

Group Load Combination III - Moments and Shears on Overhead Truss Due to Wind Loads

Span feet	Wind Load on Truss Section 1	Wind Load on Truss Section 2	Wind Load on Spine		P1 Left Sign	P2 Center Sign	P3 Right Sign
	gft	gft	Load kips	Dist. from Left feet			
63.97	61.76	61.76	1.15	47.73			
			0.00	0.00			

Total Uniform Load = 0.002 kip  
Total Load = 11.30 kips

Left Reaction = 4.73 kips  
Right Reaction = 6.57 kips

Moments and Shears

Dist.	P1 dist.	P2 dist.	P3 dist.	Moment
0.0	0.0	0	0	0.00
0.1	6.4	0	0	6.387
0.2	12.8	0	0	12.794
0.3	19.2	0	0	19.191
0.4	25.6	0	0	25.588
0.5	32.0	1.325	0	31.885
0.6	38.4	2.650	0	38.182
0.7	44.8	3.975	0	44.479
0.8	51.2	5.300	3.448	51.179
0.9	57.6	6.625	6.896	57.873
1.0	64.0	8.000	10.344	63.970

Values for Shear Diagram

0.00	0.00
0.00	4.73
30.88	-0.74
47.73	-1.62
47.73	-5.77
47.73	-6.81
64.0	0.00

Shear at Point Loads

	Shear Left	Shear Right	Max or Min
At Left Reaction	0.00	4.73	4.73
At Point P1	120.58	-0.74	-0.74
At Point P2	100.49	-1.62	-1.62
At Point P3	0.00	-3.30	-3.30
At Right Reaction	0.00	-6.81	-6.81

Forces at Field Splices and Mid-Span

Left Side		Right Side		Mid-Span	
Location	31.60 feet	Location	63.97 feet	Location	31.60 feet
Left Reaction	4.73 kips	Left Reaction	4.73 kips	Left Reaction	4.73 kips
Point Load 1	3.87 kips	Point Load 1	2.87 kips	Point Load 1	2.87 kips
Point Load 2	0.00 kips	Point Load 2	4.15 kips	Point Load 2	0.00 kips
Point Load 3	0.00 kips	Point Load 3	0.00 kips	Point Load 3	0.00 kips
Uniform Load	0.002 kips per foot	Uniform Load	0.002 kips per foot	Uniform Load	0.002 kips per foot
Shear at splice	-2.89 kips	Shear at splice	-6.81 kips	Shear at Mid-Span	-0.95 kips
Moment at splice	119.56 kip feet	Moment at splice	-0.03 kip feet	Mom. at Mid-Span	119.56 kip feet

