

REVISED 10-2016 - UPDATED DIAPHRAGM WEIGHTS FOR BRIDGE LENGTHS 160'-0" TO 220'-0" WITH 10, 20 AND 30 DEGREE SKEWS.

0 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
ROLLED CHANNEL	13,980	15,407	15,706	18,756	24,093	24,410	26,210	26,212	29,803	32,190
BENT PLATE	12,697	13,929	14,228	15,698	19,925	20,242	21,672	21,673	24,525	26,541

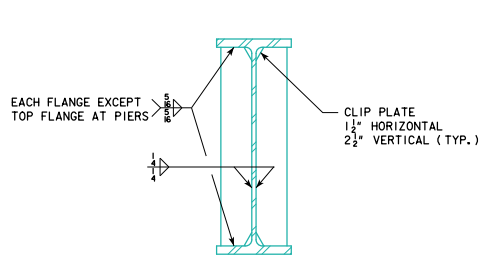
10 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
ROLLED CHANNEL	14,611	16,038	16,345	19,537	24,163	24,480	26,280	26,281	29,872	32,259
BENT PLATE	13,248	14,480	14,788	16,324	19,988	20,304	21,734	21,736	24,587	26,604

20 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
ROLLED CHANNEL	14,799	16,226	16,533	19,755	24,381	24,698	26,498	26,499	30,091	32,477
BENT PLATE	13,430	14,663	14,970	16,520	20,183	20,500	21,930	21,931	24,783	26,799

30 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
ROLLED CHANNEL	15,149	16,576	16,884	20,162	24,784	25,105	26,905	26,906	30,493	32,884
BENT PLATE	13,770	15,002	15,310	16,884	20,544	20,865	22,294	22,296	25,142	27,164

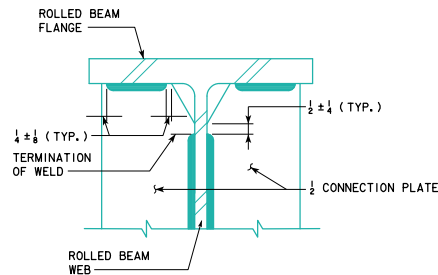
45 SKEW DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS)										
DIAPHRAGM	BRIDGE LENGTH									
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
ROLLED CHANNEL	15,284	16,711	17,029	20,220	23,778	27,690	27,691	31,291	33,083	33,696
BENT PLATE	14,036	15,269	15,587	17,127	19,945	23,117	23,118	25,978	27,399	28,012

PAYMENT FOR STRUCTURAL STEEL WILL BE BASED ON WEIGHT FOR BENT PLATE DIAPHRAGMS. WEIGHTS FOR CHANNEL DIAPHRAGMS OPTION ARE PROVIDED FOR INFORMATION ONLY.

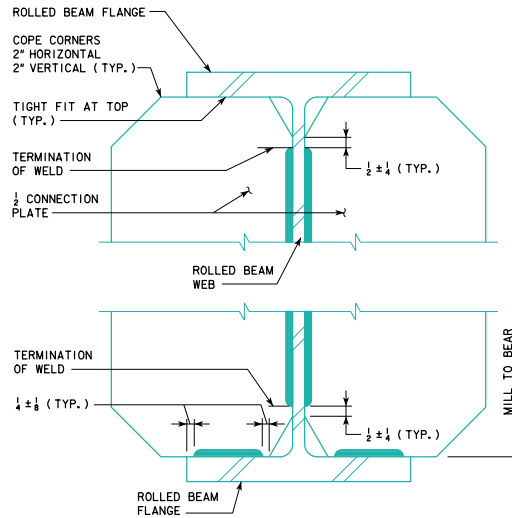


**CONNECTION PLATE DETAIL**

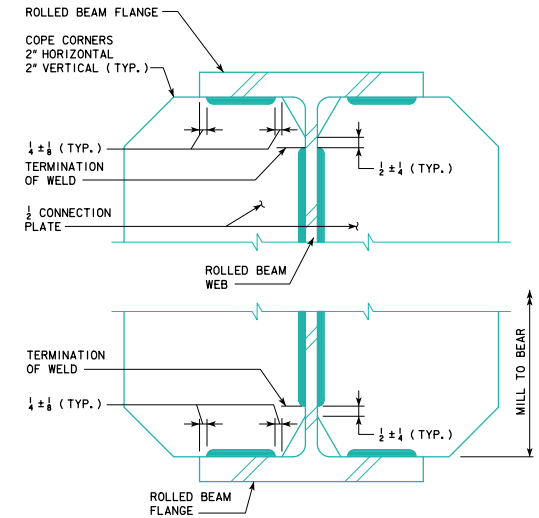
NOTE:  
EXTERIOR BEAMS REQUIRE A CONNECTION PLATE ON THE INTERIOR SIDE OF THE WEB ONLY.



**CONNECTION PLATE WELD TERMINATION DETAIL (ABUTMENT & INTERMEDIATE DIAPHRAGM)**



**CONNECTION PLATE WELD TERMINATION DETAIL (PIER DIAPHRAGM, 0° to 30° SKEW)**



**CONNECTION PLATE WELD TERMINATION DETAIL (PIER DIAPHRAGM, 45° SKEW)**

NOTE:  
WEIGHTS TABULATED ON THIS SHEET ARE ALREADY INCLUDED IN TOTAL WEIGHT OF STRUCTURAL STEEL GIVEN ELSEWHERE IN THESE STANDARDS.

10-2016 LATEST REVISION DATE  <i>Thomas E. McQuinn</i> APPROVED BY BRIDGE ENGINEER		
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES <b>ROLLED STEEL BEAM BRIDGES</b> JUNE, 2010	
	<b>DIAPHRAGM DETAILS</b> SHEET 2	<b>RS40-082-10</b>