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

Applicable Shear V_x = 48,760 lbs. f_y = 50,000 psi

Slope = 1.162 f_s = — psi

l = 29.5 in. f_{sc} = 13,870 psi

Reqd. Area = 4.08 sq. in. Use 2 - 1.14" DIA. + 2 - 1.14" DIA. Area = 4.08 sq. in.

WEB MEMBER #5 Distance from End Panel = — ft.

Applicable Shear V_x = 59,830 lbs. f_y = 50,000 psi

Slope = 1.45 f_s = 30,000 psi

l = — in. f_{sc} = — psi

Reqd. Area = 2.90 sq. in. Use 2 - 1.14" DIA. + 2 - 0.75" DIA. Area = 2.92 sq.in.

CHORD MEMBER #6 Consists of 4 - 2" x 1½" x 0.31" Angles

Construction Load Design Area = 4.30 sq. in.

Applicable Moment = 1,053,000 in. lbs. f_y = 50,000 psi

l = 33.375 in. f_s = — psi

r_x = 0.43 in. f_{sc} = 19,080 psi

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

$\frac{l}{r_x}$ = 77.6

$\frac{l}{2r_z}$ = 53.8 $\frac{f_a}{F_a} + \frac{f_b C_m}{F_b(1 - \frac{f_a}{F'_e})}$ = 0.508 less than 1

f_a = 8,750 psi

F_a = 19,080 psi

f_b = 1,110 psi

F_b = 30,000 psi

F'_e = 24,750 psi

Use 4 - 2" x 1½" x 0.31" 4's Area = 4.30 sq. in.

CHORD MEMBER #7 Consists of 4 - 3" x 2" x 0.37" Angles

Total Load Design Area = 7.32 sq. in.