VERTICAL TRUSS ANALYSIS

Number of Posts	1

Load Building AASHTO 3.5

Left Post

Outside Dia.(inches)	Wall Thick. (inches)	Yield Str. (ksi)	L	Lp	Lr	Lmax	Result
14.000	0.30	42.0	28.00	56.0	150.6	339.5	Compact

Right Post

Outside Dia.(inches)	Wall Thick. (inches)	Yield Str. (ksi)	L	Lp	Lr	Lmax	Result
14.000	0.30	42.0	28.00	56.0	150.6	339.5	Compact

Diagonals

Leg Size (inches)	Thickness (inches)	Pipe Dia. (inches)	Wall Thk. (inches)	Yield Str. (ksi)	L	Lp	Lr	Result
0.00	0.00	0.00	0.00	0.00	999	999.0	999.0	NA

L width-thickness ratio
Lp compact width-thickness ratio
Lr non-compact width-thickness ratio
Lmax maximum width-thickness ratio
E 29000 ksi (Young's Modulus)

Post Design Values

K
2/3
1.5 <-- Input for 2 chord post
2 <-- Value used in computations

Fa calculated for KL/ryy only

Group 1

BENDING AND SHEAR STRESSES

	Mmax kip-ft	Sxxcr in^3	fb ksi	Shear kips	Pipe Area in^2	fvs ksi	Axial kips	Area y in^2	fa ksi
Left Support	0.00	69.01	0.00	0.00	21.21	0.00	3.50	21.21	0.16
Right Support	0.00	69.01	0.00	3.00	21.21	0.06	3.72	21.21	0.18

BEND & B

	Fb kip	Fv kip	Fa kip	Cc	Rweak	KL/R	Fa'	Eqn. 5-17 Cbb	Eqn. 5-18 Cbb	Eqn. 5-19 Cbb	MAX Cbb
Left Support	27.72	13.86	9.42	116.70	4.77	125.80	9.42	0.007	0.016	0.016	0.016
Right Support	27.72	13.86	9.42	116.70	4.77	125.80	9.42	0.007	0.016	0.016	0.016

	Length	Pipe or Angle	Diagonal Area	Rmin	Chord Yield Str.	Max Axial Force	Column Stress/area	KL/Rmin	fa Axial	Fa Ixial	Result CIC
Left Diagonal	0.00	PIPE	0.00	999.00	0	0.00	999.00	0.00	999.00	999.00	1.00
Right Diagonal	0.00	PIPE	0.00	999.00	0	0.00	999.00	0.00	999.00	999.00	1.00

Fb Calculation

	Tens.1	Tens.2	Tens.3	Compact (NA)	Non-Compact (NA)	Shear
Left Support	0.000	0.000	0.000			
Eqn. 5-17	0.016	0.000	0.000			
Eqn. 5-18	0.016	0.000	0.000			
Eqn. 5-19	0.016	0.000	0.000			
Right Support	Tens.1	Tens.2	Tens.3			
Eqn. 5-17	0.000	0.000	0.000			
Eqn. 5-18	0.016	0.000	0.000	27.72	51.85	51.85
Eqn. 5-19	0.016	0.000	0.000	27.72	51.85	51.85

Group 1 Loads 1

BENDING AND SHEAR STRESSES

	Mmax kip-ft	Sxxcr in^3	Rweak ksi	Shear kips	Pipe Area in^2	fvs ksi	Axial kips	Area y in^2	fa ksi
Left Support	122.63	69.01	21.76	5.31	21.21	0.25	2.84	21.21	0.14
Right Support	104.99	69.01	18.23	4.36	21.21	0.21	2.74	21.21	0.13

BEND & B

	Fb kip	Fv kip	Fa kip	Cc	Rweak	KL/R	Fa'	Eqn. 5-17 Cbb	Eqn. 5-18 Cbb	Eqn. 5-19 Cbb	MAX Cbb
Left Support	27.72	13.86	10.23	116.70	4.77	125.80	10.23	0.100	0.220	0.220	0.220
Right Support	27.72	13.86	9.42	116.70	4.77	125.80	9.42	0.850	0.681	0.672	0.681

	Length	Pipe or Angle	Diagonal Area	Rmin	Chord Yield Str.	Max Axial Force	Column Stress/area	KL/Rmin	fa Axial	Fa Ixial	Result CIC
Left Diagonal	0.00	PIPE	0.00	999.00	0	0.00	999.00	0.00	999.00	999.00	1.00
Right Diagonal	0.00	PIPE	0.00	999.00	0	0.00	999.00	0.00	999.00	999.00	1.00

Fb Calculation

	Tens.1	Tens.2	Tens.3	Compact (NA)	Non-Compact (NA)	Shear
Left Support	Tens.1	Tens.2	Tens.3			
Eqn. 5-17	0.000	0.100	0.000			
Eqn. 5-18	0.016	0.100	0.000			
Eqn. 5-19	0.016	0.100	0.000			
Right Support	Tens.1	Tens.2	Tens.3			
Eqn. 5-17	0.000	0.000	0.000			
Eqn. 5-18	0.016	0.000	0.000	27.72	51.85	51.85
Eqn. 5-19	0.016	0.000	0.000	27.72	51.85	51.85

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