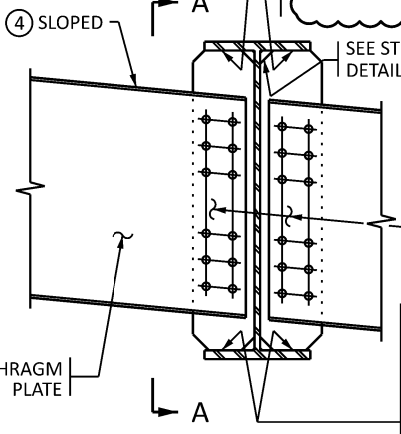
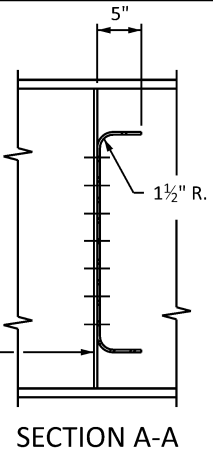


FASCIA BEAM
AT PIER AND INTERMEDIATE DIAPHRAGMS

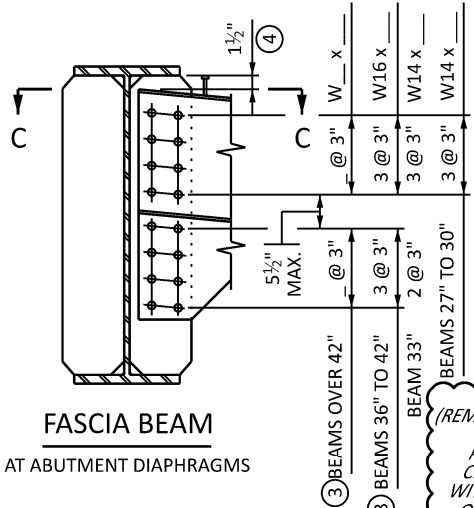


INTERIOR BEAM
AT PIER AND INTERMEDIATE DIAPHRAGMS

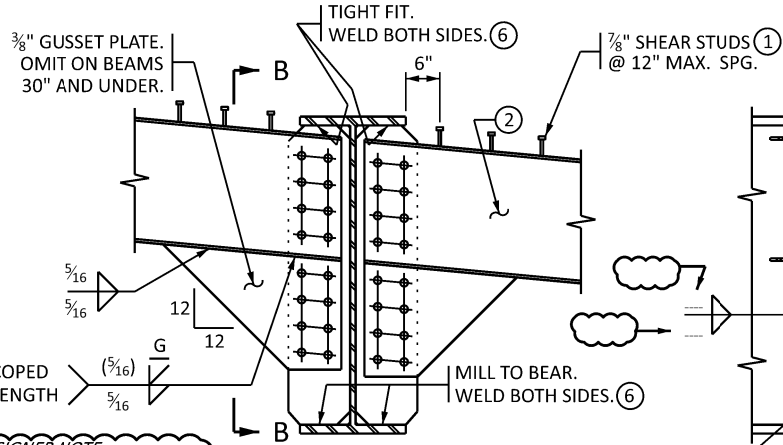
DESIGNER NOTE
(REMOVE PRIOR TO PRINTING FINAL PLAN):
DESIGNER TO CHOOSE ONE OF THE FOLLOWING NOTES PER BRIDGE DESIGN MANUAL:
TIGHT FIT. USE BOLTED CONNECTIONS (SEE DETAIL B410) IN AREA "A" ON PLANS. WELD BOTH SIDES AT ALL OTHER LOCATIONS (6).
OR
TIGHT FIT. WELD BOTH SIDES (6)



DESIGNER NOTE
(REMOVE PRIOR TO PRINTING FINAL PLAN):
DESIGNER TO CHOOSE ONE OF THE FOLLOWING NOTES PER BRIDGE DESIGN MANUAL:
TIGHT FIT (5). WELD BOTH SIDES IN AREA "A" ON PLANS (6). USE BOLTED CONNECTIONS (SEE DETAIL B410) AT ALL OTHER LOCATIONS.
OR
TIGHT FIT (5). WELD BOTH SIDES (6)

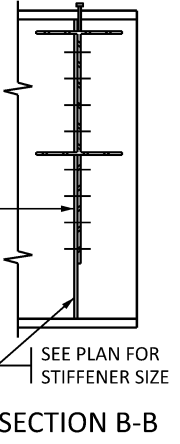


FASCIA BEAM
AT ABUTMENT DIAPHRAGMS



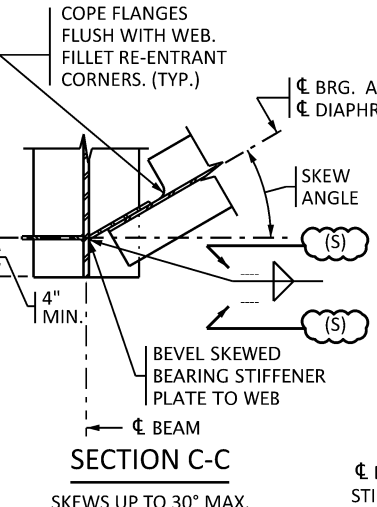
INTERIOR BEAM
AT ABUTMENT DIAPHRAGMS

DESIGNER NOTE
(REMOVE PRIOR TO PRINTING FINAL PLAN):
PROVIDE MINIMUM WELD SIZES IN CLOUDED REGIONS IN ACCORDANCE WITH AASHTO 6.13.3/AWS D1.5 UNLESS OTHERWISE DETERMINED BY DESIGN.
DELETE CLOUDED REGIONS BEFORE PRINTING FINAL PLAN.
FOR SKEWED PLATES, SPECIFY THE EFFECTIVE THROAT AS (S). SEE BDM.

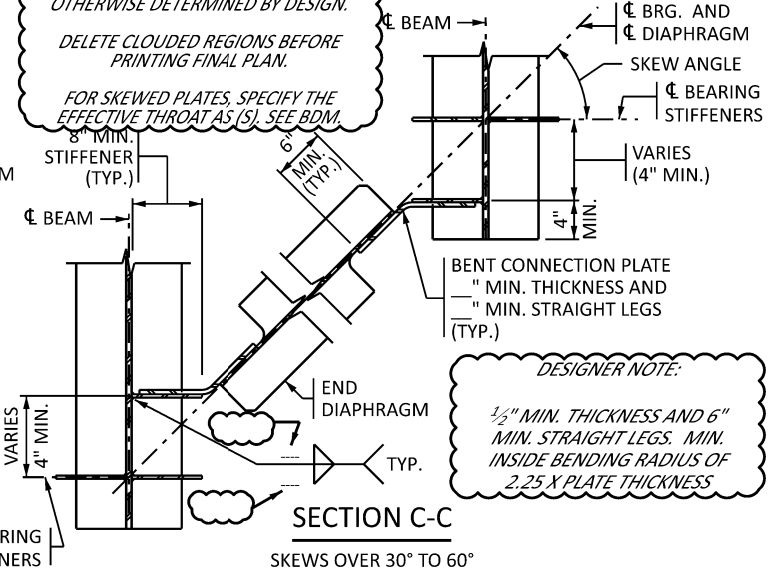


NOTES:
PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3309.

- ① USE SAME SHEAR STUD HEIGHT AS USED ON THE BEAMS.
- ② SEE FRAMING PLAN FOR SIZE OF DIAPHRAGM.
- ③ FOR PLATE GIRDERS, PROVIDE END DIAPHRAGMS AT LEAST 1/2 THE BEAM HEIGHT.
- ④ DIAPHRAGMS MAY BE PLACED LEVEL, PROVIDED MINIMUM CLEARANCES ARE MET.
- ⑤ MILL TO BEAR FOR BEARING STIFFENERS.
- ⑥ SEE STRUCTURAL STEEL DETAIL SHEETS FOR REQUIRED WELD SIZE.



SECTION C-C
SKEWS UP TO 30° MAX.



SECTION C-C
SKEWS OVER 30° TO 60°

DESIGNER NOTE:
1/2" MIN. THICKNESS AND 6" MIN. STRAIGHT LEGS. MIN. INSIDE BENDING RADIUS OF 2.25 X PLATE THICKNESS

APPROVED: DECEMBER 17, 2024
Edward A. Dutgen
STATE BRIDGE ENGINEER

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
BOLTED DIAPHRAGMS
(FOR STEEL BEAMS)

REVISION
DETAIL NO.
B402