

BM #2 TIE SPIKE IN 16" OAK @ -L- STA. 29+60.36, 113.12' LT EL. 1837.50

NOTE:
NO KNOWN UTILITY
CONFLICTS EXIST

LOCATION SKETCH

GENERAL NOTES:

ASSUMED LIVE LOAD ON THE COMPLETED BRIDGE = SIX LANES HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF A TEMPORARY CAUSEWAY OR WORK BRIDGE IS NOT PERMITTED.

NO HYDRAULIC ANALYSIS HAS BEEN PERFORMED FOR THE GREEN RIVER AND NO HYDRAULIC DATA IS SHOWN.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION OR AECOM FOR ANY DELAYS OR ADDITIONAL COSTS INCURRED BASED ON DIFFERENCES BETWEEN THAT SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

THE CONTRACTOR SHALL FIELD VERIFY STATIONS, DIMENSIONS, AND ELEVATIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REHABILITATION OF THE EXISTING BRIDGE SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER OR THE SURROUNDING GROUND. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR ANY DEMOLITION WORK IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

ALL DIMENSIONS ARE FOR THE STRUCTURE AT A TEMPERATURE OF 60 DEGREES FAHRENHEIT. INSTALLATION OF JOINTS AND REHABILITATION OF BEARINGS SHALL BE PERFORMED AT A TEMPERATURE BETWEEN 40 AND 90 DEGREES FAHRENHEIT. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AS DIRECTED BY THE ENGINEER FOR INSTALLATION AT TEMPERATURES OTHER THAN 60 DEGREES. SUCH ADJUSTMENTS OR PROCEDURES SHALL BE INDICATED IN ALL WORKING DRAWING SUBMITTALS.

FOR CONTROL OF TRAFFIC AND LIMITS OF PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS AND CONSTRUCTION SEQUENCES.

FOR CLEANING AND PAINTING OF EXISTING WEATHERING STEEL AND PAINTING CONTAINMENT, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE BRIDGE FROM THE DATE OF AVAILABILITY UNTIL THE COMPLETION OF THE CONTRACT.

THE CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.

CONTRACTOR SHALL USE EXCLUDER PLATES AT STAY IN PLACE FORMS IN SPANS B THRU D TO PREVENT CONCRETE FROM FILLING THE FORM TROUGHS.

CONTRACTOR SHALL TIE THE BRIDGE DECK IN ACCORDANCE WITH SECTION 710-6 OF THE STANDARD SPECIFICATIONS.

DECK CONCRETE IN SPANS A, E, AND INTEGRAL APPROACH SLABS SHALL BE CLASS AA.

DECK CONCRETE IN SPANS B THRU D AND BARRIER RAIL CONCRETE IN ALL SPANS SHALL BE ALL LIGHTWEIGHT. FOR DETAILS, SEE SPECIAL PROVISIONS. THE MAXIMUM PLASTIC DENSITY SHALL BE 105 PCF AND THE MAXIMUM HARDENED DENSITY SHALL BE 100 PCF.

ALL LIGHT WEIGHT DECK CONCRETE IN SPANS B-D SHALL CONTAIN 4.0 LBS/CY OF POLYOLEFIN MACROFIBERS. FOR DETAILS, SEE SPECIAL PROVISIONS.

FLOORBEAMS IN BAY 2 AND FLOORBEAM RETROFITS IN BAYS 1 AND 3 ARE FRACTURE CRITICAL AND SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO/AWS D1.5. THESE FLOORBEAMS SHALL BE ASTM A709 HPS 50W.

ALL SHAPES (EXCEPT FLOORBEAMS) AND PLATES SHALL BE AASHTO M270 GRADE 50W.

ALL BOLTS SHALL BE 7/8" DIAMETER ASTM F3125 GRADE 325 WITH STANDARD HOLES, UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL DEMOLISH THE EXISTING STRUCTURE USING CLEAN SAW CUTS. MECHANICAL CLAWS AND JACKHAMMERS SHALL NOT BE UTILIZED UNLESS SPECIFICALLY AUTHORIZED.

CONTRACTOR MAY NOT WELD TO THE EXISTING STRUCTURAL STEEL UNLESS SPECIFICALLY DIRECTED.

THE CONTRACTOR'S ATTENTION IS DRAWN TO THE FACT THAT THE DISTANCES BETWEEN GIRDERS 2 AND 3 WERE MEASURED DURING THE FIELD INSPECTION IN DECEMBER, 2018. THE DISTANCE BETWEEN FACES OF GIRDER WEBS WAS MEASURED TO BE A MAXIMUM OF 30'-1 3/8" AND A MINIMUM OF 29'-9 1/8". ALL DIMENSIONS SHOWN ON THE PROPOSED REHABILITATION PLANS ARE BASED ON THE THEORETICAL BRIDGE GEOMETRY SHOWN IN THE ORIGINAL PLANS. CONTRACTOR SHALL FIELD MEASURE THE STRUCTURE AND DEVELOP THE GEOMETRY OF THE PROPOSED MEMBERS BASED ON THE ACTUAL FIELD DIMENSIONS OF THE BRIDGE, WITH THE APPROVAL OF THE ENGINEER.

MECHANICAL SPLICES SHALL DEVELOP 1.25 TIMES THE YIELD STRENGTH OF THE BARS THAT ARE LAPPED. USE MECHANICAL SPLICES THAT ARE APPROVED BY THE NCDOT MATERIALS AND TESTS UNIT.

THE FOLLOWING NOTES APPLY TO THE DRILLING AND GROUTING OF DOWEL REINFORCEMENT INTO THE EXISTING STRUCTURE:

USE NCDOT APPROVED MATERIAL.

CLEANING OF HOLES, HOLE SIZE, AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LITERATURE.

USE GROUT AND DEVELOPMENT LENGTH THAT DEVELOPS 1.25 TIMES THE YIELD STRENGTH OF THE BAR.

USE GROUND PENETRATING RADAR TO LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING HOLES. LOCATION OF BARS SHALL BE ADJUSTED SLIGHTLY IF REQUIRED TO AVOID EXISTING REINFORCEMENT.

ALL TEMPORARY CONCRETE BARRIERS ON THE BRIDGE SHALL BE ANCHORED TO THE DECK. FOR DETAILS, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

GENERAL SCOPE OF WORK

THIS SCOPE OF WORK IS NOT LISTED IN CHRONOLOGICAL ORDER. FOR DEMOLITION AND CONSTRUCTION SEQUENCE, SEE DEMOLITION AND CONSTRUCTION SEQUENCE SHEETS.

REHABILITATE AND STRENGTHEN THE EXISTING GIRDERS. PERFORM STEEL REPAIRS. ADD COVER PLATES, SPLICE PLATES, AND TRANSVERSE STIFFENERS.

REHABILITATE THE EXISTING BEARINGS AT BENTS 1 AND 4.

CONSTRUCT NEW END BENT SEGMENTS BETWEEN THE EXISTING END BENTS AT BOTH ENDS OF THE BRIDGE. INSTALL PILES, CONCRETE PILE FOOTINGS, AND END BENT WALLS.

INSTALL EXTERNAL POST-TENSIONING AT THE BENTS TO STRENGTHEN THE EXISTING BENT CAPS.

CONNECT THE EXISTING BRIDGES TOGETHER WITH PROPOSED DIAPHRAGMS IN BAY 2. INSTALL NEW STRINGERS IN BAY 2.

DEMOLISH THE EXISTING BRIDGE DECK AND APPROACH SLAB IN STAGES. INSTALL NEW SHEAR STUDS TO THE EXISTING GIRDER TOP FLANGES.

INSTALL THE PROPOSED BRIDGE DECK, FULLY COMPOSITE WITH THE EXISTING GIRDERS. INSTALL NEW APPROACH SLABS. INSTALL PERMANENT BARRIER RAILS AT THE OVERHANG AND THE MEDIAN.

INSTALL A PPC OVERLAY OVER THE PROPOSED BRIDGE DECK AND APPROACH SLABS.

PARTIALLY COAT THE GIRDERS AS SHOWN IN THE PLANS. COAT THE BEARINGS AT BENTS 1 AND 4 EXPANSION JOINTS. COAT BENTS 1 AND 4. COAT THE BASE OF BENTS 2 AND 3.

APPLY SILANE TREATMENT TO EXISTING EXPOSED PORTIONS OF END BENTS.

FOR FURTHER DETAILS, SEE PLANS, SPECIAL PROVISIONS, AND PAY ITEMS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR PPC MATERIALS AND PLACING & FINISHING PPC OVERLAY, SEE POLYESTER POLYMER CONCRETE OVERLAY SPECIAL PROVISIONS.

DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING PPC SURFACE PREPARATION OF BRIDGE DECK. SEALS SHALL BE REMOVED UPON COMPLETION OF DECK OVERLAY. CONTRACTOR SHALL TAKE CARE THAT ANY CONSTRUCTION DEBRIS THAT COLLECTS IN THE DRAINS IS CONTAINED. DRAINS IN SHOULDERS ADJACENT TO ACTIVE TRAVEL LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.

REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY IN PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

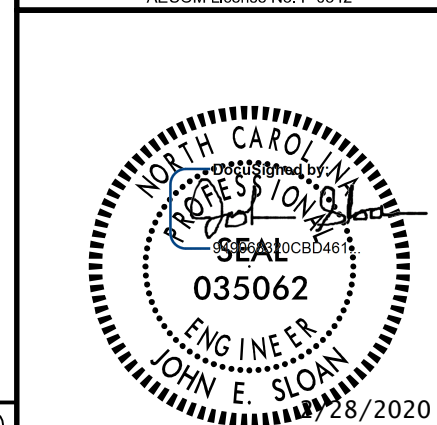
AT ALL LOCATIONS WHERE NEW STEEL IS INSTALLED, ALL MATING SURFACES SHALL BE CLEANED TO MEET SSPC SP-6 CRITERIA.

PROJECT NO. 15BPR.20

HENDERSON COUNTY

STATION: 35+30.22 -L-

WIDENING AND REHABILITATION
SHEET 5 OF 6 OF BRIDGE NOS. 440108 & 440112



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE WIDENING AND
REHAB ON I-26/US74
OVER GREEN RIVER
BETWEEN US25 AND SR1142

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			129

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

DRAWN BY : S. STREDNAK	DATE : 11/2018
CHECKED BY : J. SLOAN	DATE : 11/2018
DESIGNED BY : N. BROWN/D. TUTTLE	DATE : 11/2018
DESIGN CHECKED BY : J. SLOAN/J. LIU	DATE : 11/2018

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