

REVISED 09-14 - CHANGED REFERENCE TO THE BARRIER RAIL & OPEN RAIL TO THE J44-14 STANDARDS INSTEAD OF J44-06 STANDARDS.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70' BRIDGE

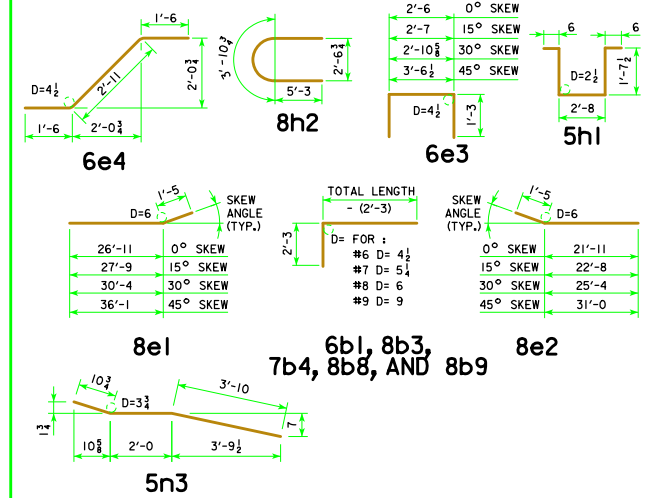
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			7a1	58	16'-0	1897	58	16'-0	1897	58	16'-0	1897	58	16'-0	1897	58	16'-0	1897
SLAB LONGITUDINAL BOTTOM			8a2	58	25'-0	3872	58	25'-0	3872	58	25'-0	3872	58	25'-0	3872	58	25'-0	3872
SLAB LONGITUDINAL BOTTOM			7a3	58	24'-3	2875	58	24'-3	2875	58	24'-3	2875	58	24'-3	2875	58	24'-3	2875
SLAB LONGITUDINAL BOTTOM			8a4	58	20'-9	3214	58	20'-9	3214	58	20'-9	3214	58	20'-9	3214	58	20'-9	3214
SLAB LONGITUDINAL BOTTOM			7a5	29	22'-0	1305	29	22'-0	1305	29	22'-0	1305	29	22'-0	1305	29	22'-0	1305
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a6	8	24'-9	405	8	24'-9	405	8	24'-9	405	8	24'-9	405	8	24'-9	405
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a7	4	27'-4	224	4	27'-4	224	4	27'-4	224	4	27'-4	224	4	27'-4	224
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8	18'-3	390	8	18'-3	390	8	18'-3	390	8	18'-3	390	8	18'-3	390
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251
SLAB LONGITUDINAL TOP			8b1	58	9'-0	785	58	9'-0	785	58	9'-0	785	58	9'-0	785	58	9'-0	785
SLAB LONGITUDINAL TOP			8b2	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827
SLAB LONGITUDINAL TOP			8b3	58	27'-6	4259	58	27'-6	4259	58	27'-6	4259	58	27'-6	4259	58	27'-6	4259
SLAB LONGITUDINAL TOP			7b4	58	22'-3	2638	58	22'-3	2638	58	22'-3	2638	58	22'-3	2638	58	22'-3	2638
SLAB LONGITUDINAL TOP			8b5	58	12'-6	1936	58	12'-6	1936	58	12'-6	1936	58	12'-6	1936	58	12'-6	1936
SLAB LONGITUDINAL TOP			8b6	29	20'-4	886	29	20'-4	886	29	20'-4	886	29	20'-4	886	29	20'-4	886
SLAB LONGITUDINAL TOP, AT RAIL			8b8	8	40'-0	855	8	40'-0	855	8	40'-0	855	8	40'-0	855	8	40'-0	855
SLAB LONGITUDINAL TOP, AT RAIL			8b9	8	30'-0	641	8	30'-0	641	8	30'-0	641	8	30'-0	641	8	30'-0	641
SLAB TRANSVERSE BOTTOM			6c1	67	25'-5	2558	67	26'-4	2650	56	25'-5	2138	46	25'-5	1757			
SLAB TRANSVERSE BOTTOM			6c2	67	23'-3	2340	67	24'-1	2424	58	23'-3	2026	49	23'-3	1712			
SLAB TRANSVERSE ENDS, BOTTOM			6c4	-	-	-	-	-	-	14	VARIES	303	22	VARIES	485			
SLAB TRANSVERSE ENDS, BOTTOM			6c5	-	-	-	-	-	-	12	VARIES	255	22	VARIES	458			
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	-	12	VARIES	208	20	VARIES	366			
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	-	12	VARIES	227	19	VARIES	376			
SLAB TRANSVERSE TOP			5d1	67	25'-9	1800	67	26'-8	1864	56	25'-9	1505	46	25'-9	1236			
SLAB TRANSVERSE TOP			5d2	67	23'-3	1625	67	24'-1	1683	58	23'-3	1407	49	23'-3	1189			
SLAB TRANSVERSE ENDS, TOP			5d3	-	-	-	-	-	-	14	VARIES	210	22	VARIES	337			
SLAB TRANSVERSE ENDS, TOP			5d4	-	-	-	-	-	-	12	VARIES	177	22	VARIES	318			
SLAB TRANSVERSE ENDS, TOP			5d5	-	-	-	-	-	-	12	VARIES	144	20	VARIES	254			
SLAB TRANSVERSE ENDS, TOP			5d6	-	-	-	-	-	-	12	VARIES	158	19	VARIES	261			
SLAB, TRANSVERSE AT ABUTMENT			8e1	18	28'-4	1362	18	29'-2	1402	18	31'-9	1526	18	37'-6	1803			
SLAB, TRANSVERSE AT ABUTMENT			8e2	18	23'-4	1122	18	24'-1	1158	18	26'-9	1286	18	32'-5	1558			
SLAB, HAIRPINS, AT ABUTMENT			6e3	100	5'-0	751	100	5'-1	764	100	5'-5	814	100	6'-1	914			
SLAB, DIAGONALS, AT ABUTMENT			6e4	100	5'-11	889	100	5'-11	889	100	5'-11	889	100	5'-11	889			
PIER CAP HOOPS			5h1	72	6'-11	520	72	6'-11	520	90	6'-11	650	108	6'-11	780			
PIER CAP ENDS			8h2	4	14'-5	154	4	14'-5	154	4	14'-5	154	4	14'-5	154			
PIER CAP, BOTTOM LONGITUDINAL			8h3	8	27'-5	586	8	28'-8	613	8	31'-8	677	8	37'-10	809			
PIER CAP, BOTTOM LONGITUDINAL			8h4	8	21'-11	469	8	22'-4	478	8	24'-6	524	8	29'-8	634			
PIER CAP, TOP LONGITUDINAL			8h5	4	28'-2	301	4	29'-6	316	4	32'-8	349	4	38'-11	416			
PIER CAP, TOP LONGITUDINAL			8h6	4	23'-5	251	4	23'-11	256	4	26'-3	281	4	31'-6	337			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	132	8'-6	1171	132	8'-6	1171	126	8'-6	1118	124	8'-6	1100			
WING, VERTICAL			5m1	40	4'-5	185	40	4'-5	185	40	4'-5	185	40	4'-5	185			
WING, HORIZONTAL BACK FACE			5n1	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167			
WING, HORIZONTAL TRAFFIC FACE			5n3	24	6'-9	169	24	6'-9	169	24	6'-9	169	24	6'-9	169			
SUB EPOXY COATED TOTAL - LBS.						45,680			46,123			46,807			47,924			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-14						3220			3220			3220			3220			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-14						3266			3266			3266			3266			
EPOXY COATED RAIL TOTAL - LBS.						48,900			49,343			50,027			51,144			
WITH MONOLITHIC PIER CAP						48,946			49,389			50,073			51,190			
EPOXY COATED RAIL TOTAL - LBS. NON-MONOLITHIC PIER CAP						46,619			47,006			47,392			48,014			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						46,665			47,052			47,438			48,060			
STAINLESS STEEL RAIL TOTAL - LBS.						1737			1737			1737			1737			
WITH BARRIER RAIL						1737			1737			1737			1737			
WITH OPEN RAIL						1834			1834			1834			1834			

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 70' BRIDGE

ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
*STRUCTURAL CONCRETE (BRIDGE) C.Y.		183.4	184.5	188.4	196.8	177.0	177.9	181.1	187.9
REINF. STEEL EPOXY COATED LBS.		48,900	49,343	50,027	51,144	46,619	47,006	47,392	48,014
REINF. STEEL STAINLESS STEEL LBS.		1737	1737	1737	1737	1737	1737	1737	1737
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		162.0	162.2	162.9	164.5	162.0	162.2	162.9	164.5
*STRUCTURAL CONCRETE (BRIDGE) C.Y.		183.3	184.4	188.3	196.7	176.9	177.8	180.9	187.8
REINF. STEEL EPOXY COATED LBS.		48,946	49,389	50,073	51,190	46,665	47,052	47,438	48,060
REINF. STEEL STAINLESS STEEL LBS.		1834	1834	1834	1834	1834	1834	1834	1834

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

NOTES:

ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN OR NOTED. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M.452.

ALL OTHER REINFORCING STEEL IS TO BE EPOXY COATED.

THE TRANSVERSE REBARS ARE DETAILED WITH A SPLICE LAP. AT THE CONTRACTOR'S OPTION, THIS LAP MAY BE ELIMINATED BY FURNISHING FULL LENGTH BARS WITH NO REDUCTION IN PAY WEIGHT FOR SAME.

09-14 LATEST REVISION DATE <i>Thomas E. M. Donnell</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	SUPERSTRUCTURE DETAILS 70'-0 BRIDGE
J44-03-14	