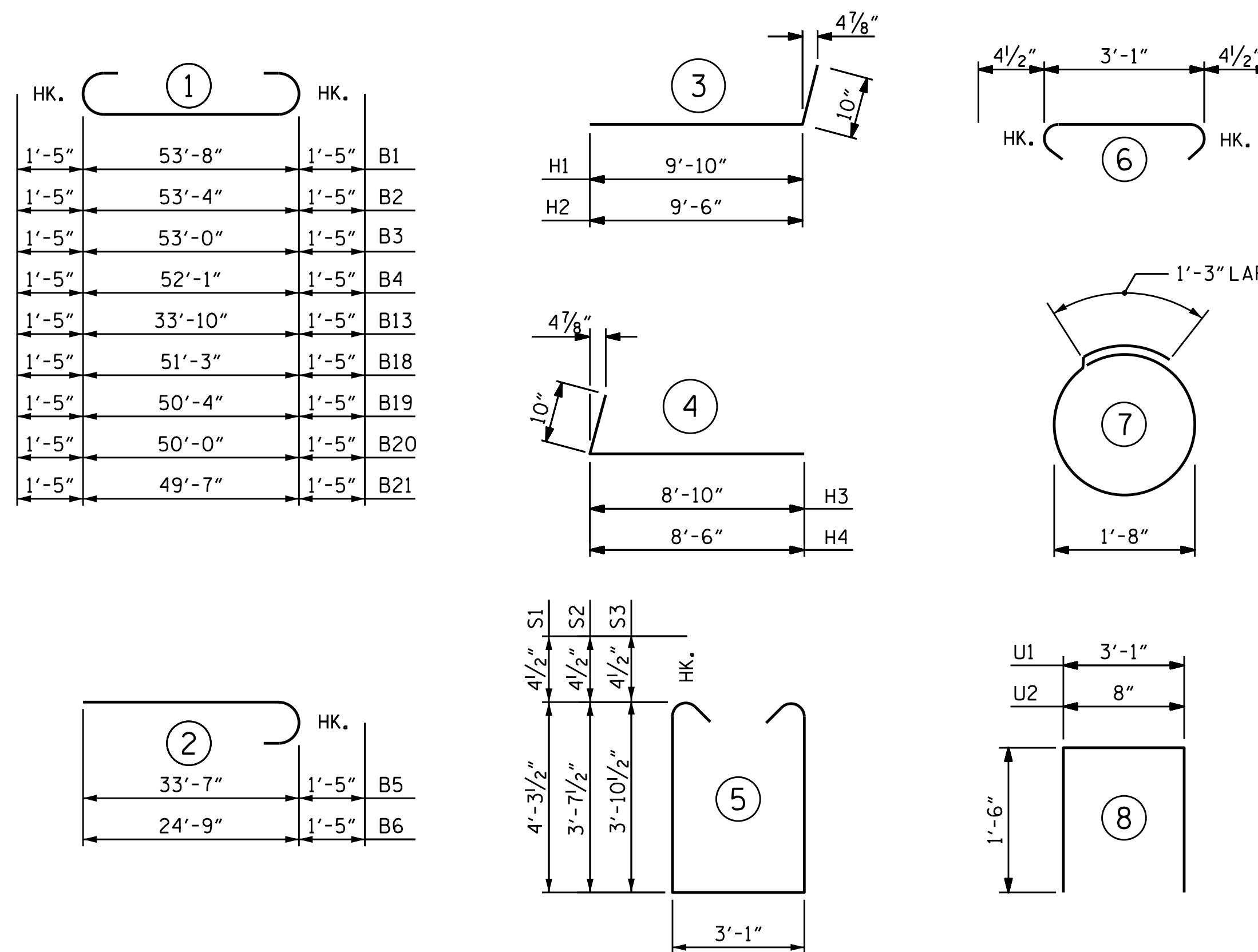


BAR TYPES

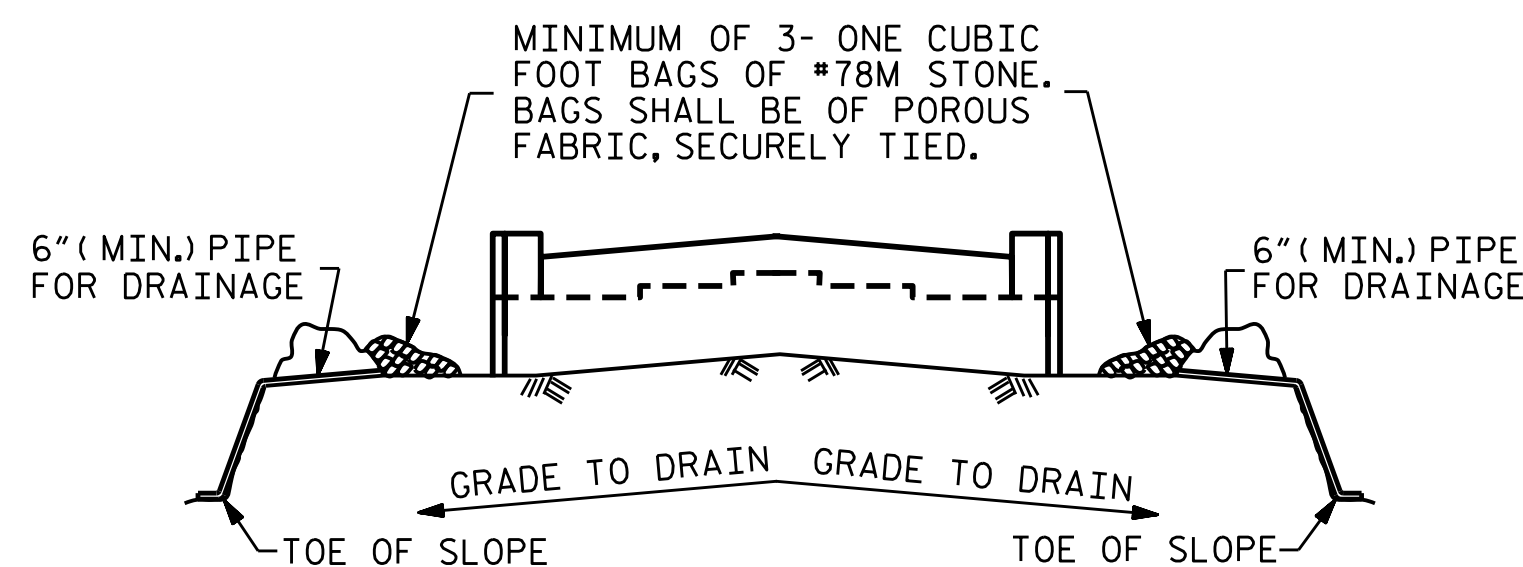


ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

| END BENT 1 | | | | | | | | | | | | | | | | | |
|------------|-----|------|------|---------|----------|---------|-----|------|------|-----------|--------|---------|-----|------|------|---------|--------|
| STAGE I | | | | | STAGE II | | | | | STAGE III | | | | | | | |
| BAR NO. | NO. | SIZE | TYPE | LENGTH | WEIGHT | BAR NO. | NO. | SIZE | TYPE | LENGTH | WEIGHT | BAR NO. | NO. | SIZE | TYPE | LENGTH | WEIGHT |
| B1 | 1 | 10 | 1 | 54'-11" | 236 | B12 | 9 | 4 | STR | 3'-1" | 19 | B12 | 13 | 4 | STR | 3'-1" | 27 |
| B2 | 1 | 10 | 1 | 55'-10" | 240 | B13 | 8 | 10 | 1 | 36'-8" | 1262 | B18 | 2 | 10 | 1 | 54'-1" | 465 |
| B3 | 1 | 10 | 1 | 56'-2" | 242 | B14 | 6 | 5 | STR | 33'-8" | 211 | B19 | 2 | 10 | 1 | 53'-2" | 458 |
| B4 | 1 | 10 | 1 | 56'-6" | 243 | B15 | 4 | 4 | STR | 12'-6" | 33 | B20 | 2 | 10 | 1 | 52'-10" | 455 |
| B5 | 4 | 10 | 2 | 35'-0" | 602 | B16 | 4 | 4 | STR | 15'-9" | 42 | B21 | 2 | 10 | 1 | 52'-5" | 451 |
| B6 | 4 | 10 | 2 | 26'-2" | 450 | B17 | 8 | 4 | STR | 18'-3" | 98 | B22 | 12 | 5 | STR | 27'-3" | 341 |
| B7 | 12 | 5 | STR | 28'-6" | 357 | | | | | | | B23 | 8 | 4 | STR | 26'-10" | 143 |
| B8 | 2 | 5 | STR | 21'-9" | 45 | D1 | 3 | 6 | STR | 2'-6" | 11 | B24 | 8 | 4 | STR | 2'-8" | 14 |
| B9 | 8 | 4 | STR | 10'-8" | 57 | | | | | | | | | | | | |
| B10 | 4 | 4 | STR | 3'-2" | 8 | K2 | 20 | 4 | STR | 18'-3" | 244 | H3 | 14 | 5 | 4 | 9'-8" | 141 |
| B11 | 8 | 4 | STR | 27'-6" | 147 | | | | | | | H4 | 14 | 5 | 4 | 9'-4" | 136 |
| B12 | 15 | 4 | STR | 3'-1" | 31 | S2 | 40 | 4 | 5 | 11'-1" | 296 | | | | | | |
| | | | | | | S4 | 40 | 4 | 6 | 3'-10" | 102 | K3 | 20 | 4 | STR | 26'-4" | 352 |
| D1 | 3 | 6 | STR | 2'-6" | 11 | S5 | 20 | 4 | 7 | 6'-6" | 87 | K4 | 6 | 4 | STR | 4'-4" | 17 |
| | | | | | | | | | | | | | | | | | |
| H1 | 14 | 5 | 3 | 10'-8" | 156 | U1 | 20 | 4 | 8 | 6'-1" | 81 | S3 | 62 | 4 | 5 | 11'-7" | 480 |
| H2 | 14 | 5 | 3 | 10'-4" | 151 | U2 | 34 | 4 | 8 | 3'-8" | 83 | S4 | 62 | 4 | 6 | 3'-10" | 159 |
| | | | | | | | | | | | | S5 | 24 | 4 | 7 | 6'-6" | 104 |
| K1 | 20 | 4 | STR | 28'-3" | 377 | V1 | 68 | 5 | STR | 7'-3" | 514 | | | | | | |
| K4 | 6 | 4 | STR | 4'-4" | 17 | | | | | | | U1 | 6 | 4 | 8 | 6'-1" | 24 |
| | | | | | | | | | | | | U2 | 45 | 4 | 8 | 3'-8" | 110 |
| S1 | 27 | 4 | 5 | 12'-5" | 224 | | | | | | | | | | | | |
| S2 | 30 | 4 | 5 | 11'-1" | 222 | | | | | | | V1 | 90 | 5 | STR | 7'-3" | 681 |
| S4 | 57 | 4 | 6 | 3'-10" | 146 | | | | | | | V7 | 28 | 5 | STR | 9'-8" | 282 |
| S5 | 28 | 4 | 7 | 6'-6" | 122 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| U1 | 19 | 4 | 8 | 6'-1" | 77 | | | | | | | | | | | | |
| U2 | 50 | 4 | 8 | 3'-8" | 122 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| V1 | 100 | 5 | STR | 7'-3" | 756 | | | | | | | | | | | | |
| V2 | 12 | 5 | STR | 9'-4" | 117 | | | | | | | | | | | | |
| V3 | 6 | 5 | STR | 9'-3" | 58 | | | | | | | | | | | | |
| V4 | 4 | 5 | STR | 9'-2" | 38 | | | | | | | | | | | | |
| V5 | 4 | 5 | STR | 9'-1" | 38 | | | | | | | | | | | | |
| V6 | 4 | 5 | STR | 9'-0" | 38 | | | | | | | | | | | | |

| REINFORCING STEEL | LBS. | 5,330 | REINFORCING STEEL | LBS. | 3,083 | REINFORCING STEEL | LBS. | 4,840 |
|--|----------|-------|----------------------------|----------|-------|--|----------|-------|
| CLASS A CONCRETE BREAKDOWN | | | CLASS A CONCRETE BREAKDOWN | | | CLASS A CONCRETE BREAKDOWN | | |
| POUR #1 CAP, LOWER PART OF WING W1 & COLLARS | C.Y. | 33.2 | POUR #1 CAP & COLLARS | C.Y. | 20.0 | POUR #1 CAP, LOWER PART OF WING W2 & COLLARS | C.Y. | 30.5 |
| POUR #2 BACKWALL & UPPER PART OF WING W1 | C.Y. | 9.9 | POUR #2 BACKWALL | C.Y. | 4.9 | POUR #2 BACKWALL & UPPER PART OF WING W2 | C.Y. | 9.0 |
| TOTAL | C.Y. | 43.1 | TOTAL | C.Y. | 24.9 | TOTAL | C.Y. | 39.5 |
| HP 12X53 STEEL PILES NO. 8 | LIN. FT. | 680 | HP 12X53 STEEL PILES NO. 5 | LIN. FT. | 405 | HP 12X53 STEEL PILES NO. 5 | LIN. FT. | 400 |

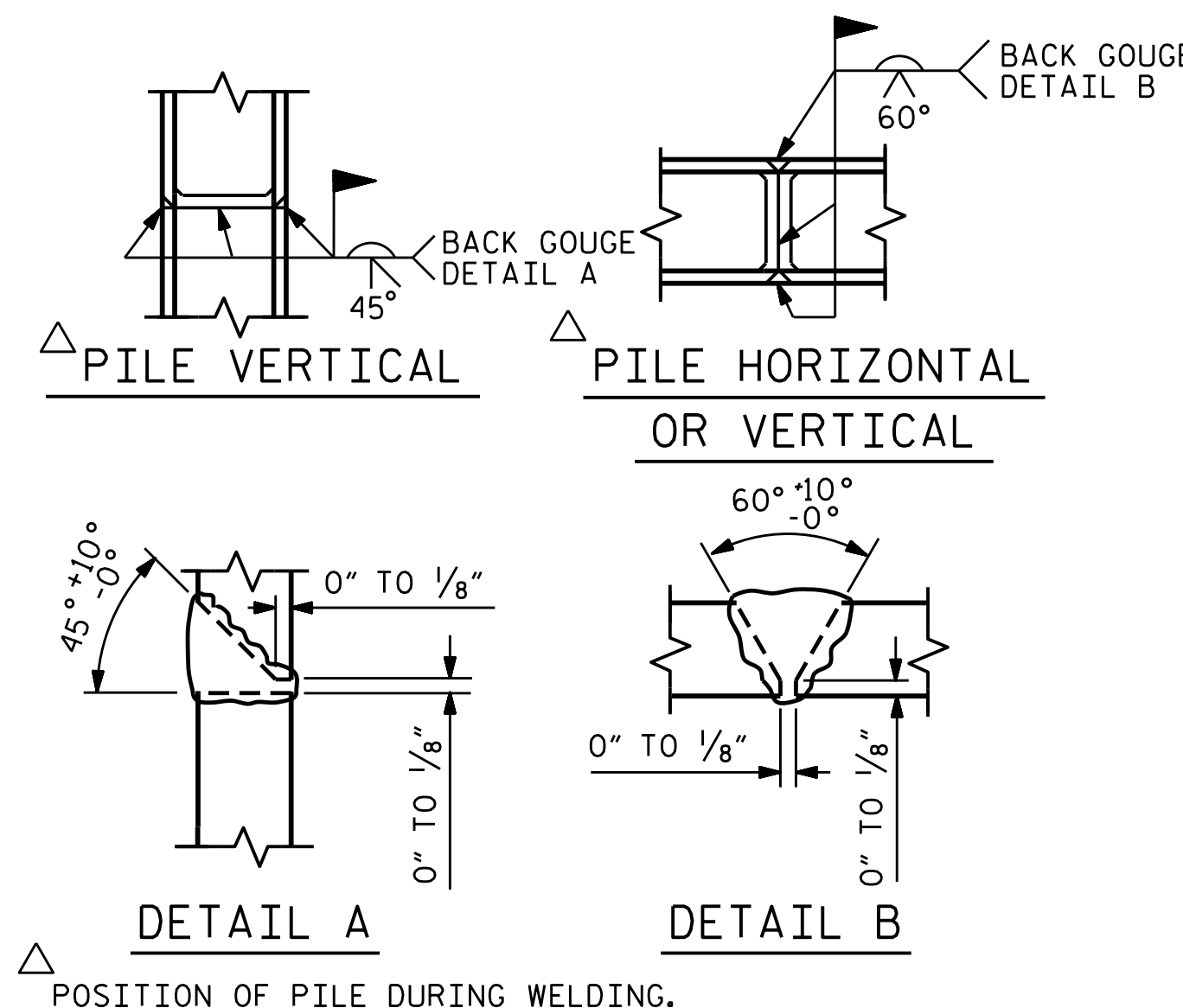


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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 BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



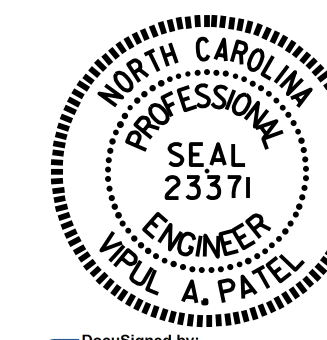
POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

PROJECT NO. B-5136
 CABARRUS COUNTY
 STATION: 21+74.92 -L-

SHEET 6 OF 6

| STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH | | | | | |
|--|-----|-------|-----|-----|--------------------|
| SUBSTRUCTURE | | | | | |
| END BENT 1 | | | | | |
| REVISIONS | | | | | SHEET NO. |
| NO. | BY: | DATE: | NO. | BY: | DATE: |
| 1 | | | 3 | | |
| 2 | | | 4 | | |
| | | | | | S-55 |
| | | | | | TOTAL SHEETS 75 |



DRAWN BY : M.E.GILES DATE : 8/4/14
 CHECKED BY : M.K. BEARD DATE : 10/16/14
 DESIGN ENGINEER OF RECORD: H.A. LOCKLEAR DATE : 10/16/14