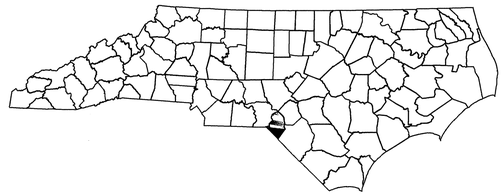
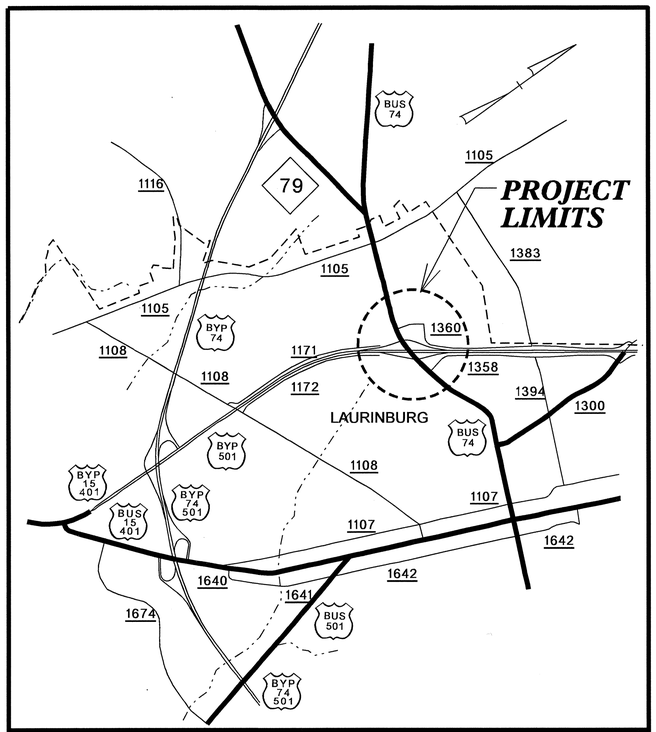
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

SCOTLAND COUNTY





VICINITY MAP *(ON SITE DETOUR)*

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
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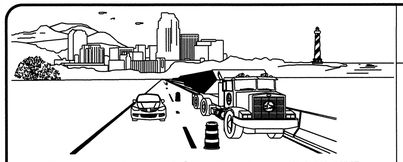
SHEET NO.
TMP-1

B-4640

TIP PROJECT:



WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
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DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

APPROVED: Brian Johnstone
DATE: November 8, 2011

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHOENBAUER

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PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANAUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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 BOARD
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - INTERCHANGES

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- REMOVAL

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

EXISTING PROPOSED TEMP TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
	TEMPORARY PAVEMENT MARKINGS
	THERMOPLASTIC (4")
TA	WHITE EDGELINE
TB	YELLOW EDGELINE
TC	WHITE LANE SKIP LINE
TD	WHITE LANE MINISKIP LINE
	THERMOPLASTIC (8")
TP	WHITE GORELINE
	COLD APPLIED PLASTIC (4")
CA	WHITE EDGELINE (1X)
CB	YELLOW EDGELINE (1X)
	PAINT (4")
CA	WHITE EDGELINE (1X)
CB	YELLOW EDGELINE (1X)
	PAINT (8")
PR	WHITE GORELINE (1X)

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, 1X IMPLIES A SINGLE APPLICATION, 2X IMPLIES TWO APPLICATIONS, AND 3X IMPLIES THREE APPLICATIONS.

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 39496 PAUL SCHOENINGER

11-8-11

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

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PROJ. REFERENCE NO.	SHEET NO.
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MANAGEMENT STRATEGIES

THE FOLLOWING LISTED STRATEGIES DERIVE FROM DETAILED DESIGN LEVEL ASSESSMENTS OF THE WORK ZONE IMPACTS CONDUCTED DURING THE DEVELOPMENTAL STAGES OF THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMEND MANAGEMENT STRATEGIES RELATIVE TO THIS TMP ARE AS FOLLOWS:

-FOUR-LANE DIVIDED TWO-WAY TRAFFIC PATTERN.
TRAFFIC TO BE MAINTAINED ON BOTH DIRECTIONS OF US 15/401/501 WHEN POSSIBLE.

-TWO-LANE TWO-WAY TRAFFIC PATTERN.
TRAFFIC TO BE MAINTAINED ON BOTH DIRECTIONS OF US 74 BUS / NC 79 WHEN POSSIBLE.

-TWO/THREE-LANE TWO-WAY TRAFFIC PATTERN.
TRAFFIC TO BE MAINTAINED ON BOTH DIRECTIONS OF US 15/401/501 UTILIZING LANE CLOSURES AS NECESSARY.

-TWO-LANE TWO-WAY TRAFFIC PATTERN.
TRAFFIC TO BE MAINTAINED ON BOTH DIRECTIONS OF US 15/401/501 UTILIZING CROSSOVERS AS NECESSARY.

-ONE-LANE TWO-WAY TRAFFIC PATTERN.
TRAFFIC TO BE MAINTAINED ON US 74 BUS / NC 79 UTILIZING FLAGGERS AS NECESSARY.

-FULL ROAD CLOSURE
TRAFFIC TO BE MAINTAINED ON THE FOLLOWING OFF-SITE DETOUR DURING THE REMOVAL AND PLACEMENT OF GIRDERS OVER US 74 BUS / NC 79.

SR 1358 (WILKERSON DR.), SR 1383 (W. RAILROAD ST.), AND SR 1105 (S. TURNPIKE RD.).

LOCAL NOTES

OVERSIZE/OVERWEIGHT VEHICLES

1) CONTRACTOR SHOULD CONTACT DIVISION TO COORDINATE WITH THE OVERSIZE/OVERWEIGHT PERMIT UNIT 21 DAYS UNIT PRIOR TO INSTALLING PORTABLE CONCRETE BARRIER ON NORTHBOUND US 15/401/501 TO COORDINATE OVERSIZE/OVERWEIGHT VEHICLE DETOUR ROUTE FOR NORTHBOUND AND SOUTHBOUND TRAFFIC.

2) USE FLAGGERS TO MAINTAIN PEDESTRIANS UNDER BRIDGE WHEN US 74 BUS / NC 79 ROAD CLOSURE IS IN EFFECT.

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
US 74 BUS / NC 79	MONDAY - FRIDAY 7:00 A.M. - 8:30 A.M. 2:00 P.M. - 3:30 P.M.

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

ROAD NAME

US 74 BUS / NC 79

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 7:00 A.M. DECEMBER 31st TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY,SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR SPECIAL EVENTS (INCLUDING ALL FOOTBALL GAMES) OCCURRING AT SCOTLAND COUNTY HIGH SCHOOL BETWEEN 4 HOURS BEFORE THE START AND 4 HOURS AFTER THE END OF THE EVENTS.

C) DO STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 15/401/501	MONDAY - FRIDAY 7:00 A.M. - 8:30 A.M. 2:00 P.M. - 3:30 P.M.	TRAFFIC SHIFTS AND ROLLING ROADBLOCKS, 15 MINUTES

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) 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.

G) 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.

H) 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.

I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 15/401/501 AND US 74 BUS / NC 79.

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

APPROVED: _____ DATE: 11-8-11

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHONBERGER

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

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GENERAL NOTES (CONTINUED)

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 SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRANSPORTATION MANAGEMENT PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRANSPORTATION MANAGEMENT PLANS.

O) 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.

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

Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

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 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 IN FEET 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 SHOWN IN THE PAVEMENT MARKING PLAN.

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

ROAD NAME	MARKING	MARKER
US 15/401/501	THERMOPLASTIC COLD-APPLIED PLASTIC PAINT	RAISED

Y) 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.

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

AA) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

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

CC) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT AND 1000 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

DD) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO 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.).

APPROVED: _____ DATE: 11-8-11

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHOONBEEK

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

GENERAL NOTES

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PHASING

PHASE I

STEP 1) INSTALL ADVANCE WORK ZONE WARNING SIGNS ACCORDING TO ROADWAY STANDARD DRAWING 1101.01, SHEETS 2 AND 3 OF 3.

STEP 2) USING TMP-3, TMP-4, TMP-5, AND ROADWAY STANDARD DRAWING 1101.02, SHEETS 3, 6, 9, AND 10 OF 15, CLOSE RIGHT LANE OF US 15/401/501 NORTHBOUND. BEHIND LANE CLOSURE, CONSTRUCT PAVEMENT WIDENING ALONG OUTER SHOULDER OF US 15/401/501 NORTHBOUND FROM -L- STA. 21+27 TO STA. 24+43, AND FROM -L- STA. 26+08 TO STA. 31+87. SEE ROADWAY PLANS.

PHASE II

STEP 1) USING ROADWAY STANDARD DRAWINGS 1101.02, SHEETS 3, 6, 9, 10, AND/OR 12 OF 15, PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-6, TMP-7, TMP-8, AND TMP-9.

STEP 2) USING TMP-6, TMP-7, TMP-8, TMP-9, AND ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 15, CLOSE LEFT LANES ON NORTHBOUND AND SOUTHBOUND DIRECTIONS OF US 15/401/501.

STEP 3) BEHIND LANE CLOSURES, CONSTRUCT TEMPORARY DRAINAGE AND -L DETOUR- CROSSOVERS IN THE MEDIAN UP THROUGH THE FINAL LAYER OF SURFACE COURSE. CONSTRUCT TEMPORARY GUARDRAIL AND PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-11 AND TMP-12.

STEP 4) BEHIND LANE CLOSURE, IN A CONTINUOUS MANNER, INSTALL PORTABLE CONCRETE BARRIERS ALONG -L DETOUR- AS SHOWN IN ON TMP-11 AND TMP-12.

PHASE III

STEP 1) INSTALL STATIONARY ROAD CLOSURE AND OFFSITE DETOUR SIGNING ACCORDING TO TMP-14. COVER ALL SIGNS.

STEP 2) USING TMP-10, TMP-11, TMP-12, TMP-13, ROADWAY STANDARD DRAWINGS 1101.02, SHEET 10 OF 15, AND ROADWAY STANDARD DRAWING 1101.03 SHEET 4 OF 9, CLOSE -L- (US 15/401/501 SOUTHBOUND) AND SWITCH TRAFFIC ONTO -L DETOUR-.

STEP 3)

A) AWAY FROM TRAFFIC, BEGIN REMOVAL OF EXISTING BRIDGE NO. 39 AND APPROACHES ON -L-. USE ROADWAY STANDARD DRAWING 1101.02, SHEET 2 OF 15, ON US 74 BUS / NC 79 AS NECESSARY. WHEN FLAGGING VEHICULAR TRAFFIC, USE FLAGGERS TO DIRECT PEDESTRIANS ALONG US 74 BUS / NC 79 WHEN WORK OR EQUIPMENT ENCROACHES EXISTING PEDESTRIAN TRAVELWAY OR AS DIRECTED BY THE ENGINEER.

COMPLETE THE WORK REQUIRED OF PHASE III, STEP 3B, FROM SATURDAY, 12:01 A.M., TO MONDAY, 6:00 A.M. (SEE INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES).

B) UNCOVER ALL SIGNS SHOWN ON TMP-14, PLACE BARRICADES, CLOSE US 74 BUS / NC 79, AND REMOVE EXISTING BRIDGE GIRDERS. SWITCH TRAFFIC TO OFFSITE DETOUR AS SHOWN ON TMP-14. USE FLAGGERS TO DIRECT PEDESTRIANS ALONG US 74 BUS / NC 79 DURING ROAD CLOSURE. OPEN US 74 / NC 79 TO EXISTING TRAFFIC PATTERN AND COVER ALL OFFSITE DETOUR SIGNS AFTER WORK IS COMPLETED.

C) COMPLETE REMOVAL OF EXISTING BRIDGE NO. 39 AND APPROACHES AS DESCRIBED IN STEP 3A.

STEP 4)

A) AWAY FROM TRAFFIC, PLACE TEMPORARY SHORING AS INDICATED ON TMP-11 AND TMP-12. BEGIN CONSTRUCTION PROPOSED BRIDGE NO. 39 AND APPROACHES UP TO BUT NOT INCLUDING FINAL LAYER. USE ROADWAY STANDARD DRAWING 1101.02, SHEET 2 OF 15, AS NECESSARY ON US 74 BUS / NC 79. WHEN FLAGGING VEHICULAR TRAFFIC, USE FLAGGERS TO DIRECT PEDESTRIANS ALONG US 74 BUS / NC 79 WHEN WORK OR EQUIPMENT ENCROACHES EXISTING PEDESTRIAN TRAVELWAY OR AS DIRECTED BY THE ENGINEER. TIE IN TO EXISTING SOUTHBOUND US 15/401/501. PLACE PAVEMENT MARKINGS AS SHOWN ON TMP-16 AND TMP-17.

COMPLETE THE WORK REQUIRED OF PHASE III, STEP 4B, FROM SATURDAY, 12:01 A.M., TO MONDAY, 6:00 A.M. (SEE INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES).

B) UNCOVER ALL SIGNS SHOWN ON TMP-14, PLACE BARRICADES, CLOSE US 74 BUS / NC 79, AND HANG GIRDERS. SWITCH TRAFFIC TO OFFSITE DETOUR AS SHOWN ON TMP-14. USE FLAGGERS TO DIRECT PEDESTRIANS ALONG US 74 BUS / NC 79 DURING ROAD CLOSURE. OPEN US 74 / NC 79 TO EXISTING TRAFFIC PATTERN AND COVER ALL OFFSITE DETOUR SIGNS AFTER WORK IS COMPLETED.

C) COMPLETE CONSTRUCTION OF PROPOSED BRIDGE NO. 39 AND APPROACHES AS DESCRIBED IN STEP 4A.

PHASE IV

STEP 1) USING TMP-15, TMP-16, TMP-17, TMP-18, PLACE TEMPORARY PAVEMENT MARKINGS ON -L- AS SHOWN IN PLANS. CLOSE -L DETOUR- AND SWITCH SOUTHBOUND US 15/401/501 TRAFFIC TO THE OUTSIDE LANE OF PROPOSED TRAFFIC PATTERN USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 15.

STEP 2) USING TMP-15, TMP-16, TMP-17, TMP-18, REMOVE TEMPORARY GUARDRAIL AND CONSTRUCT SHOULDER AND BRIDGE APPROACHES ON US 15/401/501 NORTHBOUND.

STEP 3) REMOVE PORTABLE CONCRETE BARRIERS ALONG US 15/401/501 AND REPLACE WITH DRUMS ALONG US 15/401/501 NORTHBOUND. BEHIND LANE CLOSURES, REMOVE -L DETOUR- CROSSOVERS.

STEP 4) BEHIND LANE CLOSURES, MILL THE LIMITS OF US 15/401/501 AS SHOWN ON ROADWAY PLANS. PLACE TEMPORARY PAVEMENT MARKINGS TO MATCH FINAL PATTERN ON US 15/401/501 (SEE FINAL PAVEMENT MARKING PLANS).

STEP 5) USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3, 5, OR 6 OF 15, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS ON US 15/401/501 (SEE FINAL PAVEMENT MARKING PLANS).

STEP 6) OPEN US 15/401/501 TO THE FINAL TRAFFIC PATTERN AND REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHORR

12-01-2011

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING NOTES

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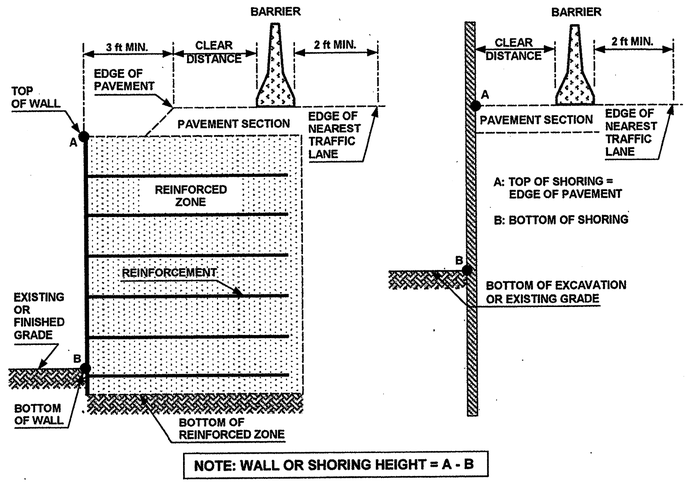


FIGURE A

NOTES

1- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.

2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.

3- PROVIDE PORTABLE CONCRETE BARRIER TO PROTECT TEMPORARY SHORING IF SHORING IS LOCATED WITHIN THE CLEAR ZONE AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).

4- 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.

5- 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. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).

6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.

7- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: WORK ZONE TRAFFIC CONTROL UNIT WEB PAGE.

8- 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.

9- 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.

10- 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

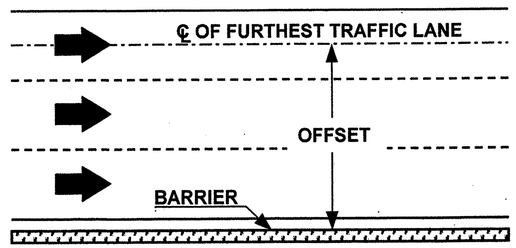


FIGURE B

APPROVED: _____ DATE: _____

SEAL 028380 ENGINEER JOSEPH CAZAMIAS

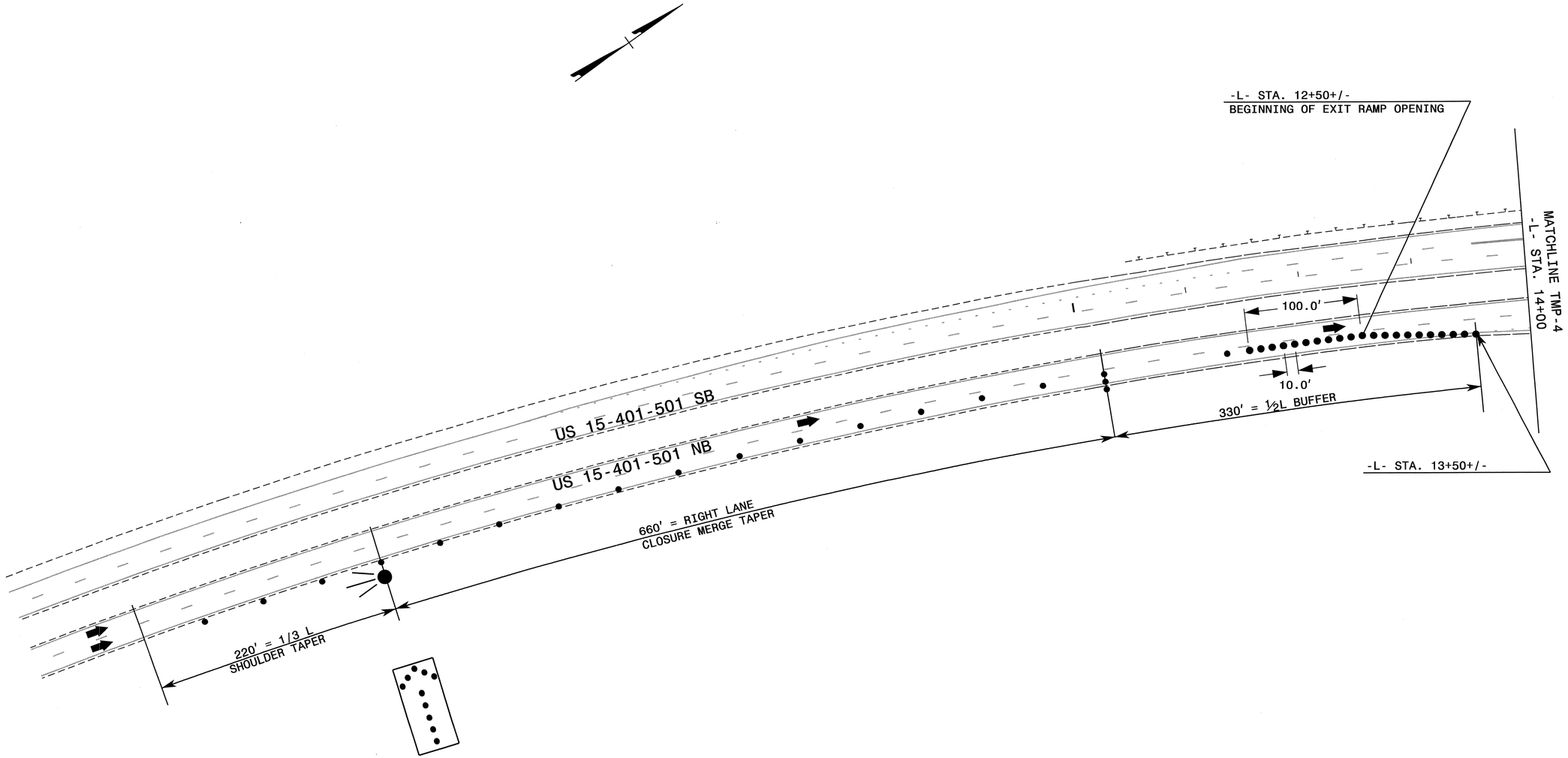
Sept 10, 2010

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-3

10



APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHONBRUN

11-8-11

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PHASE I DETAIL

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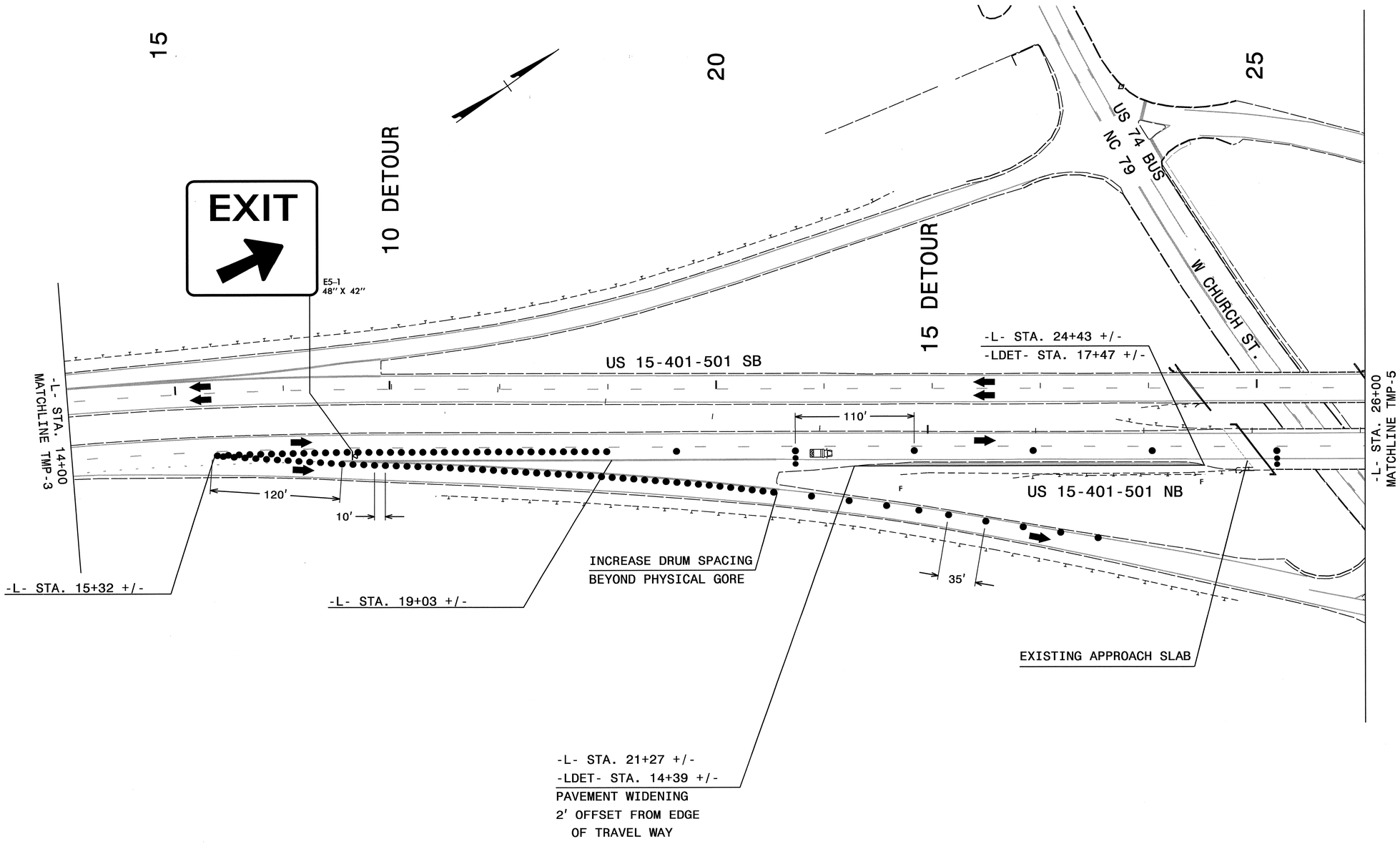

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

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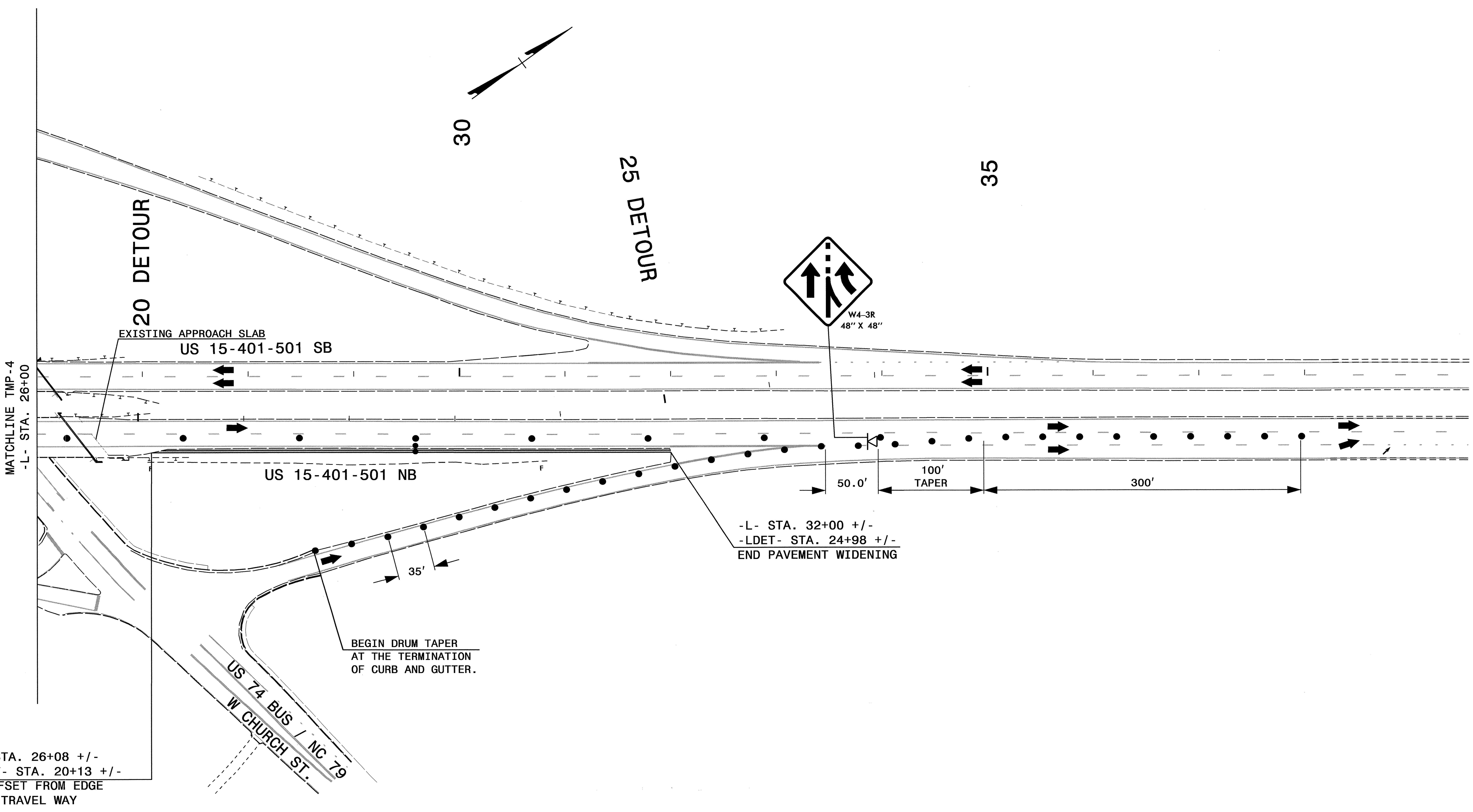

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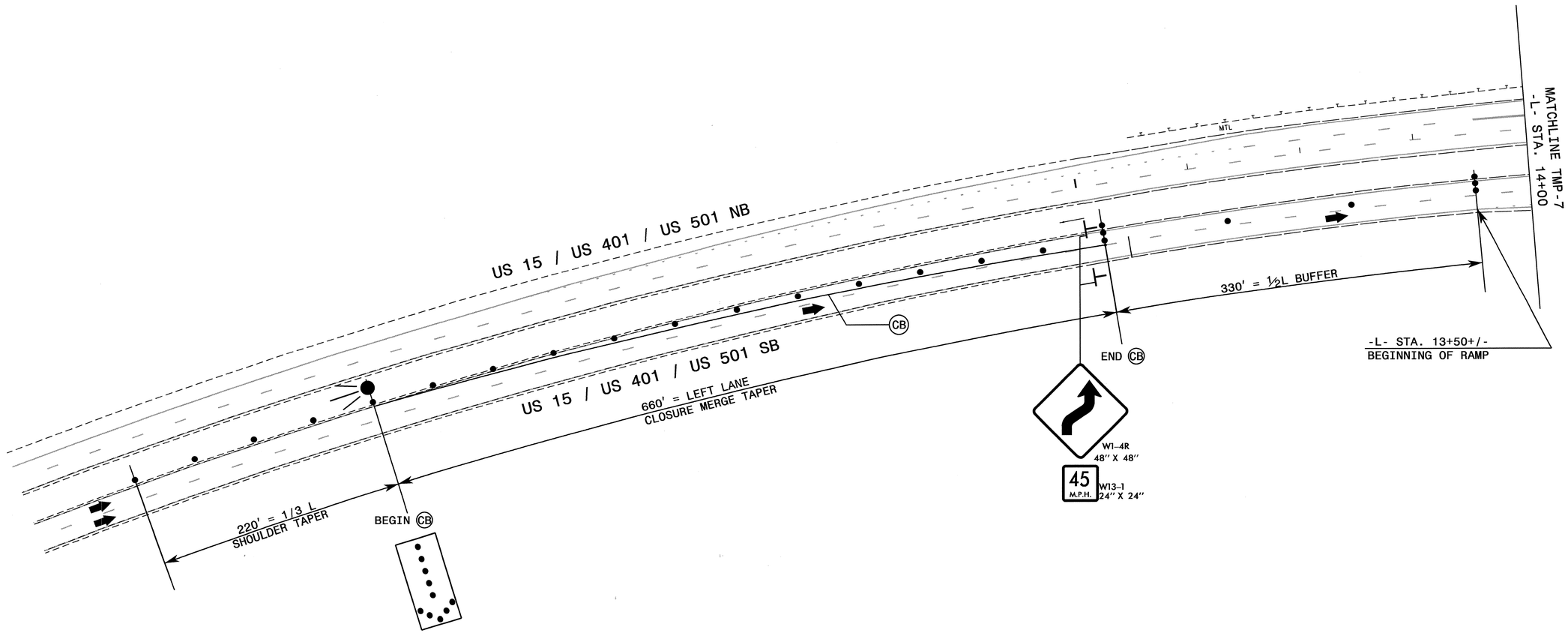

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PHASE II DETAIL

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PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-7

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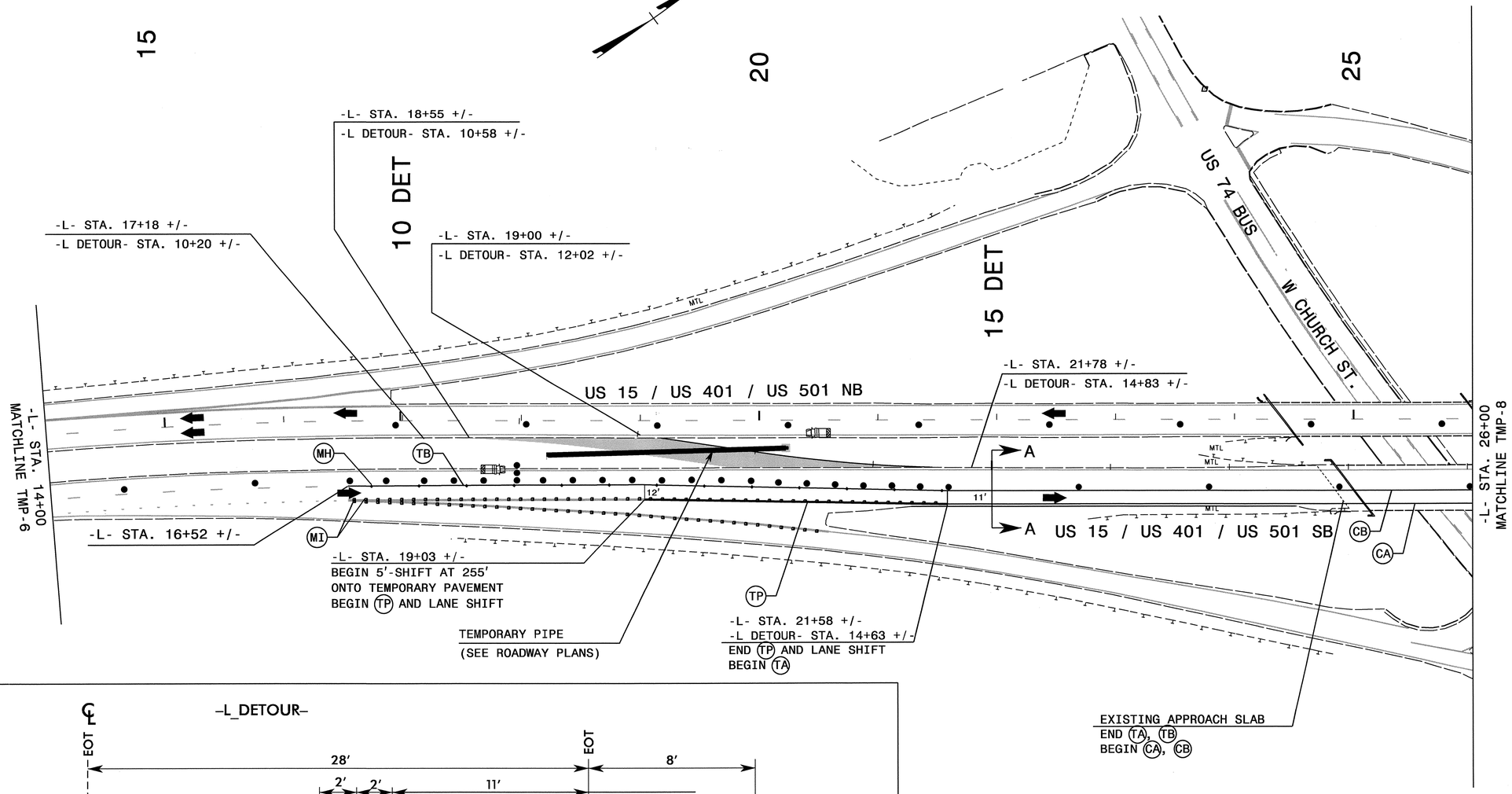
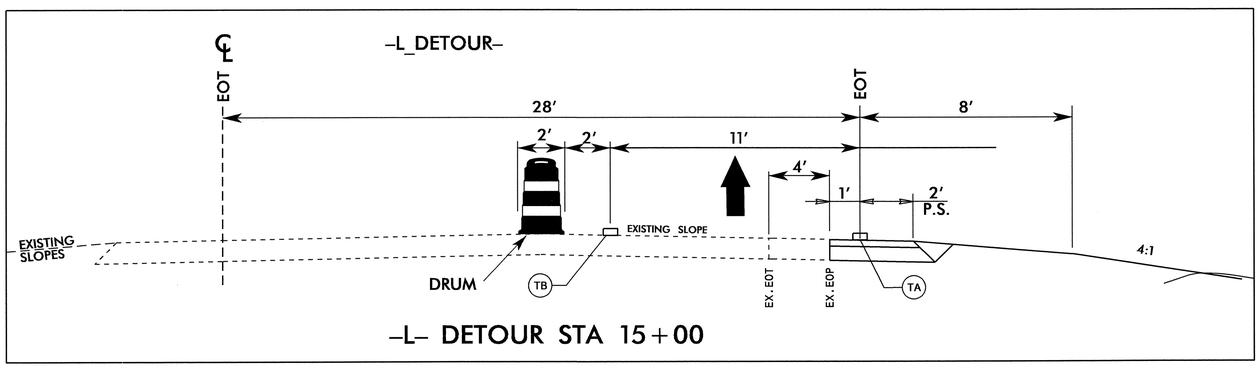
*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.





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PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-8

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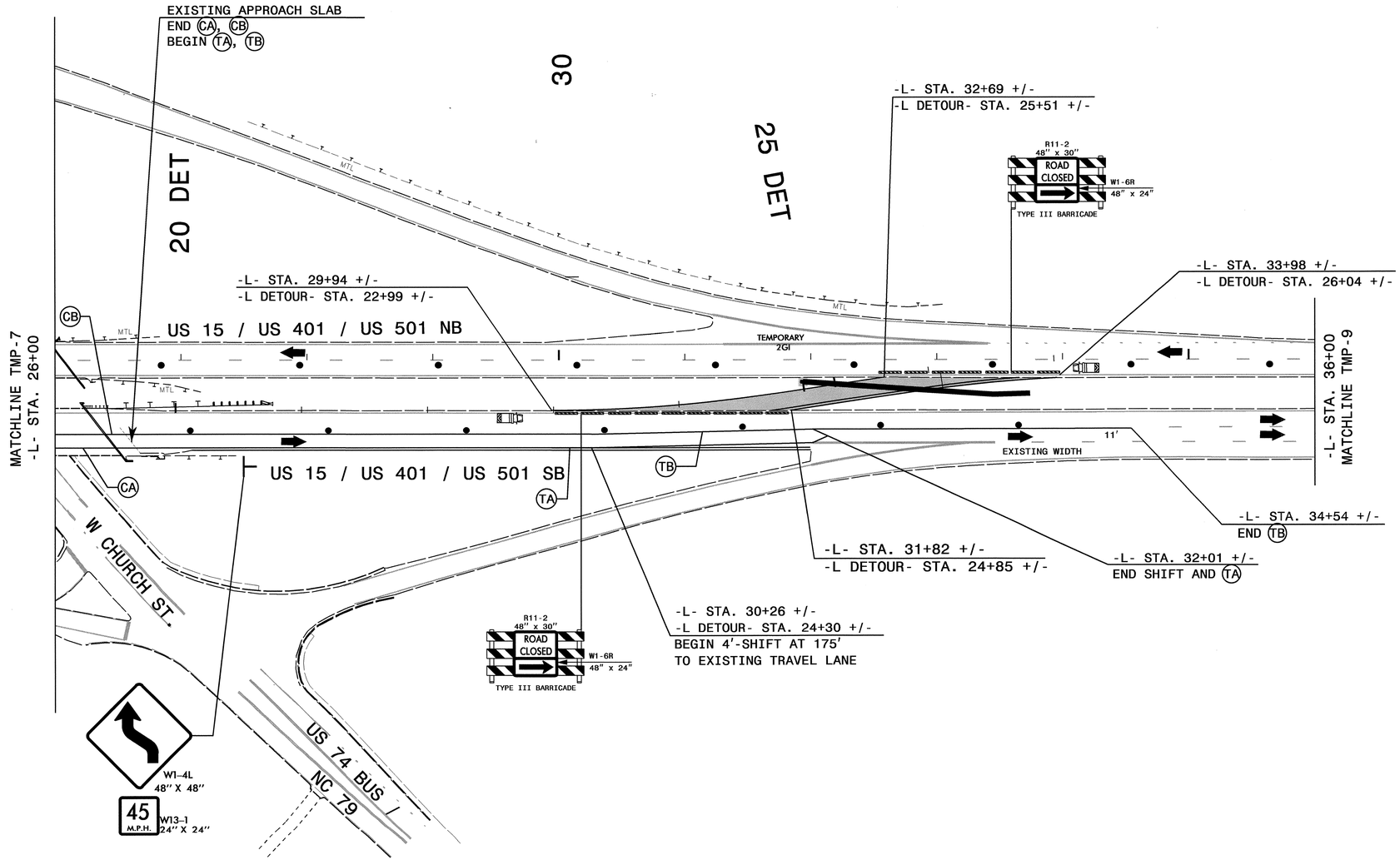
*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.



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DEPARTMENT OF TRANSPORTATION
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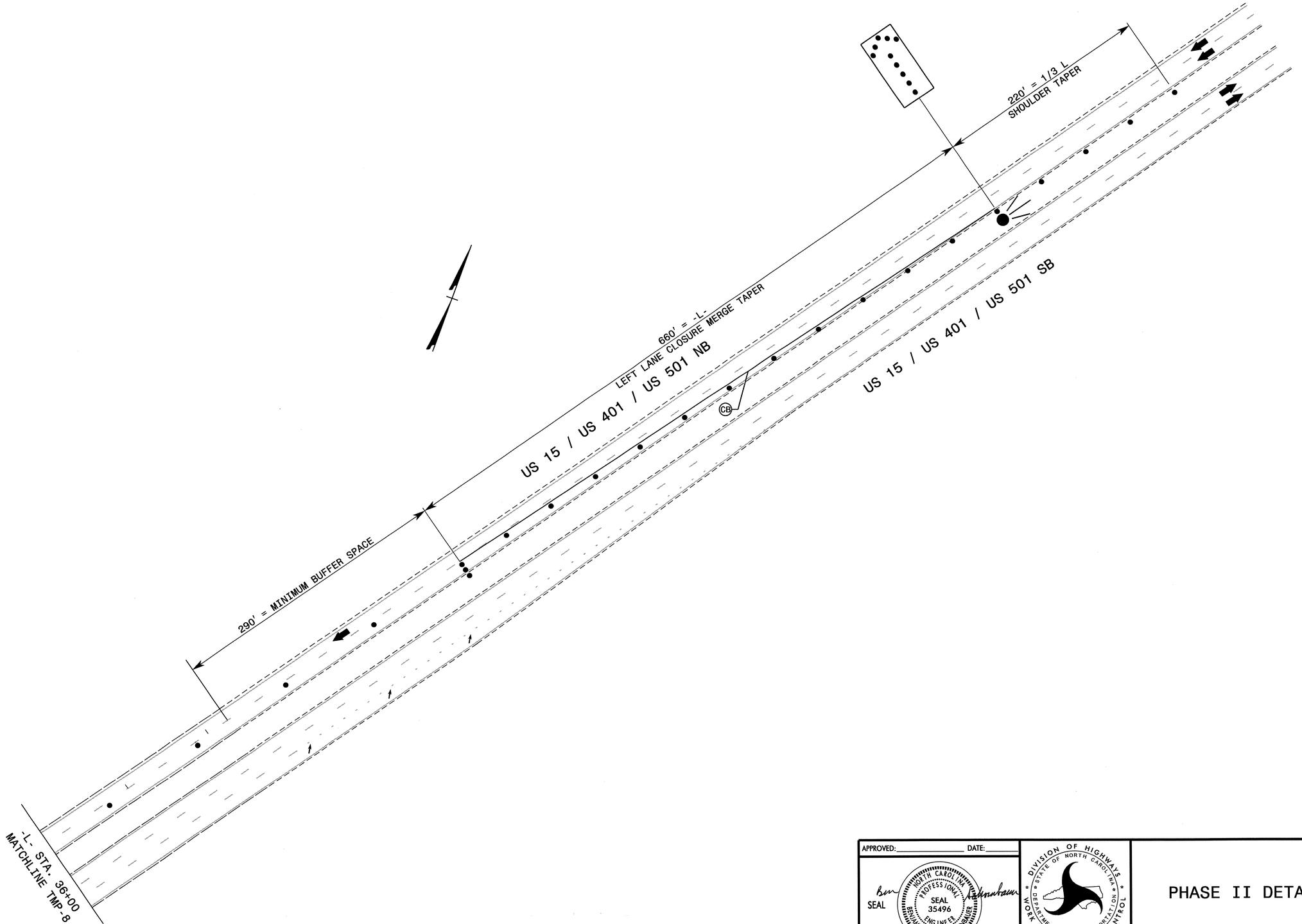

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SEAL

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PROJ. REFERENCE NO.	SHEET NO.
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*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.

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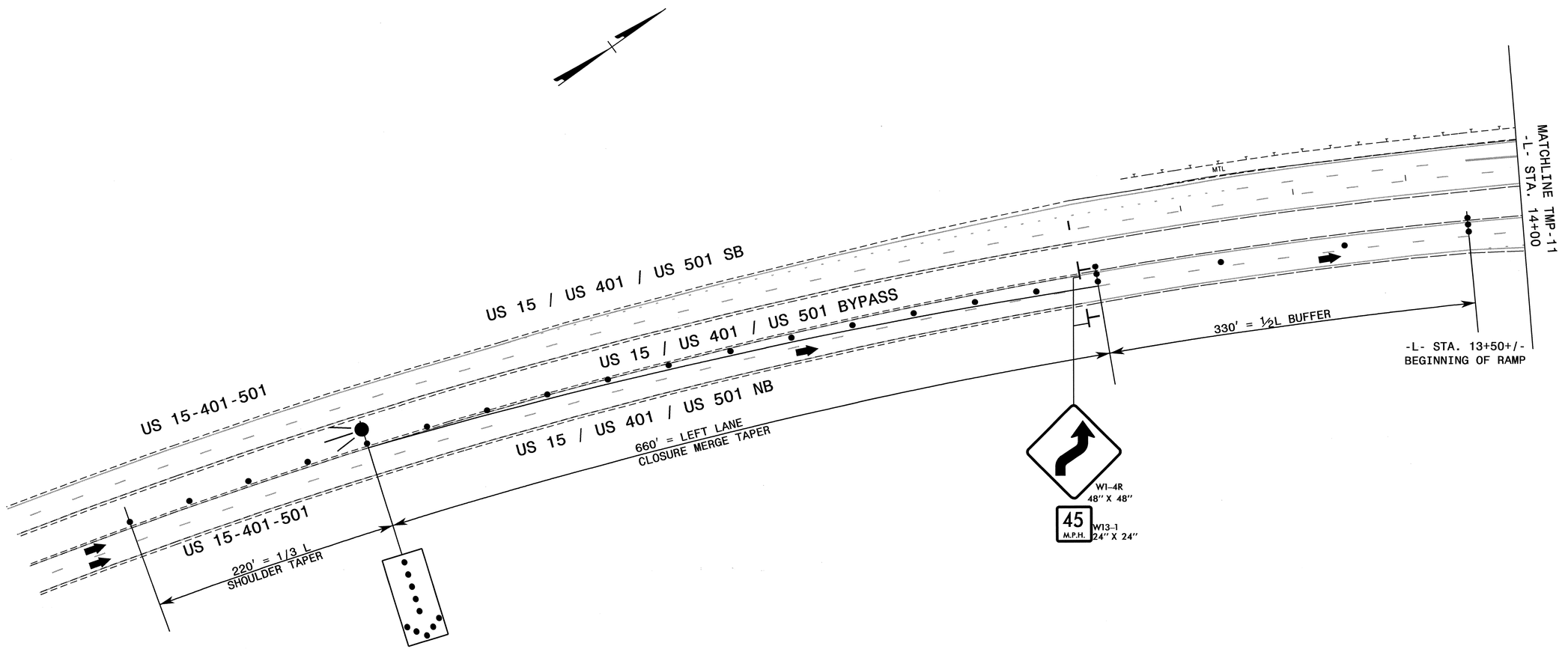

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TEMPORARY SHORING NO. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED BRIDGE END BENT FROM STATION 24+39 -L-, 25 FT TO 30 FT RIGHT, TO STATION 24+79 -L-, 25 FT TO 30 FT RIGHT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

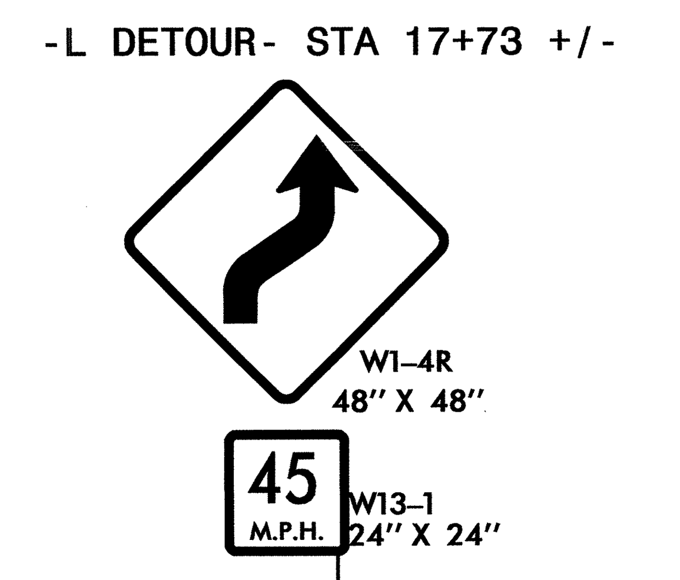
DESIGN TEMPORARY SHORING FROM STATION 24+39 -L-, 25 FT TO 30 FT RIGHT, TO STATION 24+79 -L-, 25 FT TO 30 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
- UNIT WEIGHT, (y) = 120 LB/CF
- FRICTION ANGLE = 30 DEGREES
- COHESION, (c) = 0 LB/SF

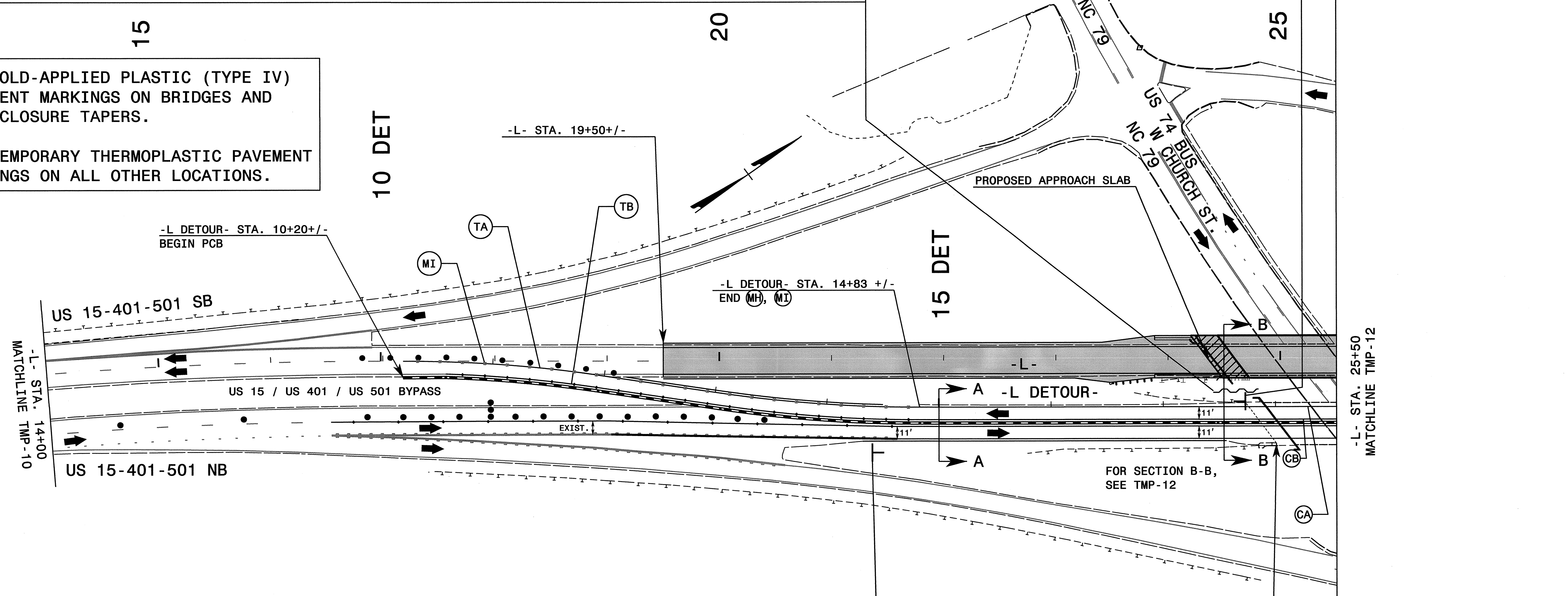
AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 24+39 -L-, 25 FT TO 30 FT RIGHT, TO STATION 24+79 -L-, 25 FT TO 30 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

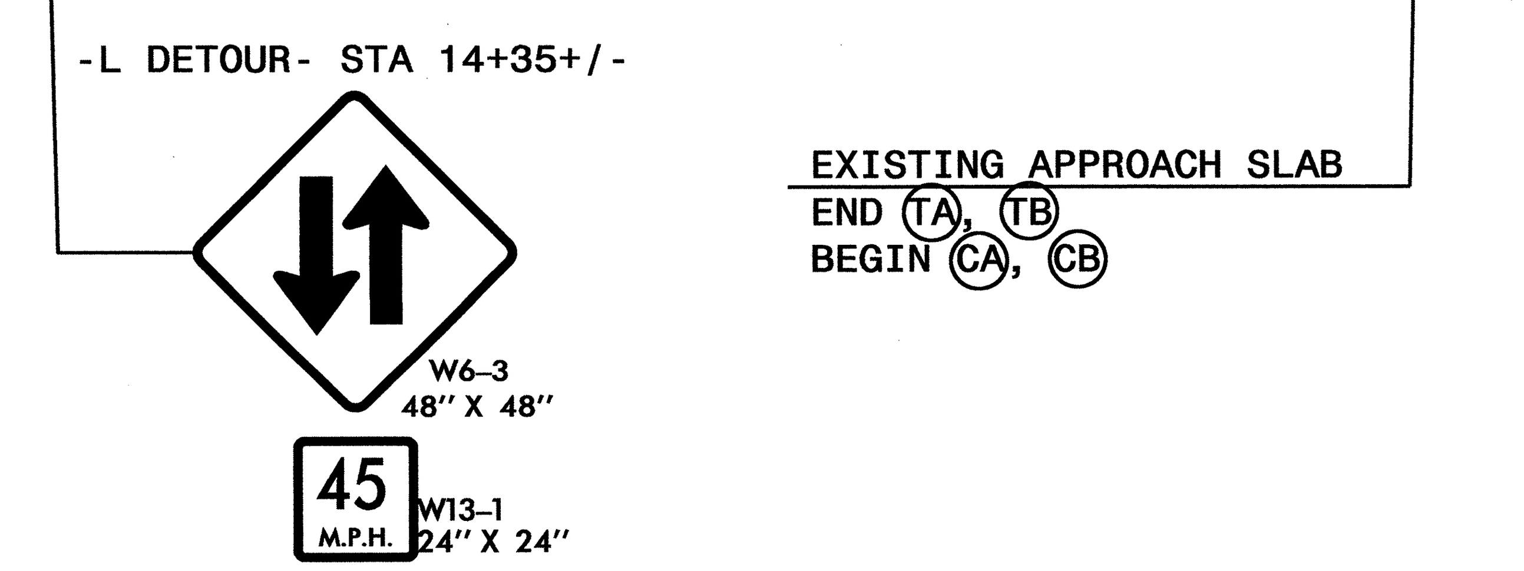
PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-11

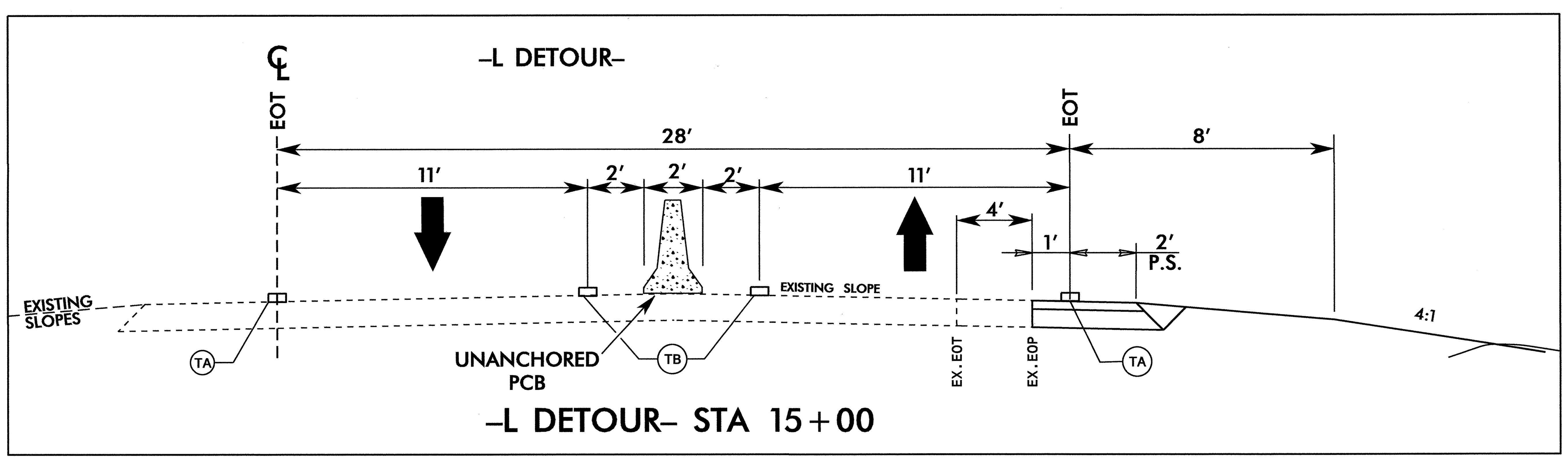
*USE COLD-APPLIED PLASTIC (TYPE IV) PAVEMENT MARKINGS ON BRIDGES AND LANE CLOSURE TAPERS.

*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.









SECTION A - A

APPROVED: DATE:

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35496 BENJAMIN PAUL SCHOENBAUER

12/19/2011

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

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PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-12

TEMPORARY SHORING NO. 2

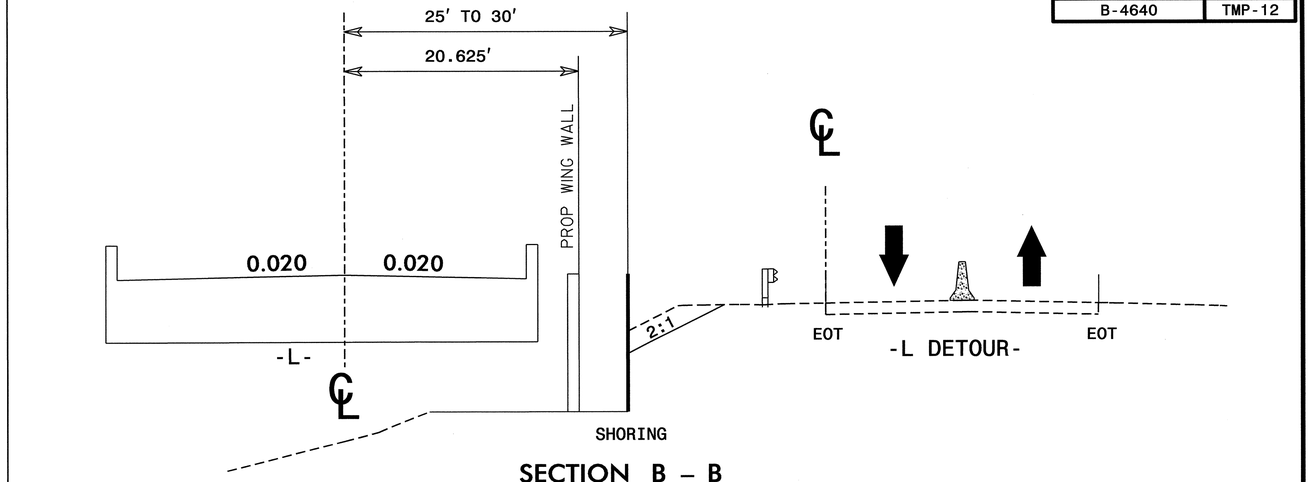
FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED BRIDGE END BENT FROM STATION 26+02 -L-, 25 FT TO 30 FT RIGHT, TO STATION 26+37 -L-, 25 FT TO 30 FT RIGHT.

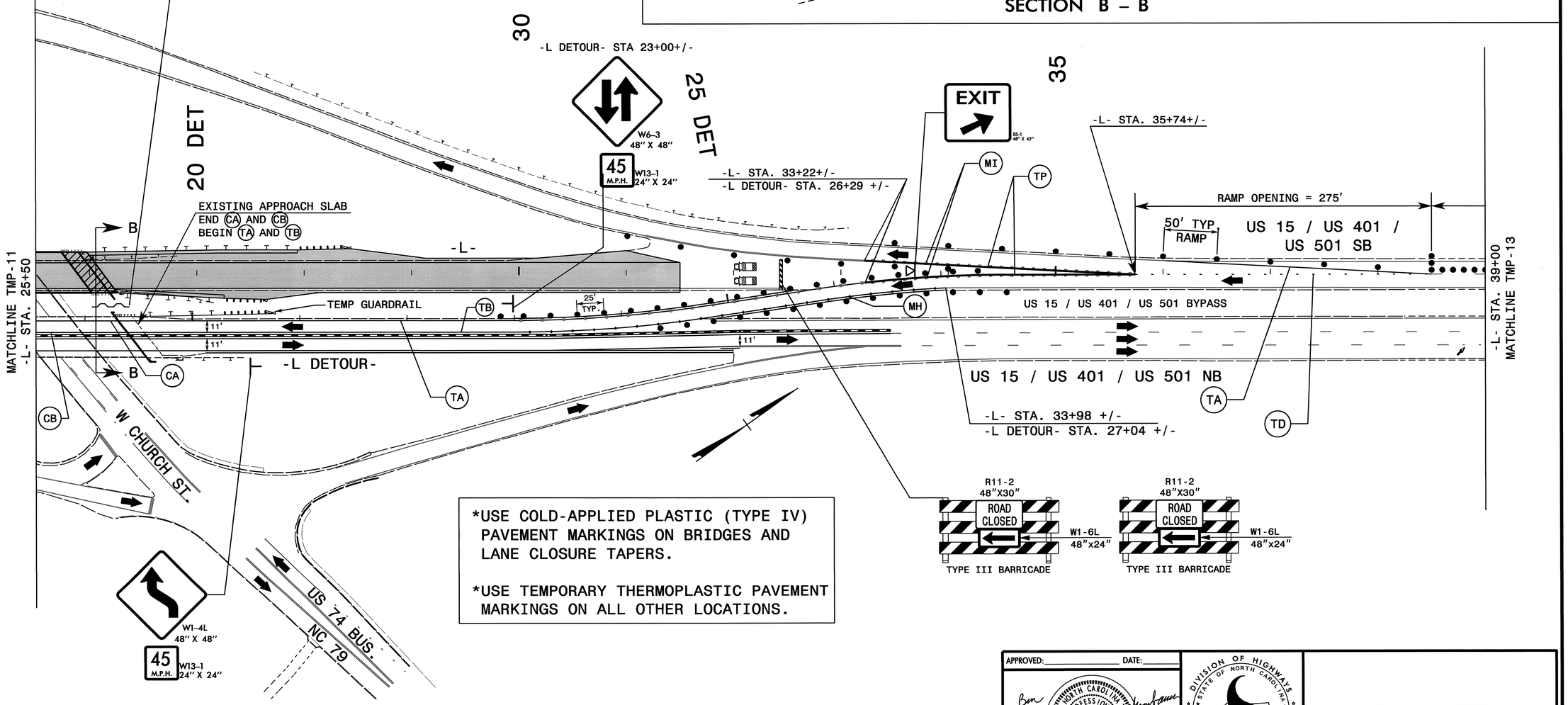
BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 26+02 -L-, 25 FT TO 30 FT RIGHT, TO STATION 26+37 -L-, 25 FT TO 30 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
- UNIT WEIGHT Y = 120 LB/CF
- FRICTION ANGLE = 30 DEGREES
- COHESION (c) = 0 LB/SF

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 26+02 -L-, 25 FT TO 30 FT RIGHT, TO STATION 26+37 -L-, 25 FT TO 30 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.



SECTION B – B



*USE COLD-APPLIED PLASTIC (TYPE IV) PAVEMENT MARKINGS ON BRIDGES AND LANE CLOSURE TAPERS.

*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHORR-RIVER

12/19/2011

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PHASE III DETAIL

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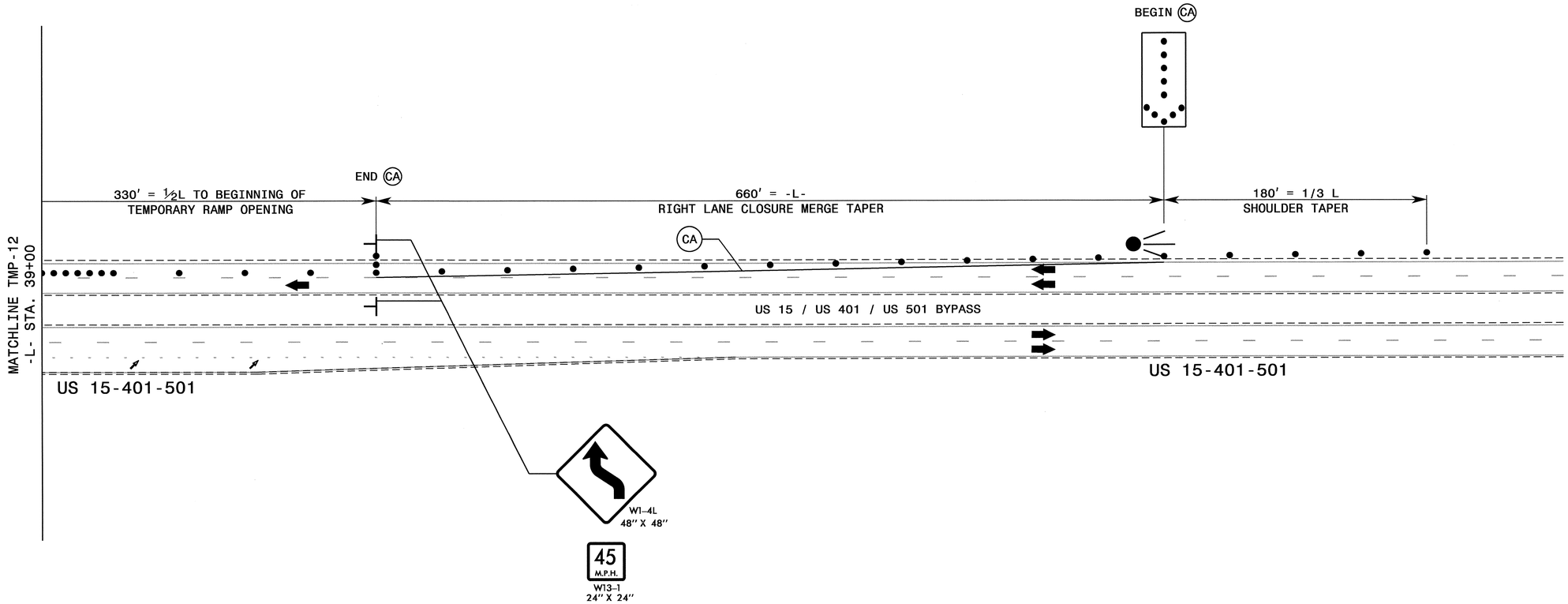
B-4640	TMP-13

*USE COLD-APPLIED PLASTIC (TYPE IV) PAVEMENT MARKINGS ON BRIDGES AND LANE CLOSURE TAPERS.

*USE TEMPORARY THERMOPLASTIC PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.



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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHERINGER

11-8-11

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PHASE III DETAIL

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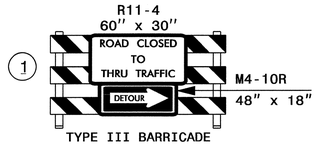
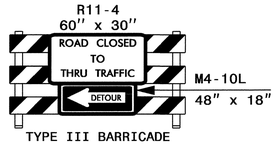
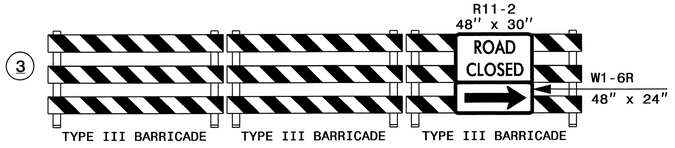
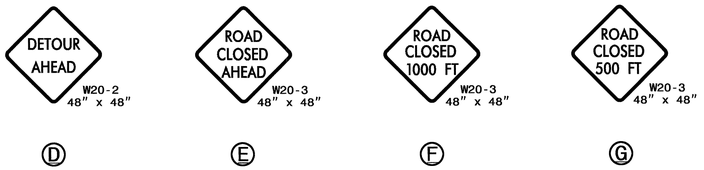
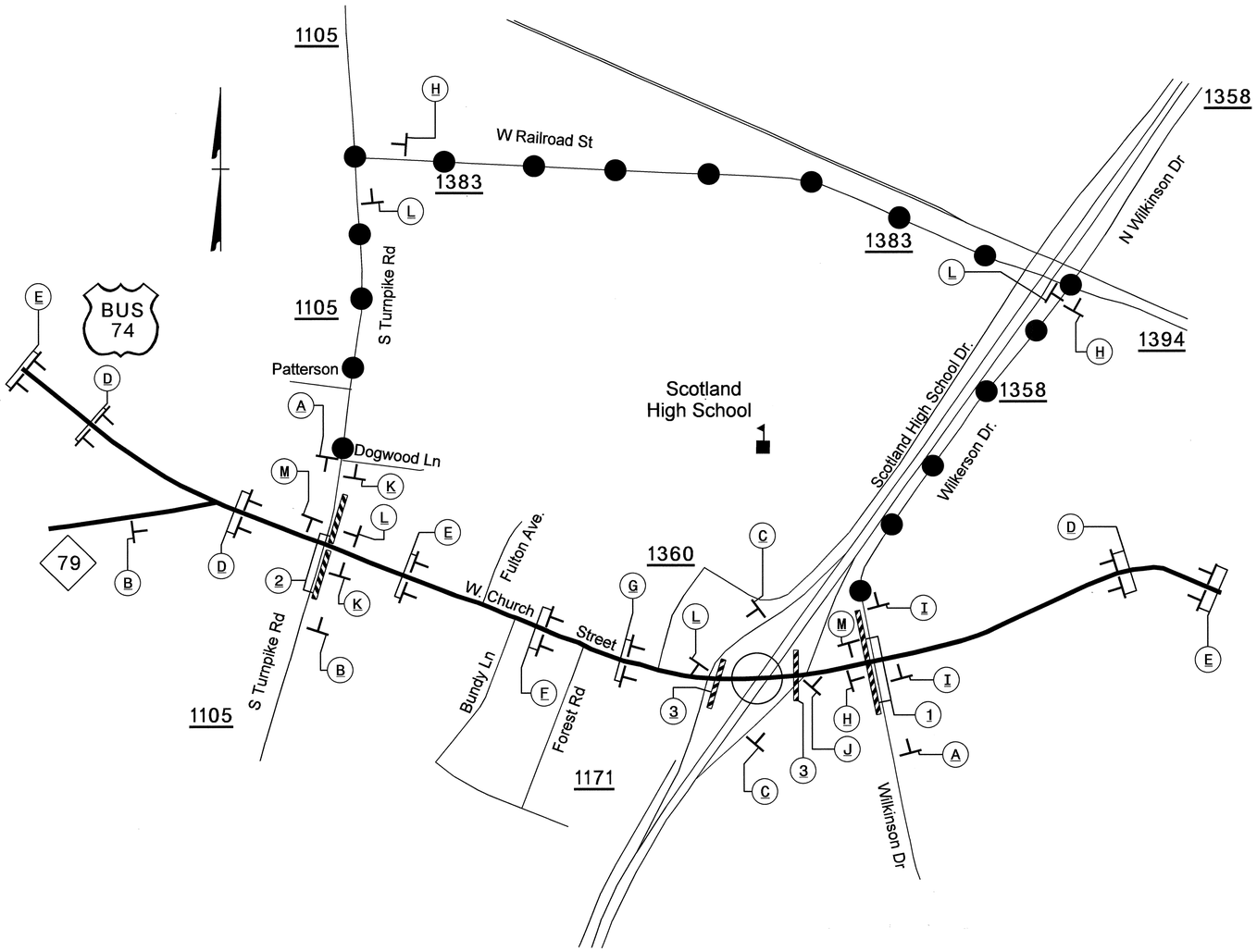
PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-14

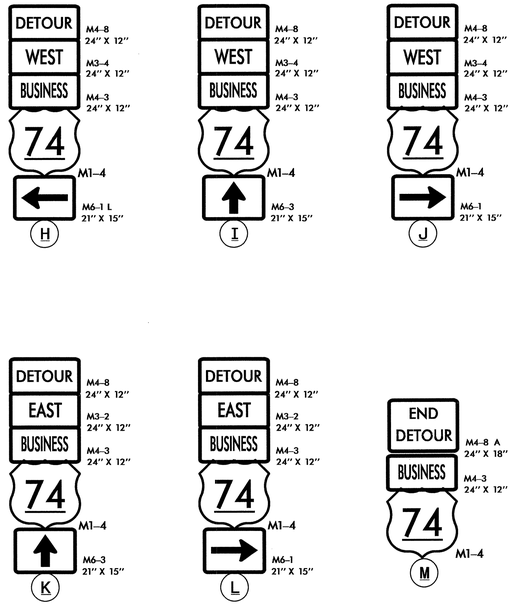












OFF-SITE DETOUR ROUTE
(VEHICULAR TRAFFIC ONLY)

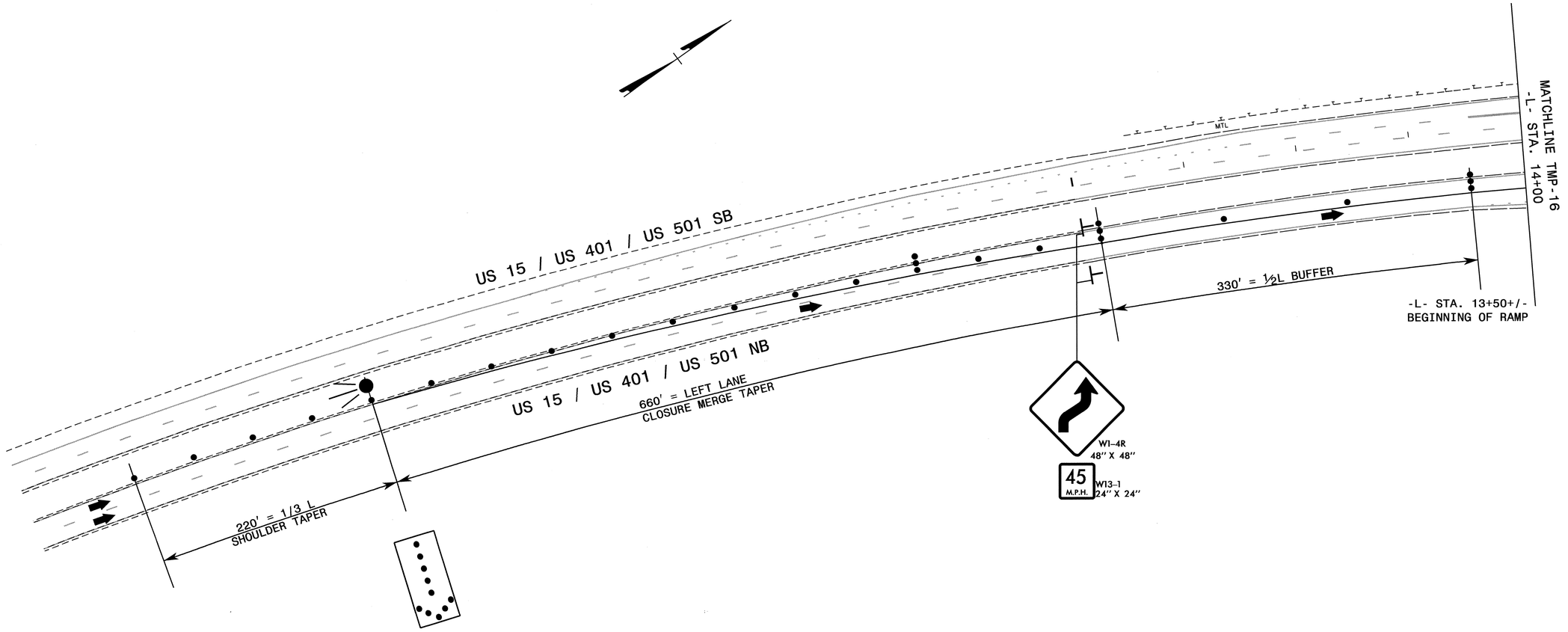
NOTES:
1. REFER TO 1101.03, SHEET 1 AND 2 OF 9, FOR SIGN DISTANCES.
2. INSTALL DETOUR SIGNS AS DIRECTED BY THE ENGINEER.
3. USE FLAGGERS TO DIRECT PEDESTRIAN TRAFFIC ALONG US 74 BUS / NC 79.

PHASE III:
OFFSITE DETOUR

08-NOV-2011 14:20
\\Dot\dfsrog10\Proj\TIPProjects-B\B4640\Traffic\TrafficControl\TCP\TMP\B-4640_TC_TMP_Offsite_Detour.dgn
shasson AT TE248373

PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-15

10



APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHOENBURG

11-8-11

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

PHASE IV DETAIL

08-NOV-2011 14:20
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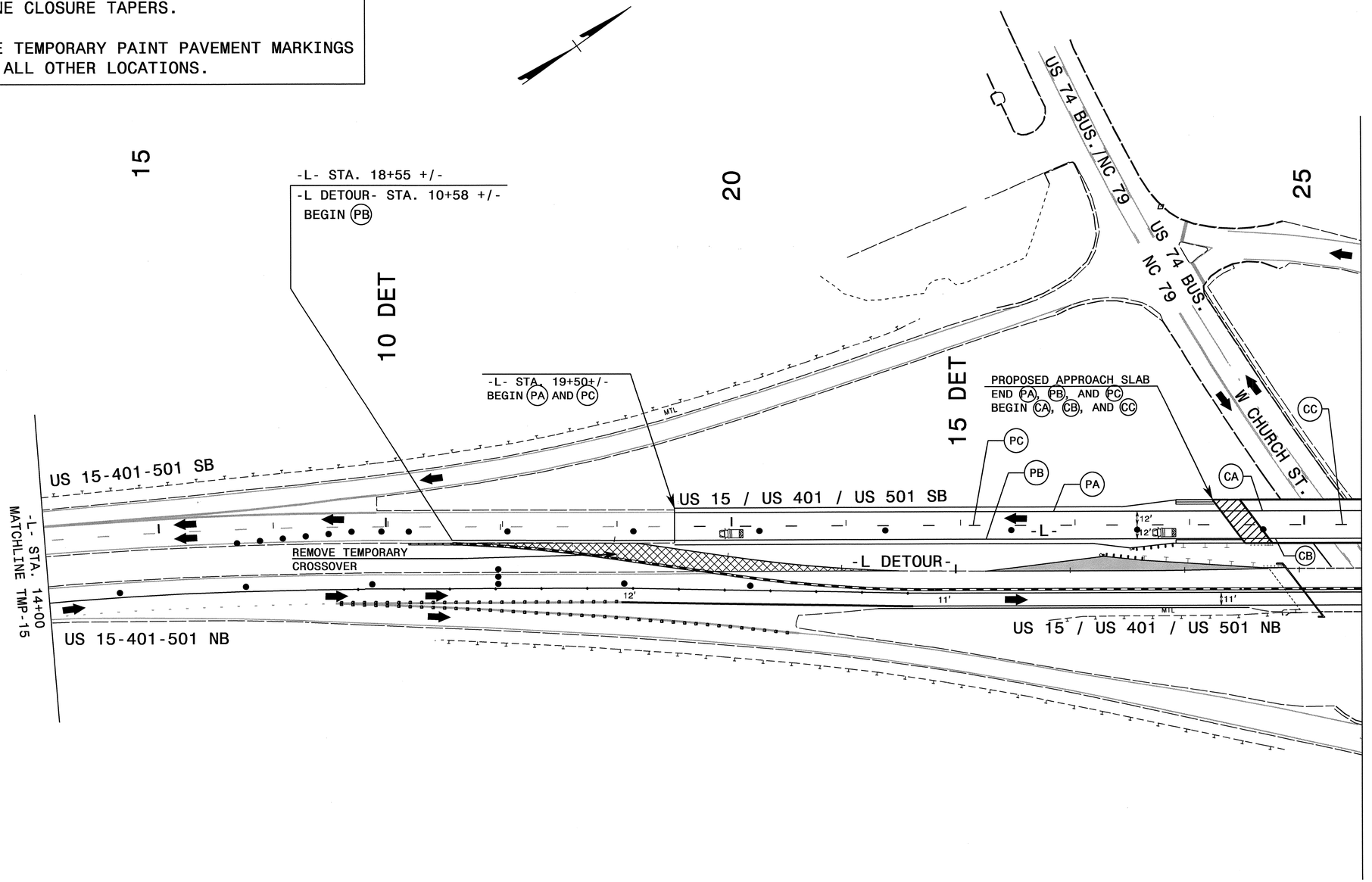
shasson AT TE248373

PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-16

*USE COLD-APPLIED PLASTIC (TYPE IV) PAVEMENT MARKINGS ON BRIDGES AND LANE CLOSURE TAPERS.

*USE TEMPORARY PAINT PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.



APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHOENBAUER

11-8-11

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASE IV DETAIL

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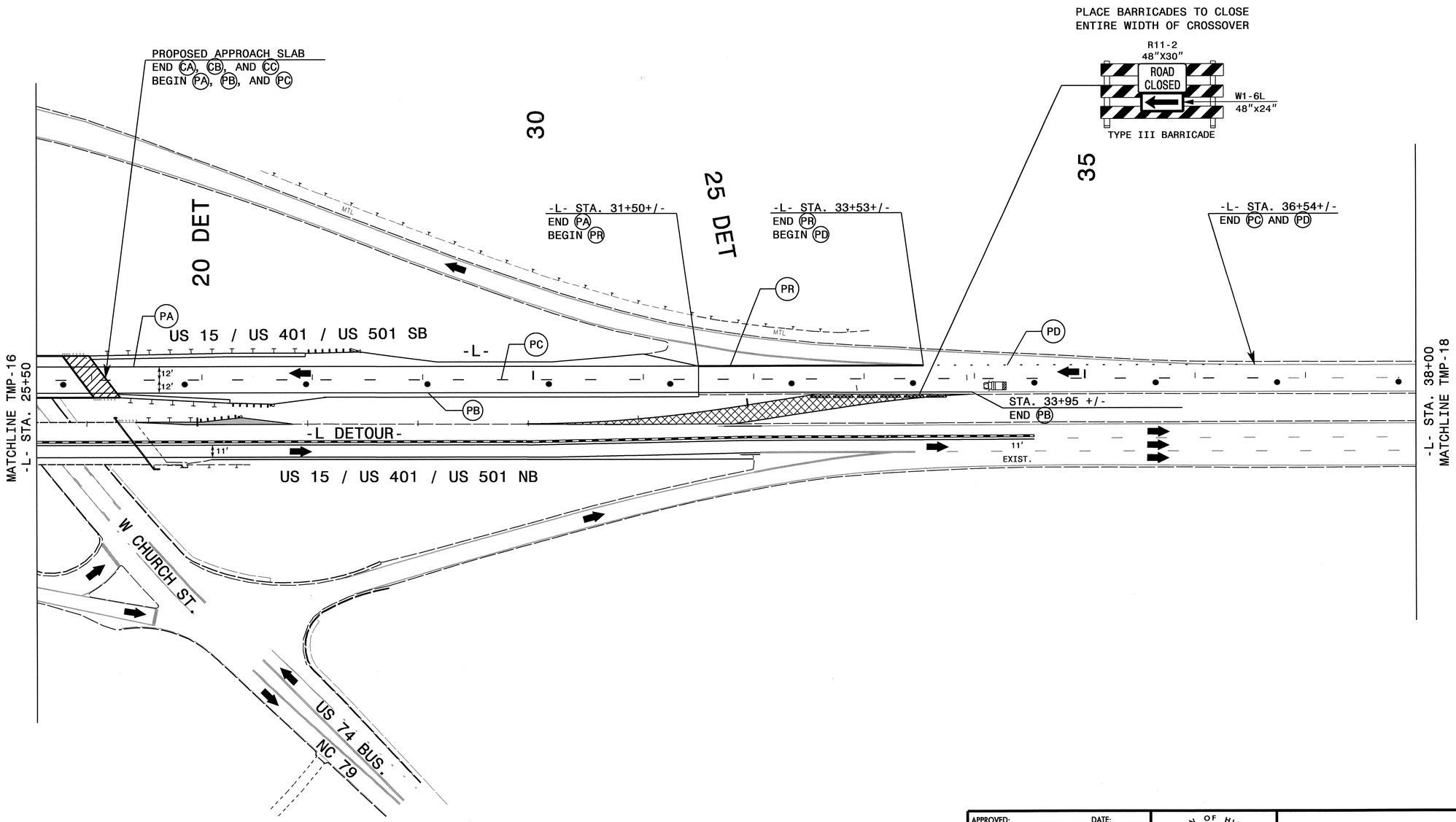
shasson AT TE248373

PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-17

*USE COLD-APPLIED PLASTIC (TYPE IV) PAVEMENT MARKINGS ON BRIDGES AND LANE CLOSURE TAPERS.

*USE TEMPORARY PAINT PAVEMENT MARKINGS ON ALL OTHER LOCATIONS.



APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 35496 ENGINEER BENJAMIN PAUL SCHOMBURG

11-8-11

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

PHASE IV DETAIL

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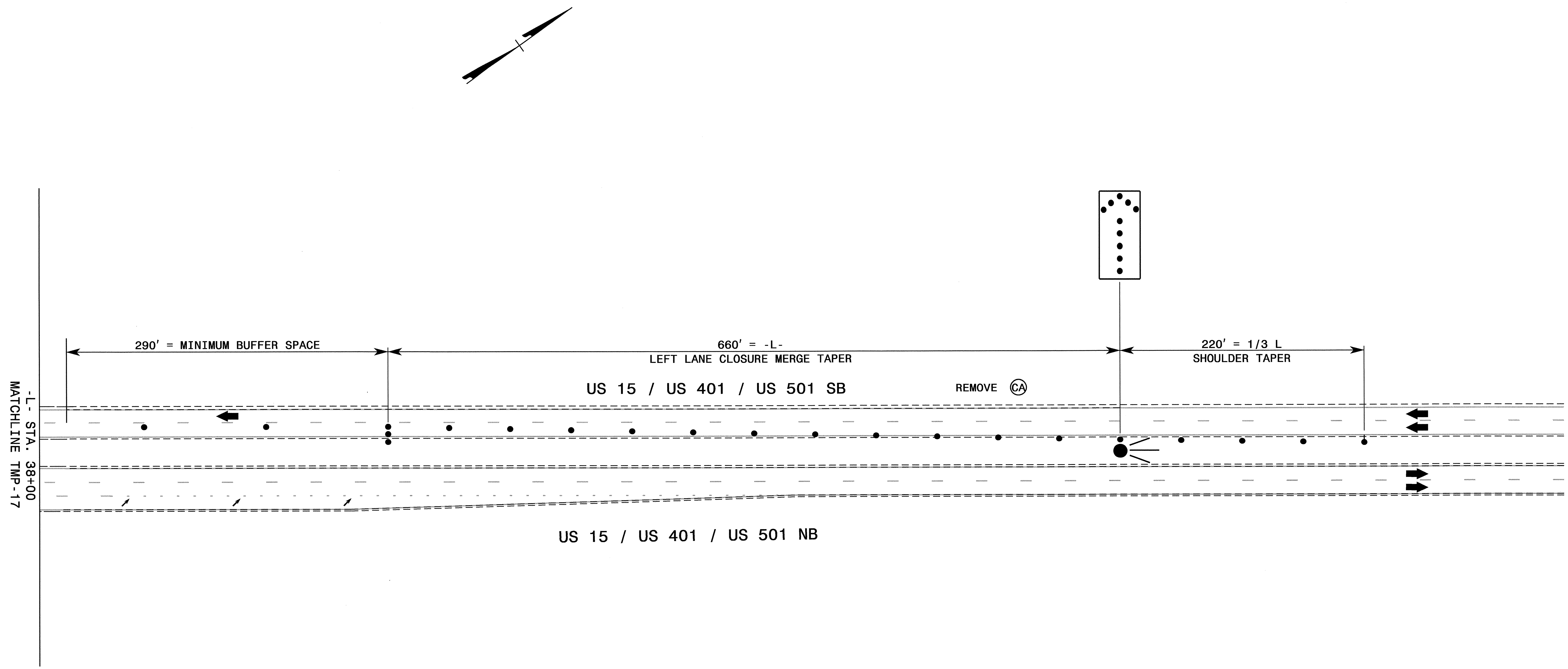
shassan AT TE248373

PROJ. REFERENCE NO.	SHEET NO.
B-4640	TMP-18



APPROVED: DATE:

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35496 BENJAMIN PAUL SCHOONBAUER

11-8-11

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE IV DETAIL

08-NOV-2011 14:20
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