Model Settings

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes
Approximate Mesh Size (in)	12
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3
Single	No
Multiple (Optimum)	Yes
Maximum	No

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes
Default Global Plane for z-axis	XZ
Plate Local Axis Orientation	Nodal

Hot Rolled Steel	AISC 15th (360-16): LRFD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): LRFD
Cold Formed Steel	None
Stiffness Adjustment	Yes (Iterative)
Wood	None
Temperature	< 100F
Concrete	None
Masonry	None
Aluminum	None
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	None
Stiffness Adjustment	Yes (Iterative)

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	Yes
List forces which were ignored for design in the Detail Report	Yes

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No
Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Code	ASCE 7-16
Risk Category	I or II
Drift Cat	Other

Model Settings (Continued)

Base Elevation (ft)	0
Include the weight of the structure in base shear calcs	Yes
S_1 (g)	1
SD_1 (g)	1
SD_s (g)	1
T_L (sec)	5
T Z (sec)	
T X (sec)	
C_tZ	0.02
C_tX	0.02
C_tExp. Z	0.75
C_tExp. X	0.75
R Z	3
R X	3
Ω_0Z	1
Ω_0X	1
C_dZ	4
C_dX	4
ρ Z	1
ρ X	1

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N2	N3		Arms	Beam	Tube	A500 Gr.B RECT	Typical
2	M2	N4	N5		Rails	Beam	Tube	A500 Gr.B RECT	Typical
3	M3	N6	N7	90	Angles	Beam	Single Angle	A36 Gr.36	Typical
4	M4	N6	N8	180	Angles	Beam	Single Angle	A36 Gr.36	Typical
5	M5	N9	N11		RIGID	None	None	RIGID	Typical
6	M6	N10	N12		RIGID	None	None	RIGID	Typical
7	M7	N14	N13		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
8	M8	N15	N16		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
9	M9	N22	N19		Arms	Beam	Tube	A500 Gr.B RECT	Typical
10	M10	N23	N24		Rails	Beam	Tube	A500 Gr.B RECT	Typical
11	M11	N21	N28		RIGID	None	None	RIGID	Typical
12	M12	N18	N29		RIGID	None	None	RIGID	Typical
13	M13	N17	N20		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
14	M14	N30	N31		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
15	M15	N37	N34		Arms	Beam	Tube	A500 Gr.B RECT	Typical
16	M16	N38	N39		Rails	Beam	Tube	A500 Gr.B RECT	Typical
17	M17	N36	N43		RIGID	None	None	RIGID	Typical
18	M18	N33	N44		RIGID	None	None	RIGID	Typical
19	M19	N32	N35		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
20	M20	N45	N46		Mount Pipes	Column	Pipe	A53 Gr.B	Typical
21	M21	N51	N50		Horizontal	Beam	Pipe	A53 Gr.B	Typical
22	M22	N57	N56		Horizontal	Beam	Pipe	A53 Gr.B	Typical
23	M23	N27	N26	90	Angles	Beam	Single Angle	A36 Gr.36	Typical
24	M24	N27	N25	180	Angles	Beam	Single Angle	A36 Gr.36	Typical
25	M25	N42	N41	90	Angles	Beam	Single Angle	A36 Gr.36	Typical
26	M26	N42	N40	180	Angles	Beam	Single Angle	A36 Gr.36	Typical
27	M27	N59	N60		RIGID	None	None	RIGID	Typical
28	M28	N3	N61		RIGID	None	None	RIGID	Typical
29	M29	N19	N62		RIGID	None	None	RIGID	Typical
30	M30	N34	N63		RIGID	None	None	RIGID	Typical
31	M31	N66	N68		RIGID	None	None	RIGID	Typical
32	M32	N65	N64		Plates	Beam	RECT	A36 Gr.36	Typical
33	M33	N69	N67		RIGID	None	None	RIGID	Typical
34	M34	N75	N74		Plates	Beam	RECT	A36 Gr.36	Typical
35	M35	N72	N70		RIGID	None	None	RIGID	Typical
36	M36	N71	N73		RIGID	None	None	RIGID	Typical
37	M37	N82	N81		Plates	Beam	RECT	A36 Gr.36	Typical
38	M38	N79	N77		RIGID	None	None	RIGID	Typical
39	M39	N78	N80		RIGID	None	None	RIGID	Typical
40	M40	N87	N76		Plates	Beam	RECT	A36 Gr.36	Typical
41	M41	N85	N83		RIGID	None	None	RIGID	Typical
42	M42	N84	N86		RIGID	None	None	RIGID	Typical
43	M43	N109	N110		RIGID	None	None	RIGID	Typical
44	M44	N58	N103		RIGID	None	None	RIGID	Typical
45	M45	N107	N106		Plates	Beam	RECT	A36 Gr.36	Typical
46	M46	N97	N96		Plates	Beam	RECT	A36 Gr.36	Typical
47	M47	N53	N89		RIGID	None	None	RIGID	Typical
48	M48	N91	N95		RIGID	None	None	RIGID	Typical
49	M49	N101	N88		Plates	Beam	RECT	A36 Gr.36	Typical
50	M50	N104	N105		RIGID	None	None	RIGID	Typical
51	M51	N47	N98		RIGID	None	None	RIGID	Typical
52	M52	N99	N100		RIGID	None	None	RIGID	Typical
53	M53	N111	N102		Plates	Beam	RECT	A36 Gr.36	Typical
54	M54	N52	N108		RIGID	None	None	RIGID	Typical
55	M55	N133	N134		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
56	M56	N54	N127		RIGID	None	None	RIGID	Typical
57	M57	N131	N130		Plates	Beam	RECT	A36 Gr.36	Typical
58	M58	N121	N120		Plates	Beam	RECT	A36 Gr.36	Typical
59	M59	N55	N113		RIGID	None	None	RIGID	Typical
60	M60	N115	N119		RIGID	None	None	RIGID	Typical
61	M61	N125	N112		Plates	Beam	RECT	A36 Gr.36	Typical
62	M62	N128	N129		RIGID	None	None	RIGID	Typical
63	M63	N49	N122		RIGID	None	None	RIGID	Typical
64	M64	N123	N124		RIGID	None	None	RIGID	Typical
65	M65	N135	N126		Plates	Beam	RECT	A36 Gr.36	Typical
66	M66	N48	N132		RIGID	None	None	RIGID	Typical
67	M67	N94	N93		Horizontal	Beam	Pipe	A53 Gr.B	Typical
68	M68	N92	N90		Horizontal	Beam	Pipe	A53 Gr.B	Typical
69	M69	N118	N117		Horizontal	Beam	Pipe	A53 Gr.B	Typical
70	M70	N116	N114		Horizontal	Beam	Pipe	A53 Gr.B	Typical

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	0.3	0.65	0.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	0.3	0.65	0.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	0.3	0.65	0.49	65	1.1	80	1.1

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	M1	Arms	31.47	Lbyy	N/A	N/A	Lateral
2	M2	Rails	43.3	Lbyy	N/A	N/A	Lateral
3	M3	Angles	33.288	Lbyy	N/A	N/A	Lateral
4	M4	Angles	33.288	Lbyy	N/A	N/A	Lateral
5	M7	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
6	M8	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
7	M9	Arms	31.47	Lbyy	N/A	N/A	Lateral
8	M10	Rails	43.3	Lbyy	N/A	N/A	Lateral
9	M13	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
10	M14	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
11	M15	Arms	31.47	Lbyy	N/A	N/A	Lateral
12	M16	Rails	43.3	Lbyy	N/A	N/A	Lateral
13	M19	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
14	M20	Mount Pipes	96	Lbyy	N/A	N/A	Lateral
15	M21	Horizontal	59.724	Lbyy	N/A	N/A	Lateral
16	M22	Horizontal	59.724	Lbyy	N/A	N/A	Lateral
17	M23	Angles	33.288	Lbyy	N/A	N/A	Lateral
18	M24	Angles	33.288	Lbyy	N/A	N/A	Lateral
19	M25	Angles	33.288	Lbyy	N/A	N/A	Lateral
20	M26	Angles	33.288	Lbyy	N/A	N/A	Lateral
21	M32	Plates	9.53	Lbyy	N/A	N/A	Lateral
22	M34	Plates	9.53	Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
23	M37	Plates	9.53	Lbyy	N/A	N/A	Lateral
24	M40	Plates	9.53	Lbyy	N/A	N/A	Lateral
25	M45	Plates	9.53	Lbyy	N/A	N/A	Lateral
26	M46	Plates	9.53	Lbyy	N/A	N/A	Lateral
27	M49	Plates	9.53	Lbyy	N/A	N/A	Lateral
28	M53	Plates	9.53	Lbyy	N/A	N/A	Lateral
29	M57	Plates	9.53	Lbyy	N/A	N/A	Lateral
30	M58	Plates	9.53	Lbyy	N/A	N/A	Lateral
31	M61	Plates	9.53	Lbyy	N/A	N/A	Lateral
32	M65	Plates	9.53	Lbyy	N/A	N/A	Lateral
33	M67	Horizontal	59.724	Lbyy	N/A	N/A	Lateral
34	M68	Horizontal	59.724	Lbyy	N/A	N/A	Lateral
35	M69	Horizontal	59.724	Lbyy	N/A	N/A	Lateral
36	M70	Horizontal	59.724	Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Arms	HSS4X4X3	Beam	Tube	A500 Gr.B RECT	Typical	2.58	6.21	6.21	10
2	Rails	HSS4X4X3	Beam	Tube	A500 Gr.B RECT	Typical	2.58	6.21	6.21	10
3	Angles	L2X2X3	Beam	Single Angle	A36 Gr.36	Typical	0.722	0.271	0.271	0.009
4	Mount Pipes	PIPE_2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
5	Horizontal	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
6	Plates	PL3.94X0.3125	Beam	RECT	A36 Gr.36	Typical	1.229	0.01	1.59	0.038

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N22	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N37	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Material Take-Off

	Material	Size	Pieces	Length[in]	Weight[K]
1	General Members				
2	RIGID		34	79.2	0
3	Total General		34	79.2	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	L2X2X3	6	199.7	0.041
7	A36 Gr.36	PL3.94X0.3125	12	114.4	0.04
8	A500 Gr.B RECT	HSS4X4X3	6	224.3	0.176
9	A53 Gr.B	PIPE_2.0	6	358.3	0.104
10	A53 Gr.B	PIPE_2.5	6	576	0.263
11	Total HR Steel		36	1472.7	0.624

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Self Weight	DL		-1		6		3
2	Wind Load AZI 0	WLX				12	140	
3	Wind Load AZI 30	None				12	140	
4	Wind Load AZI 60	None				12	140	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
5	Wind Load AZI 90	WLZ				12	140	
6	Wind Load AZI 120	None				12	140	
7	Wind Load AZI 150	None				12	140	
8	Wind Load AZI 180	None				12	140	
9	Wind Load AZI 210	None				12	140	
10	Wind Load AZI 240	None				12	140	
11	Wind Load AZI 270	None				12	140	
12	Wind Load AZI 300	None				12	140	
13	Wind Load AZI 330	None				12	140	
14	Ice Weight	OL1				6	70	3
15	Ice Wind Load AZI 0	OL2				12	140	
16	Ice Wind Load AZI 30	None				12	140	
17	Ice Wind Load AZI 60	None				12	140	
18	Ice Wind Load AZI 90	OL3				12	140	
19	Ice Wind Load AZI 120	None				12	140	
20	Ice Wind Load AZI 150	None				12	140	
21	Ice Wind Load AZI 180	None				12	140	
22	Ice Wind Load AZI 210	None				12	140	
23	Ice Wind Load AZI 240	None				12	140	
24	Ice Wind Load AZI 270	None				12	140	
25	Ice Wind Load AZI 300	None				12	140	
26	Ice Wind Load AZI 330	None				12	140	
27	Seismic Load X	ELX			-0.088	6		
28	Seismic Load Z	ELZ	-0.088			6		
29	BLC 1 Transient Area Loads	None					63	
30	Maintenance Load 1	LL				1		
31	Maintenance Load 2	LL				1		
32	Maintenance Load 3	LL				1		
33	Maintenance Load 4	LL				1		
34	Maintenance Load 5	LL				1		
35	Maintenance Load 6	LL				1		
36	Maintenance Load 7	LL				1		
37	Maintenance Load 8	LL				1		
38	Maintenance Load 9	LL				1		
39	Maintenance Load 10	LL				1		
40	Maintenance Load 11	LL				1		
41	Maintenance Load 12	LL				1		
42	Maintenance Load 13	LL				1		
43	Maintenance Load 14	LL				1		
44	Maintenance Load 15	LL				1		
45	BLC 14 Transient Area Loads	None					63	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4DL	Yes	Y	1	1.4				
2	1.2DL + 1WL AZI 0	Yes	Y	1	1.2	2	1		
3	1.2DL + 1WL AZI 30	Yes	Y	1	1.2	3	1		
4	1.2DL + 1WL AZI 60	Yes	Y	1	1.2	4	1		
5	1.2DL + 1WL AZI 90	Yes	Y	1	1.2	5	1		
6	1.2DL + 1WL AZI 120	Yes	Y	1	1.2	6	1		
7	1.2DL + 1WL AZI 150	Yes	Y	1	1.2	7	1		
8	1.2DL + 1WL AZI 180	Yes	Y	1	1.2	8	1		
9	1.2DL + 1WL AZI 210	Yes	Y	1	1.2	9	1		
10	1.2DL + 1WL AZI 240	Yes	Y	1	1.2	10	1		
11	1.2DL + 1WL AZI 270	Yes	Y	1	1.2	11	1		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
12	1.2DL + 1WL AZI 300	Yes	Y	1	1.2	12	1		
13	1.2DL + 1WL AZI 330	Yes	Y	1	1.2	13	1		
14	0.9DL + 1WL AZI 0	Yes	Y	1	0.9	2	1		
15	0.9DL + 1WL AZI 30	Yes	Y	1	0.9	3	1		
16	0.9DL + 1WL AZI 60	Yes	Y	1	0.9	4	1		
17	0.9DL + 1WL AZI 90	Yes	Y	1	0.9	5	1		
18	0.9DL + 1WL AZI 120	Yes	Y	1	0.9	6	1		
19	0.9DL + 1WL AZI 150	Yes	Y	1	0.9	7	1		
20	0.9DL + 1WL AZI 180	Yes	Y	1	0.9	8	1		
21	0.9DL + 1WL AZI 210	Yes	Y	1	0.9	9	1		
22	0.9DL + 1WL AZI 240	Yes	Y	1	0.9	10	1		
23	0.9DL + 1WL AZI 270	Yes	Y	1	0.9	11	1		
24	0.9DL + 1WL AZI 300	Yes	Y	1	0.9	12	1		
25	0.9DL + 1WL AZI 330	Yes	Y	1	0.9	13	1		
26	1.2D + 1.0Di	Yes	Y	1	1.2	14	1		
27	1.2D + 1.0Di +1.0Wi AZI 0	Yes	Y	1	1.2	14	1	15	1
28	1.2D + 1.0Di +1.0Wi AZI 30	Yes	Y	1	1.2	14	1	16	1
29	1.2D + 1.0Di +1.0Wi AZI 60	Yes	Y	1	1.2	14	1	17	1
30	1.2D + 1.0Di +1.0Wi AZI 90	Yes	Y	1	1.2	14	1	18	1
31	1.2D + 1.0Di +1.0Wi AZI 120	Yes	Y	1	1.2	14	1	19	1
32	1.2D + 1.0Di +1.0Wi AZI 150	Yes	Y	1	1.2	14	1	20	1
33	1.2D + 1.0Di +1.0Wi AZI 180	Yes	Y	1	1.2	14	1	21	1
34	1.2D + 1.0Di +1.0Wi AZI 210	Yes	Y	1	1.2	14	1	22	1
35	1.2D + 1.0Di +1.0Wi AZI 240	Yes	Y	1	1.2	14	1	23	1
36	1.2D + 1.0Di +1.0Wi AZI 270	Yes	Y	1	1.2	14	1	24	1
37	1.2D + 1.0Di +1.0Wi AZI 300	Yes	Y	1	1.2	14	1	25	1
38	1.2D + 1.0Di +1.0Wi AZI 330	Yes	Y	1	1.2	14	1	26	1
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0	Yes	Y	1	1.235	27	1	28	
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	1.235	27	0.866	28	0.5
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	1.235	27	0.5	28	0.866
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	1.235	27		28	1
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	1.235	27	-0.5	28	0.866
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	1.235	27	-0.866	28	0.5
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	1.235	27	-1	28	
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	1.235	27	-0.866	28	-0.5
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	1.235	27	-0.5	28	-0.866
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	1.235	27		28	-1
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	1.235	27	0.5	28	-0.866
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	1.235	27	0.866	28	-0.5
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Yes	Y	1	0.865	27	1	28	
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	0.865	27	0.866	28	0.5
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	0.865	27	0.5	28	0.866
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	0.865	27		28	1
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	0.865	27	-0.5	28	0.866
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	0.865	27	-0.866	28	0.5
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	0.865	27	-1	28	
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	0.865	27	-0.866	28	-0.5
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	0.865	27	-0.5	28	-0.866
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	0.865	27		28	-1
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	0.865	27	0.5	28	-0.866
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	0.865	27	0.866	28	-0.5
63	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	30	1.5	2	0.076
64	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	30	1.5	3	0.076
65	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	30	1.5	4	0.076
66	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	30	1.5	5	0.076

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
67	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	30	1.5	6	0.076
68	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	30	1.5	7	0.076
69	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	30	1.5	8	0.076
70	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	30	1.5	9	0.076
71	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	30	1.5	10	0.076
72	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	30	1.5	11	0.076
73	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	30	1.5	12	0.076
74	1.2DL + 1.5LM1 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	30	1.5	13	0.076
75	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	31	1.5	2	0.076
76	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	31	1.5	3	0.076
77	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	31	1.5	4	0.076
78	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	31	1.5	5	0.076
79	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	31	1.5	6	0.076
80	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	31	1.5	7	0.076
81	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	31	1.5	8	0.076
82	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	31	1.5	9	0.076
83	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	31	1.5	10	0.076
84	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	31	1.5	11	0.076
85	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	31	1.5	12	0.076
86	1.2DL + 1.5LM2 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	31	1.5	13	0.076
87	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	32	1.5	2	0.076
88	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	32	1.5	3	0.076
89	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	32	1.5	4	0.076
90	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	32	1.5	5	0.076
91	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	32	1.5	6	0.076
92	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	32	1.5	7	0.076
93	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	32	1.5	8	0.076
94	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	32	1.5	9	0.076
95	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	32	1.5	10	0.076
96	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	32	1.5	11	0.076
97	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	32	1.5	12	0.076
98	1.2DL + 1.5LM3 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	32	1.5	13	0.076
99	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	33	1.5	2	0.076
100	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	33	1.5	3	0.076
101	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	33	1.5	4	0.076
102	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	33	1.5	5	0.076
103	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	33	1.5	6	0.076
104	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	33	1.5	7	0.076
105	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	33	1.5	8	0.076
106	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	33	1.5	9	0.076
107	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	33	1.5	10	0.076
108	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	33	1.5	11	0.076
109	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	33	1.5	12	0.076
110	1.2DL + 1.5LM4 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	33	1.5	13	0.076
111	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	34	1.5	2	0.076
112	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	34	1.5	3	0.076
113	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	34	1.5	4	0.076
114	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	34	1.5	5	0.076
115	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	34	1.5	6	0.076
116	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	34	1.5	7	0.076
117	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	34	1.5	8	0.076
118	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	34	1.5	9	0.076
119	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	34	1.5	10	0.076
120	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	34	1.5	11	0.076
121	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	34	1.5	12	0.076

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
122	1.2DL + 1.5LM5 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	34	1.5	13	0.076
123	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	35	1.5	2	0.076
124	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	35	1.5	3	0.076
125	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	35	1.5	4	0.076
126	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	35	1.5	5	0.076
127	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	35	1.5	6	0.076
128	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	35	1.5	7	0.076
129	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	35	1.5	8	0.076
130	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	35	1.5	9	0.076
131	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	35	1.5	10	0.076
132	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	35	1.5	11	0.076
133	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	35	1.5	12	0.076
134	1.2DL + 1.5LM6 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	35	1.5	13	0.076
135	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	36	1.5	2	0.076
136	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	36	1.5	3	0.076
137	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	36	1.5	4	0.076
138	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	36	1.5	5	0.076
139	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	36	1.5	6	0.076
140	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	36	1.5	7	0.076
141	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	36	1.5	8	0.076
142	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	36	1.5	9	0.076
143	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	36	1.5	10	0.076
144	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	36	1.5	11	0.076
145	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	36	1.5	12	0.076
146	1.2DL + 1.5LM7 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	36	1.5	13	0.076
147	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	37	1.5	2	0.076
148	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	37	1.5	3	0.076
149	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	37	1.5	4	0.076
150	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	37	1.5	5	0.076
151	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	37	1.5	6	0.076
152	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	37	1.5	7	0.076
153	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	37	1.5	8	0.076
154	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	37	1.5	9	0.076
155	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	37	1.5	10	0.076
156	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	37	1.5	11	0.076
157	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	37	1.5	12	0.076
158	1.2DL + 1.5LM8 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	37	1.5	13	0.076
159	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	38	1.5	2	0.076
160	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	38	1.5	3	0.076
161	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	38	1.5	4	0.076
162	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	38	1.5	5	0.076
163	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	38	1.5	6	0.076
164	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	38	1.5	7	0.076
165	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	38	1.5	8	0.076
166	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	38	1.5	9	0.076
167	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	38	1.5	10	0.076
168	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	38	1.5	11	0.076
169	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	38	1.5	12	0.076
170	1.2DL + 1.5LM9 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	38	1.5	13	0.076
171	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	39	1.5	2	0.076
172	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	39	1.5	3	0.076
173	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	39	1.5	4	0.076
174	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	39	1.5	5	0.076
175	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	39	1.5	6	0.076
176	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	39	1.5	7	0.076

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor
177	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	39	1.5	8	0.076
178	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	39	1.5	9	0.076
179	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	39	1.5	10	0.076
180	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	39	1.5	11	0.076
181	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	39	1.5	12	0.076
182	1.2DL + 1.5LM10 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	39	1.5	13	0.076
183	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	40	1.5	2	0.076
184	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	40	1.5	3	0.076
185	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	40	1.5	4	0.076
186	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	40	1.5	5	0.076
187	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	40	1.5	6	0.076
188	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	40	1.5	7	0.076
189	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	40	1.5	8	0.076
190	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	40	1.5	9	0.076
191	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	40	1.5	10	0.076
192	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	40	1.5	11	0.076
193	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	40	1.5	12	0.076
194	1.2DL + 1.5LM11 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	40	1.5	13	0.076
195	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	41	1.5	2	0.076
196	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	41	1.5	3	0.076
197	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	41	1.5	4	0.076
198	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	41	1.5	5	0.076
199	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	41	1.5	6	0.076
200	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	41	1.5	7	0.076
201	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	41	1.5	8	0.076
202	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	41	1.5	9	0.076
203	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	41	1.5	10	0.076
204	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	41	1.5	11	0.076
205	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	41	1.5	12	0.076
206	1.2DL + 1.5LM12 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	41	1.5	13	0.076
207	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	42	1.5	2	0.076
208	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	42	1.5	3	0.076
209	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	42	1.5	4	0.076
210	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	42	1.5	5	0.076
211	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	42	1.5	6	0.076
212	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	42	1.5	7	0.076
213	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	42	1.5	8	0.076
214	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	42	1.5	9	0.076
215	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	42	1.5	10	0.076
216	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	42	1.5	11	0.076
217	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	42	1.5	12	0.076
218	1.2DL + 1.5LM13 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	42	1.5	13	0.076
219	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	43	1.5	2	0.076
220	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	43	1.5	3	0.076
221	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	43	1.5	4	0.076
222	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	43	1.5	5	0.076
223	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	43	1.5	6	0.076
224	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	43	1.5	7	0.076
225	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	43	1.5	8	0.076
226	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	43	1.5	9	0.076
227	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	43	1.5	10	0.076
228	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	43	1.5	11	0.076
229	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	43	1.5	12	0.076
230	1.2DL + 1.5LM14 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	43	1.5	13	0.076
231	1.2DL + 1.5LM15 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	44	1.5	2	0.076