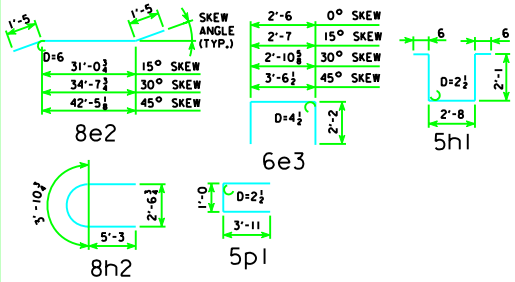
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 120' BRIDGE

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	26'-10	3559	39	26'-10	3559	39	26'-10	3559	39	26'-10	3559
SLAB LONGITUDINAL BOTTOM		9a2	39	38'-9	5139	39	38'-9	5139	39	38'-9	5139	39	38'-9	5139
SLAB LONGITUDINAL BOTTOM		9a3	39	36'-2	4796	39	36'-2	4796	39	36'-2	4796	39	36'-2	4796
SLAB LONGITUDINAL BOTTOM		8a4	40	29'-4	3133	40	29'-4	3133	40	29'-4	3133	40	29'-4	3133
SLAB LONGITUDINAL BOTTOM		9a5	20	34'-0	2312	20	34'-0	2312	20	34'-0	2312	20	34'-0	2312
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	35'-5	964	8	35'-5	964	8	35'-5	964	8	35'-5	964
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	12'-0	327	8	12'-0	327	8	12'-0	327	8	12'-0	327
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	42'-2	574	4	42'-2	574	4	42'-2	574	4	42'-2	574
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	8	25'-7	547	8	25'-7	547	8	25'-7	547	8	25'-7	547
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a10	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251
SLAB LONGITUDINAL TOP		7b1	39	7'-4	585	39	7'-4	585	39	7'-4	585	39	7'-4	585
SLAB LONGITUDINAL TOP		10b2	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615
SLAB LONGITUDINAL TOP		10b3	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154
SLAB LONGITUDINAL TOP		7b4	39	22'-3	1774	39	22'-3	1774	39	22'-3	1774	39	22'-3	1774
SLAB LONGITUDINAL TOP		11b5	40	27'-9	5898	40	27'-9	5898	40	27'-9	5898	40	27'-9	5898
SLAB LONGITUDINAL TOP		6b6	20	30'-0	902	20	30'-0	902	20	30'-0	902	20	30'-0	902
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	28'-3	340	8	28'-3	340	8	28'-3	340	8	28'-3	340
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	27'-0	930	8	27'-0	930	8	27'-0	930	8	27'-0	930
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	23'-10	144	4	23'-10	144	4	23'-10	144	4	23'-10	144
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	30'-9	370	8	30'-9	370	8	30'-9	370	8	30'-9	370
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-0	893	8	21'-0	893	8	21'-0	893	8	21'-0	893
SLAB TRANSVERSE, BOTTOM		6c1	117	32'-10	5770	117	34'-0	5975	106	32'-10	5228	94	32'-10	4636
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	117	32'-10	4007	117	34'-0	4150	106	32'-10	3630	94	32'-10	3220
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	28	VARIES	555	52	VARIES	990
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	32'-10	1754	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	33'-11	1812	20	37'-6	2003	20	45'-4	2421
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	6'-10	739	72	6'-11	748	72	7'-3	785	72	7'-11	857
PIER CAP HOOPS		5h1	54	7'-10	442	54	7'-10	442	54	7'-10	442	72	7'-10	589
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	638	8	30'-11	661	8	34'-5	736	8	42'-2	901
PIER CAP, TOP LONGITUDINAL		8h4	4	32'-10	351	4	34'-0	364	4	37'-11	405	4	46'-6	497
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	232	8'-6	2057	232	8'-6	2057	232	8'-6	2057	230	8'-6	2040
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	277	32	8'-10	295	34	8'-10	314	42	8'-10	387
PAVING SUPPORT LONGITUDINAL		5p3	6	30'-2	189	6	31'-3	196	6	34'-10	218	6	42'-7	267
SUB TOTAL - LBS.					58,869			59,345			59,818			60,876
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					7228			7228			7228			7228
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					7340			7340			7340			7340
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			66,097			66,573			67,046			68,104
		WITH OPEN RAIL			66,209			66,685			67,158			68,216
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			64,512			64,952			65,309			65,963
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			64,624			65,064			65,421			66,075

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 120' 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.	278.1	279.1	282.5	290.0	273.1	274.0	276.9	283.1
	REINFORCING STEEL	LBS.	66,097	66,573	67,046	68,104	64,512	64,952	65,309	65,963
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	262.0	262.2	262.9	264.5	262.0	262.2	262.9	264.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	277.9	278.9	282.3	289.8	272.9	273.8	276.6	282.9
	REINFORCING STEEL	LBS.	66,209	66,685	67,158	68,216	64,624	65,064	65,421	66,075

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

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
120'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-13B-06