

REVISED 10-2016 - UPDATED DIAPHRAGM WEIGHTS FOR BRIDGE LENGTHS 160'-0" TO 220'-0" WITH 10, 20 AND 30 DEGREE SKEWS.
 REVISED 08-2018 - UPDATED DIAPHRAGM WEIGHTS FOR BRIDGE LENGTHS 200'-0" TO 340'-0" FOR ALL SKEWS. UPDATED BRIDGE ENGINEER SIGNATURE.

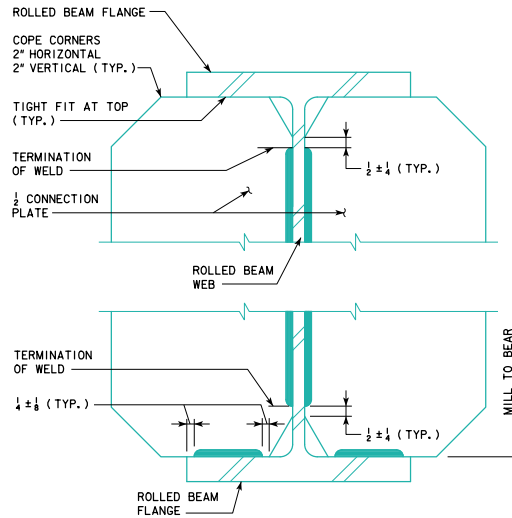
| 0 SKEW | | | | | | | | | | |
|--|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS) | | | | | | | | | | |
| DIAPHRAGM | BRIDGE LENGTH | | | | | | | | | |
| | 160'-0" | 180'-0" | 200'-0" | 220'-0" | 240'-0" | 260'-0" | 280'-0" | 300'-0" | 320'-0" | 340'-0" |
| ROLLED SHAPE | 13,980 | 15,407 | 18,580 | 18,833 | 24,197 | 27,607 | 29,673 | 29,675 | 33,799 | 43,370 |
| BENT PLATE | 12,697 | 13,929 | 15,522 | 15,775 | 20,029 | 21,968 | 23,541 | 23,543 | 26,682 | 38,412 |

| 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 SHAPE | 14,611 | 16,038 | 19,357 | 19,618 | 24,266 | 27,684 | 29,751 | 29,752 | 33,876 | 43,460 |
| BENT PLATE | 13,248 | 14,480 | 16,144 | 16,405 | 20,091 | 22,034 | 23,608 | 23,609 | 26,748 | 38,497 |

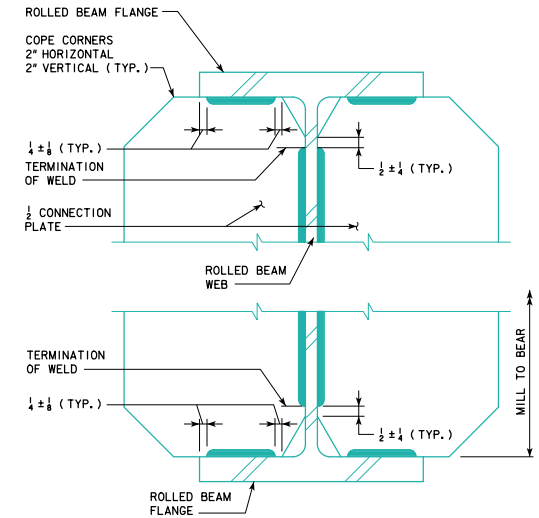
| 20 SKEW | | | | | | | | | | |
|--|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| DIAPHRAGM WEIGHTS (WEIGHT IN LBS. INCLUDES DIAPHRAGM, NUTS, BOLTS, CONNECTION PLATES AND WELDS) | | | | | | | | | | |
| DIAPHRAGM | BRIDGE LENGTH | | | | | | | | | |
| | 160'-0" | 180'-0" | 200'-0" | 220'-0" | 240'-0" | 260'-0" | 280'-0" | 300'-0" | 320'-0" | 340'-0" |
| ROLLED SHAPE | 14,799 | 16,226 | 19,575 | 19,836 | 24,484 | 27,928 | 29,994 | 29,996 | 34,120 | 43,745 |
| BENT PLATE | 13,430 | 14,663 | 16,339 | 16,600 | 20,286 | 22,243 | 23,817 | 23,818 | 26,957 | 38,763 |

| 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 SHAPE | 15,149 | 16,576 | 19,982 | 20,243 | 24,891 | 24,891 | 30,448 | 30,449 | 34,573 | 44,276 |
| BENT PLATE | 13,770 | 15,002 | 16,704 | 16,965 | 20,651 | 22,632 | 24,206 | 24,207 | 27,346 | 39,259 |

| 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 SHAPE | 15,284 | 16,711 | 20,028 | 20,297 | 23,873 | 31,256 | 31,258 | 35,390 | 37,448 | 45,148 |
| BENT PLATE | 14,036 | 15,269 | 16,935 | 17,205 | 20,040 | 25,040 | 25,042 | 28,189 | 29,754 | 40,173 |



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

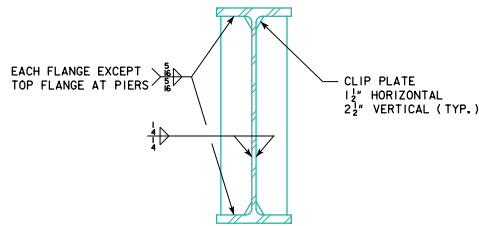


CONNECTION PLATE WELD
 TERMINATION DETAIL
 (PIER DIAPHRAGM,
 45° SKEW)

NOTE: THE STRUCTURAL STEEL QUANTITY REQUIRED FOR THE APPROPRIATE BRIDGE LENGTH AND SKEW ARE TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE BRIDGE PLAN.

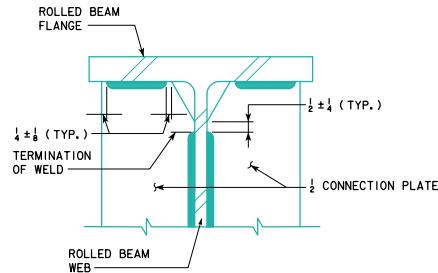
THE BENT PLATE OPTION SHOULD BE SHOWN ON THE SUMMARY QUANTITIES SHEET.

THE CONTRACTOR MAY CHOOSE TO PROVIDE ROLLED SHAPE DIAPHRAGMS AT NO ADDITIONAL COST.



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)

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| 08-2018 LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER | |
| | STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES OCTOBER, 2014 |
| | DIAPHRAGM DETAILS SHEET 2 |

RS40-082-14