BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70' BRIDGE

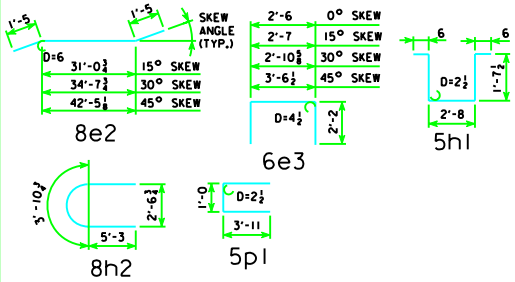
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		7a1	39	16'-4	1303	39	16'-4	1303	39	16'-4	1303	39	16'-4	1303
SLAB LONGITUDINAL BOTTOM		8a2	39	23'-0	2395	39	23'-0	2395	39	23'-0	2395	39	23'-0	2395
SLAB LONGITUDINAL BOTTOM		7a3	39	24'-7	1960	39	24'-7	1960	39	24'-7	1960	39	24'-7	1960
SLAB LONGITUDINAL BOTTOM		8a4	40	20'-10	2225	40	20'-10	2225	40	20'-10	2225	40	20'-10	2225
SLAB LONGITUDINAL BOTTOM		7a5	20	20'-6	839	20	20'-6	839	20	20'-6	839	20	20'-6	839
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	39	7'-7	445	39	7'-7	445	39	7'-7	445	39	7'-7	445
SLAB LONGITUDINAL TOP		8b2	39	17'-3	1797	39	17'-3	1797	39	17'-3	1797	39	17'-3	1797
SLAB LONGITUDINAL TOP		8b3	39	25'-8	2673	39	25'-8	2673	39	25'-8	2673	39	25'-8	2673
SLAB LONGITUDINAL TOP		7b4	40	21'-0	1717	40	21'-0	1717	40	21'-0	1717	40	21'-0	1717
SLAB LONGITUDINAL TOP		8b5	40	11'-4	1211	40	11'-4	1211	40	11'-4	1211	40	11'-4	1211
SLAB LONGITUDINAL TOP		6b6	20	20'-6	616	20	20'-6	616	20	20'-6	616	20	20'-6	616
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	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.					31,363			31,689			32,397			33,393
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			36,012			36,338			37,046			38,042
		WITH OPEN RAIL			35,964			36,290			36,998			37,994
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			34,522			34,812			35,318			35,970
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			34,474			34,764			35,270			35,922

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	LBS.	36,012	36,338	37,046	38,042	34,522	34,812	35,318	35,970
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	LBS.	35,964	36,290	36,998	37,994	34,474	34,764	35,270	35,922

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

BENT BAR DETAILS



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

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

NON-EPOXY COATED REINFORCING

J30-03B-06