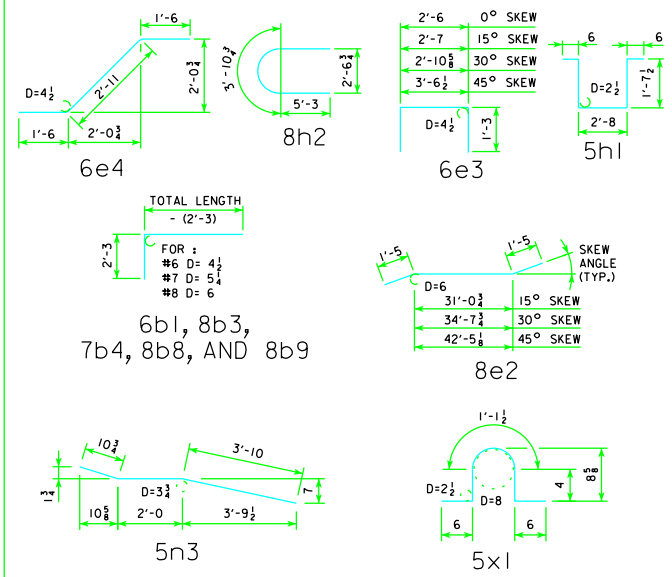
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70' BRIDGE

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	15'-3	1216	39	15'-3	1216	39	15'-3	1216	39	15'-3	1216
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	23'-6	1874	39	23'-6	1874	39	23'-6	1874	39	23'-6	1874
SLAB LONGITUDINAL BOTTOM		8a4	40	19'-9	2110	40	19'-9	2110	40	19'-9	2110	40	19'-9	2110
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	24'-9	405	8	24'-9	405	8	24'-9	405	8	24'-9	405
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	17'-3	369	8	17'-3	369	8	17'-3	369	8	17'-3	369
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	8'-9	513	39	8'-9	513	39	8'-9	513	39	8'-9	513
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	26'-10	2795	39	26'-10	2795	39	26'-10	2795	39	26'-10	2795
SLAB LONGITUDINAL TOP		7b4	40	22'-2	1813	40	22'-2	1813	40	22'-2	1813	40	22'-2	1813
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	39'-6	844	8	39'-6	844	8	39'-6	844	8	39'-6	844
SLAB LONGITUDINAL TOP, AT RAIL		8b9	8	29'-6	631	8	29'-6	631	8	29'-6	631	8	29'-6	631
SLAB TRANSVERSE, BOTTOM		6c1	67	32'-10	3305	67	34'-0	3422	54	32'-10	2664	40	32'-10	1973
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	67	32'-10	2295	67	34'-0	2376	54	32'-10	1850	40	32'-10	1370
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	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	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.					31,437			31,733			32,209			32,980
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					4877			4877			4877			4877
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					5181			5181			5181			5181
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			36,314			36,610			37,086			37,857
		WITH OPEN RAIL			36,618			36,914			37,390			38,161
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			34,824			35,084			35,358			35,785
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			35,128			35,388			35,662			36,089

BENT BAR DETAILS



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

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	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	131.2	132.0	134.9	141.0	126.6	127.3	129.6	134.6
BARRIER RAIL	REINFORCING STEEL	LBS.	36,314	36,610	37,086	37,857	34,824	35,084	35,358	35,785
	CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	162.0	162.2	162.9	164.5	162.0	162.2	162.9	164.5
WITH	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	131.1	131.9	134.8	140.8	126.5	127.1	129.5	134.5
OPEN RAIL	REINFORCING STEEL	LBS.	36,618	36,914	37,390	38,161	35,128	35,388	35,662	36,089

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

REVISED 12-08 - REVISED SHEET FOR NEW PAVING NOTCH.
REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED

12-08
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