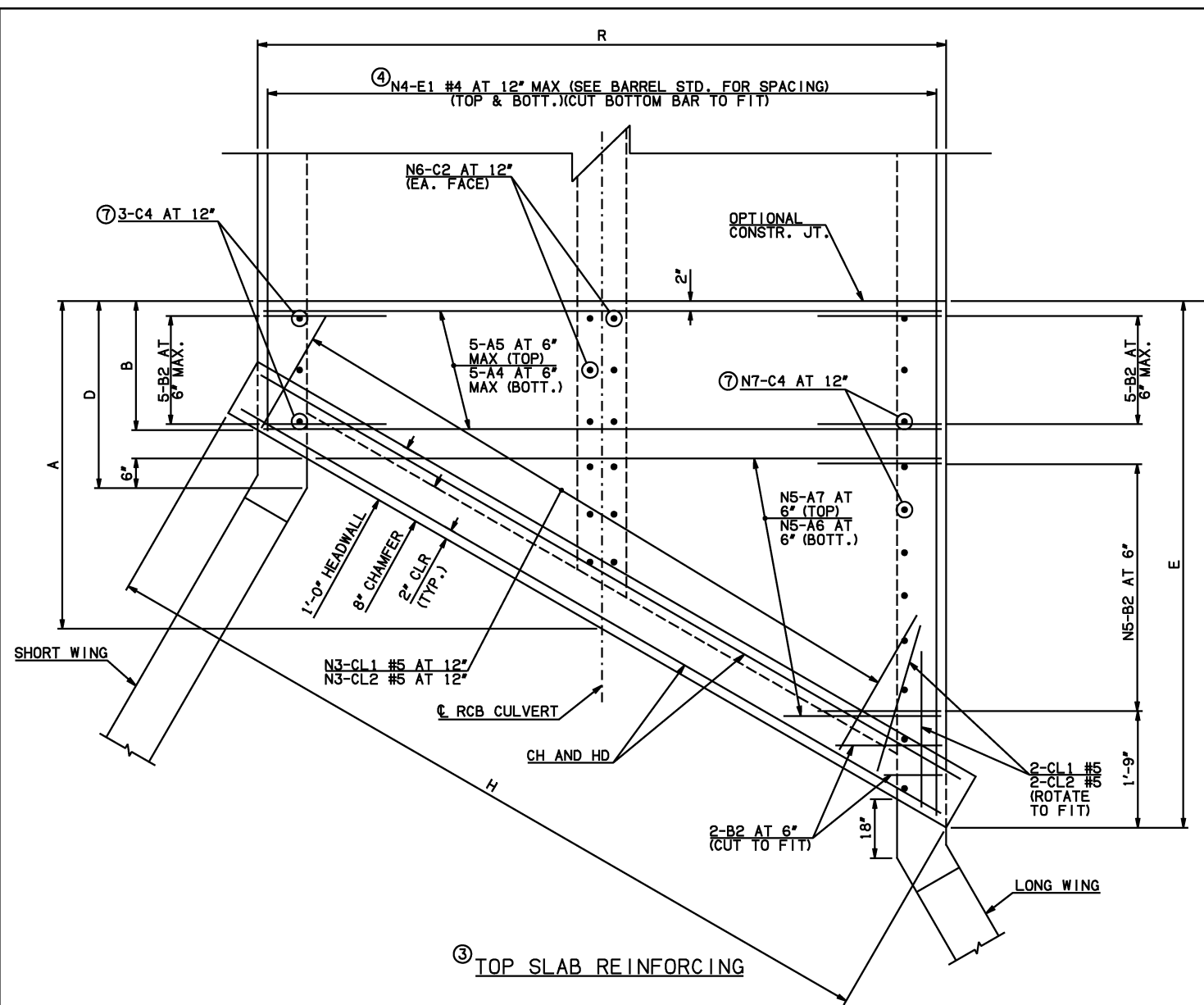
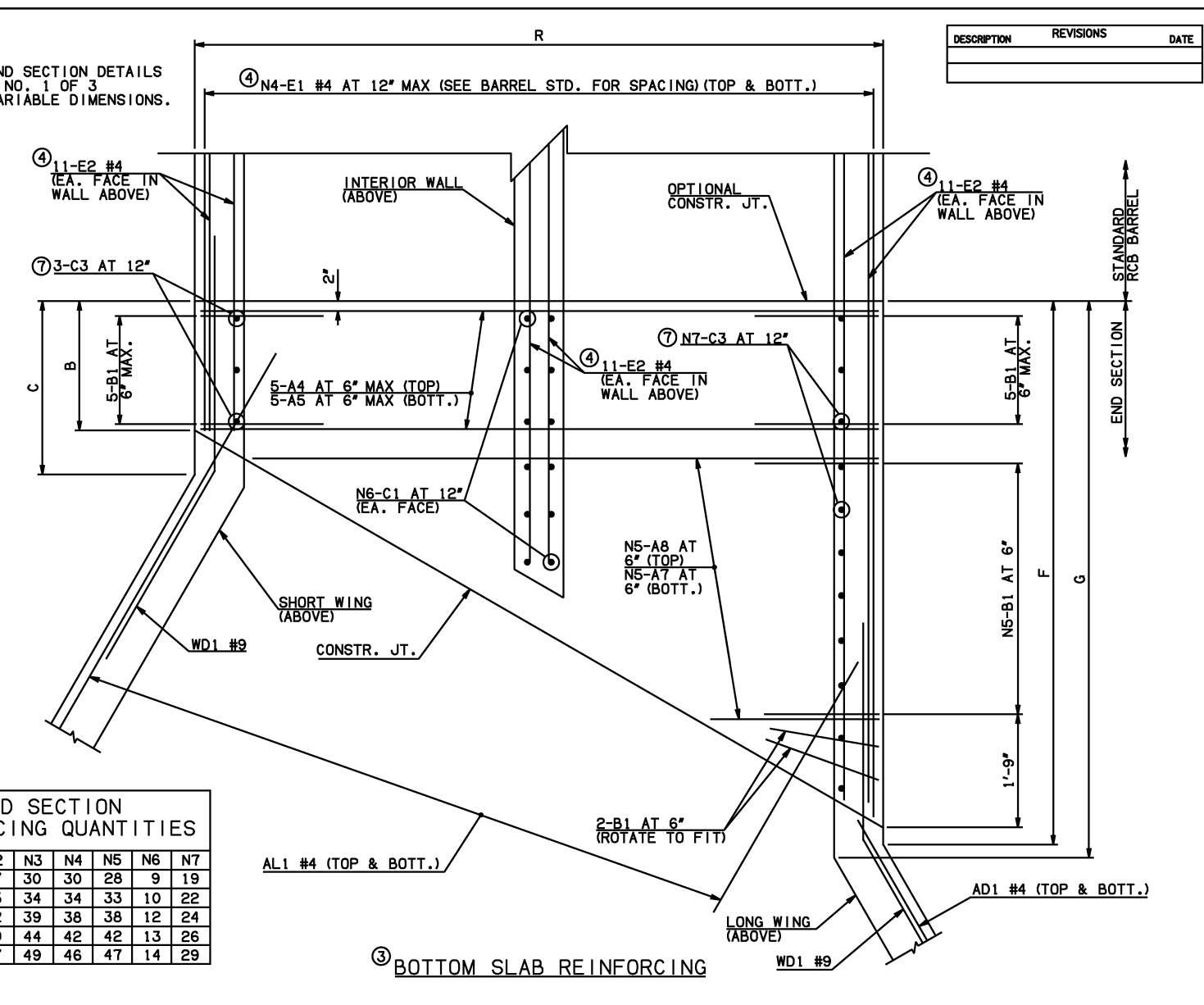


| DESCRIPTION | REVISIONS | DATE |
|-------------|-----------|------|
| | | |



NOTE: SEE END SECTION DETAILS SHEET NO. 1 OF 3 FOR VARIABLE DIMENSIONS.



END SECTION REINFORCING QUANTITIES

| SPAN | N1 | N2 | N3 | N4 | N5 | N6 | N7 |
|------|----|----|----|----|----|----|----|
| 12' | 21 | 17 | 30 | 30 | 28 | 9 | 19 |
| 14' | 23 | 15 | 34 | 34 | 33 | 10 | 22 |
| 16' | 26 | 12 | 39 | 38 | 38 | 12 | 24 |
| 18' | 29 | 9 | 44 | 42 | 42 | 13 | 26 |
| 20' | 31 | 7 | 49 | 46 | 47 | 14 | 29 |

END CONNECTION BAR LIST

ONE END CONNECTION SHOWN

| MARK | FORM | 12' SPAN | | | | 14' SPAN | | | | 16' SPAN | | | | 18' SPAN | | | | 20' SPAN | | | |
|------|------|----------|------|-----------------|-----------------------|----------|------|-----------------|------------------------|----------|------|-----------------|------------------------|----------|------|-----------------|------------------------|----------|------|-----------------|------------------------|
| | | SIZE | QTY. | LENGTH | REMARKS | SIZE | QTY. | LENGTH | REMARKS | SIZE | QTY. | LENGTH | REMARKS | SIZE | QTY. | LENGTH | REMARKS | SIZE | QTY. | LENGTH | REMARKS |
| A4 | STR | #6 | 10 | 26'-8" | | #7 | 10 | 30'-8" | | #7 | 10 | 34'-10" | | #8 | 10 | 39'-0" | | #8 | 10 | 43'-2" | |
| A5 | STR | #9 | 10 | 26'-8" | | #9 | 10 | 30'-8" | | #9 | 10 | 34'-10" | | #10 | 10 | 39'-0" | | #10 | 10 | 43'-2" | |
| A6 | STR | #7 | 28 | 13'-0 1/2" AVG. | 1'-4" TO 24'-9" | #7 | 33 | 15'-2 1/2" AVG. | 1'-4" TO 29'-1" | #8 | 38 | 17'-4 1/2" AVG. | 1'-4" TO 33'-5" | #9 | 42 | 19'-1" AVG. | 1'-4" TO 36'-10" | #9 | 47 | 21'-3" AVG. | 1'-4" TO 41'-2" |
| A7 | STR | #9 | 56 | 14'-2" AVG. | 2'-6" TO 25'-10" | #9 | 66 | 16'-4" AVG. | 2'-6" TO 30'-2" | #9 | 76 | 18'-6" AVG. | 2'-6" TO 34'-6" | #10 | 84 | 20'-3" AVG. | 2'-6" TO 38'-0" | #10 | 94 | 22'-5" AVG. | 2'-6" TO 42'-4" |
| A8 | STR | #7 | 28 | 14'-2" AVG. | 2'-6" TO 25'-10" | #7 | 33 | 16'-4" AVG. | 2'-6" TO 30'-2" | #8 | 38 | 18'-6" AVG. | 2'-6" TO 34'-6" | #9 | 42 | 20'-3" AVG. | 2'-6" TO 38'-0" | #9 | 47 | 22'-5" AVG. | 2'-6" TO 42'-4" |
| B1 | BNT | #6 | 40 | 5'-2" | | #6 | 45 | 5'-3" | | #6 | 50 | 5'-7" | | #6 | 54 | 6'-0" | | #6 | 59 | 6'-6" | |
| B2 | BNT | #6 | 40 | 14'-2" | | #6 | 45 | 14'-3" | | #6 | 50 | 14'-7" | | #6 | 54 | 15'-0" | | #6 | 59 | 15'-6" | |
| C1 | STR | #4 | 18 | 2'-3" | | #4 | 20 | 2'-5" | | #4 | 24 | 2'-5" | | #4 | 26 | 2'-6" | | #4 | 28 | 2'-8" | |
| C2 | STR | #4 | 18 | 11'-11" | | #4 | 20 | 12'-1" | | #4 | 24 | 12'-1" | | #4 | 26 | 12'-2" | | #4 | 28 | 12'-4" | |
| C3 | STR | #5 | 22 | 2'-7" | | #5 | 25 | 2'-9" | | #5 | 27 | 2'-9" | | #5 | 29 | 2'-10" | | #5 | 32 | 3'-0" | |
| C4 | STR | #5 | 22 | 11'-11" | | #5 | 25 | 12'-1" | | #5 | 27 | 12'-1" | | #5 | 29 | 12'-2" | | #5 | 32 | 12'-4" | |
| E1 | STR | #4 | 120 | 9'-9 1/2" AVG. | 2'-1" TO 17'-6" | #4 | 136 | 10'-9" AVG. | 1'-11" TO 19'-7" | #4 | 152 | 12'-9 1/2" AVG. | 2'-9" TO 22'-10" | #4 | 168 | 13'-9" AVG. | 2'-6" TO 25'-0" | #4 | 184 | 14'-9 1/2" AVG. | 2'-4" TO 27'-3" |
| E2 | STR | #4 | 66 | 9'-4" AVG. | 2'-1", 8'-10", 17'-1" | #4 | 66 | 10'-4" AVG. | 1'-11", 9'-10", 19'-3" | #4 | 66 | 12'-4" AVG. | 2'-9", 11'-10", 22'-5" | #4 | 66 | 13'-3 1/2" AVG. | 2'-6", 12'-10", 24'-7" | #4 | 66 | 14'-3 1/2" AVG. | 2'-4", 13'-10", 26'-8" |

QUANTITIES

| ITEM | UNIT | 12' SPAN | 14' SPAN | 16' SPAN | 18' SPAN | 20' SPAN |
|-------------------|------|----------|----------|----------|----------|----------|
| CLASS AA CONCRETE | CY | 172.90 | 192.00 | 214.50 | 237.00 | 265.50 |
| REINFORCING STEEL | LB | 24490.00 | 27490.00 | 31960.00 | 38560.00 | 43330.00 |

NOTE: QUANTITIES ABOVE ARE FOR ONE END SECTION, WHICH IS COMPRISED OF ONE END CONNECTION, ONE HEADWALL, ONE APRON, AND TWO WINGWALLS.

- NOTES:
- ② QUANTITY SHOWN REPRESENTS TWO SETS.
 - ③ FOR FURTHER INFORMATION REGARDING END SECTION A, B, C, AND E BARS REFER TO RCB CULVERT - BARREL DETAILS.
 - ④ LENGTHS OF E1 & E2 BARS SHOWN ARE ADDITIONAL LENGTHS REQUIRED FOR THE END SECTION. LAP SPLICES, AS REQUIRED, SHALL BE IN ACCORDANCE WITH RCB BARREL STANDARD NOTES.
 - ⑤ 4-SETS OF N4-E1 BARS REQUIRED.
 - ⑥ 3-SETS OF 22-E2 BARS REQUIRED WITH LENGTHS AS SHOWN CORRESPONDING TO SHORT EXTERIOR WALL, INTERIOR WALL, AND LONG EXTERIOR WALL.
 - ⑦ C3 AND C4 BAR SIZE AND SPACING MAY DIFFER FROM BARREL SECTION.

APPROVED BY BRIDGE ENGINEER *Scott J. Smith* DATE 4/2/10

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (ENGLISH)

RCB CULVERTS - END SECTION DETAILS
DOUBLE CELL - 11'-0" HEIGHT - 30°
SHEET NO. 2 OF 3

2009 SPECIFICATIONS | RCB-E2-H11-30-2 | 01E | B-730E