

TALLER DE ASERRADO

Model File: ASERRADO, Revision 0
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1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height m	Master Story	Similar To	Splice Story	Color
T1	CUBIERTA	4.7	No	None	No	Green
T1	N+3.55	3.55	No	None	No	Green
T1	N+00	3	No	None	No	Green

1.2 Grid Data

Table 1.2 - Grid Definitions - General

Tower	Name	Type	Ux m	Uy m	Rz deg	Story Range	Bubble Size m	Color
T1	G1	Cartesian	0	0	0	Default	1	Gray6

Table 1.3 - Grid Definitions - Grid Lines

Name	Grid Line Type	Ordinate m	Bubble Location	Visible
G1	X (Cartesian)	0	End	Yes
G1	X (Cartesian)	32	End	Yes
G1	Y (Cartesian)	0	Start	Yes
G1	Y (Cartesian)	25	Start	Yes

2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
3000Psi	Concrete	Isotropic	Unknown	Cyan	
4000Psi	Concrete	Isotropic	Unknown	Yellow	
A36	Steel	Isotropic	Unknown	Cyan	
A416Gr270	Tendon	Uniaxial	Unknown	Red	
A500GrB42	Steel	Isotropic	Unknown	Red	
A53GrB	Steel	Isotropic	Unknown	Yellow	
A572Gr50	Steel	Isotropic	Unknown	Green	
A615Gr60	Rebar	Uniaxial	Unknown	Blue	
A653SQGr50	ColdFormed	Isotropic	Unknown	Blue	
A992Fy50	Steel	Isotropic	Unknown	Red	
MADERA	Other	Isotropic	Unknown	Gray8Dark	
Mamposteria 61 Kg/cm2	Other	Isotropic	Unknown	Magenta	
Zero	Concrete	Isotropic	Unknown	Gray8Dark	

2.2 Frame Sections

Table 2.2 - Frame Section Property Definitions - Summary (Part 1 of 3)

Name	Material	Shape	Color	Area m2	J m4	I33 m4	I22 m4	As2 m2	As3 m2	S33Pos m3	S33Neg m3
C30X70	4000Psi	Concrete Rectangular	White	0.21	0.004604	0.008575	0.001575	0.175	0.175	0.0245	0.0245
C-40x45	4000Psi	Concrete Rectangular	4227327	0.18	0.004504	0.003038	0.0024	0.15	0.15	0.0135	0.0135
C-45x55	4000Psi	Concrete Rectangular	Cyan	0.2475	0.008417	0.004177	0.006239	0.2062	0.2062	0.018563	0.018563
C70X70 1 L	4000Psi	Concrete L	16777088	0.33	0.007922	0.01253	0.01253	0.2386	0.2386	0.045189	0.02964
COLMAD	MADERA	SD Section	4227327	2.6215	0.007654	0.054614	0.043145	2.1955	2.6215	0.218455	0.218455
COLMETC IR	A500GrB4 2	Steel Pipe	Yellow	0.0029	1.8E-05	9E-06	9E-06	0.0015	0.0015	0.000111	0.000111
IPE180	A572Gr50	Steel I/Wide Flange	Gray8Dark	0.0024	4.73E-08	1.3E-05	1E-06	0.001	0.0012	0.000146	0.000146
IPE200	A572Gr50	Steel I/Wide Flange	Blue	0.0029	6.92E-08	1.9E-05	1E-06	0.0011	0.0014	0.000194	0.000194
IPE220	A572Gr50	Steel I/Wide Flange	Green	0.0033	9.03E-08	2.8E-05	2E-06	0.0013	0.0017	0.000252	0.000252
IPE240	A572Gr50	Steel I/Wide Flange	Cyan	0.0039	1.3E-07	3.9E-05	3E-06	0.0015	0.002	0.000324	0.000324
IPE270	A572Gr50	Steel I/Wide Flange	4953856	0.0046	1.59E-07	5.8E-05	4E-06	0.0018	0.0023	0.000429	0.000429
IPE300	A572Gr50	Steel I/Wide Flange	12615808	0.0054	1.99E-07	8.4E-05	6E-06	0.0021	0.0027	0.000557	0.000557
IPE330	A572Gr50	Steel I/Wide Flange	Yellow	0.0063	2.81E-07	0.000118	8E-06	0.0025	0.0031	0.000713	0.000713
IPE360	A572Gr50	Steel I/Wide Flange	Red	0.0073	3.74E-07	0.000163	1E-05	0.0029	0.0036	0.000904	0.000904
pts120x60 x2	A992Fy50	Steel Tube	DarkCyan	0.0007	1E-06	1E-06	4.624E-07	0.0005	0.0002	2.3E-05	2.3E-05
tensor	A36	Concrete Circle	Magenta	0.0002	0	0	0	0.0002	0.0002	3.313E-07	3.313E-07
V25X50	4000Psi	Concrete Rectangular	Magenta	0.125	0.001788	0.002604	0.000651	0.1042	0.1042	0.010417	0.010417
V30X50	4000Psi	Concrete Rectangular	4227072	0.15	0.002817	0.003125	0.001125	0.125	0.125	0.0125	0.0125
V35X50	4000Psi	Concrete Rectangular	White	0.175	0.004058	0.003646	0.001786	0.1458	0.1458	0.014583	0.014583
V40X50	4000Psi	Concrete Rectangular	Magenta	0.2	0.005474	0.004167	0.002667	0.1667	0.1667	0.016667	0.016667
V-45X50	4000Psi	Concrete Rectangular	DarkGreen	0.225	0.007047	0.004688	0.003797	0.1875	0.1875	0.01875	0.01875
VB 20X50	4000Psi	Concrete Rectangular	12615680	0.1	0.000998	0.002083	0.000333	0.0833	0.0833	0.008333	0.008333

Name	Material	Shape	Color	Area m2	J m4	I33 m4	I22 m4	As2 m2	As3 m2	S33Pos m3	S33Neg m3
VMAD	MADERA	Concrete Rectangular	1149183	0.06	0.000344	0.0008	0.000113	0.05	0.05	0.004	0.004
VTAMADE RA	MADERA	Concrete Rectangular	15803	0.0144	2.2E-05	3.9E-05	8E-06	0.012	0.012	0.000432	0.000432
vtas	4000Psi	Concrete Rectangular	Gray8Dark	0.065	0.000306	0.001354	9.2E-05	0.0542	0.0542	0.005417	0.005417

Table 2.2 - Frame Section Property Definitions - Summary (Part 2 of 3)

S22Pos m3	S22Neg m3	Z33 m3	Z22 m3	R33 m	R22 m	Cw m6	Fillet Radius m	CG Offset 3 m	CG Offset 2 m	PNA Offset 3 m	PNA Offset 2 m	SC Offset 3 m
0.0105	0.0105	0.03675	0.01575	0.20207	0.0866			0	0	0	0	
0.012	0.012	0.02025	0.018	0.1299	0.11547			0	0	0	0	
0.022688	0.022688	0.027844	0.034031	0.1299	0.15877			0	0	0	0	
0.045189	0.02964	0.052607	0.052607	0.19485	0.19485	0.000249 6		0.07273	0.07273	0.11429	0.11429	0.13694
0.246542	0.246542	0.0125	0.0125	0.14434	0.12829			0	0	0	0	
0.000111	0.000111	0.000146	0.000146	0.0552	0.0552			0	0	0	0	
2.2E-05	2.2E-05	0.000166	3.5E-05	0.07423	0.02056	0	0.009	0	0	0	0	
2.8E-05	2.8E-05	0.000221	4.5E-05	0.08257	0.02232	0	0.012	0	0	0	0	
3.7E-05	3.7E-05	0.000285	5.8E-05	0.0911	0.02477	0	0.012	0	0	0	0	
4.7E-05	4.7E-05	0.000367	7.4E-05	0.09977	0.02695	0	0.015	0	0	0	0	
6.2E-05	6.2E-05	0.000484	9.7E-05	0.11231	0.03025	0	0.015	0	0	0	0	
8.1E-05	8.1E-05	0.000628	0.000125	0.12463	0.03351	0	0.015	0	0	0	0	
9.9E-05	9.9E-05	0.000804	0.000154	0.13712	0.03548	0	0.018	0	0	0	0	
0.000123	0.000123	0.001019	0.000191	0.1496	0.03788	0	0.018	0	0	0	0	
1.5E-05	1.5E-05	2.8E-05	1.7E-05	0.04388	0.02563			0	0	0	0	
3.313E-07	3.313E-07	1E-06	1E-06	0.00375	0.00375			0	0	0	0	
0.005208	0.005208	0.015625	0.007813	0.14434	0.07217			0	0	0	0	
0.0075	0.0075	0.01875	0.01125	0.14434	0.0866			0	0	0	0	
0.010208	0.010208	0.021875	0.015313	0.14434	0.10104			0	0	0	0	
0.013333	0.013333	0.025	0.02	0.14434	0.11547			0	0	0	0	
0.016875	0.016875	0.028125	0.025313	0.14434	0.1299			0	0	0	0	
0.003333	0.003333	0.0125	0.005	0.14434	0.05774			0	0	0	0	
0.0015	0.0015	0.006	0.00225	0.11547	0.0433			0	0	0	0	
0.000192	0.000192	0.000648	0.000288	0.05196	0.02309			0	0	0	0	
0.001408	0.001408	0.008125	0.002113	0.14434	0.03753			0	0	0	0	

Table 2.2 - Frame Section Property Definitions - Summary (Part 3 of 3)

[illegible]

SC Offset 2 m	Area Modifier	As2 Modifier	As3 Modifier	J Modifier	I33 Modifier	I22 Modifier	Mass Modifier	Weight Modifier
	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1

2.3 Shell Sections

Table 2.3 - Area Section Property Definitions - Summary

Name	Type	Element Type	Material	Total Thickness m	Deck Material	Deck Depth m
Cubierta	Slab	Membrane	Zero	0.1		
Cubierta 1	Deck	Membrane	Zero	0.1		
Escalera	Slab	Membrane	4000Psi	0.1		
LMC 2" Cal 22 e=10cm	Deck	Membrane	3000Psi	0.1	A653SQGr5 0	0.0508
Losa	Slab	Membrane	3000Psi	0.1		
Losa maciza e=10cm	Deck	Membrane	3000Psi	0.1		
Losa maciza e=15cm	Deck	Membrane	3000Psi	0.15		
Losa maciza e=5cm	Deck	Membrane	3000Psi	0.05		
losaalig	Slab	Shell-Thick	4000Psi	0.1		
MURO 25	Wall	Shell-Thin	4000Psi	0.25		

3 Assignments

This chapter provides a listing of the assignments applied to the model.

3.1 Joint Assignments

Table 3.1 - Joint Assignments - Summary

Story	Label	UniqueName	Diaphragm	Restraints
CUBIERTA	53	314	From Area	
CUBIERTA	165	315	From Area	
CUBIERTA	168	316	From Area	
CUBIERTA	169	12	From Area	
CUBIERTA	234	299	From Area	
CUBIERTA	259	258	From Area	
CUBIERTA	267	317	From Area	
CUBIERTA	269	326	From Area	
CUBIERTA	270	323	From Area	
CUBIERTA	271	42	From Area	
CUBIERTA	272	324	From Area	
CUBIERTA	273	44	From Area	
CUBIERTA	274	45	From Area	
CUBIERTA	275	46	From Area	
CUBIERTA	276	318	From Area	
CUBIERTA	278	319	From Area	
CUBIERTA	3	257	From Area	
CUBIERTA	4	322	From Area	
CUBIERTA	8	18	From Area	
CUBIERTA	9	20	From Area	
CUBIERTA	10	21	From Area	
CUBIERTA	11	22	From Area	
CUBIERTA	12	247	From Area	
CUBIERTA	13	248	From Area	
CUBIERTA	14	249	From Area	
CUBIERTA	15	250	From Area	
CUBIERTA	16	253	From Area	
CUBIERTA	17	254	From Area	
CUBIERTA	18	255	From Area	
CUBIERTA	19	256	From Area	
CUBIERTA	60	293	From Area	
CUBIERTA	61	294	From Area	
CUBIERTA	62	295	From Area	
CUBIERTA	63	296	From Area	
CUBIERTA	64	297	From Area	
CUBIERTA	65	298	From Area	
CUBIERTA	71	305	From Area	
CUBIERTA	73	307	From Area	
CUBIERTA	74	308	From Area	
CUBIERTA	75	309	From Area	
CUBIERTA	78	327	From Area	
CUBIERTA	79	328	From Area	
CUBIERTA	80	329	From Area	
CUBIERTA	39	29	From Area	
CUBIERTA	40	40	From Area	
CUBIERTA	41	41	From Area	
CUBIERTA	42	43	From Area	
CUBIERTA	43	47	From Area	
CUBIERTA	44	48	From Area	
CUBIERTA	45	49	From Area	
CUBIERTA	76	98	From Area	
CUBIERTA	77	99	From Area	
CUBIERTA	82	128	From Area	
CUBIERTA	83	134	From Area	

Story	Label	UniqueName	Diaphragm	Restraints
CUBIERTA	84	135	From Area	
CUBIERTA	85	136	From Area	
CUBIERTA	86	137	From Area	
CUBIERTA	87	138	From Area	
CUBIERTA	88	139	From Area	
CUBIERTA	37	33	From Area	
CUBIERTA	38	34	From Area	
CUBIERTA	46	35	From Area	
CUBIERTA	47	36	From Area	
CUBIERTA	48	37	From Area	
CUBIERTA	49	38	From Area	
CUBIERTA	50	39	From Area	
CUBIERTA	51	50	From Area	
CUBIERTA	54	51	From Area	
CUBIERTA	97	142	From Area	
CUBIERTA	98	143	From Area	
CUBIERTA	99	144	From Area	
CUBIERTA	100	145	From Area	
CUBIERTA	101	146	From Area	
CUBIERTA	102	147	From Area	
CUBIERTA	103	148	From Area	
CUBIERTA	104	149	From Area	
CUBIERTA	105	150	From Area	
CUBIERTA	106	151	From Area	
CUBIERTA	107	152	From Area	
CUBIERTA	108	153	From Area	
CUBIERTA	109	154	From Area	
CUBIERTA	110	155	From Area	
CUBIERTA	111	156	From Area	
CUBIERTA	112	157	From Area	
CUBIERTA	113	158	From Area	
CUBIERTA	114	159	From Area	
CUBIERTA	115	160	From Area	
CUBIERTA	116	161	From Area	
CUBIERTA	117	162	From Area	
CUBIERTA	118	163	From Area	
CUBIERTA	119	164	From Area	
CUBIERTA	120	165	From Area	
CUBIERTA	121	166	From Area	
CUBIERTA	122	167	From Area	
CUBIERTA	123	168	From Area	
N+3.55	53	189	From Area	
N+3.55	57	190	From Area	
N+3.55	58	191	From Area	
N+3.55	59	192	From Area	
N+3.55	164	193	From Area	
N+3.55	165	194	From Area	
N+3.55	166	195	From Area	
N+3.55	168	197	From Area	
N+3.55	169	91	From Area	
N+3.55	230	112	From Area	
N+3.55	231	72	From Area	
N+3.55	234	198	From Area	
N+3.55	235	100	From Area	
N+3.55	237	63	From Area	
N+3.55	248	199	From Area	
N+3.55	249	54	From Area	
N+3.55	250	57	From Area	
N+3.55	251	60	From Area	
N+3.55	252	106	From Area	

Story	Label	UniqueName	Diaphragm	Restraints
N+3.55	253	69	From Area	
N+3.55	254	66	From Area	
N+3.55	255	109	From Area	
N+3.55	256	103	From Area	
N+3.55	257	124	From Area	
N+3.55	258	131	From Area	
N+3.55	259	200	From Area	
N+3.55	260	121	From Area	
N+3.55	261	201	From Area	
N+3.55	262	202	From Area	
N+3.55	263	118	From Area	
N+3.55	264	203	From Area	
N+3.55	265	204	From Area	
N+3.55	266	205	From Area	
N+3.55	267	206	From Area	
N+3.55	269	207	From Area	
N+3.55	270	208	From Area	
N+3.55	271	88	From Area	
N+3.55	272	209	From Area	
N+3.55	273	85	From Area	
N+3.55	274	79	From Area	
N+3.55	275	82	From Area	
N+3.55	276	210	From Area	
N+3.55	277	211	From Area	
N+3.55	278	212	From Area	
N+3.55	279	213	From Area	
N+3.55	280	214	From Area	
N+3.55	1	115	From Area	
N+3.55	2	75	From Area	
N+3.55	3	127	From Area	
N+3.55	4	215	From Area	
N+3.55	6	26	From Area	
N+3.55	65	28	From Area	
N+3.55	68	302	From Area	
N+3.55	69	303	From Area	
N+3.55	70	304	From Area	
N+3.55	72	306	From Area	
N+3.55	22	1	From Area	
N+3.55	27	17	From Area	
N+3.55	7	2	From Area	
N+3.55	20	3	From Area	
N+3.55	21	4	From Area	
N+00	53	216	From Area	
N+00	57	217	From Area	
N+00	58	218	From Area	
N+00	59	219	From Area	
N+00	164	220	From Area	
N+00	165	221	From Area	
N+00	166	222	From Area	
N+00	167	223	From Area	
N+00	168	224	From Area	
N+00	169	92	From Area	
N+00	230	113	From Area	
N+00	231	73	From Area	
N+00	234	225	From Area	
N+00	235	101	From Area	
N+00	237	64	From Area	
N+00	248	226	From Area	
N+00	249	55	From Area	
N+00	250	58	From Area	

Story	Label	UniqueName	Diaphragm	Restraints
N+00	251	61	From Area	
N+00	252	107	From Area	
N+00	253	70	From Area	
N+00	254	67	From Area	
N+00	255	110	From Area	
N+00	256	104	From Area	
N+00	257	125	From Area	
N+00	258	132	From Area	
N+00	259	227	From Area	
N+00	260	122	From Area	
N+00	263	119	From Area	
N+00	264	230	From Area	
N+00	265	231	From Area	
N+00	266	232	From Area	
N+00	267	233	From Area	
N+00	269	234	From Area	
N+00	270	235	From Area	
N+00	271	89	From Area	
N+00	272	236	From Area	
N+00	273	86	From Area	
N+00	274	80	From Area	
N+00	275	83	From Area	
N+00	276	237	From Area	
N+00	277	238	From Area	
N+00	278	239	From Area	
N+00	279	240	From Area	
N+00	280	241	From Area	
N+00	1	116	From Area	
N+00	2	77	From Area	
N+00	3	129	From Area	
N+00	4	242	From Area	
N+00	5	243	From Area	
N+00	6	244	From Area	
N+00	78	8	From Area	
N+00	79	9	From Area	
N+00	80	10	From Area	
N+00	22	6	From Area	
N+00	23	7	From Area	
N+00	25	14	From Area	
N+00	26	15	From Area	
N+00	27	16	From Area	
N+00	126	172	From Area	
N+00	127	174	From Area	
N+00	128	175	From Area	
N+00	129	176	From Area	
N+00	130	177	From Area	
N+00	131	178	From Area	
N+00	132	179	From Area	
N+00	133	180	From Area	
N+00	134	181	From Area	
N+00	135	182	From Area	
N+00	136	183	From Area	
N+00	137	184	From Area	
N+00	138	185	From Area	
N+00	139	186	From Area	
N+00	140	187	From Area	
N+00	24	11	From Area	
N+00	28	13	From Area	
N+00	29	19	From Area	
N+00	30	23	From Area	

Story	Label	UniqueName	Diaphragm	Restraints
N+00	31	24	From Area	
N+00	32	25	From Area	
N+00	33	27	From Area	
N-3.00	169	93	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	230	114	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	231	74	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	235	102	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	237	65	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	249	56	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	250	59	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	251	62	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	252	108	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	253	71	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	254	68	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	255	111	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	256	105	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	257	126	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	258	133	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	260	123	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	263	120	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	264	292	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	271	90	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	273	87	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	274	81	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	275	84	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	1	117	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	2	78	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	3	130	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	6	5	From Area	UX; UY; UZ
N-3.00	126	171	From Area	UX; UY; UZ; RX; RY; RZ
N-3.00	127	173	From Area	UX; UY; UZ; RX; RY; RZ

3.2 Frame Assignments

Table 3.2 - Frame Assignments - Summary

Story	Label	UniqueName	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
CUBIERTA	B48	376	Beam	2.746	VB 20X50	VB 20X50		0.5			
CUBIERTA	B207	389	Beam	2.0511	V30X50	V30X50		0.5			
CUBIERTA	B210	380	Beam	8.8207	V30X50	V30X50		0.5			
CUBIERTA	B211	381	Beam	3.1035	V30X50	V30X50		0.5			
CUBIERTA	B11	155	Beam	9.6007	VMAD	N/A			3		

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
CUBIERTA	B12	175	Beam	9.652	VMAD	N/A			3		
CUBIERTA	B13	46	Beam	9.6007	VMAD	N/A			3		
CUBIERTA	B14	322	Beam	9.6518	VMAD	N/A			3		
CUBIERTA	B15	323	Beam	9.7001	VMAD	N/A			3		
CUBIERTA	B16	62	Beam	9.6006	VMAD	N/A			3		
CUBIERTA	B17	165	Beam	9.6006	VMAD	N/A			3		
CUBIERTA	B18	135	Beam	9.652	VMAD	N/A			3		
CUBIERTA	B32	370	Beam	6	V40X50	V40X50		0.5			
CUBIERTA	B34	371	Beam	6	V40X50	V40X50		0.5			
CUBIERTA	B36	364	Beam	9.6007	VMAD	N/A			3		
CUBIERTA	B37	365	Beam	9.6518	VMAD	N/A			3		
CUBIERTA	B38	366	Beam	9.7001	VMAD	N/A			3		
CUBIERTA	B39	367	Beam	9.6006	VMAD	N/A			3		
CUBIERTA	B40	368	Beam	9.6006	VMAD	N/A			3		
CUBIERTA	B41	369	Beam	9.652	VMAD	N/A			3		
CUBIERTA	B42	372	Beam	6	V40X50	V40X50		0.5			
CUBIERTA	B43	396	Beam	0.0159	VB 20X50	VB 20X50		0.5			
CUBIERTA	B49	397	Beam	0.1218	VB 20X50	VB 20X50		0.5			
CUBIERTA	B50	398	Beam	0.8493	VB 20X50	VB 20X50		0.5			
CUBIERTA	B52	400	Beam	2.3685	VB 20X50	VB 20X50		0.5			
CUBIERTA	B53	401	Beam	0.0159	VB 20X50	VB 20X50		0.5			
CUBIERTA	B54	402	Beam	3.3433	V30X50	V30X50		0.5			
CUBIERTA	B55	403	Beam	0.1658	C-40x45	C-40x45		0.5			
CUBIERTA	B56	404	Beam	0.5603	C-40x45	C-40x45		0.5			
CUBIERTA	B57	405	Beam	3.1953	V30X50	V30X50		0.5			
CUBIERTA	B58	406	Beam	1.3356	V30X50	V30X50		0.5			
CUBIERTA	B78	408	Beam	2.7806	V40X50	V40X50		0.5			
CUBIERTA	B79	409	Beam	2.9415	V30X50	V30X50		0.5			
CUBIERTA	B80	410	Beam	3.1558	V30X50	V30X50		0.5			
CUBIERTA	B81	411	Beam	3.1626	V30X50	V30X50		0.5			
CUBIERTA	B82	412	Beam	2.4024	V30X50	V30X50		0.5			
CUBIERTA	B20	1	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B21	2	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B22	3	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B23	4	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B24	5	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B25	7	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B28	14	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B29	15	Beam	3.0004	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B30	12	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B31	13	Beam	3.0004	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B33	16	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B35	17	Beam	3	COLMAD	N/A	90	0.5			Yes
CUBIERTA	B89	45	Beam	1.5241	VMAD	N/A			3		
CUBIERTA	B90	59	Beam	1.5241	VMAD	N/A			3		
CUBIERTA	B91	65	Beam	1.5241	VMAD	N/A			3		
CUBIERTA	B92	86	Beam	1.5241	VTAMADE RA	N/A			3		
CUBIERTA	B93	87	Beam	1.5241	COLMAD	N/A			3		
CUBIERTA	B94	88	Beam	1.5241	VMAD	N/A			3		
CUBIERTA	B95	89	Beam	1.5241	VMAD	N/A			3		
CUBIERTA	B97	101	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B98	104	Beam	1.5239	VMAD	N/A			3		
CUBIERTA	B99	107	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B100	110	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B101	113	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B102	116	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B103	119	Beam	1.5238	VMAD	N/A			3		
CUBIERTA	B5	37	Beam	3	VTAMADE	N/A		0.5			

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
					RA						
CUBIERTA	B86	38	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B87	39	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B88	40	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B96	41	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B104	42	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B105	43	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B106	90	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B107	91	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B108	92	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B109	95	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B110	122	Beam	3	VTAMADE RA	N/A		0.5			
CUBIERTA	B171	185	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B172	186	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B173	187	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B174	188	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B175	189	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B176	190	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B177	191	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B178	192	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B179	193	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B180	194	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B181	195	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B182	196	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B183	197	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B184	198	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B185	199	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B186	200	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B187	201	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	B188	202	Beam	18	VTAMADE RA	N/A		0.5			
CUBIERTA	C9	71	Column	4.7	C-40x45	C-40x45	18.015		3		
CUBIERTA	C10	74	Column	4.7	C-40x45	C-40x45	18.015		3		
CUBIERTA	C11	77	Column	4.7	C-40x45	C-40x45	18.015		3		
CUBIERTA	C12	80	Column	4.7	C-40x45	C-40x45			3		
CUBIERTA	C13	83	Column	4.7	C-40x45	C-40x45	18.015		3		
CUBIERTA	C25	47	Column	3	C-45x55	C-45x55			3		
CUBIERTA	C26	50	Column	3	C-45x55	C-45x55			3		
CUBIERTA	C27	53	Column	3	C-45x55	C-45x55			3		
CUBIERTA	C28	56	Column	3	C-45x55	C-45x55			3		
CUBIERTA	D1	309	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D2	310	Brace	4.7321	COLMAD	N/A			3		

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
CUBIERTA	D3	311	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D4	312	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D5	314	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D6	315	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D7	316	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D8	317	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D21	358	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D22	359	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D23	360	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D24	361	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D25	362	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D26	363	Brace	4.7321	COLMAD	N/A			3		
CUBIERTA	D9	44	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D10	68	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D11	98	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D12	136	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D13	137	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D14	138	Brace	5.6029	tensor	tensor			3		
CUBIERTA	D15	139	Brace	5.6032	tensor	tensor			3		
CUBIERTA	D16	140	Brace	5.6029	tensor	tensor			3		
N+3.55	B44	217	Beam	2.9707	VB 20X50	VB 20X50		0.5			
N+3.55	B45	218	Beam	6.2204	VB 20X50	VB 20X50		0.5			
N+3.55	B46	219	Beam	6.2194	VB 20X50	VB 20X50		0.5			
N+3.55	B48	221	Beam	2.746	VB 20X50	VB 20X50		0.5			
N+3.55	B59	222	Beam	3	V40X50	V40X50		0.5			
N+3.55	B60	223	Beam	6	V40X50	V40X50		0.5			
N+3.55	B61	224	Beam	6	V40X50	V40X50		0.5			
N+3.55	B62	158	Beam	8.9511	V-45X50	V-45X50		0.5			
N+3.55	B64	227	Beam	6	V40X50	V40X50		0.5			
N+3.55	B65	228	Beam	6	V40X50	V40X50		0.5			
N+3.55	B66	229	Beam	8.8989	V-45X50	V-45X50		0.5			
N+3.55	B67	230	Beam	6	V40X50	V40X50		0.5			
N+3.55	B68	231	Beam	6	V-45X50	V-45X50		0.5			
N+3.55	B69	232	Beam	6	V40X50	V40X50		0.5			
N+3.55	B70	233	Beam	8.8989	V-45X50	V-45X50		0.5			
N+3.55	B71	234	Beam	8.9509	V-45X50	V-45X50		0.5			
N+3.55	B72	235	Beam	8.8989	V-45X50	V-45X50		0.5			
N+3.55	B73	236	Beam	8.9511	V-45X50	V-45X50		0.5			
N+3.55	B74	237	Beam	8.9511	V-45X50	V-45X50		0.5			
N+3.55	B75	238	Beam	8.8989	V-45X50	V-45X50		0.5			
N+3.55	B76	239	Beam	4.1026	IPE200	IPE200		0.5			
N+3.55	B200	240	Beam	2.7697	IPE200	IPE200		0.5			
N+3.55	B201	241	Beam	5.6723	IPE200	IPE200		0.5		Yes	
N+3.55	B202	242	Beam	4.4723	IPE200	IPE200		0.5		Yes	
N+3.55	B203	243	Beam	3.2724	IPE200	IPE200		0.5			
N+3.55	B204	244	Beam	8.9509	VB 20X50	VB 20X50		0.5			
N+3.55	B205	245	Beam	3	VB 20X50	VB 20X50		0.5			
N+3.55	B207	247	Beam	2.0511	V40X50	V40X50		0.5			
N+3.55	B210	250	Beam	8.8207	V30X50	V30X50		0.5			
N+3.55	B211	251	Beam	3.1035	V30X50	V30X50		0.5			
N+3.55	B212	252	Beam	8.878	V30X50	V30X50		0.5			
N+3.55	B214	254	Beam	3.1479	V30X50	V30X50		0.5			
N+3.55	B1	255	Beam	3.2311	IPE200	IPE200		0.5			
N+3.55	B2	256	Beam	6.4622	IPE200	IPE200		0.5			
N+3.55	B3	257	Beam	3.231	IPE200	IPE200		0.5			
N+3.55	B4	258	Beam	2.0724	IPE200	IPE200		0.5			
N+3.55	B6	259	Beam	3	V40X50	V40X50		0.5			
N+3.55	B7	246	Beam	2.3843	VB 20X50	VB 20X50		0.5			

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
N+3.55	B9	160	Beam	2.2	VB 20X50	VB 20X50		0.5			
N+3.55	B56	129	Beam	0.5603	C-40x45	C-40x45		0.5			
N+3.55	B27	127	Beam	2.0716	V30X50	V30X50		0.5			
N+3.55	B85	215	Beam	2.3081	VB 20X50	VB 20X50		0.5			
N+3.55	B47	156	Beam	2.197	VB 20X50	VB 20X50		0.5			
N+3.55	B8	157	Beam	6	VB 20X50	VB 20X50		0.5			
N+3.55	B123	161	Beam	6	VB 20X50	VB 20X50		0.5			
N+3.55	B124	162	Beam	2.198	V40X50	V40X50		0.5			
N+3.55	B125	163	Beam	6	V40X50	V40X50		0.5			
N+3.55	B19	130	Beam	5.616	V30X50	V30X50		0.5			
N+3.55	B111	126	Beam	4.531	V30X50	V30X50		0.5			
N+3.55	B113	128	Beam	3.5091	V40X50	V40X50		0.5			
N+3.55	B114	131	Beam	2.0851	V30X50	V30X50		0.5			
N+3.55	C1	48	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C2	51	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C3	54	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C4	57	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C5	60	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C6	63	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C7	66	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C8	69	Column	3.55	C-45x55	C-45x55			3		
N+3.55	C9	72	Column	3.55	C-40x45	C-40x45	18.015		3		
N+3.55	C10	75	Column	3.55	C-40x45	C-40x45	18.015		3		
N+3.55	C11	78	Column	3.55	C-40x45	C-40x45	18.015		3		
N+3.55	C12	81	Column	3.55	C-40x45	C-40x45			3		
N+3.55	C13	84	Column	3.55	C-40x45	C-40x45	18.015		3		
N+3.55	C14	93	Column	3.55	C70X70 1 L	C70X70 1 L	90		3		
N+3.55	C15	96	Column	3.55	C70X70 1 L	C70X70 1 L			3		
N+3.55	C16	99	Column	3.55	C70X70 1 L	C70X70 1 L	-90		3		
N+3.55	C17	102	Column	3.55	C70X70 1 L	C70X70 1 L	180		3		
N+3.55	C18	105	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+3.55	C19	108	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+3.55	C20	111	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+3.55	C21	114	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+3.55	C22	117	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+3.55	C23	120	Column	3.55	IPE300	IPE300	-90		3		
N+3.55	C24	123	Column	3.55	COLMETC IR	COLMETC IR	-90		3		
N+00	B45	263	Beam	6.2204	VB 20X50	VB 20X50		0.5			
N+00	B46	264	Beam	6.2194	IPE240	IPE240		0.5			
N+00	B48	266	Beam	2.746	VB 20X50	VB 20X50		0.5			
N+00	B64	272	Beam	6	IPE270	IPE270		0.5			
N+00	B65	273	Beam	6	IPE270	IPE270		0.5			
N+00	B66	36	Beam	8.8989	V30X50	V30X50		0.5			
N+00	B67	35	Beam	6	V40X50	V40X50		0.5			
N+00	B68	34	Beam	6	V40X50	V40X50		0.5			
N+00	B69	33	Beam	6	V40X50	V40X50		0.5			
N+00	B70	306	Beam	8.8989	V40X50	V40X50		0.5			
N+00	B73	305	Beam	8.9511	V30X50	V30X50		0.5			
N+00	B76	132	Beam	4.1026	IPE200	IPE200		0.5			
N+00	B200	285	Beam	2.7697	IPE200	IPE200		0.5			
N+00	B205	290	Beam	3	IPE240	IPE240		0.5			
N+00	B207	292	Beam	2.0511	V40X50	V40X50		0.5			

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
N+00	B211	296	Beam	3.1035	V40X50	V40X50		0.5			
N+00	B214	299	Beam	3.1479	VB 20X50	VB 20X50		0.5			
N+00	B1	300	Beam	3.2311	IPE200	IPE200		0.5			
N+00	B2	125	Beam	6.4622	IPE200	IPE200		0.5			
N+00	B3	302	Beam	3.231	IPE200	IPE200		0.5			
N+00	B4	303	Beam	2.0724	IPE200	IPE200		0.5			
N+00	B6	133	Beam	3	IPE200	IPE200		0.5			
N+00	B9	265	Beam	2.2	IPE270	IPE270		0.5			
N+00	B10	308	Beam	3	IPE200	IPE200		0.5			
N+00	B43	6	Beam	0.0159	VB 20X50	VB 20X50		0.5			
N+00	B49	8	Beam	0.1218	VB 20X50	VB 20X50		0.5			
N+00	B50	9	Beam	0.8493	VB 20X50	VB 20X50		0.5			
N+00	B52	11	Beam	2.3685	VB 20X50	VB 20X50		0.5			
N+00	B53	18	Beam	0.0159	VB 20X50	VB 20X50		0.5			
N+00	B54	19	Beam	3.3433	V40X50	V40X50		0.5			
N+00	B55	20	Beam	0.1658	C-40x45	C-40x45		0.5			
N+00	B56	21	Beam	0.5603	C-40x45	C-40x45		0.5			
N+00	B57	22	Beam	3.1953	V40X50	V40X50		0.5			
N+00	B58	23	Beam	1.3356	V40X50	V40X50		0.5			
N+00	B78	27	Beam	2.7806	V40X50	V40X50		0.5			
N+00	B79	28	Beam	2.9415	V40X50	V40X50		0.5			
N+00	B80	29	Beam	3.1558	V40X50	V40X50		0.5			
N+00	B81	30	Beam	3.1626	V40X50	V40X50		0.5			
N+00	B82	31	Beam	2.4024	V40X50	V40X50		0.5			
N+00	B26	10	Beam	1.9837	VB 20X50	VB 20X50		0.5			
N+00	B27	24	Beam	2.0716	V40X50	V40X50		0.5			
N+00	B51	25	Beam	5.7218	V40X50	V40X50		0.5			
N+00	B77	26	Beam	3.0988	V40X50	V40X50		0.5			
N+00	B83	32	Beam	2.085	V40X50	V40X50		0.5			
N+00	B85	260	Beam	2.3081	VB 20X50	VB 20X50		0.5			
N+00	B238	207	Beam	4.4308	IPE200	IPE200		0.5			
N+00	B239	208	Beam	6.9	IPE200	IPE200		0.5			
N+00	B241	211	Beam	4.4308	IPE200	IPE200		0.5			
N+00	B242	212	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B243	213	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B244	214	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B245	220	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B246	262	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B247	267	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B248	268	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B249	269	Beam	3.45	pts120x60 x2	pts120x60 x2		0.5		Yes	
N+00	B47	141	Beam	2.197	IPE330	IPE330		0.5			
N+00	B121	143	Beam	2.0511	V40X50	V40X50		0.5			
N+00	B122	144	Beam	6.9	V40X50	V40X50		0.5			
N+00	B8	146	Beam	6	IPE270	IPE270		0.5			
N+00	B124	152	Beam	2.198	IPE270	IPE270		0.5			
N+00	B125	153	Beam	6	IPE270	IPE270		0.5			
N+00	B112	134	Beam	2.0511	IPE300	IPE300		0.5			
N+00	B116	147	Beam	6	IPE300	IPE300		0.5			
N+00	B117	148	Beam	3	IPE270	IPE270		0.5			
N+00	B118	149	Beam	2.0511	IPE300	IPE300		0.5			
N+00	B119	150	Beam	0.0489	IPE300	IPE300		0.5			
N+00	B84	142	Beam	3	IPE270	IPE270		0.5			
N+00	B115	145	Beam	2.2	IPE270	IPE270		0.5			

Story	Label	Unique Name	Design Type	Length m	Analysis Section	Design Section	Axis Angle deg	Max Station Spacing m	Min Number Stations	Releases	User Offsets
N+00	B120	151	Beam	2.2	IPE270	IPE270		0.5			
N+00	B126	154	Beam	2.0511	IPE270	IPE270		0.5			
N+00	B127	159	Beam	6.8998	IPE270	IPE270		0.5			
N+00	C1	49	Column	3	C-45x55	C-45x55			3		
N+00	C2	52	Column	3	C-45x55	C-45x55			3		
N+00	C3	55	Column	3	C-45x55	C-45x55			3		
N+00	C4	58	Column	3	C-45x55	C-45x55			3		
N+00	C5	61	Column	3	C-45x55	C-45x55			3		
N+00	C6	64	Column	3	C-45x55	C-45x55			3		
N+00	C7	67	Column	3	C-45x55	C-45x55			3		
N+00	C8	70	Column	3	C-45x55	C-45x55			3		
N+00	C9	73	Column	3	C-40x45	C-40x45	18.015		3		
N+00	C10	76	Column	3	C-40x45	C-40x45	18.015		3		
N+00	C11	79	Column	3	C-40x45	C-40x45	18.015		3		
N+00	C12	82	Column	3	C-40x45	C-40x45			3		
N+00	C13	85	Column	3	C-40x45	C-40x45	18.015		3		
N+00	C14	94	Column	3	C70X70 1 L	C70X70 1 L	90		3		
N+00	C15	97	Column	3	C70X70 1 L	C70X70 1 L			3		
N+00	C16	100	Column	3	C70X70 1 L	C70X70 1 L	-90		3		
N+00	C17	103	Column	3	C70X70 1 L	C70X70 1 L	180		3		
N+00	C18	106	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C19	109	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C20	112	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C21	115	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C22	118	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C23	121	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C24	124	Column	3	COLMETC IR	COLMETC IR	-90		3		
N+00	C29	205	Column	3	IPE240	IPE240	90		3		
N+00	C30	210	Column	3	IPE240	IPE240	90		3		

3.3 Shell Assignments

Table 3.3 - Area Assignments - Summary

Story	Label	Unique Name	Section Property	Property Type	Axis Angle deg
CUBIERTA	F8	13	Cubierta	Slab	
CUBIERTA	F18	5	Cubierta	Slab	
N+3.55	F5	19	losaalig	Slab	
N+3.55	F6	20	LMC 2" Cal 22 e=10cm	Deck	90
N+3.55	F11	16	losaalig	Slab	
N+3.55	F13	18	losaalig	Slab	
N+3.55	F14	21	losaalig	Slab	
N+3.55	F15	22	losaalig	Slab	
N+3.55	F16	23	losaalig	Slab	
N+3.55	F19	26	losaalig	Slab	
N+3.55	F23	25	LMC 2" Cal 22 e=10cm	Deck	105
N+3.55	F1	17	losaalig	Slab	
N+3.55	F24	24	losaalig	Slab	
N+3.55	F12	27	losaalig	Slab	
N+3.55	F22	32	Cubierta	Slab	

Story	Label	UniqueName	Section Property	Property Type	Axis Angle deg
N+3.55	F28	34	Cubierta	Slab	
N+3.55	F29	35	Cubierta	Slab	
N+3.55	F30	36	Cubierta	Slab	
N+00	F2	7	Losa	Slab	
N+00	F3	8	Losa	Slab	
N+00	F4	9	Losa	Slab	
N+00	F5	10	Losa	Slab	
N+00	F6	11	Losa	Slab	
N+00	F7	12	Losa	Slab	
N+00	F9	15	Losa	Slab	
N+00	F10	14	Losa	Slab	
N+00	F17	30	Cubierta	Slab	
N+00	W1	1	MURO 25	Wall	
N+00	W2	2	MURO 25	Wall	
N+00	W3	3	MURO 25	Wall	
N+00	W4	4	MURO 25	Wall	
N+00	W6	6	MURO 25	Wall	
N+00	W5	29	MURO 25	Wall	

4 Loads

This chapter provides loading information as applied to the model.

4.1 Load Patterns

Table 4.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
~LLRF	Yes	Other	0	
Dead	No	Dead	1	
FHEX	No	Seismic	0	User Coefficient
FHEY	No	Seismic	0	User Coefficient
Live	No	Live	0	
Roof Live	No	Roof Live	0	
Wind (-)	No	Wind	0	None
Wind (+)	No	Wind	0	None

4.2 Auto Seismic Loading

User Coefficient Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern FHEX using the user input coefficients, as calculated by ETABS.

Direction and Eccentricity

Direction = X + Eccentricity Y

Eccentricity Ratio = 5% for all diaphragms

Factors and Coefficients

Equivalent Lateral Forces

Base Shear Coefficient, C

$$C = 1.13$$

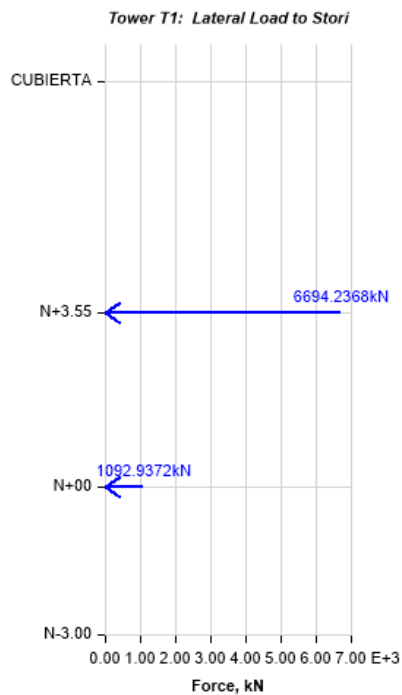
Base Shear, V

$$V = CW$$

Calculated Base Shear

Direction	Period Used (sec)	C	W (tonf)	V (kN)
X + Ecc. Y	0	0	702.71747	7787.174

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
CUBIERT A	11.25	0	0
N+3.55	6.55	6694.2368	0
N+00	3	1092.9372	0
N-3.00	0	0	0

User Coefficient Auto Seismic Load Calculation

This calculation presents the automatically generated lateral seismic loads for load pattern FHEY using the user input coefficients, as calculated by ETABS.

Direction and Eccentricity

Direction = Y + Eccentricity X

Eccentricity Ratio = 5% for all diaphragms

Factors and Coefficients

Equivalent Lateral Forces

Base Shear Coefficient, C

$$C = 1.13$$

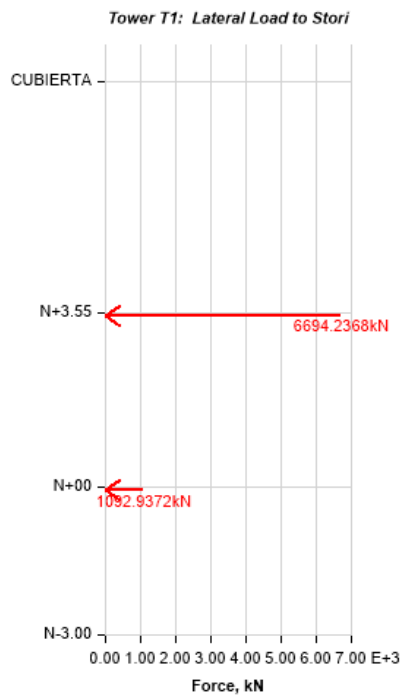
Base Shear, V

$$V = CW$$

Calculated Base Shear

Direction	Period Used (sec)	C	W (tonf)	V (kN)
Y + Ecc. X	0	0	702.71747	7787.174

Applied Story Forces



Story	Elevation	X-Dir	Y-Dir
	m	kN	kN
CUBIERT A	11.25	0	0
N+3.55	6.55	0	6694.2368
N+00	3	0	1092.9372
N-3.00	0	0	0

4.3 Applied Loads

4.3.1 Line Loads

Table 4.4 - Frame Loads Assignments - Distributed

Story	Label	Unique Name	Load Pattern	Load Type	Direction	Distance Type	Relative Distance A	Relative Distance B	Absolute Distance A m	Absolute Distance B m	Force A kN/m	Force B kN/m
CUBIERT A	B92	86	Dead	Force	Gravity	Relative	0	1	0	1.5241	0.2	0.2
CUBIERT A	B5	37	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B86	38	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B87	39	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B88	40	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B96	41	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B104	42	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B105	43	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B106	90	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B107	91	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B108	92	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B109	95	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B110	122	Dead	Force	Gravity	Relative	0	1	0	3	0.2	0.2
CUBIERT A	B171	185	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B172	186	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B173	187	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B174	188	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B175	189	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B176	190	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B177	191	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B178	192	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B179	193	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B180	194	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B181	195	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B182	196	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B183	197	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B184	198	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B185	199	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B186	200	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B187	201	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B188	202	Dead	Force	Gravity	Relative	0	1	0	18	0.2	0.2
CUBIERT A	B92	86	Live	Force	Gravity	Relative	0	1	0	1.5241	0.6	0.6
CUBIERT A	B5	37	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6

Story	Label	Unique Name	Load Pattern	Load Type	Direction	Distance Type	Relative Distance A	Relative Distance B	Absolute Distance A m	Absolute Distance B m	Force A kN/m	Force B kN/m
CUBIERTA	B86	38	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B87	39	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B88	40	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B96	41	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B104	42	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B105	43	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B106	90	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B107	91	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B108	92	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B109	95	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B110	122	Live	Force	Gravity	Relative	0	1	0	3	0.6	0.6
CUBIERTA	B171	185	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B172	186	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B173	187	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B174	188	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B175	189	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B176	190	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B177	191	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B178	192	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B179	193	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B180	194	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B181	195	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B182	196	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B183	197	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B184	198	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B185	199	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B186	200	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B187	201	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6
CUBIERTA	B188	202	Live	Force	Gravity	Relative	0	1	0	18	0.6	0.6

4.3.2 Area Loads

Table 4.5 - Area Load Assignments - Uniform

Story	Label	Unique Name	Load Pattern	Direction	Load kN/m2
CUBIERTA	F8	13	Dead	Gravity	0.2
CUBIERTA	F18	5	Dead	Gravity	0.2
N+3.55	F5	19	Dead	Gravity	4
N+3.55	F6	20	Dead	Gravity	1.5
N+3.55	F11	16	Dead	Gravity	4

Story	Label	UniqueName	Load Pattern	Direction	Load kN/m2
N+3.55	F13	18	Dead	Gravity	4
N+3.55	F14	21	Dead	Gravity	4
N+3.55	F15	22	Dead	Gravity	4
N+3.55	F16	23	Dead	Gravity	4
N+3.55	F19	26	Dead	Gravity	4
N+3.55	F23	25	Dead	Gravity	1.5
N+3.55	F1	17	Dead	Gravity	4
N+3.55	F24	24	Dead	Gravity	4
N+3.55	F12	27	Dead	Gravity	4
N+3.55	F22	32	Dead	Gravity	0.1
N+3.55	F28	34	Dead	Gravity	0.1
N+3.55	F29	35	Dead	Gravity	0.1
N+3.55	F30	36	Dead	Gravity	0.1
N+00	F2	7	Dead	Gravity	3
N+00	F3	8	Dead	Gravity	3
N+00	F4	9	Dead	Gravity	3
N+00	F5	10	Dead	Gravity	3
N+00	F6	11	Dead	Gravity	3
N+00	F7	12	Dead	Gravity	3
N+00	F9	15	Dead	Gravity	3
N+00	F10	14	Dead	Gravity	3
N+00	F17	30	Dead	Gravity	0.1
CUBIERTA	F8	13	Live	Gravity	0.5
CUBIERTA	F18	5	Live	Gravity	0.5
N+3.55	F5	19	Live	Gravity	4
N+3.55	F6	20	Live	Gravity	4
N+3.55	F11	16	Live	Gravity	4
N+3.55	F13	18	Live	Gravity	4
N+3.55	F14	21	Live	Gravity	4
N+3.55	F15	22	Live	Gravity	4
N+3.55	F16	23	Live	Gravity	4
N+3.55	F19	26	Live	Gravity	4
N+3.55	F23	25	Live	Gravity	4
N+3.55	F1	17	Live	Gravity	4
N+3.55	F24	24	Live	Gravity	4
N+3.55	F12	27	Live	Gravity	4
N+3.55	F22	32	Live	Gravity	0.5
N+3.55	F28	34	Live	Gravity	0.5
N+3.55	F29	35	Live	Gravity	0.5
N+3.55	F30	36	Live	Gravity	0.5
N+00	F2	7	Live	Gravity	4
N+00	F3	8	Live	Gravity	4
N+00	F4	9	Live	Gravity	4
N+00	F5	10	Live	Gravity	4
N+00	F6	11	Live	Gravity	4
N+00	F7	12	Live	Gravity	4
N+00	F9	15	Live	Gravity	4
N+00	F10	14	Live	Gravity	4
N+00	F17	30	Live	Gravity	0.5

4.4 Functions

4.4.1 Response Spectrum Functions

Table 4.6 - Functions - Response Spectrum - User Defined

Name	Period sec	Value	Damping Ratio
Espectro Mod Maderas	0	0.45	0.05
Espectro Mod Maderas	0.03	0.59	
Espectro Mod	0.07	0.72	

Name	Period sec	Value	Damping Ratio
Maderas			
Espectro Mod Maderas	0.1	0.86	
Espectro Mod Maderas	0.13	0.99	
Espectro Mod Maderas	0.17	1.13	
Espectro Mod Maderas	0.19	1.13	
Espectro Mod Maderas	0.32	1.13	
Espectro Mod Maderas	0.48	1.13	
Espectro Mod Maderas	0.64	1.13	
Espectro Mod Maderas	0.8	1.13	
Espectro Mod Maderas	1.13	0.8	
Espectro Mod Maderas	1.46	0.62	
Espectro Mod Maderas	1.79	0.5	
Espectro Mod Maderas	2.12	0.42	
Espectro Mod Maderas	2.45	0.37	
Espectro Mod Maderas	2.78	0.32	
Espectro Mod Maderas	3.11	0.29	
Espectro Mod Maderas	3.45	0.26	
Espectro Mod Maderas	3.78	0.24	
Espectro Mod Maderas	4.11	0.22	
Espectro Mod Maderas	4.44	0.2	
Espectro Mod Maderas	4.77	0.19	
Espectro Mod Maderas	5.1	0.18	
Espectro Mod Maderas	5.43	0.17	
Espectro Mod Maderas	5.76	0.16	
Espectro Mod Maderas	6.01	0.14	
Espectro Mod Maderas	6.26	0.13	
Espectro Mod Maderas	6.51	0.12	
Espectro Mod Maderas	6.76	0.11	
Espectro Mod Maderas	7.01	0.11	
Espectro Mod Maderas	7.26	0.1	
UMBRALDEDA NO	0	0.3	0.05
UMBRALDEDA NO	0.05	0.3	
UMBRALDEDA NO	0.1	0.3	
UMBRALDEDA NO	0.15	0.3	
UMBRALDEDA NO	0.2	0.3	
UMBRALDEDA NO	0.25	0.3	
UMBRALDEDA NO	0.3	0.3	
UMBRALDEDA	0.35	0.3	

Name	Period sec	Value	Damping Ratio
NO			
UMBRALDEDA NO	0.4	0.3	
UMBRALDEDA NO	0.45	0.3	
UMBRALDEDA NO	0.5	0.3	
UMBRALDEDA NO	0.55	0.3	
UMBRALDEDA NO	0.6	0.3	
UMBRALDEDA NO	0.65	0.3	
UMBRALDEDA NO	0.7	0.3	
UMBRALDEDA NO	0.75	0.3	
UMBRALDEDA NO	0.8	0.3	
UMBRALDEDA NO	0.837	0.3	
UMBRALDEDA NO	0.85	0.3	
UMBRALDEDA NO	0.9	0.3	
UMBRALDEDA NO	0.96	0.3	
UMBRALDEDA NO	1	0.3	
UMBRALDEDA NO	1.05	0.3	
UMBRALDEDA NO	1.1	0.3	
UMBRALDEDA NO	1.15	0.3	
UMBRALDEDA NO	1.2	0.3	
UMBRALDEDA NO	1.25	0.3	
UMBRALDEDA NO	1.3	0.3	
UMBRALDEDA NO	1.35	0.3	
UMBRALDEDA NO	1.4	0.3	
UMBRALDEDA NO	1.45	0.3	
UMBRALDEDA NO	1.5	0.3	
UMBRALDEDA NO	1.55	0.29	
UMBRALDEDA NO	1.6	0.281	
UMBRALDEDA NO	1.65	0.273	
UMBRALDEDA NO	1.7	0.265	
UMBRALDEDA NO	1.75	0.257	
UMBRALDEDA NO	1.8	0.25	
UMBRALDEDA NO	1.85	0.243	
UMBRALDEDA NO	1.9	0.237	
UMBRALDEDA NO	1.95	0.231	
UMBRALDEDA NO	2	0.225	
UMBRALDEDA NO	2.05	0.22	
UMBRALDEDA NO	2.1	0.214	
UMBRALDEDA	2.15	0.209	

Name	Period sec	Value	Damping Ratio
NO			
UMBRALDEDA NO	2.2	0.205	
UMBRALDEDA NO	2.25	0.2	
UMBRALDEDA NO	2.3	0.196	
UMBRALDEDA NO	2.35	0.191	
UMBRALDEDA NO	2.4	0.188	
UMBRALDEDA NO	2.45	0.184	
UMBRALDEDA NO	2.5	0.18	
UMBRALDEDA NO	2.55	0.176	
UMBRALDEDA NO	2.6	0.173	
UMBRALDEDA NO	2.65	0.17	
UMBRALDEDA NO	2.7	0.167	
UMBRALDEDA NO	2.75	0.164	
UMBRALDEDA NO	2.8	0.161	
UMBRALDEDA NO	2.85	0.158	
UMBRALDEDA NO	2.9	0.155	
UMBRALDEDA NO	2.95	0.153	
UMBRALDEDA NO	3	0.15	
UMBRALDEDA NO	3.05	0.148	
UMBRALDEDA NO	3.1	0.145	
UMBRALDEDA NO	3.15	0.143	
UMBRALDEDA NO	3.2	0.141	
UMBRALDEDA NO	3.25	0.138	

4.4.2 Time History Functions

Table 4.7 - Functions - Time History - User Defined

Name	Time sec	Value
RampTH	0	0
RampTH	1	1
RampTH	4	1
UnifTH	0	1
UnifTH	1	1

4.5 Load Cases

Table 4.8 - Load Case Definitions - Summary

Name	Type
Modal	Modal - Eigen
Dead	Linear Static
Live	Linear Static
Roof Live	Linear Static
Wind (+)	Linear Static
Wind (-)	Linear Static
FHEX	Linear Static
FHEY	Linear Static

Name	Type
SISMOX	Response Spectrum
SISMOY	Response Spectrum
Ex	Response Spectrum
Ey	Response Spectrum
EXUMDAN	Response Spectrum
EYUMDAN	Response Spectrum

4.6 Load Combinations

Table 4.9 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
0.6D+0.7EX+0.21EY	Linear Add	No	Dead	0.6	
0.6D+0.7EX+0.21EY			Ex	0.7	
0.6D+0.7EX+0.21EY			Ey	0.21	
0.6D+0.21EX+0.7EY	Linear Add	No	Dead	0.6	
0.6D+0.21EX+0.7EY			Ex	0.21	
0.6D+0.21EX+0.7EY			Ey	0.7	
0.6D+W(-)	Linear Add	No	Dead	0.6	
0.6D+W(-)			Wind (-)	1	
0.6D+W(+)	Linear Add	No	Dead	0.6	
0.6D+W(+)			Wind (+)	1	
0.9D+0.3EX+1EY	Linear Add	No	Dead	0.9	
0.9D+0.3EX+1EY			Ex	0.3	
0.9D+0.3EX+1EY			Ey	1	
0.9D+1EX+0.3EY	Linear Add	No	Dead	0.9	
0.9D+1EX+0.3EY			Ex	1	
0.9D+1EX+0.3EY			Ey	0.3	
0.9D+1W(-)	Linear Add	No	Dead	0.9	
0.9D+1W(-)			Wind (-)	1	
0.9D+1W(+)	Linear Add	No	Dead	0.9	
0.9D+1W(+)			Wind (+)	1	
1.2D+0.3EX+1EY+1L	Linear Add	No	Dead	1.2	
1.2D+0.3EX+1EY+1L			Ex	0.3	
1.2D+0.3EX+1EY+1L			Ey	1	
1.2D+0.3EX+1EY+1L			Live	1	
1.2D+1.6L+0.5Lr	Linear Add	No	Dead	1.2	
1.2D+1.6L+0.5Lr			Live	1.6	
1.2D+1.6L+0.5Lr			Roof Live	0.5	
1.2D+1.6Lr+0.5W(-)	Linear Add	No	Dead	1.2	
1.2D+1.6Lr+0.5W(-)			Roof Live	1.6	
1.2D+1.6Lr+0.5W(-)			Wind (-)	0.5	
1.2D+1.6Lr+0.5W(+)	Linear Add	No	Dead	1.2	
1.2D+1.6Lr+0.5W(+)			Roof Live	1.6	
1.2D+1.6Lr+0.5W(+)			Wind (+)	0.5	
1.2D+1EX+0.3EY+1L	Linear Add	No	Dead	1.2	
1.2D+1EX+0.3EY+1L			Ex	1	
1.2D+1EX+0.3EY+1L			Ey	0.3	
1.2D+1EX+0.3EY+1L			Live	1	
1.2D+1W(-)+1L+0.5Lr	Linear Add	No	Dead	1.2	
1.2D+1W(-)+1L+0.5Lr			Wind (-)	1	
1.2D+1W(-)+1L+0.5Lr			Live	1	
1.2D+1W(-)+1L+0.5Lr			Roof Live	0.5	
1.2D+1W(+)+1L+0.5Lr	Linear Add	No	Dead	1.2	
1.2D+1W(+)+1L+0.5Lr			Wind (+)	1	
1.2D+1W(+)+1L+0.5Lr			Live	1	
1.2D+1W(+)+1L+0.5Lr			Roof Live	0.5	
1.4D	Linear Add	No	Dead	1.4	

Name	Type	Is Auto	Load Name	SF	Notes
D+0.7EX+0.21EY	Linear Add	No	Dead	1	
D+0.7EX+0.21EY			Ex	0.7	
D+0.21EX+0.7EY	Linear Add	No	Dead	1	
D+0.21EX+0.7EY			Ey	0.7	
D+0.75L+0.75Lr	Linear Add	No	Dead	1	
D+0.75L+0.75Lr			Live	0.75	
D+0.75L+0.75Lr			Roof Live	0.75	
D+0.75W(-))+0.75L+0.75Lr	Linear Add	No	Dead	1	
D+0.75W(-))+0.75L+0.75Lr			Wind (-)	0.75	
D+0.75W(-))+0.75L+0.75Lr			Live	0.75	
D+0.75W(-))+0.75L+0.75Lr			Roof Live	0.75	
D+0.75W(+)+0.75L+0.75Lr	Linear Add	No	Dead	1	
D+0.75W(+)+0.75L+0.75Lr			Wind (+)	0.75	
D+0.75W(+)+0.75L+0.75Lr			Live	0.75	
D+0.75W(+)+0.75L+0.75Lr			Roof Live	0.75	
D+0.157EX+0.525EY+ 0.75L+0.75Lr	Linear Add	No	Dead	1	
D+0.157EX+0.525EY+ 0.75L+0.75Lr			Ey	0.525	
D+0.157EX+0.525EY+ 0.75L+0.75Lr			Live	0.75	
D+0.157EX+0.525EY+ 0.75L+0.75Lr			Roof Live	0.75	
D+0.525EX+0.157EY+ 0.75L+0.75Lr	Linear Add	No	Dead	1	
D+0.525EX+0.157EY+ 0.75L+0.75Lr			Ex	0.525	
D+0.525EX+0.157EY+ 0.75L+0.75Lr			Live	0.75	
D+0.525EX+0.157EY+ 0.75L+0.75Lr			Roof Live	0.75	
D+L	Linear Add	No	Dead	1	
D+L			Live	1	
D+L+Lr	Linear Add	No	Dead	1	
D+L+Lr			Roof Live	1	
D+L+Lr			Live	1	
D+Lr	Linear Add	No	Dead	1	
D+Lr			Roof Live	1	
D+W(-)	Linear Add	No	Dead	1	
D+W(-)			Wind (-)	1	
D+W(+)	Linear Add	No	Dead	1	
D+W(+)			Wind (+)	1	
ENVOLVECIM	Envelope	No	D+L+Lr	1	
ENVOLVECIM			0.6D+0.21EX+0.7EY	1	
ENVOLVECIM			0.6D+0.7EX+0.21EY	1	
ENVOLVECIM			D+0.525EX+0.157EY+ 0.75L+0.75Lr	1	
ENVOLVECIM			D+0.75W(+)+0.75L+0.75Lr	1	
ENVOLVECIM			D+0.75W(-))+0.75L+0.75Lr	1	
ENVOLVECIM			D+0.21EX+0.7EY	1	
ENVOLVECIM			D+0.7EX+0.21EY	1	
Envolvente	Envelope	No	1.4D	1	
Envolvente			1.2D+1.6L+0.5Lr	1	
Envolvente			1.2D+1.6Lr+0.5W(-)	1	
Envolvente			1.2D+1.6Lr+0.5W(+)	1	
Envolvente			1.2D+1W(-)+1L+0.5Lr	1	
Envolvente			1.2D+1W(+)+1L+0.5Lr	1	
Envolvente			1.2D+1EX+0.3EY+1L	1	

Name	Type	Is Auto	Load Name	SF	Notes
Envolvente			1.2D+0.3EX+1EY+1L	1	
Envolvente			0.9D+1W(-)	1	
Envolvente			0.9D+1W(+)	1	
Envolvente			0.6D+0.7EX+0.21EY	1	
Envolvente			0.9D+0.3EX+1EY	1	

5 Analysis Results

This chapter provides analysis results.

5.1 Structure Results

Table 5.1 - Base Reactions

Output Case	Case Type	Step Type	FX kN	FY kN	FZ kN	MX kN-m	MY kN-m	MZ kN-m
Dead	LinStatic		0	0	7243.9203	79377.1243	-140996.7193	-1.378E-06
Live	LinStatic		0	0	2314.6268	21675.7557	-33465.3591	-8.148E-07
Roof Live	LinStatic		0	0	0	0	0	0
Wind (+)	LinStatic		0	0	0	0	0	0
Wind (-)	LinStatic		0	0	0	0	0	0
FHEX	LinStatic		-7787.174	-9.693E-07	0	6.361E-06	-47126.0628	68622.4604
FHEY	LinStatic		-3.215E-06	-7787.174	0	47126.0627	-2.109E-05	-117063.5326
SISMOX	LinRespS pec	Max	7590.6436	155.2676	0	1271.1294	6239.1664	8948.3937
SISMOY	LinRespS pec	Max	1441.7738	7476.343	0	58695.4806	11133.3315	108511.9775
Ex	LinRespS pec	Max	1861.274	176.0404	0	1441.1898	7073.8848	10145.571
Ey	LinRespS pec	Max	176.0406	1521.7615	0	7166.7182	1359.3798	13249.3125
EXUMDAN	LinRespS pec	Max	1440.5379	294.4392	0	2410.4857	11831.5418	16969.141
EYUMDAN	LinRespS pec	Max	300.3287	1349.0544	0	12226.5603	2319.1283	22603.5842

5.2 Modal Results

Table 5.2 - Modal Periods And Frequencies

Case	Mode	Period sec	Frequenc y cyc/sec	CircFreq rad/sec	Eigenvalu e rad2/sec2
Modal	1	0.475	2.105	13.2242	174.8794
Modal	2	0.435	2.298	14.4378	208.4509
Modal	3	0.374	2.67	16.7784	281.5155
Modal	4	0.146	6.858	43.0926	1856.9703
Modal	5	0.131	7.646	48.0402	2307.8579
Modal	6	0.117	8.542	53.671	2880.581
Modal	7	0.087	11.522	72.3927	5240.699
Modal	8	0.075	13.265	83.3477	6946.8452
Modal	9	0.069	14.524	91.2599	8328.3748
Modal	10	0.065	15.442	97.022	9413.2708
Modal	11	0.058	17.383	109.2184	11928.651
Modal	12	0.05	19.875	124.8783	15594.5793
Modal	13	0.041	24.379	153.1767	23463.099
Modal	14	0.038	26.236	164.8448	27173.8233
Modal	15	0.035	28.231	177.3788	31463.2312
Modal	16	0.034	29.394	184.6858	34108.8627
Modal	17	0.033	30.03	188.6837	35601.5232
Modal	18	0.033	30.611	192.3362	36993.2011
Modal	19	0.032	31.64	198.8013	39521.9473
Modal	20	0.03	33.822	212.5078	45159.5685

Table 5.3 - Modal Participating Mass Ratios (Part 1 of 2)

Case	Mode	Period sec	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ	SumRX
Modal	1	0.475	0.6493	0.0403	0	0.6493	0.0403	0	0.0145	0.2519	0.031	0.0145
Modal	2	0.435	0.0369	0.6586	0	0.6861	0.6989	0	0.2834	0.0151	0.0075	0.2978
Modal	3	0.374	0.0271	0.0005	0	0.7132	0.6994	0	0.0008	0.0157	0.6805	0.2986
Modal	4	0.146	0.0904	0.0049	0	0.8036	0.7043	0	0.0141	0.2866	0.0038	0.3127
Modal	5	0.131	0.005	0.1034	0	0.8086	0.8077	0	0.2752	0.0149	7.526E-06	0.5879

Case	Mode	Period sec	UX	UY	UZ	SumUX	SumUY	SumUZ	RX	RY	RZ	SumRX
Modal	6	0.117	0.0035	0.0008	0	0.8121	0.8085	0	0.0022	0.0104	0.0937	0.5901
Modal	7	0.087	0.0254	0.0012	0	0.8375	0.8098	0	0.0018	0.0237	0.0009	0.5919
Modal	8	0.075	0.002	0.0229	0	0.8395	0.8327	0	0.0269	0.0015	0.0064	0.6188
Modal	9	0.069	0.0004	0.0167	0	0.8398	0.8493	0	0.0167	0.0004	0.0207	0.6355
Modal	10	0.065	0.0129	0.0004	0	0.8527	0.8497	0	0.0009	0.0283	0.0008	0.6363
Modal	11	0.058	0.0015	0.0058	0	0.8542	0.8555	0	0.0124	0.0031	0.0066	0.6488
Modal	12	0.05	0.0003	0.0068	0	0.8546	0.8624	0	0.0162	0.0007	0.0063	0.6649
Modal	13	0.041	4.563E-05	0.0001	0	0.8546	0.8625	0	0.0002	0.0001	0	0.6652
Modal	14	0.038	0.0007	0.0018	0	0.8553	0.8642	0	0.0046	0.0014	1.439E-06	0.6698
Modal	15	0.035	0.0886	0.0142	0	0.944	0.8784	0	0.0368	0.2146	5.625E-06	0.7066
Modal	16	0.034	0.0078	0.0031	0	0.9518	0.8815	0	0.0073	0.0213	4.251E-06	0.7139
Modal	17	0.033	0.0007	0.0125	0	0.9525	0.894	0	0.0312	0.0009	3.015E-05	0.7451
Modal	18	0.033	0.0104	0.0557	0	0.9629	0.9497	0	0.1403	0.025	0.0001	0.8854
Modal	19	0.032	0.0001	0.0028	0	0.963	0.9525	0	0.0067	0.0004	8.19E-07	0.8921
Modal	20	0.03	2.561E-05	0.0039	0	0.963	0.9564	0	0.0089	0.0001	2.326E-05	0.901

Table 5.3 - Modal Participating Mass Ratios (Part 2 of 2)

SumRY	SumRZ
0.2519	0.031
0.267	0.0385
0.2828	0.719
0.5694	0.7228
0.5843	0.7228
0.5947	0.8165
0.6183	0.8174
0.6198	0.8239
0.6202	0.8446
0.6485	0.8454
0.6515	0.852
0.6523	0.8583
0.6523	0.8583
0.6537	0.8583
0.8683	0.8583
0.8896	0.8583
0.8906	0.8584
0.9155	0.8585
0.9159	0.8585
0.916	0.8585

Table 5.4 - Modal Load Participation Ratios

Case	ItemType	Item	Static %	Dynamic %
Modal	Acceleration	UX	100	96.3
Modal	Acceleration	UY	99.99	95.64
Modal	Acceleration	UZ	0	0

Table 5.5 - Modal Direction Factors

Case	Mode	Period sec	UX	UY	UZ	RZ
Modal	1	0.475	0.906	0.056	0	0.038
Modal	2	0.435	0.052	0.945	0	0.003
Modal	3	0.374	0.044	0.011	0	0.945
Modal	4	0.146	0.904	0.042	0	0.054
Modal	5	0.131	0.052	0.936	0	0.011
Modal	6	0.117	0.047	0.029	0	0.924
Modal	7	0.087	0.895	0.026	0	0.079
Modal	8	0.075	0.087	0.58	0	0.333
Modal	9	0.069	0.013	0.433	0	0.554
Modal	10	0.065	0.883	0.029	0	0.088
Modal	11	0.058	0.099	0.514	0	0.387

Case	Mode	Period sec	UX	UY	UZ	RZ
Modal	12	0.05	0.007	0.621	0	0.372
Modal	13	0.041	0.001	0.005	0	0.994
Modal	14	0.038	0.013	0.051	0	0.936
Modal	15	0.035	0.818	0.163	0	0.019
Modal	16	0.034	0.355	0.087	0	0.558
Modal	17	0.033	0.012	0.571	0	0.417
Modal	18	0.033	0.105	0.69	0	0.204
Modal	19	0.032	0.002	0.037	0	0.961
Modal	20	0.03	0.001	0.039	0	0.959