

Bill of Reinforcing Steel for Superstructure - 30' Bridge																		
	Location	Skew Shape	0 Degree				15 Degree				30 Degree				45 Degree			
			Bar	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight			
	Slab Longitudinal Bottom		9a1	31	32'-8"	3443	31	32'-8"	3443	31	32'-8"	3443	31	32'-8"	3443			
	Slab Longitudinal Bottom		9a2	16	20'-6"	1115	16	20'-6"	1115	16	20'-6"	1115	16	20'-6"	1115			
	Slab Longitudinal Bottom, at Rail		9a3	4	32'-8"	444	4	32'-8"	444	4	32'-8"	444	4	32'-8"	444			
	Slab Longitudinal Bottom, at Rail		8a4	4	23'-2"	247	4	23'-2"	247	4	23'-2"	247	4	23'-2"	247			
	Slab Longitudinal Top		6b1	64	19'-8"	1887	64	19'-8"	1887	64	19'-8"	1887	64	19'-8"	1887			
	Slab Longitudinal Top		5b2	30	9'-7"	300	30	9'-7"	300	30	9'-7"	300	30	9'-7"	300			
	Slab Longitudinal Top, at Rail		6b3	8	19'-8"	236	8	19'-8"	236	8	19'-8"	236	8	19'-8"	236			
	Slab Longitudinal Top, at Rail		5b4	8	13'-2"	110	8	13'-2"	110	8	13'-2"	110	8	13'-2"	110			
	Slab Transverse Ends, Bottom		6c1	27	26'-10"	1088	27	27'-9"	1127	16	26'-10"	645	6	26'-10"	242			
	Slab Transverse Bottom		6c3	-	-	-	-	-	-	24	VARIES	579	44	VARIES	976			
	Slab Transverse, Top		4d1	27	26'-10"	484	27	27'-9"	501	16	26'-10"	287	6	26'-10"	108			
	Slab Transverse Ends, Top		4d3	-	-	-	-	-	-	24	VARIES	258	44	VARIES	434			
	Top of Slab, Transverse, at Rail		4j1	52	7'-5"	258	52	7'-5"	258	52	7'-5"	258	50	7'-5"	248			
	Paving Block Lifting Hoops		5z1	8	2'-10"	24	8	2'-10"	24	8	2'-10"	24	8	2'-10"	24			
	Epoxy-Coated Sub Total - LBS.					9,636			9,692			9,833			9,814			

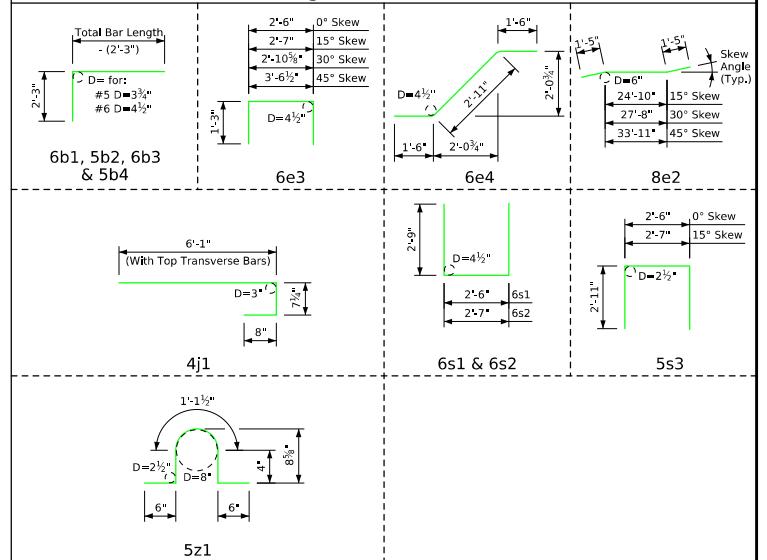
Integral Abutment Bars												
Slab, Transverse at Abutment			8e1	14	26'-10"	1003	-	-	-	-	-	-
Slab, Transverse at Abutment			8e2	-	-	-	14	27'-8"	1034	14	30'-6"	1140
Slab, Hairpins, at Abutment			6e3	60	5'-0"	451	60	5'-1"	458	60	5'-5"	488
Slab, Diagonal, at Abutment			6e4	60	5'-11"	533	60	5'-11"	533	60	5'-11"	533
Wing, Vertical			5m1	40	4'-5"	184	40	4'-5"	184	40	4'-5"	184
Wing, Horizontal			5n1	48	6'-8"	334	48	6'-8"	334	48	6'-8"	334
Epoxy-Coated Sub Total - Integral Abutment - LBS.						2,505			2,543			2,679

High Abutment Bars												
Slab, Diagonal, at Abutment			6e4	58	5'-11"	515	8	5'-11"	515	-	-	-
Slab, Transverse at Abutment			8e5	18	34'-8"	1666	18	35'-11"	1726	-	-	-
Slab, Transverse at Abutment, Cap Ends			8e6	4	5'-2"	55	4	5'-4"	57	-	-	-
Abutment Hairpins			6s1	156	8'-0"	1874	140	8'-0"	1682	-	-	-
Abutment Hairpins, Cap Ends			6s2	-	-	-	16	8'-1"	194	-	-	-
Abutment Hairpins, Cap Ends			5s3	24	8'-4"	209	24	8'-5"	211	-	-	-
Spiral			#2	12	38'-6"	77	12	38'-6"	77	-	-	-
Spiral Spacers, L 7/8x7/8x1/8x 0.7				36	1'-10"	46	36	1'-10"	46	-	-	-
Epoxy-Coated Sub Total - High Abutment - LBS.						4,110			3,980			
Non-Coated Sub Total - High Abutment - LBS.						123			123			

Open Rail - Integral Abutment - See Sheet J245-27-25						3,364			3,364			3,364
Open Rail - High Abutment - See Sheet J245-29-25						2,752			2,752			-
Totals with Integral Abutment - LBS	Epoxy-Coated Total	With Open Rail				15,505			15,599			15,876
		With W-Beam Guardrail				12,141			12,235			12,512
Totals with High Abutment - LBS	Epoxy-Coated Total	With Open Rail				16,498			16,424			-
		With W-Beam Guardrail				13,746			13,672			-
	Non-Coated Total					123			123			

Estimated Quantities for Superstructure - 30' Bridge							
Item	Skew	Integral Abutment				High Abutment	
		0°	15°	30°	45°	0°	15°
* Structural Concrete (Bridge)	CY.	62.6	62.9	64.1	66.7	73.7	74.3
Reinf. Steel Epoxy Coated With Open Rail	LBS.	15,505	15,599	15,876	16,151	16,498	16,424
Reinf. Steel Epoxy Coated With W-Beam Guardrail	LBS.	12,141	12,235	12,512	12,787	13,746	13,672
Reinf. Steel Non-Coated	LBS.	-	-	-	-	123	123
* Includes 4 wings for integral abutment at 1.18 CY each and temporary paving blocks; excludes rail concrete.							

30' Bridge - Bent Bar Details



Note: All Dimensions Are Out To Out, D = Pin Diameter,

Latest Revision Date Approved By Bridge Engineer 	 Standard Design - 24'-0" Roadway, Single Span Bridge Single Span Concrete Slab Bridges July, 2025	
	Superstructure Details 30'-0" Bridge	J245-06-25