B-3806

TIP PROJECT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
B - 3 8 0 6	TCP-1

PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

ASHE 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
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
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
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

INDEX OF SHEETS

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- NORTH ARROW
- PROPOSED PVMT. -------- EXIST. PVMT.
- WORK AREA
- REMOVAL OF EXISTING PAVEMENT
- TEMPORARY SHORING

TRAFFIC CONTROL DEVICES

- 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

APPROVED: [signature] DATE: 07 JUL 08

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G. L. GETTIER

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

J. S. BOURNE, PE — TRAFFIC CONTROL ENGINEER
G. L. GETTIER, PE — TRAFFIC CONTROL PROJECT ENGINEER
J. W. GILSTRAP JWG — TRAFFIC CONTROL PROJECT DESIGN ENGINEER
KEN BROADWELL KPB — TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

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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 AS DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
1. ALL ROADS	NONE	15 MINUTES MAX./ BLASTING OPS OR AS DIRECTED BY THE ENGINEER

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

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 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.

E) 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.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

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

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

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

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) 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

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

SIGNING

L) 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.

M) STATE FORCES WILL BE RESPONSIBLE FOR PERMANENT SIGNING.

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

TRAFFIC BARRIER

O) 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.

TRAFFIC CONTROL DEVICES

P) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

Q) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
1. ALL ROADS	PAINT	NONE

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

ROAD NAME	MARKING	MARKER
1. ALL ROADS	PAINT	TEMPORARY RAISED

T) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.

U) 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.

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

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

MISCELLANEOUS

X) THE ENGINEER SHALL NOTIFY THE OVERSIZE/OVERWEIGHT PERMIT UNIT AT 919-733-4740 (MS. TAMMY C. DENNING AND/OR MS. JOY WIGGINS) THIRTY (30) DAYS PRIOR TO TRAFFIC BEING PLACED IN THE 3 WAY STOP CONDITION TRAFFIC PATTERN AND ALSO WHEN THE PROJECT IS PLACED IN THE FINAL TRAFFIC PATTERN.

APPROVED: [signature] DATE: 07 JUL 08

SEAL — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8973 G. L. GETTIER

GENERAL NOTES

SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

REVISIONS

CADD FILE

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PHASING

PHASE I

STEP 1: - CONTRACTOR SHALL PLACE ADVANCE WORK ZONE WARNING SIGNS ALONG SR 1573 (-L-), SR 1501 (-Y1-), SR 1577 (JAKE BLACKBURN ROAD) AND SR 1513 (N. FORK NEW RIVER ROAD), SEE SHEETS TCP-4 & TCP-7.

STEP 2: - CONTRACTOR, USING ROADWAY STANDARD DRAWING NOS. 1101.02 SHEET 1 OF 9 AND 1101.04, SHEET 1 OF 1 (SEE SHEET TCP-4 AND THE CONSTRUCTION PLANS):

-- RESURFACE UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM STA. 14+25 -L- TO STA. 10+75 -Y1- AND CONSTRUCT THE WEST SIDE SHOULDER/DITCHES AND ASSOCIATED DRAINAGE MODIFICATIONS.

-- CONSTRUCT THE DETOUR (-DET-) UP TO THE EDGE AND ELEVATION OF -Y1- AND EXISTING -L-. INSTALL TEMPORARY GUARDRAIL ON -Y1- AND -DET-. USE DRUMS AND TYPE III BARRICADES TO KEEP THE DETOUR CLOSED.

STEP 3 - PLACE SIGNAGE AS SHOWN ON SHEET TCP-5 AND COVER.

NOTE: CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE PHASE II, STEP 1 IN ONE WORK PERIOD.

PHASE II

STEP 1 - CONTRACTOR USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9 (SEE SHEET TCP-5 AND THE CONSTRUCTION PLANS):

-- PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND TEMPORARY RAISED PAVEMENT MARKERS ALONG -L-, -Y1- AND -DET-, UNCOVER SIGNAGE AND PLACE TRAFFIC IN THE TEMPORARY PATTERN.

-- INSTALL WATER FILLED BARRIER AT THE -L-/-Y1- INTERSECTION AND INSTALL DRUMS AND TYPE III BARRICADES AT THE -L-/-DET- INTERSECTION.

STEP 2 - CONTRACTOR, USING ROADWAY STANDARD DRAWING NOS. 1101.02, SHEET 1 OF 9 AND 1101.04, SHEET 1 OF 1:

-- REMOVE EXISTING BRIDGE AND CONSTRUCT NEW CULVERT (UTILIZE TEMPORARY SHORING) AND -L- UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM STA. 14+25 -L- TO STA. 17+50 -L- (SEE SHEET TCP-5 AND THE CONSTRUCTION PLANS).

PHASE III

NOTE: CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE PHASE III, STEP 1 IN ONE WORK PERIOD.

STEP 1 - CONTRACTOR, USING ROADWAY STANDARD DRAWING NO. 1101.02 SHEET 1 OF 9:

-- REMOVE WATER FILLED BARRIER, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) ON -L- AND -Y1- (SEE SHEET TCP-6), INSTALL PERMANENT SIGNING ON -L- AND -Y1- (STATE FORCES) AND PLACE TRAFFIC IN THE FINAL PATTERN.

-- REMOVE ALL CONSTRUCTION SIGNS ASSOCIATED WITH THE ON-SITE DETOUR AND TEMPORARY TRAFFIC PATTERN.

-- PLACE DRUMS AND TYPE III BARRICADES AS SHOWN ON SHEET TCP-6 TO CLOSE THE DETOUR (-DET-).

STEP 2 - CONTRACTOR, USING ROADWAY STANDARD DRAWING NOS. 1101.02 SHEET 1 OF 9 & 1101.04, SHEET 1 OF 1 (SEE SHEET TCP-6 AND THE CONSTRUCTION PLANS):

-- REMOVE THE DETOUR (-DET-), INCLUDING THE TEMPORARY BRIDGE.

-- COMPLETE SHOULDER AND DITCH CONSTRUCTION ALONG -L- AND -Y1- AND ALL REMAINING CULVERT CONSTRUCTION.

STEP 3 - CONTRACTOR SHALL, USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9:

-- INSTALL THE FINAL LAYER(S) OF SURFACE COURSE AND PLACE THE FINAL PAVEMENT MARKINGS (PAINT) AND OPEN TO THE FINAL TRAFFIC PATTERN (SEE SHEET TCP-6 AND THE CONSTRUCION PLANS).

STEP 4 - REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES.

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APPROVED: [signature] DATE: 07 JUL 08

SEAL — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8973 G. L. GETTIER

PHASING

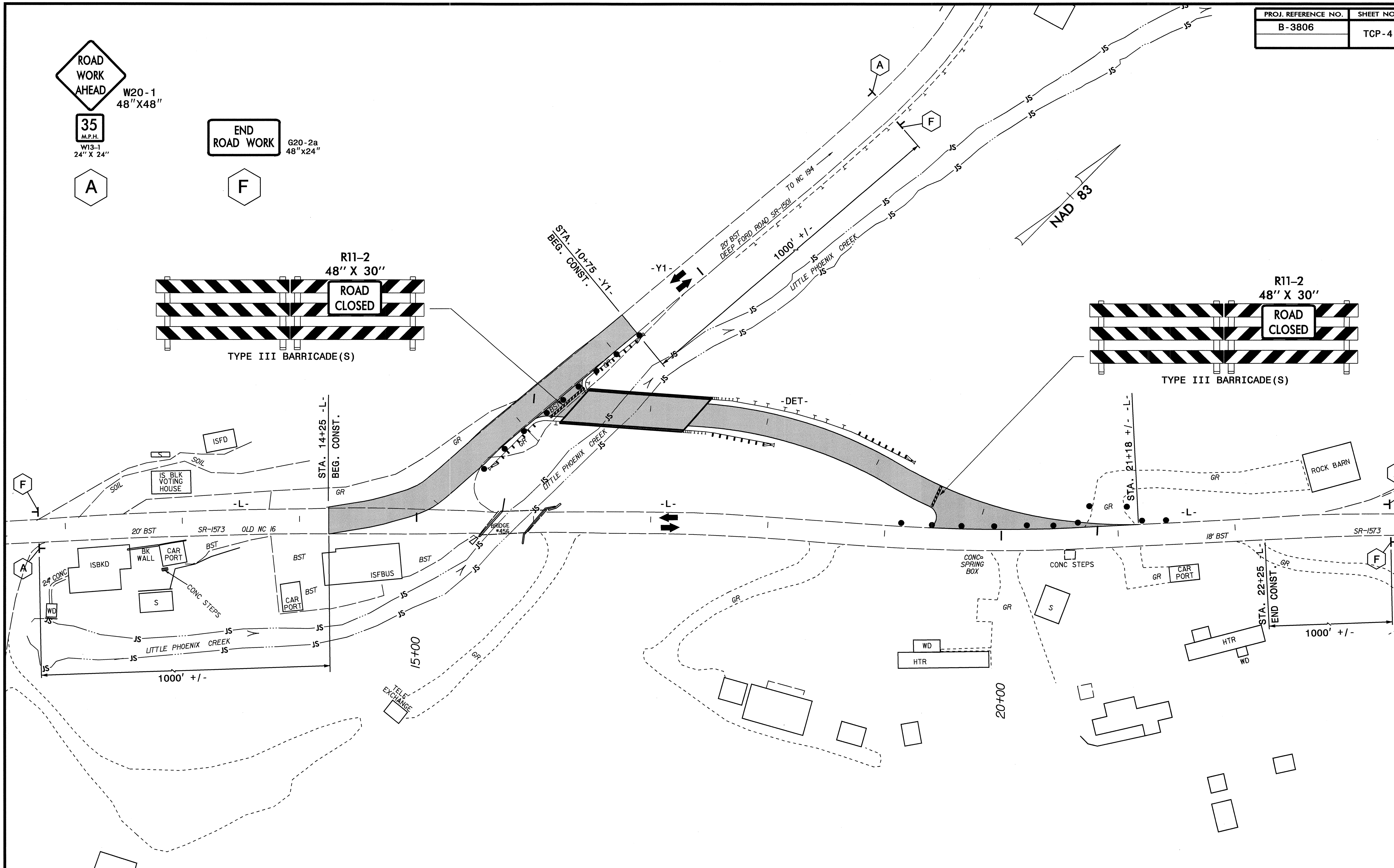
SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

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

REVISIONS

CADD FILE

PROJ. REFERENCE NO.	SHEET NO.
B-3806	TCP-4



APPROVED: [signature] DATE: 07 Jul 08

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G. L. GETTIER

PHASE I DETAILS

SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

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

REVISIONS

CADD FILE

PROJ. REFERENCE NO.	SHEET NO.
B-3806	TCP-5

* NOTE:
SEE SHEET TCP-8 FOR SPECIAL SIGN DETAIL

** - PLACE YELLOW/YELLOW TEMPORARY RAISED PAVEMENT MARKERS ON 20' SPACING 500' IN ADVANCE OF PROJECT LIMITS.

ROAD WORK AHEAD W20-1 48"X48"
35 M.P.H. W13-1 24" X 24" — A

NEW TRAFFIC PATTERN * — B

25 M.P.H. W13-1 24" X 24" — C

15 M.P.H. W13-1 24" X 24" — D

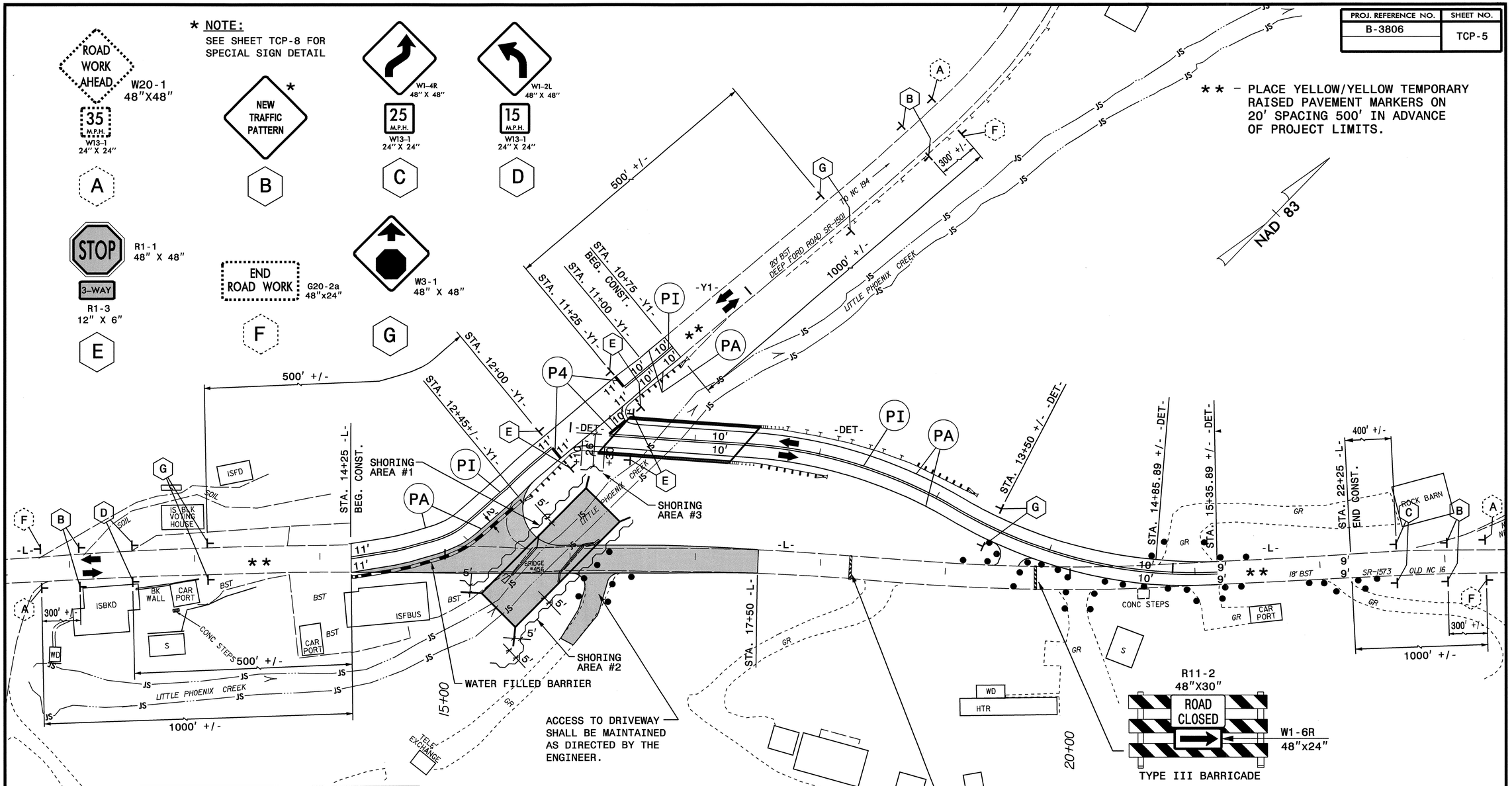
STOP R1-1 48" X 48"
3-WAY R1-3 12" X 6" — E

END ROAD WORK G20-2a 48"x24" — F

W3-1 48" X 48" — G

W1-4R 48" X 48"

W1-2L 48" X 48"



R11-2
48"X30"
ROAD CLOSED
W1-6R
48"x24"
TYPE III BARRICADE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE(S)

PAVEMENT MARKING LEGEND

PAINT	
PA	WHITE EDGELINE (4")
PD	2 FT. WHITE MINISKIP (4")
PI	YELLOW DOUBLE CENTER (4")
P4	WHITE STOPBAR (24")

NOTES:
1. INSTALL TEMPORARY RAISED PAVEMENT MARKERS IN THIS TEMPORARY PATTERN.
2. SEE ROADWAY STANDARD DRAWING NUMBERS 1250.01 AND 1251.01 FOR PAVEMENT MARKER SPACING AND DETAILS.

NOTES:
1. PLACE TEMPORARY RAISED PAVEMENT MARKERS (YELLOW/YELLOW) AT 20' SPACING ON DOUBLE YELLOW CENTER LINE.
2. SEE SHEET TCP-5A FOR TEMPORARY SHORING NOTES.

LEGEND
~~~ - TEMPORARY SHORING

APPROVED: DATE: 07 Jul 08

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G L GETTIER

PHASE II DETAILS

SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

REVISIONS

CADD FILE
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PROJ. REFERENCE NO.	SHEET NO.
B-3806	TCP-5A

TEMPORARY SHORING NO. 1

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

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

WHEN USING CONTRACTOR DESIGNED SHORING FROM WEST OF CULVERT, 5 FT. FROM, USE THE FOLLOWING SOIL PARAMETERS:
UNIT WEIGHT OF SOIL ABOVE WATER TABLE, γ = 120 PCF
UNIT WEIGHT OF SOIL BELOW WATER TABLE, γ = 60 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM CULVERT TO 5 FT. WEST OF CULVERT. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

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

TEMPORARY SHORING NO. 2

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

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

WHEN USING CONTRACTOR DESIGNED SHORING FROM EAST OF CULVERT, 5 FT. FROM, USE THE FOLLOWING SOIL PARAMETERS:
UNIT WEIGHT OF SOIL ABOVE WATER TABLE, γ = 120 PCF
UNIT WEIGHT OF SOIL BELOW WATER TABLE, γ = 60 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM CULVERT TO 5 FT. EAST OF CULVERT. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

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

TEMPORARY SHORING NO. 3

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

DO NO USE STANDARD TEMPORARY SHORING FROM STATION 10+10.00, 26 FT. RIGHT CENTERLINE -DET-, TO STATION 10+30.00, 26 FT. RIGHT CENTERLINE -DET-.

USE A TEMPORARY MSE WALL FROM STATION 10+10.00, 26 FT. RIGHT CENTERLINE -DET-, TO STATION 10+30.00, 26 FT. RIGHT CENTERLINE -DET-.

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

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 10+10.00, 26 FT. RIGHT CENTERLINE -DET-, TO STATION 10+30.00, 26 FT. RIGHT CENTERLINE -DET-, USE THE FOLLOWING SOIL PARAMETERS:
UNIT WEIGHT OF SOIL ABOVE WATER TABLE, γ = 120 PCF
UNIT WEIGHT OF SOIL BELOW WATER TABLE, γ = 60 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 10+10.00, 26 FT. RIGHT CENTERLINE -DET-, TO STATION 10+30.00, 26 FT. RIGHT CENTERLINE -DET-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

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

APPROVED: [signature] DATE: 07 JUL 08

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G. L. GETTIER

TEMP. SHORING NOTES

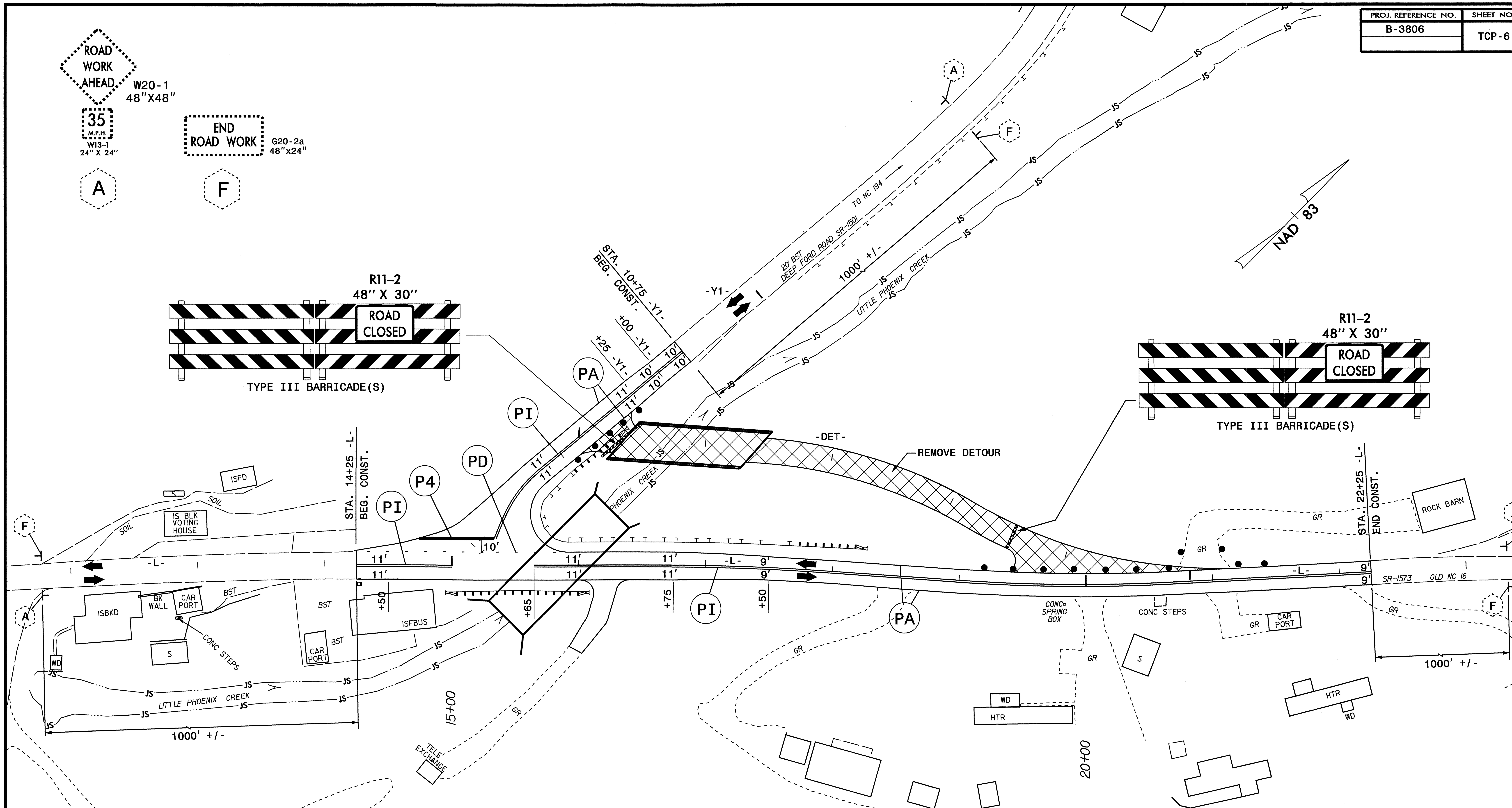
SCALE: NONE
DATE: 6/08
DWG. BY: KPB
DESIGN BY: KPB
REVIEWED BY: JWG

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

REVISIONS

CADD FILE

PROJ. REFERENCE NO.	SHEET NO.
B-3806	TCP-6



PAVEMENT MARKING LEGEND

PAINT

(PA)	WHITE EDGELINE (4")
(PD)	2 FT. WHITE MINISKIP (4")
(PI)	YELLOW DOUBLE CENTER (4")
(P4)	WHITE STOPBAR (24")

NOTES:

1. TEMPORARY AND FINAL PAVEMENT MARKINGS ARE SHOWN ON THIS SHEET.
2. THERE ARE NO TEMPORARY RAISED PAVEMENT MARKERS IN THIS TEMPORARY PATTERN OR PERMANENT RAISED PAVEMENT MARKERS IN THE FINAL PATTERN.

APPROVED: [signature] DATE: 07 JUL 08

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G. L. GETTIER

PHASE III DETAILS

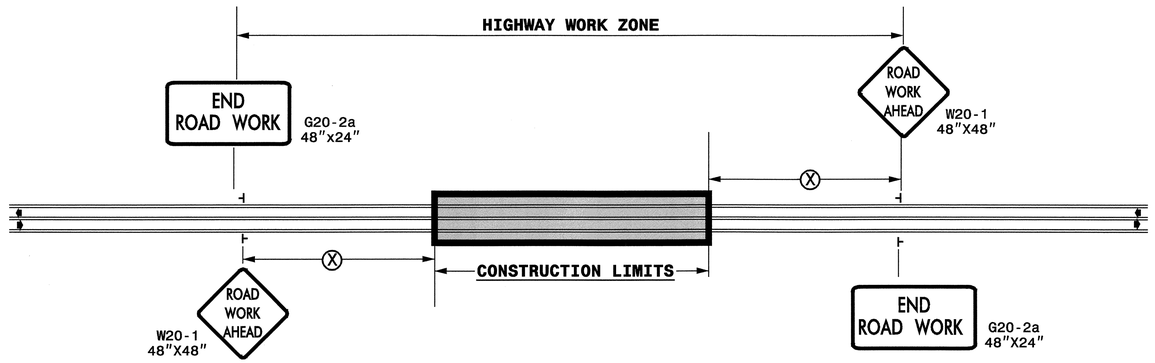
SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

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

REVISIONS	
CADD FILE	

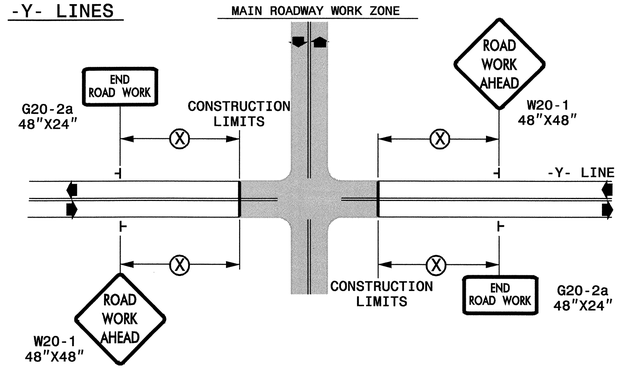
PROJ. REFERENCE NO.	SHEET NO.
B-3806	TCP-7

TWO-WAY UNDIVIDED ** (L-LINES)



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

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



GENERAL NOTES

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

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

DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED: _____ DATE: 07 Jun 08

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER G L GETTIER

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

SCALE:	NONE
DATE:	6/08
DWG. BY:	KPB
DESIGN BY:	KPB
REVIEWED BY:	JWG

REVISIONS	
7-98	10/01
10-98	03/04
01/01	11/04
CADD FILE	