

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 80' BRIDGE

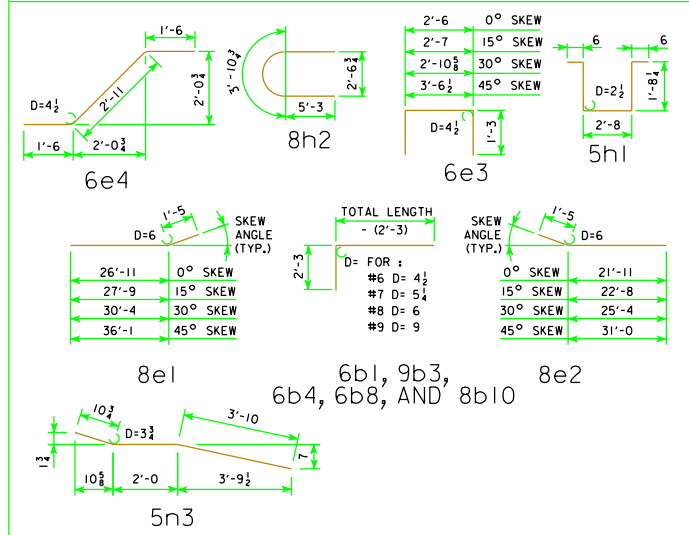
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			8a1	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827	58	18'-3	2827
SLAB LONGITUDINAL BOTTOM			8a2	58	27'-0	4182	58	27'-0	4182	58	27'-0	4182	58	27'-0	4182	58	27'-0	4182
SLAB LONGITUDINAL BOTTOM			8a3	58	28'-0	4337	58	28'-0	4337	58	28'-0	4337	58	28'-0	4337	58	28'-0	4337
SLAB LONGITUDINAL BOTTOM			7a4	58	23'-0	2727	58	23'-0	2727	58	23'-0	2727	58	23'-0	2727	58	23'-0	2727
SLAB LONGITUDINAL BOTTOM			7a5	29	24'-6	1453	29	24'-6	1453	29	24'-6	1453	29	24'-6	1453	29	24'-6	1453
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a6	8	28'-9	471	8	28'-9	471	8	28'-9	471	8	28'-9	471	8	28'-9	471
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a7	4	29'-4	240	4	29'-4	240	4	29'-4	240	4	29'-4	240	4	29'-4	240
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8	20'-9	444	8	20'-9	444	8	20'-9	444	8	20'-9	444	8	20'-9	444
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273
SLAB LONGITUDINAL TOP			6b1	58	19'-6	1699	58	19'-6	1699	58	19'-6	1699	58	19'-6	1699	58	19'-6	1699
SLAB LONGITUDINAL TOP			9b2	58	21'-9	4290	58	21'-9	4290	58	21'-9	4290	58	21'-9	4290	58	21'-9	4290
SLAB LONGITUDINAL TOP			9b3	58	32'-0	6311	58	32'-0	6311	58	32'-0	6311	58	32'-0	6311	58	32'-0	6311
SLAB LONGITUDINAL TOP			6b4	58	7'-6	654	58	7'-6	654	58	7'-6	654	58	7'-6	654	58	7'-6	654
SLAB LONGITUDINAL TOP			8b5	58	21'-3	3291	58	21'-3	3291	58	21'-3	3291	58	21'-3	3291	58	21'-3	3291
SLAB LONGITUDINAL TOP			6b6	29	16'-4	712	29	16'-4	712	29	16'-4	712	29	16'-4	712	29	16'-4	712
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	25'-6	307	8	25'-6	307	8	25'-6	307	8	25'-6	307	8	25'-6	307
SLAB LONGITUDINAL TOP, AT RAIL			9b9	8	23'-6	640	8	23'-6	640	8	23'-6	640	8	23'-6	640	8	23'-6	640
SLAB LONGITUDINAL TOP, AT RAIL			8b10	8	34'-0	727	8	34'-0	727	8	34'-0	727	8	34'-0	727	8	34'-0	727
SLAB TRANSVERSE BOTTOM			6c1	77	25'-5	2940	77	26'-4	3046	66	25'-5	2520	56	25'-5	2138			
SLAB TRANSVERSE BOTTOM			6c2	77	23'-3	2689	77	24'-1	2786	68	23'-3	2375	59	23'-3	2061			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	14	VARIES	303	22	VARIES	485				
SLAB TRANSVERSE ENDS, BOTTOM			6c4	-	-	-	-	-	12	VARIES	255	22	VARIES	458				
SLAB TRANSVERSE ENDS, BOTTOM			6c5	-	-	-	-	-	12	VARIES	208	20	VARIES	366				
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	12	VARIES	227	19	VARIES	376				
SLAB TRANSVERSE TOP			5d1	77	25'-9	2069	77	26'-8	2142	66	25'-9	1773	56	25'-9	1505			
SLAB TRANSVERSE TOP			5d2	77	23'-3	1868	77	24'-1	1935	68	23'-3	1649	59	23'-3	1431			
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	7'-1	532	72	7'-1	532	90	7'-1	665	108	7'-1	798			
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	152	8'-6	1348	152	8'-6	1348	146	8'-6	1295	144	8'-6	1277			
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 TOTAL - LBS.						53,437			53,925			54,565			55,685			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-06						5464			5464			5464			5464			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-06						5799			5799			5799			5799			
TOTAL - LBS.			WITH MONOLITHIC PIER CAP			58,901			59,389			60,029			61,149			
			WITH OPEN RAIL			59,236			59,724			60,364			61,484			
TOTAL - LBS.			WITH NON-MONOLITHIC PIER CAP			56,608			57,040			57,379			58,001			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED			WITH OPEN RAIL			56,943			57,375			57,714			58,336			

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 80' BRIDGE

ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
WITH *STRUCTURAL CONCRETE (BRIDGE) C.Y.		212.9	214.1	217.9	226.2	206.6	207.5	210.6	217.3
BARRIER RAIL REINFORCING STEEL EPOXY COATED LBS.		58,901	59,389	60,029	61,149	56,608	57,040	57,379	58,001
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		182.0	182.2	182.9	184.5	182.0	182.2	182.9	184.5
WITH *STRUCTURAL CONCRETE (BRIDGE) C.Y.		212.8	213.9	217.7	226.0	206.4	207.3	210.4	217.1
OPEN RAIL REINFORCING STEEL EPOXY COATED LBS.		59,236	59,724	60,364	61,484	56,943	57,375	57,714	58,336

* 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 REINFORCING STEEL SHALL 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.

07-09 LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER [Signature]	<p>Iowa Department of Transportation Highway Division</p>
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006
	SUPERSTRUCTURE DETAILS 80'-0 BRIDGE

REVISED 07-09 - OPEN RAIL REINF. QTY'S. CHANGED WHICH CHANGED TOTAL REINF. QTY'S.