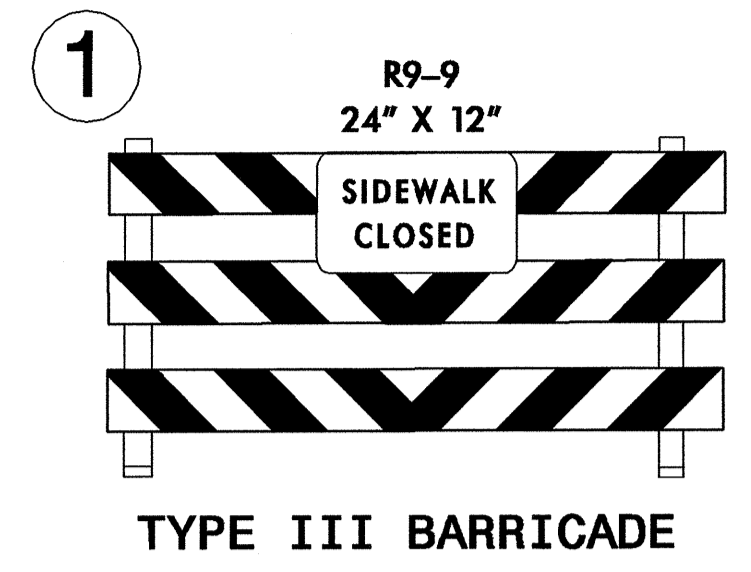
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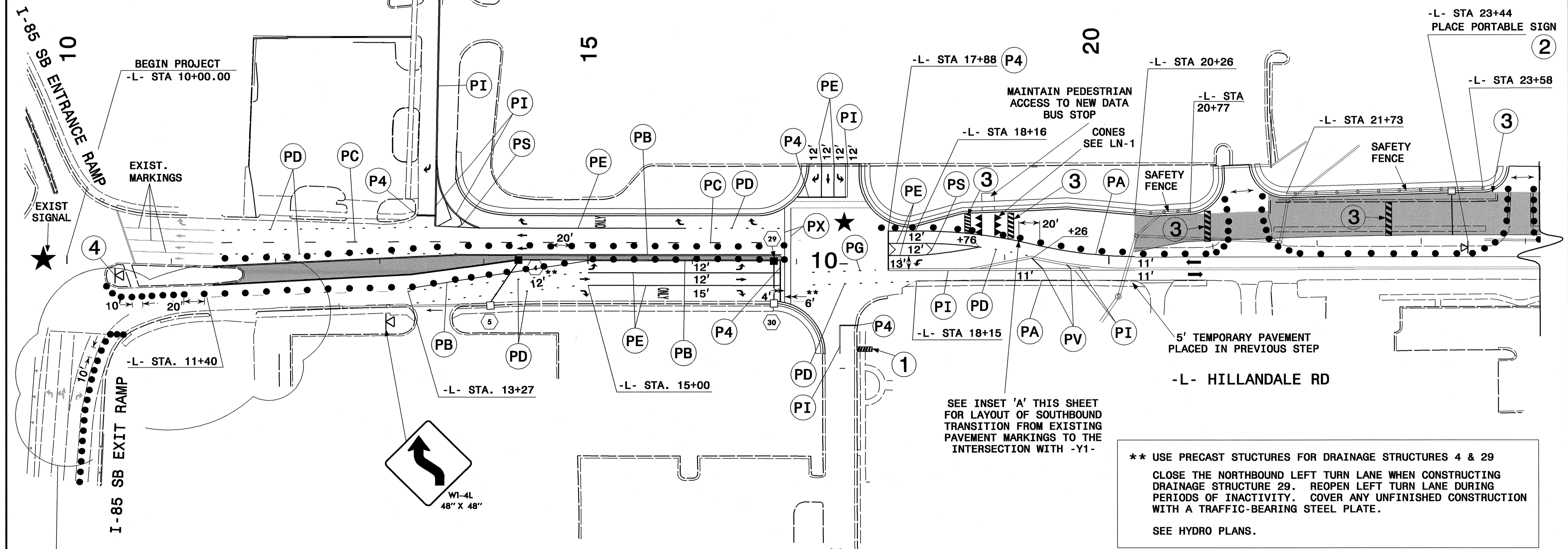
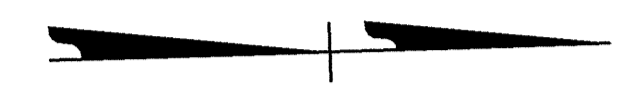
**
USE PRECAST STRUCTURES FOR DRAINAGE STRUCTURES 5 & 30
SEE HYDRO PLANS

APPROVED: <i>[Signature]</i> DATE: 1/14/10	PHASE II DETAIL 1A					
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	DATE: 12/22/09					
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14-JAN-2010 11:30 G:\TEG\Curt\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-1a detail.dgn AT RALEIGH\YMC



★ INSTALL NEW SIGNAL AT -L- & -Y1- FOR TEMPORARY TRAFFIC PATTERN.



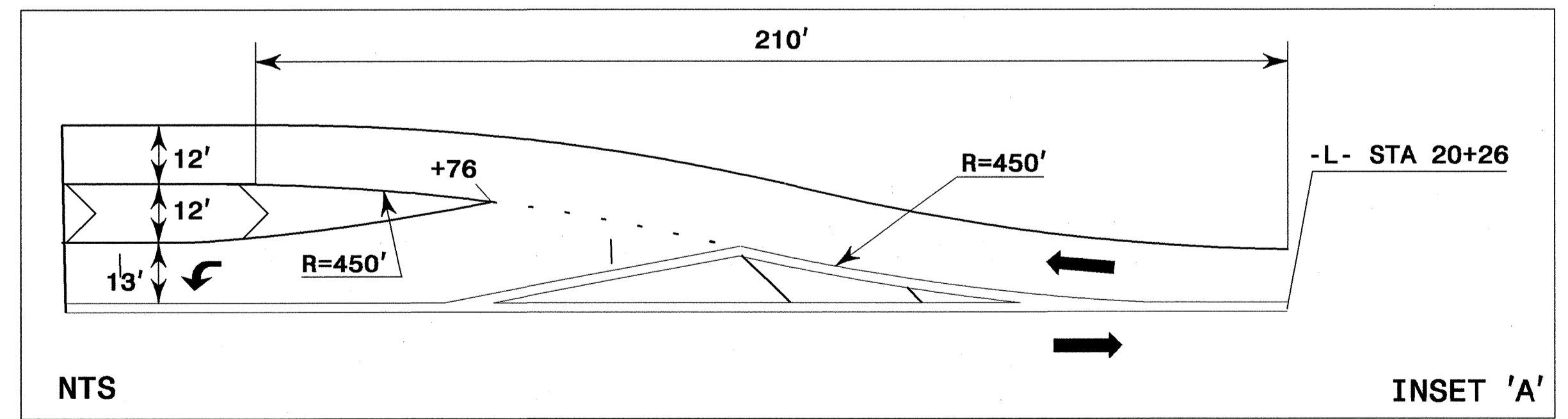
SEE SHEETS TCP-11A & 11B FOR LANE CLOSURE DETAIL NEEDED TO SHIFT TRAFFIC TO THIS PATTERN AT AND SOUTH OF THE I-85 INTERCHANGE

REFER TO THE PAVEMENT MARKING PLANS FOR ALL TEMPORARY MARKINGS NOT DIMENSIONED ON THIS PLAN SHEET.

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

SEE INSET 'A' THIS SHEET FOR LAYOUT OF SOUTHBOUND TRANSITION FROM EXISTING PAVEMENT MARKINGS TO THE INTERSECTION WITH -Y1-

** USE PRECAST STRUCTURES FOR DRAINAGE STRUCTURES 4 & 29
 CLOSE THE NORTHBOUND LEFT TURN LANE WHEN CONSTRUCTING DRAINAGE STRUCTURE 29. REOPEN LEFT TURN LANE DURING PERIODS OF INACTIVITY. COVER ANY UNFINISHED CONSTRUCTION WITH A TRAFFIC-BEARING STEEL PLATE.
 SEE HYDRO PLANS.



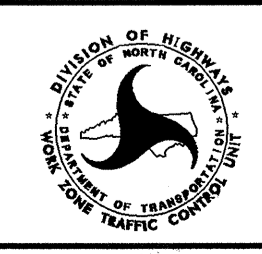
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PBS 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

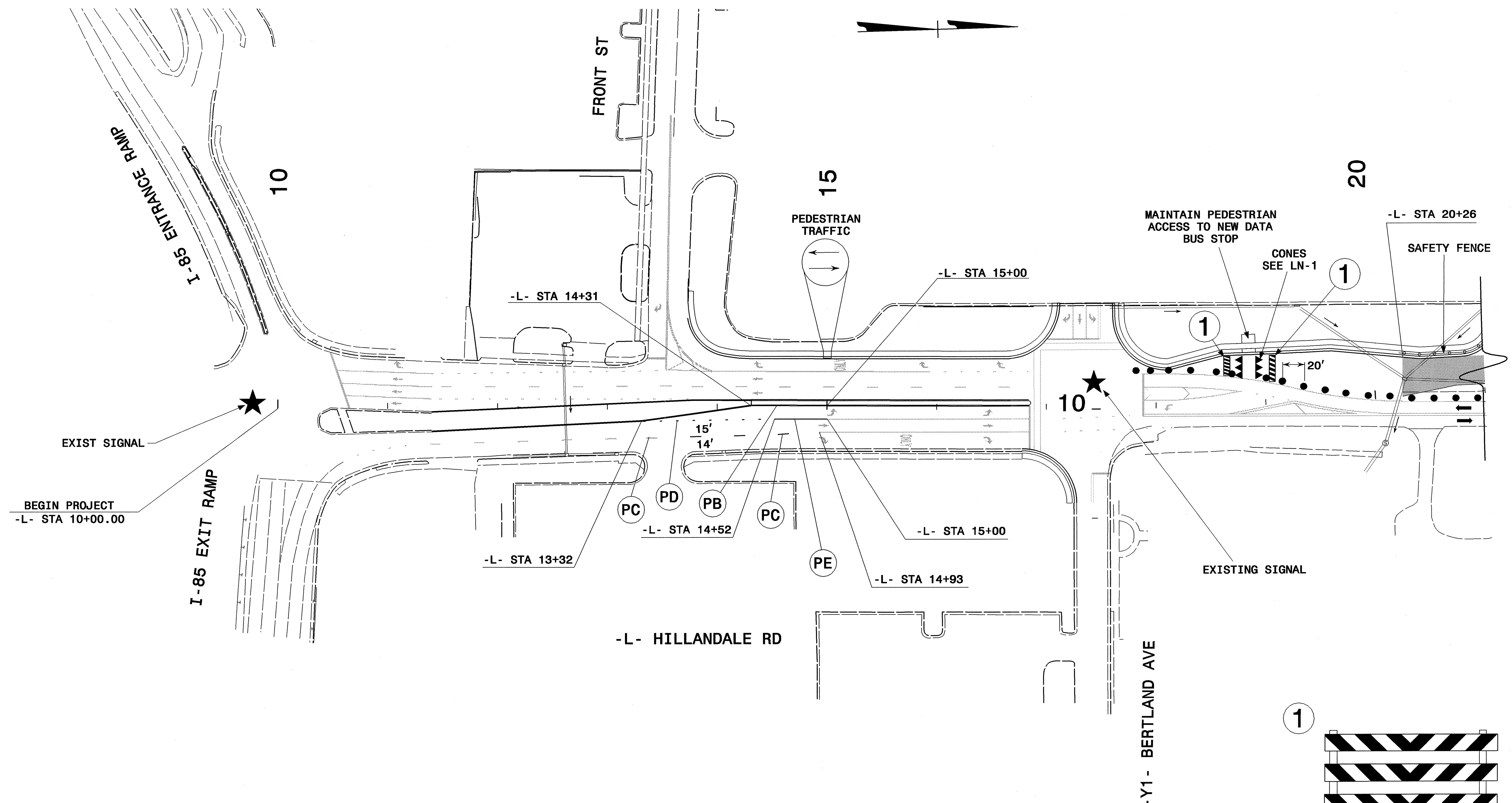
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 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 17586
 J. TODD BROOKS

PHASE II DETAIL 1B

SCALE: 1:50
 DATE: 12/22/09
 DWG. BY: AW
 DESIGN BY: AW
 REVIEWED BY: TB



REVISIONS	



BEGIN PROJECT
-L- STA 10+00.00

EXIST SIGNAL

I-85 EXIT RAMP

FRONT ST

PEDESTRIAN TRAFFIC

MAINTAIN PEDESTRIAN ACCESS TO NEW DATA BUS STOP

CONES SEE LN-1

SAFETY FENCE

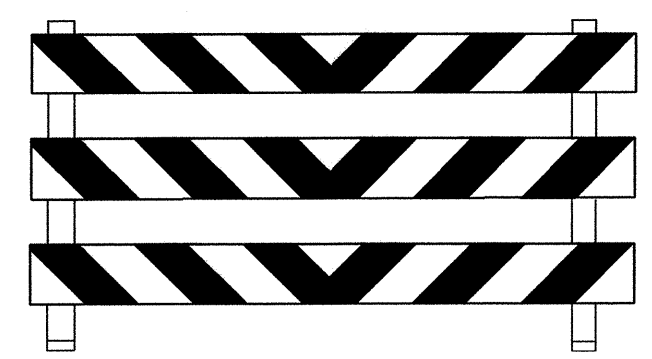
EXISTING SIGNAL

EXISTING SIGNAL

-L- HILLANDALE RD

-Y1- BERTRAND AVE

1



TYPE III BARRICADE

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

22-DEC-2009 14:12 C:\LEG\CP\U-3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-1c detail.dgn

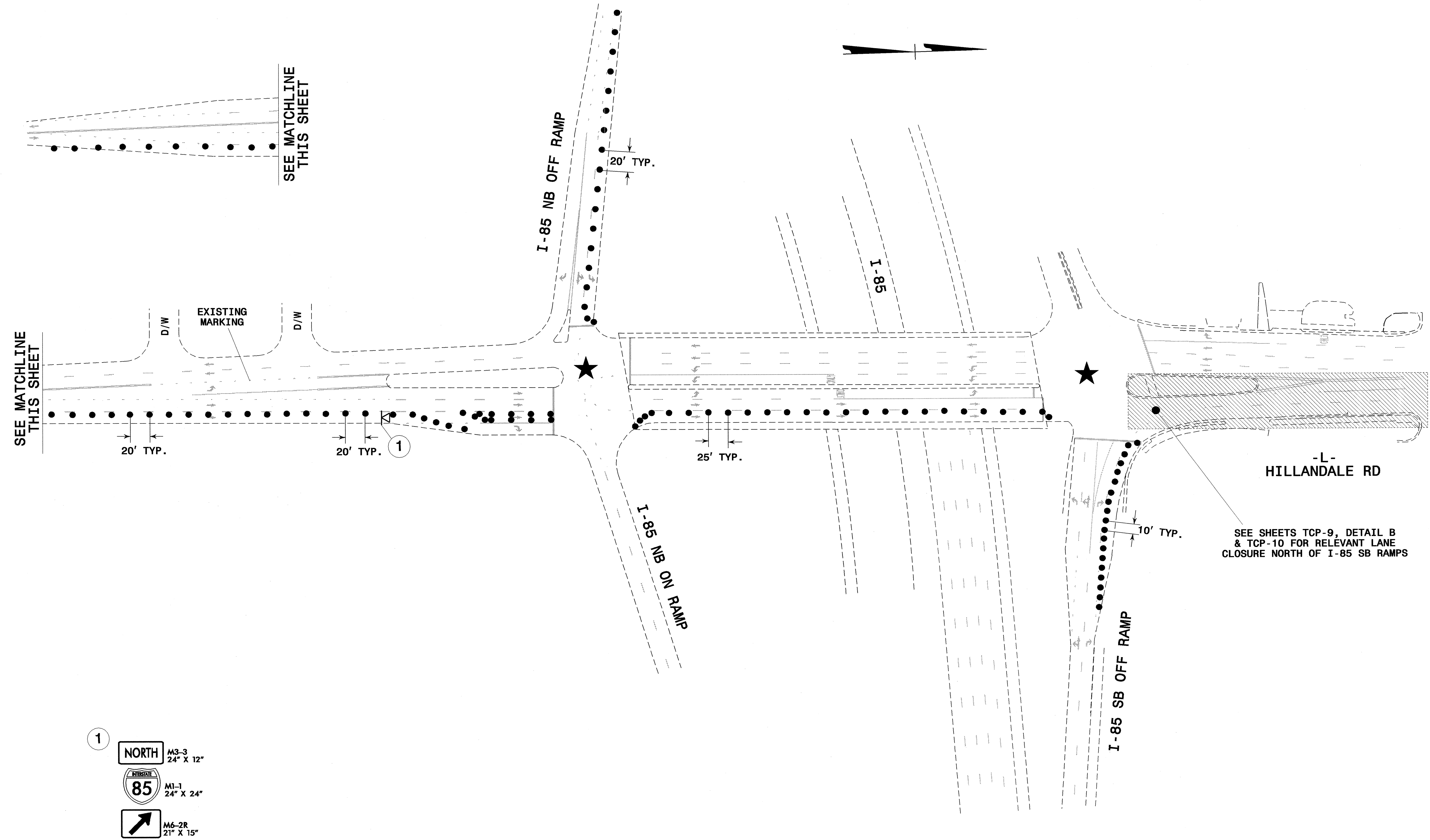
PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09

SEAL

PHASE II DETAIL 1C

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- 1
- NORTH M3-3 24" X 12"
 - 85 MI-1 24" X 24"
 - M6-2R 21" X 15"

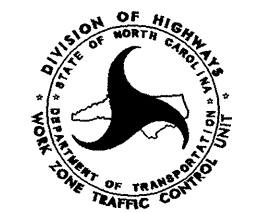
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 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

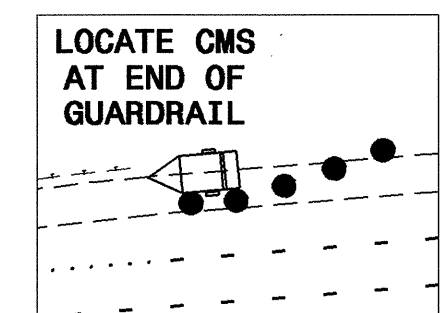
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SEAL

SUPPLEMENTAL LANE CLOSURE DETAIL (1 OF 2)	
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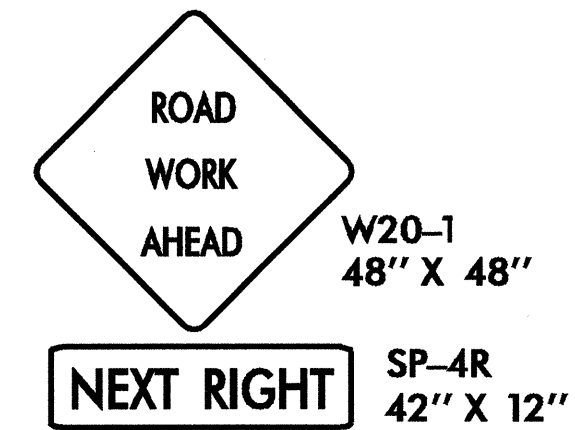


MESSAGE NO. 1	MESSAGE NO. 2
LANE CLOSED ON RAMP	EXIT 174B DELAYS POSSIBLE
CHANGEABLE MESSAGE SIGN	



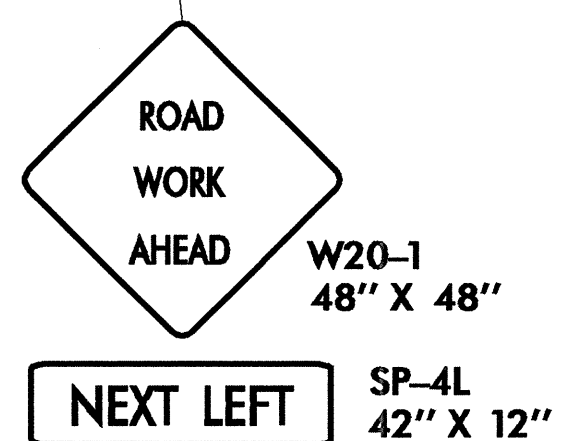
OVERHEAD SIGN STRUCTURE

SB I-85



OVERHEAD SIGN STRUCTURE

HILLDALE RD

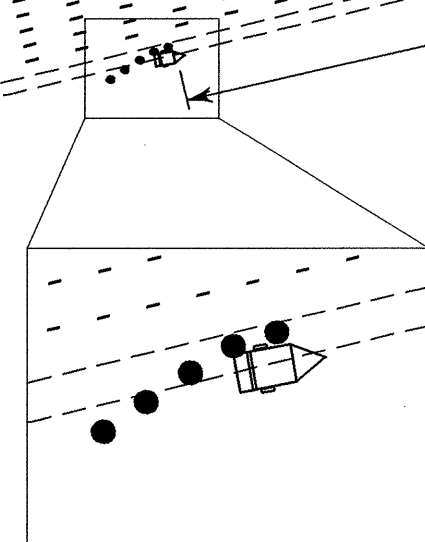


OVERHEAD SIGN STRUCTURE

600'

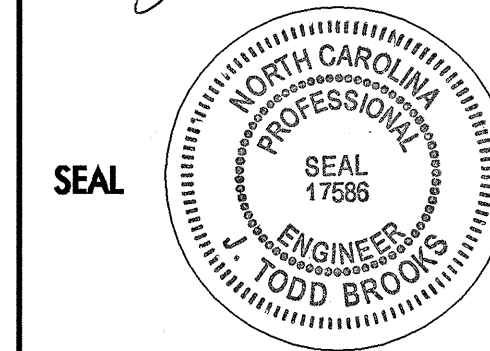
NB I-85

OVERHEAD SIGN STRUCTURE



MESSAGE NO. 1	MESSAGE NO. 2
LANE CLOSED ON RAMP	EXIT 174 DELAYS POSSIBLE
CHANGEABLE MESSAGE SIGN	

APPROVED: *[Signature]* DATE: 1/4/10



SUPPLEMENTAL LANE CLOSURE DETAIL (2 OF 2)

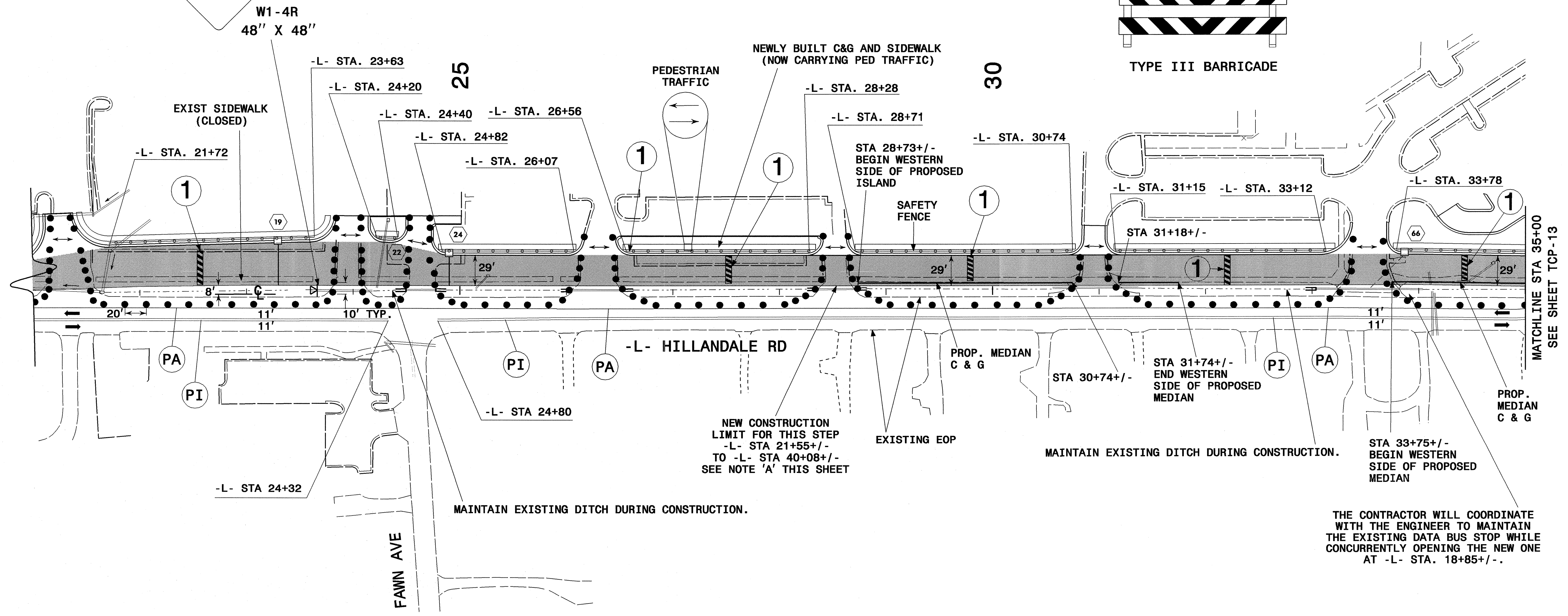
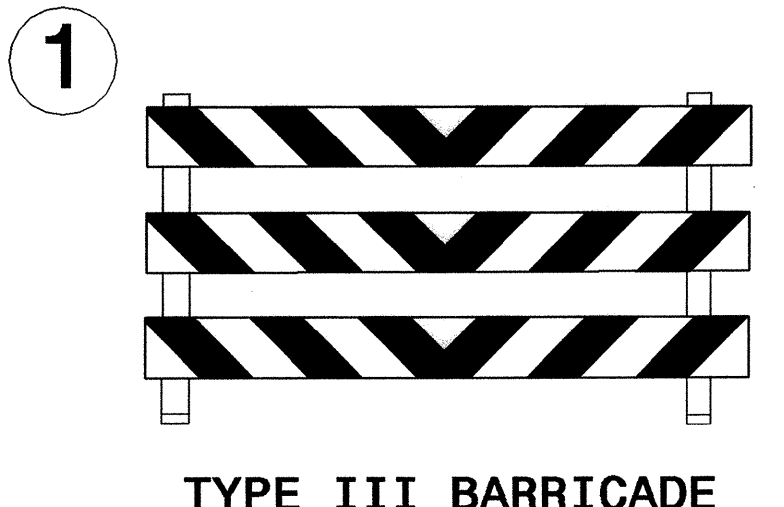
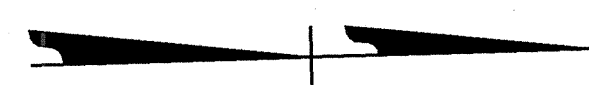
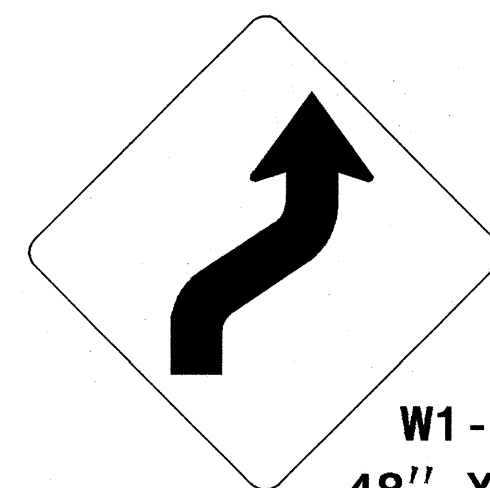
SCALE: NONE
 DATE: 12/22/09
 DWG. BY: AW
 DESIGN BY: AW
 REVIEWED BY: TB



REVISIONS	

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

I4-JAN-2010 11:49 G:\TEG\Cur\100008495 U3804 TCP\Tr-offic Control\U-3804_REVISED (south end priority)\u-3804 revised detail\lb.dgn 12054 AT RAL5GK\MCI



NOTE A
 UNDER THE DIRECTION OF THE ENGINEER, CONTINUE TO MAINTAIN DRIVEWAY CONNECTIONS AS THE CONSTRUCTION LIMITS MOVE EASTWARD TOWARD MEDIAN DURING THIS STEP.

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

THE CONTRACTOR WILL COORDINATE WITH THE ENGINEER TO MAINTAIN THE EXISTING DATA BUS STOP WHILE CONCURRENTLY OPENING THE NEW ONE AT -L- STA. 18+85+/-.

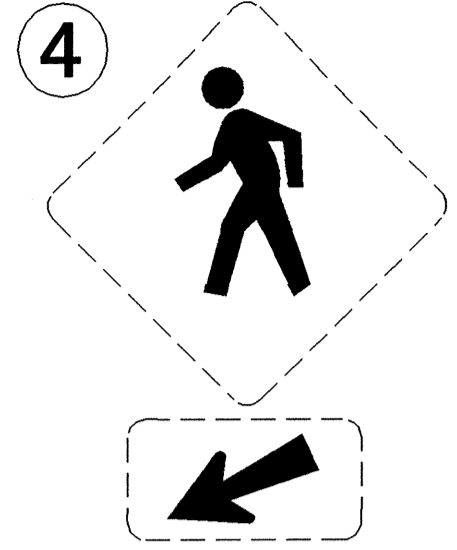
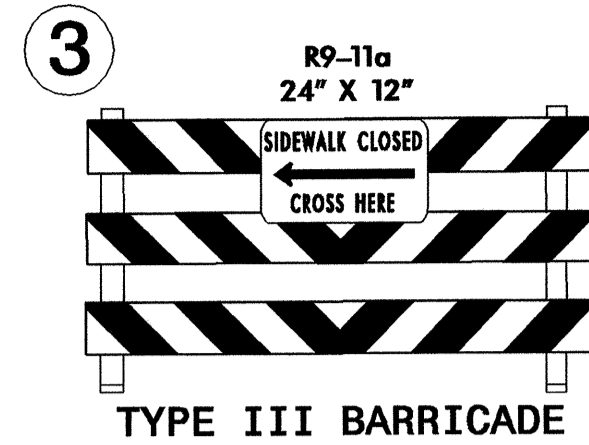
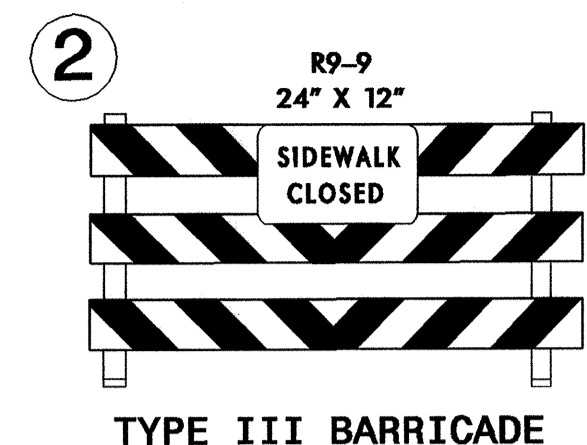
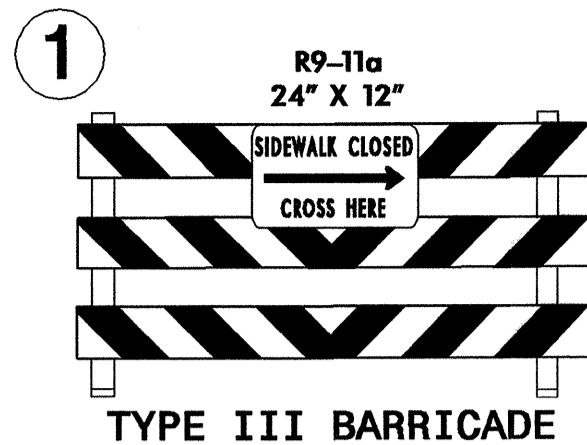
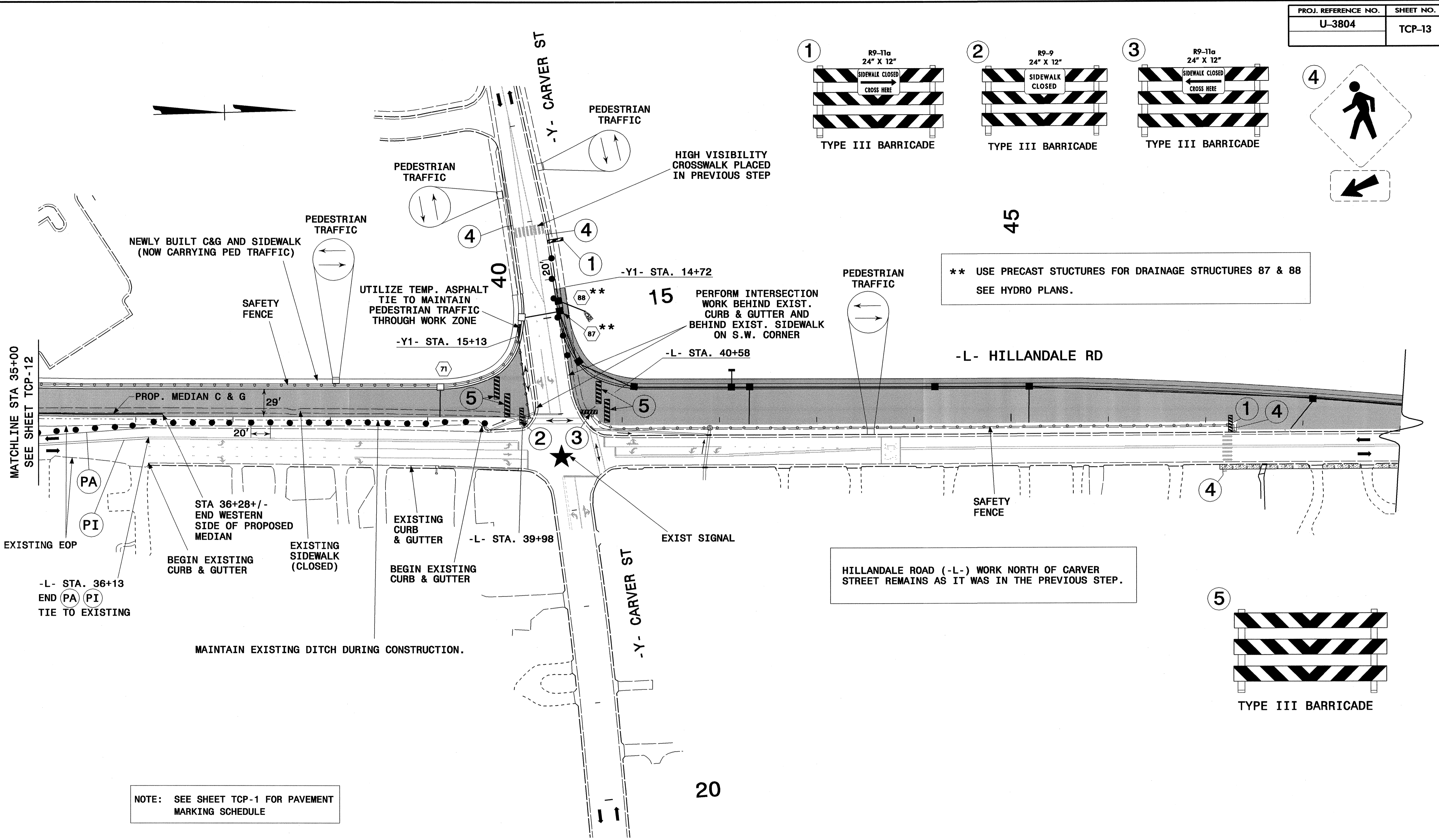
22-DEC-2009 12:01 9:16 PM C:\T\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-la detail2.dgn
 2054 AT RAL38K1MCI

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 17586
 TODD BROOKS

PHASE II DETAIL 2

SCALE: 1:50		REVISIONS
DATE: 12/22/09		
DWG. BY: AW		
DESIGN BY: AW		
REVIEWED BY: TB		



** USE PRECAST STRUCTURES FOR DRAINAGE STRUCTURES 87 & 88 SEE HYDRO PLANS.

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

22-DEC-2009 14:14 G:\TEG\Curf\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-1a detail3.dgn 12054 AT RALESGYMC1

PBS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09

SEAL

PHASE II DETAIL 3

SCALE: 1:50		<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: 12/22/09										
DWG. BY: AW										
DESIGN BY: AW										
REVIEWED BY: TB	CADD FILE									

PHASING

Phase III

OBJECTIVE: SHIFT HILLANDALE ROAD PEDESTRIAN TRAFFIC NORTH OF CARVER STREET TO THE PROPOSED SIDEWALK. SHIFT TRAFFIC TO THE PROPOSED WEST SIDE OF HILLANDALE ROAD. BUILD THE EAST SIDE OF HILLANDALE ROAD.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE III, STEP 7 DURING ONE WEEKEND PERIOD BETWEEN 7:00 PM ON A FRIDAY AND 6:00 AM ON THE FOLLOWING MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 1: COMPLETE THE PROPOSED SIDEWALK ON THE WEST SIDE OF HILLANDALE ROAD NORTH OF CARVER STREET. PLACE SAFETY FENCE ALONG THE FRONT OF THAT SIDEWALK FROM CARVER STREET TO -L- STA. 54+00 +/- (SEE TCP-15 THRU TCP-17). COMPLETE ENOUGH PAVEMENT WIDENING IN NW QUADRANT OF HILLANDALE ROAD AT CARVER STREET TO PROVIDE A SMOOTH PEDESTRIAN PATH BETWEEN THE NEW SIDEWALK AND THE CROSSWALK ACROSS THE NORTH LEG OF HILLANDALE ROAD (SEE TCP-15).

SHIFT PEDESTRIAN TRAFFIC TO THE NEW SIDEWALK AND CLOSE THE EXISTING SIDEWALK ON THE WEST SIDE OF HILLANDALE ROAD NORTH OF CARVER STREET. EXPAND THE WEST SIDE WORK ZONE TO WITHIN 5 FT OF THE EXISTING CURB & GUTTER NORTH OF CARVER STREET AS SHOWN ON TCP-15 THRU TCP-17. CLOSE THE SW QUADRANT OF HILLANDALE ROAD AT CARVER STREET TO PEDESTRIAN TRAFFIC (SEE TCP-15).

STEP 2: USING RSD 1101.02, SHEET 1 OF 9, REMOVE THE TWO HIGH-VISIBILITY CROSSWALKS AND ASSOCIATED SIGNS ON HILLANDALE ROAD NORTH OF CARVER STREET IN PHASE I. USING RSD 1101.02, SHEET 1 OF 9, REMOVE THE TEMPORARY PEDESTRIAN DETOUR ON THE EAST SIDE OF HILLANDALE ROAD NORTH OF CARVER STREET. REMOVE THE EXISTING CROSSWALK ACROSS THE WESTERN LEG OF CARVER STREET AT HILLANDALE ROAD USING RSD 1101.02, SHEET 1 OF 9. CONTINUE TO MAINTAIN THE HIGH-VISIBILITY CROSSWALK ON THE WESTERN LEG OF CARVER STREET (SEE TCP-15).

USING RSD 1101.04, REMOVE THE EXISTING CURB & GUTTER ALONG THE WESTERN AND EASTERN LEGS OF CARVER STREET AS INDICATED ON SHEET TCP-15. REPLACE REMOVED CURB & GUTTER WITH DRUMS SPACED AT 10 FT C-C.

INSTALL AND COVER SIGNING FOR CARVER STREET ROAD CLOSURE AND DETOUR AS SHOWN ON TCP-27. INSTALL AND ACTIVATE CHANGEABLE MESSAGE SIGNS IN ADVANCE OF UPCOMING ROAD CLOSURE AND DETOUR IN ACCORDANCE WITH TCP-27.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE III, STEPS 3 THRU 5 DURING ONE WEEKEND PERIOD BETWEEN 7:00 PM ON A FRIDAY AND 6:00 AM ON THE FOLLOWING MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 3: UNCOVER ROAD CLOSURE AND DETOUR SIGNS AND CLOSE CARVER STREET AT HILLANDALE ROAD AS SHOWN ON TCP-16 AND TCP-27. DETOUR CARVER STREET TRAFFIC AS SHOWN ON TCP-27.

STEP 4: WEDGE ACROSS THE WESTERN LEG OF CARVER STREET TO THE EDGE AND ELEVATION OF THE CONTIGUOUS NEW HILLANDALE ROAD PAVEMENT. USING FLAGGERS AND ALTERNATING LANE CLOSURES AS PER RSD 1101.02, SHEET 1 OF 9, WEDGE ACROSS HILLANDALE ROAD AT CARVER STREET. BRING HILLANDALE ROAD UP TO THE ELEVATION OF THE NEW CARVER STREET GRADE. CONTINUE TO WEDGE NORTH AND SOUTH ALONG HILLANDALE ROAD TO THE APPROXIMATE LIMITS SHOWN ON TCP-16 TO CREATE A TRANSITION TO THE NEW CARVER STREET INTERSECTION ELEVATION. WEDGE ACROSS THE EASTERN LEG OF CARVER STREET AND BRING IT UP TO THE GRADE SHOWN IN THE ROADWAY CONSTRUCTION PLANS. PLACE TEMPORARY PAINT PAVEMENT MARKINGS AS SHOWN ON TCP-16. USE DRUMS SPACED 10 FT C-C TO OUTLINE THE EXISTING EDGES OF TRAVELWAY ALONG THE EASTERN AND WESTERN LEGS OF CARVER STREET.

STEP 5: REOPEN CARVER STREET. COVER AND/OR REMOVE ROAD CLOSURE AND DETOUR SIGNING.

STEP 6: USING RSD 1101.02 SHEET 1 OF 9, REMOVE THE EXISTING CURB AND GUTTER ALONG WEST SIDE OF HILLANDALE ROAD FROM -L- STA. 49+00 TO -L- 53+50 AS SHOWN ON TCP-17. IN ORDER TO PREPARE FOR A LATER TRAFFIC SHIFT, FEATHER ASPHALT TO PROVIDE FOR A SMOOTH TRANSITION BETWEEN THE NEWLY CONSTRUCTED PAVEMENT AND THE EXISTING PAVEMENT BETWEEN STA 49+00 +/- TO STA 53+50 +/- . PLACE DRUMS AT 10 FT C-C TO CLOSE THIS NEW CONSTRUCTION UNTIL A LATER TIME. RETURN TRAFFIC TO A TWO-LANE, TWO-WAY PATTERN DURING PERIODS OF CONSTRUCTION INACTIVITY.

COMPLETE THE HILLANDALE ROAD WEST SIDE CONSTRUCTION NORTH AND SOUTH OF CARVER STREET BEGUN IN PREVIOUS PHASES.

INSTALL TEMPORARY PAVEMENT MARKINGS ON HILLANDALE ROAD WEST SIDE WIDENING AS SHOWN ON TCP-18 THRU TCP-21 AS MUCH AS POSSIBLE AWAY FROM TRAFFIC TO PREPARE FOR TRAFFIC PATTERN SWITCH IN NEXT STEP.

STEP 7: USING RSD 1101.02, SHEETS 1 & 2 OF 9, PERFORM THE FOLLOWING WORK TO SHIFT HILLANDALE ROAD TO THE TEMPORARY TWO-LANE, TWO-WAY TRAFFIC PATTERN ON THE NEW SOUTHBOUND PAVEMENT NORTH OF BERTLAND AVENUE AS SHOWN ON TCP-18 THRU TCP-21:

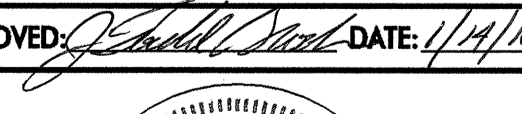

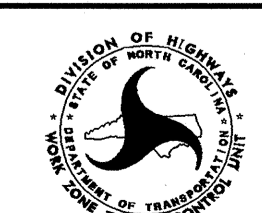
- CONSTRUCT THE FOLLOWING AREAS OF PAVEMENT UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE ON HILLANDALE ROAD AT THE WIDTHS SPECIFIED ON THE CORRESPONDING TRAFFIC CONTROL DETAIL SHEETS:
 - -L- STA 20+25 +/- TO -L- STA 23+50 +/- (SEE TCP-18 & TCP-19)
 - -L- STA 36+27 +/- TO -L- STA 40+08 +/- (SEE TCP-20)
- COMPLETE INSTALLATION OF TEMPORARY MARKINGS SHOWN ON TCP-18 THRU TCP-21 AND TIE TO EXISTING MARKINGS.
- REVISE MARKINGS ON ALL -Y- LINES AS SHOWN ON TCP-18 THRU TCP-21.
- REVISE THE TEMPORARY SIGNALS AT THE HILLANDALE ROAD INTERSECTIONS WITH BERTLAND STREET (SEE TCP-18) AND WITH CARVER STREET (SEE TCP-20). (SEE TEMPORARY SIGNAL PLANS)
- WEDGE PROPOSED TIE-IN OF FAWN AVENUE TO HILLANDALE ROAD UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AS SHOWN IN INSET 'A' TCP-19. PLACE TEMPORARY PAVEMENT MARKINGS ON FAWN AVENUE AS SHOWN ON INSET 'A', TCP-19.

STEP 8: CONSTRUCT THE EAST SIDE OF -L- AS SHOWN ON TCP-18 THRU TCP-21 UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

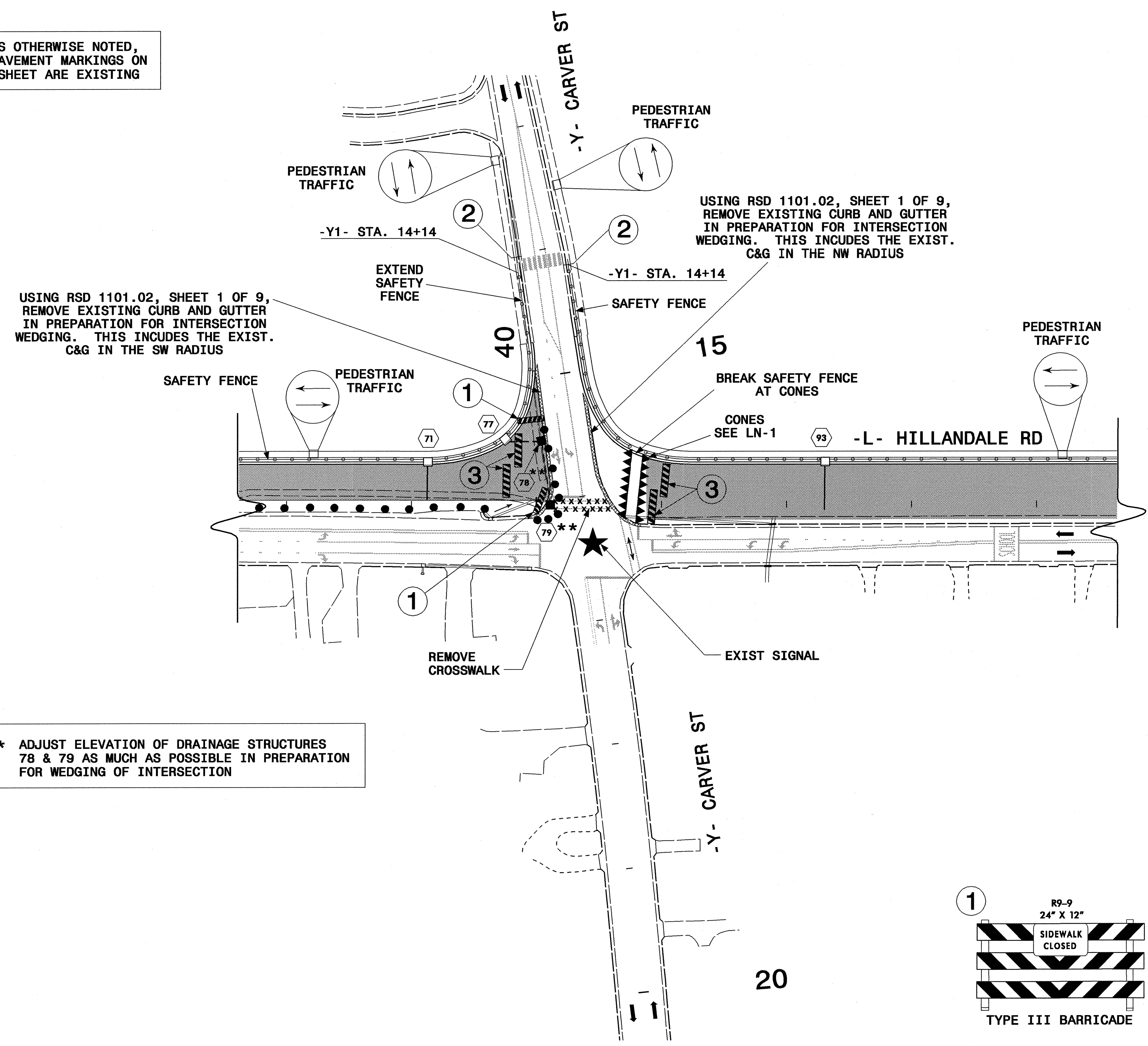
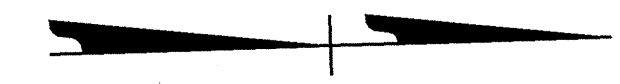
- DO NOT CONSTRUCT NE AND SE QUADRANTS OF THE -L-/-Y- INTERSECTION SIMULTANEOUSLY.
- MAINTAIN PEDESTRIAN TRAFFIC THRU THE NE QUADRANT OF THE -L-/-Y- INTERSECTION WHILE THE SE QUADRANT IS UNDER CONSTRUCTION.
- WHEN THE SE QUADRANT OF THE -L-/-Y- INTERSECTION IS CONSTRUCTED, REROUTE PEDESTRIAN TRAFFIC FROM THE NE TO THE SE QUADRANT AS SHOWN IN INSET 'A' OF TCP-20. CONSTRUCT THE PROPOSED NE QUADRANT.
- UNDER THE DIRECTION OF THE ENGINEER, MAINTAIN DRIVEWAY ACCESS TO PROPERTY OWNERS ON THE EAST SIDE OF HILLANDALE ROAD.
- COMPLETE FAWN AVE. TIE-IN UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE.

14-JAN-2010 11:31 G:\TEC\Curr\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\U-3804_tc.phasing 3.dgn AT RALEIGH\YMC

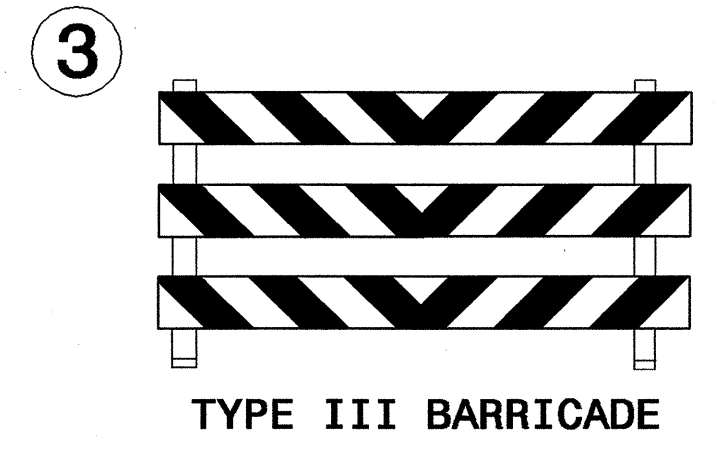
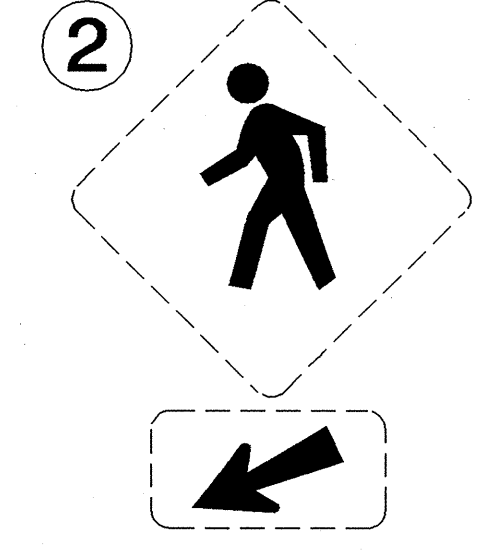
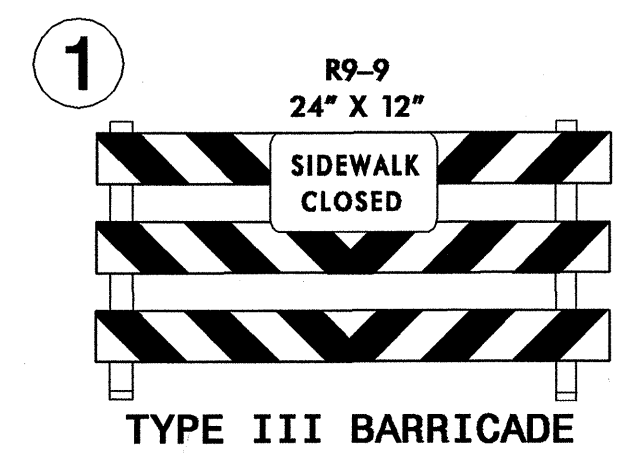
PBS&I 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED:  DATE: 4/14/10	PROJECT PHASING PHASE III	
SEAL 	SCALE: NONE	
	DATE: 12/22/09	
	DESIGN BY: AW	
	REVIEWED BY: TB	
		REVISIONS
		CADD FILE

UNLESS OTHERWISE NOTED,
ALL PAVEMENT MARKINGS ON
THIS SHEET ARE EXISTING



** ADJUST ELEVATION OF DRAINAGE STRUCTURES
78 & 79 AS MUCH AS POSSIBLE IN PREPARATION
FOR WEDGING OF INTERSECTION



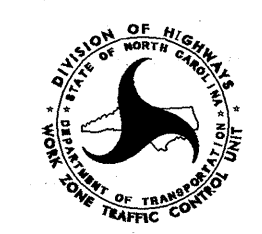
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PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

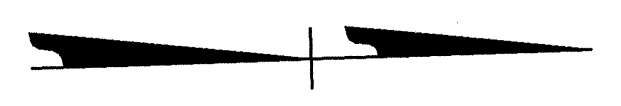
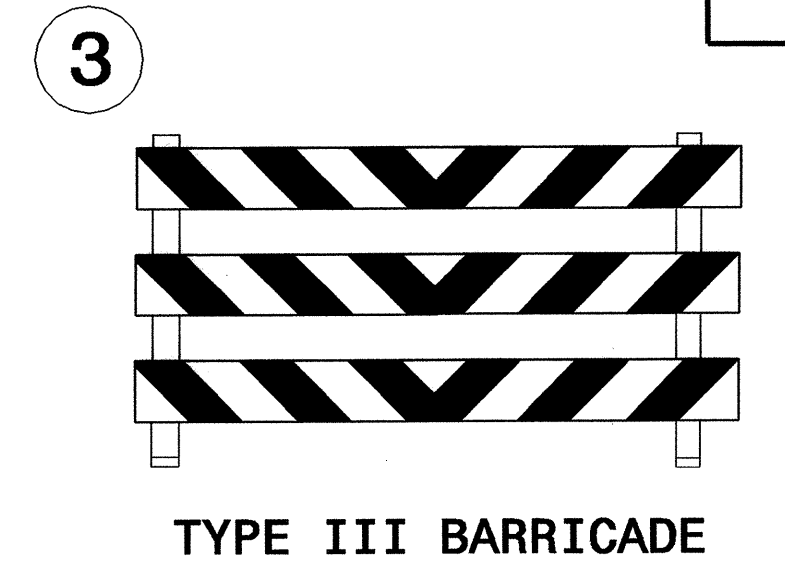
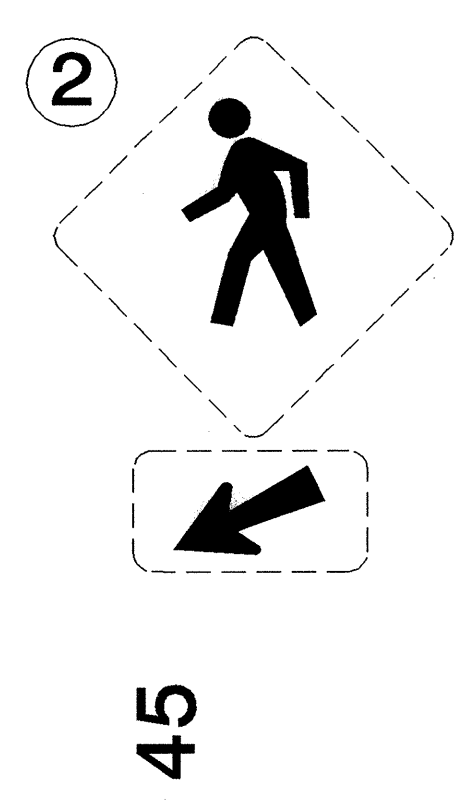
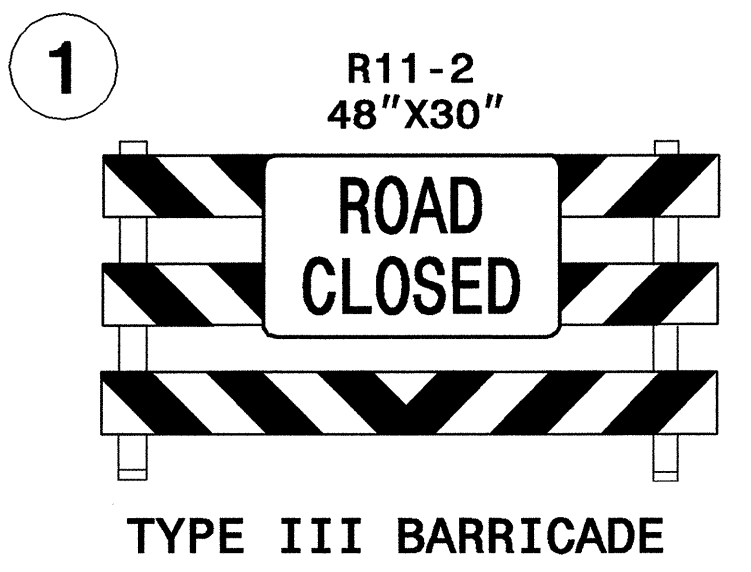
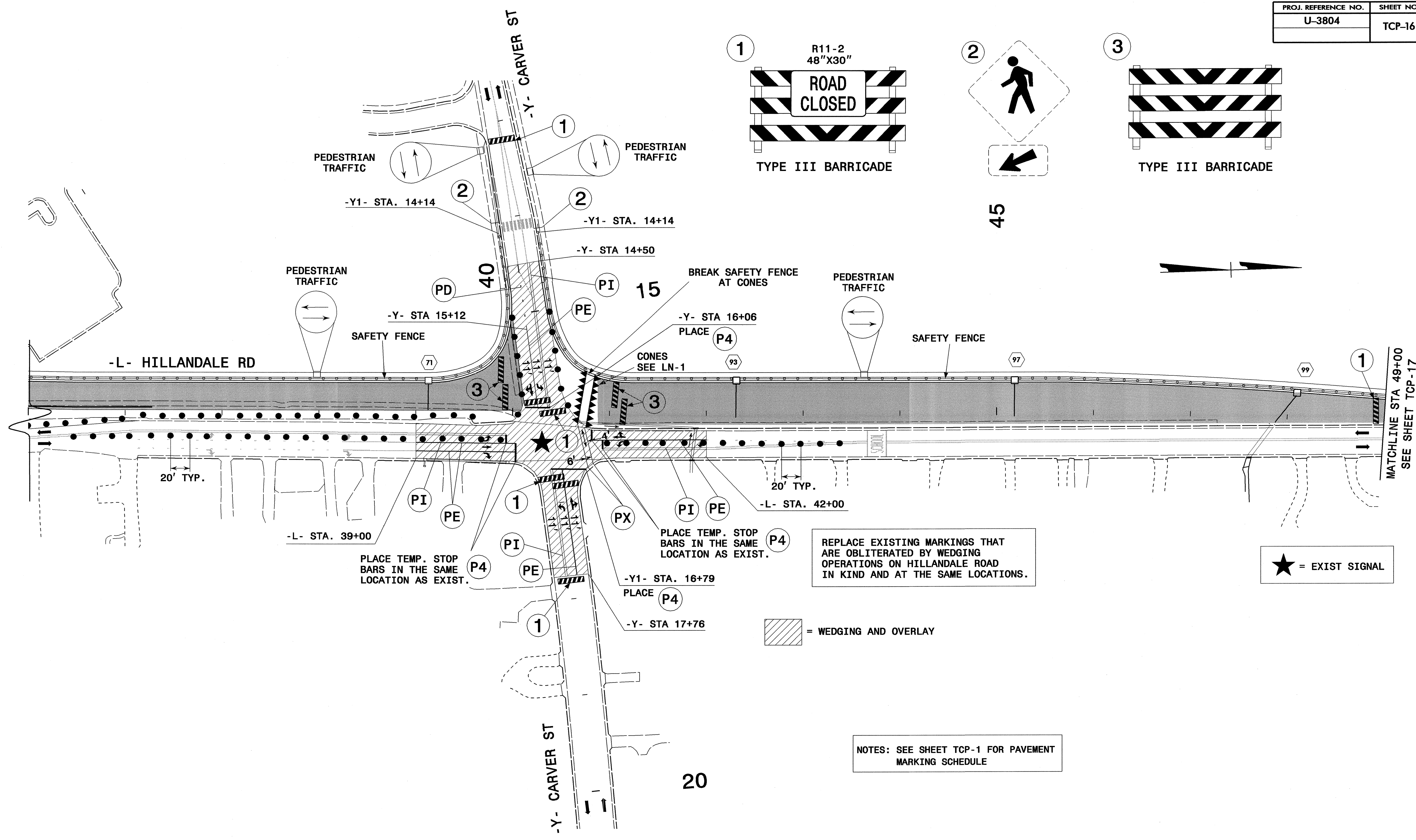
APPROVED: *[Signature]* DATE: 1/14/10

PHASE III DETAIL 1A

SCALE: 1:50
DATE: 12/22/09
DWG. BY: AW
DESIGN BY: AW
REVIEWED BY: TB



REVISIONS	



MATCHLINE STA 49+00
SEE SHEET TCP-17

REPLACE EXISTING MARKINGS THAT ARE OBLITERATED BY WEDGING OPERATIONS ON HILLANDALE ROAD IN KIND AND AT THE SAME LOCATIONS.

★ = EXIST SIGNAL

▨ = WEDGING AND OVERLAY

NOTES: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

22-DEC-2009 14:19 C:\JEG\Cur\00008495 U3804 TCP Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised phase-ic detail3.dgn

PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 12/22/09

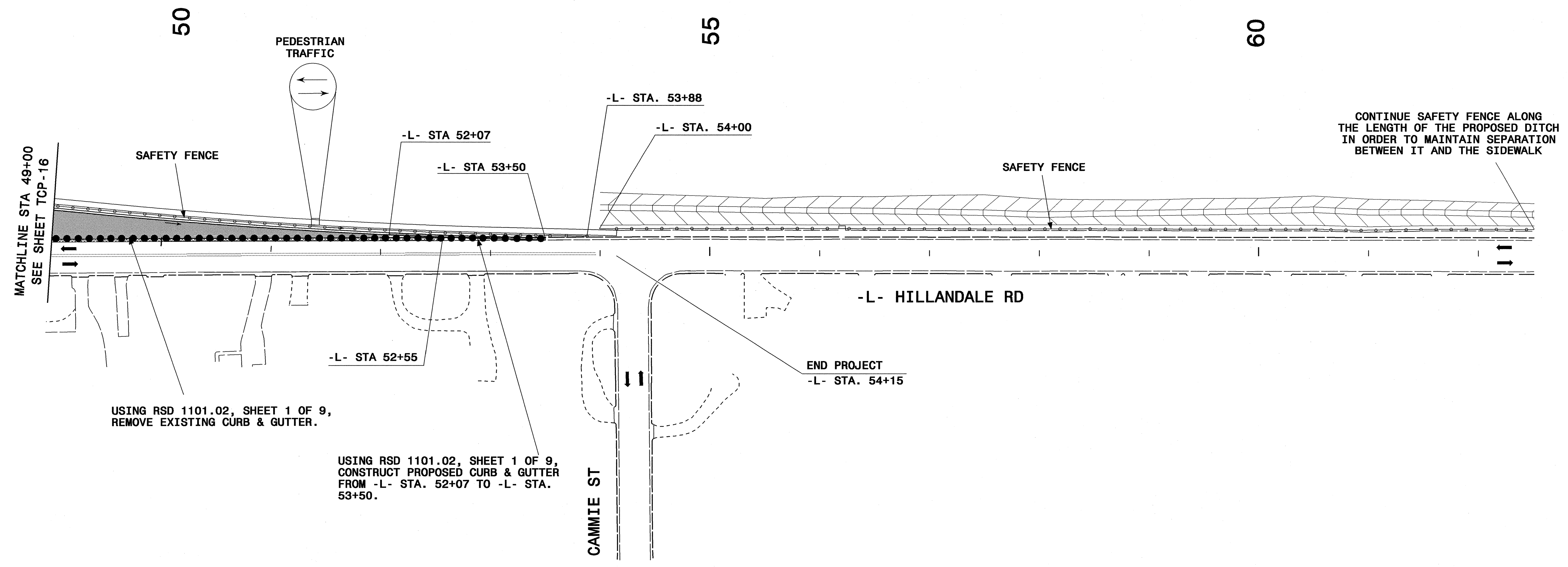
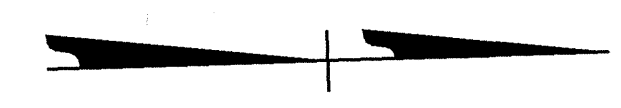
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
TODD BROOKS
SEAL 17586

PHASE III DETAIL 1B

SCALE: 1:50		REVISIONS
DATE: 12/22/09		
DWG. BY: AW		
DESIGN BY: AW		
REVIEWED BY: TB		

CADD FILE

PROJ. REFERENCE NO.	SHEET NO.
U-3804	TCP-17



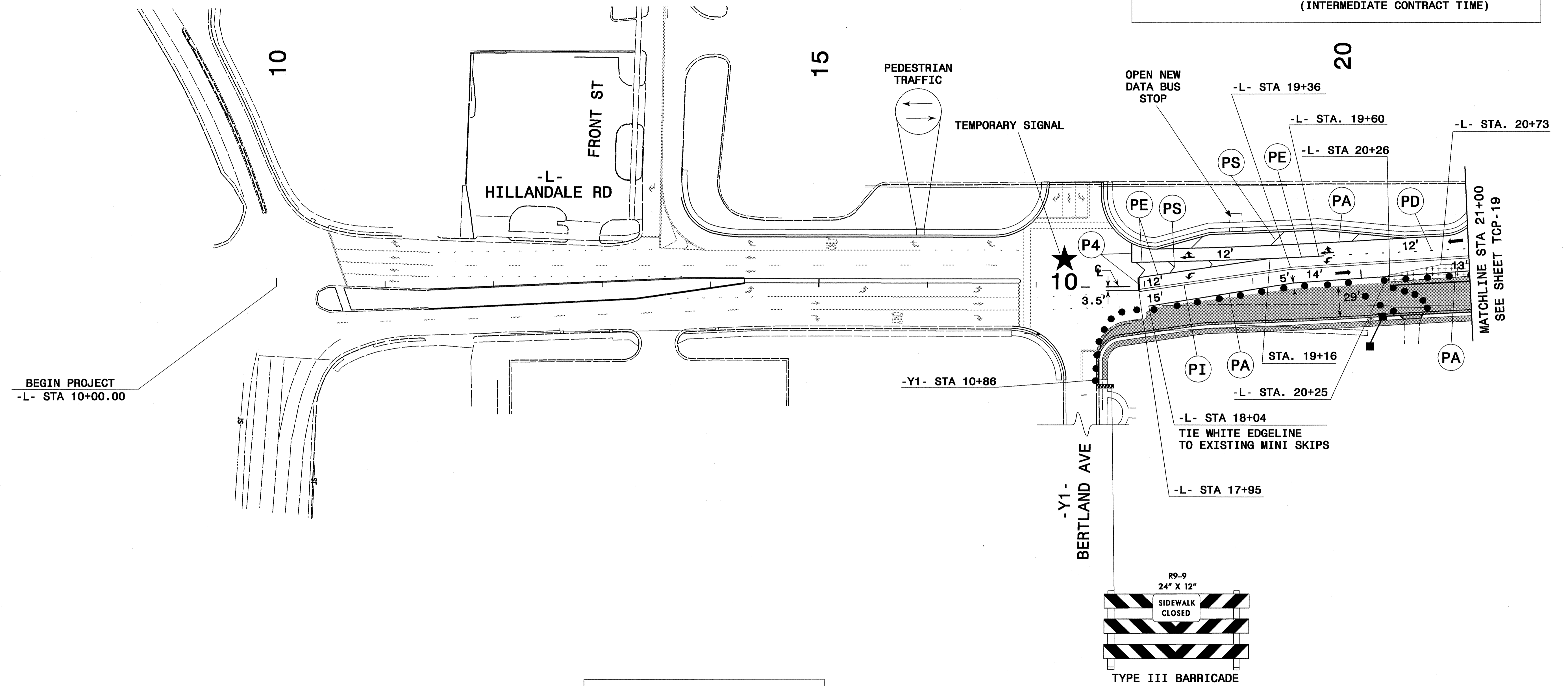
14-JAN-2010 11:32
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 12054 AT RAL56KYMCI

PBS& 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 1/24/10	PHASE III DETAIL 2	
	SCALE: 1:50	
	DATE: 12/22/09	
	DWG. BY: AW	
	DESIGN BY: AW	
REVIEWED BY: TB	REVISIONS	

PROJ. REFERENCE NO.	SHEET NO.
U-3804	TCP-18

CONSTRUCT PROPOSED PAVEMENT UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE IN CONJUNCTION WITH SHIFT TO PHASE III TEMPORARY TRAFFIC PATTERN (INTERMEDIATE CONTRACT TIME)



BEGIN PROJECT
-L- STA 10+00.00

-Y1- STA 10+86

-Y1-
BERTLAND AVE

MATCHLINE STA 21+00
SEE SHEET TCP-19

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

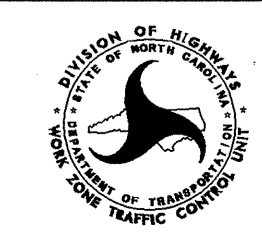
14-JAN-2010 11:34 G:\TEG\CURT\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-2a detail.dgn AT RAL5GK\YMC

PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 1/14/10
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
17588
J. TODD BROOKS

PHASE III DETAIL 3

SCALE: 1:50
DATE: 12/22/09
DWG. BY: AW
DESIGN BY: AW
REVIEWED BY: TB



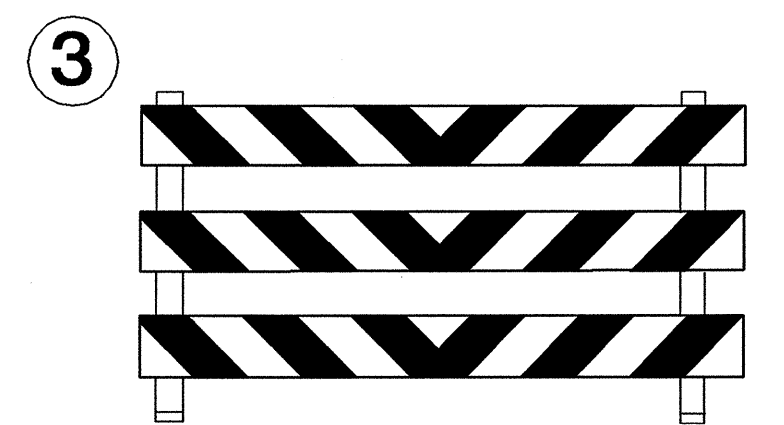
REVISIONS	



HAVE IN PLACE WHEN FAWN AVE. IS REOPENED TO TRAFFIC

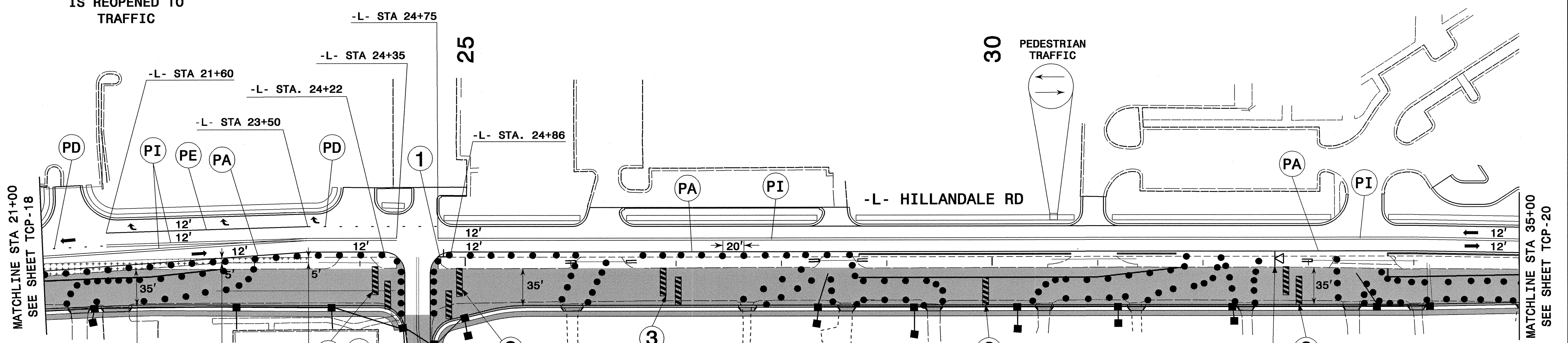
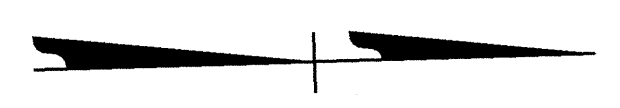


TYPE III BARRICADE

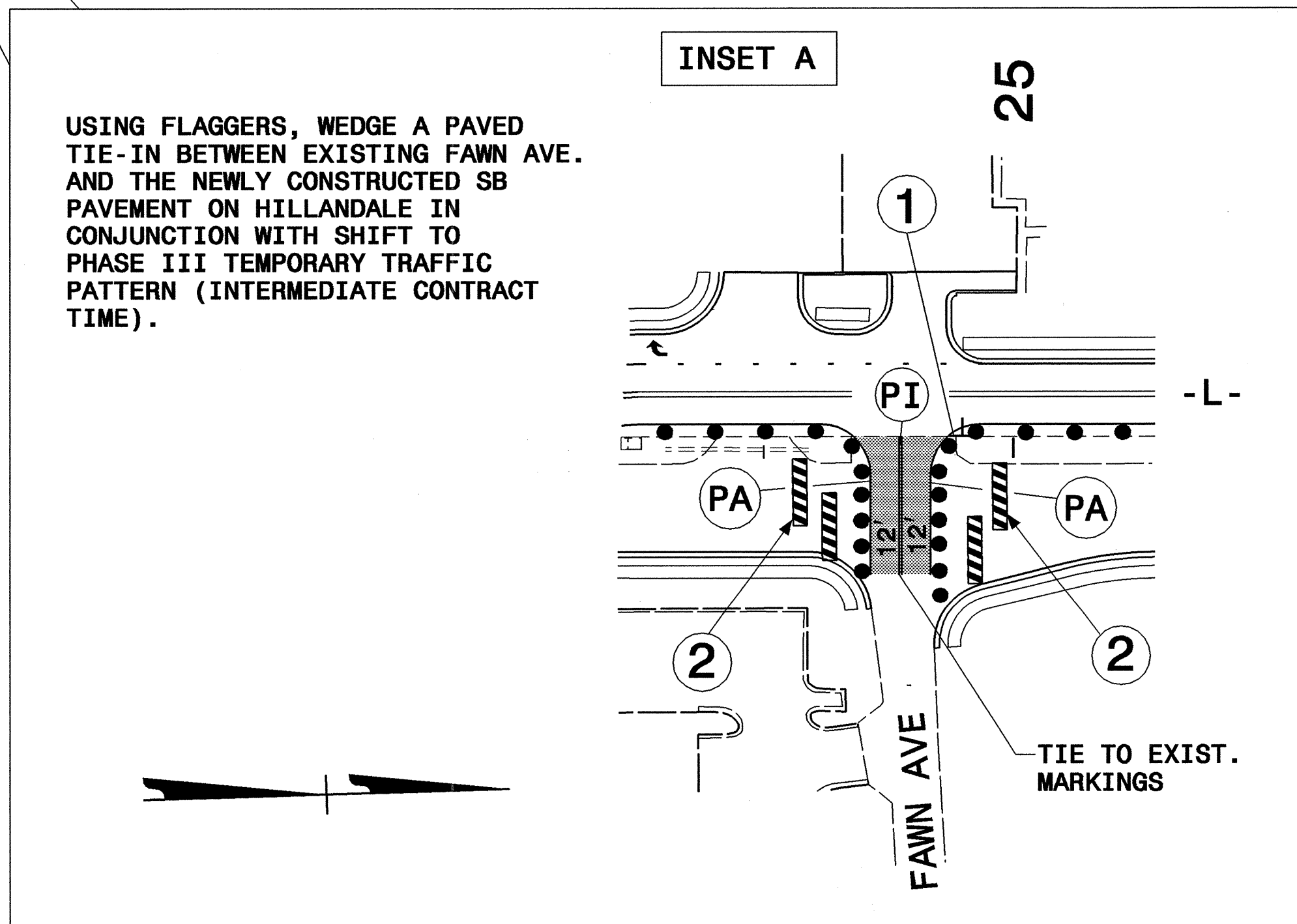


TYPE III BARRICADE

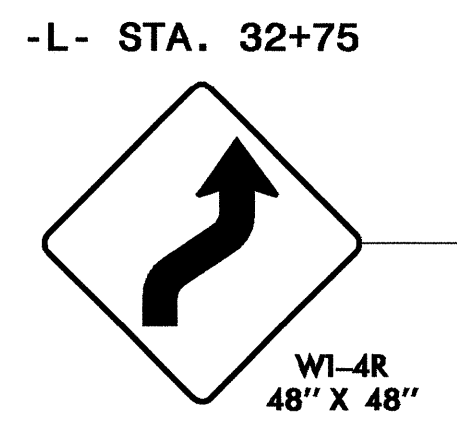
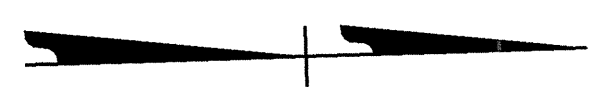
CONSTRUCT PROPOSED PAVEMENT UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE IN CONJUNCTION WITH SHIFT TO PHASE III TEMPORARY TRAFFIC PATTERN (INTERMEDIATE CONTRACT TIME)



USING FLAGGERS, CONSTRUCT PROPOSED DRAINAGE AND CURB RETURNS AND COMPLETE TIE-IN OF FAWN AVENUE UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE.



USING FLAGGERS, WEDGE A PAVED TIE-IN BETWEEN EXISTING FAWN AVE. AND THE NEWLY CONSTRUCTED SB PAVEMENT ON HILLANDALE IN CONJUNCTION WITH SHIFT TO PHASE III TEMPORARY TRAFFIC PATTERN (INTERMEDIATE CONTRACT TIME).



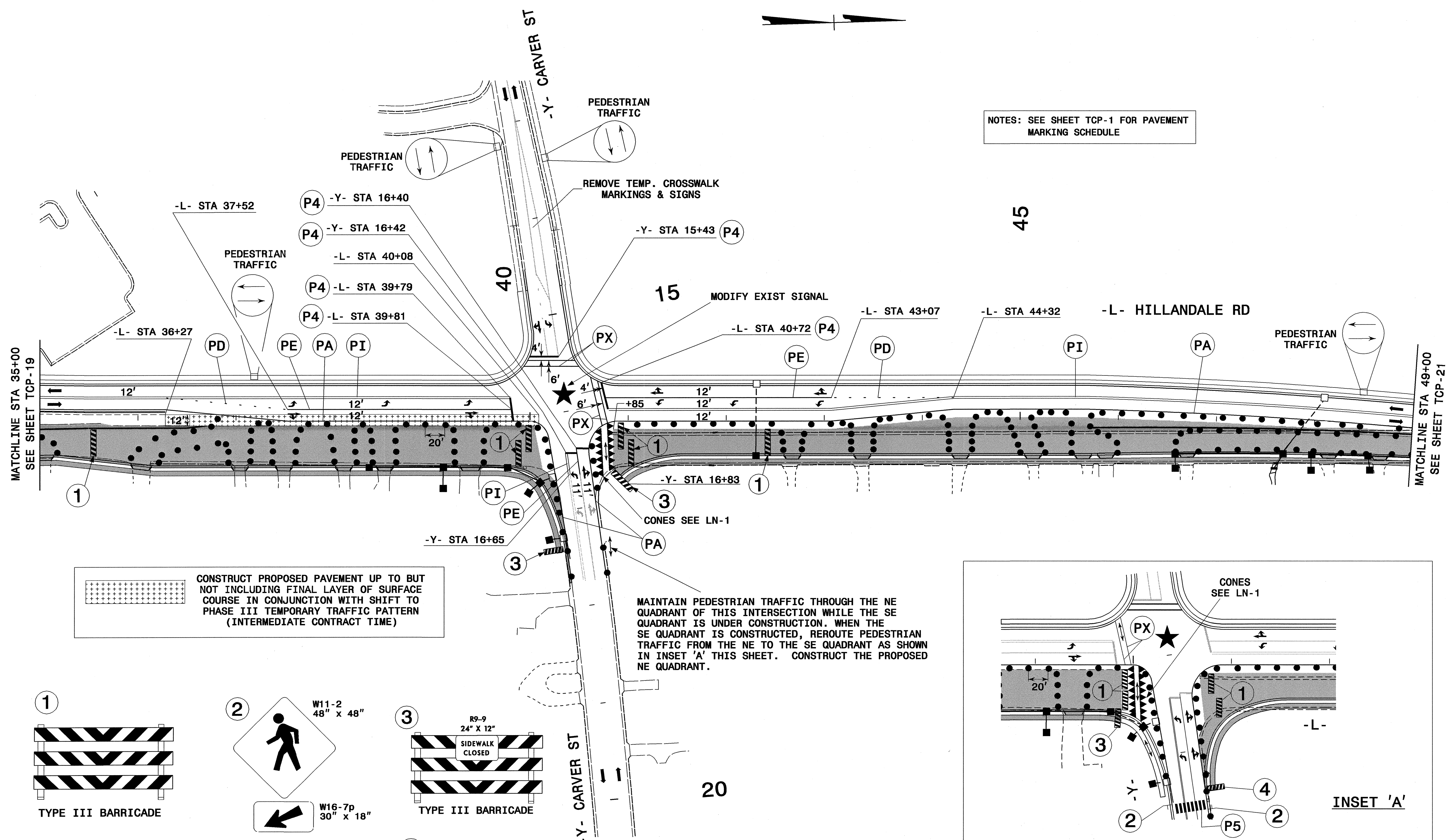
MAINTAIN DRIVEWAY INGRESS AND EGRESS TO -L- DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. MODIFY THE DRIVEWAY CONNECTIONS SHOWN ON THIS SHEET TO FIT FIELD CONDITIONS AS NECESSARY.

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

14-JAN-2010 11:35 G:\TEG\Cur\00008495 U3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised phase-2a detail 2.dgn 2054 AT RAL5GKYMCI

PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

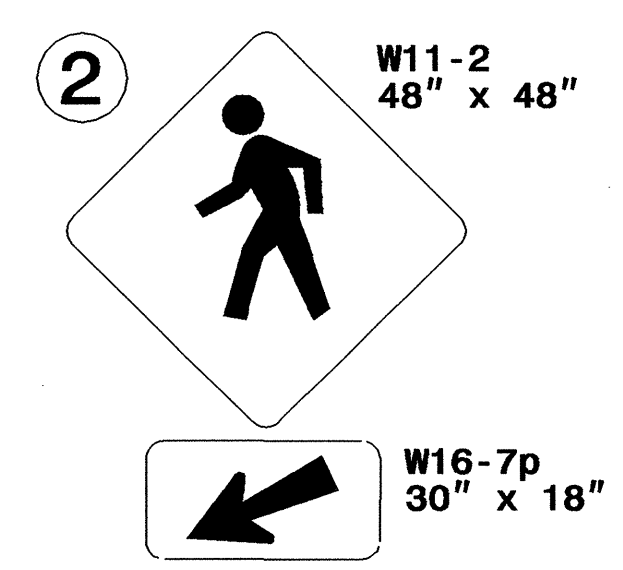
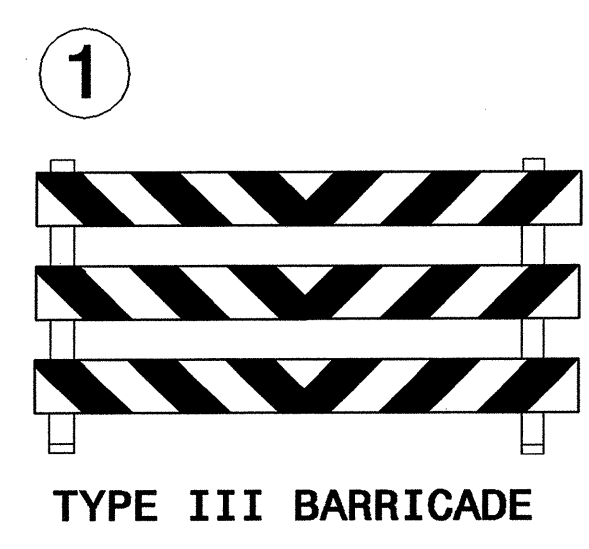
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DATE: 12/22/09										
DESIGN BY: AW										
REVIEWED BY: TB										



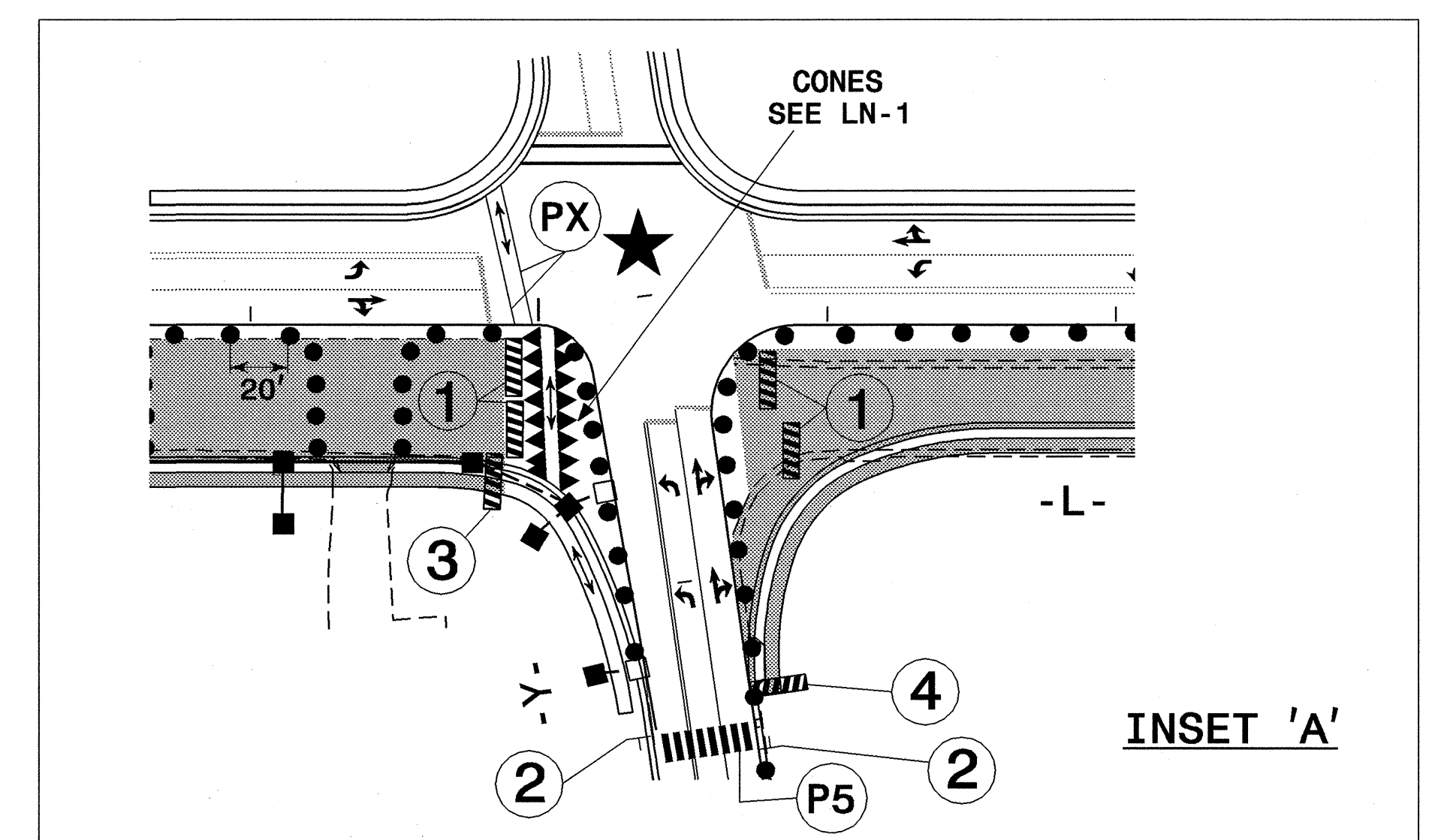
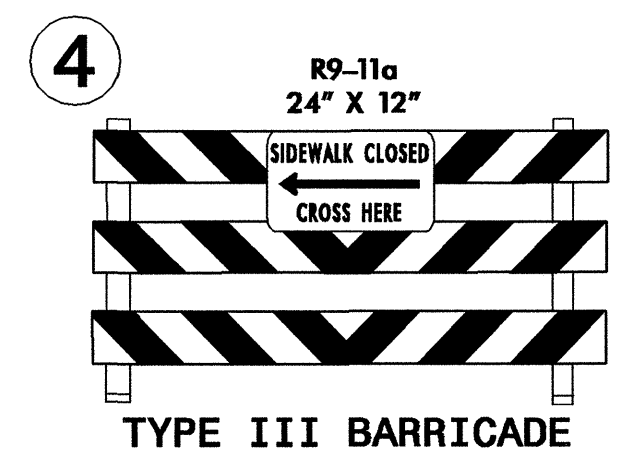
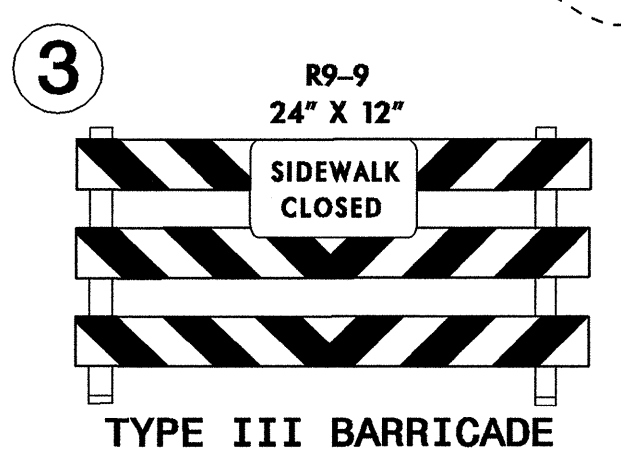
NOTES: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

CONSTRUCT PROPOSED PAVEMENT UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE IN CONJUNCTION WITH SHIFT TO PHASE III TEMPORARY TRAFFIC PATTERN (INTERMEDIATE CONTRACT TIME)

MAINTAIN PEDESTRIAN TRAFFIC THROUGH THE NE QUADRANT OF THIS INTERSECTION WHILE THE SE QUADRANT IS UNDER CONSTRUCTION. WHEN THE SE QUADRANT IS CONSTRUCTED, REROUTE PEDESTRIAN TRAFFIC FROM THE NE TO THE SE QUADRANT AS SHOWN IN INSET 'A' THIS SHEET. CONSTRUCT THE PROPOSED NE QUADRANT.



W11-2 & W16-7P SIGNS SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND



14-JAN-2010 11:35 G:\TEC\Cur\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\U-3804 revised phase-2a detail.dgn AT RAL5GKYMCI

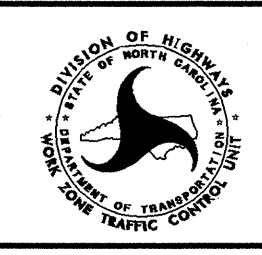
PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 1/11/10

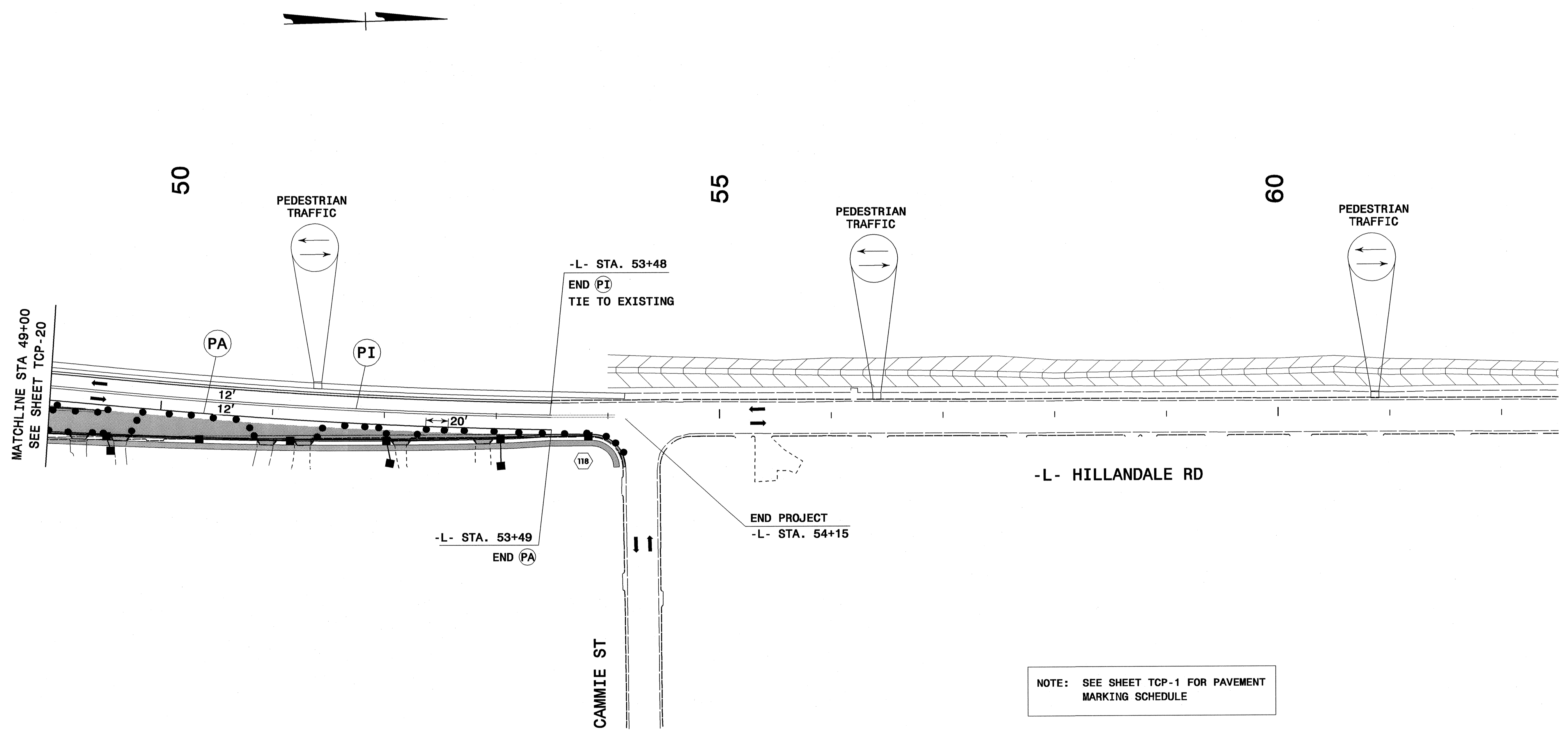
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 17688
TODD BROOKS

PHASE III DETAIL 5

SCALE:	1:50
DATE:	12/22/09
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DESIGN BY:	AW
REVIEWED BY:	TB



REVISIONS	



NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

22-DEC-2009 12:02 U:\EG\Cur\0008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-2a detail4.dgn

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 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 12/22/09	PHASE III DETAIL 6							
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PROJ. REFERENCE NO.	SHEET NO.
U-3804	TCP-22

PHASING

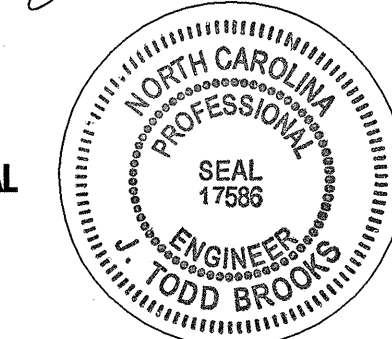

Phase IV

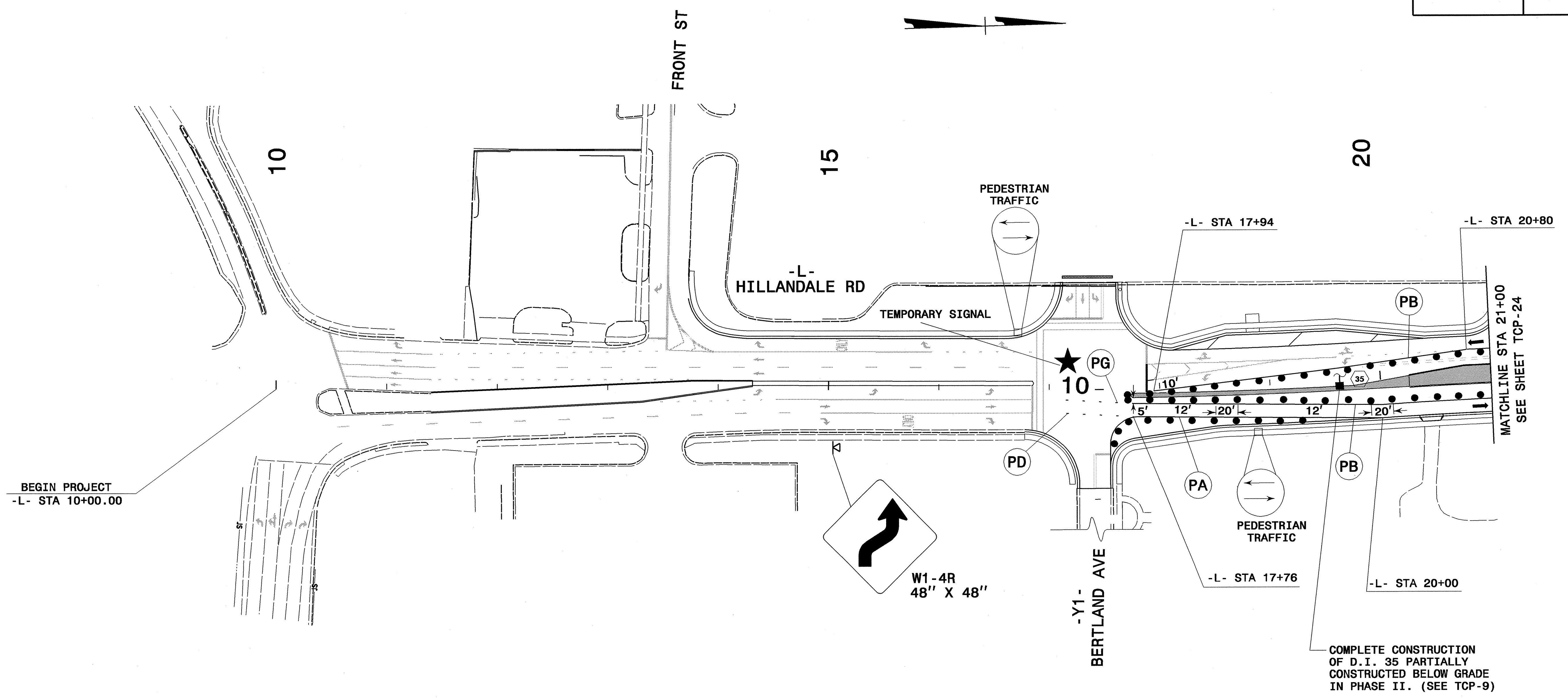
OBJECTIVE: COMPLETE ANY REMAINING WORK IN THE MAINLINE MEDIAN AREAS. PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS. OPEN FACILITY TO TRAFFIC IN THE FINAL PATTERN.

- STEP 1:** PLACE TEMPORARY MARKINGS ON THE NEWLY CONSTRUCTED NB HILLANDALE ROAD PAVEMENT AS MUCH AS POSSIBLE AWAY FROM TRAFFIC TO PREPARE FOR TRAFFIC SHIFT IN NEXT STEP.
- STEP 2:** USING RSD 1101.01, SHEETS 1 & 2 OF 9, PERFORM THE FOLLOWING WORK TO SHIFT NB HILLANDALE ROAD TRAFFIC TO THE TEMPORARY TRAFFIC PATTERN ON THE NEW NORTHBOUND PAVEMENT NORTH OF BERTLAND AVENUE AS SHOWN ON TCP-23 THRU TCP-26:
- COMPLETE INSTALLATION OF TEMPORARY MARKINGS SHOWN ON TCP-23 THRU TCP-26 AND TIE TO EXISTING MARKINGS.
 - REVISE MARKINGS ON ALL -Y- LINES ON EAST SIDE OF HILLANDALE ROAD AS SHOWN ON TCP-23 THRU TCP-26.
 - REVISE THE TEMPORARY SIGNALS AT THE HILLANDALE ROAD INTERSECTIONS WITH BERTLAND STREET (SEE TCP-23) AND WITH CARVER STREET (SEE TCP-25). (SEE TEMPORARY SIGNAL PLANS)
- STEP 3:** CONSTRUCT ANY REMAINING MEDIAN WORK ALONG -L-, INCLUDING RAISED MONOLITHIC ISLANDS, DRAINAGE AND UNFINISHED CURB AND GUTTER MEDIANS (SEE TCP-23 THRU TCP-26).
- USING RSD 1101.02, SHEET 1 OF 9, COMPLETE OVERLAY OPERATIONS ON -L- FROM STA. 50+00 +/- TO STA. 53+50 +/- AS SHOWN ON TCP-26.
- STEP 4:** USING RSD 1101.02, SHEET 3 OF 9 AND RSD 1101.02, SHEET 1 OF 9, PLACE FINAL LAYER OF SURFACE COURSE OF -L- AND -Y- LINES. PLACE FINAL PAVEMENT MARKINGS (SEE SIGNING & DELINEATION PLANS). REVISE SIGNALS AT THE HILLANDALE ROAD INTERSECTIONS WITH BERTLAND AVENUE AND WITH CARVER STREET TO FINAL CONFIGURATION (SEE SIGNAL PLANS).
- STEP 5:** OPEN THE PROJECT TO THE FINAL TRAFFIC PATTERN. REMOVE ADVANCE CONSTRUCTION WARNING SIGNS PLACED IN PHASE I, STEP 1.

14-JAN-2010 11:35 G:\TEG\CURT\000008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804_tc_phasing 4.dgn AT RALEGKYMCI

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 1/7/10 	<h3>PROJECT PHASING PHASE IV</h3>	<table border="1" style="width: 100%; border-collapse: collapse;"> <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> <tr><td> </td><td> </td></tr> </tbody> </table>	REVISIONS										
REVISIONS													
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DATE:	12/22/09												
DWG. BY:	AW												
DESIGN BY:	AW												
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BEGIN PROJECT
-L- STA 10+00.00

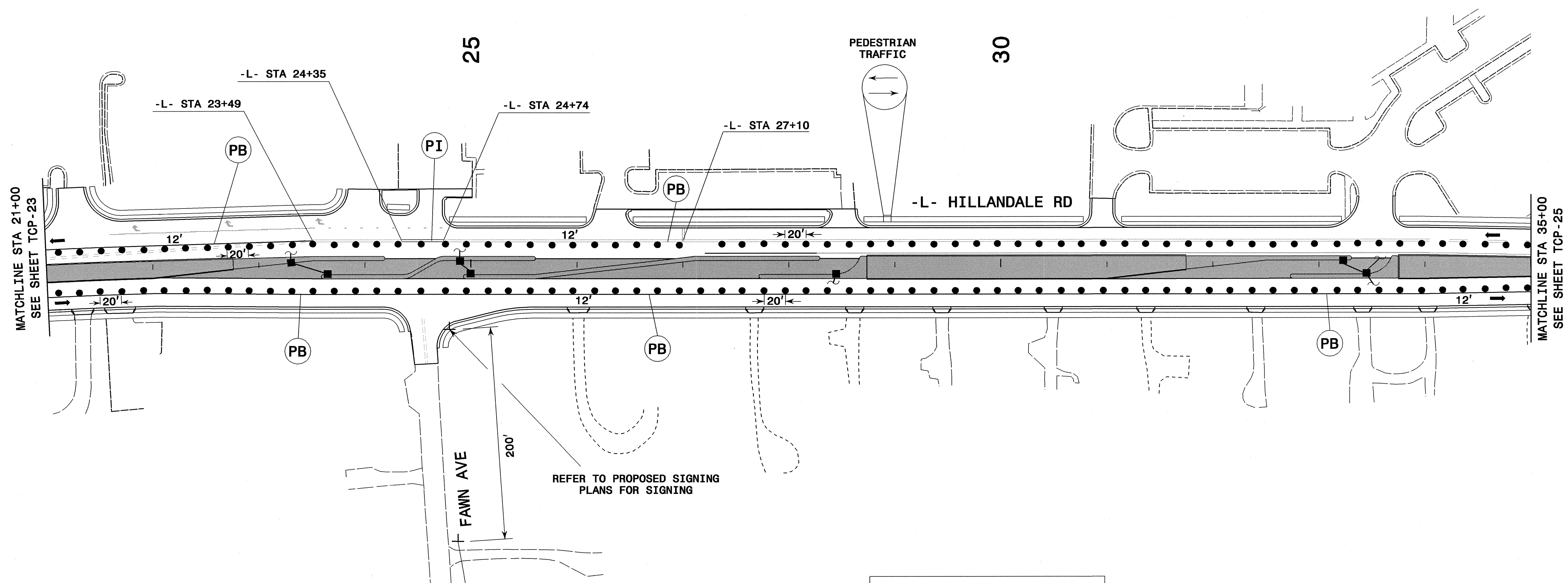
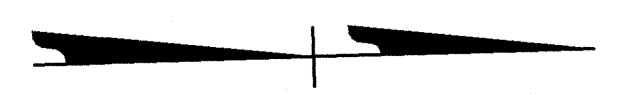
NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

UNLESS NOTED OTHERWISE,
ALL PAVEMENT MARKINGS ON
THIS SHEET ARE EXISTING

22-DEC-2009 14:30 G:\TEG\CJT\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-2b detail.dgn

PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 12/22/09	PHASE IV DETAIL 1	
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REVIEWED BY: TB	REVISIONS	

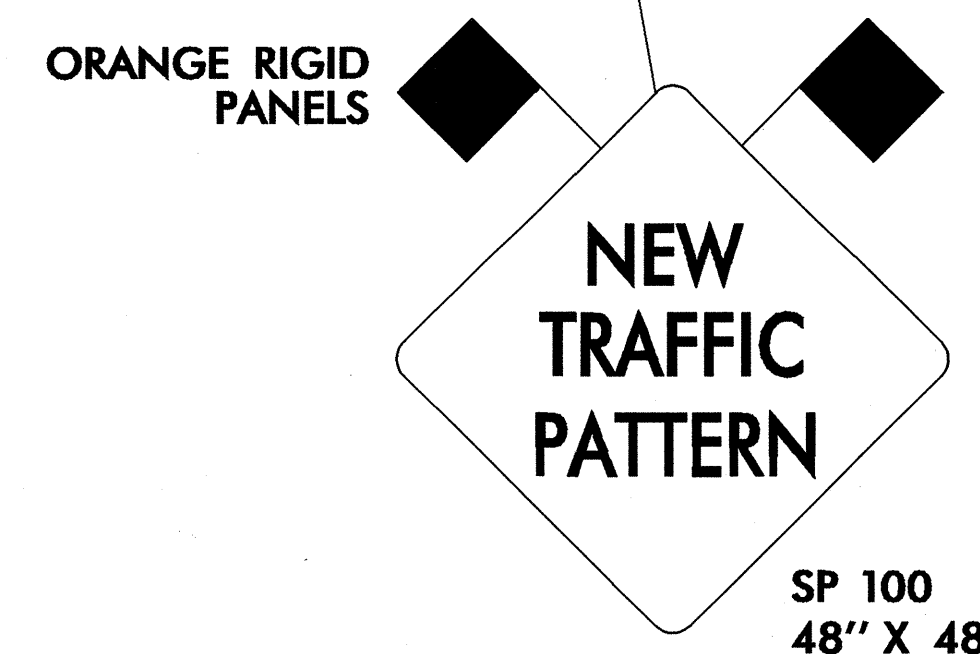


FAWN AVE

200'

REFER TO PROPOSED SIGNING PLANS FOR SIGNING

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE



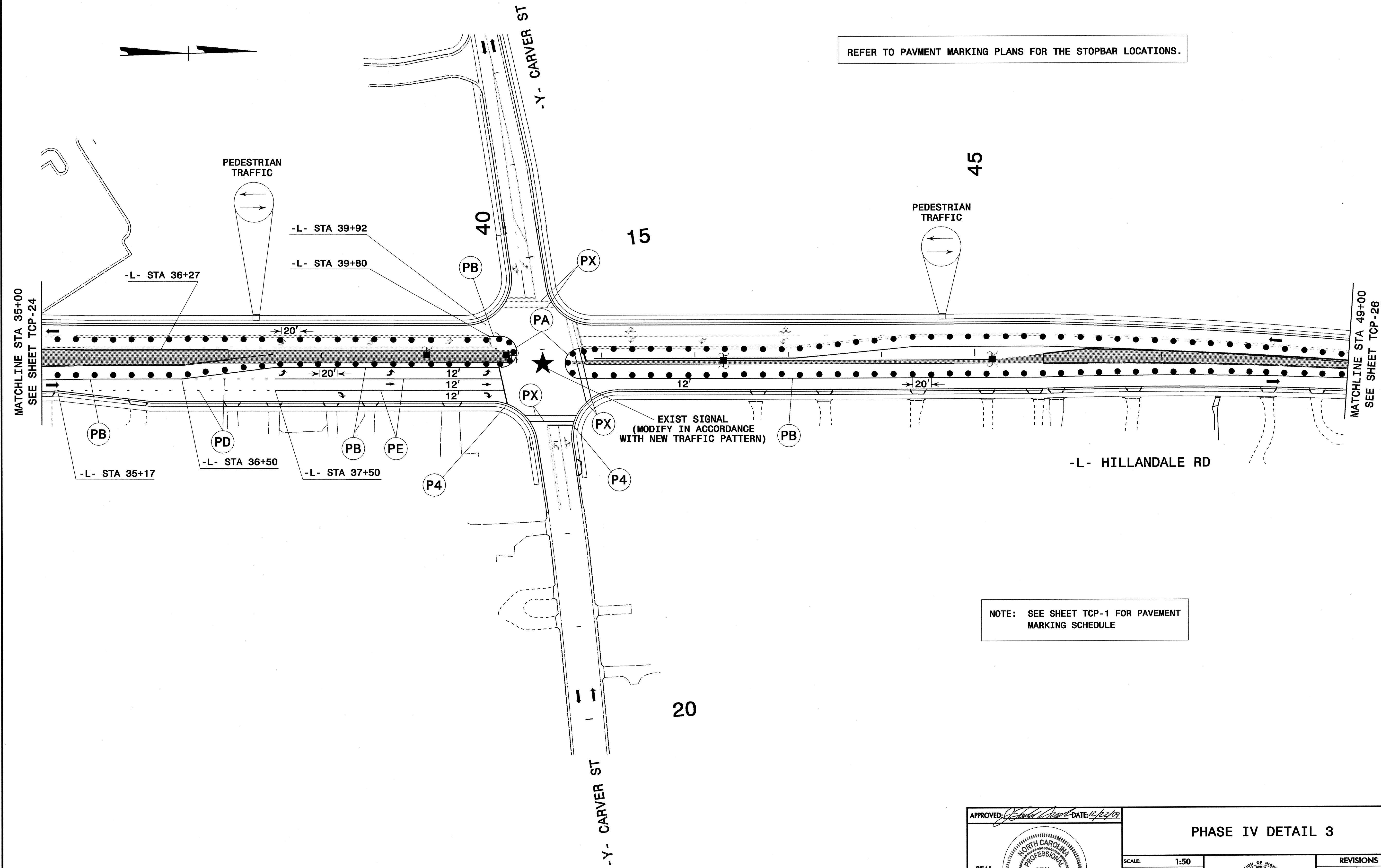
SP 100
48" X 48"
(SEE SHEET SD-2)

14-JAN-2010 11:36 G:\TEC\Curr\100008495 U3804 TCP\Traffic Control\U-3804_REVISED (south end priority)\u-3804 revised phase-2b detail.dgn 2054 AT RALS6KYMCI

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RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 1/21/10

PHASE IV DETAIL 2									
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DATE: 12/22/09									
DESIGN BY: AW									
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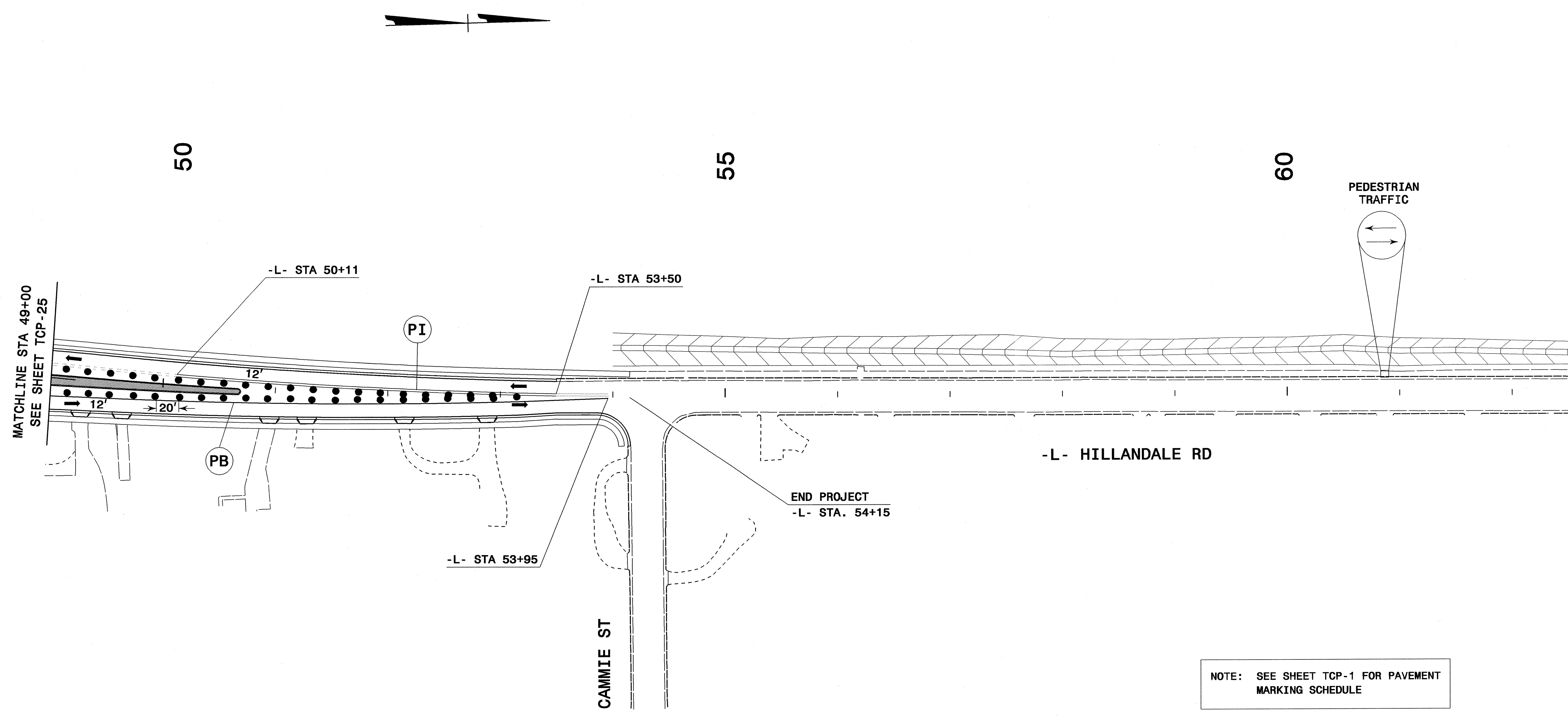
REFER TO PAVMENT MARKING PLANS FOR THE STOPBAR LOCATIONS.

NOTE: SEE SHEET TCP-1 FOR PAVEMENT MARKING SCHEDULE

22-DEC-2009 12:03 12054 AT RALEIGH\I\U-3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised phase-2b detail3.dgn

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

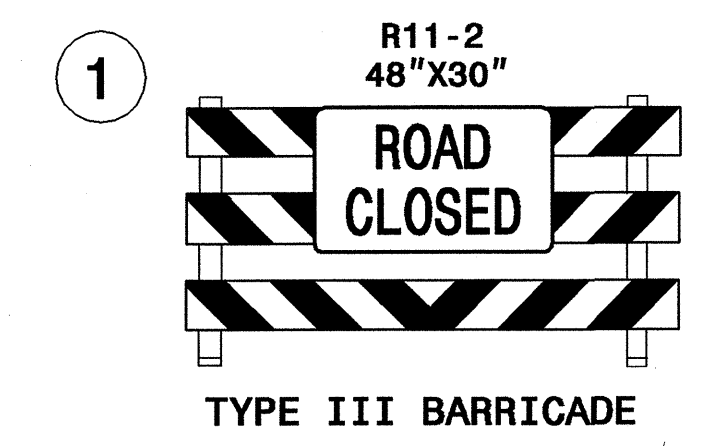
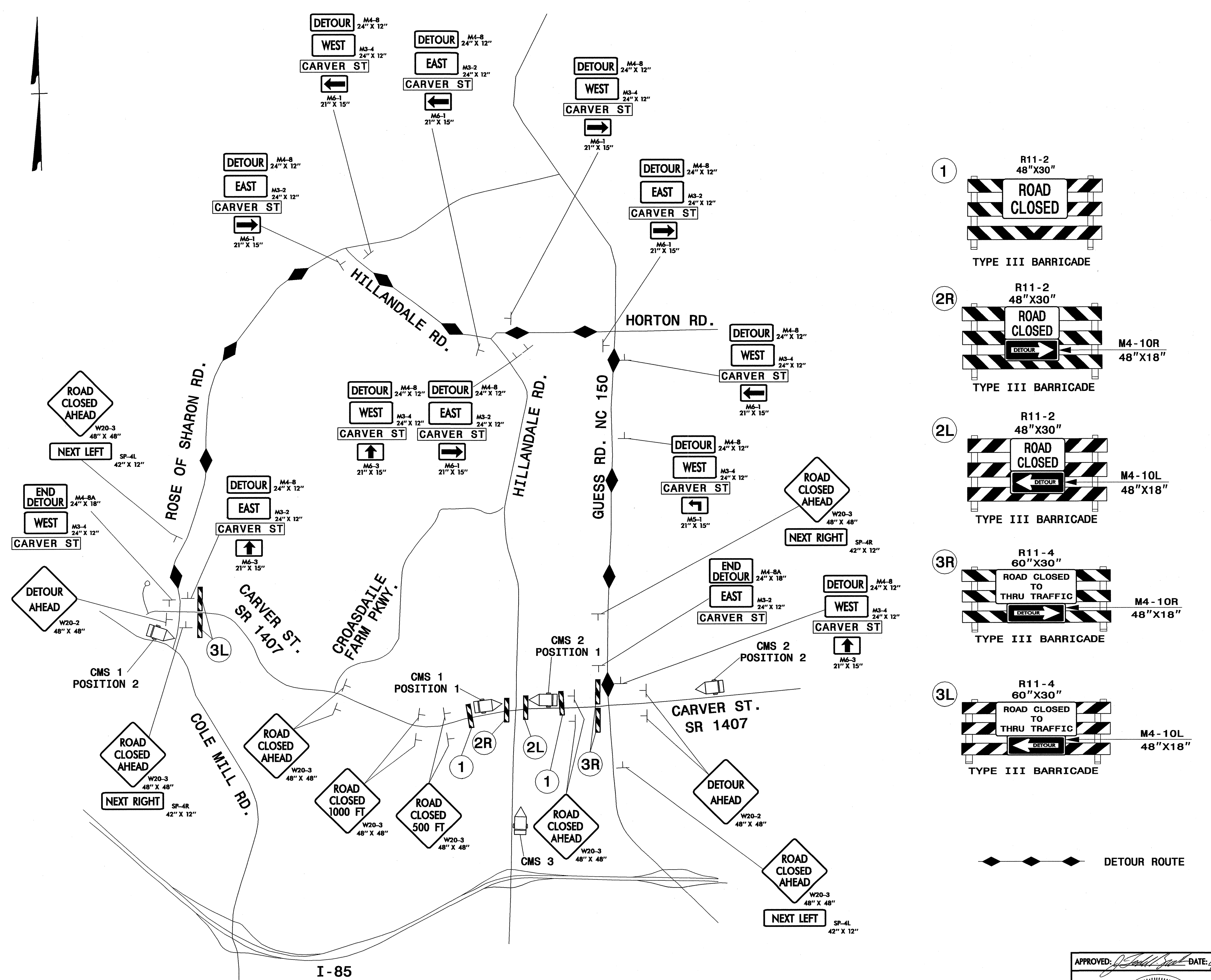
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REVIEWED BY: TB	REVISIONS	



22-DEC-2009 12:03
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 P2054 AT RAL56K\MLC

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
 RALEIGH, NORTH CAROLINA 27609
 PHONE: (919) 876-6888

APPROVED: <i>[Signature]</i> DATE: 12/22/09	PHASE IV DETAIL 4									
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REVISIONS										



CMS 1 POSITION 1

MESSAGE NO. 1	MESSAGE NO. 2
CARVER TO CLOSE AT HDALE	9PM FRI THRU 6AM MON

CHANGEABLE MESSAGE SIGN

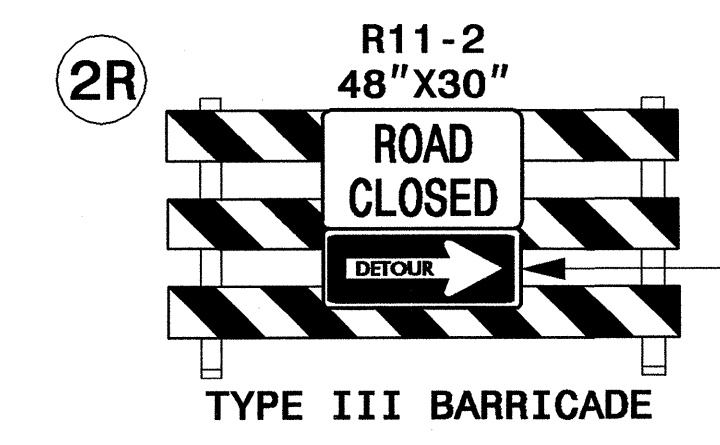
DISPLAY BEGINNING TUESDAY PRIOR TO WEEKEND ROAD CLOSURE

CMS 1 POSITION 2

MESSAGE NO. 1	MESSAGE NO. 2
CARVER CLOSED @ HILNDALE	DETOUR AT GUESS RD

CHANGEABLE MESSAGE SIGN

DISPLAY DURING WEEKEND ROAD CLOSURE



CMS 2 POSITION 1

MESSAGE NO. 1	MESSAGE NO. 2
CARVER TO CLOSE AT HDALE	9PM FRI THRU 6AM MON

CHANGEABLE MESSAGE SIGN

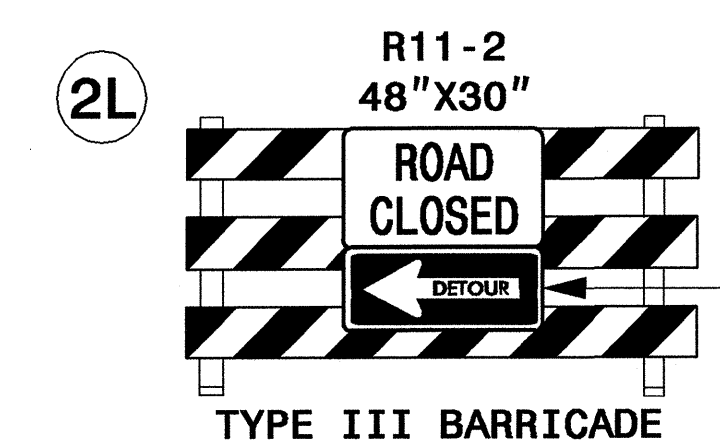
DISPLAY BEGINNING TUESDAY PRIOR TO WEEKEND ROAD CLOSURE

CMS 2 POSITION 2

MESSAGE NO. 1	MESSAGE NO. 2
CARVER CLOSED @ HILNDALE	DETOUR USE ROSE O SHARON

CHANGEABLE MESSAGE SIGN

DISPLAY DURING WEEKEND ROAD CLOSURE



CMS 3

MESSAGE NO. 1	MESSAGE NO. 2
CARVER TO CLOSE AT HDALE	9PM FRI THRU 6AM MON

CHANGEABLE MESSAGE SIGN

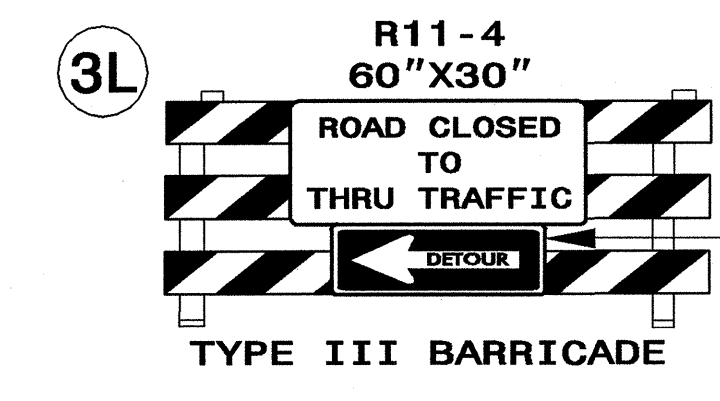
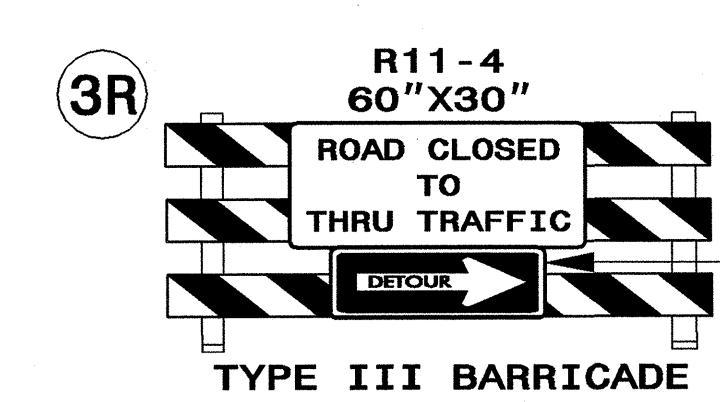
DISPLAY BEGINNING TUESDAY PRIOR TO WEEKEND ROAD CLOSURE

CMS 3

MESSAGE NO. 1	MESSAGE NO. 2
NO TURNS AT CARVER	FOLLOW DETOUR

CHANGEABLE MESSAGE SIGN

DISPLAY DURING WEEKEND ROAD CLOSURE



REFER TO RSD NO. 1101.03, SHEET 1 OF 9, FOR ADDITIONAL REQUIREMENTS. SEE SHEET SD-1 FOR TEMPORARY SIGN DETAILS.

◆◆◆◆◆ DETOUR ROUTE

14-JAN-2010 11:36 G:\TEG\CUR\100008495 U3804 TCP\Traffic Control\U-3804-REVISED (south end priority)\u-3804 revised carver det.dgn AT RAL5GK\YMC

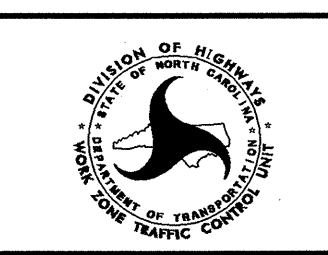
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919) 876-6888

APPROVED: *[Signature]* DATE: 1/4/10

SEAL

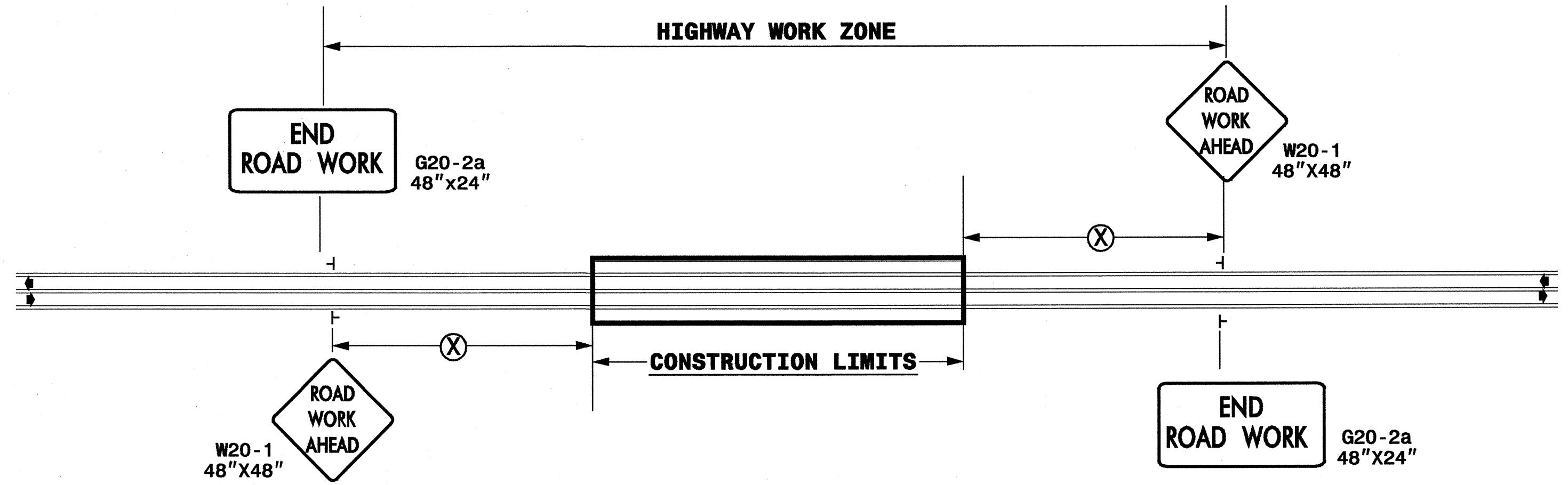
CARVER STREET DETOUR ROUTE

SCALE:	NONE
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DESIGN BY:	AW
REVIEWED BY:	TB



REVISIONS	

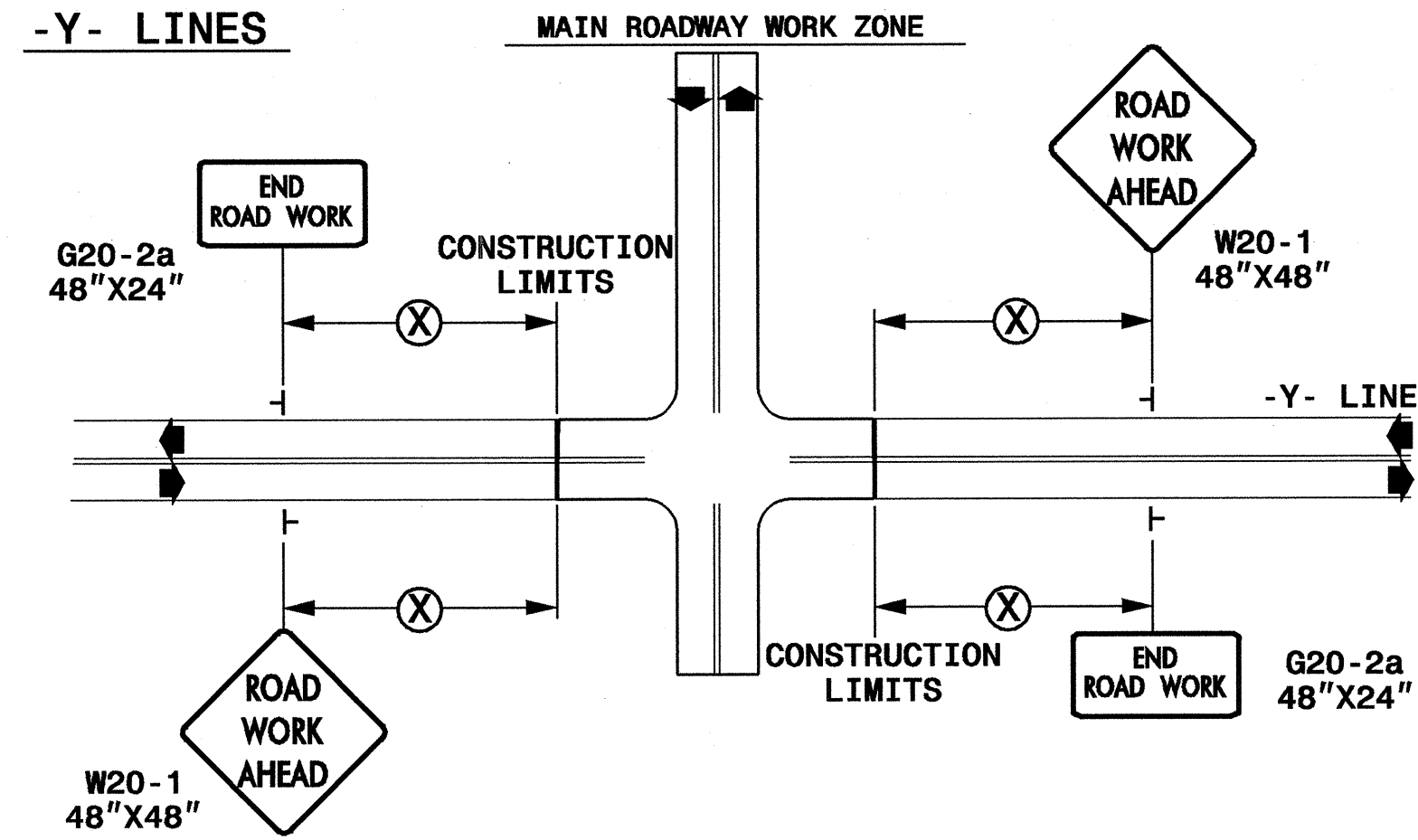
TWO-WAY UNDIVIDED ** (L-LINES)



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)



DETAIL DRAWING FOR
TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

┆ STATIONARY SIGN

◄ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: <i>[Signature]</i> DATE: 12/22/09	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
	SCALE: NONE	REVISIONS
	DATE: 12/22/09	7-98 10/01
	DWG. BY: AW	10-98 03/04
	DESIGN BY: AW	01/01 11/04
REVIEWED BY: TB	CADD FILE	

PBS&J 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

22-DEC-2009 12:08 U:\05\EG\Cur_PAL\5804\U-3804_REVISD (south end priority)\u-3804 advancesigns.dgn