

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)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑥ (LB)	PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY ④ (EA)	ELASTOMERIC BEARING PADS ⑤ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑦ (LB)	PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY ④ (EA)	ELASTOMERIC BEARING PADS ⑤ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑦ (LB)
30'	II	118.67	94.9	63.0	390	8	51.3	6,770	118.67	91.0	61.5	380	4	4	4	40.3	8,390	118.67	92.1	62.2	380	4	4	4	40.6	8,420
	B	118.67	94.9	63.0	390	8	51.0	6,770	118.67	91.0	61.5	380	4	4	4	40.0	8,380	118.67	92.1	62.2	380	4	4	4	40.3	8,410
35'	II	138.67	110.5	73.0	390	8	55.7	7,610	138.67	106.6	71.5	380	4	4	4	44.6	9,220	138.67	107.6	72.2	380	4	4	4	44.9	9,260
	B	138.67	110.5	73.0	390	8	55.4	7,610	138.67	106.6	71.5	380	4	4	4	44.4	9,220	138.67	107.6	72.2	380	4	4	4	44.7	9,250
40'	II	158.67	126.0	83.0	390	8	60.0	8,610	158.67	122.2	81.5	380	4	4	4	49.0	10,220	158.67	123.2	82.2	380	4	4	4	49.3	10,250
	B	158.67	126.0	83.0	390	8	59.7	8,600	158.67	122.2	81.5	380	4	4	4	48.8	10,210	158.67	123.2	82.2	380	4	4	4	49.0	10,240
45'	II	178.67	141.6	93.0	390	8	64.4	9,450	178.67	137.7	91.5	380	4	4	4	53.4	11,060	178.67	138.8	92.2	380	4	4	4	53.7	11,090
	B	178.67	141.6	93.0	390	8	64.1	9,440	178.67	137.7	91.5	380	4	4	4	53.1	11,050	178.67	138.8	92.2	380	4	4	4	53.4	11,090
50'	II	198.67	157.2	103.0	390	8	68.8	10,440	198.67	153.3	101.5	380	4	4	4	57.7	12,130	198.67	154.3	102.2	380	4	4	4	58.0	12,160
	B	198.67	157.2	103.0	390	8	68.5	10,440	198.67	153.3	101.5	380	4	4	4	57.5	12,120	198.67	154.3	102.2	380	4	4	4	57.8	12,150
55'	II	218.67	172.7	113.0	390	8	73.1	11,280	218.67	168.8	111.5	380	4	4	4	62.1	12,970	218.67	169.9	112.2	380	4	4	4	62.4	13,000
	B	218.67	172.7	113.0	390	8	72.8	11,280	218.67	168.8	111.5	380	4	4	4	61.8	12,960	218.67	169.9	112.2	380	4	4	4	62.1	12,990
60'	II	238.67	188.3	123.0	390	8	77.5	12,420	238.67	184.4	121.5	380	4	4	4	66.4	13,970	238.67	185.4	122.2	380	4	4	4	66.7	14,000
	C	238.67	188.3	123.0	390	8	82.3	12,650	238.67	184.4	121.5	380	4	4	4	69.1	14,190	238.67	185.4	122.2	380	4	4	4	69.4	14,220
65'	II	258.67	203.8	133.0	390	8	81.8	13,260	258.67	199.9	131.5	380	4	4	4	70.8	14,800	258.67	201.0	132.2	380	4	4	4	71.1	14,840
	C	258.67	203.8	133.0	390	8	86.7	13,490	258.67	199.9	131.5	380	4	4	4	73.5	15,030	258.67	201.0	132.2	380	4	4	4	73.8	15,060
70'	III	278.67	219.4	143.0	390	8	91.8	14,490	278.67	215.5	141.5	380	4	4	4	78.6	16,120	278.67	216.5	142.2	380	4	4	4	78.9	16,150
	C	278.67	219.4	143.0	390	8	91.1	14,480	278.67	215.5	141.5	380	4	4	4	77.9	16,100	278.67	216.5	142.2	380	4	4	4	78.2	16,130
75'	III	298.67	234.9	153.0	390	8	96.2	15,330	298.67	231.0	151.5	380	4	4	4	83.0	16,950	298.67	232.1	152.2	380	4	4	4	83.3	16,990
	C	298.67	234.9	153.0	390	8	95.5	15,320	298.67	231.0	151.5	380	4	4	4	82.3	16,940	298.67	232.1	152.2	380	4	4	4	82.6	16,970
80'	III	318.67	250.5	163.0	390	8	100.6	16,320	318.67	246.6	161.5	380	4	4	4	87.4	17,950	318.67	247.6	162.2	380	4	4	4	87.7	17,980
	C	318.67	250.5	163.0	390	8	99.9	16,310	318.67	246.6	161.5	380	4	4	4	86.7	17,930	318.67	247.6	162.2	380	4	4	4	86.9	17,960
85'	III	338.67	266.0	173.0	390	8	105.1	17,160	338.67	262.2	171.5	380	4	4	4	91.8	18,790	338.67	263.2	172.2	380	4	4	4	92.1	18,820
	IV	338.67	266.0	173.0	390	8	110.7	17,660	338.67	262.2	171.5	380	4	4	4	95.4	19,300	338.67	263.2	172.2	380	4	4	4	95.7	19,330
90'	III	358.67	281.6	183.0	390	8	109.5	18,160	358.67	277.7	181.5	380	4	4	4	96.2	19,790	358.67	278.8	182.2	380	4	4	4	96.5	19,820
	IV	358.67	281.6	183.0	390	8	115.2	18,660	358.67	277.7	181.5	380	4	4	4	99.9	20,300	358.67	278.8	182.2	380	4	4	4	100.2	20,330
95'	IV	378.67	297.2	193.0	390	8	119.6	19,500	378.67	293.3	191.5	380	4	4	4	104.3	21,130	378.67	294.3	192.2	380	4	4	4	104.6	21,170
100'	IV	398.67	312.7	203.0	390	8	124.1	20,490	398.67	308.8	201.5	380	4	4	4	108.8	22,130	398.67	309.9	202.2	380	4	4	4	109.1	22,160
105'	IV	418.67	328.3	213.0	510	8	130.0	21,520	418.67	324.4	211.5	500	4	4	4	114.7	23,150	418.67	325.4	212.2	500	4	4	4	115.0	23,190
110'	IV	438.67	343.8	223.0	510	8	134.5	22,510	438.67	339.9	221.5	500	4	4	4	119.2	24,220	438.67	341.0	222.2	500	4	4	4	119.4	24,250
115'	IV	458.67	359.4	233.0	510	8	138.9	23,350	458.67	355.5	231.5	500	4	4	4	123.6	25,060	458.67	356.5	232.2	500	4	4	4	123.9	25,090
120'	BT-72	478.67	374.9	243.0	750	8	164.3	25,430	478.67	371.0	241.5	870	4	4	4	145.4	27,220	478.67	372.1	242.2	870	4	4	4	145.6	27,250
	J	478.67	374.9	243.0	750	8	164.0	25,430	478.67	371.0	241.5	870	4	4	4	145.2	27,220	478.67	372.1	242.2	870	4	4	4	145.5	27,250
125'	BT-72	498.67	390.5	253.0	750	8	169.1	26,270	498.67	386.6	251.5	870	4	4	4	150.1	28,060	498.67	387.6	252.2	870	4	4	4	150.4	28,100
	J	498.67	390.5	253.0	750	8	168.7	26,270	498.67	386.6	251.5	870	4	4	4	149.9	28,060	498.67	387.6	252.2	870	4	4	4	150.2	28,100
130'	BT-72	518.67	406.0	263.0	750	8	173.8	27,270	518.67	402.2	261.5	870	4	4	4	154.8	29,060	518.67	403.2	262.2	870	4	4	4	155.1	29,090
	J	518.67	406.0	263.0	750	8	173.4	27,270	518.67	402.2	261.5	870	4	4	4	154.6	29,060	518.67	403.2	262.2	870	4	4	4	154.9	29,090
135'	J	538.67	421.6	273.0	750	8	178.2	28,110	538.67	417.7	271.5	870	4	4	4	159.4	29,890	538.67	418.8	272.2	870	4	4	4	159.6	29,930
140'	J	558.67	437.2	283.0	750	8	182.9	29,100	558.67	433.3	281.5	870	4	4	4	164.1	30,890	558.67	434.3	282.2	870	4	4	4	164.4	30,920
145'	J	578.67	452.7	293.0	750	8	187.6	29,940	578.67	448.8	291.5	870	4	4	4	168.8	31,730	578.67	449.9	292.2	870	4	4	4	169.1	31,760

- 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 QUANTITIES SHOWN INCLUDE WEIGHT OF STEEL ANGLE BUMPERS AT ABUTMENT ENDS OF DECK SLAB. FOR EACH STEEL ANGLE BUMPER OMITTED FROM END OF DECK SLAB, DEDUCT 130 POUNDS FROM THE QUANTITIES SHOWN.
- ③ 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 "WEATHERING STEEL FIXED BEARING ASSEMBLY."
- ④ 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 "WEATHERING STEEL EXPANSION BEARING ASSEMBLY."

- ⑤ 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."
- ⑥ 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
- ⑦ 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.

SUMMARY OF QUANTITIES - BEARING ASSEMBLY STRUCTURAL STEEL (PER EACH ASSEMBLY)			
PRESTRESSED CONCRETE BEAM TYPE	SPAN	WEATHERING STEEL FIXED BEARING ASSEMBLY (LB)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY (LB)
II AND B	30' THRU 65'	80	150
III AND C	60' THRU 75'	90	160
	80' THRU 90'	90	170
IV AND BT-72	85' THRU 95'	90	190
	100' THRU 120'	90	200
	125' THRU 130'	90	210
J	120' THRU 145'	100	220

APPROVED BY BRIDGE ENGINEER *Robert A. Dush* DATE 9-9-2011
 OKLAHOMA DEPARTMENT OF TRANSPORTATION
 COUNTY BRIDGE STANDARD (ENGLISH)
SUPERSTRUCTURE QUANTITIES
P.C. BEAMS
 (SHEET NO. 1 OF 2)
 32' CLEAR ROADWAY - INTEGRAL - SKEWED 0°
 2009 SPECIFICATIONS CB32-I-SKO-SPR-QUAN-PCB-1 01E
 CB-898E