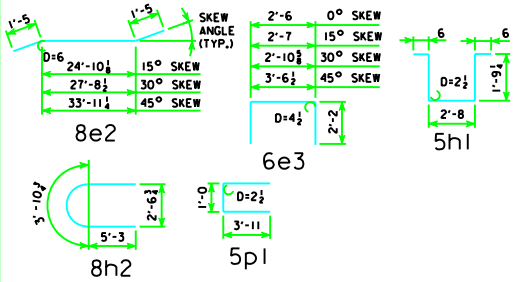
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 90' BRIDGE

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		8a1	31	20'-1	1663	31	20'-1	1663	31	20'-1	1663	31	20'-1	1663
SLAB LONGITUDINAL BOTTOM		8a2	31	28'-3	2339	31	28'-3	2339	31	28'-3	2339	31	28'-3	2339
SLAB LONGITUDINAL BOTTOM		8a3	31	26'-6	2194	31	26'-6	2194	31	26'-6	2194	31	26'-6	2194
SLAB LONGITUDINAL BOTTOM		8a4	32	25'-7	2186	32	25'-7	2186	32	25'-7	2186	32	25'-7	2186
SLAB LONGITUDINAL BOTTOM		8a5	16	27'-0	1154	16	27'-0	1154	16	27'-0	1154	16	27'-0	1154
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a6	8	33'-4	712	8	33'-4	712	8	33'-4	712	8	33'-4	712
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a7	4	31'-8	339	4	31'-8	339	4	31'-8	339	4	31'-8	339
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	22'-10	488	8	22'-10	488	8	22'-10	488	8	22'-10	488
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	19'-0	203	4	19'-0	203	4	19'-0	203	4	19'-0	203
SLAB LONGITUDINAL TOP		6b1	31	6'-7	307	31	6'-7	307	31	6'-7	307	31	6'-7	307
SLAB LONGITUDINAL TOP		9b2	31	21'-3	2240	31	21'-3	2240	31	21'-3	2240	31	21'-3	2240
SLAB LONGITUDINAL TOP		9b3	31	33'-1	3487	31	33'-1	3487	31	33'-1	3487	31	33'-1	3487
SLAB LONGITUDINAL TOP		6b4	32	11'-7	557	32	11'-7	557	32	11'-7	557	32	11'-7	557
SLAB LONGITUDINAL TOP		9b5	32	26'-0	2829	32	26'-0	2829	32	26'-0	2829	32	26'-0	2829
SLAB LONGITUDINAL TOP		6b6	16	17'-6	421	16	17'-6	421	16	17'-6	421	16	17'-6	421
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	25'-0	301	8	25'-0	301	8	25'-0	301	8	25'-0	301
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	18'-0	490	8	18'-0	490	8	18'-0	490	8	18'-0	490
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	18'-4	111	4	18'-4	111	4	18'-4	111	4	18'-4	111
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	27'-6	331	8	27'-6	331	8	27'-6	331	8	27'-6	331
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	11'-9	405	8	11'-9	405	8	11'-9	405	8	11'-9	405
SLAB TRANSVERSE, BOTTOM		6c1	87	26'-10	3507	87	27'-9	3627	80	26'-10	3225	70	26'-10	2822
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	20	VARIES	494	40	VARIES	916
SLAB TRANSVERSE, TOP		5d1	87	26'-10	2435	87	27'-9	2519	80	26'-10	2239	70	26'-10	1960
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	7'-3	273	36	7'-3	273	48	7'-3	363	60	7'-3	454
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	172	8'-6	1525	172	8'-6	1525	172	8'-6	1525	170	8'-6	1508
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.					34,155			34,462			35,024			35,821
OPEN RAIL - SEE LIST ON RAIL SHEET J24-41-06					5757			5757			5757			5757
TOTAL - LBS. WITH MONOLITHIC PIER CAP AND OPEN RAIL					39,912			40,219			40,781			41,578
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP AND OPEN RAIL SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					38,688			38,968			39,345			39,845

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 90' 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.	150.3	151.1	154.0	160.3	146.0	146.8	149.2	154.5
	REINFORCING STEEL	LBS.	39,912	40,219	40,781	41,578	38,688	38,968	39,345	39,845
OPEN RAIL		LIN. FT.	202.0	202.2	202.9	204.5	202.0	202.2	202.9	204.5

* 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
90'-0 BRIDGE

J24-07-06