BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 80' BRIDGE

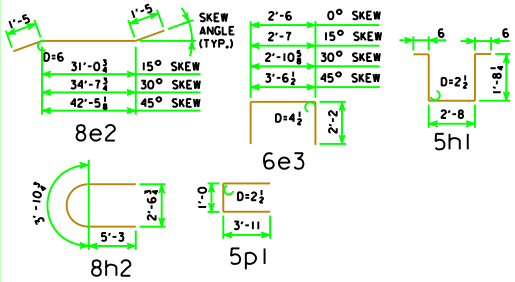
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	39	19'-4	2014	39	19'-4	2014	39	19'-4	2014	39	19'-4	2014
SLAB LONGITUDINAL BOTTOM		8a2	39	27'-0	2812	39	27'-0	2812	39	27'-0	2812	39	27'-0	2812
SLAB LONGITUDINAL BOTTOM		8a3	39	29'-1	3029	39	29'-1	3029	39	29'-1	3029	39	29'-1	3029
SLAB LONGITUDINAL BOTTOM		7a4	40	24'-1	1970	40	24'-1	1970	40	24'-1	1970	40	24'-1	1970
SLAB LONGITUDINAL BOTTOM		7a5	20	24'-6	1002	20	24'-6	1002	20	24'-6	1002	20	24'-6	1002
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a6	8	29'-10	488	8	29'-10	488	8	29'-10	488	8	29'-10	488
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a7	4	29'-4	240	4	29'-4	240	4	29'-4	240	4	29'-4	240
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	21'-10	467	8	21'-10	467	8	21'-10	467	8	21'-10	467
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273
SLAB LONGITUDINAL TOP		6b1	39	18'-4	1074	39	18'-4	1074	39	18'-4	1074	39	18'-4	1074
SLAB LONGITUDINAL TOP		9b2	39	21'-9	2885	39	21'-9	2885	39	21'-9	2885	39	21'-9	2885
SLAB LONGITUDINAL TOP		9b3	39	30'-10	4089	39	30'-10	4089	39	30'-10	4089	39	30'-10	4089
SLAB LONGITUDINAL TOP		6b4	40	6'-4	381	40	6'-4	381	40	6'-4	381	40	6'-4	381
SLAB LONGITUDINAL TOP		8b5	40	21'-3	2270	40	21'-3	2270	40	21'-3	2270	40	21'-3	2270
SLAB LONGITUDINAL TOP		6b6	20	16'-4	491	20	16'-4	491	20	16'-4	491	20	16'-4	491
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	24'-4	293	8	24'-4	293	8	24'-4	293	8	24'-4	293
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	23'-6	640	8	23'-6	640	8	23'-6	640	8	23'-6	640
SLAB LONGITUDINAL TOP, AT RAIL		8b10	8	32'-10	702	8	32'-10	702	8	32'-10	702	8	32'-10	702
SLAB TRANSVERSE, BOTTOM		6c1	77	32'-10	3798	77	34'-0	3933	66	32'-10	3255	54	32'-10	2664
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	77	32'-10	2637	77	34'-0	2731	66	32'-10	2261	54	32'-10	1850
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	7'-1	355	48	7'-1	355	60	7'-1	444	72	7'-1	532
PIER CAP ENDS		8h2	4	14'-5	154	4	14'-5	154	4	14'-5	154	4	14'-5	154
PIER CAP, BOTTOM LONGITUDINAL		5h3	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	152	8'-6	1348	152	8'-6	1348	152	8'-6	1348	150	8'-6	1330
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.					37,644			38,001			38,682			39,680
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					5156			5156			5156			5156
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					5261			5261			5261			5261
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			42,800			43,157			43,838			44,836
		WITH OPEN RAIL			42,905			43,262			43,943			44,941
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			41,302			41,623			42,099			42,752
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			41,407			41,728			42,204			42,857

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 80' 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.	158.7	159.7	163.3	171.2	153.7	154.6	157.7	164.3
	REINFORCING STEEL EPOXY COATED	LBS.	42,800	43,157	43,838	44,836	41,302	41,623	42,099	42,752
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	182.0	182.2	182.9	184.5	182.0	182.2	182.9	184.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	158.5	159.6	163.2	171.0	153.5	154.5	157.5	164.2
	REINFORCING STEEL EPOXY COATED	LBS.	42,905	43,262	43,943	44,941	41,407	41,728	42,204	42,857

* 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
80'-0 BRIDGE

EPOXY COATED REINFORCING

J30-05E-06