BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

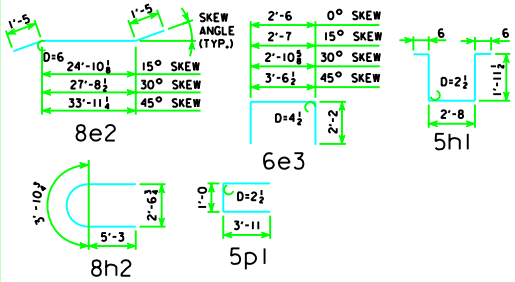
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	31	24'-4	2015	31	24'-4	2015	31	24'-4	2015	31	24'-4	2015
SLAB LONGITUDINAL BOTTOM		9a2	31	35'-9	3769	31	35'-9	3769	31	35'-9	3769	31	35'-9	3769
SLAB LONGITUDINAL BOTTOM		8a3	31	32'-2	2663	31	32'-2	2663	31	32'-2	2663	31	32'-2	2663
SLAB LONGITUDINAL BOTTOM		9a4	32	31'-7	3437	32	31'-7	3437	32	31'-7	3437	32	31'-7	3437
SLAB LONGITUDINAL BOTTOM		8a5	16	39'-0	1667	16	39'-0	1667	16	39'-0	1667	16	39'-0	1667
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	40'-4	1098	8	40'-4	1098	8	40'-4	1098	8	40'-4	1098
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	4	39'-2	533	4	39'-2	533	4	39'-2	533	4	39'-2	533
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	23'-10	510	8	23'-10	510	8	23'-10	510	8	23'-10	510
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	23'-0	246	4	23'-0	246	4	23'-0	246	4	23'-0	246
SLAB LONGITUDINAL TOP		8b1	31	11'-4	939	31	11'-4	939	31	11'-4	939	31	11'-4	939
SLAB LONGITUDINAL TOP		10b2	31	26'-4	3513	31	26'-4	3513	31	26'-4	3513	31	26'-4	3513
SLAB LONGITUDINAL TOP		10b3	31	23'-7	3146	31	23'-7	3146	31	23'-7	3146	31	23'-7	3146
SLAB LONGITUDINAL TOP		7b4	31	20'-5	1294	31	20'-5	1294	31	20'-5	1294	31	20'-5	1294
SLAB LONGITUDINAL TOP		10b5	32	24'-6	3374	32	24'-6	3374	32	24'-6	3374	32	24'-6	3374
SLAB LONGITUDINAL TOP		6b6	16	28'-6	685	16	28'-6	685	16	28'-6	685	16	28'-6	685
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	26'-0	313	8	26'-0	313	8	26'-0	313	8	26'-0	313
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	25'-3	870	8	25'-3	870	8	25'-3	870	8	25'-3	870
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-10	132	4	21'-10	132	4	21'-10	132	4	21'-10	132
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	29'-6	355	8	29'-6	355	8	29'-6	355	8	29'-6	355
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	17'-6	603	8	17'-6	603	8	17'-6	603	8	17'-6	603
SLAB TRANSVERSE, BOTTOM		6c1	107	26'-10	4313	107	27'-9	4460	100	26'-10	4031	90	26'-10	3628
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	20	VARIES	494	40	VARIES	916
SLAB TRANSVERSE, TOP		5d1	107	26'-10	2995	107	27'-9	3097	100	26'-10	2799	90	26'-10	2519
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	42	7'-7	333	42	7'-7	333	42	7'-7	333	56	7'-7	443
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	212	8'-6	1880	212	8'-6	1880	212	8'-6	1880	210	8'-6	1862
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.					44,341			44,693			45,120			45,934
OPEN RAIL - SEE LIST ON RAIL SHEET J24-41-06					6606			6606			6606			6606
TOTAL - LBS. WITH MONOLITHIC PIER CAP AND OPEN RAIL					50,947			51,299			51,726			52,540
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP AND OPEN RAIL SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					49,663			49,988			50,320			50,818

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 110' 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.	197.7	198.5	201.4	207.5	193.5	194.2	196.6	201.7
	REINFORCING STEEL	LBS.	50,947	51,299	51,726	52,540	49,663	49,988	50,320	50,818
OPEN RAIL		LIN. FT.	242.0	242.2	242.9	244.5	242.0	242.2	242.9	244.5

* 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 - 24' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

SUPERSTRUCTURE DETAILS
110'-0 BRIDGE

J24-11-06