

**BILL OF MATERIALS  
SQUARE STRUCTURES - ONE SLAB**

BRIDGE APPROACH WIDTH	EPOXY COATED REINFORCING BARS				TOTAL MASS, kg	REINFORCED CONCRETE BRIDGE APPROACH AREA m <sup>2</sup>
	LONGIT. BARS		TRANSV. BARS			
	NO.	SIZE x LGTH. OR MARK	NO.	SIZE x LGTH.		
7200	24	1391	21	#13 x 7100	877	44.6
	48	1691	11	#16 x 7100		
7600	26	1391	21	#13 x 7500	933	47.1
	51	1691	11	#16 x 7500		
7800	26	1391	21	#13 x 7700	947	48.4
	52	1691	11	#16 x 7700		
8200	28	1391	21	#13 x 8100	1006	50.8
	55	1691	11	#16 x 8100		
8800	30	1391	21	#13 x 8700	1080	54.6
	59	1691	11	#16 x 8700		
9400	32	1391	21	#13 x 9300	1153	58.3
	63	1691	11	#16 x 9300		
10000	34	1391	21	#13 x 9900	1226	62.0
	67	1691	11	#16 x 9900		
10600	36	1391	21	#13 x 10500	1300	65.7
	71	1691	11	#16 x 10500		
11200	38	1391	21	#13 x 11100	1373	69.4
	75	1691	11	#16 x 11100		
11800	40	1391	21	#13 x 11700	1447	73.2
	79	1691	11	#16 x 11700		
12100	41	1391	21	#13 x 12000	1483	75.0
	81	1691	11	#16 x 12000		
12400	42	1391	42	#13 x 6400 *	1542	76.9
	83	1691	22	#16 x 6500 **		
13600	46	1391	42	#13 x 7000 *	1659	84.3
	91	1691	22	#16 x 7100 **		

\* Bars lapped 480 at centerline of roadway.      \*\* Bars lapped 610 at centerline of roadway.

**NOTES**

- The Bill of Materials shall be used to determine the bar lengths, total mass of steel, and bridge approach area for square structures.
- For details, see Standard Drawing 609-RCBA-03.


All Dimension are in mm unless otherwise specified

INDIANA DEPARTMENT OF TRANSPORTATION

**REINFORCED CONCRETE  
BRIDGE APPROACH**

MARCH 2004

**STANDARD DRAWING NO. 609-RCBA-05**

	/s/ Richard L. VanCleave	3-01-04
	DESIGN STANDARDS ENGINEER	DATE
	/s/ Richard K. Smutzer	3-01-04
DESIGN STANDARDS ENGINEER	CHIEF HIGHWAY ENGINEER	DATE