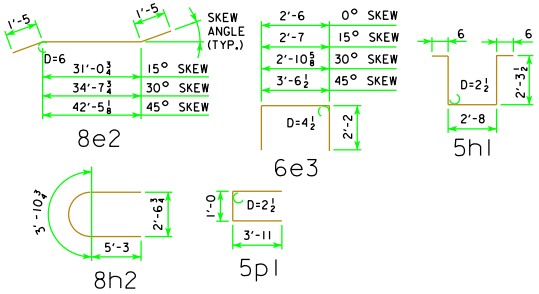
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 140' BRIDGE

LOCATION / SKEW	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		9a1	39	31'-7	4188	39	31'-7	4188	39	31'-7	4188	39	31'-7	4188
SLAB LONGITUDINAL BOTTOM		10a2	39	48'-6	8139	39	48'-6	8139	39	48'-6	8139	39	48'-6	8139
SLAB LONGITUDINAL BOTTOM		9a3	39	43'-9	5801	39	43'-9	5801	39	43'-9	5801	39	43'-9	5801
SLAB LONGITUDINAL BOTTOM		10a4	40	36'-4	6254	40	36'-4	6254	40	36'-4	6254	40	36'-4	6254
SLAB LONGITUDINAL BOTTOM		9a5	20	43'-0	2924	20	43'-0	2924	20	43'-0	2924	20	43'-0	2924
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	42'-8	1161	8	42'-8	1161	8	42'-8	1161	8	42'-8	1161
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	13'-0	354	8	13'-0	354	8	13'-0	354	8	13'-0	354
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	52'-8	716	4	52'-8	716	4	52'-8	716	4	52'-8	716
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a9	8	35'-4	961	8	35'-4	961	8	35'-4	961	8	35'-4	961
SLAB LONGITUDINAL BOTTOM, AT RAIL		10a10	4	33'-0	568	4	33'-0	568	4	33'-0	568	4	33'-0	568
SLAB LONGITUDINAL TOP		6b1	39	6'-7	386	39	6'-7	386	39	6'-7	386	39	6'-7	386
SLAB LONGITUDINAL TOP		11b2	39	26'-0	5387	39	26'-0	5387	39	26'-0	5387	39	26'-0	5387
SLAB LONGITUDINAL TOP		11b3	39	31'-9	6579	39	31'-9	6579	39	31'-9	6579	39	31'-9	6579
SLAB LONGITUDINAL TOP		7b4	39	24'-4	1940	39	24'-4	1940	39	24'-4	1940	39	24'-4	1940
SLAB LONGITUDINAL TOP		11b5	40	29'-0	6163	40	29'-0	6163	40	29'-0	6163	40	29'-0	6163
SLAB LONGITUDINAL TOP		6b6	20	34'-4	1031	20	34'-4	1031	20	34'-4	1031	20	34'-4	1031
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	31'-7	380	8	31'-7	380	8	31'-7	380	8	31'-7	380
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	34'-0	1445	8	34'-0	1445	8	34'-0	1445	8	34'-0	1445
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	25'-6	153	4	25'-6	153	4	25'-6	153	4	25'-6	153
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	37'-1	606	8	37'-1	606	8	37'-1	606	8	37'-1	606
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	24'-3	1031	8	24'-3	1031	8	24'-3	1031	8	24'-3	1031
SLAB TRANSVERSE, BOTTOM		6c1	137	32'-10	6756	137	34'-0	6996	126	32'-10	6214	114	32'-10	5622
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	137	32'-10	4692	137	34'-0	4858	126	32'-10	4315	114	32'-10	3904
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	44	8'-3	379	44	8'-3	379	44	8'-3	379	66	8'-3	568
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	272	8'-6	2411	272	8'-6	2411	272	8'-6	2411	270	8'-6	2394
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'-10	218	6	42'-7	266
SUB TOTAL - LBS.					74,788			75,322			75,737			76,837
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					8294			8294			8294			8294
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					8634			8634			8634			8634
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			83,082			83,616			84,031			85,131
		WITH OPEN RAIL			83,422			83,956			84,371			85,471
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			81,561			82,060			82,358			83,011
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			81,901			82,400			82,698			83,351

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 140' 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.	354.1	355.1	358.5	365.7	349.2	350.0	352.8	358.9
	REINFORCING STEEL EPOXY COATED	LBS.	83,082	83,616	84,031	85,131	81,561	82,060	82,358	83,011
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	302.0	302.2	302.9	304.5	302.0	302.2	302.9	304.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	353.9	354.9	358.2	365.5	348.9	349.7	352.5	358.6
	REINFORCING STEEL EPOXY COATED	LBS.	83,422	83,956	84,371	85,471	81,901	82,400	82,698	83,351

* 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
140'-0 BRIDGE

EPOXY COATED REINFORCING

J30-17E-06