

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

Span	Wind Load at Truss Section 1	Wind Load at Truss Section 2	Wind Load at Truss Section 3	Wind Load on Signs Load (Dist. from Left End)	P1 Left Sign	P2 Center Sign	P3 Right Sign
66.07	61.91	61.91	61.91	3.03	29.02	0.00	0.00

Total Uniform Load = 0.052 kip
Total Load = 10.77 kips

Left Reaction	5.99 kips	Right Reaction	4.78 kips
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Moments and Shears

Dist.	Distance	P1 dist.	P2 dist.	P3 dist.	Moment
0.0	0.0	0	0	0	0.00
0.1	8.8	0	0	5.807	33.90
0.2	17.6	0	0	11.614	68.06
0.3	26.4	0	0	17.421	91.13
0.4	35.2	7.088	0	23.228	95.16
0.5	44.0	12.875	0	29.035	87.46
0.6	52.8	18.662	0.208	34.842	67.22
0.7	61.6	24.450	6.033	40.649	75.52
0.8	70.4	30.236	11.84	46.456	52.06
0.9	79.2	36.023	17.647	52.263	28.91
1.0	88.0	41.81	23.454	58.07	0.00

Values for Shear Diagram	
0.00	0.00
0.00	5.99
16.16	5.15
34.62	-0.04
34.62	-3.58
34.62	-0.04
34.62	-3.58
58.1	-4.78
58.1	0.00

Shear at Point Loads	Shear	Shear	Max or Min
	Left	Right	
At Left Reaction	0.00	5.99	5.99
At Point P1	50.02	5.15	5.15
At Point P2	88.09	-0.04	-3.58
At Point P3	0.00	-1.78	-1.78
At Right Reaction	0.00	-4.78	-4.78

Forces at Field Splices and Mid-Span

Left Side		Right Side		Mid-Span	
Location	29.04 feet	Location	58.07 feet	Location	29.04 feet
Left Reaction	5.99 kips	Left Reaction	5.99 kips	Left Reaction	5.99 kips
Point Load 1	4.25 kips	Point Load 1	4.25 kips	Point Load 1	4.25 kips
Point Load 2	0.00 kips	Point Load 2	3.53 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	0.052 kips per foot	Uniform Load	0.052 kips per foot	Uniform Load	0.052 kips per foot
Shear at splice	0.25 kips	Shear at splice	-4.78 kips	Shear at Mid-Span	0.25 kips
Moment at splice	97.46 kip feet	Moment at splice	0.00 kip feet	Mom. at Mid-Span	97.46 kip feet

