

LOCATION SKETCH

| TOTAL BILL OF MATERIAL | | | | | | | | | | |
|------------------------|--------------------------------|-----------------------|-------------------------------|------------------------|-----------------------|-------------------------------|---|-------------------------|---|--|
| | FOUNDATION EXCAVATION FOR BENT | PDA TESTING | REINFORCED CONCRETE DECK SLAB | GROOVING BRIDGE FLOORS | CLASS AA CONCRETE | CLASS A CONCRETE | BRIDGE APPROACH SLABS, STA. 60+66.06 -Y15FLYAC- | REINFORCING STEEL | APPROX. 3,635,000 LBS. STRUCTURAL STEEL | PILE DRIVING EQUIPMENT SETUP FOR HP14X73 STEEL PILES |
| | LUMP SUM | EA. | SQ. FT. | SQ. FT. | CU. YDS. | CU. YDS. | LUMP SUM | LB. | LUMP SUM | EA. |
| SUPERSTRUCTURE | | | 81,227 | 71,208 | | | LUMP SUM | | LUMP SUM | |
| END BENT 1 | | | | | | 83.3 | | | | 18 |
| BENT 1 | LUMP SUM | | | | 259.2 | | | 10,880 | | 25 |
| BENT 2 | LUMP SUM | | | | 271.8 | | | 50,124 | | 36 |
| BENT 3 | LUMP SUM | | | | 173.0 | | | 54,139 | | 36 |
| BENT 4 | LUMP SUM | | | | 275.3 | | | 48,066 | | 36 |
| BENT 5 | LUMP SUM | | | | 367.3 | | | 62,150 | | 28 |
| BENT 6 | LUMP SUM | | | | 460.6 | | | 83,276 | | 40 |
| BENT 7 | LUMP SUM | | | | 451.1 | | | 81,642 | | 40 |
| BENT 8 | LUMP SUM | | | | 388.1 | | | 75,432 | | 32 |
| BENT 9 | LUMP SUM | | | | 385.9 | | | 72,399 | | 28 |
| END BENT 2 | | | | | | 79.6 | | 10,704 | | 18 |
| TOTAL | LUMP SUM | 1 | 81,227 | 71,208 | 3,032.3 | 162.9 | LUMP SUM | 594,871 | LUMP SUM | 337 |
| | HP14x73 STEEL PILES | CONCRETE BARRIER RAIL | 4" SLOPE PROTECTION | DISC BEARINGS | EXPANSION JOINT SEALS | MODULAR EXPANSION JOINT SEALS | 6000 PSI CONCRETE | POST TENSIONING TENDONS | POST TENSIONING ENCASEMENT | |
| | NO. | LIN. FT. | LIN. FT. | SQ. YDS. | LUMP SUM | LUMP SUM | LUMP SUM | CU. YDS. | LUMP SUM | LUMP SUM |
| SUPERSTRUCTURE | | | 3,797.5 | | LUMP SUM | LUMP SUM | LUMP SUM | | | |
| END BENT 1 | 18 | 1,440 | | 267 | | | | | | |
| BENT 1 | 25 | 938 | | | | | | | | |
| BENT 2 | 36 | 1,260 | | | | | | | | |
| BENT 3 | 36 | 2,160 | | | | | 95.2 | LUMP SUM | LUMP SUM | |
| BENT 4 | 36 | 2,250 | | | | | | | | |
| BENT 5 | 28 | 1,820 | | | | | | | | |
| BENT 6 | 40 | 1,400 | | | | | | | | |
| BENT 7 | 40 | 2,800 | | | | | | | | |
| BENT 8 | 32 | 1,600 | | | | | | | | |
| BENT 9 | 28 | 1,820 | | | | | | | | |
| END BENT 2 | 18 | 1,620 | | 435 | | | | | | |
| TOTAL | 337 | 19,108 | 3,797.5 | 702 | LUMP SUM | LUMP SUM | LUMP SUM | 95.2 | LUMP SUM | LUMP SUM |

| 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 $f_y = 60\text{ksi}$.

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 "STANDARD NOTES" SHEET (SN).

ALL ELEVATIONS ARE IN FEET.

THE ELEVATION(S) AND CLEARANCE(S) SHOWN ON THE PLANS AT THE POINT(S) OF MINIMUM VERTICAL CLEARANCE ARE FROM THE BEST INFORMATION AVAILABLE, PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE ELEVATION(S) 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 ENGINEER.

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE AT STATION 60+66.06 -Y15FLYAC-, SEE SPECIAL PROVISIONS.

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 5 OR SYSTEM 6 OF THE STRUCTURAL STEEL SHOP COATINGS PROGRAM AND SECTION 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.

WORK SHALL NOT BE STARTED ON BENT 6 UNTIL ROADWAY SECTION HAS BEEN EXCAVATED.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

FOR TEMPORARY BENTS, SEE SPECIAL PROVISIONS.

FOR EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS

SPECIAL SNOWPLOW PROTECTION IS REQUIRED. SEE SPECIAL PROVISION FOR MODULAR EXPANSION JOINT SEALS.

FOR MASS CONCRETE, SEE SPECIAL PROVISIONS. BENTS 1, 2, 3, 4, 5, 6, 7, 8, AND 9 INCLUDE MASS CONCRETE.

FOR BRIDGE DECK RIDEABILITY AND GROOVING, SEE SPECIAL PROVISIONS.

FOR DISC BEARINGS, SEE SPECIAL PROVISIONS.

FOR POST-TENSIONING TENDONS, SEE SPECIAL PROVISIONS.

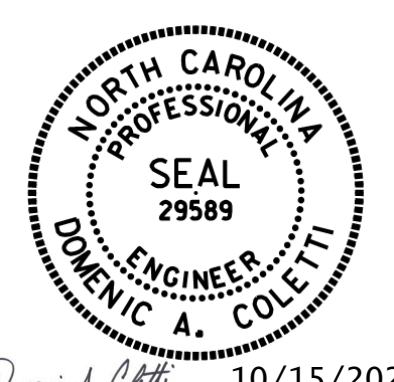
FOR 6000 PSI CONCRETE, SEE SPECIAL PROVISIONS.

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

CLASS AA CONCRETE SHALL BE USED IN CAST-IN-PLACE COLUMNS, INTERIOR BENT CAPS, AND FOOTINGS, AS NOTED ON THE PLANS.

PROJECT NO. U-2579AB
 FORSYTH COUNTY
 STATION: 60+66.06 -Y15FLYAC-

SHEET 11 OF 11



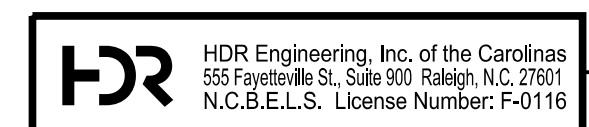
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE ON -Y15FLYAC- IN INTERCHANGE CONNECTING WINSTON-SALEM NORTHERN BELTWAY AND I-40 BYPASS BETWEEN SR 4315 AND SR 2679

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | NO. |
| 1 | -- | -- | 3 | -- | -- | TOTAL SHEETS 144 |
| 2 | -- | -- | 4 | -- | -- | |

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| DES BY: D. COLETTI | DATE: 12/19 | DWG BY: B. PETERSON | DATE: 12/19 |
| DES CHK: B. PETERSON | DATE: 12/19 | CHK BY: S. NIFONG | DATE: 12/19 |



10/15/2021
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