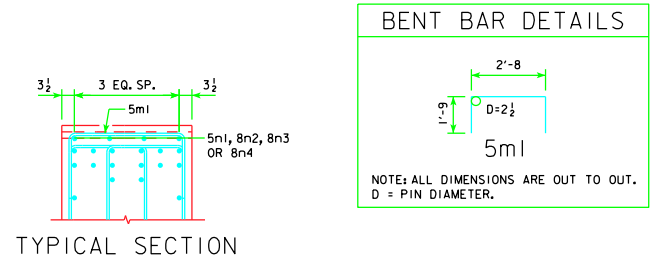


STEP REINFORCING BAR LIST ONE PIER

BAR	LENGTH	SHAPE	G <= 1.0%			1.0% < G <= 2.5%			2.5% < G <= 3.2%			3.2% < G <= 3.7%			3.7% < G <= 5.0%		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
5ml	6'-2"		16	5	103	20	5	129	26	5	167	29	5	187	33	5	212
5n1	2'-10"		16	5	47	20	5	59	16	5	47	12	5	35	4	5	12
8n2	11'-5"		--	--	--	--	--	--	4	8	122	--	--	--	--	--	--
8n3	19'-3"		--	--	--	--	--	--	--	--	--	4	8	206	--	--	--
8n4	31'-5"		--	--	--	--	--	--	--	--	--	--	--	4	8	336	
TOTAL (L.B.)					150			188			336			428			560

G = GRADE (%)



TYPICAL SECTION

NOTES:

THE TABLE BELOW LISTS THE ADDITIONAL CONCRETE VOLUME REQUIRED IN EACH ABUTMENT FOOTING/PIER CAP BASED ON THE ROADWAY GRADE AT EACH ABUTMENT FOOTING/PIER CAP. ADDITIONAL CONCRETE SHOULD BE ADDED TO THE PLANS FOR EACH ABUTMENT FOOTING/PIER CAP THAT HAS 0.5 CU. YDS. OR MORE OF ADDITIONAL CONCRETE. VALUES SHOULD BE EXCLUDED FOR SCENARIOS THAT HAVE LESS THAN 0.5 CU. YDS. OF ADDITIONAL CONCRETE PER SUBSTRUCTURE UNIT. VALUES MAY BE INTERPOLATED FOR GRADES BETWEEN THE VALUES SHOWN IN THE TABLE.

ADDITIONAL CONCRETE VOLUME PER SUBSTRUCTURE UNIT (C.Y.)

	ROADWAY GRADE AT SUBSTRUCTURE UNIT				
	1%	2%	3%	4%	5%
EACH ABUTMENT FOOTING					
160'-0" TO 320'-0" SPANS	--	0.6	1.0	1.3	1.7
340'-0" SPANS	--	0.7	1.2	1.6	2.0
EACH PILE BENT OR TEE PIER CAP					
160'-0" TO 340'-0" SPANS	--	0.6	0.9	1.2	1.6

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES JUNE, 2010	
		ADDITIONAL QUANTITIES 20° SKEW	RS40-167-10