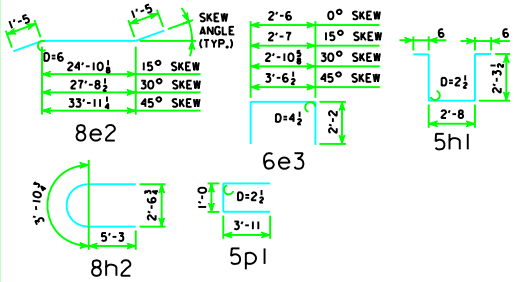
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 140' BRIDGE

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	31	30'-4	3198	31	30'-4	3198	31	30'-4	3198	31	30'-4	3198
SLAB LONGITUDINAL BOTTOM		10a2	31	45'-4	6048	31	45'-4	6048	31	45'-4	6048	31	45'-4	6048
SLAB LONGITUDINAL BOTTOM		9a3	31	41'-3	4348	31	41'-3	4348	31	41'-3	4348	31	41'-3	4348
SLAB LONGITUDINAL BOTTOM		10a4	32	34'-10	4797	32	34'-10	4797	32	34'-10	4797	32	34'-10	4797
SLAB LONGITUDINAL BOTTOM		9a5	16	40'-6	2204	16	40'-6	2204	16	40'-6	2204	16	40'-6	2204
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	40'-11	1113	8	40'-11	1113	8	40'-11	1113	8	40'-11	1113
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	49'-2	669	4	49'-2	669	4	49'-2	669	4	49'-2	669
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a9	8	34'-1	928	8	34'-1	928	8	34'-1	928	8	34'-1	928
SLAB LONGITUDINAL BOTTOM, AT RAIL		10a10	4	29'-8	511	4	29'-8	511	4	29'-8	511	4	29'-8	511
SLAB LONGITUDINAL TOP		6b1	31	6'-4	295	31	6'-4	295	31	6'-4	295	31	6'-4	295
SLAB LONGITUDINAL TOP		11b2	31	23'-6	3871	31	23'-6	3871	31	23'-6	3871	31	23'-6	3871
SLAB LONGITUDINAL TOP		11b3	31	29'-3	4818	31	29'-3	4818	31	29'-3	4818	31	29'-3	4818
SLAB LONGITUDINAL TOP		7b4	31	24'-9	1569	31	24'-9	1569	31	24'-9	1569	31	24'-9	1569
SLAB LONGITUDINAL TOP		11b5	32	26'-6	4506	32	26'-6	4506	32	26'-6	4506	32	26'-6	4506
SLAB LONGITUDINAL TOP		6b6	16	36'-0	866	16	36'-0	866	16	36'-0	866	16	36'-0	866
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	32'-3	388	8	32'-3	388	8	32'-3	388	8	32'-3	388
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	31'-6	1339	8	31'-6	1339	8	31'-6	1339	8	31'-6	1339
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	26'-10	162	4	26'-10	162	4	26'-10	162	4	26'-10	162
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	37'-6	614	8	37'-6	614	8	37'-6	614	8	37'-6	614
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-9	925	8	21'-9	925	8	21'-9	925	8	21'-9	925
SLAB TRANSVERSE, BOTTOM		6c1	137	26'-10	5522	137	27'-9	5711	130	26'-10	5240	120	26'-10	4837
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	20	VARIES	494	40	VARIES	916
SLAB TRANSVERSE, TOP		5d1	137	26'-10	3835	137	27'-9	3966	130	26'-10	3639	120	26'-10	3359
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	20	VARIES	343	40	VARIES	636
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	26'-10	1433	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	27'-8	1478	20	30'-7	1634	20	36'-9	1963
SLAB, HAIRPINS, AT ABUTMENT		6e3	60	6'-10	616	60	6'-11	624	60	7'-3	654	60	7'-11	714
PIER CAP HOOPS		5h1	36	8'-3	310	36	8'-3	310	36	8'-3	310	54	8'-3	465
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	23'-10	510	8	24'-8	527	8	27'-6	588	8	33'-8	720
PIER CAP, TOP LONGITUDINAL		8h4	4	26'-10	287	4	27'-9	297	4	30'-11	331	4	37'-11	405
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	272	8'-6	2412	272	8'-6	2412	272	8'-6	2412	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	24	8'-10	222	26	8'-10	240	28	8'-10	258	34	8'-10	314
PAVING SUPPORT LONGITUDINAL		5p3	6	24'-2	152	6	25'-0	157	6	27'-11	175	6	34'-1	214
SUB TOTAL - LBS.					59,260			59,683			60,039			60,898
OPEN RAIL - SEE LIST ON RAIL SHEET J24-41-06					8189			8189			8189			8189
TOTAL - LBS. WITH MONOLITHIC PIER CAP AND OPEN RAIL					67,449			67,872			68,228			69,087
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP AND OPEN RAIL SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					66,188			66,584			66,845			67,343

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°
OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	290.2	291.0	293.7	299.6	286.0	286.6	288.9	293.8
	REINFORCING STEEL	LBS.	67,449	67,872	68,228	69,087	66,188	66,584	66,845	67,343
OPEN RAIL		LIN. FT.	302.0	302.2	302.9	304.5	302.0	302.2	302.9	304.5

* 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 - 24' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

SUPERSTRUCTURE DETAILS
140'-0 BRIDGE

J24-17-06