

BAB VI

KESIMPULAN DAN SARAN

6.1 Kesimpulan

Setelah melakukan analisis dan perancangan pada struktur gedung kampus STMIK AMIKOM Yogyakarta, yang disesuaikan dengan Tata Cara Perhitungan Struktur Beton Untuk Gedung SNI 03-2847-2002 dan Standar Perencanaan Ketahanan Gempa Untuk Struktur Bangunan Gedung SNI 3-1726-2002, dapat diambil kesimpulan sebagai berikut :

1. Pelat tangga digunakan tebal 130 mm dengan tulangan D12-100 pada tumpuan dan D12-150 pada lapangan, serta tulangan susut digunakan P10-200. Balok bordes ($L = 4,0$ m) digunakan dimensi 200×400 mm² dengan 2D16 untuk tulangan tumpuan bawah dan atas, serta sengkang 2P8-150.
2. Pelat lantai dan atap digunakan tebal 120 mm. Pelat atap ($6,0 \times 4,0$ m²) dua arah dengan tulangan P10-250 untuk arah X dan tulangan P10-300 untuk arah Y. Pelat atap ($4,0 \times 2,0$ m²) dua arah dengan tulangan P10-300 untuk arah X dan tulangan P10-300 untuk arah Y. Pelat lantai ($6,0 \times 4,0$ m²) dua arah dengan tulangan P10-150 untuk arah X dan tulangan P10-200 untuk arah Y. Pelat lantai ($4,0 \times 2,0$ m²) dua arah dengan tulangan P10-300 untuk arah X dan tulangan P10-300 untuk arah Y.
3. Dalam perencanaan balok, digunakan 2 dimensi balok yaitu sebesar 350 mm $\times$ 700 mm, dan 300 mm $\times$ 600 mm. Balok - balok tersebut direncanakan dengan jumlah tulangan lentur dan geser yang berbeda - beda.

4. Dalam perencanaan kolom, dimensi yang digunakan untuk kolom lantai 1 hingga lantai 3 sebesar $800 \text{ mm} \times 800 \text{ mm}$, kolom lantai 4 hingga lantai 6 sebesar $700 \text{ mm} \times 700 \text{ mm}$, dimensi kolom sebesar $600 \text{ mm} \times 600 \text{ mm}$ untuk kolom lantai 7 hingga lantai 9. Sedangkan untuk jumlah tulangan utama serta tulangan geser berbeda - beda.
5. Dalam perencanaan pondasi, dimensi poer yang digunakan adalah $3 \text{ m} \times 3 \text{ m}$, dengan tebal poer $0,7 \text{ m}$. Tulangan yang digunakan untuk bagian poer adalah D19-200 untuk arah memanjang dan arah lebar pada bagian atas dipasang tulangan D16-300. Jumlah tiang yang digunakan 4 buah dengan tulangan 8D19.

6.2 Saran

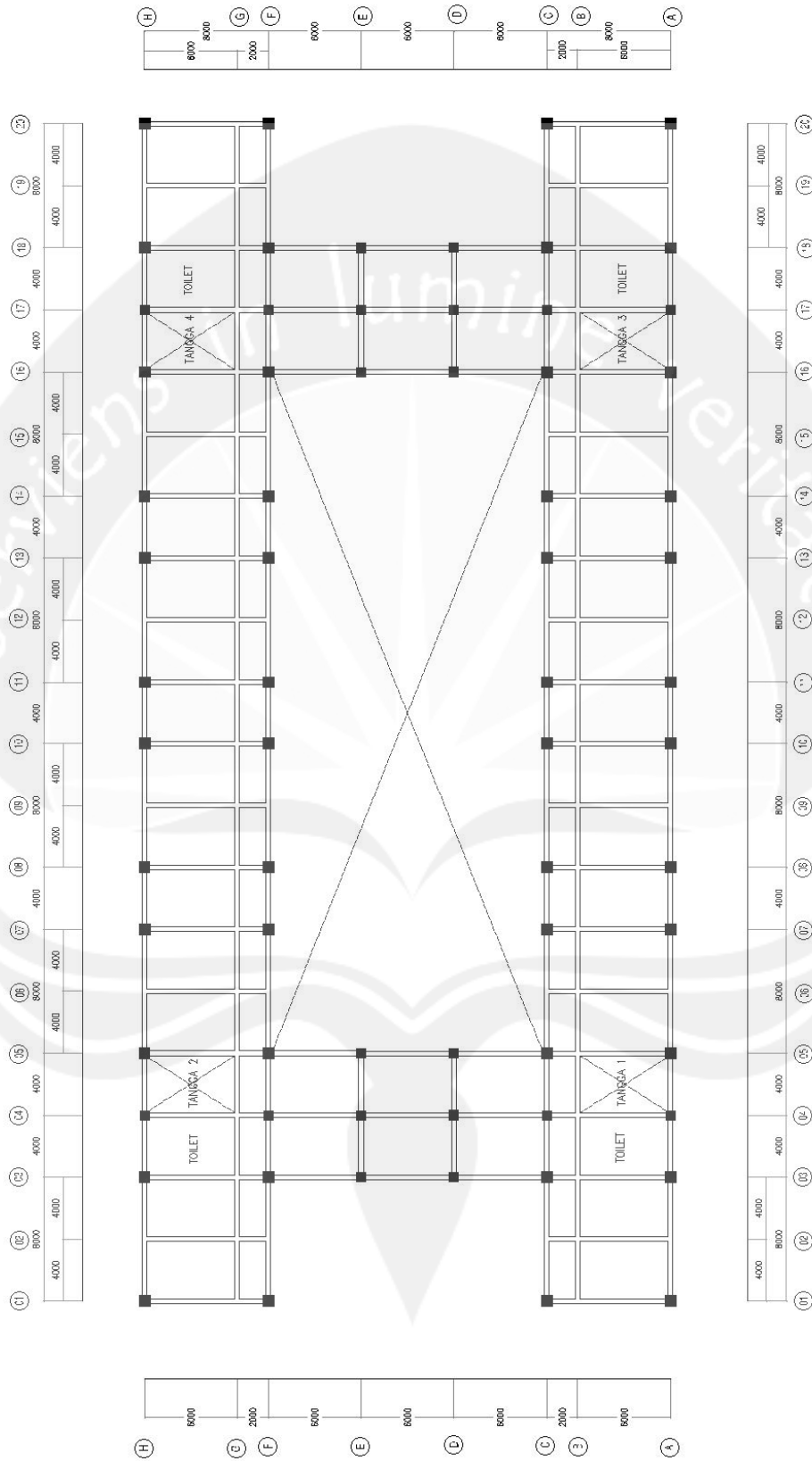
Saran-saran yang dapat diberikan penulis dari hasil Tugas Akhir yang disusun tercantum seperti di bawah ini.

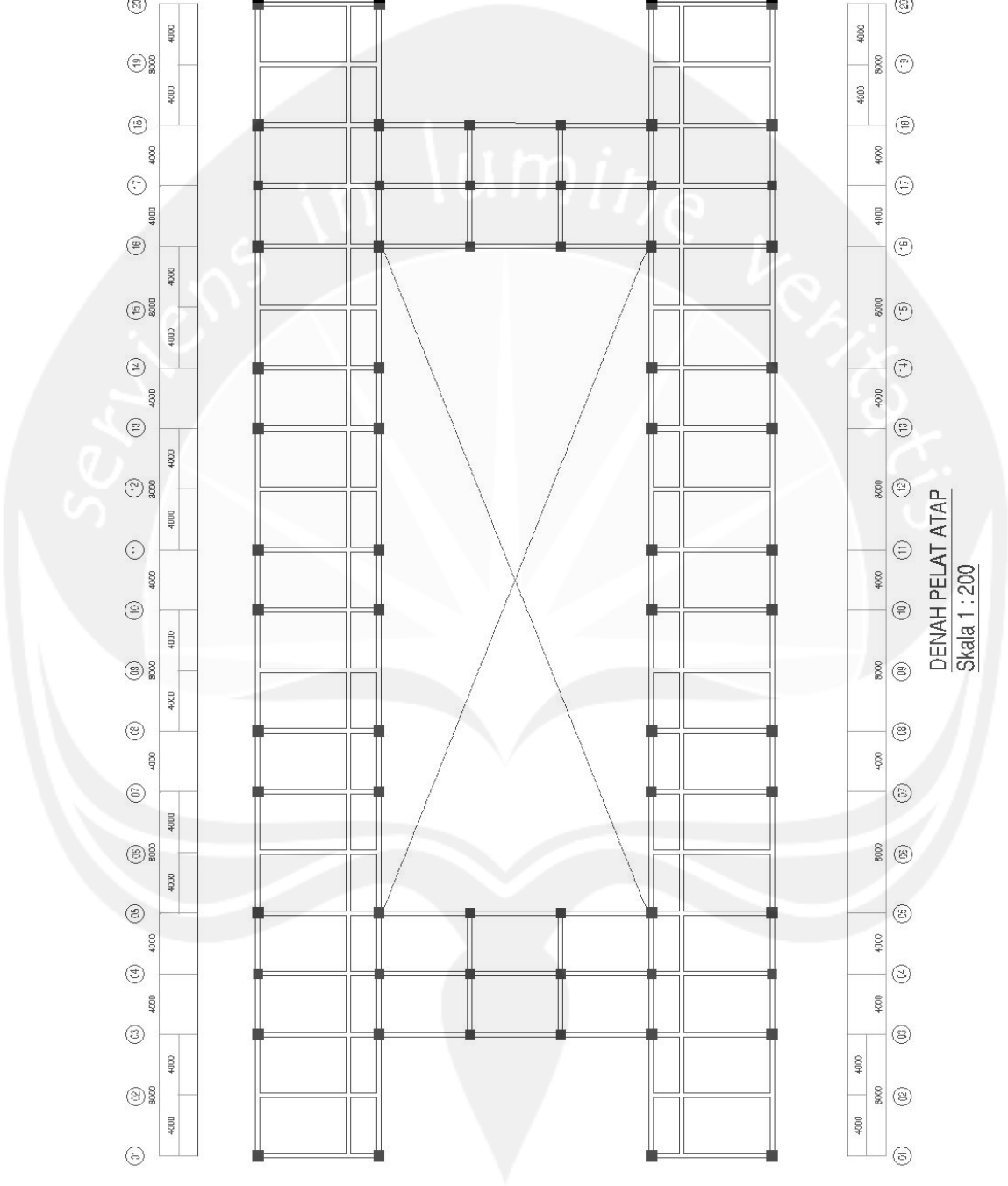
1. Sebelum perencanaan struktur sebaiknya dilakukan estimasi awal pada ukuran elemen struktur, sehingga tidak terjadi penentuan elemen struktur berulang-ulang.
2. Dalam perancangan elemen-elemen struktur seperti penentuan tulangan pelat, balok serta kolom sebaiknya digunakan ukuran yang hampir seragam untuk mempermudah pelaksanaan pekerjaan di lapangan.
3. Untuk kemudahan dalam melaksanakan analisis struktur terutama dalam pembuatan model struktur gedung akan lebih mudah jika memakai program analisis struktur ETABS.

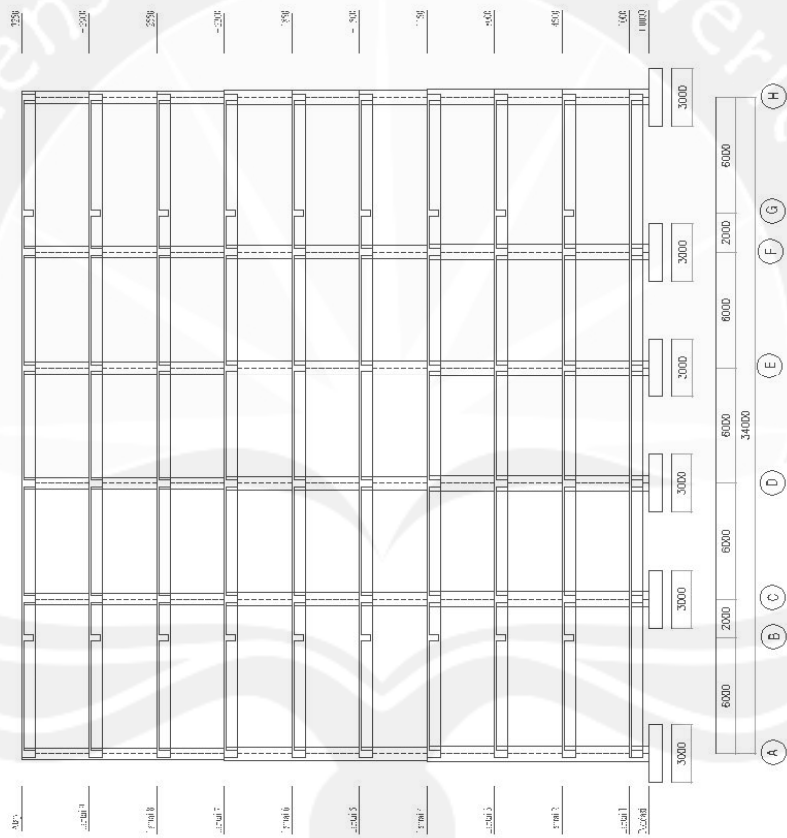
DAFTAR PUSTAKA

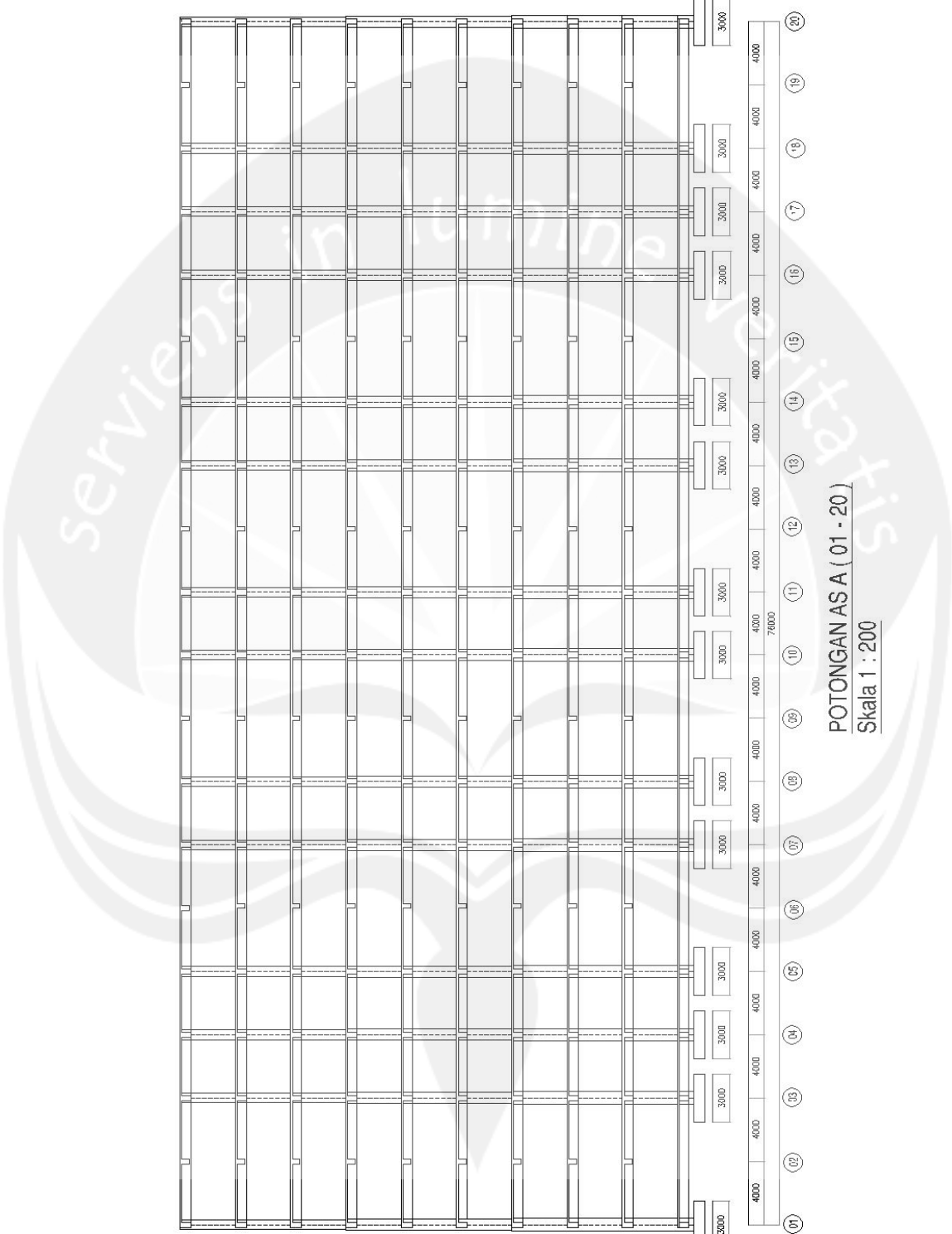
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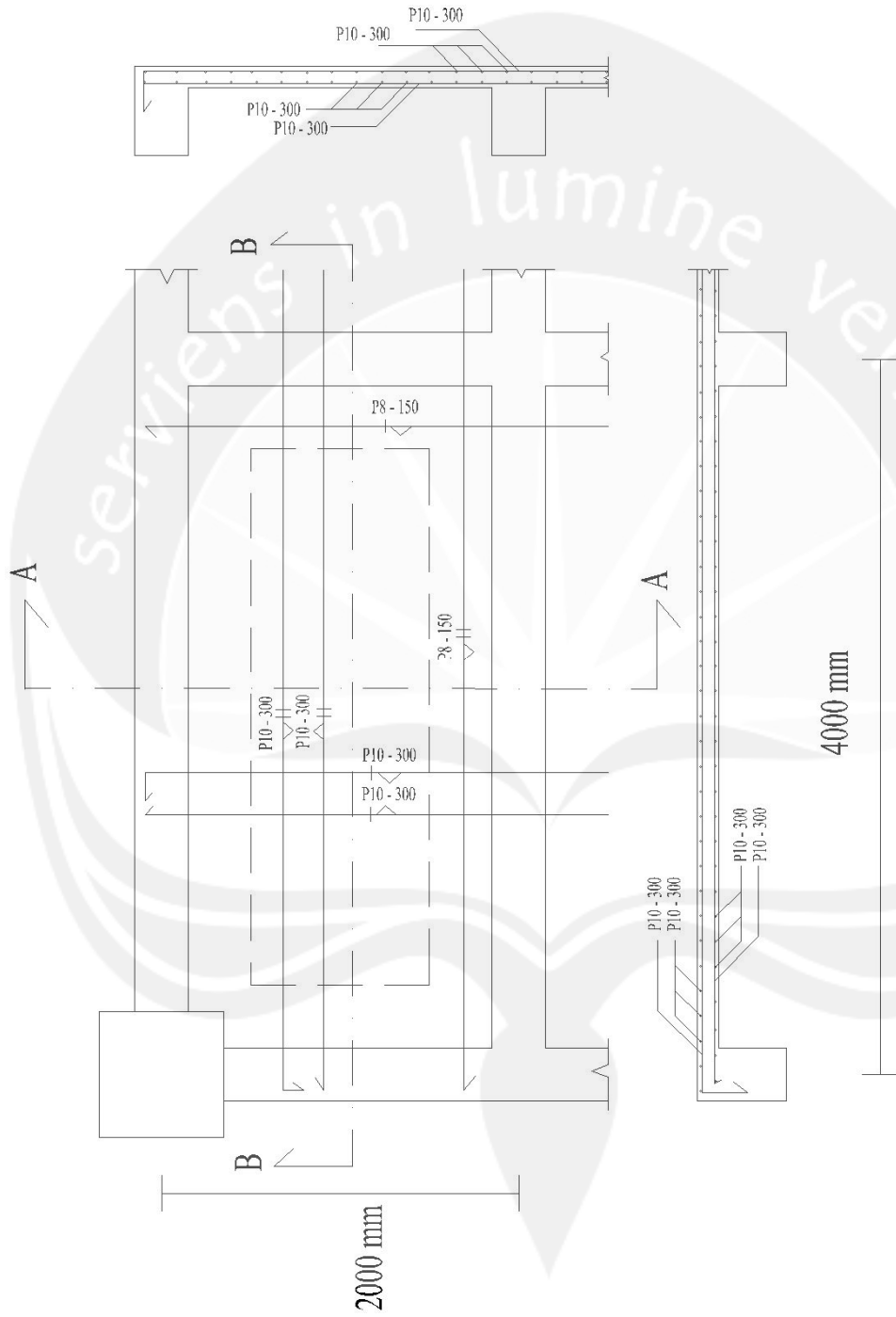






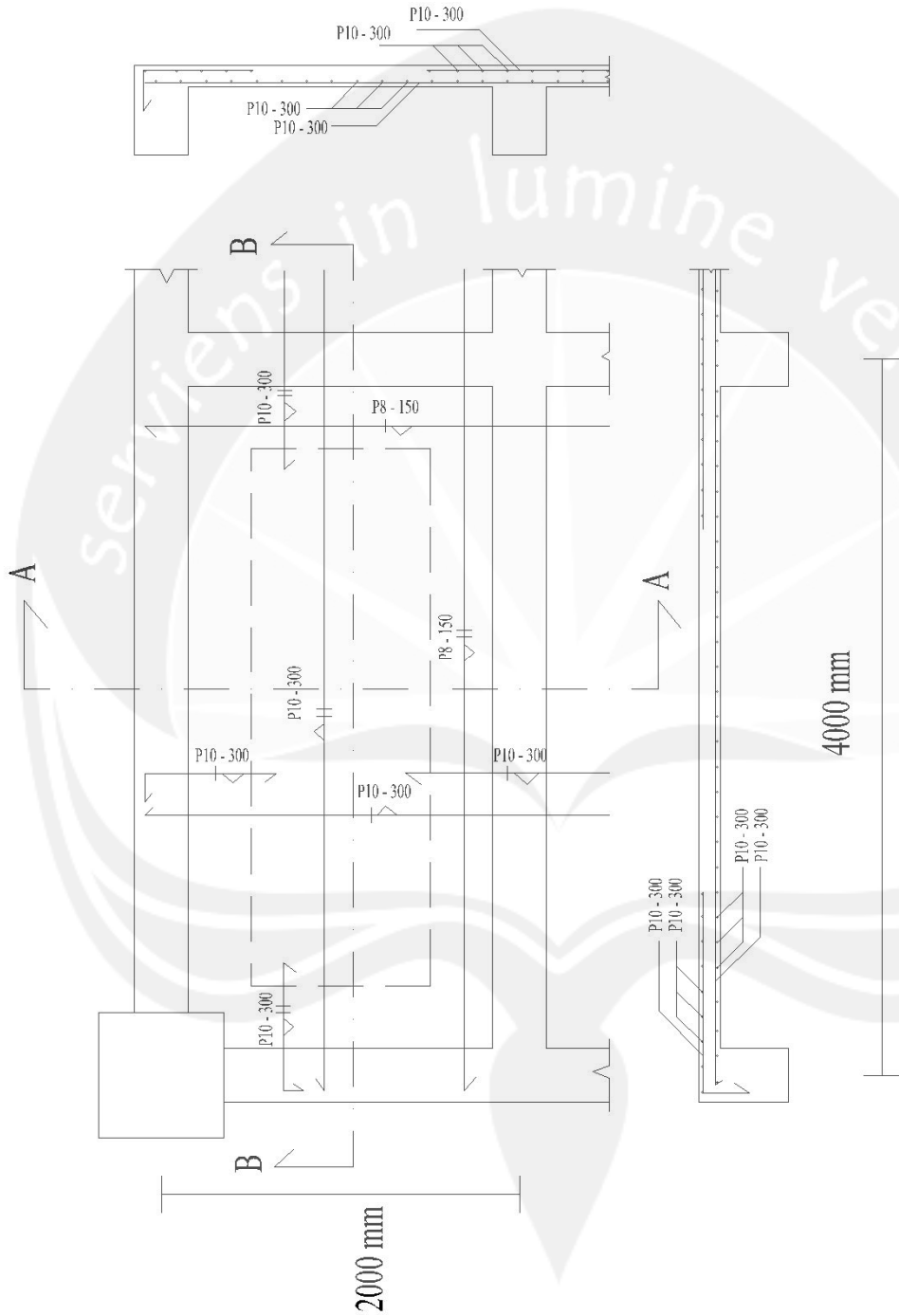






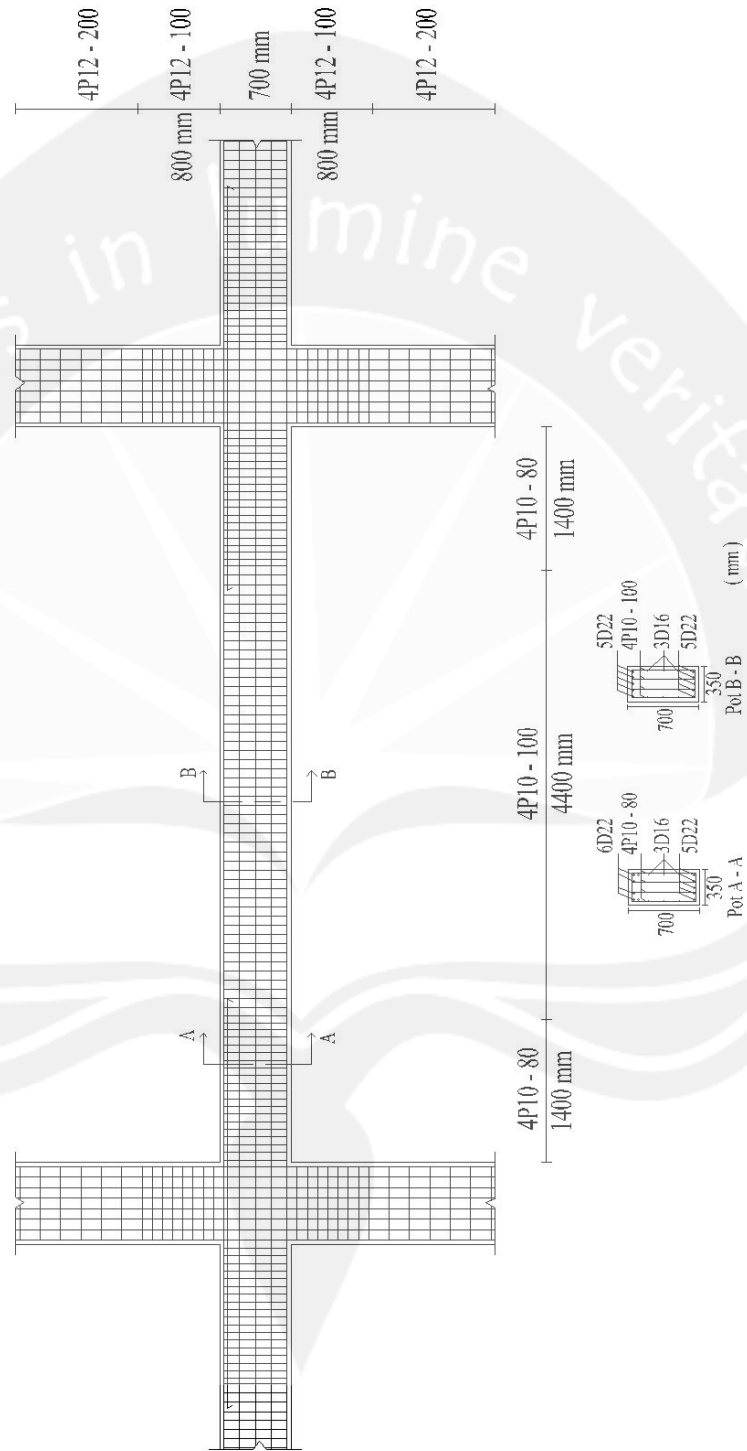
Gambar Penulangan pelat atap tipe II (2000 x 4000)

Skala 1 : 100

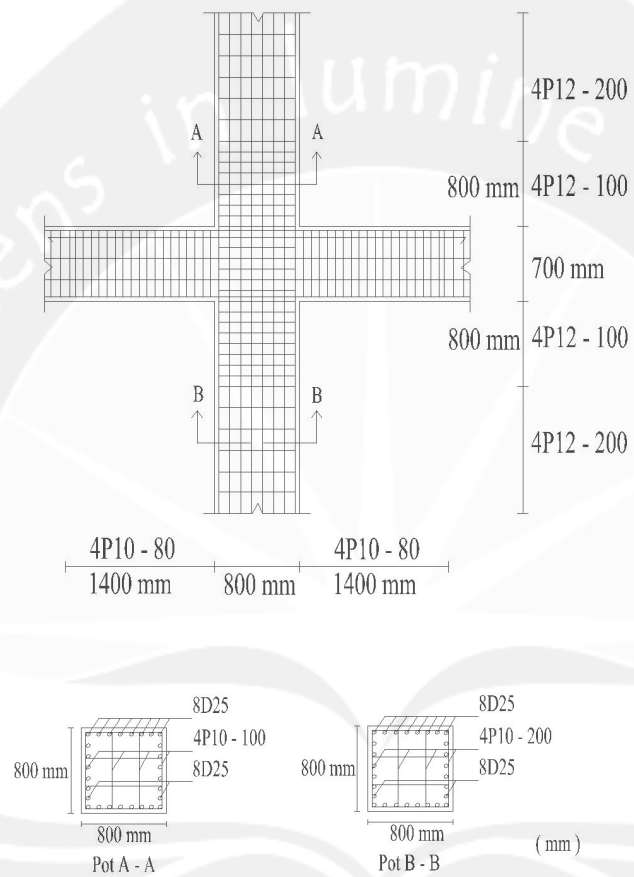


Gambar Penulangan pelat lantai tipe II (2000 x 4000)
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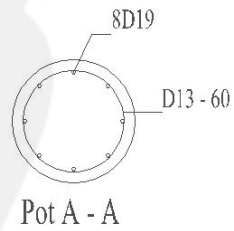
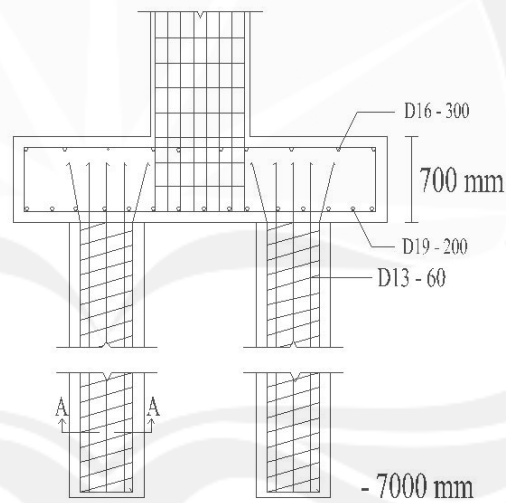
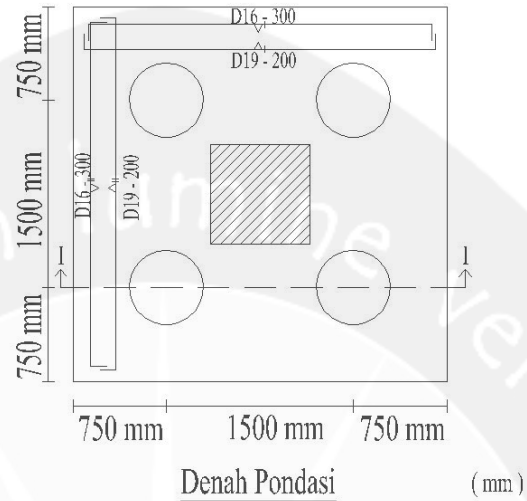
Detail Penulangan tangga
Skala 1 : 100



Detail Penulangan Balok - 97 Lantai 2
Skala 1 : 100



Detail Penulangan Kolom Lantai 2
Skala 1 : 100



Detail Penulangan Pondasi
Skala 1 : 100

TABEL HITUNGAN TULANGAN LENTUR

Keterangan.			Mu (kNm)	b (mm)	h (mm)	d (mm)	ρ min	ρ	ρ max	tul tarik	tul desak
Balok 97	ATAP	tump-	132.928	350	700	639.00	0.0035	0.0030	0.0203	3D22	3D22
		tump+	21.881	350	700	639.00	0.0035	0.0005	0.0203		
		lap+	67.452	350	700	639.00	0.0035	0.0015	0.0203	3D22	3D22
		lap-	114.647	350	700	639.00	0.0035	0.0026	0.0203		
Balok 97	LT9	tump-	180.921	350	700	639.00	0.0035	0.0041	0.0203	3D22	3D22
		tump+	24.778	350	700	639.00	0.0035	0.0005	0.0203		
		lap+	60.528	350	700	639.00	0.0035	0.0013	0.0203	3D22	3D22
		lap-	137.819	350	700	639.00	0.0035	0.0031	0.0203		
Balok 97	LT8	tump-	202.666	350	700	639.00	0.0035	0.0046	0.0203	3D22	3D22
		tump+	26.506	350	700	639.00	0.0035	0.0006	0.0203		
		lap+	59.514	350	700	639.00	0.0035	0.0013	0.0203	3D22	3D22
		lap-	138.968	350	700	639.00	0.0035	0.0031	0.0203		
Balok 97	LT7	tump-	222.175	350	700	639.00	0.0035	0.0051	0.0203	4D22	3D22
		tump+	48.351	350	700	639.00	0.0035	0.0011	0.0203		
		lap+	55.823	350	700	639.00	0.0035	0.0012	0.0203	3D22	3D22
		lap-	135.727	350	700	639.00	0.0035	0.0031	0.0203		
Balok 97	LT6	tump-	239.227	350	700	639.00	0.0035	0.0055	0.0203	4D22	3D22
		tump+	62.730	350	700	639.00	0.0035	0.0014	0.0203		
		lap+	53.401	350	700	639.00	0.0035	0.0012	0.0203	3D22	3D22
		lap-	133.599	350	700	639.00	0.0035	0.0030	0.0203		
Balok 97	LT5	tump-	249.430	350	700	639.00	0.0035	0.0058	0.0203	4D22	3D22
		tump+	74.283	350	700	639.00	0.0035	0.0016	0.0203		
		lap+	52.200	350	700	639.00	0.0035	0.0012	0.0203	3D22	3D22
		lap-	134.024	350	700	639.00	0.0035	0.0030	0.0203		
Balok 97	LT4	tump-	251.185	350	700	639.00	0.0035	0.0058	0.0203	4D22	3D22
		tump+	80.918	350	700	639.00	0.0035	0.0018	0.0203		
		lap+	50.500	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	132.034	350	700	639.00	0.0035	0.0030	0.0203		
Balok 97	LT3	tump-	250.210	350	700	639.00	0.0035	0.0058	0.0203	4D22	3D22
		tump+	78.939	350	700	639.00	0.0035	0.0018	0.0203		
		lap+	50.016	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	130.701	350	700	639.00	0.0035	0.0029	0.0203		
Balok 97	LT2	tump-	230.114	350	700	639.00	0.0035	0.0053	0.0203	4D22	3D22
		tump+	60.008	350	700	639.00	0.0035	0.0013	0.0203		
		lap+	51.735	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	130.837	350	700	639.00	0.0035	0.0029	0.0203		
Balok 97	LT1	tump-	157.011	350	700	639.00	0.0035	0.0036	0.0203	3D22	3D22
		tump+	13.725	350	700	639.00	0.0035	0.0003	0.0203		
		lap+	57.411	350	700	639.00	0.0035	0.0013	0.0203	3D22	3D22
		lap-	129.790	350	700	639.00	0.0035	0.0029	0.0203		

TABEL HITUNGAN MOMEN NOMINAL

As1' (mm ²)	As1 (mm ²)	d1' (mm)	d1 (mm)	Be (mm)	ϵ_y	$\epsilon s1'$	$\epsilon s1'$	Ø Mn (kNm)	cek
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	1070	0.002	-0.0012	belum leleh	239.47	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	1070	0.002	-0.0012	belum leleh	239.47	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	1070	0.002	-0.0012	belum leleh	239.47	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	1070	0.002	-0.0012	belum leleh	239.47	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	1070	0.002	-0.0012	belum leleh	239.47	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	1070	0.002	-0.0015	belum leleh	238.62	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok

TABEL HITUNGAN TULANGAN GESER

Lokasi	Vu (kN)	Vn (kN)	Vc (kN)	cek	Vs (kN)	s (mm)	s pakai (mm)	Senggang
SP	108.35	144.46	186.38	tdk butuh	144.46	278.04	100	2D10-100
LUAR SP	100.44	133.93	186.38	tdk butuh	133.93	299.91	200	2D10-200
SP	122.02	162.70	186.38	tdk butuh	162.70	246.87	100	2D10-100
LUAR SP	110.85	147.81	186.38	tdk butuh	147.81	271.75	200	2D10-200
SP	121.91	162.54	186.38	tdk butuh	162.54	247.11	100	2D10-100
LUAR SP	110.77	147.69	186.38	tdk butuh	147.69	271.96	200	2D10-200
SP	133.24	177.66	186.38	tdk butuh	177.66	226.09	100	2D10-100
LUAR SP	122.17	162.90	186.38	tdk butuh	162.90	246.57	200	2D10-200
SP	132.77	177.02	186.38	tdk butuh	177.02	226.89	100	2D10-100
LUAR SP	121.81	162.42	186.38	tdk butuh	162.42	247.30	200	2D10-200
SP	132.12	176.16	186.38	tdk butuh	176.16	228.01	100	2D10-100
LUAR SP	121.32	161.76	186.38	tdk butuh	161.76	248.31	200	2D10-200
SP	131.34	175.11	186.38	tdk butuh	175.11	229.37	100	2D10-100
LUAR SP	120.72	160.96	186.38	tdk butuh	160.96	249.53	200	2D10-200
SP	130.13	173.50	186.38	tdk butuh	173.50	231.50	100	2D10-100
LUAR SP	119.80	159.74	186.38	tdk butuh	159.74	251.45	200	2D10-200
SP	159.66	212.88	186.38	butuh	212.88	188.67	150	2D10-150
LUAR SP	142.28	189.71	186.38	butuh	189.71	211.72	300	2D10-300
SP	128.90	171.86	186.38	tdk butuh	171.86	233.71	100	2D10-100
LUAR SP	116.08	154.78	186.38	tdk butuh	154.78	259.50	200	2D10-200

TABEL HITUNGAN SENGKANG TORSI

Tu (Nmm)	cek	Tu pakai (Nmm)	Pcp (mm)	Acp (mm)	Aoh (mm ²)	Ph (mm)	Av/s+2.At/s	senggang
21.1	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	3D10-75
21.1	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
32.3	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	3D10-75
32.3	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
35.5	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	3D10-75
35.5	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
39.6	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
39.6	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
42.2	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
42.2	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
44.4	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
44.4	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
45.7	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
45.7	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
42.3	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
42.3	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80
45.4	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-80
45.4	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	4D10-100
31.6	diperhitungkan	38.78	3540	331400	158600	1740	2.3865	4D10-75
31.6	diperhitungkan	38.78	3540	331400	158600	1740	1.6008	3D10-80

TABEL HITUNGAN TULANGAN LONGITUDINAL TAMBAHAN TORSI

AI (mm ²)	AI/4 (mm ²)	tul tarik	tul desak	Øsamping (mm)	tul kiri	tul kanan
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	6D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16
1907.8	476.96	5D22	5D22	16	3D16	3D16

TABEL HITUNGAN TULANGAN LENTUR

Keterangan			Mu (kNm)	b (mm)	h (mm)	d (mm)	ρ min	ρ	ρ max	tul tarik	tul desak
Balok 15	ATAP	tump-	75.329	350	700	639.00	0.0035	0.0017	0.0203	3D22	3D22
		tump+	16.471	350	700	639.00	0.0035	0.0004	0.0203		
		lap+	8.679	350	700	639.00	0.0035	0.0002	0.0203	3D22	3D22
		lap-	22.283	350	700	639.00	0.0035	0.0005	0.0203		
Balok 15	LT9	tump-	126.581	350	700	639.00	0.0035	0.0028	0.0203	3D22	3D22
		tump+	62.740	350	700	639.00	0.0035	0.0014	0.0203		
		lap+	13.508	350	700	639.00	0.0035	0.0003	0.0203	3D22	3D22
		lap-	30.994	350	700	639.00	0.0035	0.0007	0.0203		
Balok 15	LT8	tump-	172.757	350	700	639.00	0.0035	0.0039	0.0203	3D22	3D22
		tump+	109.829	350	700	639.00	0.0035	0.0025	0.0203		
		lap+	25.844	350	700	639.00	0.0035	0.0006	0.0203	3D22	3D22
		lap-	35.761	350	700	639.00	0.0035	0.0008	0.0203		
Balok 15	LT7	tump-	221.111	350	700	639.00	0.0035	0.0051	0.0203	3D22	3D22
		tump+	162.745	350	700	639.00	0.0035	0.0037	0.0203		
		lap+	39.213	350	700	639.00	0.0035	0.0009	0.0203	3D22	3D22
		lap-	41.150	350	700	639.00	0.0035	0.0009	0.0203		
Balok 15	LT6	tump-	259.347	350	700	639.00	0.0035	0.0060	0.0203	4D22	3D22
		tump+	202.209	350	700	639.00	0.0035	0.0046	0.0203		
		lap+	45.294	350	700	639.00	0.0035	0.0010	0.0203	3D22	3D22
		lap-	49.386	350	700	639.00	0.0035	0.0011	0.0203		
Balok 15	LT5	tump-	285.825	350	700	639.00	0.0035	0.0067	0.0203	4D22	4D22
		tump+	228.900	350	700	639.00	0.0035	0.0053	0.0203		
		lap+	47.969	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	56.528	350	700	639.00	0.0035	0.0013	0.0203		
Balok 15	LT4	tump-	302.671	350	700	639.00	0.0035	0.0071	0.0203	5D22	4D22
		tump+	249.917	350	700	639.00	0.0035	0.0058	0.0203		
		lap+	50.266	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	61.381	350	700	639.00	0.0035	0.0014	0.0203		
Balok 15	LT3	tump-	303.521	350	700	639.00	0.0035	0.0071	0.0203	5D22	4D22
		tump+	251.310	350	700	639.00	0.0035	0.0058	0.0203		
		lap+	50.691	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	61.484	350	700	639.00	0.0035	0.0014	0.0203		
Balok 15	LT2	tump-	258.098	350	700	639.00	0.0035	0.0060	0.0203	4D22	3D22
		tump+	206.274	350	700	639.00	0.0035	0.0047	0.0203		
		lap+	49.011	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	42.784	350	700	639.00	0.0035	0.0009	0.0203		
Balok 15	LT1	tump-	122.005	350	700	639.00	0.0035	0.0027	0.0203	3D22	3D22
		tump+	65.874	350	700	639.00	0.0035	0.0015	0.0203		
		lap+	12.189	350	700	639.00	0.0035	0.0003	0.0203	3D22	3D22
		lap-	42.784	350	700	639.00	0.0035	0.0009	0.0203		

TABEL HITUNGAN MOMEN NOMINAL

As1' (mm ²)	As1 (mm ²)	d1' (mm)	d1 (mm)	BE (mm)	ϵ_y	$\epsilon_{s1'}$	$\epsilon_{s1'}$	Ø Mn (kNm)	cek
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	850	0.002	-0.0009	belum leleh	234.74	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1521.14	1521.14	61	639	350	0.002	0.0005	belum leleh	292.42	ok
1521.14	1521.14	61	639	850	0.002	-0.0006	belum leleh	306.01	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1521.14	1901.43	61	639	350	0.002	0.0008	belum leleh	362.51	ok
1901.43	1521.14	61	639	850	0.002	-0.0005	belum leleh	306.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1521.14	1901.43	61	639	350	0.002	0.0008	belum leleh	362.51	ok
1901.43	1521.14	61	639	850	0.002	-0.0005	belum leleh	306.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1521.14	61	639	350	0.002	0.0006	belum leleh	292.39	ok
1521.14	1140.86	61	639	850	0.002	-0.0009	belum leleh	234.74	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	850	0.002	-0.0010	belum leleh	234.23	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok

TABEL HITUNGAN TULANGAN GESER

Lokasi	Vu (kN)	Vn (kN)	Vc (kN)	cek	Vs (kN)	s (mm)	s pakai (mm)	Senggang
SP	137.12	182.83	186.38	tdk butuh	182.83	219.69	100	2D10-100
LUAR SP	124.52	166.03	186.38	tdk butuh	166.03	241.91	200	2D10-200
SP	145.11	193.48	186.38	butuh	193.48	207.60	100	2D10-100
LUAR SP	129.73	172.97	186.38	tdk butuh	172.97	232.21	200	2D10-200
SP	145.13	193.51	186.38	butuh	193.51	207.56	100	2D10-100
LUAR SP	129.75	172.99	186.38	tdk butuh	172.99	232.18	200	2D10-200
SP	145.35	193.80	186.38	butuh	193.80	207.25	100	2D10-100
LUAR SP	129.89	173.18	186.38	tdk butuh	173.18	231.93	200	2D10-200
SP	161.48	215.31	186.38	butuh	215.31	186.55	100	2D10-100
LUAR SP	145.86	194.48	186.38	butuh	194.48	206.52	200	2D10-200
SP	177.90	237.19	186.38	butuh	237.19	169.34	100	2D10-100
LUAR SP	162.06	216.07	186.38	butuh	216.07	185.89	200	2D10-200
SP	194.33	259.11	186.38	butuh	259.11	155.01	100	2D10-100
LUAR SP	178.19	237.58	186.38	butuh	237.58	169.06	200	2D10-200
SP	195.32	260.43	186.38	butuh	260.43	154.23	100	2D10-100
LUAR SP	178.83	238.44	186.38	butuh	238.44	168.45	200	2D10-200
SP	165.54	220.72	186.38	butuh	220.72	181.97	100	2D10-100
LUAR SP	148.51	198.01	186.38	butuh	198.01	202.84	200	2D10-200
SP	144.69	192.92	186.38	butuh	192.92	208.20	100	2D10-100
LUAR SP	129.46	172.61	186.38	tdk butuh	172.61	232.70	200	2D10-200

TABEL HITUNGAN SENGKANG TORSI

Tu (Nmm)	cek	Tu (Nmm)	Pcp (mm)	Acp (mm)	Aoh (mm²)	Ph (mm)	Av/s+2.At/s	senggang
20.2	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
20.2	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
27.3	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
27.3	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
30.5	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
30.5	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
34.6	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
34.6	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
37.2	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
37.2	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
39.3	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
39.3	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
40.6	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
40.6	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
37.2	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
37.2	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
40.3	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
40.3	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100
26.7	diperhitungkan	37.51	3100	305000	158600	1740	2.3598	3D10-75
26.7	diperhitungkan	37.51	3100	305000	158600	1740	1.5741	3D10-100

TABEL HITUNGAN TULANGAN LONGITUDINAL TAMBAHAN TORSI

AI (mm ²)	AI/4 (mm ²)	tul tarik	tul desak	Øsamping (mm)	tul kiri	tul kanan
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	5D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	5D22	5D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	6D22	5D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	6D22	5D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	5D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16
1070	267.5	4D22	4D22	16	2D16	2D16

TABEL HITUNGAN TULANGAN LENTUR

Keterangan			Mu (kNm)	b (mm)	h (mm)	d (mm)	ρ min	ρ	ρ max	tul tarik	tul desak
Balok 74	ATAP	tump-	43.608	350	700	639.00	0.0035	0.0010	0.0203	3D22	3D22
		tump+	24.211	350	700	639.00	0.0035	0.0005	0.0203		
		lap+	20.956	350	700	639.00	0.0035	0.0005	0.0203	3D22	3D22
		lap-	25.013	350	700	639.00	0.0035	0.0005	0.0203		
Balok 74	LT9	tump-	88.719	350	700	639.00	0.0035	0.0020	0.0203	3D22	3D22
		tump+	53.445	350	700	639.00	0.0035	0.0012	0.0203		
		lap+	27.219	350	700	639.00	0.0035	0.0006	0.0203	3D22	3D22
		lap-	52.754	350	700	639.00	0.0035	0.0012	0.0203		
Balok 74	LT8	tump-	130.652	350	700	639.00	0.0035	0.0029	0.0203	3D22	3D22
		tump+	89.175	350	700	639.00	0.0035	0.0020	0.0203		
		lap+	35.130	350	700	639.00	0.0035	0.0008	0.0203	3D22	3D22
		lap-	83.592	350	700	639.00	0.0035	0.0019	0.0203		
Balok 74	LT7	tump-	163.095	350	700	639.00	0.0035	0.0037	0.0203	3D22	3D22
		tump+	122.375	350	700	639.00	0.0035	0.0027	0.0203		
		lap+	38.960	350	700	639.00	0.0035	0.0009	0.0203	3D22	3D22
		lap-	107.393	350	700	639.00	0.0035	0.0024	0.0203		
Balok 74	LT6	tump-	189.343	350	700	639.00	0.0035	0.0043	0.0203	3D22	3D22
		tump+	148.236	350	700	639.00	0.0035	0.0033	0.0203		
		lap+	41.670	350	700	639.00	0.0035	0.0009	0.0203	3D22	3D22
		lap-	126.197	350	700	639.00	0.0035	0.0028	0.0203		
Balok 74	LT5	tump-	214.006	350	700	639.00	0.0035	0.0049	0.0203	3D22	3D22
		tump+	169.031	350	700	639.00	0.0035	0.0038	0.0203		
		lap+	48.029	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	144.366	350	700	639.00	0.0035	0.0033	0.0203		
Balok 74	LT4	tump-	222.054	350	700	639.00	0.0035	0.0051	0.0203	3D22	3D22
		tump+	182.011	350	700	639.00	0.0035	0.0041	0.0203		
		lap+	48.495	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	150.139	350	700	639.00	0.0035	0.0034	0.0203		
Balok 74	LT3	tump-	224.872	350	700	639.00	0.0035	0.0052	0.0203	4D22	3D22
		tump+	187.369	350	700	639.00	0.0035	0.0043	0.0203		
		lap+	48.216	350	700	639.00	0.0035	0.0011	0.0203	3D22	3D22
		lap-	151.886	350	700	639.00	0.0035	0.0034	0.0203		
Balok 74	LT2	tump-	203.198	350	700	639.00	0.0035	0.0046	0.0203	3D22	3D22
		tump+	172.575	350	700	639.00	0.0035	0.0039	0.0203		
		lap+	46.941	350	700	639.00	0.0035	0.0010	0.0203	3D22	3D22
		lap-	136.562	350	700	639.00	0.0035	0.0031	0.0203		
Balok 74	LT1	tump-	89.006	350	700	639.00	0.0035	0.0020	0.0203	3D22	3D22
		tump+	65.970	350	700	639.00	0.0035	0.0015	0.0203		
		lap+	27.848	350	700	639.00	0.0035	0.0006	0.0203	3D22	3D22
		lap-	53.791	350	700	639.00	0.0035	0.0012	0.0203		

TABEL HITUNGAN MOMEN NOMINAL

As1' (mm ²)	As1 (mm ²)	d1' (mm)	d1 (mm)	BE (mm)	ϵ_y	$\epsilon_{s1'}$	$\epsilon_{s1'}$	Ø Mn (kNm)	cek
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	683.3	0.002	-0.0007	belum leleh	230.57	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok
1140.86	1140.86	61	639	350	0.002	0.0002	belum leleh	221.99	ok

TABEL HITUNGAN TULANGAN GESER

Lokasi	Vu (kN)	Vn (kN)	Vc (kN)	cek	Vs (kN)	s (mm)	s pakai (mm)	Senggang
SP	184.60	246.14	186.38	butuh	246.14	163.19	100	2D10-100
LUAR SP	165.60	220.80	186.38	butuh	220.80	181.91	200	2D10-200
SP	190.02	253.35	186.38	butuh	253.35	158.54	100	2D10-100
LUAR SP	167.54	223.39	186.38	butuh	223.39	179.80	200	2D10-200
SP	189.79	253.06	186.38	butuh	253.06	158.72	100	2D10-100
LUAR SP	167.46	223.28	186.38	butuh	223.28	179.89	200	2D10-200
SP	189.31	252.41	186.38	butuh	252.41	159.13	100	2D10-100
LUAR SP	167.29	223.05	186.38	butuh	223.05	180.08	200	2D10-200
SP	188.79	251.72	186.38	butuh	251.72	159.56	100	2D10-100
LUAR SP	167.10	222.80	186.38	butuh	222.80	180.27	200	2D10-200
SP	188.13	250.84	186.38	butuh	250.84	160.12	100	2D10-100
LUAR SP	166.86	222.49	186.38	butuh	222.49	180.53	200	2D10-200
SP	187.31	249.75	186.38	butuh	249.75	160.82	100	2D10-100
LUAR SP	166.57	222.09	186.38	butuh	222.09	180.85	200	2D10-200
SP	210.65	280.87	186.38	butuh	280.87	143.01	100	2D10-100
LUAR SP	190.46	253.95	186.38	butuh	253.95	158.16	200	2D10-200
SP	185.25	247.00	186.38	butuh	247.00	162.61	100	2D10-100
LUAR SP	165.83	221.11	186.38	butuh	221.11	181.65	200	2D10-200
SP	186.47	248.63	186.38	butuh	248.63	161.55	100	2D10-100
LUAR SP	166.27	221.69	186.38	butuh	221.69	181.18	200	2D10-200

TABEL HITUNGAN SENGKANG TORSI

Tu (Nmm)	cek	Tu (Nmm)	Pcp (mm)	Acp (mm)	Aoh (mm ²)	Ph (mm)	Av/s+2.At/s	senggang
18.3	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
18.3	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
25.6	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
25.6	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
27.8	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
27.8	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
31.8	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
31.8	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
34.1	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
34.1	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
37.2	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
37.2	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
38.4	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
38.4	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
35.5	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
35.5	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
38.4	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
38.4	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100
24.3	diperhitungkan	36.70	2766.7	285000	158600	1740	2.3427	3D10-75
24.3	diperhitungkan	36.70	2766.7	285000	158600	1740	1.5570	3D10-100

TABEL HITUNGAN TULANGAN LONGITUDINAL TAMBAHAN TORSI

[illegible]

TABEL HITUNGAN TULANGAN LENTUR

Keterangan			Mu (kNm)	b (mm)	h (mm)	d (mm)	ρ min	ρ	ρ max	tul tarik	tul desak
Balok110	ATAP	tump-	43.092	300	600	539.00	0.0035	0.0016	0.0203	2D22	2D22
		tump+	17.716	300	600	539.00	0.0035	0.0006	0.0203		
		lap+	58.282	300	600	539.00	0.0035	0.0021	0.0203		
		lap-	98.786	300	600	539.00	0.0035	0.0037	0.0203	2D22	2D22
Balok110	LT9	tump-	63.707	300	600	539.00	0.0035	0.0023	0.0203	2D22	2D22
		tump+	14.790	300	600	539.00	0.0035	0.0005	0.0203		
		lap+	53.849	300	600	539.00	0.0035	0.0020	0.0203	2D22	2D22
		lap-	89.722	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
Balok110	LT8	tump-	70.377	300	600	539.00	0.0035	0.0026	0.0203	2D22	2D22
		tump+	10.763	300	600	539.00	0.0035	0.0004	0.0203		
		lap+	54.390	300	600	539.00	0.0035	0.0020	0.0203	2D22	2D22
		lap-	91.051	300	600	539.00	0.0035	0.0034	0.0203	2D22	2D22
Balok110	LT7	tump-	78.758	300	600	539.00	0.0035	0.0029	0.0203	2D22	2D22
		tump+	16.254	300	600	539.00	0.0035	0.0006	0.0203		
		lap+	53.542	300	600	539.00	0.0035	0.0020	0.0203	2D22	2D22
		lap-	89.130	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
Balok110	LT6	tump-	84.040	300	600	539.00	0.0035	0.0031	0.0203	2D22	2D22
		tump+	20.096	300	600	539.00	0.0035	0.0007	0.0203		
		lap+	53.259	300	600	539.00	0.0035	0.0019	0.0203	2D22	2D22
		lap-	90.203	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
Balok110	LT5	tump-	88.201	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
		tump+	24.447	300	600	539.00	0.0035	0.0009	0.0203		
		lap+	53.168	300	600	539.00	0.0035	0.0019	0.0203	2D22	2D22
		lap-	92.023	300	600	539.00	0.0035	0.0034	0.0203	2D22	2D22
Balok110	LT4	tump-	91.033	300	600	539.00	0.0035	0.0034	0.0203	2D22	2D22
		tump+	26.439	300	600	539.00	0.0035	0.0010	0.0203		
		lap+	47.212	300	600	539.00	0.0035	0.0017	0.0203	2D22	2D22
		lap-	90.438	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
Balok110	LT3	tump-	90.562	300	600	539.00	0.0035	0.0034	0.0203	2D22	2D22
		tump+	25.922	300	600	539.00	0.0035	0.0009	0.0203		
		lap+	52.974	300	600	539.00	0.0035	0.0019	0.0203	2D22	2D22
		lap-	90.806	300	600	539.00	0.0035	0.0034	0.0203	2D22	2D22
Balok110	LT2	tump-	84.220	300	600	539.00	0.0035	0.0031	0.0203	2D22	2D22
		tump+	21.186	300	600	539.00	0.0035	0.0008	0.0203		
		lap+	53.010	300	600	539.00	0.0035	0.0019	0.0203	2D22	2D22
		lap-	83.965	300	600	539.00	0.0035	0.0031	0.0203	2D22	2D22
Balok110	LT1	tump-	89.939	300	600	539.00	0.0035	0.0033	0.0203	2D22	2D22
		tump+	53.292	300	600	539.00	0.0035	0.0019	0.0203		
		lap+	14.303	300	600	539.00	0.0035	0.0005	0.0203	2D22	2D22
		lap-	63.939	300	600	539.00	0.0035	0.0023	0.0203	2D22	2D22

[illegible][illegible]

TABEL HITUNGAN TULANGAN GESER

Lokasi	Vu (kN)	Vn (kN)	Vc (kN)	cek	Vs (kN)	s (mm)	s pakai (mm)	Senggang
SP	77.75	103.67	134.75	tdk butuh	103.67	326.80	100	2D10-100
LUAR SP	70.82	94.42	134.75	tdk butuh	94.42	358.82	200	2D10-200
SP	90.01	120.02	134.75	tdk butuh	120.02	282.29	100	2D10-100
LUAR SP	80.61	107.48	134.75	tdk butuh	107.48	315.23	200	2D10-200
SP	92.01	122.68	134.75	tdk butuh	122.68	276.17	100	2D10-100
LUAR SP	82.72	110.29	134.75	tdk butuh	110.29	307.18	200	2D10-200
SP	98.72	131.62	134.75	tdk butuh	131.62	257.40	100	2D10-100
LUAR SP	89.53	119.37	134.75	tdk butuh	119.37	283.83	200	2D10-200
SP	104.17	138.90	134.75	butuh	138.90	243.92	100	2D10-100
LUAR SP	95.08	126.77	134.75	tdk butuh	126.77	267.25	200	2D10-200
SP	107.52	143.36	134.75	butuh	143.36	236.33	100	2D10-100
LUAR SP	98.53	131.37	134.75	tdk butuh	131.37	257.90	200	2D10-200
SP	107.97	143.97	134.75	butuh	143.97	235.33	100	2D10-100
LUAR SP	99.09	132.12	134.75	tdk butuh	132.12	256.44	200	2D10-200
SP	102.78	137.04	134.75	butuh	137.04	247.23	100	2D10-100
LUAR SP	94.11	125.48	134.75	tdk butuh	125.48	270.01	200	2D10-200
SP	125.11	166.82	134.75	butuh	166.82	203.10	100	2D10-100
LUAR SP	115.42	153.89	134.75	butuh	153.89	220.16	200	2D10-200
SP	116.37	155.16	134.75	butuh	155.16	218.35	100	2D10-100
LUAR SP	104.82	139.76	134.75	butuh	139.76	242.41	200	2D10-200

TABEL HITUNGAN SENGKANG TORSI

Tu (Nmm)	cek	Tu (Nmm)	Pcp (mm)	Acp (mm)	Aoh (mm ²)	Ph (mm)	Av/s+2.At/s	senggang
15.6	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
15.6	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
23.7	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
23.7	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
24.8	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
24.8	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
28.2	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
28.2	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
32.6	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
32.6	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
35.3	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
35.3	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
36.7	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
36.7	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
33.2	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
33.2	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
35.4	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
35.4	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100
22.9	diperhitungkan	26.97	3133.3	260000	107100	1440	2.4108	3D10-75
22.9	diperhitungkan	26.97	3133.3	260000	107100	1440	1.6251	3D10-100

TABEL HITUNGAN TULANGAN LONGITUDINAL TAMBAHAN TORSI

[illegible]

TABEL HITUNGAN TULANGAN LONGITUDINAL KOLOM

Lantai	No. Kolom	b (mm)	h (mm)	Ag (mm)	Selimut beton (mm)	ø tul (mm)	ø sengkang (mm)	jml tul	As _t (mm ²)	tulangan	ρ
7	C9	600	600	360000	40	25	12	28	13750	28D25	3.82%
7	C10	600	600	360000	40	25	12	28	13750	28D25	3.82%
7	C14	600	600	360000	40	25	12	28	13750	28D25	3.82%
7	C18	600	600	360000	40	25	12	28	13750	28D25	3.82%
7	C20	600	600	360000	40	25	12	28	13750	28D25	3.82%
7	C24	600	600	360000	40	25	12	28	13750	28D25	3.82%
4	C9	700	700	490000	40	25	12	28	13750	28D25	2.81%
4	C10	700	700	490000	40	25	12	28	13750	28D25	2.81%
4	C14	700	700	490000	40	25	12	28	13750	28D25	2.81%
4	C18	700	700	490000	40	25	12	28	13750	28D25	2.81%
4	C20	700	700	490000	40	25	12	28	13750	28D25	2.81%
4	C24	700	700	490000	40	25	12	28	13750	28D25	2.81%
2	C9	800	800	640000	40	25	12	28	13750	28D25	2.15%
2	C10	800	800	640000	40	25	12	28	13750	28D25	2.15%
2	C14	800	800	640000	40	25	12	28	13750	28D25	2.15%
2	C18	800	800	640000	40	25	12	28	13750	28D25	2.15%
2	C20	800	800	640000	40	25	12	28	13750	28D25	2.15%
2	C24	800	800	640000	40	25	12	28	13750	28D25	2.15%

TABEL HITUNGAN TULANGAN LONGITUDINAL KOLOM

Vu (kN)	Nu (kN)	Vc (kN)	QVc (kN)	cek sengkang:	Vs (jika Vc=0) (kN)	kaki	Av (mm ²)	S (mm)	s pakai	Tulangan	Luas 2φ	
											S	Tulangan
90.78	833.62	312.04	234.03	tidak perlu	121.0400	4	452.5714	800.8989	100	4D12-100	200	4D12-200
134.22	1217.16	332.41	249.31	tidak perlu	178.9600	4	452.5714	541.6898	100	4D12-100	200	4D12-200
108.26	1019.92	321.93	241.45	tidak perlu	144.3467	4	452.5714	671.5832	100	4D12-100	200	4D12-200
140.25	983.00	319.97	239.98	tidak perlu	187.0000	4	452.5714	518.4000	100	4D12-100	200	4D12-200
147.00	892.07	315.14	236.36	tidak perlu	196.0000	4	452.5714	494.5959	100	4D12-100	200	4D12-200
118.95	1154.66	329.09	246.82	tidak perlu	158.6000	4	452.5714	611.2282	100	4D12-100	200	4D12-200
113.49	1570.49	455.58	341.68	tidak perlu	151.3200	4	452.5714	760.2674	100	4D12-100	200	4D12-200
184.79	2183.39	488.70	366.52	tidak perlu	246.3867	4	452.5714	466.9232	100	4D12-100	200	4D12-200
133.72	1965.51	476.92	357.69	tidak perlu	178.2933	4	452.5714	645.2493	100	4D12-100	200	4D12-200
196.93	1825.17	469.34	352.00	tidak perlu	262.5733	4	452.5714	438.1392	100	4D12-100	200	4D12-200
201.22	1801.53	468.06	351.05	tidak perlu	268.2933	4	452.5714	428.7980	100	4D12-100	200	4D12-200
146.41	2240.61	491.79	368.84	tidak perlu	195.2133	4	452.5714	589.3227	100	4D12-100	200	4D12-200
171.99	2188.19	610.08	457.56	tidak perlu	229.3200	4	452.5714	580.6145	100	4D12-100	200	4D12-200
168.43	3087.57	659.30	494.47	tidak perlu	224.5733	4	452.5714	592.8866	100	4D12-100	200	4D12-200
205.33	2886.80	648.31	486.23	tidak perlu	273.7733	4	452.5714	486.3385	100	4D12-100	200	4D12-200
160.77	2695.78	637.86	478.39	tidak perlu	214.3600	4	452.5714	621.1351	100	4D12-100	200	4D12-200
161.80	2625.12	633.99	475.49	tidak perlu	215.7333	4	452.5714	617.181	100	4D12-100	200	4D12-200
231.56	3268.43	669.20	501.90	tidak perlu	308.7467	4	452.5714	431.2484	100	4D12-100	200	4D12-200

Tabel 13.3.2
Momen di dalam pelat persegi yang menumpu pada keempat tepinya
akibat beban terbagi rata

Momen beban terbagi rata																			
	l_y/l_x	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2,0	2,1	2,2	2,3	2,4	2,5	>2,5	
I		(Mlx) = $0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$	44 44	52 45	59 45	66 44	73 44	78 43	84 41	88 40	93 39	97 38	100 37	103 36	106 35	108 34	110 32	112 32	125
II		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	36 36 36	42 37 37	46 38 38	50 38 38	53 38 38	56 37 37	58 36 36	59 36 36	60 35 35	61 35 35	62 35 35	62 34 34	62 34 34	63 34 34	63 34 34	63 34 34	63 34 38
III		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	48 48 48	55 50 50	61 51 51	67 51 51	71 51 51	76 51 51	79 51 51	82 50 50	84 49 49	86 49 49	88 49 49	89 49 49	90 48 48	91 48 48	92 47 47	92 47 47	94 47 47
IVA		(Mlx) = $0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	22 51 51	28 57 57	34 62 62	41 67 67	48 70 70	55 73 73	62 75 75	68 77 77	74 78 78	80 79 79	85 79 79	89 79 79	93 79 79	97 79 79	100 79 79	103 79 79	125 25
IVB		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$	51 22	54 20	57 18	59 17	60 15	61 14	62 13	62 12	63 11	63 10	63 10	63 10	63 9	63 9	63 9	63 9	63 13
VA		(Mlx) = $0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	31 60 60	38 65 65	45 69 69	53 73 73	59 75 75	66 77 77	72 78 78	78 79 79	83 80 80	88 80 80	92 80 80	96 80 80	99 79 79	102 79 79	105 79 79	108 79 79	125 25
VB		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$	60 31	66 30	71 28	76 27	79 25	82 24	85 22	87 21	88 20	89 19	90 18	91 17	91 17	92 16	92 16	93 15	94 15
VIA		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	38 43 43	46 46 46	53 48 48	59 50 50	65 51 51	69 51 51	73 51 51	77 50 50	80 49 49	83 49 49	85 49 49	86 49 49	87 49 49	88 48 48	89 48 48	90 48 48	94 54
VIB		(Mlx) = $- (Mtx) = 0,001 q l_x^2 X$ (Mly) = $0,001 q l_x^2 X$ (Mty) = $0,001 q l_x^2 X$	13 38 38	48 39 39	51 38 38	55 38 38	57 37 37	58 36 36	60 36 36	61 35 35	62 35 35	62 34 34	62 34 34	63 34 34	63 33 33	63 33 33	63 33 33	63 33 33	63 38

----- = Terletak bebas
===== = Menerus atau terjepit elastis

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STORY DATA

STORY	SIMILAR TO	HEIGHT	ELEVATION
ATP	None	3.500	32.500
LT9	ATP	3.500	29.000
LT8	ATP	3.500	25.500
LT7	ATP	3.500	22.000
LT6	ATP	3.500	18.500
LT5	ATP	3.500	15.000
LT4	ATP	3.500	11.500
LT3	ATP	3.500	8.000
LT2	ATP	3.500	4.500
LT1	ATP	1.000	1.000
BASE	None		0.000

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STATIC LOAD CASES

STATIC CASE	CASE TYPE	AUTO LAT LOAD	SELF WT MULTIPLIER
DEAD	DEAD	N/A	1.0000
LIVE	LIVE	N/A	0.0000
SDEAD	SUPER DEAD	N/A	0.0000
EX	QUAKE	USER_COEFF	0.0000
EY	QUAKE	USER_COEFF	0.0000
RAIN	OTHER	N/A	0.0000

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AUTO SEISMIC USER COEFFICIENT

Case: EY

AUTO SEISMIC INPUT DATA

Direction: Y
 Typical Eccentricity = 5%
 Eccentricity Overrides: No

Period Calculation: Program Calculated
 $C_t = 0.035$ (in feet units)

Top Story: ATP
 Bottom Story: BASE

$C = 0.0386$
 $K = 1$

AUTO SEISMIC CALCULATION FORMULAS

$$V = C W$$

AUTO SEISMIC CALCULATION RESULTS

W Used = 212036.52

V Used = $0.0386W = 8184.61$

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
ATP	0.00	1255.72	0.00	0.000	0.000	0.000
LT9	0.00	1458.23	0.00	0.000	0.000	0.000

LT8	0.00	1282.23	0.00	0.000	0.000	0.000
LT7	0.00	1122.11	0.00	0.000	0.000	0.000
LT6	0.00	959.63	0.00	0.000	0.000	0.000
LT5	0.00	778.08	0.00	0.000	0.000	0.000
LT4	0.00	606.35	0.00	0.000	0.000	0.000
LT3	0.00	429.81	0.00	0.000	0.000	0.000
LT2	0.00	241.77	0.00	0.000	0.000	0.000
LT1	0.00	50.68	0.00	0.000	0.000	0.000

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AUTO SEISMIC USER COEFFICIENT

Case: EX

AUTO SEISMIC INPUT DATA

Direction: X
 Typical Eccentricity = 5%
 Eccentricity Overrides: No

Period Calculation: Program Calculated
 Ct = 0.035 (in feet units)

Top Story: ATP
 Bottom Story: BASE

C = 0.0424
 K = 1

AUTO SEISMIC CALCULATION FORMULAS

$$V = C W$$

AUTO SEISMIC CALCULATION RESULTS

W Used = 212036.52

V Used = 0.0424W = 8990.35

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
ATP	1379.34	0.00	0.00	0.000	0.000	0.000
LT9	1601.78	0.00	0.00	0.000	0.000	0.000
LT8	1408.46	0.00	0.00	0.000	0.000	0.000
LT7	1232.58	0.00	0.00	0.000	0.000	0.000
LT6	1054.10	0.00	0.00	0.000	0.000	0.000
LT5	854.68	0.00	0.00	0.000	0.000	0.000
LT4	666.05	0.00	0.00	0.000	0.000	0.000
LT3	472.13	0.00	0.00	0.000	0.000	0.000
LT2	265.57	0.00	0.00	0.000	0.000	0.000
LT1	55.67	0.00	0.00	0.000	0.000	0.000

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MASS SOURCE DATA

MASS LATERAL LUMP MASS
FROM MASS ONLY AT STORIES

Masses & LoaYes Yes

MASS SOURCE LOADS

LOAD MULTIPLIER

LIVE 0.6000
SDEAD 1.0000

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DIAPHRAGM MASS DATA

STORY	DIAPHRAGM	MASS-X	MASS-Y	MMI	X-M	Y-M
ATP	D1	1515.8026	1515.8026	1038869.2615	17.000	38.000
LT9	D1	1981.7258	1981.7258	1395590.2154	17.000	38.000
LT8	D1	1981.7258	1981.7258	1395590.2154	17.000	38.000
LT7	D1	2012.6210	2012.6210	1418118.2594	17.000	38.000
LT6	D1	2049.7490	2049.7490	1444948.6994	17.000	38.000
LT5	D1	2049.7490	2049.7490	1444948.6994	17.000	38.000
LT4	D1	2086.3562	2086.3562	1471604.5034	17.000	38.000
LT3	D1	2129.1962	2129.1962	1502562.7034	17.000	38.000
LT2	D1	2129.1962	2129.1962	1502562.7034	17.000	38.000
LT1	D1	1998.6362	1998.6362	1408213.9034	17.000	38.000

JOINT OUTPUT 20:26:41

GLOBAL FORCE BALANCE RELATIVE ERRORS

PERCENT FORCE AND MOMENT ERROR AT THE ORIGIN, IN GLOBAL COORDINATES

LOAD	FX	FY	FZ	MX	MY	MZ
DEAD	0.020567	0.023799	1.18E-13	3.56E-13	1.44E-13	2.98E-18
LIVE	0.030945	0.035649	2.52E-13	2.67E-13	1.06E-13	3.98E-17
SDEAD	0.035929	0.039263	8.00E-14	2.81E-13	1.40E-13	2.73E-18
EX	0.655363	0.005592	3.64E-14	5.41E-12	3.70E-13	5.50E-13
EY	0.001312	0.534946	9.50E-14	3.34E-11	5.65E-12	2.72E-11
RAIN	8.38E-06	6.59E-05	4.16E-13	4.21E-13	1.42E-13	4.25E-17
TRIBUTAR	0.028976	0.033384	2.82E-13	2.94E-13	9.89E-14	1.69E-18
SNI2002	.000000	.000000	.000000	.000000	.000000	.000000

MODE	FX	FY	FZ	MX	MY	MZ
1	0.654942	0.005620	3.26E-14	7.61E-09	8.68E-09	1.23E-07
2	1.449285	0.636581	2.12E-14	3.64E-10	2.72E-10	0.001039
3	0.001316	0.534185	9.13E-14	2.92E-08	3.73E-08	4.77E-07
4	0.659561	0.005392	2.95E-14	1.39E-06	1.57E-07	8.25E-05
5	1.461169	0.639614	3.34E-14	7.16E-08	2.71E-08	0.000950
6	0.001177	0.536167	5.53E-14	5.66E-06	2.14E-06	0.000551
7	0.663890	0.005260	1.50E-14	1.62E-05	5.30E-06	4.29E-05
8	1.475335	0.646373	1.14E-14	1.15E-05	1.58E-06	0.001490
9	0.001218	0.542354	1.85E-14	4.21E-07	5.85E-07	1.29E-05
10	0.668880	0.004990	7.26E-15	2.01E-05	1.53E-05	0.001873
11	1.489484	0.652013	7.28E-15	3.15E-06	2.10E-06	0.001022
12	0.001235	0.547984	1.66E-14	1.15E-05	7.11E-06	0.000494

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BEAM FORCES

STORY	BEAM	LOAD	LOC	P	V2	V3	T	M2	M3
ATP	B15	COMB19 MAX	0.3000	0.00	-9.99	0.00	0.019	0.000	16.471
			0.7909	0.00	-6.70	0.00	0.019	0.000	20.593
			1.2818	0.00	-2.78	0.00	0.019	0.000	22.945
			1.7727	0.00	1.76	0.00	0.019	0.000	25.033
			2.2636	0.00	6.84	0.00	0.019	0.000	25.578
			2.7545	0.00	11.98	0.00	0.019	0.000	22.283
			3.2455	0.00	18.47	0.00	0.019	0.000	22.283
			3.7364	0.00	26.31	0.00	0.019	0.000	25.578
			4.2273	0.00	34.03	0.00	0.019	0.000	25.033
			4.7182	0.00	40.84	0.00	0.019	0.000	22.945
			5.2091	0.00	46.57	0.00	0.019	0.000	20.593
			5.7000	0.00	51.22	0.00	0.019	0.000	16.471
ATP	B15	COMB19 MIN	0.3000	0.00	-51.22	0.00	-0.019	0.000	-75.329
			0.7909	0.00	-46.57	0.00	-0.019	0.000	-51.281
			1.2818	0.00	-40.84	0.00	-0.019	0.000	-29.784
			1.7727	0.00	-34.03	0.00	-0.019	0.000	-13.175
			2.2636	0.00	-26.31	0.00	-0.019	0.000	-0.988
			2.7545	0.00	-18.47	0.00	-0.019	0.000	8.679
			3.2455	0.00	-11.98	0.00	-0.019	0.000	8.679
			3.7364	0.00	-6.84	0.00	-0.019	0.000	-0.988
			4.2273	0.00	-1.76	0.00	-0.019	0.000	-13.175
			4.7182	0.00	2.78	0.00	-0.019	0.000	-29.784
			5.2091	0.00	6.70	0.00	-0.019	0.000	-51.281
			5.7000	0.00	9.99	0.00	-0.019	0.000	-75.329
LT9	B15	COMB19 MAX	0.3000	0.00	7.21	0.00	0.005	0.000	62.740
			0.7909	0.00	10.50	0.00	0.005	0.000	58.419
			1.2818	0.00	14.42	0.00	0.005	0.000	52.328
			1.7727	0.00	18.96	0.00	0.005	0.000	48.463
			2.2636	0.00	24.03	0.00	0.005	0.000	42.008
			2.7545	0.00	29.18	0.00	0.005	0.000	30.994
			3.2455	0.00	36.40	0.00	0.005	0.000	30.994
			3.7364	0.00	45.72	0.00	0.005	0.000	42.008
			4.2273	0.00	54.87	0.00	0.005	0.000	48.463
			4.7182	0.00	62.80	0.00	0.005	0.000	52.328
			5.2091	0.00	69.30	0.00	0.005	0.000	58.419
			5.7000	0.00	74.36	0.00	0.005	0.000	62.740
LT9	B15	COMB19 MIN	0.3000	0.00	-74.36	0.00	-0.005	0.000	-126.581
			0.7909	0.00	-69.30	0.00	-0.005	0.000	-91.262
			1.2818	0.00	-62.80	0.00	-0.005	0.000	-58.779
			1.7727	0.00	-54.87	0.00	-0.005	0.000	-34.138
			2.2636	0.00	-45.72	0.00	-0.005	0.000	-13.508
			2.7545	0.00	-36.40	0.00	-0.005	0.000	4.602
			3.2455	0.00	-29.18	0.00	-0.005	0.000	4.602
			3.7364	0.00	-24.03	0.00	-0.005	0.000	-13.508
			4.2273	0.00	-18.96	0.00	-0.005	0.000	-34.138
			4.7182	0.00	-14.42	0.00	-0.005	0.000	-58.779
			5.2091	0.00	-10.50	0.00	-0.005	0.000	-91.262
			5.7000	0.00	-7.21	0.00	-0.005	0.000	-126.581
LT8	B15	COMB19 MAX	0.3000	0.00	24.49	0.00	0.008	0.000	109.829
			0.7909	0.00	27.78	0.00	0.008	0.000	97.025
			1.2818	0.00	31.70	0.00	0.008	0.000	82.452
			1.7727	0.00	36.24	0.00	0.008	0.000	70.195
			2.2636	0.00	41.31	0.00	0.008	0.000	55.257
			2.7545	0.00	46.46	0.00	0.008	0.000	35.761
			3.2455	0.00	53.68	0.00	0.008	0.000	35.761
			3.7364	0.00	62.99	0.00	0.008	0.000	55.257
			4.2273	0.00	72.15	0.00	0.008	0.000	70.195

			4.7182	0.00	80.08	0.00	0.008	0.000	82.452
			5.2091	0.00	86.58	0.00	0.008	0.000	97.025
			5.7000	0.00	91.63	0.00	0.008	0.000	109.829
LT8	B15	COMB19 MIN							
			0.3000	0.00	-91.63	0.00	-0.008	0.000	-172.757
			0.7909	0.00	-86.58	0.00	-0.008	0.000	-128.955
			1.2818	0.00	-80.08	0.00	-0.008	0.000	-87.990
			1.7727	0.00	-72.15	0.00	-0.008	0.000	-54.956
			2.2636	0.00	-62.99	0.00	-0.008	0.000	-25.844
			2.7545	0.00	-53.68	0.00	-0.008	0.000	0.748
			3.2455	0.00	-46.46	0.00	-0.008	0.000	0.748
			3.7364	0.00	-41.31	0.00	-0.008	0.000	-25.844
			4.2273	0.00	-36.24	0.00	-0.008	0.000	-54.956
			4.7182	0.00	-31.70	0.00	-0.008	0.000	-87.990
			5.2091	0.00	-27.78	0.00	-0.008	0.000	-128.955
			5.7000	0.00	-24.49	0.00	-0.008	0.000	-172.757
LT7	B15	COMB19 MAX							
			0.3500	0.00	45.08	0.00	0.004	0.000	162.745
			0.8318	0.00	48.37	0.00	0.004	0.000	140.258
			1.3136	0.00	52.26	0.00	0.004	0.000	116.041
			1.7955	0.00	56.75	0.00	0.004	0.000	94.740
			2.2773	0.00	61.74	0.00	0.004	0.000	70.142
			2.7591	0.00	66.79	0.00	0.004	0.000	41.150
			3.2409	0.00	73.88	0.00	0.004	0.000	41.150
			3.7227	0.00	83.02	0.00	0.004	0.000	70.142
			4.2045	0.00	92.03	0.00	0.004	0.000	94.740
			4.6864	0.00	99.90	0.00	0.004	0.000	116.041
			5.1682	0.00	106.37	0.00	0.004	0.000	140.258
			5.6500	0.00	111.47	0.00	0.004	0.000	162.745
LT7	B15	COMB19 MIN							
			0.3500	0.00	-111.47	0.00	-0.004	0.000	-221.111
			0.8318	0.00	-106.37	0.00	-0.004	0.000	-168.575
			1.3136	0.00	-99.90	0.00	-0.004	0.000	-118.828
			1.7955	0.00	-92.03	0.00	-0.004	0.000	-77.469
			2.2773	0.00	-83.02	0.00	-0.004	0.000	-39.213
			2.7591	0.00	-73.88	0.00	-0.004	0.000	-3.385
			3.2409	0.00	-66.79	0.00	-0.004	0.000	-3.385
			3.7227	0.00	-61.74	0.00	-0.004	0.000	-39.213
			4.2045	0.00	-56.75	0.00	-0.004	0.000	-77.469
			4.6864	0.00	-52.26	0.00	-0.004	0.000	-118.828
			5.1682	0.00	-48.37	0.00	-0.004	0.000	-168.575
			5.6500	0.00	-45.08	0.00	-0.004	0.000	-221.111
LT6	B15	COMB19 MAX							
			0.3500	0.00	59.77	0.00	0.002	0.000	202.029
			0.8318	0.00	63.05	0.00	0.002	0.000	172.464
			1.3136	0.00	66.94	0.00	0.002	0.000	141.170
			1.7955	0.00	71.44	0.00	0.002	0.000	113.038
			2.2773	0.00	76.43	0.00	0.002	0.000	81.363
			2.7591	0.00	81.48	0.00	0.002	0.000	45.294
			3.2409	0.00	88.57	0.00	0.002	0.000	45.294
			3.7227	0.00	97.71	0.00	0.002	0.000	81.363
			4.2045	0.00	106.72	0.00	0.002	0.000	113.038
			4.6864	0.00	114.58	0.00	0.002	0.000	141.170
			5.1682	0.00	121.06	0.00	0.002	0.000	172.464
			5.6500	0.00	126.16	0.00	0.002	0.000	202.029
LT6	B15	COMB19 MIN							
			0.3500	0.00	-126.16	0.00	-0.002	0.000	-259.347
			0.8318	0.00	-121.06	0.00	-0.002	0.000	-199.734
			1.3136	0.00	-114.58	0.00	-0.002	0.000	-142.909
			1.7955	0.00	-106.72	0.00	-0.002	0.000	-94.719
			2.2773	0.00	-97.71	0.00	-0.002	0.000	-49.386
			2.7591	0.00	-88.57	0.00	-0.002	0.000	-6.481
			3.2409	0.00	-81.48	0.00	-0.002	0.000	-6.481
			3.7227	0.00	-76.43	0.00	-0.002	0.000	-49.386
			4.2045	0.00	-71.44	0.00	-0.002	0.000	-94.719
			4.6864	0.00	-66.94	0.00	-0.002	0.000	-142.909
			5.1682	0.00	-63.05	0.00	-0.002	0.000	-199.734
			5.6500	0.00	-59.77	0.00	-0.002	0.000	-259.347
LT5	B15	COMB19 MAX							

			0.3500	0.00	69.85	0.00	0.002	0.000	228.900
			0.8318	0.00	73.14	0.00	0.002	0.000	194.475
			1.3136	0.00	77.03	0.00	0.002	0.000	158.321
			1.7955	0.00	81.52	0.00	0.002	0.000	125.434
			2.2773	0.00	86.52	0.00	0.002	0.000	88.899
			2.7591	0.00	91.56	0.00	0.002	0.000	47.969
			3.2409	0.00	98.66	0.00	0.002	0.000	47.969
			3.7227	0.00	107.80	0.00	0.002	0.000	88.899
			4.2045	0.00	116.81	0.00	0.002	0.000	125.434
			4.6864	0.00	124.67	0.00	0.002	0.000	158.321
			5.1682	0.00	131.15	0.00	0.002	0.000	194.475
			5.6500	0.00	136.25	0.00	0.002	0.000	228.900
LT5	B15	COMB19 MIN	0.3500	0.00	-136.25	0.00	-0.002	0.000	-285.825
			0.8318	0.00	-131.15	0.00	-0.002	0.000	-221.351
			1.3136	0.00	-124.67	0.00	-0.002	0.000	-159.666
			1.7955	0.00	-116.81	0.00	-0.002	0.000	-106.721
			2.2773	0.00	-107.80	0.00	-0.002	0.000	-56.528
			2.7591	0.00	-98.66	0.00	-0.002	0.000	-8.763
			3.2409	0.00	-91.56	0.00	-0.002	0.000	-8.763
			3.7227	0.00	-86.52	0.00	-0.002	0.000	-56.528
			4.2045	0.00	-81.52	0.00	-0.002	0.000	-106.721
			4.6864	0.00	-77.03	0.00	-0.002	0.000	-159.666
			5.1682	0.00	-73.14	0.00	-0.002	0.000	-221.351
LT4	B15	COMB19 MAX	0.4000	0.00	79.49	0.00	0.001	0.000	249.917
			0.8727	0.00	82.77	0.00	0.001	0.000	211.589
			1.3455	0.00	86.63	0.00	0.001	0.000	171.761
			1.8182	0.00	91.07	0.00	0.001	0.000	135.322
			2.2909	0.00	95.98	0.00	0.001	0.000	94.910
			2.7636	0.00	100.93	0.00	0.001	0.000	50.266
			3.2364	0.00	107.89	0.00	0.001	0.000	50.266
			3.7091	0.00	116.86	0.00	0.001	0.000	94.910
			4.1818	0.00	125.72	0.00	0.001	0.000	135.322
			4.6545	0.00	133.51	0.00	0.001	0.000	171.761
			5.1273	0.00	139.97	0.00	0.001	0.000	211.589
			5.6000	0.00	145.10	0.00	0.001	0.000	249.917
LT4	B15	COMB19 MIN	0.4000	0.00	-145.10	0.00	-0.001	0.000	-302.671
			0.8727	0.00	-139.97	0.00	-0.001	0.000	-235.238
			1.3455	0.00	-133.51	0.00	-0.001	0.000	-170.732
			1.8182	0.00	-125.72	0.00	-0.001	0.000	-114.944
			2.2909	0.00	-116.86	0.00	-0.001	0.000	-61.381
			2.7636	0.00	-107.89	0.00	-0.001	0.000	-10.157
			3.2364	0.00	-100.93	0.00	-0.001	0.000	-10.157
			3.7091	0.00	-95.98	0.00	-0.001	0.000	-61.381
			4.1818	0.00	-91.07	0.00	-0.001	0.000	-114.944
			4.6545	0.00	-86.63	0.00	-0.001	0.000	-170.732
			5.1273	0.00	-82.77	0.00	-0.001	0.000	-235.238
			5.6000	0.00	-79.49	0.00	-0.001	0.000	-302.671
LT3	B15	COMB19 MAX	0.4000	0.00	79.95	0.00	0.001	0.000	251.310
			0.8727	0.00	83.24	0.00	0.001	0.000	212.761
			1.3455	0.00	87.10	0.00	0.001	0.000	172.848
			1.8182	0.00	91.54	0.00	0.001	0.000	136.188
			2.2909	0.00	96.45	0.00	0.001	0.000	95.556
			2.7636	0.00	101.40	0.00	0.001	0.000	50.691
			3.2364	0.00	108.36	0.00	0.001	0.000	50.691
			3.7091	0.00	117.32	0.00	0.001	0.000	95.556
			4.1818	0.00	126.19	0.00	0.001	0.000	136.188
			4.6545	0.00	133.98	0.00	0.001	0.000	172.848
			5.1273	0.00	140.44	0.00	0.001	0.000	212.761
			5.6000	0.00	145.57	0.00	0.001	0.000	251.310
LT3	B15	COMB19 MIN	0.4000	0.00	-145.57	0.00	-0.001	0.000	-303.521
			0.8727	0.00	-140.44	0.00	-0.001	0.000	-235.868
			1.3455	0.00	-133.98	0.00	-0.001	0.000	-171.276
			1.8182	0.00	-126.19	0.00	-0.001	0.000	-115.268
			2.2909	0.00	-117.32	0.00	-0.001	0.000	-61.484

			2.7636	0.00	-108.36	0.00	-0.001	0.000	-10.039
			3.2364	0.00	-101.40	0.00	-0.001	0.000	-10.039
			3.7091	0.00	-96.45	0.00	-0.001	0.000	-61.484
			4.1818	0.00	-91.54	0.00	-0.001	0.000	-115.268
			4.6545	0.00	-87.10	0.00	-0.001	0.000	-171.276
			5.1273	0.00	-83.24	0.00	-0.001	0.000	-235.868
			5.6000	0.00	-79.95	0.00	-0.001	0.000	-303.521
LT2	B15	COMB19 MAX	0.4000	0.00	62.58	0.00	0.000	0.000	206.278
			0.8727	0.00	65.86	0.00	0.000	0.000	175.941
			1.3455	0.00	69.72	0.00	0.000	0.000	144.342
			1.8182	0.00	74.16	0.00	0.000	0.000	115.894
			2.2909	0.00	79.07	0.00	0.000	0.000	83.474
			2.7636	0.00	84.03	0.00	0.000	0.000	46.821
			3.2364	0.00	90.99	0.00	0.000	0.000	46.821
			3.7091	0.00	99.95	0.00	0.000	0.000	83.474
			4.1818	0.00	108.82	0.00	0.000	0.000	115.894
			4.6545	0.00	116.61	0.00	0.000	0.000	144.342
			5.1273	0.00	123.07	0.00	0.000	0.000	175.941
			5.6000	0.00	128.20	0.00	0.000	0.000	206.278
LT2	B15	COMB19 MIN	0.4000	0.00	-128.20	0.00	0.000	0.000	-258.098
			0.8727	0.00	-123.07	0.00	0.000	0.000	-198.656
			1.3455	0.00	-116.61	0.00	0.000	0.000	-142.379
			1.8182	0.00	-108.82	0.00	0.000	0.000	-94.583
			2.2909	0.00	-99.95	0.00	0.000	0.000	-49.011
			2.7636	0.00	-90.99	0.00	0.000	0.000	-5.778
			3.2364	0.00	-84.03	0.00	0.000	0.000	-5.778
			3.7091	0.00	-79.07	0.00	0.000	0.000	-49.011
			4.1818	0.00	-74.16	0.00	0.000	0.000	-94.583
			4.6545	0.00	-69.72	0.00	0.000	0.000	-142.379
			5.1273	0.00	-65.86	0.00	0.000	0.000	-198.656
			5.6000	0.00	-62.58	0.00	0.000	0.000	-258.098
LT1	B15	COMB19 MAX	0.4000	0.00	8.52	0.00	0.000	0.000	65.880
			0.8727	0.00	11.80	0.00	0.000	0.000	61.098
			1.3455	0.00	15.66	0.00	0.000	0.000	55.177
			1.8182	0.00	20.10	0.00	0.000	0.000	52.285
			2.2909	0.00	25.01	0.00	0.000	0.000	45.420
			2.7636	0.00	29.97	0.00	0.000	0.000	34.322
			3.2364	0.00	36.93	0.00	0.000	0.000	34.322
			3.7091	0.00	45.89	0.00	0.000	0.000	45.420
			4.1818	0.00	54.76	0.00	0.000	0.000	52.285
			4.6545	0.00	62.55	0.00	0.000	0.000	55.177
			5.1273	0.00	69.01	0.00	0.000	0.000	61.098
			5.6000	0.00	74.14	0.00	0.000	0.000	65.880
LT1	B15	COMB19 MIN	0.4000	0.00	-74.14	0.00	0.000	0.000	-117.217
			0.8727	0.00	-69.01	0.00	0.000	0.000	-83.330
			1.3455	0.00	-62.55	0.00	0.000	0.000	-52.731
			1.8182	0.00	-54.76	0.00	0.000	0.000	-30.490
			2.2909	0.00	-45.89	0.00	0.000	0.000	-10.474
			2.7636	0.00	-36.93	0.00	0.000	0.000	7.204
			3.2364	0.00	-29.97	0.00	0.000	0.000	7.204
			3.7091	0.00	-25.01	0.00	0.000	0.000	-10.474
			4.1818	0.00	-20.10	0.00	0.000	0.000	-30.490
			4.6545	0.00	-15.66	0.00	0.000	0.000	-52.731
			5.1273	0.00	-11.80	0.00	0.000	0.000	-83.330
			5.6000	0.00	-8.52	0.00	0.000	0.000	-117.217
ATP	B74	COMB19 MAX	0.3000	0.00	-5.39	0.00	-0.045	0.000	24.211
			0.7857	0.00	-1.45	0.00	-0.045	0.000	27.494
			1.2714	0.00	4.18	0.00	-0.045	0.000	27.461
			1.7571	0.00	14.17	0.00	-0.045	0.000	25.013
			2.2429	0.00	25.72	0.00	-0.045	0.000	19.704
			2.7286	0.00	35.71	0.00	-0.045	0.000	12.533
			3.2143	0.00	43.59	0.00	-0.045	0.000	6.531
			3.7000	0.00	49.36	0.00	-0.045	0.000	-0.694
ATP	B74	COMB19 MIN							

			0.3000	0.00	-25.61	0.00	-0.833	0.000	-8.870
			0.7857	0.00	-19.84	0.00	-0.833	0.000	0.683
			1.2714	0.00	-12.44	0.00	-0.833	0.000	8.026
			1.7571	0.00	-6.05	0.00	-0.833	0.000	12.566
			2.2429	0.00	1.25	0.00	-0.833	0.000	7.431
			2.7286	0.00	7.63	0.00	-0.833	0.000	-2.607
			3.2143	0.00	12.79	0.00	-0.833	0.000	-20.956
			3.7000	0.00	16.73	0.00	-0.833	0.000	-43.608
LT9	B74	COMB19 MAX	0.3000	0.00	15.00	0.00	-0.094	0.000	53.445
			0.7857	0.00	18.93	0.00	-0.094	0.000	48.792
			1.2714	0.00	24.10	0.00	-0.094	0.000	40.266
			1.7571	0.00	34.66	0.00	-0.094	0.000	27.219
			2.2429	0.00	48.96	0.00	-0.094	0.000	24.518
			2.7286	0.00	61.15	0.00	-0.094	0.000	23.020
			3.2143	0.00	70.53	0.00	-0.094	0.000	25.225
			3.7000	0.00	77.10	0.00	-0.094	0.000	25.620
LT9	B74	COMB19 MIN	0.3000	0.00	-45.68	0.00	-0.515	0.000	-35.844
			0.7857	0.00	-39.11	0.00	-0.515	0.000	-18.678
			1.2714	0.00	-29.73	0.00	-0.515	0.000	-3.721
			1.7571	0.00	-21.73	0.00	-0.515	0.000	8.432
			2.2429	0.00	-14.43	0.00	-0.515	0.000	-1.111
			2.7286	0.00	-8.04	0.00	-0.515	0.000	-21.061
			3.2143	0.00	-2.88	0.00	-0.515	0.000	-52.754
LT8	B74	COMB19 MAX	0.3000	0.00	38.55	0.00	-0.054	0.000	89.175
			0.7857	0.00	42.48	0.00	-0.054	0.000	73.427
			1.2714	0.00	47.64	0.00	-0.054	0.000	53.807
			1.7571	0.00	57.51	0.00	-0.054	0.000	28.949
			2.2429	0.00	71.80	0.00	-0.054	0.000	35.130
			2.7286	0.00	83.99	0.00	-0.054	0.000	46.447
			3.2143	0.00	93.37	0.00	-0.054	0.000	60.399
			3.7000	0.00	99.94	0.00	-0.054	0.000	73.273
LT8	B74	COMB19 MIN	0.3000	0.00	-72.07	0.00	-0.518	0.000	-75.540
			0.7857	0.00	-65.50	0.00	-0.518	0.000	-45.895
			1.2714	0.00	-56.13	0.00	-0.518	0.000	-18.460
			1.7571	0.00	-47.42	0.00	-0.518	0.000	6.171
			2.2429	0.00	-40.12	0.00	-0.518	0.000	-10.154
			2.7286	0.00	-33.73	0.00	-0.518	0.000	-41.535
			3.2143	0.00	-28.57	0.00	-0.518	0.000	-83.592
			3.7000	0.00	-24.64	0.00	-0.518	0.000	-130.652
			3.7000	0.00	1.05	0.00	-0.515	0.000	-88.719
LT7	B74	COMB19 MAX	0.3500	0.00	60.69	0.00	-0.048	0.000	122.375
			0.8214	0.00	64.61	0.00	-0.048	0.000	96.514
			1.2929	0.00	69.69	0.00	-0.048	0.000	66.910
			1.7643	0.00	79.56	0.00	-0.048	0.000	32.316
			2.2357	0.00	93.45	0.00	-0.048	0.000	38.960
			2.7071	0.00	105.36	0.00	-0.048	0.000	60.376
			3.1786	0.00	114.63	0.00	-0.048	0.000	84.589
			3.6500	0.00	121.24	0.00	-0.048	0.000	107.535
LT7	B74	COMB19 MIN	0.3500	0.00	-93.29	0.00	-0.382	0.000	-108.909
			0.8214	0.00	-86.68	0.00	-0.382	0.000	-70.014
			1.2929	0.00	-77.41	0.00	-0.382	0.000	-33.242
			1.7643	0.00	-69.14	0.00	-0.382	0.000	0.865
			2.2357	0.00	-62.04	0.00	-0.382	0.000	-15.640
			2.7071	0.00	-55.81	0.00	-0.382	0.000	-56.290
			3.1786	0.00	-50.73	0.00	-0.382	0.000	-107.393
			3.6500	0.00	-46.81	0.00	-0.382	0.000	-163.095
LT6	B74	COMB19 MAX	0.3500	0.00	76.78	0.00	-0.037	0.000	148.236
			0.8214	0.00	80.70	0.00	-0.037	0.000	114.931
			1.2929	0.00	85.78	0.00	-0.037	0.000	77.883
			1.7643	0.00	95.35	0.00	-0.037	0.000	35.845
			2.2357	0.00	109.24	0.00	-0.037	0.000	41.670
			2.7071	0.00	121.15	0.00	-0.037	0.000	71.139

			3.1786	0.00	130.42	0.00	-0.037	0.000	103.420
			3.6500	0.00	137.03	0.00	-0.037	0.000	134.278
LT6	B74	COMB19 MIN	0.3500	0.00	-110.37	0.00	-0.282	0.000	-137.549
			0.8214	0.00	-103.76	0.00	-0.282	0.000	-90.742
			1.2929	0.00	-94.49	0.00	-0.282	0.000	-46.058
			1.7643	0.00	-85.92	0.00	-0.282	0.000	-4.040
			2.2357	0.00	-78.82	0.00	-0.282	0.000	-19.258
			2.7071	0.00	-72.59	0.00	-0.282	0.000	-67.494
			3.1786	0.00	-67.52	0.00	-0.282	0.000	-126.197
			3.6500	0.00	-63.59	0.00	-0.282	0.000	-189.343
LT5	B74	COMB19 MAX	0.3500	0.00	91.66	0.00	-0.024	0.000	169.031
			0.8214	0.00	95.59	0.00	-0.024	0.000	129.232
			1.2929	0.00	100.67	0.00	-0.024	0.000	85.690
			1.7643	0.00	109.12	0.00	-0.024	0.000	37.157
			2.2357	0.00	123.02	0.00	-0.024	0.000	48.029
			2.7071	0.00	134.93	0.00	-0.024	0.000	86.130
			3.1786	0.00	144.19	0.00	-0.024	0.000	125.708
			3.6500	0.00	150.81	0.00	-0.024	0.000	164.675
LT5	B74	COMB19 MIN	0.3500	0.00	-128.68	0.00	-0.246	0.000	-163.913
			0.8214	0.00	-122.07	0.00	-0.246	0.000	-108.998
			1.2929	0.00	-112.80	0.00	-0.246	0.000	-56.205
			1.7643	0.00	-103.12	0.00	-0.246	0.000	-6.077
			2.2357	0.00	-96.02	0.00	-0.246	0.000	-24.728
			2.7071	0.00	-89.79	0.00	-0.246	0.000	-79.980
			3.1786	0.00	-84.72	0.00	-0.246	0.000	-144.366
			3.6500	0.00	-80.79	0.00	-0.246	0.000	-214.006
LT4	B74	COMB19 MAX	0.4000	0.00	103.15	0.00	-0.017	0.000	182.011
			0.8571	0.00	107.06	0.00	-0.017	0.000	138.479
			1.3143	0.00	112.05	0.00	-0.017	0.000	91.339
			1.7714	0.00	119.52	0.00	-0.017	0.000	39.452
			2.2286	0.00	133.02	0.00	-0.017	0.000	48.495
			2.6857	0.00	144.64	0.00	-0.017	0.000	91.957
			3.1429	0.00	153.78	0.00	-0.017	0.000	135.738
			3.6000	0.00	160.43	0.00	-0.017	0.000	179.616
LT4	B74	COMB19 MIN	0.4000	0.00	-142.00	0.00	-0.154	0.000	-180.515
			0.8571	0.00	-135.35	0.00	-0.154	0.000	-121.499
			1.3143	0.00	-126.22	0.00	-0.154	0.000	-64.518
			1.7714	0.00	-115.99	0.00	-0.154	0.000	-10.066
			2.2286	0.00	-109.10	0.00	-0.154	0.000	-25.385
			2.6857	0.00	-103.02	0.00	-0.154	0.000	-83.965
			3.1429	0.00	-98.03	0.00	-0.154	0.000	-150.139
			3.6000	0.00	-94.12	0.00	-0.154	0.000	-222.054
LT3	B74	COMB19 MAX	0.4000	0.00	106.54	0.00	-0.011	0.000	187.369
			0.8571	0.00	110.45	0.00	-0.011	0.000	142.088
			1.3143	0.00	115.44	0.00	-0.011	0.000	93.877
			1.7714	0.00	121.87	0.00	-0.011	0.000	40.919
			2.2286	0.00	135.36	0.00	-0.011	0.000	48.216
			2.6857	0.00	146.99	0.00	-0.011	0.000	94.643
			3.1429	0.00	156.13	0.00	-0.011	0.000	140.392
			3.6000	0.00	162.77	0.00	-0.011	0.000	186.756
LT3	B74	COMB19 MIN	0.4000	0.00	-148.49	0.00	-0.094	0.000	-191.448
			0.8571	0.00	-141.84	0.00	-0.094	0.000	-129.270
			1.3143	0.00	-132.70	0.00	-0.094	0.000	-69.803
			1.7714	0.00	-121.42	0.00	-0.094	0.000	-12.866
			2.2286	0.00	-114.53	0.00	-0.094	0.000	-25.027
			2.6857	0.00	-108.46	0.00	-0.094	0.000	-85.157
			3.1429	0.00	-103.47	0.00	-0.094	0.000	-151.886
			3.6000	0.00	-99.56	0.00	-0.094	0.000	-224.872
LT2	B74	COMB19 MAX	0.4000	0.00	94.24	0.00	-0.001	0.000	167.169
			0.8571	0.00	98.15	0.00	-0.001	0.000	125.663
			1.3143	0.00	103.15	0.00	-0.001	0.000	83.801

			1.7714	0.00	109.22	0.00	-0.001	0.000	37.193
			2.2286	0.00	121.47	0.00	-0.001	0.000	46.941
			2.6857	0.00	133.10	0.00	-0.001	0.000	89.906
			3.1429	0.00	142.24	0.00	-0.001	0.000	130.401
			3.6000	0.00	148.88	0.00	-0.001	0.000	172.575
LT2	B74	COMB19 MIN							
			0.4000	0.00	-140.92	0.00	-0.051	0.000	-178.880
			0.8571	0.00	-134.27	0.00	-0.051	0.000	-118.316
			1.3143	0.00	-125.13	0.00	-0.051	0.000	-63.039
			1.7714	0.00	-113.50	0.00	-0.051	0.000	-10.291
			2.2286	0.00	-105.37	0.00	-0.051	0.000	-22.740
			2.6857	0.00	-99.29	0.00	-0.051	0.000	-77.248
			3.1429	0.00	-94.30	0.00	-0.051	0.000	-136.562
			3.6000	0.00	-90.39	0.00	-0.051	0.000	-203.198
LT1	B74	COMB19 MAX							
			0.4000	0.00	27.24	0.00	0.012	0.000	64.360
			0.8571	0.00	31.15	0.00	0.012	0.000	51.323
			1.3143	0.00	36.14	0.00	0.012	0.000	40.883
			1.7714	0.00	42.22	0.00	0.012	0.000	25.697
			2.2286	0.00	52.73	0.00	0.012	0.000	27.848
			2.6857	0.00	64.36	0.00	0.012	0.000	42.508
			3.1429	0.00	73.50	0.00	0.012	0.000	52.893
			3.6000	0.00	80.15	0.00	0.012	0.000	65.970
LT1	B74	COMB19 MIN							
			0.4000	0.00	-79.00	0.00	0.003	0.000	-84.753
			0.8571	0.00	-72.35	0.00	0.003	0.000	-50.333
			1.3143	0.00	-63.21	0.00	0.003	0.000	-24.154
			1.7714	0.00	-51.58	0.00	0.003	0.000	-0.504
			2.2286	0.00	-41.72	0.00	0.003	0.000	-3.032
			2.6857	0.00	-35.64	0.00	0.003	0.000	-26.911
			3.1429	0.00	-30.65	0.00	0.003	0.000	-53.791
			3.6000	0.00	-26.74	0.00	0.003	0.000	-89.006
ATP	B97	COMB19 MAX							
			0.3000	0.00	-39.47	0.00	-8.838	0.000	-21.881
			0.7625	0.00	-36.39	0.00	-8.838	0.000	-4.317
			1.2250	0.00	-32.75	0.00	-8.838	0.000	11.692
			1.6875	0.00	-28.56	0.00	-8.838	0.000	25.890
			2.1500	0.00	-23.87	0.00	-8.838	0.000	47.373
			2.6125	0.00	-19.48	0.00	-8.838	0.000	65.757
			3.0750	0.00	-15.64	0.00	-8.838	0.000	81.310
			3.5375	0.00	-12.36	0.00	-8.838	0.000	97.065
			4.0000	0.00	-9.64	0.00	-8.838	0.000	114.647
			4.0000	0.00	41.08	0.00	22.058	0.000	113.969
			4.4625	0.00	44.82	0.00	22.058	0.000	97.982
			4.9250	0.00	49.51	0.00	22.058	0.000	85.355
			5.3875	0.00	55.16	0.00	22.058	0.000	71.093
			5.8500	0.00	61.76	0.00	22.058	0.000	53.999
			6.3125	0.00	68.87	0.00	22.058	0.000	33.718
			6.7750	0.00	75.14	0.00	22.058	0.000	16.866
			7.2375	0.00	80.45	0.00	22.058	0.000	1.390
			7.7000	0.00	84.81	0.00	22.058	0.000	-15.641
ATP	B97	COMB19 MIN							
			0.3000	0.00	-87.65	0.00	-21.102	0.000	-132.928
			0.7625	0.00	-83.29	0.00	-21.102	0.000	-93.360
			1.2250	0.00	-77.98	0.00	-21.102	0.000	-56.028
			1.6875	0.00	-71.72	0.00	-21.102	0.000	-21.372
			2.1500	0.00	-64.60	0.00	-21.102	0.000	0.821
			2.6125	0.00	-58.00	0.00	-21.102	0.000	20.753
			3.0750	0.00	-52.36	0.00	-21.102	0.000	38.785
			3.5375	0.00	-47.66	0.00	-21.102	0.000	55.171
			4.0000	0.00	-43.92	0.00	-21.102	0.000	67.232
			4.0000	0.00	8.49	0.00	8.810	0.000	67.452
			4.4625	0.00	11.21	0.00	8.810	0.000	53.425
			4.9250	0.00	14.49	0.00	8.810	0.000	37.596
			5.3875	0.00	18.33	0.00	8.810	0.000	20.123
			5.8500	0.00	22.71	0.00	8.810	0.000	0.749
			6.3125	0.00	27.40	0.00	8.810	0.000	-20.798
			6.7750	0.00	31.60	0.00	8.810	0.000	-50.950
			7.2375	0.00	35.24	0.00	8.810	0.000	-86.966

LT9	B97	COMB19 MAX	7.7000	0.00	38.32	0.00	8.810	0.000	-125.219
			0.3000	0.00	-32.90	0.00	-7.642	0.000	-2.715
			0.7625	0.00	-29.81	0.00	-7.642	0.000	11.809
			1.2250	0.00	-26.18	0.00	-7.642	0.000	24.778
			1.6875	0.00	-21.98	0.00	-7.642	0.000	35.936
			2.1500	0.00	-17.29	0.00	-7.642	0.000	56.542
			2.6125	0.00	-12.90	0.00	-7.642	0.000	76.385
			3.0750	0.00	-9.07	0.00	-7.642	0.000	92.950
			3.5375	0.00	-5.79	0.00	-7.642	0.000	114.919
			4.0000	0.00	-3.07	0.00	-7.642	0.000	137.819
			4.0000	0.00	54.28	0.00	31.453	0.000	137.364
			4.4625	0.00	58.18	0.00	31.453	0.000	116.240
			4.9250	0.00	63.36	0.00	31.453	0.000	96.232
			5.3875	0.00	69.81	0.00	31.453	0.000	81.045
			5.8500	0.00	77.53	0.00	31.453	0.000	62.581
			6.3125	0.00	85.94	0.00	31.453	0.000	40.504
			6.7750	0.00	93.22	0.00	31.453	0.000	28.684
			7.2375	0.00	99.22	0.00	31.453	0.000	16.212
			7.7000	0.00	103.95	0.00	31.453	0.000	2.186
LT9	B97	COMB19 MIN	0.3000	0.00	-107.06	0.00	-32.254	0.000	-180.921
			0.7625	0.00	-102.34	0.00	-32.254	0.000	-132.448
			1.2250	0.00	-96.34	0.00	-32.254	0.000	-86.456
			1.6875	0.00	-89.06	0.00	-32.254	0.000	-43.534
			2.1500	0.00	-80.65	0.00	-32.254	0.000	-15.778
			2.6125	0.00	-72.92	0.00	-32.254	0.000	6.806
			3.0750	0.00	-66.47	0.00	-32.254	0.000	27.488
			3.5375	0.00	-61.30	0.00	-32.254	0.000	46.525
			4.0000	0.00	-57.40	0.00	-32.254	0.000	60.528
			4.0000	0.00	1.99	0.00	7.147	0.000	60.863
			4.4625	0.00	4.72	0.00	7.147	0.000	45.917
			4.9250	0.00	8.00	0.00	7.147	0.000	27.441
			5.3875	0.00	11.83	0.00	7.147	0.000	7.321
			5.8500	0.00	16.22	0.00	7.147	0.000	-14.701
			6.3125	0.00	20.91	0.00	7.147	0.000	-39.047
			6.7750	0.00	25.10	0.00	7.147	0.000	-79.367
			7.2375	0.00	28.74	0.00	7.147	0.000	-123.917
			7.7000	0.00	31.82	0.00	7.147	0.000	-170.948
LT8	B97	COMB19 MAX	0.3000	0.00	-26.43	0.00	-3.075	0.000	21.259
			0.7625	0.00	-23.35	0.00	-3.075	0.000	32.792
			1.2250	0.00	-19.71	0.00	-3.075	0.000	42.770
			1.6875	0.00	-15.52	0.00	-3.075	0.000	50.937
			2.1500	0.00	-10.83	0.00	-3.075	0.000	69.083
			2.6125	0.00	-6.44	0.00	-3.075	0.000	86.203
			3.0750	0.00	-2.60	0.00	-3.075	0.000	100.047
			3.5375	0.00	0.67	0.00	-3.075	0.000	116.106
			4.0000	0.00	3.40	0.00	-3.075	0.000	138.968
			4.0000	0.00	60.81	0.00	34.854	0.000	138.568
			4.4625	0.00	64.71	0.00	34.854	0.000	117.412
			4.9250	0.00	69.88	0.00	34.854	0.000	103.494
			5.3875	0.00	76.33	0.00	34.854	0.000	90.991
			5.8500	0.00	84.06	0.00	34.854	0.000	75.211
			6.3125	0.00	92.47	0.00	34.854	0.000	55.920
			6.7750	0.00	99.74	0.00	34.854	0.000	46.979
			7.2375	0.00	105.75	0.00	34.854	0.000	37.520
			7.7000	0.00	110.47	0.00	34.854	0.000	26.506
LT8	B97	COMB19 MIN	0.3000	0.00	-113.51	0.00	-35.527	0.000	-202.666
			0.7625	0.00	-108.78	0.00	-35.527	0.000	-151.212
			1.2250	0.00	-102.78	0.00	-35.527	0.000	-102.239
			1.6875	0.00	-95.51	0.00	-35.527	0.000	-56.335
			2.1500	0.00	-87.09	0.00	-35.527	0.000	-26.128
			2.6125	0.00	-79.37	0.00	-35.527	0.000	-0.833
			3.0750	0.00	-72.92	0.00	-35.527	0.000	22.561
			3.5375	0.00	-67.75	0.00	-35.527	0.000	44.311
			4.0000	0.00	-63.85	0.00	-35.527	0.000	59.137
			4.0000	0.00	-4.52	0.00	2.708	0.000	59.514

			4.4625	0.00	-1.80	0.00	2.708	0.000	43.575
			4.9250	0.00	1.48	0.00	2.708	0.000	22.409
			5.3875	0.00	5.32	0.00	2.708	0.000	-0.403
			5.8500	0.00	9.70	0.00	2.708	0.000	-25.115
			6.3125	0.00	14.39	0.00	2.708	0.000	-52.254
			6.7750	0.00	18.59	0.00	2.708	0.000	-95.460
			7.2375	0.00	22.23	0.00	2.708	0.000	-143.028
			7.7000	0.00	25.31	0.00	2.708	0.000	-193.078
LT7	B97	COMB19 MAX							
			0.3500	0.00	-19.87	0.00	0.262	0.000	43.173
			0.8063	0.00	-16.77	0.00	0.262	0.000	51.552
			1.2625	0.00	-13.13	0.00	0.262	0.000	58.394
			1.7188	0.00	-8.96	0.00	0.262	0.000	63.454
			2.1750	0.00	-4.32	0.00	0.262	0.000	78.156
			2.6313	0.00	-0.02	0.00	0.262	0.000	92.312
			3.0875	0.00	3.75	0.00	0.262	0.000	103.301
			3.5438	0.00	6.97	0.00	0.262	0.000	113.178
			4.0000	0.00	9.66	0.00	0.262	0.000	135.727
			4.0000	0.00	66.94	0.00	39.130	0.000	135.334
			4.4563	0.00	70.78	0.00	39.130	0.000	114.541
			4.9125	0.00	75.86	0.00	39.130	0.000	106.562
			5.3688	0.00	82.18	0.00	39.130	0.000	96.956
			5.8250	0.00	89.74	0.00	39.130	0.000	84.183
			6.2813	0.00	98.06	0.00	39.130	0.000	68.143
			6.7375	0.00	105.33	0.00	39.130	0.000	62.482
			7.1938	0.00	111.36	0.00	39.130	0.000	56.185
			7.6500	0.00	116.15	0.00	39.130	0.000	48.351
LT7	B97	COMB19 MIN							
			0.3500	0.00	-119.35	0.00	-39.628	0.000	-222.175
			0.8063	0.00	-114.56	0.00	-39.628	0.000	-168.769
			1.2625	0.00	-108.53	0.00	-39.628	0.000	-117.831
			1.7188	0.00	-101.26	0.00	-39.628	0.000	-69.927
			2.1750	0.00	-92.93	0.00	-39.628	0.000	-37.280
			2.6313	0.00	-85.37	0.00	-39.628	0.000	-9.839
			3.0875	0.00	-79.05	0.00	-39.628	0.000	15.761
			3.5438	0.00	-73.97	0.00	-39.628	0.000	39.767
			4.0000	0.00	-70.13	0.00	-39.628	0.000	55.458
			4.0000	0.00	-10.85	0.00	-0.512	0.000	55.823
			4.4563	0.00	-8.17	0.00	-0.512	0.000	39.349
			4.9125	0.00	-4.94	0.00	-0.512	0.000	15.962
			5.3688	0.00	-1.18	0.00	-0.512	0.000	-9.018
			5.8250	0.00	3.12	0.00	-0.512	0.000	-35.839
			6.2813	0.00	7.76	0.00	-0.512	0.000	-65.146
			6.7375	0.00	11.94	0.00	-0.512	0.000	-110.446
			7.1938	0.00	15.58	0.00	-0.512	0.000	-159.927
			7.6500	0.00	18.67	0.00	-0.512	0.000	-211.877
LT6	B97	COMB19 MAX							
			0.3500	0.00	-15.50	0.00	2.577	0.000	57.678
			0.8063	0.00	-12.40	0.00	2.577	0.000	64.065
			1.2625	0.00	-8.77	0.00	2.577	0.000	68.916
			1.7188	0.00	-4.59	0.00	2.577	0.000	71.983
			2.1750	0.00	0.05	0.00	2.577	0.000	83.989
			2.6313	0.00	4.35	0.00	2.577	0.000	96.327
			3.0875	0.00	8.11	0.00	2.577	0.000	105.499
			3.5438	0.00	11.34	0.00	2.577	0.000	112.071
			4.0000	0.00	14.02	0.00	2.577	0.000	133.599
			4.0000	0.00	71.25	0.00	41.847	0.000	133.240
			4.4563	0.00	75.09	0.00	41.847	0.000	113.798
			4.9125	0.00	80.17	0.00	41.847	0.000	108.592
			5.3688	0.00	86.49	0.00	41.847	0.000	100.786
			5.8250	0.00	94.05	0.00	41.847	0.000	89.814
			6.2813	0.00	102.38	0.00	41.847	0.000	75.717
			6.7375	0.00	109.65	0.00	41.847	0.000	72.869
			7.1938	0.00	115.68	0.00	41.847	0.000	68.568
			7.6500	0.00	120.47	0.00	41.847	0.000	62.730
LT6	B97	COMB19 MIN							
			0.3500	0.00	-123.63	0.00	-42.193	0.000	-239.227
			0.8063	0.00	-118.84	0.00	-42.193	0.000	-183.865
			1.2625	0.00	-112.81	0.00	-42.193	0.000	-130.972

			1.7188	0.00	-105.54	0.00	-42.193	0.000	-81.113
			2.1750	0.00	-97.21	0.00	-42.193	0.000	-45.807
			2.6313	0.00	-89.66	0.00	-42.193	0.000	-16.586
			3.0875	0.00	-83.34	0.00	-42.193	0.000	10.795
			3.5438	0.00	-78.26	0.00	-42.193	0.000	36.582
			4.0000	0.00	-74.42	0.00	-42.193	0.000	53.080
			4.0000	0.00	-15.23	0.00	-2.770	0.000	53.401
			4.4563	0.00	-12.54	0.00	-2.770	0.000	36.354
			4.9125	0.00	-9.32	0.00	-2.770	0.000	11.194
			5.3688	0.00	-5.55	0.00	-2.770	0.000	-15.560
			5.8250	0.00	-1.25	0.00	-2.770	0.000	-44.154
			6.2813	0.00	3.39	0.00	-2.770	0.000	-75.377
			6.7375	0.00	7.56	0.00	-2.770	0.000	-123.463
			7.1938	0.00	11.20	0.00	-2.770	0.000	-174.912
			7.6500	0.00	14.30	0.00	-2.770	0.000	-228.830
LT5	B97	COMB19 MAX	0.3500	0.00	-12.03	0.00	5.096	0.000	70.086
			0.8063	0.00	-8.94	0.00	5.096	0.000	74.890
			1.2625	0.00	-5.30	0.00	5.096	0.000	78.158
			1.7188	0.00	-1.12	0.00	5.096	0.000	79.643
			2.1750	0.00	3.52	0.00	5.096	0.000	90.647
			2.6313	0.00	7.82	0.00	5.096	0.000	101.497
			3.0875	0.00	11.58	0.00	5.096	0.000	109.181
			3.5438	0.00	14.81	0.00	5.096	0.000	114.265
			4.0000	0.00	17.49	0.00	5.096	0.000	134.024
			4.0000	0.00	74.82	0.00	43.852	0.000	133.771
			4.4563	0.00	78.66	0.00	43.852	0.000	115.795
			4.9125	0.00	83.74	0.00	43.852	0.000	111.830
			5.3688	0.00	90.05	0.00	43.852	0.000	105.264
			5.8250	0.00	97.61	0.00	43.852	0.000	95.533
			6.2813	0.00	105.94	0.00	43.852	0.000	82.734
			6.7375	0.00	113.21	0.00	43.852	0.000	81.460
			7.1938	0.00	119.24	0.00	43.852	0.000	78.640
			7.6500	0.00	124.03	0.00	43.852	0.000	74.283
LT5	B97	COMB19 MIN	0.3500	0.00	-126.65	0.00	-44.349	0.000	-249.430
			0.8063	0.00	-121.86	0.00	-44.349	0.000	-192.693
			1.2625	0.00	-115.83	0.00	-44.349	0.000	-138.424
			1.7188	0.00	-108.56	0.00	-44.349	0.000	-87.190
			2.1750	0.00	-100.23	0.00	-44.349	0.000	-51.088
			2.6313	0.00	-92.67	0.00	-44.349	0.000	-20.587
			3.0875	0.00	-86.35	0.00	-44.349	0.000	8.074
			3.5438	0.00	-81.27	0.00	-44.349	0.000	35.142
			4.0000	0.00	-77.43	0.00	-44.349	0.000	51.938
			4.0000	0.00	-18.47	0.00	-5.270	0.000	52.200
			4.4563	0.00	-15.79	0.00	-5.270	0.000	34.895
			4.9125	0.00	-12.56	0.00	-5.270	0.000	8.350
			5.3688	0.00	-8.80	0.00	-5.270	0.000	-19.788
			5.8250	0.00	-4.50	0.00	-5.270	0.000	-49.767
			6.2813	0.00	0.14	0.00	-5.270	0.000	-82.433
			6.7375	0.00	4.32	0.00	-5.270	0.000	-132.237
			7.1938	0.00	7.95	0.00	-5.270	0.000	-185.312
			7.6500	0.00	11.05	0.00	-5.270	0.000	-240.856
LT4	B97	COMB19 MAX	0.4000	0.00	-9.51	0.00	6.331	0.000	77.508
			0.8500	0.00	-6.40	0.00	6.331	0.000	81.109
			1.3000	0.00	-2.77	0.00	6.331	0.000	83.192
			1.7500	0.00	1.39	0.00	6.331	0.000	83.522
			2.2000	0.00	5.97	0.00	6.331	0.000	93.688
			2.6500	0.00	10.19	0.00	6.331	0.000	103.273
			3.1000	0.00	13.89	0.00	6.331	0.000	109.800
			3.5500	0.00	17.05	0.00	6.331	0.000	113.813
			4.0000	0.00	19.70	0.00	6.331	0.000	132.034
			4.0000	0.00	77.05	0.00	45.337	0.000	131.866
			4.4500	0.00	80.83	0.00	45.337	0.000	115.023
			4.9000	0.00	85.81	0.00	45.337	0.000	111.930
			5.3500	0.00	92.00	0.00	45.337	0.000	106.323
			5.8000	0.00	99.40	0.00	45.337	0.000	97.660
			6.2500	0.00	107.63	0.00	45.337	0.000	86.060

			6.7000	0.00	114.89	0.00	45.337	0.000	85.860
			7.1500	0.00	120.95	0.00	45.337	0.000	84.148
			7.6000	0.00	125.80	0.00	45.337	0.000	80.918
LT4	B97	COMB19 MIN							
			0.4000	0.00	-127.99	0.00	-45.696	0.000	-251.185
			0.8500	0.00	-123.14	0.00	-45.696	0.000	-194.633
			1.3000	0.00	-117.09	0.00	-45.696	0.000	-140.536
			1.7500	0.00	-109.83	0.00	-45.696	0.000	-89.435
			2.2000	0.00	-101.59	0.00	-45.696	0.000	-53.679
			2.6500	0.00	-94.20	0.00	-45.696	0.000	-22.912
			3.1000	0.00	-88.01	0.00	-45.696	0.000	6.075
			3.5500	0.00	-83.02	0.00	-45.696	0.000	33.517
			4.0000	0.00	-79.25	0.00	-45.696	0.000	50.294
			4.0000	0.00	-20.52	0.00	-6.463	0.000	50.500
			4.4500	0.00	-17.88	0.00	-6.463	0.000	33.421
			4.9000	0.00	-14.71	0.00	-6.463	0.000	6.417
			5.3500	0.00	-11.02	0.00	-6.463	0.000	-22.132
			5.8000	0.00	-6.80	0.00	-6.463	0.000	-52.460
			6.2500	0.00	-2.22	0.00	-6.463	0.000	-85.425
			6.7000	0.00	1.94	0.00	-6.463	0.000	-135.296
			7.1500	0.00	5.58	0.00	-6.463	0.000	-188.405
			7.6000	0.00	8.69	0.00	-6.463	0.000	-243.969
LT3	B97	COMB19 MAX							
			0.4000	0.00	-9.70	0.00	6.081	0.000	76.331
			0.8500	0.00	-6.59	0.00	6.081	0.000	80.015
			1.3000	0.00	-2.95	0.00	6.081	0.000	82.181
			1.7500	0.00	1.21	0.00	6.081	0.000	82.593
			2.2000	0.00	5.79	0.00	6.081	0.000	92.572
			2.6500	0.00	10.01	0.00	6.081	0.000	102.151
			3.1000	0.00	13.70	0.00	6.081	0.000	108.674
			3.5500	0.00	16.87	0.00	6.081	0.000	112.683
			4.0000	0.00	19.51	0.00	6.081	0.000	130.701
			4.0000	0.00	76.93	0.00	45.143	0.000	130.623
			4.4500	0.00	80.71	0.00	45.143	0.000	113.615
			4.9000	0.00	85.69	0.00	45.143	0.000	110.314
			5.3500	0.00	91.88	0.00	45.143	0.000	104.498
			5.8000	0.00	99.28	0.00	45.143	0.000	95.625
			6.2500	0.00	107.51	0.00	45.143	0.000	84.342
			6.7000	0.00	114.77	0.00	45.143	0.000	84.216
			7.1500	0.00	120.83	0.00	45.143	0.000	82.336
			7.6000	0.00	125.68	0.00	45.143	0.000	78.939
LT3	B97	COMB19 MIN							
			0.4000	0.00	-127.37	0.00	-45.420	0.000	-250.210
			0.8500	0.00	-122.52	0.00	-45.420	0.000	-193.940
			1.3000	0.00	-116.46	0.00	-45.420	0.000	-140.123
			1.7500	0.00	-109.20	0.00	-45.420	0.000	-89.304
			2.2000	0.00	-100.97	0.00	-45.420	0.000	-53.558
			2.6500	0.00	-93.57	0.00	-45.420	0.000	-22.985
			3.1000	0.00	-87.38	0.00	-45.420	0.000	5.808
			3.5500	0.00	-82.40	0.00	-45.420	0.000	33.057
			4.0000	0.00	-78.62	0.00	-45.420	0.000	49.853
			4.0000	0.00	-20.15	0.00	-6.187	0.000	50.016
			4.4500	0.00	-17.51	0.00	-6.187	0.000	33.042
			4.9000	0.00	-14.34	0.00	-6.187	0.000	6.135
			5.3500	0.00	-10.64	0.00	-6.187	0.000	-22.317
			5.8000	0.00	-6.43	0.00	-6.187	0.000	-52.549
			6.2500	0.00	-1.84	0.00	-6.187	0.000	-85.943
			6.7000	0.00	2.32	0.00	-6.187	0.000	-136.000
			7.1500	0.00	5.95	0.00	-6.187	0.000	-189.055
			7.6000	0.00	9.06	0.00	-6.187	0.000	-244.564
LT2	B97	COMB19 MAX							
			0.4000	0.00	-14.83	0.00	3.316	0.000	58.576
			0.8500	0.00	-11.72	0.00	3.316	0.000	64.570
			1.3000	0.00	-8.09	0.00	3.316	0.000	69.046
			1.7500	0.00	-3.93	0.00	3.316	0.000	71.768
			2.2000	0.00	0.66	0.00	3.316	0.000	84.398
			2.6500	0.00	4.87	0.00	3.316	0.000	95.955
			3.1000	0.00	8.57	0.00	3.316	0.000	104.454
			3.5500	0.00	11.74	0.00	3.316	0.000	110.439

			4.0000	0.00	14.38	0.00	3.316	0.000	130.782
			4.0000	0.00	71.93	0.00	41.931	0.000	130.837
			4.4500	0.00	75.71	0.00	41.931	0.000	111.021
			4.9000	0.00	80.70	0.00	41.931	0.000	105.418
			5.3500	0.00	86.89	0.00	41.931	0.000	97.300
			5.8000	0.00	94.28	0.00	41.931	0.000	86.126
			6.2500	0.00	102.51	0.00	41.931	0.000	72.733
			6.7000	0.00	109.78	0.00	41.931	0.000	70.166
			7.1500	0.00	115.83	0.00	41.931	0.000	65.846
			7.6000	0.00	120.68	0.00	41.931	0.000	60.008
LT2	B97	COMB19 MIN							
			0.4000	0.00	-121.61	0.00	-42.290	0.000	-230.114
			0.8500	0.00	-116.76	0.00	-42.290	0.000	-176.434
			1.3000	0.00	-110.71	0.00	-42.290	0.000	-125.209
			1.7500	0.00	-103.44	0.00	-42.290	0.000	-76.980
			2.2000	0.00	-95.21	0.00	-42.290	0.000	-44.167
			2.6500	0.00	-87.82	0.00	-42.290	0.000	-15.851
			3.1000	0.00	-81.63	0.00	-42.290	0.000	10.685
			3.5500	0.00	-76.64	0.00	-42.290	0.000	35.676
			4.0000	0.00	-72.86	0.00	-42.290	0.000	51.652
			4.0000	0.00	-14.73	0.00	-3.415	0.000	51.735
			4.4500	0.00	-12.08	0.00	-3.415	0.000	35.707
			4.9000	0.00	-8.91	0.00	-3.415	0.000	10.908
			5.3500	0.00	-5.22	0.00	-3.415	0.000	-15.435
			5.8000	0.00	-1.00	0.00	-3.415	0.000	-43.559
			6.2500	0.00	3.58	0.00	-3.415	0.000	-75.036
			6.7000	0.00	7.74	0.00	-3.415	0.000	-122.846
			7.1500	0.00	11.37	0.00	-3.415	0.000	-173.653
			7.6000	0.00	14.48	0.00	-3.415	0.000	-226.914
LT1	B97	COMB19 MAX							
			0.4000	0.00	-35.41	0.00	-7.207	0.000	-13.725
			0.8500	0.00	-32.30	0.00	-7.207	0.000	1.528
			1.3000	0.00	-28.66	0.00	-7.207	0.000	15.263
			1.7500	0.00	-24.50	0.00	-7.207	0.000	27.244
			2.2000	0.00	-19.92	0.00	-7.207	0.000	48.658
			2.6500	0.00	-15.70	0.00	-7.207	0.000	68.565
			3.1000	0.00	-12.01	0.00	-7.207	0.000	85.416
			3.5500	0.00	-8.84	0.00	-7.207	0.000	108.385
			4.0000	0.00	-6.20	0.00	-7.207	0.000	129.602
			4.0000	0.00	51.48	0.00	31.338	0.000	129.790
			4.4500	0.00	55.25	0.00	31.338	0.000	108.646
			4.9000	0.00	60.24	0.00	31.338	0.000	85.707
			5.3500	0.00	66.43	0.00	31.338	0.000	68.913
			5.8000	0.00	73.83	0.00	31.338	0.000	49.063
			6.2500	0.00	82.06	0.00	31.338	0.000	27.467
			6.7000	0.00	89.32	0.00	31.338	0.000	15.511
			7.1500	0.00	95.38	0.00	31.338	0.000	1.801
			7.6000	0.00	100.23	0.00	31.338	0.000	-13.427
LT1	B97	COMB19 MIN							
			0.4000	0.00	-100.37	0.00	-31.601	0.000	-157.011
			0.8500	0.00	-95.52	0.00	-31.601	0.000	-112.890
			1.3000	0.00	-89.47	0.00	-31.601	0.000	-71.222
			1.7500	0.00	-82.20	0.00	-31.601	0.000	-32.551
			2.2000	0.00	-73.97	0.00	-31.601	0.000	-8.819
			2.6500	0.00	-66.58	0.00	-31.601	0.000	10.847
			3.1000	0.00	-60.39	0.00	-31.601	0.000	28.733
			3.5500	0.00	-55.40	0.00	-31.601	0.000	45.074
			4.0000	0.00	-51.62	0.00	-31.601	0.000	57.326
			4.0000	0.00	6.14	0.00	7.096	0.000	57.411
			4.4500	0.00	8.78	0.00	7.096	0.000	45.144
			4.9000	0.00	11.95	0.00	7.096	0.000	28.837
			5.3500	0.00	15.65	0.00	7.096	0.000	10.986
			5.8000	0.00	19.86	0.00	7.096	0.000	-8.646
			6.2500	0.00	24.45	0.00	7.096	0.000	-32.104
			6.7000	0.00	28.61	0.00	7.096	0.000	-70.709
			7.1500	0.00	32.24	0.00	7.096	0.000	-112.310
ATP	B110	COMB19 MAX							
			0.0000	2.15	-29.21	0.05	0.896	0.047	-14.295
			0.5000	2.15	-26.62	0.05	0.896	0.024	-0.248

			1.0000	2.15	-22.73	0.05	0.896	0.001	16.209
			1.5000	2.15	-18.85	0.05	0.896	0.022	32.538
			2.0000	2.15	-16.25	0.05	0.896	0.044	46.458
			2.0000	0.72	-23.28	0.00	0.220	0.007	37.339
			2.5000	0.72	-20.69	0.00	0.220	0.006	57.215
			3.0000	0.72	-16.80	0.00	0.220	0.005	75.317
			3.5000	0.72	-11.62	0.00	0.220	0.004	89.596
			4.0000	0.72	-5.14	0.00	0.220	0.003	98.786
			4.5000	0.72	1.99	0.00	0.220	0.001	101.835
			5.0000	0.72	13.41	0.00	0.220	0.000	98.532
			5.5000	0.72	25.66	0.00	0.220	0.001	88.877
			6.0000	0.72	38.37	0.00	0.220	0.002	72.870
			6.5000	0.72	49.81	0.00	0.220	0.003	50.722
			7.0000	0.72	58.72	0.00	0.220	0.004	25.768
			7.5000	0.72	65.10	0.00	0.220	0.005	0.952
			8.0000	0.72	68.96	0.00	0.220	0.006	-17.716
ATP	B110	COMB19 MIN	0.0000	-2.15	-49.23	-0.05	-1.734	-0.047	-33.253
			0.5000	-2.15	-45.38	-0.05	-1.734	-0.024	-11.284
			1.0000	-2.15	-38.99	-0.05	-1.734	-0.001	4.245
			1.5000	-2.15	-32.61	-0.05	-1.734	-0.022	14.697
			2.0000	-2.15	-28.75	-0.05	-1.734	-0.044	23.528
			2.0000	-0.72	-43.04	0.00	-1.061	-0.007	19.020
			2.5000	-0.72	-39.19	0.00	-1.061	-0.006	31.564
			3.0000	-0.72	-32.80	0.00	-1.061	-0.005	42.489
			3.5000	-0.72	-23.89	0.00	-1.061	-0.004	51.146
			4.0000	-0.72	-12.60	0.00	-1.061	-0.003	56.886
			4.5000	-0.72	-1.09	0.00	-1.061	-0.001	58.282
			5.0000	-0.72	6.12	0.00	-1.061	0.000	55.514
			5.5000	-0.72	13.25	0.00	-1.061	-0.001	49.182
			6.0000	-0.72	20.38	0.00	-1.061	-0.002	39.286
			6.5000	-0.72	26.86	0.00	-1.061	-0.003	25.935
			7.0000	-0.72	32.04	0.00	-1.061	-0.004	9.667
			7.5000	-0.72	35.93	0.00	-1.061	-0.005	-11.624
			8.0000	-0.72	38.52	0.00	-1.061	-0.006	-43.092
LT9	B110	COMB19 MAX	0.0000	2.37	-28.39	0.05	1.540	0.051	-11.805
			0.5000	2.37	-25.80	0.05	1.540	0.026	1.903
			1.0000	2.37	-21.91	0.05	1.540	0.001	17.388
			1.5000	2.37	-18.02	0.05	1.540	0.024	36.649
			2.0000	2.37	-15.43	0.05	1.540	0.049	53.125
			2.0000	0.79	-21.76	0.00	0.510	0.008	38.804
			2.5000	0.79	-19.17	0.00	0.510	0.007	64.337
			3.0000	0.79	-15.28	0.00	0.510	0.005	89.722
			3.5000	0.79	-10.10	0.00	0.510	0.004	110.084
			4.0000	0.79	-3.62	0.00	0.510	0.003	123.557
			4.5000	0.79	3.51	0.00	0.510	0.002	128.589
			5.0000	0.79	17.09	0.00	0.510	0.000	124.869
			5.5000	0.79	33.70	0.00	0.510	0.001	112.397
			6.0000	0.79	51.20	0.00	0.510	0.002	91.173
			6.5000	0.79	66.84	0.00	0.510	0.003	61.507
			7.0000	0.79	78.75	0.00	0.510	0.005	29.368
			7.5000	0.79	86.94	0.00	0.510	0.006	2.844
			8.0000	0.79	91.39	0.00	0.510	0.007	-14.790
LT9	B110	COMB19 MIN	0.0000	-2.37	-62.40	-0.05	-2.996	-0.051	-49.405
			0.5000	-2.37	-57.95	-0.05	-2.996	-0.026	-23.565
			1.0000	-2.37	-49.76	-0.05	-2.996	-0.001	-3.906
			1.5000	-2.37	-41.58	-0.05	-2.996	-0.024	6.147
			2.0000	-2.37	-37.12	-0.05	-2.996	-0.049	14.580
			2.0000	-0.79	-59.01	0.00	-1.154	-0.008	9.542
			2.5000	-0.79	-54.55	0.00	-1.154	-0.007	23.121
			3.0000	-0.79	-46.37	0.00	-1.154	-0.005	35.079
			3.5000	-0.79	-34.46	0.00	-1.154	-0.004	44.769
			4.0000	-0.79	-18.82	0.00	-1.154	-0.003	51.544
			4.5000	-0.79	-4.00	0.00	-1.154	-0.002	53.849
			5.0000	-0.79	4.06	0.00	-1.154	0.000	50.333
			5.5000	-0.79	11.18	0.00	-1.154	-0.001	43.252
			6.0000	-0.79	18.31	0.00	-1.154	-0.002	32.608

			6.5000	-0.79	24.79	0.00	-1.154	-0.003	18.507
			7.0000	-0.79	29.98	0.00	-1.154	-0.005	1.491
			7.5000	-0.79	33.86	0.00	-1.154	-0.006	-24.460
			8.0000	-0.79	36.46	0.00	-1.154	-0.007	-63.707
LT8	B110	COMB19 MAX	0.0000	2.09	-28.51	0.04	2.394	0.045	-5.359
			0.5000	2.09	-25.92	0.04	2.394	0.023	8.400
			1.0000	2.09	-22.03	0.04	2.394	0.001	24.143
			1.5000	2.09	-18.14	0.04	2.394	0.021	43.482
			2.0000	2.09	-15.55	0.04	2.394	0.043	60.037
			2.0000	0.70	-19.59	0.00	0.812	0.007	45.102
			2.5000	0.70	-17.00	0.00	0.812	0.006	66.182
			3.0000	0.70	-13.11	0.00	0.812	0.005	91.052
			3.5000	0.70	-7.93	0.00	0.812	0.004	111.420
			4.0000	0.70	-1.45	0.00	0.812	0.003	124.900
			4.5000	0.70	5.68	0.00	0.812	0.001	129.939
			5.0000	0.70	19.25	0.00	0.812	0.000	126.226
			5.5000	0.70	33.75	0.00	0.812	0.001	113.761
			6.0000	0.70	51.19	0.00	0.812	0.002	92.544
			6.5000	0.70	66.83	0.00	0.812	0.003	64.409
			7.0000	0.70	78.74	0.00	0.812	0.004	36.581
			7.5000	0.70	86.92	0.00	0.812	0.005	10.763
			8.0000	0.70	91.38	0.00	0.812	0.006	-5.787
LT8	B110	COMB19 MIN	0.0000	-2.09	-62.59	-0.04	-3.911	-0.045	-54.605
			0.5000	-2.09	-58.14	-0.04	-3.911	-0.023	-28.657
			1.0000	-2.09	-49.95	-0.04	-3.911	-0.001	-9.099
			1.5000	-2.09	-41.77	-0.04	-3.911	-0.021	1.034
			2.0000	-2.09	-37.31	-0.04	-3.911	-0.043	9.546
			2.0000	-0.70	-59.02	0.00	-1.365	-0.007	5.540
			2.5000	-0.70	-54.57	0.00	-1.365	-0.006	20.202
			3.0000	-0.70	-46.38	0.00	-1.365	-0.005	33.244
			3.5000	-0.70	-34.47	0.00	-1.365	-0.004	44.018
			4.0000	-0.70	-20.68	0.00	-1.365	-0.003	51.876
			4.5000	-0.70	-6.18	0.00	-1.365	-0.001	54.390
			5.0000	-0.70	1.89	0.00	-1.365	0.000	49.788
			5.5000	-0.70	9.02	0.00	-1.365	-0.001	41.622
			6.0000	-0.70	16.14	0.00	-1.365	-0.002	29.892
			6.5000	-0.70	22.62	0.00	-1.365	-0.003	14.706
			7.0000	-0.70	27.81	0.00	-1.365	-0.004	-3.396
			7.5000	-0.70	31.70	0.00	-1.365	-0.005	-30.050
			8.0000	-0.70	34.29	0.00	-1.365	-0.006	-70.377
LT7	B110	COMB19 MAX	0.0000	1.80	-28.38	0.04	3.261	0.039	-0.359
			0.5000	1.80	-25.79	0.04	3.261	0.020	13.406
			1.0000	1.80	-21.90	0.04	3.261	0.001	28.568
			1.5000	1.80	-18.01	0.04	3.261	0.018	47.889
			2.0000	1.80	-15.42	0.04	3.261	0.037	64.425
			2.0000	0.60	-17.58	0.00	1.082	0.006	48.542
			2.5000	0.60	-14.99	0.00	1.082	0.005	68.637
			3.0000	0.60	-11.10	0.00	1.082	0.004	89.130
			3.5000	0.60	-5.91	0.00	1.082	0.003	109.557
			4.0000	0.60	0.57	0.00	1.082	0.002	123.096
			4.5000	0.60	7.69	0.00	1.082	0.001	128.194
			5.0000	0.60	21.22	0.00	1.082	0.000	124.540
			5.5000	0.60	35.72	0.00	1.082	0.001	112.134
			6.0000	0.60	51.07	0.00	1.082	0.002	90.976
			6.5000	0.60	66.71	0.00	1.082	0.003	67.195
			7.0000	0.60	78.62	0.00	1.082	0.003	40.458
			7.5000	0.60	86.80	0.00	1.082	0.004	16.254
			8.0000	0.60	91.26	0.00	1.082	0.005	0.773
LT7	B110	COMB19 MIN	0.0000	-1.80	-62.41	-0.04	-4.583	-0.039	-61.619
			0.5000	-1.80	-57.95	-0.04	-4.583	-0.020	-35.798
			1.0000	-1.80	-49.77	-0.04	-4.583	-0.001	-15.778
			1.5000	-1.80	-41.58	-0.04	-4.583	-0.018	-5.746
			2.0000	-1.80	-37.13	-0.04	-4.583	-0.037	2.665
			2.0000	-0.60	-59.14	0.00	-1.624	-0.006	-0.730
			2.5000	-0.60	-54.68	0.00	-1.624	-0.005	15.001

			3.0000	-0.60	-46.50	0.00	-1.624	-0.004	29.113
			3.5000	-0.60	-35.88	0.00	-1.624	-0.003	40.956
			4.0000	-0.60	-22.86	0.00	-1.624	-0.002	49.883
			4.5000	-0.60	-8.36	0.00	-1.624	-0.001	53.542
			5.0000	-0.60	-0.25	0.00	-1.624	0.000	47.937
			5.5000	-0.60	6.88	0.00	-1.624	-0.001	38.769
			6.0000	-0.60	14.01	0.00	-1.624	-0.002	26.036
			6.5000	-0.60	20.49	0.00	-1.624	-0.003	9.847
			7.0000	-0.60	25.67	0.00	-1.624	-0.003	-9.261
			7.5000	-0.60	29.56	0.00	-1.624	-0.004	-37.446
			8.0000	-0.60	32.15	0.00	-1.624	-0.005	-78.758
LT6	B110	COMB19 MAX	0.0000	1.51	-28.31	0.03	3.858	0.033	3.133
			0.5000	1.51	-25.72	0.03	3.858	0.017	16.937
			1.0000	1.51	-21.83	0.03	3.858	0.001	31.754
			1.5000	1.51	-17.94	0.03	3.858	0.015	51.097
			2.0000	1.51	-15.35	0.03	3.858	0.031	67.655
			2.0000	0.50	-16.22	0.00	1.291	0.005	51.199
			2.5000	0.50	-13.62	0.00	1.291	0.004	70.633
			3.0000	0.50	-9.74	0.00	1.291	0.003	88.051
			3.5000	0.50	-4.55	0.00	1.291	0.003	108.529
			4.0000	0.50	1.93	0.00	1.291	0.002	122.119
			4.5000	0.50	9.06	0.00	1.291	0.001	127.268
			5.0000	0.50	22.54	0.00	1.291	0.000	123.665
			5.5000	0.50	37.04	0.00	1.291	0.001	111.310
			6.0000	0.50	51.55	0.00	1.291	0.001	90.203
			6.5000	0.50	66.61	0.00	1.291	0.002	69.275
			7.0000	0.50	78.52	0.00	1.291	0.003	43.290
			7.5000	0.50	86.70	0.00	1.291	0.004	20.096
			8.0000	0.50	91.16	0.00	1.291	0.005	5.347
LT6	B110	COMB19 MIN	0.0000	-1.51	-62.32	-0.03	-5.065	-0.033	-66.340
			0.5000	-1.51	-57.86	-0.03	-5.065	-0.017	-40.604
			1.0000	-1.51	-49.68	-0.03	-5.065	-0.001	-20.284
			1.5000	-1.51	-41.50	-0.03	-5.065	-0.015	-10.321
			2.0000	-1.51	-37.04	-0.03	-5.065	-0.031	-1.978
			2.0000	-0.50	-59.24	0.00	-1.784	-0.005	-4.941
			2.5000	-0.50	-54.79	0.00	-1.784	-0.004	11.522
			3.0000	-0.50	-47.42	0.00	-1.784	-0.003	26.366
			3.5000	-0.50	-37.38	0.00	-1.784	-0.003	38.941
			4.0000	-0.50	-24.37	0.00	-1.784	-0.002	48.600
			4.5000	-0.50	-9.86	0.00	-1.784	-0.001	53.259
			5.0000	-0.50	-1.71	0.00	-1.784	0.000	46.975
			5.5000	-0.50	5.41	0.00	-1.784	-0.001	37.127
			6.0000	-0.50	12.54	0.00	-1.784	-0.001	23.715
			6.5000	-0.50	19.02	0.00	-1.784	-0.002	6.847
			7.0000	-0.50	24.21	0.00	-1.784	-0.003	-12.944
			7.5000	-0.50	28.09	0.00	-1.784	-0.004	-42.066
			8.0000	-0.50	30.69	0.00	-1.784	-0.005	-84.040
LT5	B110	COMB19 MAX	0.0000	1.23	-28.29	0.03	4.345	0.027	6.647
			0.5000	1.23	-25.70	0.03	4.345	0.014	20.431
			1.0000	1.23	-21.81	0.03	4.345	0.001	35.239
			1.5000	1.23	-17.92	0.03	4.345	0.012	54.546
			2.0000	1.23	-15.33	0.03	4.345	0.025	71.068
			2.0000	0.41	-14.99	0.00	1.472	0.004	54.215
			2.5000	0.41	-12.40	0.00	1.472	0.003	73.051
			3.0000	0.41	-8.51	0.00	1.472	0.003	89.101
			3.5000	0.41	-3.32	0.00	1.472	0.002	108.732
			4.0000	0.41	3.16	0.00	1.472	0.002	122.369
			4.5000	0.41	10.28	0.00	1.472	0.001	127.565
			5.0000	0.41	23.74	0.00	1.472	0.000	124.009
			5.5000	0.41	38.24	0.00	1.472	0.000	111.701
			6.0000	0.41	52.74	0.00	1.472	0.001	92.023
			6.5000	0.41	66.51	0.00	1.472	0.002	72.478
			7.0000	0.41	78.42	0.00	1.472	0.002	47.179
			7.5000	0.41	86.61	0.00	1.472	0.003	24.447
			8.0000	0.41	91.06	0.00	1.472	0.004	10.366
LT5	B110	COMB19 MIN							

			0.0000	-1.23	-62.26	-0.03	-5.538	-0.027	-69.767
			0.5000	-1.23	-57.80	-0.03	-5.538	-0.014	-44.063
			1.0000	-1.23	-49.62	-0.03	-5.538	-0.001	-23.789
			1.5000	-1.23	-41.43	-0.03	-5.538	-0.012	-13.844
			2.0000	-1.23	-36.98	-0.03	-5.538	-0.025	-5.518
			2.0000	-0.41	-59.92	0.00	-1.829	-0.004	-7.926
			2.5000	-0.41	-55.84	0.00	-1.829	-0.003	9.205
			3.0000	-0.41	-48.78	0.00	-1.829	-0.003	24.715
			3.5000	-0.41	-38.75	0.00	-1.829	-0.002	37.957
			4.0000	-0.41	-25.73	0.00	-1.829	-0.002	48.284
			4.5000	-0.41	-11.23	0.00	-1.829	-0.001	53.168
			5.0000	-0.41	-3.05	0.00	-1.829	0.000	46.269
			5.5000	-0.41	4.08	0.00	-1.829	0.000	35.806
			6.0000	-0.41	11.21	0.00	-1.829	-0.001	21.778
			6.5000	-0.41	17.69	0.00	-1.829	-0.002	4.295
			7.0000	-0.41	22.87	0.00	-1.829	-0.002	-16.112
			7.5000	-0.41	26.76	0.00	-1.829	-0.003	-45.629
			8.0000	-0.41	29.35	0.00	-1.829	-0.004	-88.201
LT4	B110	COMB19 MAX	0.0000	0.94	-28.24	0.02	4.685	0.020	8.442
			0.5000	0.94	-25.65	0.02	4.685	0.010	22.260
			1.0000	0.94	-21.76	0.02	4.685	0.000	36.689
			1.5000	0.94	-17.87	0.02	4.685	0.009	55.990
			2.0000	0.94	-15.28	0.02	4.685	0.019	72.506
			2.0000	0.31	-14.27	0.00	1.613	0.003	55.358
			2.5000	0.31	-11.68	0.00	1.613	0.003	73.863
			3.0000	0.31	-7.79	0.00	1.613	0.002	89.582
			3.5000	0.31	-2.61	0.00	1.613	0.002	107.711
			4.0000	0.31	3.87	0.00	1.613	0.001	121.425
			4.5000	0.31	11.00	0.00	1.613	0.001	126.697
			5.0000	0.31	24.40	0.00	1.613	0.000	123.216
			5.5000	0.31	38.90	0.00	1.613	0.000	110.984
			6.0000	0.31	53.41	0.00	1.613	0.001	92.438
			6.5000	0.31	66.42	0.00	1.613	0.001	73.361
			7.0000	0.31	78.27	0.00	1.613	0.002	48.530
			7.5000	0.31	86.46	0.00	1.613	0.002	26.439
			8.0000	0.31	90.91	0.00	1.613	0.003	12.794
LT4	B110	COMB19 MIN	0.0000	-0.94	-62.12	-0.02	-5.745	-0.020	-72.816
			0.5000	-0.94	-57.67	-0.02	-5.745	-0.010	-47.231
			1.0000	-0.94	-49.48	-0.02	-5.745	0.000	-26.664
			1.5000	-0.94	-41.30	-0.02	-5.745	-0.009	-16.798
			2.0000	-0.94	-36.84	-0.02	-5.745	-0.019	-8.551
			2.0000	-0.31	-60.86	0.00	-1.859	-0.003	-10.748
			2.5000	-0.31	-56.77	0.00	-1.859	-0.003	6.820
			3.0000	-0.31	-49.72	0.00	-1.859	-0.002	22.768
			3.5000	-0.31	-39.68	0.00	-1.859	-0.002	36.448
			4.0000	-0.31	-26.66	0.00	-1.859	-0.001	47.212
			4.5000	-0.31	-12.16	0.00	-1.859	-0.001	53.009
			5.0000	-0.31	-3.92	0.00	-1.859	0.000	45.748
			5.5000	-0.31	3.20	0.00	-1.859	0.000	34.923
			6.0000	-0.31	10.33	0.00	-1.859	-0.001	20.535
			6.5000	-0.31	16.81	0.00	-1.859	-0.001	2.690
			7.0000	-0.31	22.00	0.00	-1.859	-0.002	-18.080
			7.5000	-0.31	25.88	0.00	-1.859	-0.002	-48.130
			8.0000	-0.31	28.48	0.00	-1.859	-0.003	-91.033
LT3	B110	COMB19 MAX	0.0000	0.65	-28.17	0.01	4.716	0.014	7.911
			0.5000	0.65	-25.57	0.01	4.716	0.007	21.743
			1.0000	0.65	-21.69	0.01	4.716	0.000	35.883
			1.5000	0.65	-17.80	0.01	4.716	0.007	55.158
			2.0000	0.65	-15.21	0.01	4.716	0.014	71.648
			2.0000	0.22	-14.43	0.00	1.654	0.002	54.563
			2.5000	0.22	-11.84	0.00	1.654	0.002	73.173
			3.0000	0.22	-7.95	0.00	1.654	0.001	88.998
			3.5000	0.22	-2.77	0.00	1.654	0.001	107.029
			4.0000	0.22	3.71	0.00	1.654	0.001	120.811
			4.5000	0.22	10.84	0.00	1.654	0.000	126.151
			5.0000	0.22	24.19	0.00	1.654	0.000	122.739

			5.5000	0.22	38.69	0.00	1.654	0.000	110.575
			6.0000	0.22	53.20	0.00	1.654	0.001	91.806
			6.5000	0.22	66.22	0.00	1.654	0.001	72.748
			7.0000	0.22	78.14	0.00	1.654	0.001	47.935
			7.5000	0.22	86.32	0.00	1.654	0.002	25.922
			8.0000	0.22	90.78	0.00	1.654	0.002	12.268
LT3	B110	COMB19 MIN	0.0000	-0.65	-62.01	-0.01	-5.677	-0.014	-73.165
			0.5000	-0.65	-57.55	-0.01	-5.677	-0.007	-47.671
			1.0000	-0.65	-49.37	-0.01	-5.677	0.000	-26.891
			1.5000	-0.65	-41.18	-0.01	-5.677	-0.007	-17.074
			2.0000	-0.65	-36.73	-0.01	-5.677	-0.014	-8.878
			2.0000	-0.22	-60.88	0.00	-1.784	-0.002	-11.153
			2.5000	-0.22	-56.80	0.00	-1.784	-0.002	6.405
			3.0000	-0.22	-49.74	0.00	-1.784	-0.001	22.343
			3.5000	-0.22	-39.71	0.00	-1.784	-0.001	36.012
			4.0000	-0.22	-26.69	0.00	-1.784	-0.001	46.766
			4.5000	-0.22	-12.19	0.00	-1.784	0.000	52.974
			5.0000	-0.22	-3.90	0.00	-1.784	0.000	45.789
			5.5000	-0.22	3.22	0.00	-1.784	0.000	35.041
			6.0000	-0.22	10.35	0.00	-1.784	-0.001	20.729
			6.5000	-0.22	16.83	0.00	-1.784	-0.001	2.961
			7.0000	-0.22	22.02	0.00	-1.784	-0.001	-17.730
			7.5000	-0.22	25.90	0.00	-1.784	-0.002	-47.765
			8.0000	-0.22	28.50	0.00	-1.784	-0.002	-90.562
LT2	B110	COMB19 MAX	0.0000	0.37	-28.20	0.01	4.119	0.008	3.216
			0.5000	0.37	-25.61	0.01	4.119	0.004	16.985
			1.0000	0.37	-21.72	0.01	4.119	0.000	30.964
			1.5000	0.37	-17.83	0.01	4.119	0.004	50.127
			2.0000	0.37	-15.24	0.01	4.119	0.008	66.505
			2.0000	0.12	-16.18	0.00	1.517	0.001	50.122
			2.5000	0.12	-13.59	0.00	1.517	0.001	69.631
			3.0000	0.12	-9.70	0.00	1.517	0.001	86.355
			3.5000	0.12	-4.52	0.00	1.517	0.001	106.995
			4.0000	0.12	1.96	0.00	1.517	0.000	120.844
			4.5000	0.12	9.09	0.00	1.517	0.000	126.253
			5.0000	0.12	22.39	0.00	1.517	0.000	122.909
			5.5000	0.12	36.89	0.00	1.517	0.000	110.813
			6.0000	0.12	51.40	0.00	1.517	0.000	89.965
			6.5000	0.12	66.09	0.00	1.517	0.001	69.752
			7.0000	0.12	78.00	0.00	1.517	0.001	44.166
			7.5000	0.12	86.18	0.00	1.517	0.001	21.186
			8.0000	0.12	90.64	0.00	1.517	0.001	6.731
LT2	B110	COMB19 MIN	0.0000	-0.37	-61.88	-0.01	-5.028	-0.008	-68.611
			0.5000	-0.37	-57.42	-0.01	-5.028	-0.004	-43.149
			1.0000	-0.37	-49.24	-0.01	-5.028	0.000	-22.303
			1.5000	-0.37	-41.06	-0.01	-5.028	-0.004	-12.469
			2.0000	-0.37	-36.60	-0.01	-5.028	-0.008	-4.256
			2.0000	-0.12	-59.76	0.00	-1.477	-0.001	-7.079
			2.5000	-0.12	-55.30	0.00	-1.477	-0.001	9.678
			3.0000	-0.12	-48.19	0.00	-1.477	-0.001	24.815
			3.5000	-0.12	-38.15	0.00	-1.477	-0.001	37.684
			4.0000	-0.12	-25.14	0.00	-1.477	0.000	47.637
			4.5000	-0.12	-10.64	0.00	-1.477	0.000	53.010
			5.0000	-0.12	-2.30	0.00	-1.477	0.000	46.694
			5.5000	-0.12	4.83	0.00	-1.477	0.000	36.814
			6.0000	-0.12	11.95	0.00	-1.477	0.000	23.370
			6.5000	-0.12	18.43	0.00	-1.477	-0.001	6.470
			7.0000	-0.12	23.62	0.00	-1.477	-0.001	-13.352
			7.5000	-0.12	27.51	0.00	-1.477	-0.001	-42.321
LT1	B110	COMB19 MAX	0.0000	0.08	-28.28	0.00	1.500	0.002	-13.314
			0.5000	0.08	-25.68	0.00	1.500	0.001	0.367
			1.0000	0.08	-21.80	0.00	1.500	0.000	13.928
			1.5000	0.08	-17.91	0.00	1.500	0.001	32.933
			2.0000	0.08	-15.32	0.00	1.500	0.002	49.152
			2.0000	0.03	-22.18	0.00	0.744	0.000	35.014

			2.5000	0.03	-19.59	0.00	0.744	0.000	59.655
			3.0000	0.03	-15.70	0.00	0.744	0.000	85.507
			3.5000	0.03	-10.51	0.00	0.744	0.000	106.335
			4.0000	0.03	-4.03	0.00	0.744	0.000	120.274
			4.5000	0.03	3.09	0.00	0.744	0.000	125.773
			5.0000	0.03	16.33	0.00	0.744	0.000	122.519
			5.5000	0.03	32.76	0.00	0.744	0.000	110.514
			6.0000	0.03	50.27	0.00	0.744	0.000	89.756
			6.5000	0.03	65.91	0.00	0.744	0.000	60.557
			7.0000	0.03	77.82	0.00	0.744	0.000	28.921
			7.5000	0.03	86.00	0.00	0.744	0.000	3.058
			8.0000	0.03	90.46	0.00	0.744	0.000	-14.303
LT1	B110	COMB19 MIN	0.0000	-0.08	-61.70	0.00	-2.295	-0.002	-52.927
			0.5000	-0.08	-57.25	0.00	-2.295	-0.001	-27.497
			1.0000	-0.08	-49.06	0.00	-2.295	0.000	-6.352
			1.5000	-0.08	-40.88	0.00	-2.295	-0.001	3.521
			2.0000	-0.08	-36.42	0.00	-2.295	-0.002	11.773
			2.0000	-0.03	-59.94	0.00	-0.532	0.000	6.755
			2.5000	-0.03	-55.48	0.00	-0.532	0.000	20.606
			3.0000	-0.03	-47.30	0.00	-0.532	0.000	32.837
			3.5000	-0.03	-35.39	0.00	-0.532	0.000	42.800
			4.0000	-0.03	-19.75	0.00	-0.532	0.000	49.848
			4.5000	-0.03	-4.89	0.00	-0.532	0.000	53.292
			5.0000	-0.03	3.51	0.00	-0.532	0.000	49.966
			5.5000	-0.03	10.64	0.00	-0.532	0.000	43.077
			6.0000	-0.03	17.77	0.00	-0.532	0.000	32.623
			6.5000	-0.03	24.25	0.00	-0.532	0.000	18.714
			7.0000	-0.03	29.43	0.00	-0.532	0.000	1.887
			7.5000	-0.03	33.32	0.00	-0.532	0.000	-24.072
			8.0000	-0.03	35.91	0.00	-0.532	0.000	-62.939

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LOADING COMBINATIONS

COMBO	COMBO TYPE	CASE	CASE TYPE	SCALE FACTOR
COMB19	ENVE	COMB1	Combo	1.0000
		COMB2	Combo	1.0000
		COMB3	Combo	1.0000
		COMB4	Combo	1.0000
		COMB5	Combo	1.0000
		COMB6	Combo	1.0000
		COMB7	Combo	1.0000
		COMB8	Combo	1.0000
		COMB9	Combo	1.0000
		COMB10	Combo	1.0000
		COMB11	Combo	1.0000
		COMB12	Combo	1.0000
		COMB13	Combo	1.0000
		COMB14	Combo	1.0000
		COMB15	Combo	1.0000
		COMB16	Combo	1.0000
		COMB17	Combo	1.0000
		COMB18	Combo	1.0000

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COLUMN FORCES

STORY	COLUMN	LOAD	LOC	P	V2	V3	T	M2	M3
LT7	C9	COMB19 MAX	0.0000	-351.43	33.46	104.14	0.000	168.465	37.436
			1.4000	-336.61	33.46	104.14	0.000	22.669	-0.915
			2.8000	-321.79	33.46	104.14	0.000	109.661	122.310
LT7	C9	COMB19 MIN	0.0000	-833.62	-90.78	-92.41	0.000	-149.095	-131.882

LT7	C10	COMB19 MAX	1.4000	-813.87	-90.78	-92.41	0.000	-19.717	-13.276
			2.8000	-794.11	-90.78	-92.41	0.000	-123.126	-56.245
			0.0000	-617.02	134.22	101.57	0.000	164.423	207.500
LT7	C10	COMB19 MIN	1.4000	-602.20	134.22	101.57	0.000	22.223	19.591
			2.8000	-587.39	134.22	101.57	0.000	113.163	144.155
			0.0000	-1217.16	-113.36	-95.65	0.000	-154.661	-173.247
LT7	C14	COMB19 MAX	1.4000	-1197.40	-113.36	-95.65	0.000	-20.749	-14.546
			2.8000	-1177.64	-113.36	-95.65	0.000	-119.976	-168.318
			0.0000	-422.71	28.69	58.85	0.000	91.886	29.661
LT7	C14	COMB19 MIN	1.4000	-407.89	28.69	58.85	0.000	9.490	-3.770
			2.8000	-393.07	28.69	58.85	0.000	161.071	142.140
			0.0000	-1019.92	-108.26	-135.98	0.000	-219.661	-160.980
LT7	C18	COMB19 MAX	1.4000	-1000.16	-108.26	-135.98	0.000	-29.295	-16.150
			2.8000	-980.41	-108.26	-135.98	0.000	-72.906	-50.661
			0.0000	-527.78	140.25	90.39	0.000	145.403	218.790
LT7	C18	COMB19 MIN	1.4000	-512.97	140.25	90.39	0.000	18.858	22.447
			2.8000	-498.15	140.25	90.39	0.000	107.491	165.355
			0.0000	-983.00	-132.98	-90.22	0.000	-145.136	-206.996
LT7	C20	COMB19 MAX	1.4000	-963.25	-132.98	-90.22	0.000	-18.822	-20.820
			2.8000	-943.49	-132.98	-90.22	0.000	-107.686	-173.896
			0.0000	-312.20	147.00	62.59	0.000	96.314	229.974
LT7	C20	COMB19 MIN	1.4000	-297.39	147.00	62.59	0.000	8.687	24.169
			2.8000	-282.57	147.00	62.59	0.000	49.521	162.557
			0.0000	-892.07	-130.54	-37.08	0.000	-54.300	-202.966
LT7	C24	COMB19 MAX	1.4000	-872.32	-130.54	-37.08	0.000	-2.390	-20.204
			2.8000	-852.56	-130.54	-37.08	0.000	-78.940	-181.636
			0.0000	-498.50	23.57	116.75	0.000	187.831	21.092
LT7	C24	COMB19 MIN	1.4000	-483.68	23.57	116.75	0.000	24.380	-4.576
			2.8000	-468.87	23.57	116.75	0.000	75.954	154.644
			0.0000	-1154.66	-118.95	-61.45	0.000	-96.099	-178.425
LT4	C9	COMB19 MAX	1.4000	-1134.91	-118.95	-61.45	0.000	-10.072	-19.213
			2.8000	-1115.15	-118.95	-61.45	0.000	-139.071	-44.891
			0.0000	-534.56	60.74	150.95	0.000	260.150	116.879
LT4	C9	COMB19 MIN	1.4000	-515.21	60.74	150.95	0.000	48.820	31.847
			2.8000	-495.85	60.74	150.95	0.000	151.742	114.038
			0.0000	-1570.49	-113.49	-141.80	0.000	-245.289	-203.742
LT4	C10	COMB19 MAX	1.4000	-1544.69	-113.49	-141.80	0.000	-46.774	-44.852
			2.8000	-1518.88	-113.49	-141.80	0.000	-162.510	-53.184
			0.0000	-1029.25	184.79	150.54	0.000	259.713	322.330
LT4	C10	COMB19 MIN	1.4000	-1009.90	184.79	150.54	0.000	48.951	63.617
			2.8000	-990.55	184.79	150.54	0.000	156.807	173.715
			0.0000	-2183.39	-166.38	-146.35	0.000	-252.974	-292.138
LT4	C14	COMB19 MAX	1.4000	-2157.59	-166.38	-146.35	0.000	-48.083	-59.212
			2.8000	-2131.79	-166.38	-146.35	0.000	-161.810	-195.096
			0.0000	-611.83	56.87	94.87	0.000	166.351	110.425
LT4	C14	COMB19 MIN	1.4000	-592.48	56.87	94.87	0.000	33.530	30.812
			2.8000	-573.12	56.87	94.87	0.000	183.176	136.981
			0.0000	-1965.51	-133.72	-168.04	0.000	-287.330	-237.441
LT4	C18	COMB19 MAX	1.4000	-1939.70	-133.72	-168.04	0.000	-52.077	-50.230
			2.8000	-1913.90	-133.72	-168.04	0.000	-99.290	-48.801
			0.0000	-966.98	196.93	140.56	0.000	243.124	342.935
LT4	C18	COMB19 MIN	1.4000	-947.62	196.93	140.56	0.000	46.346	67.228
			0.0000						
			0.0000						

LT4	C18	COMB19 MIN	2.8000	-928.27	196.93	140.56	0.000	150.326	203.932
			0.0000	-1825.17	-193.26	-140.47	0.000	-242.991	-337.183
			1.4000	-1799.37	-193.26	-140.47	0.000	-46.332	-66.626
			2.8000	-1773.56	-193.26	-140.47	0.000	-150.433	-208.480
LT4	C20	COMB19 MAX	0.0000	-380.47	201.02	85.04	0.000	149.602	349.433
			1.4000	-361.12	201.02	85.04	0.000	30.545	67.999
			2.8000	-341.76	201.02	85.04	0.000	64.140	202.114
			0.0000	-1801.53	-191.75	-64.17	0.000	-115.548	-334.795
LT4	C20	COMB19 MIN	1.4000	-1775.72	-191.75	-64.17	0.000	-25.704	-66.341
			2.8000	-1749.92	-191.75	-64.17	0.000	-88.511	-213.436
			0.0000	-753.26	51.80	155.00	0.000	266.399	101.908
			1.4000	-733.90	51.80	155.00	0.000	49.398	29.383
LT4	C24	COMB19 MAX	2.8000	-714.55	51.80	155.00	0.000	101.216	151.415
			0.0000	-2240.61	-146.41	-96.49	0.000	-168.960	-258.539
			1.4000	-2214.80	-146.41	-96.49	0.000	-33.872	-53.562
			2.8000	-2189.00	-146.41	-96.49	0.000	-167.604	-43.142
LT2	C9	COMB19 MAX	0.0000	-712.11	85.64	145.18	0.000	295.362	423.565
			0.1500	-710.04	85.64	145.18	0.000	274.008	413.621
			0.3000	-707.97	85.64	145.18	0.000	252.743	404.290
			0.0000	-2188.19	-171.99	-136.53	0.000	-295.136	-425.822
LT2	C9	COMB19 MIN	0.1500	-2185.42	-171.99	-136.53	0.000	-275.078	-402.925
			0.3000	-2182.66	-171.99	-136.53	0.000	-255.110	-380.640
			0.0000	-1420.42	168.43	142.74	0.000	295.298	425.729
			0.1500	-1418.35	168.43	142.74	0.000	274.003	400.981
LT2	C10	COMB19 MAX	0.3000	-1416.28	168.43	142.74	0.000	252.732	376.342
			0.0000	-3087.57	-139.17	-140.43	0.000	-295.237	-424.965
			0.1500	-3084.81	-139.17	-140.43	0.000	-274.289	-404.605
			0.3000	-3082.04	-139.17	-140.43	0.000	-253.365	-384.355
LT2	C14	COMB19 MAX	0.0000	-815.22	70.80	82.11	0.000	293.713	423.178
			0.1500	-813.15	70.80	82.11	0.000	285.844	417.351
			0.3000	-811.07	70.80	82.11	0.000	278.914	412.536
			0.0000	-2886.80	-205.33	-200.95	0.000	-296.819	-426.693
LT2	C14	COMB19 MIN	0.1500	-2884.04	-205.33	-200.95	0.000	-271.124	-400.688
			0.3000	-2881.28	-205.33	-200.95	0.000	-246.367	-375.694
			0.0000	-1413.12	160.44	137.79	0.000	336.662	425.520
			0.1500	-1411.05	160.44	137.79	0.000	304.501	401.458
LT2	C18	COMB19 MAX	0.3000	-1408.98	160.44	137.79	0.000	293.834	377.397
			0.0000	-2429.31	-160.77	-137.78	0.000	-295.168	-459.787
			0.1500	-2425.01	-160.77	-137.78	0.000	-274.502	-401.418
			0.3000	-2421.25	-160.77	-137.78	0.000	-253.836	-357.308
LT2	C20	COMB19 MAX	0.0000	-445.17	160.03	119.15	0.000	294.681	425.510
			0.1500	-443.10	160.03	119.15	0.000	277.739	401.582
			0.3000	-441.02	160.03	119.15	0.000	260.994	377.672
			0.0000	-2625.12	-161.80	-94.43	0.000	-294.035	-425.556
LT2	C20	COMB19 MIN	0.1500	-2622.36	-161.80	-94.43	0.000	-280.802	-401.363
			0.3000	-2619.59	-161.80	-94.43	0.000	-267.765	-377.187
			0.0000	-1036.69	59.42	196.38	0.000	296.700	422.880
			0.1500	-1034.61	59.42	196.38	0.000	271.368	420.630
LT2	C24	COMB19 MAX	0.3000	-1032.54	59.42	196.38	0.000	246.906	419.785
			0.0000	-3268.43	-231.56	-83.47	0.000	-293.749	-427.379
			0.1500	-3265.67	-231.56	-83.47	0.000	-285.353	-399.307
			0.3000	-3262.90	-231.56	-83.47	0.000	-277.828	-372.640