WEB MEMBER #4 Distance from End Panel = 2 5 0 ft.

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

Slope = 1.162 $f_s$ = — psi

$\ell$ = 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. 60 x 0

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

Slope = 1.04 $f_s$ = 30,000 psi

$\ell$ $f_{sc}$ = — 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

$\ell$ = 33.375 in. $f_s$ = — psi

$r_x$ = 0.44 in. $f_{sc}$ = 19380 psi

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

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

$\frac{\ell}{2r_z}$ = 53.8 $\frac{f_a}{F_a} + \frac{f_b C_m}{F_b(1-\frac{f_a}{F'_e})}$ = 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 x 1½ x .25" Area = 3.60 sq. in.

CHORD MEMBER #7 Consists of 4 2 x 1½ x .25" Angles

Total Load Design Area = 3.60 sq. in.