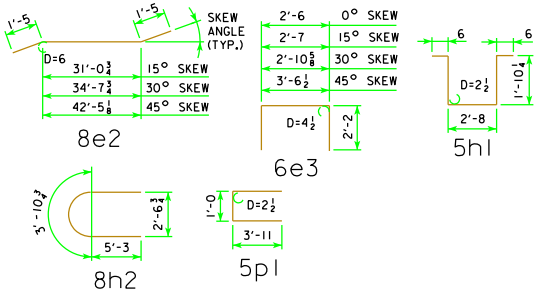
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 100' BRIDGE

LOCATION	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	39	23'-4	2430	39	23'-4	2430	39	23'-4	2430	39	23'-4	2430
SLAB LONGITUDINAL BOTTOM		8a2	39	33'-6	3488	39	33'-6	3488	39	33'-6	3488	39	33'-6	3488
SLAB LONGITUDINAL BOTTOM		8a3	39	31'-6	3280	39	31'-6	3280	39	31'-6	3280	39	31'-6	3280
SLAB LONGITUDINAL BOTTOM		9a4	40	29'-10	4057	40	29'-10	4057	40	29'-10	4057	40	29'-10	4057
SLAB LONGITUDINAL BOTTOM		9a5	20	32'-0	2176	20	32'-0	2176	20	32'-0	2176	20	32'-0	2176
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a6	8	36'-10	787	8	36'-10	787	8	36'-10	787	8	36'-10	787
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a7	4	37'-4	399	4	37'-4	399	4	37'-4	399	4	37'-4	399
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	26'-1	557	8	26'-1	557	8	26'-1	557	8	26'-1	557
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	22'-6	240	4	22'-6	240	4	22'-6	240	4	22'-6	240
SLAB LONGITUDINAL TOP		6b1	39	5'-10	342	39	5'-10	342	39	5'-10	342	39	5'-10	342
SLAB LONGITUDINAL TOP		10b2	39	26'-9	4489	39	26'-9	4489	39	26'-9	4489	39	26'-9	4489
SLAB LONGITUDINAL TOP		10b3	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615
SLAB LONGITUDINAL TOP		7b4	39	15'-4	1222	39	15'-4	1222	39	15'-4	1222	39	15'-4	1222
SLAB LONGITUDINAL TOP		6b5	40	12'-7	756	40	12'-7	756	40	12'-7	756	40	12'-7	756
SLAB LONGITUDINAL TOP		9b6	40	22'-9	3094	40	22'-9	3094	40	22'-9	3094	40	22'-9	3094
SLAB LONGITUDINAL TOP		6b7	20	26'-10	806	20	26'-10	806	20	26'-10	806	20	26'-10	806
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	24'-4	292	8	24'-4	292	8	24'-4	292	8	24'-4	292
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	23'-6	639	8	23'-6	639	8	23'-6	639	8	23'-6	639
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-0	126	4	21'-0	126	4	21'-0	126	4	21'-0	126
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	26'-4	316	8	26'-4	316	8	26'-4	316	8	26'-4	316
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	19'-0	654	8	19'-0	654	8	19'-0	654	8	19'-0	654
SLAB TRANSVERSE, BOTTOM		6c1	97	32'-10	4784	97	34'-0	4954	86	32'-10	4241	74	32'-10	3649
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	97	32'-10	3322	97	34'-0	3440	86	32'-10	2945	74	32'-10	2534
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	28	VARIES	555	52	VARIES	990
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	32'-10	1753	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	33'-11	1811	20	37'-6	2003	20	45'-4	2421
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	6'-10	739	72	6'-11	748	72	7'-3	784	72	7'-11	856
PIER CAP HOOPS		5h1	56	7'-5	433	56	7'-5	433	56	7'-5	433	70	7'-5	541
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	29'-10	637	8	30'-11	660	8	34'-5	735	8	42'-2	901
PIER CAP, TOP LONGITUDINAL		8h4	4	32'-10	351	4	34'-0	363	4	37'-11	405	4	46'-6	497
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	192	8'-6	1702	192	8'-6	1702	192	8'-6	1702	190	8'-6	1684
WING, VERTICAL		5m1-4	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117
WING, HORIZONTAL		5n1	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167
PAVING SUPPORT, TRANSVERSE		5p1	30	8'-10	276	32	8'-10	295	34	8'-10	313	42	8'-10	387
PAVING SUPPORT LONGITUDINAL		5p3	6	30'-2	189	6	31'-3	196	6	34'-6	218	6	42'-7	266
SUB TOTAL - LBS.					49,389			49,805			50,337			51,355
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					6153			6153			6153			6153
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					6371			6371			6371			6371
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			55,542			55,958			56,490			57,508
		WITH OPEN RAIL			55,760			56,176			56,708			57,726
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			53,967			54,348			54,763			55,415
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			54,185			54,566			54,981			55,633

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 100' BRIDGE

ITEM		SKEW	WITH MONOLITHIC PIER CAP 0°	15°	30°	45°	WITH NON-MONOLITHIC PIER CAP 0°	15°	30°	45°
WITH BARRIER RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	212.3	213.3	216.8	224.5	207.3	208.2	211.2	217.6
	REINFORCING STEEL EPOXY COATED	LBS.	55,542	55,958	56,490	57,508	53,967	54,348	54,763	55,415
	CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	222.0	222.2	222.9	224.5	222.0	222.2	222.9	224.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	212.1	213.1	216.6	224.3	207.1	208.0	211.0	217.5
	REINFORCING STEEL EPOXY COATED	LBS.	55,760	56,176	56,708	57,726	54,185	54,566	54,981	55,633

* INCLUDES 4 WINGS @ 0.71 C.Y. EACH; EXCLUDES RAIL CONCRETE.

REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED

12-07
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES
CONTINUOUS CONCRETE SLAB BRIDGES
NOVEMBER, 2006

SUPERSTRUCTURE DETAILS
100'-0 BRIDGE
EPOXY COATED REINFORCING

J30-09E-06