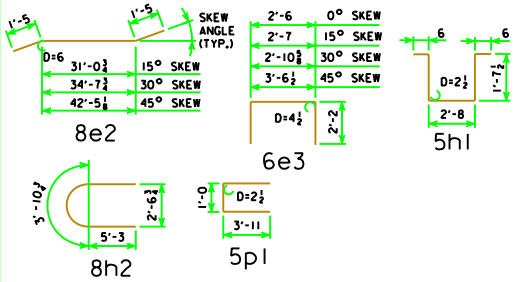
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70' BRIDGE

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	39	17'-1	1362	39	17'-1	1362	39	17'-1	1362	39	17'-1	1362
SLAB LONGITUDINAL BOTTOM		8a2	39	25'-0	2604	39	25'-0	2604	39	25'-0	2604	39	25'-0	2604
SLAB LONGITUDINAL BOTTOM		7a3	39	25'-4	2020	39	25'-4	2020	39	25'-4	2020	39	25'-4	2020
SLAB LONGITUDINAL BOTTOM		8a4	40	21'-10	2332	40	21'-10	2332	40	21'-10	2332	40	21'-10	2332
SLAB LONGITUDINAL BOTTOM		7a5	20	22'-0	900	20	22'-0	900	20	22'-0	900	20	22'-0	900
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	27'-4	224	4	27'-4	224	4	27'-4	224	4	27'-4	224
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	19'-4	413	8	19'-4	413	8	19'-4	413	8	19'-4	413
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251
SLAB LONGITUDINAL TOP		6b1	39	7'-10	459	39	7'-10	459	39	7'-10	459	39	7'-10	459
SLAB LONGITUDINAL TOP		8b2	39	18'-3	1901	39	18'-3	1901	39	18'-3	1901	39	18'-3	1901
SLAB LONGITUDINAL TOP		8b3	39	26'-4	2743	39	26'-4	2743	39	26'-4	2743	39	26'-4	2743
SLAB LONGITUDINAL TOP		7b4	40	21'-1	1724	40	21'-1	1724	40	21'-1	1724	40	21'-1	1724
SLAB LONGITUDINAL TOP		8b5	40	12'-6	1335	40	12'-6	1335	40	12'-6	1335	40	12'-6	1335
SLAB LONGITUDINAL TOP		6b6	20	20'-4	611	20	20'-4	611	20	20'-4	611	20	20'-4	611
SLAB LONGITUDINAL TOP, AT RAIL		8b8	8	38'-10	830	8	38'-10	830	8	38'-10	830	8	38'-10	830
SLAB LONGITUDINAL TOP, AT RAIL		8b9	8	28'-10	616	8	28'-10	616	8	28'-10	616	8	28'-10	616
SLAB TRANSVERSE, BOTTOM		6c1	67	32'-10	3305	67	34'-0	3422	56	32'-10	2762	44	32'-10	2170
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE TOP		5d1	67	32'-10	2295	67	34'-0	2376	56	32'-10	1918	44	32'-10	1507
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	48	6'-11	347	48	6'-11	347	60	6'-11	433	72	6'-11	520
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	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	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.					32,252			32,578			33,286			34,282
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					4649			4649			4649			4649
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					4601			4601			4601			4601
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			36,901			37,227			37,935			38,931
		WITH OPEN RAIL			36,853			37,179			37,887			38,883
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			35,411			35,701			36,207			36,859
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			35,363			35,653			36,159			36,811

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°
WITH BARRIER RAIL	*STRUCTURAL CONCRETE (BRIDGE) C.Y.	137.9	139.0	142.6	150.5	132.9	133.8	136.9	143.6
	REINFORCING STEEL EPOXY COATED LBS.	36,901	37,227	37,935	38,931	35,411	35,701	36,207	36,859
CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	162.0	162.2	162.9	164.5	162.0	162.2	162.9	164.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE) C.Y.	137.7	138.8	142.5	150.4	132.8	133.7	136.8	143.5
	REINFORCING STEEL EPOXY COATED LBS.	36,853	37,179	37,887	38,883	35,363	35,653	36,159	36,811

* 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
70'-0 BRIDGE

EPOXY COATED REINFORCING

J30-03E-06