

## **Appendix B**

### **Gravity System Redesign – Precast Plank and Steel Frame**

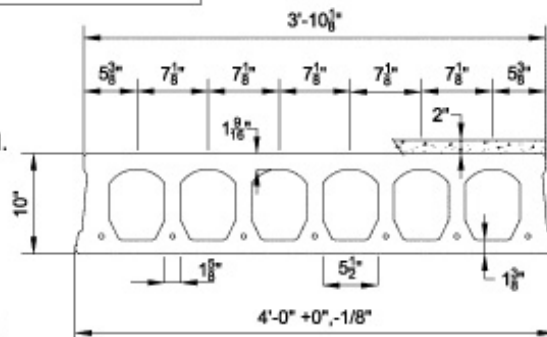
# Prestressed Concrete 10"x4'-0" Hollow Core Plank

2 Hour Fire Resistance Rating With 2" Topping

PHYSICAL PROPERTIES Composite Section	
$A_c = 327 \text{ in.}^2$	Precast $S_{bc} = 824 \text{ in.}^3$
$I_c = 5102 \text{ in.}^4$	Topping $S_{tc} = 1242 \text{ in.}^3$
$Y_{bc} = 6.19 \text{ in.}$	Precast $S_{tc} = 1340 \text{ in.}^3$
$Y_{tc} = 3.81 \text{ in.}$	Wt. = 272 PLF
	Wt. = 68.00 PSF

## DESIGN DATA

1. Precast Strength @ 28 days = 6000 PSI
2. Precast Strength @ release = 3500 PSI or 4000 PSI.
3. Precast Density = 150 PCF
4. Strand = 1/2"Ø and 0.6"Ø 270K Lo-Relaxation.
5. Strand Height = 1.75 in.
6. Ultimate moment capacity (when fully developed)...  
 7-1/2"Ø, 270K = 192.2 k-ft  
 7-0.6"Ø, 270K = 256.4 k-ft
7. Maximum bottom tensile stress is  $7.5\sqrt{f_c} = 580 \text{ PSI}$
8. All superimposed load is treated as live load in the strength analysis of flexure and shear.
9. Flexural strength capacity is based on stress/strain strand relationships.
10. Deflection limits were not considered when determining allowable loads in this table.
11. Topping Strength @ 28 days = 3000 PSI. Topping Weight = 25 PSF.
12. These tables are based upon the topping having a uniform 2" thickness over the entire span. A lesser thickness might occur if camber is not taken into account during design, thus reducing the load capacity.
13. Load values to the left of the solid line are controlled by ultimate shear strength.
14. Load values to the right are controlled by ultimate flexural strength or fire endurance limits.
15. Load values may be different for IBC 2000 & ACI 318-99. Load tables are available upon request.
16. Camber is inherent in all prestressed hollow core slabs and is a function of the amount of eccentric prestressing force needed to carry the superimposed design loads along with a number of other variables. Because prediction of camber is based on empirical formulas it is at best an estimate, with the actual camber usually higher than calculated values.



SAFE SUPERIMPOSED SERVICE LOADS		IBC 2003 & ACI 318-02 (1.2 D + 1.6 L)																		
		SPAN (FEET)																		
Strand Pattern	LOAD (PSF)	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		7 - 1/2"Ø	LOAD (PSF)	234	210	189	170	153	137	123	110	98	87	77	68	60	52	<del>XXXXXXXXXX</del>		
7 - 0.6"Ø	LOAD (PSF)	<del>XXXX</del>		256	244	233	222	202	185	168	154	140	128	116	106	96	87	78	70	63

**NITTERHOUSE**  
CONCRETE PRODUCTS

2655 Molly Pitcher Hwy. South, Box N  
Chambersburg, PA 17201-0813  
717-267-4505 Fax 717-267-4518

This table is for simple spans and uniform loads. Design data for any of these span-load conditions is available on request. Individual designs may be furnished to satisfy unusual conditions of heavy loads, concentrated loads, cantilevers, flange or stem openings and narrow widths. The allowable loads shown in this table reflect a 2 Hour & 0 Minute fire resistance rating.

05/14/07

10F2.0T



**Beam Summary**

**STEEL BEAM DESIGN SUMMARY:**

Floor Type: ROOF

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
1	22.49	71.7	0.0	277.1	50.0	W18X35	u
2	18.97	126.7	0.0	562.5	50.0	W24X55	u
3	32.71	420.1	0.0	562.5	50.0	W24X55	u
4	14.75	21.0	0.0	102.9	50.0	W12X19	u
5	29.29	2.8	0.0	102.9	50.0	W12X19	u
6	32.98	337.7	0.0	562.5	50.0	W24X55	u
7	26.63	2.4	0.0	102.9	50.0	W12X19	u
8	22.36	74.9	0.0	277.1	50.0	W18X35	u
9	15.93	21.0	0.0	102.9	50.0	W12X19	u
10	22.63	31.9	0.0	277.1	50.0	W18X35	u
11	15.93	10.8	0.0	102.9	50.0	W12X19	u
12	22.63	189.7	0.0	562.5	50.0	W24X55	u
13	18.67	31.0	0.0	102.9	50.0	W12X19	u
15	18.83	29.0	0.0	102.9	50.0	W12X19	u
17	32.95	331.4	0.0	562.5	50.0	W24X55	u
18	15.42	23.0	0.0	102.9	50.0	W12X19	u
19	32.52	431.2	0.0	562.5	50.0	W24X55	u
56	58.50	2348.6	0.0	2991.7	50.0	W36X182	u
27	26.51	2.3	0.0	102.9	50.0	W12X19	u
28	32.74	414.6	0.0	562.5	50.0	W24X55	u
58	29.33	566.4	0.0	737.5	50.0	W24X68	u
57	29.17	560.0	0.0	737.5	50.0	W24X68	u
33	28.43	3.1	0.0	138.3	50.0	W14X22	u
35	32.52	364.0	0.0	562.5	50.0	W24X55	u
41	26.80	2.4	0.0	102.9	50.0	W12X19	u
42	18.67	27.7	0.0	102.9	50.0	W12X19	u
43	22.61	50.5	0.0	102.9	50.0	W12X19	u
44	16.07	21.4	0.0	102.9	50.0	W12X19	u
45	16.07	11.1	0.0	102.9	50.0	W12X19	u
46	14.75	21.1	0.0	102.9	50.0	W12X19	u
47	22.51	73.7	0.0	277.1	50.0	W18X35	u
48	22.63	190.2	0.0	562.5	50.0	W24X55	u
49	25.44	47.8	0.0	277.1	50.0	W18X35	u
50	29.32	2.9	0.0	102.9	50.0	W12X19	u
51	14.75	21.0	0.0	102.9	50.0	W12X19	u
52	32.98	334.6	0.0	562.5	50.0	W24X55	u
53	19.03	127.2	0.0	562.5	50.0	W24X55	u
54	32.71	417.1	0.0	562.5	50.0	W24X55	u
55	22.49	71.9	0.0	277.1	50.0	W18X35	u



**Beam Summary**

Floor Type: FLR 41 M

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
5	20.00	456.0	0.0	562.5	50.0	W24X55	
6	10.00	17.1	0.0	37.0	50.0	W8X10	
8	10.00	9.2	0.0	37.0	50.0	W8X10	
13	21.25	157.7	0.0	184.2	50.0	W16X26	
14	10.00	61.1	0.0	102.9	50.0	W12X19	u
18	12.00	0.5	0.0	102.9	50.0	W12X19	u
19	18.50	435.2	0.0	562.5	50.0	W24X55	
20	18.50	210.1	0.0	277.1	50.0	W18X35	
25	9.25	0.0	0.0	37.0	50.0	W8X10	
50	19.75	1.3	0.0	102.9	50.0	W12X19	u
28	17.50	1.0	0.0	102.9	50.0	W12X19	u
29	20.00	295.1	0.0	397.5	50.0	W21X44	
31	12.00	0.5	0.0	102.9	50.0	W12X19	u
32	20.00	318.1	0.0	397.5	50.0	W21X44	
33	9.25	91.8	0.0	277.1	50.0	W18X35	u
35	20.00	191.2	0.0	225.0	50.0	W16X31	
36	19.75	38.1	0.0	102.9	50.0	W12X19	u
37	10.33	12.5	0.0	37.0	50.0	W8X10	
38	10.33	17.0	0.0	37.0	50.0	W8X10	
48	17.50	20.9	0.0	102.9	50.0	W12X19	u
49	4.25	3.9	0.0	37.0	50.0	W8X10	
44	4.25	0.5	0.0	37.0	50.0	W8X10	

Floor Type: FLR 40 M

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
1	22.49	112.4	0.0	277.1	50.0	W18X35	u
2	18.97	247.1	0.0	562.5	50.0	W24X55	u
5	20.35	21.6	0.0	70.8	50.0	W8X18	
4	8.00	0.0	-77.8				
3	32.00	6.1	-77.8	225.0	50.0	W16X31	
6	18.75	204.3	0.0	277.1	50.0	W18X35	
7	32.00	35.5	0.0	445.8	50.0	W21X48	u
8	18.75	779.8	0.0	1016.7	50.0	W27X84	
9	18.75	431.2	0.0	562.5	50.0	W24X55	
12	29.29	2.8	0.0	102.9	50.0	W12X19	u
15	22.36	123.5	0.0	277.1	50.0	W18X35	u
16	17.52	13.2	0.0	138.3	50.0	W14X22	u
17	18.03	158.5	0.0	184.2	50.0	W16X26	
18	22.63	198.3	0.0	277.1	50.0	W18X35	
19	16.00	220.4	0.0	277.1	50.0	W18X35	



**Beam Summary**

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
20	18.67	438.3	0.0	1016.7	50.0	W27X84	u
21	16.00	207.4	0.0	277.1	50.0	W18X35	u
22	22.63	401.9	0.0	562.5	50.0	W24X55	u
29	18.75	201.4	0.0	225.0	50.0	W16X31	
24	8.00	0.0	-60.6				
3	32.00	21.5	-60.6	155.0	50.0	W12X26	
30	18.67	331.2	0.0	397.5	50.0	W21X44	
32	18.83	337.3	0.0	397.5	50.0	W21X44	
34	18.75	422.4	0.0	562.5	50.0	W24X55	
35	32.00	46.2	0.0	266.7	50.0	W16X26	u
40	20.00	59.5	0.0	102.9	50.0	W12X19	u
41	10.00	9.2	0.0	37.0	50.0	W8X10	
43	10.00	5.9	0.0	37.0	50.0	W8X10	
46	21.25	70.9	0.0	138.3	50.0	W14X22	
47	10.00	1.5	0.0	102.9	50.0	W12X19	u
51	12.00	0.3	0.0	37.0	50.0	W8X10	
52	18.50	254.0	0.0	326.7	50.0	W18X40	
53	18.50	103.0	0.0	138.3	50.0	W14X22	
54	18.75	776.4	0.0	1016.7	50.0	W27X84	u
55	32.00	48.6	0.0	326.7	50.0	W18X40	u
56	18.67	438.9	0.0	1016.7	50.0	W27X84	u
119	37.25	472.6	0.0	737.5	50.0	W24X68	
120	9.17	0.0	0.0	37.0	50.0	W8X10	
60	12.00	0.3	0.0	37.0	50.0	W8X10	
61	9.25	47.1	0.0	72.5	50.0	W12X14	
123	29.17	22.3	0.0	70.8	50.0	W8X18	
62	18.83	446.1	0.0	1016.7	50.0	W27X84	u
64	18.75	839.5	0.0	1016.7	50.0	W27X84	u
65	32.00	19.2	-62.8	155.0	50.0	W12X26	
66	19.75	6.0	0.0	138.3	50.0	W14X22	u
67	17.50	4.7	0.0	138.3	50.0	W14X22	u
68	20.00	153.7	0.0	184.2	50.0	W16X26	
70	12.00	0.3	0.0	37.0	50.0	W8X10	
71	20.00	120.0	0.0	184.2	50.0	W16X26	
73	20.00	39.5	0.0	102.9	50.0	W12X19	u
124	4.25	2.2	0.0	37.0	50.0	W8X10	
76	19.75	19.3	0.0	52.5	50.0	W10X12	
77	10.33	6.3	0.0	37.0	50.0	W8X10	
78	10.33	8.6	0.0	37.0	50.0	W8X10	
80	12.00	2.0	0.0	37.0	50.0	W8X10	
121	17.50	10.5	0.0	37.0	50.0	W8X10	
122	4.25	2.0	0.0	37.0	50.0	W8X10	
83	4.25	0.2	0.0	37.0	50.0	W8X10	
87	18.83	445.4	0.0	1016.7	50.0	W27X84	u



**Beam Summary**

Floor Type: FLR 24 TO 39

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
88	18.75	435.1	0.0	562.5	50.0	W24X55	
89	22.51	119.8	0.0	277.1	50.0	W18X35	u
91	18.67	329.1	0.0	562.5	50.0	W24X55	u
92	22.63	402.2	0.0	562.5	50.0	W24X55	u
94	16.00	207.4	0.0	277.1	50.0	W18X35	
95	18.83	346.3	0.0	397.5	50.0	W21X44	
96	16.00	225.5	0.0	277.1	50.0	W18X35	
98	18.75	377.0	0.0	445.8	50.0	W21X48	
99	22.63	241.2	0.0	277.1	50.0	W18X35	
103	18.74	190.5	0.0	225.0	50.0	W16X31	
104	29.32	2.9	0.0	102.9	50.0	W12X19	u
105	18.21	11.3	0.0	277.1	50.0	W18X35	u
108	18.75	435.9	0.0	562.5	50.0	W24X55	
109	18.75	782.5	0.0	1016.7	50.0	W27X84	
110	18.75	217.3	0.0	277.1	50.0	W18X35	
111	19.62	13.1	0.0	277.1	50.0	W18X35	u
112	19.03	251.7	0.0	562.5	50.0	W24X55	u
115	22.49	120.2	0.0	277.1	50.0	W18X35	u
116	32.00	35.1	0.0	377.9	50.0	W18X46	u
117	32.00	8.1	-67.0	225.0	50.0	W16X31	
4	8.00	0.0	-67.0				

Floor Type: FLR 24 TO 39

Bm #	Length ft	+Mu kip-ft	-Mu kip-ft	Mn kip-ft	Fy ksi	Beam Size	Studs
1	22.4						



### Beam Summary

RAM Steel v11.2  
 DataBase: Takeoff Model - PLANKS  
 Building Code: IBC

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 Steel Code: AISC LRFD

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
20	18.67	425.7	-61.0	833.3	50.0	W24X76	
20	18.67	41.2	0.0	138.3	50.0	W14X22	u
22	18.83	56.0	0.0	138.3	50.0	W14X22	u
24	18.75	48.4	0.0	138.3	50.0	W14X22	u
25	32.00	451.5	0.0	833.3	50.0	W24X76	u
29	20.00	220.9	0.0	277.1	50.0	W18X35	u
30	10.00	9.2	0.0	37.0	50.0	W8X10	u
32	10.00	5.9	0.0	37.0	50.0	W8X10	u
33	21.25	70.9	0.0	138.3	50.0	W14X22	u
34	10.00	1.5	0.0	102.9	50.0	W12X19	u
38	12.00	0.3	0.0	37.0	50.0	W8X10	u
39	18.50	100.8	0.0	138.3	50.0	W14X22	u
40	18.50	64.7	0.0	102.9	50.0	W12X19	u
41	18.75	1.2	0.0	102.9	50.0	W12X19	u
42	32.00	449.8	0.0	833.3	50.0	W24X76	u
43	18.67	1.2	0.0	102.9	50.0	W12X19	u
94	3/22	24.6	0.0	277.1	50.0	W18X35	u
95	9.17	0.0	0.0	37.0	50.0	W8X10	u
47	12.00	0.3	0.0	37.0	50.0	W8X10	u
48	9.25	29.6	0.0	37.0	50.0	W8X10	u
49	18.83	1.2	0.0	102.9	50.0	W12X19	u
51	18.75	1.2	0.0	102.9	50.0	W12X19	u
52	32.00	425.2	-67.6	833.3	50.0	W24X76	u
		8.00	0.0	-67.6			
53	10.75	5.8	0.0	102.9	50.0	W12X19	u
54	17.50	4.6	0.0	102.9	50.0	W12X19	u
96	20.00	153.7	0.0	184.2	50.0	W16X26	u
36	12.00	0.3	0.0	37.0	50.0	W8X10	u
57	20.00	170.0	0.0	184.2	50.0	W16X26	u
58	9.25	25.1	0.0	37.0	50.0	W8X10	u
59	20.00	39.5	0.0	102.9	50.0	W12X19	u
60	20.00	7.3	0.0	102.9	50.0	W12X19	u
99	19.75	19.3	0.0	52.5	50.0	W10X12	u
62	10.33	6.3	0.0	37.0	50.0	W8X10	u
63	10.33	8.6	0.0	37.0	50.0	W8X10	u
66	12.00	2.0	0.0	37.0	50.0	W8X10	u
97	17.50	10.5	0.0	37.0	50.0	W8X10	u
98	4.25	2.0	0.0	37.0	50.0	W8X10	u
69	4.25	0.2	0.0	37.0	50.0	W8X10	u
73	18.83	1.2	0.0	102.9	50.0	W12X19	u
74	18.75	49.0	0.0	83.8	50.0	W12X16	u
72	22.51	66.7	0.0	277.1	50.0	W18X35	u
76	18.67	34.2	0.0	138.3	50.0	W14X22	u
77	22.63	220.3	0.0	397.5	50.0	W21X44	u
78	16.00	13.4	0.0	102.9	50.0	W12X19	u



### Beam Summary

RAM Steel v11.2  
 DataBase: Takeoff Model - PLANKS  
 Building Code: IBC

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 Steel Code: AISC LRFD

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
79	18.83	42.5	0.0	138.3	50.0	W14X22	u
80	16.00	26.1	0.0	102.9	50.0	W12X19	u
81	18.75	53.1	0.0	102.9	50.0	W12X19	u
82	22.63	180.6	0.0	277.1	50.0	W18X35	u
83	18.74	161.7	0.0	184.2	50.0	W16X26	u
84	29.32	7.5	0.0	420.8	50.0	W18X50	u
85	18.21	10.7	0.0	277.1	50.0	W18X35	u
86	18.75	48.9	0.0	83.8	50.0	W12X16	u
87	18.75	1.2	0.0	102.9	50.0	W12X19	u
88	18.75	57.1	0.0	83.8	50.0	W12X16	u
89	19.62	12.5	0.0	277.1	50.0	W18X35	u
90	19.03	138.4	0.0	397.5	50.0	W21X44	u
91	22.49	66.9	0.0	277.1	50.0	W18X35	u
92	32.00	452.7	0.0	833.3	50.0	W24X76	u
93	32.00	424.7	-71.9	833.3	50.0	W24X76	u
		8.00	0.0	-71.9			

Floor Type: FLR 4 TO 23

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
	ft	kip-ft	kip-ft	kip-ft	ksi		
1	22.49	66.9	0.0	277.1	50.0	W18X35	u
2	18.97	137.4	0.0	397.5	50.0	W21X44	u
4	20.35	13.4	0.0	277.1	50.0	W18X35	u
3	8.00	0.0	-68.8				
	32.00	423.9	-68.8	833.3	50.0	W24X76	u
5	18.75	59.4	0.0	102.9	50.0	W12X19	u
6	32.00	451.0	0.0	833.3	50.0	W24X76	u
7	18.75	1.2	0.0	102.9	50.0	W12X19	u
8	18.75	49.0	0.0	102.9	50.0	W12X19	u
9	29.29	7.5	0.0	420.8	50.0	W18X50	u
10	22.36	68.5	0.0	277.1	50.0	W18X35	u
11	17.52	9.9	0.0	277.1	50.0	W18X35	u
12	18.03	149.1	0.0	184.2	50.0	W16X26	u
13	22.63	170.4	0.0	277.1	50.0	W18X35	u
14	16.00	26.1	0.0	102.9	50.0	W12X19	u
15	18.67	1.2	0.0	102.9	50.0	W12X19	u
16	16.00	13.4	0.0	102.9	50.0	W12X19	u
17	22.63	220.2	0.0	397.5	50.0	W21X44	u
19	18.75	50.9	0.0	102.9	50.0	W12X19	u
18	8.00	0.0	-61.0				
	32.00	425.7	-61.0	833.3	50.0	W24X76	u
20	18.67	41.2	0.0	138.3	50.0	W14X22	u
22	18.83	36.0	0.0	138.3	50.0	W14X22	u
24	18.75	48.3	0.0	102.9	50.0	W12X19	u
25	32.00	451.5	0.0	833.3	50.0	W24X76	u



### Beam Summary

RAM Steel v11.2  
 DataBase: Takeoff Model - PLANKS  
 Building Code: IBC

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 Steel Code: AISC LRFD

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
29	20.00	220.9	0.0	277.1	50.0	W18X35	u
30	10.00	9.2	0.0	37.0	50.0	W8X10	u
32	10.00	5.9	0.0	37.0	50.0	W8X10	u
33	21.25	70.9	0.0	138.3	50.0	W14X22	u
34	10.00	1.5	0.0	102.9	50.0	W12X19	u
35	19.75	5.8	0.0	102.9	50.0	W12X19	u
36	17.50	4.6	0.0	102.9	50.0	W12X19	u
37	18.50	1.8	0.0	37.0	50.0	W8X10	u
38	12.00	0.3	0.0	37.0	50.0	W8X10	u
39	18.50	1.6	0.0	37.0	50.0	W8X10	u
40	18.50	103.0	0.0	138.3	50.0	W14X22	u
41	18.75	1.2	0.0	102.9	50.0	W12X19	u
47	32.00	447.7	0.0	641.7	50.0	W24X76	u
43	18.67	1.2	0.0	102.9	50.0	W12X19	u
44	19.75	0.7	0.0	37.0	50.0	W8X10	u
46	17.50	0.5	0.0	37.0	50.0	W8X10	u
47	12.00	0.3	0.0	37.0	50.0	W8X10	u
48	9.25	47.1	0.0	72.5	50.0	W12X14	u
96	29.17	22.3	0.0	70.8	50.0	W8X18	u
49	18.83	1.2	0.0	102.9	50.0	W12X19	u
51	18.75	1.2	0.0	102.9	50.0	W12X19	u
52	32.00	425.2	-67.6	833.3	50.0	W24X76	u
		8.00	0.0	-67.6			
53	19.75	5.8	0.0	102.9	50.0	W12X19	u
54	17.50	4.6	0.0	102.9	50.0	W12X19	u
55	20.00	154.1	0.0	184.2	50.0	W16X26	u
57	12.00	0.3	0.0	37.0	50.0	W8X10	u
58	20.00	120.0	0.0	184.2	50.0	W16X26	u
60	20.00	39.5	0.0	102.9	50.0	W12X19	u
97	4.25	2.2	0.0	37.0	50.0	W8X10	u
62	19.75	19.7	0.0	102.9	50.0	W12X19	u
63	10.33	6.3	0.0	37.0	50.0	W8X10	u
64	10.33	8.6	0.0	37.0	50.0	W8X10	u
66	12.00	2.0	0.0	37.0	50.0	W8X10	u
94	17.50	10.5	0.0	37.0	50.0	W8X10	u
95	4.25	2.0	0.0	37.0	50.0	W8X10	u
69	4.25	0.2	0.0	37.0	50.0	W8X10	u
73	18.83	1.2	0.0	102.9	50.0	W12X19	u
74	18.75	49.0	0.0	83.8	50.0	W12X16	u
75	22.51	66.7	0.0	277.1	50.0	W18X35	u
76	18.67	34.2	0.0	138.3	50.0	W14X22	u
77	22.63	220.3	0.0	397.5	50.0	W21X44	u
78	16.00	13.4	0.0	102.9	50.0	W12X19	u
79	18.83	42.4	0.0	138.3	50.0	W14X22	u
80	16.00	25.9	0.0	52.5	50.0	W10X12	u



### Beam Summary

RAM Steel v11.2  
 DataBase: Takeoff Model - PLANKS  
 Building Code: IBC

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 Steel Code: AISC LRFD

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
81	18.75	53.1	0.0	102.9	50.0	W12X19	u
82	22.63	180.6	0.0	277.1	50.0	W18X35	u
83	18.74	161.7	0.0	184.2	50.0	W16X26	u
84	29.32	7.5	0.0	420.8	50.0	W18X50	u
85	18.21	10.7	0.0	277.1	50.0	W18X35	u
86	18.75	48.9	0.0	83.8	50.0	W12X16	u
87	18.75	1.2	0.0	102.9	50.0	W12X19	u
88	18.75	57.1	0.0	83.8	50.0	W12X16	u
89	19.62	12.5	0.0	277.1	50.0	W18X35	u
90	19.03	138.4	0.0	397.5	50.0	W21X44	u
91	22.49	66.9	0.0	277.1	50.0	W18X35	u
92	32.00	452.7	0.0	833.3	50.0	W24X76	u
93	32.00	424.7	-71.9	833.3	50.0	W24X76	u
		8.00	0.0	-71.9			

Floor Type: FLOOR 3.1 3.2

Bm #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
	ft	kip-ft					



**Beam Summary**

Beam #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
32	18.83	338.1	0.0	562.5	50.0	W24X55	u
34	18.75	321.7	0.0	397.5	50.0	W21X44	
35	32.00	80.3	0.0	445.8	50.0	W21X48	u
40	20.00	93.3	0.0	138.3	50.0	W14X22	
41	10.00	14.6	0.0	37.0	50.0	W8X10	
43	10.00	9.3	0.0	37.0	50.0	W8X10	
46	21.25	111.6	0.0	184.2	50.0	W16X26	
47	10.00	2.2	0.0	102.9	50.0	W12X19	u
48	19.75	157.6	0.0	184.2	50.0	W16X26	
49	17.50	124.8	0.0	184.2	50.0	W16X26	
50	18.50	1.8	0.0	37.0	50.0	W8X10	
51	12.00	0.3	0.0	37.0	50.0	W8X10	
52	18.50	1.6	0.0	37.0	50.0	W8X10	
53	18.50	156.9	0.0	184.2	50.0	W16X26	
54	18.75	441.0	0.0	562.5	50.0	W24X55	
55	32.00	80.3	0.0	445.8	50.0	W21X48	u
56	18.67	437.4	0.0	562.5	50.0	W24X55	
57	19.75	0.7	0.0	37.0	50.0	W8X10	
59	17.50	0.5	0.0	37.0	50.0	W8X10	
60	12.00	0.3	0.0	37.0	50.0	W8X10	
61	9.25	87.0	0.0	102.9	50.0	W12X19	
121	29.17	212.6	0.0	277.1	50.0	W18X35	
62	18.83	444.6	0.0	562.5	50.0	W24X55	
64	18.75	441.0	0.0	562.5	50.0	W24X55	
65	32.00	37.2	-140.9	445.8	50.0	W21X48	u
	8.00	0.0	-140.9				
66	19.75	8.3	0.0	72.5	50.0	W12X14	u
67	17.50	6.5	0.0	72.5	50.0	W12X14	u
68	20.00	237.3	0.0	277.1	50.0	W18X35	
70	12.00	0.3	0.0	37.0	50.0	W8X10	
71	20.00	215.9	0.0	277.1	50.0	W18X35	u
120	9.67	2.1	0.0	102.9	50.0	W12X19	u
122	4.25	3.6	0.0	37.0	50.0	W8X10	
75	19.75	30.4	0.0	83.8	50.0	W12X16	
76	10.33	10.0	0.0	37.0	50.0	W8X10	
77	10.33	13.5	0.0	37.0	50.0	W8X10	
119	17.00	32.7	0.0	138.3	50.0	W14X22	u
123	17.50	16.4	0.0	37.0	50.0	W8X10	
124	4.25	3.1	0.0	37.0	50.0	W8X10	
84	4.25	0.4	0.0	37.0	50.0	W8X10	
88	18.83	443.8	0.0	562.5	50.0	W24X55	
125	18.75	324.5	0.0	397.5	50.0	W21X44	
90	22.51	132.8	0.0	277.1	50.0	W18X35	u
92	18.67	329.2	0.0	562.5	50.0	W24X55	u
93	22.63	401.7	0.0	458.3	50.0	W21X50	



**Beam Summary**

Beam #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
95	16.00	207.7	0.0	397.5	50.0	W21X44	u
96	18.83	347.0	0.0	562.5	50.0	W24X55	u
97	16.00	225.9	0.0	397.5	50.0	W21X44	u
99	18.75	325.4	0.0	397.5	50.0	W21X44	
100	22.63	359.9	0.0	562.5	50.0	W24X55	u
104	18.74	304.7	0.0	397.5	50.0	W21X44	
105	29.32	2.9	0.0	102.9	50.0	W12X19	u
106	18.21	25.2	0.0	277.1	50.0	W18X35	u
109	18.75	324.4	0.0	397.5	50.0	W21X44	
110	18.75	441.0	0.0	562.5	50.0	W24X55	
111	18.75	331.4	0.0	397.5	50.0	W21X44	
112	19.62	29.3	0.0	277.1	50.0	W18X35	u
113	19.03	264.5	0.0	326.7	50.0	W18X40	
116	22.49	133.2	0.0	277.1	50.0	W18X35	u
117	32.00	80.3	0.0	445.8	50.0	W21X48	u
118	32.00	35.2	-149.8	445.8	50.0	W21X48	u
	8.00	0.0	-149.8				

**Floor Type: FLR 2**

Beam #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
	ft	kip ft	kip ft	kip ft	ksi		
1	22.49	133.2	0.0	277.1	50.0	W18X35	u
2	18.97	258.7	0.0	326.7	50.0	W18X40	
5	20.35	26.1	0.0	277.1	50.0	W18X35	u
4	8.00	0.0	-133.7				
	32.00	27.7	-133.7	445.8	50.0	W21X48	u
6	18.75	334.3	0.0	397.5	50.0	W21X44	
7	32.00	66.8	0.0	445.8	50.0	W21X48	u
8	18.75	441.0	0.0	562.5	50.0	W24X55	
9	18.75	322.0	0.0	397.5	50.0	W21X44	
12	29.29	2.8	0.0	102.9	50.0	W12X19	u
15	22.36	136.4	0.0	277.1	50.0	W18X35	u
16	17.52	19.3	0.0	277.1	50.0	W18X35	u
17	18.03	281.8	0.0	326.7	50.0	W18X40	
18	22.63	338.5	0.0	397.5	50.0	W21X44	
19	16.00	225.9	0.0	397.5	50.0	W21X44	u
20	18.67	436.8	0.0	562.5	50.0	W24X55	
21	16.00	207.7	0.0	397.5	50.0	W21X44	u
22	22.63	401.5	0.0	458.3	50.0	W21X50	
29	18.75	322.5	0.0	397.5	50.0	W21X44	
25	8.00	0.0	-118.2				
	32.00	31.2	-118.2	445.8	50.0	W21X48	u
30	18.67	338.7	0.0	562.5	50.0	W24X55	u
32	18.83	338.1	0.0	562.5	50.0	W24X55	u
34	18.75	319.8	0.0	397.5	50.0	W21X44	



**Beam Summary**

Beam #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
35	32.00	65.1	0.0	256.3	50.0	W14X38	
40	20.00	93.3	0.0	138.3	50.0	W14X22	
41	10.00	14.6	0.0	37.0	50.0	W8X10	
43	10.00	9.3	0.0	37.0	50.0	W8X10	
46	21.25	111.6	0.0	184.2	50.0	W16X26	
47	10.00	2.2	0.0	102.9	50.0	W12X19	u
48	19.75	157.6	0.0	184.2	50.0	W16X26	
49	17.50	124.8	0.0	184.2	50.0	W16X26	
50	18.50	1.8	0.0	37.0	50.0	W8X10	
51	12.00	0.3	0.0	37.0	50.0	W8X10	
52	18.50	1.6	0.0	37.0	50.0	W8X10	
53	18.50	156.9	0.0	184.2	50.0	W16X26	
54	18.75	441.0	0.0	562.5	50.0	W24X55	
55	32.00	66.8	0.0	445.8	50.0	W21X48	u
56	18.67	437.4	0.0	562.5	50.0	W24X55	
57	19.75	0.7	0.0	37.0	50.0	W8X10	
59	17.50	0.5	0.0	37.0	50.0	W8X10	
60	12.00	0.3	0.0	37.0	50.0	W8X10	
61	9.75	87.0	0.0	102.9	50.0	W12X19	
74	29.17	212.6	0.0	277.1	50.0	W18X35	u
62	18.83	444.6	0.0	562.5	50.0	W24X55	
64	18.75	441.0	0.0	562.5	50.0	W24X55	
65	32.00	27.9	-130.8	326.7	50.0	W18X40	
	8.00	0.0	-130.8				
66	19.75	8.3	0.0	72.5	50.0	W12X14	u
67	17.50	6.5	0.0	72.5	50.0	W12X14	u
68	20.00	237.3	0.0	277.1	50.0	W18X35	
70	12.00	0.3	0.0	37.0	50.0	W8X10	
71	20.00	215.9	0.0	277.1	50.0	W18X35	u
122	9.67	2.1	0.0	102.9	50.0	W12X19	u
123	4.25	3.6	0.0	37.0	50.0	W8X10	
75	19.75	30.4	0.0	83.8	50.0	W12X16	
76	10.33	10.0	0.0	37.0	50.0	W8X10	
77	10.33	13.5	0.0	37.0	50.0	W8X10	
121	17.00	32.7	0.0	138.3	50.0	W14X22	u
119	17.50	16.4	0.0	37.0	50.0	W8X10	
170	4.75	3.1	0.0	37.0	50.0	W8X10	
84	4.25	0.4	0.0	37.0	50.0	W8X10	
88	18.83	443.8	0.0	562.5	50.0	W24X55	
89	18.75	322.1	0.0	397.5	50.0	W21X44	
90	22.51	132.8	0.0	277.1	50.0	W18X35	u
92	18.67	329.2	0.0	562.5	50.0	W24X55	u
93	22.63	401.7	0.0	458.3	50.0	W21X50	
95	16.00	207.7	0.0	397.5	50.0	W21X44	u
96	18.83	347.0	0.0	562.5	50.0	W24X55	u



**Beam Summary**

Beam #	Length	+Mu	-Mu	Mn	Fy	Beam Size	Studs
97	16.00	225.9	0.0	397.5	50.0	W21X44	u
99	18.75	325.4	0.0	397.5	50.0	W21X44	
100	22.63	359.9	0.0	562.5	50.0	W24X55	u
104	18.74	304.7	0.0	397.5	50.0	W21X44	
105	29.32	2.9	0.0	102.9	50.0	W12X19	u
106	18.21	20.7	0.0	225.0	50.0	W16X31	u
109	18.75	322.0	0.0	397.5	50.0	W21X44	
110	18.75	441.0	0.0	562.5	50.0	W24X55	
111	18.75	331.4	0.0	397.5	50.0	W21X44	
112	19.62	23.1	0.0	70.8	50.0	W8X18	
113	19.03	260.4	0.0	326.7	50.0	W18X40	
116	22.49	133.2	0.0	277.1	50.0	W18X35	u
117	32.00	65.1	0.0	256.3	50.0	W14X38	
118	32.00	26.6	-138.0	326.7	50.0	W18X40	
	8.00	0.0	138.0				

\* after Size denotes beam failed stress/capacity criteria.  
 # after Size denotes beam failed deflection criteria.  
 u after Size denotes this size has been assigned by the User





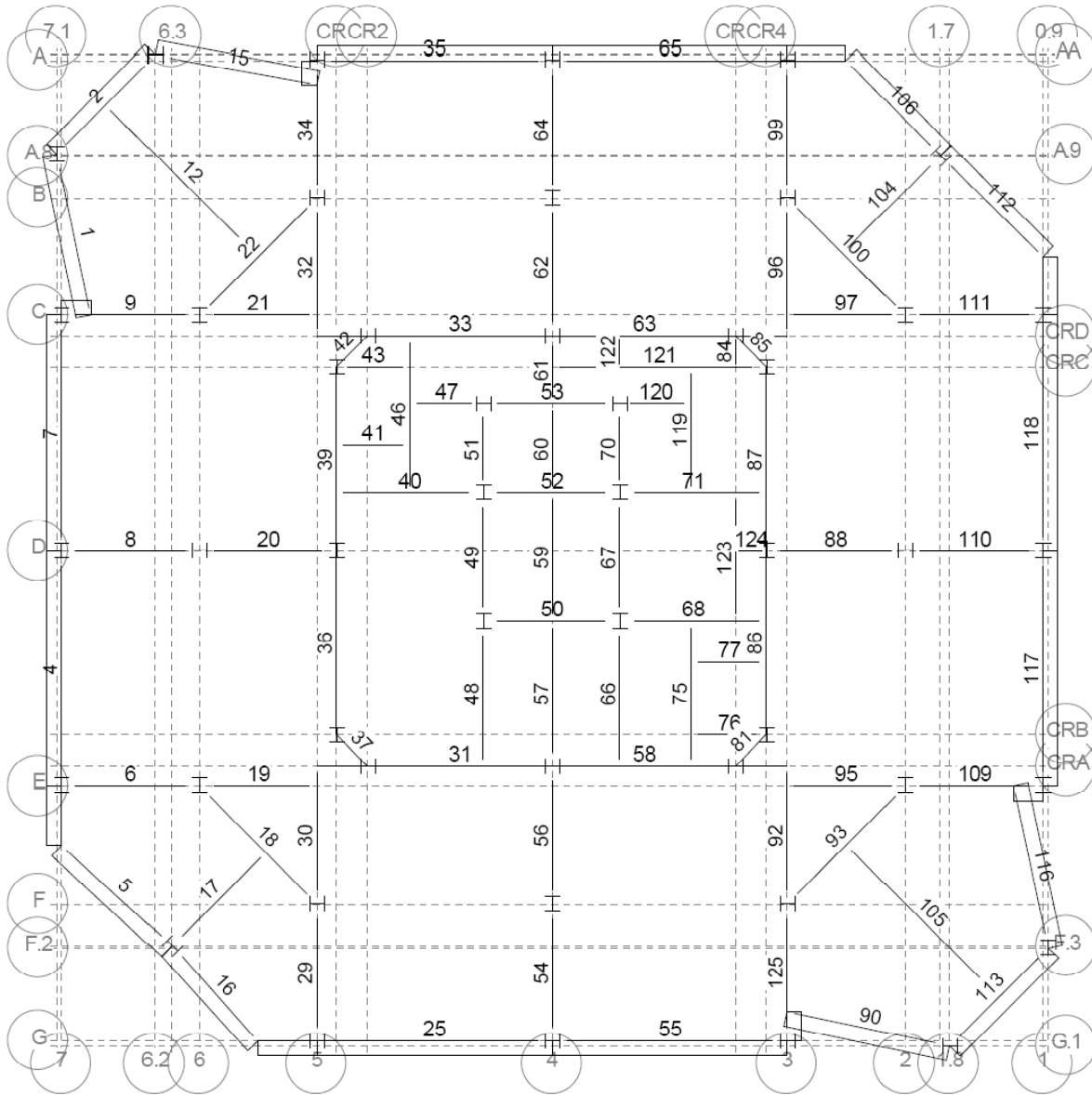


# Floor Map

RAM Steel v11.2  
DataBase: Takeoff Model - PLANKS  
Building Code: IBC

04/08/08 04:13:45  
Steel Code: AISC LRFD

Floor Type: FLR 3



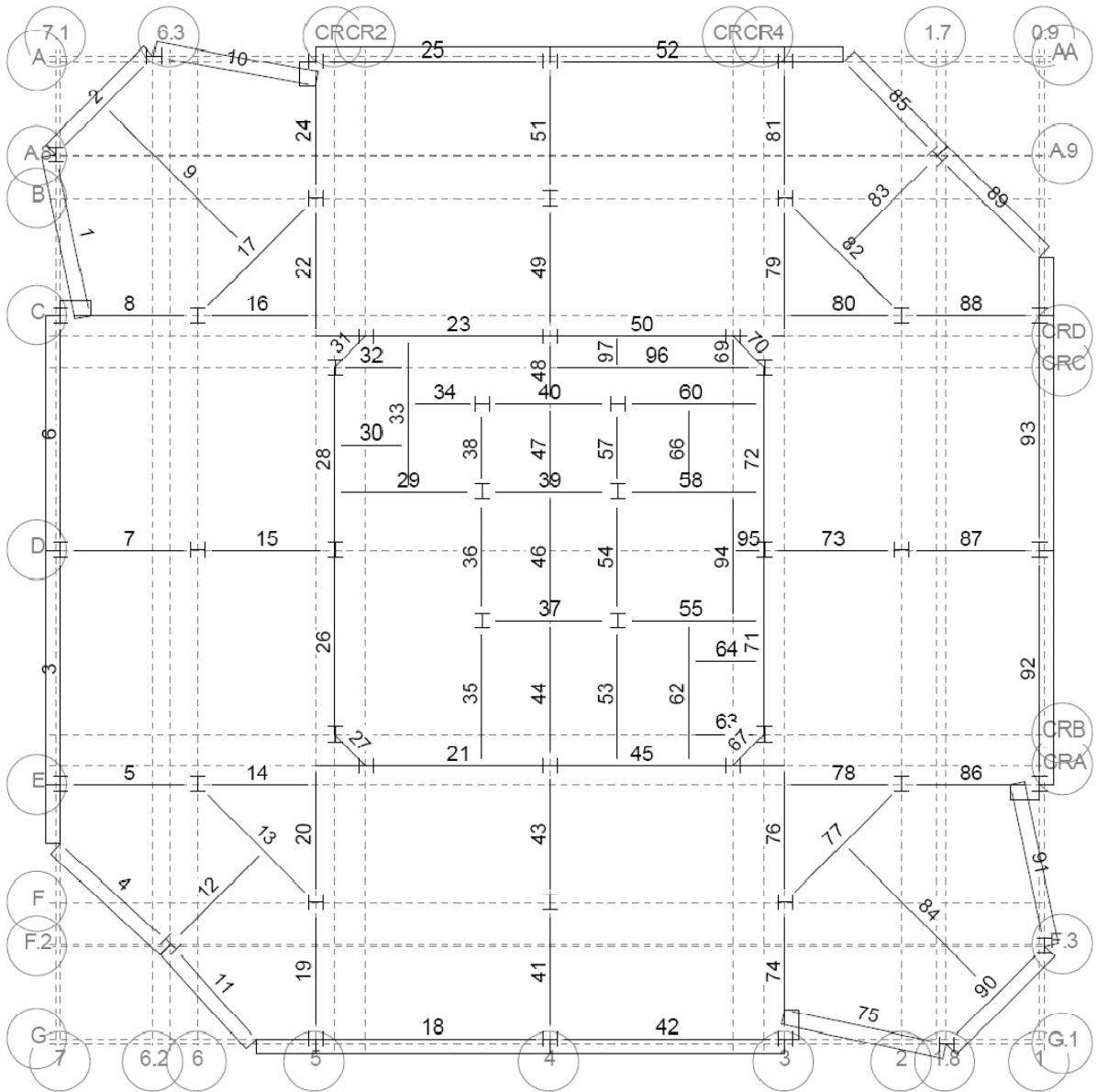


# Floor Map

RAM Steel v11.2  
DataBase: Takeoff Model - PLANKS  
Building Code: IBC

04/08/08 04:13:45  
Steel Code: AISC LRFD

Floor Type: FLR 4 TO 23

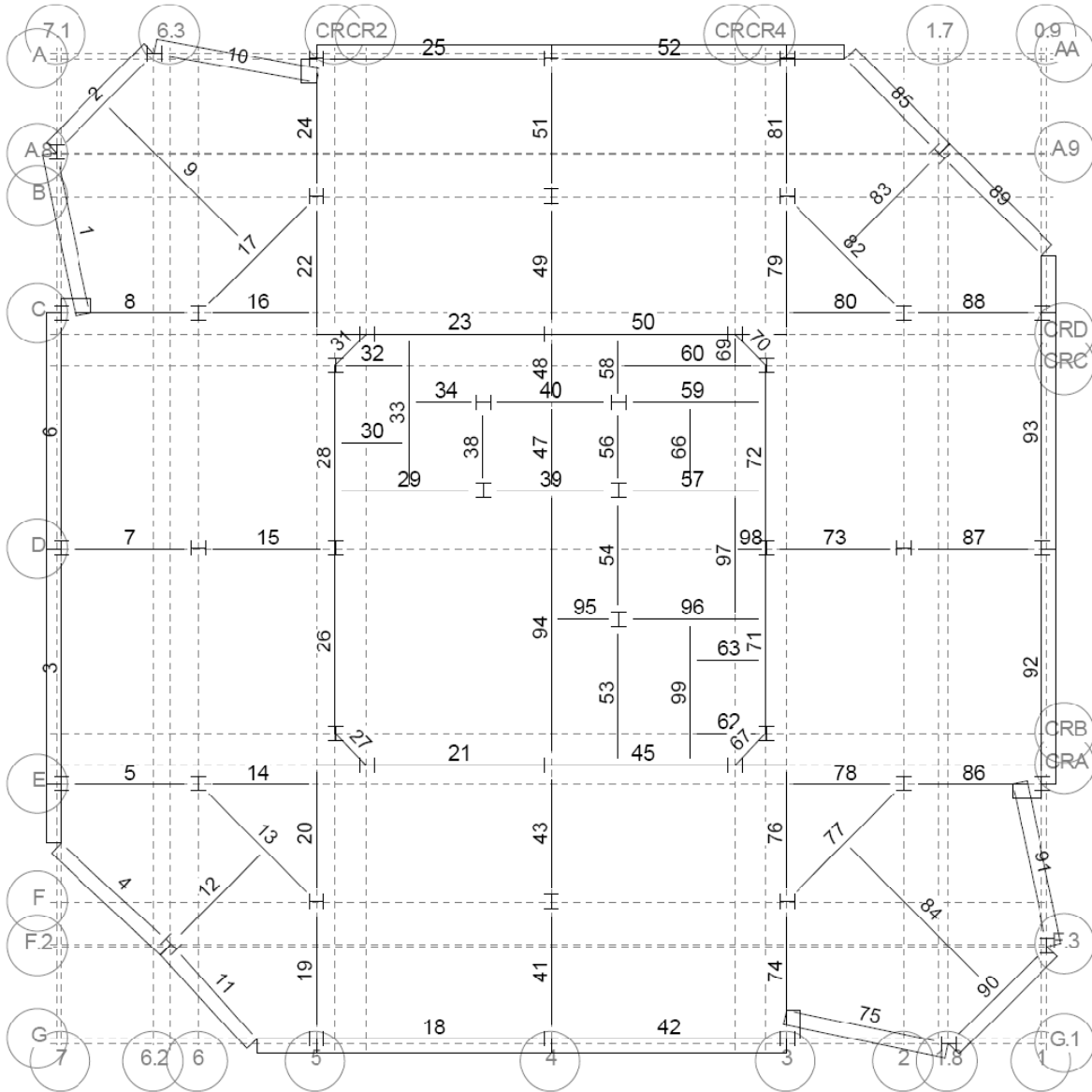






# Floor Map

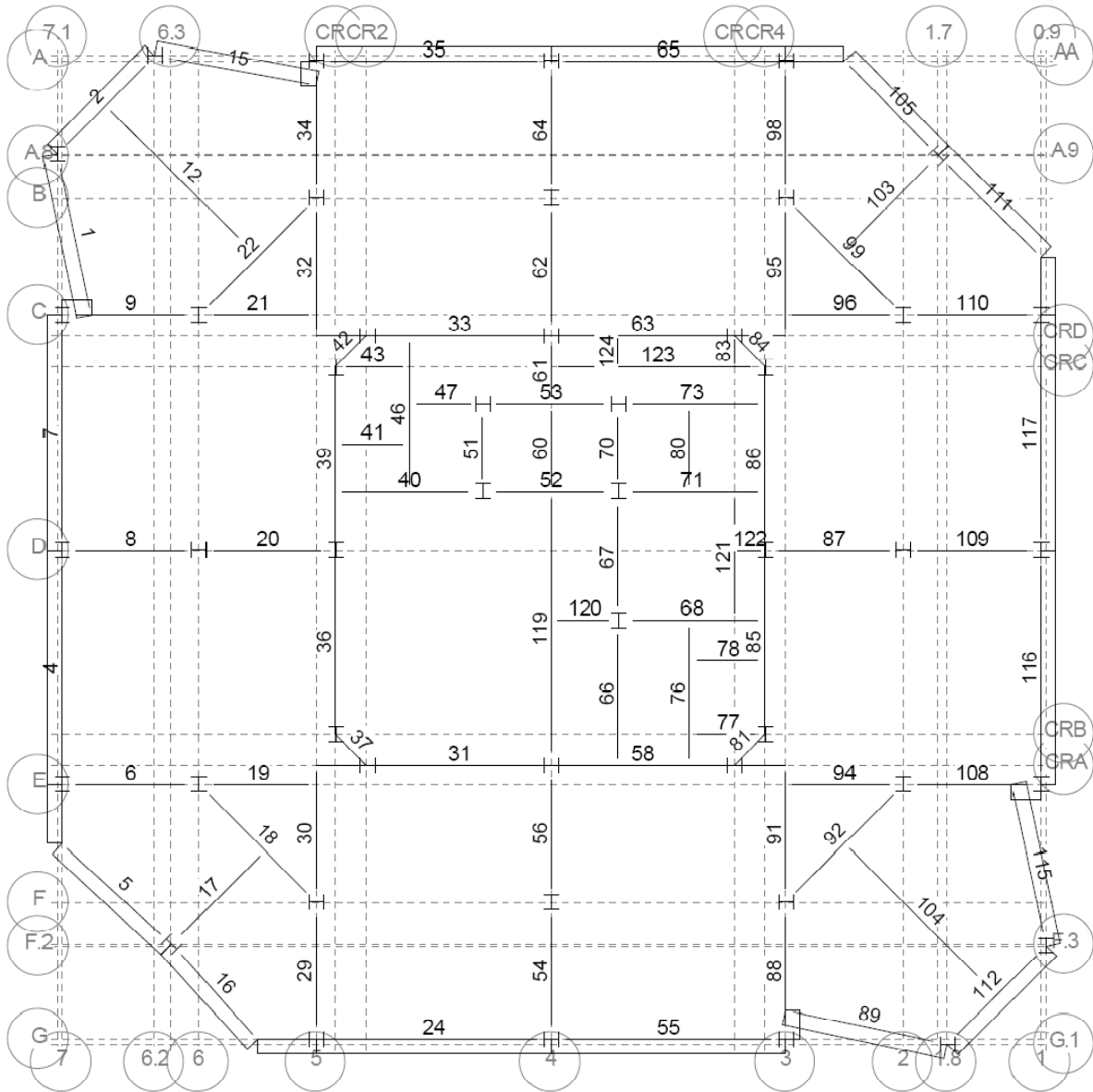
Floor Type: FLR 24 TO 39





# Floor Map

Floor Type: FLR 40 M



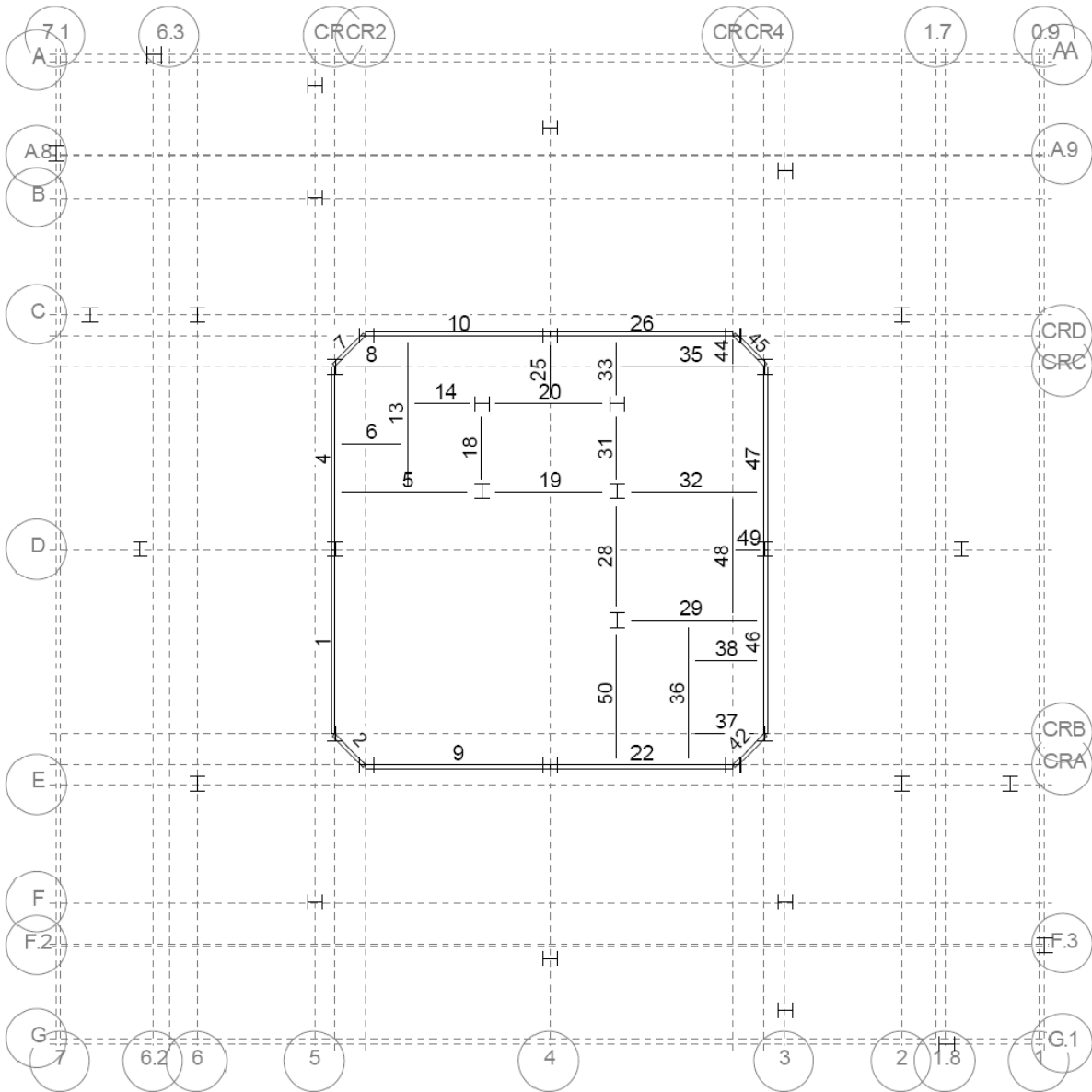


# Floor Map

RAM Steel v11.2  
DataBase: Takeoff Model - PLANKS  
Building Code: IBC

04/08/08 04:13:45  
Steel Code: AISC LRFD

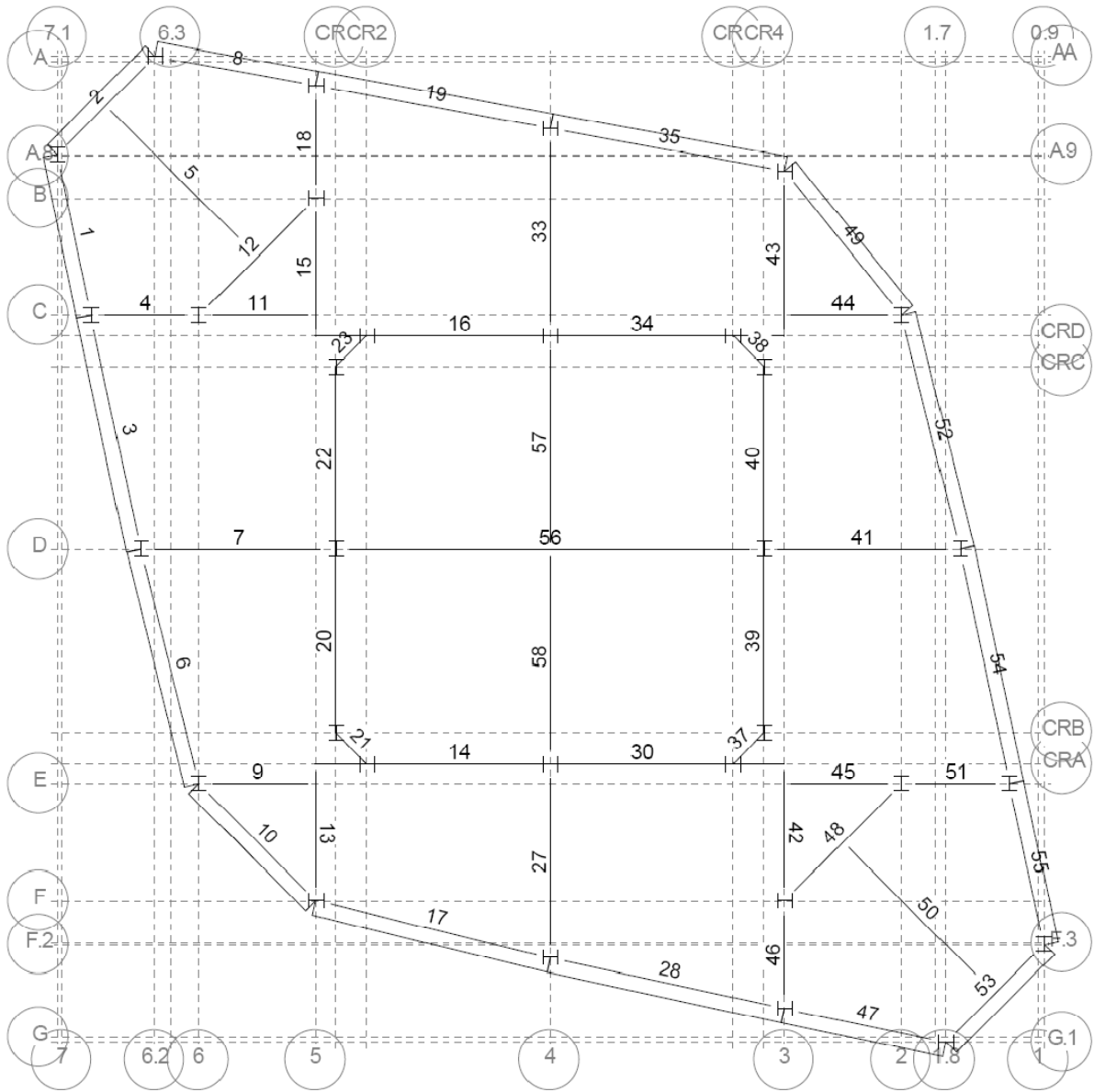
Floor Type: FLR 41 M





# Floor Map

Floor Type: ROOF





**Column Line 7.1 - A.9**

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	42.0	1.7	7.2	2	0.42 Eq III-1a	90.0	50	W14X43
41ROOF								
FLOOR 41M	42.5	1.7	7.2	2	0.43 Eq H1-1a	90.0	50	W14X43
FLOOR 40M	105.5	1.1	7.8	3	0.50 Eq H1-1a	90.0	50	W14X43
FLOOR 39	137.9	1.1	4.2	3	0.42 Eq H1-1a	90.0	50	W14X43
FLOOR 38	172.8	1.0	3.5	3	0.50 Eq H1-1a	90.0	50	W14X43
FLOOR 37	208.2	0.9	3.4	3	0.59 Eq H1-1a	90.0	50	W14X43
FLOOR 36	243.9	0.9	3.4	3	0.68 Eq H1-1a	90.0	50	W14X43
FLOOR 35	279.7	0.8	3.4	3	0.77 Eq H1-1a	90.0	50	W14X43
FLOOR 34	315.6	0.8	3.3	3	0.86 Eq H1-1a	90.0	50	W14X43
FLOOR 33	351.4	0.8	3.3	3	0.95 Eq H1-1a	90.0	50	W14X43
FLOOR 32	387.5	0.8	3.8	3	0.65 Eq H1-1a	90.0	50	W14X61
FLOOR 31	423.6	0.8	3.8	3	0.70 Eq H1-1a	90.0	50	W14X61
FLOOR 30	459.6	0.8	3.8	3	0.76 Eq H1-1a	90.0	50	W14X61
FLOOR 29	495.7	0.8	3.8	3	0.81 Eq H1-1a	90.0	50	W14X61
FLOOR 28	531.5	0.8	3.8	3	0.87 Eq H1-1a	90.0	50	W14X68
FLOOR 27	569.8	0.8	3.8	3	0.84 Eq H1-1a	90.0	50	W14X68
FLOOR 26	607.1	0.8	3.8	3	0.89 Eq H1-1a	90.0	50	W14X68
FLOOR 25	644.4	0.8	3.8	3	0.94 Eq H1-1a	90.0	50	W14X68
FLOOR 24	681.8	0.8	3.8	3	0.83 Eq H1-1a	90.0	50	W14X82
FLOOR 23	719.3	0.8	3.8	3	0.87 Eq H1-1a	90.0	50	W14X82
FLOOR 22	756.8	0.8	3.8	3	0.91 Eq H1-1a	90.0	50	W14X82
FLOOR 21	794.2	0.8	3.8	3	0.96 Eq H1-1a	90.0	50	W14X82
FLOOR 20	831.8	0.8	4.9	3	0.82 Eq H1-1a	90.0	50	W14X90
FLOOR 19	869.4	0.8	4.9	3	0.86 Eq H1-1a	90.0	50	W14X90
FLOOR 18	907.0	0.8	4.9	3	0.89 Eq H1-1a	90.0	50	W14X90
FLOOR 17	944.5	0.8	4.9	3	0.93 Eq H1-1a	90.0	50	W14X90
FLOOR 16	982.2	0.8	4.9	3	0.88 Eq H1-1a	90.0	50	W14X99
FLOOR 15	1019.9	0.8	4.9	3	0.91 Eq H1-1a	90.0	50	W14X99
FLOOR 14	1057.6	0.8	4.9	3	0.94 Eq H1-1a	90.0	50	W14X99
FLOOR 13	1095.3	0.8	4.9	3	0.98 Eq H1-1a	90.0	50	W14X99
FLOOR 12	1133.2	0.8	5.0	3	0.85 Eq H1-1a	90.0	50	W14X120
FLOOR 11	1171.2	0.8	5.0	3	0.86 Eq H1-1a	90.0	50	W14X120
FLOOR 10	1209.1	0.8	5.0	3	0.89 Eq H1-1a	90.0	50	W14X120
FLOOR 9	1247.1	0.8	5.0	3	0.91 Eq H1-1a	90.0	50	W14X120
FLOOR 8	1285.2	0.8	5.0	3	0.86 Eq H1-1a	90.0	50	W14X132
FLOOR 7	1323.3	0.8	5.0	3	0.88 Eq H1-1a	90.0	50	W14X132
FLOOR 6	1361.4	0.8	5.0	3	0.91 Eq H1-1a	90.0	50	W14X132
FLOOR 5	1399.5	1.2	7.5	3	0.94 Eq III-1a	90.0	50	W14X132
FLOOR 4	1438.9	1.8	4.2	3	0.94 Eq H1-1a	90.0	50	W14X233
FLOOR 3.2	1441.9	1.8	4.2	3	0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 3.1	1444.9	1.8	4.2	3	0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 3	1507.0	3.9	12.6	3	0.84 Eq H1-1a	90.0	50	W14X159
FLOOR 2	1568.4	0.3	6.5	1	0.95 Eq H1-1a	90.0	50	W14X159



**Column Line 7 - E**

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 40M	63.5	0.0	0.0	1	0.23 Eq III-1a	90.0	50	W14X43
FLOOR 39	140.7	0.0	0.0	1	0.36 Eq H1-1a	90.0	50	W14X43
FLOOR 38	219.5	0.0	0.0	1	0.56 Eq H1-1a	90.0	50	W14X43
FLOOR 37	297.4	0.0	0.0	1	0.76 Eq H1-1a	90.0	50	W14X43
FLOOR 36	375.0	0.0	0.0	1	0.60 Eq H1-1a	90.0	50	W14X61
FLOOR 35	452.2	0.0	0.0	1	0.72 Eq H1-1a	90.0	50	W14X61
FLOOR 34	529.2	0.0	0.0	1	0.84 Eq H1-1a	90.0	50	W14X61
FLOOR 33	607.0	0.0	0.0	1	0.97 Eq H1-1a	90.0	50	W14X61
FLOOR 32	686.1	0.0	0.0	1	0.66 Eq H1-1a	90.0	50	W14X90
FLOOR 31	765.3	0.0	0.0	1	0.74 Eq H1-1a	90.0	50	W14X90
FLOOR 30	844.5	0.0	0.0	1	0.82 Eq H1-1a	90.0	50	W14X90
FLOOR 29	923.6	0.0	0.0	1	0.89 Eq H1-1a	90.0	50	W14X90
FLOOR 28	1003.1	0.0	0.0	1	0.80 Eq III-1a	90.0	50	W14X109
FLOOR 27	1082.5	0.0	0.0	1	0.86 Eq H1-1a	90.0	50	W14X109
FLOOR 26	1162.0	0.0	0.0	1	0.93 Eq H1-1a	90.0	50	W14X109
FLOOR 25	1241.4	0.0	0.0	1	0.99 Eq H1-1a	90.0	50	W14X109
FLOOR 24	1321.4	0.0	0.0	1	0.78 Eq H1-1a	90.0	50	W14X145
FLOOR 23	1401.3	0.0	0.0	1	0.83 Eq H1-1a	90.0	50	W14X145
FLOOR 22	1481.3	0.0	0.0	1	0.88 Eq H1-1a	90.0	50	W14X145
FLOOR 21	1561.3	0.0	0.0	1	0.92 Eq III-1a	90.0	50	W14X145
FLOOR 20	1641.7	0.0	0.0	1	0.80 Eq H1-1a	90.0	50	W14X176
FLOOR 19	1722.1	0.0	0.0	1	0.84 Eq H1-1a	90.0	50	W14X176
FLOOR 18	1802.6	0.0	0.0	1	0.88 Eq H1-1a	90.0	50	W14X176
FLOOR 17	1883.0	0.0	0.0	1	0.92 Eq H1-1a	90.0	50	W14X176
FLOOR 16	1963.6	0.0	0.0	1	0.87 Eq H1-1a	90.0	50	W14X193
FLOOR 15	2044.3	0.0	0.0	1	0.91 Eq H1-1a	90.0	50	W14X193
FLOOR 14	2125.0	0.0	0.0	1	0.94 Eq H1-1a	90.0	50	W14X193
FLOOR 13	2205.7	0.0	0.0	1	0.98 Eq H1-1a	90.0	50	W14X193
FLOOR 12	2286.9	0.0	0.0	1	0.84 Eq H1-1a	90.0	50	W14X233
FLOOR 11	2368.2	0.0	0.0	1	0.87 Eq H1-1a	90.0	50	W14X233
FLOOR 10	2449.4	0.0	0.0	1	0.90 Eq H1-1a	90.0	50	W14X233
FLOOR 9	2530.7	0.0	0.0	1	0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 8	2612.3	0.0	0.0	1	0.87 Eq H1-1a	90.0	50	W14X257
FLOOR 7	2693.9	0.0	0.0	1	0.90 Eq H1-1a	90.0	50	W14X257
FLOOR 6	2775.5	0.0	0.0	1	0.92 Eq H1-1a	90.0	50	W14X257
FLOOR 5	2857.1	0.0	0.0	1	0.95 Eq H1-1a	90.0	50	W14X257
FLOOR 4	2941.3	0.0	0.0	1	0.98 Eq H1-1a	90.0	50	W14X426
FLOOR 3.2	2947.6	0.0	0.0	1	0.98 Eq H1-1a	90.0	50	W14X426
FLOOR 3.1	2944.0	0.0	0.0	1	0.98 Eq H1-1a	90.0	50	W14X426
FLOOR 3	3037.2	0.0	0.0	1	0.83 Eq H1-1a	90.0	50	W14X311
FLOOR 2	3130.8	0.0	0.0	1	0.94 Eq H1-1a	90.0	50	W14X311



**Column Line 7 - D**

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 40M	102.6	2.5	52.3	2	0.98 Eq H1-1a	90.0	50	W14X48
FLOOR 39	197.5	4.7	0.1	2	0.47 Eq H1-1a	90.0	50	W14X48
FLOOR 38	296.4	4.1	0.1	2	0.69 Eq H1-1a	90.0	50	W14X48
FLOOR 37	394.7	3.9	0.1	2	0.91 Eq H1-1a	90.0	50	W14X48
FLOOR 36	493.1	3.8	0.1	2	0.59 Eq H1-1a	90.0	50	W14X82
FLOOR 35	591.4	3.8	0.1	2	0.71 Eq H1-1a	90.0	50	W14X82
FLOOR 34	695.4	3.8	0.1	2	0.83 Eq H1-1a	90.0	50	W14X82
FLOOR 33	796.6	3.8	0.1	2	0.95 Eq H1-1a	90.0	50	W14X82
FLOOR 32	898.2	3.8	0.1	2	0.72 Eq H1-1a	90.0	50	W14X109
FLOOR 31	999.8	3.8	0.1	2	0.80 Eq H1-1a	90.0	50	W14X109
FLOOR 30	1101.1	3.8	0.1	2	0.88 Eq H1-1a	90.0	50	W14X109
FLOOR 29	1203.0	3.8	0.1	2	0.96 Eq H1-1a	90.0	50	W14X109
FLOOR 28	1305.0	3.9	0.1	2	0.78 Eq H1-1a	90.0	50	W14X145
FLOOR 27	1407.1	3.9	0.1	2	0.84 Eq H1-1a	90.0	50	W14X145
FLOOR 26	1509.1	3.9	0.1	2	0.90 Eq H1-1a	90.0	50	W14X145
FLOOR 25	1611.1	3.9	0.1	2	0.96 Eq H1-1a	90.0	50	W14X145
FLOOR 24	1713.6	4.0	0.1	2	0.84 Eq H1-1a	90.0	50	W14X176
FLOOR 23	1816.0	4.0	0.1	2	0.89 Eq H1-1a	90.0	50	W14X176
FLOOR 22	1918.4	4.0	0.1	2	0.94 Eq H1-1a	90.0	50	W14X176
FLOOR 21	2020.9	4.0	0.1	2	0.99 Eq H1-1a	90.0	50	W14X176
FLOOR 20	2123.7	4.0	0.1	2	0.87 Eq H1-1a	90.0	50	W14X211
FLOOR 19	2226.6	4.0	0.1	2	0.91 Eq H1-1a	90.0	50	W14X211
FLOOR 18	2329.4	4.0	0.1	2	0.95 Eq III-1a	90.0	50	W14X211
FLOOR 17	2432.3	4.0	0.1	2	0.99 Eq H1-1a	90.0	50	W14X211
FLOOR 16	2535.8	4.2	0.1	2	0.85 Eq H1-1a	90.0	50	W14X257
FLOOR 15	2639.2	4.2	0.1	2	0.88 Eq H1-1a	90.0	50	W14X257
FLOOR 14	2742.6	4.2	0.1	2	0.91 Eq H1-1a	90.0	50	W14X257
FLOOR 13	2846.1	4.2	0.1	2	0.95 Eq H1-1a	90.0	50	W14X257
FLOOR 12	2949.9	4.2	0.1	2	0.89 Eq H1-1a	90.0	50	W14X283
FLOOR 11	3053.6	4.2	0.1	2	0.93 Eq H1-1a</			





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#### Column Line 4.00ft - 98.75ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	67.4	26.1	2.3	1	0.82 Eq H1-1a	90.0	50	W10X33
4IROOF								
FLOOR 41M	67.8	26.1	2.3	1	0.82 Eq H1-1a	90.0	50	W10X33

#### Column Line 10.79ft - 66.75ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	93.2	4.2	0.3	1	0.89 Eq H1-1a	90.0	50	W10X33
4IROOF								
FLOOR 41M	93.6	4.2	0.3	1	0.89 Eq H1-1a	90.0	50	W10X33

#### Column Line 6.2 - AA

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	43.0	1.9	7.2	3	0.43 Eq H1-1a	0.0	50	W14X43
4IROOF								
FLOOR 41M	43.5	1.9	7.2	3	0.44 Eq H1-1a	0.0	50	W14X43
FLOOR 40M	108.9	1.2	7.8	2	0.51 Eq H1-1a	0.0	50	W14X43
FLOOR 39	141.6	1.2	4.2	2	0.43 Eq H1-1a	0.0	50	W14X43
FLOOR 38	176.7	1.1	3.5	2	0.51 Eq H1-1a	0.0	50	W14X43
FLOOR 37	212.5	1.1	3.4	2	0.60 Eq H1-1a	0.0	50	W14X43
FLOOR 36	248.5	1.0	3.4	2	0.69 Eq H1-1a	0.0	50	W14X43
FLOOR 35	284.6	1.0	3.4	2	0.78 Eq H1-1a	0.0	50	W14X43
FLOOR 34	320.8	1.0	3.3	2	0.87 Eq H1-1a	0.0	50	W14X43
FLOOR 33	357.0	0.9	3.3	2	0.97 Eq H1-1a	0.0	50	W14X43
FLOOR 32	393.4	0.9	3.8	2	0.66 Eq H1-1a	0.0	50	W14X61
FLOOR 31	429.8	0.9	3.8	2	0.71 Eq H1-1a	0.0	50	W14X61
FLOOR 30	466.2	0.9	3.8	2	0.77 Eq H1-1a	0.0	50	W14X61
FLOOR 29	502.6	0.9	3.8	2	0.83 Eq H1-1a	0.0	50	W14X61
FLOOR 28	539.9	0.9	3.8	2	0.79 Eq H1-1a	0.0	50	W14X66
FLOOR 27	577.6	0.9	3.8	2	0.85 Eq H1-1a	0.0	50	W14X66
FLOOR 26	615.2	0.9	3.8	2	0.90 Eq H1-1a	0.0	50	W14X66
FLOOR 25	652.9	0.9	3.8	2	0.95 Eq H1-1a	0.0	50	W14X66
FLOOR 24	690.7	0.9	3.8	2	0.84 Eq H1-1a	0.0	50	W14X82
FLOOR 23	728.6	0.9	3.8	2	0.88 Eq H1-1a	0.0	50	W14X82
FLOOR 22	766.4	0.9	3.8	2	0.93 Eq H1-1a	0.0	50	W14X82
FLOOR 21	804.2	0.9	3.8	2	0.91 Eq H1-1a	0.0	50	W14X82
FLOOR 20	842.2	0.9	4.9	2	0.83 Eq H1-1a	0.0	50	W14X99
FLOOR 19	880.1	0.9	4.9	2	0.87 Eq H1-1a	0.0	50	W14X99
FLOOR 18	918.0	0.9	4.9	2	0.90 Eq H1-1a	0.0	50	W14X99
FLOOR 17	956.0	0.9	4.9	2	0.84 Eq H1-1a	0.0	50	W14X99
FLOOR 16	994.0	0.9	4.9	2	0.89 Eq H1-1a	0.0	50	W14X99
FLOOR 15	1032.1	0.9	4.9	2	0.92 Eq H1-1a	0.0	50	W14X99
FLOOR 14	1070.1	0.9	4.9	2	0.96 Eq H1-1a	0.0	50	W14X99
FLOOR 13	1108.2	0.9	4.9	2	0.99 Eq H1-1a	0.0	50	W14X99



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FLOOR 12	1146.5	0.9	5.0	2	0.84 Eq H1-1a	0.0	50	W14X120
FLOOR 11	1184.8	0.9	5.0	2	0.87 Eq H1-1a	0.0	50	W14X120
FLOOR 10	1223.1	0.9	5.0	2	0.90 Eq H1-1a	0.0	50	W14X120
FLOOR 9	1261.4	0.9	5.0	2	0.92 Eq H1-1a	0.0	50	W14X120
FLOOR 8	1299.9	0.9	5.0	2	0.87 Eq H1-1a	0.0	50	W14X152
FLOOR 7	1338.3	0.9	5.0	2	0.88 Eq H1-1a	0.0	50	W14X152
FLOOR 6	1376.8	0.9	5.0	2	0.92 Eq H1-1a	0.0	50	W14X152
FLOOR 5	1415.3	1.4	7.5	2	0.99 Eq H1-1a	0.0	50	W14X152
FLOOR 4	1453.1	1.9	4.2	2	0.96 Eq H1-1a	0.0	50	W14X233
FLOOR 3.2	1458.1	1.9	4.2	2	0.96 Eq H1-1a	0.0	50	W14X233
FLOOR 3.1	1461.0	1.9	4.2	2	0.96 Eq H1-1a	0.0	50	W14X233
FT FLOOR 1	1523.8	4.7	17.6	2	0.85 Eq H1-1a	0.0	50	W14X159
FLOOR 2	1585.7	0.5	6.5	1	0.96 Eq H1-1a	0.0	50	W14X159

#### Column Line 6.3 - FJ

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 40M	41.8	1.1	18.3	8	0.37 Eq H1-1b	135.0	50	W14X43
FLOOR 39	71.8	0.1	11.0	1	0.27 Eq H1-1b	135.0	50	W14X43
FLOOR 38	110.9	0.1	8.8	1	0.41 Eq H1-1a	135.0	50	W14X43
FLOOR 37	145.5	0.1	8.6	1	0.49 Eq H1-1a	135.0	50	W14X43
FLOOR 36	178.8	0.1	8.4	1	0.58 Eq H1-1a	135.0	50	W14X43
FLOOR 35	213.9	0.1	8.3	1	0.67 Eq H1-1a	135.0	50	W14X43
FLOOR 34	247.9	0.1	8.3	1	0.75 Eq H1-1a	135.0	50	W14X43
FLOOR 33	281.8	0.1	8.2	1	0.84 Eq H1-1a	135.0	50	W14X43
FLOOR 32	315.7	0.1	8.2	1	0.74 Eq H1-1a	135.0	50	W14X53
FLOOR 31	349.6	0.1	8.2	1	0.81 Eq H1-1a	135.0	50	W14X53
FLOOR 30	383.4	0.1	8.2	1	0.88 Eq H1-1a	135.0	50	W14X53
FLOOR 29	417.2	0.1	8.1	1	0.95 Eq H1-1a	135.0	50	W14X53
FLOOR 28	452.4	0.1	9.1	1	0.79 Eq H1-1a	135.0	50	W14X61
FLOOR 27	487.2	0.1	9.1	1	0.84 Eq H1-1a	135.0	50	W14X61
FLOOR 26	522.0	0.1	9.1	1	0.90 Eq H1-1a	135.0	50	W14X61
FLOOR 25	556.8	0.1	9.1	1	0.95 Eq H1-1a	135.0	50	W14X61
FLOOR 24	591.8	0.1	9.1	1	0.83 Eq H1-1a	135.0	50	W14X74
FLOOR 23	626.8	0.1	9.1	1	0.87 Eq H1-1a	135.0	50	W14X74
FLOOR 22	661.8	0.1	9.1	1	0.91 Eq H1-1a	135.0	50	W14X74
FLOOR 21	696.7	0.1	9.1	1	0.96 Eq H1-1a	135.0	50	W14X74
FLOOR 20	732.0	0.1	11.8	1	0.75 Eq H1-1a	135.0	50	W14X90
FLOOR 19	767.2	0.1	11.8	1	0.78 Eq H1-1a	135.0	50	W14X90
FLOOR 18	802.4	0.1	11.8	1	0.81 Eq H1-1a	135.0	50	W14X90
FLOOR 17	837.6	0.1	11.8	1	0.85 Eq H1-1a	135.0	50	W14X90
FLOOR 16	872.8	0.1	11.8	1	0.88 Eq H1-1a	135.0	50	W14X90
FLOOR 15	908.0	0.1	11.8	1	0.92 Eq H1-1a	135.0	50	W14X90
FLOOR 14	943.2	0.1	11.8	1	0.95 Eq H1-1a	135.0	50	W14X90
FLOOR 13	978.5	0.1	11.8	1	0.98 Eq H1-1a	135.0	50	W14X90
FLOOR 12	1013.9	0.1	11.8	1	0.84 Eq H1-1a	135.0	50	W14X109
FLOOR 11	1049.4	0.1	11.8	1	0.87 Eq H1-1a	135.0	50	W14X109



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FLOOR 10	1081.0	0.1	11.8	1	0.90 Eq H1-1a	135.0	50	W14X139
FLOOR 9	1120.4	0.1	11.8	1	0.92 Eq H1-1a	135.0	50	W14X139
FLOOR 8	1156.1	0.1	11.9	1	0.86 Eq H1-1a	135.0	50	W14X120
FLOOR 7	1191.7	0.1	11.9	1	0.89 Eq H1-1a	135.0	50	W14X120
FLOOR 6	1227.4	0.1	11.9	1	0.92 Eq H1-1a	135.0	50	W14X120
FLOOR 5	1263.0	0.2	18.0	1	0.96 Eq H1-1a	135.0	50	W14X120
FLOOR 4	1300.1	0.2	7.1	1	0.95 Eq H1-1a	135.0	50	W14X211
FLOOR 3.2	1303.2	0.2	7.1	1	0.96 Eq H1-1a	135.0	50	W14X211
FLOOR 3.1	1306.4	0.2	7.1	1	0.96 Eq H1-1a	135.0	50	W14X211
FLOOR 3	1356.7	0.5	30.0	1	0.86 Eq H1-1a	135.0	50	W14X145
FLOOR 2	1414.3	0.2	15.7	1	0.95 Eq H1-1a	135.0	50	W14X145

#### Column Line 6 - L

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	52.1	28.2	5.8	4	0.57 Eq H1-1a	90.0	50	W14X43
4IROOF								
FLOOR 41M	57.6	28.7	5.8	4	0.59 Eq H1-1a	90.0	50	W14X43
FLOOR 40M	138.2	3.0	10.3	6	0.65 Eq H1-1a	90.0	50	W14X43
FLOOR 39	175.8	2.8	1.5	2	0.48 Eq H1-1a	90.0	50	W14X43
FLOOR 38	200.9	2.3	1.5	2	0.54 Eq H1-1a	90.0	50	W14X43
FLOOR 37	226.6	2.3	1.4	2	0.61 Eq H1-1a	90.0	50	W14X43
FLOOR 36	252.7	2.2	1.4	2	0.68 Eq H1-1a	90.0	50	W14X43
FLOOR 35	278.9	2.2	1.4	2	0.74 Eq H1-1a	90.0	50	W14X43
FLOOR 34	305.1	2.2	1.4	2	0.81 Eq H1-1a	90.0	50	W14X43
FLOOR 33	331.5	2.2	1.4	2	0.88 Eq H1-1a	90.0	50	W14X43
FLOOR 32	358.0	2.2	1.3	2	0.76 Eq H1-1a	90.0	50	W14X53
FLOOR 31	384.5	2.2	1.3	2	0.81 Eq H1-1a	90.0	50	W14X53
FLOOR 30	411.1	2.2	1.3	2	0.86 Eq H1-1a	90.0	50	W14X53
FLOOR 29	437.6	2.2	1.3	2	0.90 Eq H1-1a	90.0	50	W14X53
FLOOR 28	464.2	2.2	1.5	2	0.75 Eq H1-1a	90.0	50	W14X61
FLOOR 27	490.9	2.2	1.5	2	0.80 Eq H1-1a			



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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 9	227.7	0.0	0.0	1	0.75 Eq H1-1a	0.0	50	W10X33
FLOOR 8	228.5	0.0	0.0	1	0.75 Eq H1-1a	0.0	50	W10X33
FLOOR 7	229.4	0.0	0.0	1	0.75 Eq H1-1a	0.0	50	W10X33
FLOOR 6	230.2	0.0	0.0	1	0.76 Eq H1-1a	0.0	50	W10X33
FLOOR 5	231.1	0.0	0.0	1	0.76 Eq H1-1a	0.0	50	W10X33
FLOOR 4	232.6	7.0	0.0	3	0.91 Eq H1-1a	0.0	50	W10X38
FLOOR 3.2	233.7	7.0	0.0	3	0.92 Eq H1-1a	0.0	50	W10X38
FLOOR 3.1	234.9	7.0	0.0	3	0.93 Eq H1-1a	0.0	50	W10X38
FLOOR 3	360.9	13.5	0.0	3	0.57 Eq H1-1a	0.0	50	W10X58
FLOOR 2	522.3	0.1	0.0	1	0.92 Eq H1-1a	0.0	50	W10X58

#### Column Line 5 - C

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	41.4	12.3	7.1	4	0.45 Eq H1-1a	90.0	50	W14X143
41ROOF								
FLOOR 41M	41.8	12.3	7.1	4	0.45 Eq H1-1a	90.0	50	W14X143
FLOOR 40M	167.1	13.5	12.0	10	0.82 Eq H1-1a	90.0	50	W14X143
FLOOR 39	226.2	7.6	2.2	6	0.68 Eq H1-1a	90.0	50	W14X143
FLOOR 38	278.0	6.3	2.7	7	0.77 Eq H1-1a	90.0	50	W14X143
FLOOR 37	318.7	6.3	2.6	2	0.88 Eq H1-1a	90.0	50	W14X143
FLOOR 36	360.1	6.3	3.0	2	0.61 Eq H1-1a	90.0	50	W14X151
FLOOR 35	401.7	6.3	3.0	2	0.68 Eq H1-1a	90.0	50	W14X151
FLOOR 34	443.5	6.2	2.9	2	0.74 Eq H1-1a	90.0	50	W14X151
FLOOR 33	485.3	6.2	2.9	2	0.81 Eq H1-1a	90.0	50	W14X151
FLOOR 32	528.3	6.2	2.9	2	0.78 Eq H1-1a	90.0	50	W14X158
FLOOR 31	572.3	6.2	2.9	2	0.85 Eq H1-1a	90.0	50	W14X158
FLOOR 30	616.2	6.2	2.9	2	0.91 Eq H1-1a	90.0	50	W14X158
FLOOR 29	660.2	6.2	2.9	2	0.97 Eq H1-1a	90.0	50	W14X158
FLOOR 28	704.5	6.2	3.8	2	0.70 Eq H1-1a	90.0	50	W14X190
FLOOR 27	748.7	6.2	3.8	2	0.74 Eq H1-1a	90.0	50	W14X190
FLOOR 26	793.0	6.2	3.8	2	0.79 Eq H1-1a	90.0	50	W14X190
FLOOR 25	837.2	6.2	3.8	2	0.83 Eq H1-1a	90.0	50	W14X190
FLOOR 24	881.6	6.3	3.8	2	0.79 Eq H1-1a	90.0	50	W14X199
FLOOR 23	926.0	6.3	3.8	2	0.83 Eq H1-1a	90.0	50	W14X199
FLOOR 22	970.4	6.3	3.8	2	0.87 Eq H1-1a	90.0	50	W14X199
FLOOR 21	1014.8	6.3	3.8	2	0.91 Eq H1-1a	90.0	50	W14X199
FLOOR 20	1059.3	6.3	3.8	2	0.86 Eq H1-1a	90.0	50	W14X109
FLOOR 19	1103.8	6.3	3.8	2	0.90 Eq H1-1a	90.0	50	W14X109
FLOOR 18	1148.3	6.3	3.8	2	0.93 Eq H1-1a	90.0	50	W14X109
FLOOR 17	1192.8	6.3	3.8	2	0.97 Eq H1-1a	90.0	50	W14X109
FLOOR 16	1237.7	6.5	3.8	2	0.83 Eq H1-1a	90.0	50	W14X132
FLOOR 15	1282.5	6.5	3.8	2	0.86 Eq H1-1a	90.0	50	W14X132
FLOOR 14	1327.3	6.5	3.8	2	0.89 Eq H1-1a	90.0	50	W14X132
FLOOR 13	1372.1	6.5	3.8	2	0.92 Eq H1-1a	90.0	50	W14X132
FLOOR 12	1417.1	6.5	4.0	2	0.85 Eq H1-1a	90.0	50	W14X145
FLOOR 11	1462.0	6.5	4.0	2	0.88 Eq H1-1a	90.0	50	W14X145



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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 10	1507.0	6.5	4.0	2	0.91 Eq H1-1a	90.0	50	W14X145
FLOOR 9	1552.0	6.5	4.0	2	0.92 Eq H1-1a	90.0	50	W14X145
FLOOR 8	1597.1	6.6	4.0	2	0.88 Eq H1-1a	90.0	50	W14X159
FLOOR 7	1642.3	6.6	4.0	2	0.90 Eq H1-1a	90.0	50	W14X159
FLOOR 6	1687.4	6.6	4.0	2	0.92 Eq H1-1a	90.0	50	W14X159
FLOOR 5	1732.6	9.9	6.0	2	0.96 Eq H1-1a	90.0	50	W14X159
FLOOR 4	1779.3	5.4	7.8	5	0.92 Eq H1-1a	90.0	50	W14X283
FLOOR 3.2	1783.0	5.4	7.9	5	0.95 Eq H1-1a	90.0	50	W14X283
FLOOR 3.1	1786.6	5.4	7.9	5	0.95 Eq H1-1a	90.0	50	W14X283
FLOOR 3	1924.7	15.8	13.7	2	0.81 Eq H1-1a	90.0	50	W14X211
FLOOR 2	2064.0	8.5	2.1	1	0.92 Eq H1-1a	90.0	50	W14X211

#### Column Line 5 - G

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	60.1	0.0	0.0	1	0.22 Eq H1-1a	0.0	50	W14X43
FLOOR 40M	135.0	0.0	0.0	1	0.35 Eq H1-1a	0.0	50	W14X43
FLOOR 38	210.6	0.0	0.0	1	0.54 Eq H1-1a	0.0	50	W14X43
FLOOR 37	285.4	0.0	0.0	1	0.75 Eq H1-1a	0.0	50	W14X43
FLOOR 36	359.8	0.0	0.0	1	0.97 Eq H1-1a	0.0	50	W14X61
FLOOR 35	434.0	0.0	0.0	1	0.69 Eq H1-1a	0.0	50	W14X61
FLOOR 34	507.8	0.0	0.0	1	0.81 Eq H1-1a	0.0	50	W14X61
FLOOR 33	581.9	0.0	0.0	1	0.92 Eq H1-1a	0.0	50	W14X61
FLOOR 32	657.9	0.0	0.0	1	0.84 Eq H1-1a	0.0	50	W14X90
FLOOR 31	733.8	0.0	0.0	1	0.71 Eq H1-1a	0.0	50	W14X90
FLOOR 30	809.8	0.0	0.0	1	0.78 Eq H1-1a	0.0	50	W14X90
FLOOR 29	885.8	0.0	0.0	1	0.86 Eq H1-1a	0.0	50	W14X90
FLOOR 28	962.0	0.0	0.0	1	0.77 Eq H1-1a	0.0	50	W14X109
FLOOR 27	1038.3	0.0	0.0	1	0.82 Eq H1-1a	0.0	50	W14X109
FLOOR 26	1114.5	0.0	0.0	1	0.89 Eq H1-1a	0.0	50	W14X109
FLOOR 25	1190.8	0.0	0.0	1	0.95 Eq H1-1a	0.0	50	W14X109
FLOOR 24	1267.3	0.0	0.0	1	0.83 Eq H1-1a	0.0	50	W14X132
FLOOR 23	1343.9	0.0	0.0	1	0.88 Eq H1-1a	0.0	50	W14X132
FLOOR 22	1420.5	0.0	0.0	1	0.93 Eq H1-1a	0.0	50	W14X132
FLOOR 21	1497.1	0.0	0.0	1	0.98 Eq H1-1a	0.0	50	W14X132
FLOOR 20	1574.1	0.0	0.0	1	0.85 Eq H1-1a	0.0	50	W14X159
FLOOR 19	1651.0	0.0	0.0	1	0.89 Eq H1-1a	0.0	50	W14X159
FLOOR 18	1728.0	0.0	0.0	1	0.94 Eq H1-1a	0.0	50	W14X159
FLOOR 17	1805.0	0.0	0.0	1	0.98 Eq H1-1a	0.0	50	W14X159
FLOOR 16	1882.5	0.0	0.0	1	0.84 Eq H1-1a	0.0	50	W14X193
FLOOR 15	1959.9	0.0	0.0	1	0.87 Eq H1-1a	0.0	50	W14X193
FLOOR 14	2037.4	0.0	0.0	1	0.90 Eq H1-1a	0.0	50	W14X193
FLOOR 13	2114.9	0.0	0.0	1	0.94 Eq H1-1a	0.0	50	W14X193
FLOOR 12	2192.6	0.0	0.0	1	0.89 Eq H1-1a	0.0	50	W14X211
FLOOR 11	2270.4	0.0	0.0	1	0.92 Eq H1-1a	0.0	50	W14X211
FLOOR 10	2348.1	0.0	0.0	1	0.95 Eq H1-1a	0.0	50	W14X211
FLOOR 9	2425.8	0.0	0.0	1	0.92 Eq H1-1a	0.0	50	W14X211



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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 8	2504.2	0.0	0.0	1	0.83 Eq H1-1a	0.0	50	W14X257
FLOOR 7	2582.6	0.0	0.0	1	0.86 Eq H1-1a	0.0	50	W14X257
FLOOR 6	2661.1	0.0	0.0	1	0.89 Eq H1-1a	0.0	50	W14X257
FLOOR 5	2739.5	0.0	0.0	1	0.91 Eq H1-1a	0.0	50	W14X257
FLOOR 4	2820.5	0.0	0.0	1	0.94 Eq H1-1a	0.0	50	W14X266
FLOOR 3.2	2826.8	0.0	0.0	1	0.94 Eq H1-1a	0.0	50	W14X266
FLOOR 3.1	2833.2	0.0	0.0	1	0.94 Eq H1-1a	0.0	50	W14X266
FLOOR 3	2911.2	0.0	0.0	1	0.88 Eq H1-1a	0.0	50	W14X283
FLOOR 2	2999.2	0.0	0.0	1	0.89 Eq H1-1a	0.0	50	W14X283

#### Column Line F - F

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	43.8	22.9	14.2	4	0.61 Eq H1-1a	0.0	50	W14X143
41ROOF								
FLOOR 41M	44.3	22.9	14.2	4	0.62 Eq H1-1a	0.0	50	W14X143
FLOOR 40M	153.4	3.8	15.0	10	0.78 Eq H1-1a	0.0	50	W14X143
FLOOR 39	192.2	3.5	3.2	10	0.55 Eq H1-1a	0.0	50	W14X143
FLOOR 38	221.9	2.9	2.7	4	0.62 Eq H1-1a	0.0	50	W14X143
FLOOR 37	250.5	2.9	2.6	4	0.69 Eq H1-1a	0.0	50	W14X143
FLOOR 36	279.4	2.8	2.6	4	0.76 Eq H1-1a	0.0	50	W14X143
FLOOR 35	308.4	2.8	2.6	4	0.84 Eq H1-1a	0.0	50	W14X143
FLOOR 34	337.6	2.8	2.5	4	0.91 Eq H1-1a	0.0	50	W14X143
FLOOR 33	366.9	2.8	2.5	4	0.99 Eq H1-1a	0.0	50	W14X143
FLOOR 32	396.4	2.8	2.9	4	0.66 Eq H1-1a	0.0	50	W14X151
FLOOR 31	426.0	2.8	2.9	4	0.71 Eq H1-1a	0.0	50	W14X151
FLOOR 30	455.5	2.8	2.8	4	0.75 Eq H1-1a	0.0	50	W14X151
FLOOR 29	485.1	2.8	2.8	4	0.80 Eq H1-1a	0.0	50	W14X151
FLOOR 28	515.1	2.8	2.8	4	0.85 Eq H1-1a	0.0	50	W14X151
FLOOR 27	545.8	2.8	2.8	4	0.90 Eq H1-1a	0.0	50	W14X151
FLOOR 26	576.6	2.8	2.8	4	0.94 Eq H1-1a	0.0	50	W14X151
FLOOR 25	607.4	2.8	2.8	4	0.99 Eq H1-1a	0.0	50	W14X151
FLOOR 24	638.4	2.8	2.8	4	0.85 Eq H1-1a	0.0	50	W14X174
FLOOR 23	669.5	2.8	2.8	4	0.89 Eq H1-1a	0.0	50	W14X174
FLOOR 22	700.3	2.8	2.8	4	0.93 Eq H1-1a	0.0	50	W14X174
FLOOR 21	731.9	2.8	2.8	4	0.97 Eq H1-1a	0.0	50	W14X174
FLOOR 20	762.4	2.8	3.7	4	0.75 Eq H1-1a	0.0	50	W14X190
FLOOR 19	793.5	2.8	3.7	4	0.78 Eq H1-1a	0.0	50	W14X190
FLOOR 18	824.7	2.8	3.7	4	0.81 Eq H1-1a	0.0	50	W14X190
FLOOR 17	855.8	2.8	3.7	4	0.84 Eq H1-1a	0.0	50	W14X190
FLOOR 16	887.0	2.8	3.7	4	0.87 Eq H1-1a	0.0	50	W14X190
FLOOR 15	918.2	2.8						





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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 10	1572.9	6.5	4.7	2.95	Eq H1-1a	0.0	50	W14X145
FLOOR 9	1619.5	6.5	4.7	2.97	Eq H1-1a	0.0	50	W14X145
FLOOR 8	1666.4	6.6	4.7	2.91	Eq H1-1a	0.0	50	W14X139
FLOOR 7	1713.2	6.6	4.7	2.94	Eq H1-1a	0.0	50	W14X159
FLOOR 6	1760.0	6.6	4.7	2.97	Eq H1-1a	0.0	50	W14X159
FLOOR 5	1806.9	9.9	7.1	3.00	Eq H1-1a	0.0	50	W14X159
FLOOR 4	1853.3	5.4	12.3	3.99	Eq H1-1a	0.0	50	W14X283
FLOOR 3.2	1859.0	5.4	12.3	3.99	Eq H1-1a	0.0	50	W14X283
FLOOR 3.1	1862.6	5.4	12.4	3.99	Eq H1-1a	0.0	50	W14X283
FLOOR 3	2012.7	13.8	20.1	2.85	Eq H1-1a	0.0	50	W14X211
FLOOR 2	2164.0	8.3	6.2	1.98	Eq H1-1a	0.0	50	W14X211

#### Column Line 34.75ft - 130.17ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	69.6	26.8	2.4	1.85	Eq H1-1a	0.0	50	W10X33
41ROOF								
FLOOR 41M	69.9	26.8	2.5	1.85	Eq H1-1a	0.0	50	W10X33

#### Column Line 5 - A

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 40M	111.0	19.9	65.6	1.74	Eq H1-1a	0.0	50	W14X61
FLOOR 39	167.5	25.2	3.5	1.56	Eq H1-1a	0.0	50	W14X43
FLOOR 38	227.5	20.7	2.9	1.69	Eq H1-1a	0.0	50	W14X43
FLOOR 37	287.8	20.4	2.8	1.85	Eq H1-1a	0.0	50	W14X43
FLOOR 36	348.2	20.4	3.2	1.63	Eq H1-1a	0.0	50	W14X61
FLOOR 35	408.5	20.3	3.2	1.72	Eq H1-1a	0.0	50	W14X61
FLOOR 34	468.7	20.2	3.2	1.82	Eq H1-1a	0.0	50	W14X61
FLOOR 33	529.1	20.1	3.2	1.91	Eq H1-1a	0.0	50	W14X61
FLOOR 32	591.3	20.5	3.2	1.75	Eq H1-1a	0.0	50	W14X82
FLOOR 31	653.6	20.5	3.2	1.82	Eq H1-1a	0.0	50	W14X82
FLOOR 30	715.8	20.5	3.2	1.90	Eq H1-1a	0.0	50	W14X82
FLOOR 29	778.1	20.5	3.2	1.97	Eq H1-1a	0.0	50	W14X82
FLOOR 28	840.6	20.4	4.2	1.78	Eq H1-1a	0.0	50	W14X99
FLOOR 27	903.0	20.4	4.2	1.83	Eq H1-1a	0.0	50	W14X99
FLOOR 26	965.5	20.4	4.2	1.89	Eq H1-1a	0.0	50	W14X99
FLOOR 25	1028.0	20.4	4.2	1.94	Eq H1-1a	0.0	50	W14X99
FLOOR 24	1090.7	20.7	4.2	1.82	Eq H1-1a	0.0	50	W14X120
FLOOR 23	1153.4	20.7	4.2	1.87	Eq H1-1a	0.0	50	W14X120
FLOOR 22	1216.1	20.7	4.2	1.91	Eq H1-1a	0.0	50	W14X120
FLOOR 21	1278.8	20.7	4.2	1.96	Eq H1-1a	0.0	50	W14X120
FLOOR 20	1341.8	21.0	4.4	1.82	Eq H1-1a	0.0	50	W14X145
FLOOR 19	1404.8	21.0	4.4	1.86	Eq H1-1a	0.0	50	W14X145
FLOOR 18	1467.8	21.0	4.4	1.90	Eq H1-1a	0.0	50	W14X145
FLOOR 17	1530.8	21.0	4.4	1.93	Eq H1-1a	0.0	50	W14X145
FLOOR 16	1594.0	21.3	4.4	1.89	Eq H1-1a	0.0	50	W14X159
FLOOR 15	1657.2	21.3	4.4	1.92	Eq H1-1a	0.0	50	W14X159



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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 14	1720.4	21.3	4.4	1.96	Eq H1-1a	0.0	50	W14X159
FLOOR 13	1783.5	21.3	4.4	1.99	Eq H1-1a	0.0	50	W14X159
FLOOR 12	1847.2	21.8	4.4	1.84	Eq H1-1a	0.0	50	W14X193
FLOOR 11	1910.8	21.8	4.4	1.87	Eq H1-1a	0.0	50	W14X193
FLOOR 10	1974.4	21.8	4.4	1.90	Eq H1-1a	0.0	50	W14X193
FLOOR 9	2038.0	21.8	4.4	1.93	Eq H1-1a	0.0	50	W14X193
FLOOR 8	2101.8	22.0	4.4	1.87	Eq H1-1a	0.0	50	W14X211
FLOOR 7	2165.6	22.0	4.4	1.90	Eq H1-1a	0.0	50	W14X211
FLOOR 6	2229.5	22.0	4.4	1.93	Eq H1-1a	0.0	50	W14X211
FLOOR 5	2293.3	33.2	6.7	1.96	Eq H1-1a	0.0	50	W14X211
FLOOR 4	2357.2	12.0	16.3	1.93	Eq H1-1a	0.0	50	W14X370
FLOOR 3.2	2364.0	12.0	16.4	1.94	Eq H1-1a	0.0	50	W14X370
FLOOR 3.1	2368.7	12.0	16.4	1.94	Eq H1-1a	0.0	50	W14X370
FLOOR 3	2435.4	5.8	36.2	1.85	Eq H1-1a	0.0	50	W14X370
FLOOR 2	2501.1	2.5	18.6	1.93	Eq H1-1a	0.0	50	W14X370

#### Column Line 57.42ft - 57.17ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 23	2.9	0.1	0.1	1.03	Eq H1-1b	90.0	50	W10X33
FLOOR 22	5.7	0.0	0.1	1.02	Eq H1-1b	90.0	50	W10X33
FLOOR 21	8.6	0.0	0.1	1.03	Eq H1-1b	90.0	50	W10X33
FLOOR 20	11.5	0.0	0.1	1.04	Eq H1-1b	90.0	50	W10X33
FLOOR 19	14.3	0.0	0.1	1.05	Eq H1-1b	90.0	50	W10X33
FLOOR 18	17.2	0.0	0.1	1.06	Eq H1-1b	90.0	50	W10X33
FLOOR 17	20.0	0.0	0.1	1.07	Eq H1-1b	90.0	50	W10X33
FLOOR 16	22.9	0.0	0.1	1.08	Eq H1-1b	90.0	50	W10X33
FLOOR 15	25.8	0.0	0.1	1.08	Eq H1-1b	90.0	50	W10X33
FLOOR 14	28.6	0.0	0.1	1.09	Eq H1-1b	90.0	50	W10X33
FLOOR 13	31.5	0.0	0.1	1.10	Eq H1-1b	90.0	50	W10X33
FLOOR 12	34.4	0.0	0.1	1.11	Eq H1-1b	90.0	50	W10X33
FLOOR 11	37.2	0.0	0.1	1.12	Eq H1-1b	90.0	50	W10X33
FLOOR 10	40.1	0.0	0.1	1.13	Eq H1-1b	90.0	50	W10X33
FLOOR 9	42.9	0.0	0.1	1.14	Eq H1-1b	90.0	50	W10X33
FLOOR 8	45.8	0.0	0.1	1.15	Eq H1-1b	90.0	50	W10X33
FLOOR 7	48.7	0.0	0.1	1.16	Eq H1-1b	90.0	50	W10X33
FLOOR 6	51.5	0.0	0.1	1.17	Eq H1-1b	90.0	50	W10X33
FLOOR 5	54.4	0.1	0.1	1.18	Eq H1-1b	90.0	50	W10X33
FLOOR 4	57.3	2.8	0.0	3.90	Eq H1-1a	90.0	50	W10X39
FLOOR 3.2	57.8	2.8	0.0	3.91	Eq H1-1a	90.0	50	W10X39
FLOOR 3.1	58.3	2.8	0.0	3.91	Eq H1-1a	90.0	50	W10X39
FLOOR 3	110.7	5.5	0.1	3.40	Eq H1-1a	90.0	50	W10X33
FLOOR 2	152.1	0.7	0.1	1.76	Eq H1-1a	90.0	50	W10X33

#### Column Line 67.42ft - 74.67ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 2	152.1	0.7	0.1	1.76	Eq H1-1a	90.0	50	W10X33



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FLOOR	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 41M	105.0	0.1	28.4	10.65	Eq H1-1a	90.0	50	W14X43
FLOOR 40M	182.3	0.0	7.3	4.76	Eq H1-1a	90.0	50	W14X43
FLOOR 39	227.3	0.0	5.4	10.66	Eq H1-1a	90.0	50	W14X43
FLOOR 38	283.5	0.0	4.5	4.79	Eq H1-1a	90.0	50	W14X43
FLOOR 37	336.5	0.0	4.4	4.93	Eq H1-1a	90.0	50	W14X43
FLOOR 36	390.3	0.0	5.0	4.66	Eq H1-1a	90.0	50	W14X61
FLOOR 35	444.3	0.0	4.9	4.74	Eq H1-1a	90.0	50	W14X61
FLOOR 34	501.1	0.0	4.9	4.83	Eq H1-1a	90.0	50	W14X61
FLOOR 33	558.5	0.0	4.9	4.93	Eq H1-1a	90.0	50	W14X61
FLOOR 32	616.1	0.0	5.0	4.75	Eq H1-1a	90.0	50	W14X82
FLOOR 31	673.6	0.0	5.0	4.82	Eq H1-1a	90.0	50	W14X82
FLOOR 30	731.2	0.0	5.0	4.89	Eq H1-1a	90.0	50	W14X82
FLOOR 29	788.8	0.0	5.0	4.96	Eq H1-1a	90.0	50	W14X82
FLOOR 28	846.6	0.0	6.5	4.76	Eq H1-1a	90.0	50	W14X99
FLOOR 27	904.4	0.0	6.5	4.81	Eq H1-1a	90.0	50	W14X99
FLOOR 26	962.3	0.0	6.5	4.86	Eq H1-1a	90.0	50	W14X99
FLOOR 25	1020.1	0.0	6.5	4.91	Eq H1-1a	90.0	50	W14X99
FLOOR 24	1078.0	0.3	14.0	1.90	Eq H1-1a	90.0	50	W14X109
FLOOR 23	1114.9	0.3	14.0	1.93	Eq H1-1a	90.0	50	W14X109
FLOOR 22	1151.8	0.3	14.0	1.96	Eq H1-1a	90.0	50	W14X109
FLOOR 21	1188.7	0.3	14.0	1.98	Eq H1-1a	90.0	50	W14X109
FLOOR 20	1225.7	0.3	14.0	1.92	Eq H1-1a	90.0	50	W14X120
FLOOR 19	1262.7	0.3	14.0	1.95	Eq H1-1a	90.0	50	W14X120
FLOOR 18	1299.8	0.3	14.0	1.97	Eq H1-1a	90.0	50	W14X120
FLOOR 17	1336.8	0.3	14.0	1.00	Eq H1-1a	90.0	50	W14X120
FLOOR 16	1374.2	0.3	14.6	1.84	Eq H1-1a	90.0	50	W14X145
FLOOR 15	1411.5	0.3	14.6	1.86	Eq H1-1a	90.0	50	W14X145
FLOOR 14	1448.9	0.3	14.6	1.88	Eq H1-1a	90.0	50	W14X145
FLOOR 13	1486.2	0.3	14.6	1.91	Eq H1-1a	90.0	50	W14X145
FLOOR 12	1523.6	0.3	14.6	1.93	Eq H1-1a	90.0	50	W14X145
FLOOR 11	1560.9	0.3	14.6	1.95	Eq H1-1a	90.0	50	W14X145
FLOOR 10	1598.3	0.3	14.6	1.97	Eq H1-1a	90.0	50	W14X145
FLOOR 9	1635.6	0.3	14.6	1.00	Eq H1-1a	90.0	50	W14X145
FLOOR 8	1673.4	0.3	14.7	1.84	Eq H1-1a	90.0	50	W14X176
FLOOR 7	1711.1	0.3	14.7	1.86	Eq H1-1a	90.0	50	W14X176
FLOOR 6	1748.8	0.3	14.7	1.87	Eq H1-1a	90.0	50	W14X176
FLOOR 5	1786.6	0.5	22.2	1.90	Eq H1-1a	90.0	50	W14X176
FLOOR 4	1823.7	4.4	11.3	3.97	Eq H1-1a	90.0	50	W14X283
FLOOR 3.2	1829.4	4.4	11.6	3.98	Eq H1-1a	90.0	50	W14X283
FLOOR 3.1	1833.0	4.4	11.6	3.98	Eq H1-1a	90.0	50	W14X283
FLOOR 3	1862.6	12.7	4					



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FLOOR 38	299.2	4.1	0.1	2.0	0.70 Eq H1-1a	0.0	50	W14X48
FLOOR 37	297.5	3.8	0.1	2.0	0.92 Eq H1-1a	0.0	50	W14X48
FLOOR 36	495.9	3.7	0.1	2.0	0.59 Eq H1-1a	0.0	50	W14X32
FLOOR 35	597.0	3.7	0.1	2.0	0.71 Eq H1-1a	0.0	50	W14X32
FLOOR 34	698.3	3.7	0.1	2.0	0.83 Eq H1-1a	0.0	50	W14X32
FLOOR 33	799.6	3.7	0.1	2.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 32	901.3	3.7	0.1	2.0	0.72 Eq H1-1a	0.0	50	W14X32
FLOOR 31	1002.9	3.7	0.1	2.0	0.81 Eq H1-1a	0.0	50	W14X32
FLOOR 30	1104.6	3.7	0.1	2.0	0.89 Eq H1-1a	0.0	50	W14X32
FLOOR 29	1206.2	3.7	0.1	2.0	0.97 Eq H1-1a	0.0	50	W14X32
FLOOR 28	1308.3	3.8	0.1	2.0	0.78 Eq H1-1a	0.0	50	W14X32
FLOOR 27	1410.4	3.8	0.1	2.0	0.84 Eq H1-1a	0.0	50	W14X32
FLOOR 26	1512.5	3.8	0.1	2.0	0.90 Eq H1-1a	0.0	50	W14X32
FLOOR 25	1614.6	3.8	0.1	2.0	0.96 Eq H1-1a	0.0	50	W14X32
FLOOR 24	1717.1	3.8	0.1	2.0	0.84 Eq H1-1a	0.0	50	W14X32
FLOOR 23	1819.3	3.8	0.1	2.0	0.89 Eq H1-1a	0.0	50	W14X32
FLOOR 22	1921.5	3.8	0.1	2.0	0.94 Eq H1-1a	0.0	50	W14X32
FLOOR 21	2023.7	3.8	0.1	2.0	0.99 Eq H1-1a	0.0	50	W14X32
FLOOR 20	2126.4	3.8	0.1	2.0	0.87 Eq H1-1a	0.0	50	W14X32
FLOOR 19	2229.0	3.8	0.1	2.0	0.91 Eq H1-1a	0.0	50	W14X32
FLOOR 18	2331.7	3.8	0.1	2.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 17	2434.3	3.8	0.1	2.0	0.99 Eq H1-1a	0.0	50	W14X32
FLOOR 16	2537.6	4.0	0.1	2.0	0.85 Eq H1-1a	0.0	50	W14X32
FLOOR 15	2640.8	4.0	0.1	2.0	0.88 Eq H1-1a	0.0	50	W14X32
FLOOR 14	2744.0	4.0	0.1	2.0	0.92 Eq H1-1a	0.0	50	W14X32
FLOOR 13	2847.3	4.0	0.1	2.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 12	2950.8	4.0	0.1	2.0	0.89 Eq H1-1a	0.0	50	W14X32
FLOOR 11	3054.4	4.0	0.1	2.0	0.92 Eq H1-1a	0.0	50	W14X32
FLOOR 10	3158.0	4.0	0.1	2.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 9	3261.5	4.0	0.1	2.0	0.99 Eq H1-1a	0.0	50	W14X32
FLOOR 8	3365.8	4.2	0.1	2.0	0.84 Eq H1-1a	0.0	50	W14X32
FLOOR 7	3470.1	4.2	0.1	2.0	0.86 Eq H1-1a	0.0	50	W14X32
FLOOR 6	3574.4	4.2	0.1	2.0	0.89 Eq H1-1a	0.0	50	W14X32
FLOOR 5	3678.8	6.3	0.1	2.0	0.92 Eq H1-1a	0.0	50	W14X32
FLOOR 4	3783.8	0.7	25.1	1.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 3	3792.9	0.7	25.1	1.0	0.95 Eq H1-1a	0.0	50	W14X32
FLOOR 2	3799.9	0.7	25.2	1.0	0.96 Eq H1-1a	0.0	50	W14X32
FLOOR 1	3893.3	1.9	50.0	1.0	0.86 Eq H1-1a	0.0	50	W14X32
FLOOR 2	3586.7	0.9	26.2	1.0	0.94 Eq H1-1a	0.0	50	W14X32

#### Column Line 66.75ft - 10.91ft

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR	91.6	4.3	0.3	1.0	0.87 Eq H1-1a	0.0	50	W10X33
41ROOF								
FLOOR -1M	92.0	4.3	0.3	1.0	0.88 Eq H1-1a	0.0	50	W10X33



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#### Column Line 4 - B

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR -40M	202.9	17.1	0.0	1.0	0.85 Eq H1-1a	90.0	50	W10X33
FLOOR 39	203.7	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 38	204.5	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 37	205.4	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 36	206.2	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 35	207.1	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 34	207.9	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 33	208.7	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 32	209.6	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 31	210.4	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 30	211.3	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 29	212.1	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 28	212.9	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 27	213.8	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 26	214.6	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 25	215.5	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 24	216.3	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 23	217.1	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 22	218.0	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 21	218.8	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 20	219.7	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 19	220.5	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 18	221.3	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 17	222.2	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 16	223.0	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 15	223.9	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 14	224.7	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 13	225.5	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 12	226.4	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 11	227.2	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 10	228.1	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 9	228.9	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 8	229.7	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 7	230.6	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 6	231.4	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 5	232.3	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 4	233.8	6.8	0.0	3.0	0.92 Eq H1-1a	90.0	50	W10X38
FLOOR 3	234.9	6.8	0.0	3.0	0.92 Eq H1-1a	90.0	50	W10X38
FLOOR 2	236.1	6.8	0.0	3.0	0.93 Eq H1-1a	90.0	50	W10X38
FLOOR 1	382.2	13.4	0.0	3.0	0.57 Eq H1-1a	90.0	50	W10X68
FLOOR 2	524.1	0.1	0.0	1.0	0.92 Eq H1-1a	90.0	50	W10X68



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#### Column Line 4 - F

Level	Pu	Mux	Muy	LC	Interaction Eq.	Angle	Fy	Size
FLOOR 40M	202.7	16.9	0.0	1.0	0.85 Eq H1-1a	90.0	50	W10X33
FLOOR 39	203.6	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 38	204.4	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 37	205.2	0.0	0.0	1.0	0.67 Eq H1-1a	90.0	50	W10X33
FLOOR 36	206.1	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 35	206.9	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 34	207.8	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 33	208.6	0.0	0.0	1.0	0.68 Eq H1-1a	90.0	50	W10X33
FLOOR 32	209.4	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 31	210.3	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 30	211.1	0.0	0.0	1.0	0.69 Eq H1-1a	90.0	50	W10X33
FLOOR 29	212.0	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 28	212.8	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 27	213.6	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 26	214.5	0.0	0.0	1.0	0.70 Eq H1-1a	90.0	50	W10X33
FLOOR 25	215.3	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 24	216.2	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 23	217.0	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 22	217.8	0.0	0.0	1.0	0.71 Eq H1-1a	90.0	50	W10X33
FLOOR 21	218.7	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 20	219.5	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 19	220.3	0.0	0.0	1.0	0.72 Eq H1-1a	90.0	50	W10X33
FLOOR 18	221.2	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 17	222.0	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 16	222.9	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 15	223.7	0.0	0.0	1.0	0.73 Eq H1-1a	90.0	50	W10X33
FLOOR 14	224.5	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 13	225.4	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 12	226.2	0.0	0.0	1.0	0.74 Eq H1-1a	90.0	50	W10X33
FLOOR 11	227.1	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 10	227.9	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 9	228.7	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 8	229.6	0.0	0.0	1.0	0.75 Eq H1-1a	90.0	50	W10X33
FLOOR 7	230.4	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 6	231.2	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 5	232.1	0.0	0.0	1.0	0.76 Eq H1-1a	90.0	50	W10X33
FLOOR 4	233.6	6.9	0.0	3.0	0.92 Eq H1-1a	90.0	50	W10X38
FLOOR 3	234.8	6.9	0.0	3.0	0.92 Eq H1-1a	90.0	50	W10X38
FLOOR 3.1	235.9	6.9	0.0	3.0				



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 3.1, FLOOR 3, FLOOR 2.

Column Line 75.92ft - 57.17ft

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 41M, FLOOR 40M, FLOOR 39, FLOOR 38, FLOOR 37, FLOOR 36, FLOOR 35, FLOOR 34, FLOOR 33, FLOOR 32, FLOOR 31, FLOOR 30, FLOOR 29, FLOOR 28, FLOOR 27, FLOOR 26, FLOOR 25, FLOOR 24, FLOOR 23, FLOOR 22, FLOOR 21, FLOOR 20, FLOOR 19, FLOOR 18, FLOOR 17, FLOOR 16, FLOOR 15, FLOOR 14, FLOOR 13, FLOOR 12, FLOOR 11, FLOOR 10, FLOOR 9, FLOOR 8, FLOOR 7, FLOOR 6, FLOOR 5, FLOOR 4, FLOOR 3.2, FLOOR 3.1.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 3, FLOOR 2.

Column Line 75.92ft - 74.67ft

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 41M, FLOOR 40M, FLOOR 39, FLOOR 38, FLOOR 37, FLOOR 36, FLOOR 35, FLOOR 34, FLOOR 33, FLOOR 32, FLOOR 31, FLOOR 30, FLOOR 29, FLOOR 28, FLOOR 27, FLOOR 26, FLOOR 25, FLOOR 24, FLOOR 23, FLOOR 22, FLOOR 21, FLOOR 20, FLOOR 19, FLOOR 18, FLOOR 17, FLOOR 16, FLOOR 15, FLOOR 14, FLOOR 13, FLOOR 12, FLOOR 11, FLOOR 10, FLOOR 9, FLOOR 8, FLOOR 7, FLOOR 6, FLOOR 5, FLOOR 4, FLOOR 3.2, FLOOR 3.1, FLOOR 3.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Row for FLOOR 2.

Column Line 75.92ft - 86.67ft

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 41M, FLOOR 40M, FLOOR 39, FLOOR 38, FLOOR 37, FLOOR 36, FLOOR 35, FLOOR 34, FLOOR 33, FLOOR 32, FLOOR 31, FLOOR 30, FLOOR 29, FLOOR 28, FLOOR 27, FLOOR 26, FLOOR 25, FLOOR 24, FLOOR 23, FLOOR 22, FLOOR 21, FLOOR 20, FLOOR 19, FLOOR 18, FLOOR 17, FLOOR 16, FLOOR 15, FLOOR 14, FLOOR 13, FLOOR 12, FLOOR 11, FLOOR 10, FLOOR 9, FLOOR 8, FLOOR 7, FLOOR 6, FLOOR 5, FLOOR 4, FLOOR 3.2, FLOOR 3.1, FLOOR 3, FLOOR 2.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Column Line 3 - G

Table with 7 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows for FLOOR 40M, FLOOR 39, FLOOR 38, FLOOR 37, FLOOR 36, FLOOR 35, FLOOR 34, FLOOR 33, FLOOR 32, FLOOR 31, FLOOR 30, FLOOR 29, FLOOR 28, FLOOR 27, FLOOR 26, FLOOR 25, FLOOR 24, FLOOR 23, FLOOR 22, FLOOR 21, FLOOR 20, FLOOR 19, FLOOR 18, FLOOR 17, FLOOR 16, FLOOR 15, FLOOR 14, FLOOR 13, FLOOR 12, FLOOR 11, FLOOR 10, FLOOR 9, FLOOR 8, FLOOR 7, FLOOR 6, FLOOR 5, FLOOR 4, FLOOR 3.2, FLOOR 3.1, FLOOR 3, FLOOR 2.





Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 41M and 41ROOF.

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 41M through FLOOR 6.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 5 through FLOOR 2.

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 4.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 3.2 through FLOOR 2.

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 41M and 41ROOF.

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 8.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 7 through FLOOR 2.

Table with columns: Level, Pu, Mux, Muy, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 41M through FLOOR 9.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 8 through FLOOR 2.

Column Line 2 - D

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 7.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 6 through FLOOR 2.

Column Line 2 - C

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include 41ROOF through FLOOR 8.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 7 through FLOOR 2.

Column Line 1.7 - A.8

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 6.



Gravity Column Design Summary

RAM Steel v11.2
DataBase: Takeoff Model - PLANKS
Building Code: IBC

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Steel Code: AISC LRFD

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include FLOOR 5 through FLOOR 2.

Column Line 1.8 - G.1

Table with 10 columns: Level, Pu, Mux, Muy, LC, Interaction Eq., Angle, Fy, Size. Rows include 41ROOF through FLOOR 7.



Gravity Column Design Summary

RAM Steel v11.2 Page 33/37
DataBase: Takeoff Model - PLANKS
Building Code: IBC Steel Code: AISC LRFD

Table with columns: FLOOR, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 6 through FLOOR 2.

Column Line 121.71ft - 66.75ft

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR, 41ROOF, FLOOR 41M.

Column Line 125.50ft - 34.75ft

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR, 41ROOF, FLOOR 41M.

Column Line 1 - E

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 18.



Gravity Column Design Summary

RAM Steel v11.2 Page 34/37
DataBase: Takeoff Model - PLANKS
Building Code: IBC Steel Code: AISC LRFD

Table with columns: FLOOR, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 17 through FLOOR 2.

Column Line 1 - D

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 16.



Gravity Column Design Summary

RAM Steel v11.2 Page 35/37
DataBase: Takeoff Model - PLANKS
Building Code: IBC Steel Code: AISC LRFD

Table with columns: FLOOR, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 15 through FLOOR 2.

Column Line 1 - C

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 40M through FLOOR 14.



Gravity Column Design Summary

RAM Steel v11.2 Page 36/37
DataBase: Takeoff Model - PLANKS
Building Code: IBC Steel Code: AISC LRFD

Table with columns: FLOOR, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR 13 through FLOOR 2.

Column Line 0.9 - F 2

Table with columns: Level, Pu, Max, My, LC Interaction Eq., Angle, Fy, Size. Rows include FLOOR, 41ROOF, FLOOR 41M through FLOOR 15.





### Gravity Column Design Summary

RAM Steel v11.2  
DataBase: Takeoff Model - PLANKS  
Building Code: IBC

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Steel Code: AISC LRFD

FLOOR 14	1062.0	0.7	4.9	2 0.95 Eq H1-1a	90.0	50	W14X99
FLOOR 13	1099.7	0.7	4.9	2 0.98 Eq H1-1a	90.0	50	W14X99
FLOOR 12	1137.8	0.7	5.0	2 0.84 Eq H1-1a	90.0	50	W14X120
FLOOR 11	1175.8	0.7	5.0	2 0.86 Eq H1-1a	90.0	50	W14X120
FLOOR 10	1213.9	0.7	5.0	2 0.89 Eq H1-1a	90.0	50	W14X120
FLOOR 9	1251.9	0.7	5.0	2 0.92 Eq H1-1a	90.0	50	W14X120
FLOOR 8	1290.1	0.8	5.0	2 0.86 Eq H1-1a	90.0	50	W14X132
FLOOR 7	1328.3	0.8	5.0	2 0.88 Eq H1-1a	90.0	50	W14X132
FLOOR 6	1366.5	0.8	5.0	2 0.91 Eq H1-1a	90.0	50	W14X132
FLOOR 5	1404.6	1.1	7.5	5 0.94 Eq H1-1a	90.0	50	W14X132
FLOOR 4	1444.2	1.8	4.2	5 0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 3.2	1447.1	1.8	4.2	5 0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 3.1	1450.1	1.8	4.2	5 0.95 Eq H1-1a	90.0	50	W14X233
FLOOR 3	1512.4	3.9	12.6	2 0.84 Eq H1-1a	90.0	50	W14X159
FLOOR 2	1573.9	0.3	6.5	1 0.95 Eq H1-1a	90.0	50	W14X159



## RAM FRAME MASS AND SELF WEIGHT OUTPUT

**Calculated Values:**

Story	Diaph #	Weight kips	Mass k-s2/ft
FLOOR 41ROOF	1	1536.8	47.73
FLOOR 41M	1	380.5	11.82
	None	8.6	0.27
FLOOR 40M	1	2055.0	63.82
FLOOR 39	1	1906.5	59.21
FLOOR 38	1	1897.3	58.92
FLOOR 37	1	1897.3	58.92
FLOOR 36	1	1899.2	58.98
FLOOR 35	1	1901.2	59.04
FLOOR 34	1	1901.2	59.04
FLOOR 33	1	1904.9	59.16
FLOOR 32	1	1911.5	59.36
FLOOR 31	1	1914.2	59.45
FLOOR 30	1	1914.2	59.45
FLOOR 29	1	1914.2	59.45
FLOOR 28	1	1916.7	59.52
FLOOR 27	1	1919.1	59.60
FLOOR 26	1	1919.1	59.60
FLOOR 25	1	1930.8	59.96
FLOOR 24	1	1948.8	60.52
FLOOR 23	1	1913.6	59.43
FLOOR 22	1	1913.8	59.43
FLOOR 21	1	1913.8	59.43
FLOOR 20	1	1916.9	59.53
FLOOR 19	1	1920.0	59.63
FLOOR 18	1	1920.0	59.63
FLOOR 17	1	1936.4	60.14

Story	Diaph #	Weight	Mass
FLOOR 16	1	1959.9	60.87
FLOOR 15	1	1962.3	60.94
FLOOR 14	1	1962.3	60.94
FLOOR 13	1	1962.3	60.94
FLOOR 12	1	1965.2	61.03
FLOOR 11	1	1968.2	61.12
FLOOR 10	1	1968.2	61.12
FLOOR 9	1	1978.0	61.43
FLOOR 8	1	1996.1	61.99
FLOOR 7	1	2000.2	62.12
FLOOR 6	1	2000.7	62.13
FLOOR 5	1	2010.6	62.44
FLOOR 4	1	2048.1	63.61
FLOOR 3.2	None	346.9	10.77
FLOOR 3.1	None	346.9	10.77
FLOOR 3	1	2423.9	75.28
FLOOR 2	1	2422.3	75.23