

LOCATION SKETCH

**NOTES:**

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

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

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

THE ELEVATIONS AND CLEARANCES SHOWN ON THE PLANS AT THE POINTS OF MINIMUM VERTICAL CLEARANCE ARE FROM THE BEST INFORMATION AVAILABLE. PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE ELEVATIONS ON THE EXISTING PAVEMENT AND CHECK THE CLEARANCE. REPORT ANY VARIATIONS TO THE ENGINEER. ANY PLAN REVISIONS NECESSARY TO ACHIEVE THE REQUIRED MINIMUM VERTICAL CLEARANCE WILL BE PROVIDED BY THE DEPARTMENT.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS AND SHALL PROVIDE FOR BICYCLES.

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

NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.

THE CLASS AA 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.

THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS IS BASED ON AN APPROXIMATE PAVED SHOULDER ELEVATION. THE TOP OF DRILLED PIER SHALL BE ADJUSTED AS REQUIRED TO MAINTAIN THE TOP OF THE DRILLED PIER 1 FOOT BELOW THE PAVED SHOULDER ELEVATION.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

△ FOR LIMITS OF PARTIAL REMOVAL OF EXISTING STRUCTURE, SEE APPLICABLE SUPERSTRUCTURE AND SUBSTRUCTURE PLAN SHEETS. "REMOVAL OF EXISTING STRUCTURE" INCLUDES THE EXISTING OVERHANG, RAIL, SLAB AND PARTIAL REMOVAL OF END BENTS.

FOR PPC MATERIALS AND PLACING AND FINISHING POLYESTER POLYMER CONCRETE OVERLAY, SEE "POLYESTER POLYMER CONCRETE BRIDGE DECK OVERLAY" SPECIAL PROVISION.

FOR SHOTBLASTING DECK, SEE "OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE" SPECIAL PROVISION.

JOINTS SHALL BE SEALED PRIOR TO PPC OVERLAY.

LONGITUDINAL CONSTRUCTION JOINTS OF PPC OVERLAY SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

TEMPORARY SHORING WILL BE REQUIRED FOR MAINTENANCE OF TRAFFIC FOR CONSTRUCTION OF END BENTS. FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

| TOTAL BILL OF MATERIAL |                               |                                  |                                      |                 |             |             |                               |                        |                  |                       |                   |                                 |                                      |   |
|------------------------|-------------------------------|----------------------------------|--------------------------------------|-----------------|-------------|-------------|-------------------------------|------------------------|------------------|-----------------------|-------------------|---------------------------------|--------------------------------------|---|
| △                      | REMOVAL OF EXISTING STRUCTURE | 3'-6" DIA. DRILLED PIERS IN SOIL | 3'-6" DIA. DRILLED PIERS NOT IN SOIL | SID INSPECTIONS | SPT TESTING | CSL TESTING | REINFORCED CONCRETE DECK SLAB | GROOVING BRIDGE FLOORS | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | SPIRAL COLUMN REINFORCING STEEL | APPROX. 441,500 LBS STRUCTURAL STEEL | PILE DRIVING EQUIPMENT SETUP HP 12 X 53 STEEL PILES |
|                        | LS                            | LF                               | LF                                   | EA              | EA          | EA          | SF                            | SF                     | CY               | LS                    | LB                | LB                              | LS                                   | EA  |
| SUPERSTRUCTURE         |                               |                                  |                                      |                 |             |             | 15,562                        | 13,024                 |                  | LS                    | LB                | LB                              | LS                                   | EA  |
| END BENT 1             |                               |                                  |                                      |                 |             |             |                               |                        | 32.5             |                       | 5,441             |                                 | LS                                   |   |
| BENT 1                 |                               | 38                               | 36                                   | 1               | 2           | 1           |                               |                        | 55.5             |                       | 13,045            | 2933                            |                                      | 8   |
| BENT 2                 |                               | 25                               | 39                                   | 1               | 2           | 1           |                               |                        | 105.8            |                       | 16,543            | 2267                            |                                      |   |
| BENT 3                 |                               | 2                                | 49                                   | 1               | 2           | 1           |                               |                        | 55.1             |                       | 12,068            | 2430                            |                                      |   |
| END BENT 2             |                               |                                  |                                      |                 |             |             |                               |                        | 32.3             |                       | 5,439             |                                 |                                      | 8   |
| TOTAL                  | LS                            | 65                               | 124                                  | 3               | 6           | 3           | 15,562                        | 13,024                 | 281.2            | LS                    | 52,536            | 7630                            | LS                                   | 16  |

| TOTAL BILL OF MATERIAL |                      |                   |                      |                       |                     |                      |                  |                                       |  |  |                          |    |
|------------------------|----------------------|-------------------|----------------------|-----------------------|---------------------|----------------------|------------------|---------------------------------------|--|--|--------------------------|----|
|                        | HP 12x53 STEEL PILES | STEEL PILE POINTS | THREE BAR METAL RAIL | 104" CHAIN LINK FENCE | 4" SLOPE PROTECTION | ELASTOMERIC BEARINGS | FOAM JOINT SEALS | ELECTRICAL CONDUIT SYSTEM FOR SIGNALS | POLYESTER POLYMER CONCRETE OVERLAY MATERIALS | PLACING AND FINISHING FOR POLYESTER POLYMER CONCRETE OVERLAY | SHOTBLASTING BRIDGE DECK |    |
|                        | NO.                  | LF                | EA                   | LF                    | LF                  | SY                   | LS               | LS                                    | LS   | CY   | SY                       | SY |
| SUPERSTRUCTURE         |                      |                   |                      | 422.50                | 427.83              |                      | LS               | LS                                    | 21.4   | 770.0  | 770.0                    |    |
| END BENT 1             | 8                    | 200               | 8                    |                       |                     | 325                  |                  |                                       |  |  |                          |    |
| BENT 1                 |                      |                   |                      |                       |                     |                      |                  |                                       |  |  |                          |    |
| BENT 2                 |                      |                   |                      |                       |                     |                      |                  |                                       |  |  |                          |    |
| BENT 3                 |                      |                   |                      |                       |                     |                      |                  |                                       |  |  |                          |    |
| END BENT 2             | 8                    | 160               | 8                    |                       |                     | 310                  |                  |                                       |  |  |                          |    |
| TOTAL                  | 16                   | 360               | 16                   | 422.50                | 427.83              | 635                  | LS               | LS                                    | 21.4   | 770.0  | 770.0                    |    |

| SAMPLE BAR REPLACEMENT |         |
|------------------------|---------|
| SIZE                   | LENGTH  |
| #3                     | 6'-2"   |
| #4                     | 7'-4"   |
| #5                     | 8'-6"   |
| #6                     | 9'-8"   |
| #7                     | 10'-10" |
| #8                     | 12'-0"  |
| #9                     | 13'-2"  |
| #10                    | 14'-6"  |
| #11                    | 15'-10" |

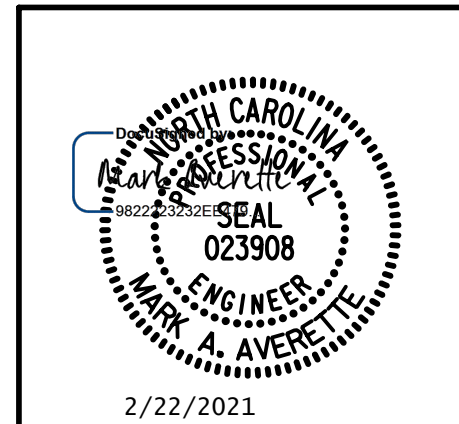
NOTE: SAMPLE BAR REPLACEMENT LENGTHS BASED ON 30' (SAMPLE LENGTH) PLUS TWO SPLICE LENGTHS AND Fy = 60ksi.

NOTE: SEE SHEET S-76 FOR TOTAL BILL OF MATERIAL FOR PRESERVATION

DRAWN BY: S.D. COOPER DATE: 1-20  
 CHECKED BY: T. BEACH DATE: 1-20  
 DESIGN ENGINEER OF RECORD: T. BEACH DATE: 1-20

△ ADDED PAY ITEM AND NOTE

PLANS PREPARED BY:  
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 LICENSURE NO. C-2521



PROJECT NO. I-5711  
 ALAMANCE COUNTY  
 STATION: STA. 27+02.26 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING

FOR BRIDGE ON MEBANE OAKS ROAD OVER I-40/I-85 BETWEEN SR 2033 AND SR 2210

| REVISIONS |     |         |     |     |       |
|-----------|-----|---------|-----|-----|-------|
| NO.       | BY: | DATE:   | NO. | BY: | DATE: |
| 1         | MA  | 2-22-21 | 3   |     |       |
| 2         |     |         | 4   |     |       |

SHEET NO. S-4  
 TOTAL SHEETS 89

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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