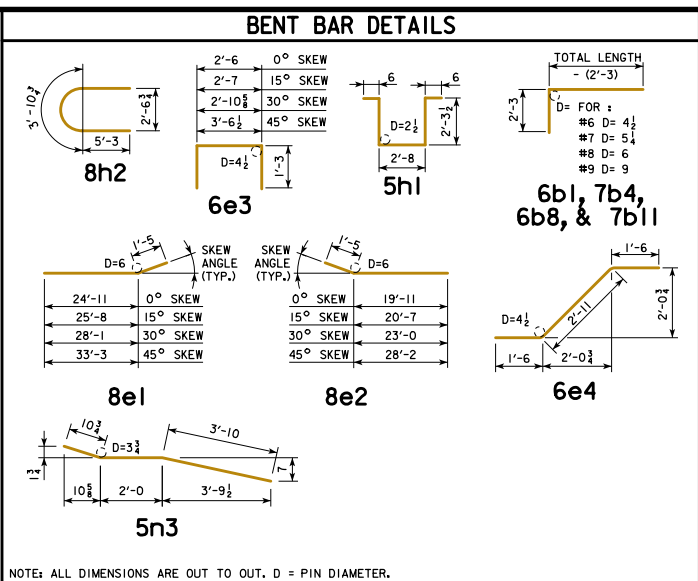


REVISED 09-14 - CHANGED REFERENCE TO THE BARRIER RAIL & OPEN RAIL TO THE J40-14 STANDARDS INSTEAD OF J40-06 STANDARDS.
 REVISED 03-2016 - REVISION FOR ADDITION OF PAVING NOTCH BAR. BUI WEIGHT IN ESTIMATED QUANTITIES TABLE.
 REVISED 04-2016 - REVISION TO INCLUDE PAVING NOTCH BAR BUI WEIGHT IN ESTIMATED QUANTITIES TABLE.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 140' 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			901	53	30'-6	5497	53	30'-6	5497	53	30'-6	5497	53	30'-6	5497			
SLAB LONGITUDINAL BOTTOM			10a2	53	48'-6	11,061	53	48'-6	11,061	53	48'-6	11,061	53	48'-6	11,061			
SLAB LONGITUDINAL BOTTOM			903	53	43'-9	7884	53	43'-9	7884	53	43'-9	7884	53	43'-9	7884			
SLAB LONGITUDINAL BOTTOM			10a4	52	35'-3	7888	52	35'-3	7888	52	35'-3	7888	52	35'-3	7888			
SLAB LONGITUDINAL BOTTOM			905	26	43'-0	3802	26	43'-0	3802	26	43'-0	3802	26	43'-0	3802			
SLAB LONGITUDINAL BOTTOM, AT RAIL			906	8	41'-7	1132	8	41'-7	1132	8	41'-7	1132	8	41'-7	1132			
SLAB LONGITUDINAL BOTTOM, AT RAIL			907	8	13'-0	354	8	13'-0	354	8	13'-0	354	8	13'-0	354			
SLAB LONGITUDINAL BOTTOM, AT RAIL			908	4	52'-8	717	4	52'-8	717	4	52'-8	717	4	52'-8	717			
SLAB LONGITUDINAL BOTTOM, AT RAIL			909	8	34'-3	932	8	34'-3	932	8	34'-3	932	8	34'-3	932			
SLAB LONGITUDINAL BOTTOM, AT RAIL			10a10	4	33'-0	568	4	33'-0	568	4	33'-0	568	4	33'-0	568			
SLAB LONGITUDINAL TOP			6b1	53	7'-9	617	53	7'-9	617	53	7'-9	617	53	7'-9	617			
SLAB LONGITUDINAL TOP			11b2	53	26'-0	7322	53	26'-0	7322	53	26'-0	7322	53	26'-0	7322			
SLAB LONGITUDINAL TOP			11b3	53	31'-9	8941	53	31'-9	8941	53	31'-9	8941	53	25'-6	8941			
SLAB LONGITUDINAL TOP			7b4	53	25'-6	2763	53	25'-6	2763	53	25'-6	2763	53	29'-0	2763			
SLAB LONGITUDINAL TOP			11b5	52	29'-0	8013	52	29'-0	8013	52	29'-0	8013	52	34'-4	8013			
SLAB LONGITUDINAL TOP			6b6	26	34'-4	1341	26	34'-4	1341	26	26'-0	1341	26	26'-0	1341			
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	32'-9	394	8	32'-9	394	8	32'-9	394	8	32'-9	394			
SLAB LONGITUDINAL TOP, AT RAIL			11b9	8	34'-0	1446	8	34'-0	1446	8	34'-0	1446	8	34'-0	1446			
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	25'-6	154	4	25'-6	154	4	25'-6	154	4	25'-6	154			
SLAB LONGITUDINAL TOP, AT RAIL			7b11	8	38'-3	626	8	38'-3	626	8	38'-3	626	8	38'-3	626			
SLAB LONGITUDINAL TOP, AT RAIL			11b12	8	24'-3	1031	8	24'-3	1031	8	24'-3	1031	8	24'-3	1031			
SLAB TRANSVERSE BOTTOM			6c1	137	23'-5	4819	137	24'-3	4991	128	23'-5	4502	118	23'-5	4151			
SLAB TRANSVERSE BOTTOM			6c2	137	21'-3	4373	137	22'-0	4528	129	21'-3	4118	121	21'-3	3863			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	-	12	VARIES	223	20	VARIES	411			
SLAB TRANSVERSE ENDS, BOTTOM			6c4	-	-	-	-	-	-	11	VARIES	219	20	VARIES	386			
SLAB TRANSVERSE ENDS, BOTTOM			6c5	-	-	-	-	-	-	11	VARIES	176	18	VARIES	302			
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	-	11	VARIES	190	17	VARIES	311			
SLAB TRANSVERSE TOP			5d1	137	23'-9	3394	137	24'-7	3513	128	23'-9	3171	118	23'-9	2924			
SLAB TRANSVERSE TOP			5d2	137	21'-3	3037	137	22'-0	3144	129	21'-3	2860	121	21'-3	2682			
SLAB TRANSVERSE ENDS, TOP			5d3	-	-	-	-	-	-	12	VARIES	155	20	VARIES	286			
SLAB TRANSVERSE ENDS, TOP			5d4	-	-	-	-	-	-	11	VARIES	152	20	VARIES	268			
SLAB TRANSVERSE ENDS, TOP			5d5	-	-	-	-	-	-	11	VARIES	122	18	VARIES	210			
SLAB TRANSVERSE ENDS, TOP			5d6	-	-	-	-	-	-	11	VARIES	132	17	VARIES	216			
SLAB TRANSVERSE AT ABUTMENT			8e1	18	26'-4	1266	18	27'-1	1302	18	29'-6	1418	18	34'-8	1667			
SLAB TRANSVERSE AT ABUTMENT			8e2	18	21'-4	1026	18	22'-0	1058	18	24'-5	1174	18	29'-7	1422			
SLAB, HAIRPINS, AT ABUTMENT			6e3	92	5'-0	691	92	5'-1	703	92	5'-5	749	92	6'-1	841			
SLAB, DIAGONALS, AT ABUTMENT			6e4	92	5'-11	818	92	5'-11	818	92	5'-11	818	92	5'-11	818			
PIER CAP HOOPS			5h1	60	8'-3	517	60	8'-3	517	60	8'-3	517	90	8'-3	775			
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	25'-5	543	8	26'-7	568	8	29'-4	627	8	35'-0	748			
PIER CAP, BOTTOM LONGITUDINAL			8h4	4	19'-11	426	4	20'-3	433	4	22'-2	474	4	26'-10	574			
PIER CAP, TOP LONGITUDINAL			8h5	4	26'-2	280	4	27'-5	293	4	30'-4	324	4	36'-1	386			
PIER CAP, TOP LONGITUDINAL			8h6	4	21'-5	229	4	21'-10	234	4	23'-11	256	4	28'-8	307			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	272	8'-6	2412	272	8'-6	2412	262	8'-6	2323	256	8'-6	2270			
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			
SUB EPOXY COATED TOTAL - LBS.						96,989			97,672			97,858			98,976			
BARRIER RAIL - SEE LIST ON RAIL SHEET J40-46-14						5483			5483			5483			5483			
OPEN RAIL - SEE LIST ON RAIL SHEET J40-49-14						5953			5953			5953			5953			
EPOXY COATED RAIL TOTAL - LBS.						102,472			103,155			103,341			104,459			
WITH MONOLITHIC PIER CAP						102,942			103,625			103,811			104,929			
WITH BARRIER RAIL						100,323			100,956			100,989			101,515			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						100,793			101,426			101,459			101,985			
WITH OPEN RAIL						3119			3119			3119			3119			
STAINLESS STEEL RAIL TOTAL - LBS.						3104			3104			3104			3104			
WITH BARRIER RAIL						3119			3119			3119			3119			
WITH OPEN RAIL						3104			3104			3104			3104			

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 140' BRIDGE										
ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP				
		0°	15°	30°	45°	0°	15°	30°	45°	
WITH BARRIER RAIL	* STRUCTURAL CONCRETE (BRIDGE) C.Y.	449.5	450.4	453.5	460.4	443.4	444.2	446.6	452.0	
	REINF. STEEL EPOXY COATED LBS.	102,472	103,155	103,341	104,459	100,323	100,956	100,989	101,515	
	REINF. STEEL STAINLESS STEEL LBS.	3342	3342	3342	3342	3342	3342	3342	3342	
CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	302.0	302.2	302.9	304.5	302.0	302.2	302.9	304.5	
WITH OPEN RAIL	* STRUCTURAL CONCRETE (BRIDGE) C.Y.	449.2	450.1	453.3	460.1	443.2	443.9	446.4	451.7	
	REINF. STEEL EPOXY COATED LBS.	102,942	103,625	103,811	104,929	100,793	101,426	101,459	101,985	
	REINF. STEEL STAINLESS STEEL LBS.	3327	3327	3327	3327	3327	3327	3327	3327	

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH; EXCLUDES RAIL CONCRETE.
 Δ INCLUDES ABUTMENT PAVING NOTCH BAR WEIGHT.



STAINLESS STEEL REINFORCING FOR SUPERSTRUCTURE - BRIDGE

LOCATION	ALL SKEWS		BAR NO.	LENGTH	WEIGHT	
	SHAPE	NO.				
ABUTMENT PAVING NOTCH BAR			8u1	40	2'-1	223

8U1 BARS SHALL BE PAID FOR UNDER THE BID ITEM "REINFORCING STEEL, STAINLESS STEEL". WEIGHT = LBS.

NOTES:
 ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN OR NOTED. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M.452.

ALL OTHER REINFORCING STEEL IS TO BE EPOXY COATED.

THE TRANSVERSE REBARS ARE DETAILED WITH A SPLICE LAP. AT THE CONTRACTOR'S OPTION, THIS LAP MAY BE ELIMINATED BY FURNISHING FULL LENGTH BARS WITH NO REDUCTION IN PAY WEIGHT FOR SAME.

LATEST REVISION DATE 04-2016 Approved by [Signature] APPROVED BY BRIDGE ENGINEER		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	SUPERSTRUCTURE DETAILS 140'-0 BRIDGE	J40-17-14