WEB MEMBER #4 Distance from End Panel = 2.50 ft.

Applicable Shear V_x = 12,820 lbs. f_y = 50,000 psi

Slope = 1.162 f_a = — psi

ℓ = 30.0 in. f_{sc} = 9,970 psi

Reqd. Area = 1.50 sq. in. Use 2-0.98"D. Area = 1.51 sq. in.

WEB MEMBER #5 Distance from End Panel = 1.17 ft. 50 = 0

Applicable Shear V_x = 13,450 lbs. f_y = 50,000 psi

Slope = 1.04 f_a = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 0.447 sq. in. Use 2. 0.98"D. Area = 1.51 sq. in.

CHORD MEMBER #6 Consists of 4∠ 2"x1½"x.25" Angles

Construction Load Design Area = 3.60 sq. in.

Applicable Moment = 1,815,000 in. lbs. f_y = 50,000 psi

ℓ = 33.375 in. f_a = — 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 $\frac{f_a}{F_a} + \frac{f_b C_m}{F_b\left(1 - \frac{f_a}{F'_e}\right)}$ = 0.995 less than 1

f_a = 18000 psi

F_a = 19,380 psi

f_b = 843 psi

F_b = 30,000 psi

F'_e = 25,950 psi

Use 4∠ 2"x1½"x.25" Area = 3.60 sq. in.

CHORD MEMBER #7 Consists of 4∠ 2"x1½"x.25" Angles

Total Load Design Area = 3.60 sq. in.