WORLD TRADE CENTER
FLOOR GRID TRUSSES
DESIGN DATA

TRUSS UNIT MARKED 2C32T3 Refer to drawings ST 101, 2, 4, 6, 7.

Clearspan "L" = 59.08 ft. Spacing = 6.67 ft.

Applicable Total Moment = 4,275,000 inch pounds.

Based on 121 lbs./sq. ft. Total Load "w".

Applicable End Reaction = 24,000 pounds.

Based on 121 lbs./sq. ft. Total Load "w".

Applicable Total Moment = 1,816,200 inch pounds.

Based on 52 lbs./sq. ft. Construction Load.

Applicable Constr. End Reaction = 10,300 pounds.

Based on 52 lbs./sq. ft. Construction Load.

"V" Shear at End Panel = 21,580 pounds. ED = 3.0 ft.

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

Applicable Shear V_x = 21,580 lbs. f_y = 50,000 psi

Slope = 2.65 f_s = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 1.91 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 = 21,580 lbs. f_y = 36,000 psi

Slope = 1.00 f_s = — psi

ℓ = 25.5 in. f_{sc} = 13,510 psi

Reqd. Area = 1.59 sq. in. Use 2-1.07" dia Area = 1.87 sq. in.

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

Applicable Shear V_x = 17,650 lbs. f_y = 36,000 psi

Slope = 1.162 f_s = — psi

ℓ = 29.5 in. f_{sc} = 11,820 psi

Reqd. Area = 1.73 sq. in. Use 2-1.09" dia. Area = 1.87 sq. in.