WORLD TRADE CENTER
FLOOR GRID TRUSSES
DESIGN DATA

TRUSS UNIT MARKED 2C32T1 Refer to drawings ST 101.6.7.

Clearspan "L" = 58.92 ft. Spacing = 6.67 ft.

Applicable Total Moment = 4,570,000 inch pounds.

Based on 128 lbs./sq. ft. Total Load "w".

Applicable End Reaction = 25,500 pounds.

Based on 128 lbs./sq. ft. Total Load "w".

Applicable Total Constr. Moment = 1,740,000 inch pounds.

Based on 50 lbs./sq. ft. Construction Load.

Applicable Constr. End Reaction = 10,000 pounds.

Based on 50 lbs./sq. ft. Construction Load.

"V" Shear at End Panel = 22,940 pounds. ED = 3.66 ft.

WEB MEMBER #1 Distance from End Panel = 0.0 ft.

Applicable Shear V_x = 22,940 lbs. f_y = 50,000 psi

Slope = 2.65 f_s = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 2.03 sq. in. Use 2-1.14" dia Area = 2.04 sq. in.

WEB MEMBER #2 Distance from End Panel = 0.0 ft.

Applicable Shear V_x = 22,940 lbs. f_y = 36,000 psi

Slope = 1.00 f_s = — psi

ℓ = 25.5 in. f_{sc} = 13,510 psi

Reqd. Area = 1.69 sq. in. Use 2-1.09" dia Area = 1.87 sq. in.

WEB MEMBER #3 Distance from End Panel = 4.87 ft.

Applicable Shear V_x = 18,780 lbs. f_y = 36,000 psi

Slope = 1.162 f_s = — psi

ℓ = 29.5 in. f_{sc} = 11,820 psi

Reqd. Area = 1.85 sq. in. Use 2-1.09" dia. Area = 1.87 sq. in.