

REVISED 07-2009; OPEN RAIL REINF. QTY'S CHANGED WHICH CHANGED TOTAL REINF. QTY'S.  
REVISED 09-2020; UPDATED BRIDGE ENGINEER SIGNATURE. CHANGED PAVING BLOCK LIFTING HOOP BAR MARK WAS EX11.

### BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 130' BRIDGE

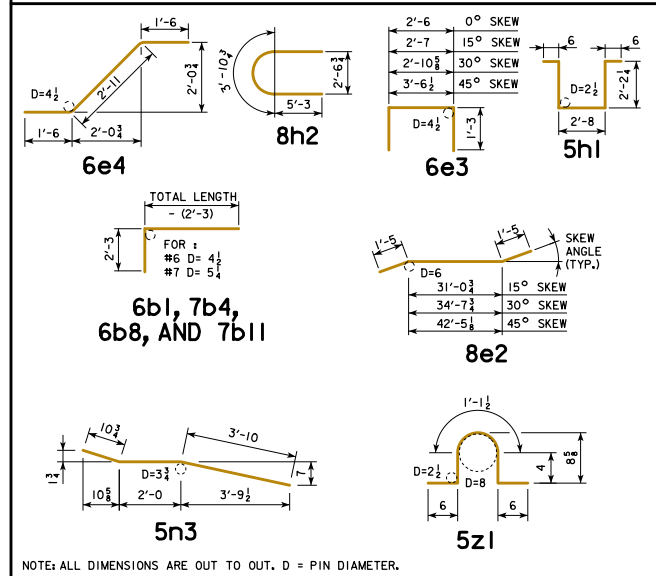
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			9a1	39	28'-9"	3813	39	28'-9"	3813	39	28'-9"	3813	39	28'-9"	3813	39	28'-9"	3813
SLAB LONGITUDINAL BOTTOM			9a2	39	44'-6"	5901	39	44'-6"	5901	39	44'-6"	5901	39	44'-6"	5901	39	44'-6"	5901
SLAB LONGITUDINAL BOTTOM			9a3	39	41'-3"	5470	39	41'-3"	5470	39	41'-3"	5470	39	41'-3"	5470	39	41'-3"	5470
SLAB LONGITUDINAL BOTTOM			9a4	40	32'-9"	4454	40	32'-9"	4454	40	32'-9"	4454	40	32'-9"	4454	40	32'-9"	4454
SLAB LONGITUDINAL BOTTOM			10a5	20	41'-0"	3529	20	41'-0"	3529	20	41'-0"	3529	20	41'-0"	3529	20	41'-0"	3529
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a6	8	38'-7"	1050	8	38'-7"	1050	8	38'-7"	1050	8	38'-7"	1050	8	38'-7"	1050
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a7	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a8	4	48'-8"	662	4	48'-8"	662	4	48'-8"	662	4	48'-8"	662	4	48'-8"	662
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	8	31'-3"	668	8	31'-3"	668	8	31'-3"	668	8	31'-3"	668	8	31'-3"	668
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a10	4	29'-0"	395	4	29'-0"	395	4	29'-0"	395	4	29'-0"	395	4	29'-0"	395
SLAB LONGITUDINAL TOP			6b1	39	7'-9"	454	39	7'-9"	454	39	7'-9"	454	39	7'-9"	454	39	7'-9"	454
SLAB LONGITUDINAL TOP			11b2	39	28'-9"	5958	39	28'-9"	5958	39	28'-9"	5958	39	28'-9"	5958	39	28'-9"	5958
SLAB LONGITUDINAL TOP			11b3	39	30'-6"	6320	39	30'-6"	6320	39	30'-6"	6320	39	30'-6"	6320	39	30'-6"	6320
SLAB LONGITUDINAL TOP			7b4	39	23'-9"	1894	39	23'-9"	1894	39	23'-9"	1894	39	23'-9"	1894	39	23'-9"	1894
SLAB LONGITUDINAL TOP			10b5	40	25'-6"	4390	40	25'-6"	4390	40	25'-6"	4390	40	25'-6"	4390	40	25'-6"	4390
SLAB LONGITUDINAL TOP			6b6	20	34'-4"	1032	20	34'-4"	1032	20	34'-4"	1032	20	34'-4"	1032	20	34'-4"	1032
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	30'-3"	364	8	30'-3"	364	8	30'-3"	364	8	30'-3"	364	8	30'-3"	364
SLAB LONGITUDINAL TOP, AT RAIL			11b9	8	32'-9"	1393	8	32'-9"	1393	8	32'-9"	1393	8	32'-9"	1393	8	32'-9"	1393
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	23'-0"	139	4	23'-0"	139	4	23'-0"	139	4	23'-0"	139	4	23'-0"	139
SLAB LONGITUDINAL TOP, AT RAIL			7b11	8	35'-6"	581	8	35'-6"	581	8	35'-6"	581	8	35'-6"	581	8	35'-6"	581
SLAB LONGITUDINAL TOP, AT RAIL			11b12	8	23'-9"	1010	8	23'-9"	1010	8	23'-9"	1010	8	23'-9"	1010	8	23'-9"	1010
SLAB TRANSVERSE, BOTTOM			6c1	127	32'-10"	6264	127	34'-0"	6486	114	32'-10"	5622	100	32'-10"	4932			
SLAB TRANSVERSE ENDS, BOTTOM			6c2	-	-	-	-	-	-	30	VARIABLES	797	56	VARIABLES	1486			
SLAB TRANSVERSE, TOP			5d1	127	32'-10"	4350	127	34'-0"	4504	114	32'-10"	3904	100	32'-10"	3425			
SLAB TRANSVERSE ENDS, TOP			5d2	-	-	-	-	-	-	30	VARIABLES	553	56	VARIABLES	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	44	8'-1"	371	44	8'-1"	371	44	8'-1"	371	44	8'-1"	371	66	8'-1"	557
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	252	8'-6"	2235	252	8'-6"	2235	252	8'-6"	2235	250	8'-6"	2217			
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			5z1	10	2'-10"	30	10	2'-10"	30	10	2'-10"	30	10	2'-10"	30			
SUB TOTAL - LBS.						67,504			67,978			68,188			69,060			
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06						8054			8054			8054			8054			
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06						8573			8573			8573			8573			
TOTAL - LBS.		WITH MONOLITHIC PIER CAP				75,558			76,032			76,242			77,114			
		WITH OPEN RAIL				76,077			76,551			76,761			77,633			
TOTAL - LBS.		WITH NON-MONOLITHIC PIER CAP				74,044			74,482			74,576			75,005			
		WITH OPEN RAIL				74,563			75,001			75,095			75,524			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						74,563			75,001			75,095			75,524			
** BARS MAY BE NON-COATED AT CONTRACTOR'S OPTION.																		

### ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 130' BRIDGE

ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
WITH STRUCTURAL CONCRETE (BRIDGE) C.Y.		308.1	308.9	311.5	317.0	303.5	304.1	306.2	310.7
BARRIER RAIL REINFORCING STEEL EPOXY COATED LBS.		75,558	76,032	76,242	77,114	74,044	74,482	74,576	75,005
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		282.0	282.2	282.9	284.5	282.0	282.2	282.9	284.5
WITH STRUCTURAL CONCRETE (BRIDGE) C.Y.		307.9	308.6	311.3	316.8	303.3	303.9	306.0	310.5
OPEN RAIL REINFORCING STEEL EPOXY COATED LBS.		76,077	76,551	76,761	77,633	74,563	75,001	75,095	75,524

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

### BENT BAR DETAILS



08-2020 LATEST REVISION DATE  APPROVED BY BRIDGE ENGINEER 	
	STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES <b>CONTINUOUS CONCRETE SLAB BRIDGES</b> NOVEMBER, 2006
	<div style="text-align: center;"> <b>SUPERSTRUCTURE DETAILS</b>  <b>130'-0 BRIDGE</b> </div> <div style="text-align: right;"> <b>J30-15E-06</b> </div>

EPOXY COATED REINFORCING