

PyNite Analysis Report

Nodes & Supports

Node	X	Y	Z	Support X	Support Y	Support Z	Support RX	Support RY	Support RZ
N0	0	0	0	False	False	False	False	False	False
N1	168	0	0	False	False	False	False	False	False
N2	0	60	0	False	False	False	False	False	False
N3	168	60	0	False	False	False	False	False	False
N4	0	120	0	False	False	False	False	False	False
N5	168	120	0	False	False	False	False	False	False
N6	0	180	0	False	False	False	False	False	False
N7	168	180	0	False	False	False	False	False	False
N8	0	240	0	False	False	False	False	False	False
N9	168	240	0	False	False	False	False	False	False
N10	0	300	0	False	False	False	False	False	False
N11	168	300	0	False	False	False	False	False	False
N16	24	0	0	True	True	True	True	True	True
N17	144	0	0	True	True	True	True	True	True
N18	30	300	0	True	True	True	True	True	True
N19	138	300	0	True	True	True	True	True	True

Members

Member	i-Node	j-Node	A	I _y	I _z	J	E	G
H1	N2	N3	6.49	118	118	0.239	2.9e+04	1.12e+04
H2	N4	N5	6.49	118	118	0.239	2.9e+04	1.12e+04
H3	N6	N7	6.49	118	118	0.239	2.9e+04	1.12e+04
H4	N8	N9	6.49	118	118	0.239	2.9e+04	1.12e+04
M8	N0	N2	6.49	118	118	0.239	2.9e+04	1.12e+04
M10	N1	N3	6.49	118	118	0.239	2.9e+04	1.12e+04
M12	N2	N4	6.49	118	118	0.239	2.9e+04	1.12e+04
M14	N3	N5	6.49	118	118	0.239	2.9e+04	1.12e+04
M16	N4	N6	6.49	118	118	0.239	2.9e+04	1.12e+04
M13	N5	N7	6.49	118	118	0.239	2.9e+04	1.12e+04
M15	N6	N8	6.49	118	118	0.239	2.9e+04	1.12e+04
M19	N8	N10	6.49	118	118	0.239	2.9e+04	1.12e+04
M17	N7	N9	6.49	118	118	0.239	2.9e+04	1.12e+04
M20	N9	N11	6.49	118	118	0.239	2.9e+04	1.12e+04
M18	N0	N16	6.49	118	118	0.239	2.9e+04	1.12e+04
M22	N16	N17	6.49	118	118	0.239	2.9e+04	1.12e+04
M23	N17	N1	6.49	118	118	0.239	2.9e+04	1.12e+04

Member	i-Node	j-Node	A	I _y	I _z	J	E	G
M21	N10	N18	6.49	118	118	0.239	2.9e+04	1.12e+04
M25	N18	N19	6.49	118	118	0.239	2.9e+04	1.12e+04
M26	N19	N11	6.49	118	118	0.239	2.9e+04	1.12e+04

Member End Releases

Member	Δ _{xi}	Δ _{yi}	Δ _{zi}	θ _{xi}	θ _{yi}	θ _{zi}	Δ _{xj}	Δ _{yj}	Δ _{zj}	θ _{xj}	θ _{yj}	θ _{zj}
H1	False	False	False	False	True	True	False	False	False	False	True	True
H2	False	False	False	False	True	True	False	False	False	False	True	True
H3	False	False	False	False	True	True	False	False	False	False	True	True
H4	False	False	False	False	True	True	False	False	False	False	True	True
M8	False	False	False	False	False	False	False	False	False	False	False	False
M10	False	False	False	False	False	False	False	False	False	False	False	False
M12	False	False	False	False	False	False	False	False	False	False	False	False
M14	False	False	False	False	False	False	False	False	False	False	False	False
M16	False	False	False	False	False	False	False	False	False	False	False	False
M13	False	False	False	False	False	False	False	False	False	False	False	False
M15	False	False	False	False	False	False	False	False	False	False	False	False
M19	False	False	False	False	False	False	False	False	False	False	False	False
M17	False	False	False	False	False	False	False	False	False	False	False	False
M20	False	False	False	False	False	False	False	False	False	False	False	False
M18	False	False	False	False	True	True	False	False	False	False	False	False
M22	False	False	False	False	False	False	False	False	False	False	False	False
M23	False	False	False	False	False	False	False	False	False	False	True	True
M21	False	False	False	False	True	True	False	False	False	False	False	False
M25	False	False	False	False	False	False	False	False	False	False	False	False
M26	False	False	False	False	False	False	False	False	False	False	True	True

Plates

Plate	i-Node	j-Node	m-Node	n-Node	t	E	ν
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Quads

Quad	i-Node	j-Node	m-Node	n-Node	t	E	ν
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Node Reactions

Node	LC	FX	FY	FZ	MX	MY	MZ
N0	Combo 1	0	0	0	0	0	0
N1	Combo 1	0	0	0	0	0	0
N2	Combo 1	0	0	0	0	0	0
N3	Combo 1	0	0	0	0	0	0

Node	LC	FX	FY	FZ	MX	MY	MZ
N4	Combo 1	0	0	0	0	0	0
N5	Combo 1	0	0	0	0	0	0
N6	Combo 1	0	0	0	0	0	0
N7	Combo 1	0	0	0	0	0	0
N8	Combo 1	0	0	0	0	0	0
N9	Combo 1	0	0	0	0	0	0
N10	Combo 1	0	0	0	0	0	0
N11	Combo 1	0	0	0	0	0	0
N16	Combo 1	0	0.5387	-5.601	-1.338	-114.9	-7.561
N17	Combo 1	0	0.5387	-5.601	-1.338	114.9	7.561
N18	Combo 1	0	0.3853	-5.599	1.067	-147.7	-5.982
N19	Combo 1	0	0.3853	-5.599	1.067	147.7	5.982

Node Displacements

Node	LC	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z
N0	Combo 1	0	-0.0005403	0.006869	0.012	0	0
N1	Combo 1	0	-0.0005403	0.006869	0.012	0	0
N2	Combo 1	0	-0.0006629	0.6772	0.009564	0	0
N3	Combo 1	0	-0.0006629	0.6772	0.009564	0	0
N4	Combo 1	0	-0.0007365	1.084	0.003596	0	0
N5	Combo 1	0	-0.0007365	1.084	0.003596	0	0
N6	Combo 1	0	-0.0007609	1.085	-0.003551	0	0
N7	Combo 1	-0	-0.0007609	1.085	-0.003551	0	0
N8	Combo 1	0	-0.0007363	0.6813	-0.00952	0	0
N9	Combo 1	0	-0.0007363	0.6813	-0.00952	0	0
N10	Combo 1	0	-0.0006625	0.01345	-0.01196	0	0
N11	Combo 1	0	-0.0006625	0.01345	-0.01196	-0	0
N16	Combo 1	0	0	0	0	0	0
N17	Combo 1	0	0	0	0	0	0
N18	Combo 1	0	0	0	0	0	0
N19	Combo 1	0	0	0	0	0	0

Member End Forces

Member	LC	P _i	P _j	V _{yi}	V _{zi}	V _{yj}	V _{zj}	M _{yi}	M _{zi}	M _{yj}	M _{zj}	T _i	T _j
H1	Combo 1	0	0	0.154	-1.12	-0.154	1.12	0	0	-2.842e-14	-3.553e-15	5.358e-17	5.358e-17
H2	Combo 1	0	0	0.154	-1.12	-0.154	1.12	0	0	-2.842e-14	-3.553e-15	8.299e-16	8.299e-16
H3	Combo 1	0	0	0.154	-1.12	-0.154	1.12	0	0	-2.842e-14	-3.553e-15	1.074e-16	1.074e-16

Member	LC	P _i	P _j	V _{yi}	V _{zi}	V _{yj}	V _{zj}	M _{yi}	M _{zi}	M _{yj}	M _{zj}	T _i	T _j
H4	Combo 1	0	0	0.154	-1.12	-0.154	1.12	0	0	-2.842e-14	-3.553e-15	-6.542e-16	-6.542e-16
M8	Combo 1	0.3847	0.3847	0	-5.041	0	-3.921	1.338	0	-267.5	0	0	0
M10	Combo 1	0.3847	0.3847	0	-5.041	0	-3.921	1.338	0	-267.5	0	0	0
M12	Combo 1	0.2307	0.2307	0	-2.801	0	-1.681	-267.5	0	-402	0	0	0
M14	Combo 1	0.2307	0.2307	0	-2.801	0	-1.681	-267.5	0	-402	0	0	0
M16	Combo 1	0.07671	0.07671	0	-0.5609	0	0.5591	-402	0	-402	0	0	0
M13	Combo 1	0.07671	0.07671	0	-0.5609	0	0.5591	-402	0	-402	0	0	0
M15	Combo 1	-0.07729	-0.07729	0	1.679	0	2.799	-402	0	-267.7	0	0	0
M19	Combo 1	-0.2313	-0.2313	0	3.919	0	5.039	-267.7	0	1.067	0	0	0
M17	Combo 1	-0.07729	-0.07729	0	1.679	0	2.799	-402	0	-267.7	0	0	0
M20	Combo 1	-0.2313	-0.2313	0	3.919	0	5.039	-267.7	0	1.067	0	0	0
M18	Combo 1	0	0	-0.3847	5.041	-0.4287	5.201	0	0	122.9	9.761	1.338	1.338
M22	Combo 1	0	0	0.11	-0.4	-0.11	0.4	8	2.2	8	2.2	0	0
M23	Combo 1	0	0	0.4287	-5.201	0.3847	-5.041	122.9	9.761	-1.776e-15	-4.441e-16	-1.338	-1.338
M21	Combo 1	0	0	-0.2313	5.039	-0.2863	5.239	0	0	154.2	7.764	-1.067	-1.067
M25	Combo 1	0	0	0.099	-0.36	-0.099	0.36	6.48	1.782	6.48	1.782	0	0
M26	Combo 1	0	0	0.2863	-5.239	0.2313	-5.039	154.2	7.764	-1.421e-13	-5.551e-15	1.067	1.067

Member Max/Min Internal Forces

Member	LC	P _{max}	P _{min}	V _{y,max}	V _{y,min}	V _{z,max}	V _{z,min}	M _{y,max}	M _{y,min}	M _{z,max}	M _{z,min}	T _{max}	T _{min}
H1	Combo 1	0	0	0.154	-0.154	1.12	-1.12	0	-47.04	0	-6.468	5.358e-17	5.358e-17
H2	Combo 1	0	0	0.154	-0.154	1.12	-1.12	0	-47.04	0	-6.468	8.299e-16	8.299e-16
H3	Combo 1	0	0	0.154	-0.154	1.12	-1.12	0	-47.04	0	-6.468	1.074e-16	1.074e-16
H4	Combo 1	0	0	0.154	-0.154	1.12	-1.12	0	-47.04	0	-6.468	-6.542e-16	-6.542e-16
M8	Combo 1	0.3847	0.3847	0	0	-3.921	-5.041	1.338	-267.5	0	0	0	0

Member	LC	P _{max}	P _{min}	V _{y,max}	V _{y,min}	V _{z,max}	V _{z,min}	M _{y,max}	M _{y,min}	M _{z,max}	M _{z,min}	T _{max}	T _{min}
M10	Combo 1	0.3847	0.3847	0	0	-3.921	-5.041	1.338	-267.5	0	0	0	0
M12	Combo 1	0.2307	0.2307	0	0	-1.681	-2.801	-267.5	-402	0	0	0	0
M14	Combo 1	0.2307	0.2307	0	0	-1.681	-2.801	-267.5	-402	0	0	0	0
M16	Combo 1	0.07671	0.07671	0	0	0.5591	-0.5609	-402	-410.4	0	0	0	0
M13	Combo 1	0.07671	0.07671	0	0	0.5591	-0.5609	-402	-410.4	0	0	0	0
M15	Combo 1	-0.07729	-0.07729	0	0	2.799	1.679	-267.7	-402	0	0	0	0
M19	Combo 1	-0.2313	-0.2313	0	0	5.039	3.919	1.067	-267.7	0	0	0	0
M17	Combo 1	-0.07729	-0.07729	0	0	2.799	1.679	-267.7	-402	0	0	0	0
M20	Combo 1	-0.2313	-0.2313	0	0	5.039	3.919	1.067	-267.7	0	0	0	0
M18	Combo 1	0	0	-0.3847	-0.4287	5.201	5.041	122.9	0	9.761	0	1.338	1.338
M22	Combo 1	0	0	0.11	-0.11	0.4	-0.4	8	-4	2.2	-1.1	0	0
M23	Combo 1	0	0	0.4287	0.3847	-5.041	-5.201	122.9	-1.776e-15	9.761	-4.441e-16	-1.338	-1.338
M21	Combo 1	0	0	-0.2313	-0.2863	5.239	5.039	154.2	0	7.764	0	-1.067	-1.067
M25	Combo 1	0	0	0.099	-0.099	0.36	-0.36	6.48	-3.24	1.782	-0.891	0	0
M26	Combo 1	0	0	0.2863	0.2313	-5.039	-5.239	154.2	-1.421e-13	7.764	-5.551e-15	1.067	1.067

Plate Out-of-Plane Corner Forces

Plate	LC	i-Node					j-Node					m-Node					n-Node				
		Q _x	Q _y	M _x	M _y	M _{xy}	Q _x	Q _y	M _x	M _y	M _{xy}	Q _x	Q _y	M _x	M _y	M _{xy}	Q _x	Q _y	M _x	M _y	M _{xy}

Plate Out-of-Plane Center Forces

Plate	LC	Q _x	Q _y	M _x	M _y	M _{xy}
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In-Plane (Membrane) Corner Stresses

Plate	LC	i-Node			j-Node			m-Node			n-Node		
		σ _x	σ _y	τ _{xy}	σ _x	σ _y	τ _{xy}	σ _x	σ _y	τ _{xy}	σ _x	σ _y	τ _{xy}

In-Plane (Membrane) Center Stresses

Plate	LC	σ _x	σ _y	τ _{xy}
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