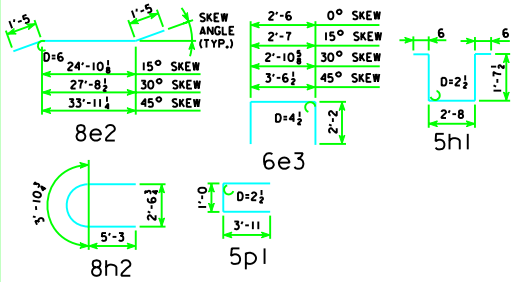
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70' BRIDGE

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		7a1	31	16'-4	1035	31	16'-4	1035	31	16'-4	1035	31	16'-4	1035
SLAB LONGITUDINAL BOTTOM		8a2	31	23'-0	1904	31	23'-0	1904	31	23'-0	1904	31	23'-0	1904
SLAB LONGITUDINAL BOTTOM		7a3	31	24'-7	1558	31	24'-7	1558	31	24'-7	1558	31	24'-7	1558
SLAB LONGITUDINAL BOTTOM		8a4	32	20'-10	1780	32	20'-10	1780	32	20'-10	1780	32	20'-10	1780
SLAB LONGITUDINAL BOTTOM		7a5	16	20'-6	671	16	20'-6	671	16	20'-6	671	16	20'-6	671
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a6	8	25'-10	423	8	25'-10	423	8	25'-10	423	8	25'-10	423
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a7	4	25'-4	208	4	25'-4	208	4	25'-4	208	4	25'-4	208
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	18'-4	392	8	18'-4	392	8	18'-4	392	8	18'-4	392
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	21'-6	230	4	21'-6	230	4	21'-6	230	4	21'-6	230
SLAB LONGITUDINAL TOP		6b1	31	7'-7	354	31	7'-7	354	31	7'-7	354	31	7'-7	354
SLAB LONGITUDINAL TOP		8b2	31	17'-3	1428	31	17'-3	1428	31	17'-3	1428	31	17'-3	1428
SLAB LONGITUDINAL TOP		8b3	31	25'-8	2125	31	25'-8	2125	31	25'-8	2125	31	25'-8	2125
SLAB LONGITUDINAL TOP		7b4	32	21'-0	1374	32	21'-0	1374	32	21'-0	1374	32	21'-0	1374
SLAB LONGITUDINAL TOP		8b5	32	11'-4	969	32	11'-4	969	32	11'-4	969	32	11'-4	969
SLAB LONGITUDINAL TOP		6b6	16	20'-6	493	16	20'-6	493	16	20'-6	493	16	20'-6	493
SLAB LONGITUDINAL TOP, AT RAIL		8b8	8	38'-4	819	8	38'-4	819	8	38'-4	819	8	38'-4	819
SLAB LONGITUDINAL TOP, AT RAIL		8b9	8	28'-4	606	8	28'-4	606	8	28'-4	606	8	28'-4	606
SLAB TRANSVERSE, BOTTOM		6c1	67	26'-10	2701	67	27'-9	2793	60	26'-10	2419	50	26'-10	2016
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	20	VARIES	494	40	VARIES	916
SLAB TRANSVERSE, TOP		5d1	67	26'-10	1876	67	27'-9	1940	60	26'-10	1680	50	26'-10	1400
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	40	6'-11	289	40	6'-11	289	50	6'-11	361	60	6'-11	433
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	132	8'-6	1171	132	8'-6	1171	132	8'-6	1171	130	8'-6	1153
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.					26,064			26,323			26,915			27,691
OPEN RAIL - SEE LIST ON RAIL SHEET J24-41-06					4601			4601			4601			4601
TOTAL - LBS. WITH MONOLITHIC PIER CAP AND OPEN RAIL					30,665			30,924			31,516			32,292
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP AND OPEN RAIL SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					29,425			29,657			30,082			30,580

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 70' 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.	113.2	114.0	117.0	123.4	109.0	109.7	112.2	117.6
	REINFORCING STEEL	LBS.	30,665	30,924	31,516	32,292	29,425	29,657	30,082	30,580
OPEN RAIL		LIN. FT.	162.0	162.2	162.9	164.5	162.0	162.2	162.9	164.5

* 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
70'-0 BRIDGE

J24-03-06