

SUMMARY OF QUANTITIES - SUPERSTRUCTURE (PER SPAN)

| SPAN | PRESTRESSED CONCRETE BEAM TYPE | ABUTMENT TO ABUTMENT | | | | | | ABUTMENT TO STANDARD PIER | | | | | | ABUTMENT TO STEPPED PIER | | | | | | | | | |
|------|--------------------------------|---|-----------------------------|--------------------------|---------------------------|-----------------------------|---------------------------------------|---|-----------------------------|--------------------------|---------------------------|-----------------------------|---------------------------------------|---|---|---|-----------------------------|--------------------------|---------------------------|-----------------------------|---------------------------------------|---|---|
| | | PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF) | CONCRETE RAIL (TR3) (LF) | STRUCTURAL STEEL (LB) | CLASS AA CONCRETE (CY) | REINFORCING STEEL ② (LB) | (PL) FIXED BEARING ASSEMBLY ④ (EA) | PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF) | CONCRETE RAIL (TR3) (LF) | STRUCTURAL STEEL (LB) | CLASS AA CONCRETE (CY) | REINFORCING STEEL ③ (LB) | (PL) FIXED BEARING ASSEMBLY ④ (EA) | (PL) EXPANSION BEARING ASSEMBLY ⑤ (EA) | (PL) ELASTOMERIC BEARING PADS ⑥ (EA) | PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF) | CONCRETE RAIL (TR3) (LF) | STRUCTURAL STEEL (LB) | CLASS AA CONCRETE (CY) | REINFORCING STEEL ③ (LB) | (PL) FIXED BEARING ASSEMBLY ④ (EA) | (PL) EXPANSION BEARING ASSEMBLY ⑤ (EA) | (PL) ELASTOMERIC BEARING PADS ⑥ (EA) |
| 30' | II | 118.67 | 63.0 | 130 | 51.5 | 6,790 | 8 | 118.67 | 61.5 | 250 | 40.4 | 8,240 | 4 | 4 | 4 | 118.67 | 62.2 | 250 | 40.6 | 9,630 | 4 | 4 | 4 |
| | B | 118.67 | 63.0 | 130 | 51.2 | 6,780 | 8 | 118.67 | 61.5 | 250 | 40.1 | 8,230 | 4 | 4 | 4 | 118.67 | 62.2 | 250 | 40.4 | 9,620 | 4 | 4 | 4 |
| 35' | II | 138.67 | 73.0 | 130 | 55.8 | 7,630 | 8 | 138.67 | 71.5 | 250 | 44.7 | 9,080 | 4 | 4 | 4 | 138.67 | 72.2 | 250 | 45.0 | 10,470 | 4 | 4 | 4 |
| | B | 138.67 | 73.0 | 130 | 55.5 | 7,630 | 8 | 138.67 | 71.5 | 250 | 44.5 | 9,070 | 4 | 4 | 4 | 138.67 | 72.2 | 250 | 44.8 | 10,460 | 4 | 4 | 4 |
| 40' | II | 158.67 | 83.0 | 130 | 60.2 | 8,620 | 8 | 158.67 | 81.5 | 250 | 49.1 | 10,070 | 4 | 4 | 4 | 158.67 | 82.2 | 250 | 49.4 | 11,460 | 4 | 4 | 4 |
| | B | 158.67 | 83.0 | 130 | 59.9 | 8,620 | 8 | 158.67 | 81.5 | 250 | 48.8 | 10,070 | 4 | 4 | 4 | 158.67 | 82.2 | 250 | 49.1 | 11,450 | 4 | 4 | 4 |
| 45' | II | 178.67 | 93.0 | 130 | 64.5 | 9,460 | 8 | 178.67 | 91.5 | 250 | 53.4 | 10,910 | 4 | 4 | 4 | 178.67 | 92.2 | 250 | 53.7 | 12,300 | 4 | 4 | 4 |
| | B | 178.67 | 93.0 | 130 | 64.2 | 9,460 | 8 | 178.67 | 91.5 | 250 | 53.2 | 10,900 | 4 | 4 | 4 | 178.67 | 92.2 | 250 | 53.5 | 12,300 | 4 | 4 | 4 |
| 50' | II | 198.67 | 103.0 | 130 | 68.9 | 10,460 | 8 | 198.67 | 101.5 | 250 | 57.8 | 11,980 | 4 | 4 | 4 | 198.67 | 102.2 | 250 | 58.1 | 13,370 | 4 | 4 | 4 |
| | B | 198.67 | 103.0 | 130 | 68.6 | 10,450 | 8 | 198.67 | 101.5 | 250 | 57.5 | 11,980 | 4 | 4 | 4 | 198.67 | 102.2 | 250 | 57.8 | 13,360 | 4 | 4 | 4 |
| 55' | II | 218.67 | 113.0 | 130 | 73.3 | 11,300 | 8 | 218.67 | 111.5 | 250 | 62.2 | 12,820 | 4 | 4 | 4 | 218.67 | 112.2 | 250 | 62.4 | 14,210 | 4 | 4 | 4 |
| | B | 218.67 | 113.0 | 130 | 73.0 | 11,300 | 8 | 218.67 | 111.5 | 250 | 61.9 | 12,810 | 4 | 4 | 4 | 218.67 | 112.2 | 250 | 62.2 | 14,210 | 4 | 4 | 4 |
| 60' | II | 238.67 | 123.0 | 130 | 77.6 | 12,440 | 8 | 238.67 | 121.5 | 250 | 66.5 | 13,820 | 4 | 4 | 4 | 238.67 | 122.2 | 250 | 66.8 | 15,210 | 4 | 4 | 4 |
| 65' | C | 238.67 | 123.0 | 130 | 82.5 | 12,710 | 8 | 238.67 | 121.5 | 250 | 69.3 | 14,090 | 4 | 4 | 4 | 238.67 | 122.2 | 250 | 69.6 | 15,480 | 4 | 4 | 4 |
| | II | 258.67 | 133.0 | 130 | 82.0 | 13,280 | 8 | 258.67 | 131.5 | 250 | 70.9 | 14,660 | 4 | 4 | 4 | 258.67 | 132.2 | 250 | 71.2 | 16,050 | 4 | 4 | 4 |
| | C | 258.67 | 133.0 | 130 | 86.9 | 13,550 | 8 | 258.67 | 131.5 | 250 | 73.7 | 14,930 | 4 | 4 | 4 | 258.67 | 132.2 | 250 | 74.0 | 16,320 | 4 | 4 | 4 |
| 70' | III | 278.67 | 143.0 | 130 | 92.0 | 14,550 | 8 | 278.67 | 141.5 | 250 | 78.7 | 16,010 | 4 | 4 | 4 | 278.67 | 142.2 | 250 | 79.0 | 17,400 | 4 | 4 | 4 |
| | C | 278.67 | 143.0 | 130 | 91.3 | 14,550 | 8 | 278.67 | 141.5 | 250 | 78.1 | 16,000 | 4 | 4 | 4 | 278.67 | 142.2 | 250 | 78.4 | 17,390 | 4 | 4 | 4 |
| 75' | III | 298.67 | 153.0 | 130 | 96.4 | 15,390 | 8 | 298.67 | 151.5 | 250 | 83.1 | 16,850 | 4 | 4 | 4 | 298.67 | 152.2 | 250 | 83.4 | 18,240 | 4 | 4 | 4 |
| | C | 298.67 | 153.0 | 130 | 95.7 | 15,390 | 8 | 298.67 | 151.5 | 250 | 82.5 | 16,840 | 4 | 4 | 4 | 298.67 | 152.2 | 250 | 82.7 | 18,230 | 4 | 4 | 4 |
| 80' | III | 318.67 | 163.0 | 130 | 100.8 | 16,390 | 8 | 318.67 | 161.5 | 250 | 87.5 | 17,850 | 4 | 4 | 4 | 318.67 | 162.2 | 250 | 87.8 | 19,240 | 4 | 4 | 4 |
| | C | 318.67 | 163.0 | 130 | 100.1 | 16,380 | 8 | 318.67 | 161.5 | 250 | 86.8 | 17,840 | 4 | 4 | 4 | 318.67 | 162.2 | 250 | 87.1 | 19,230 | 4 | 4 | 4 |
| 85' | III | 338.67 | 173.0 | 130 | 105.2 | 17,230 | 8 | 338.67 | 171.5 | 250 | 91.9 | 18,690 | 4 | 4 | 4 | 338.67 | 172.2 | 250 | 92.2 | 20,080 | 4 | 4 | 4 |
| | IV | 338.67 | 173.0 | 130 | 173.0 | 17,700 | 8 | 338.67 | 171.5 | 250 | 171.5 | 19,170 | 4 | 4 | 4 | 338.67 | 172.2 | 250 | 172.2 | 20,560 | 4 | 4 | 4 |
| 90' | III | 358.67 | 183.0 | 130 | 109.6 | 18,220 | 8 | 358.67 | 181.5 | 250 | 96.3 | 19,680 | 4 | 4 | 4 | 358.67 | 182.2 | 250 | 96.6 | 21,070 | 4 | 4 | 4 |
| | IV | 358.67 | 183.0 | 130 | 183.0 | 18,690 | 8 | 358.67 | 181.5 | 250 | 181.5 | 20,170 | 4 | 4 | 4 | 358.67 | 182.2 | 250 | 182.2 | 21,550 | 4 | 4 | 4 |
| 95' | IV | 378.67 | 193.0 | 130 | 193.0 | 19,530 | 8 | 378.67 | 191.5 | 250 | 191.5 | 21,000 | 4 | 4 | 4 | 378.67 | 192.2 | 250 | 192.2 | 22,400 | 4 | 4 | 4 |
| 100' | IV | 398.67 | 203.0 | 130 | 203.0 | 20,530 | 8 | 398.67 | 201.5 | 250 | 201.5 | 22,000 | 4 | 4 | 4 | 398.67 | 202.2 | 250 | 202.2 | 23,390 | 4 | 4 | 4 |
| 105' | IV | 418.67 | 213.0 | 250 | 213.0 | 21,550 | 8 | 418.67 | 211.5 | 370 | 211.5 | 23,020 | 4 | 4 | 4 | 418.67 | 212.2 | 370 | 212.2 | 24,410 | 4 | 4 | 4 |
| 110' | IV | 438.67 | 223.0 | 250 | 223.0 | 22,550 | 8 | 438.67 | 221.5 | 370 | 221.5 | 24,090 | 4 | 4 | 4 | 438.67 | 222.2 | 370 | 222.2 | 25,480 | 4 | 4 | 4 |
| 115' | IV | 458.67 | 233.0 | 250 | 233.0 | 23,390 | 8 | 458.67 | 231.5 | 370 | 231.5 | 24,930 | 4 | 4 | 4 | 458.67 | 232.2 | 370 | 232.2 | 26,320 | 4 | 4 | 4 |
| 120' | BT-72 | 478.67 | 243.0 | 490 | 164.5 | 25,510 | 8 | 478.67 | 241.5 | 740 | 145.4 | 27,140 | 4 | 4 | 4 | 478.67 | 242.2 | 980 | 145.7 | 28,530 | 4 | 4 | 4 |
| | J | 478.67 | 243.0 | 490 | 164.1 | 25,510 | 8 | 478.67 | 241.5 | 740 | 145.3 | 27,140 | 4 | 4 | 4 | 478.67 | 242.2 | 980 | 145.5 | 28,530 | 4 | 4 | 4 |
| 125' | BT-72 | 498.67 | 253.0 | 490 | 169.2 | 26,350 | 8 | 498.67 | 251.5 | 740 | 150.2 | 27,980 | 4 | 4 | 4 | 498.67 | 252.2 | 980 | 150.5 | 29,370 | 4 | 4 | 4 |
| | J | 498.67 | 253.0 | 490 | 168.9 | 26,350 | 8 | 498.67 | 251.5 | 740 | 150.0 | 27,980 | 4 | 4 | 4 | 498.67 | 252.2 | 980 | 150.3 | 29,370 | 4 | 4 | 4 |
| 130' | BT-72 | 518.67 | 263.0 | 490 | 174.0 | 27,350 | 8 | 518.67 | 261.5 | 740 | 154.9 | 28,970 | 4 | 4 | 4 | 518.67 | 262.2 | 980 | 155.2 | 30,360 | 4 | 4 | 4 |
| | J | 518.67 | 263.0 | 490 | 173.6 | 27,350 | 8 | 518.67 | 261.5 | 740 | 154.7 | 28,970 | 4 | 4 | 4 | 518.67 | 262.2 | 980 | 155.0 | 30,360 | 4 | 4 | 4 |
| 135' | J | 538.67 | 273.0 | 490 | 178.3 | 28,190 | 8 | 538.67 | 271.5 | 740 | 159.5 | 29,810 | 4 | 4 | 4 | 538.67 | 272.2 | 980 | 159.7 | 31,200 | 4 | 4 | 4 |
| 140' | J | 558.67 | 283.0 | 490 | 183.1 | 29,180 | 8 | 558.67 | 281.5 | 740 | 164.2 | 30,810 | 4 | 4 | 4 | 558.67 | 282.2 | 980 | 164.5 | 32,200 | 4 | 4 | 4 |
| 145' | J | 578.67 | 293.0 | 490 | 187.8 | 30,020 | 8 | 578.67 | 291.5 | 740 | 168.9 | 31,640 | 4 | 4 | 4 | 578.67 | 292.2 | 980 | 169.2 | 33,040 | 4 | 4 | 4 |

- ① PRESTRESSED CONCRETE BEAM TYPE SHALL BE TYPE II, TYPE B, TYPE III, TYPE C, TYPE IV, TYPE 72 BT OR TYPE J BT AS APPLICABLE.
- ② QUANTITY INCLUDES PROVISION FOR LAP SPLICES REQUIRED IN THE LONGITUDINAL REINFORCING STEEL AS FOLLOWS:
30' THRU 55' SPANS - NO LAP SPLICES
60' THRU 115' SPANS - 1 LAP SPLICE
120' THRU 145' SPANS - 2 LAP SPLICES
- ③ QUANTITY INCLUDES PROVISION FOR LAP SPLICES REQUIRED IN THE LONGITUDINAL REINFORCING STEEL AS FOLLOWS:
30' THRU 45' SPANS - 1/2 LAP SPLICE
50' THRU 65' SPANS - 1 LAP SPLICE
70' THRU 105' SPANS - 1 1/2 LAP SPLICES
110' THRU 145' SPANS - 2 LAP SPLICES
LAP SPLICES ACCOUNT FOR ADJACENT SPAN COMBINATIONS AND ARE APPROXIMATE. PAYMENT FOR "REINFORCING STEEL" WILL BE BASED ON PLAN QUANTITY.
- ④ AT THE ABUTMENTS, PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. SEE SUMMARY FOR THE ESTIMATED TOTAL AMOUNT OF STRUCTURAL STEEL PER EACH FIXED BEARING ASSEMBLY. ALL COST OF PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES INCLUDING THE COST OF ANCHOR PLATES, ANCHOR BARS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "FIXED BEARING ASSEMBLY."
- ⑤ AT THE PIERS, PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. SEE SUMMARY FOR THE ESTIMATED TOTAL AMOUNT OF STRUCTURAL STEEL PER EACH EXPANSION BEARING ASSEMBLY. ALL COST OF PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, CONTACT PLATES, CONTACT ANGLES, ANCHOR BOLTS, NUTS, WASHERS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "EXPANSION BEARING ASSEMBLY."
- ⑥ PROVIDE AND INSTALL ELASTOMERIC BEARING PADS BETWEEN THE TOP SURFACE OF THE P.C. BEAMS AND THE BOTTOM SURFACE OF THE DECK SLAB. THE ELASTOMERIC BEARING PADS ARE TO BE OF THE SIZE AND SHAPE AS DETAILED IN THE PLANS AND LOCATED AT EACH BEAM END ABOVE THE PIERS. ALL COST OF PROVIDING AND INSTALLING THE ELASTOMERIC BEARING PADS INCLUDING THE COST OF ELASTOMERIC BEARING PADS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "ELASTOMERIC BEARING PADS."

| SUMMARY OF QUANTITIES - BEARING ASSEMBLY STRUCTURAL STEEL (PER EACH ASSEMBLY) | | | |
|---|----------------|-----------------------------|---------------------------------|
| PRESTRESSED CONCRETE BEAM TYPE | SPAN | FIXED BEARING ASSEMBLY (LB) | EXPANSION BEARING ASSEMBLY (LB) |
| II AND B | 30' AND 35' | 80 | 160 |
| | 40' | 80 | 170 |
| | 45' | 80 | 190 |
| | 50' | 80 | 200 |
| III AND C | 55' THRU 65' | 80 | 190 |
| | 60' | 90 | 180 |
| | 65' | 90 | 190 |
| | 70' | 90 | 190 |
| | 75' | 90 | 200 |
| IV AND BT-72 | 80' THRU 90' | 90 | 190 |
| | 85' | 90 | 190 |
| | 90' AND 95' | 90 | 190 |
| J | 100' THRU 130' | 90 | 190 |
| | 120' THRU 145' | 100 | 200 |

APPROVED BY BRIDGE ENGINEER *Robert J. Nuss* DATE *10/16/05*

OKLAHOMA DEPARTMENT OF TRANSPORTATION
COUNTY BRIDGE STANDARD (ENGLISH)

SUPERSTRUCTURE QUANTITIES
P.C. BEAMS
(SHEET NO. 1 OF 2)

32' CLEAR ROADWAY - INTEGRAL - SKEWED 0°

1999 STANDARD SPECIFICATIONS CB32-I-SKO-SPR-QUAN-PCB-1 OOE CB-898E