BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 100' BRIDGE

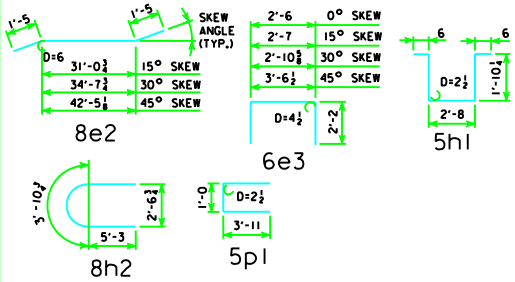
LOCATION	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	39	22'-4	2326	39	22'-4	2326	39	22'-4	2326	39	22'-4	2326
SLAB LONGITUDINAL BOTTOM		8a2	39	31'-5	3272	39	31'-5	3272	39	31'-5	3272	39	31'-5	3272
SLAB LONGITUDINAL BOTTOM		8a3	39	29'-6	3072	39	29'-6	3072	39	29'-6	3072	39	29'-6	3072
SLAB LONGITUDINAL BOTTOM		9a4	40	28'-7	3888	40	28'-7	3888	40	28'-7	3888	40	28'-7	3888
SLAB LONGITUDINAL BOTTOM		9a5	20	29'-6	2006	20	29'-6	2006	20	29'-6	2006	20	29'-6	2006
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a6	8	36'-10	787	8	36'-10	787	8	36'-10	787	8	36'-10	787
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a7	4	34'-8	371	4	34'-8	371	4	34'-8	371	4	34'-8	371
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	25'-1	536	8	25'-1	536	8	25'-1	536	8	25'-1	536
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	20'-6	219	4	20'-6	219	4	20'-6	219	4	20'-6	219
SLAB LONGITUDINAL TOP		6b1	39	5'-7	328	39	5'-7	328	39	5'-7	328	39	5'-7	328
SLAB LONGITUDINAL TOP		10b2	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154
SLAB LONGITUDINAL TOP		10b3	39	25'-6	4280	39	25'-6	4280	39	25'-6	4280	39	25'-6	4280
SLAB LONGITUDINAL TOP		7b4	39	15'-6	1236	39	15'-6	1236	39	15'-6	1236	39	15'-6	1236
SLAB LONGITUDINAL TOP		6b5	40	12'-4	741	40	12'-4	741	40	12'-4	741	40	12'-4	741
SLAB LONGITUDINAL TOP		9b6	40	21'-3	2890	40	21'-3	2890	40	21'-3	2890	40	21'-3	2890
SLAB LONGITUDINAL TOP		6b7	20	27'-6	827	20	27'-6	827	20	27'-6	827	20	27'-6	827
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	24'-6	295	8	24'-6	295	8	24'-6	295	8	24'-6	295
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	22'-0	599	8	22'-0	599	8	22'-0	599	8	22'-0	599
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-4	129	4	21'-4	129	4	21'-4	129	4	21'-4	129
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	26'-9	322	8	26'-9	322	8	26'-9	322	8	26'-9	322
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	17'-0	586	8	17'-0	586	8	17'-0	586	8	17'-0	586
SLAB TRANSVERSE, BOTTOM		6c1	97	32'-10	4784	97	34'-0	4954	86	32'-10	4242	74	32'-10	3650
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	97	32'-10	3322	97	34'-0	3440	86	32'-10	2946	74	32'-10	2535
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	56	7'-5	434	56	7'-5	434	56	7'-5	434	70	7'-5	542
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	192	8'-6	1703	192	8'-6	1703	192	8'-6	1703	190	8'-6	1685
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.					47,493			47,909			48,443			49,460
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					6153			6153			6153			6153
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					6182			6182			6182			6182
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			53,646			54,062			54,596			55,613
		WITH OPEN RAIL			53,675			54,091			54,625			55,642
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			52,069			52,449			52,867			53,519
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			52,098			52,478			52,896			53,548

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 100' 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.	212.3	213.3	216.8	224.5	207.3	208.2	211.2	217.6
	REINFORCING STEEL	LBS.	53,646	54,062	54,596	55,613	52,069	52,449	52,867	53,519
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	222.0	222.2	222.9	224.5	222.0	222.2	222.9	224.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	212.1	213.1	216.6	224.3	207.1	208.0	211.0	217.5
	REINFORCING STEEL	LBS.	53,675	54,091	54,625	55,642	52,098	52,478	52,896	53,548

* 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
100'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-09B-06