CONTRACT: C204543 TIP PROJECT: I-5878/I-5883/I-5986B

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-1

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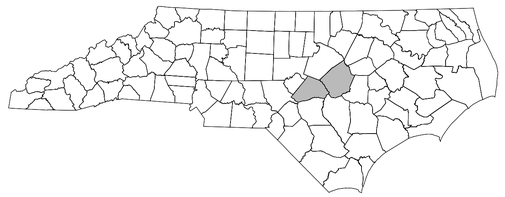
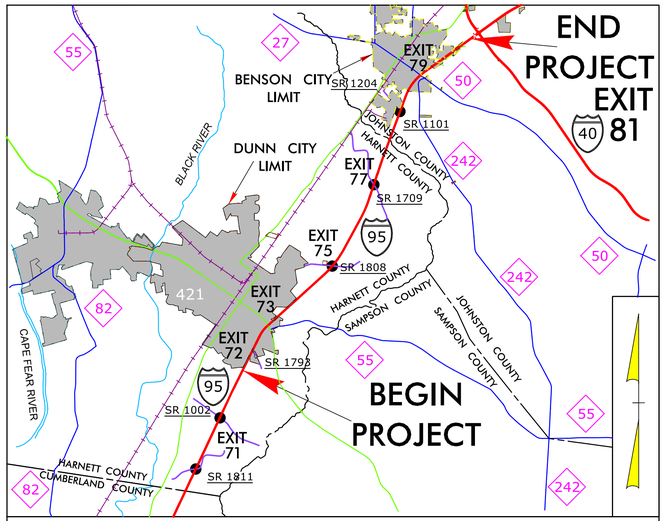
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HARNETT AND JOHNSTON COUNTIES

DIVISION 6

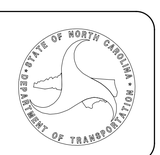




VICINITY MAP
(Not to Scale)

SEE TMP-1A FOR INDEX OF SHEETS

J.E. HUMMER, PE	*STATE TRAFFIC MANAGEMENT ENGINEER*
K.C. THORNEWELL JR, PE	*EASTERN WORK ZONE TRAFFIC CONTROL ENGINEER*
S.B. JENNINGS	*PROJECT DESIGN ENGINEER*



PLAN PREPARED BY: MICHAEL BAKER INTERNATIONAL

GEORGE M. KARAGEORGE, PE — TRAFFIC ENGINEER-NC OPERATIONS
CAROLINE OWINGS, PE — TRAFFIC ENGINEER
K. READ GENTRY — TRAFFIC ENGINEER
BIRGIT MACKENZIE — TRAFFIC DESIGNER

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4/2/2021
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Caroline.Owings

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I-5878/I-5883/I-5986B	TMP-1A

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INDEX OF SHEETS

INDEX OF SHEETS

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP OIA INDEX.dgn
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ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
862.03	STRUCTURE ANCHOR UNITS
901.50	ARROWS AND SHIELDS
903.20	WOOD SIGN POSTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
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	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
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 - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS -TYPES AND MOUNTING

LEGEND

GENERAL

- EXIST. PVMT.
- PROPOSED PVMT.
- PROPOSED CONCRETE BARRIER
- DIRECTION OF TRAFFIC FLOW

WORK AREAS

- PROPOSED ROADWAY CONSTRUCTION
- PROPOSED BRIDGE CONSTRUCTION
- PROPOSED CULVERT CONSTRUCTION
- PREVIOUSLY STARTED (ONGOING) CONSTRUCTION
- REMOVAL
- TEMPORARY PAVEMENT

SIGNALS

EXIST. PROPOSED TEMP

TEMPORARY TRAFFIC CONTROL DEVICES

- TYPE III BARRICADE
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- CHANGEABLE MESSAGE SIGN (CMS)
- FLAGGER
- AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)
- FLASHING ARROW BOARD(TYPE C)
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- WORK ZONE SIGN-PORTABLE
- WORK ZONE SIGN-STATIONARY
- WORK ZONE SIGN-STATIONARY OR PORTABLE
- TEMPORARY SHORING XX
- TEMPORARY CRASH CUSHION
- RESET TEMPORARY CRASH CUSHION
- PORTABLE CONCRETE BARRIER (PCB)
- ANCHORED PORTABLE CONCRETE BARRIER
- PREVIOUSLY PLACED PORTABLE CONCRETE BARRIER
- RESET UN-ANCHORED PORTABLE CONCRETE BARRIER
- RESET ANCHORED PORTABLE CONCRETE BARRIER

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-1B

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS
Docusigned by: George Karageorge 4/8/2021

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TEMPORARY PAVEMENT MARKING LEGEND

WORK ZONE PERFORMANCE PAVEMENT MARKING LINES

CODE	COLOR	LINE WIDTH	DESCRIPTION
W2	WHITE	24"	STOPBAR
W3	WHITE	24"	CROSSWALK LINE
W6	WHITE	6"	EDGELINE
W7	YELLOW	6"	EDGELINE
W8	WHITE	4"	MINISKIP 2FT-6FT
W10	WHITE	12"	MINISKIP 3FT-3FT
W11	WHITE	6"	MINISKIP 2FT-6FT
W14	WHITE	12"	MINISKIP 3FT-9FT
W18	YELLOW	4"	CENTER DOUBLE SOLID/SKIP
WA	WHITE	4"	EDGELINE
WB	YELLOW	4"	EDGELINE
WC	WHITE	4"	SKIP
WD	WHITE	4"	MINISKIP 3FT-9FT
WE	WHITE	4"	LANELINE
WI	YELLOW	4"	DOUBLE CENTER SOLID/SOLID
WJ	WHITE	6"	SKIP
WK	WHITE	6"	MINISKIP 3FT-9FT
WL	WHITE	6"	LANELINE
WN	WHITE	8"	GORELINE
WP	YELLOW	8"	DIAGONAL
WQ	WHITE	8"	CROSSWALK LINE
WS	WHITE	12"	GORELINE
WT	WHITE	12"	LANELINE

NOTE: PAINT MAY BE USED FOR SHORT TERM OPERATIONS WHEN ALLOWED BY THE ENGINEER.

COLD APPLIED PLASTIC PAVEMENT MARKING LINES

CODE	COLOR	LINE WIDTH	DESCRIPTION
CA	WHITE	4"	EDGELINE
CI	YELLOW	4"	DOUBLE CENTER SOLID/SOLID

WORK ZONE PERFORMANCE PAVEMENT MARKING SYMBOLS & CHARACTERS

	COLOR	DESCRIPTION
	WHITE	LEFT TURN ARROW
	WHITE	RIGHT TURN ARROW
	WHITE	STRAIGHT ARROW
	WHITE	RIGHT/STRAIGHT ARROW
	WHITE	LEFT/RIGHT ARROW
	WHITE	LEFT/RIGHT/STRAIGHT ARROW
	WHITE	PAINT ALPHANUMERIC CHARACTER
	WHITE	24" YIELD LINE TRIANGLE SYMBOL
	WHITE	MERGE ARROW
	WHITE	RAMP ARROW
40	WH/BL/RE	INTERSTATE SHIELD

LEGEND, ROADWAY STANDARDS AND TEMPORARY PAVEMENT MARKING LEGEND

4/2/2021
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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.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE PLAN, STANDARD DETAILS, AND ROADWAY STANDARD DRAWINGS 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.

REFER TO THE NCDOT 2018 STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR ADDITIONAL REQUIREMENTS.

TIME RESTRICTIONS - REFER TO INTERMEDIATE CONTRACT TIMES

TEMPORARY LANE CLOSURE DAY AND TIME RESTRICTIONS

- MAINTAIN THE EXISTING NUMBER OF I-95 TRAVEL LANES AND DO NOT CLOSE OR NARROW A SINGLE LANE OF TRAFFIC ON I-95 DURING THE FOLLOWING PERIODS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-95 INCLUDING RAMPS/LOOPS	MONDAY THRU THURSDAY - 7:00 A.M. TO 7:00 P.M. AND FRIDAY THRU SUNDAY 7:00 A.M. TO 9:00 P.M.

WHERE THERE ARE THREE OR MORE LANES IN A DIRECTION OF TRAVEL ON I-95, MAINTAIN THE EXISTING TRAFFIC PATTERN AND DO NOT CLOSE OR NARROW TWO LANES OF TRAFFIC DURING THE FOLLOWING TIMES:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-95 INCLUDING RAMPS/LOOPS	MONDAY THRU SUNDAY - 6:00 A.M. TO 11:00 P.M.

MAINTAIN A MINIMUM OF TWO (2) THRU-TRAVEL LANES ON THE FOLLOWING ROADS DURING THE FOLLOWING TIME RESTRICTIONS:

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 50 US 421	MONDAY THRU FRIDAY - 7:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 6:00 P.M.

- DO NOT CLOSE OR NARROW A LANE OF TRAFFIC ON AFOREMENTIONED FACILITIES, DETAIN, AND/OR ALTER THE TRAFFIC FLOW ON OR DURING HOLIDAYS, HOLIDAY WEEKENDS, SPECIAL EVENTS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY. AT MINIMUM, THESE REQUIREMENTS/RESTRICTIONS SHALL APPLY TO THE FOLLOWING SCHEDULES:

ROAD NAME

ALL ROADS

1) FOR UNEXPECTED OCCURRENCES THAT CREATE UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2) FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31ST TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
3) FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY; THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6) FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
8) FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS DAY.
9) FOR TOWN OF BENSON MULE DAYS EVENTS, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE THE EVENT AND 9:00 P.M. THE DAY AFTER THE EVENT. THE 2020 MULE DAYS EVENT IS SCHEDULED FOR SEPTEMBER 24-27, THURSDAY-SUNDAY (TENTATIVE). COORDINATE WITH THE TOWN OF BENSON AND THE ENGINEER FOR EXACT TIMES FOR 2020 AND OTHER YEARS.
10) FOR THE NORTH CAROLINA STATE ANNUAL SINGING CONVENTION BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE THE EVENT AND 9:00 P.M. THE DAY AFTER THE EVENT. THIS EVENT IS NORMALLY HELD FRIDAY-SUNDAY AT SINGING GROVE PARK, 400 E MAIN ST., BENSON, NC DURING THE MONTH OF JUNE. THE EXACT DATES HAVE NOT BEEN SCHEDULED AT THE TIME THIS PLAN WAS PREPARED.

TEMPORARY ROAD CLOSURE DAY AND TIME RESTRICTIONS

- TEMPORARY ROAD CLOSURES ARE NOT ALLOWED EXCEPT AT THE SPECIFIC TIMES STATED IN THE PLANS, OR WHEN DIRECTED BY THE ENGINEER.

CLOSURES WITH OFF-SITE DETOURS

DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY/TIME RESTRICTIONS
I-95	6:00 A.M. -11:00 P.M.
US-421	6:00 A.M. -11:00 P.M.

DO NOT CLOSE ANY NC 50 RAMPS DURING THE NORTH CAROLINA STATE ANNUAL SINGING CONVENTION HELD IN BENSON, NC BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE THE EVENT AND 9:00 P.M. THE DAY AFTER THE EVENT.

CLOSURES WITHOUT AN OFF-SITE DETOUR (TRAFFIC STOPPAGES)

- DO NOT STOP TRAFFIC AS FOLLOWS:

I-95 AND I-95 RAMPS/LOOPS MONDAY THRU THURSDAY 5:00 A.M. TO 11:00 P.M. AND FRIDAY 5:00 A.M. TO SUNDAY MIDNIGHT.

THE DURATION OF TRAFFIC STOPPAGES SHALL NOT EXCEED 30 MINUTES.

TRAFFIC STOPPAGES SHALL ONLY BE USED WHEN SPECIFIED IN THE PLANS OR WHEN ALLOWED BY THE ENGINEER.

OPERATIONS THAT ROAD CLOSURES WILL BE ALLOWED:

- BRIDGE DEMOLITION
- GIRDER, OVERHANG, AND FALSEWORK INSTALLATION AND/OR REMOVAL
- INSTALLATION OF OVERHEAD SIGN ASSEMBLIES AND/OR WORK ON EXISTING OVERHEAD SIGN ASSEMBLIES OVER TRAVEL LANES.
- OTHER OPERATIONS DIRECTED BY THE ENGINEER.

HAULING DAY AND TIME RESTRICTIONS

- EXCLUDING HAULING OPERATIONS THAT ARE CONDUCTED ENTIRELY BEHIND A TEMPORARY TRAFFIC BARRIER OR GUARDRAIL, HAULING SHALL NOT BE ALLOWED INGRESS AND EGRESS FROM ANY OPEN TRAVEL LANE DURING THE FOLLOWING TIME RESTRICTIONS:

SINGLE VEHICLE HAULING

- I-95, INCLUDING ALL RAMPS AND LOOPS, MONDAY THROUGH THURSDAY NO RESTRICTIONS ON SINGLE VEHICLE HAULING, USE ACTUATED ADVANCE WARNING SIGNING AND DEVICES.
- I-95, INCLUDING ALL RAMPS AND LOOPS, DO NOT CONDUCT SINGLE VEHICLE HAULING ON FRIDAY, SATURDAY AND SUNDAY 10:00 A.M. TO 4:00 P.M., USE ACTUATED ADVANCE WARNING SIGNING AND DEVICES

MULTI-VEHICLE HAULING

- I-95, INCLUDING ALL RAMPS AND LOOPS, DO NOT CONDUCT MULTI- VEHICLE HAULING, MONDAY THROUGH THURSDAY NOON TO 6:00 P.M., USE ACTUATED ADVANCE WARNING SIGNING AND DEVICES
- I-95, INCLUDING ALL RAMPS AND LOOPS, DO NOT CONDUCT MULTI- VEHICLE HAULING, FRIDAY, SATURDAY AND SUNDAY 10:00 A.M. TO 7:00 P.M., USE ACTUATED ADVANCE WARNING SIGNING AND DEVICES

GENERAL NOTES

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-1E

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGE

4/8/2021

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LANE AND SHOULDER CLOSURE REQUIREMENTS

- ON TWO-LANE, TWO-WAY FACILITIES, DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE IN ANY ONE DIRECTION ON ANY ROADWAY WITHIN THE PROJECT LIMITS OR IN CONJUNCTION WITH THIS PROJECT, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- ON MULTI-LANE FACILITIES, DO NOT INSTALL MORE THAN TWO (2) MILES OF LANE CLOSURE IN ANY ONE DIRECTION, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON ANY ROAD WITHIN THE PROJECT LIMITS SHALL BE INSTALLED AS FOLLOWS:

  FOR TWO SIMULTANEOUS LANE CLOSURES, A MINIMUM OF TWO (2) MILES SHALL BE PROVIDED BETWEEN LANE CLOSURES.

  FOR THREE SIMULTANEOUS LANE CLOSURES OR MORE, A MINIMUM OF THREE (3) MILES SHALL BE PROVIDED BETWEEN LANE CLOSURES.
- THE DISTANCE BETWEEN LANE CLOSURES NOTED ABOVE SHALL BE MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.
- 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.
- WHEN BARRIER IS PLACED ON THE ROADWAY SHOULDER, INSTALL SHOULDER CLOSURE SIGNS AND DEVICES IN ADVANCE OF THE BARRIER USING NCDOT ROADWAY STANDARD DRAWINGS.
- WHEN PERSONNEL AND / OR EQUIPMENT ARE WORKING WITHIN 15 FEET OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING NCDOT ROADWAY STANDARD DRAWINGS, UNLESS THE WORK AREA IS PROTECTED BY AN APPROVED TEMPORARY TRAFFIC BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND / OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN FIVE FEET OF AN OPEN TRAVEL LANE, AT A MINIMUM, CLOSE THE NEAREST OPEN TRAVEL LANE USING NCDOT ROADWAY STANDARD DRAWINGS, UNLESS THE WORK AREA IS PROTECTED BY AN APPROVED TEMPORARY TRAFFIC BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND / OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN TEN FEET OF AN OPEN TRAVEL LANE, AT A MINIMUM, CLOSE THE NEAREST OPEN TRAVEL LANE USING NCDOT ROADWAY STANDARD DRAWINGS, UNLESS THE WORK AREA IS PROTECTED BY AN APPROVED TEMPORARY TRAFFIC BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND / OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL, AT MINIMUM, CLOSE THE LANE USING THE NCDOT ROADWAY STANDARD DRAWINGS. CONDUCT THE WORK SO THAT ALL PERSONNEL AND / OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FEET OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.
- WHEN BARRIER IS PLACED ON THE ROADWAY SHOULDER, INSTALL SHOULDER CLOSURE SIGNS AND DEVICES IN ADVANCE OF THE BARRIER USING NCDOT ROADWAY STANDARD DRAWINGS.
- USE CONNECTED LANE CLOSURE DEVICES (SEE PROJECT SPECIAL PROVISIONS)

LANE CLOSURE NOTICES (LCN)

- THE CONTRACTOR SHALL ISSUE A LANE CLOSURE NOTICE (LCN) TO NCDOT AND AFFECTED GOVERNMENT ENTITIES A MINIMUM OF THIRTY (30) CALENDAR DAYS PRIOR TO THE PUBLICATION OF ANY NOTICES OR PLACEMENT OF ANY TRAFFIC CONTROL DEVICES ASSOCIATED WITH LANE CLOSURES, DETOUR ROUTING OR ANY OTHER CHANGE IN TRAFFIC CONTROL REQUIRING LANE CLOSURES. THE CONTRACTOR WILL BE ALLOWED TO ISSUE A SINGLE LCN FOR MULTIPLE / CONSECUTIVE LANE CLOSURES THAT OCCUR IN THE SAME LOCATION.
- FOR A LCN UTILIZING A NON-NCDOT CONTROLLED FACILITY, THE CONTRACTOR SHALL SECURE CONCURRENCE, IN WRITING, FROM THE CONTROLLING GOVERNMENT ENTITY. A LCN SHALL CONTAIN THE ESTIMATED DATE, TIME, DURATION AND LOCATION OF THE PROPOSED WORK. THE CONTRACTOR SHALL KEEP NCDOT INFORMED OF ANY AND ALL CHANGES OR CANCELLATIONS OF PROPOSED LANE CLOSURES PRIOR TO THE DATE OF THEIR IMPLEMENTATION.
- IF AN EMERGENCY CONDITION SHOULD OCCUR, A LCN SHALL BE PROVIDED TO NCDOT WITHIN TWO (2) DAYS AFTER THE EVENT. FOR NON-NCDOT CONTROLLED FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTROLLING GOVERNMENT ENTITY.

ROAD CLOSURE REQUIREMENTS

- FURNISH AND INSTALL ALL TEMPORARY SIGNING AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED FOR TEMPORARY ROAD CLOSURES, INCLUDING TEMPORARY ROUTE SIGNS REQUIRED FOR OFF-SITE DETOURS.
- COVER OR REMOVE ALL TEMPORARY ROAD CLOSURE SIGNS AND DEVICES WHEN A TEMPORARY ROAD CLOSURE IS NOT IN OPERATION. WHEN A DETOUR IS NOT IN OPERATION, COVER OR REMOVE ALL TEMPORARY DETOUR SIGNS.
- WHEN CLOSING A ROADWAY, INSTALL/UNCOVER DETOUR AND ROAD CLOSURE SIGNS FIRST, AND INSTALL CLOSURE BARRICADES LAST. WHEN RE-OPENING A ROADWAY, REMOVE CLOSURE BARRICADES FIRST, THEN REMOVE/COVER SIGNS.
- DO NOT SIMULTANEOUSLY CLOSE ADJACENT INTERCHANGES UNLESS ALLOWED IN THE PLANS, OR DIRECTED BY THE ENGINEER.

TRAFFIC PATTERN ALTERATIONS

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

ROAD CLOSURE NOTICE (RCN)

- PROPOSED ROAD CLOSURES ON ANY ROAD SHALL BE APPROVED BY THE ENGINEER PRIOR TO INCORPORATION IN THE TRANSPORTATION MANAGEMENT PLANS.
- THE CONTRACTOR SHALL ISSUE A ROAD CLOSURE NOTICE (RCN) TO NCDOT AND AFFECTED GOVERNMENT ENTITIES A MINIMUM OF THIRTY (30) CALENDAR DAYS PRIOR TO THE PUBLICATION OF ANY NOTICES OR PLACEMENT OF ANY TRAFFIC CONTROL DEVICES ASSOCIATED WITH ROAD CLOSURES, DETOUR ROUTING OR OTHER CHANGE IN TRAFFIC CONTROL REQUIRING ROAD CLOSURES.
- FOR A RCN UTILIZING A NON-NCDOT CONTROLLED FACILITY, THE CONTRACTOR SHALL SECURE CONCURRENCE IN WRITING FROM THE CONTROLLING GOVERNMENT ENTITY. A RCN SHALL CONTAIN THE ESTIMATED DATE, TIME, DURATION, AND LOCATION OF THE PROPOSED WORK. THE CONTRACTOR SHALL KEEP NCDOT AND ANY OTHER AFFECTED GOVERNMENT ENTITY INFORMED OF ANY AND ALL CHANGES OR CANCELLATIONS OF PROPOSED ROAD CLOSURES PRIOR TO THE DATE OF THEIR IMPLEMENTATION.
- IF AN EMERGENCY CONDITION SHOULD OCCUR, A RCN SHALL BE PROVIDED TO NCDOT WITHIN TWO (2) DAYS AFTER THE EVENT. FOR NON-NCDOT CONTROLLED FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTROLLING GOVERNMENT ENTITY.

HAULING REQUIREMENTS

- THE CONTRACTOR SHALL ADHERE TO THE HAULING RESTRICTIONS NOTED IN THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- THE CONTRACTOR SHALL CONDUCT ALL HAULING OPERATIONS AS FOLLOWS:
- 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 LANE NARROWING, LANE CLOSURE, HOLIDAY AND SPECIAL EVENTS TIME RESTRICTIONS, UNLESS THE HAULING OPERATION OCCURS COMPLETELY BEHIND TEMPORARY TRAFFIC BARRIER OR GUARDRAIL AND DOES NOT IMPACT TRAFFIC OPERATIONS.
- INGRESS AND EGRESS FROM RAMPS, OR FROM BEHIND LANE CLOSURES WILL BE ALLOWED.
- ALL ENTRANCES AND EXITS FOR HAULING TO AND FROM THE WORK ZONE SHALL BE IN ACCORDANCE WITH THE NCDOT ROADWAY STANDARD DRAWINGS OR THE TYPICAL MEDIAN ACCESS AREAS PROJECT SPECIAL PROVISION.
- HAUL VEHICLES SHALL NOT ENTER AND / OR EXIT AN OPEN TRAVEL LANE AT SPEEDS MORE THAN 10 MPH BELOW THE POSTED SPEED LIMIT.
- A HAULING ACCESS POINT TO THE I-95 MEDIAN WILL BE ALLOWED AT THE SOUTH END AND NORTH END OF THE PROJECT AND THE LOCATIONS ARE SUBJECT TO DEPARTMENT APPROVAL. ADDITIONAL HAULING ACCESS POINTS TO THE I-95 MEDIAN SHALL BE LIMITED TO THREE PER DIRECTION, AT A LOCATION CHOSEN BY THE CONTRACTOR AND APPROVED BY THE DEPARTMENT. THE MEDIAN HAULING ACCESS POINTS MAY BE MOVED DURING CONSTRUCTION, AS APPROVED BY THE DEPARTMENT.
- UPON AWARD OF THE PROJECT THE CONTRACTOR SHALL PROVIDE A HAULING PLAN TO THE ENGINEER. THE PLAN SHALL ADDRESS HOW HAULING WILL BE CONDUCTED IN THE PROJECT, INCLUDING BUT NOT LIMITED TO, HAULING OF ANY MATERIALS TO AND FROM THE SITE AND MATERIAL WITHIN THE NCDOT RIGHT OF WAY. ALL HAULING ENTRANCES, EXITS AND CROSSINGS WILL REQUIRE APPROVAL FROM THE DEPARTMENT. HAULING SHALL BE COORDINATED WITH CONTRACTOR(S) OF ADJACENT PROJECTS.
- SIGNS WITH ACTIVATED BEACONS OR LED FLASHERS SHALL BE INSTALLED AND USED WHEN HAULING FROM THE MEDIAN. THESE SIGNS SHALL BE ACTIVATED ONCE HAUL VEHICLES ARE DETECTED TO WARN MOTORISTS OF VEHICLES ENTERING THE HIGHWAY FROM THE MEDIAN. (REFERENCE THE TYPICAL MEDIAN ACCESS AREAS PROJECT SPECIAL PROVISION)
- HAULING OPERATIONS THAT PERPENDICULARLY CROSS A ROADWAY SHALL REQUIRE TRANSPORTATION MANAGEMENT PLANS AND SHALL BE SUBJECT TO THE LANE CLOSURE TIME RESTRICTIONS, AND HOLIDAY AND SPECIAL EVENT TIME RESTRICTIONS EXCLUDING HAULING OPERATIONS THAT ARE CONDUCTED ENTIRELY BEHIND A TEMPORARY TRAFFIC BARRIER OR GUARDRAIL.

GENERAL NOTES

BARRIERS AND POSITIVE PROTECTION

- 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.
- BARRIER SHALL BE PLACED ON A PAVED SURFACE. UNLESS PERMITTED OTHERWISE BY THE MANUFACTURER. THE PAVED SURFACE SHALL EXTEND A MINIMUM OF TWO FEET BEHIND ALL UNANCHORED BARRIER. CLEARANCE BEHIND ANCHORED BARRIER IS NOT REQUIRED.
- DO NOT PLACE BARRIER ON A SLOPE STEEPER THAN 6:1.
- 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.
- PROTECT THE APPROACH END OF TEMPORARY CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.
- DO NOT PLACE TEMPORARY BARRIER ALONG ANY SHIFTING TAPER, INCLUDING BUT NOT LIMITED TO, EXISTING, TEMPORARY AND / OR PROPOSED SHIFTING TAPERS.
- DO NOT PLACE TEMPORARY BARRIER IN GORE AREAS. TEMPORARILY CLOSE THE RAMP OR LOOP IF THE WORK CANNOT BE SAFELY PERFORMED WITHOUT PLACING TEMPORARY BARRIER IN THE GORE AREA.

TEMPORARY CLEAR ZONES

- AS A GENERAL GUIDELINE MAINTAIN A TEMPORARY WORK AREA CLEAR ZONE FOR THE DURATION OF THIS PROJECT ON ALL ROADWAYS AS FOLLOWS:

ROAD	CLEAR ZONE
I-95	40 FT.
ALL OTHER ROADS	20 FT.

DUE TO VARYING FIELD CONDITIONS THIS GUIDELINE MAY BE MODIFIED AS FOLLOWS AND/OR AS DIRECTED BY THE ENGINEER:

-WHEN LANE CLOSURES ARE NOT IN EFFECT AND WORK IS NOT BEHIND BARRIER OR GUARDRAIL THE FOLLOWING CLEAR ZONE REQUIREMENTS SHOULD BE MET:

-MOVE EQUIPMENT, MATERIALS, STOCKPILES AND OBSTACLES CREATED BY WORK OPERATIONS THAT WERE NOT EXISTING PRIOR TO WORK BEGINNING, TO A LOCATION OUTSIDE THE CLEAR ZONE.

-MOVE OBSTACLES SUCH AS STOCKPILES AND NON-ACTIVE EQUIPMENT AT LEAST 5' AWAY FROM THE BACK OF BARRIER. IN GENERAL, IF STORING MATERIALS OR EQUIPMENT BEHIND ANY TYPE OF BARRIER THE DEFLECTION OF THE BARRIER SHOULD BE ACCOUNTED FOR AND ITEMS SHOULD NOT BE STORED IN THAT AREA.

-EXCAVATIONS OR OTHER IMMOVABLE OBSTRUCTIONS SHALL BE SAFED UP USING METHODS SUCH AS BACK-FILLING, COVERS, DELINEATION, ETC. METHODS MUST BE ACCEPTABLE TO THE ENGINEER.

OVERSIZE VEHICLES

- ON ALL ROADWAYS WITHIN THE PROJECT LIMITS, PROVIDE SAFE ACCESS FOR WIDE-LOADS AND OVERSIZED PERMITTED VEHICLES THROUGH THE WORK ZONE. SAFE ACCESS SHALL ENTAIL, BUT IS NOT LIMITED TO, A SUFFICIENT PAVEMENT STRUCTURE, MAINTAINING THE EXISTING VERTICAL CLEARANCE OF OVERHEAD STRUCTURES, PROVIDING THE REQUIRED VERTICAL CLEARANCE ON PROPOSED OVERHEAD STRUCTURES AND PROVIDING THE MINIMUM HORIZONTAL CLEAR WIDTHS AS FOLLOWS:
- ROADWAY MINIMUM CLEAR WIDTH I-95, NC ROUTES, US ROUTES, AND ALL RAMPS AND LOOPS IS 20 FEET. ON ALL OTHER ROADWAYS 18 FEET.
- MAINTAIN THE EXISTING OVERHEIGHT VEHICLE DETECTION SYSTEM OPERATIONAL DURING THE PROJECT UNTIL DIRECTED BY THE ENGINEER TO REMOVE THE SYSTEM. REFER TO ITS PLANS.

TRAFFIC CONTROL DEVICES

- ALL TRAFFIC CONTROL DEVICES, INCLUDING PORTABLE CONCRETE BARRIER AND BRIDGE BARRIER RAILS, SHALL BE PLACED / LOCATED A MINIMUM TWO-FOOT OFFSET (SHY DISTANCE) FROM THE EDGE OF AN OPEN TRAVEL LANE, UNLESS ALLOWED OTHERWISE BY THE ENGINEER.
- ENSURE ALL NECESSARY TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, MARKINGS, ETC ARE IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF UNEVEN AREA, AS DIRECTED BY THE ENGINEER.
- DURING PAVEMENT MILLING OPERATIONS PROVIDE "ROUGH ROAD" SIGNS (W8-8) IN ADVANCE OF A MILLED PAVEMENT AREA.
- WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. SPACING OF CHANNELIZING DEVICES SHOWN IN THE PLANS MAY NOT BE TO SCALE. DUE TO HORIZONTAL/VERTICAL CURVATURE AND OTHER ITEMS THAT MAY OBSCURE THE CHANNELIZING DEVICES, IT IS THE CONTRACTORS RESPONSIBILITY TO ADJUST SPACING IN ORDER TO EFFECTIVELY ACCOMPLISH THE INTENDED CHANNELIZATION.
- USE HIGH VISIBILITY TRAFFIC CONTROL DEVICES ON THIS PROJECT.
- USE "SEQUENTIAL FLASHING WARNING LIGHTS" AND "WORK ZONE PRESENCE LIGHTING" DURING NIGHT LANE CLOSURES ON I-95
- INSTALL TEMPORARY "NO PARKING" SIGNS ON RAMPS OF THE TYPE AND AT LOCATIONS DETERMINED BY THE ENGINEER.

LAW ENFORCEMENT

- PROVIDE LAW ENFORCEMENT TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND OR INTERSECTIONS AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER. USE LAW ENFORCEMENT TO DIRECT TRAFFIC AT SIGNALIZED INTERSECTIONS. DO NOT USE FLAGGERS TO DIRECT TRAFFIC AT SIGNALIZED INTERSECTIONS.
- COORDINATE WITH THE LAW ENFORCEMENT AGENCY FOR THE USE OF LAW ENFORCEMENT OFFICERS.
- ALL LAW ENFORCEMENT LOCATIONS ARE TO BE PRE-APPROVED BY THE ENGINEER.
- REFER TO THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

WORK ZONE ADVANCE WARNING SIGNS

- PRIOR TO STARTING CONSTRUCTION OPERATIONS, INSTALL WORK ZONE ADVANCE WARNING SIGNS ON PROJECT AS FOLLOWS:

  -I-95 PER SHEET TMP-2
  -ALL OTHER ROADWAYS PER ROADWAY STANDARD DRAWING 1101.01.

- COORDINATE ADVANCE WARNING SIGNS WITH THE CONTRACTOR OF ADJACENT PROJECT I-5986A/I-5877.

CHANGEABLE MESSAGE SIGNS

- PROVIDE CMS'S THAT HAVE THE FUNCTIONALITY TO BE OPERATED LOCALLY IN THE FIELD AND CONTROLLED REMOTELY FROM THE STOC. ALL CMS'S PROVIDED MUST BE FULLY NATIONAL TRANSPORTATION COMMUNICATIONS OR ITS PROTOCOL (NTCIP) COMPLIANT, ON THE NCDOT APPROVED PRODUCTS LIST, FULL MATRIX AND CAPABLE OF COMMUNICATING WITH THE EXISTING SOFTWARE UTILIZED BY THE STOC STAFF. NO VENDOR SPECIFIC OR THIRD-PARTY SOFTWARE WILL BE ALLOWED. DO NOT BEGIN ANY CONSTRUCTION THAT INVOLVES LANE CLOSURES ON ANY ROAD UNTIL ALL CMS'S AND ALL OTHER DEVICES ARE INSTALLED AND COMMUNICATING WITH THE STOC.
- FOR TRAFFIC CONTROL PURPOSES DURING CONSTRUCTION, PROVIDE AND OPERATE A MINIMUM OF ONE CMS PER DIRECTION ON I-95 THAT PROVIDES GENERAL INFORMATION ABOUT THE CONSTRUCTION ACTIVITIES WITHIN THE PROJECT LIMITS. PRIOR TO IMPLEMENTATION, COORDINATE ALL MESSAGES ON THESE CMS'S WITH THE RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND THE STOC. THESE CMS'S SHALL BE IN ADDITION TO ANY OTHER CMS'S REQUIRED BY THE NCDOT ROADWAY STANDARD DRAWINGS OR REQUIRED FOR INCIDENT MANAGEMENT USE.
- INSTALL, RELOCATE, AND MAINTAIN THE CMS'S AND STATIONARY SIGNS DURING CONSTRUCTION OF THE PROJECT. UPON COMPLETION OF THE PROJECT, OR AS DIRECTED BY THE ENGINEER, REMOVE AND / OR DISPOSE OF THE CMS'S AND STATIONARY SIGNS.
- COORDINATE ON A 24-HOUR BASIS WITH THE RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND THE STOC TO PROVIDE RELEVANT AND TIMELY TRAVEL INFORMATION THROUGHOUT THE WORK ZONE AND ALONG ALTERNATE ROUTES.
- IN ADDITION TO THE CMS'S REQUIRED ABOVE AND THE CMS'S REQUIRED FOR ITS, PROVIDE AND OPERATE A MINIMUM OF 12 CMS'S TO DISPLAY ALTERNATE ROUTE INFORMATION AHEAD OF THE PROJECT DETOUR POINTS FOR INCIDENTS ON I-95. THESE 12 CMS'S SHALL BE INSTALLED, OPERATED, AND MAINTAINED FROM THE INITIATION OF PROJECT CONSTRUCTION TO PROJECT COMPLETION. THE 12 CMS'S SHALL BE USED TO PROVIDE PROJECT INFORMATION APPROVED BY THE DIVISION MAINTENANCE ENGINEER, RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND STATEWIDE TRANSPORTATION OPERATIONS CENTER (STOC) INCLUDING BUT NOT LIMITED TO CONSTRUCTION ACTIVITIES AND INCIDENT MANAGEMENT INFORMATION. THE POSITIONING OF THESE INCIDENT MANAGEMENT CMS'S SHALL BE COORDINATED WITH, AND APPROVED BY, THE RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND THE STOC.
- ENSURE THAT ALTERNATE ROUTES FOR INCIDENT MANAGEMENT ARE SIGNED WITH EITHER EXISTING STATIONARY ALTERNATE ROUTE SIGNING OR PROVIDE TEMPORARY STATIONARY ALTERNATE ROUTE SIGNING TO GUIDE DETOURED MOTORISTS ALONG THE ALTERNATE ROUTE BACK TO THE ORIGINAL ROAD. PROVIDE A PLAN, FOR APPROVAL BY THE RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND STOC THAT SHOWS THE ALTERNATE ROUTES TO BE USED FOR INCIDENT MANAGEMENT, THE APPROXIMATE LOCATIONS OF CMS'S, ALONG WITH THEIR RESPECTIVE MESSAGES, AND EXISTING AND TEMPORARY STATIONARY ALTERNATE ROUTE SIGNING TO BE USED FOR INCIDENT MANAGEMENT. COORDINATE WITH THE RESIDENT ENGINEER, DIVISION 6 TRAFFIC ENGINEER, AND THE STOC WHEN ALTERNATE ROUTE INFORMATION NEEDS TO BE DISPLAYED. IN THE EVENT OF AN INCIDENT, THE STOC WILL TAKE REMOTE CONTROL OF THE APPLICABLE CMS'S TO PROVIDE INCIDENT MANAGEMENT INFORMATION TO MOTORISTS. UPON INCIDENT CLEARANCE AND RESUMPTION OF NORMAL TRAFFIC FLOW, THE STOC WILL ALLOW THE CONTRACTOR TO REGAIN CONTROL OF THE CMS'S.

MOTORIST PULL-OFF AREAS

- WHEN TEMPORARY BARRIER IS USED CONTINUOUSLY ON ONE OR BOTH SIDES OF A DIRECTION OF I-95 TRAVEL FOR A DISTANCE GREATER THAN TWO MILES, PROVIDE A PAVED MOTORIST PULL-OFF AREA ON THE RIGHT SIDE OF THE I-95 TRAVELWAY EVERY MILE, UNLESS THE OUTSIDE USEABLE PAVED WIDTH (CLEAR DISTANCE BETWEEN EDGE OF TRAVEL LANE AND FACE OF BARRIER) IS TEN FEET OR GREATER. ALL MOTORIST PULL-OFF AREAS SHALL BE A MINIMUM OF ONE THOUSAND FEET LONG AND FOURTEEN FEET WIDE, TEN FEET OF WHICH SHALL BE PAVEMENT. ALL MOTORIST PULL-OFF AREAS SHALL BE IDENTIFIED ON THE PROJECT WITH CHANGEABLE MESSAGE SIGNS AND / OR STATIONARY SIGNS PLACED IN ADVANCE OF THE MOTORIST PULL-OFF AREA, AS APPROVED BY THE DEPARTMENT PRIOR TO INCORPORATION. EXIT RAMPS WILL BE CONSIDERED AS AN MOTORIST PULL-OFF AREA. SPECIFIC LOCATIONS ARE NOT SHOWN IN THE PLANS SINCE THEIR LOCATION WILL DEPEND ON THE CONTRACTOR'S SCHEDULE AND WHICH AREAS ARE CHOSEN TO BE WORKED ON CONCURRENTLY.

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-1F

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PAVEMENT DROP- OFF REQUIREMENTS

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

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

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

  BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER. THERE WILL BE NO DIRECT PAYMENT FOR BACKFILL AS THIS WORK WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

- DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

LANE AND SHOULDER WIDTHS

- UNLESS OTHERWISE SHOWN IN THE PLAN, WHEN LANE,ROAD AND / OR SHOULDER CLOSURES ARE NOT IN EFFECT, MAINTAIN THE EXISTING NUMBER OF TRAVEL LANES ON ALL ROADS. FOR EXISTING TRAVEL LANES THAT ARE 11-FOOT WIDE OR WIDER, MAINTAIN A MINIMUM OF 11-FOOT TRAVEL LANES AT ALL TIMES. FOR EXISTING TRAVEL LANES THAT ARE NARROWER THAN 11 FEET, MAINTAIN THE EXISTING TRAVEL LANE WIDTHS AT ALL TIMES.
- MAINTAIN A MINIMUM OF FOUR-FOOT WIDE INSIDE AND OUTSIDE PAVED SHOULDERS IN EACH DIRECTION OF I-95 UNLESS TEMPORARY BARRIER IS PLACED ON THE PAVED SHOULDER. UNDER STRUCTURES ONLY, MAINTAIN A MINIMUM TWO-FOOT WIDE PAVED SHOULDER ADJACENT TO I-95 THROUGH LANES AND A MINIMUM ONE-FOOT WIDE PAVED SHOULDER ADJACENT TO RAMPS.
- ON ALL OTHER ROADWAYS MAINTAIN EXISTING SHOULDER WIDTHS.

LANE SHIFTS

- UNLESS OTHERWISE SHOWN IN THE PLANS, STRAIGHT TAPER LANE SHIFTS ON I-95 SHOULD BE THE FULL "L" DISTANCE. ON OTHER ROADWAYS 1/2 "L" MAY BE USED.
- ON I-95 WHERE LANES ARE SHIFTING MORE THAN 12' USE A SOLID LANE LINE BETWEEN LANES INSTEAD OF A SKIP LINE.
- WHEN A LANE SHIFT LATERAL DISTANCE (W) IS GREATER THAN 12' USE REVERSE CURVE WARNING SIGNS IN ADVANCE OF THE SHIFT. FOR W<12' THESE SIGNS MAY BE OMITTED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- PRIOR TO SHIFTING TRAFFIC TO A NEW PATTERN ON I-95, INCLUDING ALL RAMPS AND LOOPS, REMOVE ALL CONFLICTING MARKERS AND SNOWPLOWABLE MARKER CASTINGS, PATHC ALL CASTING HOLES, AND CONCEAL ALL CONFLICTING MARKINGS.

TEMPORARY SHORING

- TEMPORARY SHORING SHOWN IN THE TRANSPORTATION MANAGEMENT PLAN ARE FOR LOCATION PURPOSES WHERE TEMPORARY SHORING AFFECTS TRAFFIC. LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED AND APPROVED BY THE ENGINEER.

DRAINAGE

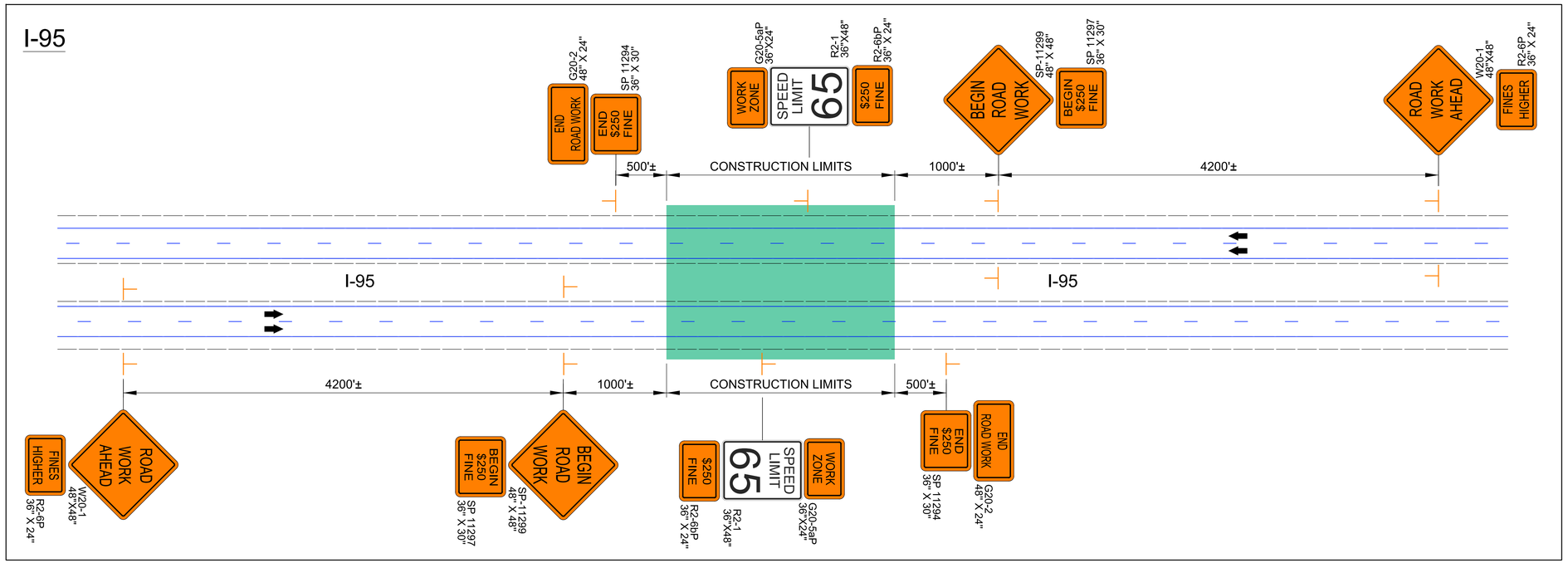
- MAINTAIN DRAINAGE DURING CONSTRUCTION IN ACCORDANCE WTH THE STANDARD SPECIFICATIONS AND THE PLANS.
- IN THE EVENT WHERE TRANSITIONING FROM EXISTING DRAINAGE TO THE PROPOSED DRAINAGE REQUIRES PHASING OF THE CONSTRUCTION PROVIDE TEMPORARY ACCOMMODATIONS TO MAINTAIN DRAINAGE AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- REFER TO ROADWAY PLANS FOR TEMPORARY DRAINAGE REQUIREMENTS.

GENERAL NOTES

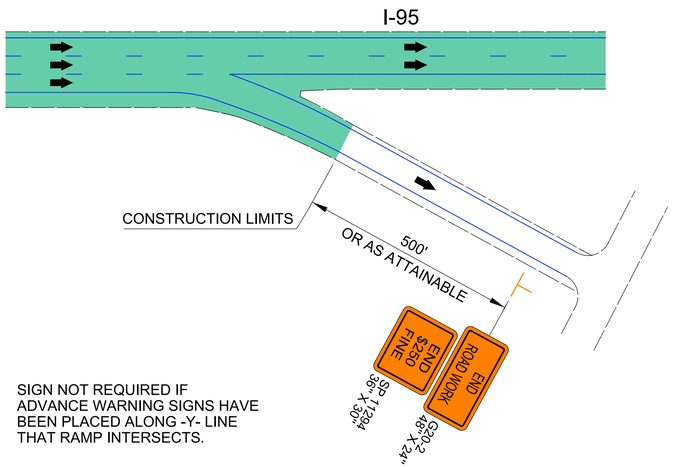
PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

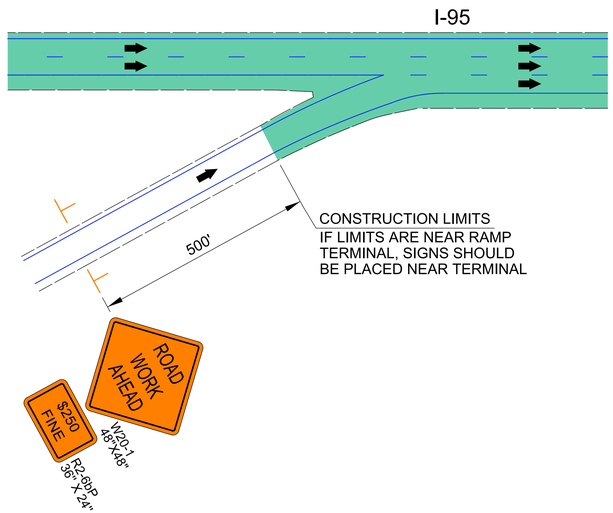


EXIT RAMPS



SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS.

ENTRANCE RAMPS



NOTES:

1. DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK UNLESS COVERED.
2. ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
3. ERECT SIGNS PER RSD 1110.01. PAYMENT FOR WOOD POSTS, 3 LBS STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATIONS FOR WORK ZONE SIGNS.
4. WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH RSD 1110.01.
5. DO NOT BACK BRACE SIGN SUPPORTS.
6. COORDINATE ADVANCE WARNING SIGNS WITH CONTRACTOR OF PROJECT I-5986A/I-5877 CURRENTLY UNDER CONSTRUCTION.

I-95 "WORK ZONE" ADVANCE WARNING SIGNS TYPICAL

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP 02 WZ ADVANCE WARNING SINGS.dgn
Caroline.Owings

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS
4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-01
TYPE: A
QUANTITY: 2

SIGN WIDTH: 14′-6″
HEIGHT: 6′-0″
TOTAL AREA: 87.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 166.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1, 2

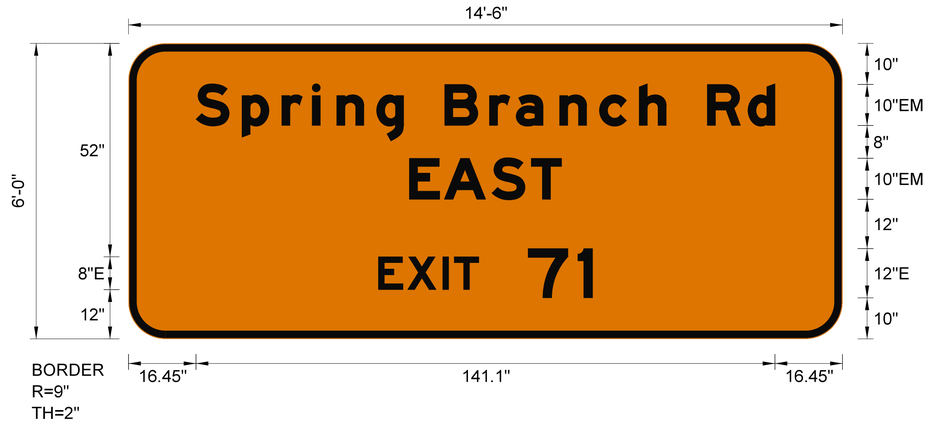
1. Legend and border shall be directly applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM **CHECKED BY:** GK **Mar 07, 2020**
PROJECT ID: I-5986B **LOCATION:** I-95 **DIV:** 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

																											Series/Size Text Length
	S	p	r	i	n	g		B	r	a	n	c	h		R	d												EM 2000
	16.4	27.6	37.3	44.7	50.7	60.4	67	77	87.9	94.4	105	114.7	124.4	131	141	150.9												141.1
	E	A	S	T																								EM 2000
	68.5	77	88.6	98.2																								37.1
	E	X	I	T	7	1																						E 2000
	60.9	68	76.6	79.4	97.4	109.5																						52.2

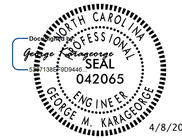
FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP 02A TEMPORARY SIGN DESIGN.dgn
Caroline.Owings

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A1



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-02
TYPE: A
QUANTITY: 2

SIGN WIDTH: 14′-6″
HEIGHT: 6′-0″
TOTAL AREA: 87.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 166.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Mar 07, 2020

PROJECT ID: I-5986B LOCATION: I-95 DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

																											Series/Size Text Length
	S	p	r	i	n	g		B	r	a	n	c	h		R	d												EM 2000
	16.4	27.6	37.3	44.7	50.7	60.4	67	77	87.9	94.4	105	114.7	124.4	131	141	150.9												141.1
	W	E	S	T																								EM 2000
	67.7	80.1	89.3	98.9																								38.6
	E	X	I	T	7	3																						E 2000
	58	65.1	73.7	76.5	94.5	106.3																						58

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A2

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS 4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-03
TYPE: A
QUANTITY: 2

SIGN WIDTH: 14′-6″
HEIGHT: 6′-0″
TOTAL AREA: 87.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 166.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES:

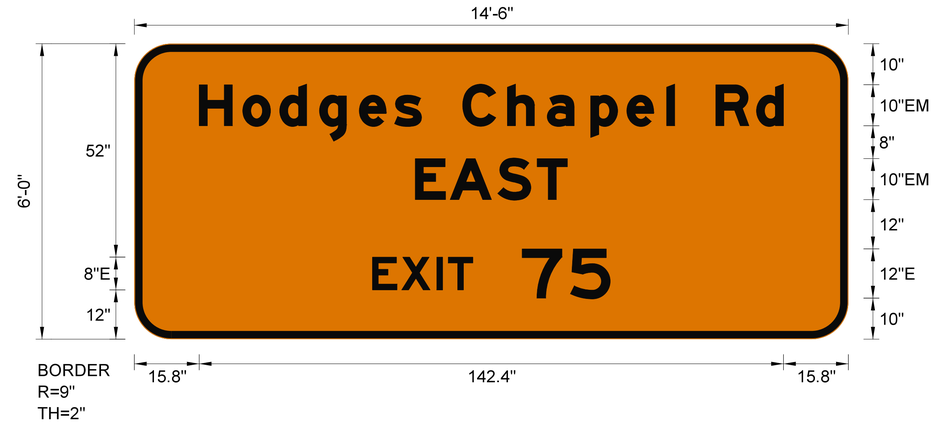
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM **CHECKED BY:** GK **Mar 07, 2020**
PROJECT ID: I-5986B **LOCATION:** I-95 **DIV:** 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

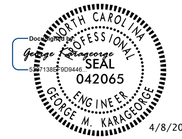
																											Series/Size Text Length
	H	o	d	g	e	s		C	h	a	p	e	l		R	d												EM 2000
	15.8	26.4	35.4	45.1	54.8	63.4	70	80	90.9	100.6	111.2	120	129.7	131.7	141.7	151.6											142.4
	E	A	S	T																							EM 2000
	68.4	76.9	88.5	98.1																							37.1
	E	X	I	T	7	5																					E 2000
	58	65.1	73.7	76.5	94.5	106.3																					58

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP - 2A3



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-04
TYPE: A
QUANTITY: 2

SIGN WIDTH: 14′-6″
HEIGHT: 6′-0″
TOTAL AREA: 87.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 166.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

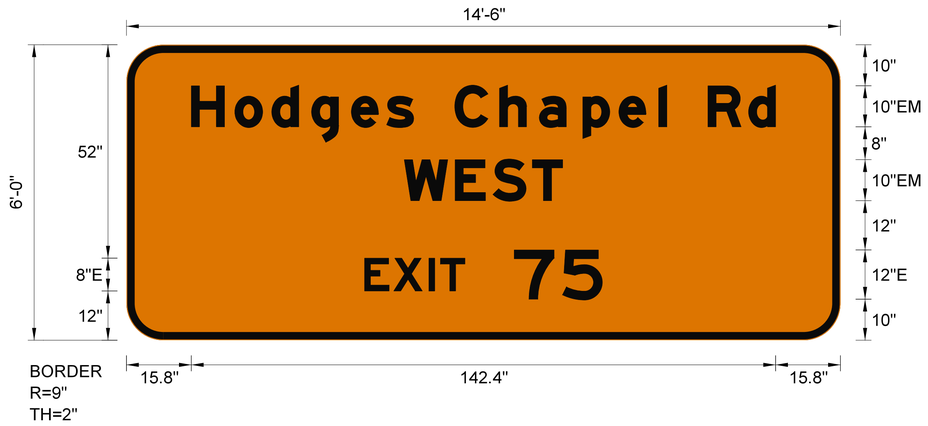
DESIGN BY: BM CHECKED BY: GK Mar 07, 2020

PROJECT ID: I-5986B LOCATION: I-95 DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

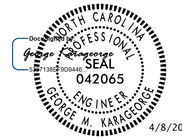
																											Series/Size Text Length
	H	o	d	g	e	s		C	h	a	p	e	l		R	d												EM 2000
	15.8	26.4	35.4	45.1	54.8	63.4	70	80	90.9	100.6	111.2	120	129.7	131.7	141.7	151.6											142.4
	W	E	S	T																							EM 2000
	67.7	80.1	89.3	98.9																							38.6
	E	X	I	T	7	5																					E 2000
	58	65.1	73.7	76.5	94.5	106.3																					58

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A4



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-05
TYPE: A
QUANTITY: 2

SIGN WIDTH: 11′-6″
HEIGHT: 6′-0″
TOTAL AREA: 69.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 130.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Mar 07, 2020

PROJECT ID: I-5986B LOCATION: I-95 DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY

GUARDRAIL / BARRIER PROTECTION REQUIRED

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

																										Series/Size Text Length
	J	o	n	e	s	b	o	r	o		R	d														EM 2000
	15.7	25.8	35.7	45.4	54	63.7	72.5	82.4	88.9	95.7	105.7	115.6														106.5
	E	A	S	T																						EM 2000
	50.4	58.9	70.5	80.1																						37.1
	E	X	I	T	7	3																				E 2000
	40	47.1	55.7	58.5	76.5	88.3																				58

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP - 2A5

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGIS
4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-06
TYPE: A
QUANTITY: 2

SIGN WIDTH: 11′-6″
HEIGHT: 6′-0″
TOTAL AREA: 69.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0″
WIDTH: 2″
RADII: 9″

NO. Z BARS: 2
LENGTH: 130.0

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Mar 07, 2020

PROJECT ID: I-5986B LOCATION: I-95 DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 2 - WOOD 6in X 8in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY

GUARDRAIL / BARRIER PROTECTION REQUIRED

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

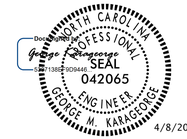
																										Series/Size Text Length
	J	o	n	e	s	b	o	r	o		R	d														EM 2000
	15.7	25.8	35.7	45.4	54	63.7	72.5	82.4	88.9	95.7	105.7	115.6														106.5
	W	E	S	T																						EM 2000
	49.7	62.1	71.3	80.9																						38.6
	E	X	I	T	7	7																				E 2000
	40.2	47.3	55.9	58.7	76.7	88.1																				57.6

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP - 2A6



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-08
TYPE: D
QUANTITY: 17

SIGN WIDTH: 3′-6″
HEIGHT: 1′-6″
TOTAL AREA: 5.3 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47″
WIDTH: 0.63″
RADII: 1.5″

NO. Z BARS:
LENGTH:

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2

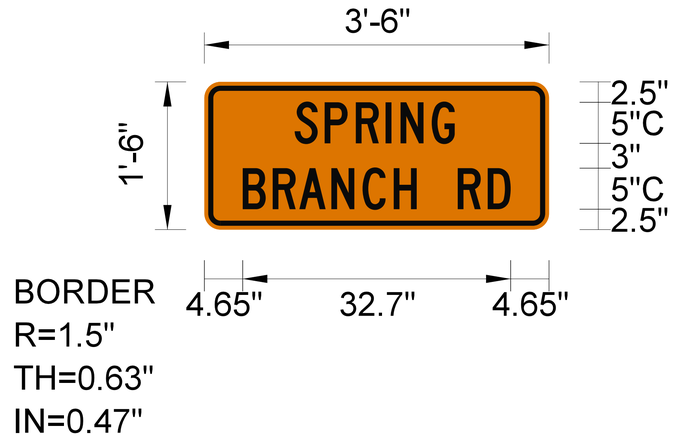
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM **CHECKED BY:** GK **Feb 13, 2020**
PROJECT ID: I-5986B **LOCATION:** DETOUR **DIV:** 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 1 - WOOD 4in X 4in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

																										Series/Size Text Length
	S	P	R	I	N	G																				C 2000
	11	14.7	18.5	22.1	23.9	27.7																				19.5
	B	R	A	N	C	H		R	D																	C 2000
	4.7	8.3	11.6	15.5	19.3	23.1	25.9	30.9	34.5																	32.7

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A7

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS
4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-09
TYPE: D
QUANTITY: 13

SIGN WIDTH: 3′-0″
HEIGHT: 1′-0″
TOTAL AREA: 3.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47″
WIDTH: 0.63″
RADII: 1.5″

NO. Z BARS:
LENGTH:

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2

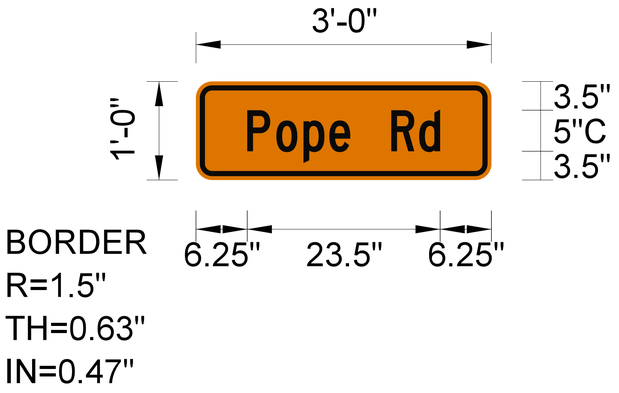
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Feb 13, 2020
PROJECT ID: I-5986B LOCATION: DETOUR DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 1 - WOOD 4in X 4in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size Text Length: C 2000 / 23.5

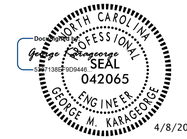
	P	o	p	e		R	d																		
	6.2	9.8	13.1	16.2	18.8	23.8	27.2																		

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A8



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP-10
TYPE: D
QUANTITY: 16

SIGN WIDTH: 3′-6″
HEIGHT: 1′-6″
TOTAL AREA: 5.3 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47″
WIDTH: 0.63″
RADII: 1.5″

NO. Z BARS:
LENGTH:

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2

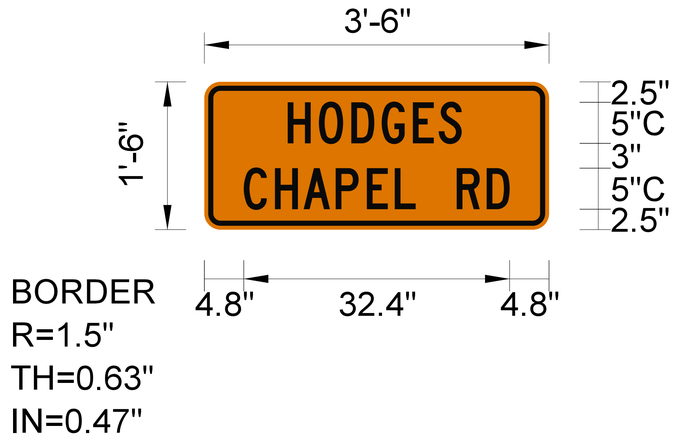
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Feb 13, 2020
PROJECT ID: I-5986B LOCATION: DETOUR DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 1 - WOOD 4in X 4in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner																										Series/Size Text Length
	H	O	D	G	E	S																				C 2000
	10.2	14	17.9	21.6	25.4	28.6																				21.2
	C	H	A	P	E	L		R	D																	C 2000
	4.8	8.6	12.1	16	19.8	23.2	25.8	30.8	34.4																	32.4

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

SIGN NUMBER: SP-11
TYPE: D
QUANTITY: 1

SIGN WIDTH: 3′-6″
HEIGHT: 1′-6″
TOTAL AREA: 5.3 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47″
WIDTH: 0.63″
RADII: 1.5″

NO. Z BARS:
LENGTH:

BACKG COLOR: Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.125″ (3.2 mm) ALUMINUM

USE NOTES: 1,2

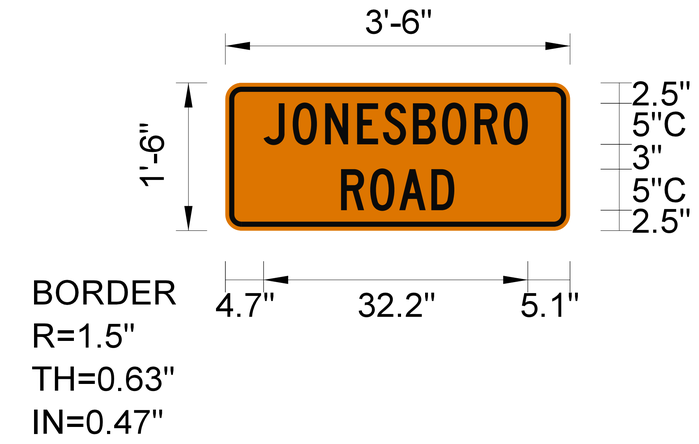
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: BM CHECKED BY: GK Feb 13, 2020
PROJECT ID: I-5986B LOCATION: DETOUR DIV: 6

SIGN TO BE PAID FOR UNDER PAY ITEM: WORK ZONE SIGNS (STATIONARY) PAY UNIT: SQUARE FOOT

SUPPORTS: 1 - WOOD 4in X 4in

SUPPORTS AND ANY OTHER INCIDENTALS WILL NOT BE PAID SEPARATELY



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

																										Series/Size Text Length
	J	O	N	E	S	B	O	R	O																	C 2000
	4.7	8.2	12.2	16.1	19.2	22.9	26.4	30.4	33.9																	32.2
	R	O	A	D																						C 2000
	14.1	17.7	21.2	25.1																						13.8

FILENAME: I-5986B TMP GUIDESIGNS

NORTH CAROLINA D.O.T. SIGN DETAIL

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A9

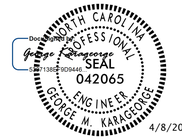
NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS
4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A10



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP11297
TYPE: E
QUANTITY: SEE PLANS

SIGN WIDTH: 3′-0″
HEIGHT: 2′-6″
TOTAL AREA: 7.5 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.5″
WIDTH: 0.75″
RADII: 1.88″

NO. Z BARS:
LENGTH:

BACKG COLOR: White
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

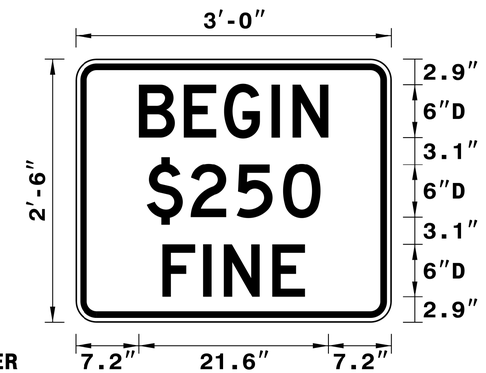
MAT'L: 0.080″ (2.0 mm) ALUMINUM

DESIGN BY: cwj
PROJECT ID: ALL

CHECKED BY: C. Howard
DIV: ALL

DATE: Jul 26, 2011

1. Legend and border shall be black.
2. Background shall be Grade C white reflective sheeting.



BORDER
R=1.88″
TH=0.75″
IN=0.5″

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

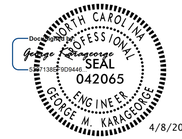
																										Series/Size Text Length
		B	E	G	I	N																				D 2000
	7.2	5.1	4.6	5.4	2.4	4.1	7.2																			21.6
		$	2	5	0																					D 2000
	8.1	5	5.3	5.3	4.3	8.1																				19.8
		F	I	N	E																					D 2000
	9.9	4.6	2.4	5.5	3.7	9.9																				16.3

FILENAME: BEGIN $250 Fine

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2A11



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

SIGN NUMBER: SP11294
TYPE: E
QUANTITY: SEE PLANS

SIGN WIDTH: 3′-0″
HEIGHT: 2′-6″
TOTAL AREA: 7.5 Sq.Ft.

BORDER TYPE: INSET
RECESS: 0.5″
WIDTH: 0.75″
RADII: 1.88″

NO. Z BARS:
LENGTH:

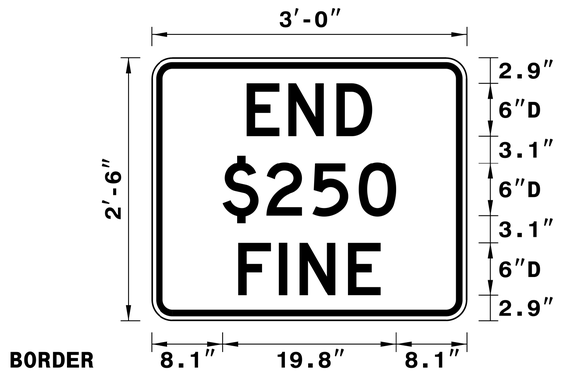
BACKG COLOR: White
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT′L: 0.080″ (2.0 mm) ALUMINUM

DESIGN BY: cwj
PROJECT ID: ALL
CHECKED BY: C. Howard
DIV: ALL
DATE: Jul 26, 2011

1. Legend and border shall be black.
2. Background shall be Grade C white reflective sheeting.



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		E	N	D																							D 2000
	10.8	4.7	5.5	4.1	10.8																						14.3
		$	2	5	0																						D 2000
	8.1	5	5.3	5.3	4.3	8.1																					19.8
		F	I	N	E																						D 2000
	9.9	4.6	2.4	5.5	3.7	9.9																					16.3

FILENAME: END $250 FINE_

NORTH CAROLINA D.O.T. SIGN DETAIL

TEMPORARY SIGN DESIGN

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP 02A12 TEMPORARY SIGN DESIGN END $250.dgn
Caroline.Owings

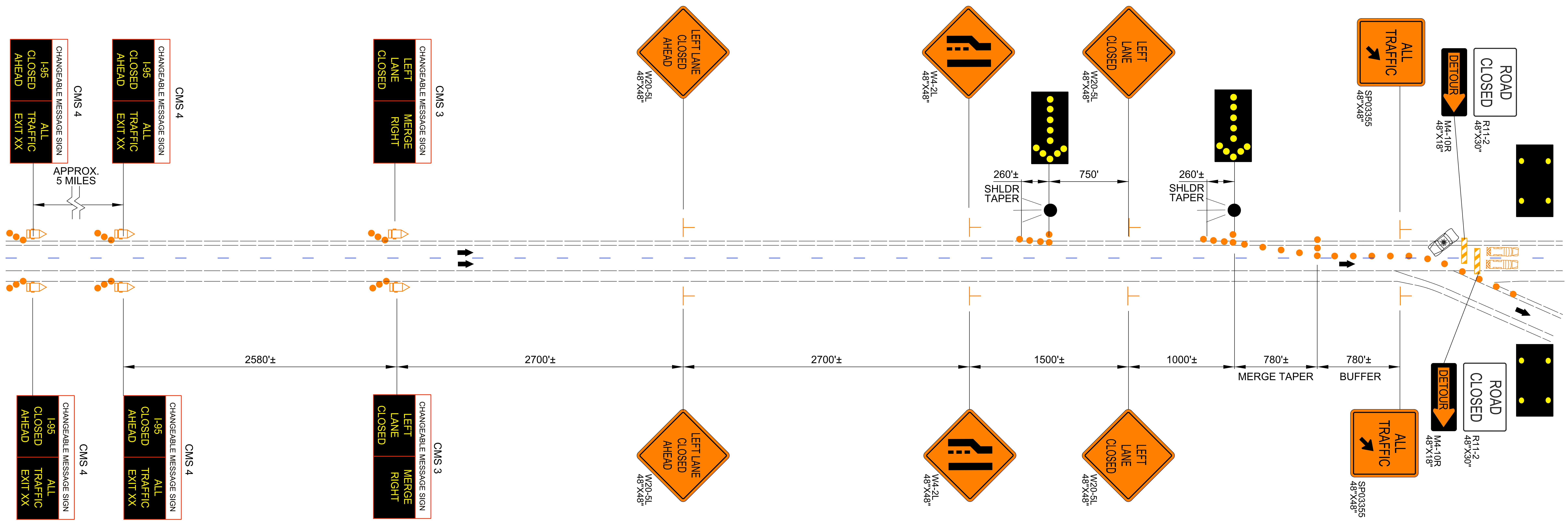
PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2B

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGE 4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

LEFT SIDE CMS'S MAY BE RELOCATED OR OMITTED IF SPACE IS NOT AVAILABLE (AS DIRECTED BY THE ENGINEER).

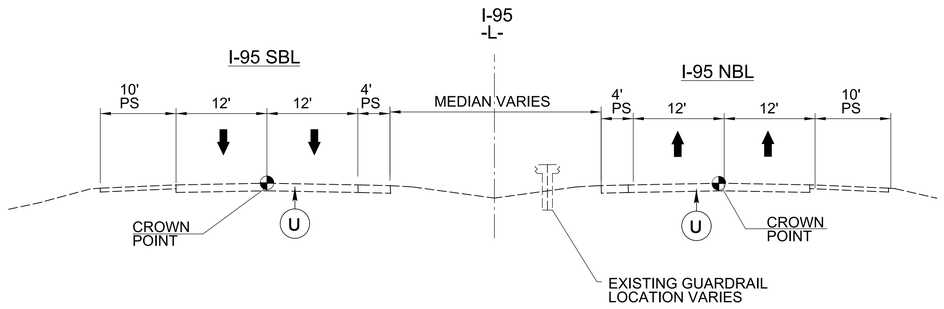


FOR CMS MESSAGES SEE SHEETS TMP-A1D2OV AND TMP-A1D7OV

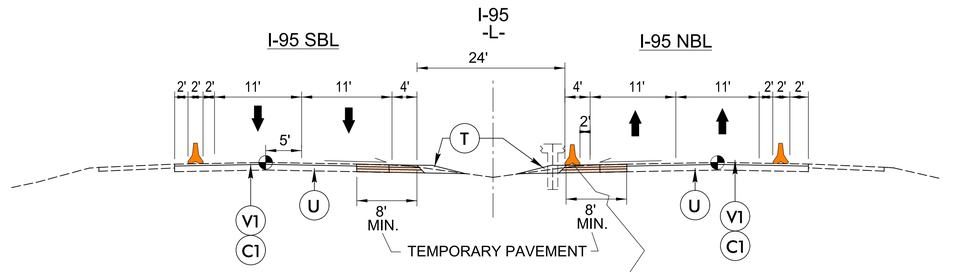
NOTES:
1. TYPICAL DRAWING TO BE USED AS SPECIFIED IN THE PLAN FOR BRIDGE GIRDER REMOVAL AND ERECTION.
2. USE LAW ENFORCEMENT TO DIRECT TRAFFIC AT RAMP TERMINALS.
3. REFER TO RSD 1101.02 SHEET 4 FOR APPLICABLE NOTES.

I-95 ROAD CLOSURE ALL TRAFFIC EXIT TYPICAL DRAWING

EXISTING I-95 TYPICAL SECTION



TYPICAL SECTION NO. 1 — I-95 TEMPORARY MEDIAN PAVEMENT



- TEMPORARY MEDIAN PAVEMENT USED TO SHIFT TRAFFIC TOWARDS MEDIAN FOR CONSTRUCTION OF OUTSIDE WIDENING AND AT CULVERT LOCATIONS.
- 8' MIN. TEMPORARY PAVEMENT TO REPLACE EXISTING MEDIAN SHOULDER.
- AT CULVERT LOCATIONS ADDITIONAL TEMPORARY PAVEMENT IS REQUIRED (SEE PLANS)

TEMPORARY BARRIER INSTALLED WHERE EXISTING GUARDRAIL HEIGHT CANNOT BE MAINTAINED DUE TO TEMPORARY SHOULDER CONSTRUCTED OFF EXISTING THRU LANE CROSS-SLOPE. REFER TO PLANS FOR PLACEMENT FOR I-95 NB & SB.

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2C

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGIS
Digitally signed by George Karageorgis
4/8/2021

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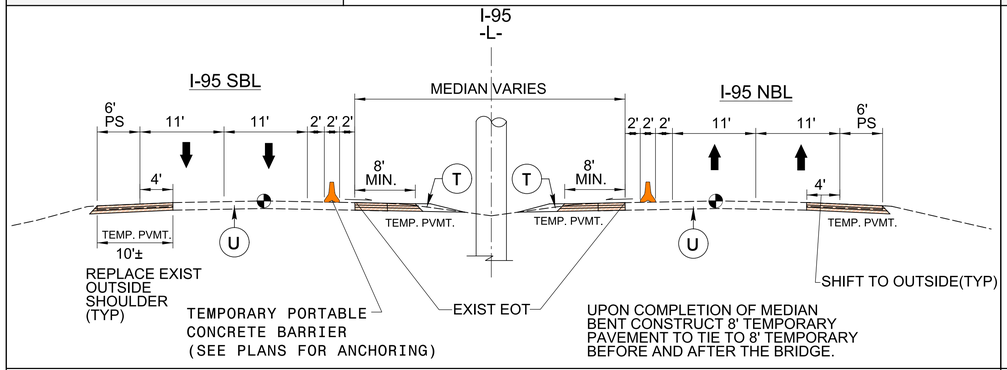
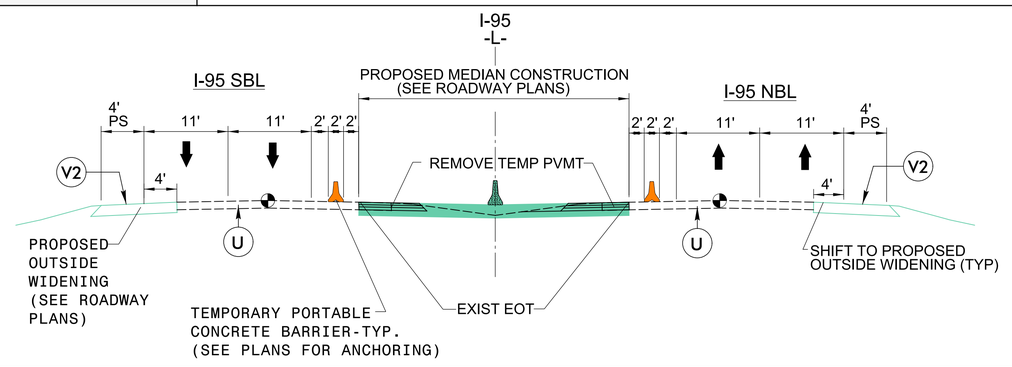
TYPICAL SECTION NO. 2 — TYPICAL MEDIAN BENT CONSTRUCTION



TYPICAL SECTION NO. 3 — TYPICAL PROPOSED MEDIAN CONSTRUCTION



TEMPORARY PAVEMENT DESIGN OPTIONS

TEMPORARY PAVEMENT SCHEDULE	
C1	S9.5C (VAR.)
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	MILLING (VAR.)
V2	TEMORARY RUMBLE STRIPS, TO BE COVERED BY FINAL LAYER

I-95 TEMPORARY PAVEMENT DESIGNS

Design Life	1 year	1.5 years	2 years	2.5 years	3 years
Material	**Thickness (in)**				
Asphalt Surface Course	2.0" S9.5C	2.0" S9.5C	2.0" S9.5C	3.0" S9.5C	3.0" S9.5C
Asphalt Intermediate Course	3.5" I19.0C	3.5" I19.0C	4.0" I19.0C	3.5" I19.0C	3.5" I19.0C
Asphalt Base Course	4.5" B25.0C	5.5" B25.0C	5.5" B25.0C	5.0" B25.0C	5.5" B25.0C
Total Thickness	10.0"	11.0"	11.5"	11.5"	12.0"
Required SN	**3.75**	**4.00**	**4.20**	**4.35**	**4.45**
Design SN	**3.77**	**4.07**	**4.29**	**4.36**	**4.51**

MIX TYPE	RATE (LBS/SY/IN)	MINIMUM LIFT (INCHES)	MAXIMUM LIFT (INCHES)
S9.5C	112	1.5	2.0
I19.0C	114	2.5	4.0
B25.0C	114	4.0	5.5

NOTES

1) DUE TO THE TEMPORARY PAVEMENT DESIGNS BEING TIME SENSITIVE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SELECT WHICH PAVEMENT DESIGN IS SUITABLE DEPENDING ON THE CONTRACTORS' SCHEDULE OF OPERATIONS.
2) TEMPORARY PAVEMENT DESIGN OPTIONS WERE PROVIDED BY S&ME ENGINEERING GEOTECHNICAL/PAVEMENT DESIGN ENGINEERS.
3) DURING THE TRAFFIC SHIFT TOWARDS THE MEDIAN MILL THE EXISTING PAVEMENT AND RESURFACE WITH S9.5C. THE DEPTH OF MILLING/RESURFACING WILL DEPEND ON THE CHOSEN TEMPORARY PAVEMENT DESIGN. FOLLOW PAVING OPERATIONS BEHIND MILLING, SUCH THAT WHEN LANES ARE OPEN, TRAFFIC DOES NOT RIDE ON A MILLED SURFACE. APPLY WORK ZONE PERFORMANCE PAVEMENT MARKINGS FOR THE SHIFTED LANE PATTERN.
4) ALTERNATE METHODS OF SHIFTING TRAFFIC LANES INCLUDE USING PATTERN MASKING MATERIAL, AS DIRECTED BY THE ENGINEER. APPLY WORK ZONE PERFORMANCE PAVEMENT MARKINGS. PAVEMENT MARKING REMOVAL WILL NOT BE ALLOWED.
5) DURING THE TRAFFIC SHIFTS TO THE OUTSIDE DURING CONSTRUCTION OF BRIDGE MEDIAN BENTS USE PATTERN MASKING AND APPLY WORK ZONE PERFORMANCE PAVEMENT MARKINGS. PAVEMENT MARKING REMOVAL WILL NOT BE ALLOWED.
6) REFER TO TEMPORARY PAVEMENT DESIGN TABLE FOR SELECTION OF APPROPRIATE TEMPORARY PAVEMENT DESIGN.
7) REFER TO PHASING NARRATIVE AND DETAIL SHEETS FOR TEMPORARY PAVEMENT LOCATIONS.
8) TEMPORARY ASPHALT RUMBLE STRIPS TO BE PAID FOR UNDER MILLED RUMBLE STRIPS (ASPHALT CONCRETE) PER LF. SEE SECTION 665 STD. SPECS. AND RSD 665.01.
9) TYPICAL SECTIONS SHOW 2 THROUGH LANES PER DIRECTION OF I-95. RAMP LANES AND AUXILIARY LANES ARE NOT SHOWN.

TEMPORARY PAVEMENT DESIGN TYPICAL SECTIONS

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP 02C TEMPORARY PAVEMENT DESIGN TYPICAL SECTIONS.dgn
Caroline.Owings

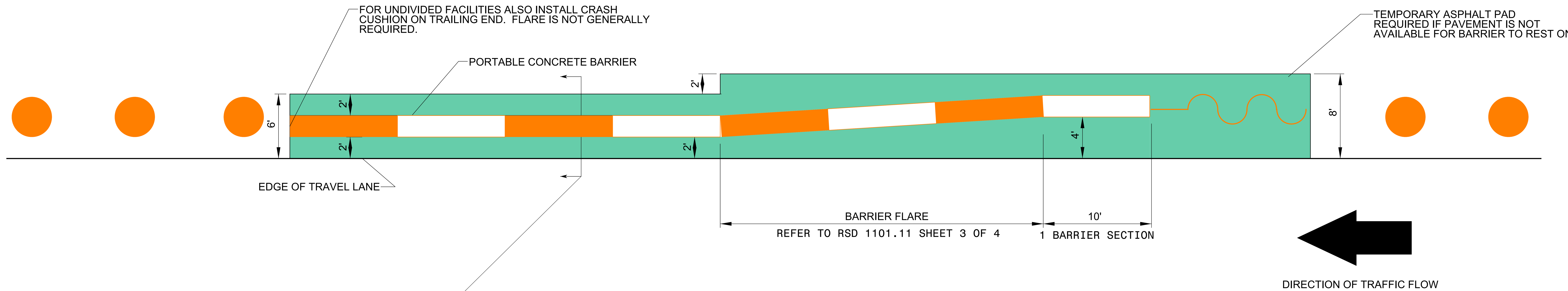
NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGE 4/8/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

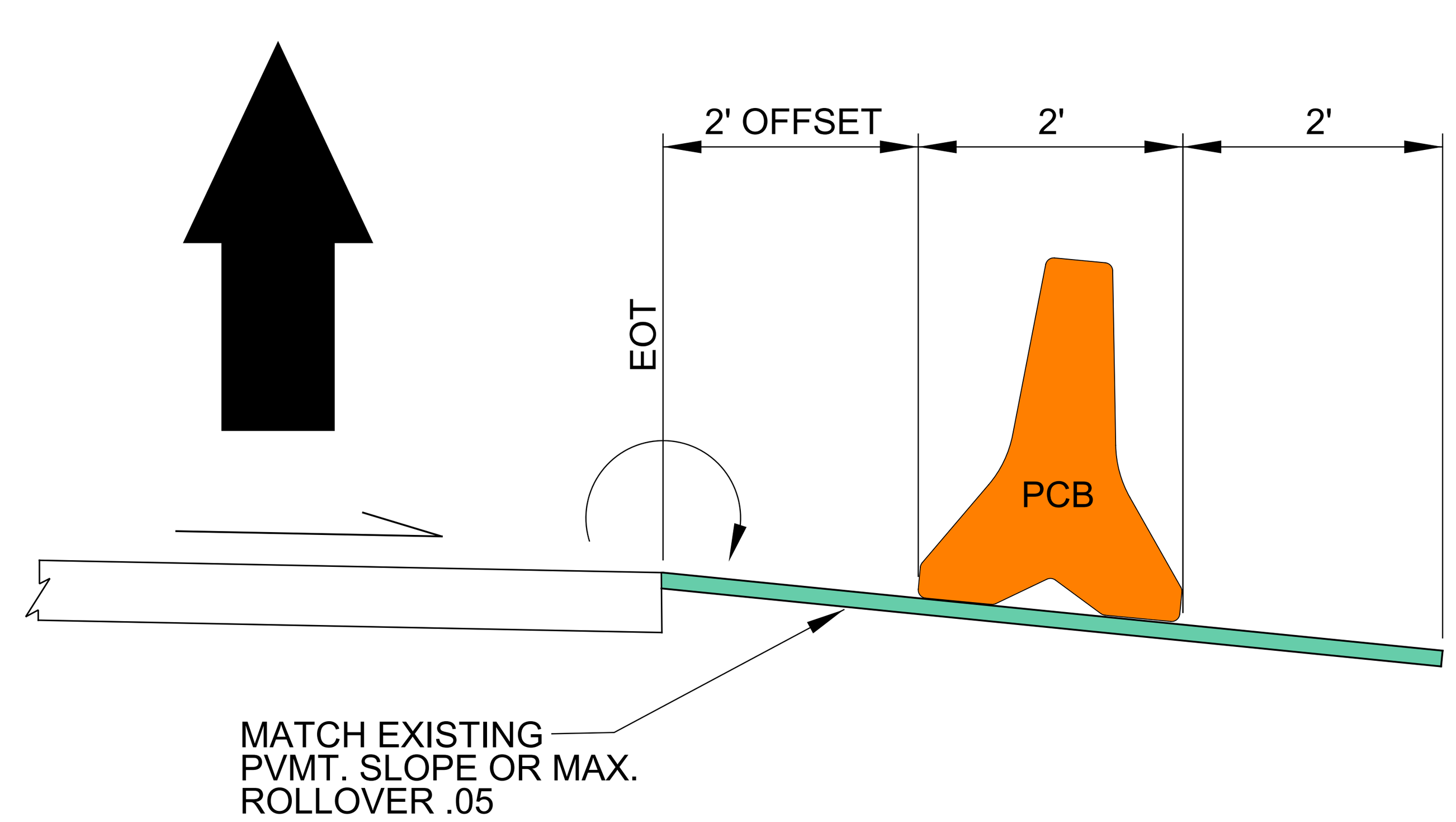
Michael Baker INTERNATIONAL

TEMPORARY BARRIER APPROACH END TREATMENT

PLAN VIEW



SECTION VIEW



NOTES:

1. INSTALL TEMPORARY BARRIER AT A MINIMUM OFFSET OF 2' FROM THE ADJACENT EDGELINE OF A TRAVEL LANE. OFFSET THE APPROACH END AND CRASH CUSHION 4' (PREFFERED) FROM THE EDGE OF A TRAVEL LANE, UNLESS OTHERWISE SHOWN IN THE PLANS. IN THE EVENT A 4' OFFSET CANNOT BE ACHIEVED A LESSER OFFSET MAY BE USED BUT NOT LESS THAN 2'.

2. TEMPORARY BARRIER MUST REST ON AN ASPHALT OR CONCRETE SURFACE. PROVIDE 2' OF ASPHALT PAD BEHIND THE BARRIER IF IT IS UN-ANCHORED

3. FURNISH MATERIAL AND INSTALL TEMPORARY ASPHALT PAD FOR BARRIER TO REST ON. ASPHALT PAD SHALL BE PAVED AT A MINIMUM OF A 1" LAYER OF SURFACE COURSE OR AS APPROVED BY THE ENGINEER.

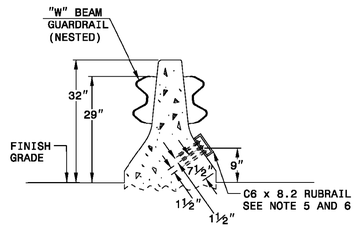
4. CONSTRUCT TEMPORARY ASPHALT PAD AS TO MATCH THE CROSS-SLOPE OF THE PAVEMENT THE PAD IS BEING PAVED UP TO, OR PROVIDE FOR A MAXIMUM ROLL-OVER OF .05. PAVE SUFFICIENT ASPHALT SUCH THAT THE ENTIRE BASE OF THE TEMPORARY BARRIER RESTS ON ASPHALT.

5. DO NOT PLACE TEMPORARY BARRIER ON A SURFACE WITH A SLOPE STEEPER THAN 6:1.

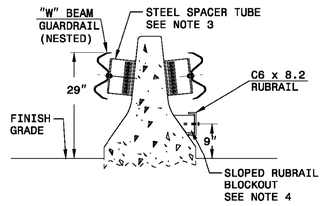
6. PLAN VIEW SHOWN FOR DIVIDED ROADWAY. FOR UNDIVIDED ROADWAYS INSTALL CRASH CUSHION ON TRAILING (DOWNSTREAM) END OF BARRIER.

TEMPORARY BARRIER APPROACH END TREATMENT

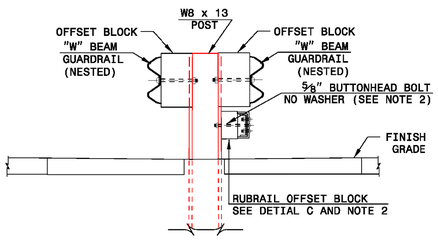
PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2E



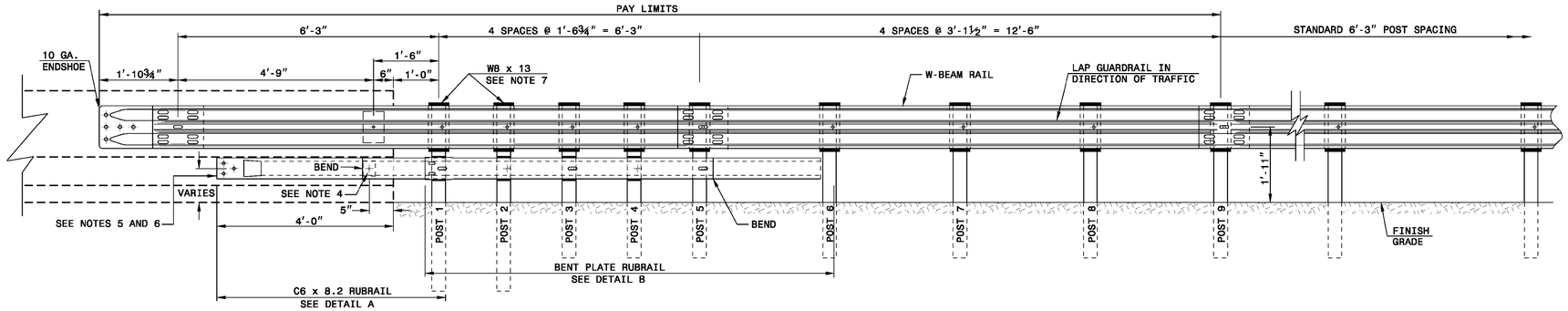
SECTION A-A



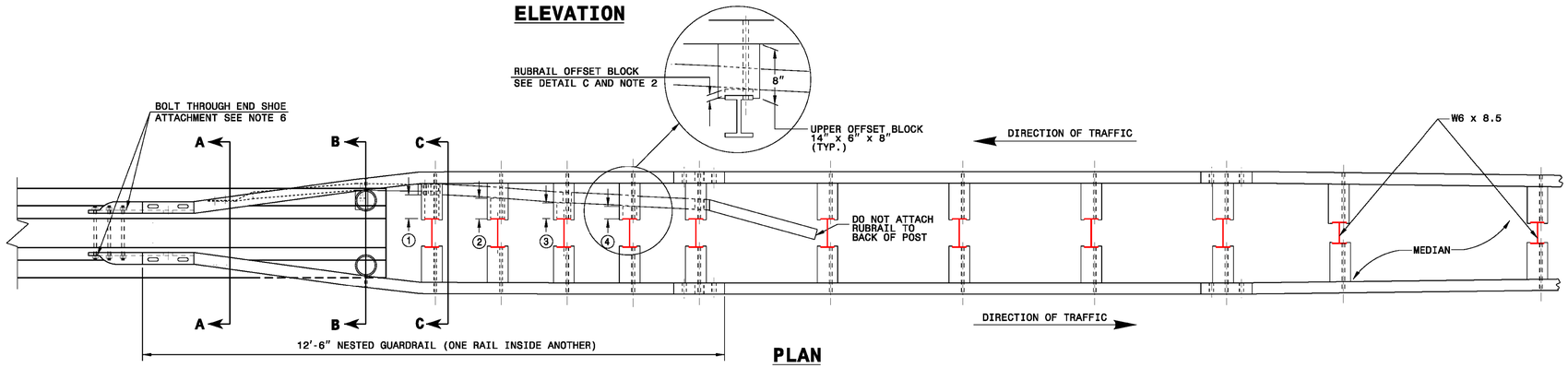
SECTION B-B



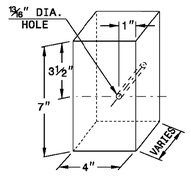
SECTION C-C



ELEVATION



PLAN

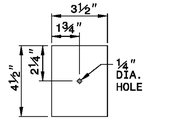


RUBRAIL BLOCKS 7" HIGH x 4" WIDE		
POST	THICKNESS	BOLT LENGTH
①	4¼"	9"
②	3¼"	5" *
③	2"	6"
④	1"	3" *

* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST. RUBRAIL NOT ATTACHED TO BLOCK.

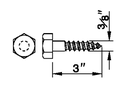
DETAIL C
RUBRAIL BLOCKOUT

GENERAL NOTES:
1) APPROACH END OF ANCHOR UNIT HAS RUBRAIL. POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
2) RUBRAIL BLOCKOUTS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH ⅝" BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTHS). SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5 WITH A ⅝" x 4½" BUTTONHEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
3) STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" INSIDE DIAMETER x 9" LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH ⅝" x 1¼" LONG BUTTONHEAD BOLT AND RECTANGULAR PLATE WASHER.
4) SEE DETAIL D FOR SLOPED RUBRAIL BLOCKOUT. BLOCKOUT IS ATTACHED TO RAIL ELEMENT ONLY. USE ⅜" x 3" LAG BOLT WITH FLAT WASHER.
5) SHOP FABRICATE THE C6x8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE JERSEY SHAPE AND ATTACH FLUSH WITH THE SLOPED TOE OF THE BARRIER.
6) ANCHORAGE:
   (a) AT NEW OR EXISTING BARRIERS, RUBRAIL SHALL BE ANCHORED USING THREE ⅝" x 6" CHEMICALLY ANCHORED BOLTS WITH WASHERS. MAXIMUM PROJECTION FOR BOLTS SHALL BE ½".
   (b) AT NEW OR EXISTING BARRIERS, THE W-BEAM END SHOE SHALL BE ANCHORED USING FIVE ⅞" CHEMICALLY ANCHORED THREADED RODS WITH NUTS AND WASHERS. MAXIMUM PROJECTION FOR THREADED RODS SHALL BE ½". THE W-BEAM END SHOE SHALL BE INSTALLED BEHIND THE NESTED W-BEAM ELEMENTS.
7) POSTS 1 AND 2 ARE W8 X 13, 7'-6" LONG.
8) POSTS 3 THRU 9 ARE W8 X 13, 6' LONG.

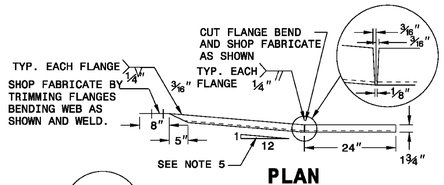


FRONT SIDE

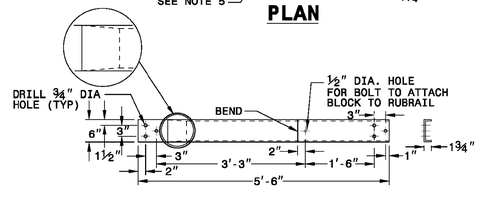
DETAIL D
SLOPED RUBRAIL BLOCKOUT



DETAIL E
LAG BOLT

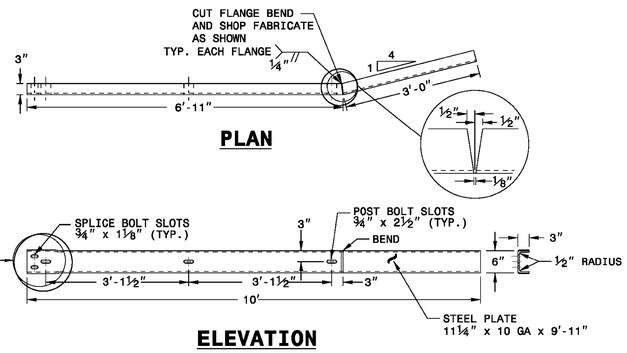


PLAN



ELEVATION

DETAIL A
C6 x 8.2 RUBRAIL



PLAN

ELEVATION

DETAIL B
BENT PLATE RUBRAIL

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

GUARDRAIL ANCHOR UNIT MODIFIED B-77 TYING TO MEDIAN CONCRETE BARRIER

ORIGINAL BY: E.E. WARD DATE: 5-5-03
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: usr\details\stand\862stds\modified B77.dgn

$$$$SYSTIME$$$$
$$$$DESIGN$$$$
$$$$USERNAME$$$$

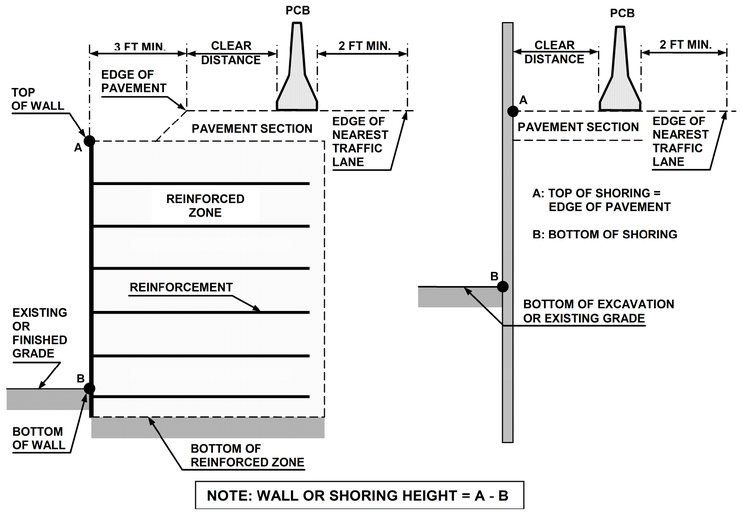


FIGURE A

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.

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2F

NORTH CAROLINA PROFESSIONAL SEAL 042065 ENGINEER GEORGE M. KARAGEORGOS
4/8/2021

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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**

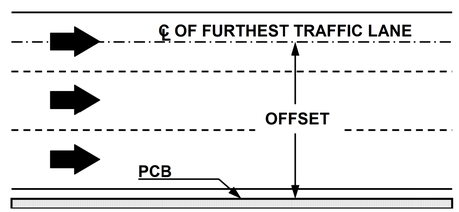

FIGURE B

DETAIL PROVIDED BY NCDOT

PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G

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TEMPORARY SHORING LOCATION NO. 1-1 — SEE SHEET TMP-4A — ESTIMATED QUANTITY = 1163.38 SF

-SR9- STA. 74+25, 14.0′ RT TO -SR9- STA. 79+60, 14.0′ RT
LENGTH=535′ AVERAGE HEIGHT = 2.17 FT MAXIMUM HEIGHT = 2.75 FT

SHORING LOCATION NO. 1-1

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

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 -SR9- 74+25 ±, 14 FT RIGHT, TO STATION -SR9- 79+60 ±, 14 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 193 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -SR9- 74+25 ±, 14 FT RIGHT, TO STATION -SR9- 79+60 ±, 14 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -SR9- 74+25 ±, 14 FT RIGHT, TO STATION -SR9- 79+60 ±, 14 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02, FOR STANDARD TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 1-2 — SEE SHEET TMP-4C — ESTIMATED QUANTITY = 585.82 SF

-L- STA. 970+92, 13.5′ RT TO -L- STA. 971+90, 13.5′ RT
LENGTH=97.61′ AVERAGE HEIGHT = 6.27 FT MAXIMUM HEIGHT = 6.82 FT

SHORING LOCATION NO. 1-2

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

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- 970+92 ±, 13.5 FT RIGHT, TO STATION -L- 971+90 ±, 13.5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 183 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 970+92 ±, 13.5 FT RIGHT, TO STATION -L- 971+90 ±, 13.5 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING, GEOTECHNICAL STANDARD DETAIL NO. 1801.01, FOR TEMPORARY SHORING FROM STATION -L- 970+92 ±, 13.5 FT RIGHT, TO STATION -L- 971+90 ±, 13.5 FT RIGHT.

TEMPORARY SHORING LOCATION NO. 1-3 — SEE SHEET TMP-4C — ESTIMATED QUANTITY = 585.82 SF

-L- STA. 970+92, 13.5′ LT TO -L- STA. 971+90, 13.5′ LT
LENGTH=97.61′ AVERAGE HEIGHT = 6.27 FT MAXIMUM HEIGHT = 6.82 FT

SHORING LOCATION NO. 1-3

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

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- 970+92 ±, 13.5 FT LEFT, TO STATION -L- 971+90 ±, 13.5 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 183 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 970+92 ±, 13.5 FT LEFT, TO STATION -L- 971+90 ±, 13.5 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING, GEOTECHNICAL STANDARD DETAIL NO. 1801.01, FOR TEMPORARY SHORING FROM STATION -L- 970+92 ±, 13.5 FT LEFT, TO STATION -L- 971+90 ±, 13.5 FT LEFT.

TEMPORARY SHORING LOCATION NO. 1-4 — SEE SHEET TMP-4E — ESTIMATED QUANTITY = 378.0 SF

-LREV- STA. 1002+00, 21′ LT TO -LREV- STA. 1002+35, 21′ LT
LENGTH=35.0′ AVERAGE HEIGHT = 10.8 FT MAXIMUM HEIGHT = 14.5 FT

SHORING LOCATION NO. 1-4

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

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 -LREV- 1002+00 ±, 21 FT LEFT TO STATION -LREV- 1002+35 ±, 21 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 187.5 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -LREV- 1002+00 ±, 21 FT LEFT TO STATION -LREV- 1002+35 ±, 21 FT LEFT.

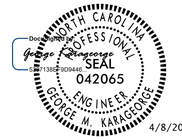
IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -LREV- 1002+00 ±, 21 FT LEFT TO STATION -LREV- 1002+35 ±, 21 FT LEFT FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 1

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G1



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

TEMPORARY SHORING LOCATION NO. 1-5 — SEE SHEET TMP-4E — ESTIMATED QUANTITY = 835.7 SF

-LREV- STA. 1003+39, 7′ LT TO -LREV- STA. 1004+00, 18′ LT
LENGTH=61.0′ AVERAGE HEIGHT = 13.7 FT MAXIMUM HEIGHT = 20.4 FT

SHORING LOCATION NO. 1-5

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

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 -LREV- 1003+39 ±, 18 FT LEFT TO STATION -LREV- 1004+00 ±, 18 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 187.5 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -LREV- 1003+39 ±, 18 FT LEFT TO STATION -LREV- 1004+00 ±, 18 FT LEFT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION - LREV- 1003+39 ±, 18 FT LEFT TO STATION -LREV- 1004+00 ±, 18 FT LEFT FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING LOCATION NO. 1-6 — SEE SHEET TMP-4E — ESTIMATED QUANTITY = 1113.4 SF

-LREV- STA. 1002+00, 13.0′ LT TO -LREV- STA. 1002+28, 13.0′ LT
LENGTH=38.00′ AVERAGE HEIGHT = 29.3 FT MAXIMUM HEIGHT = 31.3 FT

SHORING LOCATION NO. 1-6

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

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 -LREV- 1002+00 ±, 13 FT LEFT TO STATION -LREV- 1002+38 ±, 13 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 187.5 FT

DO NOT USE A CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -LREV- 1002+00 ±, 13 FT LEFT, TO STATION -LREV- 1002+38 ±, 13 FT LEFT.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 1-7 — SEE SHEET TMP-4E — ESTIMATED QUANTITY = 1864.8 SF

-LREV- STA. 1003+28, 10.0′ LT TO -LREV- STA. 1004+00, 10.0′ LT
LENGTH=72.00′ AVERAGE HEIGHT = 25.9 FT MAXIMUM HEIGHT = 27.9 FT

SHORING LOCATION NO. 1-7

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

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 -LREV- 1003+28 ±, 10 FT LEFT, TO STATION -LREV- 1004+00 ±, 10 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 187.5 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION LREV- 1003+28 ±, 10 FT LEFT, TO STATION -LREV- 1004+00 ±, 10 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION - LREV- 1003+28 ±, 10 FT LEFT, TO STATION -LREV- 1004+00 ±, 10 FT LEFT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 1-8 — SEE SHEET TMP-5C — ESTIMATED QUANTITY = 318 SF

-L- STA. 973+00, 77.0′ LT TO -L- STA. 973+00, 97.0′ LT
LENGTH=20.00′ AVERAGE HEIGHT = 15.9 FT MAXIMUM HEIGHT = 16.5 FT

SHORING LOCATION NO. 1-8

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

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 973+00 ±, 77 FT LEFT, TO STATION -L- 973+00 ±, 97 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DESIGN TEMPORARY SHORING FROM STATION -L- 973+00 ±, 77 FT LEFT, TO STATION -L- 973+00 ±, 97 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 181.5 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 973+00 ±, 77 FT LEFT, TO STATION -L- 973+00 ±, 97 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 973+00 ±, 77 FT LEFT, TO STATION -L- 973+00 ±, 97 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 1

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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TEMPORARY SHORING LOCATION NO. 1-9 — SEE SHEET TMP-5F — ESTIMATED QUANTITY = 3550.08 SF

-SR11- STA. 13+40, 7.5′ RT TO -SR11- STA. 19+18, 7.5′ RT
LENGTH=578′ AVERAGE HEIGHT = 6.14 FT MAXIMUM HEIGHT = 6.75 FT

SHORING LOCATION NO. 1-9

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

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 -SR11- 13+40 ±, 7.5 FT RIGHT, TO STATION -SR11- 19+18 ±, 7.5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 188 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -SR11- 13+40 ±, 7.5 FT RIGHT, TO STATION -SR11- 19+18 ±, 7.5 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -SR11- 13+40 ±, 7.5 FT RIGHT, TO STATION -SR11- 19+18 ±, 7.5 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING LOCATION NO. 1-10 — SEE SHEET TMP-6B — ESTIMATED QUANTITY = 1415.93 SF

-L- STA. 1041+72, 30.5′ LT TO -L- STA. 1042+82, 30.5′ LT
LENGTH=110.37′ AVERAGE HEIGHT = 14.92 FT MAXIMUM HEIGHT = 19.09 FT

SHORING LOCATION NO. 1-10

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

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- 1041+72 ±, 30.5 FT LEFT, TO STATION -L- 1042+82 ±, 30.5 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 162.5 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1041+72 ±, 30.5 FT LEFT, TO STATION -L- 1042+82 ±, 30.5 FT LEFT.

TEMPORARY SHORING LOCATION NO. 1-11 — SEE SHEET TMP-6B — ESTIMATED QUANTITY = 1451.06 SF

-L- STA. 1041+74, 38.0′ LT TO -L- STA. 1042+86, 38.0′ LT
LENGTH=111.62′ AVERAGE HEIGHT = 15.13 FT MAXIMUM HEIGHT = 19.40 FT

SHORING LOCATION NO. 1-11

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

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- 1041+74 ±, 38 FT LEFT, TO STATION -L- 1042+86 ±, 38 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 162.5 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1041+74 ±, 38 FT LEFT, TO STATION -L- 1042+86 ±, 38 FT LEFT.

TEMPORARY SHORING LOCATION NO. 1-12 — SEE SHEET TMP-7 — ESTIMATED QUANTITY = 2322.14 SF

-SBCD- STA. 26+80, 17.5′ RT TO -SBCD- STA. 30+74, 17.5′ RT
LENGTH=394.00′ AVERAGE HEIGHT = 5.89 FT MAXIMUM HEIGHT = 7.08 FT

SHORING LOCATION NO. 1-12

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

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 -SCBD- 26+80 ±, 17.5 FT RIGHT, TO STATION -SCBD- 30+74 ±, 17.5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
RICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 185 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -SCBD- 26+80 ±, 17.5 FT RIGHT, TO STATION -SCBD- 30+74 ±, 17.5 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -SCBD- 26+80 ±, 17.5 FT RIGHT, TO STATION -SCBD- 30+74 ±, 17.5 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02, FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 1

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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TEMPORARY SHORING LOCATION NO. 1-13

SEE SHEET TMP-10E

ESTIMATED QUANTITY = 1530.31 SF

-L- STA. 1041+36, 30.5′ RT TO -L- STA. 1042+50, 30.5′ RT
LENGTH=114.37′ AVERAGE HEIGHT = 15.62 FT MAXIMUM HEIGHT = 20.09 FT

SHORING LOCATION NO. 1-13

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

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- 1041+36 ±, 30.5 FT RIGHT, TO STATION -L- 1042+50 ±, 30.5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 26 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 176 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1041+36 ±, 30.5 FT RIGHT, TO STATION -L- 1042+50 ±, 30.5 FT RIGHT.

TEMPORARY SHORING LOCATION NO. 1-14

SEE SHEET TMP-10E

ESTIMATED QUANTITY = 1527.98 SF

-L- STA. 1041+30, 38.0′ RT TO -L- STA. 1042+44, 38.0′ RT
LENGTH=114.29′ AVERAGE HEIGHT = 15.60 FT MAXIMUM HEIGHT = 20.07 FT

SHORING LOCATION NO. 1-14

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

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- 1041+30 ±, 38 FT RIGHT, TO STATION -L- 1042+44 ±, 38 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 26 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 176 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1041+30 ±, 38 FT RIGHT, TO STATION -L- 1042+44 ±, 38 FT RIGHT.

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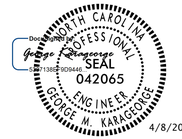
AREA 1

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G4



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Michael Baker INTERNATIONAL

TEMPORARY SHORING LOCATION NO. 2-1 — SEE SHEET TMP-17D — ESTIMATED QUANTITY = 947 SF

-L- STA. 1100+95, 14.0′ LT TO -L- STA. 1102+28, 14.0′ LT
LENGTH=133′ AVERAGE HEIGHT = 7.43 FT MAXIMUM HEIGHT = 8.00 FT

SHORING LOCATION NO. 2-1

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

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- 1100+95 ±, 6 FT LEFT, TO STATION -L- 1102+28 ±, 6 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 202 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1100+95 ±, 6 FT LEFT, TO STATION -L- 1102+28 ±, 6 FT LEFT.

TEMPORARY SHORING LOCATION NO. 2-2 — SEE SHEET TMP-17D — ESTIMATED QUANTITY = 947 SF

-L- STA. 1100+95, 13′ RT TO -L- STA. 1102+28, 13′ RT
LENGTH=133′ AVERAGE HEIGHT = 7.43 FT MAXIMUM HEIGHT = 8.00 FT

SHORING LOCATION NO. 2-2

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

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- 1100+95 ±, 6 FT RIGHT, TO STATION -L- 1102+28 ±, 6 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 202 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1100+95 ±, 6 FT RIGHT, TO STATION -L- 1102+28 ±, 6 FT RIGHT.

TEMPORARY SHORING LOCATION NO. 2-3 — SEE SHEET TMP-17L — ESTIMATED QUANTITY = 947 SF

-L- STA. 1206+02, 13′ LT TO -L- STA. 1207+17, 13′ LT
LENGTH=115′ AVERAGE HEIGHT = 8.74 FT MAXIMUM HEIGHT = 9.73 FT

SHORING LOCATION NO. 2-3

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

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- 1206+02 ±, 5 FT LEFT, TO STATION -L- 1207+17 ±, 5 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) =30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 234 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1206+02 ±, 5 FT LEFT, TO STATION -L- 1207+17 ±, 5 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 1206+02 ±, 5 FT LEFT, TO STATION -L- 1207+17 ±, 5 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING LOCATION NO. 2-4 — SEE SHEET TMP-17L — ESTIMATED QUANTITY = 947 SF

-L- STA. 1206+02, 13′ RT TO -L- STA. 1207+17, 13′ RT
LENGTH=115′ AVERAGE HEIGHT = 8.74 FT MAXIMUM HEIGHT = 9.73 FT

SHORING LOCATION NO. 2-4

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

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- 1206+02 ±, 5 FT RIGHT, TO STATION -L- 1207+17 ±, 5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 234 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1206+02 ±, 5 FT RIGHT, TO STATION -L- 1207+17 ±, 5 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 1206+02 ±, 5 FT RIGHT, TO STATION -L- 1207+17 ±, 5 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

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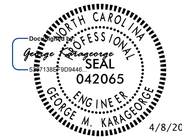
AREA 2

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G5



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TEMPORARY SHORING LOCATION NO. 2-5 — SEE SHEET TMP-19B — ESTIMATED QUANTITY = 828 SF

-L- STA. 1219+91, 36.0′ LT TO -L- STA. 1220+74, 36.0′ LT
LENGTH=83′ AVERAGE HEIGHT = 11.79 FT MAXIMUM HEIGHT = 15.34 FT

SHORING LOCATION NO. 2-5

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

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- 1219+91 ±, 36 FT LEFT, TO STATION -L- 1220+74 ± 36 FT LEFT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 228 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1219+91 ±, 36 FT LEFT, TO STATION -L- 1220+74 ±36 FT LEFT.

TEMPORARY SHORING LOCATION NO. 2-6 — SEE SHEET TMP-19B — ESTIMATED QUANTITY = 828 SF

-L- STA. 1219+91, 28.0′ LT TO -L- STA. 1220+74, 28.0′ LT
LENGTH=83′ AVERAGE HEIGHT = 11.79 FT MAXIMUM HEIGHT = 15.34 FT

SHORING LOCATION NO. 2-6

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

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- 1219+91 ±, 28 FT LEFT, TO STATION -L- 1220+74 ±, 28 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 28 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 228 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1219+91 ±, 28 FT LEFT, TO STATION -L- 1220+74 ±28 FT LEFT.

TEMPORARY SHORING LOCATION NO. 2-7 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 4754 SF

-L- STA. 1258+74, 36.0′ LT TO -L- STA. 1261+94, 36.0′ LT
LENGTH=320′ AVERAGE HEIGHT = 15.43 FT MAXIMUM HEIGHT = 16.50 FT

SHORING LOCATION NO. 2-7

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

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- 1258+74 ±, 36 FT LEFT, TO STATION -L- 1261+94 ±, 36 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 26 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 36 FT LEFT, TO STATION -L- 1261+94 ±, 36 FT LEFT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 36 FT LEFT, TO STATION -L- 1261+94 ±, 36 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

TEMPORARY SHORING LOCATION NO. 2-8 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 4754 SF

-L- STA. 1258+74, 36.0′ RT TO -L- STA. 1261+94, 36.0′ RT
LENGTH=320′ AVERAGE HEIGHT = 15.43 FT MAXIMUM HEIGHT = 16.50 FT

SHORING LOCATION NO. 2-8

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

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- 1258+74 ±, 36 FT LEFT, TO STATION -L- 1261+94 ±, 36 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 26 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 36 FT RIGHT, TO STATION -L- 1261+94 ±, 36 FT RIGHT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 36 FT LEFT, TO STATION -L- 1261+94 ±, 36 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

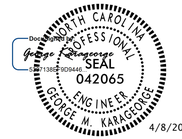
THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 2

TEMPORARY SHORING NOTES/LOCATIONS

4/2/2021
R:\Traffic\Transportation Management\PLAN SHEETS\I-5986B TMP 02G5 A2-2 TEMPORARY SHORING NOTES LOCATIONS.dgn
Caroline.Owings

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G6



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

TEMPORARY SHORING LOCATION NO. 2-9 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 394 SF

-L- STA. 1258+74, 41.0′ LT TO -L- STA. 1259+29, 41.0′ LT
LENGTH=55′ AVERAGE HEIGHT = 8.41 FT MAXIMUM HEIGHT = 11.10 FT

SHORING LOCATION NO. 2-9

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

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- 1258+74 ±, 41 FT LEFT, TO STATION -L- 1259+29 ±, 41 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 41 FT LEFT, TO STATION -L- 1259+29 ±, 41 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 41 FT LEFT, TO STATION -L- 1259+29 ±, 41 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 2-10 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 394 SF

-L- STA. 1258+74, 41.0′ RT TO -L- STA. 1259+29, 41.0′ RT
LENGTH=55′ AVERAGE HEIGHT = 8.41 FT MAXIMUM HEIGHT = 11.10 FT

SHORING LOCATION NO. 2-10

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

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- 1258+74 ±, 41 FT RIGHT, TO STATION -L- 1259+29 ±, 41 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 41 FT RIGHT, TO STATION -L- 1259+29 ±, 41 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1258+74 ±, 41 FT RIGHT, TO STATION -L- 1259+29 ±, 41 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 2-11 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 394 SF

-L- STA. 1261+39, 41.0′ LT TO -L- STA. 1261+94, 41.0′ LT
LENGTH=55′ AVERAGE HEIGHT = 8.41 FT MAXIMUM HEIGHT = 11.10 FT

SHORING LOCATION NO. 2-11

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

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- 1261+39 ±, 41 FT LEFT, TO STATION -L- 1261+94 ±, 41 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1261+39 ±, 41 FT LEFT, TO STATION -L- 1261+94 ±, 41 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1261+39 ±, 41 FT LEFT, TO STATION -L- 1261+94 ±, 41 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 2-12 — SEE SHEET TMP-19E — ESTIMATED QUANTITY = 394 SF

-L- STA. 1261+39, 41.0′ RT TO -L- STA. 1261+94, 41.0′ RT
LENGTH=55′ AVERAGE HEIGHT = 8.41 FT MAXIMUM HEIGHT = 11.10 FT

SHORING LOCATION NO. 2-12

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

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- 1261+39 ±, 41 FT RIGHT, TO STATION -L- 1261+94 ±, 41 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 190 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1261+39 ±, 41 FT RIGHT, TO STATION -L- 1261+94 ±, 41 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1261+39 ±, 41 FT RIGHT, TO STATION -L- 1261+94 ±, 41 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALL.

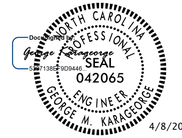
WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 2

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G7



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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TEMPORARY SHORING LOCATION NO. 2-13

SEE SHEET TMP-22A

ESTIMATED QUANTITY = 814 SF

-L- STA. 1219+95, 36.0′ RT TO -L- STA. 1220+77, 36.0′ RT
LENGTH=82′ AVERAGE HEIGHT = 11.67 FT MAXIMUM HEIGHT = 15.17 FT

SHORING LOCATION NO. 2-13

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

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- 1219+95 ±, 36 FT RIGHT, TO STATION -L- 1220+77 ±, 36 FT RIGHT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 228 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1219+95 ±, 36 FT RIGHT, TO STATION -L- 1220+77 ±, 36 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1219+95 ±, 36 FT RIGHT, TO STATION -L- 1220+77 ±, 36 FT RIGHT, SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALL.

TEMPORARY SHORING LOCATION NO. 2-14

SEE SHEET TMP-22A

ESTIMATED QUANTITY = 814 SF

-L- STA. 1219+95, 30.0′ RT TO -L- STA. 1220+77, 30.0′ RT
LENGTH=82′ AVERAGE HEIGHT = 11.67 FT MAXIMUM HEIGHT = 15.17 FT

SHORING LOCATION NO. 2-14

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

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- 1219+95 ±, 30 FT RIGHT, TO STATION -L- 1220+77 ±, 30 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 228 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1219+95 ±, 30 FT RIGHT, TO STATION -L- 1220+77 ±, 30 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING GEOTECHNICAL STANDARD DETAIL NO. 1801.01, FOR TEMPORARY SHORING FROM STATION -L- 1219+95 ±, 30 FT RIGHT, TO STATION -L- 1220+77 ±, 30 FT RIGHT EXCEPT FOR TEMPORARY SHORING HEIGHTS ABOVE 12 FEET. ENGINEERED CANTILEVERED SHORING WILL BE REQUIRED FOR SHORING HEIGHTS EXCEEDING 12 FEET.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 2

TEMPORARY SHORING NOTES/LOCATIONS

4/2/2021
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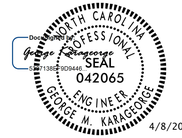
Caroline.Owings

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G8



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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INTERNATIONAL

TEMPORARY SHORING LOCATION NO. 3-1

SEE SHEET TMP-28A

ESTIMATED QUANTITY = 307 SF

-L- STA. 1294+56, 12.0′ LT TO -L- STA. 1295+22, 12.0′ LT
LENGTH=66′ AVERAGE HEIGHT = 4.85 FT MAXIMUM HEIGHT = 5.31 FT

SHORING LOCATION NO. 3-1

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

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- 1294+56 ±, 12 FT LEFT, TO STATION -L- 1295+22 ±, 12 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 236 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1294+56 ±, 12 FT LEFT, TO STATION -L- 1295+22 ±, 12 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 1294+56 ±, 12 FT LEFT, TO STATION -L- 1295+22 ±, 12 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING LOCATION NO. 3-2

SEE SHEET TMP-28A

ESTIMATED QUANTITY = 307 SF

-L- STA. 1294+56, 12.0′ RT TO -L- STA. 1295+22, 12.0′ RT
LENGTH=66′ AVERAGE HEIGHT = 4.85 FT MAXIMUM HEIGHT = 5.31 FT

SHORING LOCATION NO. 3-2

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

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- 1294+56 ±, 12 FT RIGHT, TO STATION -L- 1295+22 ±, 12 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 236 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1294+56 ±, 12 FT RIGHT, TO STATION -L- 1295+22 ±, 12 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 1294+56 ±, 12 FT RIGHT, TO STATION -L- 1295+22 ±, 12 FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 3

TEMPORARY SHORING NOTES/LOCATIONS

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	TMP-2G9

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

TEMPORARY SHORING LOCATION NO. 5-1 — SEE SHEET TMP-42A — ESTIMATED QUANTITY = 1826.51 SF

-L- STA. 1390+45, 22.5′ LT TO -L- STA. 1391+65, 22.5′ LT
LENGTH=120.13′ AVERAGE HEIGHT = 18.87 FT MAXIMUM HEIGHT = 26.20 FT

SHORING LOCATION NO. 5-1

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

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 1390+45 ±, 22.5 FT LEFT, TO STATION -L- 1391+65 ±, 22.5 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DESIGN TEMPORARY SHORING FROM STATION -L- 1390+45 ±, 22.5 FT LEFT, TO STATION -L- 1391+65 ±, 22.5 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 173 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1390+45 ±, 22.5 FT LEFT, TO STATION -L- 1391+65 ±, 22.5 FT LEFT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 1390+45 ±, 22.5 FT LEFT, TO STATION -L- 1391+65 ±, 22.5 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING GEOTECHNICAL STANDARD DETAIL NO. 1801.01, FOR TEMPORARY SHORING FROM STATION -L- 1390+45 ±, 22.5 FT LEFT, TO STATION -L- 1391+65 ±, 22.5 FT LEFT EXCEPT FOR TEMPORARY SHORING HEIGHTS ABOVE 12 FEET. ENGINEERED CANTILEVERED SHORING WILL BE REQUIRED FOR SHORING HEIGHTS EXCEEDING 12 FEET.

TEMPORARY SHORING LOCATION NO. 5-2 — SEE SHEET TMP-42A — ESTIMATED QUANTITY = 208.18 SF

-L- STA. 1390+21, 28.0′ LT TO -L- STA. 1390+50, 28.0′ LT
LENGTH=28.84′ AVERAGE HEIGHT = 8.02 FT MAXIMUM HEIGHT = 9.63 FT

SHORING LOCATION NO. 5-2

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

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- 1390+21 ±, 28 FT LEFT, TO STATION -L- 1390+50 ±, 28 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 173 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1390+21 ±, 28 FT LEFT, TO STATION -L- 1390+50 ±, 28 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1390+21 ±, 28 FT LEFT, TO STATION -L- 1390+50 ±, 28 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 5-3 — SEE SHEET TMP-42A — ESTIMATED QUANTITY = 207.60 SF

-L- STA. 1391+55, 28.0′ LT TO -L- STA. 1391+84, 28.0′ LT
LENGTH=28.84′ AVERAGE HEIGHT = 8.00 FT MAXIMUM HEIGHT = 9.59 FT

SHORING LOCATION NO. 5-3

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

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- 1391+55 ±, 28 FT LEFT, TO STATION -L- 1391+84 ±, 28 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 173 FT

DO NOT USE CANTILEVER, BRACED OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 1391+55 ±, 28 FT LEFT, TO STATION -L- 1391+84 ±, 28 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1391+55 ±, 28 FT LEFT, TO STATION -L- 1391+84 ±, 28 FT LEFT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

TEMPORARY SHORING LOCATION NO. 5-4 — SEE SHEET TMP-44A — ESTIMATED QUANTITY = 1950.65 SF

-L- STA. 1390+71, 22.5′ RT TO -L- STA. 1391+95, 22.5′ RT
LENGTH=124.13′ AVERAGE HEIGHT = 19.54 FT MAXIMUM HEIGHT = 27.20 FT

SHORING LOCATION NO. 5-4

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

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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 1390+71 ±, 22.5 FT RIGHT, TO STATION -L- 1391+95 ±, 22.5 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DESIGN TEMPORARY SHORING FROM STATION -L- 1390+71 ±, 22.5 FT RIGHT, TO STATION -L- 1391+95 ±, 22.5 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 PCF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 173 FT

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 1390+71 ±, 22.5 FT RIGHT, TO STATION -L- 1391+95 ±, 22.5 FT RIGHT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 1390+71 ±, 22.5 FT RIGHT, TO STATION -L- 1391+95 ±, 22.5 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING GEOTECHNICAL STANDARD DETAIL NO. 1801.01, FOR TEMPORARY SHORING FROM STATION -L- 1390+71 ±, 22.5 FT RIGHT, TO STATION -L- 1391+95 ±, 22.5 FT RIGHT EXCEPT FOR TEMPORARY SHORING HEIGHTS ABOVE 12 FEET. ENGINEERED CANTILEVERED SHORING WILL BE REQUIRED FOR SHORING HEIGHTS EXCEEDING 12 FEET.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEER. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION MICHAEL BAKER INTERNATIONAL ON SEPTEMBER 4, 2020 AND SEALED BY A PROFESSIONAL ENGINEER, STACIE E. MITCHELL, LICENSE #032125.

AREA 5

TEMPORARY SHORING NOTES/LOCATIONS