BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 80′ BRIDGE

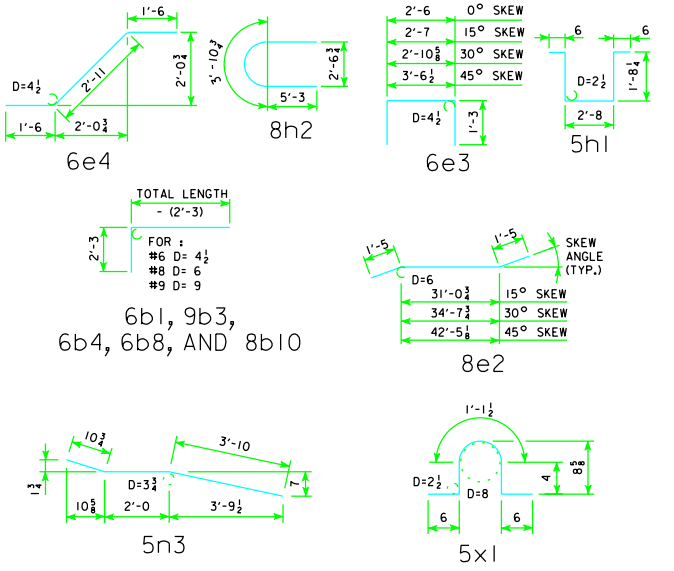
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	39	17′-3	1797	39	17′-3	1797	39	17′-3	1797	39	17′-3	1797
SLAB LONGITUDINAL BOTTOM		8a2	39	25′-0	2604	39	25′-0	2604	39	25′-0	2604	39	25′-0	2604
SLAB LONGITUDINAL BOTTOM		8a3	39	27′-0	2812	39	27′-0	2812	39	27′-0	2812	39	27′-0	2812
SLAB LONGITUDINAL BOTTOM		7a4	40	22′-3	1820	40	22′-3	1820	40	22′-3	1820	40	22′-3	1820
SLAB LONGITUDINAL BOTTOM		7a5	20	23′-0	941	20	23′-0	941	20	23′-0	941	20	23′-0	941
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a6	8	28′-9	471	8	28′-9	471	8	28′-9	471	8	28′-9	471
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′-9	422	8	19′-9	422	8	19′-9	422	8	19′-9	422
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	19′-3	1128	39	19′-3	1128	39	19′-3	1128	39	19′-3	1128
SLAB LONGITUDINAL TOP		9b2	39	20′-3	2686	39	20′-3	2686	39	20′-3	2686	39	20′-3	2686
SLAB LONGITUDINAL TOP		9b3	39	31′-2	4133	39	31′-2	4133	39	31′-2	4133	39	31′-2	4133
SLAB LONGITUDINAL TOP		6b4	40	7′-3	436	40	7′-3	436	40	7′-3	436	40	7′-3	436
SLAB LONGITUDINAL TOP		8b5	40	20′-3	2163	40	20′-3	2163	40	20′-3	2163	40	20′-3	2163
SLAB LONGITUDINAL TOP		6b6	20	16′-6	496	20	16′-6	496	20	16′-6	496	20	16′-6	496
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	25′-9	310	8	25′-9	310	8	25′-9	310	8	25′-9	310
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	22′-2	603	8	22′-2	603	8	22′-2	603	8	22′-2	603
SLAB LONGITUDINAL TOP, AT RAIL		8b10	8	33′-6	716	8	33′-6	716	8	33′-6	716	8	33′-6	716
SLAB TRANSVERSE, BOTTOM		6c1	77	32′-10	3798	77	34′-0	3933	64	32′-10	3157	50	32′-10	2466
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	77	32′-10	2637	77	34′-0	2731	64	32′-10	2192	50	32′-10	1713
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	30	VARIES	553	56	VARIES	1032
SLAB, TRANSVERSE AT ABUTMENT		8e1	18	32′-10	1578	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	18	33′-11	1631	18	37′-6	1803	18	45′-4	2179
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	5′-0	541	72	5′-1	550	72	5′-5	586	72	6′-1	658
SLAB, DIAGONALS, AT ABUTMENT		6e4	72	5′-11	640	72	5′-11	640	72	5′-11	640	72	5′-11	640
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		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	152	8′-6	1348	152	8′-6	1348	152	8′-6	1348	150	8′-6	1330
WING, VERTICAL		5m1	40	4′-5	185	40	4′-5	185	40	4′-5	185	40	4′-5	185
WING, HORIZONTAL BACK FACE		5n1	24	6′-8	167	24	6′-8	167	24	6′-8	167	24	6′-8	167
WING, HORIZONTAL TRAFFIC FACE		5n3	24	6′-9	169	24	6′-9	169	24	6′-9	169	24	6′-9	169
PAVING BLOCK LIFTING HOOPS		5x1	10	2′-10	30	10	2′-10	30	10	2′-10	30	10	2′-10	30
SUB TOTAL - LBS.					36,604			36,931			37,379			38,152
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					5464			5464			5464			5464
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					5799			5799			5799			5799
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			42,068			42,395			42,843			43,616
		WITH OPEN RAIL			42,403			42,730			43,178			43,951
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			40,570			40,861			41,104			41,532
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			40,905			41,196			41,439			41,867

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.	152.0	152.8	155.6	161.6	147.4.	148.0	150.4	155.3
	REINFORCING STEEL	LBS.	42,068	42,395	42,843	43,616	40,570	40,861	41,104	41,532
	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.	151.8	152.6	155.5	161.5	147.2	147.9	150.2	155.1
	REINFORCING STEEL	LBS.	42,403	42,730	43,178	43,951	40,905	41,196	41,439	41,867

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH AND 2 TEMPORARY PAVING BLOCKS; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



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

REVISED 07-09 - OPEN RAIL REINF. QTYS. CHANGED WHICH CHANGED TOTAL REINF. QTYS.

07-09
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

NON-EPOXY COATED REINFORCING

J30-05B-06