WEB MEMBER #4 Distance from End Panel = 3.21 ft. (ED = 2.08')

Applicable Shear V_x = 12,570 lbs. f_y = 50,000 psi

Slope = 1.162 f_s = — psi

ℓ = 30.0 in. f_{sc} = 9,970 psi

Reqd. Area = 1.47 sq. in. Use 2-0.98" O.A. Area = 1.51 sq. in.

WEB MEMBER #5 Distance from End Panel = 0.0 ft. (ED = 2.08')

Applicable Shear V_x = 15,865 lbs. f_y = 50,000 psi

Slope = 1.90 f_s = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 1.01 sq. in. Use 2-0.92" O.A. Area = 1.33 sq. in.

CHORD MEMBER #6 Consists of 4 - 2" x 1½" x 0.25 Angles

Construction Load Design Area = 3.60 sq. in.

Applicable Moment = 585,000 in. lbs. f_y = 50,000 psi

ℓ = 33.375 in. f_s = — psi

r_x = 0.44 in. f_{sc} = 19,380 psi

r_z = 0.31 in. (with fillers in middle 60% of span)

$\frac{\ell}{r_x}$ = 75.8

$\frac{\ell}{2r_z}$ = 53.8

$\frac{f_a}{F_a} + \frac{f_b \cdot C_m}{F_b\left(1 - \frac{f_a}{F'_e}\right)}$ = 0.418 less than 1

f_a = 7,500 psi

F_a = 19,380 psi

f_b = 748 psi

F_b = 30,000 psi

F'_e = 25,950 psi

Use 4 - 2" x 1½" x 0.25" ∠'s Area = 3.60 sq. in.

CHORD MEMBER #7 Consists of 4 - 2" x 1½" x 0.25 Angles

Total Load Design Area = 3.60 sq. in.