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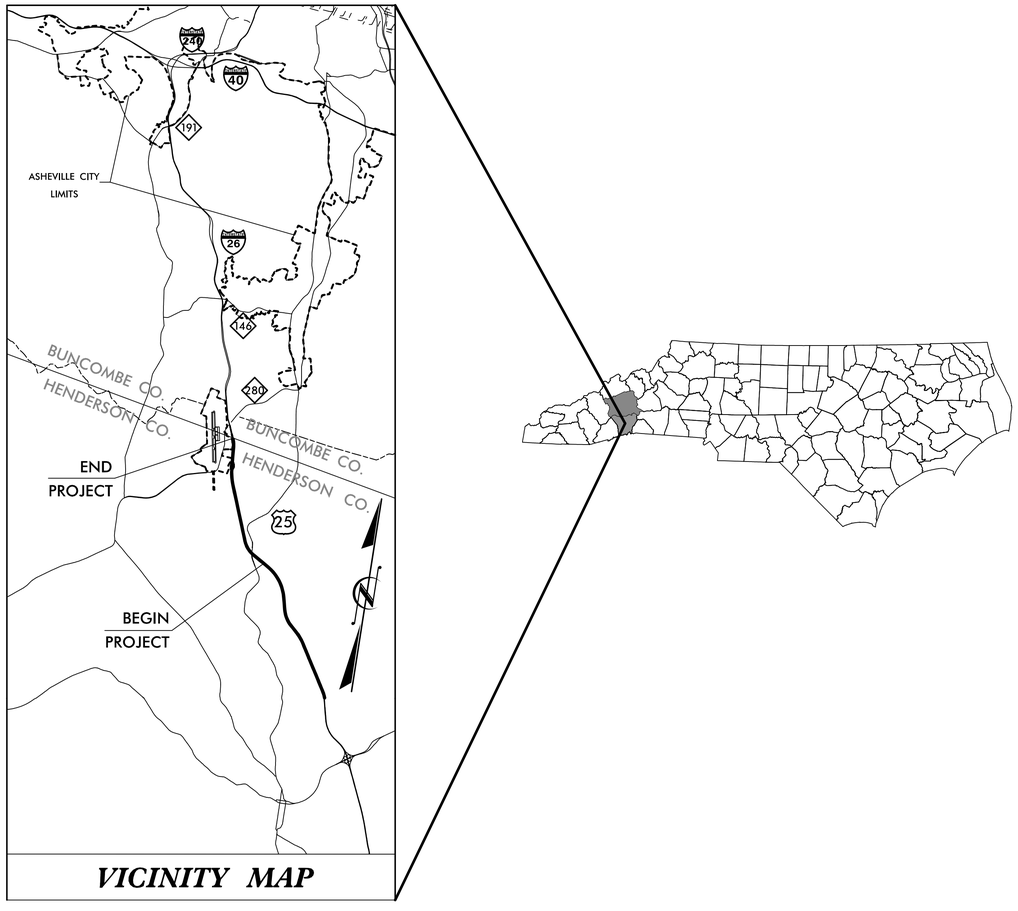
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BUNCOMBE & HENDERSON COUNTIES



VICINITY MAP

LOCATION: I–26 BETWEEN US 25 (ASHEVILLE HWY) TO SOUTH OF NC 280

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, CULVERTS, RETAINING WALLS, SOUND WALLS, SIGNALS, AND SIGNING

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

PLANS PREPARED BY: HNTB

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TRAFFIC CONTROL PROJECT ENGINEER

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

INDEX OF SHEETS

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DATE: 9/3/2019

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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I–4400C

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ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - CONTRACT STANDARDS AND DEVELOPMENT UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANAUARY 2018 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
1101.04	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 BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION - PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMPORARY PAVEMENT
- REMOVAL
- WORK AREA
- WEDGE/ WIDEN
- ONGOING CONSTRUCTION
- TEMPORARY GRADE/ LEVELING COURSE

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN
- FLASHING ARROW PANEL IN 'CAUTION MODE'

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

EXISTING PROPOSED TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS
- EXISTING MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
PAVEMENT MARKING LINES	
	COLD APPLIED PLASTIC TYPE 4 (4")
CA	WHITE EDGELINE
CC	10' FT. WHITE SKIP
CD	3FT - 9FT/SP WHITE MINISKIP
CE	WHITE SOLID LANE LINE
CI	YELLOW DOUBLE CENTER LINE
	COLD APPLIED PLASTIC TYPE 4 (8")
C13	3FT - 9FT/SP WHITE MINISKIP
CN	WHITE GORELINE
CR	WHITE SOLID LANE LINE
	COLD APPLIED PLASTIC TYPE 4 (12")
CU	WHITE DIAGONAL
CV	YELLOW DIAGONAL
	PAINT (4")
P8	2 FT - 6 FT/SP WHITE MINISKIP
P9	2 FT - 6 FT/SP YELLOW MINISKIP
PA	WHITE EDGELINE
PB	YELLOW EDGELINE
PC	10FT. WHITE SKIP
PD	3FT - 9FT/SP WHITE MINISKIP
PE	WHITE SOLID LANE LINE
PF	10 FT. YELLOW SKIP
PH	YELLOW SINGLE CENTER
PI	YELLOW DOUBLE CENTER LINE
	HIGH PERFORMANCE(6")
Z6	WHITE EDGELINE
Z7	YELLOW EDGELINE
ZJ	10 FT. WHITE SKIP
ZK	3FT - 9FT/SP WHITE MINISKIP
ZL	WHITE SOLID LANE LINE
	PAINT (8")
P13	3 FT - 9FT/SP WHITE MINISKIP
PN	WHITE GORELINE
PO	WHITE DIAGONAL
PP	YELLOW DIAGONAL
PQ	WHITE CROSSWALK LINE
PR	WHITE SOLID LANE LINE
	HIGH PERFORMANCE (12")
Z10	3 FT - 9FT/SP WHITE MINISKIP
ZS	WHITE GORELINE
ZT	WHITE SOLID LANE LINE
	PAINT (12")
PU	WHITE DIAGONAL
PV	YELLOW DIAGONAL
	PAINT (24")
P2	WHITE STOP BAR

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTES FOR NUMBER OF APPLICATIONS.

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NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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

TRANSPORTATION MANAGEMENT PLAN

ROADWAY STANDARD DRAWINGS AND LEGEND

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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 DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
I-26 I-26 RAMPS US 25	MONDAY THRU FRIDAY 6:00 AM - 9:00 PM SATURDAY AND SUNDAY 9:00 AM - 9:00 PM
SR 1358 (FANNING BRIDGE RD)	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 6:00 PM

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

ROAD NAME

I-26, I-26 RAMPS, US 25, AND SR 1358 (FANNING BRIDGE RD)

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR CHRISTMAS AND NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 18TH TO 9:00 P.M. THE THIRD WEEKDAY FOLLOWING NEW YEAR'S DAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 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 6:00 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 6:00 A.M. THURSDAY TO 9:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THANKSGIVING DAY AND 9:00 P.M. THE MONDAY FOLLOWING THANKSGIVING DAY.
8. FOR THE CHRISTMAS RETAIL SEASON, THURSDAYS THROUGH SUNDAYS BETWEEN THE HOURS OF 9:00 P.M. THE THURSDAY FOLLOWING THANKSGIVING DAY TO 6:00 A.M. DECEMBER 18TH.
9. FOR THE NORTH CAROLINA MOUNTAIN STATE FAIR (TYPICALLY HELD FOR 10 DAYS STARTING THE FRIDAY AFTER LABOR DAY), BETWEEN THE HOURS OF 6:00 A.M. ON THE FRIDAY FOLLOWING LABOR DAY AND 9:00 P.M. THE FOLLOWING MONDAY AFTER THE FAIR CONCLUDES.

C) DO NOT CLOSE ROADS AS FOLLOWS

ROAD NAME	DAY AND TIME RESTRICTIONS
I-26	MONDAY THRU SUNDAY 5:00 A.M. TO 11 P.M.
SR 1358 (FANNING BRIDGE RD)	CLOSURE NOT ALLOWED

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
I-26 & I-26 RAMPS	MONDAY-SUNDAY 5:00AM - 11:00PM	30 MINUTES FOR EXISTING BRIDGE DEMO, GIRDER INSTALLATION, OVERHEAD SIGN STRUCTURE INSTALLATION, SIGNAL MAST ARMS AND TRAFFIC SHIFT

HAULING RESTRICTIONS

DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS AN APPROVED TEMPORARY TRAFFIC BARRIER OR GUARDRAIL SEPARATES THE TRAFFIC FROM THE HAULING OPERATION.

DO NOT HAUL DURING THE HOLIDAY AND SPECIAL EVENTS TIME RESTRICTIONS LISTED IN GENERAL NOTE "B", UNLESS THE HAULING OPERATION OCCURS COMPLETELY BEHIND TEMPORARY TRAFFIC BARRIER OR GUARDRAIL AND DOES NOT IMPACT TRAFFIC OPERATIONS.

INGRESS AND EGRESS TO AND FROM THE I-26 MEDIAN SHALL BE CONDUCTED IN ACCORDANCE WITH THE "TYPICAL MEDIAN ACCESS AREA" SPECIAL PROVISION, THIS IS NOT REQUIRED IF USING A LANE CLOSURE IN CONJUNCTION WITH RSD 1101.05, SHEET 2, WITHIN THE ALLOWABLE TIMES AS DESCRIBED IN GENERAL NOTE "A". PROVIDE THE NUMBER OF AND LOCATIONS TO THE ENGINEER AT PRE-CONSTRUCTION CONFERENCE.

HAUL VEHICLES SHALL NOT ENTER AND/OR EXIT AN OPEN TRAVEL LANE AT SPEEDS MORE THAN 10 MPH BELOW THE POSTED SPEED LIMIT.

HAULING OPERATIONS THAT PERPENDICULARLY CROSS A ROADWAY SHALL BE SUBJECT TO THE LANE, HOLIDAY AND SPECIAL EVENT TIME RESTRICTIONS DESCRIBED IN GENERAL NOTE "A".

EXCLUDING HAULING OPERATIONS THAT ARE CONDUCTED ENTIRELY BEHIND BARRIER OR GUARDRAIL, SINGLE AND MULTI-VEHICLE HAULING SHALL NOT BE ALLOWED INGRESS AND EGRESS FROM ANY OPEN TRAVELWAY DURING THE FOLLOWING TIME RESTRICTIONS:

E) DO NOT CONDUCT SINGLE-VEHICLE HAULING AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-26 I-26 RAMPS	MONDAY-FRIDAY 6:00 AM - 9:00 PM 4:00 PM - 7:00 PM

DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-26 I-26 RAMPS	MONDAY-FRIDAY 6:00 AM - 8:00 PM SATURDAY AND SUNDAY 8:00 AM - 9:00 PM
US 25 SR 1358 (FANNING BRIDGE RD)	MONDAY-FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 7:00 PM

LANE CLOSURE REQUIREMENTS

F) 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.

G) 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.

H) 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.

I) 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 REMAINS WITHIN THE CLOSED TRAVEL LANE.

J) 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.

K) DO NOT INSTALL MORE THAN ONE SIMULTANEOUS CLOSURE IN ANY ONE DIRECTION ON US 25 AND SR 1358 (FANNING BRIDGE RD).

L) DO NOT INSTALL MORE THAN TWO SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON I-26. PROVIDE A MINIMUM OF 2 MILES BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE LANE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE. THE MAXIMUM LENGTH OF EACH LANE CLOSURE SHALL BE 2 MILES FOR A SINGLE LANE CLOSURE AND 2.5 MILES FOR A DOUBLE LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE FIRST MERGE TAPER TO THE END OF THE LANE CLOSURE.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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.

N) 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' IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

O) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

P) 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.

Q) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

R) 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.

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

T) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500' IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

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APPROVED: DocuSigned by: Rhonda B. Early F34CAF5A05BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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TRANSPORTATION MANAGEMENT PLAN

GENERAL NOTES, LOCAL NOTES & MANAGEMENT STRATEGIES

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GENERAL NOTES

TRAFFIC BARRIER

U) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT 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 TRANSPORTATION MANAGEMENT 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.

V) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

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

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

TRAFFIC CONTROL DEVICES

W) 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 OPENED 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.

X) REFER TO HIGH VISIBILITY DEVICES SPECIAL PROVISION FOR DRUMS, STATIONARY WORK ZONE SIGNS AND PORTABLE WORK ZONE SIGNS USED ON I-26, RAMPS AND LOOPS.

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

Z) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

AA) PROVIDE 20 CHANGEABLE MESSAGE SIGNS FOR THE PURPOSE OF INCIDENT MANAGEMENT WITHIN THE I-26 WORK ZONE. SEE RTMS/STOC MANAGED PORTABLE CHANGEABLE MESSAGE SIGNS SPECIAL PROVISION.

PAVEMENT MARKINGS AND MARKERS

BB) REFER TO WORK ZONE PERFORMANCE PAVEMENT MARKINGS SPECIAL PROVISION FOR TEMORARY MARKINGS ON I-26 AND RAMPS.

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

ROAD NAME	MARKING	MARKER
ALL Y-LINES	PAINT	TEMPORARY RAISED
I-26	HIGH PERFORMANCE MARKINGS	TEMPORARY RAISED
ALL RAMPS	HIGH PERFORMANCE MARKINGS	TEMPORARY RAISED
FINAL CONCRETE SURFACES	COLD APPLIED PLASTIC (TYPE 4)	TEMPORARY RAISED
BRIDGES	COLD APPLIED PLASTIC (TYPE 4)	

DD) PLACE ONE APPLICATION OF PAINT FOR NON-INTERSTATE 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. SEE SPECIAL PROVISIONS FOR INTERSTATE TEMPORARY MARKING APPLICATIONS.

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

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

GG) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

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

II) ALL CURB 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.

JJ) LN-15 THE FOLLOWING APPLIES TO ALL TEMPORARY LANE CLOSURES ON I-26:
1. REFER TO THE HIGH VISIBILITY DEVICES SPECIAL PROVISIONS FOR DRUMS AND PORTABLE WORK ZONE SIGNS.
2. REFER TO THE CONNECTED LANE CLOSURE DEVICE SPECIAL PROVISION FOR THE PURPOSE OF TRANSMITTING THE LOCATION OF THE LANE CLOSURE TO NAVIGATION COMPANIES.
3. REFER TO THE SEQUENCIAL FLASHING WARNING LIGHTS SPECIAL PROVISION FOR DRUMS USED IN MERGING TAPERS.
4. REFER TO THE WORK ZONE PRESENCE LIGHTING SPECIAL PROVISION TO SUPPLEMENT CONSTRUCTION/TASK AND EQUIPMENT LIGHTING.

KK) ALL STRAIGHT LINE SHIFTS ON INTERSTATE SHALL BE DESIGNED FOR FULL L DISTANCE (L=WIDTH OF TRAFFIC SHIFT x SPEED LIMIT IN MPH). IN ADDITION, SOLID WHITE LINE PAVEMENT MARKING SHALL BE USED TO SEPARATE THE TRAVEL LANES IN STRAIGHT LINE SHIFTS EQUAL TO OR GREATER THAN 6' ON ANY ROAD HAVING TWO OR MORE LANES IN A DIRECTION.

LL) THE TEMPORARY DRAINAGE DESIGN SHOWN ON THESE PLANS WAS PROVIDED BY HNTB CORPORATION. CONTACT: JOHN BLANCETT, PE, ENV. SP. (JBLANCETT@HNTB.COM/(816)527-2539)

LOCAL NOTES

LN-1 PLACE TMA AS NEEDED TO PROTECT MOTORIST FROM UNFINISHED GUARDRAIL OR PCB INSTALLATION. (MAXIMUM 72 HOURS)

LN-2 COORDINATE ALL CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO PAVEMENT MARKING, LANE SHIFTS, PCB INSTALLATION, LANE CLOSURES, DRUM PLACEMENT AND PAVING WITH I-4400BB.

LN-3 TWO WEEKS PRIOR TO SHORT DURATION ROAD CLOSURE, PLACE CMS BOARDS (FOR EACH DIRECTION) AT CLOSURE POINT NOTIFYING THE PUBLIC OF SCHEDULED CLOSURES AND DELAYS. DURING CLOSURES, RELOCATE CMS BOARDS AND REVISE MESSAGE TO INDICATE DURATION OF OPERATION.

LN-4 UTILIZE ADDITIONAL CMS BOARDS TO PROVIDE ADVANCE WARNING AS DIRECTED BY THE ENGINEER.

LN-5 PLACE TEMPORARY APPROACH GUARDRAIL ANCHORS (GREU) AND LAP GUARDRAIL FOR TEMPORARY PATTERN.

LN-6 REMOVE TEMPORARY GUARDRAIL ANCHOR(S), PLACE FINAL GUARDRAIL ANCHORS AND CORRECT GUARDRAIL LAPPING.

LN-7 INSTALL ITS POLES, CAMERAS, AND DMS ACCORDING TO ITS PLANS.

LN-8 PARTIALLY CONSTRUCT DRAINAGE STRUCTURE WITH STEEL PLATE TO MATCH TEMPORARY PAVEMENT OR TEMPORARY GRADING ELEVATION.

LN-9 PARTIALLY CONSTRUCT DRAINAGE STRUCTURE WITH TEMPORARY GRATE TOP TO MATCH TEMPORARY DITCH OR PAVEMENT ELEVATION.

LN-10 EXTEND PIPE TO DRAIN.

LN-11 USE STEEL PLATE ON END OF PIPE STUB OR USE STEEL PLATE TO BLOCK PIPE OPENING IN STRUCTURE.

LN-12 CONSTRUCT TEMPORARY INLET AND PIPE. CONNECT AND DRAIN TO NEAREST STRUCTURE.

LN-13 CONSTRUCT PROPOSED INLET TO THE PERMANENT TOP ELEVATION, COVER GRATE OPENING WITH STEEL PLATE, AND TEMPORARY PAVE OVER.

LN-14 SHORING ACROSS MEDIAN IS PLACED TO AVOID EXISTING STRUCTURE, EXISTING UTLITIES AND/OR EXISTING PIPES.

LN-15 THE CONTRACTOR HAS A FLOATING START DATE OF OCT 28, 2019 TO APRIL 30, 2020 FOR THE REST AREAS AND WILL NEED TO PROVIDE NCDOT A MINIMUM OF 30 DAYS' NOTICE PRIOR TO START OF REST AREA CONSTRUCTION. THE CONTRACTOR WILL BE ALLOWED 455 DAYS FROM THE START OF CONSTRUCTION OF THE REST AREAS.

MANAGEMENT STRATEGIES

BEGIN BUTLER BRIDGE ROAD AND FANNING BRIDGE ROAD CONSTRUCTION BEFORE CONSTRUCTING I-26 WIDENING.

BUTLER BRIDGE ROAD OVER I-26:
- USING LANE CLOSURE, CONSTRUCT TEMPORARY CROSSOVERS ON I-26 NEAR BUTLER BRIDGE ROAD. DETOUR -Y11- AND CLOSE -Y11- BRIDGE OVER I-26 TO TRAFFIC. USING TEMPORARY CROSSOVERS, REMOVE EXISTING -Y11- BRIDGE OVER I-26. CONSTRUCT PROPOSED -Y11- BRIDGE OVER I-26 WHILE USING TEMPORARY CROSSOVER TO HANG BRIDGE GIRDERS.
- WHILE COMPLETING -Y11- BRIDGE SUPERSTRUCTURE AND BRIDGE APPROACHES, COMPLETE DETOUR 1 IN I-26 MEDIAN AND WIDEN I-26 WB.

FANNING BRIDGE ROAD OVER I-26:
CONSTRUCT -Y12- AS MUCH AS POSSIBLE, INCLUDING PCB AND TEMPORARY SHORING. DETOUR I-26 AT NIGHT WHEN HANGING GIRDERS. TEMPORARY PAVEMENT AND TEMPORARY SHORING WILL BE NEEDED TO CONSTRUCT PROPOSED RETAINING WALL NEAR -Y20-. USING FLAGGERS, COMPLETE -Y12- AND OPEN TO TRAFFIC. DETOUR I-26 AT NIGHT WHEN REMOVING EXISTING BRIDGE GIRDERS.

I-26:
- PHASE I INCLUDES PLACING TEMPORARY PAVEMENT AND SHIFTING TRAFFIC TO 11' LANES ALLOWING FOR THE PCB TO BE PLACED ALONG THE TEMPORARY MEDIAN EDGE. CONSTRUCT TEMPORARY MEDIAN PAVEMENT BEHIND BARRIER. (FOR WIDENING OF I-26 WB UNDER BUTLER BRIDGE RD, SEE ABOVE.)
- PHASE II, EB TRAFFIC IS SHIFTED TO THE TEMPORARY MEDIAN (CLOSE EB REST AREA) AND USING A SERIES OF TEMPORARY RAMP ALIGNMENTS WHERE NECESSARY (SEE PHASE IIA, IIB, AND IIC), CONSTRUCT THE PROPOSED OUTERMOST EB LANES (EXCEPT NEAR US 25).
- PHASE III, THE EB LANES ARE SHIFTED TO THE NEWLY CONSTRUCTED LANES AND THE WB LANES ARE SHIFTED TO THE MEDIAN (CLOSE WB REST AREA) WHILE THE WB LANES ARE CONSTRUCTED USING A SERIES OF TEMPORARY RAMP ALIGNMENTS WHERE NECESSARY (SEE PHASE IIIA, IIIB, AND IIIC).
- PHASE IV, SHIFT WB AND EB LANES NEAR US 25 TO THE NEWLY CONSTRUCTED WB LANES WHILE THE EB LANES ARE CONSTRUCTED.
- PHASE V, THE WB IS PLACED IN THE OUTERMOST WB LANES AND REMAINING ROADWAY AND MEDIAN CONSTRUCTION IS COMPLETED.

US 25 OVER I-26:
- PHASE I INCLUDES REMOVAL OF MEDIAN CURBS AND REPLACING PAVEMENT MARKING.
- PHASE II AND IIA IS THE STAGE CONSTRUCTION OF -Y10RPA-, TEMPORARY ACCESS RAMP, AND DETOUR.
- PHASE IIB SHIFTS -Y10RPA- TRAFFIC ONTO CONSTRUCTED PROPOSED RAMP AND DETOURS -Y10RPB- TRAFFIC ONTO TEMPORARY DETOUR VIA ORIGINAL -Y10RPA-. THEN CONSTRUCT -Y10RPB-.
- PHASE III SHIFT -Y10RPB- TRAFFIC ONTO CONSTRUCTED PROPOSED RAMP AND COMPLETE -Y10RPA-.
- PHASE IIIA STAGE CONSTRUCT -Y10RPC- AND -Y10RPD-.
- PHASE IIIB AND IIIC SHIFT TRAFFIC ON -Y10- BRIDGE OVER I-26, COMPLETE BRIDGE RAIL WORK, AND COMPLETE -Y10RPC- AND -Y10RPD-.
- PHASE IV UNDER ICT, DETOUR -Y10- AND CLOSE BRIDGE TO TRAFFIC. AWAY FROM TRAFFIC, COMPLETE -Y10- WEDGING, INSTALL DDI TEMPORARY PAVEMENT MARKINGS, AND TEMPORARY SIGNALS. INSTALL PCB ON BRIDGE AND OPEN BRIDGE TO -Y10- TRAFFIC IN DDI PATTERN.
- PHASE V, COMPLETE BRIDGE MEDIAN BARRIER, REMOVE PCB, AND OPEN BRIDGE TO FINAL TRAFFIC PATTERN. COMPLETE -Y10- MEDIAN ISLANDS.

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DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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

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TRANSPORTATION MANAGEMENT PLAN

GENERAL NOTES, LOCAL NOTES & MANAGEMENT STRATEGIES

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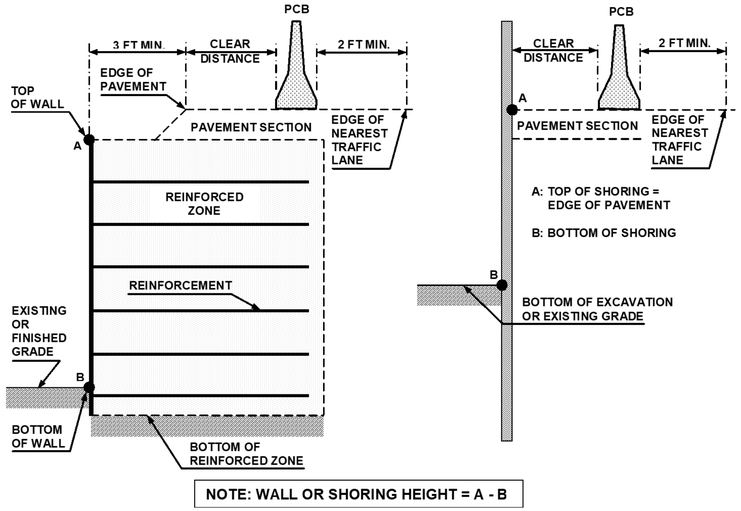

NOTE: WALL OR SHORING HEIGHT = A - B

FIGURE A

NOTES

1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.

2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).

3- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH 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 OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.

5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.

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

7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.

8- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.

9- FOR PCB ABOVE AND BEHIND TEMPORARY 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 FT 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	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

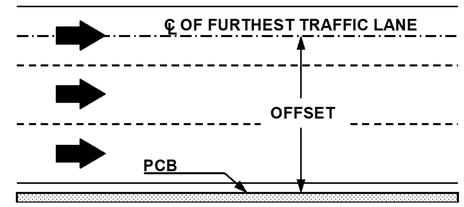

FIGURE B

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC0BF48A... DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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

TRANSPORTATION MANAGEMENT PLAN

PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

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SHORING NOTES

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 ROADWAY CONSTRUCTION FROM STATION -L- 654+50.0±, 22.5'± LT TO STATION -L- 658+45.0±, 22.5'± LT.

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 -L- 654+50.0±, 22.5'± LT TO STATION -L- 658+45.0±, 22.5'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2118 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 654+50.0±, 22.5'± LT TO STATION -L- 658+45.0±, 22.5'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- 654+50.0±, 22.5'± LT TO STATION -L- 658+45.0±, 22.5'± LT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

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 ROADWAY CONSTRUCTION FROM STATION -L- 655+50.0±, 16.5'± RT TO STATION -L- 658+75.0±, 16.5'± RT.

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 -L- 655+50.0±, 16.5'± RT TO STATION -L- 658+75.0±, 16.5'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2118 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 655+50.0±, 16.5'± RT TO STATION -L- 658+75.0±, 16.5'± RT THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- 655+50.0±, 16.5'± RT TO STATION -L- 658+75.0±, 16.5'± RT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING NO. 3

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

TEMPORARY SHORING IS REQUIRED FOR THE ROADWAY CONSTRUCTION FROM STATION -L- 660+50.0±, 22.5'± LT TO STATION -L- 667+25.0±, 22.5'± LT.

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 -L- 660+50.0±, 22.5'± LT TO STATION -L- 667+25.0±, 22.5'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2110 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 660+50.0±, 22.5'± LT TO STATION -L- 667+25.0±, 22.5'± LT THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- 660+50.0±, 22.5'± LT TO STATION -L- 667+25.0±, 22.5'± LT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING NO. 4

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

TEMPORARY SHORING IS REQUIRED FOR THE ROADWAY CONSTRUCTION FROM STATION -L- 660+80.0±, 16.5'± RT TO STATION -L- 666+00.0±, 16.5'± RT.

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 -L- 660+80.0±, 16.5'± RT TO STATION -L- 666+00.0±, 16.5'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2110 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 660+80.0±, 16.5'± RT TO STATION -L- 666+00.0±, 16.5'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- 660+80.0±, 16.5'± RT TO STATION -L- 666+00.0±, 16.5'± RT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING NO. 5

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT.

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 -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2100 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± LT TO STATION -L- 708+50±, 10.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 6

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT.

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 -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2100 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 707+50±, 10.0'± RT TO STATION -L- 708+50±, 10.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 7

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT.

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 -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± RT TO STATION -L- 755+50±, 17.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO DIVISON 14 ON MAY 17, 2019 BY PROFESSIONAL ENGINEER SHIPING YANG, Ph.D., P.E. LICENSE #031361

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC0BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY SHORING DATA

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SHORING NOTES

TEMPORARY SHORING NO. 8

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT.

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 -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT , FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 754+00±, 17.0'± LT TO STATION -L- 755+50±, 17.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 9

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT.

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 -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± RT TO STATION -L- 758+25±, 17.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 10

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT CONSTRUCTION FROM STATION -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT.

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 -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT , FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 757+00±, 17.0'± LT TO STATION -L- 758+25±, 17.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 11

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+00±, 10.0'± LT.

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 -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2130 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+00±, 10.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+00±, 10.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+00±, 10.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+00±, 10.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 12

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT.

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 -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2130 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± LT TO STATION -L- 815+62±, 10.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 13

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT.

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 -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2130 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 815+00±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO DIVISON 14 ON MAY 17, 2019 BY PROFESSIONAL ENGINEER SHIPING YANG, Ph.D., P.E. LICENSE #031361

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC0BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY SHORING DATA

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9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2A.2

SHORING NOTES

TEMPORARY SHORING NO. 14

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT.

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 -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 32 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y12- 20+50±, 18.0'± RT TO STATION -Y12- 22+00±, 30.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 15

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT.

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 -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 32 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2050 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y12- 23+65±, 28.0'± RT TO STATION -Y12- 24+25±, 28.0'± RT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 16

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

TEMPORARY SHORING IS REQUIRED FOR THE ROADWAY CONSTRUCTION FROM STATION -Y10RPD- 24+75.0±, 45.0'± RT TO STATION -Y10RPD- 28+70.0±, 9.7'± RT.

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 -Y10RPD- 24+75.0±, 45.0'± RT TO STATION -Y10RPD- 28+70.0±, 9.7'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2080 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y10RPD- 24+75.0±, 45.0'± RT TO STATION -Y10RPD- 28+70.0±, 9.7'± RT THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -Y10RPD- 24+75.0±, 45.0'± RT TO STATION -Y10RPD- 28+70.0±, 9.7'± RT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING NO. 17

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT.

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 -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2130 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 815+62±, 10.0'± RT TO STATION -L- 815+62±, 10.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 18

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT.

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 -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2135 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT, THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y12- 26+80±, 5.5'± LT TO STATION -Y12- 28+50±, 9.0'± LT. FOR TEMPORARY SOIL NAIL WALLS, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING NO. 19

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

TEMPORARY SHORING IS REQUIRED FOR THE ROADWAY CONSTRUCTION FROM STATION -Y12- 27+20.0±, 35.0'± RT TO STATION -Y12- 28+40.0±, 30.0'± RT.

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 -Y12- 27+20.0±, 35.0'± RT TO STATION -Y12- 28+40.0±, 30.0'± RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
UNIT WEIGHT γ = 120 LB/CF
FRICTION ANGLE φ= 30 DEGREES
COHESION c = 0 LB/SF
GROUNDWATER ELEVATION = 2135 FT ±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -Y12- 27+20.0±, 35.0'± RT TO STATION -Y12- 28+40.0±, 30.0'± RT THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -Y12- 27+20.0±, 35.0'± RT TO STATION -Y12- 28+40.0±, 30.0'± RT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO DIVISON 14 ON MAY 17, 2019 BY PROFESSIONAL ENGINEER SHIPING YANG, Ph.D., P.E. LICENSE #031361

APPROVED: DocuSigned by: Rhonda B. Early F3ACAF5AC6BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY SHORING DATA

2:59:51 PM
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9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2B

SIGN NUMBER: SP-2
TYPE: D
QUANTITY: X

SIGN WIDTH: 6'-6"
HEIGHT: 1'-6"
TOTAL AREA: 9.8 Sq.Ft.

BORDER TYPE: RECESSED
RECESS: 0.38"
WIDTH: 0.38"
RADII: 1.5"

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

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

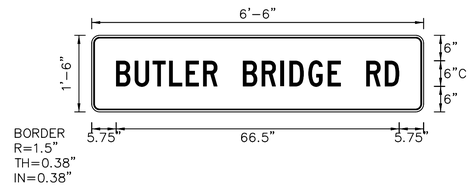
SYMBOL	X	Y	WID	HT

MAT'L: 0.125" ALUMINUM

NOTES:

1. Legend and border shall be direct applied non-reflective sheeting.
2. Background shall be Grade B, fluorescent orange, reflective sheeting.
3. To be mounted with Detour signing.

DESIGN BY: TRT CHECKED BY: ADK
PROJECT ID: I-4400C DIV: 14 DATE: March 2019



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																														Series/Size Text Length
		B	U	T	L	E	R		B	R	I	D	G	E		R	D													C 2000
	5.7	4.4	4.2	3.9	3.9	4.1	3.4	6	4.4	4.4	2.2	4.4	4.6	3.1	6	4.4	3.4	5.7												66.5

NOTES:

1. Legend and border shall be silk-screened or reverse silk-screened opaque black ink.
2. Background shall be Grade C reflective sheeting.

SIGN NUMBER: SP-1
TYPE: E
QUANTITY: X

SIGN WIDTH: 4'-0"
HEIGHT: 5'-0"
TOTAL AREA: 20.0 Sq.Ft.

BORDER TYPE: RECESSED
RECESS: 0.75"
WIDTH: 1.25"
RADII: 3"

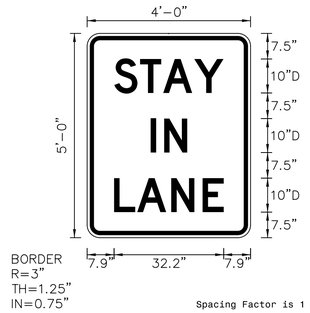
NO. Z BARS: N/A
LENGTH: N/A

BACKG COLOR: White
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.125" ALUMINUM

DESIGN BY: TRT CHECKED BY: ADK
PROJECT ID: I-4400C DIV: 14 DATE: March 2019



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacing's are to start of next letter

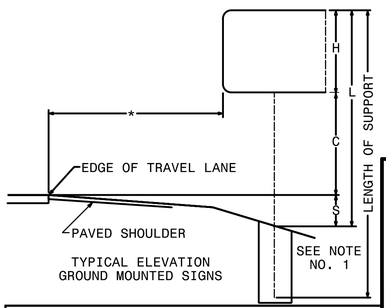
																														Series/Size Text Length
		S	T	A	Y																									D 2000
	8	7.6	6.8	9.1	8.6	8																								32.1
		I	N																											D 2000
	18.6	4	6.8	18.6																										10.8
		L	A	N	E																									D 2000
	7.9	6.8	10	9.2	6.2	7.9																								32.2

Version: 3.1 Posted: 6/2/2017

SIGN NUMBER	SIGN TYPE	SIZE (in.) w	x	h	ROADWAY STATION	NUMBER OF SUPPORTS	BEAM SECTION	SUPPORT TYPE BA or S	ATTACHMENT METHOD	MOUNTING METHOD	HORIZONTAL CLEARANCE* (ft.)	SUPPORT SPACING	LENGTH (ft) SNS HT H	MTG HT C	EMBED-MENT	LEFT SUPPORT (ft) S	L	LENGTH	CENTER SUPPORT (ft) S	L	LENGTH	RIGHT SUPPORT (ft) S	L	LENGTH	WOOD SUPPORT (LF)	FIELD VERIFIED (mm/dd/yy)
Exit 44 WB ED Phase 3	B A	96 168	x x	30 168	-L- 648+93 +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 1	B A	96 168	x x	30 168	-L- 692+00 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 2	B A	96 168	x x	30 168	-L- 698+50 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 2A	B A	96 168	x x	30 168	-L- 691+00 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 2B	B A	96 168	x x	30 168	-L- 704+10 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 3	B A	96 168	x x	30 168	-L- 701+10 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 4	B A	96 168	x x	30 168	-L- 701+00 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____
Exit 44 EB ED Phase 5	B A	96 168	x x	30 168	-L- 696+85 LT +/-	2	8in x 15in	S	1-R N/A	N/A N/A	15.00	8.20	14.00	7.00	6.50	3.00	24.00	30.50	0.00	0.00	0.00	5.00	26.00	32.50	63.00	_____

NOTES:

1. DIMENSION "S" REPRESENTS AN INCREASE (+), OR A DECREASE (-) IN POLE LENGTH, RELATIVE TO THE ELEVATION OF THE EDGE OF TRAVEL LANE. DIMENSION "S" TO BE CONFIRMED IN THE FIELD.
2. FIELD VERIFICATIONS SHALL BE REQUIRED FOR ALL SUPPORTS, SEE (*) ARTICLE 903-3. FABRICATORS SHALL BE AISC CERTIFIED IN CATEGORY 1, SEE (*) ARTICLE 1072-1. (*) = N.C.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
3. REFER TO ROADWAY STANDARD DRAWING 903.20 FOR SUPPORT SPACING AND INSTALLATION OF GROUND MOUNTED SIGNS ON WOOD POSTS.
4. PLAN LOCATIONS FOR EXISTING UTILITIES ARE BASED ON THE BEST AVAILABLE INFORMATION AND, THEREFORE MAY NOT BE PRECISELY ACCURATE. THEREFORE, IT IS INCUMBENT UPON THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF UTILITIES BEFORE BEGINNING WORK IN A LOCATION.
5. LOCATE SIGNS BEHIND BARRIER OR GUARDRAIL SO THAT THE POST CANNOT BE HIT BY TRAFFIC.



TYPICAL ELEVATION GROUND MOUNTED SIGNS

TOTAL 504.00

USE: 505.00

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Andrew Klinksiek E3D78FB4596E44B...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 40311 ENGINEER ANDREW D. KLINKSIEK

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

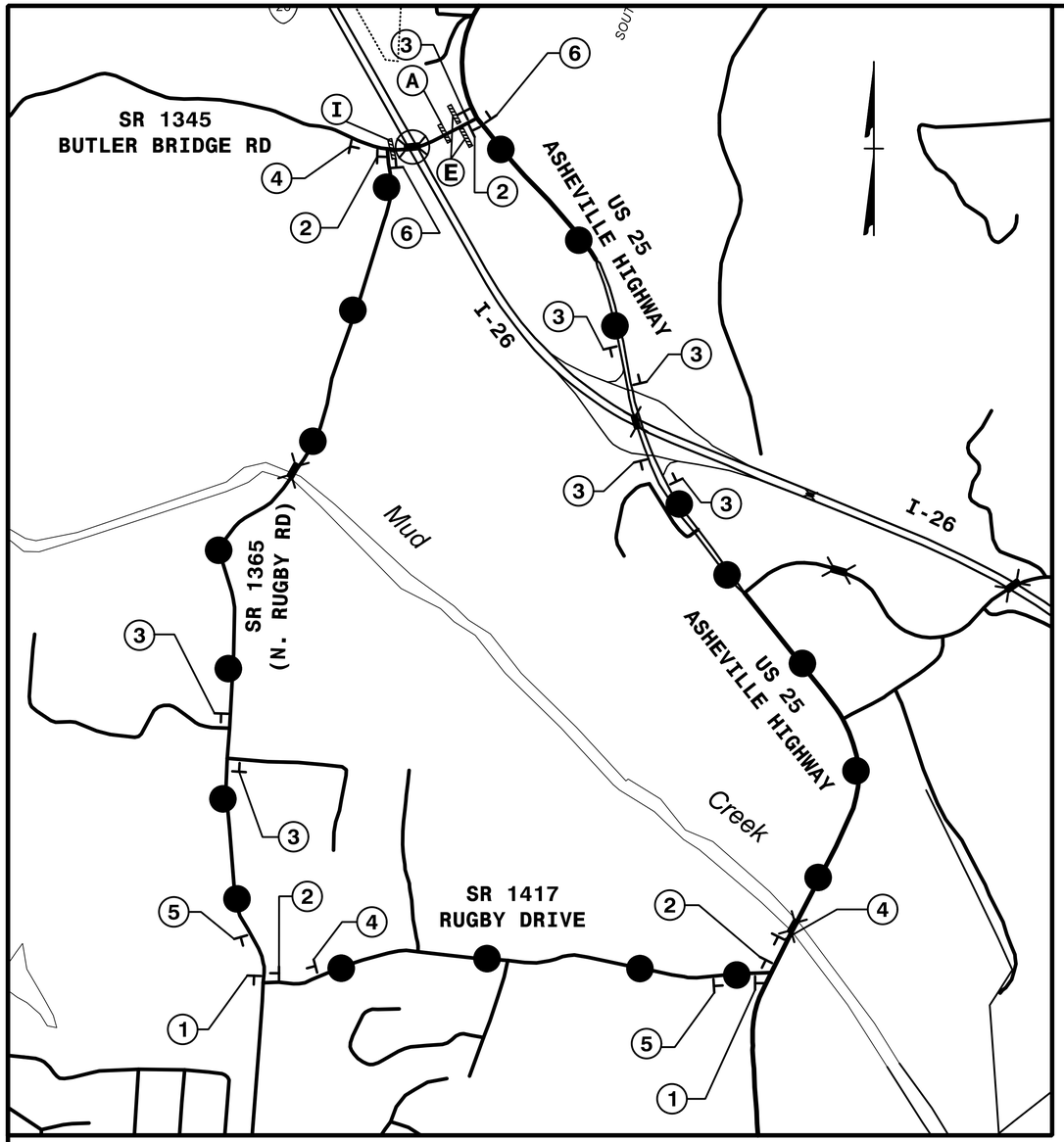
DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL *

TRANSPORTATION MANAGEMENT PLAN

TEMPORARY SIGN DESIGN

7:25:20 PM
I:\TCP\I4400C_Detour Signs.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2C



① **BUTLER BRIDGE RD** SP-2
DETOUR M4-8 24″ X 12″
M6-1 L 21″ X 15″

② **BUTLER BRIDGE RD** SP-2
DETOUR M4-8 24″ X 12″
M6-1 21″ X 15″

③ **BUTLER BRIDGE RD** SP-2
DETOUR M4-8 24″ X 12″
M6-3 21″ X 15″

④ **BUTLER BRIDGE RD** SP-2
DETOUR M4-8 24″ X 12″
M5-1 R 21″ X 15″

⑤ **BUTLER BRIDGE RD** SP-2
DETOUR M4-8 24″ X 12″
M5-1 21″ X 15″

⑥ END DETOUR M4-8 A 24″ X 18″

Ⓐ R11-2 48″ x 30″
ROAD CLOSED
TYPE III BARRICADE

Ⓔ R11-4 60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10L 48″ x 18″
TYPE III BARRICADE

Ⓘ R11-2 48″ x 30″
ROAD CLOSED
DETOUR
M4-10R 48″ x 18″
TYPE III BARRICADE

*USE RSD 1101.03 (SHEETS 1 AND 2 OF 9)
FOR ADDITIONAL ADVANCE WARNING SIGNS

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC6BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

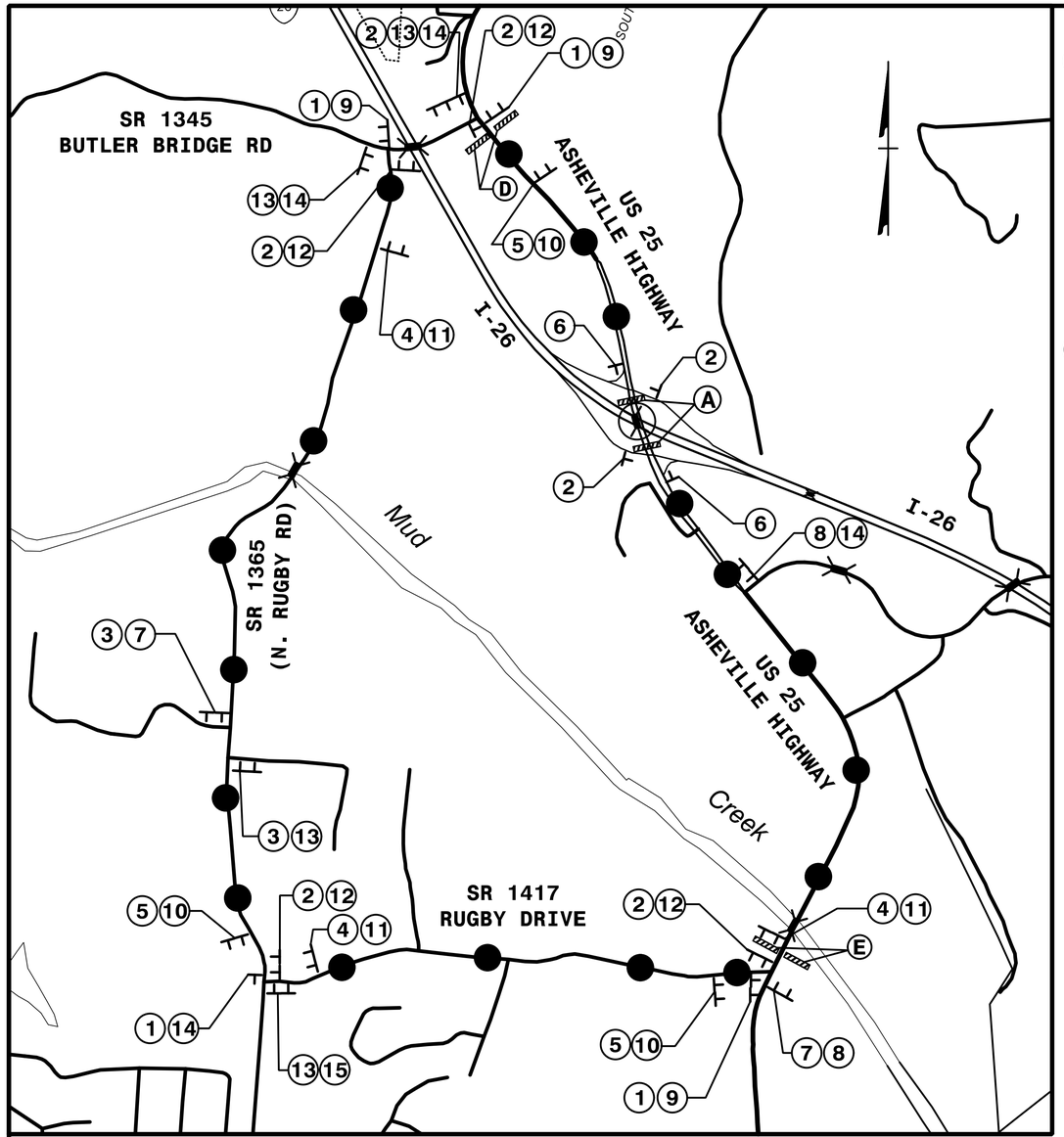
TRANSPORTATION MANAGEMENT PLAN

BUTLER BRIDGE ROAD DETOUR

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

3:00:04 PM
V:\4400C_tc_AI_DETOUR BUTLER BRIDGE.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2D



① DETOUR M4–8 24″ X 12″
25 M1–4
M6–1 L 21″ X 15″

② DETOUR M4–8 24″ X 12″
25 M1–4
M6–1 21″ X 15″

③ DETOUR M4–8 24″ X 12″
25 M1–4
M6–3 21″ X 15″

④ DETOUR M4–8 24″ X 12″
25 M1–4
M5–1 R 21″ X 15″

⑤ DETOUR M4–8 24″ X 12″
25 M1–4
M5–1 21″ X 15″

⑥ END DETOUR M4–8 A 24″ X 18″

⑦ TO M4–5 24″ X 12″
EAST M3–2 24″ X 12″
INTERSTATE 26 M1–1
M6–3 21″ X 15″

⑧ TO M4–5 24″ X 12″
WEST M3–4 24″ X 12″
INTERSTATE 26 M1–1
M6–1 L 21″ X 15″

⑨ TO M4–5 24″ X 12″
EAST M3–2 24″ X 12″
INTERSTATE 26 M1–1
M6–1 L 21″ X 15″

⑩ TO M4–5 24″ X 12″
EAST M3–2 24″ X 12″
INTERSTATE 26 M1–1
M5–1 21″ X 15″

⑪ TO M4–5 24″ X 12″
WEST M3–4 24″ X 12″
INTERSTATE 26 M1–1
M5–1 R 21″ X 15″

⑫ TO M4–5 24″ X 12″
WEST M3–4 24″ X 12″
INTERSTATE 26 M1–1
M6–1 21″ X 15″

⑬ TO M4–5 24″ X 12″
WEST M3–4 24″ X 12″
INTERSTATE 26 M1–1
M6–3 21″ X 15″

⑭ TO M4–5 24″ X 12″
EAST M3–2 24″ X 12″
INTERSTATE 26 M1–1
M6–1 21″ X 15″

⑮ TO M4–5 24″ X 12″
EAST M3–2 24″ X 12″
INTERSTATE 26 M1–1
M5–1 R 21″ X 15″

⑯

MESSAGE NO. 1	MESSAGE NO. 2
US-25	XX/XX/XX
BRIDGE	TO
CLOSED	XX/XX/XX

CHANGEABLE MESSAGE SIGN

Ⓐ R11-2 48″ x 30″
ROAD CLOSED
TYPE III BARRICADE

Ⓓ R11-4 60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10R 48″ x 18″
TYPE III BARRICADE

Ⓔ R11-4 60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10L 48″ x 18″
TYPE III BARRICADE

* USE RSD 1101.03 (SHEETS 1 AND 2 OF 9) FOR ADDITIONAL ADVANCE WARNING SIGNS

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC0BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

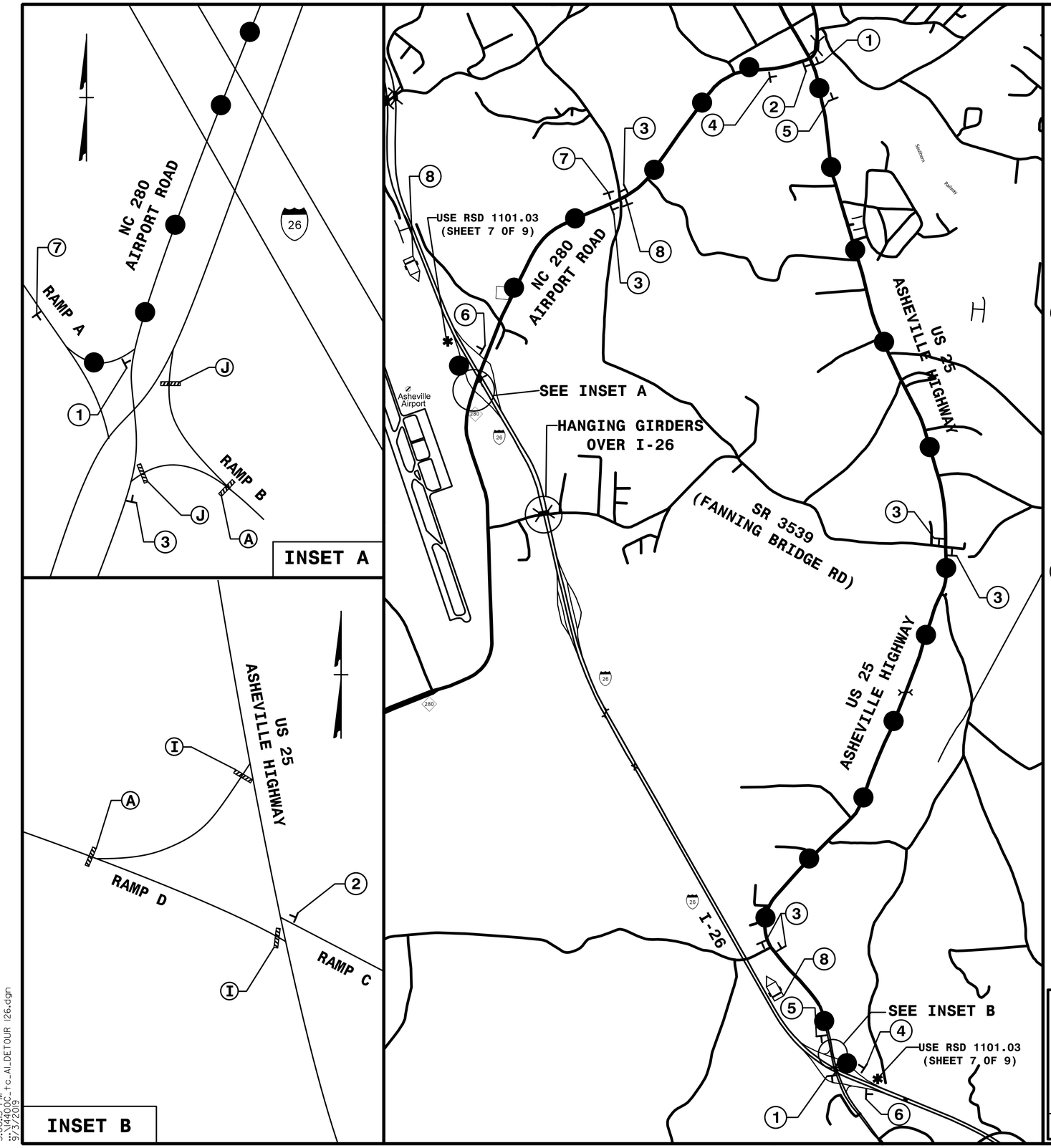
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

US 25 DETOUR

3:00:08 PM
...\I4400C_tc_AI_DETOUR US 25.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2E



1 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M6-1 L 21″ X 15″

2 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M6-1 21″ X 15″

3 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M6-3 21″ X 15″

4 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M5-1 R 21″ X 15″

5 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M5-1 21″ X 15″

6 END DETOUR M4-8 A 24″ X 18″

7 DETOUR M4-8 24″ X 12″
EAST M3-2 24″ X 12″
INTERSTATE 26 M1-1
M6-2 L 21″ X 15″

8 **PLACE TWO WEEKS IN ADVANCE**

MESSAGE NO. 1	MESSAGE NO. 2
I-26 CLOSED AT NITE	XX/XX/XX TO XX/XX/XX

CHANGEABLE MESSAGE SIGN

(RELOCATE DURING CLOSURE)

J R11-2 48″ x 30″ ROAD CLOSED DETOUR M4-10L 48″ x 18″
TYPE III BARRICADE

A R11-2 48″ x 30″ ROAD CLOSED
TYPE III BARRICADE

I R11-2 48″ x 30″ ROAD CLOSED DETOUR M4-10R 48″ x 18″
TYPE III BARRICADE

*USE RSD 1101.03 (SHEET 7 OF 9) FOR ADDITIONAL ADVANCE WARNING SIGNS

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC6BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

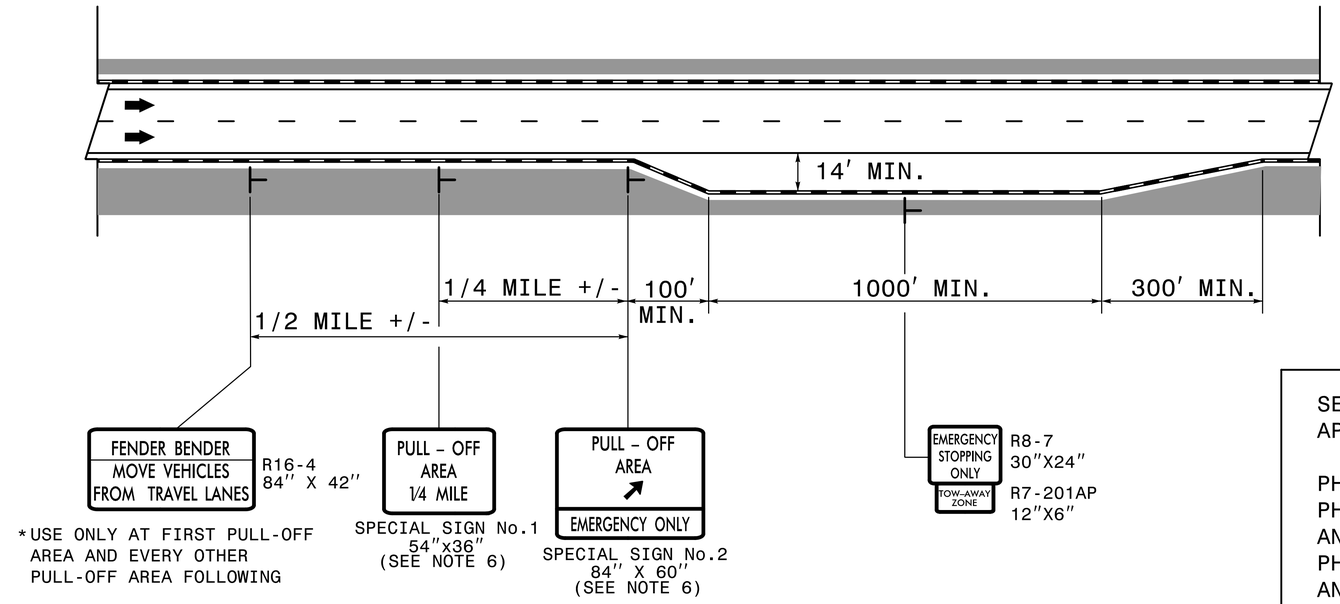
TRANSPORTATION MANAGEMENT PLAN

I-26 DETOUR FOR HANGING GIRDERS AT FANNING BRIDGE ROAD

3:00:15 PM
\I4400C_tc_AI_DETOUR I26.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2F

EMERGENCY PULL-OFF AREA DETAIL



SEE OVERVIEWS FOR PULL-OFF AREA APPROXIMATE LOCATIONS

PHASE I: -L- STA 726+40+/- (WB);
PHASE II: -L- STA 779+20+/-
AND -L- STA 726+40+/- (EB);
PHASE III: -L- STA 740+00+/-
AND -L- STA 801+00+/- (WB);

GENERAL NOTES FOR EMERGENCY PULL-OFF AREAS

1. PULL-OFF AREAS SHALL BE PROVIDED IN WORK ZONES ALONG FULL CONTROL OF ACCESS HIGHWAYS WHERE INSUFFICIENT SHOULDERS EXIST FOR TWO MILES OR GREATER. INSUFFICIENT SHOULDERS EXIST WHEN 10′ OF PAVED RIGHT SHOULDER IS NOT CONSISTENTLY AVAILABLE FOR MOTORIST USE.

2. THE APPROXIMATE LOCATIONS OF PULL-OFF AREAS ARE SHOWN ON THE APPLICABLE TMP DETAIL SHEETS. LOCATIONS CAN BE ADJUSTED WITH APPROVAL FROM THE ENGINEER. APPROXIMATE SPACING OF THE PULL-OFF AREAS IS BASED ON THE FOLLOWING GUIDELINES:
   - FOR AREAS WITH INSUFFICIENT SHOULDERS UP TO 3.0 MILES IN LENGTH, ONE PULL-OFF AREA APPROXIMATELY CENTERED IN THE WORK ZONE.
   - FOR AREAS WITH INSUFFICIENT SHOULDERS GREATER THAN 3.0 MILES IN LENGTH, ONE PULL-OFF AREA EVERY MILE.

3. PULL-OFF AREAS SHALL BE A MINIMUM OF 1000′ LONG. THE WIDTH OF PULL-OFF AREAS SHALL BE 14′ AND SHALL CONSIST OF A PAVED SURFACE.

4. PORTABLE CONCRETE BARRIER SHALL ONLY BE USED IF WARRANTED BY FIELD CONDITIONS.

5. REFER TO NEXT SHEET FOR SPECIAL SIGN DESIGNS.

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5A06BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TRANSPORTATION MANAGEMENT PLAN

EMERGENCY PULL-OFF AREA

3:00:20 PM
I-4400C_Pull-Off Areas_Detail_TMP-002F.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2G

SIGN NUMBER: SP18267
TYPE: D
QUANTITY: 1
SIGN WIDTH: 4′-6″
HEIGHT: 3′-0″
TOTAL AREA: 13.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 1.25″
RADII: 3″
NO. Z BARS: N/A
LENGTH: N/A

BACKG COLOR: Orange
COPY COLOR: Black

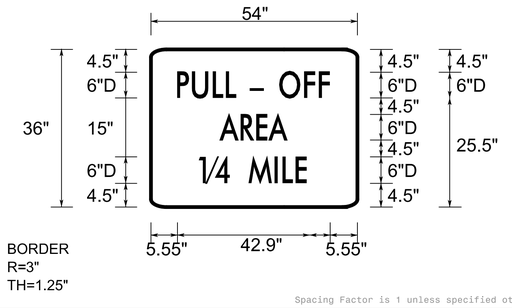
SYMBOL	X	Y	WID	HT

MAT'L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2

1. Legend and border (exept those that are colored black) shall be direct applied Grade B sheeting.
2. Background shall be Grade B reflective sheeting.

DESIGN BY: W. Johnson
CHECKED BY: AIA
DATE: Oct 30, 2018
PROJECT ID:
DIV: 5



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																												Series/Size Text Length
		P	U	L	L		-		O	F	F																	D 2000
	5.6	5	5.5	4.6	3.7	4	2.1	4	5.6	4.6	3.7	5.6																42.9
		A	R	E	A																							D 2000
	16.8	6	5.1	4.2	5.1	16.8																						20.4
		1/4		M	I	L	E																					D 2000
	11.6	7.9	6	6.1	2.4	4.6	3.7	11.6																				30.8

FILENAME: Full_Off

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SP18266
TYPE: A
QUANTITY: 1
SIGN WIDTH: 7′-0″
HEIGHT: 5′-0″
TOTAL AREA: 35.0 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 1.25″
RADII: 3″
NO. Z BARS: 2
LENGTH: 76.0

BACKG COLOR: Orange-Top/White-Bottom
COPY COLOR: Black

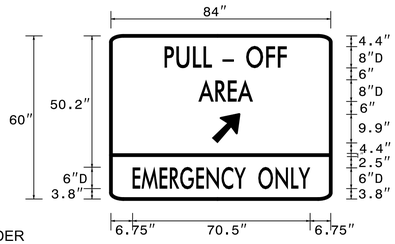
SYMBOL	X	Y	WID	HT
AR_Type A	37	17.7	8	12.6

MAT'L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2,3

1. Legend and border (exept those that are colored black) shall be direct applied Grade B sheeting.
2. Background shall be Grade B reflective sheeting.
3. Shields: A, B, and C type arrows shall be on 0.032″ (0.8mm) aluminum and demountable.

DESIGN BY: W. Johnson
CHECKED BY: AIA
DATE: Oct 30, 2018
PROJECT ID:
DIV: 5



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																												Series/Size Text Length
		P	U	L	L		-		O	F	F																	D 2000
	10.8	6.6	7.4	6.2	5	8	2.8	8	7.4	6.2	5	10.8																62.5
		A	R	E	A																							D 2000
	28.4	8	6.8	5.6	6.8	28.4																						27.2
		E	M	E	R	G	E	N	C	Y		O	N	L	Y													D 2000
	6.8	4.7	6.1	4.7	5	5.4	4.7	5.4	4.9	5.2	4	5.6	5.5	4.1	5.2	6.8												70.5

FILENAME: Full_Off

NORTH CAROLINA D.O.T. SIGN DETAIL

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F3ACAF5AC6BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

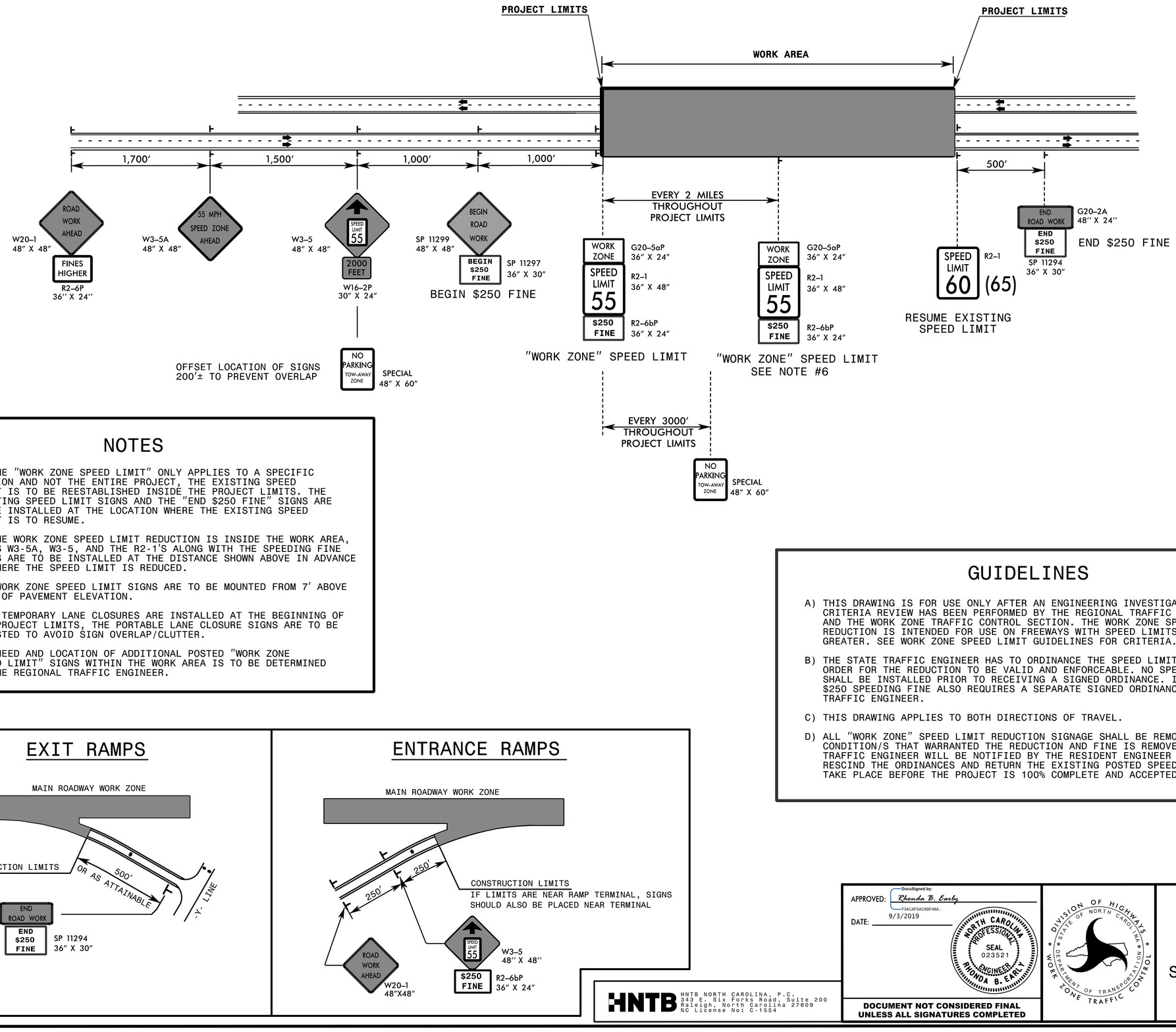
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TRANSPORTATION MANAGEMENT PLAN EMERGENCY PULL-OFF AREA SPECIAL SIGN DESIGNS

3:00:24 PM
I:\I4400C_Pull-Off Areas_Special Signs_TMP-002G.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2H



NOTES

1) IF THE ″WORK ZONE SPEED LIMIT″ ONLY APPLIES TO A SPECIFIC PORTION AND NOT THE ENTIRE PROJECT, THE EXISTING SPEED LIMIT IS TO BE REESTABLISHED INSIDE THE PROJECT LIMITS. THE EXISTING SPEED LIMIT SIGNS AND THE ″END $250 FINE″ SIGNS ARE TO BE INSTALLED AT THE LOCATION WHERE THE EXISTING SPEED LIMIT IS TO RESUME.

2) IF THE WORK ZONE SPEED LIMIT REDUCTION IS INSIDE THE WORK AREA, SIGNS W3-5A, W3-5, AND THE R2-1'S ALONG WITH THE SPEEDING FINE SIGNS ARE TO BE INSTALLED AT THE DISTANCE SHOWN ABOVE IN ADVANCE OF WHERE THE SPEED LIMIT IS REDUCED.

3) THE WORK ZONE SPEED LIMIT SIGNS ARE TO BE MOUNTED FROM 7′ ABOVE EDGE OF PAVEMENT ELEVATION.

4) WHEN TEMPORARY LANE CLOSURES ARE INSTALLED AT THE BEGINNING OF THE PROJECT LIMITS, THE PORTABLE LANE CLOSURE SIGNS ARE TO BE ADJUSTED TO AVOID SIGN OVERLAP/CLUTTER.

5) THE NEED AND LOCATION OF ADDITIONAL POSTED ″WORK ZONE SPEED LIMIT″ SIGNS WITHIN THE WORK AREA IS TO BE DETERMINED BY THE REGIONAL TRAFFIC ENGINEER.

GUIDELINES

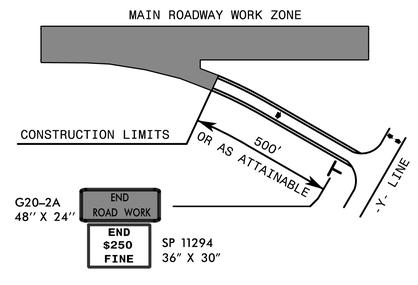
A) THIS DRAWING IS FOR USE ONLY AFTER AN ENGINEERING INVESTIGATION AND CRITERIA REVIEW HAS BEEN PERFORMED BY THE REGIONAL TRAFFIC ENGINEER AND THE WORK ZONE TRAFFIC CONTROL SECTION. THE WORK ZONE SPEED LIMIT REDUCTION IS INTENDED FOR USE ON FREEWAYS WITH SPEED LIMITS 65 MPH OR GREATER. SEE WORK ZONE SPEED LIMIT GUIDELINES FOR CRITERIA.

B) THE STATE TRAFFIC ENGINEER HAS TO ORDINANCE THE SPEED LIMIT REDUCTION IN ORDER FOR THE REDUCTION TO BE VALID AND ENFORCEABLE. NO SPEED LIMIT SIGNS SHALL BE INSTALLED PRIOR TO RECEIVING A SIGNED ORDINANCE. IN ADDITION, THE $250 SPEEDING FINE ALSO REQUIRES A SEPARATE SIGNED ORDINANCE BY THE STATE TRAFFIC ENGINEER.

C) THIS DRAWING APPLIES TO BOTH DIRECTIONS OF TRAVEL.

D) ALL ″WORK ZONE″ SPEED LIMIT REDUCTION SIGNAGE SHALL BE REMOVED WHEN THE CONDITION/S THAT WARRANTED THE REDUCTION AND FINE IS REMOVED. THE REGIONAL TRAFFIC ENGINEER WILL BE NOTIFIED BY THE RESIDENT ENGINEER AT THIS TIME TO RESCIND THE ORDINANCES AND RETURN THE EXISTING POSTED SPEED LIMIT. THIS SHOULD TAKE PLACE BEFORE THE PROJECT IS 100% COMPLETE AND ACCEPTED FOR MAINTENANCE.

EXIT RAMPS



ENTRANCE RAMPS

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC6BF48A...

DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TRANSPORTATION MANAGEMENT PLAN

″WORK ZONE″ SPEED LIMIT REDUCTION

3:00:29 PM
V:\TCP\I4400C_tc_WZSLR.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-2I

SIGN NUMBER: SP12016
TYPE: A
QUANTITY:

SIGN WIDTH: 4′-0″
HEIGHT: 5′-0″
TOTAL AREA: 20.0 Sq.Ft.

BORDER TYPE: RECESSED
RECESS: 0.75″
WIDTH: 1.25″
RADII: 3″

NO. Z BARS: 2
LENGTH: 40.0

BACKG COLOR: White
COPY COLOR: Red

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

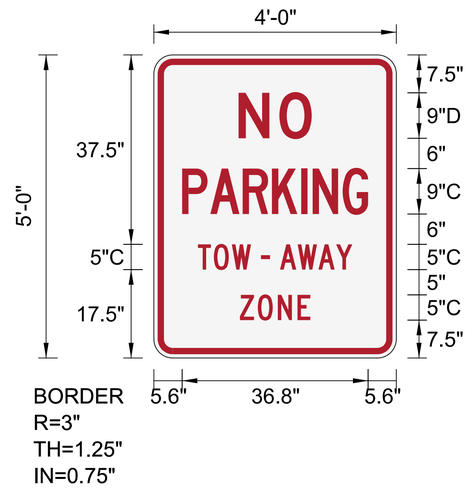
DESIGN BY: J Navarrete
PROJECT ID: I-4400

CHECKED BY:
DIV: 13 & 14

DATE: Mar 11, 2019

USE NOTES: 1,2

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.



Spacing Factor is 0.5 for ″PARKING″

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		N	O																								D 2000
	16.8	8.1	6.4	16.8																							14.5
		P	A	R	K	I	N	G																			C 2000
	5.6	5.6	6.4	5.8	5.8	2.2	5.9	5	5.6																		36.8
		T	O	W		-		A	W	A	Y																C 2000
	8.7	3.1	3.6	3.8	2	1.8	2	3.5	4.1	3.5	3.2	8.7															30.6
		Z	O	N	E																						C 2000
	17	3.5	4	3.9	2.6	17																					14

FILENAME: No Parking Design

NORTH CAROLINA D.O.T. SIGN DETAIL

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC6BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TRANSPORTATION MANAGEMENT PLAN
NO PARKING
TOW-AWAY SPECIAL
SIGN DESIGN

3:00:33 PM
\\14400_I4700_tow away sign design.dgn
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-03

PHASING

NOTES:

REPLACE MARKINGS AND RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE A COMBINATION OF INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, AND TEMPORARY DITCHES.

PAVE PROPOSED CONSTRUCTION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER IN THE PHASING.

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWINGS".

PHASE I (SEE TMP-4 THRU TMP-4B FOR OVERVIEWS)

*** REFER TO SHEETS TMP-6 THRU TMP-27 FOR DETAILS ***

STEP 1: USING RSD 1101.01 (SHEET 2 AND 3), INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L-, -Y10-, -Y11-, -Y12-, -Y17-, -Y20-, -Y21-, AND -Y23-.

NOTE: STEPS 2 AND 3 MAY BE COMPLETED INDEPENDENT OF STEPS 4 THRU 8 UNTIL STATED OTHERWISE.

NOTE: DURING -Y11- OFFSITE DETOUR, NO LANE CLOSURES ON THE DETOUR ROUTE WILL BE ALLOWED.

STEP 2: COMPLETE STEPS 2.1 THRU 2.7 FOR -Y11- (BUTLER BRIDGE ROAD). REFER TO SHEETS TMP-6 AND TMP-7.

2.1 USING RSD 1101.02 (SHEET 4 OF 14), CONSTRUCT TEMPORARY PAVEMENT FOR MEDIAN CROSSOVERS FROM -L- STA 700+50+/- TO STA 707+41+/- AND FROM -L- STA 711+00+/- TO STA 717+71+/-. (TMA OR TEMPORARY ANCHOR IS REQUIRED TO PROTECT PARTIALLY REMOVED GUARDRAIL.) INSTALL PCB ALONG MEDIAN OF WB AND EB LANES FROM STA 705+25+/- TO STA 712+25+/-.

PLACE AND COVER DETOUR SIGNS AS SHOWN ON SHEET TMP-2C.

COMPLETE THE REQUIREMENTS OF PHASE I, STEPS 2.2 THRU 2.7 IN ONE-HUNDRED-EIGHTY (180) CONSECUTIVE CALENDAR DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

2.2 USING OFF-SITE DETOUR (TMP-2C) AND SHEET TMP-6, UNCOVER DETOUR SIGNS AND CLOSE -Y11- (BUTLER BRIDGE RD) TO TRAFFIC. ACTIVATE TEMPORARY SIGNAL AT US 25.

2.3 USING RSD 1101.03 (SHEET 6 OF 9) FOR NIGHT-TIME CROSS-OVERS, REMOVE EXISTING -Y11- BRIDGE.

2.4 AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* INSTALL TEMPORARY SHORING #5 AND #6 TO REMOVE AND REPLACE MEDIAN FOOTING. REMOVE SHORING WHEN NO LONGER NEEDED.
* CONSTRUCT PROPOSED -Y11- BRIDGE BENTS AND APPROACHES
* CONSTRUCT -Y11- FROM STA 15+20+/- TO STA 21+80+/- (NOT BRIDGE)

USING RSD 1101.02 (SHEET 1 OF 14), WEDGE AND WIDEN -Y11- FROM STA 10+80+/- TO 15+20+/- AND -Y23- FROM STA 12+16+/- TO -Y11-. INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AND SHIFT TO FINAL PATTERN.

2.5 USING RSD 1101.03 (SHEET 6 OF 9) AS NEEDED FOR NIGHT-TIME CROSS-OVERS, CONSTRUCT PROPOSED -Y11- BRIDGE.

2.6 USING RSD 1101.02 (SHEETS 1, 2, & 3 OF 14) AND FLAGGERS AS NEEDED, CONSTRUCT -Y11- FROM STA 21+80+/- TO US 25.

PLACE TEMPORARY PAVEMENT MARKING IN FINAL PATTERN ON -Y11- AND ACTIVATE FINAL SIGNAL.

2.7 COVER / REMOVE DETOUR SIGNING PLACED IN STEP 2.1 AND OPEN -Y11- TO TRAFFIC.

STEP 3: COMPLETE STEPS 3.1 THRU 3.9 FOR -Y12- (FANNING BRIDGE ROAD). REFER TO SHEETS TMP-8 AND TMP-9.

3.1 USING RSD 1101.02 (SHEET 4 OF 14), PLACE PCB WITH CRASH CUSHIONS ALONG EB MEDIAN FROM STA 813+50+/- TO STA 819+50+/- & WB MEDIAN FROM -L- STA 811+00+/- TO -L- STA 817+50+/- AS SHOWN ON TMP-8. THEN AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* INSTALL TEMPORARY SHORING #11, #12, #13 AND #17 TO CONSTRUCT MEDIAN FOOTING. REMOVE SHORING WHEN NO LONGER NEEDED. (LN-14)
* CONSTRUCT PROPOSED -Y12- BRIDGE BENTS AND APPROACHES. (SHORING #14 AND #15 AT ABUTMENT/RETAINING WALLS.)
* BEGIN CONSTRUCTION OF -Y12- FROM STA 20+00+/- TO STA 25+00+/- (NOT INCLUDING BRIDGE WORK OVER I-26.)

PLACE AND COVER DETOUR SIGNS AS SHOWN ON SHEET TMP-2E.

PHASE I (CONTINUED) (SEE TMP-4 THRU TMP-4B FOR OVERVIEW)

*** REFER TO SHEETS TMP-6 THRU TMP-27 FOR DETAILS ***

STEP 3: (CONTINUED)

3.2 USING OFF-SITE DETOUR AS NEEDED,UNCOVER DETOUR SIGNS AND CLOSE I-26 TO HANG GIRDERS AND BEGIN -Y12- STRUCTURE. COVER DETOUR SIGNS WHEN REOPENING I-26 TO TRAFFIC AFTER EACH WORK PERIOD.

3.3 USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS, CONSTRUCT TEMPORARY PAVEMENT ON RIGHT SIDE OF -Y12- FROM STA 26+54+/- TO STA 30+17+/- (SHORING #19 REQUIRED). PLACE PCB WITH CRASH CUSHIONS ON RIGHT SIDE FROM -Y12- STA 27+01+/- TO STA 29+05+/-. PLACE TEMPORARY PAVEMENT MARKING AND SHIFT TRAFFIC TO NEW PATTERN. (TMP-8)

3.4 USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS, PLACE PCB ON -Y12- LEFT SIDE FROM STA 26+80+/- TO STA 29+75+/- WITH CRASH CUSHION, TEMPORARY SHOP CURVED GUARDRAIL AND TEMPORARY GUARDRAIL ANCHOR.

3.5 CONSTRUCT RETAINING WALL ON LEFT SIDE OF -Y12- (SHORING #18 REQUIRED). REMOVE SHORING #18 AND PCB ON LEFT SIDE WHEN NO LONGER NEEDED.

3.6 COMPLETE BRIDGE AND PLACE TEMPORARY PAVEMENT MARKING IN FINAL PATTERN ON -Y12- AS MUCH AS POSSIBLE AWAY FROM TRAFFIC.

3.7 USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS, CONSTRUCT THE FOLLOWING:
* -Y12- FROM STA 16+00+/- TO STA 20+58+/- (TMP-9)
* -Y12- FROM STA 25+00+/- TO STA 29+30+/- (TMP-9)
* -Y20- FROM -Y12- TO STA 11+50+/- (TMP-9)

3.8 PLACE TEMPORARY PAVEMENT MARKING IN FINAL PATTERN ON -Y12- AND -Y20- AND SHIFT TRAFFIC TO NEW ALIGNMENT. REMOVE PCB AND SHORING #19. REMOVE TEMPORARY PAVEMENT AND REPAIR SIDE SLOPES.

3.9 USING OFF-SITE DETOUR AS NEEDED FOR NIGHT-TIME CLOSURES, UNCOVER DETOUR SIGNS AND CLOSE I-26 TO REMOVE OLD -Y12- BRIDGE. COVER DETOUR SIGNS WHEN REOPENING I-26 TO TRAFFIC AFTER EACH WORK PERIOD. REMOVE DETOUR SIGNS WHEN NO LONGER NEEDED. COMPLETE ABUTMENT / RETAINING WALL AND REMOVE SHORING #14 & #15.

STEP 4: USING RSD 1101.02 (SHEETS 4, 9 & 10 OF 14), CONSTRUCT TEMPORARY WIDENING ALONG EB OUTSIDE SHOULDER MATCHING EXISTING EDGE AND ELEVATION AS SHOWN ON SHEETS TMP-10 THRU TMP-13:
* FROM -L- STA 661+50+/- TO STA 666+00+/- (TEMPORARY GUARDRAIL REQUIRED)
* FROM -L- STA 665+96+/- TO STA 687+56+/- (TEMPORARY GUARDRAIL AND ANCHORED PCB REQUIRED)

STEP 5: PLACE TEMPORARY PAVEMENT MARKING ALONG -L- IN NEW PATTERN WITH 11′ LANES IN THE FOLLOWING LOCATIONS AS SHOWN ON SHEETS TMP-10 THRU TMP-20:
* FROM STA 650+50+/- TO STA 700+50+/- (EBL)
* FROM STA 650+50+/- TO STA 671+21+/- (WBL)
* FROM STA 721+00+/- TO STA 767+00+/- (WBL)
* FROM STA 745+00+/- TO STA 767+00+/- (EBL)

NOTE: ALL WORK IN STEPS 2 AND 3 REQUIRING MEDIAN CROSS-OVERS FOR OVERHEAD BRIDGE WORK MUST BE COMPLETED PRIOR TO PLACING PCB ACROSS MEDIAN ACCESS FOR -Y11- CONSTRUCTION.

STEP 6: USING RSD 1101.02 (SHEET 4 OF 14), PLACE PCB ALONG THE MEDIAN OF -L- IN THE FOLLOWING LOCATIONS AS SHOWN ON TMP-10 THRU TMP-25:
* FROM STA 650+50+/- TO STA 698+76+/- (EBL - ANCHORED)
* FROM STA 650+50+/- TO STA 658+58+/- (WBL - ANCHORED, TIE TO EXISTING BRIDGE WITH TEMP GUARDRAIL ANCHOR)
* FROM STA 661+65+/- TO STA 670+02+/- (WBL - ANCHORED, TIE TO EXISTING BRIDGE WITH TEMP GUARDRAIL ANCHOR)
* FROM STA 677+59+/- TO STA 706+36+/- (WBL - ANCHORED, RESET 50′ OF EXISTING PCB THEN TIE TO EXISTING)
* FROM STA 711+77+/- TO STA 755+05+/- (WBL - ANCHORED, RESET 50′ OF EXISTING PCB THEN TIE TO EXISTING, TEMP ANCHOR TO EXISTING BRIDGE)
* FROM STA 746+00+/- TO STA 755+05+/- (EBL - ANCHORED W/ TEMP ANCHOR TO EXISTING BRIDGE)
* FROM STA 757+40+/- TO STA 761+92+/- (EBL - ANCHORED W/ TEMP ANCHOR TO EXISTING BRIDGE)
* FROM STA 757+40+/- TO STA 811+00+/- (WBL - ANCHORED W/ TEMP ANCHOR TO EXISTING BRIDGE, TIE TO EXISTING PCB)
* FROM STA 817+50+/- TO STA 831+00+/- (WBL - ANCHORED, TIE TO EXISTING PCB)

STEP 7: USE RSD 1101.03 (SHEET 9 OF 9) FOR ROLLING ROAD BLOCK TO REMOVE EXISTING EB OVERHEAD SIGN ASSEMBLY AT STA 691+90+/-. (TMP-14)

STEP 8: AWAY FROM TRAFFIC AND BEHIND BARRIER, CONSTRUCT -DETOUR 1- FROM STA 640+60+/- (I-4400BB) TO STA 702+00+/-. (TEMPORARY PAVEMENT INCLUDES TEMPORARY ASPHALT CROWN ACROSS FUTURE MEDIAN AND BRIDGE.) SHORING #1, #2, #3, & #4 ARE REQUIRED. REFER TO SHEETS TMP-10 THRU TMP-15.

PHASE I (CONTINUED) (SEE TMP-4 THRU TMP-4B FOR OVERVIEW)

*** REFER TO SHEETS TMP-6 THRU TMP-27 FOR DETAILS ***

STEP 8: (CONTINUED)

USING RSD 1101.02 (SHEET 1 OF 14) AND FLAGGERS, CONSTRUCT -Y21-.

USING RSD 1101.02 (SHEET 3 OF 4), REMOVE EXISTING MEDIAN ISLANDS ON -Y10-, REPAIR PAVEMENT AND PLACE TEMPORARY PAVEMENT MARKING AS SHOWN ON SHEETS TMP-12, TMP-26, TMP-27, TMP-46, & TMP-47.

USING RSD 1101.02 (SHEET 4 OF 14), CONSTRUCT -DETOUR 4- FROM STA 826+80+/- TO STA 832+00+/-. REFER TO SHEET TMP-25.

AWAY FROM TRAFFIC AND BEHIND BARRIER, COMPLETE THE FOLLOWING:
* WIDEN -L- WB MEDIAN MATCHING EXISTING EDGE AND ELEVATION FROM STA 702+00+/- TO STA 746+00+/- AS SHOWN ON SHEETS TMP-15 THRU TMP-18.
* CONSTRUCT -DETOUR 2- FROM STA 746+00+/- TO STA 766+20+/-. (TEMPORARY PAVEMENT INCLUDES TEMPORARY ASPHALT CROWN ACROSS FUTURE MEDIAN AND BRIDGE.) SHORING #7 AND #8 ARE REQUIRED. REFER TO SHEETS TMP-18 THRU TMP-20.
* WIDEN WB MEDIAN MATCHING EXISTING EDGE AND ELEVATION FROM STA 766+20+/- TO STA 826+80+/- AS SHOWN ON SHEETS TMP-20 THRU TMP-25.

STEP 9: USING RSD 1101.02 (SHEETS 4, 9 & 10 OF 14), COMPLETE TEMPORARY WIDENING OF -L- WB OUTSIDE SHOULDER FROM STA 785+00+/- TO STA 789+00+/- AND FROM STA 800+00+/- TO STA 804+00+/- AS SHOWN ON TMP-21,22, AND 23.

STEP 10: USING RSD 1101.02 (SHEET 4 OF 14), PLACE PCB ON -L- WB OUTSIDE SHOULDER IN THE FOLLOWING LOCATIONS AS SHOWN FROM TMP-14 THRU TMP-25:
* FROM STA 700+00+/- TO STA 755+05+/- (TIE TO EXISTING BRIDGE WITH TEMP ANCHOR UNIT)
* FROM STA 757+40+/- TO STA 785+35+/- (TIE TO EXISTING BRIDGE WITH TEMP ANCHOR UNIT)
* FROM STA 787+59+/- TO STA 801+00+/-
* FROM STA 802+18+/- TO STA 832+00+/-

STEP 11: AWAY FROM TRAFFIC, PLACE TEMPORARY PAVEMENT WIDENING ALONG THE OUTSIDE SHOULDER OF -L- WBL IN THE FOLLOWING LOCATIONS:
*FROM STA 702+00+/- TO STA 751+00+/- (TO THE OFFSET LIMITS OF THE PROPOSED SHOULDER) (AS SHOWN ON TMP-15 THRU TMP-19)
* FROM STA 751+00+/- TO STA 754+25+/- (EXISTING BRIDGE) TAPER TO EXISTING (AS SHOWN ON TMP-19)
* FROM STA 760+50+/- TO STA 771+00+/- (TO THE OFFSET LIMITS OF THE PROPOSED SHOULDER)(AS SHOWN ON TMP-19 AND TMP-20)
* FROM STA 771+00+/- TO STA 785+00+/- (AS SHOWN ON SHEETS TMP-20 THRU TMP-21)
* FROM STA 789+00+/- TO STA 800+00+/- (TO THE OFFSET LIMITS OF THE PROPOSED SHOULDER)(AS SHOWN ON TMP-22)
* FROM STA 804+00+/- TO STA 808+00+/- (AS SHOWN ON SHEET TMP-23)
* FROM STA 808+00+/- TO STA 832+00+/- (TO THE OFFSET LIMITS OF THE PROPOSED SHOULDER)(AS SHOWN ON TMP-23 THRU TMP-25)

AS MUCH AS POSSIBLE WITHOUT DISTURBING EXISTING TRAFFIC PATTERNS, INSTALL THE WB PHASE II PCB, PAVEMENT MARKING AND WARNING SIGNS.

STEP 12: -L- WB SHIFT: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE THE TEMPORARY PCB LISTED BELOW, CLOSE WB REST AREA, COMPLETE PHASE II WB LANE TEMPORARY PAVEMENT MARKINGS FROM AND SHIFT WB TO PHASE II TRAFFIC PATTERN. (LN-15)
- FROM -L- STA 700+00+/- TO -L- STA 755+05+/- (RT)
- FROM -L- STA 757+40+/- TO -L- STA 785+35+/- (RT)
- FROM -L- STA 787+59+/- TO -L- STA 801+00+/- (RT)
- FROM -L- STA 802+18+/- TO -L- STA 832+00+/- (RT)

STEP 13: AS MUCH AS POSSIBLE WITHOUT DISTURBING EXISTING TRAFFIC PATTERNS, INSTALL THE EB PHASE II PCB, PAVEMENT MARKING AND WARNING SIGNS.

STEP 14: CLOSE EB REST AREA. (LN-15)

USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, COMPLETE THE FOLLOWING:
* INSTALL TEMPORARY PCB ON MEDIAN DETOURS FROM -L- STA 650+50+/- TO STA 685+74+/- AND FROM -L- STA 653+50+/- TO STA 671+02+/- AS SHOWN FROM TMP-30 THRU TMP-33.
* IN COORDINATION WITH I-4400BB SHIFT EB LANES TO PHASE II TRAFFIC PATTERN AND COMPLETE PHASE II TEMPORARY PAVEMENT MARKINGS.
* COMPLETE EB PHASE II PCB INSTALLATION.
* PLACE ANY REMAINING TEMPORARY SIGNS.

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5A06BF48A...
DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

TRANSPORTATION MANAGEMENT PLAN

PHASING

9/3/2019
J:\I-4400C_tc_TMP03 Phasing.dgn
$$$$DATE$$$$

PHASING

PHASE IIIA (SEE TMP-91 FOR OVERVIEW)

*** REFER TO SHEETS TMP-93 THRU TMP-96 FOR DETAILS ***

STEP 1: AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING:
* -L- WB FROM STA 650+50+/- TO STA 667+50+/-
* -Y10RPC- FROM STA 10+00+/- TO STA 17+76+/-

STEP 2: COMPLETE STEPS 2.1 THRU 2.3 FOR -Y10RPC- CONSTRUCTION.

2.1: USING RSD 1101.02 (SHEET 3 OF 14) FOR -Y10- AND DRUMS TO NARROW/CLOSE LANES ON -Y10RPC- AS NEEDED, CONSTRUCT PROPOSED -Y10RPC- (RIGHT) FROM STA 17+76+/- TO -Y10- AS SHOWN ON TMP-94 & TMP-95.

2.2: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING FOR TEMPORARY -Y10RPC- FROM STA 650+50+/- TO -Y10-. (TMP-99 THRU TMP-101)

2.3: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE PCB FROM -L- WB STA 650+50+/- TO STA 654+20+/-. PLACE REMAINING PAVEMENT MARKING FOR TEMPORARY -Y10RPC- AND SHIFT RAMP TRAFFIC TO PHASE IIIB PATTERN.

STEP 3: COMPLETE STEPS 3.1 THRU 3.3 FOR TEMPORARY -Y1ORPD- CONSTRUCTION.

AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING FOR TEMPORARY -Y10RPD- FROM -Y10- TO -L- STA 712+00+/-. (TMP-101 THRU TMP-103)

USING RSD 1101.02 (SHEET 4 OF 14), REMOVE, RESET AND EXTEND PCB FROM -L- WB STA 711+00+/- TO STA 727+00+/- AND PLACE PCB ALONG TEMPORARY RAMP FROM -L- STA 709+09+/- TO TIE TO EXISTING PCB AT STA 727+00+/-. (TMP-104 & 105)

PLACE REMAINING PAVEMENT MARKING FOR TEMPORARY -Y10RPD- AND -Y10- AND SHIFT TRAFFIC TO PHASE IIIB PATTERN.

STEP 4: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED AND DRUMS TO NARROW RAMP LANES, INSTALL PCB -Y10- (LEFT) FROM -Y10RPA- TO -Y10RPD- AS SHOWN ON SHEET TMP-101.

PHASE IIIB (SEE TMP-97 FOR OVERVIEW)

*** REFER TO SHEETS TMP-99 THRU TMP-106 FOR DETAILS ***

STEP 1: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, CONSTRUCT -Y10- (LEFT) BRIDGE RAIL WORK.

AWAY FROM TRAFFIC, BEGIN THE FOLLOWING:
* CONSTRUCT -L- WB FROM STA 663+86+/- TO STA 671+73+/-
* CONSTRUCT -L- WB FROM STA 684+12+/- TO STA 701+00+/-

AWAY FROM TRAFFIC, REMOVE TEMPORARY -Y1ORPC-.

STEP 2: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, WEDGE AND WIDEN -Y1ORPC- FROM STA 18+00+/- TO -Y10-.

STEP 3: COMPLETE STEPS 3.1 THRU 3.4 FOR -Y1ORPD- CONSTRUCTION. (TMP-101 & TMP-102)

3.1: AWAY FROM TRAFFIC AND BEHIND BARRIER, COMPLETE PAVEMENT REMOVAL ALONG -Y1ORPD-, REMOVE SHORING AND CONSTRUCT -Y1ORPD- (RT) FROM STA 27+31+/- TO STA 28+69+/-.

3.2: USING RSD 1101.02 (SHEET 3 OF 14) AND DRUMS TO NARROW RAMP LANES AS NEEDED, REMOVE PCB PLACED IN PHASE IIIA, STEP 4. USING DRUMS TO KEEP UNOPENED AREAS CLOSED TO TRAFFIC.

3.3: USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, WEDGE AND WIDEN -Y1ORPD- FROM STA 28+69+/- TO -Y10- AND -Y10- FROM BRIDGE TO -Y1ORPD-.

PHASE IIIC (NO OVERVIEW)

*** REFER TO SHEETS TMP-107 AND TMP-108 FOR DETAILS ***

STEP 1: USING RSD 1101.02 (SHEET 3 OF 14) AND LAW ENFORCEMENT AS NEEDED, COMPLETE THE FOLLOWING IN ORDER:
* PLACE TEMPORARY PAVEMENT MARKING ON SB LANES OF -Y10- FROM STA 326+22+/-TO STA 338+99+/- INCLUDING RAMP TIES, TEMPORARY SIGNAL, AND SHIFT SB LANES TO NEW PATTERN.
* PLACE TEMPORARY MARKING FOR PAINTED ISLANDS FROM STA 326+09+/- TO STA 338+99+/-.
* PLACE TEMPORARY MARKING FOR NB LANES OF -Y10- FROM STA 325+73+/- TO STA 338+99+/- INCLUDING RAMP TIES, TEMPORARY SIGNAL, AND SHIFT NB LANES TO NEW PATTERN.
* PLACE PCB ALONG -Y10- (RIGHT) FROM -Y10RPB- STA 20+30+/- TO -Y10RPC STA 21+55+/-.

PHASE IIIC (CONT.) (NO OVERVIEW)

*** REFER TO SHEETS TMP-107 AND TMP-108 FOR DETAILS ***

STEP 2: AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* -L- WB FROM STA 663+86+/- TO STA 671+73+/- (BEGUN IN PHASE IIB)

STEP 3: * -L- WB FROM STA 671+73+/- TO STA 684+12+/- (BEGUN IN PHASE III).
* -L- WB FROM STA 684+12+/- TO STA 701+00+/- (BEGUN IN PHASE IIIB)

STEP 4: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING AND PCB FOR -L- WB, -Y10RPC- & -Y1ORPD- PHASE IV AS SHOWN ON SHEETS TMP-111 THRU TMP-118.

STEP 5: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE CONFLICTING PCB AND SHIFT -L- WB TRAFFIC TO PHASE IV PATTERN AND INSTALL ANY REMAINING PAVEMENT MARKINGS. OPEN WB REST AREA AND USING RSD 1101.02 (SHEET 4 OF 14), REMOVE AND RESET PCB ALONG WB LANES LEFT EDGE (WITH 2' BUFFER).

PHASE IV (SEE TMP-109 FOR OVERVIEWS)

*** REFER TO SHEETS TMP-111 THRU TMP-116 FOR DETAILS ***

STEP 1: AWAY FROM TRAFFIC, CONSTRUCT TEMPORARY ALIGNMENT -DETOUR 10- AND -DETOUR 11- (SEE ROADWAY PLAN SHEETS 2B-26 & 2B-27) (REFER TO INSET ON TMP-112 & TMP-115.)

STEP 2: USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, REMOVE PCB FROM STA 662+50+/- TO 669+00+/- AND PLACE CRASH CUSHION AT STA 662+50+/-. (TMP-112)

USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, REMOVE PCB FROM STA 693+00+/- TO 700+50+/- AND PLACE TMA AT STA 693+00+/-. (TMP-115)

STEP 3: PLACE PAVEMENT MARKING AND PCB ALONG PHASE IV EB LANES AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, SHIFT EB TRAFFIC TO PHASE IV PATTERN AND COMPLETE PAVEMENT MARKING AND PCB INSTALLATION.

USING RSD 1101.02 (SHEET 3 OF 14), INSTALL AND COVER DETOUR SIGNING AS SHOWN ON TMP-2D.

STEP 4: AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF -L- EB FROM STA 670+00+/- TO 694+67+/-. (SEE TMP-112-TMP-115)

STEP 5: COMPLETE STEPS 5.1 THRU 5.6 FOR -Y10- DDI CONVERSION.

COMPLETE THE REQUIREMENTS OF PHASE IV, STEP 5.1 THRU 5.5 FROM 9:00 P.M. FRIDAY TO 6:00 A.M. THE FOLLOWING MONDAY. (SEE INTERMEDIATE CONTRACT TIME AND SPECIAL PROVISIONS.)

NOTE: DURING -Y10- (US 25) OFF-SITE DETOUR, NO LANE OR ROAD CLOSURES ON THE DETOUR ROUTE WILL BE ALLOWED.

5.1: USING RSD 1101.02 (SHEET 3 OF 14) AND LAW ENFORCEMENT AS NEEDED, UNCOVER DETOUR SIGNS PLACED IN PHASE IV STEP 3 AND CLOSE -Y10- BRIDGE OVER -L- TO TRAFFIC. USE DRUMS TO CHANNELIZE RAMP TRAFFIC.

5.2: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, COMPLETE WEDGING ON -Y10- FROM STA 326+11+/- TO BRIDGE AND FROM BRIDGE TO STA 339+29+/-.

USING RSD 1101.02 (SHEETS 1, 2 & 7 OF 14) AND DRUMS TO CHANNELIZE TRAFFIC, COMPLETE -Y10- WEDGING (IN AREAS WITH TRAFFIC).(NOT SHOWN)

INSTALL TEMPORARY SIGNALS AT -L-/-Y10- RAMPS.

5.3: USING RSD 1101.02 (SHEETS 2 AND 7 OF 14), PLACE TEMPORARY PAVEMENT MARKINGS ON -Y10- AND RAMPS AS SHOWN IN FINAL PAVEMENT MARKING PLANS.

5.4: PLACE TEMPORARY PCB ON -Y10- BRIDGE AS SHOWN ON SHEET TMP-125 AND BEGIN CONSTRUCTION OF PROPOSED MEDIAN BARRIER.

5.5: USING RSD 1101.02 (SHEET 3 OF 14) TO KEEP TRAFFIC IN ONE LANE PER DIRECTION, LAW ENFORCEMENT AND PILOT CARS, OPEN BRIDGE TO TRAFFIC BY SHIFTING TRAFFIC INTO PHASE IV, STEP 5.6 PATTERN. COVER DETOUR SIGNS PLACED IN PHASE IV STEP 3.

*** REFER TO SHEETS TMP-111 THRU TMP-116 FOR DETAILS ***

COMPLETE THE REQUIREMENTS OF PHASE IV, STEP 5.6 IN FOURTEEN (14) CONSECUTIVE CALENDAR DAYS BEGINNING WITH THE OPENING OF -Y10- TO TRAFFIC IN PHASE IV, STEP 5.5. SEE INTERMEDIATE CONTRACT TIME AND SPECIAL PROVISIONS.

5.6: COMPLETE CONSTRUCTION OF -Y10- PROPOSED MEDIAN BARRIER BEGUN IN PHASE IV, STEP 5.4. USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, REMOVE PCB AND OPEN ALL LANES TO TRAFFIC. REPLACE / REPAIR PAVEMENT MARKING AS NEEDED. (TMP-119)

STEP 6: COMPLETE CONSTRUCTION OF -L- EB BEGUN IN PHASE IV, STEP 4.

STEP 7: USING RSD 1101.02 (SHEET 3 OF 14) AND DRUMS TO NARROW LANES AS NEEDED, CONSTRUCT PROPOSED ISLANDS ON -Y10- AND RAMP TERMINI. (SEE TMP-119 THRU 121)

STEP 8: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING AND PCB ALONG COMPLETED EB OUTSIDE TWO LANES IN FINAL PATTERN.

IN COORDINATION WITH ADJACENT PROJECT I-4700A / I-4700B AND UPON APPROVAL OF ENGINNER, USE LANE SHIFTS AND CLOSURES (RSD 1101.02 (SHEET 4 OF 14) TO CONSTRUCT TEMPORARY PAVEMENT ON -L- (ALL LANES AND TEMPORARY MEDIAN) FROM STA 827+00+/- TO 832+00+/-. REPLACE PAVEMENT MARKING IN PATTERN NEEDED TO MATCH TO ADJACENT PROJECT.

NOTE: DUE TO PROPOSED GRADE CHANGES (FINAL GRADE IS LOWER THAN EXISTING) STEP 8 WILL REQUIRE SIGNIFICANT COORDINATION WITH ADJACENT PROJECT:
* TEMPORARY MEDIAN CROSS-OVERS INCLUDED IN I-4700 WILL LESSEN THE DEPTH OF TEMPORARY PAVEMENT NEEDED.
* IF I-4700 IS NOT COMPLETED TO THE PHASE MATCHING I-4400C, PHASE V (FINAL MEDIAN CONSTRUCTION), THEN THE TEMPORARY PAVEMENT PLACED WILL NEED TO BE DONE SO AT A DEPTH ALLOWING I-4700A TO MILL DOWN TO THE NEEDED ELEVATION AND STILL HAVE THE APPROPRIATE MINIMUM DEPTH OF OF TEMPORARY PAVEMENT.

PHASE V (SEE TMP-122 & 122A FOR OVERVIEWS)

*** REFER TO SHEETS TMP-124 THRU TMP-X FOR DETAILS ***

STEP 1: COMPLETE PHASE IV STEP 3.

COMPLETE ANY REMAINING -Y10- TEMPORARY PAVEMENT MARKING AND TEMPORARY MARKERS AS SHOWN IN FINAL PAVEMENT MARKING PLANS AND OPEN ALL LANES TO TRAFFIC.

STEP 2: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE TEMPORARY PCB ALONG EB OUTSIDE LANE FROM -L- STA 690+00+/- AND -Y10RPA- WHERE IT CONFLICTS WITH PROPOSED PHASE V PATTERN. RELOCATE CRASH CUSHIONS AS NEEDED AND PLACE DRUMS WHERE PCB HAS BEEN REMOVED.

STEP 3: INSTALL PHASE V TEMPORARY PAVEMENT MARKINGS FROM -L- STA 663+00+/- TO 706+00+/-. SHIFT -L- EB TRAFFIC TO PHASE V TRAFFIC PATTERN. (TMP-121 THRU TMP-25)

NOTE: SCHEDULE THE FOLLOWING TO MINIMIZE THE DURATION OF TIME THAT TRAFFIC IS TRAVELING ON PROPOSED SHOULDER. SHIFTS MAY BE BROKEN INTO SEGMENTS PROVIDING INTERMEDIATE SHIFTS. (REFER TO GENERAL NOTE HH)

STEP 4: USING RSD 1101.02 (SHEETS 4, 9, 10 & 13 OF 14) AS NEEDED, RESTRIPE THE EBL FROM STA 650+50+/- SHIFTING TRAFFIC 4' ONTO THE SHOULDER. REMOVE AND RESET EBL MEDIAN PCB ALLOWING A 2' BUFFER FROM THE EDGE OF TRAVEL USING ANCHORED BARRIER WHEN WORK IS WITHIN 5' OF BACK OF PCB. WHEN CONCRETE PAVING DOES NOT REQUIRE TEMPORARY UTILIZATION OF THE SHOULDER, PLACE TEMPORARY PAVEMENT MARKING TO SHIFT TRAFFIC OFF OF FINAL SHOULDER.

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DATE: 9/3/2019

NORTH CAROLINA PROFESSIONAL SEAL 023521 ENGINEER RHONDA B. EARLY

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

TRANSPORTATION MANAGEMENT PLAN

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PHASE II (SEE TMP-28 THRU TMP-28B FOR OVERVIEWS)

*** REFER TO SHEETS TMP-30 THRU TMP-47 FOR DETAILS ***

NOTE: PHASE II STEPS 1 THRU 3 MAY BE DONE SIMULTANEOUSLY AND IN ANY ORDER.

STEP 1: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF THE FOLLOWING:
* REMOVE EXISTING EB BRIDGE OVER CANE CREEK (STA 756+00+/- LT) AND BEGIN CONSTRUCTION OF PROPOSED EB BRIDGE. (TMP-39)
* -L- EB LANES FROM STA 693+81+/- TO STA 832+00+/- (INCLUDES BRIDGE OVER CANE CREEK) (TMP-34 THRU TMP-45)
* -Y10RPA- FROM STA 14+00+/- TO STA 27+07+/- (TMP-32 & TMP-33)

STEP 2: AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF TEMPORARY PAVEMENT IN THE FOLLOWING LOCATIONS:
* -DETOUR 3- EXISTING -Y10RPA- TO -L- STA 676+17+/- (TMP-32 & TMP-33)
* WIDEN -L- EBL FOR TEMPORARY RAMP EXIT TO -Y10- FROM -L- STA 683+71+/- TO STA 690+83+/- (MATCH EDGE AND ELEVATION OF CURRENT EB THRU LANES.) (TMP-33 & TMP-34)
* TEMPORARY WIDENING OF -L- PROPOSED EBL (MEDIAN) FROM STA 699+00+/- TO STA 706+00+/-.(TMP-34 AND TMP-35)

STEP 3: USING DRUMS TO NARROW RAMP LANE, TEMPORARY WIDENING OF EXISTING -Y10RPA- FROM STA 20+72+/- TO STA 24+22+/-, INSTALL TEMPORARY GUARDRAIL AND GREU. (TMP-32 & TMP-33)

STEP 4: PLACE TEMPORARY PAVEMENT MARKING ON EXISTING -Y10RPA- AND SHIFT TRAFFIC AS SHOWN ON SHEET TMP-50. USING DRUMS TO NARROW LANE, PLACE PCB AS SHOWN FROM STA 20+90+/- TO STA 25+86+/- AND TIE TO EXISTING GUARDRAIL WITH TEMPORARY ANCHOR.

PLACE PAVEMENT MARKING FOR TEMPORARY -Y10RPA- ACCESS AS SHOWN ON TMP-51 & TMP-52. THEN USING RSD 1101.02 (SHEETS 4 & 10 OF 14) AS NEEDED, PLACE PCB FROM EXISTING PCB AT -L- STA 690+90+/- TO -Y10RPA- STA 16+35+/- AND FROM -L- STA 693+00+/- TO STA 698+50+/- (TIE TO EXISTING PCB ON BOTH ENDS). REMOVE PCB FROM STA 684+69+/- TO STA 693+00+/- AND RESET CRASH CUSHION AND SHIFT RAMP TO NEW PATTERN.

INSTALL TEMPORARY SIGNAL AT -Y10-/-Y10RPA- INTERSECTION (NEW POLES).

PHASE IIA (SEE TMP-48 FOR OVERVIEW)

*** REFER TO SHEETS TMP-50 THRU TMP-54 FOR DETAILS ***

NOTE: PHASE IIA STEPS 1 AND 2 MAY BE DONE SIMULTANEOUSLY AND IN ANY ORDER.

STEP 1: USING RSD 1101.02 (SHEETS 1 & 3 OF 14) AS NEEDED, COMPLETE THE FOLLOWING AS SHOWN ON TMP-50 THRU TMP-54.
* CONSTRUCT -Y10RPA- (RIGHT SIDE) FROM STA 20+34+/- TO -Y10- INCLUDING WORK BEGUN IN PHASE II, STEP 1.
* CONSTRUCT -DETOUR 5- FROM -Y10- TO -Y10RPA- STA 25+73+/-.
* CONSTRUCT WIDENED TURNING RADIUS AT -Y10- STA 330+00+/- (LT) AND INSTALL TEMPORARY GUARDRAIL.
* WIDEN -Y10- (RT) FROM STA 314+98+/- TO STA 324+50+/-.
* WEDGE AND WIDEN -Y17- AND -Y10- FROM STA 339+50+/- TO STA 348+25+/-.

AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING AS SHOWN ON TMP-51 & TMP-52:
* -Y10RPA- FROM STA 10+00+/- TO STA 16+10+/-
* -L- PROPOSED EBL FROM STA 685+23+/- TO STA 699+00+/-
* -L- TEMPORARY PAVEMENT FROM STA 695+72+/- TO STA 699+00+/-

STEP 2: AWAY FROM TRAFFIC, BEGIN PLACEMENT OF PAVEMENT MARKING AND PCB FOR PHASE IIB TRAFFIC PATTERNS (-Y10RPA- AND -DETOUR 3-).

PHASE IIB (SEE TMP-55 FOR OVERVIEW)

*** REFER TO SHEETS TMP-57 THRU TMP-63 FOR DETAILS ***

STEP 1: USING RSD 1101.02 (SHEET 4 OF 14), COMPLETE THE FOLLOWING:
* REMOVE AND RESET PCB FROM STA 663+50+/- TO STA 668+25+/- AND INSTALL CRASH CUSHION.
* REMOVE PCB FROM -L- STA 668+25+/- TO STA 679+00+/-.
* REMOVE PCB FROM -L- STA 698+25+/- TO STA 704+07+/- AND INSTALL CRASH CUSHION AT STA 698+25+/-.

PHASE IIB (CONTINUED) (SEE TMP-55 FOR OVERVIEW)

*** REFER TO SHEETS TMP-57 THRU TMP-63 FOR DETAILS ***

STEP 2: WORKING IN A CONTINUOUS MANNER, COMPLETE STEPS 2.1 THRU 2.3.

2.1: COMPLETE PLACEMENT OF PAVEMENT MARKING FOR -Y10RPA-. (TMP-59 THRU TMP-61)

COMPLETE THE REQUIREMENTS OF PHASE IIB, STEPS 2.2 AND 2.3 FROM FRIDAY AT 9:00 P.M. TO THE FOLLOWING MONDAY AT 6:00 A.M. (SEE INTERMEDIATE CONTRACT TIME AND SPECIAL PROVISIONS.)

2.2: USING LAW ENFORCEMENT AS NEEDED, CLOSE LEFT TURN MOVEMENTS TO -Y10RPB- AND FROM -Y10RPA- AS NEEDED TO REMOVE AND REPLACE PAVEMENT MARKING ON -Y10- AS SHOWN ON SHEETS TMP-60 & TMP-62 AND ACTIVATE TEMPORARY SIGNAL FOR NEW PATTERN.

2.3: USING RSD 1101.02 (SHEETS 3 & 4 OF 14) AND LAW ENFORCEMENT AS NEEDED, PLACE PAVEMENT MARKING, TEMPORARY SIGNS AND DEVICES FOR -DETOUR 3- AND REVERSAL OF OLD -Y10RPA-. PLACE CRASH CUSHION AND RELAP GUARDRAIL AS NEEDED. SHIFT -Y10RPB- TRAFFIC TO -DETOUR 3-.

STEP 3: USING RSD 1101.02 (SHEET 4 OF 14), PLACE PCB ALONG -L- EXISTING EB FROM STA 650+50+/- TO EXISTING PCB AT STA 653+61+/-.

STEP 4: AWAY FROM TRAFFIC CONSTRUCT THE FOLLOWING:
* -L- EB FROM STA 650+50+/- TO STA 667+61+/- (INCLUDING EB BRIDGE OVER RAILROAD)
* -L- EB TEMPORARY PAVEMENT FROM STA 650+50+/- TO 658+14+/- (BRIDGE)
* -L- EB TEMPORARY PAVEMENT FROM STA 660+86+/-(BRIDGE) TO STA 663+50+/-
* -Y10RPB-
* TEMPORARY PAVEMENT IN -L- / -Y10RPB- GORE (-L- STA 667+00 LEFT)
* -L- EB FROM STA 682+00+/- TO STA 690+96+/-
* -L- EB TEMPORARY PAVEMENT FROM STA 682+00+/- TO STA 685+25+/- INCLUDING GORE AREA. (NOTE PHASE III EB THRU LANE WILL BE PARTIALLY ON THE SHOULDER AND TRAVELS ACROSS PART OF GORE AREA.)
* -L- EB TEMPORARY PAVEMENT FROM STA 682+00+/- TO STA 683+00+/-.

USING RSD 1101.02 (SHEETS 1 & 3 OF 14) AS NEEDED COMPLETE THE FOLLOWING:
* REMOVE EXISTING ISLAND AT -Y10- RT STA 328+00+/- AND CONSTRUCT -Y10- (RT) FROM STA 335+30+/- TO EXISTING BRIDGE (STA 330+00+/-) INCLUDING TURNOUT TO -Y10RPB- AND REMAINDER OF -DETOUR 5-.
* WIDEN -Y10- (RT) FROM STA 337+62+/- TO STA 339+47+/- AND REMAINDER OF -Y17- (LT) FROM STA 11+72+/- TO -Y10-. SEE TMP-59 AND TMP-63.
RESTRIPE WIDENED AREA WITH TEMPORARY PAVEMENT MARKING AS SHOWN IN FINAL PAVEMENT MARKING PLANS.

STEP 5: AWAY FROM TRAFFIC, BEGIN PLACEMENT OF PAVEMENT MARKING FOR PHASE IIC TRAFFIC PATTERNS (-Y10RPB-).

PHASE IIC (NO OVERVIEW)

*** REFER TO SHEETS TMP-64 THRU TMP-71 FOR DETAILS ***

STEP 1: USING RSD 1101.02 (SHEETS 3 & 4 OF 14) AS NEEDED, REMOVE -L- EB (OUTSIDE) PCB FROM STA 650+50 TO STA 652+75+/- AND COMPLETE PLACEMENT OF TEMPORARY PAVEMENT MARKING FOR -Y10RPB-. (TMP-64)

COMPLETE THE REQUIREMENTS OF PHASE IIC, STEP 2 FROM FRIDAY AT 9:00 P.M. TO THE FOLLOWING MONDAY AT 6:00 A.M.(SEE INTERMEDIATE CONTRACT TIME AND SPECIAL PROVISIONS.)

STEP 2: USING LAW ENFORCEMENT AS NEEDED, CLOSE TEMPORARY RAMP/-DETOUR 3- TO LEFT TURN MOVEMENTS AND RESTRIPE -Y10-. ACTIVATE TEMPORARY SIGNAL AT -Y10-/-Y10RPA-/-Y10RPB-, SHIFT -Y10RPB- TO NEW PATTERN AND CLOSE TEMPORARY RAMP/-DETOUR 3-.

STEP 3: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE AND RESET PCB FROM -L- CURRENT EB STA 663+50+/- TO STA 671+00+/-.

STEP 4: AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* CONSTRUCT -L- EB TEMPORARY PAVEMENT FROM STA 663+50+/- TO STA 666+80+/-.
* CONSTRUCT -L- EB FROM STA 663+50+/- TO STA 670+00+/-.
* REMOVE -DETOUR 3- AND ORIGINAL -Y10RPA-, THEN CONSTRUCT -L- EB TEMPORARY PAVEMENT FROM STA 670+00+/- TO STA 685+24+/-.

USING RSD 1101.02 (SHEET 3 OF 14) AS NEEDED, CONSTRUCT REMAINDER OF -Y10RPA- FROM STA 19+09+/- TO -Y10-. SEE TMP-66 AMD TMP-67.

STEP 5: AS MUCH AS POSSIBLE PLACE PAVEMENT MARKING AND PCB ALONG EB LANES AS SHOWN IN PHASE III. (TMP-74 THRU TMP-89)

STEP 6: USING RSD 1101.02 (SHEETS 4, 9 & 10 OF 14), SHIFT -L- EB TRAFFIC TO PHASE III PATTERN AND COMPLETE PAVEMENT MARKING AND INSTALLATION OF EB PCB. OPEN EB REST AREA.

PHASE IIC (CONTINUED) (NO OVERVIEW)

*** REFER TO SHEETS TMP-67 THRU TMP-71 FOR DETAILS ***

STEP 7: AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING IN PREPARATION OF SHIFTING THE WB LANES TO PHASE III PATTERN:
* -L- FROM STA 702+00+/- TO STA 754+73+/-
* -L- FROM STA 757+68+/- TO STA 766+00+/-
* -DETOUR 6- (TEMP TIE TO EXISTING WB LANES NEAR STA 827+00+/-)

STEP 8: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE EXISTING WB PCB FROM -L- STA 685+00+/- TO -L- STA 689+82+/-. RESET PCB FROM -L- STA 682+95+/- TO STA 700+50+/- AS SHOWN ON TMP-78.

AS MUCH AS POSSIBLE AND AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING AND PCB FOR PHASE III WB PATTERN.

STEP 9: USING RSD 1101.02 (SHEETS 4, 9 & 10 OF 14), SHIFT WB TRAFFIC TO PHASE III PATTERN AND COMPLETE PAVEMENT MARKING AND INSTALLATION OF WB PCB AS MUCH AS POSSIBLE.

PHASE III (SEE TMP-72 THRU TMP-72B FOR OVERVIEWS)

*** REFER TO SHEETS TMP-74 THRU TMP-90 FOR DETAILS ***

STEP 1: AWAY FROM TRAFFIC, CONSTRUCT THE FOLLOWING:
* -DETOUR 8- (TEMPORARY -Y10RPC-)
* -L- WB FROM STA 671+73+/- TO STA 684+11+/-
* -L- WB FROM STA 696+00+/- TO STA 827+00+/- INCLUDING WB BRIDGE AT STA 756+00+/-.
* -L- WB TEMPORARY PAVEMENT FROM STA 711+00+/- TO STA 727+00+/-

STEP 2: COMPLETE STEPS 2.1 THRU 2.4 FOR TEMPORARY -Y10RPD- CONSTRUCTION.

2.1: USING DRUMS TO NARROW RAMP LANE, CONSTRUCT TEMPORARY WIDENING ON EXISTING -Y10RPD- FROM -L- STA 685+40+/- TO -Y10RPD_SPUR LT- STA 10+60+/-, REPLACE GUARDRAIL AND REMOVE AND REPLACE PAVEMENT MARKING AS SHOWN ON SHEET TMP-76 & 77.

2.2: USING DRUMS TO NARROW RAMP LANE, PLACE PCB ON -Y10RPD- FROM STA 24+75+/- TO STA 28+76+/-.

2.3: AWAY FROM TRAFFIC, CONSTRUCT -Y10RPD- FROM STA 10+00+/- TO -Y10- STA 337+00+/-. SHORING #16 REQUIRED.

2.4: USING RSD 1101.02 (SHEET 3 OF 14) AND DRUMS TO NARROW RAMP LANE, CONSTRUCT -Y10- FROM -Y10RPD- TO STA 339+50+/-.

STEP 3: COMPLETE STEPS 3.1 THRU 3.4 FOR TEMPORARY -Y10RPC- CONSTRUCTION.

3.1: AS MUCH AS POSSIBLE AWAY AWAY FROM TRAFFIC, PLACE PAVEMENT MARKING ON -DETOUR 8- (TEMPORARY -Y10RPC-). (TMP-94 & TMP-95)

3.2: USING DRUMS TO CHANNELIZE TRAFFIC AS NEEDED, WEDGE AND WIDEN -Y10RPC- FROM STA 20+00+/- TO STA 21+50+/- (TMP-76)

3.3: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE PCB FROM -L- WB STA 663+52+/- TO STA 668+67+/- AND PLACE PCB ALONG OUTSIDE SHOULDER OF -DETOUR 8- (TEMPORARY -Y10RPC-) FROM -L- 663+52+/- TO -Y10RPC- STA 17+76+/-.(TMP-94)

3.4: USING RSD 1101.02 (SHEET 3 OF 14), WEDGE AND WIDEN -Y10RPC- FROM STA 21+00+/- TO -Y10- AS SHOWN ON TMP-95. TEMPORARY PAVEMENT REQUIRED. PLACE PAVEMENT MARKING AND SHIFT RAMP TRAFFIC TO NEW PATTERN. TEMPORARY SIGNAL REQUIRED.

APPROVED: DocuSigned by: Rhonda B. Early F34CAF5AC6BF48A... DATE: 9/3/2019

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

TRANSPORTATION MANAGEMENT PLAN

PHASING

9/3/2019
I-4400C_tc_TMP03 Phasing.dgn
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PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-03C

PHASE V (CONT.)

(SEE TMP-122 & 122A FOR OVERVIEWS)

*** REFER TO SHEETS TMP-124 THRU TMP-X FOR DETAILS ***

STEP 5: AWAY FROM TRAFFIC AND BEHIND BARRIER, COMPLETE ANY REMAINING -L- MEDIAN CONSTRUCTION IN THE FOLLOWING LOCATIONS:

*-L- STA 650+50+/- TO STA 658+42+/- (BRIDGE) - CONCRETE, ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 660+82+/- TO STA 660+86+/- (BRIDGE) - PERMANENT BARRIER
* -L- FROM STA 670+00+/- TO STA 673+74+/- - ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 679+00+/- TO STA 681+90+/- - ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 702+00+/- TO STA 706+00+/- - CONCRETE, ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 706+00+/- TO STA 710+00+/- - ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 710+00+/- TO STA 722+00+/- - ASPHALT AND PERMANENT BARRIER
* -L- FROM STA 722+00+/- TO STA 761+00+/- - PERMANENT BARRIER (ANY REMAINING)
* -L- FROM STA 761+00+/- TO STA 832+00+/- - ASPHALT AND PERMANENT BARRIER

STEP 6: USING RSD 1101.02 (SHEET 4 OF 14), REMOVE ANY REMAINING TEMPORARY PCB FROM -L- EBL AND WBL.

STEP 7: USING RSD 1101.02 (SHEET 4 AND 9 OF 14), CONSTRUCT PROPOSED GORE BETWEEN -L- EB AND -Y10RPB- NEAR -L- STA 667+00+/- (LEFT)

STEP 8: USING RSD 1101.02 (SHEET 4 OF 14), DIAMOND GRIND -L- EBL AS NEEDED AND PLACE FINAL PAVEMENT MARKING AS SHOWN IN PMP PLANS.

USING RSD 1101.02 (SHEET 4 OF 14), DIAMOND GRIND -L- WBL AS NEEDED AND PLACE FINAL PAVEMENT MARKING AS SHOWN IN PMP PLANS.

USING RSD 1101.02 (SHEET 1 OF 14), CONSTRUCT PROPOSED ISLANDS, PLACE FINAL LAYER OF ASPHALT AND FINAL PAVEMENT MARKINGS MARKINGS AS SHOWN IN PMP PLANS ON ALL Y-LINES.

9/3/2019
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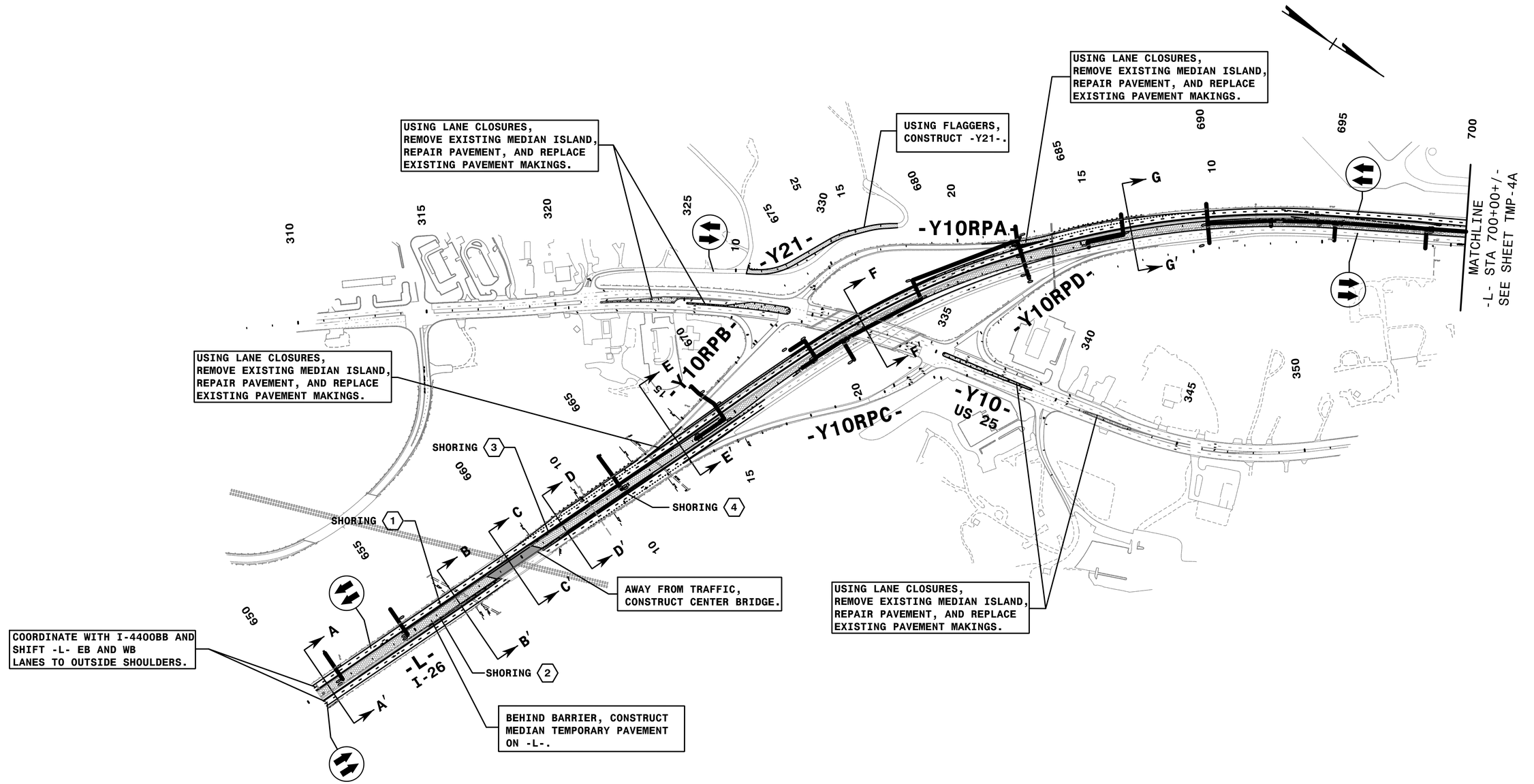
DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL *

TRANSPORTATION MANAGEMENT PLAN

PHASING

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-4



REFER TO SHEET TMP-5 & FOR CUT SECTION(S).

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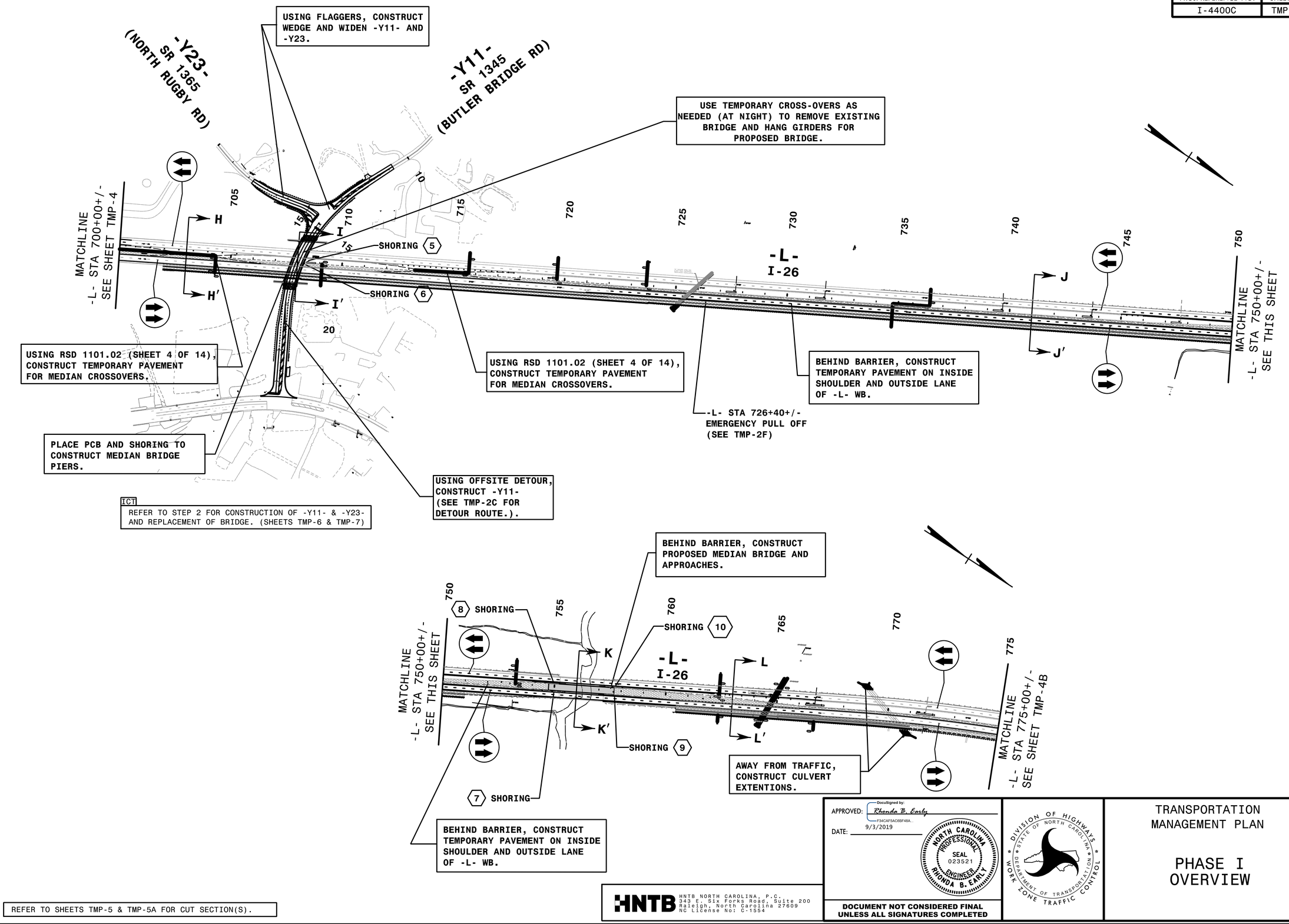
TRANSPORTATION MANAGEMENT PLAN

PHASE I OVERVIEW

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-4A



ICT

REFER TO STEP 2 FOR CONSTRUCTION OF -Y11- & -Y23- AND REPLACEMENT OF BRIDGE. (SHEETS TMP-6 & TMP-7)

REFER TO SHEETS TMP-5 & TMP-5A FOR CUT SECTION(S).

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PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-4B

MATCHLINE
-L- STA 775+00+/-
SEE SHEET TMP-4A

780 10 785 15 790 795 800 805 810

-L-
I-26

BEHIND BARRIER, CONSTRUCT TEMPORARY PAVEMENT ON INSIDE SHOULDER AND OUTSIDE LANE OF -L- WB.

PLACE PCB AND SHORING TO CONSTRUCT MEDIAN BRIDGE PIERS.

USING DRUMS AND NARROW LANES, CONSTRUCT TEMPORARY PAVEMENT FORREST AREA TIE-INS.

-Y12-
SR 1358
(FANNING BRIDGE RD)

10 15 20 M 820

REFER TO STEP 3 FOR -Y12- CONSTRUCTION AND REPLACEMENT OF BRIDGE. (SHEETS TMP-8 & TMP-9)

USING OFFSITE DETOUR TMP-2E, HANG GIRDERS FOR PROPOSED BRIDGE.

N N′

M′ 25

USING FLAGGERS, WEDGE AND WIDEN -Y20-, SHIFT -Y12- TRAFFIC AND COMPLETE WEDGE AND WIDENING OF -Y12.

-Y20-
SR 3540
(UNDERWOOD RD)

15 30

CONSTRUCT AWAY FROM TRAFFIC, EXTENTIONS -Y12- INCLUDING BRIDGE.

MATCHLINE
-L- STA 829+00+/-
SEE THIS SHEET

MATCHLINE
-L- STA 829+00+/-
SEE THIS SHEET

830

-L-
I-26

-L- STA 832+00+/-
END PROJECT

BEHIND BARRIER, CONSTRUCT TEMPORARY PAVEMENT ON INSIDE SHOULDER AND OUTSIDE LANE OF -L- WB.

REFER TO SHEET TMP-5A FOR CUT SECTION(S).

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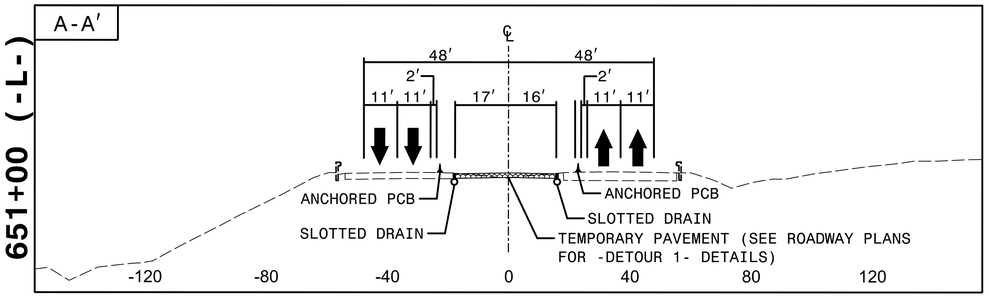
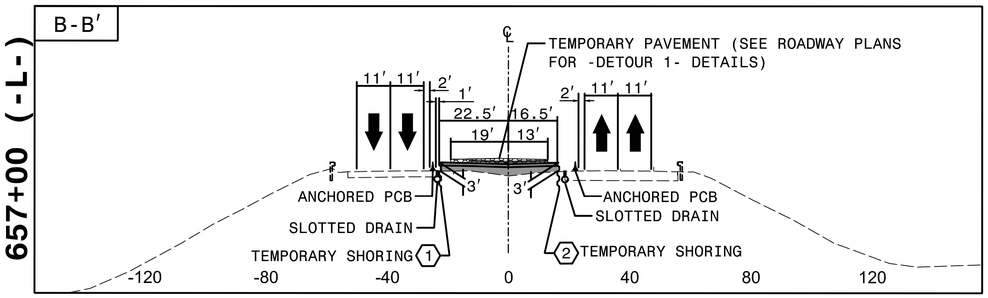
PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-5

PHASE I

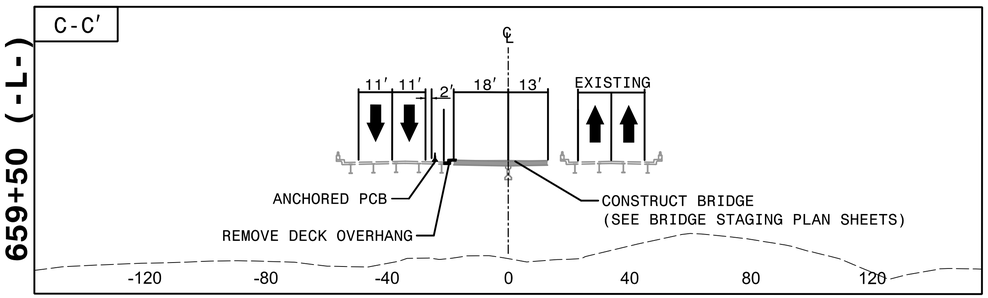
A-A′ — 651+00 (-L-)



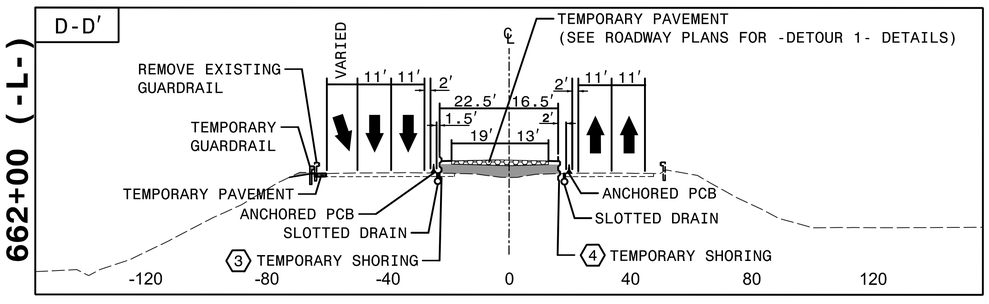
B-B′ — 657+00 (-L-)



C-C′ — 659+50 (-L-)

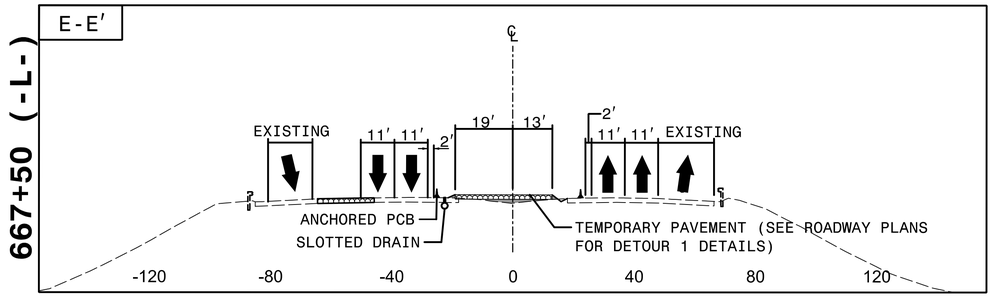


D-D′ — 662+00 (-L-)

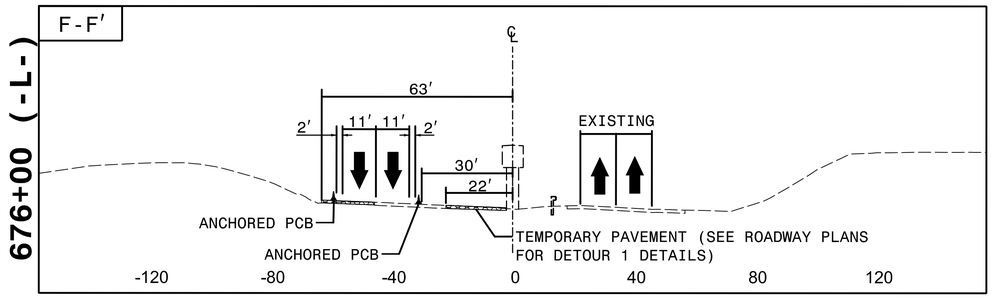


PHASE I

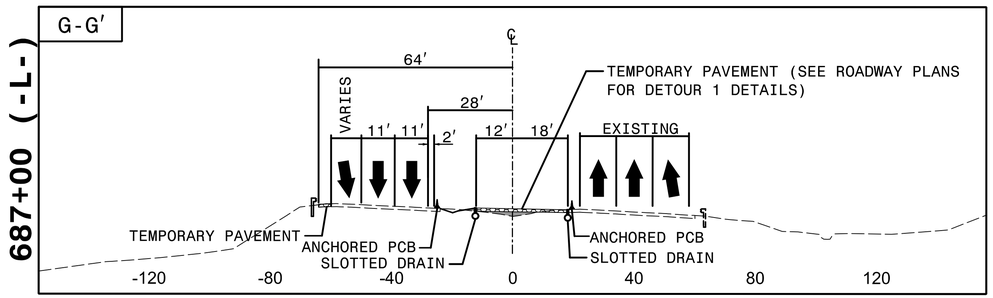
E-E′ — 667+50 (-L-)



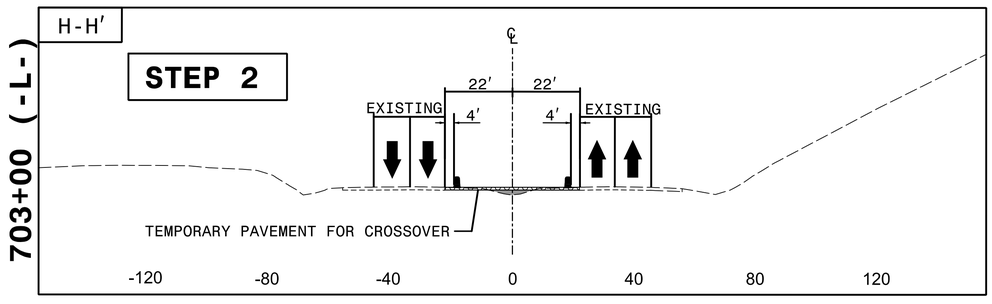
F-F′ — 676+00 (-L-)



G-G′ — 687+00 (-L-)



H-H′ — 703+00 (-L-)



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TRANSPORTATION MANAGEMENT PLAN

PHASE I CUT SECTIONS

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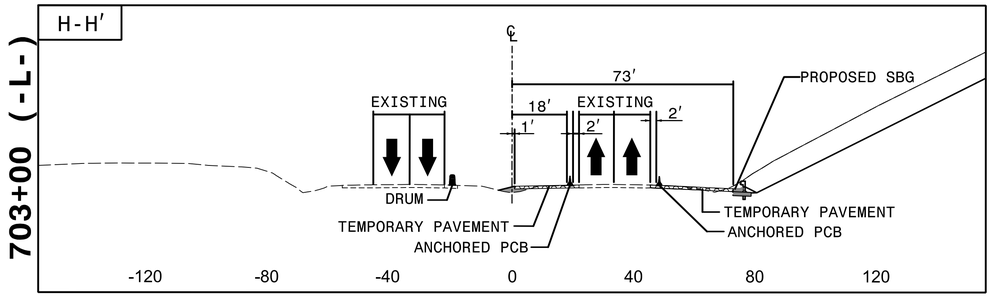
9/3/2019

PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-5A

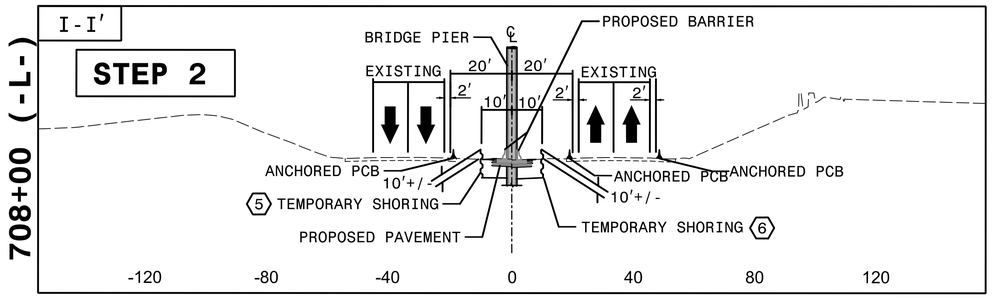
PHASE I

H-H′

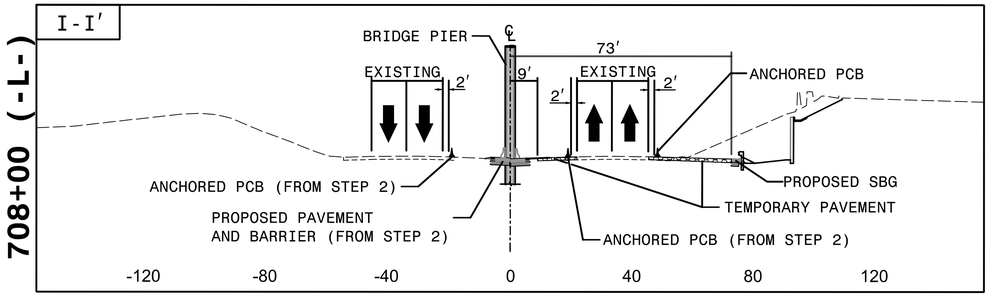


I-I′

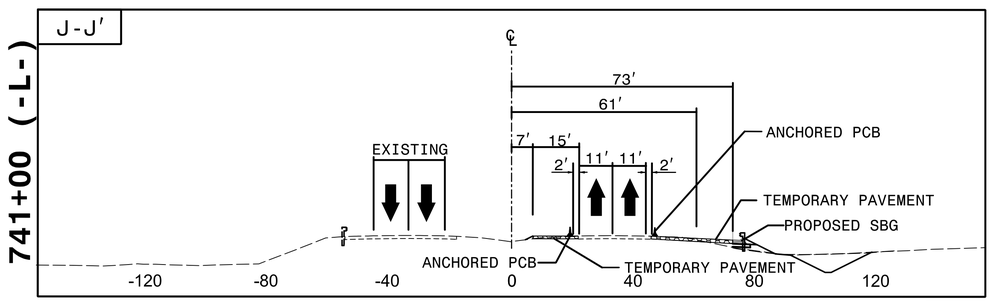
STEP 2



I-I′

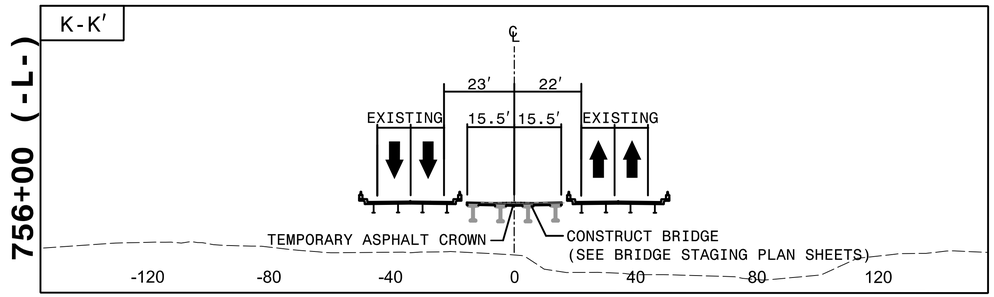


J-J′

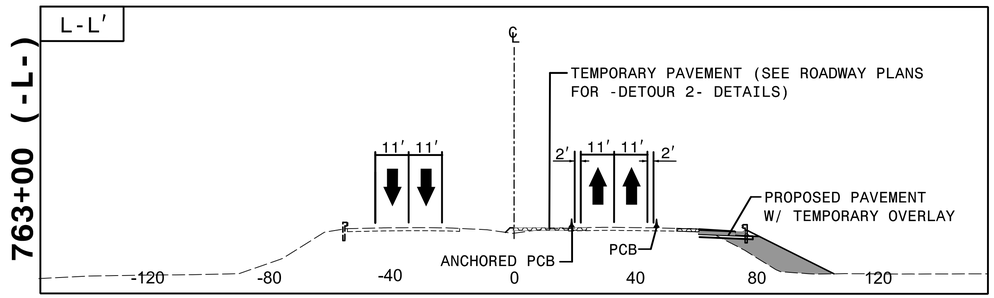


PHASE I

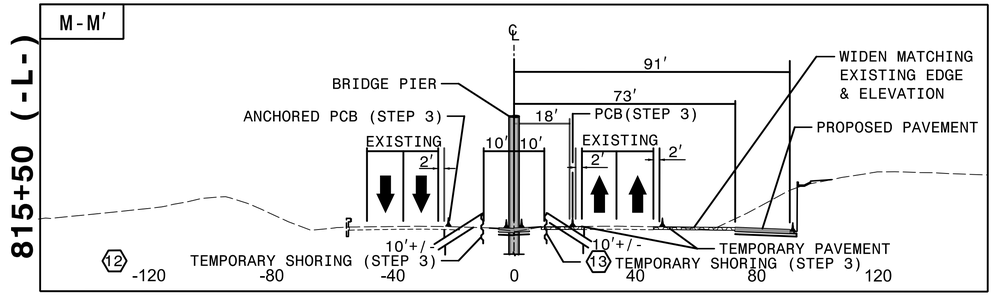
K-K′



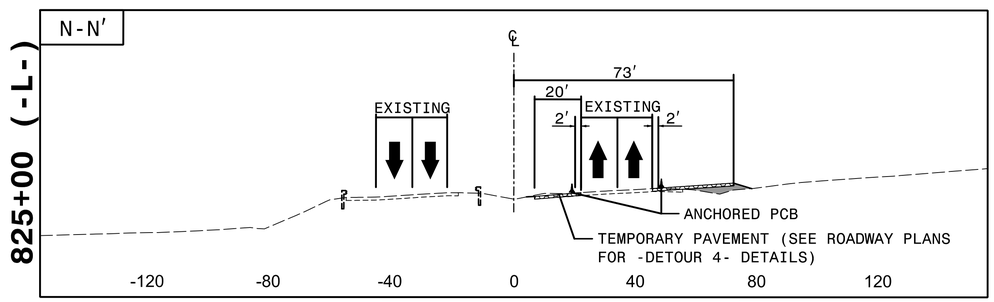
L-L′



M-M′



N-N′



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TRANSPORTATION MANAGEMENT PLAN

PHASE I CUT SECTIONS

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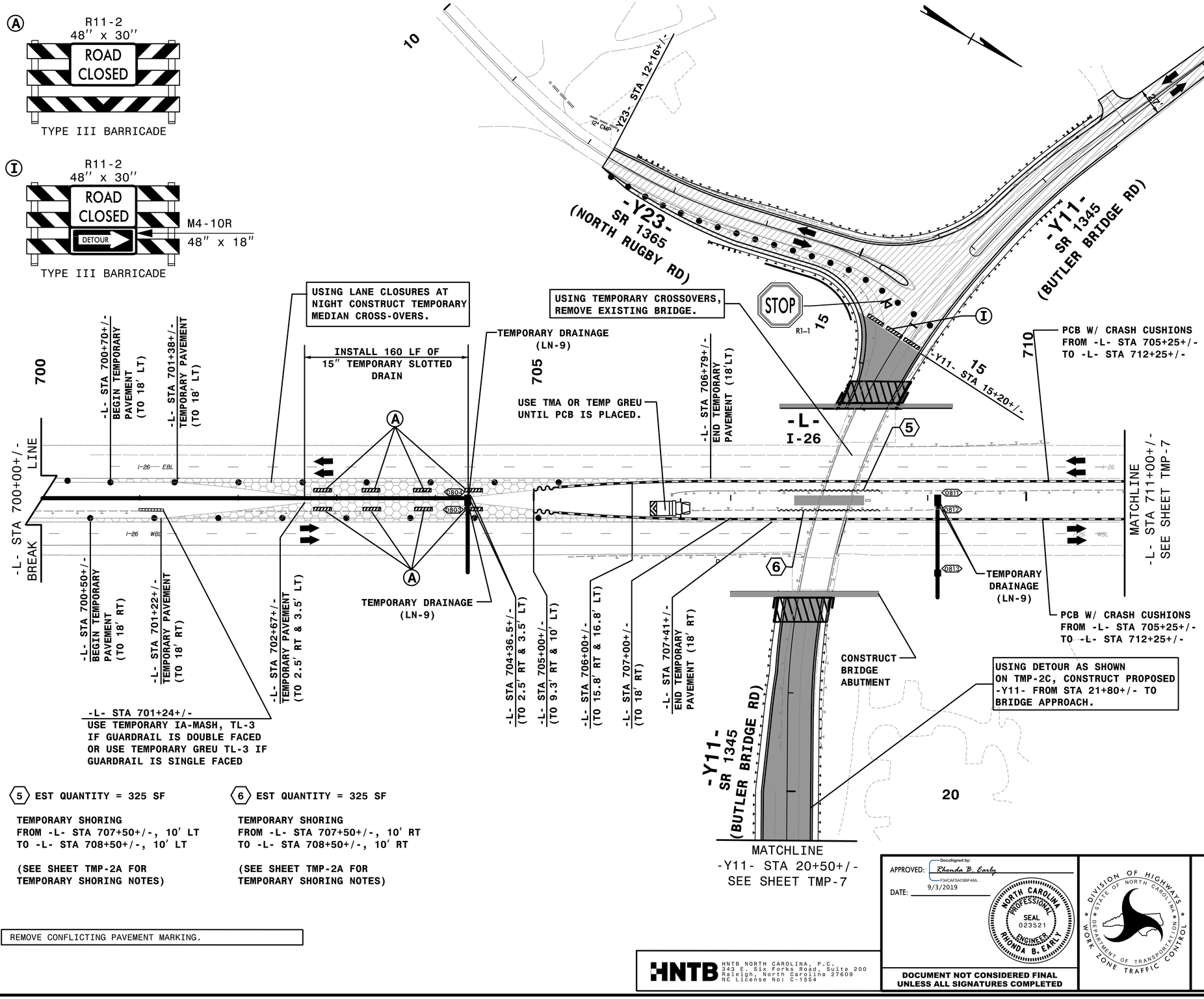
PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-6

Ⓐ R11-2 48″ x 30″ ROAD CLOSED
TYPE III BARRICADE

Ⓘ R11-2 48″ x 30″ ROAD CLOSED
M4-10R 48″ x 18″ DETOUR
TYPE III BARRICADE



5 EST QUANTITY = 325 SF

TEMPORARY SHORING
FROM -L- STA 707+50+/-, 10′ LT
TO -L- STA 708+50+/-, 10′ LT

(SEE SHEET TMP-2A FOR TEMPORARY SHORING NOTES)

6 EST QUANTITY = 325 SF

TEMPORARY SHORING
FROM -L- STA 707+50+/-, 10′ RT
TO -L- STA 708+50+/-, 10′ RT

(SEE SHEET TMP-2A FOR TEMPORARY SHORING NOTES)

REMOVE CONFLICTING PAVEMENT MARKING.

STEP 2

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PROJ. REFERENCE NO.	SHEET NO.
I-4400C	TMP-7

Ⓐ R11-2
48″ x 30″
ROAD CLOSED
TYPE III BARRICADE

Ⓔ R11-4
60″ x 30″
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10L
48″ x 18″
TYPE III BARRICADE

USING DETOUR AS SHOWN ON TMP-2C, CONSTRUCT PROPOSED -Y11- FROM BRIDGE APPROACH TO STA 21+80+/-.

MATCHLINE
-Y11- STA 20+50+/-
SEE SHEET TMP-6

-Y11- STA 21+80+/-

-Y11-
SR 1345
(BUTLER BRIDGE RD)

USING LANE CLOSURES, -Y11- FROM 21+80+/- DRIVE TO US 25.

US 25

18″ CMP

TEMP (SEE SIGNAL PLANS)

20

715

MATCHLINE
-L- STA 711+00+/-
SEE SHEET TMP-6

USE TEMPORARY GUARDRAIL OR TMA

USE TMA OR GREU UNTIL PCB IS PLACED

INSTALL 160 LF OF 15″ TEMPORARY SLOTTED DRAIN

-L-
I-26

-L- STA 711+00+/- BEGIN TEMPORARY PAVEMENT (TO 18′ LT)
-L- STA 711+50+/- TEMPORARY PAVEMENT (TO 17.5′ LT)
-L- STA 712+00+/- TEMPORARY PAVEMENT (TO 15.5′ LT)
-L- STA 712+50+/- TEMPORARY PAVEMENT (TO 12′ LT)
-L- STA 715+50+/- TEMPORARY PAVEMENT (TO 7.5′ LT)
-L- STA 715+50+/- TEMPORARY PAVEMENT (TO 6′ LT)
-L- STA 716+00+/- TEMPORARY PAVEMENT (TO 11′ LT)
-L- STA 716+50+/- TEMPORARY PAVEMENT (TO 14′ LT)
-L- STA 717+00+/- TEMPORARY PAVEMENT (TO 16.5′ LT)
-L- STA 717+71+/- END TEMPORARY PAVEMENT (TO 18′ LT)

-L- STA 711+00+/- BEGIN TEMPORARY PAVEMENT (TO 18′ RT)
-L- STA 711+50+/- TEMPORARY PAVEMENT (TO 17′ RT)
-L- STA 712+00+/- TEMPORARY PAVEMENT (TO 15′ RT)
-L- STA 712+50+/- TEMPORARY PAVEMENT (TO 12′ RT)
-L- STA 715+50+/- TEMPORARY PAVEMENT (TO 8′ RT)
-L- STA 715+23+/- TEMPORARY PAVEMENT (TO 3.2′ RT & 2.8′ LT)
-L- STA 715+23+/- TEMPORARY PAVEMENT (TO 3.2′ RT & 2.8′ LT)
-L- STA 715+50+/- TEMPORARY PAVEMENT (TO 6′ RT)
-L- STA 716+00+/- TEMPORARY PAVEMENT (TO 11′ RT)
-L- STA 716+50+/- TEMPORARY PAVEMENT (TO 14′ RT)
-L- STA 717+00+/- TEMPORARY PAVEMENT (TO 16.5′ RT)
-L- STA 717+63+/- END TEMPORARY PAVEMENT (TO 18′ RT)

PCB W/ CRASH CUSHIONS FROM -L- STA 705+25+/- TO -L- STA 712+25+/-

TEMPORARY DRAINAGE (15″ CMP)

-L- STA 717+75+/- USE TEMPORARY IA-MASH, TL-3 IF GUARDRAIL IS DOUBLE FACED OR USE TEMPORARY GREU TL-3 IF GUARDRAIL IS SINGLE FACED

STEP 2

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