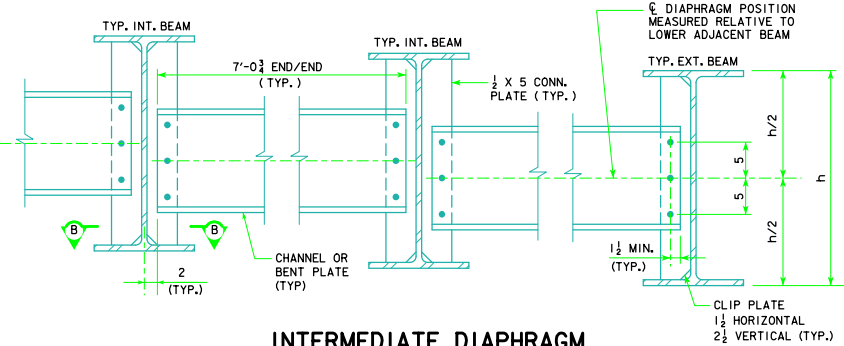
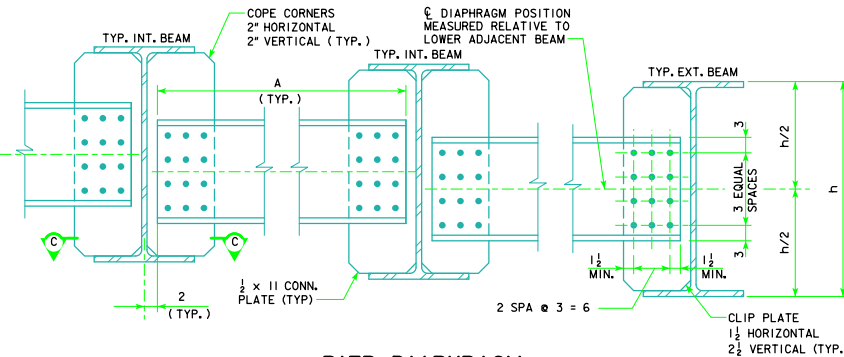


**ABUTMENT DIAPHRAGM**  
(ALONG SKEW)



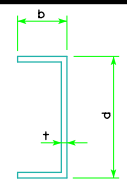
**INTERMEDIATE DIAPHRAGM**  
(AT RIGHT ANGLES)



**PIER DIAPHRAGM**  
(ALONG SKEW FOR 0°, 10°, 20° AND 30° SKEW)  
(AT RIGHT ANGLES FOR 45° SKEW)

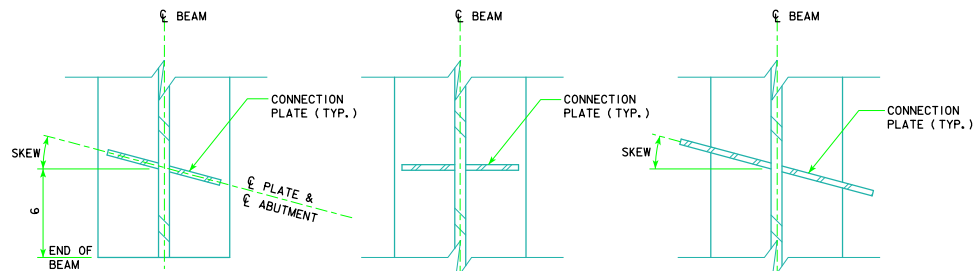
| SKEW | a (FT-IN) |
|------|-----------|
| 0°   | 7'-0 3/4  |
| 10°  | 7'-2 1/8  |
| 20°  | 7'-6 3/8  |
| 30°  | 8'-1 1/8  |
| 45°  | 9'-11 1/8 |

**BENT PLATE DIAPHRAGM OPTION**



**DIAPHRAGM MEMBER OPTIONS**

| DIAPHRAGM LOCATION | BEAM SIZE      | CHANNEL OPTION |             | BENT PLATE OPTION |        |        |             |
|--------------------|----------------|----------------|-------------|-------------------|--------|--------|-------------|
|                    |                | DESIGNATION    | CONN. BOLTS | d (IN)            | b (IN) | t (IN) | CONN. BOLTS |
| INTERMEDIATE       | W30 & W33      | C15x33.9       | 3 - 7/8"φ   | 15                | 4      | 3/8    | 3 - 7/8"φ   |
| INTERMEDIATE       | W36, W40 & W44 | MC18x42.7      | 3 - 7/8"φ   | 18                | 4      | 3/8    | 3 - 7/8"φ   |
| ABUTMENT           | ALL            | C12x20.7       | 3 - 7/8"φ   | 12                | 4      | 3/8    | 3 - 7/8"φ   |
| PIER               | W30 & W33      | C15x33.9       | 12 - 7/8"φ  | 15                | 4      | 3/8    | 12 - 7/8"φ  |
| PIER               | W36, W40 & W44 | MC18x42.7      | 12 - 7/8"φ  | 18                | 4      | 3/8    | 12 - 7/8"φ  |



**SECTION A-A**

**SECTION B-B**

**SECTION C-C**  
FOR 45° SKEW, CONNECTION PLATES ARE AT RIGHT ANGLES

NOTES:  
1. EITHER CHANNEL OR BENT PLATE DIAPHRAGM OPTION MAY BE SELECTED AT CONTRACTOR'S OPTION.

| SKEW | A (FT-IN) |
|------|-----------|
| 0°   | 7'-0 3/4  |
| 10°  | 7'-2 1/8  |
| 20°  | 7'-6 3/8  |
| 30°  | 8'-1 1/8  |
| 45°  | 7'-0 3/4  |

|                      |                                 |                                                                                                        |
|----------------------|---------------------------------|--------------------------------------------------------------------------------------------------------|
| LATEST REVISION DATE | <br>APPROVED BY BRIDGE ENGINEER | <br>STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES<br><b>ROLLED STEEL BEAM BRIDGES</b><br>OCTOBER, 2014 |
|                      |                                 | <b>DIAPHRAGM DETAILS</b><br><b>SHEET 1</b>                                                             |
|                      |                                 | <b>RS40-081-14</b>                                                                                     |