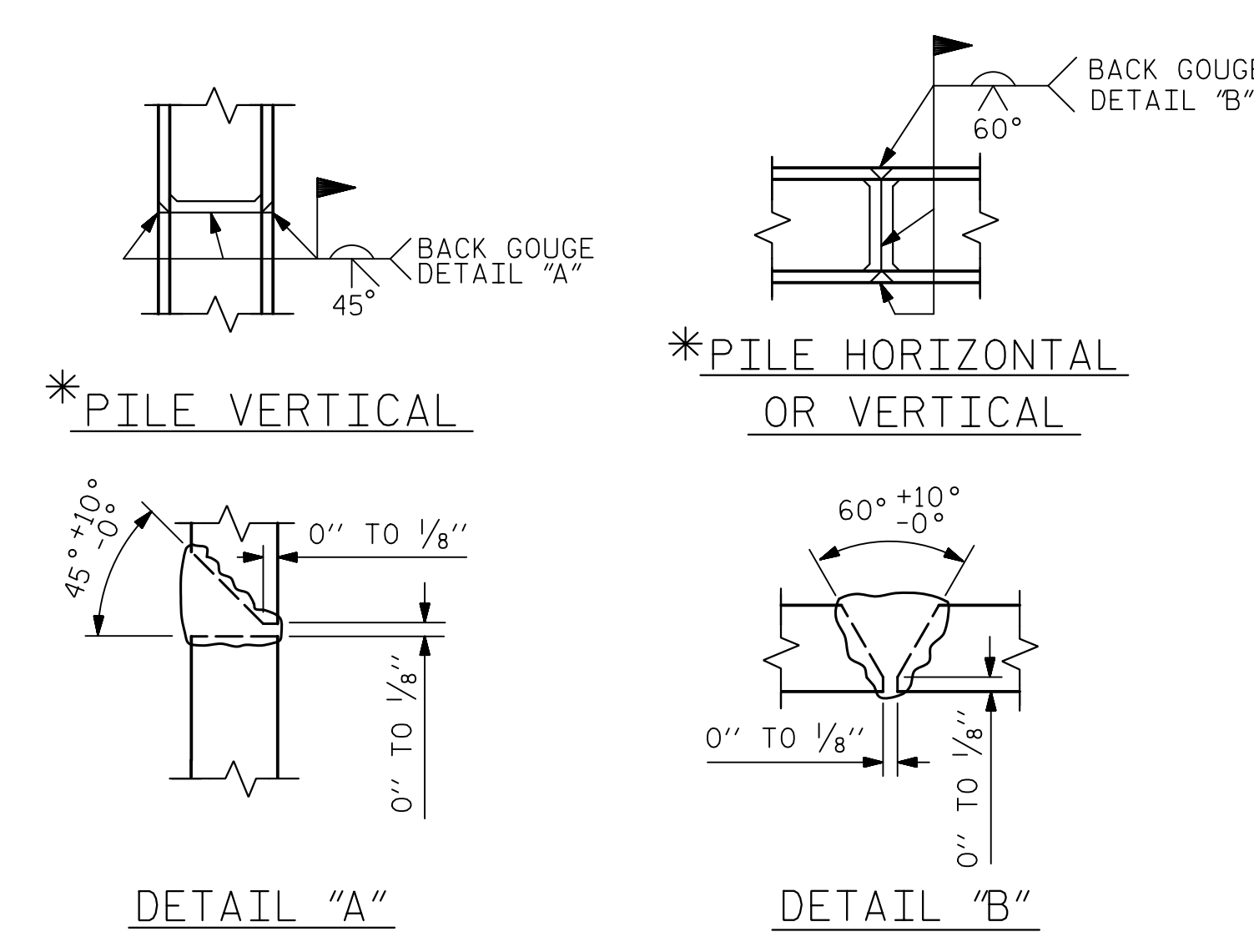
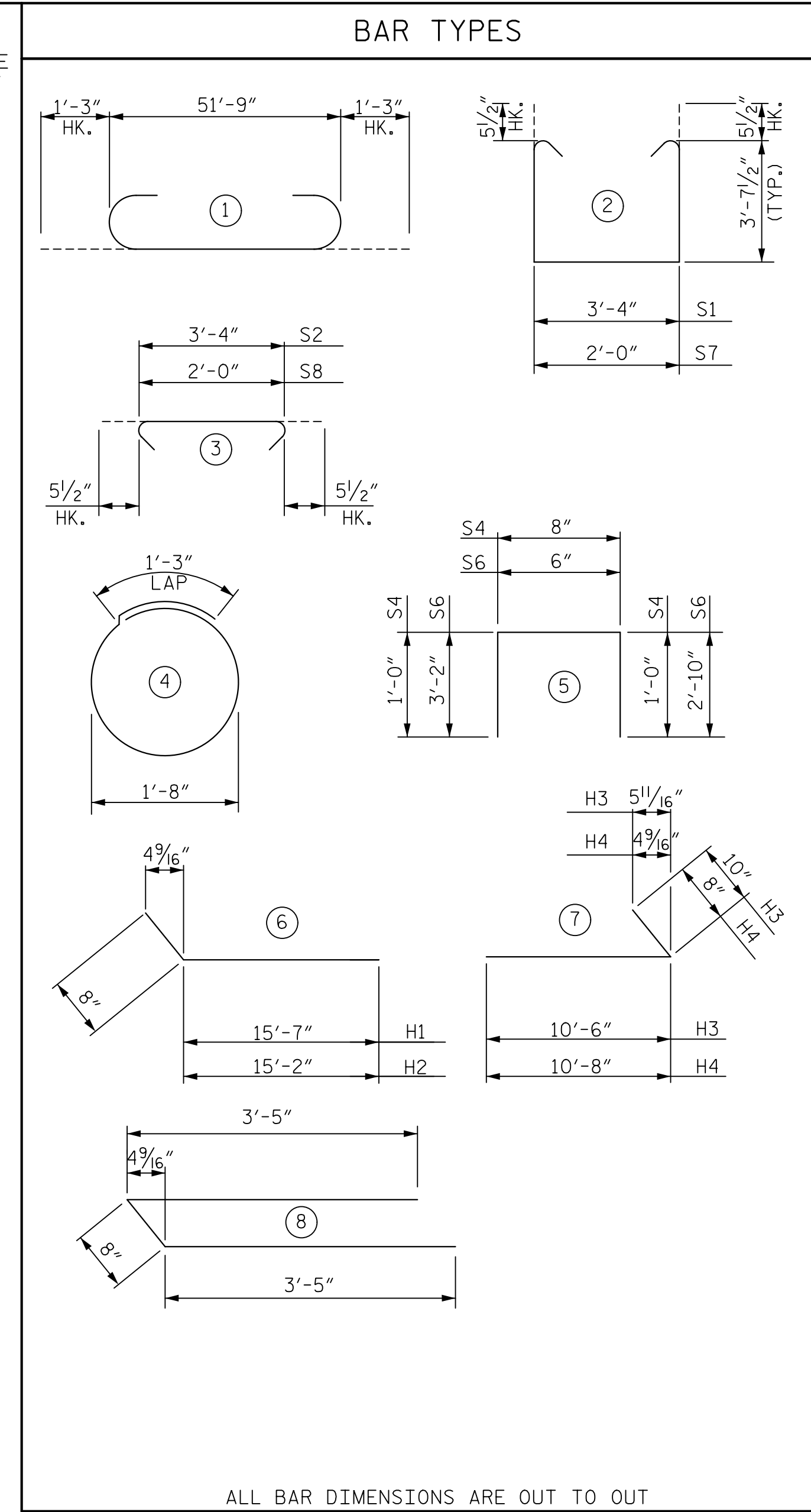


BLOCKOUT IN WINGWALL



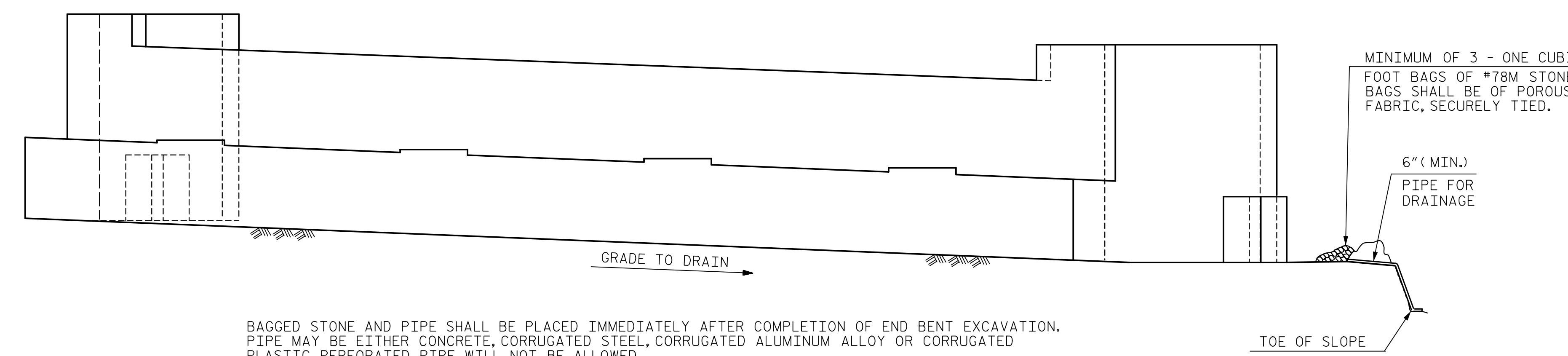
PILE SPLICE DETAILS

**NOTES:**  
 STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.  
 BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.  
 THE TOP SURFACE AREAS OF THE END BENT CAPS SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.  
 THE TOP SURFACE OF THE END BENT CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.  
 THE CONTRACTOR SHALL PROVIDE FOR INSTALLATION OF THE 4"Ø DRAIN PIPE THROUGH THE WINGWALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE ROADWAY PLANS. REINFORCING STEEL IN THE WINGWALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.



ALL BAR DIMENSIONS ARE OUT TO OUT

| BILL OF REINFORCING              |     |      |      |          |        |
|----------------------------------|-----|------|------|----------|--------|
| END BENT 2                       |     |      |      |          |        |
| BAR                              | NO. | SIZE | TYPE | LENGTH   | WEIGHT |
| B1                               | 10  | 9    |      | 54'-3"   | 1,845  |
| B2                               | 40  | 4    | STR. | 27'-3"   | 728    |
| B3                               | 13  | 4    | STR. | 3'-8"    | 32     |
| H1                               | 27  | 6    | 6    | 16'-3"   | 659    |
| H2                               | 11  | 4    | 6    | 15'-10"  | 116    |
| H3                               | 20  | 5    | 7    | 11'-4"   | 236    |
| H4                               | 11  | 4    | 7    | 11'-4"   | 83     |
| K1                               | 20  | 4    | STR. | 27'-3"   | 364    |
| S1                               | 122 | 5    | 2    | 11'-6"   | 1,463  |
| S2                               | 122 | 5    | 3    | 4'-3"    | 541    |
| S3                               | 44  | 4    | 4    | 6'-6"    | 191    |
| S4                               | 44  | 5    | 5    | 2'-8"    | 122    |
| S5                               | 2   | 4    | 8    | 7'-6"    | 10     |
| S6                               | 2   | 4    | 5    | 6'-6"    | 9      |
| S7                               | 4   | 5    | 2    | 10'-2"   | 42     |
| S8                               | 4   | 5    | 3    | 2'-11"   | 12     |
| V1                               | 88  | 5    | STR. | 8'-2"    | 750    |
| V2                               | 28  | 5    | STR. | 9'-8"    | 282    |
| V3                               | 30  | 5    | STR. | 10'-1"   | 316    |
| V4                               | 10  | 5    | STR. | 10'-0"   | 104    |
| QUANTITIES                       |     |      |      |          |        |
| REINFORCING STEEL                |     |      |      | LBS.     | 7,905  |
| CLASS "A" CONCRETE BREAKDOWN     |     |      |      |          |        |
| POUR 1 - CAP & BOT. OF WINGS     |     |      |      | CU. YDS. | 35.3   |
| POUR 2 - TOP OF WINGS & BACKWALL |     |      |      | CU. YDS. | 15.2   |
| TOTAL                            |     |      |      | CU. YDS. | 50.5   |
| HP 12x53 STEEL PILES             |     |      |      | NO.      | 11     |
|                                  |     |      |      | LIN. FT. | 275    |



BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.  
 BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.  
 NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT 2

PROJECT NO. B-4811  
RUTHERFORD COUNTY  
 STATION: POC 15+25.00 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

SUBSTRUCTURE

END BENT 2

DocuSigned by:  
 David W. Hawkins  
 SEAL 27812  
 ENGINEER  
 DAVID W. HAWKINS  
 1/29/2016

DocuSigned by:  
 Paul J. Barber  
 SEAL 12916  
 ENGINEER  
 PAUL J. BARBER  
 1/29/2016

**HNTB** HNTB NORTH CAROLINA, P.C.  
 NC License No. C-1554  
 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609

DRAWN BY M. WRIGHT DATE 11/14  
 CHECKED BY D. HAWKINS DATE 4/15 DWG. NO. 37

| REVISIONS |    |      |     |    |      | SHEET NO.    |
|-----------|----|------|-----|----|------|--------------|
| NO.       | BY | DATE | NO. | BY | DATE | S01-37       |
| 1         |    |      | 3   |    |      | TOTAL SHEETS |
| 2         |    |      | 4   |    |      | 42           |

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED