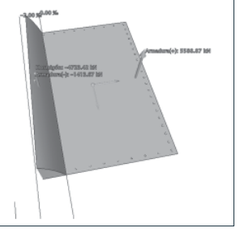
Empresa:	ACL ESTRUCTURAS	**Proyecto:**	AUTOVIA ALMANZORA. TRAMO: CUCADOR-ENL AL-7106
Dirección:		**Código:**	ESTRUCTURA E3
Teléfono/Fax:		**Autor:**	
Sitio web:		**Fecha:**	23/06/2017

Valor y posición de las resultantes internas

Resultante	Valor *[kN]*	Y *[m]*	Z *[m]*	Vista 3D
Hormigón	-4723.42	0.092	-0.672	
Armadura comprimida	-1413.67	0.077	-0.703	
Armadura traccionada	5588.87	-0.007	0.586	

5.2.- Comprobación de resistencia para la situación de colapso

Modo de colapsar: Axil y momento alrededor del eje Z constantes

N_u: -548.22 kN

Myy_u: 7497.20 kN · m

Mzz_u: 583.71 kN · m

Aprovechamiento: 99.33 %

5.2.1) Hormigón

Máxima deformación de compresión: -1.76 ‰

Máxima tensión de compresión: -19.71 MPa

5.2.2) Armadura

Máxima deformación de compresión: -1.39 ‰

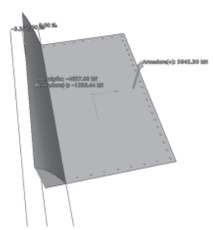
Máxima tensión de compresión: -278.48 MPa

Máxima deformación de tracción: 10.00 ‰

Máxima tensión de tracción: 434.78 MPa

5.2.3) Equilibrio

Valor y posición de las resultantes internas

Resultante	Valor *[kN]*	Y *[m]*	Z *[m]*	Vista 3D
Hormigón	-4657.08	0.093	-0.678	
Armadura comprimida	-1536.44	0.078	-0.703	
Armadura traccionada	5645.30	-0.005	0.577	

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1.7 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: AUTOVÍA ALMANZORA. PROYECTO E3
Fecha: 23/06/2017
Hora: 10:05:56

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-30
Tipo de acero    : B-500-S
fck [MPa]        = 30.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento con armadura a cortante
```

- Sección

```
Sección : DINTEL
b0  [m] = 2.10
h   [m] = 1.50
```

2 Dimensionamiento

Esfuerzo cortante de cálculo Vd [kN] = 2567

Inclinación de las bielas [º] = 45
Inclinación de los cercos [º] = 90.0
ρ_l [·1.E-3] = 2
$\rho_{comprimida}$ [·1.E-3] = 0.0
Nd [kN] = 0.0
σxd [MPa] = 0.0
σyd [MPa] = 0.0
θe [º] = 45.0

ϕ [mm]	Separación [mm]	nº ramas	Area [cm²/m]	Tipo	Vsu [kN]	Vu2 [kN]
ø 6	----	----	----	----	----	----
ø 8	----	----	----	----	----	----
ø 10	----	----	----	----	----	----
ø 12	0.10	4	45.2	2	2361.5	3120.28

Área estricta [cm²/m] = 34.8
Vu1 [kN] = 18270.0
Vcu [kN] = 758.8

CALZADA IZQUIERDA: CÁLCULO DE PRUEBA DE CARGA

c/ COLUMELA nº15, C.P. 11004 CÁDIZ. Tlf: 956222763 Fax: 956210106
e-mail: acl@acl-estructuras.com http://www.acl-estructuras.com

Programa: CivilCAD3000

Versión: 15 - 18
Barcelona, 2014

CivilCAD3000, software propiedad de CivilCAD Consultores, S.L.
Autores: L.M.Callís, J.M.Roig, I.Callís, P.Reinés
Licencia de uso concedida a: ACL
Número de usuario: 1668

Proyecto:

Nombre del proyecto: AUTOVÍA ALMANZORA. TRAMO: CUCADOR-ENLACE AL-7106
Nombre de la estructura: ESTRUCTURA E3
Nombre del elemento estructural: TABLERO DE 11.8 METROS DE ANCHO
Tipo de estructura: *Vigas pretesadas*
Funcionalidad de la estructura: *Estructura de Carretera*
Clase de estructura: *Tablero sin tierras*
Vida útil: *100 años*

Normativas:

Ámbito: *Normas españolas*
Normativa de acciones de cálculo: *IAP-2011*
Norma para las verificaciones estructurales: *EHE-2008*
Norma para las verificaciones geotécnicas: *Guía de cimentaciones*

Unidades:

Sistema *S.I.*

Despiece:

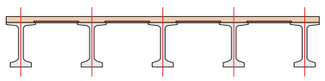
Sistema Métrico Europeo

Módulo del programa:

Módulo Tablero de vigas
Nombre del archivo de proyecto: *e3_tablero_11_8.vig*
Ruta de acceso: *c:\proyectos acl carlos\acl2017\17020_autovia a-334. tramo cucador\e3_proyecto\archivos civilcad*

Informe:

Tipo de informe: *Informe de la Memoria de cálculo*
Informe generado el día 19-06-2017 a las 11:48:35.



Índice

1 PRUEBA DE CARGA

1 PRUEBA DE CARGA

Viga 1. Hipótesis 1

s (m)	Flecha (mm)	Momento (kNm)	Cortante (kN)
0.000	0.000	0.037	162.891
0.429	-0.358	70.314	163.281
0.860	-0.718	140.973	163.674
1.450	-1.207	238.452	164.431
2.171	-1.800	359.303	165.641
2.900	-2.384	481.776	165.995
3.550	-2.901	590.832	166.068
4.350	-3.511	725.798	165.615
5.271	-4.175	880.340	158.858
5.800	-4.549	968.839	153.463
7.250	-5.452	1177.325	123.889
7.550	-5.637	1219.733	117.457
8.403	-6.094	1311.465	99.134
8.700	-6.235	1335.934	92.754
9.256	-6.501	1381.817	80.790
10.150	-6.886	1448.662	63.215
11.600	-7.351	1529.964	41.205
13.050	-7.617	1570.790	20.285
14.500	-7.724	1587.480	2.446
15.950	-7.671	1583.818	-12.201
17.400	-7.389	1557.361	-29.755
18.850	-6.929	1497.852	-58.710
19.744	-6.604	1453.312	-79.268
20.300	-6.320	1394.302	-91.405
20.597	-6.165	1361.581	-97.851
21.450	-5.720	1267.504	-116.385
21.750	-5.564	1234.426	-122.901
23.200	-4.615	1036.317	-143.340
23.729	-4.268	964.002	-150.760
24.650	-3.569	810.580	-162.536
25.450	-2.960	677.114	-172.748
26.100	-2.440	560.523	-179.110
26.829	-1.835	423.375	-184.731
27.550	-1.238	287.756	-190.290
28.140	-0.737	172.774	-193.030
28.571	-0.367	87.656	-194.602
29.000	0.000	2.999	-196.166

Viga 2. Hipótesis 1

s (m)	Flecha (mm)	Momento (kNm)	Cortante (kN)
0.000	0.000	-3.462	242.180
0.424	-0.443	98.956	242.191
0.862	-0.901	204.725	242.228
1.450	-1.509	345.952	242.614
2.175	-2.254	520.983	243.101
2.900	-2.985	696.471	244.509
3.550	-3.624	854.698	245.038
4.350	-4.378	1051.059	236.987
5.262	-5.190	1261.323	218.957
5.800	-5.644	1378.301	203.721
7.250	-6.791	1652.289	160.439
7.550	-6.998	1692.475	150.598
8.399	-7.583	1806.167	122.755
8.700	-7.791	1846.522	112.872
9.247	-8.074	1896.359	100.161
10.150	-8.531	1975.978	79.772

11.600	-9.088	2065.737	51.425
13.050	-9.457	2121.952	28.137
14.500	-9.598	2149.689	11.721
15.950	-9.466	2154.317	-6.599
17.400	-9.136	2131.823	-38.015
18.850	-8.612	2067.816	-82.106
19.753	-8.129	1962.817	-112.252
20.300	-7.836	1899.125	-130.537
20.601	-7.675	1864.076	-140.600
21.450	-7.065	1726.347	-160.078
21.750	-6.850	1677.635	-166.956
23.200	-5.714	1414.884	-198.217
23.738	-5.245	1303.779	-208.828
24.650	-4.441	1112.393	-226.350
25.450	-3.655	920.242	-238.010
26.100	-3.016	764.118	-247.484
26.825	-2.287	583.010	-257.165
27.550	-1.533	391.719	-265.477
28.138	-0.915	234.660	-270.325
28.576	-0.451	116.019	-272.293
29.000	-0.000	0.471	-272.678

Viga 3. Hipótesis 1

s (m)	Flecha (mm)	Momento (kNm)	Cortante (kN)
0.000	0.000	-0.876	254.573
0.424	-0.463	106.907	254.376
0.862	-0.943	218.328	254.172
1.450	-1.582	367.128	253.506
2.175	-2.360	549.569	252.482
2.900	-3.119	731.606	251.641
3.550	-3.794	894.582	250.904
4.350	-4.567	1093.865	241.270
5.262	-5.442	1320.905	229.337
5.800	-5.930	1444.774	218.212
7.250	-7.121	1733.517	169.920
7.550	-7.368	1793.257	159.928
8.399	-7.920	1895.046	133.657
8.700	-8.114	1930.418	124.354
9.247	-8.467	1994.697	107.449
10.150	-8.930	2076.813	86.105
11.600	-9.560	2186.412	57.261
13.050	-9.892	2243.013	29.305
14.500	-10.002	2262.559	6.867
15.950	-9.906	2257.346	-15.469
17.400	-9.587	2236.053	-43.101
18.850	-8.964	2133.656	-91.551
19.753	-8.504	2044.180	-121.146
20.300	-8.151	1962.502	-137.696
20.601	-7.957	1917.556	-146.802
21.450	-7.405	1789.796	-172.172
21.750	-7.158	1732.030	-177.956
23.200	-5.966	1452.829	-205.913
23.738	-5.477	1338.240	-215.368
24.650	-4.599	1132.784	-230.459
25.450	-3.824	950.289	-243.796
26.100	-3.145	782.676	-255.472
26.825	-2.382	593.625	-267.527
27.550	-1.597	396.521	-273.749
28.138	-0.951	235.818	-274.424
28.576	-0.468	115.519	-274.630
29.000	0.000	-0.854	-274.830

Viga 4. Hipótesis 1

s (m)	Flecha (mm)	Momento (kNm)	Cortante (kN)
0.000	0.000	0.469	249.199
0.424	-0.447	106.070	248.824
0.862	-0.907	214.460	247.976
1.450	-1.519	358.940	247.021
2.175	-2.267	536.166	246.191
2.900	-2.993	713.244	244.382
3.550	-3.628	871.675	242.184
4.350	-4.411	1066.667	239.480
5.262	-5.215	1278.763	220.169
5.800	-5.683	1403.221	207.723
7.250	-6.819	1673.031	163.797
7.550	-7.035	1718.749	153.109
8.399	-7.645	1847.981	122.890
8.700	-7.807	1875.370	114.719
9.247	-8.101	1925.143	99.870
10.150	-8.586	2007.195	75.391
11.600	-9.121	2083.645	47.582
13.050	-9.464	2133.017	24.310
14.500	-9.613	2158.812	4.150
15.950	-9.488	2144.256	-12.221
17.400	-9.131	2116.007	-41.905
18.850	-8.582	2038.425	-81.765
19.753	-8.127	1946.051	-112.265
20.300	-7.845	1888.225	-130.491
20.601	-7.637	1841.357	-138.214
21.450	-7.050	1709.319	-159.972
21.750	-6.843	1662.647	-167.663
23.200	-5.692	1391.590	-197.386
23.738	-5.236	1282.283	-206.984
24.650	-4.420	1087.404	-219.675
25.450	-3.662	906.913	-227.245
26.100	-3.019	759.282	-241.783
26.825	-2.280	574.342	-263.771
27.550	-1.527	381.528	-266.050
28.138	-0.912	225.886	-266.778
28.576	-0.449	109.362	-266.741
29.000	0.000	-3.462	-266.729

Viga 5. Hipótesis 1

s (m)	Flecha (mm)	Momento (kNm)	Cortante (kN)
0.000	0.000	2.881	182.321
0.429	-0.367	81.581	182.416
0.860	-0.736	160.710	182.512
1.450	-1.236	268.973	182.575
2.171	-1.834	401.852	182.400
2.900	-2.439	536.230	182.222
3.550	-2.960	655.550	178.913
4.350	-3.570	801.552	169.279
5.271	-4.272	969.241	158.069
5.800	-4.620	1041.070	145.943
7.250	-5.573	1237.648	112.705
7.550	-5.730	1264.867	106.687
8.403	-6.177	1342.280	89.573
8.700	-6.333	1369.205	83.621
9.256	-6.618	1418.327	72.695
10.150	-6.949	1467.961	60.210
11.600	-7.418	1540.001	40.332
13.050	-7.712	1590.025	21.442
14.500	-7.776	1598.445	6.709
15.950	-7.678	1596.128	-12.081

CivilCAD3000

17.400	-7.419	1573.839	-36.676
18.850	-6.957	1488.554	-70.774
19.744	-6.570	1410.416	-89.173
20.300	-6.303	1355.256	-99.968
20.597	-6.161	1325.839	-105.725
21.450	-5.702	1227.951	-119.999
21.750	-5.516	1187.211	-123.936
23.200	-4.607	988.225	-142.025
23.729	-4.231	908.307	-145.279
24.650	-3.561	768.693	-154.225
25.450	-2.945	637.306	-173.731
26.100	-2.421	520.146	-177.599
26.829	-1.829	388.023	-178.872
27.550	-1.227	257.632	-177.660
28.140	-0.730	152.353	-176.902
28.571	-0.364	75.988	-176.509
29.000	0.000	0.035	-176.118

ESTRIBO 1 (AMBAS CALZADAS): CÁLCULO

c/ COLUMELA nº15, C.P. 11004 CÁDIZ. Tlf: 956222763 Fax: 956210106
e-mail: acl@acl-estructuras.com http://www.acl-estructuras.com

ESTRUCTURA E3

LEYES DE EMPUJES EN ESTRIBOS EN ZONA SISMICA

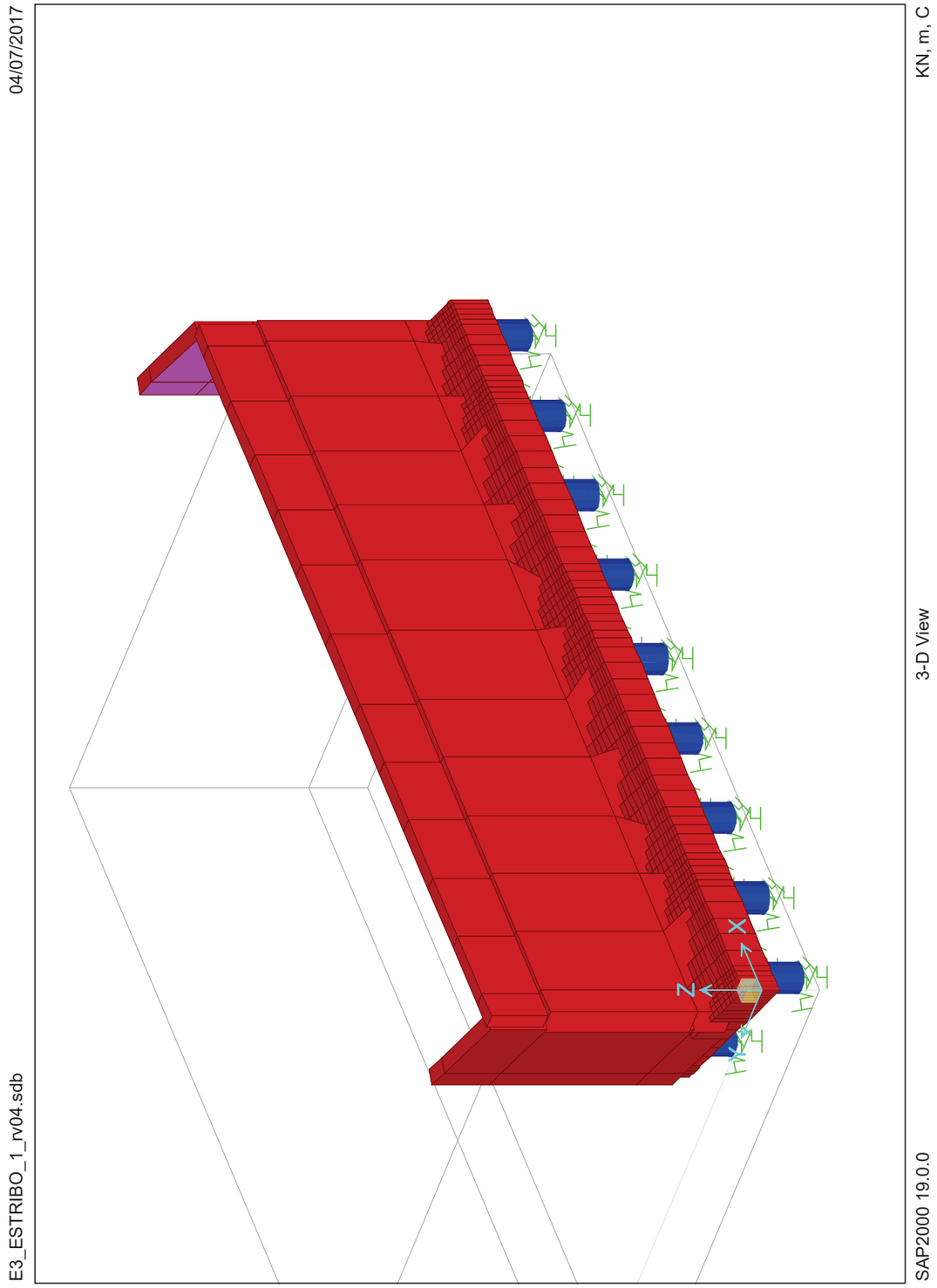
METODO DE MONONOBE-OKABE

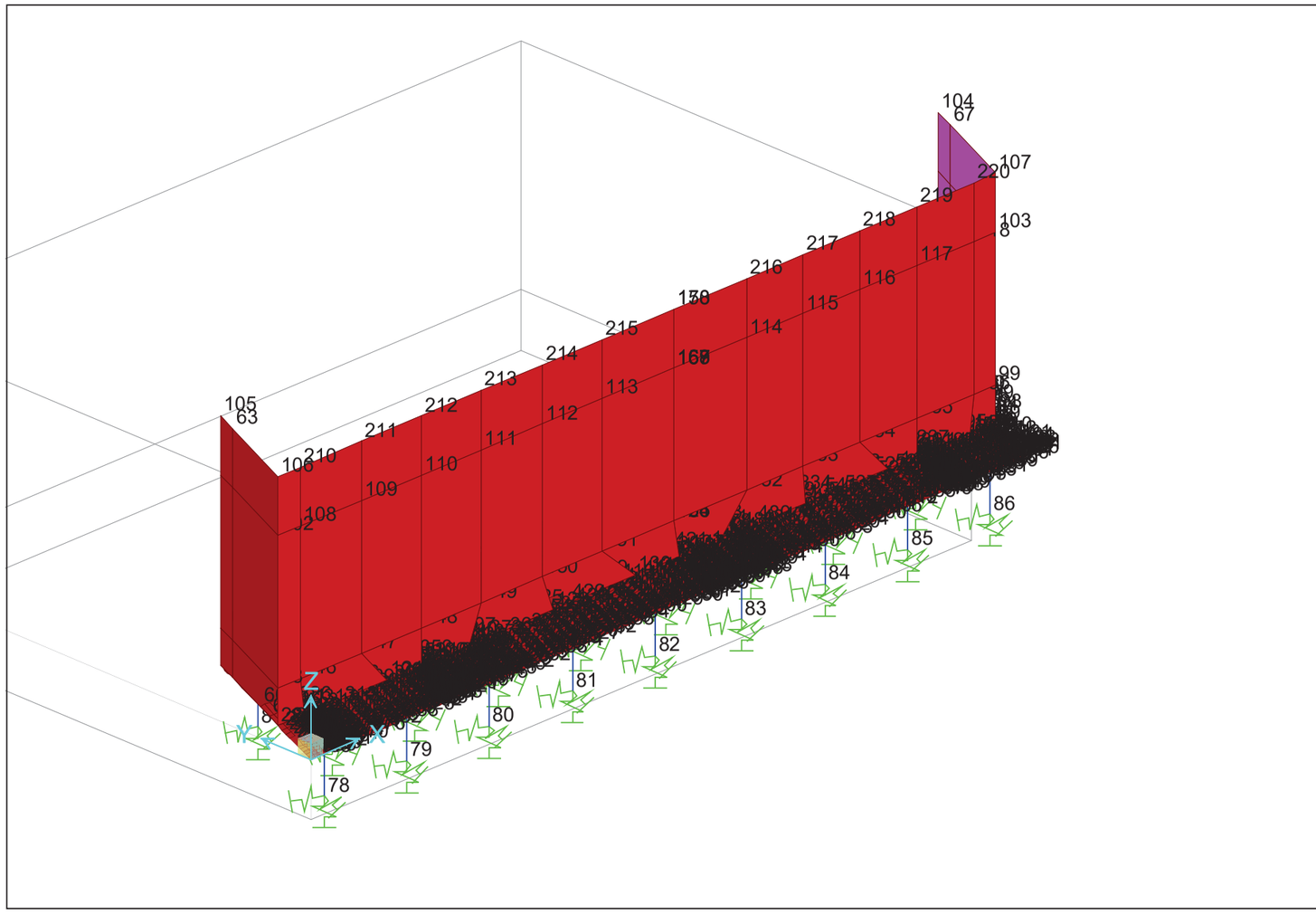
TRASDOS DE ESTRIBO

Densidad del terreno	2.00	tn/m3
Angulo de rozamiento del relleno	30.00	grados

aceleración sísmica de cálculo	0.1915	g.
Kh	0.096	
Kv	0.048	
Angulo de inclinación trasdos ψ	90.000	grados
Angulo θ primero	0.091	rad
Angulo θ segundo	0.100	rad
Angulo δ rozamiento muro-suelo	0.000	grados
Angulo β de la superficie del terreno	0.000	grados

	SISMO	NO SISMO
EMPUJE ACTIVO	0.416	0.333
EMPUJE PASIVO	2.837	3.000
EMPUJE AL REPOSO	0.624	0.500

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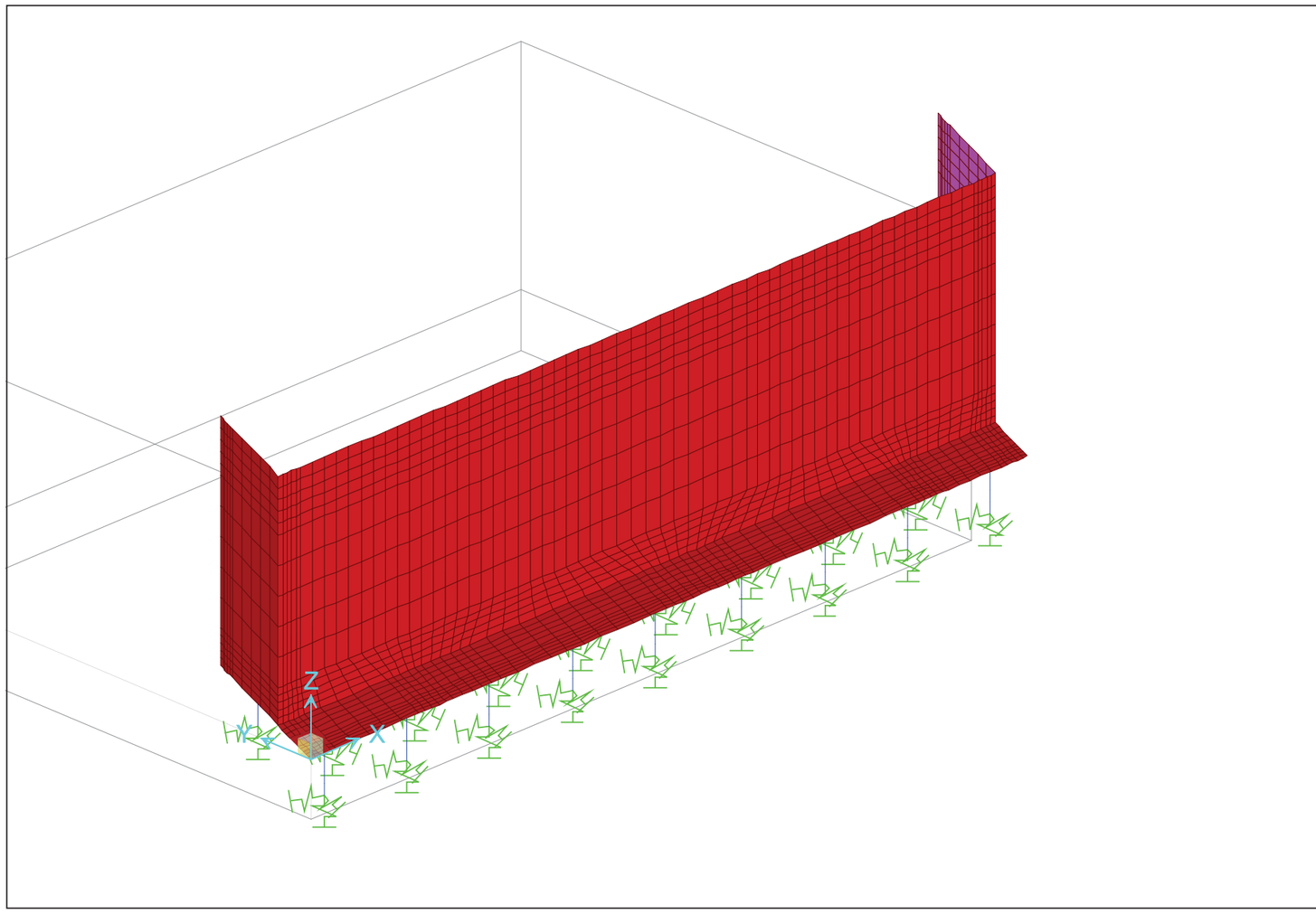
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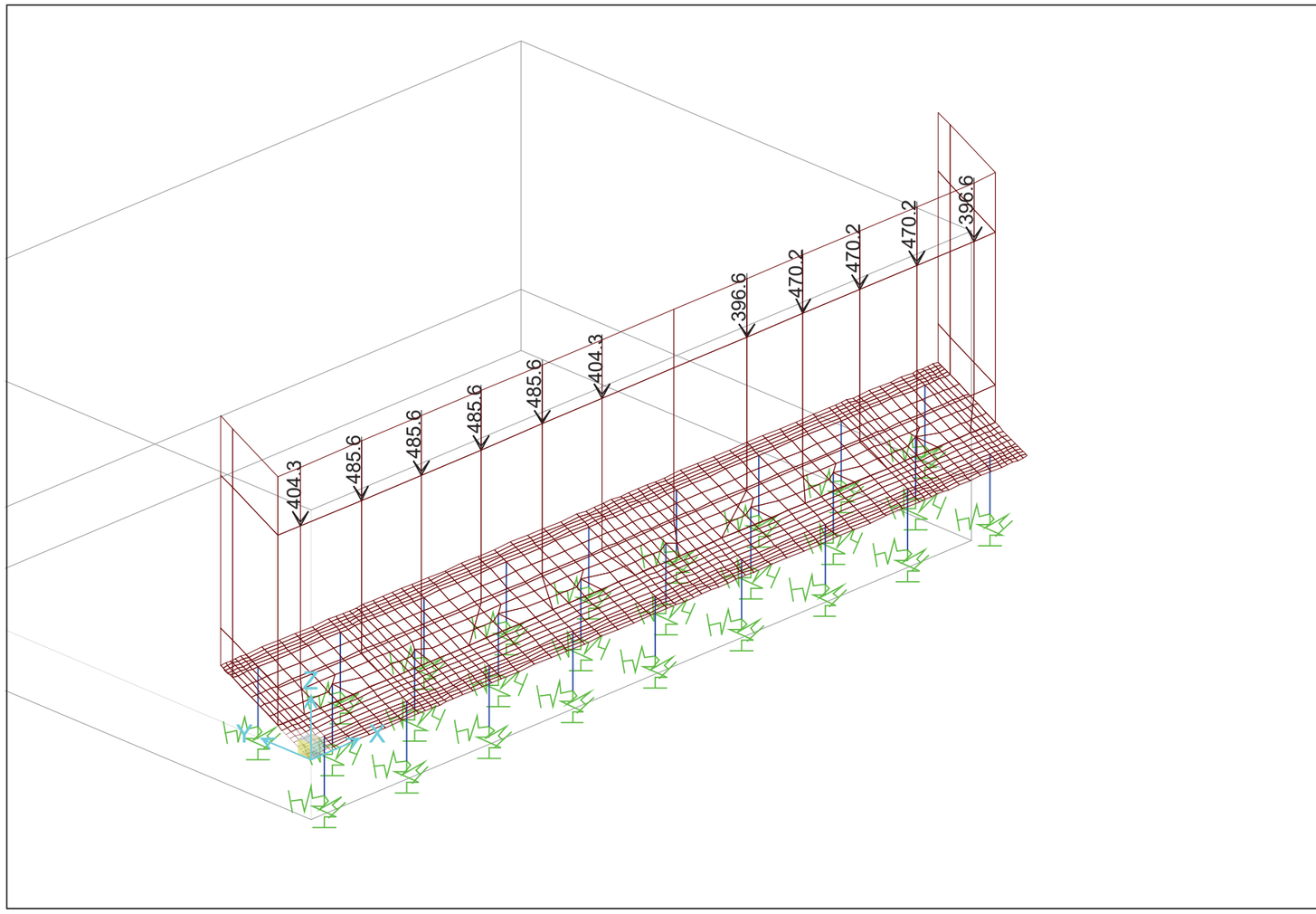
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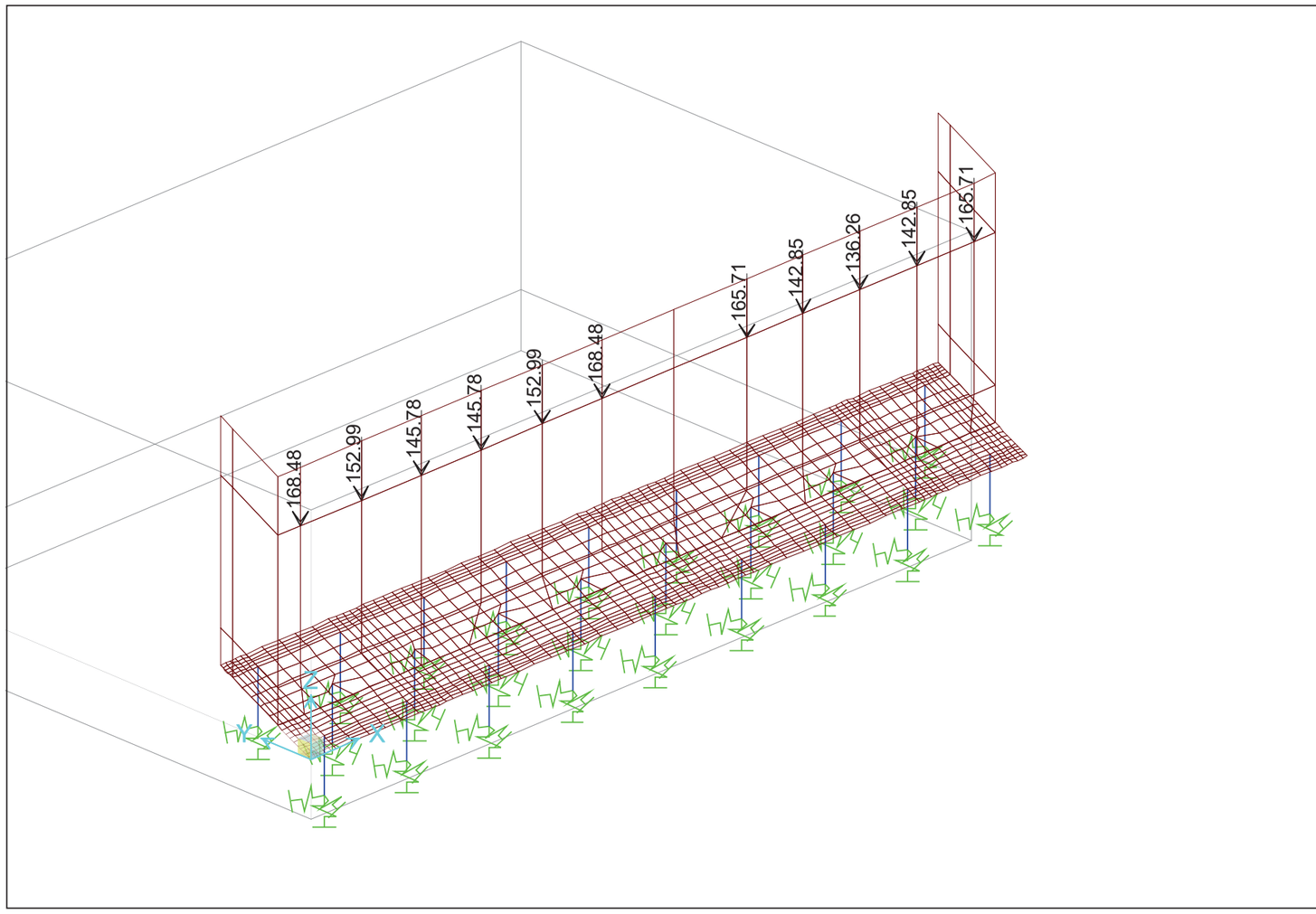
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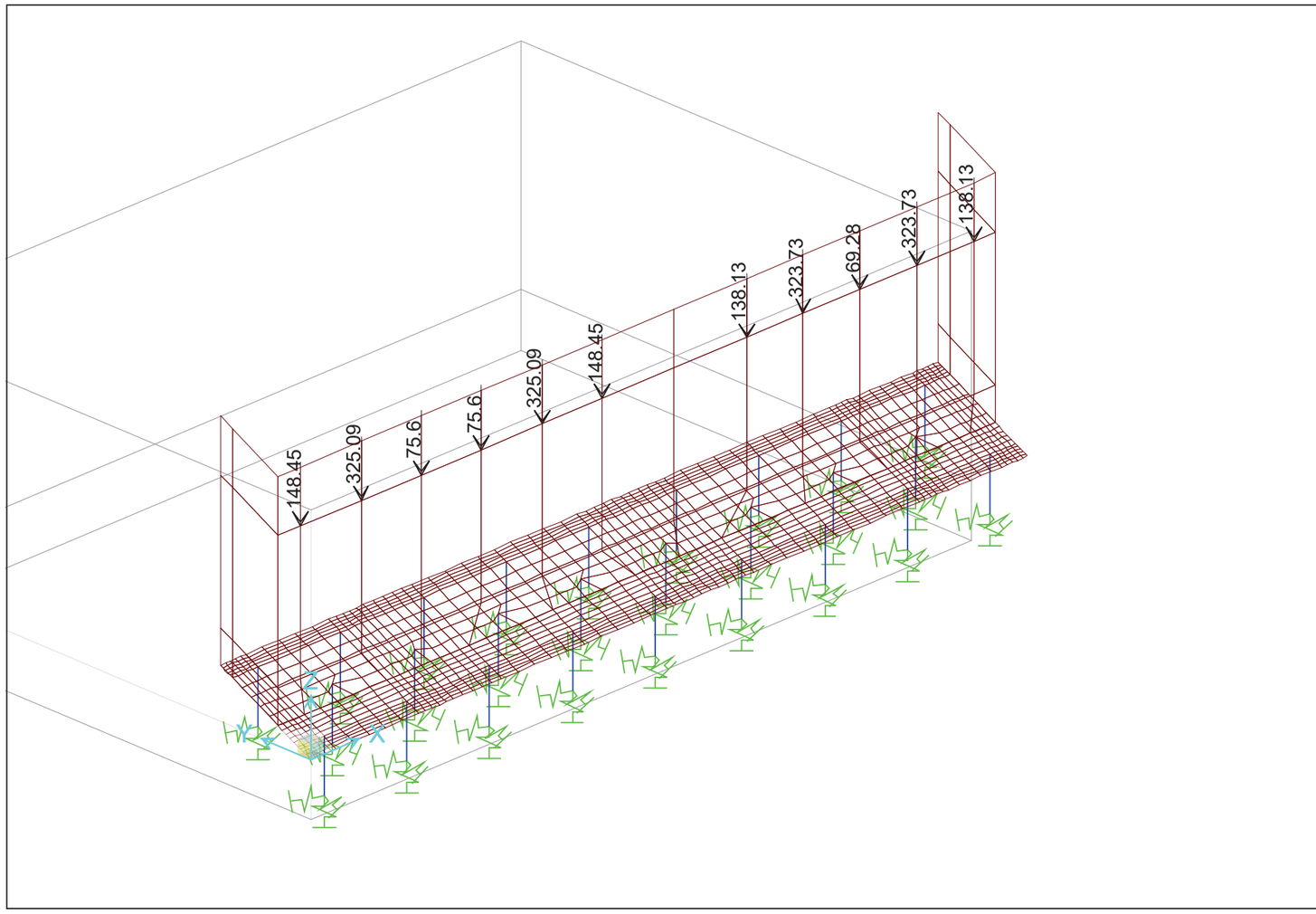
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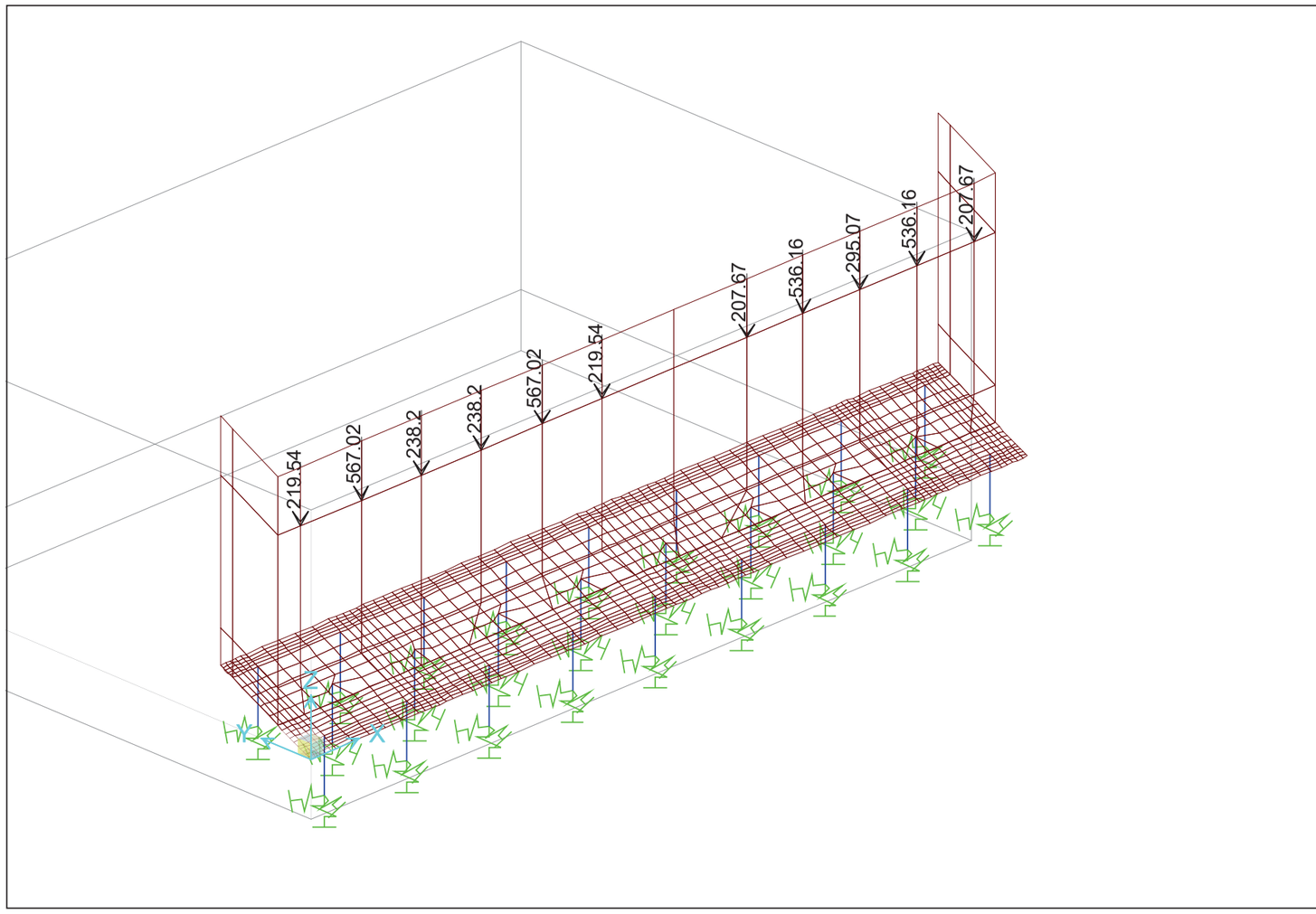
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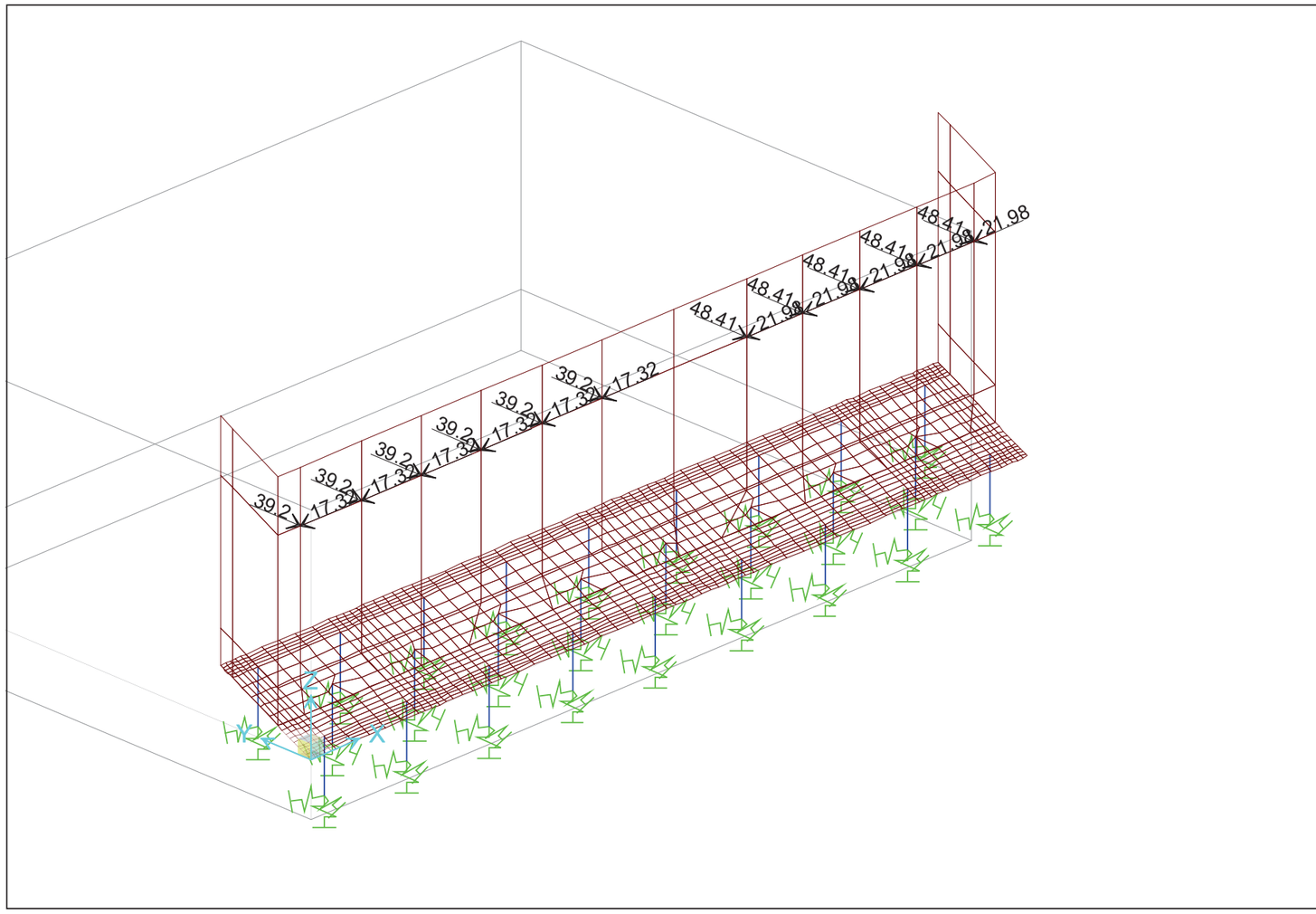
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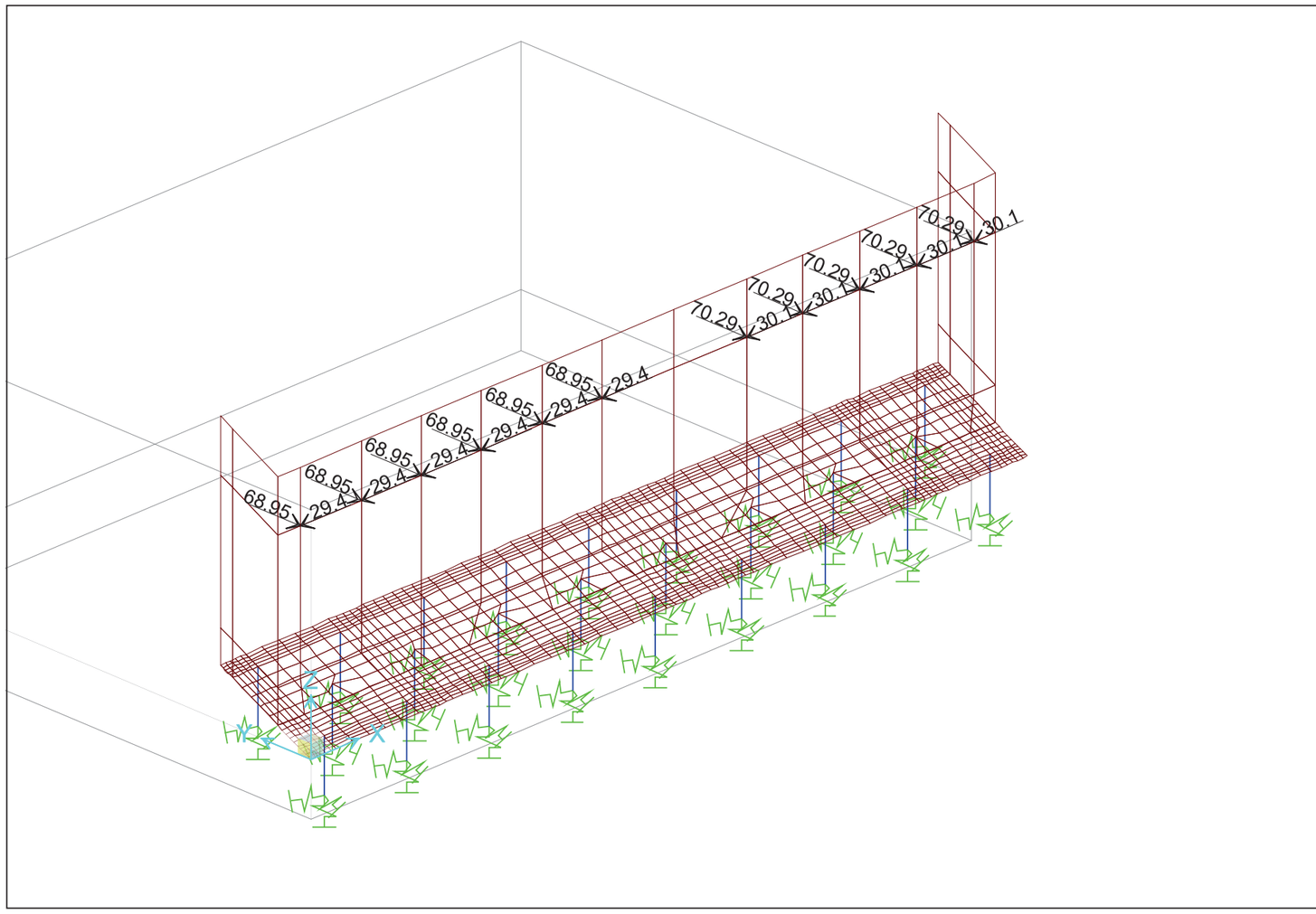
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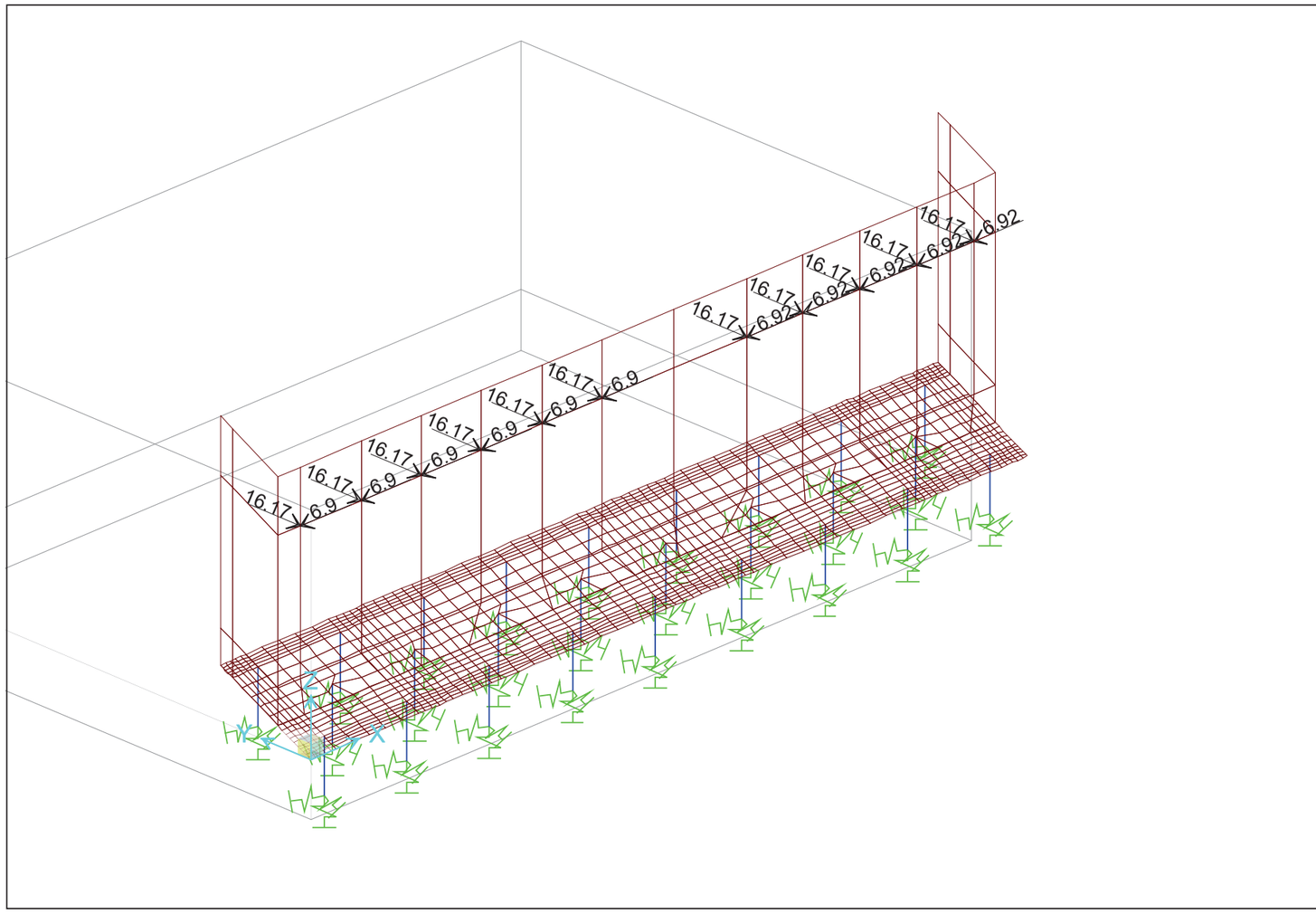
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6.9
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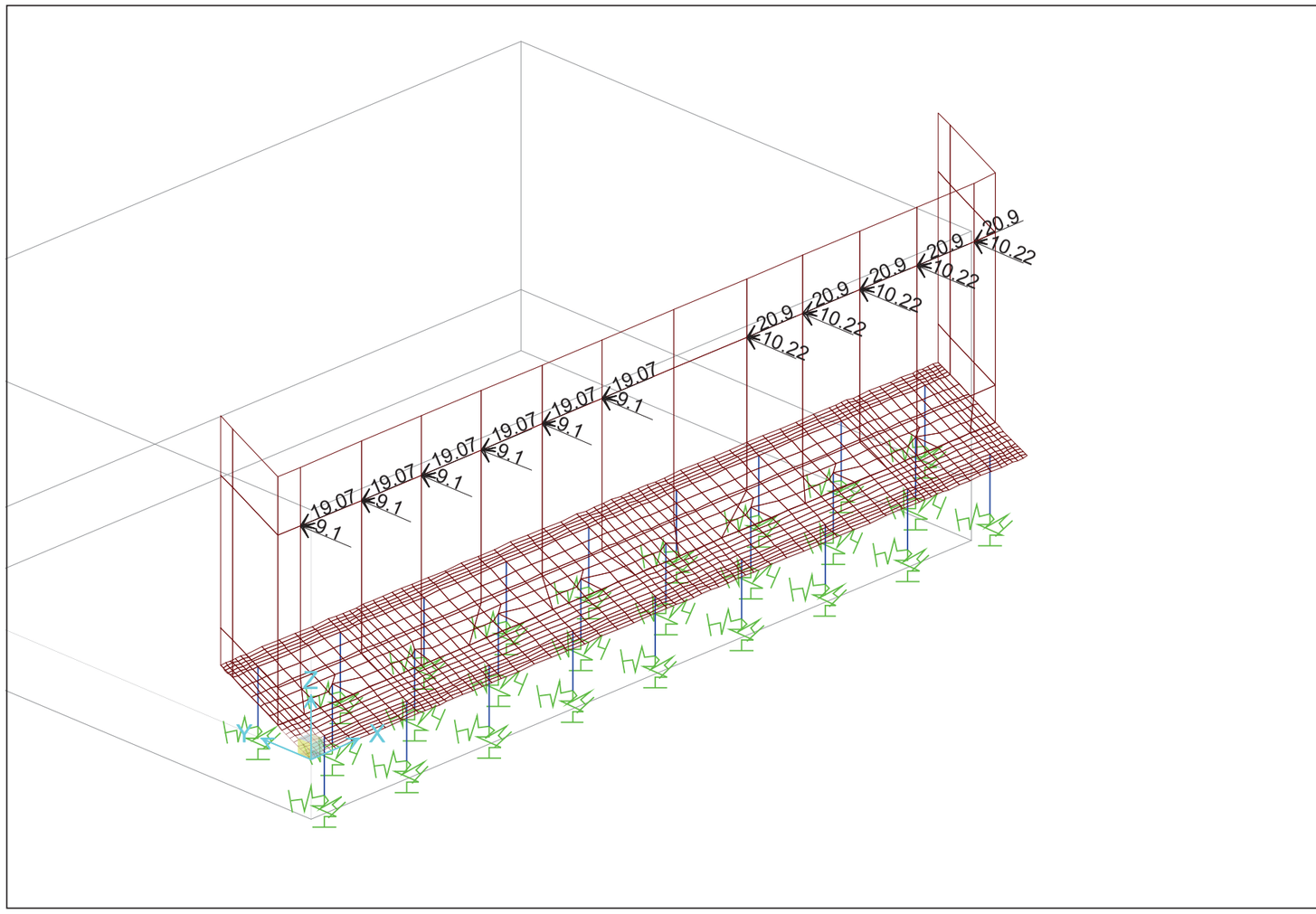
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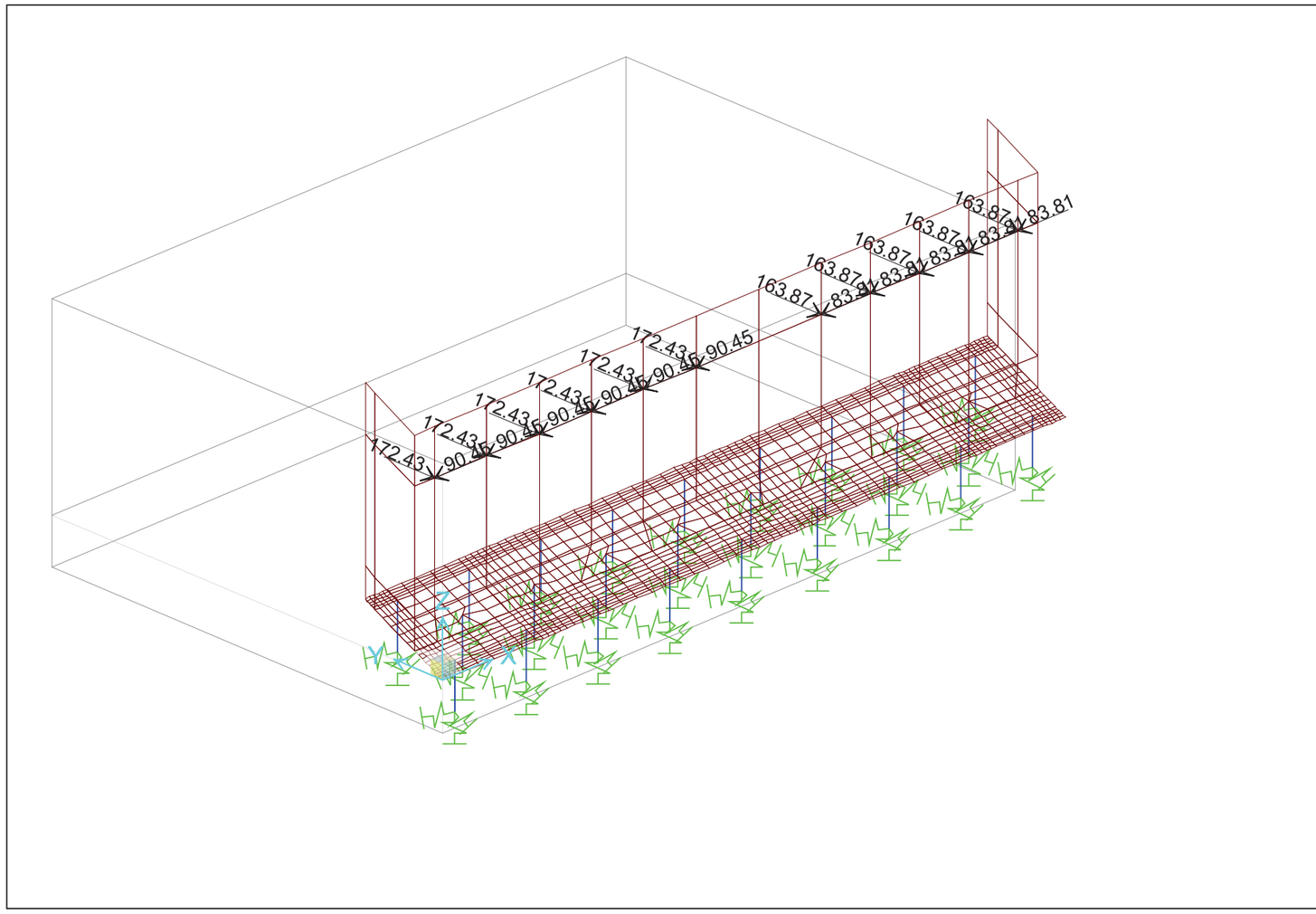
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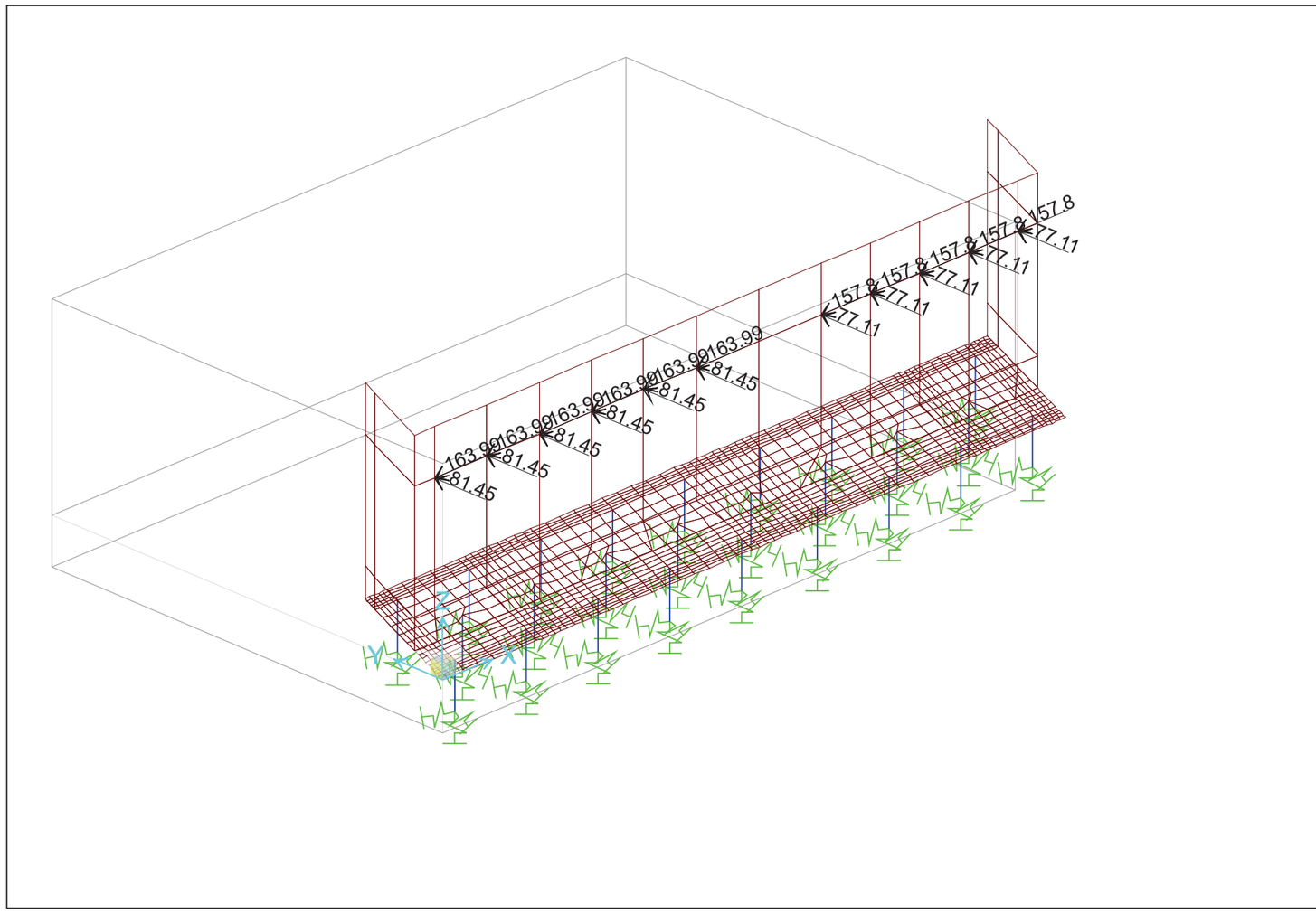
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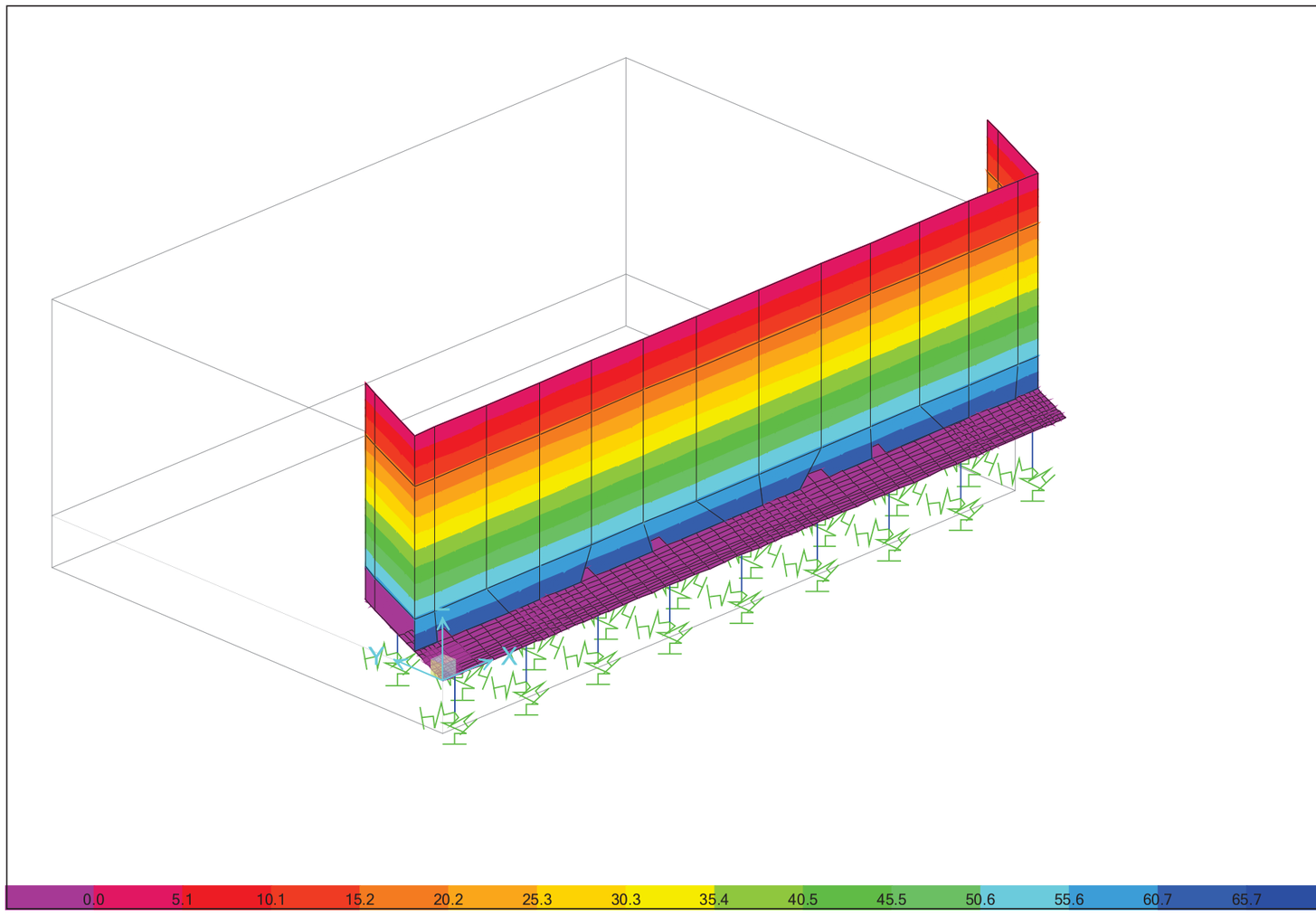
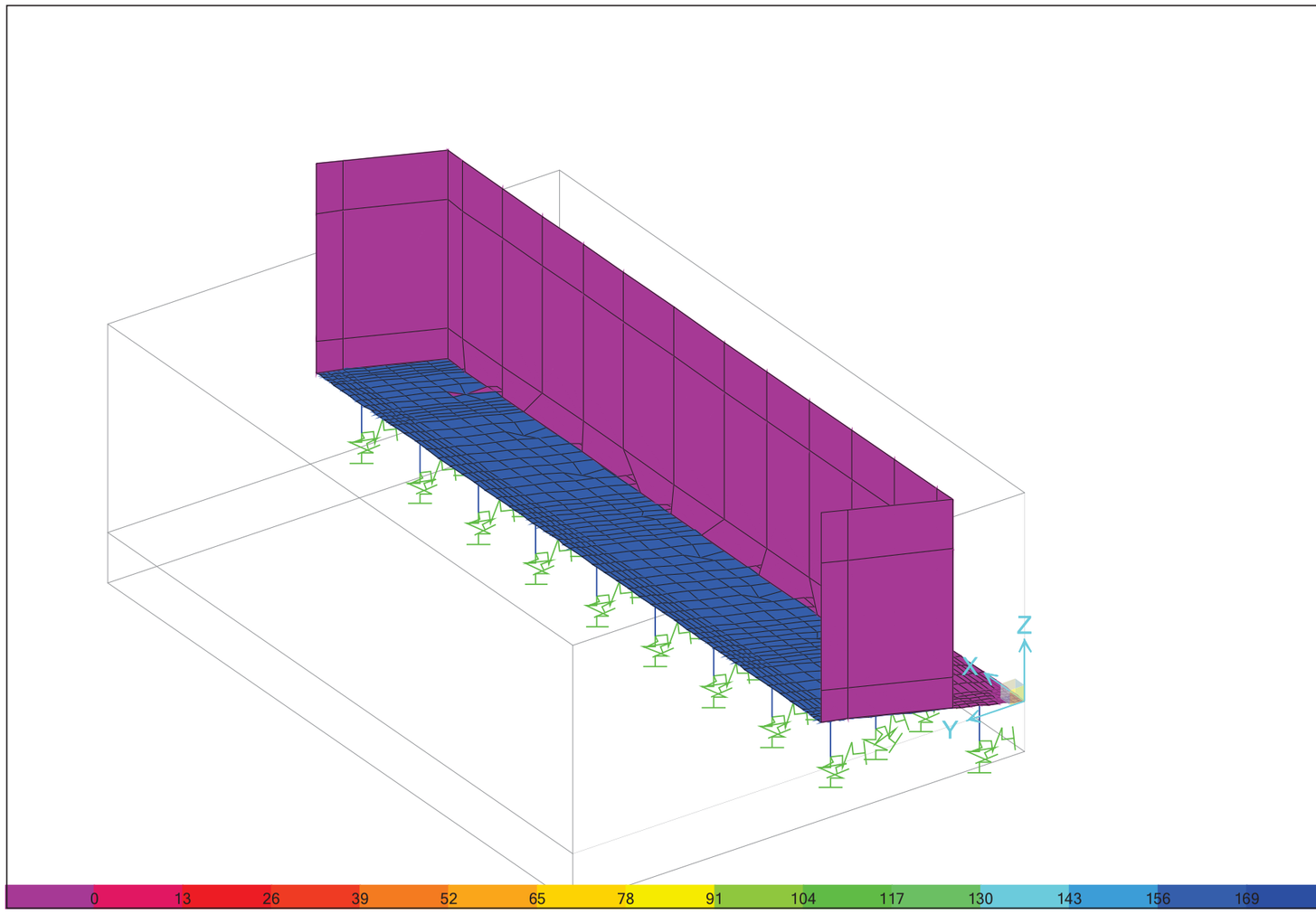
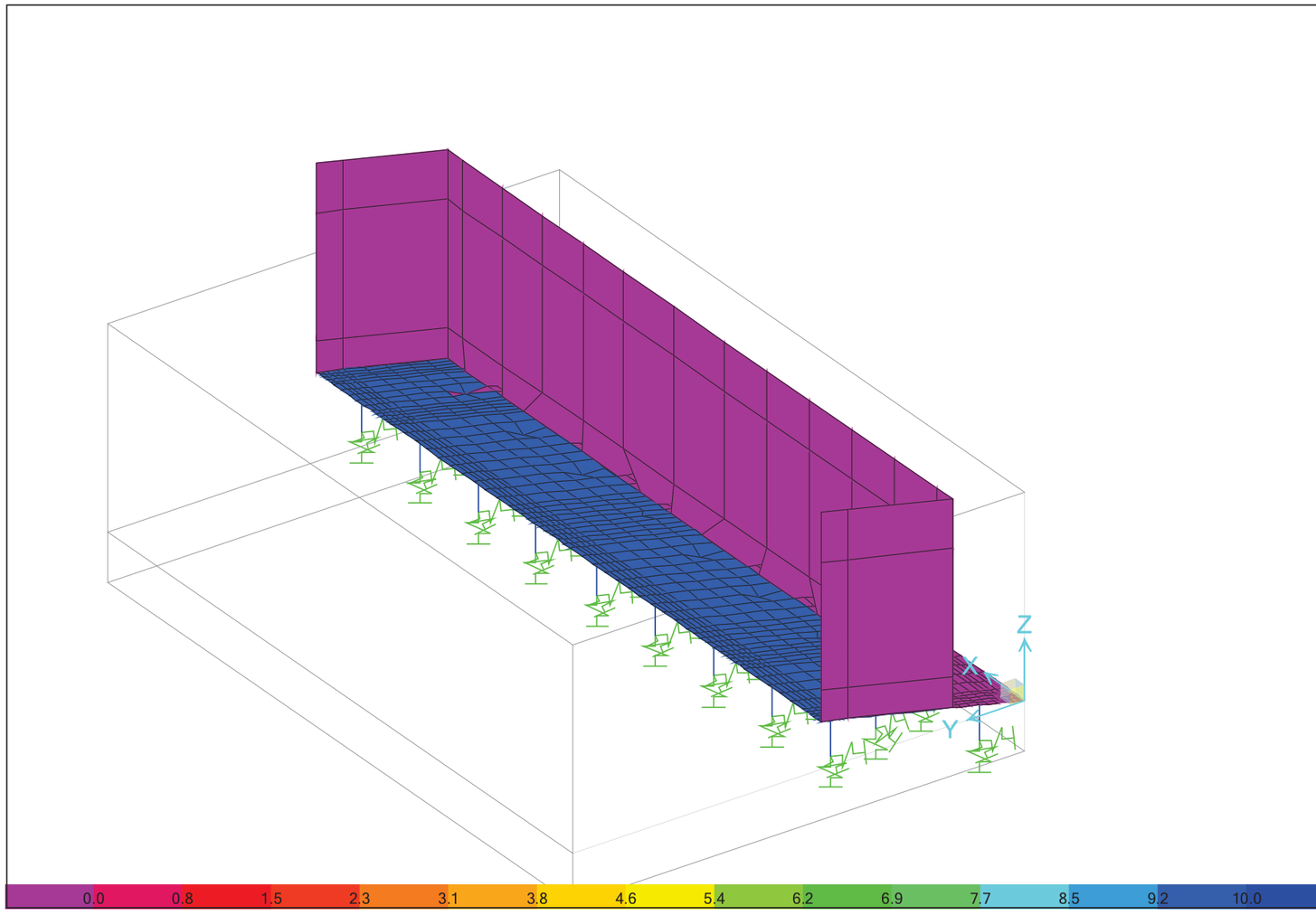


SAP2000 19.0.0 Area Surface Pressure - Face Bottom (TIERRAS) KN, m, C



SAP2000 19.0.0 Area Uniform (TIERRAS) (Local - Gravity) KN, m, C



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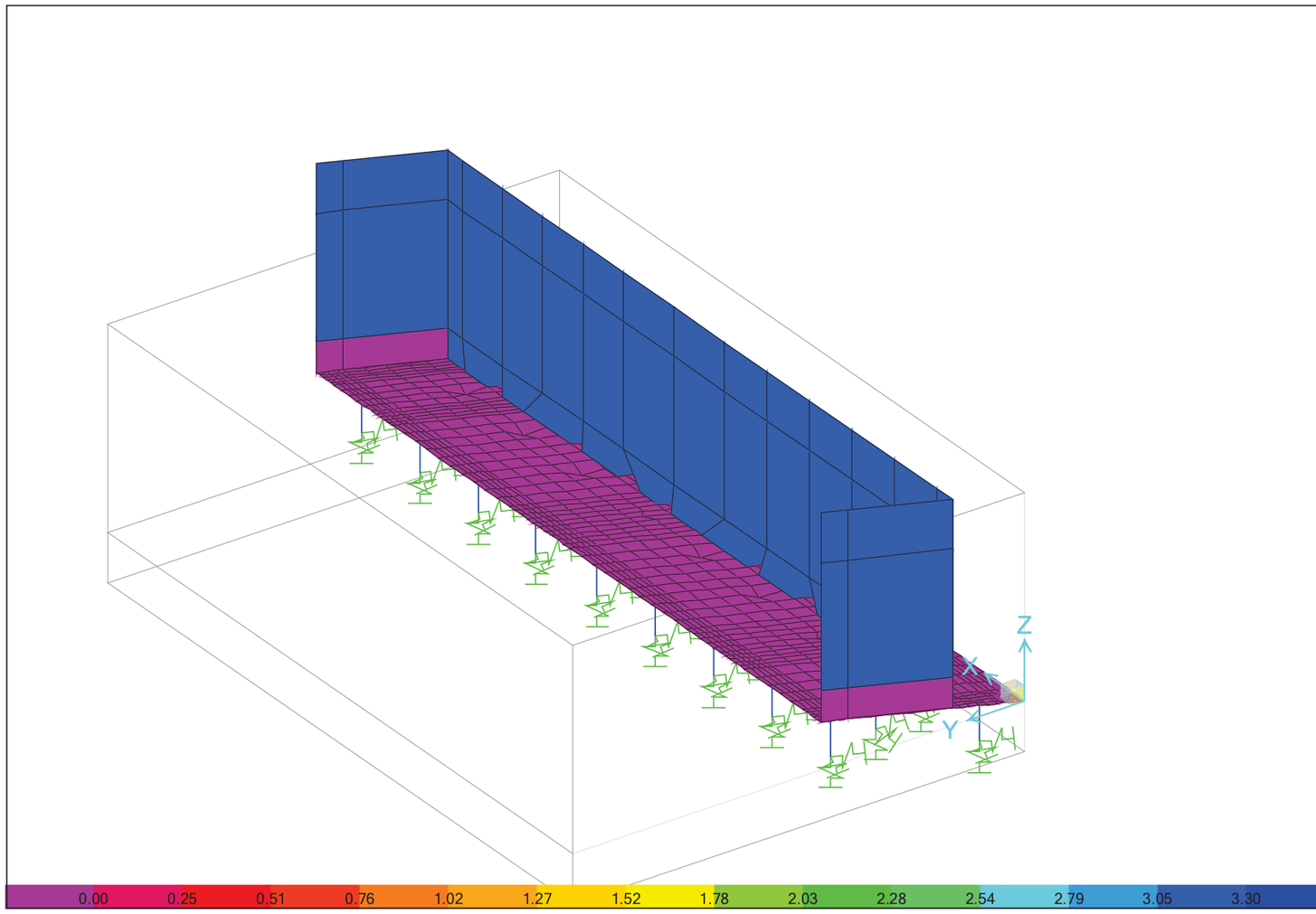


SAP2000 19.0.0 Area Surface Pressure - Face Bottom (SC_TRASDOS) KN, m, C

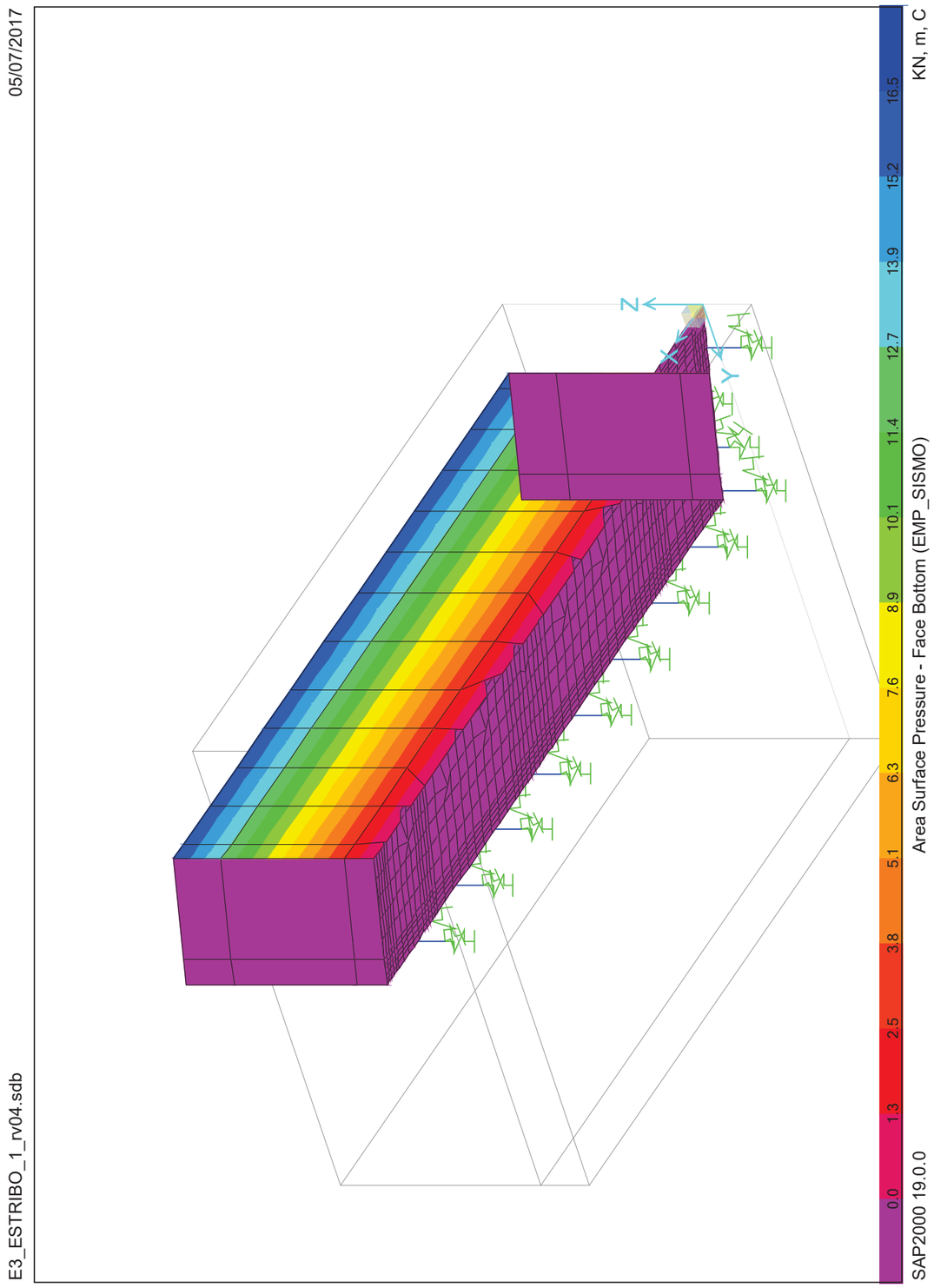


Table: Area Section Properties, Part 1 of 4

Table: Area Section Properties, Part 1 of 4

Section	Material	MatAngle	AreaType	Type	DrillDOF	Thickness	BendThick	Arc
		Degrees				m	m	Degrees
ALETA_65	HA30	0.	Shell	Shell-Thin	Yes	0.65	0.65	
ALETA_65_SP	HA30_SP	0.	Shell	Shell-Thin	Yes	0.65	0.65	
ENCEPADO_150	HA30	0.	Shell	Shell-Thin	Yes	1.5	1.5	
ESPALDON_60	HA30	0.	Shell	Shell-Thin	Yes	0.6	0.6	
MURO_110	HA30	0.	Shell	Shell-Thin	Yes	1.1	1.1	
MURO_110_SP	HA30_SP	0.	Shell	Shell-Thin	Yes	1.1	1.1	

Table: Area Section Properties, Part 2 of 4

Table: Area Section Properties, Part 2 of 4

Section	InComp	CoordSys	Color	TotalWt	TotalMass	F11Mod	F22Mod
				KN	KN-s2/m		
ALETA_65			Magenta	1538.359	156.87	1.	1.
ALETA_65_SP			Magenta	1.091E-06	1.113E-07	1.	1.
ENCEPADO_150			Magenta	11013.416	1123.06	1.	1.
ESPALDON_60			Magenta	1299.518	132.51	1.	1.
MURO_110			Magenta	6158.026	627.94	1.	1.
MURO_110_SP			Magenta	6.057E-06	6.176E-07	1.	1.

Table: Area Section Properties, Part 3 of 4

Table: Area Section Properties, Part 3 of 4

Section	F12Mod	M11Mod	M22Mod	M12Mod	V13Mod	V23Mod	MMod	WMod
ALETA_65	1.	1.	1.	1.	1.	1.	1.	1.
ALETA_65_SP	1.	1.	1.	1.	1.	1.	1.	1.
ENCEPADO_150	1.	1.	1.	1.	1.	1.	1.	1.
ESPALDON_60	1.	1.	1.	1.	1.	1.	1.	1.
MURO_110	1.	1.	1.	1.	1.	1.	1.	1.
MURO_110_SP	1.	1.	1.	1.	1.	1.	1.	1.

Table: Area Section Properties, Part 4 of 4

Table: Area Section Properties, Part 4 of 4

Section	GUID	Notes
ALETA_65		Added 30/06/2017 11:57:21

Table: Area Section Properties, Part 4 of 4

Section	GUID	Notes
ALETA_65_SP		Added 30/06/2017 12:25:39
ENCEPADO_150		Added 30/06/2017 11:52:36
ESPALDON_60		Added 30/06/2017 11:56:37
MURO_110		Added 30/06/2017 11:53:48
MURO_110_SP		Added 30/06/2017 12:25:25

Table: Area Section Property Design Parameters

Table: Area Section Property Design Parameters

Section	RebarMat	RebarOpt	CoverTop1	CoverTop2	CoverBot1	CoverBot2
			m	m	m	m
ALETA_65	B500S	Two Layers	0.05	0.05	0.05	0.05
ALETA_65_SP	B500S	Two Layers	0.05	0.05	0.05	0.05
ENCEPADO_150	B500S	Two Layers	0.05	0.05	0.05	0.05
ESPALDON_60	B500S	Two Layers	0.05	0.05	0.05	0.05
MURO_110	B500S	Two Layers	0.05	0.05	0.05	0.05
MURO_110_SP	B500S	Two Layers	0.05	0.05	0.05	0.05

Table: Case - Static 1 - Load Assignments

Table: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.
PP_TAB	Load pattern	PP_TAB	1.
CP_TAB	Load pattern	CP_TAB	1.
SC_TAB_DIST	Load pattern	SC_TAB_DIST	1.
SC_TAB_CARROS	Load pattern	SC_TAB_CARROS	1.
FRENADO	Load pattern	FRENADO	1.
RET_FLU	Load pattern	RET_FLU	1.
TEMP_UNIF	Load pattern	TEMP_UNIF	1.
VIENTO	Load pattern	VIENTO	1.
SISMO_LONG	Load pattern	SISMO_LONG	1.
SISMO_TRNS	Load pattern	SISMO_TRNS	1.
TIERRAS	Load pattern	TIERRAS	1.
SC_TRASDOS	Load pattern	SC_TRASDOS	1.
EMP_SISMO	Load pattern	EMP_SISMO	1.

Table: Combination Definitions, Part 1 of 3

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
CARACT_01	Linear Add	No	Linear Static	DEAD	1.	None
CARACT_01			Linear Static	PP_TAB	1.	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
CARACT_01			Linear Static	CP_TAB	1.	
CARACT_01			Linear Static	SC_TAB_DIST	1.	
CARACT_01			Linear Static	SC_TAB_CARROS	1.	
CARACT_01			Linear Static	FRENADO	0.	
CARACT_01			Linear Static	RET_FLU	1.	
CARACT_01			Linear Static	TEMP_UNIF	0.6	
CARACT_01			Linear Static	VIENTO	0.6	
CARACT_01			Linear Static	SISMO_LONG	0.	
CARACT_01			Linear Static	SISMO_TRNS	0.	
CARACT_01			Linear Static	TIERRAS	1.	
CARACT_01			Linear Static	SC_TRASDOS	1.	
CARACT_02	Linear Add	No	Linear Static	DEAD	1.	None
CARACT_02			Linear Static	PP_TAB	1.	
CARACT_02			Linear Static	CP_TAB	1.	
CARACT_02			Linear Static	SC_TAB_DIST	0.4	
CARACT_02			Linear Static	SC_TAB_CARROS	0.75	
CARACT_02			Linear Static	FRENADO	1.	
CARACT_02			Linear Static	RET_FLU	1.	
CARACT_02			Linear Static	TEMP_UNIF	0.6	
CARACT_02			Linear Static	VIENTO	0.6	
CARACT_02			Linear Static	SISMO_LONG	0.	
CARACT_02			Linear Static	SISMO_TRNS	0.	
CARACT_02			Linear Static	TIERRAS	1.	
CARACT_02			Linear Static	SC_TRASDOS	1.	
ELU_PER_01	Linear Add	No	Linear Static	DEAD	1.35	None
ELU_PER_01			Linear Static	PP_TAB	1.35	
ELU_PER_01			Linear Static	CP_TAB	1.35	
ELU_PER_01			Linear Static	SC_TAB_DIST	1.35	
ELU_PER_01			Linear Static	SC_TAB_CARROS	1.35	
ELU_PER_01			Linear Static	FRENADO	0.	
ELU_PER_01			Linear Static	RET_FLU	1.35	
ELU_PER_01			Linear Static	TEMP_UNIF	0.9	
ELU_PER_01			Linear Static	VIENTO	0.9	
ELU_PER_01			Linear Static	SISMO_LONG	0.	
ELU_PER_01			Linear Static	SISMO_TRNS	0.	
ELU_PER_01			Linear Static	TIERRAS	1.35	
ELU_PER_01			Linear Static	SC_TRASDOS	1.5	
ELU_PER_02	Linear Add	No	Linear Static	DEAD	1.35	None
ELU_PER_02			Linear Static	PP_TAB	1.35	
ELU_PER_02			Linear Static	CP_TAB	1.35	
ELU_PER_02			Linear Static	SC_TAB_DIST	0.54	
ELU_PER_02			Linear Static	SC_TAB_CARROS	1.0125	
ELU_PER_02			Linear Static	FRENADO	1.35	
ELU_PER_02			Linear Static	RET_FLU	1.35	
ELU_PER_02			Linear Static	TEMP_UNIF	0.9	
ELU_PER_02			Linear Static	VIENTO	0.9	
ELU_PER_02			Linear Static	SISMO_LONG	0.	
ELU_PER_02			Linear Static	SISMO_TRNS	0.	
ELU_PER_02			Linear Static	TIERRAS	1.35	
ELU_PER_02			Linear Static	SC_TRASDOS	1.5	
ELU_SISMO	Linear Add	No	Linear Static	DEAD	1.	None
ELU_SISMO			Linear Static	PP_TAB	1.	
ELU_SISMO			Linear Static	CP_TAB	1.	
ELU_SISMO			Linear Static	SC_TAB_DIST	0.	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELU_SISMO			Linear Static	SC_TAB_CARROS	0.	
ELU_SISMO			Linear Static	FRENADO	0.	
ELU_SISMO			Linear Static	RET_FLU	1.	
ELU_SISMO			Linear Static	TEMP_UNIF	0.	
ELU_SISMO			Linear Static	VIENTO	0.	
ELU_SISMO			Linear Static	SISMO_LONG	1.	
ELU_SISMO			Linear Static	SISMO_TRNS	0.3	
ELU_SISMO			Linear Static	TIERRAS	1.	
ELU_SISMO			Linear Static	SC_TRASDOS	0.	
ELU_SISMO			Linear Static	EMP_SISMO	1.	
ENV_ELU	Envelope	No	Response Combo	ELU_PER_01	1.	None
ENV_ELU			Response Combo	ELU_PER_02	1.	
ENV_ELU			Response Combo	ELU_SISMO	1.	

Table: Combination Definitions, Part 2 of 3

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
CARACT_01	DEAD	None	None	None
CARACT_01	PP_TAB			
CARACT_01	CP_TAB			
CARACT_01	SC_TAB_DIST			
CARACT_01	SC_TAB_CARROS			
CARACT_01	FRENADO			
CARACT_01	RET_FLU			
CARACT_01	TEMP_UNIF			
CARACT_01	VIENTO			
CARACT_01	SISMO_LONG			
CARACT_01	SISMO_TRNS			
CARACT_01	TIERRAS			
CARACT_01	SC_TRASDOS			
CARACT_02	DEAD	None	None	None
CARACT_02	PP_TAB			
CARACT_02	CP_TAB			
CARACT_02	SC_TAB_DIST			
CARACT_02	SC_TAB_CARROS			
CARACT_02	FRENADO			
CARACT_02	RET_FLU			
CARACT_02	TEMP_UNIF			
CARACT_02	VIENTO			
CARACT_02	SISMO_LONG			
CARACT_02	SISMO_TRNS			
CARACT_02	TIERRAS			
CARACT_02	SC_TRASDOS			
ELU_PER_01	DEAD	None	None	None
ELU_PER_01	PP_TAB			
ELU_PER_01	CP_TAB			
ELU_PER_01	SC_TAB_DIST			
ELU_PER_01	SC_TAB_CARROS			
ELU_PER_01	FRENADO			
ELU_PER_01	RET_FLU			
ELU_PER_01	TEMP_UNIF			

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
ELU_PER_01	VIENTO			
ELU_PER_01	SISMO_LONG			
ELU_PER_01	SISMO_TRNS			
ELU_PER_01	TIERRAS			
ELU_PER_01	SC_TRASDOS			
ELU_PER_02	DEAD	None	None	None
ELU_PER_02	PP_TAB			
ELU_PER_02	CP_TAB			
ELU_PER_02	SC_TAB_DIST			
ELU_PER_02	SC_TAB_CARROS			
ELU_PER_02	FRENADO			
ELU_PER_02	RET_FLU			
ELU_PER_02	TEMP_UNIF			
ELU_PER_02	VIENTO			
ELU_PER_02	SISMO_LONG			
ELU_PER_02	SISMO_TRNS			
ELU_PER_02	TIERRAS			
ELU_PER_02	SC_TRASDOS			
ELU_SISMO	DEAD	None	None	None
ELU_SISMO	PP_TAB			
ELU_SISMO	CP_TAB			
ELU_SISMO	SC_TAB_DIST			
ELU_SISMO	SC_TAB_CARROS			
ELU_SISMO	FRENADO			
ELU_SISMO	RET_FLU			
ELU_SISMO	TEMP_UNIF			
ELU_SISMO	VIENTO			
ELU_SISMO	SISMO_LONG			
ELU_SISMO	SISMO_TRNS			
ELU_SISMO	TIERRAS			
ELU_SISMO	SC_TRASDOS			
ELU_SISMO	EMP_SISMO			
ENV_ELU	ELU_PER_01	None	None	None
ENV_ELU	ELU_PER_02			
ENV_ELU	ELU_SISMO			

Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
CARACT_01	DEAD	1944e32f-48c0-48ba-b440-52a7e20d037d	
CARACT_01	PP_TAB		
CARACT_01	CP_TAB		
CARACT_01	SC_TAB_DIST		
CARACT_01	SC_TAB_CARROS		
CARACT_01	FRENADO		
CARACT_01	RET_FLU		
CARACT_01	TEMP_UNIF		
CARACT_01	VIENTO		
CARACT_01	SISMO_LONG		
CARACT_01	SISMO_TRNS		
CARACT_01	TIERRAS		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
CARACT_01	SC_TRASDOS		
CARACT_02	DEAD	3d366a21-eb93-4c99-855f-418d8e1c9e00	
CARACT_02	PP_TAB		
CARACT_02	CP_TAB		
CARACT_02	SC_TAB_DIST		
CARACT_02	SC_TAB_CARROS		
CARACT_02	FRENADO		
CARACT_02	RET_FLU		
CARACT_02	TEMP_UNIF		
CARACT_02	VIENTO		
CARACT_02	SISMO_LONG		
CARACT_02	SISMO_TRNS		
CARACT_02	TIERRAS		
CARACT_02	SC_TRASDOS		
ELU_PER_01	DEAD	ab4dcc1b-b883-4d76-b0bf-dc2dce029eb8	
ELU_PER_01	PP_TAB		
ELU_PER_01	CP_TAB		
ELU_PER_01	SC_TAB_DIST		
ELU_PER_01	SC_TAB_CARROS		
ELU_PER_01	FRENADO		
ELU_PER_01	RET_FLU		
ELU_PER_01	TEMP_UNIF		
ELU_PER_01	VIENTO		
ELU_PER_01	SISMO_LONG		
ELU_PER_01	SISMO_TRNS		
ELU_PER_01	TIERRAS		
ELU_PER_01	SC_TRASDOS		
ELU_PER_02	DEAD	f221a8e3-5ed0-462a-8c26-950e2d7f6812	
ELU_PER_02	PP_TAB		
ELU_PER_02	CP_TAB		
ELU_PER_02	SC_TAB_DIST		
ELU_PER_02	SC_TAB_CARROS		
ELU_PER_02	FRENADO		
ELU_PER_02	RET_FLU		
ELU_PER_02	TEMP_UNIF		
ELU_PER_02	VIENTO		
ELU_PER_02	SISMO_LONG		
ELU_PER_02	SISMO_TRNS		
ELU_PER_02	TIERRAS		
ELU_PER_02	SC_TRASDOS		
ELU_SISMO	DEAD	3e11da59-c988-4994-9b57-ee5bd836ce72	
ELU_SISMO	PP_TAB		
ELU_SISMO	CP_TAB		
ELU_SISMO	SC_TAB_DIST		
ELU_SISMO	SC_TAB_CARROS		
ELU_SISMO	FRENADO		
ELU_SISMO	RET_FLU		
ELU_SISMO	TEMP_UNIF		
ELU_SISMO	VIENTO		
ELU_SISMO	SISMO_LONG		
ELU_SISMO	SISMO_TRNS		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ELU_SISMO	TIERRAS		
ELU_SISMO	SC_TRASDOS		
ELU_SISMO	EMP_SISMO		
ENV_ELU	ELU_PER_01	20114545-3904-4264-b538-ab9871c4fe1d	
ENV_ELU	ELU_PER_02		
ENV_ELU	ELU_SISMO		

Table: Frame Section Assignments

Table: Frame Section Assignments

Frame	SectionType	AutoSelect	AnalSect	DesignSect	MatProp
19	Circular	N.A.	PILOTE_125	PILOTE_125	Default
20	Circular	N.A.	PILOTE_125	PILOTE_125	Default
21	Circular	N.A.	PILOTE_125	PILOTE_125	Default
22	Circular	N.A.	PILOTE_125	PILOTE_125	Default
23	Circular	N.A.	PILOTE_125	PILOTE_125	Default
24	Circular	N.A.	PILOTE_125	PILOTE_125	Default
25	Circular	N.A.	PILOTE_125	PILOTE_125	Default
26	Circular	N.A.	PILOTE_125	PILOTE_125	Default
27	Circular	N.A.	PILOTE_125	PILOTE_125	Default
28	Circular	N.A.	PILOTE_125	PILOTE_125	Default
29	Circular	N.A.	PILOTE_125	PILOTE_125	Default
30	Circular	N.A.	PILOTE_125	PILOTE_125	Default
31	Circular	N.A.	PILOTE_125	PILOTE_125	Default
32	Circular	N.A.	PILOTE_125	PILOTE_125	Default
33	Circular	N.A.	PILOTE_125	PILOTE_125	Default
34	Circular	N.A.	PILOTE_125	PILOTE_125	Default
35	Circular	N.A.	PILOTE_125	PILOTE_125	Default
36	Circular	N.A.	PILOTE_125	PILOTE_125	Default
43	Circular	N.A.	PILOTE_125	PILOTE_125	Default
44	Circular	N.A.	PILOTE_125	PILOTE_125	Default
45	Circular	N.A.	PILOTE_125	PILOTE_125	Default
46	Circular	N.A.	PILOTE_125	PILOTE_125	Default
47	Circular	N.A.	PILOTE_125	PILOTE_125	Default
48	Circular	N.A.	PILOTE_125	PILOTE_125	Default
49	Circular	N.A.	PILOTE_125	PILOTE_125	Default
50	Circular	N.A.	PILOTE_125	PILOTE_125	Default

Table: Frame Section Properties 01 - General, Part 1 of 5

Table: Frame Section Properties 01 - General, Part 1 of 5

SectionName	Material	Shape	t3	Area	TorsConst	I33
			m	m2	m4	m4
PILOTE_125	HA30	Circle	1.25	1.227185	0.239684	0.119842

Table: Frame Section Properties 01 - General, Part 2 of 5

Table: Frame Section Properties 01 - General, Part 2 of 5

SectionName	I22	I23	AS2	AS3	S33	S22	Z33
	m4	m4	m2	m2	m3	m3	m3
PILOTE_125	0.119842	0.	1.104466	1.104466	0.191748	0.191748	0.325521

Table: Frame Section Properties 01 - General, Part 3 of 5

Table: Frame Section Properties 01 - General, Part 3 of 5

SectionName	Z22	R33	R22	ConcCol	ConcBeam	Color	TotalWt
	m3	m	m				KN
PILOTE_125	0.325521	0.3125	0.3125	Yes	No	Red	1914.408

Table: Frame Section Properties 01 - General, Part 4 of 5

Table: Frame Section Properties 01 - General, Part 4 of 5

SectionName	TotalMass	FromFile	AMod	A2Mod	A3Mod	JMod	I2Mod
	KN-s2/m						
PILOTE_125	195.22	No	1.	1.	1.	1.	1.

Table: Frame Section Properties 01 - General, Part 5 of 5

Table: Frame Section Properties 01 - General, Part 5 of 5

SectionName	I3Mod	MMod	WMod	GUID	Notes
PILOTE_125	1.	1.	1.		Added 30/06/2017 11:51:44

Table: Frame Section Properties 02 - Concrete Column, Part 1 of 2

Table: Frame Section Properties 02 - Concrete Column, Part 1 of 2

SectionName	RebarMatL	RebarMatC	ReinfConfig	LatReinf	Cover	NumBarsCirc	BarSizeL	BarSizeC
					m			
PILOTE_125	A615Gr60	A615Gr60	Circular	Ties	0.04	8	#9	#4

Table: Frame Section Properties 02 - Concrete Column, Part 2 of 2

Table: Frame Section Properties 02 - Concrete Column, Part 2 of 2

SectionName	SpacingC	ReinfType
	m	
PILOTE_125	0.15	Design

Table: Joint Loads - Force, Part 1 of 2

Table: Joint Loads - Force, Part 1 of 2

Joint	LoadPat	CoordSys	F1	F2	F3	M1	M2
			KN	KN	KN	KN-m	KN-m
108	PP_TAB	GLOBAL	0.	0.	-404.3	0.	0.
108	CP_TAB	GLOBAL	0.	0.	-168.48	0.	0.
108	FRENADO	Local	-17.32	-39.2	0.	0.	0.

Table: Joint Loads - Force, Part 1 of 2

Joint	LoadPat	CoordSys	F1	F2	F3	M1	M2
			KN	KN	KN	KN-m	KN-m
108	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
108	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
108	VIENTO	Local	-19.07	9.1	0.	0.	0.
108	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.
108	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
108	SC_TAB_CARROS	GLOBAL	0.	0.	-219.544	0.	0.
108	SC_TAB_DIST	GLOBAL	0.	0.	-148.453	0.	0.
109	PP_TAB	GLOBAL	0.	0.	-485.6	0.	0.
109	CP_TAB	GLOBAL	0.	0.	-152.988	0.	0.
109	FRENADO	Local	-17.32	-39.2	0.	0.	0.
109	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
109	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
109	VIENTO	Local	-19.07	9.1	0.	0.	0.
109	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.
109	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
109	SC_TAB_CARROS	GLOBAL	0.	0.	-567.018	0.	0.
109	SC_TAB_DIST	GLOBAL	0.	0.	-325.087	0.	0.
110	PP_TAB	GLOBAL	0.	0.	-485.6	0.	0.
110	CP_TAB	GLOBAL	0.	0.	-145.782	0.	0.
110	FRENADO	Local	-17.32	-39.2	0.	0.	0.
110	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
110	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
110	VIENTO	Local	-19.07	9.1	0.	0.	0.
110	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.
110	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
110	SC_TAB_CARROS	GLOBAL	0.	0.	-238.2	0.	0.
110	SC_TAB_DIST	GLOBAL	0.	0.	-75.604	0.	0.
111	PP_TAB	GLOBAL	0.	0.	-485.6	0.	0.
111	CP_TAB	GLOBAL	0.	0.	-145.782	0.	0.
111	FRENADO	Local	-17.32	-39.2	0.	0.	0.
111	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
111	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
111	VIENTO	Local	-19.07	9.1	0.	0.	0.
111	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.
111	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
111	SC_TAB_CARROS	GLOBAL	0.	0.	-238.2	0.	0.
111	SC_TAB_DIST	GLOBAL	0.	0.	-75.604	0.	0.
112	PP_TAB	GLOBAL	0.	0.	-485.6	0.	0.
112	CP_TAB	GLOBAL	0.	0.	-152.988	0.	0.
112	FRENADO	Local	-17.32	-39.2	0.	0.	0.
112	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
112	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
112	VIENTO	Local	-19.07	9.1	0.	0.	0.
112	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.
112	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
112	SC_TAB_CARROS	GLOBAL	0.	0.	-567.018	0.	0.
112	SC_TAB_DIST	GLOBAL	0.	0.	-325.087	0.	0.
113	PP_TAB	GLOBAL	0.	0.	-404.3	0.	0.
113	CP_TAB	GLOBAL	0.	0.	-168.48	0.	0.
113	FRENADO	Local	-17.32	-39.2	0.	0.	0.
113	RET_FLU	Local	-29.4	-68.95	0.	0.	0.
113	TEMP_UNIF	Local	-6.9	-16.17	0.	0.	0.
113	VIENTO	Local	-19.07	9.1	0.	0.	0.
113	SISMO_LONG	Local	-90.45	-172.43	0.	0.	0.

Table: Joint Loads - Force, Part 1 of 2

Joint	LoadPat	CoordSys	F1	F2	F3	M1	M2
			KN	KN	KN	KN-m	KN-m
113	SISMO_TRNS	Local	-163.99	81.45	0.	0.	0.
113	SC_TAB_CARROS	GLOBAL	0.	0.	-219.544	0.	0.
113	SC_TAB_DIST	GLOBAL	0.	0.	-148.453	0.	0.
114	PP_TAB	GLOBAL	0.	0.	-396.6	0.	0.
114	CP_TAB	GLOBAL	0.	0.	-165.706	0.	0.
114	FRENADO	Local	-21.98	-48.41	0.	0.	0.
114	RET_FLU	Local	-30.1	-70.29	0.	0.	0.
114	TEMP_UNIF	Local	-6.92	-16.17	0.	0.	0.
114	VIENTO	Local	-20.9	10.22	0.	0.	0.
114	SISMO_LONG	Local	-83.81	-163.87	0.	0.	0.
114	SISMO_TRNS	Local	-157.8	77.11	0.	0.	0.
114	SC_TAB_CARROS	GLOBAL	0.	0.	-207.667	0.	0.
114	SC_TAB_DIST	GLOBAL	0.	0.	-138.13	0.	0.
115	PP_TAB	GLOBAL	0.	0.	-470.2	0.	0.
115	CP_TAB	GLOBAL	0.	0.	-142.851	0.	0.
115	FRENADO	Local	-21.98	-48.41	0.	0.	0.
115	RET_FLU	Local	-30.1	-70.29	0.	0.	0.
115	TEMP_UNIF	Local	-6.92	-16.17	0.	0.	0.
115	VIENTO	Local	-20.9	10.22	0.	0.	0.
115	SISMO_LONG	Local	-83.81	-163.87	0.	0.	0.
115	SISMO_TRNS	Local	-157.8	77.11	0.	0.	0.
115	SC_TAB_CARROS	GLOBAL	0.	0.	-536.164	0.	0.
115	SC_TAB_DIST	GLOBAL	0.	0.	-323.731	0.	0.
116	PP_TAB	GLOBAL	0.	0.	-470.2	0.	0.
116	CP_TAB	GLOBAL	0.	0.	-136.261	0.	0.
116	FRENADO	Local	-21.98	-48.41	0.	0.	0.
116	RET_FLU	Local	-30.1	-70.29	0.	0.	0.
116	TEMP_UNIF	Local	-6.92	-16.17	0.	0.	0.
116	VIENTO	Local	-20.9	10.22	0.	0.	0.
116	SISMO_LONG	Local	-83.81	-163.87	0.	0.	0.
116	SISMO_TRNS	Local	-157.8	77.11	0.	0.	0.
116	SC_TAB_CARROS	GLOBAL	0.	0.	-295.074	0.	0.
116	SC_TAB_DIST	GLOBAL	0.	0.	-69.277	0.	0.
117	PP_TAB	GLOBAL	0.	0.	-470.2	0.	0.
117	CP_TAB	GLOBAL	0.	0.	-142.851	0.	0.
117	FRENADO	Local	-21.98	-48.41	0.	0.	0.
117	RET_FLU	Local	-30.1	-70.29	0.	0.	0.
117	TEMP_UNIF	Local	-6.92	-16.17	0.	0.	0.
117	VIENTO	Local	-20.9	10.22	0.	0.	0.
117	SISMO_LONG	Local	-83.81	-163.87	0.	0.	0.
117	SISMO_TRNS	Local	-157.8	77.11	0.	0.	0.
117	SC_TAB_CARROS	GLOBAL	0.	0.	-536.164	0.	0.
117	SC_TAB_DIST	GLOBAL	0.	0.	-323.731	0.	0.
118	PP_TAB	GLOBAL	0.	0.	-396.6	0.	0.
118	CP_TAB	GLOBAL	0.	0.	-165.706	0.	0.
118	FRENADO	Local	-21.98	-48.41	0.	0.	0.
118	RET_FLU	Local	-30.1	-70.29	0.	0.	0.
118	TEMP_UNIF	Local	-6.92	-16.17	0.	0.	0.
118	VIENTO	Local	-20.9	10.22	0.	0.	0.
118	SISMO_LONG	Local	-83.81	-163.87	0.	0.	0.
118	SISMO_TRNS	Local	-157.8	77.11	0.	0.	0.
118	SC_TAB_CARROS	GLOBAL	0.	0.	-207.667	0.	0.
118	SC_TAB_DIST	GLOBAL	0.	0.	-138.13	0.	0.

Table: Joint Loads - Force, Part 2 of 2

Table: Joint Loads - Force, Part 2 of 2

Joint	LoadPat	M3	GUID
		KN-m	
108	PP_TAB	0.	f47e0b85-be7c-4395-8abd-5d10b549e288
108	CP_TAB	0.	efec3cd2-2f83-433b-924e-08df0eae53fc
108	FRENADO	0.	c0f400fd-c35b-41e6-b5ab-663a6351afdc
108	RET_FLU	0.	97602a63-9dfc-4a6f-b599-e69cfc56b9eb
108	TEMP_UNIF	0.	b3a0ef2d-f12f-4178-a21e-1a08c0739dbf
108	VIENTO	0.	b3035ab0-e95e-4702-b83c-ba97c43bf27e
108	SISMO_LONG	0.	f18233bb-1703-462a-b937-6150921ad261
108	SISMO_TRNS	0.	d30704e2-3f06-4e60-911a-8a19dd48221e
108	SC_TAB_CARROS	0.	b62c0df1-bdb4-4f99-afe2-b9936c895053
108	SC_TAB_DIST	0.	03f0a7e2-694f-4374-b078-e9cec2550c57
109	PP_TAB	0.	15a9c80e-663e-471f-9ccc-fe2e25ba003a
109	CP_TAB	0.	f7439dc7-2268-4b74-b9eb-3a45caa7b87c
109	FRENADO	0.	b0215cf5-b4ba-4a84-9934-2364ca032417
109	RET_FLU	0.	854c613f-6ec1-464f-afb4-22cfff4c95c4
109	TEMP_UNIF	0.	d8887253-a578-4cee-9d5a-23ec71db5c0f
109	VIENTO	0.	a8a5b972-7bf0-4d8a-92bb-6525ab28602b
109	SISMO_LONG	0.	9192c180-c0dc-4792-9186-c91ac45ffa16
109	SISMO_TRNS	0.	bcb2193e-725f-4824-ae2e-8be36e745b24
109	SC_TAB_CARROS	0.	5f3c90b3-5bd5-4f12-bc84-6381b32fc2f1
109	SC_TAB_DIST	0.	02764ca5-2454-4548-86bf-091dae576651
110	PP_TAB	0.	e8cf5af8-c734-405f-820d-c5ea50491d16
110	CP_TAB	0.	44c83a1b-e749-4b03-ba37-8f54dff89407
110	FRENADO	0.	79ca841f-cd94-45f7-862c-bbdf509dea71
110	RET_FLU	0.	bfac1358-ad2a-47e8-809f-0746c1fa661d
110	TEMP_UNIF	0.	c5df8ba3-6f44-4b0f-afe8-b19a8d2698e9
110	VIENTO	0.	82a9d273-d4ca-4aeb-9d52-7ed163e887c0
110	SISMO_LONG	0.	fb178ba3-2a7a-4d2c-bdc8-0e7398e89ff4
110	SISMO_TRNS	0.	f3c099b1-ee1b-4ec5-9ffc-b49915e1b1ab

Table: Joint Loads - Force, Part 2 of 2

Joint	LoadPat	M3	GUID
		KN-m	
110	SC_TAB_CARROS	0.	a9c26527-44c1-49a5-ab79-7e859efb72a3
110	SC_TAB_DIST	0.	f9de2963-eac4-4dff-93e0-6c3fc49ad642
111	PP_TAB	0.	97e69f7d-486c-48af-b7ca-89e5270f1d96
111	CP_TAB	0.	b4a4a101-6119-45d0-b728-b2d8d172c99d
111	FRENADO	0.	3d714daf-8cf4-4616-96d3-ce0d1cb7a428
111	RET_FLU	0.	bd4419a1-a444-4d2f-b08c-b98ab1f888fe
111	TEMP_UNIF	0.	38013824-d4c9-4d57-8ff0-17c1b8047568
111	VIENTO	0.	99b919ef-73fb-4da4-9bf8-2c3a4f65c08b
111	SISMO_LONG	0.	ec721289-95d1-4901-b71a-df25b49a86bc
111	SISMO_TRNS	0.	042cec58-3e3f-4277-89bc-789ead77a839
111	SC_TAB_CARROS	0.	a8e03f68-89c5-4e12-a2ed-f6165869f37e
111	SC_TAB_DIST	0.	3aea027e-572e-409c-a40c-59ccbe77f351
112	PP_TAB	0.	d5fecf7a-1c01-4031-b838-7458d664a947
112	CP_TAB	0.	97e41dd6-fb93-4191-b0a4-41e43852aae9
112	FRENADO	0.	7954eed3-3de1-4f55-aa28-05cf5a7feb47
112	RET_FLU	0.	b0611016-d877-435d-86a7-a084cad0209f
112	TEMP_UNIF	0.	1f7783f5-f7a4-403a-ad4a-3daaed76c5e1
112	VIENTO	0.	814a693e-d612-40b8-a572-b522e78024a1
112	SISMO_LONG	0.	624451b4-d205-4981-9155-cc5919599a67
112	SISMO_TRNS	0.	ce637082-4d84-4327-8db6-0e7d95b8aeee
112	SC_TAB_CARROS	0.	504ad503-3675-4736-86cd-eed390327b60
112	SC_TAB_DIST	0.	d1157208-a48d-42e7-9c8d-cd9d3a4e788f
113	PP_TAB	0.	1c85a47d-108f-4a53-bfba-4389b3f96871
113	CP_TAB	0.	a5eee723-3949-4142-9969-7635a2176a6e
113	FRENADO	0.	888d2bab-02b7-4072-a84d-255197a06ce3
113	RET_FLU	0.	a094b655-d88b-4be4-938b-2fc9bf3b9464
113	TEMP_UNIF	0.	1982e753-033c-4e98-89ad-c9ed782103b1
113	VIENTO	0.	cece060b-6e29-401c-9704-0161b2df2b87
113	SISMO_LONG	0.	b28dc51f-9678-48b6-8f58-2043a1b7a63e
113	SISMO_TRNS	0.	0e6a7395-b886-428d-860d-c1d8c2b994b8

Table: Joint Loads - Force, Part 2 of 2

Joint	LoadPat	M3	GUID
		KN-m	
113	SC_TAB_CARROS	0.	1204073e-22aa-471c-be06-cb5912192b0f
113	SC_TAB_DIST	0.	cd385764-d55b-4132-94f1-04a68c175d6e
114	PP_TAB	0.	548b2786-ec1c-48a7-82c5-b13f23a904c5
114	CP_TAB	0.	2944ac9c-3385-46d3-a856-4f9fb5e0cf01
114	FRENADO	0.	69af8184-01a5-4a33-a527-a9e4a08b731a
114	RET_FLU	0.	346f6d5a-e04d-490f-9eb4-16c0476e6d76
114	TEMP_UNIF	0.	60644994-d74c-42ef-b1ca-4d1557949317
114	VIENTO	0.	66d0661c-5cc8-4bf9-ac86-63046080dd3d
114	SISMO_LONG	0.	33aab485-8ba8-4ec3-ad6e-0f67d74e82f5
114	SISMO_TRNS	0.	9fd89b12-35d2-45ba-9750-972145cd8d01
114	SC_TAB_CARROS	0.	b28b93b1-ce9e-4293-b8a8-5f4d81106ebc
114	SC_TAB_DIST	0.	3e298a4d-9be0-4898-b431-5ed198970195
115	PP_TAB	0.	18b793b9-c33e-4094-ae94-45006058f362
115	CP_TAB	0.	24ee4e89-d54f-4b76-bd4c-d1682cca16cd
115	FRENADO	0.	cefbe2d7-7763-412c-a7be-cce12dab7887
115	RET_FLU	0.	9253b877-bf18-40d2-a45f-023f06b0ba01
115	TEMP_UNIF	0.	b167c76e-cc6e-402d-87f2-06607c2fafd8
115	VIENTO	0.	c93316cc-f7f7-4ec4-948a-49d08815713b
115	SISMO_LONG	0.	654aaa1a-733a-41df-8d35-a53944efb771
115	SISMO_TRNS	0.	ee33c950-ce12-470d-8ffc-18ef6968f0aa
115	SC_TAB_CARROS	0.	0e800417-e3d3-47db-b2e1-c227803568a2
115	SC_TAB_DIST	0.	c272c9d0-9ba6-425d-84b8-2a0b1bc0d990
116	PP_TAB	0.	c356c73f-8aec-41c2-af1f-052862aceb10
116	CP_TAB	0.	d547af56-99e4-488d-9046-3c1974b20269
116	FRENADO	0.	0ccc3df5-87d0-4a4d-96a1-d305846695f7
116	RET_FLU	0.	820a7a44-8ac7-45c0-a3e9-21b76f746d17
116	TEMP_UNIF	0.	b8dd2ac5-60e6-4764-b3db-2a4c56c20e3a
116	VIENTO	0.	3b6588a7-4fcb-4239-87bb-2dd9282b318d
116	SISMO_LONG	0.	793724ec-e43f-4d25-b56e-966e97e98abe
116	SISMO_TRNS	0.	3ebb15c1-84b6-439e-844e-f62778a1257e

Table: Joint Loads - Force, Part 2 of 2

Joint	LoadPat	M3 KN-m	GUID
116	SC_TAB_CARROS	0.	1aec10ff-a8fb-4f66-b81a-18a05bbf85d0
116	SC_TAB_DIST	0.	beda8b8f-5d80-4759-91d0-3967248a1ba8
117	PP_TAB	0.	17fd99b2-b293-4ae8-abe1-fa8666bc3321
117	CP_TAB	0.	7bfb1054-774d-449e-a568-4e0ebfc5a18c
117	FRENADO	0.	b607ff42-8173-4a1e-879a-9f1e77e1d1e3
117	RET_FLU	0.	864aa22f-0274-4a4e-8832-72457d25fc84
117	TEMP_UNIF	0.	1fbe9e6f-895c-47a4-9925-da2f63f41ce3
117	VIENTO	0.	71abcfbf-df57-4bf1-ab1d-ee36c42f8ae1
117	SISMO_LONG	0.	4da9a578-7d24-43f4-811e-06eb122b2293
117	SISMO_TRNS	0.	bc175fbe-9dd5-434f-aea1-48891e6b1dde
117	SC_TAB_CARROS	0.	590acd6f-277d-42ff-a862-fea19783b838
117	SC_TAB_DIST	0.	2420447b-609c-4360-9077-c0b214daf2f1
118	PP_TAB	0.	b5f383b3-84c1-446e-9a61-a9d390d7d982
118	CP_TAB	0.	81e6108a-f1c0-4660-b8d6-aa4ec0869e01
118	FRENADO	0.	20ced6ae-00ea-4583-959a-7a8f6dacdfe9
118	RET_FLU	0.	cabf727f-7f66-4a2f-ac13-1ad32faab6f0
118	TEMP_UNIF	0.	47c0caaa-4550-4875-9aa4-2e22e575e0be
118	VIENTO	0.	582039cf-476e-459b-af30-7eccf26c6431
118	SISMO_LONG	0.	d4b6c354-874c-4d31-bf05-897809c998eb
118	SISMO_TRNS	0.	91bda0bb-c18d-455f-867f-3e3e9c6d8bf1
118	SC_TAB_CARROS	0.	4353ff1f-8ebc-4aa4-85af-3070daeb79a2
118	SC_TAB_DIST	0.	220d9967-e7a2-49c3-b3d8-ed94e87af2c1

Table: Load Case Definitions, Part 1 of 3

Table: Load Case Definitions, Part 1 of 3

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesTypeOpt	DesignType
DEAD	LinStatic	Zero				Prog Det	Dead
MODAL	LinModal	Zero				Prog Det	Other
PP_TAB	LinStatic	Zero				Prog Det	Dead
CP_TAB	LinStatic	Zero				Prog Det	Dead
SC_TAB_DIST	LinStatic	Zero				Prog Det	Dead
SC_TAB_CARROS	LinStatic	Zero				Prog Det	Dead

Table: Load Case Definitions, Part 1 of 3

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesTypeOpt	DesignType
FRENADO	LinStatic	Zero				Prog Det	Dead
RET_FLU	LinStatic	Zero				Prog Det	Dead
TEMP_UNIF	LinStatic	Zero				Prog Det	Dead
VIENTO	LinStatic	Zero				Prog Det	Dead
SISMO_LONG	LinStatic	Zero				Prog Det	Dead
SISMO_TRNS	LinStatic	Zero				Prog Det	Dead
TIERRAS	LinStatic	Zero				Prog Det	Dead
SC_TRASDOS	LinStatic	Zero				Prog Det	Dead
EMP_SISMO	LinStatic	Zero				Prog Det	Dead

Table: Load Case Definitions, Part 2 of 3

Table: Load Case Definitions, Part 2 of 3

Case	DesActOpt	DesignAct	AutoType	RunCase	CaseStatus	GUID
DEAD	Prog Det	Non-Composite	None	Yes	Finished	
MODAL	Prog Det	Other	None	Yes	Finished	
PP_TAB	Prog Det	Non-Composite	None	Yes	Finished	
CP_TAB	Prog Det	Non-Composite	None	Yes	Finished	
SC_TAB_DIST	Prog Det	Non-Composite	None	Yes	Finished	
SC_TAB_CARROS	Prog Det	Non-Composite	None	Yes	Finished	
FRENADO	Prog Det	Non-Composite	None	Yes	Finished	
RET_FLU	Prog Det	Non-Composite	None	Yes	Finished	
TEMP_UNIF	Prog Det	Non-Composite	None	Yes	Finished	
VIENTO	Prog Det	Non-Composite	None	Yes	Finished	
SISMO_LONG	Prog Det	Non-Composite	None	Yes	Finished	
SISMO_TRNS	Prog Det	Non-Composite	None	Yes	Finished	
TIERRAS	Prog Det	Non-Composite	None	Yes	Finished	
SC_TRASDOS	Prog Det	Non-Composite	None	Yes	Finished	
EMP_SISMO	Prog Det	Non-Composite	None	Yes	Finished	

Table: Load Case Definitions, Part 3 of 3

Table: Load Case Definitions, Part 3 of 3

Case	Notes
DEAD	
MODAL	
PP_TAB	

Table: Load Case Definitions, Part 3 of 3

Case	Notes
CP_TAB	
SC_TAB_DIST	
SC_TAB_CARROS	
FRENADO	
RET_FLU	
TEMP_UNIF	
VIENTO	
SISMO_LONG	
SISMO_TRNS	
TIERRAS	
SC_TRASDOS	
EMP_SISMO	

Table: Load Pattern Definitions

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	Dead	1.		ed4a342e-9655-4873-81d3-c141064d4a3f	
PP_TAB	Dead	0.		fdeb5ecf-02ed-48f1-b4bf-12a324d3c896	
CP_TAB	Dead	0.		a5802442-c39b-4e69-8504-f2c5154b26cd	
SC_TAB_DIST	Dead	0.		0585e586-0c2c-49f6-a36e-d74410172f56	
SC_TAB_CARROS	Dead	0.		a246b09f-d622-4f7d-a064-8c448e1dd72a	
FRENADO	Dead	0.		84941e68-89ef-4d8d-bebd-dcc1858ff9ba	
RET_FLU	Dead	0.		c29f8b43-a785-416c-ae78-cb0291b57a97	
TEMP_UNIF	Dead	0.		9c1daf48-784c-49da-b231-799d6c421afb	
VIENTO	Dead	0.		69f82845-f706-43f0-aedd-5d71b442403a	
SISMO_LONG	Dead	0.		8ab9c7d4-bf8a-418e-a57d-2908ad6c1094	
SISMO_TRNS	Dead	0.		d7313d4c-f6fe-4071-b784-2bdd288fb387	
TIERRAS	Dead	0.		a1e70542-e9f6-4d65-b349-9ddc65242f0f	
SC_TRASDOS	Dead	0.		3fd32185-7d93-4f54-ad9e-51d5984a4cd8	
EMP_SISMO	Dead	0.		59c56523-2876-4200-9155-10f5b4e2b88e	

Table: Material Properties 01 - General, Part 1 of 2

Table: Material Properties 01 - General, Part 1 of 2

Material	Type	SymType	TempDepend	Color	GUID
4000Psi	Concrete	Isotropic	No	Red	
A615Gr60	Rebar	Uniaxial	No	Cyan	
A992Fy50	Steel	Isotropic	No	Cyan	
B500S	Rebar	Uniaxial	No	Green	
HA30	Concrete	Isotropic	No	Red	
HA30_SP	Concrete	Isotropic	No	Red	

Table: Material Properties 01 - General, Part 2 of 2

Table: Material Properties 01 - General, Part 2 of 2

Material	Notes
4000Psi	Customary f'c 4000 psi 30/06/2017 11:49:28
A615Gr60	ASTM A615 Grade 60 30/06/2017 11:51:44
A992Fy50	ASTM A992 Grade 50 30/06/2017 11:49:28
B500S	Rebar added 30/06/2017 11:54:14
HA30	Customary f'c 4000 psi 30/06/2017 11:49:28
HA30_SP	Customary f'c 4000 psi 30/06/2017 11:49:28

Table: Material Properties 02 - Basic Mechanical Properties

Table: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	KN/m3	KN-s2/m4	KN/m2	KN/m2		1/C
4000Psi	2.3563E+01	2.4028E+00	24855578.06	10356490.86	0.2	9.9000E-06
A615Gr60	7.6973E+01	7.8490E+00	199947978.8			1.1700E-05
A992Fy50	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05
B500S	7.6973E+01	7.8490E+00	199947978.8			1.1700E-05
HA30	2.5000E+01	2.5493E+00	28576790.96	11906996.23	0.2	1.0000E-05
HA30_SP	1.0000E-07	1.0197E-08	28576790.96	11906996.23	0.2	1.0000E-05

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Material	Fc	eFc	LtWtConc	SSCurveOpt	SSHysType	SFc	SCap	FinalSlope
	KN/m2	KN/m2						
4000Psi	27579.03	27579.03	No	Mander	Takeda	0.002219	0.005	-0.1
HA30	30000.	30000.	No	Mander	Takeda	0.002219	0.005	-0.1
HA30_SP	30000.	30000.	No	Mander	Takeda	0.002219	0.005	-0.1

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Material	FAngle	DAngle
	Degrees	Degrees
4000Psi	0.	0.
HA30	0.	0.
HA30_SP	0.	0.

Table: Material Properties 03e - Rebar Data, Part 1 of 2

Table: Material Properties 03e - Rebar Data, Part 1 of 2

Material	Fy	Fu	EffFy	EffFu	SSCurveOpt	SSHysType	SHard	SCap
	KN/m2	KN/m2	KN/m2	KN/m2				
A615Gr60	413685.47	620528.21	455054.02	682581.03	Simple	Kinematic	0.01	0.09
B500S	483091.79	483091.79	483091.79	483091.79	Simple	Kinematic	0.01	0.09

Table: Material Properties 03e - Rebar Data, Part 2 of 2

Table: Material Properties 03e - Rebar Data, Part 2 of 2

Material	FinalSlope	UseCTDef
A615Gr60	-0.1	No
B500S	-0.1	No

ESTRUCTURA E3

INFORMACIÓN GEOTÉCNICA

Según el anej de geotécnia de proyecto original, para la estructura E3 se han llevado a cabo tres sondeos: SE-4 ; SE-5 y SE-6

También se han llevado a cabo tres ensayos de penetración dinámica : PR-19; PE-1 y PE-2

Según se indica en el anejo, a una profundidad máxima de 4 metros se tiene un nivel de gravas y arenas y capas limosas con arenas y gravas. Nspt entre 50 y rechazo (Aluvial)

El espesor de la unidad anterior es variable. Por debajo de la misma se detecta otra unidad, formada por Margas arenosas y arcillas margosas

Los valores de Nspt varian de 40 a rechazo, incrementándose con la profundidad

Estructura E3. Viaducto sobre el Río Almanzona. PK 0+630-0+920										
Unidad geotécnica	**Descripción litológica**			**Espesor (m)**		**N**		**r_f(kPa)**	**r_p(MPa)**	**C (sísmico)**
	Margen izquierda	**Cauce**	**Margen derecha**							
Aluvial-coluvial	Arcillas y/o limos arenosos		Arcillas limo arenosas	2,5	4,0	8	12	-	-	1,6
Aluvial	Arenas y gravas en matriz limosa (depósitos aluviales)			4	15	8	50	90	6,5	1,3
Margas arenosas y arcillas margosas	Margas arenosas y arcillas margosas.			20			50	90	6,5	1,3

COEFICIENTE C PROMEDIADO =	(4*1.6+26*1.3)/30 =	1.34

ESTRUCTURA E3. ESTRIBO 1

DETERMINACIÓN DE LA LONGITUD NECESARIA DE LOS PILOTES

Datos de partida

Diámetro de los pilotes	1.25	**m**		
Tope estructural	4000.00	**kPa**		
Coeficiente de carga representativa, para combinación característica	1.10			
Coeficiente de carga representativa, para combinación accidental	1.25			
				TOPE ESTR.
Axil máximo admisible en combinación característica	4500.00	**Kn**	<	5399.61
Axil máximo admisible en combinación accidental (sismo)	5500.00	**Kn**	<	6135.92
Canto de encepado	2.00	**m**		
Profundidad máxima de socavación	6.63	**m**		
Profundidad nivel superior estrato competente	4.00	**m**		
Resistencia por fuste estrato competente	90.00	**kPa**		
Resistencia por punta estrato competente	6500.00	**kPa**		
Coeficiente global de seguridad hundimiento, característica	2.60			
Coeficiente global de seguridad hundimiento, accidental (*)	2.20			

(*) Se aplica para situación sísmica y socavación (ambas con T=500 años)

LONGITUD NECESARIA DEL PILOTE EN TERRENO COMPETENTE, POR HUNDIMIENTO

Para combinación característica	10.53	**metros**
Para combinación accidental	11.67	**metros**

RESUMEN Y CARGAS ADMISIBLES EN PILOTES

Longitud necesaria de pilote (desde C.I encepado)	13.67	**metros**
Axil máximo admisible en combinación característica	4500.00	**kN**
Axil máximo admisible en combinación accidental (sismo)	5500.00	**kN**
Axil máximo admisible en combinación accidental (socavación)	5077.49	**kN**
Tracción máxima admisible en combinación sísmica	1570.43	**kN**

ESTRUCTURA E3. ESTRIBO 1

TABLA DE AXILES EN PILOTES

FRAME	CARACT_01	CARACT_02	ELU_SISMO
19	1490.5	1352.2	-173.2
20	1448.8	1320.7	-132.2
21	1389.1	1268.7	-132.1
22	1320.5	1206.4	-152.8
23	1288.3	1176.7	-149.4
24	1357.6	1240.5	-64.3
25	1475.7	1349.5	56.7
26	1594.7	1457.5	166.4
27	1701.2	1547.9	229.4
28	4158.4	4098.6	5076.8
29	3951.5	3900.9	4872.7
30	3743.6	3702.6	4670.8
31	3550.6	3518.3	4484.5
32	3477.9	3446.4	4400.5
33	3497.6	3461.5	4394.9
34	3520.1	3479.6	4391.5
35	3539.8	3495.2	4384.9
36	3554.6	3506.0	4367.7
43	2527.9	2435.9	2119.8
44	2486.7	2400.7	2122.0
45	2441.0	2360.5	2114.4
46	2395.3	2320.0	2104.6
47	2403.4	2329.6	2139.0
48	2544.2	2462.5	2282.5
49	2713.4	2622.2	2450.5
50	2883.0	2782.0	2615.7

MAX	4158.4	4098.6	5076.8
MIN	1288.3	1176.7	-173.2

			CUMPLE?
Axil máximo admisible en combinación característica	4500	kN	VERDADERO
Axil máximo admisible en combinación accidental (sismo)	5500	kN	VERDADERO
Axil máximo admisible en combinación accidental (socavación)	5077.49	kN	VERDADERO
Tracción máxima admisible en combinación sísmica	1570.43	kN	VERDADERO

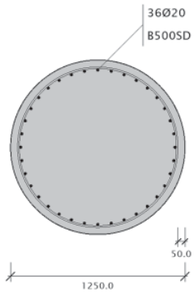
Longitud necesaria de pilote (desde C.I encepado)	13.67	**metros**

ESTRIBO 1 PILOTES

1.- Norma

Instrucción de Hormigón Estructural (EHE-08)

2.- Detalle

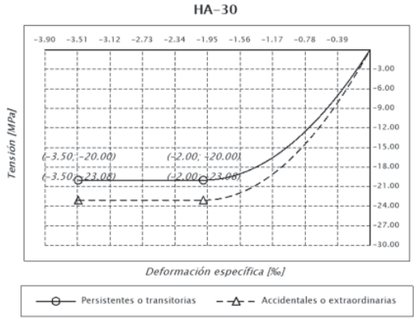


Hormigón: HA-30

Hormigón: 12271.85 cm²
Armaduras: 11309.73 mm²
Cuantía: 9.22 ‰

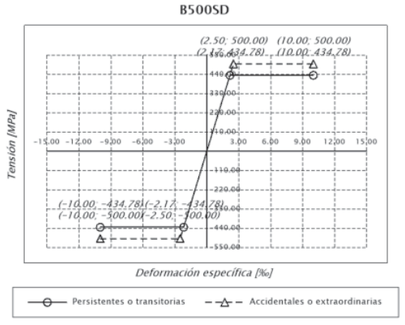
3.- Materiales

3.1.- Hormigón



Designación: HA-30
f_{ck}: 30.00 MPa
α_{cc}: 1.000 (Persistentes o transitorias)
α_{cc}: 1.000 (Accidentales o extraordinarias)
γ_c: 1.500 (Persistentes o transitorias)
γ_c: 1.300 (Accidentales o extraordinarias)
f_{cd}: 20.00 MPa (Persistentes o transitorias)
f_{cd}: 23.08 MPa (Accidentales o extraordinarias)
ϵ_{c0}: 2.00 ‰
ϵ_{cu}: 3.50 ‰
n: 2.000 (exponente)

3.2.- Armadura



Designación: B500SD
f_{yk}: 500.00 MPa
γ_s: 1.150 (Persistentes o transitorias)
γ_s: 1.000 (Accidentales o extraordinarias)
f_{yd}: 434.78 MPa (Persistentes o transitorias)
f_{yd}: 500.00 MPa (Accidentales o extraordinarias)
$\epsilon_{máx}$: 10.00 ‰
E_s: 200000.0 MPa

4.- Esfuerzos internos aplicados

Combinación	N_d [kN]	Myy_d [kN·m]	Mzz_d [kN·m]	Accidental
19_ELU_PER_01	-2003.68	-1439.95	-149.88	No
20_ELU_PER_01	-1947.94	-1555.93	-174.91	No
21_ELU_PER_01	-1867.19	-1641.99	-207.14	No
22_ELU_PER_01	-1774.34	-1714.89	-203.45	No
23_ELU_PER_01	-1730.68	-1785.50	-91.35	No
24_ELU_PER_01	-1824.59	-1823.06	46.48	No
25_ELU_PER_01	-1984.76	-1864.72	67.62	No
26_ELU_PER_01	-2145.83	-1901.92	39.82	No
27_ELU_PER_01	-2289.17	-1940.90	21.44	No
28_ELU_PER_01	-5648.56	-2100.29	435.95	No
29_ELU_PER_01	-5367.33	-1989.59	428.88	No
30_ELU_PER_01	-5084.86	-1920.23	419.61	No
31_ELU_PER_01	-4822.62	-1850.52	322.92	No
32_ELU_PER_01	-4723.65	-1792.00	67.57	No
33_ELU_PER_01	-4750.10	-1731.26	27.29	No
34_ELU_PER_01	-4780.26	-1666.42	29.09	No
35_ELU_PER_01	-4806.81	-1609.57	35.12	No
36_ELU_PER_01	-4826.74	-1575.78	49.26	No
43_ELU_PER_01	-3422.52	-1513.34	-77.45	No
44_ELU_PER_01	-3366.94	-1594.73	-88.82	No
45_ELU_PER_01	-3305.18	-1669.19	-94.88	No
46_ELU_PER_01	-3243.31	-1738.34	-83.06	No
47_ELU_PER_01	-3254.53	-1816.67	108.30	No
48_ELU_PER_01	-3445.75	-1844.43	248.22	No
49_ELU_PER_01	-3675.50	-1901.71	257.42	No
50_ELU_PER_01	-3905.67	-1933.84	262.10	No
19_ELU_PER_02	-1816.96	-1488.76	-102.40	No
20_ELU_PER_02	-1775.00	-1615.24	-131.72	No
21_ELU_PER_02	-1704.72	-1707.16	-166.94	No
22_ELU_PER_02	-1620.20	-1782.92	-166.41	No
23_ELU_PER_02	-1579.94	-1854.19	-64.67	No
24_ELU_PER_02	-1666.58	-1895.02	61.91	No
25_ELU_PER_02	-1814.32	-1939.01	80.07	No
26_ELU_PER_02	-1960.58	-1974.66	47.69	No
27_ELU_PER_02	-2082.23	-2007.34	17.88	No
28_ELU_PER_02	-5567.81	-2157.96	450.93	No
29_ELU_PER_02	-5299.14	-2046.62	444.72	No
30_ELU_PER_02	-5029.53	-1975.61	434.45	No

Combinación	N_d [kN]	Myy_d [kN·m]	Mzz_d [kN·m]	Accidental
31_ELU_PER_02	-4779.04	-1904.44	343.40	No
32_ELU_PER_02	-4681.10	-1844.01	103.47	No
33_ELU_PER_02	-4701.38	-1781.60	64.55	No
34_ELU_PER_02	-4725.59	-1714.20	65.41	No
35_ELU_PER_02	-4746.64	-1653.77	71.02	No
36_ELU_PER_02	-4761.12	-1615.73	85.05	No
43_ELU_PER_02	-3298.38	-1563.23	-37.89	No
44_ELU_PER_02	-3250.82	-1651.05	-50.14	No
45_ELU_PER_02	-3196.46	-1729.66	-56.32	No
46_ELU_PER_02	-3141.66	-1800.69	-45.61	No
47_ELU_PER_02	-3154.86	-1878.35	131.45	No
48_ELU_PER_02	-3335.48	-1910.95	262.55	No
49_ELU_PER_02	-3552.39	-1970.26	271.76	No
50_ELU_PER_02	-3769.25	-2000.62	274.72	No
19_ELU_SISMO	173.16	-2242.37	108.84	Si
20_ELU_SISMO	132.23	-2384.10	59.27	Si
21_ELU_SISMO	132.10	-2471.17	17.63	Si
22_ELU_SISMO	152.81	-2533.18	8.92	Si
23_ELU_SISMO	149.38	-2580.58	67.33	Si
24_ELU_SISMO	64.32	-2609.24	148.29	Si
25_ELU_SISMO	-56.66	-2639.34	153.30	Si
26_ELU_SISMO	-166.39	-2643.53	106.95	Si
27_ELU_SISMO	-229.42	-2621.62	38.07	Si
28_ELU_SISMO	-5076.81	-2738.34	410.29	Si
29_ELU_SISMO	-4872.74	-2666.77	406.05	Si
30_ELU_SISMO	-4670.76	-2619.13	392.39	Si
31_ELU_SISMO	-4484.55	-2563.72	325.77	Si
32_ELU_SISMO	-4400.45	-2516.34	165.66	Si
33_ELU_SISMO	-4394.88	-2470.72	140.04	Si
34_ELU_SISMO	-4391.45	-2417.36	139.99	Si
35_ELU_SISMO	-4384.90	-2367.80	148.15	Si
36_ELU_SISMO	-4367.70	-2339.28	168.86	Si
43_ELU_SISMO	-2119.82	-2320.00	96.76	Si
44_ELU_SISMO	-2122.00	-2402.53	78.25	Si
45_ELU_SISMO	-2114.40	-2473.10	72.33	Si
46_ELU_SISMO	-2104.63	-2525.84	78.01	Si
47_ELU_SISMO	-2139.04	-2573.85	187.48	Si
48_ELU_SISMO	-2282.49	-2607.65	279.58	Si

Combinación	N_d [kN]	Myy_d [kN·m]	Mzz_d [kN·m]	Accidental
49_ELU_SISMO	-2450.49	-2648.62	286.99	Si
50_ELU_SISMO	-2615.74	-2642.09	284.04	Si

5.- Comprobaciones

La sección transversal resiste todas las combinaciones.

Combinación: 23_ELU_SISMO

5.1.- Comprobación de resistencia a los esfuerzos actuantes

5.1.1) Hormigón

Máxima deformación de compresión: -2.11 ‰

Máxima tensión de compresión: -23.08 MPa

5.1.2) Armadura

Máxima deformación de compresión: -1.55 ‰

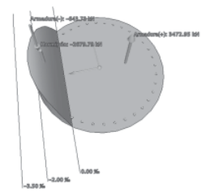
Máxima tensión de compresión: -309.73 MPa

Máxima deformación de tracción: 7.02 ‰

Máxima tensión de tracción: 500.00 MPa

5.1.3) Equilibrio

Valor y posición de las resultantes internas

Resultante	Valor [kN]	Y [m]	Z [m]	Vista 3D
Hormigón	-2679.79	0.013	0.498	
Armadura comprimida	-643.78	0.014	0.512	
Armadura traccionada	3472.95	-0.006	-0.264	

5.2.- Comprobación de resistencia para la situación de colapso

Modo de colapsar: Axil y excentricidades Y-Z constantes

N_u: 149.38 kN

Myy_u: -2662.95 kN·m

Mzz_u: 69.48 kN·m

Aprovechamiento: 96.91 %

5.2.1) Hormigón

Máxima deformación de compresión: -2.75 ‰

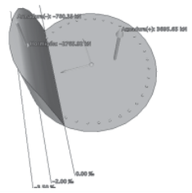
Máxima tensión de compresión: -23.08 MPa

5.2.2) Armadura

Máxima deformación de compresión: -1.97 ‰
Máxima tensión de compresión: -393.94 MPa
Máxima deformación de tracción: 10.00 ‰
Máxima tensión de tracción: 500.00 MPa

5.2.3) Equilibrio

Valor y posición de las resultantes internas

Resultante	Valor *[kN]*	Y *[m]*	Z *[m]*	Vista 3D
Hormigón	-2765.92	0.013	0.502	
Armadura comprimida	-780.35	0.011	0.516	
Armadura traccionada	3695.65	-0.007	-0.236	

CÁLCULO A CORTANTE SEGÚN EHE

FECHA:	03/07/2017
OBRA:	AUTOVÍA ALMANZORA
ESTRUCTURA:	E3. ESTRIBO 1

CÁLCULO ARMADURA DE CORTANTE EN PILOTES DE ESTRIBO

REF.	DATOS											RESULTADOS					
	Vrd (ton)	Nd (ton)	Ac (m2)	fck (Mpa)	γc	bo (cm)	d (cm)	cotg(θ)	alpha (º)	As (cm2)	Ap (cm2)	fyk (kp/cm2)	fpk (kp/cm2)	Vrd sin cercos (ton)	As,nec (cm2/ml)	Sep.max (cm)	Vu1 (ton)	Decalaje (m)
19_ELU_PER_01	61.49	204.25	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	60.10	9.00	30.00	606.12	0.89
20_ELU_PER_01	66.50	198.57	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	59.41	9.00	30.00	606.12	0.88
21_ELU_PER_01	70.29	190.34	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	58.41	9.00	30.00	606.12	0.87
22_ELU_PER_01	73.35	180.87	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	57.27	9.38	30.00	606.12	0.86
23_ELU_PER_01	75.94	176.42	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	56.73	10.05	30.00	606.12	0.86
24_ELU_PER_01	77.46	185.99	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	57.89	10.36	30.00	606.12	0.86
25_ELU_PER_01	79.25	202.32	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	59.87	10.69	30.00	606.12	0.86
26_ELU_PER_01	80.80	218.74	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.85	10.96	30.00	606.12	0.85
27_ELU_PER_01	82.44	233.35	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	63.62	11.27	30.00	606.12	0.85
28_ELU_PER_01	91.11	575.80	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	105.06	11.48	30.00	606.12	0.86
29_ELU_PER_01	86.45	547.13	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	101.59	10.47	30.00	606.12	0.87
30_ELU_PER_01	83.48	518.33	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	98.11	9.88	30.00	606.12	0.87
31_ELU_PER_01	79.79	491.60	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.87	9.11	30.00	606.12	0.88
32_ELU_PER_01	76.17	481.51	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.65	9.00	30.00	606.12	0.88
33_ELU_PER_01	73.54	484.21	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.98	9.00	30.00	606.12	0.89
34_ELU_PER_01	70.79	487.28	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.35	9.00	30.00	606.12	0.89
35_ELU_PER_01	68.38	489.99	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.68	9.00	30.00	606.12	0.90
36_ELU_PER_01	66.96	492.02	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.92	9.00	30.00	606.12	0.90
43_ELU_PER_01	64.36	348.88	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	77.60	9.00	30.00	606.12	0.90
44_ELU_PER_01	67.84	343.22	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	76.91	9.00	30.00	606.12	0.89
45_ELU_PER_01	71.01	336.92	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	76.15	9.00	30.00	606.12	0.88
46_ELU_PER_01	73.92	330.61	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	75.39	9.00	30.00	606.12	0.87
47_ELU_PER_01	77.30	331.76	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	75.53	9.38	30.00	606.12	0.87
48_ELU_PER_01	79.05	351.25	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	77.89	9.70	30.00	606.12	0.87
49_ELU_PER_01	81.51	374.67	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	80.72	10.17	30.00	606.12	0.87
50_ELU_PER_01	82.89	398.13	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	83.56	10.38	30.00	606.12	0.87

CÁLCULO A CORTANTE SEGÚN EHE

FECHA:	03/07/2017
OBRA:	AUTOVÍA ALMANZORA
ESTRUCTURA:	E3. ESTRIBO 1

CÁLCULO ARMADURA DE CORTANTE EN PILOTES DE ESTRIBO

REF.	DATOS													RESULTADOS				
	Vrd (ton)	Nd (ton)	Ac (m2)	fck (Mpa)	γc	bo (cm)	d (cm)	cotg(θ)	alpha (º)	As (cm2)	Ap (cm2)	fyk (kp/cm2)	fpk (kp/cm2)	Vrd sin cercos (ton)	As,nec (cm2/ml)	Sep.max (cm)	Vu1 (ton)	Decalaje (m)
19_ELU_PER_02	63.38	185.22	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	57.80	9.00	30.00	606.12	0.88
20_ELU_PER_02	68.83	180.94	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	57.28	9.00	30.00	606.12	0.87
21_ELU_PER_02	72.86	173.77	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	56.41	9.30	30.00	606.12	0.86
22_ELU_PER_02	76.06	165.16	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	55.37	10.16	30.00	606.12	0.86
23_ELU_PER_02	78.80	161.05	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	54.87	10.87	30.00	606.12	0.85
24_ELU_PER_02	80.53	169.89	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	55.94	11.23	30.00	606.12	0.85
25_ELU_PER_02	82.43	184.95	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	57.76	11.59	30.00	606.12	0.85
26_ELU_PER_02	83.90	199.86	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	59.57	11.85	30.00	606.12	0.85
27_ELU_PER_02	85.26	212.26	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.07	12.11	30.00	606.12	0.85
28_ELU_PER_02	93.64	567.56	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	104.06	12.15	30.00	606.12	0.86
29_ELU_PER_02	88.96	540.18	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	100.75	11.13	30.00	606.12	0.87
30_ELU_PER_02	85.92	512.69	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	97.42	10.51	30.00	606.12	0.87
31_ELU_PER_02	82.19	487.16	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.33	9.73	30.00	606.12	0.87
32_ELU_PER_02	78.45	477.18	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.13	9.00	30.00	606.12	0.88
33_ELU_PER_02	75.72	479.24	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.38	9.00	30.00	606.12	0.88
34_ELU_PER_02	72.86	481.71	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.67	9.00	30.00	606.12	0.89
35_ELU_PER_02	70.31	483.86	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.93	9.00	30.00	606.12	0.89
36_ELU_PER_02	68.72	485.33	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	94.11	9.00	30.00	606.12	0.90
43_ELU_PER_02	66.42	336.23	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	76.07	9.00	30.00	606.12	0.89
44_ELU_PER_02	70.16	331.38	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	75.48	9.00	30.00	606.12	0.88
45_ELU_PER_02	73.50	325.84	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	74.81	9.00	30.00	606.12	0.87
46_ELU_PER_02	76.51	320.25	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	74.14	9.25	30.00	606.12	0.87
47_ELU_PER_02	79.98	321.60	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	74.30	10.10	30.00	606.12	0.86
48_ELU_PER_02	81.93	340.01	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	76.53	10.48	30.00	606.12	0.86
49_ELU_PER_02	84.48	362.12	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	79.20	10.98	30.00	606.12	0.86
50_ELU_PER_02	85.77	384.23	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	81.88	11.17	30.00	606.12	0.86

CÁLCULO A CORTANTE SEGÚN EHE

FECHA:	03/07/2017
OBRA:	AUTOVÍA ALMANZORA
ESTRUCTURA:	E3. ESTRIBO 1

CÁLCULO ARMADURA DE CORTANTE EN PILOTES DE ESTRIBO

REF.	DATOS													RESULTADOS				
	Vrd (ton)	Nd (ton)	Ac (m2)	fck (Mpa)	γc	bo (cm)	d (cm)	cotg(θ)	alpha (º)	As (cm2)	Ap (cm2)	fyk (kp/cm2)	fpk (kp/cm2)	Vrd sin cercos (ton)	As,nec (cm2/ml)	Sep.max (cm)	Vu1 (ton)	Decalaje (m)
19_ELU_SISMO	95.35	-17.65	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	33.25	16.99	30.00	606.12	0.81
20_ELU_SISMO	101.29	-13.48	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	33.75	18.30	30.00	606.12	0.81
21_ELU_SISMO	104.96	-13.47	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	33.75	19.21	30.00	606.12	0.81
22_ELU_SISMO	107.59	-15.58	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	33.50	19.94	30.00	606.12	0.81
23_ELU_SISMO	109.64	-15.23	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	33.54	20.44	30.00	606.12	0.80
24_ELU_SISMO	111.00	-6.56	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	34.59	20.44	30.00	606.12	0.81
25_ELU_SISMO	112.29	5.78	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	36.08	20.44	30.00	606.12	0.81
26_ELU_SISMO	112.37	16.96	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	37.44	20.35	30.00	606.12	0.81
27_ELU_SISMO	111.36	23.39	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	38.21	20.04	30.00	606.12	0.81
28_ELU_SISMO	117.61	517.51	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	98.01	18.33	30.00	606.12	0.83
29_ELU_SISMO	114.57	496.71	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	95.49	17.69	30.00	606.12	0.84
30_ELU_SISMO	112.49	476.12	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	93.00	17.28	30.00	606.12	0.84
31_ELU_SISMO	109.77	457.14	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	90.70	16.71	30.00	606.12	0.84
32_ELU_SISMO	107.11	448.57	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	89.66	16.10	30.00	606.12	0.84
33_ELU_SISMO	105.11	448.00	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	89.59	15.61	30.00	606.12	0.84
34_ELU_SISMO	102.85	447.65	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	89.55	15.05	30.00	606.12	0.84
35_ELU_SISMO	100.77	446.98	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	89.47	14.54	30.00	606.12	0.85
36_ELU_SISMO	99.62	445.23	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	89.26	14.26	30.00	606.12	0.85
43_ELU_SISMO	98.62	216.09	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.53	15.39	30.00	606.12	0.83
44_ELU_SISMO	102.10	216.31	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.56	16.25	30.00	606.12	0.83
45_ELU_SISMO	105.09	215.54	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.46	16.99	30.00	606.12	0.83
46_ELU_SISMO	107.33	214.54	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.34	17.56	30.00	606.12	0.83
47_ELU_SISMO	109.61	218.05	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	61.77	18.10	30.00	606.12	0.83
48_ELU_SISMO	111.39	232.67	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	63.54	18.44	30.00	606.12	0.82
49_ELU_SISMO	113.16	249.80	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	65.61	18.76	30.00	606.12	0.82
50_ELU_SISMO	112.87	266.64	1.23	30	1.5	90	110	1	90	28.27	0	5100	15700.00	67.65	18.58	30.00	606.12	0.83

ESTRIBO 1: ARMADO

PILOTES

Ver listados de cálculo a rotura por flexión y cortante para la sección mas solicitada (empotramiento)

ENCEPADO. ARMADO LONGITUDINAL CARA INFERIOR

Máxima compresión pilote en situación persistente	5648.56	**kN**
Máxima compresión pilote en situación sismica	5076.81	**kN**

Máximo vuelo del pilote	1.35	**m**
Espesor muro	1.20	**m**
Canto encepado	1.50	**m**
Recorrido horizontal biela	1.65	**m**
Recorrido vertical biela	1.19	**m**
Td	7832.03	**kN**
As,necesaria	195.80	
Nº de capas de armadura	2.00	
Diámetro redondos	32.00	
Nº de redondos por capa	13.00	

Se armará con: 2 capas de 13 redondos del 32

Nº de hileras longitudinales de pilotes	9.00	
Intereje transversal de pilotes	3.90	**m**
Diámetro de los pilotes	1.25	**m**

Cuantía armadura secundaria entre pilotes	20.78	**cm2/ml**

ENCEPADO. ARMADO LONGITUDINAL CARA SUPERIOR

Mediante el modelo de cálculo, realizamos una sección horizontal en la zona de empotramiento entre el encepado y el muro frontal (en la parte central del estribo). Los esfuerzos obtenidos son los siguientes:

Momento de diseño máximo negativo	-1200.00	**kN*m/ml**
Armadura necesaria	21.90	**cm2/ml**

PROYECTO: AUTOVÍA ALMANZORA. CUCADOR
ESTRUCTURA: E3
03/07/2017

ENCEPADO. ARMADO TRANSVERSAL EN AMBAS CARAS

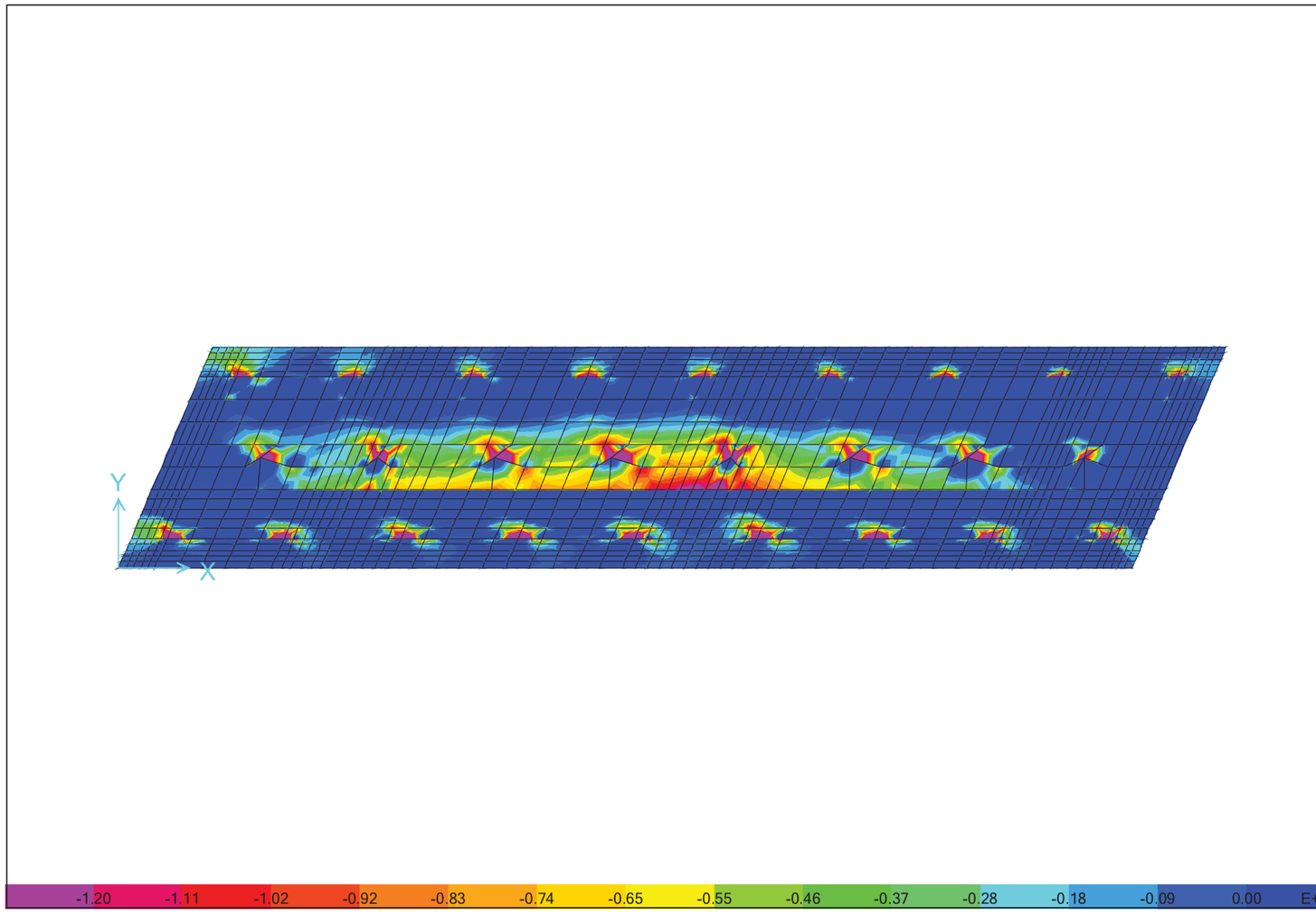
Del modelo de cálculo realizado, se observa que los esfuerzos transversales en el encepado resultan bastante reducidos. Por ello, se armará teniendo en cuenta la cuantía mínima mecánica

Canto encepado	1.50	**m**
Cuantía mínima geométrica	13.50	**cm2ml**

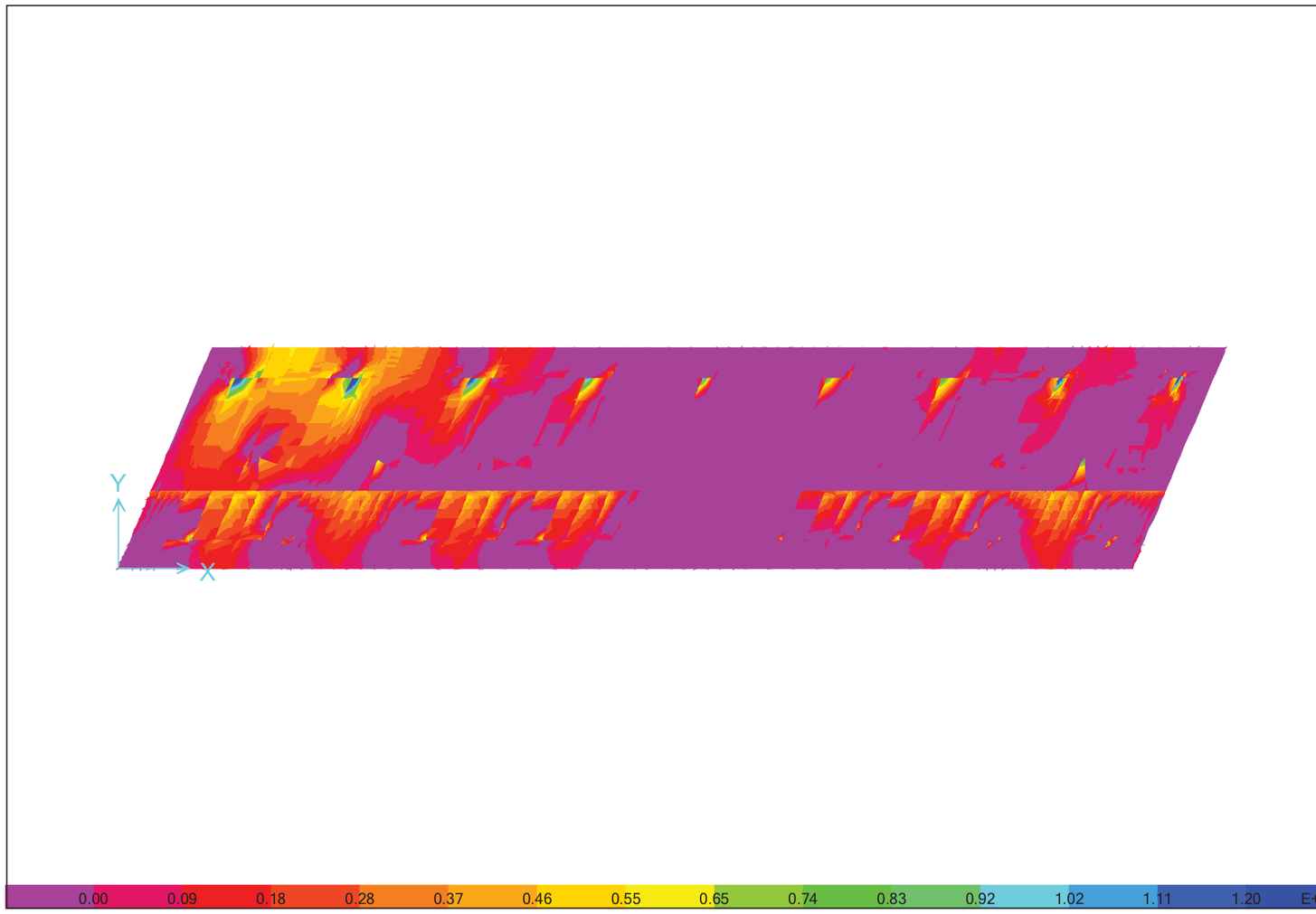
MURO FRONTAL Y ESPALDÓN. ARMADURA

Ver resultados de esfuerzos y cuantías de armadura necesaria (diagramas SAP)

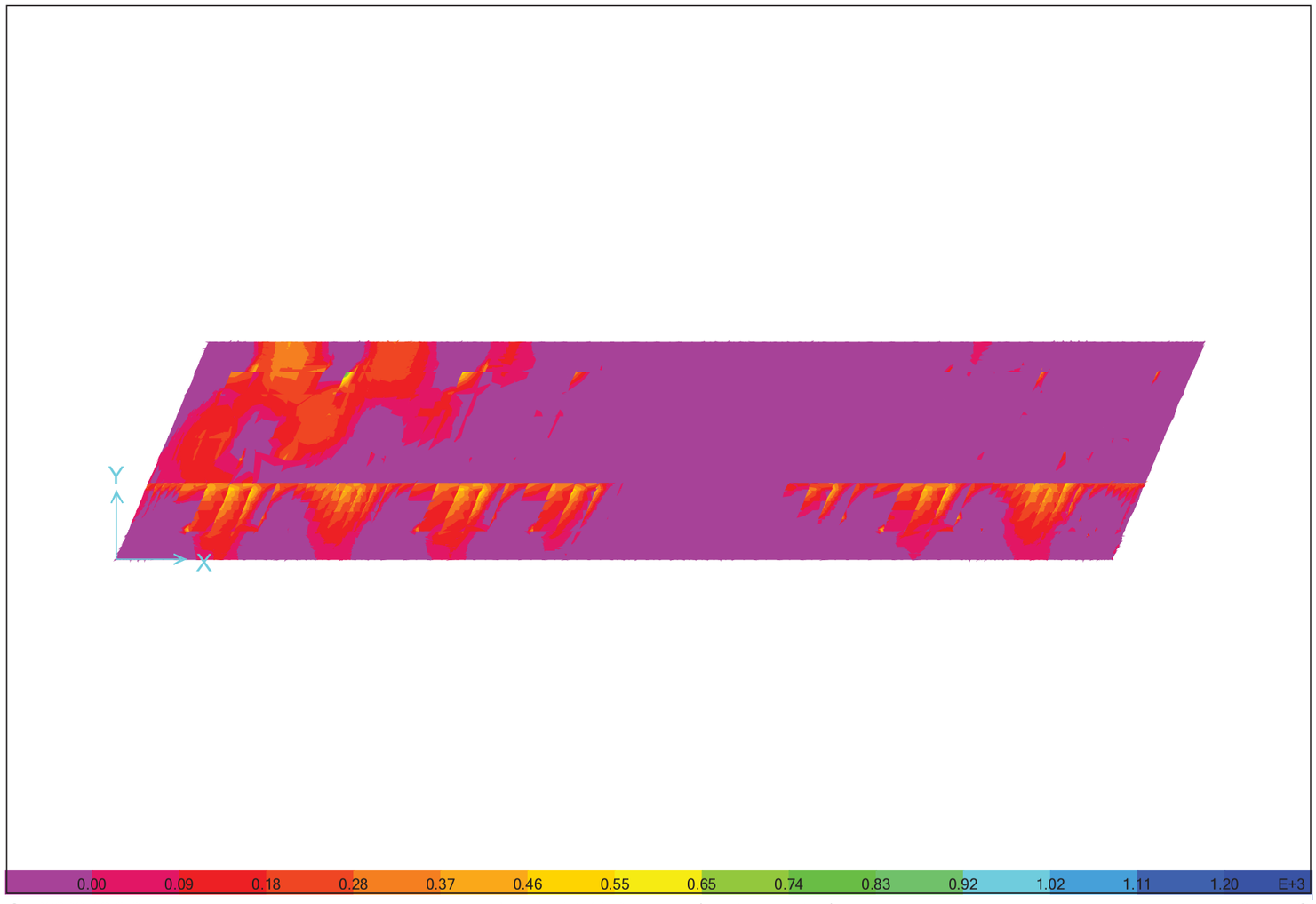
Se tiene en cuenta en todo caso el cumplimiento de las cuantías minimas geometricas y mecánicas



SAP2000 19.0.0 Resultant M22 Diagram (ENV_ELU - Min) KN, m, C

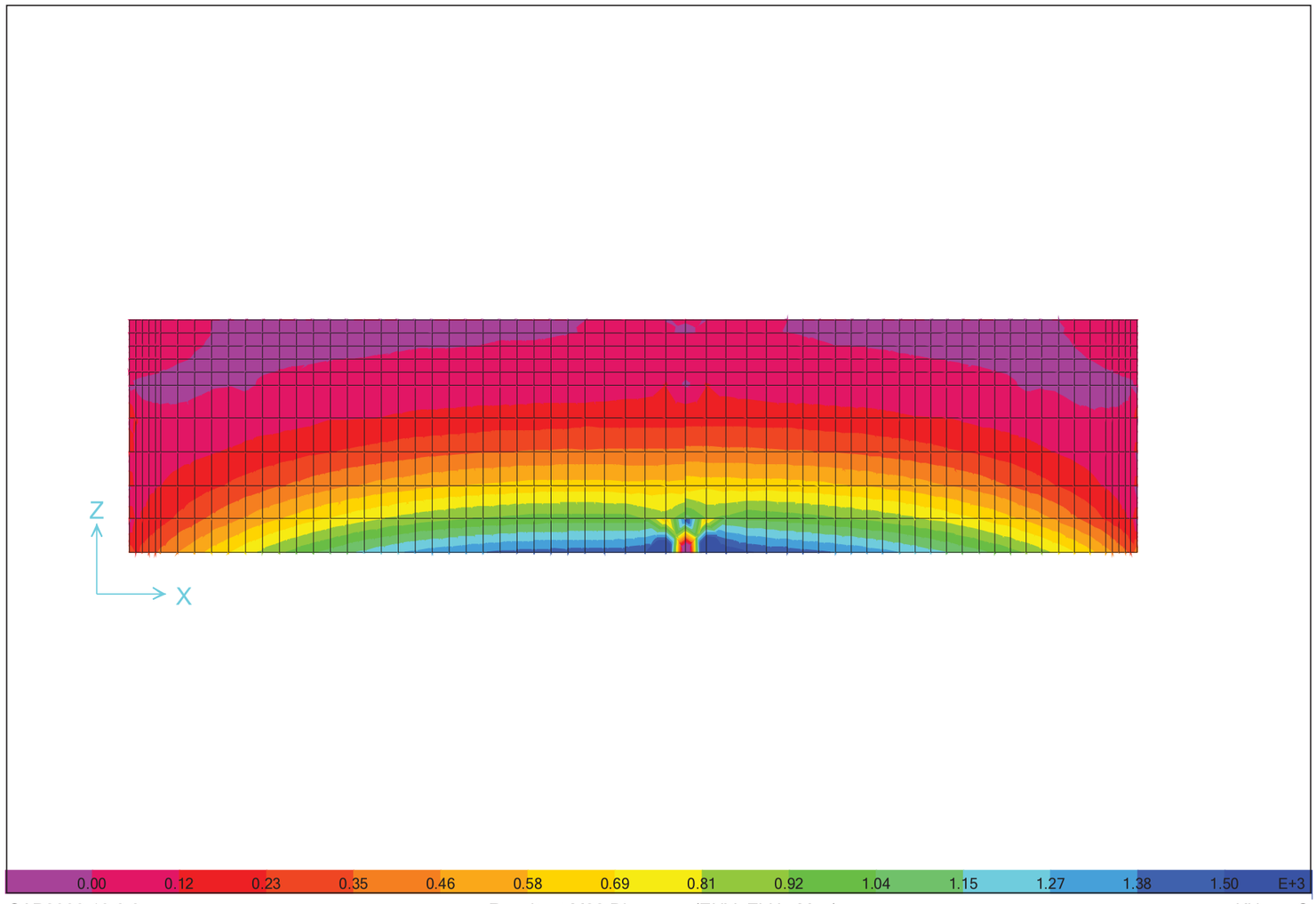


SAP2000 19.0.0 Resultant M11 Diagram (ENV_ELU - Max) KN, m, C



SAP2000 19.0.0 Resultant M11 Diagram (ENV_ELU - Min) KN, m, C

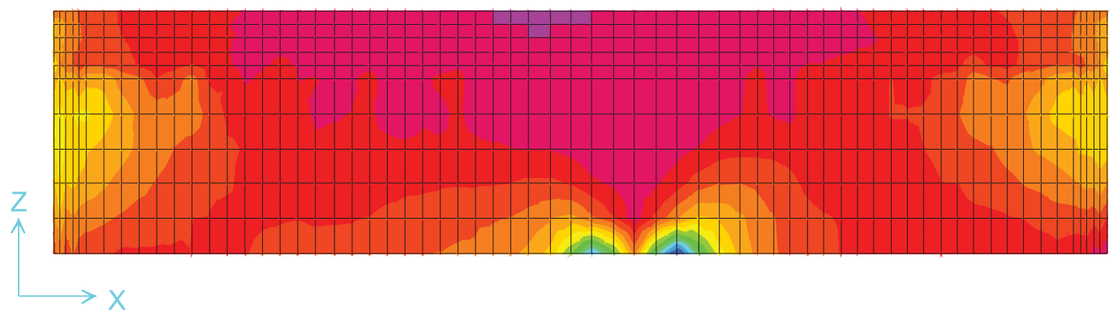
E3_ESTRIBO_1_rv04.sdb 03/07/2017



SAP2000 19.0.0 Resultant M22 Diagram (ENV_ELU - Max) KN, m, C

E3_ESTRIBO_1_rv04.sdb

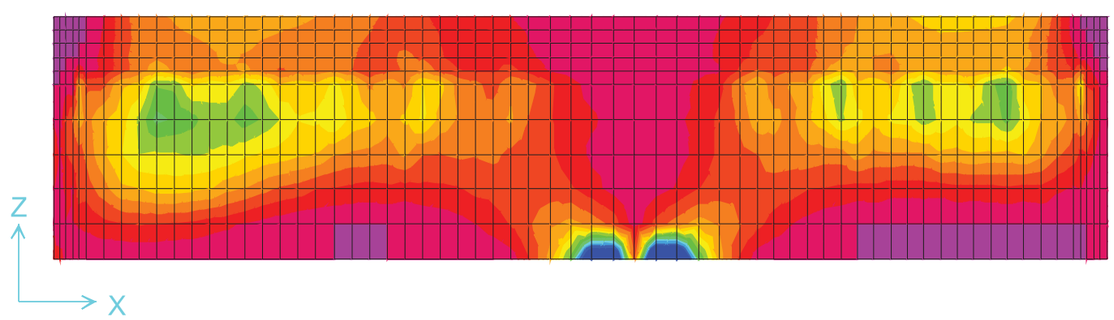
MURO FRONTAL. CUANTÍA DE ARMADURA HORIZONTAL EN CARA INFERIOR (cm2/cm)



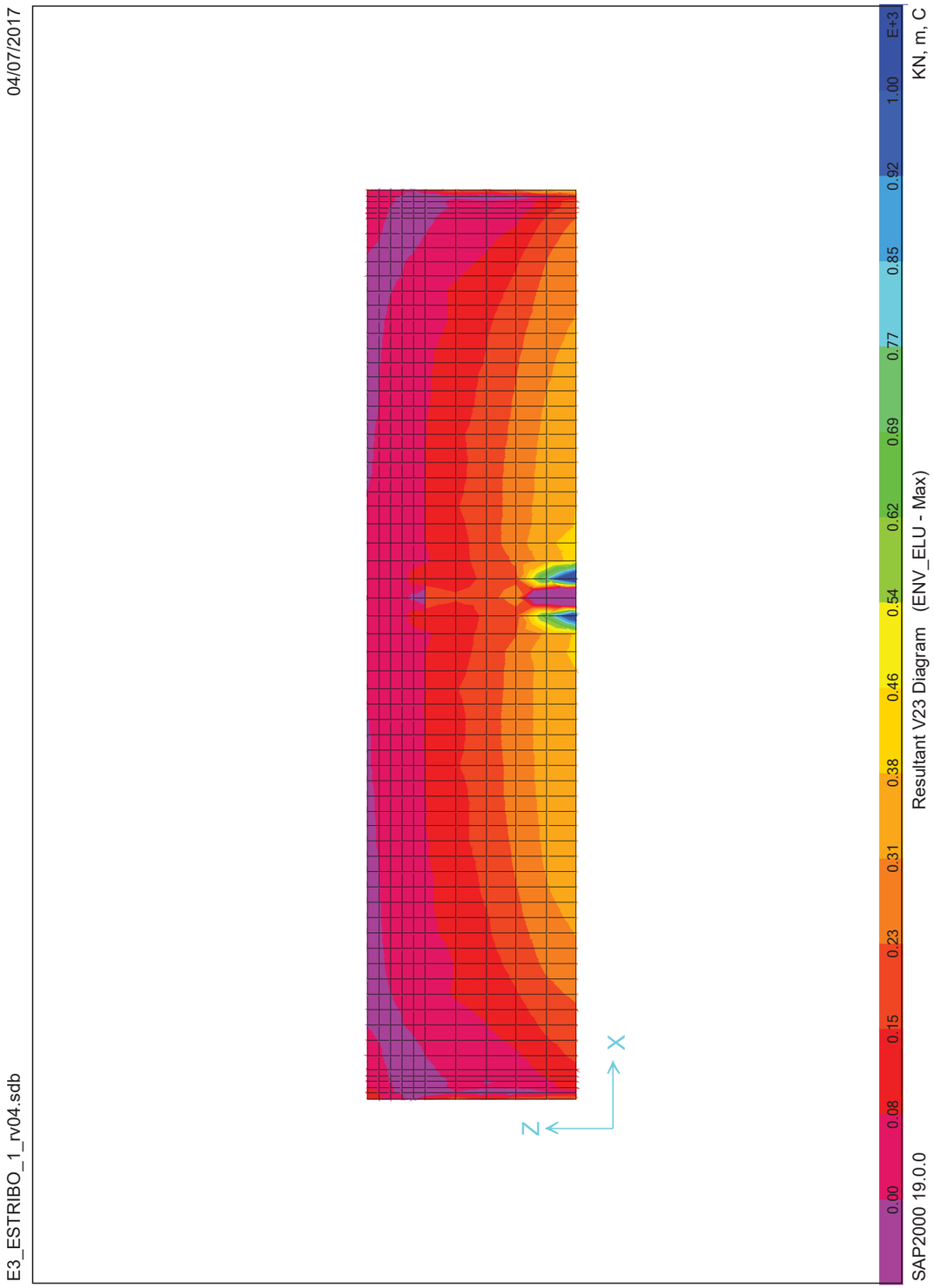
SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C

E3_ESTRIBO_1_rv04.sdb

CUANTIA DE ARMADURA HORIZONTAL EN CARA EXTERIOR (cm2/cm)



SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Top Face (ENV_ELU - Max) KN, cm, C



PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1.7 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: AUTOVÍA ALMANZORA. PROYECTO E3
Fecha: 04/07/2017
Hora: 14:03:19

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-30
Tipo de acero    : B-500-S
fck [MPa]        = 30.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

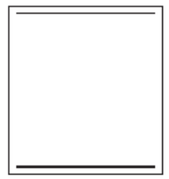
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento sin armadura a cortante
```

- Sección

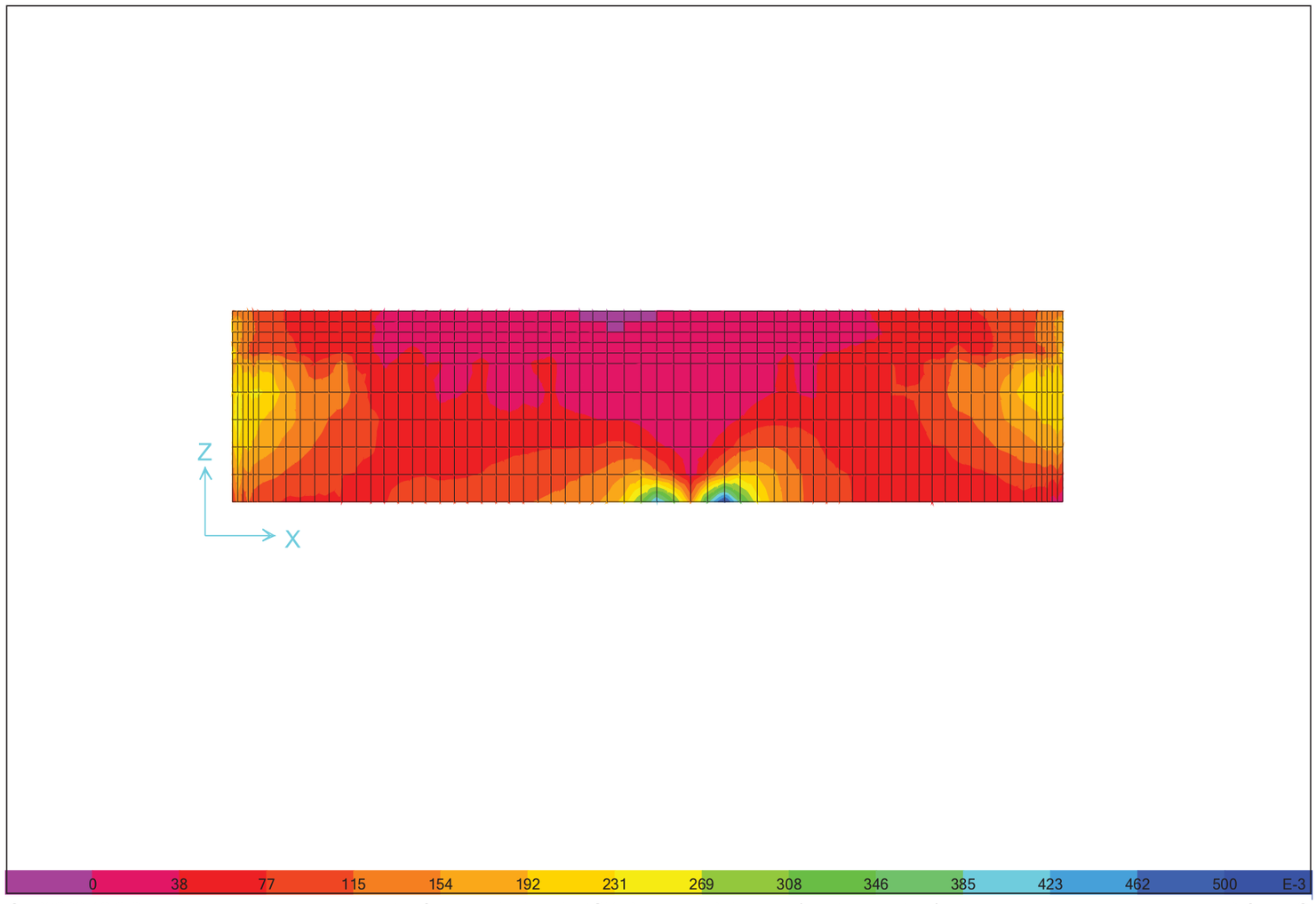
```
Sección : ESTRIBO
b0  [m] = 1.00
h   [m] = 1.10
```



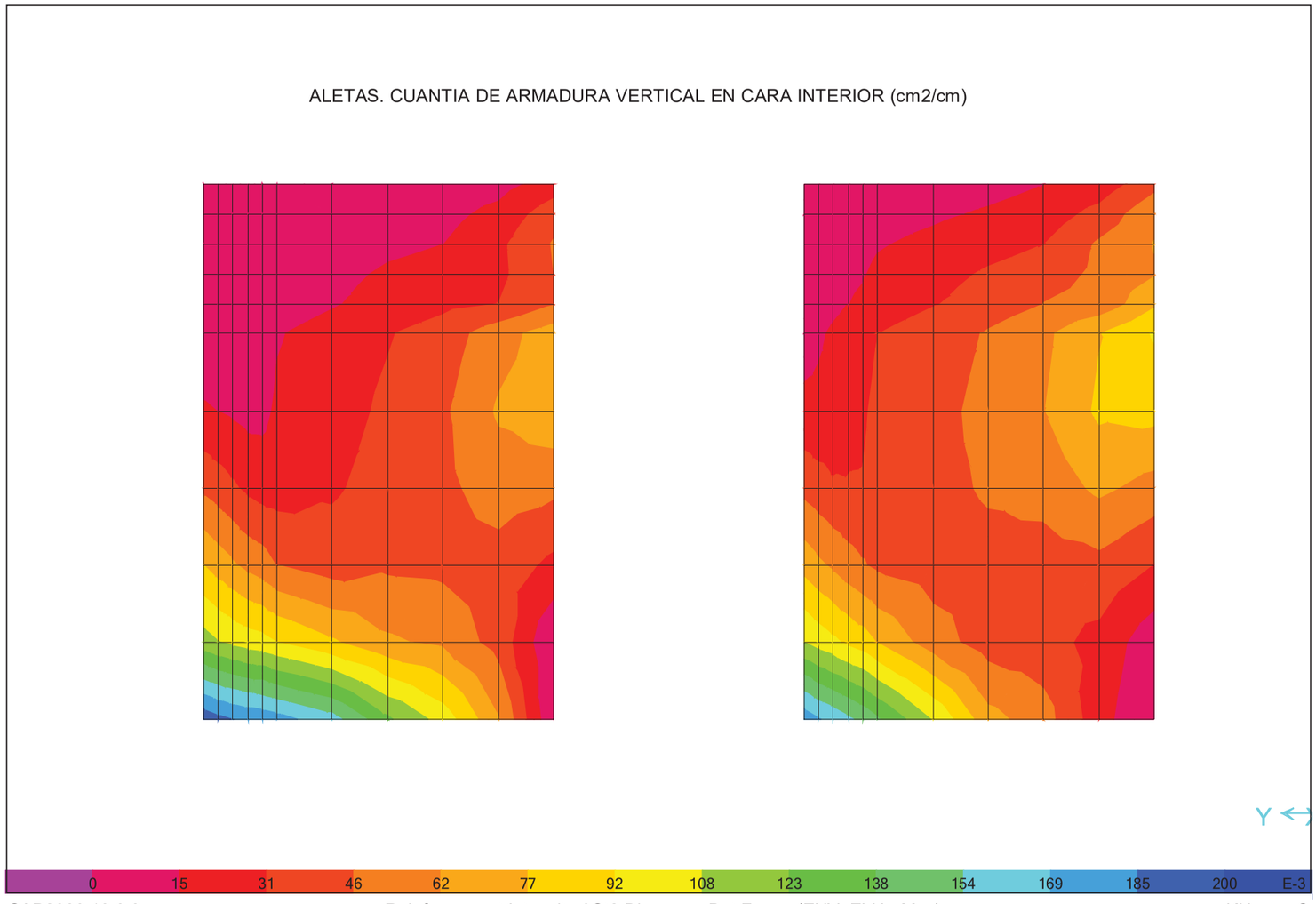
2 Comprobación

```
ρl [·1.E-3] = 2
 Nd [kN]    = 0.0

 Vu [kN]    = 495.1
```



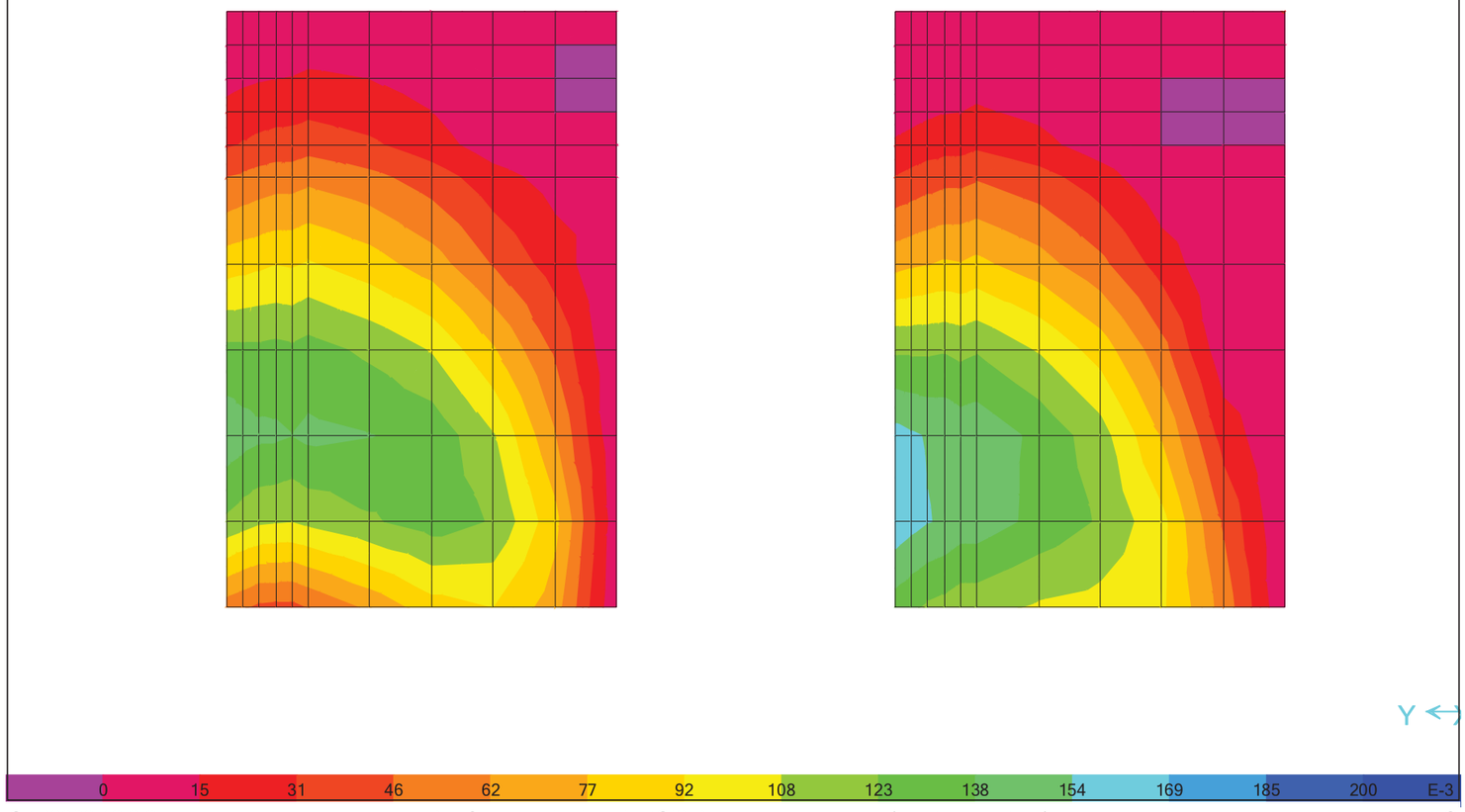
SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Bot Face (ENV_ELU - Max) Kgf, cm, C



SAP2000 19.0.0 Reinforcement Intensity ASt2 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C

E3_ESTRIBO_1_rv04.sdb

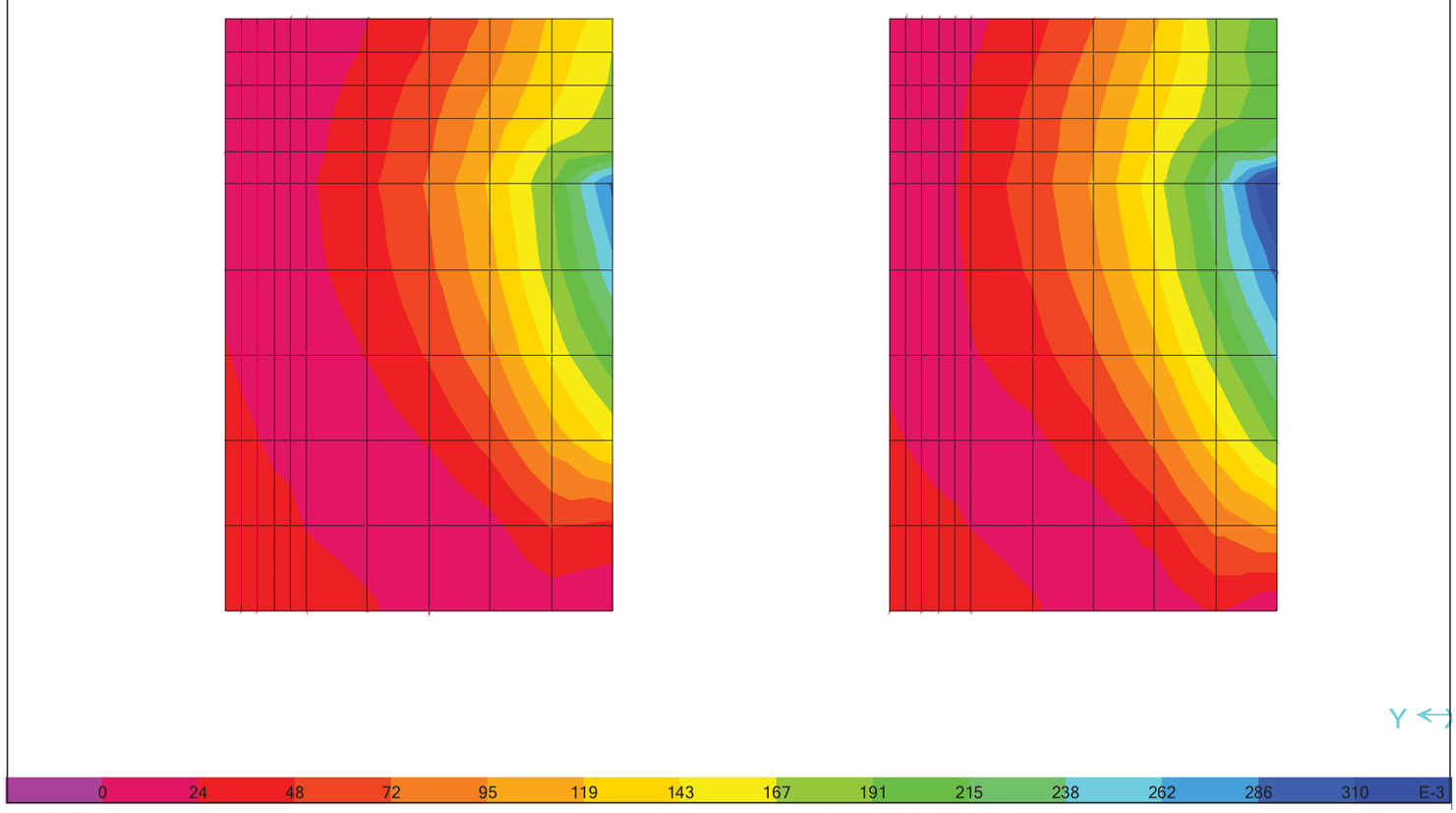
ALETAS. ARMADURA VERTICAL CARA EXTERIOR (cm2/cm)



SAP2000 19.0.0 Reinforcement Intensity ASt2 Diagram - Top Face (ENV_ELU - Max) KN, cm, C

E3_ESTRIBO_1_rv04.sdb

ALETAS. ARMADURA HORIZONTAL CARA INTERIOR (cm2/cm)



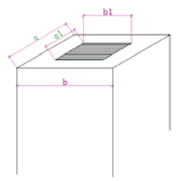
SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C

REFUERZO POR CARGAS CONCENTRADAS SOBRE MACIZOS

Artículo 60 EHE

PROYECTO: AUTOVÍA ALMANZORA. CUCADOR-ENLACE AL-7106

ESTRUCTURA E3. ZUNCHADO BAJO APOYOS DE ESTRIBOS



DIMENSIONES MACIZO (m)

a	1.1	m
a1	0.5	m
b	1.32	m
b1	0.6	m

RESISTENCIA CARACTERÍSTICA HORMIGÓN

fck = 300 kp/cm2

COEFICIENTE MINORACIÓN

1.5

AXIL DE DISEÑO (tn)

Nd 181.55 tn

ARMADURA NECESARIA EN DIRECCIÓN PARALELA A "a"

As = 6.04 cm2

ARMADURA DISPUESTA

DIÁMETRO(mm)	*Nº REDONDOS*	*Nº CAPAS*	*cm2*
12	6	1	*6.79*

ARMADURA NECESARIA EN DIRECCIÓN PARALELA A "b"

As = 6.04 cm2

ARMADURA DISPUESTA

DIÁMETRO(mm)	*Nº REDONDOS*	*171*	*cm2*
12	6	1	*6.79*

COMPROBACIÓN DE NUDOS Y BIELAS

¿CUMPLE? *VERDADERO*

ESTRIBO 2 (AMBAS CALZADAS): CÁLCULO

c/ COLUMELA nº15, C.P. 11004 CÁDIZ. Tlf: 956222763 Fax: 956210106
e-mail: acl@acl-estructuras.com http://www.acl-estructuras.com

ESTRUCTURA E3

LEYES DE EMPUJES EN ESTRIBOS EN ZONA SISMICA

METODO DE MONONOBE-OKABE

TRASDOS DE ESTRIBO

Densidad del terreno	2.00	tn/m3
Angulo de rozamiento del relleno	30.00	grados

aceleración sísmica de cálculo	0.1915	g.
Kh	0.096	
Kv	0.048	
Angulo de inclinación trasdos ψ	90.000	grados
Angulo θ primero	0.091	rad
Angulo θ segundo	0.100	rad
Angulo δ rozamiento muro-suelo	0.000	grados
Angulo β de la superficie del terreno	0.000	grados

	SISMO	NO SISMO
EMPUJE ACTIVO	0.416	0.333
EMPUJE PASIVO	2.837	3.000
EMPUJE AL REPOSO	0.624	0.500

ACL
DISEÑO Y CALCULO DE ESTRUCTURAS

ESTRUCTURA E03
PILOTES ANTE ACCIONES HORIZONTALES
21/06/2017

CALCULO DE ESFUERZOS EN PILOTES SOMETIDOS A ACCIONES HORIZONTALES

PILOTE EMPOTRADO AL GIRO EN CABEZA

Rotura del terreno: Coeficiente de Seguridad (Tabla)	
Hipotesis	C.Seguridad
Casi-Permanente	3
Característica	2.6
Accidental	2.2
ELU Persistente	2

DATOS DE ENTRADA

Características del Pilote

Longitud del pilote	19.15	metros
Diámetro del pilote	1.25	metro
E del hormigón	3000000	t/m2

Ix= 1.20E-01 m4

Fuerzas en Cabeza del Pilote

Fx	50.000	ton

Datos para el pasivo (Articulo 5.12 Guia Cimentaciones)

Densidad efectiva	1.8	ton/m3
Angulo roz interno (º)	28	
Kp	2.77	
Cohesion de cálculo	0.00	ton/m2
Coeficiente minoracion pasivo	2	(Tabla)
Profundidad cabeza pilote	2	m

LEYES DE BALASTO HORIZONTAL EN EL TERRENO (Según geotecnia de proyecto original)

	Prof.Inic	Prof.final	K inic (t/m3)	K final (t/m3)
ESTRATO 1	0	2	1600	3200
ESTRATO 2	2	6	3200	6400
ESTRATO 3	6	9	6400	8800
ESTRATO 4	9	16	8800	14400
ESTRATO 5	16	18	14400	16000
ESTRATO 6	18	19.15	16000	16920

Longitud rebanada 0.13

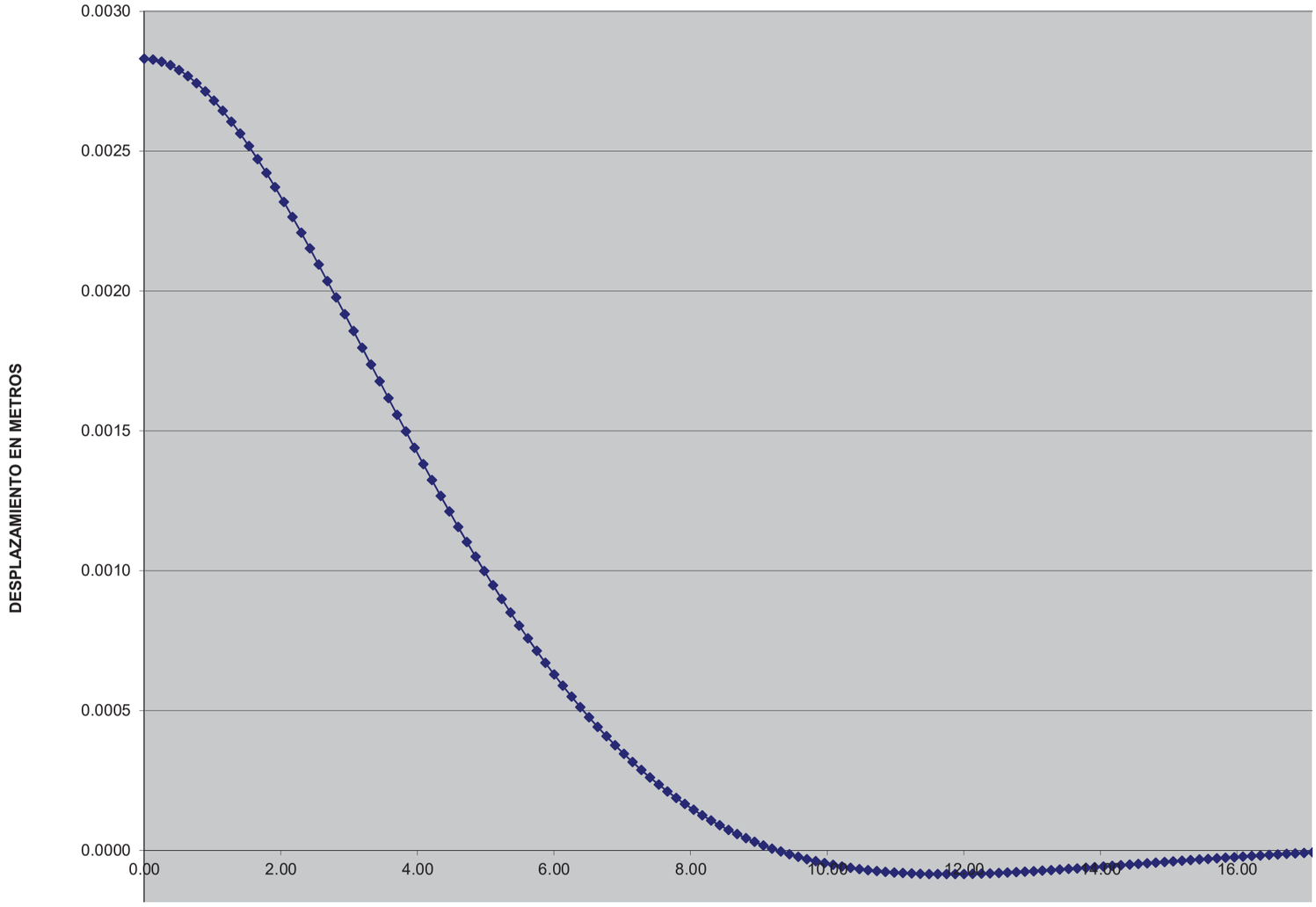
RESULTADOS NODO A NODO

NODO	PROF.	K(t/m)	Un (m)	Qn (rad)	Vx (ton)	M (t*m)	Reaccion muelle (ton)	Pasivo (ton)	Coef
151	0.00	255.33	0.0028	0.00000	49.28	-119.66	0.723	2.387	1.00
150	0.13	271.63	0.0028	-0.00004	48.51	-113.37	0.768	2.539	0.30
149	0.26	287.93	0.0028	-0.00008	47.70	-107.18	0.812	2.692	0.30
148	0.38	304.23	0.0028	-0.00012	46.84	-101.09	0.854	2.844	0.30
147	0.51	320.53	0.0028	-0.00015	45.95	-95.11	0.894	2.996	0.30
146	0.64	336.83	0.0028	-0.00019	45.02	-89.24	0.933	3.149	0.30
145	0.77	353.13	0.0027	-0.00022	44.05	-83.49	0.969	3.301	0.29
144	0.89	369.42	0.0027	-0.00024	43.04	-77.87	1.003	3.453	0.29
143	1.02	385.72	0.0027	-0.00027	42.01	-72.37	1.034	3.606	0.29
142	1.15	402.02	0.0026	-0.00030	40.95	-67.01	1.063	3.758	0.28
141	1.28	418.32	0.0026	-0.00032	39.86	-61.78	1.090	3.911	0.28
140	1.40	434.62	0.0026	-0.00034	38.74	-56.69	1.114	4.063	0.27
139	1.53	450.92	0.0025	-0.00036	37.61	-51.75	1.136	4.215	0.27
138	1.66	467.22	0.0025	-0.00038	36.45	-46.95	1.155	4.368	0.26
137	1.79	483.52	0.0024	-0.00039	35.28	-42.29	1.171	4.520	0.26
136	1.92	499.82	0.0024	-0.00041	34.10	-37.79	1.185	4.672	0.25
135	2.04	516.11	0.0023	-0.00042	32.90	-33.44	1.197	4.825	0.25
134	2.17	532.41	0.0023	-0.00043	31.69	-29.24	1.206	4.977	0.24
133	2.30	548.71	0.0022	-0.00044	30.48	-25.19	1.212	5.129	0.24
132	2.43	565.01	0.0022	-0.00045	29.27	-21.30	1.216	5.282	0.23
131	2.55	581.31	0.0021	-0.00046	28.05	-17.56	1.218	5.434	0.22
130	2.68	597.61	0.0020	-0.00046	26.83	-13.98	1.217	5.587	0.22
129	2.81	613.91	0.0020	-0.00047	25.62	-10.56	1.214	5.739	0.21
128	2.94	630.21	0.0019	-0.00047	24.41	-7.29	1.208	5.891	0.21
127	3.06	646.50	0.0019	-0.00047	23.21	-4.17	1.201	6.044	0.20
126	3.19	662.80	0.0018	-0.00047	22.02	-1.21	1.191	6.196	0.19
125	3.32	679.10	0.0017	-0.00047	20.84	1.60	1.180	6.348	0.19
124	3.45	695.40	0.0017	-0.00047	19.67	4.26	1.166	6.501	0.18
123	3.57	711.70	0.0016	-0.00047	18.52	6.78	1.151	6.653	0.17
122	3.70	728.00	0.0016	-0.00047	17.39	9.14	1.134	6.805	0.17
121	3.83	744.30	0.0015	-0.00046	16.27	11.36	1.115	6.958	0.16
120	3.96	760.60	0.0014	-0.00046	15.18	13.44	1.095	7.110	0.15
119	4.09	776.89	0.0014	-0.00045	14.10	15.37	1.073	7.263	0.15
118	4.21	793.19	0.0013	-0.00045	13.05	17.18	1.050	7.415	0.14
117	4.34	809.49	0.0013	-0.00044	12.03	18.84	1.026	7.567	0.14
116	4.47	825.79	0.0012	-0.00043	11.02	20.38	1.001	7.720	0.13
115	4.60	842.09	0.0012	-0.00043	10.05	21.78	0.974	7.872	0.12
114	4.72	858.39	0.0011	-0.00042	9.10	23.07	0.947	8.024	0.12
113	4.85	874.69	0.0011	-0.00041	8.18	24.23	0.919	8.177	0.11
112	4.98	890.99	0.0010	-0.00040	7.29	25.27	0.890	8.329	0.11
111	5.11	907.28	0.0009	-0.00039	6.43	26.21	0.860	8.481	0.10
110	5.23	923.58	0.0009	-0.00038	5.60	27.03	0.830	8.634	0.10
109	5.36	939.88	0.0009	-0.00037	4.80	27.74	0.800	8.786	0.09
108	5.49	956.18	0.0008	-0.00036	4.03	28.35	0.769	8.939	0.09
107	5.62	972.48	0.0008	-0.00035	3.30	28.87	0.738	9.091	0.08
106	5.75	988.78	0.0007	-0.00034	2.59	29.29	0.706	9.243	0.08
105	5.87	1005.08	0.0007	-0.00033	1.92	29.62	0.675	9.396	0.07
104	6.00	1021.38	0.0006	-0.00032	1.27	29.87	0.643	9.548	0.07
103	6.13	1037.67	0.0006	-0.00031	0.66	30.03	0.612	9.700	0.06
102	6.26	1053.97	0.0006	-0.00030	0.08	30.11	0.580	9.853	0.06
101	6.38	1070.27	0.0005	-0.00029	-0.47	30.12	0.549	10.005	0.05
100	6.51	1086.57	0.0005	-0.00028	-0.99	30.06	0.518	10.157	0.05
99	6.64	1102.87	0.0004	-0.00027	-1.47	29.94	0.487	10.310	0.05
98	6.77	1119.17	0.0004	-0.00026	-1.93	29.75	0.457	10.462	0.04
97	6.89	1135.47	0.0004	-0.00025	-2.36	29.50	0.427	10.615	0.04
96	7.02	1151.77	0.0003	-0.00024	-2.76	29.20	0.398	10.767	0.04
95	7.15	1168.06	0.0003	-0.00023	-3.12	28.85	0.369	10.919	0.03
94	7.28	1184.36	0.0003	-0.00022	-3.47	28.45	0.341	11.072	0.03
93	7.40	1200.66	0.0003	-0.00021	-3.78	28.01	0.314	11.224	0.03
92	7.53	1216.96	0.0002	-0.00020	-4.07	27.53	0.287	11.376	0.03
91	7.66	1233.26	0.0002	-0.00019	-4.33	27.01	0.261	11.529	0.02
90	7.79	1249.56	0.0002	-0.00018	-4.56	26.46	0.235	11.681	0.02
89	7.92	1265.86	0.0002	-0.00017	-4.77	25.87	0.211	11.833	0.02
88	8.04	1282.16	0.0001	-0.00016	-4.96	25.26	0.187	11.986	0.02
87	8.17	1298.46	0.0001	-0.00015	-5.12	24.63	0.164	12.138	0.01
86	8.30	1314.75	0.0001	-0.00014	-5.26	23.98	0.141	12.291	0.01
85	8.43	1331.05	0.0001	-0.00013	-5.38	23.30	0.120	12.443	0.01
84	8.55	1347.35	0.0001	-0.00012	-5.48	22.62	0.099	12.595	0.01
83	8.68	1363.65	0.0001	-0.00012	-5.56	21.92	0.080	12.748	0.01
82	8.81	1379.95	0.0000	-0.00011	-5.62	21.21	0.061	12.900	0.00
81	8.94	1396.25	0.0000	-0.00010	-5.67	20.49	0.043	13.052	0.00
80	9.06	1412.55	0.0000	-0.00009	-5.69	19.76	0.026	13.205	0.00
79	9.19	1428.85	0.0000	-0.00009	-5.70	19.04	0.010	13.357	0.00
78	9.32	1445.14	0.0000	-0.00008	-5.70	18.31	-0.005	13.509	0.00
77	9.45	1461.44	0.0000	-0.00007	-5.68	17.58	-0.020	13.662	0.00
76	9.57	1477.74	0.0000	-0.00007	-5.65	16.86	-0.033	13.814	0.00
75	9.70	1494.04	0.0000	-0.00006	-5.60	16.14	-0.046	13.967	0.00
74	9.83	1510.34	0.0000	-0.00006	-5.54	15.42	-0.058	14.119	0.00
73	9.96	1526.64	0.0000	-0.00005	-5.47	14.71	-0.069	14.271	0.00
72	10.09	1542.94	-0.0001	-0.00005	-5.39	14.02	-0.079	14.424	-0.01
71	10.21	1559.24	-0.0001	-0.00004	-5.30	13.33	-0.089	14.576	-0.01
70	10.34	1575.53	-0.0001	-0.00004	-5.21	12.65	-0.097	14.728	-0.01
69	10.47	1591.83	-0.0001	-0.00003	-5.10	11.99	-0.105	14.881	-0.01
68	10.60	1608.13	-0.0001	-0.00003	-4.99	11.33	-0.113	15.033	-0.01
67	10.72	1624.43	-0.0001	-0.00002	-4.87	10.70	-0.119	15.185	-0.01
66	10.85	1640.73	-0.0001	-0.00002	-4.74	10.08	-0.125	15.338	-0.01
65	10.98	1657.03	-0.0001	-0.00002	-4.61	9.47	-0.130	15.490	-0.01
64	11.11	1673.33	-0.0001	-0.00001	-4.48	8.88	-0.135	15.643	-0.01
63	11.23	1689.63	-0.0001	-0.00001	-4.34	8.31	-0.138	15.795	-0.01
62	11.36	1705.92	-0.0001	-0.00001	-4.20	7.75	-0.142	15.947	-0.01
61	11.49	1722.22	-0.0001	0.00000	-4.06	7.22	-0.144	16.100	-0.01
60	11.62	1738.52	-0.0001	0.00000	-3.91	6.70	-0.147	16.252	-0.01
59	11.75	1754.82	-0.0001	0.00000	-3.76	6.20	-0.148	16.404	-0.01
58	11.87	1771.12	-0.0001	0.00000	-3.61	5.72	-0.149	16.557	-0.01
57	12.00	1787.42	-0.0001	0.00000	-3.46	5.26	-0.150	16.709	-0.01
56	12.13	1803.72	-0.0001	0.00001	-3.31	4.82	-0.150	16.861	-0.01
55	12.26	1820.02	-0.0001	0.00001	-3.16	4.39	-0.150	17.014	-0.01
54	12.38	1836.31	-0.0001	0.00001	-3.01	3.99	-0.150	17.166	-0.01
53	12.51	1852.61	-0.0001	0.00001	-2.86	3.61	-0.149	17.319	-0.01
52	12.64	1868.91	-0.0001	0.00001	-2.72	3.24	-0.147	17.471	-0.01
51	12.77	1885.21	-0.0001	0.00001	-2.57	2.89	-0.146	17.623	-0.01
50	12.89	1901.51	-0.0001	0.00001	-2.43	2.57	-0.144	17.776	-0.01
49	13.02	1917.81	-0.0001	0.00001	-2.28	2.26	-0.142	17.928	-0.01
48	13.15	1934.11	-0.0001	0.00002	-2.14	1.97	-0.139	18.080	-0.01
47	13.28	1950.41	-0.0001	0.00002	-2.01	1.69	-0.137	18.233	-0.01
46	13.41	1966.71	-0.0001	0.00002	-1.87	1.44	-0.134	18.385	-0.01
45	13.53	1983.00	-0.0001	0.00002	-1.74	1.20	-0.131	18.537	-0.01
44	13.66	1999.30	-0.0001	0.00002	-1.62	0.97	-0.128	18.690	-0.01
43	13.79	2015.60	-0.0001	0.00002	-1.49	0.77	-0.124	18.842	-0.01
42	13.92	2031.90	-0.0001	0.00002	-1.37	0.58	-0.121	18.995	-0.01
41	14.04	2048.20	-0.0001	0.00002	-1.25	0.40	-0.117	19.147	-0.01
40	14.17	2064.50	-0.0001	0.00002	-1.14	0.24	-0.113	19.299	-0.01
39	14.30	2080.80	-0.0001	0.00002	-1.03	0.10	-0.109	19.452	-0.01
38	14.43	2097.10	-0.0001	0.00002	-0.93	-0.04	-0.105	19.604	-0.01
37	14.55	2113.39	0.0000	0.00002	-0.83	-0.15	-0.101	19.756	-0.01
36	14.68	2129.69	0.0000	0.00002	-0.73	-0.26	-0.097	19.909	0.00
35	14.81	2145.99	0.0000	0.00002	-0.64	-0.35	-0.093	20.061	0.00
34	14.94	2162.29	0.0000	0.00002	-0.55	-0.43	-0.089	20.213	0.00
33	15.06	2178.59	0.0000	0.00002	-0.46	-0.50	-0.085	20.366	0.00
32	15.19	2194.89	0.0000	0.00002	-0.38	-0.56	-0.080	20.518	0.00
31	15.32	2211.19	0.0000	0.00002	-0.31	-0.61	-0.076	20.671	0.00
30	15.45	2227.49	0.0000	0.00002	-0.23	-0.65	-0.072	20.823	0.00
29	15.58	2243.78	0.0000	0.00002	-0.17	-0.68	-0.067	20.975	0.00
28	15.70	2260.08	0.0000	0.00002	-0.10	-0.70	-0.063	21.128	0.00
27	15.83	2276.38	0.0000	0.00002	-0.04	-0.71	-0.059	21.280	0.00
26	15.96	2292.68	0.0000	0.00002	0.01	-0.72	-0.055	21.432	0.00
25	16.09	2308.98	0.0000	0.00002	0.06	-0.72	-0.050	21.585	0.00
24	16.21	2325.28	0.0000	0.00002	0.11	-0.71	-0.046	21.737	0.00
23	16.34	2341.58	0.0000	0.00002	0.15	-0.70	-0.042	21.889	0.00
22	16.47	2357.88	0.0000	0.00001	0.19	-0.68	-0.038	22.042	0.00
21	16.60	2374.17	0.0000	0.00001	0.22	-0.65	-0.033	22.194	0.00
20	16.72	2390.47	0.0000	0.00001	0.25	-0.63	-0.029	22.347	0.00
19	16.85	2406.77	0.0000	0.00001	0.27	-0.59	-0.025	22.499	0.00
18	16.98	2423.07	0.0000	0.00001	0.29	-0.56	-0.021	22.651	0.00
17	17.11	2439.37	0.0000	0.00001	0.31	-0.52	-0.017	22.804	0.00
16	17.24	2455.67	0.0000	0.00001	0.32	-0.48	-0.012	22.956	0.00
15	17.36	2471.97	0.0000	0.00001	0.33	-0.44	-0.008	23.108	0.00
14	17.49	2488.27	0.0000	0.00001	0.34	-0.40	-0.004	23.261	0.00
13	17.62	2504.56	0.0000	0.00001	0.34	-0.36	0.000	23.413	0.00
12	17.75	2520.86	0.0000	0.00001	0.33	-0.31	0.004	23.565	0.00
11	17.87	2537.16	0.0000	0.00001	0.32	-0.27	0.009	23.718	0.00
10	18.00	2553.46	0.0000	0.00001	0.31	-0.23	0.013	23.870	0.00
9	18.13	2569.76	0.0000	0.00001	0.29	-0.19	0.017	24.023	0.00
8	18.26	2586.06	0.0000	0.00001	0.27	-0.15	0.022	24.175	0.00
7	18.38	2602.36	0.0000	0.00001	0.24	-0.12	0.026	24.327	0.00
6	18.51	2618.66	0.0000	0.00001	0.21	-0.09	0.030	24.480	0.00
5	18.64	2634.95	0.0000	0.00001	0.18	-0.06	0.035	24.632	0.00
4	18.77	2651.25	0.0000	0.00001	0.14	-0.04	0.039	24.784	0.00
3	18.89	2667.55	0.0000	0.00001	0.10	-0.02	0.044	24.937	0.00
2	19.02	2683.85	0.0000	0.00001	0.05	-0.01	0.048	25.089	0.00
						0.00			

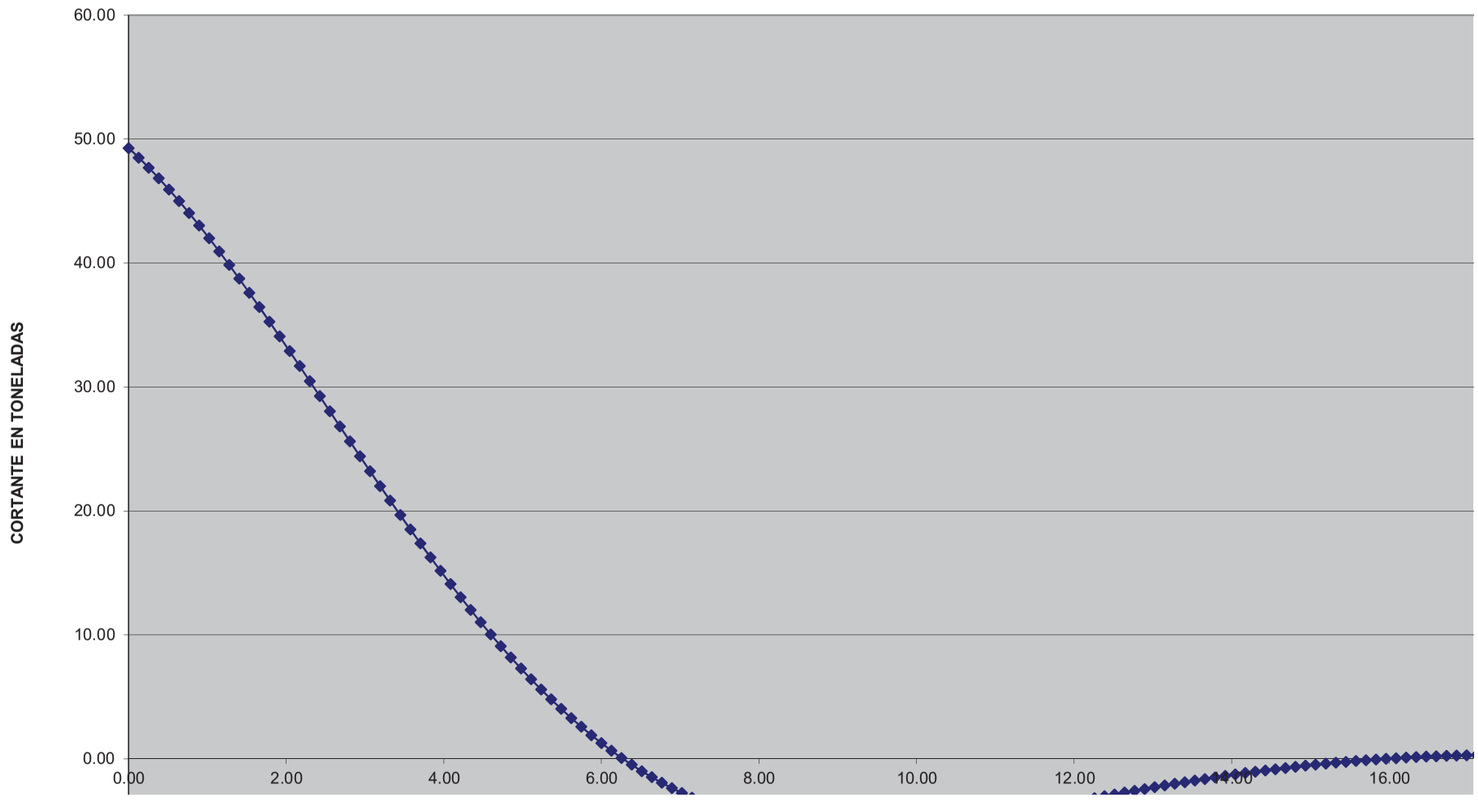
Profundidad del punto de momento nulo	3.26	m
Momento de la fuerza en cabeza a nivel del punto de momento nulo	163.00	ton*m
Momento de la reacción del terreno por encima del punto de momento nulo	43.04	ton*m
Profundidad de cálculo del punto de inflexión (*)	2.40	m

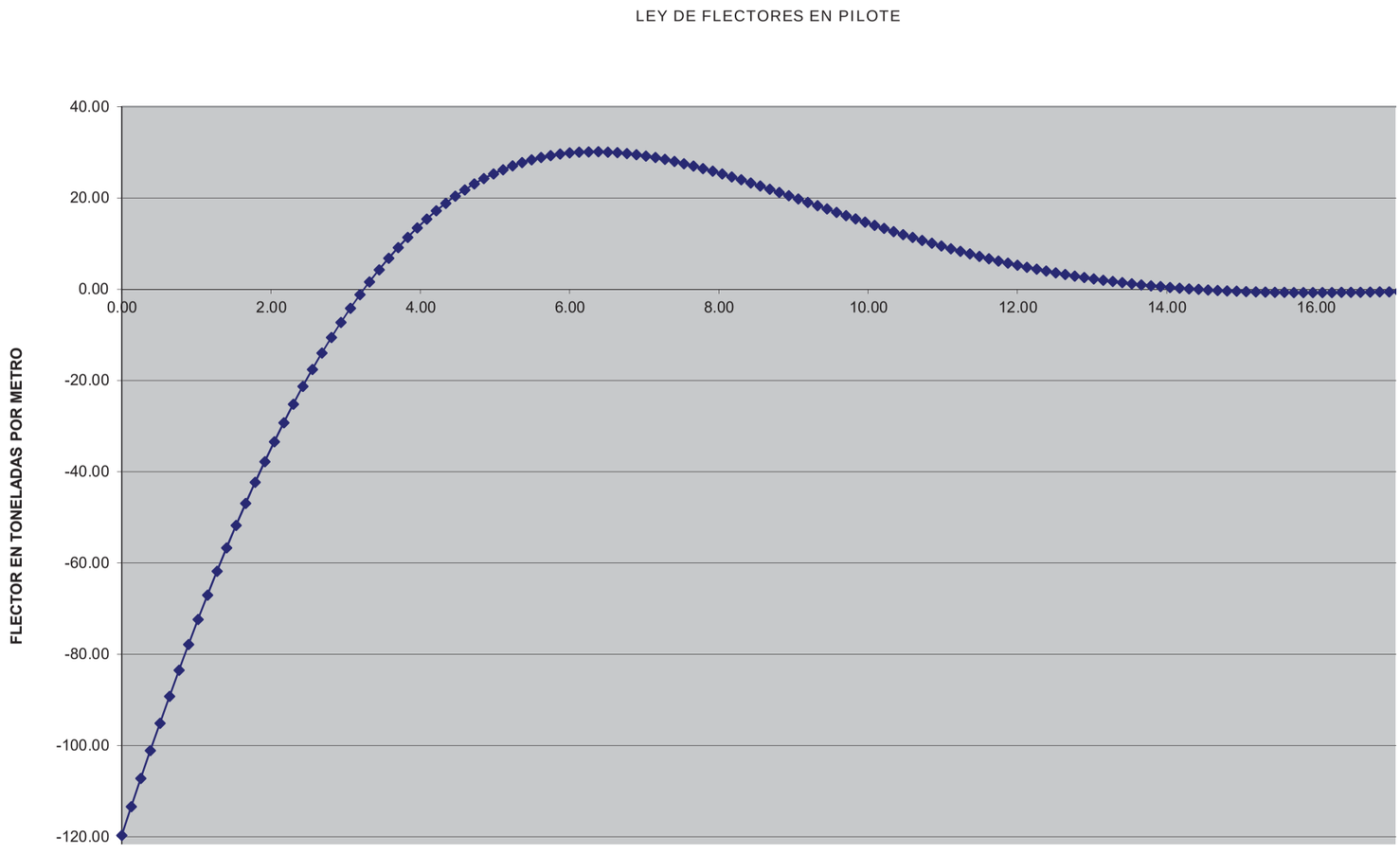
A efectos de cálculo de la cimentación se toma una profundidad del punto de inflexión de 2.4 metros

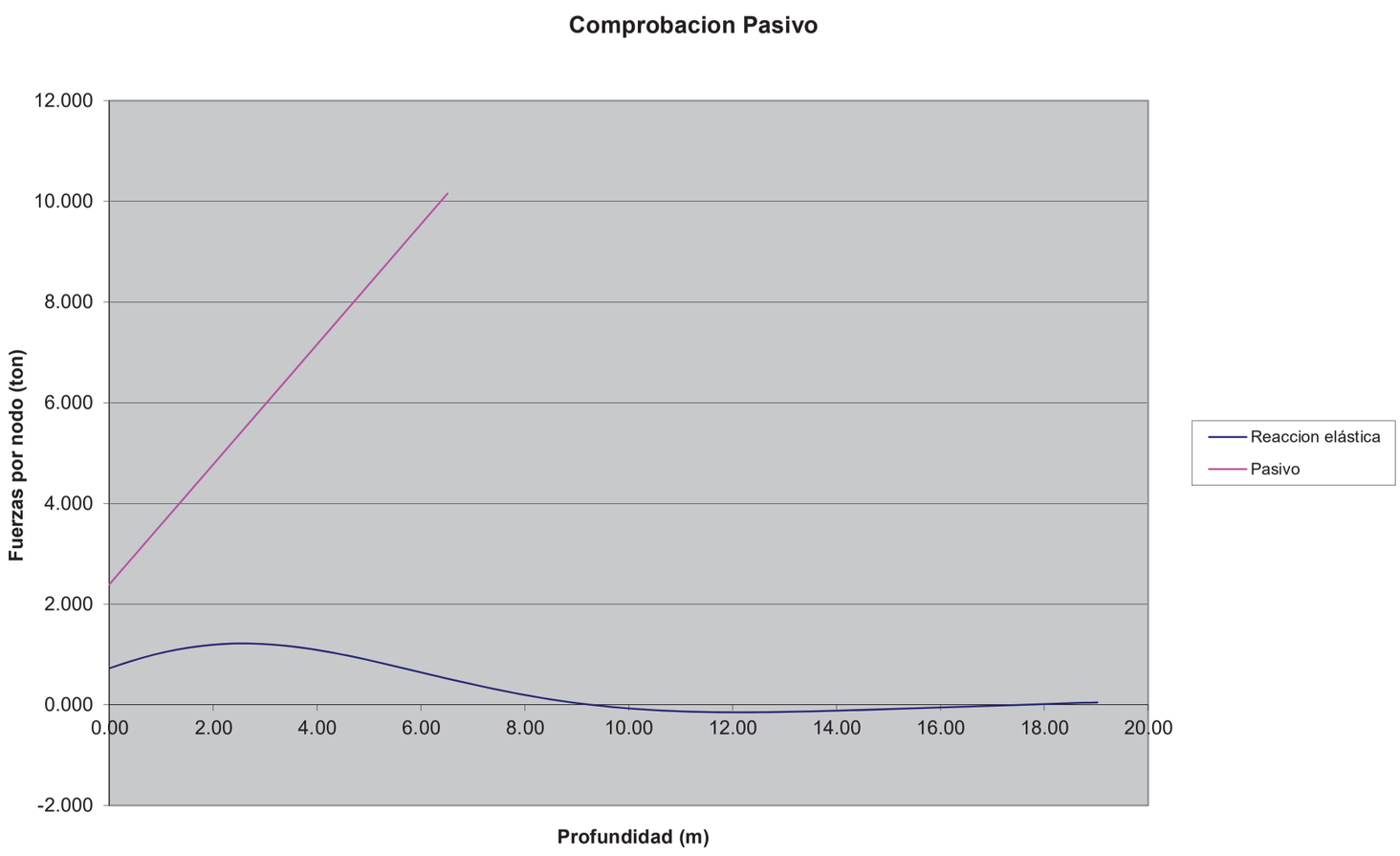
LEY DE DESPLAZAMIENTO DEL PILOTE

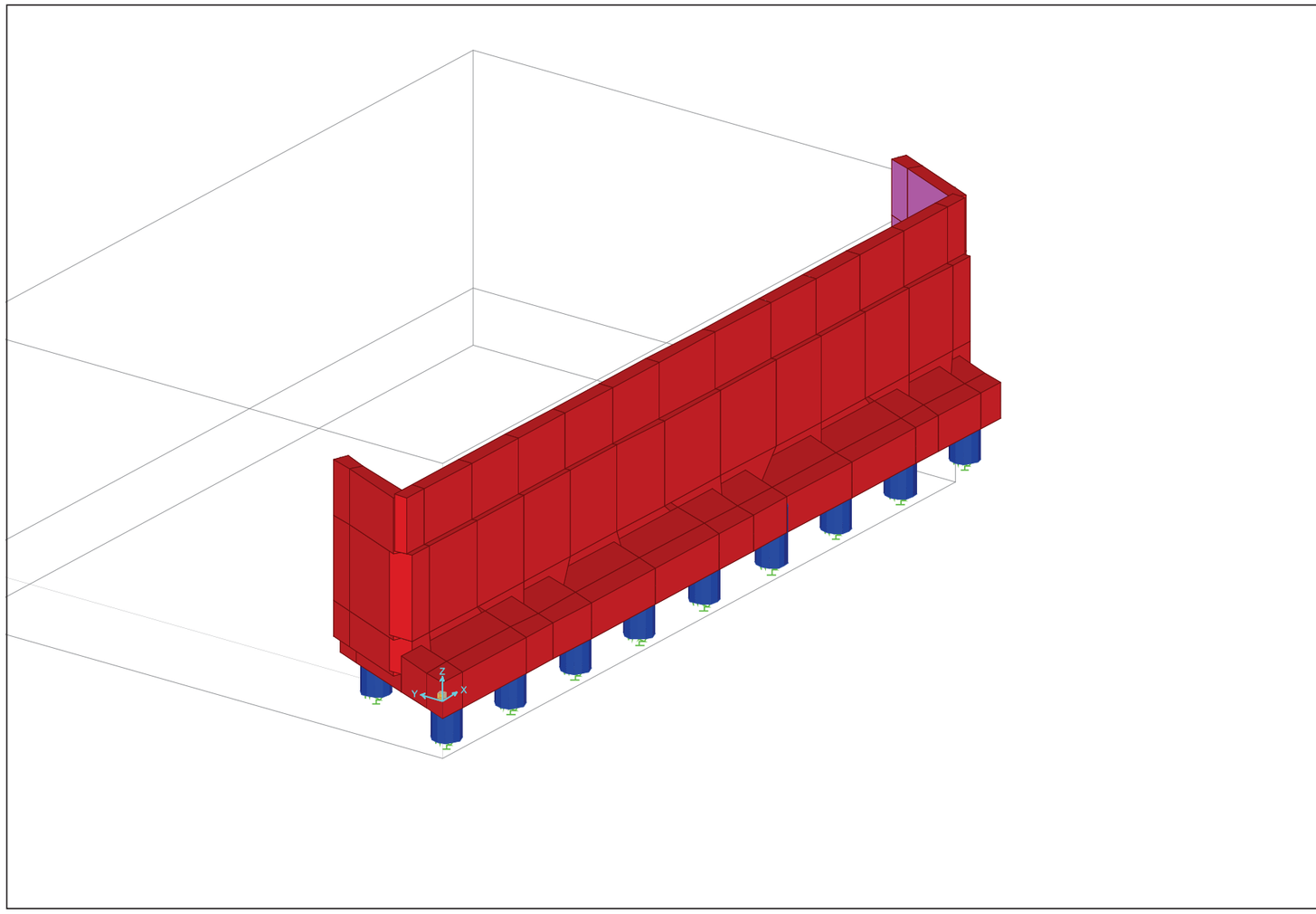


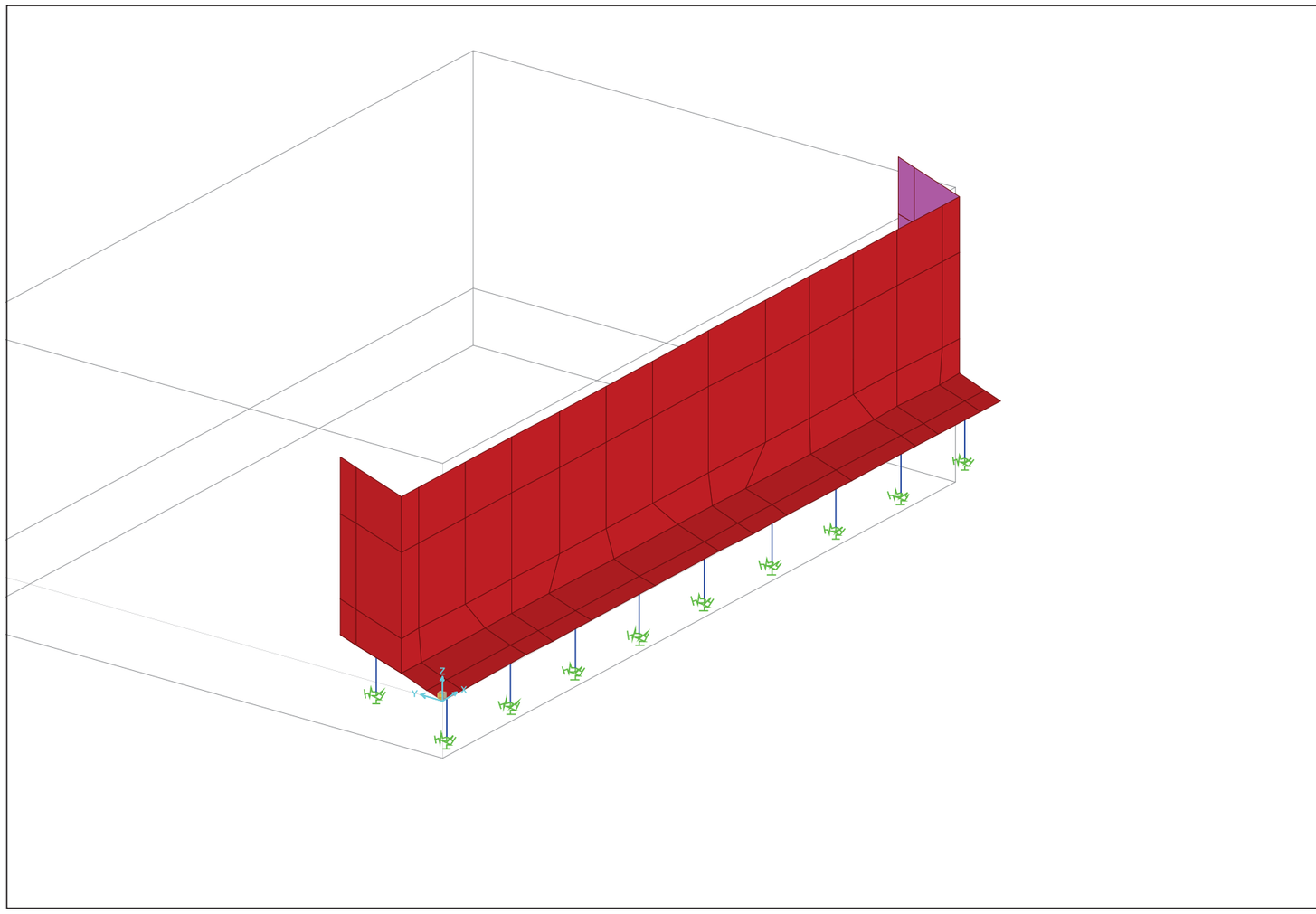
LEY DE CORTANTES EN PILOTE

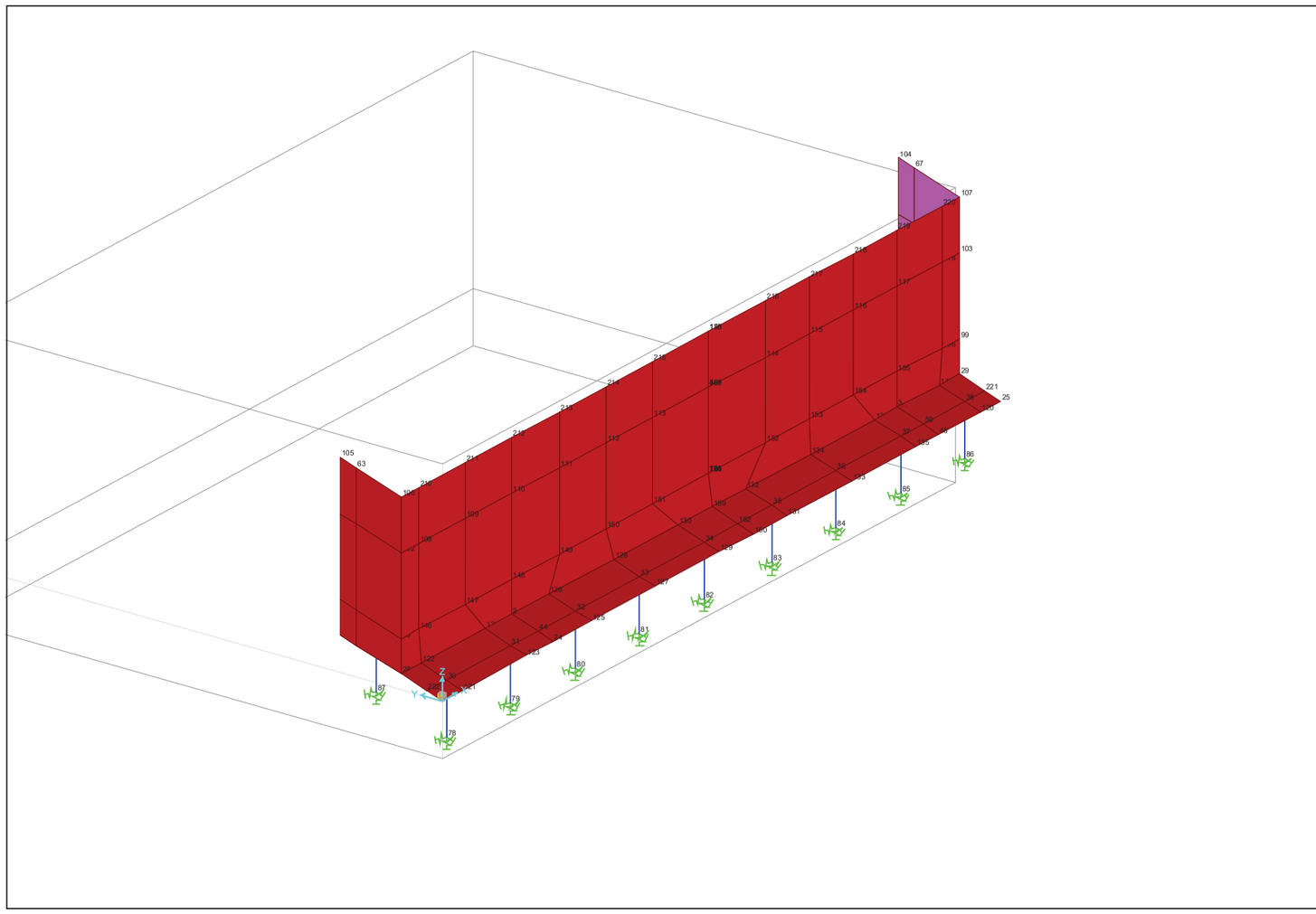


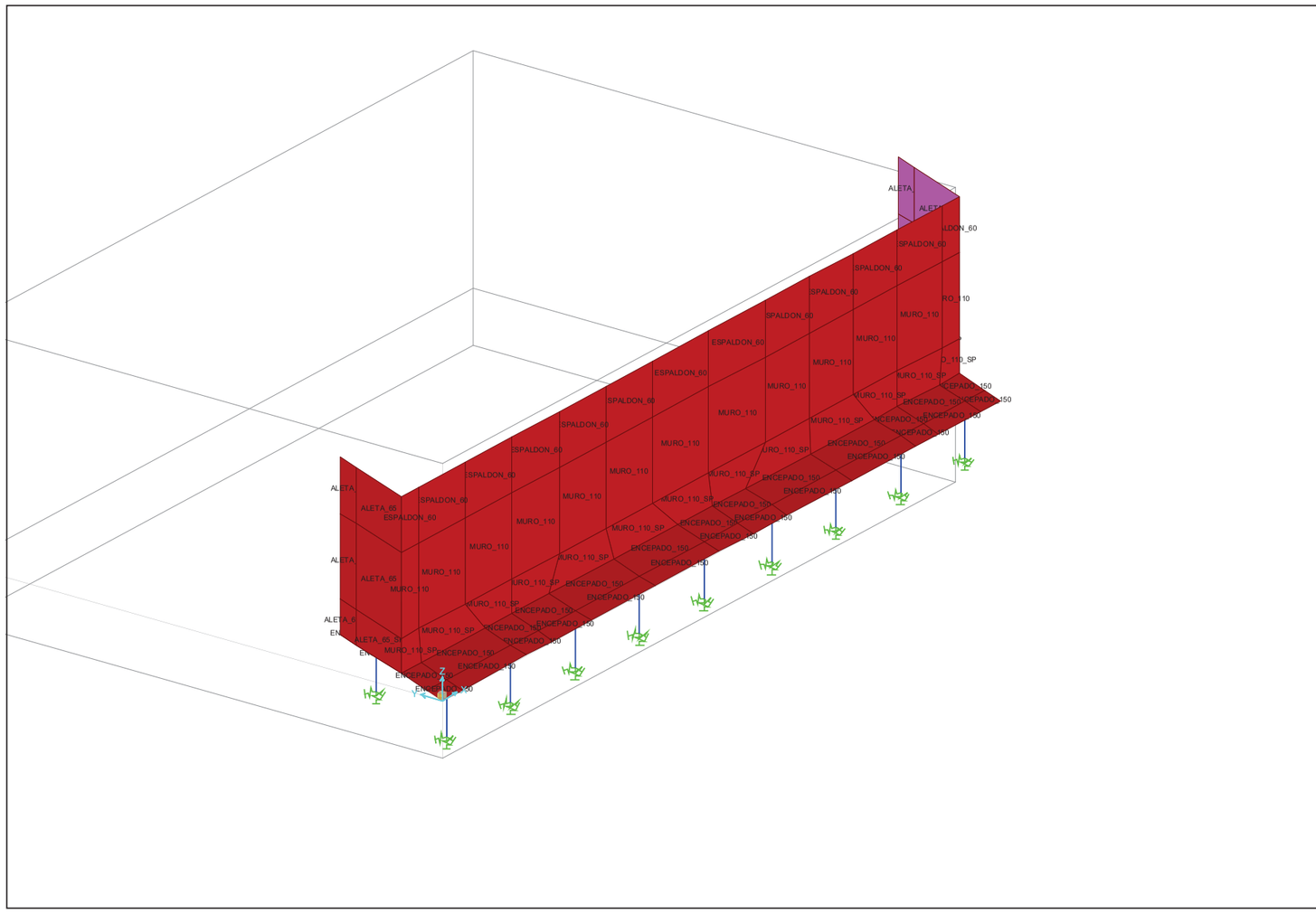

LEY DE FLECTORES EN PILOTE
FLECTOR EN TONELADAS POR METRO
40.00
20.00
0.00
-20.00
-40.00
-60.00
-80.00
-100.00
-120.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00

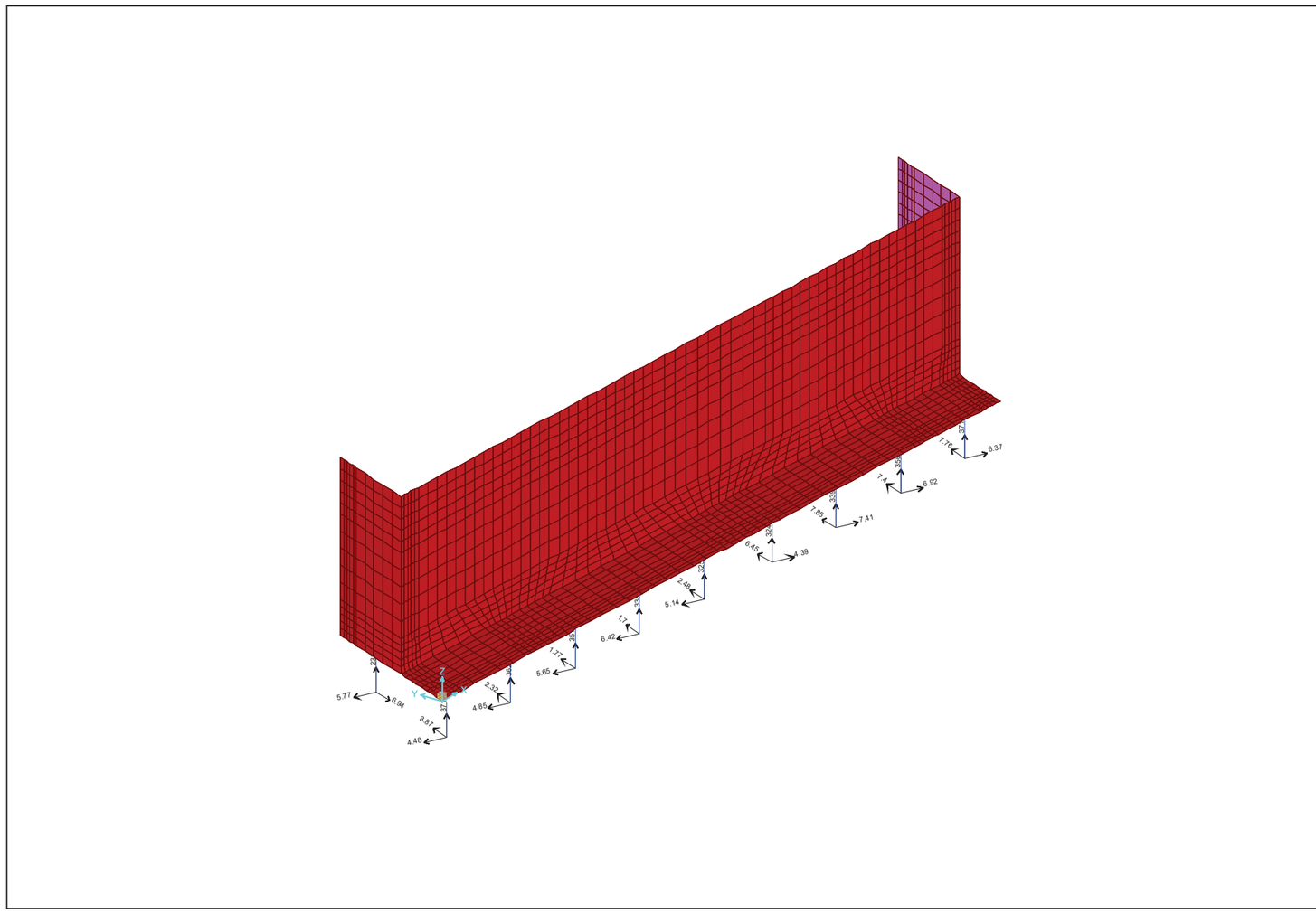

Comprobacion Pasivo
Fuerzas por nodo (ton)
12.000
10.000
8.000
6.000
4.000
2.000
0.000
-2.000
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
Profundidad (m)
Reaccion elástica
Pasivo







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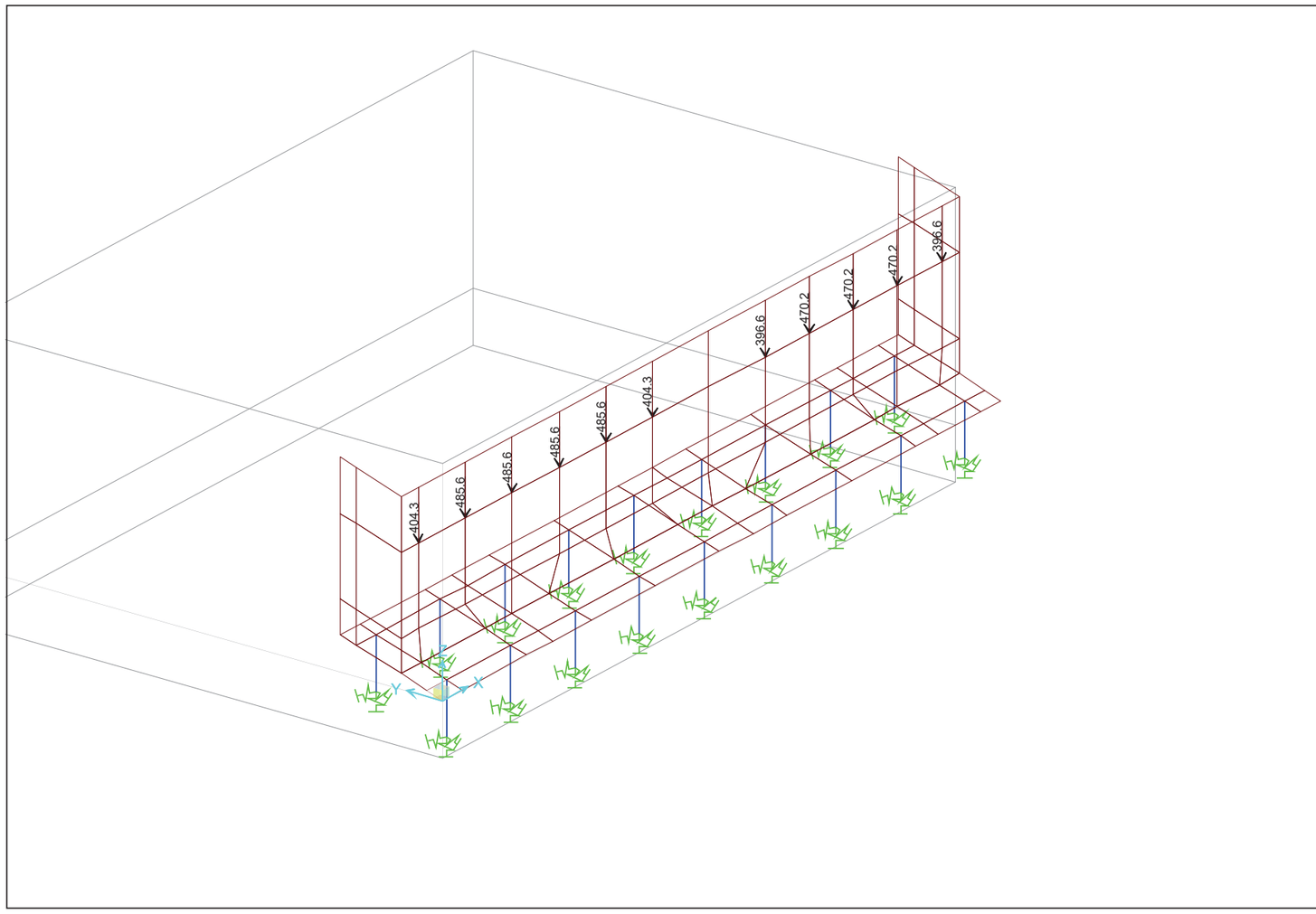
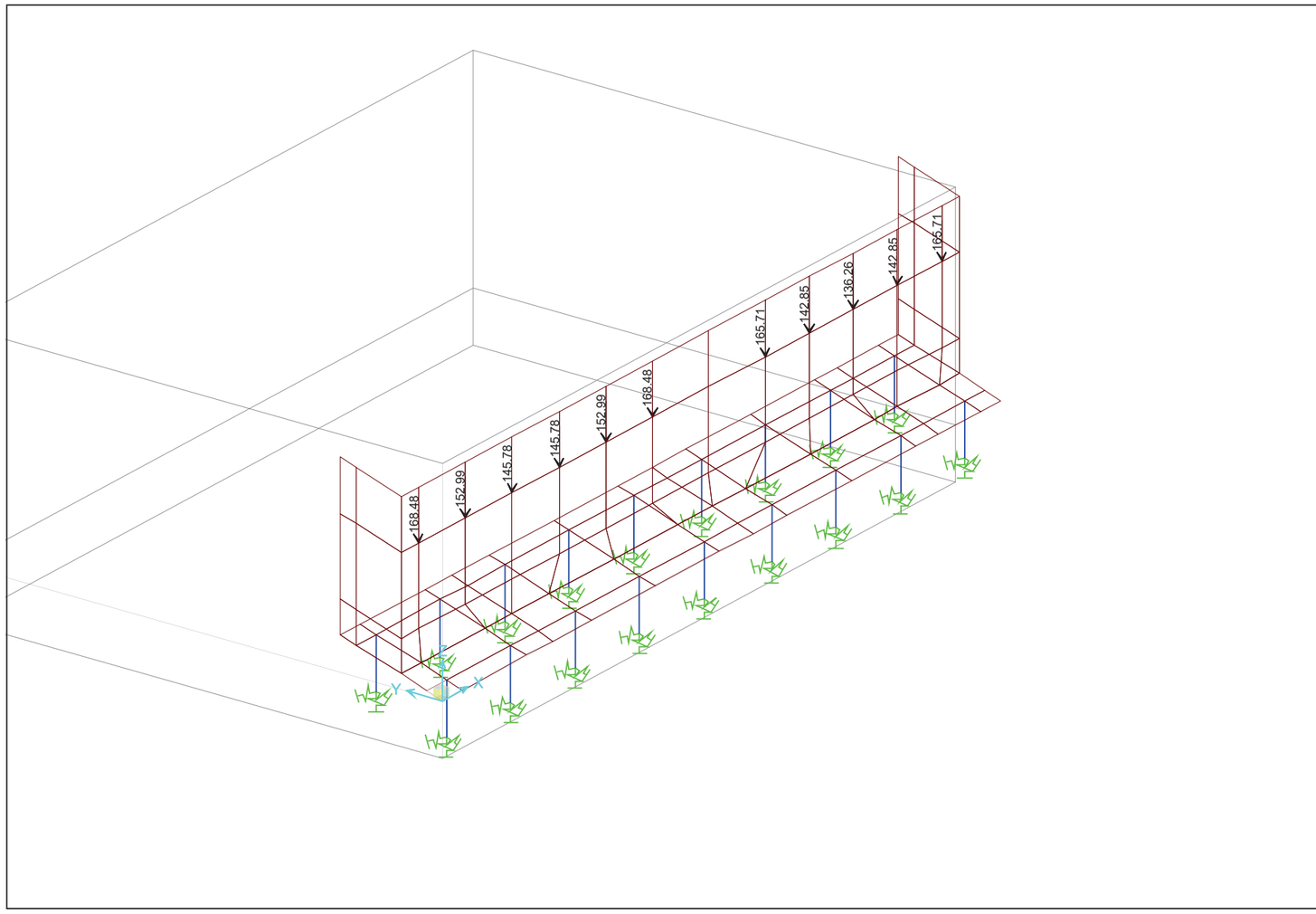
6.94
3.87
4.48
2.32
4.85
1.77
5.65
1.4
6.42
2.49
5.14
0.45
4.39
1.85
7.41
1.4
6.92
1.76
6.37
Z
Y
X


404.3
485.6
485.6
485.6
485.6
404.3
396.6
470.2
470.2
470.2
396.6
Y
X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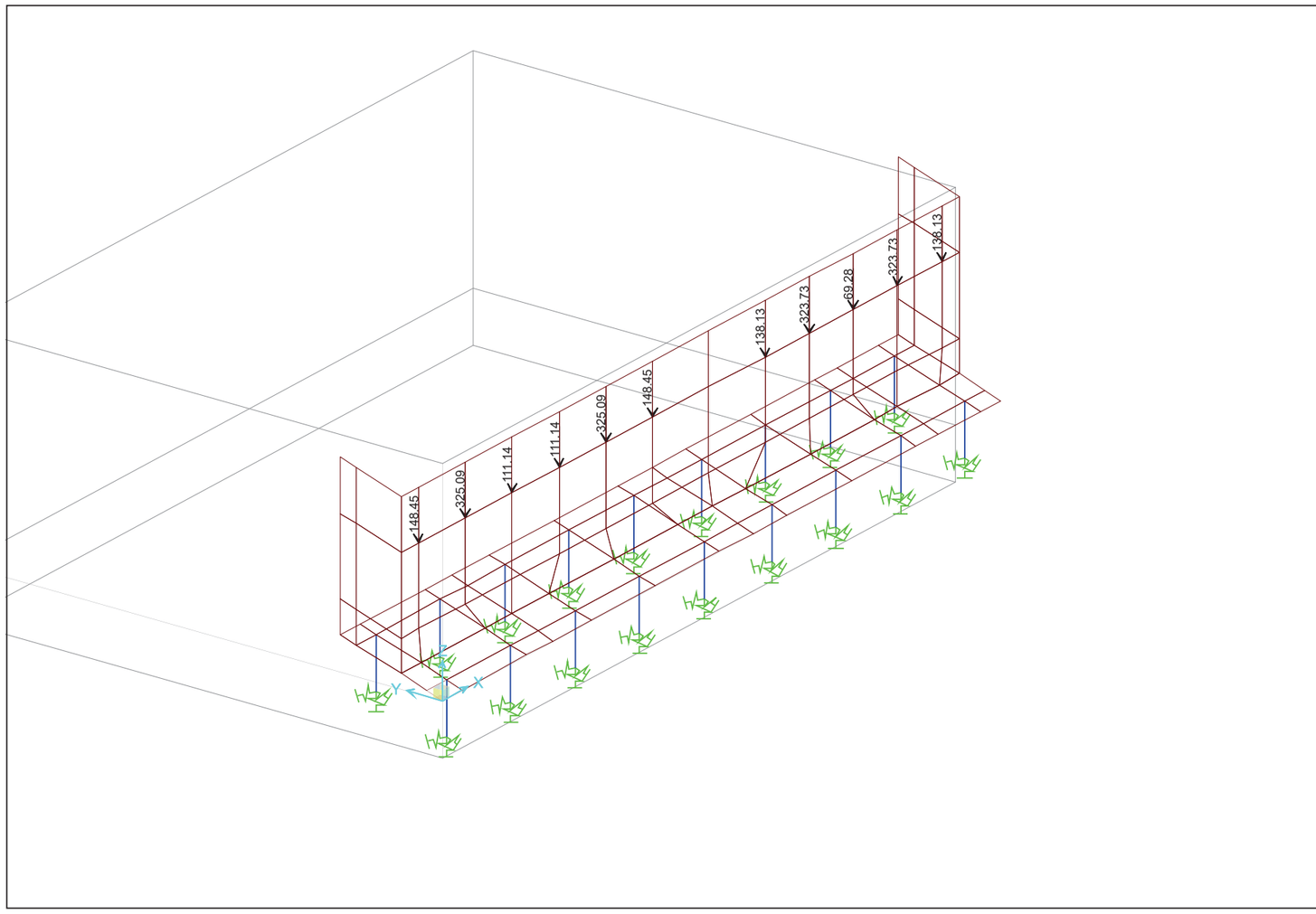
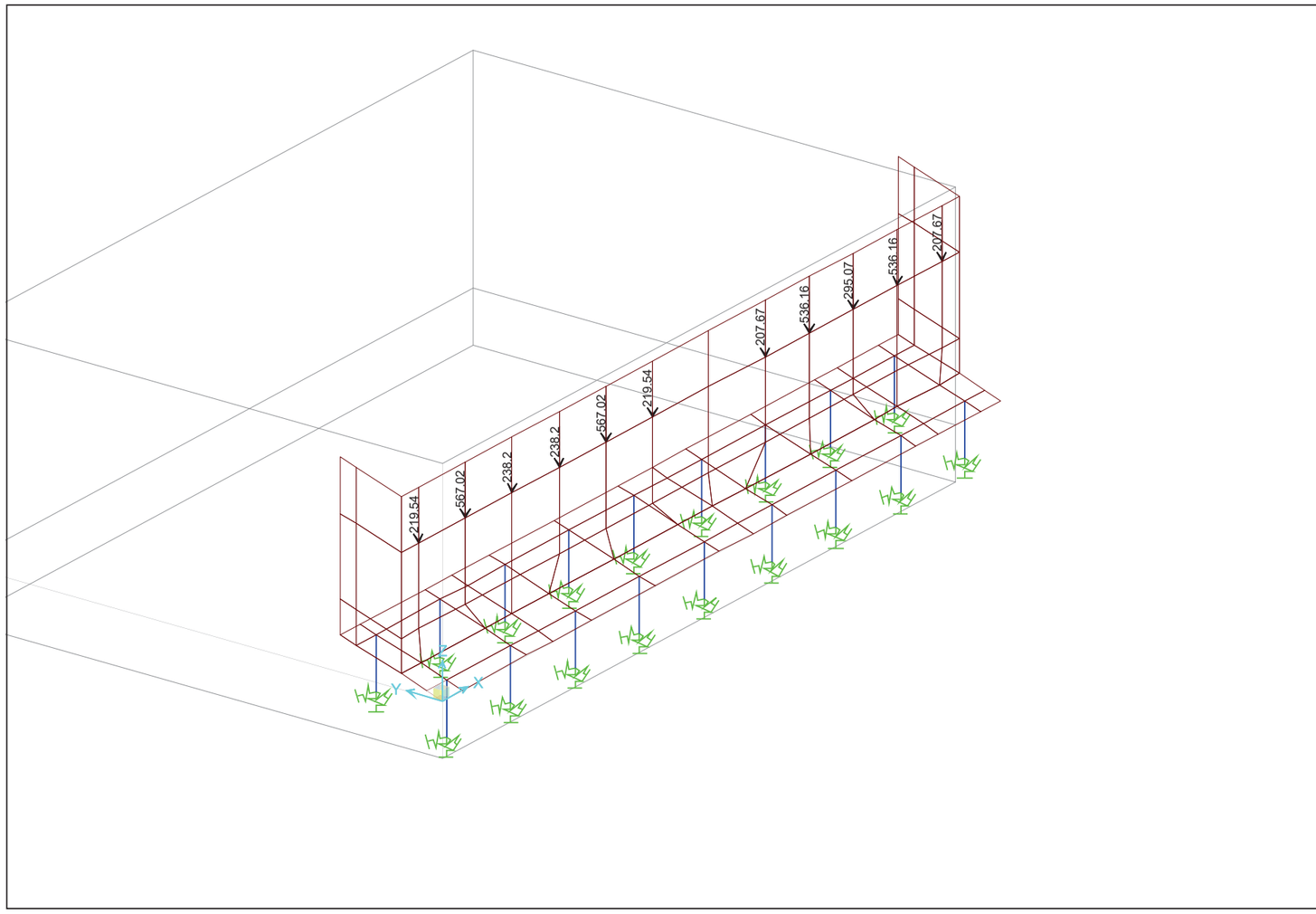
152.99
145.78
145.78
152.99
168.48
165.71
142.85
136.26
142.85
165.71
Z
Y
X


148.45
325.09
111.14
111.14
325.09
148.45
138.13
323.73
89.28
323.73
138.13
Z
Y
X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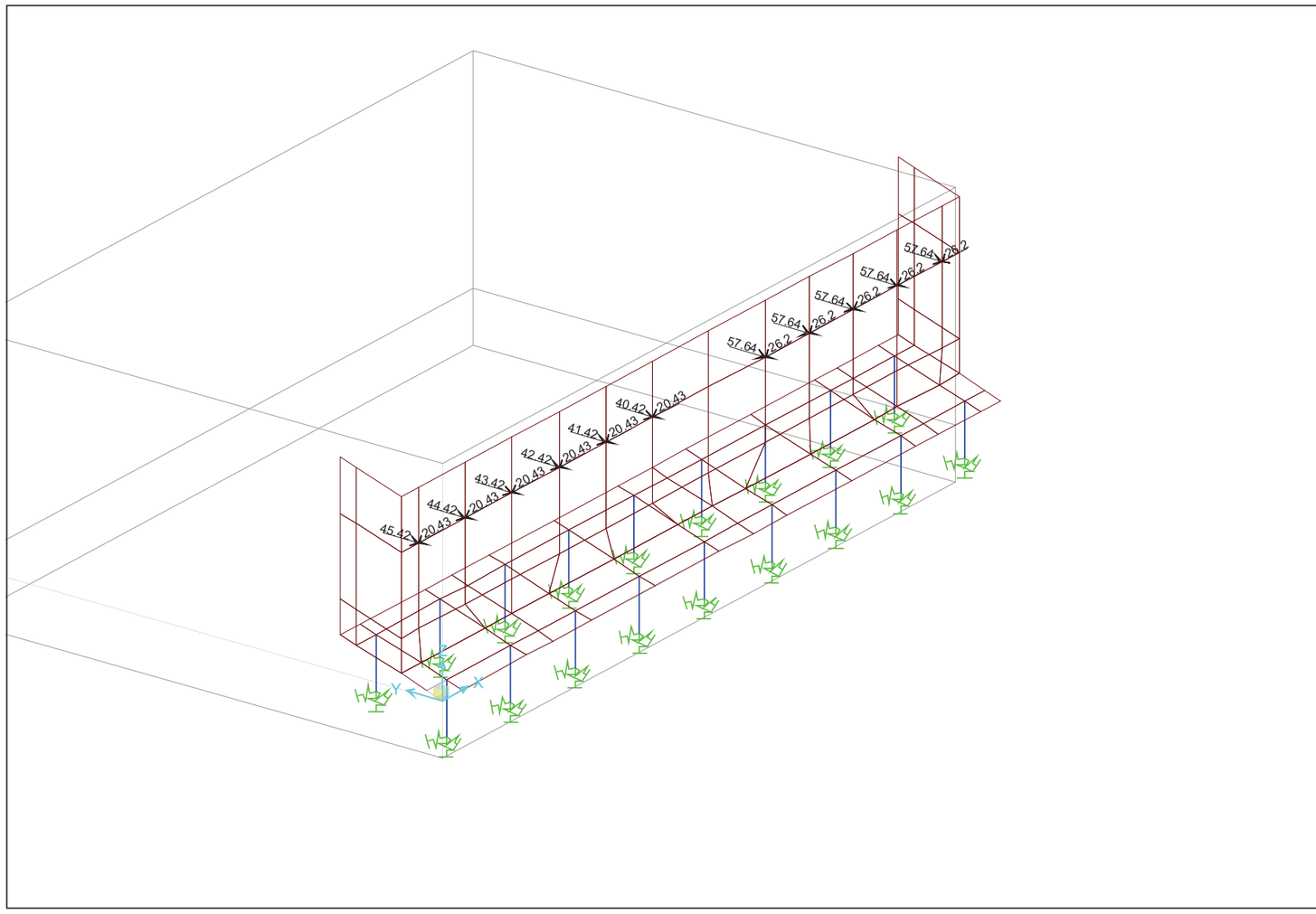
567.02
238.2
238.2
567.02
219.54
207.67
536.16
295.07
536.16
207.67
Y
X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43.42
20.43
42.42
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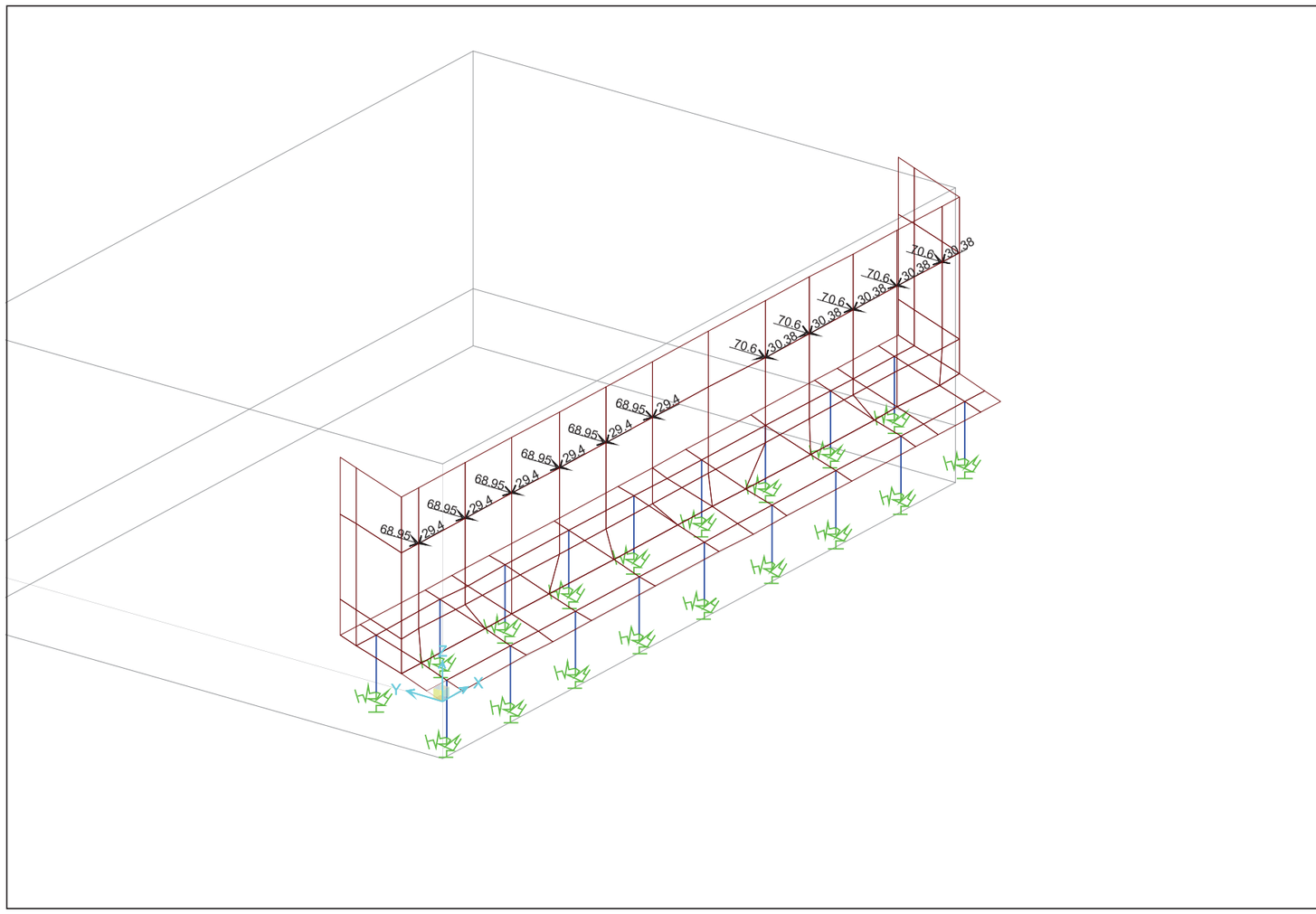
41.42
20.43
40.42
20.43
57.64
26.2
57.64
26.2
57.64
26.2
57.64
26.2
57.64
26.2
57.64
26.2
Y
X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29.4
70.6
30.38
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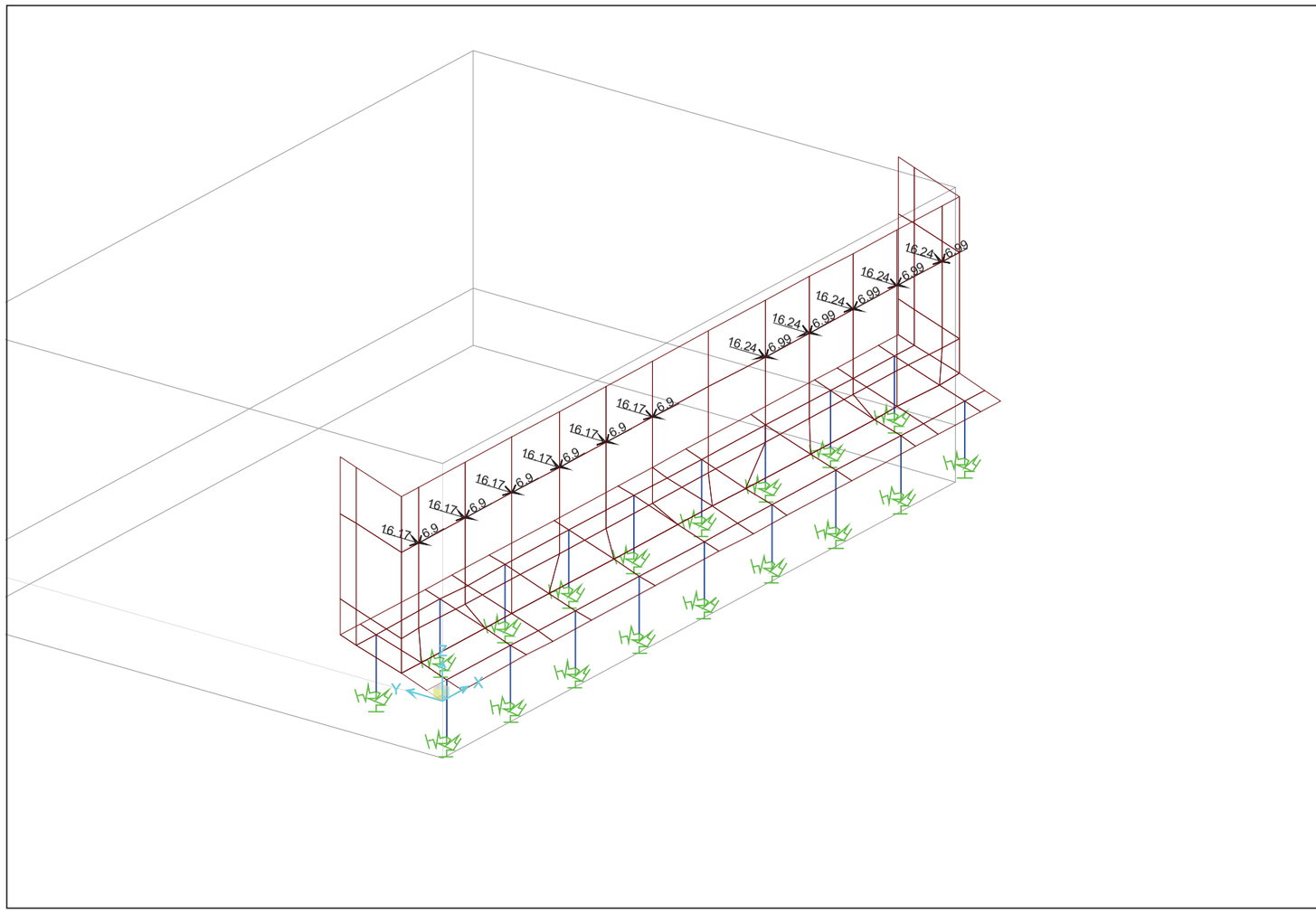
X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16.24
6.99
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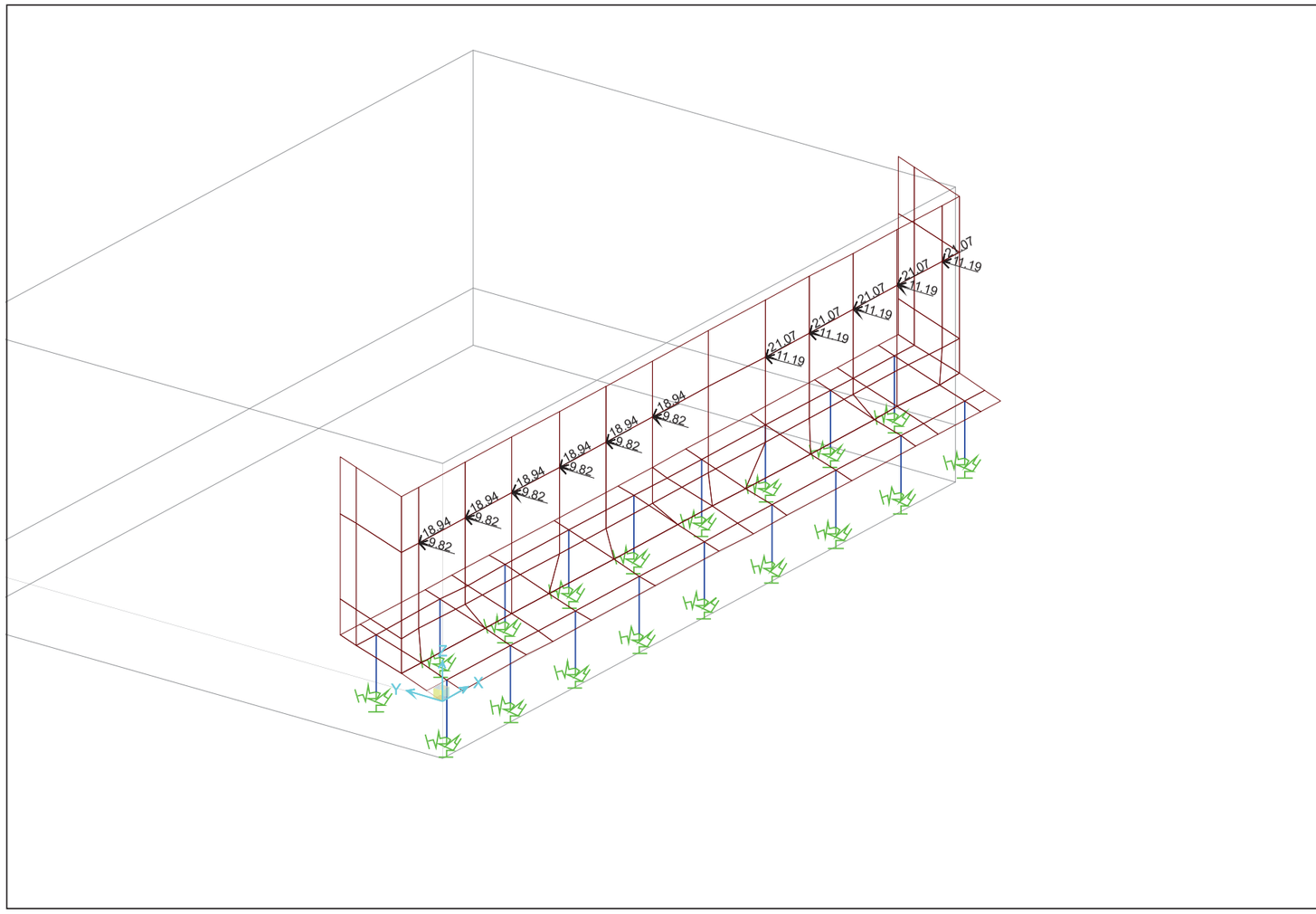
X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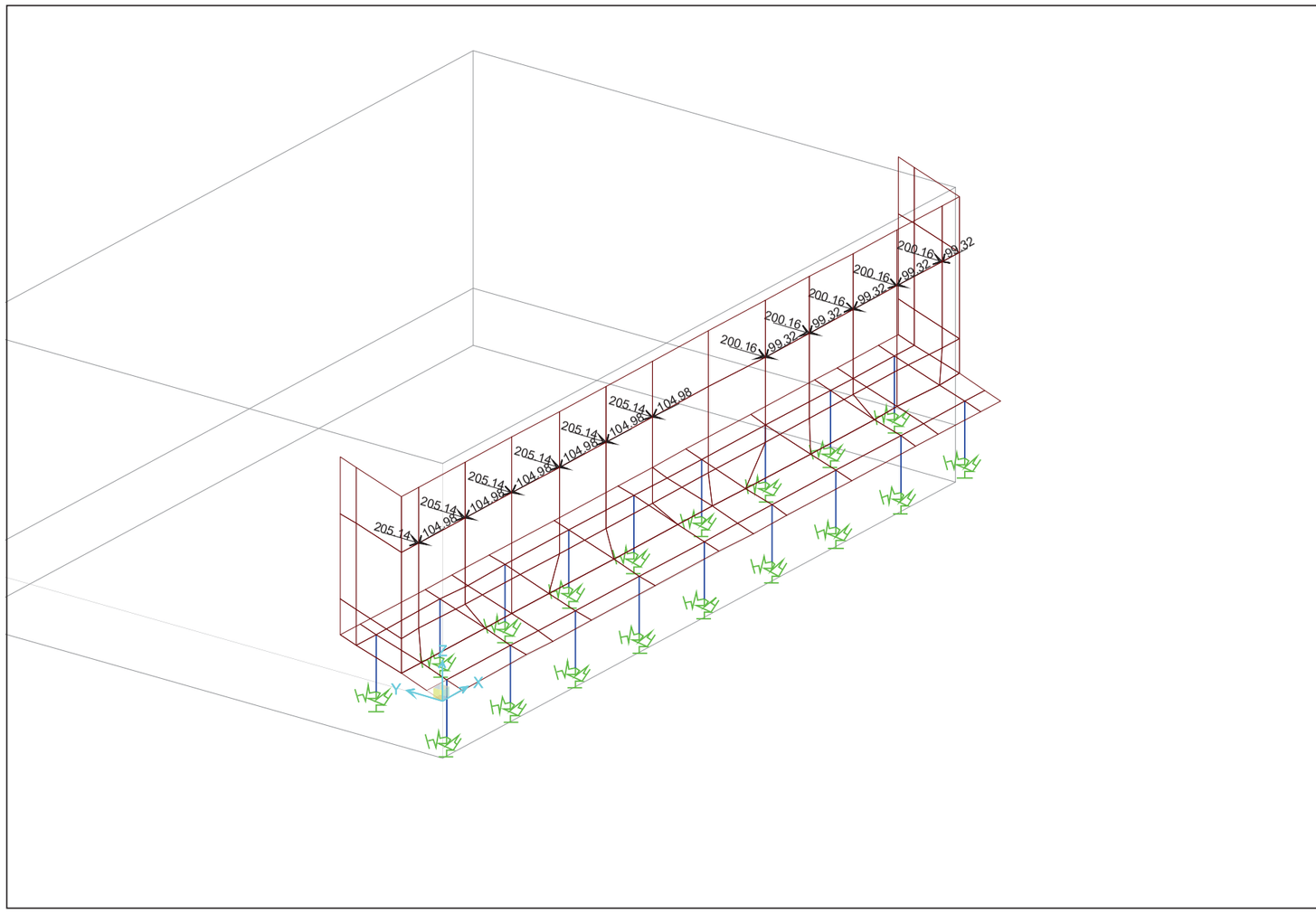
9.82
21.07
11.19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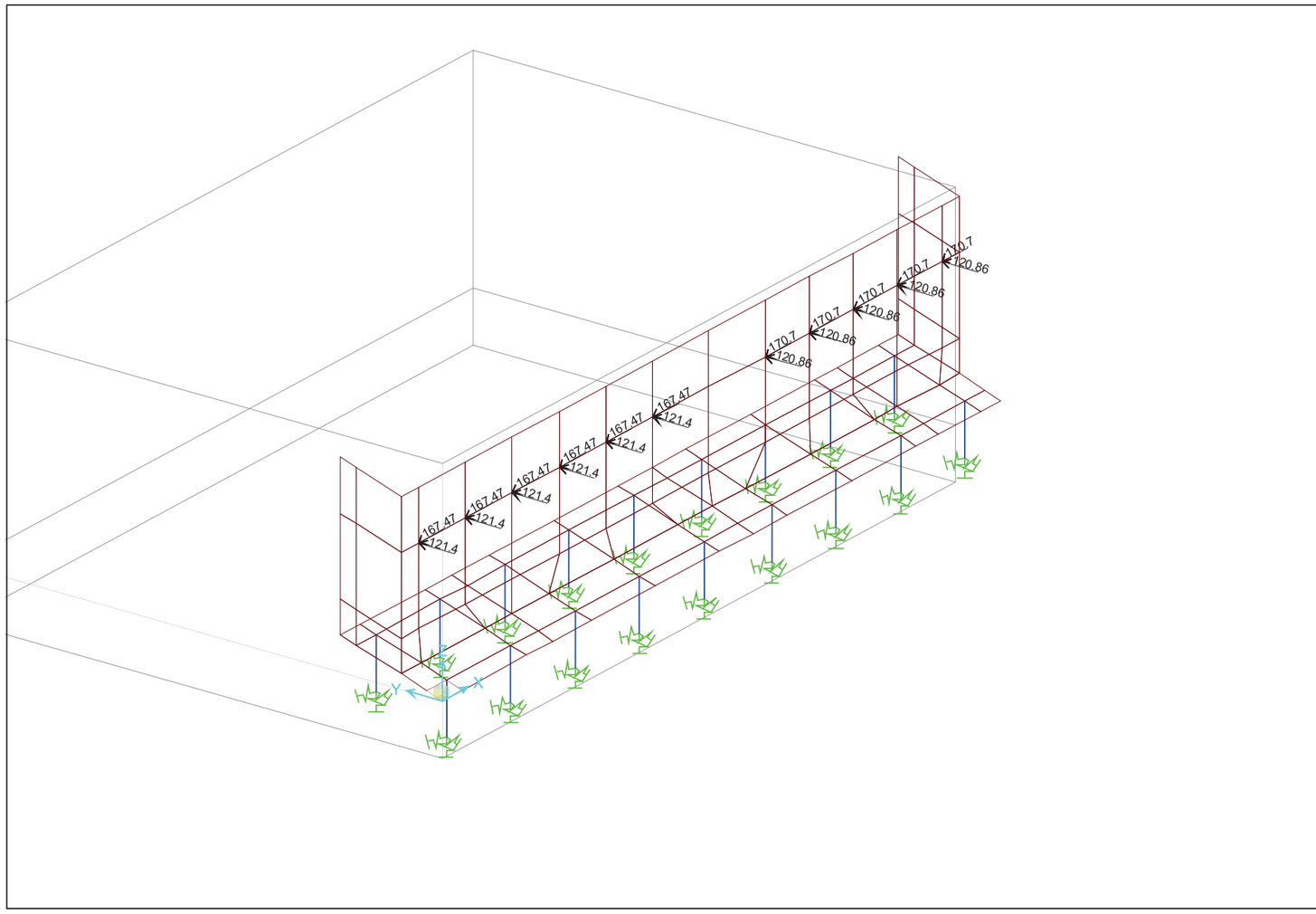
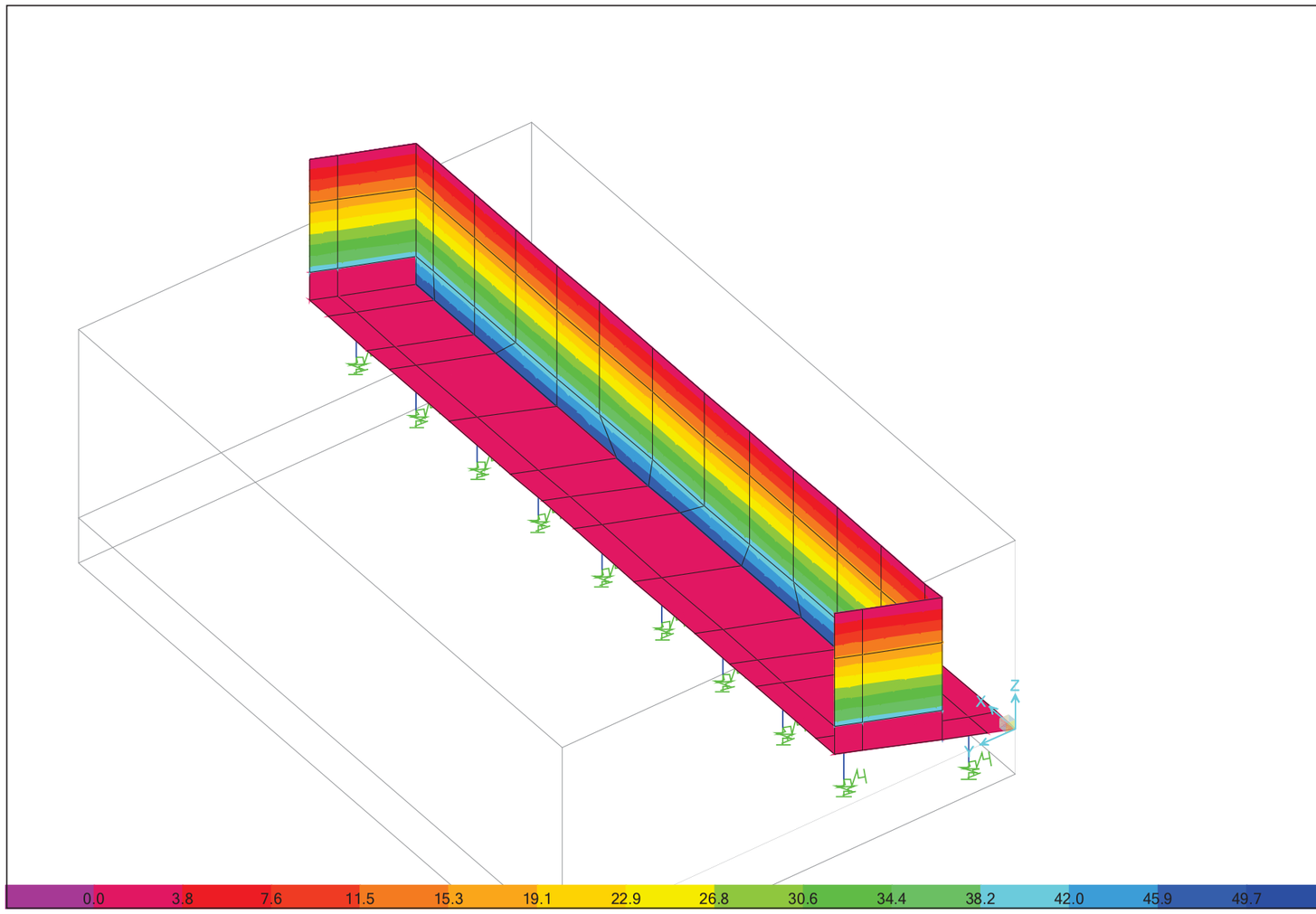
104.98
200.16
99.32


170.7
120.86
167.47
121.4
Y
X


Z
X
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3.8
7.6
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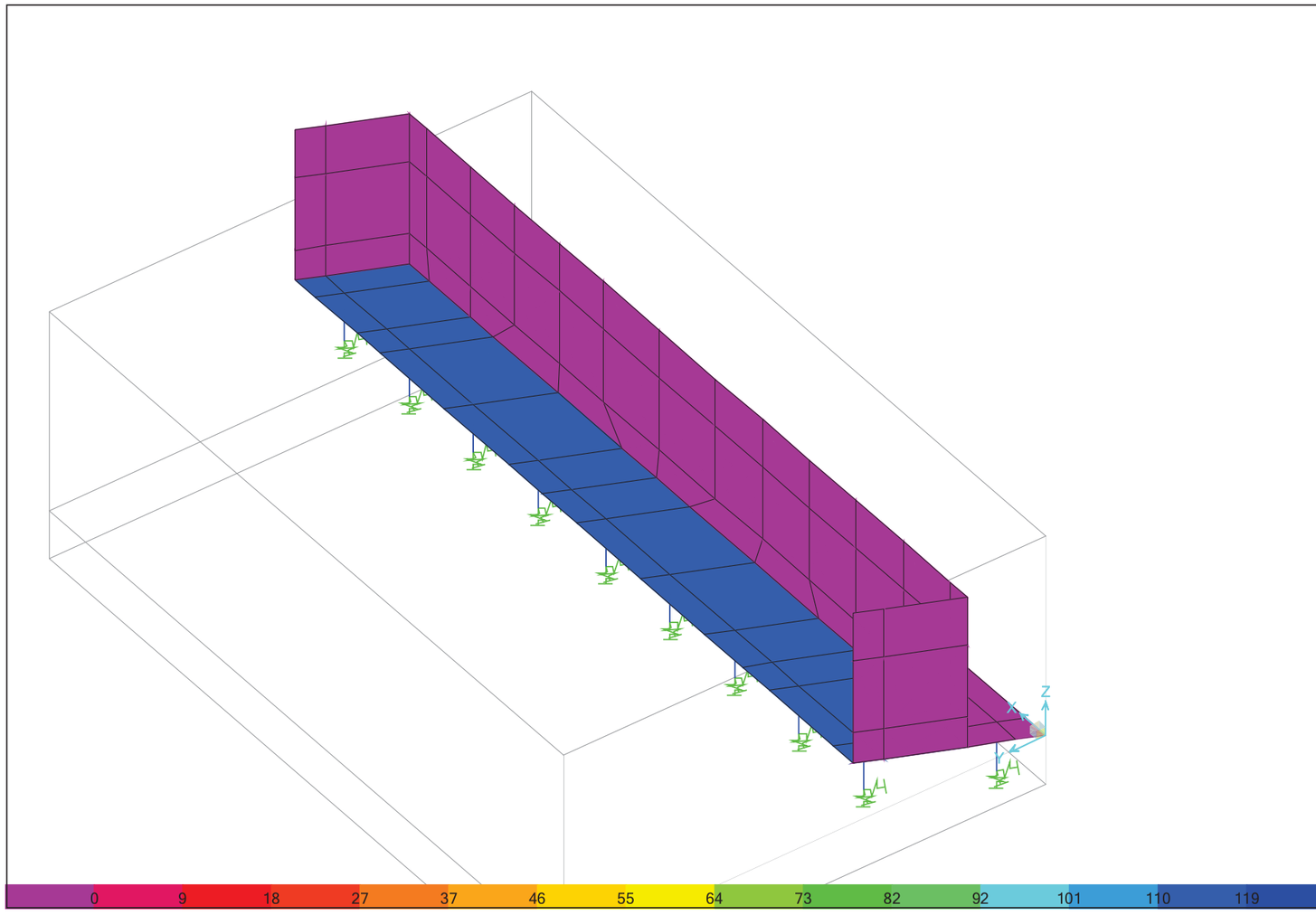
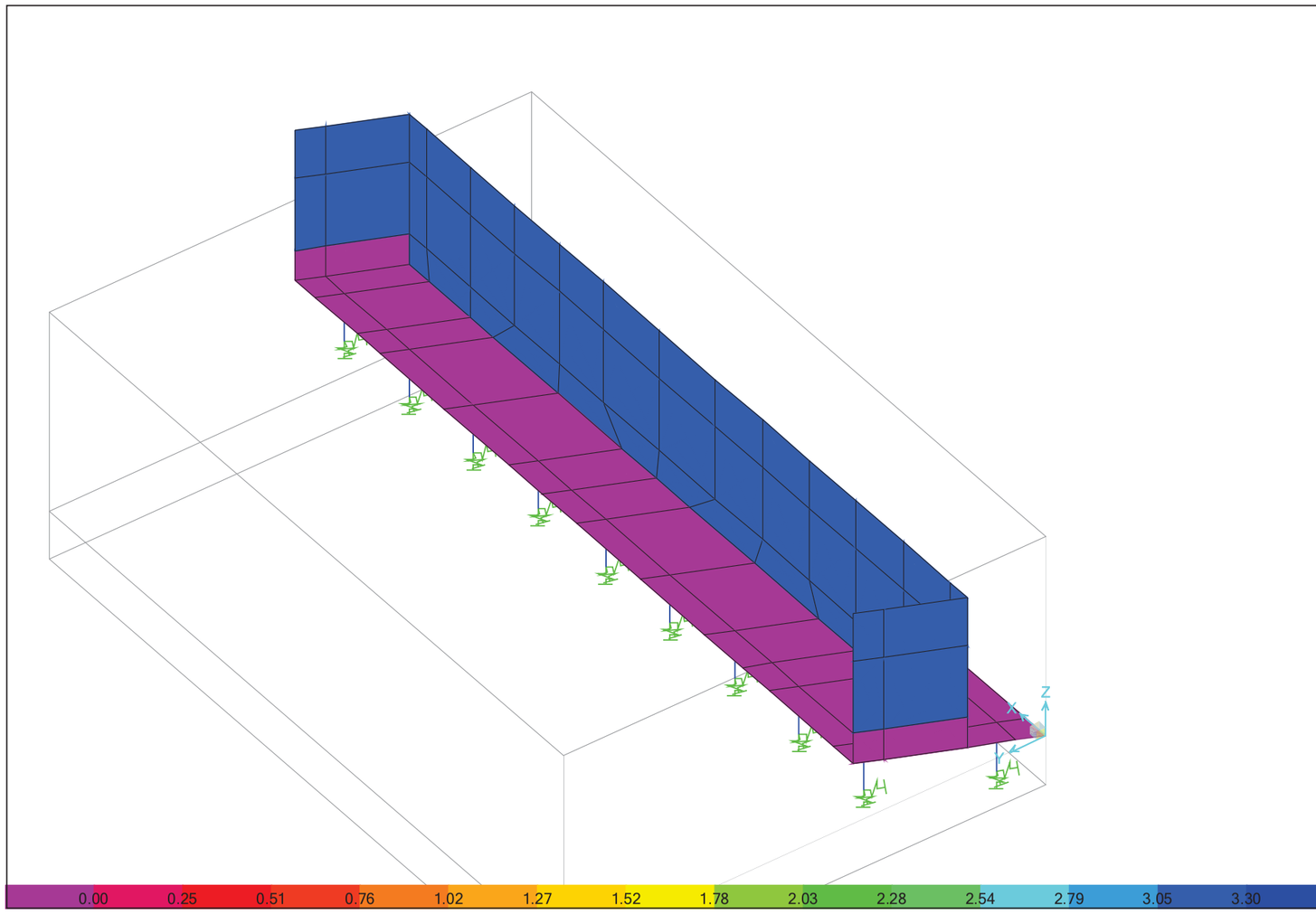
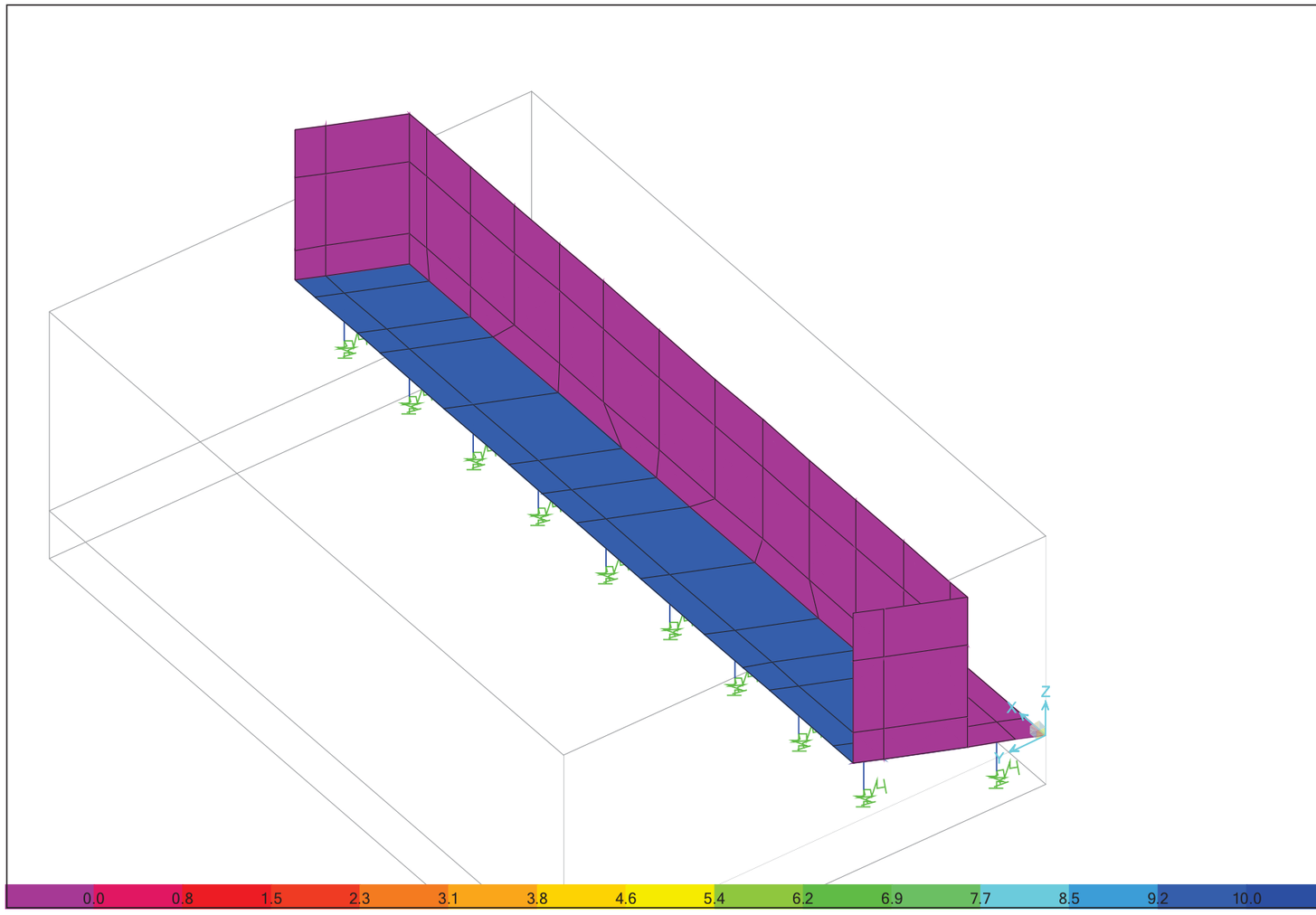
15.3
19.1
22.9
26.8
30.6
34.4
38.2
42.0
45.9
49.7



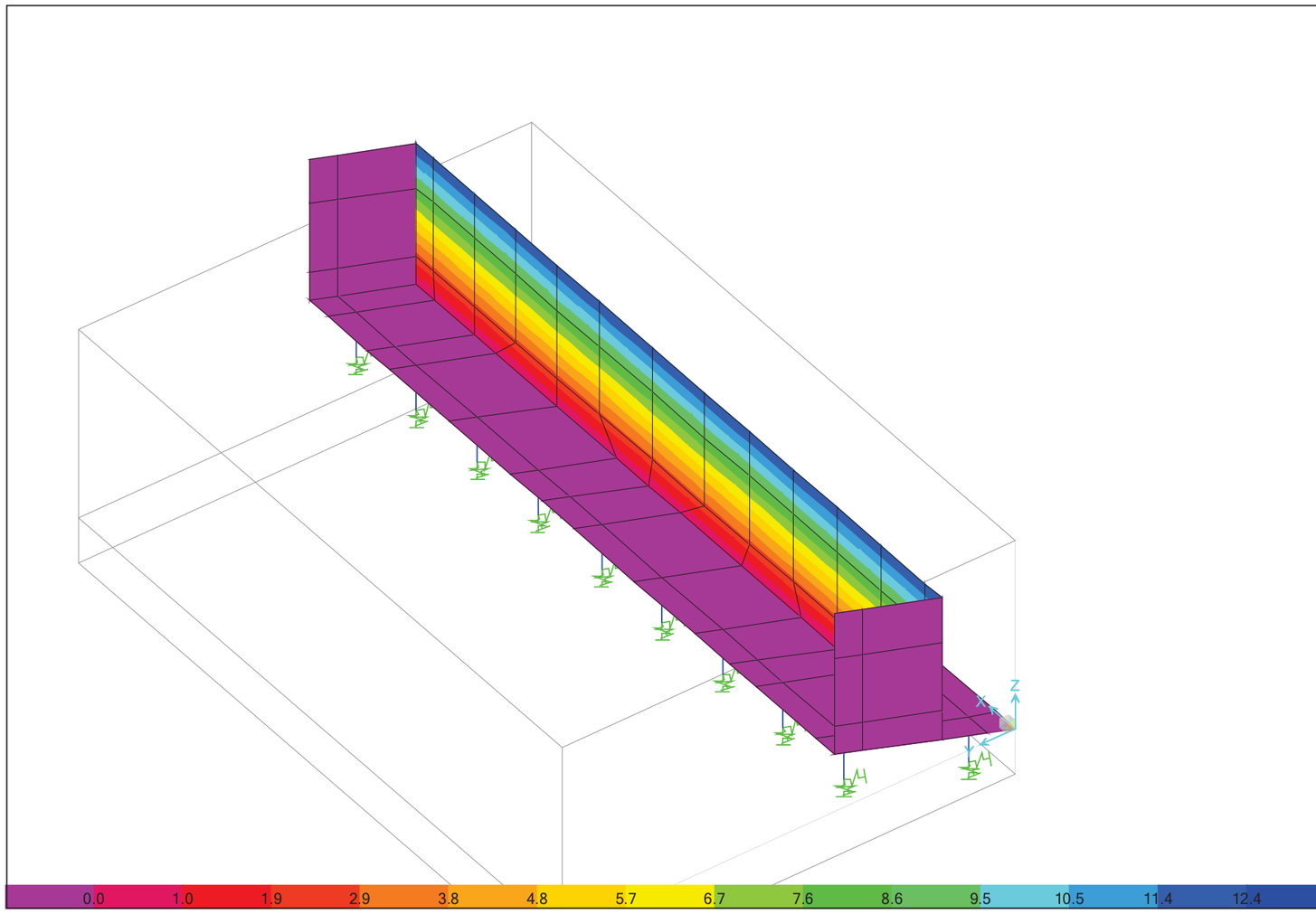
SAP2000 19.0.0 Area Uniform (TIERRAS) (Local - Gravity) KN, m, C



SAP2000 19.0.0 Area Surface Pressure - Face Bottom (SC_TRASDOS) KN, m, C



SAP2000 19.0.0 Area Uniform (SC_TRASDOS) (Local - Gravity) KN, m, C



SAP2000 19.0.0 Area Surface Pressure - Face Bottom (EMP_SISMO) KN, m, C

Table: Area Section Properties, Part 1 of 4

Table: Area Section Properties, Part 1 of 4

Section	Material	MatAngle	AreaType	Type	DrillDOF	Thickness	BendThick	Arc
		Degrees				m	m	Degrees
ALETA_65	HA30	0.	Shell	Shell-Thin	Yes	0.65	0.65	
ALETA_65_SP	HA30_SP	0.	Shell	Shell-Thin	Yes	0.65	0.65	
ENCEPADO_150	HA30	0.	Shell	Shell-Thin	Yes	1.5	1.5	
ESPALDON_60	HA30	0.	Shell	Shell-Thin	Yes	0.6	0.6	
MURO_110	HA30	0.	Shell	Shell-Thin	Yes	1.1	1.1	
MURO_110_SP	HA30_SP	0.	Shell	Shell-Thin	Yes	1.1	1.1	

Table: Area Section Properties, Part 2 of 4

Table: Area Section Properties, Part 2 of 4

Section	InComp	CoordSys	Color	F11Mod	F22Mod	F12Mod	M11Mod
ALETA_65			Magenta	1.	1.	1.	1.
ALETA_65_SP			Magenta	1.	1.	1.	1.
ENCEPADO_150			Magenta	1.	1.	1.	1.
ESPALDON_60			Magenta	1.	1.	1.	1.
MURO_110			Magenta	1.	1.	1.	1.
MURO_110_SP			Magenta	1.	1.	1.	1.

Table: Area Section Properties, Part 3 of 4

Table: Area Section Properties, Part 3 of 4

Section	M22Mod	M12Mod	V13Mod	V23Mod	MMod	WMod	GUID
ALETA_65	1.	1.	1.	1.	1.	1.	
ALETA_65_SP	1.	1.	1.	1.	1.	1.	
ENCEPADO_150	1.	1.	1.	1.	1.	1.	
ESPALDON_60	1.	1.	1.	1.	1.	1.	
MURO_110	1.	1.	1.	1.	1.	1.	
MURO_110_SP	1.	1.	1.	1.	1.	1.	

Table: Area Section Properties, Part 4 of 4

Table: Area Section Properties, Part 4 of 4

Section	Notes
ALETA_65	Added 30/06/2017 11:57:21

Table: Area Section Properties, Part 4 of 4

Section	Notes
ALETA_65_SP	Added 30/06/2017 12:25:39
ENCEPADO_150	Added 30/06/2017 11:52:36
ESPALDON_60	Added 30/06/2017 11:56:37
MURO_110	Added 30/06/2017 11:53:48
MURO_110_SP	Added 30/06/2017 12:25:25

Table: Area Section Property Design Parameters

Table: Area Section Property Design Parameters

Section	RebarMat	RebarOpt	CoverTop1	CoverTop2	CoverBot1	CoverBot2
			m	m	m	m
ALETA_65	B500S	Two Layers	0.05	0.05	0.05	0.05
ALETA_65_SP	B500S	Two Layers	0.05	0.05	0.05	0.05
ENCEPADO_150	B500S	Two Layers	0.05	0.05	0.05	0.05
ESPALDON_60	B500S	Two Layers	0.05	0.05	0.05	0.05
MURO_110	B500S	Two Layers	0.05	0.05	0.05	0.05
MURO_110_SP	B500S	Two Layers	0.05	0.05	0.05	0.05

Table: Case - Static 1 - Load Assignments

Table: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.
PP_TAB	Load pattern	PP_TAB	1.
CP_TAB	Load pattern	CP_TAB	1.
SC_TAB_DIST	Load pattern	SC_TAB_DIST	1.
SC_TAB_CARROS	Load pattern	SC_TAB_CARROS	1.
FRENADO	Load pattern	FRENADO	1.
RET_FLU	Load pattern	RET_FLU	1.
TEMP_UNIF	Load pattern	TEMP_UNIF	1.
VIENTO	Load pattern	VIENTO	1.
SISMO_LONG	Load pattern	SISMO_LONG	1.
SISMO_TRNS	Load pattern	SISMO_TRNS	1.
TIERRAS	Load pattern	TIERRAS	1.
SC_TRASDOS	Load pattern	SC_TRASDOS	1.
EMP_SISMO	Load pattern	EMP_SISMO	1.

Table: Combination Definitions, Part 1 of 3

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
CARACT_01	Linear Add	No	Linear Static	DEAD	1.	None
CARACT_01			Linear Static	PP_TAB	1.	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
CARACT_01			Linear Static	CP_TAB	1.	
CARACT_01			Linear Static	SC_TAB_DIST	1.	
CARACT_01			Linear Static	SC_TAB_CARROS	1.	
CARACT_01			Linear Static	FRENADO	0.	
CARACT_01			Linear Static	RET_FLU	1.	
CARACT_01			Linear Static	TEMP_UNIF	0.6	
CARACT_01			Linear Static	VIENTO	0.6	
CARACT_01			Linear Static	SISMO_LONG	0.	
CARACT_01			Linear Static	SISMO_TRNS	0.	
CARACT_01			Linear Static	TIERRAS	1.	
CARACT_01			Linear Static	SC_TRASDOS	1.	
CARACT_02	Linear Add	No	Linear Static	DEAD	1.	None
CARACT_02			Linear Static	PP_TAB	1.	
CARACT_02			Linear Static	CP_TAB	1.	
CARACT_02			Linear Static	SC_TAB_DIST	0.4	
CARACT_02			Linear Static	SC_TAB_CARROS	0.75	
CARACT_02			Linear Static	FRENADO	1.	
CARACT_02			Linear Static	RET_FLU	1.	
CARACT_02			Linear Static	TEMP_UNIF	0.6	
CARACT_02			Linear Static	VIENTO	0.6	
CARACT_02			Linear Static	SISMO_LONG	0.	
CARACT_02			Linear Static	SISMO_TRNS	0.	
CARACT_02			Linear Static	TIERRAS	1.	
CARACT_02			Linear Static	SC_TRASDOS	1.	
ELU_PER_01	Linear Add	No	Linear Static	DEAD	1.35	None
ELU_PER_01			Linear Static	PP_TAB	1.35	
ELU_PER_01			Linear Static	CP_TAB	1.35	
ELU_PER_01			Linear Static	SC_TAB_DIST	1.35	
ELU_PER_01			Linear Static	SC_TAB_CARROS	1.35	
ELU_PER_01			Linear Static	FRENADO	0.	
ELU_PER_01			Linear Static	RET_FLU	1.35	
ELU_PER_01			Linear Static	TEMP_UNIF	0.9	
ELU_PER_01			Linear Static	VIENTO	0.9	
ELU_PER_01			Linear Static	SISMO_LONG	0.	
ELU_PER_01			Linear Static	SISMO_TRNS	0.	
ELU_PER_01			Linear Static	TIERRAS	1.35	
ELU_PER_01			Linear Static	SC_TRASDOS	1.5	
ELU_PER_02	Linear Add	No	Linear Static	DEAD	1.35	None
ELU_PER_02			Linear Static	PP_TAB	1.35	
ELU_PER_02			Linear Static	CP_TAB	1.35	
ELU_PER_02			Linear Static	SC_TAB_DIST	0.54	
ELU_PER_02			Linear Static	SC_TAB_CARROS	1.0125	
ELU_PER_02			Linear Static	FRENADO	1.35	
ELU_PER_02			Linear Static	RET_FLU	1.35	
ELU_PER_02			Linear Static	TEMP_UNIF	0.9	
ELU_PER_02			Linear Static	VIENTO	0.9	
ELU_PER_02			Linear Static	SISMO_LONG	0.	
ELU_PER_02			Linear Static	SISMO_TRNS	0.	
ELU_PER_02			Linear Static	TIERRAS	1.35	
ELU_PER_02			Linear Static	SC_TRASDOS	1.5	
ELU_SISMO	Linear Add	No	Linear Static	DEAD	1.	None
ELU_SISMO			Linear Static	PP_TAB	1.	
ELU_SISMO			Linear Static	CP_TAB	1.	
ELU_SISMO			Linear Static	SC_TAB_DIST	0.	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELU_SISMO			Linear Static	SC_TAB_CARROS	0.	
ELU_SISMO			Linear Static	FRENADO	0.	
ELU_SISMO			Linear Static	RET_FLU	1.	
ELU_SISMO			Linear Static	TEMP_UNIF	0.	
ELU_SISMO			Linear Static	VIENTO	0.	
ELU_SISMO			Linear Static	SISMO_LONG	1.	
ELU_SISMO			Linear Static	SISMO_TRNS	0.3	
ELU_SISMO			Linear Static	TIERRAS	1.	
ELU_SISMO			Linear Static	SC_TRASDOS	0.	
ELU_SISMO			Linear Static	EMP_SISMO	1.	
ENV_ELU	Envelope	No	Response Combo	ELU_PER_01	1.	None
ENV_ELU			Response Combo	ELU_PER_02	1.	
ENV_ELU			Response Combo	ELU_SISMO	1.	

Table: Combination Definitions, Part 2 of 3

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
CARACT_01	DEAD	None	None	None
CARACT_01	PP_TAB			
CARACT_01	CP_TAB			
CARACT_01	SC_TAB_DIST			
CARACT_01	SC_TAB_CARROS			
CARACT_01	FRENADO			
CARACT_01	RET_FLU			
CARACT_01	TEMP_UNIF			
CARACT_01	VIENTO			
CARACT_01	SISMO_LONG			
CARACT_01	SISMO_TRNS			
CARACT_01	TIERRAS			
CARACT_01	SC_TRASDOS			
CARACT_02	DEAD	None	None	None
CARACT_02	PP_TAB			
CARACT_02	CP_TAB			
CARACT_02	SC_TAB_DIST			
CARACT_02	SC_TAB_CARROS			
CARACT_02	FRENADO			
CARACT_02	RET_FLU			
CARACT_02	TEMP_UNIF			
CARACT_02	VIENTO			
CARACT_02	SISMO_LONG			
CARACT_02	SISMO_TRNS			
CARACT_02	TIERRAS			
CARACT_02	SC_TRASDOS			
ELU_PER_01	DEAD	None	None	None
ELU_PER_01	PP_TAB			
ELU_PER_01	CP_TAB			
ELU_PER_01	SC_TAB_DIST			
ELU_PER_01	SC_TAB_CARROS			
ELU_PER_01	FRENADO			
ELU_PER_01	RET_FLU			
ELU_PER_01	TEMP_UNIF			

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
ELU_PER_01	VIENTO			
ELU_PER_01	SISMO_LONG			
ELU_PER_01	SISMO_TRNS			
ELU_PER_01	TIERRAS			
ELU_PER_01	SC_TRASDOS			
ELU_PER_02	DEAD	None	None	None
ELU_PER_02	PP_TAB			
ELU_PER_02	CP_TAB			
ELU_PER_02	SC_TAB_DIST			
ELU_PER_02	SC_TAB_CARROS			
ELU_PER_02	FRENADO			
ELU_PER_02	RET_FLU			
ELU_PER_02	TEMP_UNIF			
ELU_PER_02	VIENTO			
ELU_PER_02	SISMO_LONG			
ELU_PER_02	SISMO_TRNS			
ELU_PER_02	TIERRAS			
ELU_PER_02	SC_TRASDOS			
ELU_SISMO	DEAD	None	None	None
ELU_SISMO	PP_TAB			
ELU_SISMO	CP_TAB			
ELU_SISMO	SC_TAB_DIST			
ELU_SISMO	SC_TAB_CARROS			
ELU_SISMO	FRENADO			
ELU_SISMO	RET_FLU			
ELU_SISMO	TEMP_UNIF			
ELU_SISMO	VIENTO			
ELU_SISMO	SISMO_LONG			
ELU_SISMO	SISMO_TRNS			
ELU_SISMO	TIERRAS			
ELU_SISMO	SC_TRASDOS			
ELU_SISMO	EMP_SISMO			
ENV_ELU	ELU_PER_01	None	None	None
ENV_ELU	ELU_PER_02			
ENV_ELU	ELU_SISMO			

Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
CARACT_01	DEAD	1944e32f-48c0-48ba-b440-52a7e20d037d	
CARACT_01	PP_TAB		
CARACT_01	CP_TAB		
CARACT_01	SC_TAB_DIST		
CARACT_01	SC_TAB_CARROS		
CARACT_01	FRENADO		
CARACT_01	RET_FLU		
CARACT_01	TEMP_UNIF		
CARACT_01	VIENTO		
CARACT_01	SISMO_LONG		
CARACT_01	SISMO_TRNS		
CARACT_01	TIERRAS		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
CARACT_01	SC_TRASDOS		
CARACT_02	DEAD	3d366a21-eb93-4c99-855f-418d8e1c9e00	
CARACT_02	PP_TAB		
CARACT_02	CP_TAB		
CARACT_02	SC_TAB_DIST		
CARACT_02	SC_TAB_CARROS		
CARACT_02	FRENADO		
CARACT_02	RET_FLU		
CARACT_02	TEMP_UNIF		
CARACT_02	VIENTO		
CARACT_02	SISMO_LONG		
CARACT_02	SISMO_TRNS		
CARACT_02	TIERRAS		
CARACT_02	SC_TRASDOS		
ELU_PER_01	DEAD	ab4dcc1b-b883-4d76-b0bf-dc2dce029eb8	
ELU_PER_01	PP_TAB		
ELU_PER_01	CP_TAB		
ELU_PER_01	SC_TAB_DIST		
ELU_PER_01	SC_TAB_CARROS		
ELU_PER_01	FRENADO		
ELU_PER_01	RET_FLU		
ELU_PER_01	TEMP_UNIF		
ELU_PER_01	VIENTO		
ELU_PER_01	SISMO_LONG		
ELU_PER_01	SISMO_TRNS		
ELU_PER_01	TIERRAS		
ELU_PER_01	SC_TRASDOS		
ELU_PER_02	DEAD	f221a8e3-5ed0-462a-8c26-950e2d7f6812	
ELU_PER_02	PP_TAB		
ELU_PER_02	CP_TAB		
ELU_PER_02	SC_TAB_DIST		
ELU_PER_02	SC_TAB_CARROS		
ELU_PER_02	FRENADO		
ELU_PER_02	RET_FLU		
ELU_PER_02	TEMP_UNIF		
ELU_PER_02	VIENTO		
ELU_PER_02	SISMO_LONG		
ELU_PER_02	SISMO_TRNS		
ELU_PER_02	TIERRAS		
ELU_PER_02	SC_TRASDOS		
ELU_SISMO	DEAD	3e11da59-c988-4994-9b57-ee5bd836ce72	
ELU_SISMO	PP_TAB		
ELU_SISMO	CP_TAB		
ELU_SISMO	SC_TAB_DIST		
ELU_SISMO	SC_TAB_CARROS		
ELU_SISMO	FRENADO		
ELU_SISMO	RET_FLU		
ELU_SISMO	TEMP_UNIF		
ELU_SISMO	VIENTO		
ELU_SISMO	SISMO_LONG		
ELU_SISMO	SISMO_TRNS		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ELU_SISMO	TIERRAS		
ELU_SISMO	SC_TRASDOS		
ELU_SISMO	EMP_SISMO		
ENV_ELU	ELU_PER_01	570d71e7-7e1e-401b-a23b-2f63021962b3	
ENV_ELU	ELU_PER_02		
ENV_ELU	ELU_SISMO		

Table: Frame Section Properties 01 - General, Part 1 of 5

Table: Frame Section Properties 01 - General, Part 1 of 5

SectionName	Material	Shape	t3	Area	TorsConst	I33
			m	m2	m4	m4
PILOTE_125	HA30	Circle	1.25	1.227185	0.239684	0.119842

Table: Frame Section Properties 01 - General, Part 2 of 5

Table: Frame Section Properties 01 - General, Part 2 of 5

SectionName	I22	I23	AS2	AS3	S33	S22	Z33
	m4	m4	m2	m2	m3	m3	m3
PILOTE_125	0.119842	0.	1.104466	1.104466	0.191748	0.191748	0.325521

Table: Frame Section Properties 01 - General, Part 3 of 5

Table: Frame Section Properties 01 - General, Part 3 of 5

SectionName	Z22	R33	R22	ConcCol	ConcBeam	Color	TotalWt
	m3	m	m				KN
PILOTE_125	0.325521	0.3125	0.3125	Yes	No	Red	1325.359

Table: Frame Section Properties 01 - General, Part 4 of 5

Table: Frame Section Properties 01 - General, Part 4 of 5

SectionName	TotalMass	FromFile	AMod	A2Mod	A3Mod	JMod	I2Mod
	KN-s2/m						
PILOTE_125	135.15	No	1.	1.	1.	1.	1.

Table: Frame Section Properties 01 - General, Part 5 of 5

Table: Frame Section Properties 01 - General, Part 5 of 5

SectionName	I3Mod	MMod	WMod	GUID	Notes
PILOTE_125	1.	1.	1.		Added 30/06/2017 11:51:44

Table: Frame Section Properties 02 - Concrete Column, Part 1 of 2

Table: Frame Section Properties 02 - Concrete Column, Part 1 of 2

SectionName	RebarMatL	RebarMatC	ReinfConfig	LatReinf	Cover	NumBarsCirc	BarSizeL	BarSizeC
					m			
PILOTE_125	A615Gr60	A615Gr60	Circular	Ties	0.04	8	#9	#4

Table: Frame Section Properties 02 - Concrete Column, Part 2 of 2

Table: Frame Section Properties 02 - Concrete Column, Part 2 of 2

SectionName	SpacingC	ReinfType
	m	
PILOTE_125	0.15	Design

Table: Joint Merge Number Assignments

Table: Joint Merge Number Assignments

Joint	MergeNumber
4	1
168	1

Table: Joint Pattern Assignments

Table: Joint Pattern Assignments

Joint	Pattern	Value
168	Default	15.7176
168	EMP_TIERRAS	15.7176
168	EMP_SISMO	8.466
169	Default	15.7176
169	EMP_TIERRAS	15.7176
169	EMP_SISMO	8.466
4	EMP_TIERRAS	15.7176
4	EMP_SISMO	8.466
5	EMP_TIERRAS	15.7176
5	EMP_SISMO	8.466

Table: Joint Pattern Definitions

Table: Joint Pattern Definitions

Pattern
Default
EMP_TIERRAS
EMP_SISMO

Table: Load Case Definitions, Part 1 of 3

Table: Load Case Definitions, Part 1 of 3

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesTypeOpt	DesignType
DEAD	LinStatic	Zero				Prog Det	Dead
MODAL	LinModal	Zero				Prog Det	Other
PP_TAB	LinStatic	Zero				Prog Det	Dead
CP_TAB	LinStatic	Zero				Prog Det	Dead
SC_TAB_DIST	LinStatic	Zero				Prog Det	Dead
SC_TAB_CARROS	LinStatic	Zero				Prog Det	Dead
FRENADO	LinStatic	Zero				Prog Det	Dead
RET_FLU	LinStatic	Zero				Prog Det	Dead
TEMP_UNIF	LinStatic	Zero				Prog Det	Dead
VIENTO	LinStatic	Zero				Prog Det	Dead
SISMO_LONG	LinStatic	Zero				Prog Det	Dead
SISMO_TRNS	LinStatic	Zero				Prog Det	Dead
TIERRAS	LinStatic	Zero				Prog Det	Dead
SC_TRASDOS	LinStatic	Zero				Prog Det	Dead
EMP_SISMO	LinStatic	Zero				Prog Det	Dead

Table: Load Case Definitions, Part 2 of 3

Table: Load Case Definitions, Part 2 of 3

Case	DesActOpt	DesignAct	AutoType	RunCase	CaseStatus	GUID
DEAD	Prog Det	Non-Composite	None	Yes	Not Run	
MODAL	Prog Det	Other	None	Yes	Not Run	
PP_TAB	Prog Det	Non-Composite	None	Yes	Not Run	
CP_TAB	Prog Det	Non-Composite	None	Yes	Not Run	
SC_TAB_DIST	Prog Det	Non-Composite	None	Yes	Not Run	
SC_TAB_CARROS	Prog Det	Non-Composite	None	Yes	Not Run	
FRENADO	Prog Det	Non-Composite	None	Yes	Not Run	
RET_FLU	Prog Det	Non-Composite	None	Yes	Not Run	
TEMP_UNIF	Prog Det	Non-Composite	None	Yes	Not Run	
VIENTO	Prog Det	Non-Composite	None	Yes	Not Run	
SISMO_LONG	Prog Det	Non-Composite	None	Yes	Not Run	
SISMO_TRNS	Prog Det	Non-Composite	None	Yes	Not Run	
TIERRAS	Prog Det	Non-Composite	None	Yes	Not Run	
SC_TRASDOS	Prog Det	Non-Composite	None	Yes	Not Run	
EMP_SISMO	Prog Det	Non-Composite	None	Yes	Not Run	

Table: Load Case Definitions, Part 3 of 3

Table: Load Case Definitions, Part 3 of 3

Case	Notes
DEAD	
MODAL	
PP_TAB	
CP_TAB	
SC_TAB_DIST	
SC_TAB_CARROS	
FRENADO	
RET_FLU	
TEMP_UNIF	
VIENTO	
SISMO_LONG	
SISMO_TRNS	
TIERRAS	
SC_TRASDOS	
EMP_SISMO	

Table: Load Pattern Definitions

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	Dead	1.		ed4a342e-9655-4873-81d3-c141064d4a3f	
PP_TAB	Dead	0.		fdeb5ecf-02ed-48f1-b4bf-12a324d3c896	
CP_TAB	Dead	0.		a5802442-c39b-4e69-8504-f2c5154b26cd	
SC_TAB_DIST	Dead	0.		0585e586-0c2c-49f6-a36e-d74410172f56	
SC_TAB_CARROS	Dead	0.		a246b09f-d622-4f7d-a064-8c448e1dd72a	
FRENADO	Dead	0.		84941e68-89ef-4d8d-bebd-dcc1858ff9ba	
RET_FLU	Dead	0.		c29f8b43-a785-416c-ae78-cb0291b57a97	
TEMP_UNIF	Dead	0.		9c1daf48-784c-49da-b231-799d6c421afb	
VIENTO	Dead	0.		69f82845-f706-43f0-aedd-5d71b442403a	
SISMO_LONG	Dead	0.		8ab9c7d4-bf8a-418e-a57d-2908ad6c1094	
SISMO_TRNS	Dead	0.		d7313d4c-f6fe-4071-b784-2bdd288fb387	
TIERRAS	Dead	0.		a1e70542-e9f6-4d65-b349-9ddc65242f0f	
SC_TRASDOS	Dead	0.		3fd32185-7d93-4f54-ad9e-51d5984a4cd8	

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
EMP_SISMO	Dead	0.		59c56523-2876-4200-9155-10f5b4e2b88e	

Table: Material Properties 01 - General, Part 1 of 2

Table: Material Properties 01 - General, Part 1 of 2

Material	Type	SymType	TempDepend	Color	GUID
4000Psi	Concrete	Isotropic	No	Red	
A615Gr60	Rebar	Uniaxial	No	Cyan	
A992Fy50	Steel	Isotropic	No	Cyan	
B500S	Rebar	Uniaxial	No	Green	
HA30	Concrete	Isotropic	No	Red	
HA30_SP	Concrete	Isotropic	No	Red	

Table: Material Properties 01 - General, Part 2 of 2

Table: Material Properties 01 - General, Part 2 of 2

Material	Notes
4000Psi	Customary f'c 4000 psi 30/06/2017 11:49:28
A615Gr60	ASTM A615 Grade 60 30/06/2017 11:51:44
A992Fy50	ASTM A992 Grade 50 30/06/2017 11:49:28
B500S	Rebar added 30/06/2017 11:54:14
HA30	Customary f'c 4000 psi 30/06/2017 11:49:28
HA30_SP	Customary f'c 4000 psi 30/06/2017 11:49:28

Table: Material Properties 02 - Basic Mechanical Properties

Table: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	KN/m3	KN-s2/m4	KN/m2	KN/m2		1/C
4000Psi	2.3563E+01	2.4028E+00	24855578.06	10356490.86	0.2	9.9000E-06
A615Gr60	7.6973E+01	7.8490E+00	199947978.8			1.1700E-05
A992Fy50	7.6973E+01	7.8490E+00	199947978.8	76903068.77	0.3	1.1700E-05
B500S	7.6973E+01	7.8490E+00	199947978.8			1.1700E-05
HA30	2.5000E+01	2.5493E+00	28576790.96	11906996.23	0.2	1.0000E-05
HA30_SP	1.0000E-07	1.0197E-08	28576790.96	11906996.23	0.2	1.0000E-05

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Material	Fc	eFc	LtWtConc	SSCurveOpt	SSHysType	SFc	SCap	FinalSlope
	KN/m2	KN/m2						
4000Psi	27579.03	27579.03	No	Mander	Takeda	0.002219	0.005	-0.1

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Material	Fc	eFc	LtWtConc	SSCurveOpt	SSHysType	SFc	SCap	FinalSlope
	KN/m2	KN/m2						
HA30	30000.	30000.	No	Mander	Takeda	0.002219	0.005	-0.1
HA30_SP	30000.	30000.	No	Mander	Takeda	0.002219	0.005	-0.1

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Material	FAngle	DAngle
	Degrees	Degrees
4000Psi	0.	0.
HA30	0.	0.
HA30_SP	0.	0.

Table: Material Properties 03e - Rebar Data, Part 1 of 2

Table: Material Properties 03e - Rebar Data, Part 1 of 2

Material	Fy	Fu	EffFy	EffFu	SSCurveOpt	SSHysType	SHard	SCap
	KN/m2	KN/m2	KN/m2	KN/m2				
A615Gr60	413685.47	620528.21	455054.02	682581.03	Simple	Kinematic	0.01	0.09
B500S	483091.79	483091.79	483091.79	483091.79	Simple	Kinematic	0.01	0.09

Table: Material Properties 03e - Rebar Data, Part 2 of 2

Table: Material Properties 03e - Rebar Data, Part 2 of 2

Material	FinalSlope	UseCTDef
A615Gr60	-0.1	No
B500S	-0.1	No

ESTRUCTURA E3

INFORMACIÓN GEOTÉCNICA

Según el anej de geotécnia de proyecto original, para la estructura E3 se han llevado a cabo tres sondeos: SE-4 ; SE-5 y SE-6

También se han llevado a cabo tres ensayos de penetración dinámica : PR-19; PE-1 y PE-2

Según se indica en el anejo, a una profundidad máxima de 4 metros se tiene un nivel de gravas y arenas y capas limosas con arenas y gravas. Nspt entre 50 y rechazo (Aluvial)

El espesor de la unidad anterior es variable. Por debajo de la misma se detecta otra unidad, formada por Margas arenosas y arcillas margosas

Los valores de Nspt varian de 40 a rechazo, incrementándose con la profundidad

Estructura E3. Viaducto sobre el Río Almanzona. PK 0+630-0+920									
Unidad geotécnica	Descripción litológica			Espesor (m)	N	r_f(kPa)	r_p(MPa)	C (sísmico)
	Margen izquierda	Cauce	Margen derecha					
Aluvial-coluvial	Arcillas y/o limos arenosos		Arcillas limo arenosas	2,5 / 4,0	8 / 12	-	-	1,6
Aluvial	Arenas y gravas en matriz limosa (depósitos aluviales)			4 / 15 / 8	50	90	6,5	1,3
Margas arenosas y arcillas margosas	Margas arenosas y arcillas margosas.			20	50	90	6,5	1,3

COEFICIENTE C PROMEDIADO =	(4*1.6+26*1.3)/30 =	1.34

ESTRUCTURA E3. ESTRIBO 2

DETERMINACIÓN DE LA LONGITUD NECESARIA DE LOS PILOTES

Datos de partida

Diámetro de los pilotes	1.25	**m**		
Tope estructural	4000.00	**kPa**		
Coeficiente de carga representativa, para combinación característica	1.10			
Coeficiente de carga representativa, para combinación accidental	1.25			
				TOPE ESTR.
Axil máximo admisible en combinación característica	4500.00	**Kn**	<	5399.61
Axil máximo admisible en combinación accidental (sismo)	5500.00	**Kn**	<	6135.92
Canto de encepado	2.00	**m**		
Profundidad máxima de socavación	6.63	**m**		
Profundidad nivel superior estrato competente	4.00	**m**		
Resistencia por fuste estrato competente	90.00	**kPa**		
Resistencia por punta estrato competente	6500.00	**kPa**		
Coeficiente global de seguridad hundimiento, característica	2.60			
Coeficiente global de seguridad hundimiento, accidental (*)	2.20			

(*) Se aplica para situación sísmica y socavación (ambas con T=500 años)

LONGITUD NECESARIA DEL PILOTE EN TERRENO COMPETENTE, POR HUNDIMIENTO

Para combinación característica	10.53	**metros**
Para combinación accidental	11.67	**metros**

RESUMEN Y CARGAS ADMISIBLES EN PILOTES

Longitud necesaria de pilote (desde C.I encepado)	13.67	**metros**
Axil máximo admisible en combinación característica	4500.00	**kN**
Axil máximo admisible en combinación accidental (sismo)	5500.00	**kN**
Axil máximo admisible en combinación accidental (socavación)	5077.49	**kN**
Tracción máxima admisible en combinación sísmica	1570.43	**kN**

ESTRUCTURA E3. ESTRIBO 2

TABLA DE AXILES EN PILOTES

FRAME	CARACT_01	CARACT_02	ELU_SISMO
19	2034.5	1841.6	647.3
20	2033.5	1847.6	686.5
21	2023.3	1843.3	708.9
22	2007.6	1832.9	723.4
23	1999.1	1827.3	739.1
24	2025.0	1847.7	769.5
25	2067.8	1881.5	805.9
26	2109.0	1914.0	839.4
27	2144.5	1938.9	855.6
28	3503.2	3424.2	3960.0
29	3417.8	3346.9	3883.9
30	3329.5	3266.9	3807.1
31	3244.6	3189.5	3733.6
32	3197.7	3142.5	3681.7
33	3181.6	3121.7	3649.8
34	3163.9	3099.7	3616.3
35	3141.5	3073.5	3578.2
36	3110.6	3039.5	3530.5

MAX	3503.2	3424.2	3960.0
MIN	1999.1	1827.3	647.3

		CUMPLE?
Axil máximo admisible en combinación característica	4500 kN	VERDADERO
Axil máximo admisible en combinación accidental (sismo)	5500 kN	VERDADERO
Axil máximo admisible en combinación accidental (socavación)	5077.49 kN	VERDADERO
Tracción máxima admisible en combinación sísmica	1570.43 kN	VERDADERO

Longitud necesaria de pilote (desde C.I encepado)	13.67	**metros**

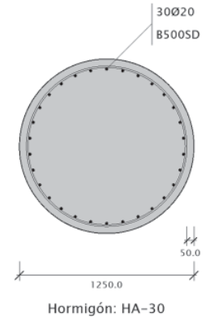
Empresa:	ACL ESTRUCTURAS	**Proyecto:**	AUTOVIA ALMANZORA. TRAMO: CUCADOR-ENL AL-7106
Dirección:		**Código:**	ESTRUCTURA E3
Teléfono/Fax:		**Autor:**	
Sitio web:		**Fecha:**	04/07/2017

ESTRIBO 2 PILOTES

1.- Norma

Instrucción de Hormigón Estructural (EHE-08)

2.- Detalle

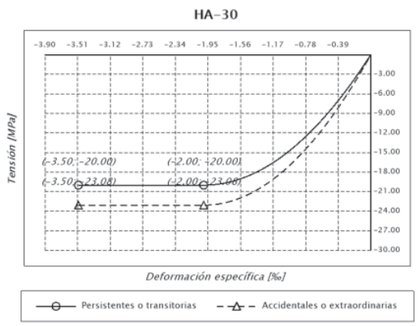


Hormigón: HA-30

Hormigón: 12271.85 cm²
Armaduras: 9424.78 mm²
Cuantía: 7.68 ‰

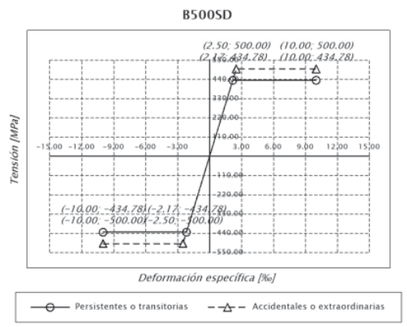
3.- Materiales

3.1.- Hormigón



Designación: HA-30
f_{ck}: 30.00 MPa
α_{cc}: 1.000 (Persistentes o transitorias)
α_{cc}: 1.000 (Accidentales o extraordinarias)
γ_c: 1.500 (Persistentes o transitorias)
γ_c: 1.300 (Accidentales o extraordinarias)
f_{cd}: 20.00 MPa (Persistentes o transitorias)
f_{cd}: 23.08 MPa (Accidentales o extraordinarias)
ϵ_{c0}: 2.00 ‰
ϵ_{cu}: 3.50 ‰
n: 2.000 (exponente)

3.2.- Armadura



Designación: B500SD
f_{yk}: 500.00 MPa
γ_s: 1.150 (Persistentes o transitorias)
γ_s: 1.000 (Accidentales o extraordinarias)
f_{yd}: 434.78 MPa (Persistentes o transitorias)
f_{yd}: 500.00 MPa (Accidentales o extraordinarias)
$\epsilon_{máx}$: 10.00 ‰
E_s: 200000.0 MPa

4.- Esfuerzos internos aplicados

Combinación	N_d [kN]	My_{yd} [kN·m]	Mz_{zd} [kN·m]	Accidental
ELU_PER_01_19	-2746.04	-1284.27	-1.76	No
ELU_PER_01_20	-2745.11	-1354.02	-15.85	No
ELU_PER_01_21	-2731.48	-1409.42	-29.98	No
ELU_PER_01_22	-2710.31	-1455.08	-33.71	No
ELU_PER_01_23	-2698.92	-1496.23	-0.11	No
ELU_PER_01_24	-2734.01	-1525.08	49.36	No
ELU_PER_01_25	-2791.96	-1550.57	56.52	No
ELU_PER_01_26	-2847.76	-1566.83	44.02	No
ELU_PER_01_27	-2895.41	-1584.89	42.12	No
ELU_PER_01_28	-4757.07	-1765.09	229.34	No
ELU_PER_01_29	-4641.07	-1716.32	232.92	No
ELU_PER_01_30	-4521.11	-1686.41	235.37	No
ELU_PER_01_31	-4405.85	-1648.62	205.54	No
ELU_PER_01_32	-4341.92	-1610.95	128.16	No
ELU_PER_01_33	-4319.78	-1571.30	120.27	No
ELU_PER_01_34	-4295.38	-1520.14	129.72	No
ELU_PER_01_35	-4264.68	-1467.42	145.11	No
ELU_PER_01_36	-4222.56	-1427.24	164.57	No
ELU_PER_02_19	-2485.58	-1367.52	56.92	No
ELU_PER_02_20	-2494.12	-1447.21	40.35	No
ELU_PER_02_21	-2488.41	-1508.98	25.26	No
ELU_PER_02_22	-2474.54	-1559.52	20.19	No
ELU_PER_02_23	-2467.03	-1603.08	44.23	No
ELU_PER_02_24	-2494.75	-1637.12	81.10	No
ELU_PER_02_25	-2540.50	-1667.90	87.34	No
ELU_PER_02_26	-2584.55	-1687.74	74.90	No
ELU_PER_02_27	-2617.95	-1705.78	66.17	No
ELU_PER_02_28	-4650.35	-1872.97	267.24	No
ELU_PER_02_29	-4545.31	-1819.29	271.29	No
ELU_PER_02_30	-4436.57	-1784.62	272.84	No
ELU_PER_02_31	-4331.39	-1743.18	248.33	No
ELU_PER_02_32	-4267.46	-1701.60	185.10	No
ELU_PER_02_33	-4238.89	-1658.14	177.69	No
ELU_PER_02_34	-4208.71	-1602.34	185.84	No
ELU_PER_02_35	-4172.89	-1544.07	200.19	No
ELU_PER_02_36	-4126.51	-1496.92	218.24	No
ELU_SISMO_19	-647.27	-2110.49	242.84	Si
ELU_SISMO_20	-686.45	-2195.35	219.51	Si

Combinación	N_d [kN]	My_{yd} [kN·m]	Mz_{zd} [kN·m]	Accidental
ELU_SISMO_21	-708.85	-2252.13	207.18	Si
ELU_SISMO_22	-723.36	-2295.47	203.03	Si
ELU_SISMO_23	-739.06	-2324.00	210.82	Si
ELU_SISMO_24	-769.50	-2347.09	226.07	Si
ELU_SISMO_25	-805.92	-2366.82	228.46	Si
ELU_SISMO_26	-839.40	-2365.32	214.69	Si
ELU_SISMO_27	-855.57	-2347.26	188.41	Si
ELU_SISMO_28	-3960.02	-2468.88	341.75	Si
ELU_SISMO_29	-3883.95	-2443.16	345.16	Si
ELU_SISMO_30	-3807.15	-2427.10	342.85	Si
ELU_SISMO_31	-3733.61	-2398.51	328.09	Si
ELU_SISMO_32	-3681.68	-2367.28	295.60	Si
ELU_SISMO_33	-3649.78	-2334.18	292.60	Si
ELU_SISMO_34	-3616.34	-2286.37	299.66	Si
ELU_SISMO_35	-3578.18	-2234.52	312.89	Si
ELU_SISMO_36	-3530.47	-2189.26	329.88	Si

5.- Comprobaciones

La sección transversal resiste todas las combinaciones.

Combinación: ELU_SISMO_25

5.1.- Comprobación de resistencia a los esfuerzos actuantes

5.1.1) Hormigón

Máxima deformación de compresión: -1.53 ‰

Máxima tensión de compresión: -21.79 MPa

5.1.2) Armadura

Máxima deformación de compresión: -1.19 ‰

Máxima tensión de compresión: -237.28 MPa

Máxima deformación de tracción: 4.07 ‰

Máxima tensión de tracción: 500.00 MPa

5.1.3) Equilibrio

Valor y posición de las resultantes internas

Resultante	Valor [kN]	Y [m]	Z [m]	Vista 3D
Hormigón	-2810.58	0.046	0.477	

Valor y posición de las resultantes internas				
Resultante	**Valor** *[kN]*	**Y** *[m]*	**Z** *[m]*	**Vista 3D**
Armadura comprimida	-468.74	0.047	0.499	
Armadura traccionada	2473.39	-0.031	-0.320	

5.2.- Comprobación de resistencia para la situación de colapso

Modo de colapsar: Axil y excentricidades Y-Z constantes

N_u: -805.92 kN

Myy_u: -2639.81 kN·m

Mzz_u: 254.81 kN·m

Aprovechamiento: 89.66 %

5.2.1) Hormigón

Máxima deformación de compresión: -2.94 ‰

Máxima tensión de compresión: -23.08 MPa

5.2.2) Armadura

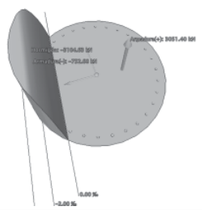
Máxima deformación de compresión: -2.15 ‰

Máxima tensión de compresión: -429.79 MPa

Máxima deformación de tracción: 10.00 ‰

Máxima tensión de tracción: 500.00 MPa

5.2.3) Equilibrio

Valor y posición de las resultantes internas				
Resultante	**Valor** *[kN]*	**Y** *[m]*	**Z** *[m]*	**Vista 3D**
Hormigón	-3104.63	0.047	0.491	
Armadura comprimida	-752.68	0.049	0.510	
Armadura traccionada	3051.40	-0.023	-0.240	

CÁLCULO A CORTANTE SEGÚN EHE

FECHA:	04/07/2017
OBRA:	AUTOVÍA ALMANZORA
ESTRUCTURA:	E3. ESTRIBO 2

CÁLCULO ARMADURA DE CORTANTE EN PILOTES DE ESTRIBO

REF.	DATOS											RESULTADOS				
	Vrd (ton)	Nd (ton)	Ac (m2)	fck (Mpa)	γc	bo (cm)	d (cm)	cotg(θ)	alpha (º)	As (cm2)	Ap (cm2)	fyk (kp/cm2)	fpk (kp/cm2)	Vrd sin cercos (ton)	As,nec (cm2/ml)	Sep.max (cm)	Vu1 (ton)	Decalaje (m)
ELU_PER_01_19	54.55	279.92	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	67.17	9.00	30.00	606.12	0.91
ELU_PER_01_20	57.51	279.83	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	67.16	9.00	30.00	606.12	0.90
ELU_PER_01_21	59.88	278.44	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	66.99	9.00	30.00	606.12	0.90
ELU_PER_01_22	61.82	276.28	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	66.73	9.00	30.00	606.12	0.89
ELU_PER_01_23	63.55	275.12	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	66.59	9.00	30.00	606.12	0.89
ELU_PER_01_24	64.81	278.70	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	67.02	9.00	30.00	606.12	0.88
ELU_PER_01_25	65.90	284.60	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	67.74	9.00	30.00	606.12	0.88
ELU_PER_01_26	66.58	290.29	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	68.42	9.00	30.00	606.12	0.88
ELU_PER_01_27	67.34	295.15	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	69.01	9.00	30.00	606.12	0.88
ELU_PER_01_28	75.60	484.92	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	91.98	9.00	30.00	606.12	0.88
ELU_PER_01_29	73.57	473.10	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	90.55	9.00	30.00	606.12	0.88
ELU_PER_01_30	72.32	460.87	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	89.07	9.00	30.00	606.12	0.88
ELU_PER_01_31	70.57	449.12	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	87.64	9.00	30.00	606.12	0.89
ELU_PER_01_32	68.64	442.60	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	86.86	9.00	30.00	606.12	0.89
ELU_PER_01_33	66.93	440.34	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	86.58	9.00	30.00	606.12	0.89
ELU_PER_01_34	64.80	437.86	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	86.28	9.00	30.00	606.12	0.90
ELU_PER_01_35	62.63	434.73	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	85.90	9.00	30.00	606.12	0.90
ELU_PER_01_36	61.02	430.43	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	85.38	9.00	30.00	606.12	0.91
ELU_PER_02_19	58.13	253.37	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	63.96	9.00	30.00	606.12	0.90
ELU_PER_02_20	61.49	254.24	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	64.06	9.00	30.00	606.12	0.89
ELU_PER_02_21	64.10	253.66	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	63.99	9.00	30.00	606.12	0.88
ELU_PER_02_22	66.24	252.25	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	63.82	9.00	30.00	606.12	0.88
ELU_PER_02_23	68.11	251.48	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	63.73	9.00	30.00	606.12	0.87
ELU_PER_02_24	69.62	254.31	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	64.07	9.00	30.00	606.12	0.87
ELU_PER_02_25	70.94	258.97	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	64.63	9.00	30.00	606.12	0.87
ELU_PER_02_26	71.76	263.46	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	65.18	9.00	30.00	606.12	0.87

CÁLCULO A CORTANTE SEGÚN EHE

FECHA:	04/07/2017
OBRA:	AUTOVÍA ALMANZORA
ESTRUCTURA:	E3. ESTRIBO 2

CÁLCULO ARMADURA DE CORTANTE EN PILOTES DE ESTRIBO

REF.	DATOS Vrd (ton)	Nd (ton)	Ac (m2)	fck (Mpa)	γc	bo (cm)	d (cm)	cotg(θ)	alpha (º)	As (cm2)	Ap (cm2)	fyk (kp/cm2)	fpk (kp/cm2)	RESULTADOS Vrd sin cercos (ton)	As,nec (cm2/ml)	Sep.max (cm)	Vu1 (ton)	Decalaje (m)
ELU_PER_02_27	72.51	266.87	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	65.59	9.00	30.00	606.12	0.87
ELU_PER_02_28	80.36	474.04	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	90.66	9.55	30.00	606.12	0.87
ELU_PER_02_29	78.13	463.33	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	89.36	9.06	30.00	606.12	0.87
ELU_PER_02_30	76.68	452.25	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	88.02	9.00	30.00	606.12	0.88
ELU_PER_02_31	74.79	441.53	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	86.73	9.00	30.00	606.12	0.88
ELU_PER_02_32	72.70	435.01	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	85.94	9.00	30.00	606.12	0.88
ELU_PER_02_33	70.83	432.10	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	85.58	9.00	30.00	606.12	0.89
ELU_PER_02_34	68.51	429.02	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	85.21	9.00	30.00	606.12	0.89
ELU_PER_02_35	66.13	425.37	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	84.77	9.00	30.00	606.12	0.89
ELU_PER_02_36	64.25	420.64	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	84.20	9.00	30.00	606.12	0.90
ELU_SISMO_19	90.23	65.98	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	41.28	14.80	30.00	606.12	0.83
ELU_SISMO_20	93.71	69.97	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	41.76	15.63	30.00	606.12	0.82
ELU_SISMO_21	96.06	72.26	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	42.04	16.19	30.00	606.12	0.82
ELU_SISMO_22	97.88	73.74	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	42.22	16.62	30.00	606.12	0.82
ELU_SISMO_23	99.11	75.34	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	42.41	16.92	30.00	606.12	0.82
ELU_SISMO_24	100.15	78.44	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	42.79	17.14	30.00	606.12	0.82
ELU_SISMO_25	100.99	82.15	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	43.24	17.32	30.00	606.12	0.82
ELU_SISMO_26	100.88	85.57	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	43.65	17.26	30.00	606.12	0.82
ELU_SISMO_27	100.02	87.21	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	43.85	17.03	30.00	606.12	0.82
ELU_SISMO_28	105.86	403.67	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	82.14	16.26	30.00	606.12	0.84
ELU_SISMO_29	104.80	395.92	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	81.21	16.04	30.00	606.12	0.84
ELU_SISMO_30	104.11	388.09	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	80.26	15.92	30.00	606.12	0.84
ELU_SISMO_31	102.82	380.59	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	79.35	15.65	30.00	606.12	0.84
ELU_SISMO_32	101.33	375.30	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	78.71	15.31	30.00	606.12	0.84
ELU_SISMO_33	99.92	372.05	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	78.32	14.98	30.00	606.12	0.84
ELU_SISMO_34	97.94	368.64	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	77.90	14.51	30.00	606.12	0.84
ELU_SISMO_35	95.83	364.75	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	77.43	14.01	30.00	606.12	0.84
ELU_SISMO_36	94.04	359.89	1.23	30	1.5	90	110	1	90	23.56	0	5100	15700.00	76.85	13.59	30.00	606.12	0.85

ESTRIBO 2: ARMADO

PILOTES

Ver listados de cálculo a rotura por flexión y cortante para la sección mas solicitada (empotramiento)

ENCEPADO. ARMADO LONGITUDINAL CARA INFERIOR

Máxima compresión pilote en situación persistente	4757.07	**kN**
Máxima compresión pilote en situación sismica	3960.02	**kN**
Máximo vuelo del pilote	1.35	**m**
Espesor muro	1.20	**m**
Canto encepado	1.50	**m**
Recorrido horizontal biela	1.65	**m**
Recorrido vertical biela	1.19	**m**
Td	6595.94	**kN**
As,necesaria	164.90	
Nº de capas de armadura	2.00	
Diámetro redondos	32.00	
Nº de redondos por capa	11.00	

Se armará con: 2 capas de 11 redondos del 32

Nº de hileras longitudinales de pilotes	9.00	
Intereje transversal de pilotes	3.90	**m**
Diámetro de los pilotes	1.25	**m**
Cuantía armadura secundaria entre pilotes	17.50	**cm2/ml**

ENCEPADO. ARMADO LONGITUDINAL CARA SUPERIOR

Mediante el modelo de cálculo, realizamos una sección horizontal en la zona de empotramiento entre el encepado y el muro frontal (en la parte central del estribo). Los esfuerzos obtenidos son los siguientes:

Momento de diseño máximo negativo	0.00	**kN*m/ml**
Armadura necesaria por cálculo resistente	0.00	**cm2/ml**
Disponemos cuantía mínima geométrica	13.50	**CM2**

ENCEPADO. ARMADO TRANSVERSAL EN AMBAS CARAS

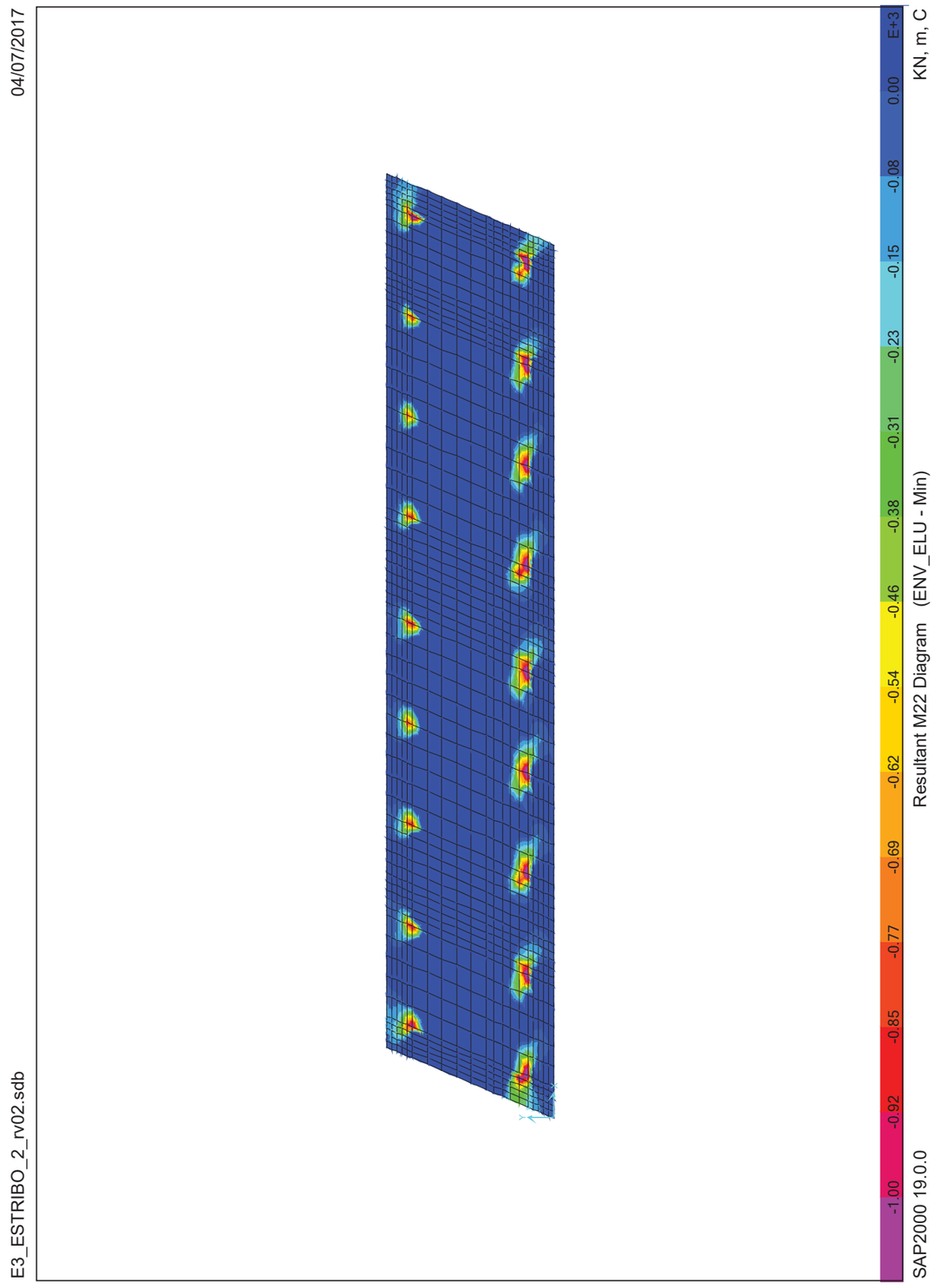
Del modelo de cálculo realizado, se observa que los esfuerzos transversales en el encepado resultan bastante reducidos. Por ello, se armará teniendo en cuenta la cuantía mínima mecánica

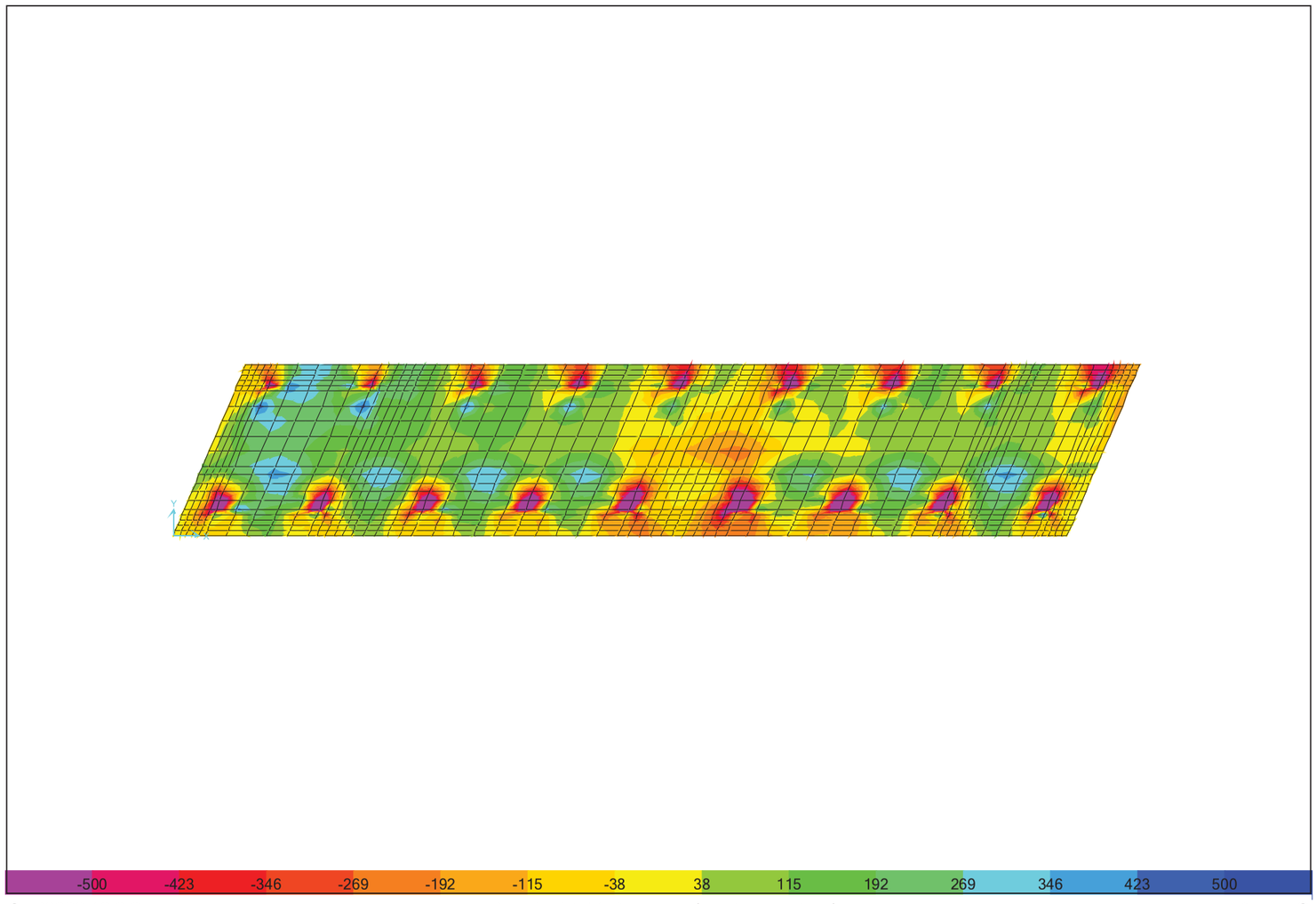
Canto encepado	1.50	**m**
Cuantía mínima geométrica	13.50	**cm2ml**

MURO FRONTAL Y ESPALDÓN. ARMADURA

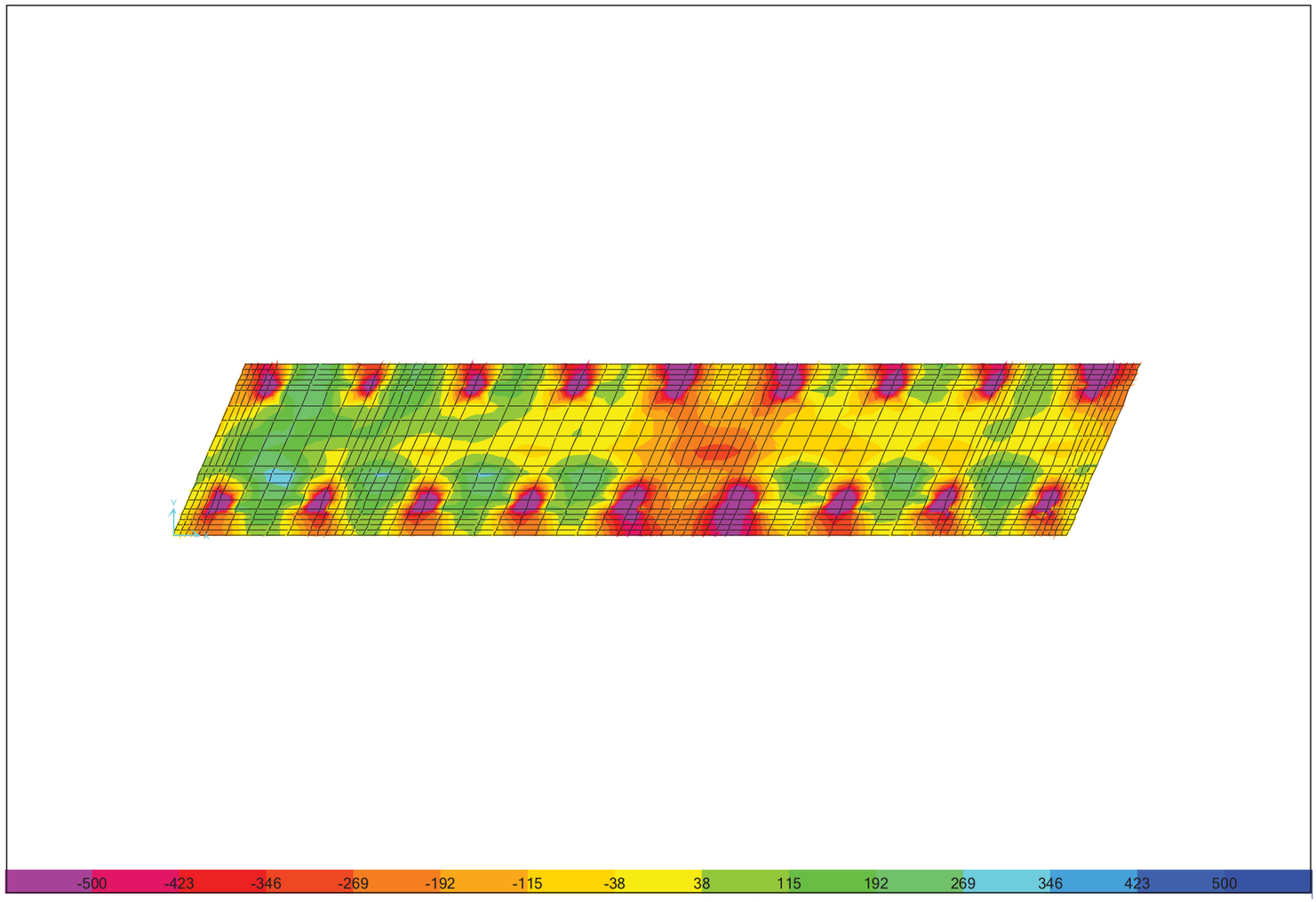
Ver resultados de esfuerzos y cuantías de armadura necesaria (diagramas SAP)

Se tiene en cuenta en todo caso el cumplimiento de las cuantías minimas geometricas y mecánicas

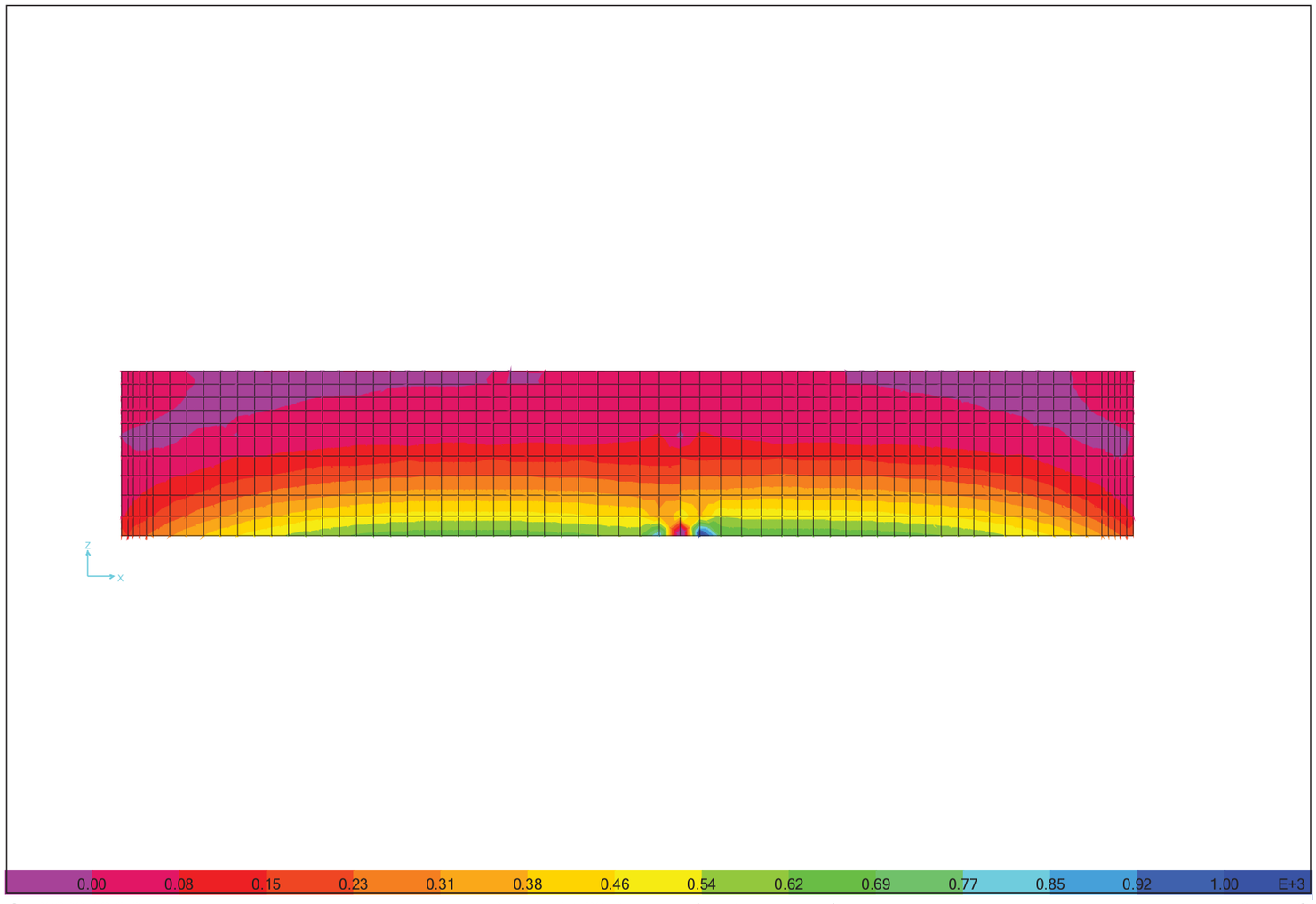




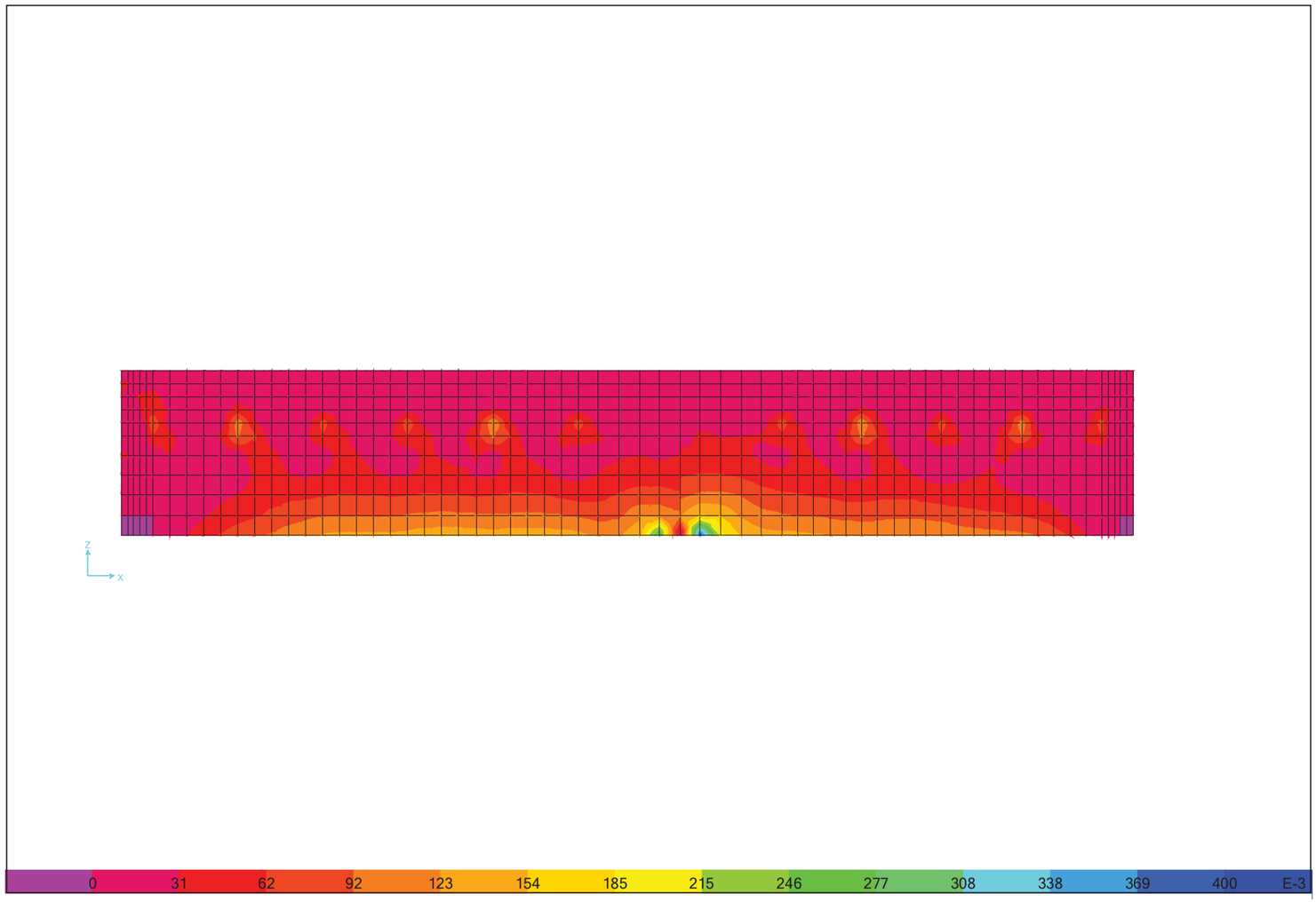
SAP2000 19.0.0 Resultant M11 Diagram (ENV_ELU - Max) KN, m, C



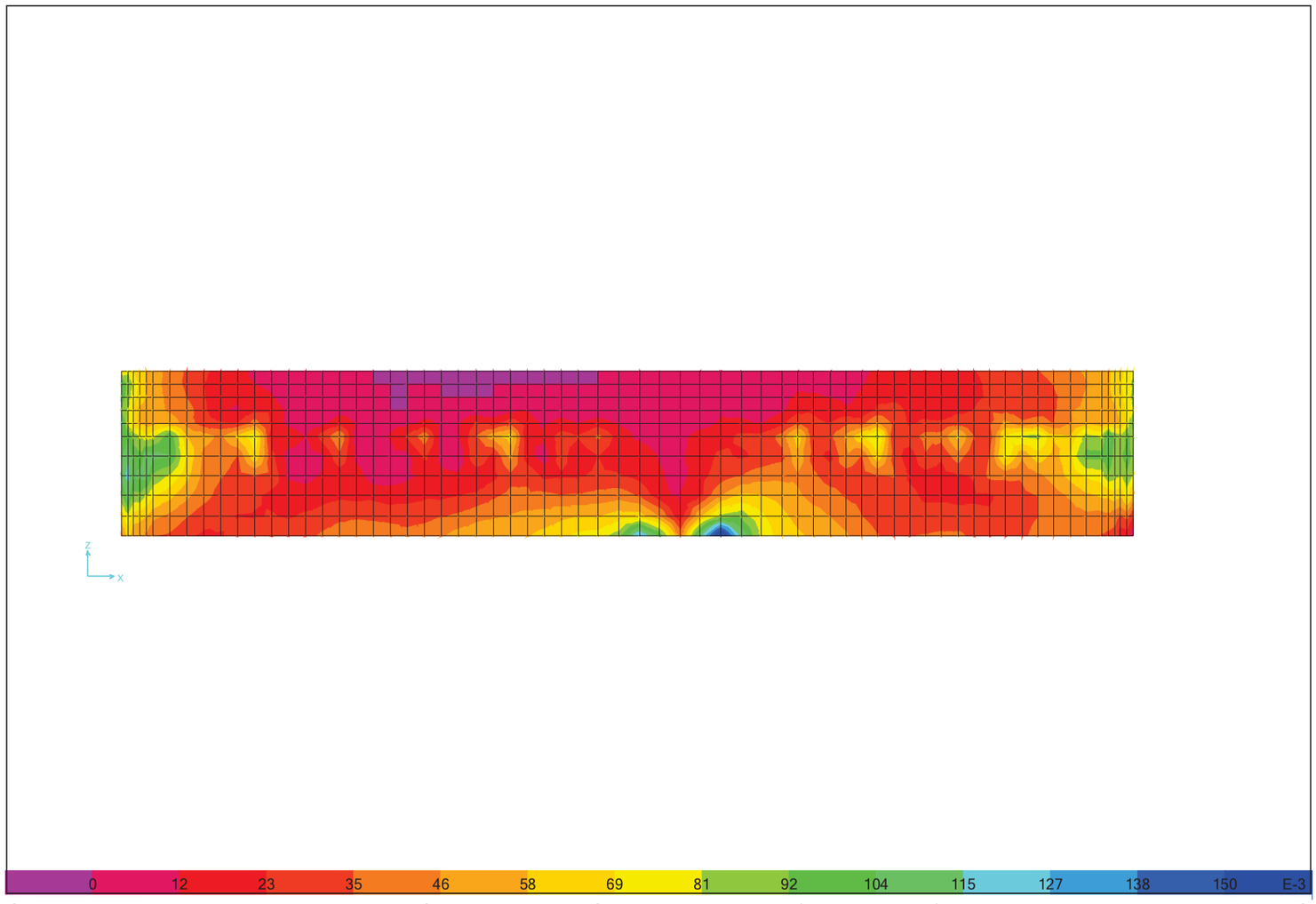
SAP2000 19.0.0 Resultant M11 Diagram (ENV_ELU - Min) KN, m, C



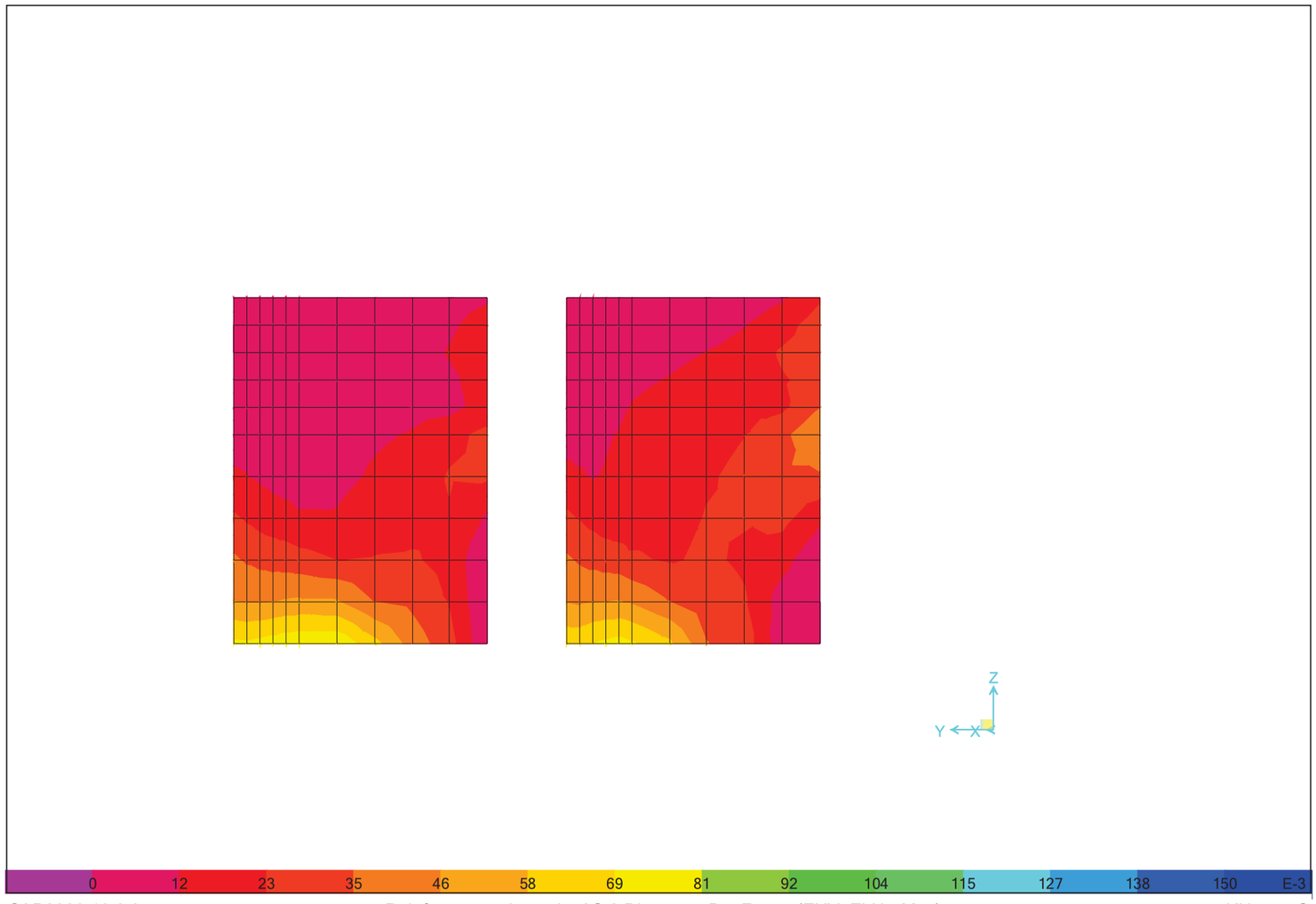
SAP2000 19.0.0 Resultant M22 Diagram (ENV_ELU - Max) KN, m, C



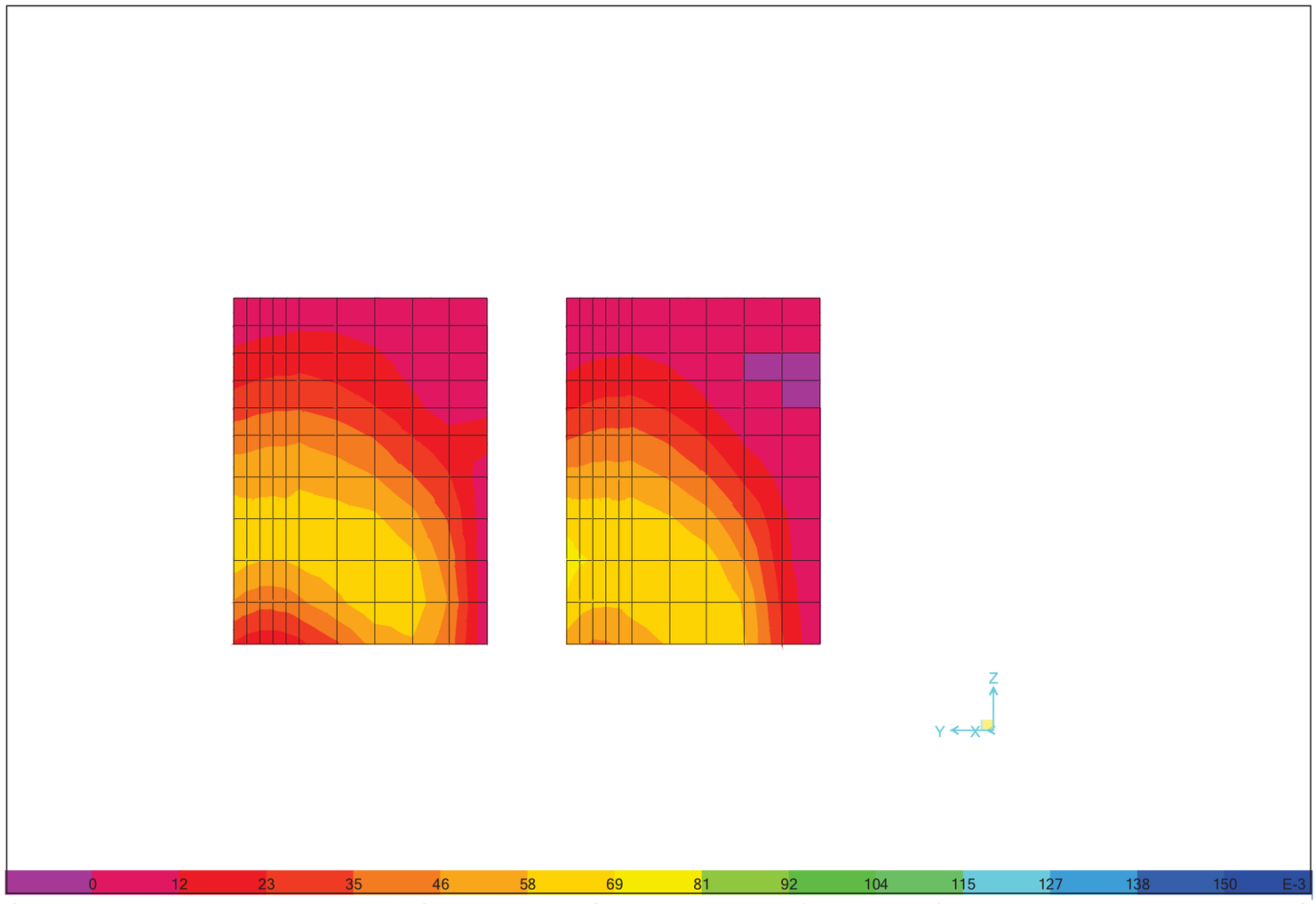
SAP2000 19.0.0 Reinforcement Intensity ASt2 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C



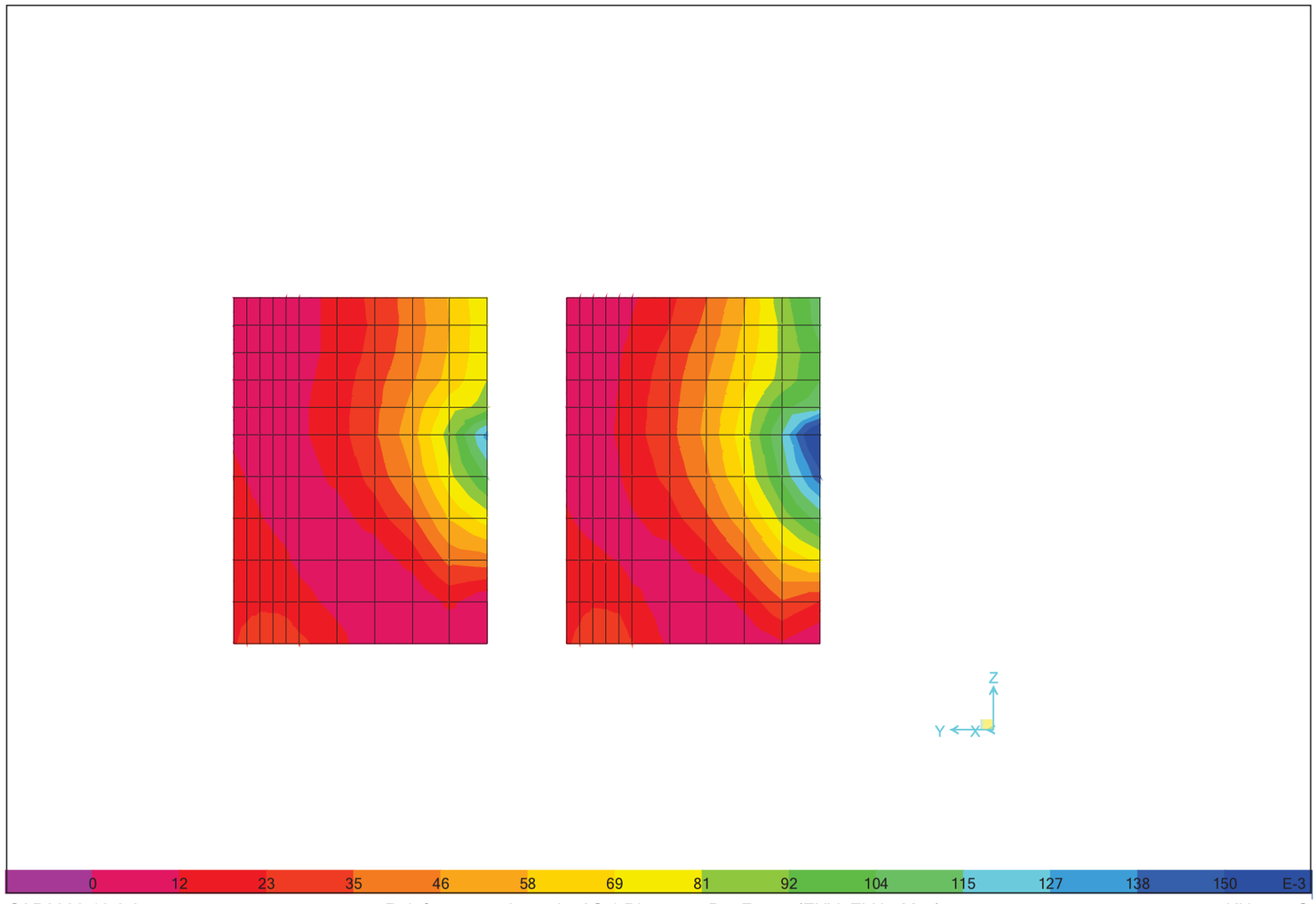
SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C



SAP2000 19.0.0 Reinforcement Intensity ASt2 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C



SAP2000 19.0.0 Reinforcement Intensity ASt2 Diagram - Top Face (ENV_ELU - Max) KN, cm, C



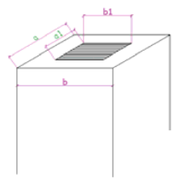
SAP2000 19.0.0 Reinforcement Intensity ASt1 Diagram - Bot Face (ENV_ELU - Max) KN, cm, C

REFUERZO POR CARGAS CONCENTRADAS SOBRE MACIZOS

Artículo 60 EHE

PROYECTO: AUTOVÍA ALMANZORA. CUCADOR-ENLACE AL-7106

ESTRUCTURA E3. ZUNCHADO BAJO APOYOS DE ESTRIBOS



DIMENSIONES MACIZO (m)

a	1.1	m
a1	0.5	m
b	1.32	m
b1	0.6	m

RESISTENCIA CARACTERÍSTICA HORMIGÓN

fck = 300 kp/cm2

COEFICIENTE MINORACIÓN

1.5

AXIL DE DISEÑO (tn)

Nd 181.55 tn

ARMADURA NECESARIA EN DIRECCIÓN PARALELA A "a"

As = 6.04 cm2

ARMADURA DISPUESTA

DIÁMETRO(mm)	*Nº REDONDOS*	*Nº CAPAS*	*cm2*
12	6	1	*6.79*

ARMADURA NECESARIA EN DIRECCIÓN PARALELA A "b"

As = 6.04 cm2

ARMADURA DISPUESTA

DIÁMETRO(mm)	*Nº REDONDOS*	*171*	*cm2*
12	6	1	*6.79*

COMPROBACIÓN DE NUDOS Y BIELAS

¿CUMPLE? *VERDADERO*

Apéndice 4.- Definición y cálculos Estructura E-04

DISEÑO Y CÁLCULO DE ESTRUCTURAS

NOTA DE CÁLCULO DE ESTRUCTURA	
PROYECTO:	**AUTOVÍA DE ALMANZORA (A-334). TRAMO: INTERSECCIÓN EL CUCADOR- ENLACE CON LA AL-7106 EN LA CONCEPCIÓN.**
ESTRUCTURA:	**ESTRUCTURA E-4**
SITUACIÓN:	**ALMERÍA**
FECHA:	**2 DE JUNIO DE 2017**

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CONTENIDO DE LA PRESENTE NOTA

MEMORIA DE CÁLCULO

ANEJO DE CÁLCULOS:

- REPARTO DE CARGAS CARROS IAP-11 SOBRE DINTEL DE MARCO
- MODELO DE CÁLCULO DE MARCO EN SAP2000. SITUACIÓN PERSISTENTE
- CÁLCULO DE CUANTÍAS DE ARMADURA PARA SITUACIÓN PERSISTENTE
- COMPROBACIÓN DE HIPÓTESIS ACCIDENTAL DE SISMO
- DIMENSIONAMIENTO DE ALETAS

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MEMORIA DE CÁLCULO

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2 DESCRIPCIÓN DE LA ESTRUCTURA 5

3 BASES DE CÁLCULO 6

4 INSTRUCCIONES Y NORMATIVA DE APLIACIÓN 6

5 PROGRAMAS INFORMÁTICOS EMPLEADOS EN LOS CÁLCULOS 7

6 MATERIALES, RECUBRIMIENTOS Y COEFICIENTES PARCIALES DE SEGURIDAD. 7

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1 INTRODUCCIÓN Y OBJETO

El objeto del presente documento es el de describir el procedimiento seguido en el cálculo de la Estructura E-4, que se corresponde con el Paso Inferior en el P.K. 1+920, incluido en el Proyecto de Construcción de la "Autovía de Almanzora (A-334). Tramo: Intersección El Cucador – Enlace con la AL-7106 en la Concepción", en la provincia de Almería. En esta nota técnica se definen las bases de cálculo, características de los materiales, hipótesis adoptadas, medios empleados en el cálculo, resultados obtenidos y conclusiones derivadas del proceso.

Este paso inferior fue diseñado y calculado en el proyecto original pero, debido a la fecha en la que se redactó este proyecto, se hace necesario actualizar los cálculos a los cambios normativos que se han producido, adaptando la estructura a la normativa vigente.

2 DESCRIPCIÓN DE LA ESTRUCTURA

La estructura E-4 se corresponde con el Paso Inferior en el P.K. 1+920 y da paso a la carretera AL-7106 bajo la autovía. La estructura consiste en un marco de hormigón armado ejecutado in situ, cuyas dimensiones interiores horizontal y vertical son de 11 m x 6.00 m, respectivamente.

La longitud el marco es de aproximadamente 28.69 m en un tramo único que cruza bajo las calzadas de la autovía. Este tramo se divide en cuatro módulos de igual longitud.

La sección transversal del marco se proyecta con un espesor constante de 70 cm para el dintel, solera y hastiales, no disponiéndose cartelas en las esquinas. El espesor de tierras sobre el dintel es variable entre unas zonas y otras, alcanzando, en la zona de rodadura, un valor máximo de 0.77 m y un mínimo de 0.29 m. Sobre este espesor se dispone una capa de rodadura de 10 cm.

Tanto a la entrada como a la salida del marco se proyectan aletas materializadas mediante muros ménsula de altura variable que se adaptan al perfil de tierras a contener. El alzado de los muros ménsula tiene espesor constante de 70 cm. La cimentación al terreno de los muros será directa a través de zapatas, considerando una tensión admisible del terreno de 25 tn/m^2 de acuerdo con lo indicado en la información geotécnica disponible.

El resultado del cálculo de la geometría y armado de la sección tipo del marco puede verse definido en los planos que acompañan al presente documento. Así mismo se definen también en geometría y armadura las aletas a ejecutar en las embocaduras de entrada y salida de la estructura.

3 BASES DE CÁLCULO

El dimensionamiento de la estructura se realizará según los principios de la mecánica racional y teoría de estructuras, adaptadas al diseño estructural. Se seguirán las prescripciones recogidas en la normativa vigente en el territorio español, así como las recomendaciones y la normativa internacional de aplicación, cuando proceda. De acuerdo con lo anterior, el cálculo se realizará siguiendo el principio de los Estados Límites, que establece que la seguridad de la estructura en su conjunto, o en cualquiera de sus partes, se garantiza comprobando que la solicitación no supera la respuesta última de las mismas. Este requisito para la seguridad se expresa sintéticamente mediante la siguiente desigualdad:

$$Sd<Rd$$

Siendo Sd la solicitación de cálculo aplicable en cada caso, y Rd la respuesta última de la sección o elemento.

Para la aplicación de este criterio de seguridad, se consideran tanto situaciones de servicio como de agotamiento, esto es, Estados Límites de Servicio (ELS) y Estados Límites Últimos (ELU), de acuerdo con las definiciones dadas para los mismos en las normativas de referencia. En principio, los Estados Límites Últimos están asociados a la rotura de secciones o elementos. Para ellos, se evalúan las solicitaciones mediante la mayoración de los valores representativos de las acciones (en general característicos), utilizando los oportunos coeficientes parciales que luego se detallan. Las resistencias de las secciones o elementos se estiman mediante las características geométricas, y las resistencias minoradas de los materiales.

Por el contrario, los Estados Límites de Servicio están asociados a la pérdida de funcionalidad de la estructura. Las solicitaciones se evalúan mediante sus valores representativos, en general sin mayorar, afectados de los oportunos coeficientes de combinación, para tener en cuenta la probabilidad de ocurrencia simultánea (concomitancia) de varias acciones. Las resistencias se estiman a partir de los valores nominales de las dimensiones y resistencias de los elementos o secciones de la estructura, sin minorar.

4 INSTRUCCIONES Y NORMATIVA DE APLIACIÓN

El proyecto de la presente estructura se realizará conforme a las prescripciones recogidas en los siguientes textos normativos en vigor:

- Instrucción de Hormigón Estructural (EHE-08).
- Instrucción sobre las Acciones a considerar en el proyecto de Puentes de Carretera (IAP-11).
- Norma de construcción Sismorresistente (NCSP-07).
- Guía de cimentaciones en obras de carretera.

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5 PROGRAMAS INFORMÁTICOS EMPLEADOS EN LOS CÁLCULOS

Los cálculos de comprobación de la estructura se llevan a cabo mediante programas de aplicación tanto en el cálculo general de estructuras como en el cálculo de elementos estructurales concretos. Los programas empleados han sido desarrollados bien por empresas especializadas en la elaboración de herramientas informáticas para el cálculo de estructuras o bien por esta propia oficina técnica. No obstante lo anterior, tanto los datos de partida como los resultados obtenidos por los programas, son siempre verificados a través de comprobaciones manuales aproximadas que justifiquen los órdenes de magnitud.

Los programas informáticos empleados son los que siguen:

a) SAP2000 NonLinear Versión 19: Programa de cálculo de estructuras que utiliza el MEF para la resolución. Desarrollado por Computers and Structures Inc. University Ave. Berkeley. Mediante dicho programa se han realizado diversos modelos de cálculo, los cuales se describen en los puntos siguientes.

b) Prontuario Informático del Hormigón Estructural 3.1. Desarrollado por la Unidad Docente de Hormigón Estructural de la E. T. S. I. C. C. P. de Madrid y el Instituto Español del Cemento y sus Aplicaciones. Adaptado a la EHE-08.

c) Diversas hojas de cálculo y programas desarrollados por el proyectista.

6 MATERIALES, RECUBRIMIENTOS Y COEFICIENTES PARCIALES DE SEGURIDAD.

Las características de los materiales a emplear en la construcción de la estructura objeto de la presente nota de cálculo son, en consonancia con lo dispuesto en la tabla 37.2.4.1.a de la Instrucción EHE-08, las siguientes, para una vida útil de proyecto de 100 años:

CUADRO DE MATERIALES EHE

MATERIALES	CALIDAD	NIVEL DE CONTROL	COEFICIENTES
HORMIGON DE LIMPIEZA Y NIVELACION	HL-150/B/20	NO ESTRUCTURAL	
HORMIGON EN MARCO Y ALETAS	HA-30/B/20/IIb	ESTADISTICO	$\gamma c = 1.50$
ACERO PASIVO	B 500 SD	NORMAL	$\gamma s = 1.15$
EJECUCION		INTENSO	SEGUN IAP-11

MATERIALES	RECUBRIMIENTO (mm)	RELACION a/c MAXIMA	CONTENIDO MINIMO CEMENTO (Kg/m^3)
HORMIGON EN MARCO Y ALETAS	40	0.55	300

7 ACCIONES CONSIDERADAS EN EL CÁLCULO

La determinación de los valores característicos de las acciones, así como de sus valores representativos y de cálculo y las combinaciones a realizar con las mismas, a fin de verificar el cumplimiento de los estados límite, se lleva a cabo según lo prescrito en la Instrucción IAP-11.

7.1 VALORES CARACTERÍSTICOS DE LAS ACCIONES

7.1.1 ACCIONES PERMANENTES

a) **Peso Propio:** El valor característico del peso de los elementos estructurales de hormigón, se determina tomando como peso específico del mencionado material 25 kN/m^3.

b) **Peso de tierras y de pavimento:** El cálculo se realiza considerando el espesor máximo de 0.77 m más los 0.10 metros de pavimento. Se considera un peso específico de las tierras de 20 kN/m^3 y un peso específico del pavimento de 24 kN/m^3.

En el cálculo se tiene en cuenta la mayoración de la acción del peso de las tierras por el denominado "coeficiente de Marston", que tiene en cuenta el "cuelgue" de las tierras situadas en las proximidades de la estructura, como consecuencia de la diferencia de rigidez existente entre las tierras y la estructura de hormigón. Este coeficiente es de 1.02 para el caso de altura de tierras de 0.77 m.

7.1.2 ACCIONES PERMANENTES DE VALOR NO CONSTANTE

a) **Empuje del terreno:** Se han tenido en cuenta las siguientes hipótesis

- Hipótesis 1: Se ha considerado que se desarrollará en ambos hastiales el empuje al reposo al tratarse de una estructura cerrada, concretamente considerando un coeficiente de empuje K0= 0.50, que es el correspondiente a un ángulo de rozamiento interno de las tierras Φ= 30 º. El peso específico del terreno se ha tomado igual a 2 t/m3.

- Hipótesis 2: Se ha considerado una hipótesis de descompensación de empujes de hasta un 20 % entre ambos hastiales del marco, tal y como prescribe la IAP-11. Para ello, el empuje al reposo en el hastial derecho se ha incrementado en un 10 % y el empuje al reposo en el hastial izquierdo se ha disminuido también en un 10 %.

Para el cálculo de los muros ménsula que materializan las aletas de la estructura se ha considerado el empuje activo del terreno correspondiente a un ángulo de rozamiento interior del mismo de 30º, teniendo en cuenta además la inclinación del talud de tierras con la horizontal que incide perpendicularmente a los muros y que resulta en el caso más desfavorable de 16º. El peso específico de las tierras también se ha tomado en este caso igual a 2 t/m3.

7.1.3 ACCIONES VARIABLES

a) **Sobrecarga de uso y carro de la IAP-11:** Se considera una sobrecarga uniforme de 0.9 t/m2. La acción de los carros de la IAP-11 se tiene en cuenta con la geometría y distribución de cargas que se presenta en la misma instrucción y contemplando una huella de 40 x 40 cm. En el presente cálculo la acción del carro de la IAP-11 se ha repartido en profundidad a través del espesor de tierras sobre el marco mediante un ángulo de 60º con la horizontal y hasta alcanzar la línea media del dintel con un ángulo de reparto de 45º. Este reparto se ha realizado considerando el menor espesor de tierras donde se genera la mayor carga vertical de los carros, esto es, en la franja donde coinciden los dos carros más pesados circulando en paralelo.

b) **Empuje de tierras debido a la actuación de una sobrecarga vertical de 1 t/m^2:** Se han considerado dos hipótesis de carga en este caso:

- Hipótesis 1: en esta hipótesis se supone que la sobrecarga lateral actuará en ambos laterales del marco de forma simétrica. Esta hipótesis irá en combinación junto con la hipótesis 1 tomada en la acción de empuje de tierras, por lo que el empuje de la sobrecarga actuando uniformemente sobre los hastiales será de 0. 5 x 1tn/m^2 = 0. 5 tn/m^2.

- Hipótesis 2: Se ha supuesto que la sobrecarga lateral actuará únicamente sobre el hastial derecho del marco, suponiendo que sobre éste actúa el empuje al reposo. Esta hipótesis irá en combinación con la hipótesis 2 tomada en la acción de empuje de tierras, siendo el empuje de la sobrecarga de 0. 5 tn/m^2 sobre dicho hastial.

Para el cálculo de los muros ménsula que materializan las aletas de la estructura se considera, al igual que en el proyecto original, que la sobrecarga de uso en coronación de los terraplenes no llega a actuar sobre las aletas por lo que no generan ni empuje en los muros ni carga sobre el talón.

7.1.4 ACCIONES ACCIDENTALES

a) **Sismo:** Para el cálculo de la acción sísmica se han seguido las indicaciones recogidas en la NCSP-07. Los parámetros que se han adoptado son los siguientes:

- Aceleración básica: 0.14g
- Coeficiente de daño: 1.0
- Coeficiente de las Azores (K): 1.0
- Coeficiente de tipo de suelo: Dada la naturaleza del terreno, se adopta un coeficiente de 2.0
- Coeficiente de comportamiento (q): 1.0

Cálculo del marco frente a sismo

En el caso de que la montera de tierras sobre la estructura en estudio sea menor a la mitad de su luz, se emplearán los criterios de cálculo referentes a estribos unidos al tablero, incluidos dentro de la normativa sísmica vigente NCSP-07.

En este caso, si el estribo (hastial en nuestro caso) está enterrado más del 80 % de su altura en terreno consistente, podrá considerarse que el movimiento de la estructura no sufre amplificación respecto al del suelo, en cuyo caso debe adoptarse un valor del factor de comportamiento q = 1 y las fuerzas de inercia se determinarán a partir de la aceleración de cálculo ac.

Según la NCSP-07, las acciones que deben considerarse son:

- Fuerzas de inercia de la estructura, que pueden estimarse empleando el método del modo fundamental. En nuestro caso, puesto que se trata de una estructura enterrada, la amplificación será nula ($\alpha(t) = 1$), siendo las fuerzas de inercia sobre la estructura Fi = m ac y m la masa de cada tramo de la estructura, aplicada en su centro de gravedad y el sentido del empuje activo dinámico.
- Empuje de tierras incluyendo el efecto sísmico, según anejo 6 de NCSP-07. Se empleará el empuje activo en un lateral, en la misma dirección que las fuerzas de inercia, y el pasivo en el otro, contando, únicamente, con la fracción de empuje pasivo compatible con los desplazamientos previstos.

Cálculo de las aletas frente a sismo

Para el cálculo de las aletas frente a la acción del sismo, se ha introducido dicha acción en los muros, tal y como indica la norma de construcción sismorresistente NCSP-07 en el Anejo 6, empleando el método pseudoestático, desarrollado inicialmente por Okabe y (1926) y Mononobe (1929). El empuje total en situación sísmica comprende el empuje estático normal (aplicado a 1/3 de la altura del muro) más un sobreempuje dinámico obtenido mediante el coeficiente de empuje (Kad-Kae), y aplicado a una altura correspondiente a 2/3 de la altura del muro.

7.2 VALORES REPRESENTATIVOS DE LAS ACCIONES

En general, para acciones permanentes, permanentes de valor no constante y accidentales, se considera un único valor representativo (que será el adoptado para la verificación de los estados límite), coincidente con el valor característico descrito en el anterior apartado.

Por el contrario, en el caso de las acciones variables, se tienen en consideración diferentes valores representativos, que se utilizarán en distintas combinaciones de acciones. Dichos valores resultan de afectar al valor característico de la acción de los coeficientes definidos en el punto 6.1.2 de la IAP-11.

ACCIÓN			Ψ_0	Ψ_1	Ψ_2
Sobrecarga de uso	gr 1, Cargas Verticales	V. Pesados	0.75	0.75	0.0
		S. Uniforme	0.4	0.4	0/0.2*
	gr 2, Fuerzas Horizontales		0.0	0.0	0.0
Viento	Fwk	Sit. Persistente	0.6	0.2	0.0
		En Construcción	0.8	0.0	0.0
Acción Térmica	Tk		0.6	0.6	0.5
Nieve	Qsn,k	En Construcción	0.8	0.0	0.0
Acción del agua	Wk	E. Hidrostático	1.0	1.0	1.0
		E.	1.0	1.0	1.0
Sobrecargas de Construcción	Qc		1.0	0.0	1.0

*El factor de simultaneidad correspondiente a la sobrecarga uniforme se tomará igual a 0, salvo en el caso de la combinación de acciones en situación sísmica, para la cual se tomará igual a 0.2.

7.3 VALORES DE CÁLCULO DE LAS ACCIONES

7.3.1 ESTADOS LÍMITE ÚLTIMOS

Para los coeficientes parciales de seguridad, γF, se adoptan los valores recogidos en la siguiente tabla:

TIPO DE ACCIÓN		SITUACIONES PERSISTENTES Y TRANSITORIAS	
		Efecto favorable	Efecto desfavorable
Permanentes		1.0	1.35
Permanentes de valor no Constante	Pretensado	1.0	1.0/1.2*
	Reológicas	1.0	1.35
	Empuje del terreno	1.0	1.5
Variables	Sobrecarga de uso	0.0	1.35
	Sobrecarga de uso en terraplenes	0.0	1.50
	Acciones climáticas	0.0	1.50
	Empujes de agua	0.0	1.50
	Sobrecargas de Construcción	0.0	1.35
Accidentales		0.0	1.0

*El valor 1.2 para verificaciones locales tales como la transmisión de la fuerza de pretensado al hormigón en zonas de anclajes, cuando se toma como valor de la acción el que corresponde a la carga máxima (tensión de rotura) del elemento a tesar.

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7.3.2 ESTADOS LÍMITE DE SERVICIO

Para los coeficientes parciales de seguridad, γF, se adoptan los valores recogidos en la siguiente tabla:

TIPO DE ACCIÓN		*SITUACIONES PERSISTENTES Y TRANSITORIAS*	
		Efecto favorable	Efecto desfavorable
PERMANENTE		1.0	1.0
PERMANENTE DE VALOR NO CONSTANTE	PRETENSADO	0.95	1.05
	REOLÓGICAS	1.0	1.0
	TERRENO	1.0	1.0
VARIABLE		0.0	1.0

8 COMBINACIÓN DE ACCIONES

Las hipótesis de carga tomadas en consideración se forman combinando los valores de cálculo de las acciones cuya actuación pueda ser simultánea (acciones concomitantes), según los criterios generales prescritos en el capítulo 6.3 de la instrucción IAP-11, tanto para Estados Límite Últimos, en situaciones persistentes o transitorias y accidentales, como para Estados Límite de Servicio.

9 CÁLCULO DE LAS ESTRUCTURAS

9.1 CÁLCULO DEL MARCO

Para calcular los esfuerzos en el marco se ha empleado el programa SAP 2000, que utiliza el método de los elementos finitos para la resolución, realizando un modelo plano de nudos y barras con la geometría y propiedades mecánicas de los distintos elementos que forman parte de la estructura.

En el modelo se ha materializado la interacción terreno-estructura mediante muelles de una constante elástica igual al coeficiente de balasto del terreno multiplicado por el área que abarca cada uno de estos muelles. Se ha realizado un análisis de sensibilidad para este coeficiente de balasto. Los valores límite de Kb en dicho análisis han sido Kb=50 t/m3 y Kb=100000 t/m3, realizando con estos valores dos cálculos independientes de la estructura.

Se han introducido las cargas de peso propio, peso de tierras, empuje de tierras y tren de cargas en cada caso, realizando las siguientes combinaciones tanto en E.LU como en E.L.S:

Estados Límite Últimos Persistentes

	PP	PT	ET	SC	ESC LATERAL
ELU 1	1.35	1.35	1.5	1.35	1.5
ELU 2	1.35	1.35	1.0	1.35	0.0
ELU 3	1.0	1.0	1.5	0.0	1.5
ELU 4	1.35	1.35	1.5/1.1 ET1 1.5*1.1 ET2	1.35	1.5*ESC2
ELU 5	1.35	1.35	1/1.1 ET1 1*1.1 ET2	1.35	0.0
ELU 6	1.0	1.0	1.5/1.1 ET1 1.5*1.1 ET2	0.0	1.5*ESC2

Siendo: ET =(ET1+ET2); SC=SC +CARRO; ESC=ESC1+ESC2

ET1: empuje tierras hastial izquierdo

ET2: empuje tierras hastial derecho

ESC1: empuje sobrecarga hastial izquierdo

ESC2: empuje sobrecarga hastial derecho

Estados Límite de Servicio

	PP	PT	ET	SC	ESC LATERAL
ELS 1	1.0	1.0	1.0	0.0	0.0
ELS 2	1.0	1.0	1/1.1ET1 1*1.1ET2	0.0	0.0

Con la envolvente de esfuerzos de las distintas combinaciones expuestas anteriormente, se obtienen los esfuerzos de diseño persistentes y de servicio, respectivamente. A continuación, se calculan los armados necesarios para la satisfacción de los requisitos resistentes en E. L. U. de flexión y cortante.

En el cálculo efectuado se ha verificado el estado límite de servicio de fisuración en todos los elementos del marco. Se ha considerado una apertura máxima de fisura de 0.30 mm, tal y como indica la EHE-08 para una clase de exposición ambiental IIb.

Estados Límite Últimos Accidentales

Se ha introducido la acción de sismo en la estructura tal y como se ha explicado en el apartado 7.1 de la presente nota técnica, y se han obtenido los esfuerzos resultantes, tomando la combinación correspondiente indicada en la IAP-11:

	PP	PT	ET	SISMO	SCU
SISMO	1.0	1.0	1.0	1.0	0.2

Con los esfuerzos obtenidos se verifica que las cuantías de armadura dimensionadas para la hipótesis persistente siguen siendo válidas en la hipótesis accidental del sismo.

Adicionalmente, se verifica que todas las cuantías de armado son superiores a los valores de cuantía mínima (mecánica y geométrica) recogidas en la EHE-08.

9.2 CÁLCULO DE LAS ALETAS

Las aletas que se proyectan en las embocaduras de entrada y salida de la estructura se materializan mediante muros ménsula de altura variable cimentados al terreno de forma directa a través de zapatas de cimentación.

En primer lugar se lleva a cabo un predimensionamiento de la zapata que materializa la cimentación de los distintos módulos de muro. Las dimensiones de la zapata (longitudes de puntera y talón) deben ser tales que la estructura sea estable frente al vuelco y al deslizamiento, exigiendo coeficientes de seguridad iguales o superiores a 1.8 y 1.50, respectivamente, para la combinación característica de acciones. Para la comprobación al deslizamiento se ha considerado un coeficiente de rozamiento terreno-zapata de 0.577.

Para llevar a cabo el dimensionamiento de las aletas, por cada tipo de aleta y módulo, empleando la herramienta SAP2000, se ha elaborado un modelo de cálculo tridimensional formado por elementos tipo placa. La interacción de las zapatas con el terreno se ha representado por un apoyo elástico de coeficiente de balasto K_{30}=8.0 kp/cm^3 adaptado conservadoramente al área de las zapatas de las aletas.

A partir de los resultados obtenidos en cada uno de los modelos, donde se han introducido las acciones descritas en el punto 7 de este documento, se ha procedido a verificar el cumplimiento de los coeficientes de seguridad al vuelco y al deslizamiento para las combinaciones de acciones característica y sísmica y, además, se ha comprobado que las tensiones en el terreno sean menores a la tensión admisible considerada. Para esta comprobación, tal y como se establece en la Guía de cimentaciones, se ha considerado una relación entre la tensión punta y la tensión admisible de 1.1 para la combinación característica de acciones y de 1.25 para la combinación sísmica de acciones.

Finalmente, a partir de los esfuerzos obtenidos en los elementos tipo placa que conforman los modelos de cálculo, se ha procedido a dimensionar el armado del muro y de la zapata de cada uno de los módulos de las zapatas en base al cumplimiento de los siguientes estados límite:

- ELU de rotura por tensiones normales, bajo la combinación persistente de acciones y accidental de sismo, según IAP-11, NCSP-07 y EHE-08.
- ELU de rotura por esfuerzo cortante, bajo la combinación persistente de acciones y accidental de sismo, según IAP-11, NCSP-07 y EHE-08.
- ELS de fisuración controlada, en base al tipo de ambiente considerado y para la combinación cuasipermanente de acciones. El valor de apertura máxima de fisura considerado se fija en 0.30 mm, tal y como indica la EHE-08 para una clase de exposición ambiental IIb.

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CÁLCULOS JUSTIFICATIVOS

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REPARTO DE CARGAS CARROS IAP-11 SOBRE DINTEL DE MARCO

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REPARTO DE CARGAS CARROS IAP-11 SOBRE DINTEL DE MARCO

Todos los carros definidos en la instrucción están formados por 4 cargas puntuales (huella de 40 x 40 cm) con separaciones entre ejes de 1.20 m en el sentido longitudinal y de 2.00 m en el sentido transversal.

El primer carro está formado por 4 cargas de 15 Tn, el segundo por 4 cargas de 10 Tn y el tercer carro por 4 cargas 5 Tn.

La acción de los carros se reparte en profundidad considerando la anchura de la huella (40 cm x 40 xm), el reparto en el espesor de las tierras con un ángulo de 60º respecto a la horizontal y el reparto hasta alcanzar la línea media del dintel con un ángulo de 45º.

En el caso que nos ocupa, donde el espesor de tierras es pequeño, la sección de cálculo más desfavorable se produce cuando circulan en paralelo el primer y el segundo carro.

La altura de tierras mínima en esta situación es de 0.45 m. Con esta altura de tierras, la anchura de reparto será de: 0.40 m + 2 x 0.577 x 0.45 m + 2 x 1 x 0.35 m = 1.654 m

A partir de esta anchura se obtiene la carga repartida que cada carga puntual genera en el eje del dintel:

- Q15= 15 tn / 1.654 m / 1.654 m = 5.72 Tn/m^2

- Q10= 10 tn / 1.654 m / 1.654 m = 3.81 Tn/m^2

A partir de estos valores, determinados para una de las cuatro cargas que componen a cada uno de los carros, se obtiene la acción conjunta de los carros en la sección de cálculo más desfavorable. La sección del dintel que se ve más solicitada es aquella que se ve sometida a la carga del carro de mayor peso y a la máxima porción de la carga del segundo carro que coincide con la primera. Según la geometría del marco y del relleno de tierras, el solape del segundo carro con el primero es del 55.8 % de la sección.

Con esta distribución, la acción de los carros se define como sigue:

- Tramo 1: 7.85 Tn/m en 1.2 m (5.72 Tn/m^2 +3.81 Tn/m^2 x 0.558) x 1 m
- Tramo 2: 15.70 Tn/m en 0.374 m 2 x (5.72 Tn/m^2 +3.81 Tn/m^2 x 0.558) x 1 m
- Tramo 3: 7.85 Tn/m en 1.2 m (5.72 Tn/m^2 +3.81 Tn/m^2 x 0.558) x 1 m

En el modelo de cálculo esta carga se introduce como una carga móvil que se desplaza por el dintel del marco. Además, también se introduce el carro como un caso de carga estático en aquellas posiciones que resultan críticas para el dimensionamiento del marco. Los esfuerzos por el paso de este carro se obtienen como la envolvente del caso de carga móvil y de los casos de carga estáticos.

MODELO DE CÁLCULO DE MARCO EN SAP2000. SITUACIÓN PERSISTENTE

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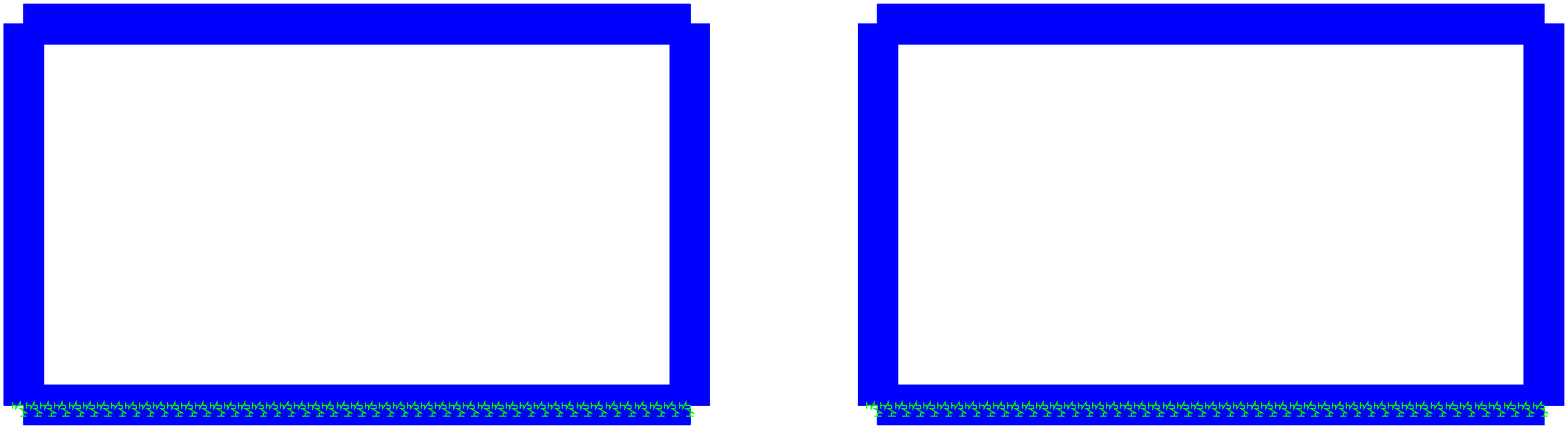

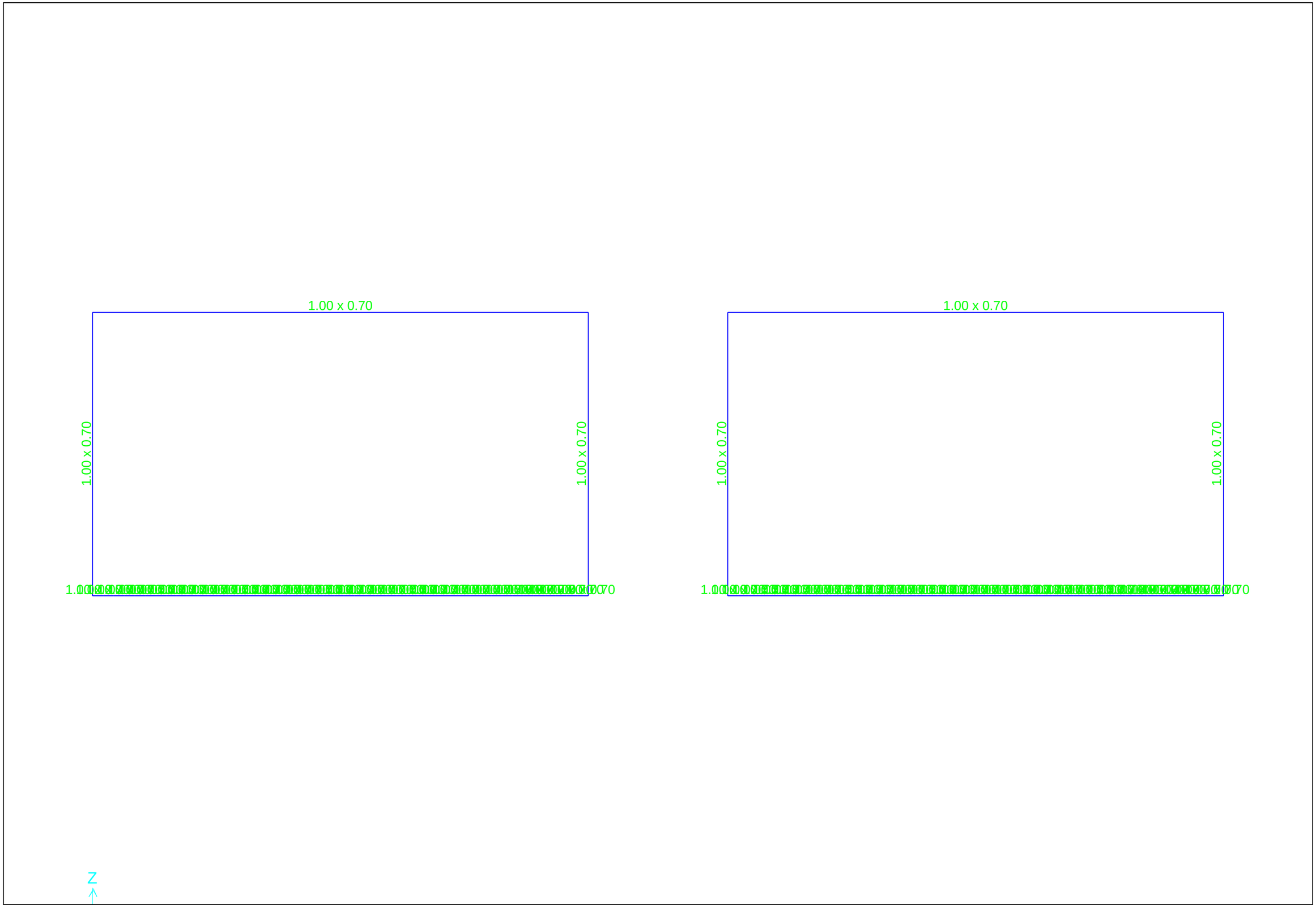
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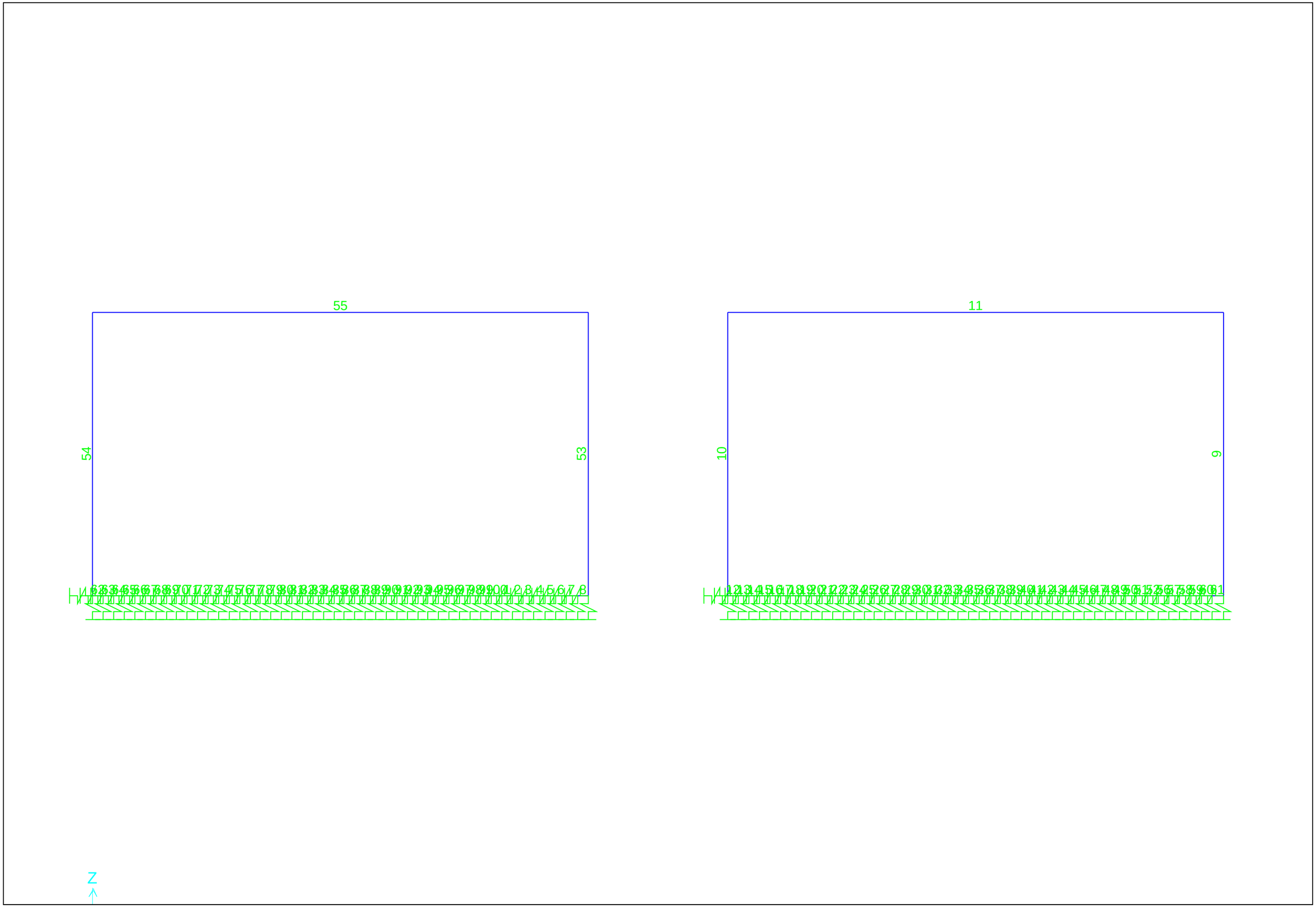
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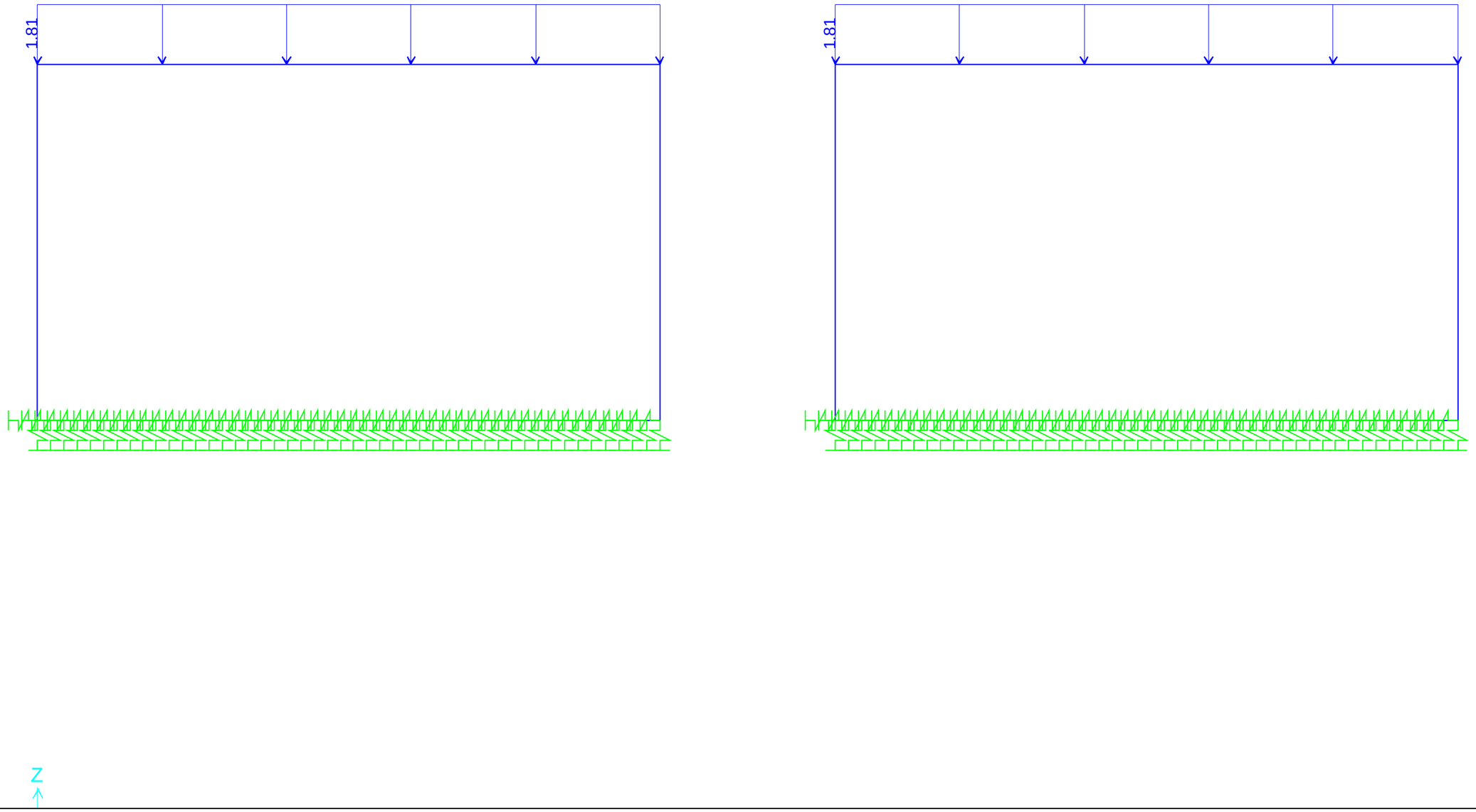
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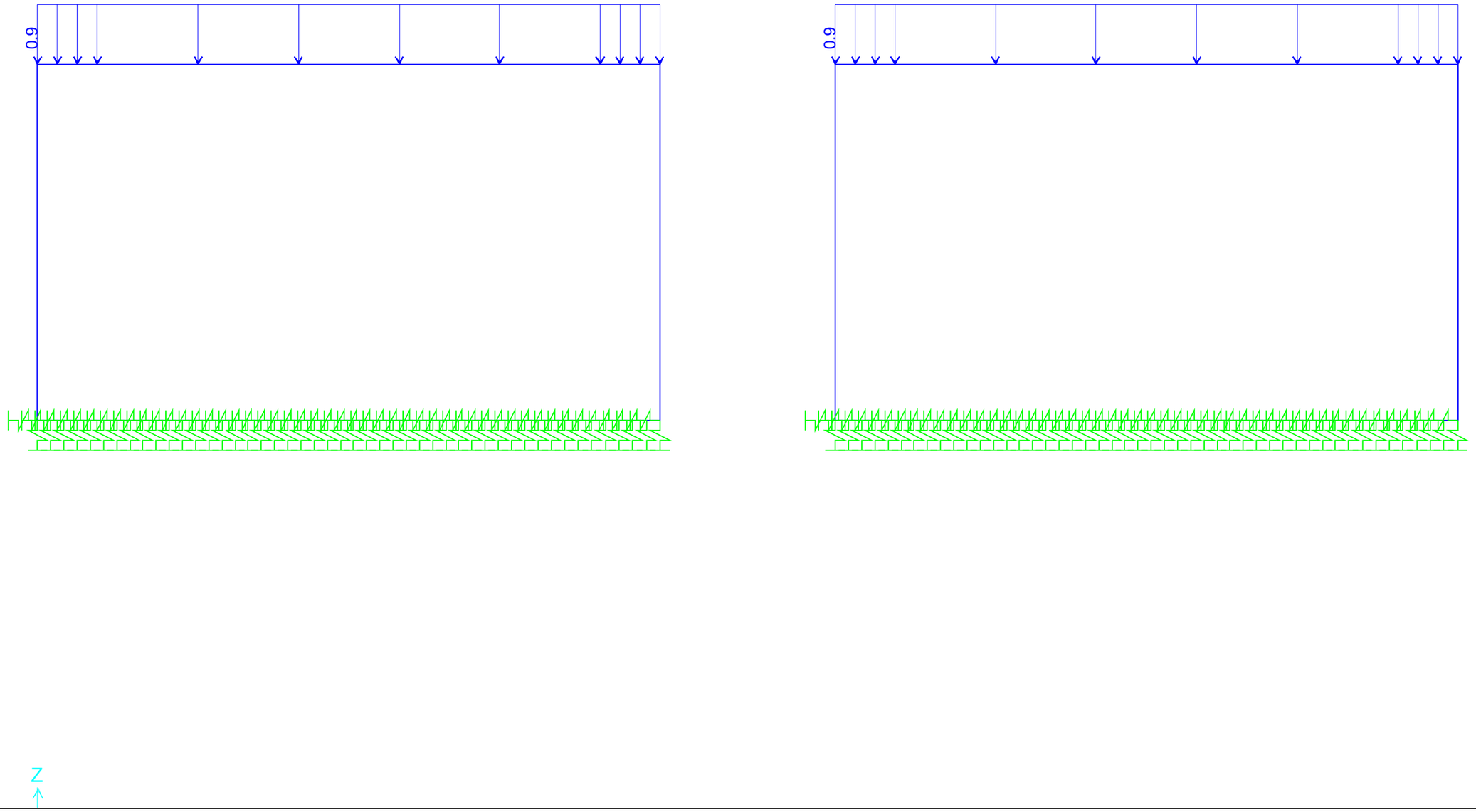
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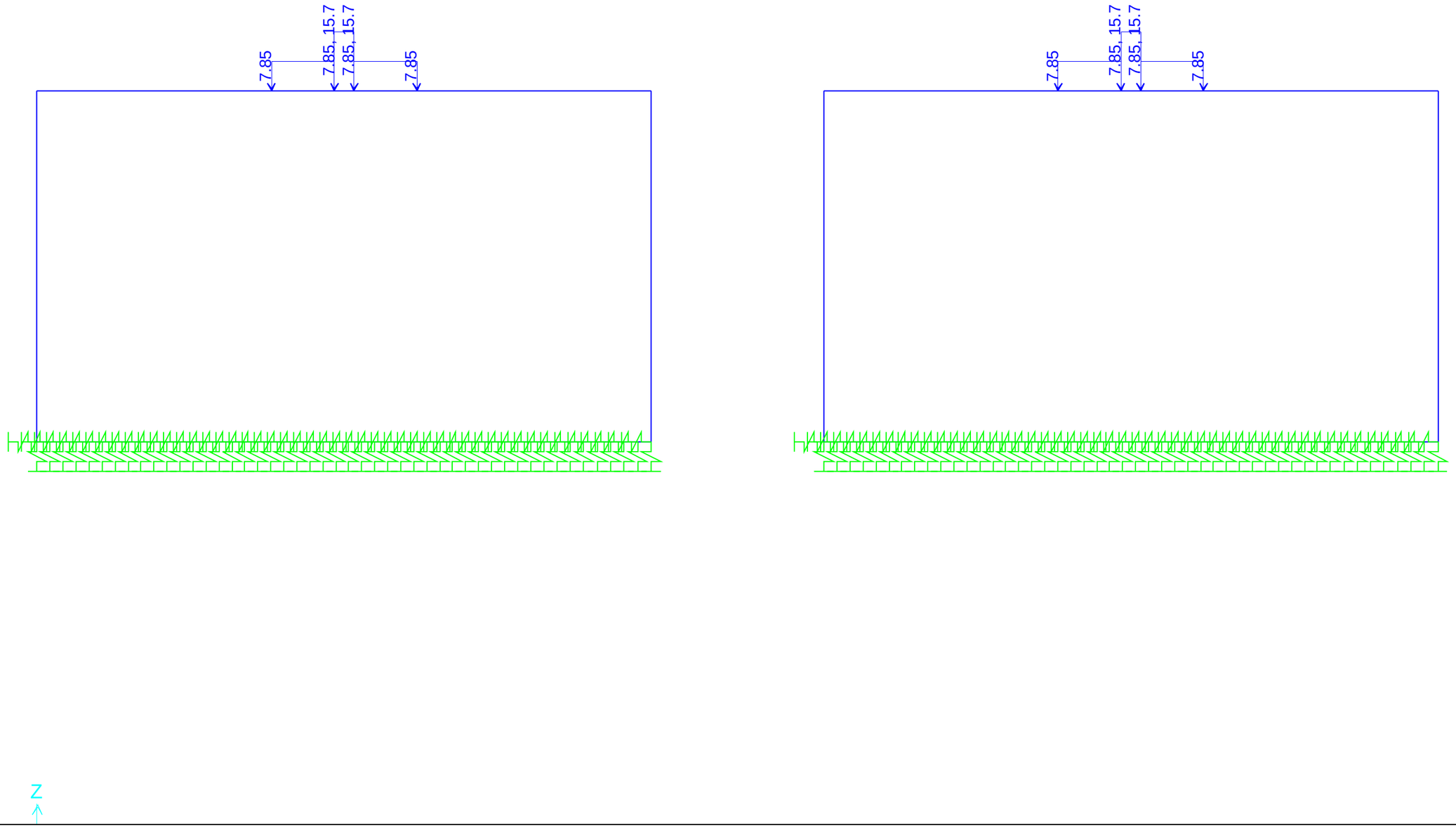
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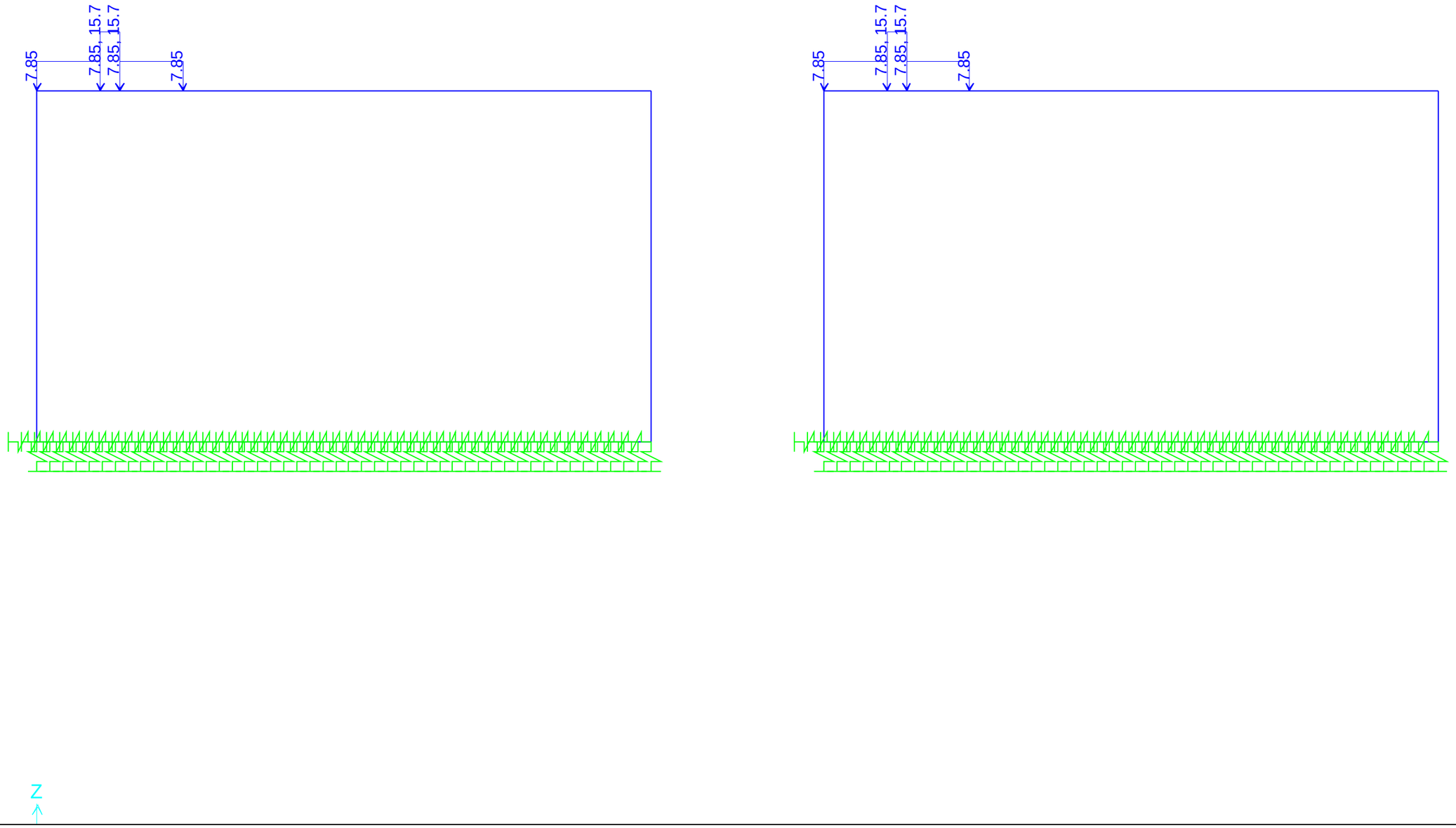
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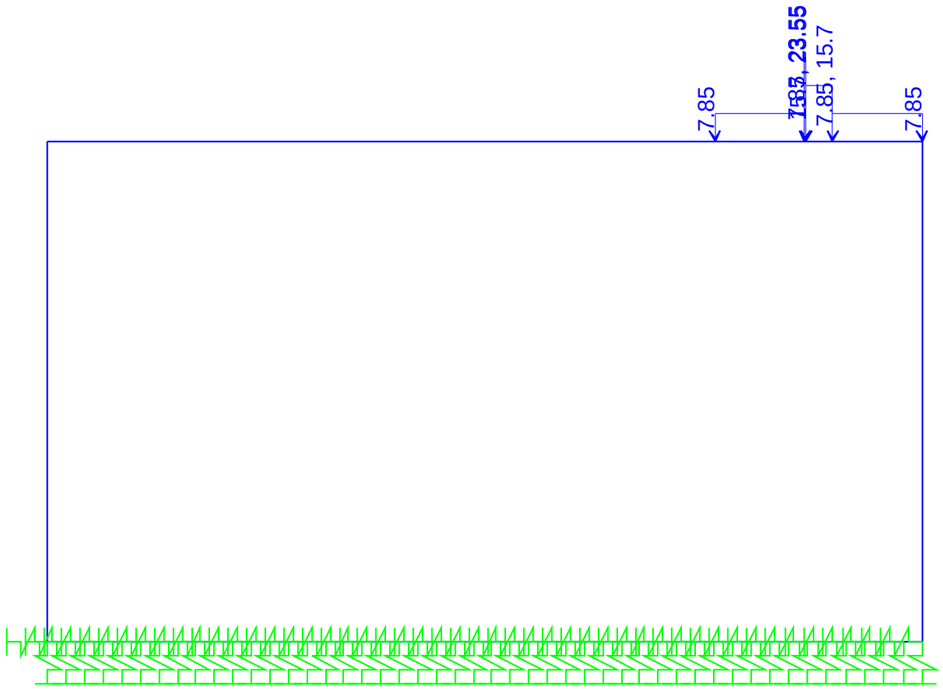

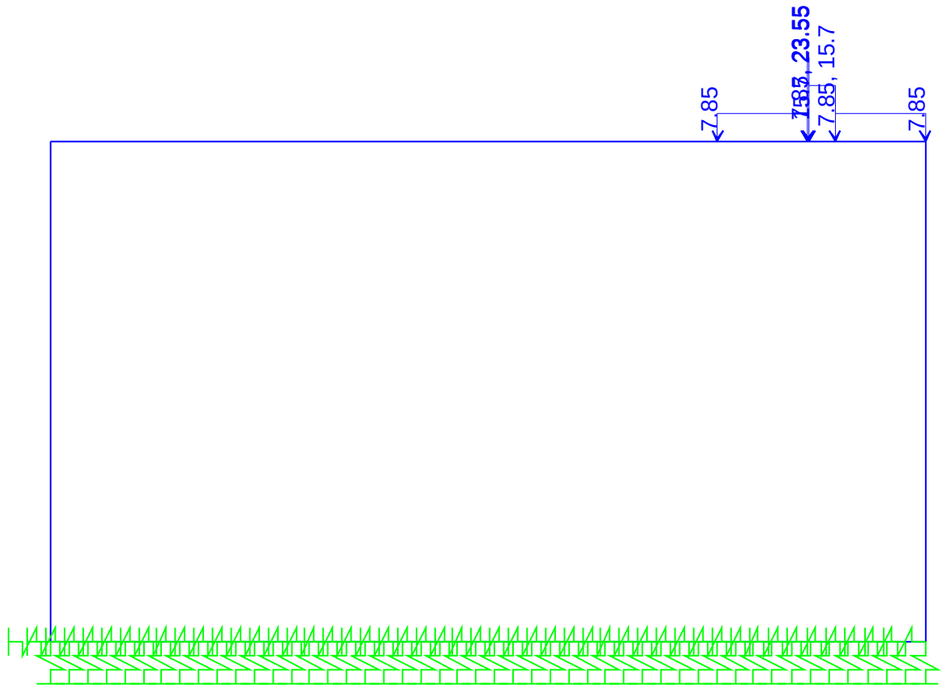

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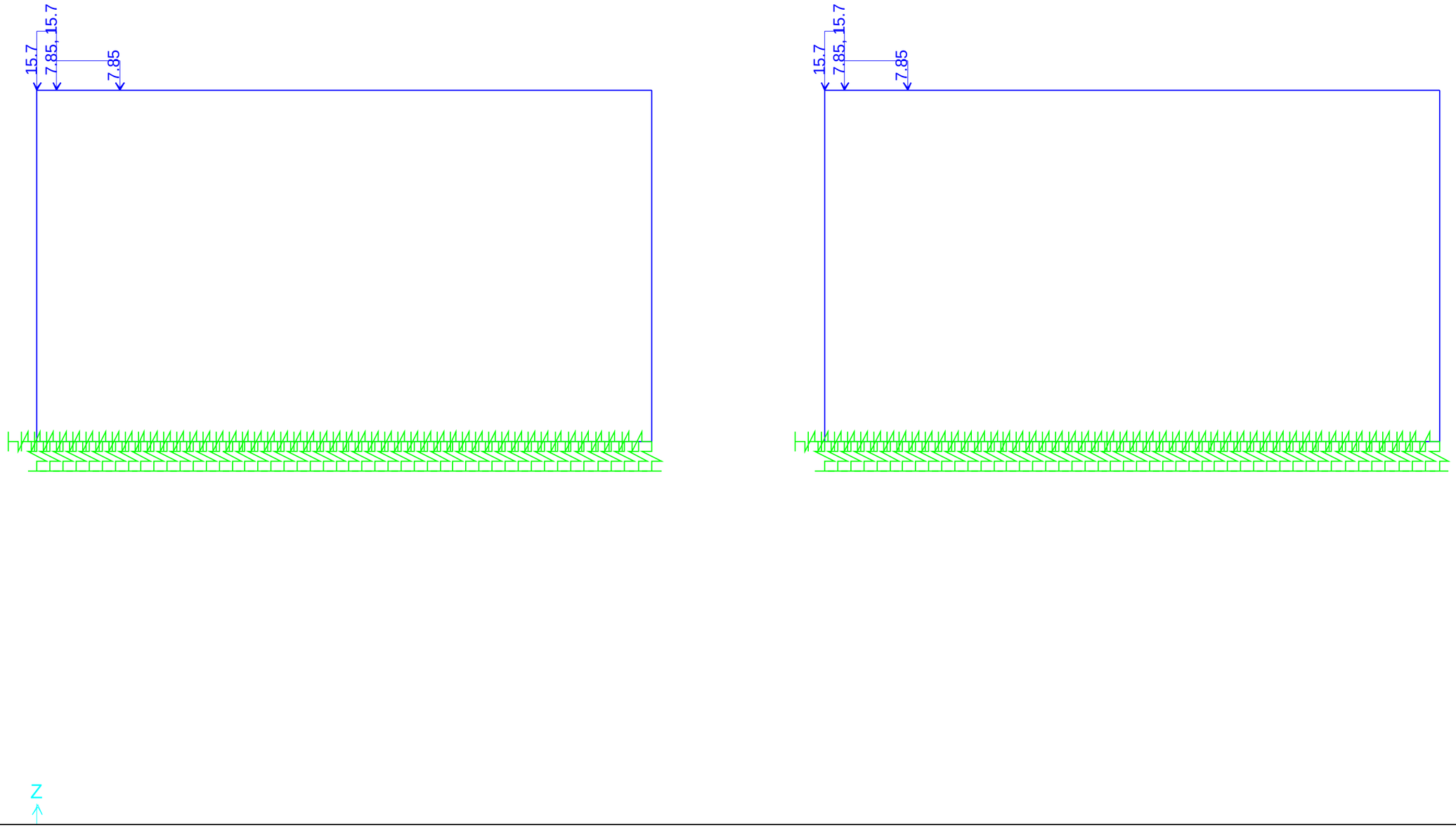
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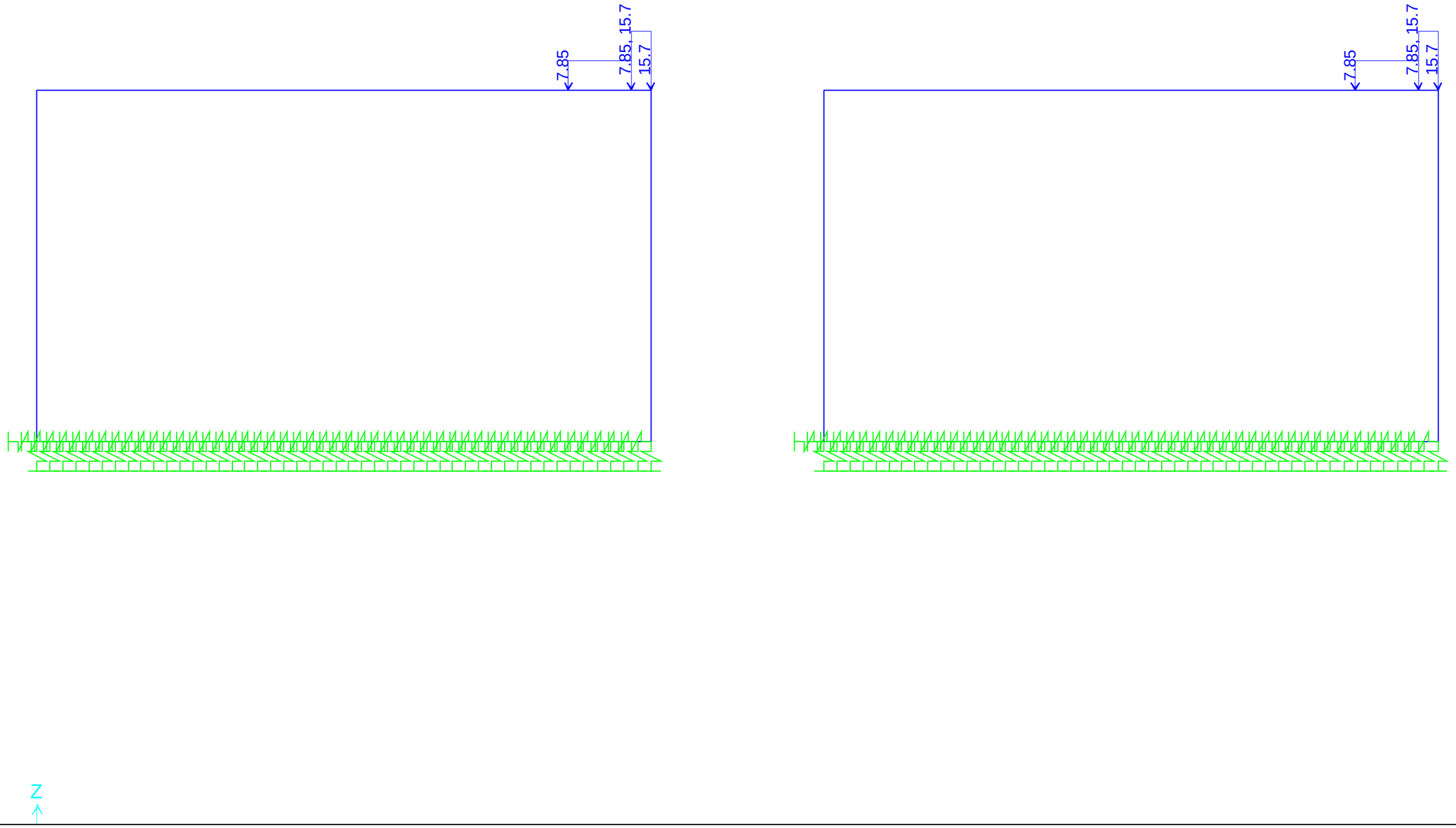
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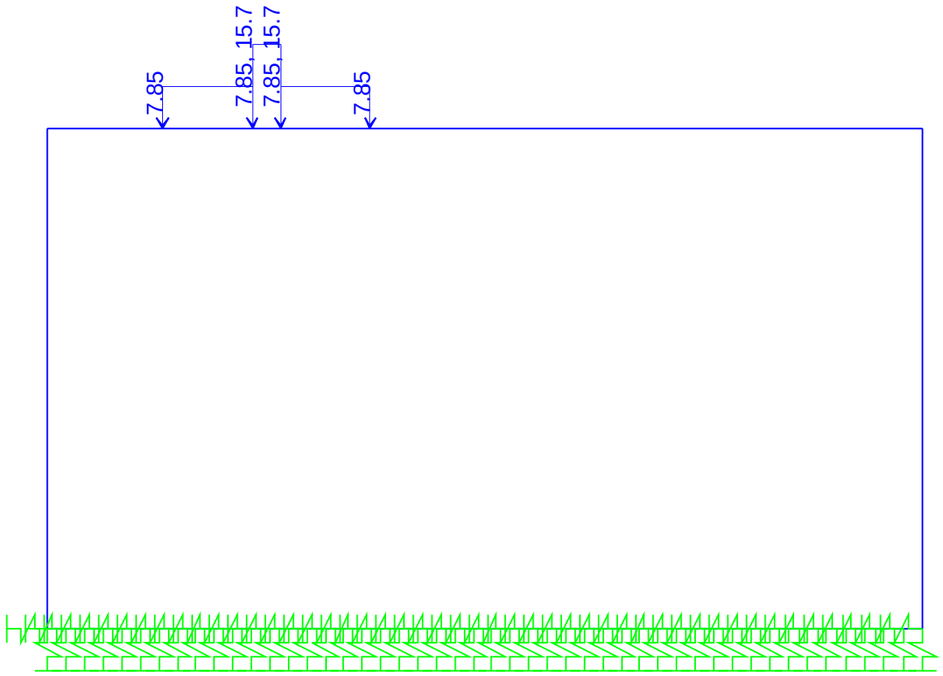

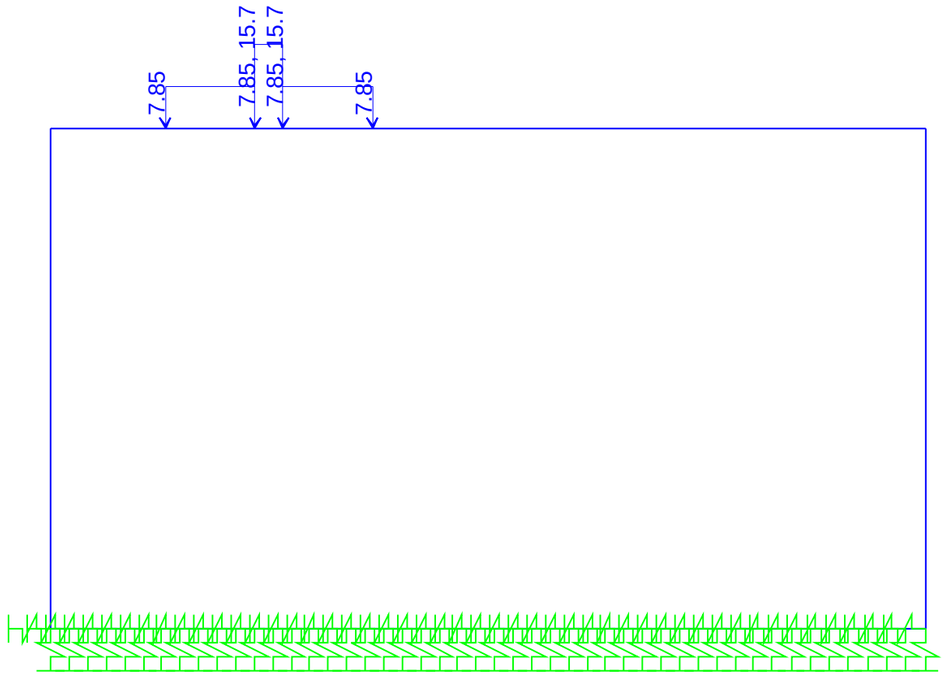

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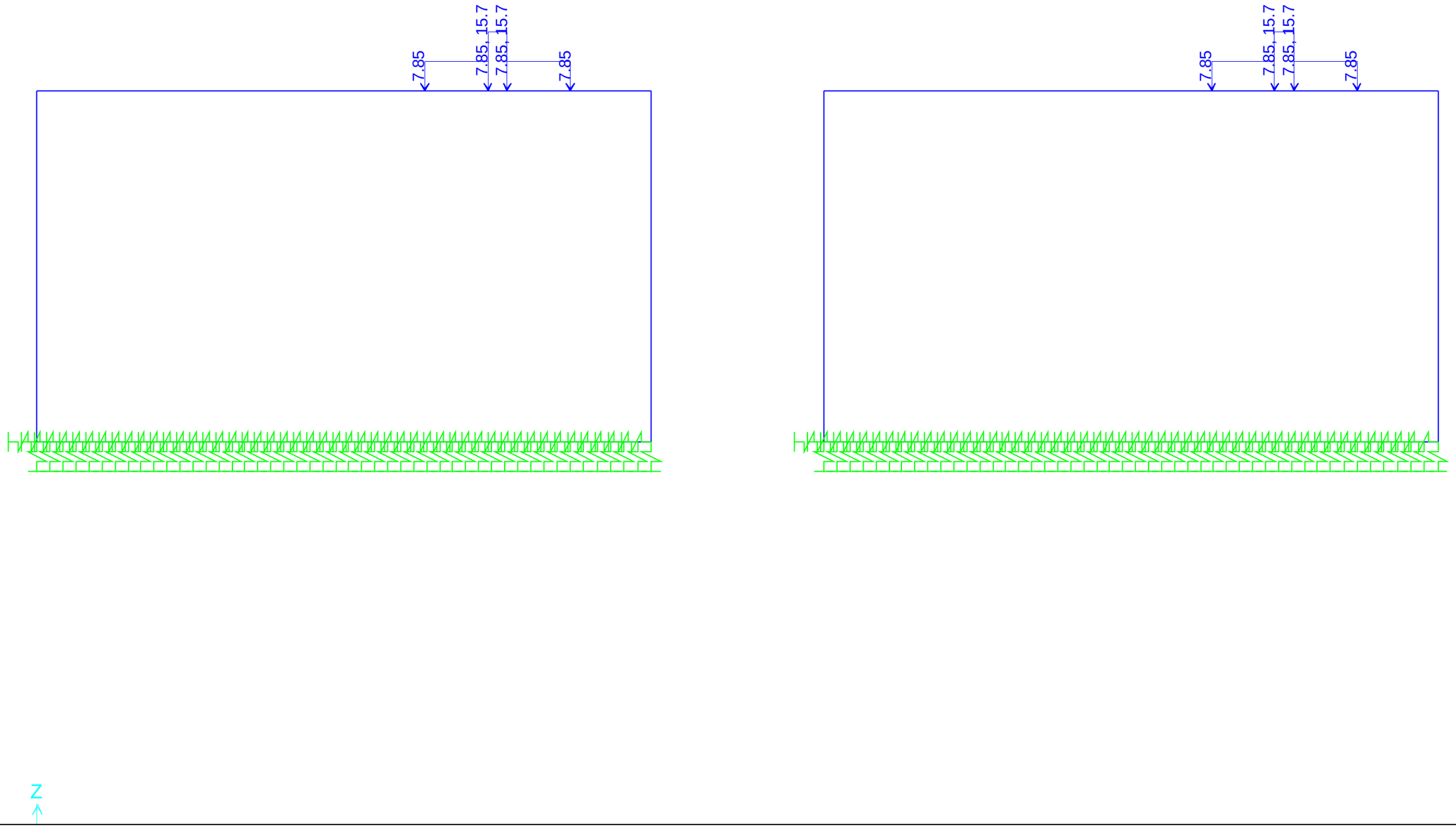
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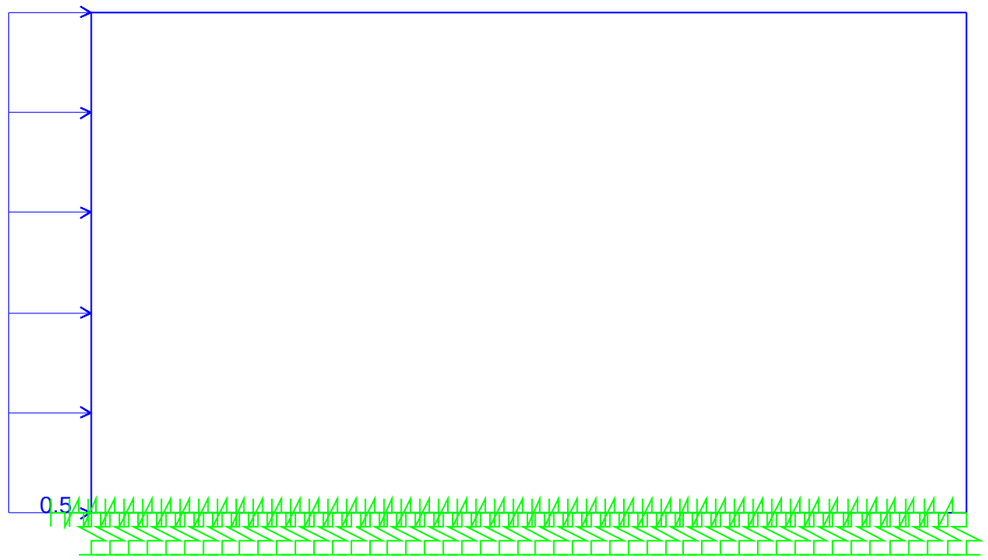
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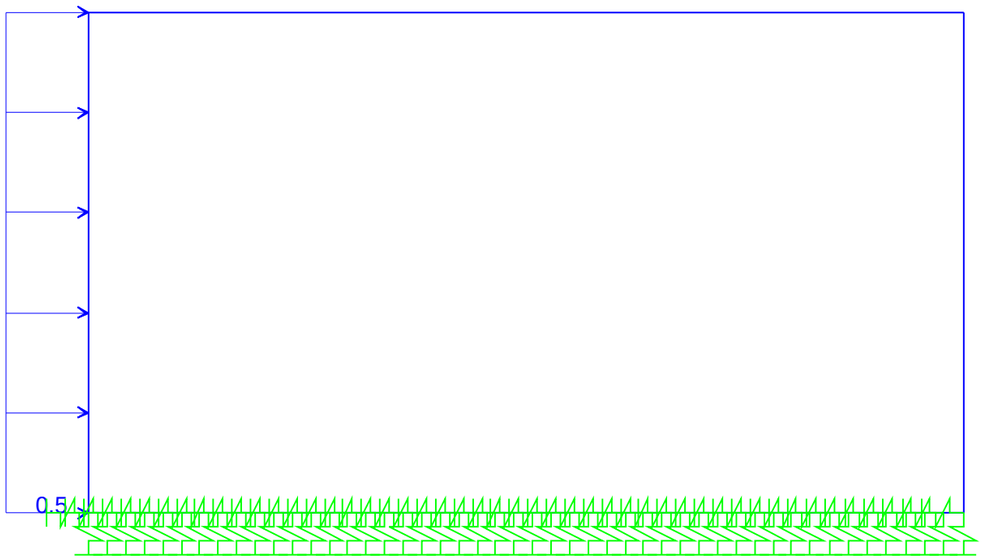
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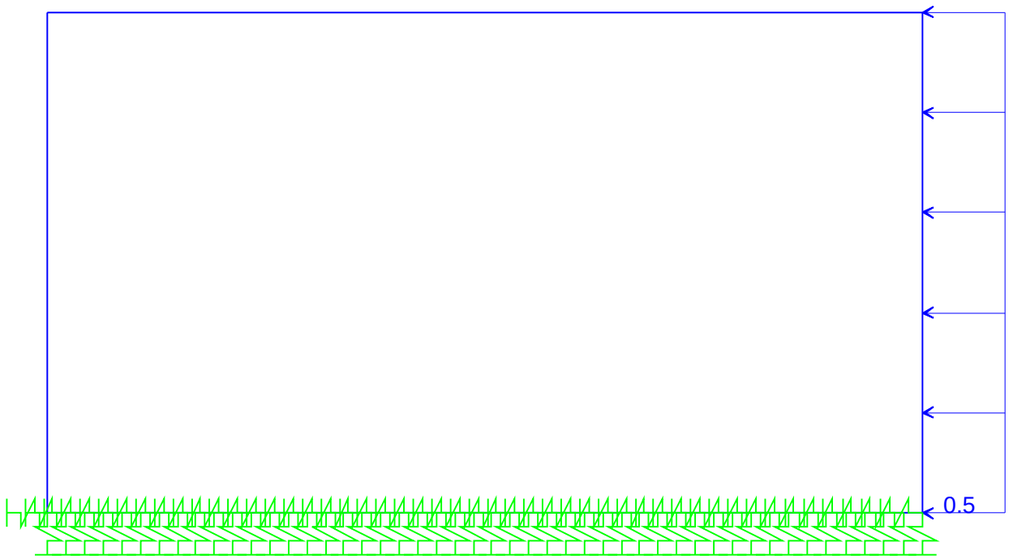
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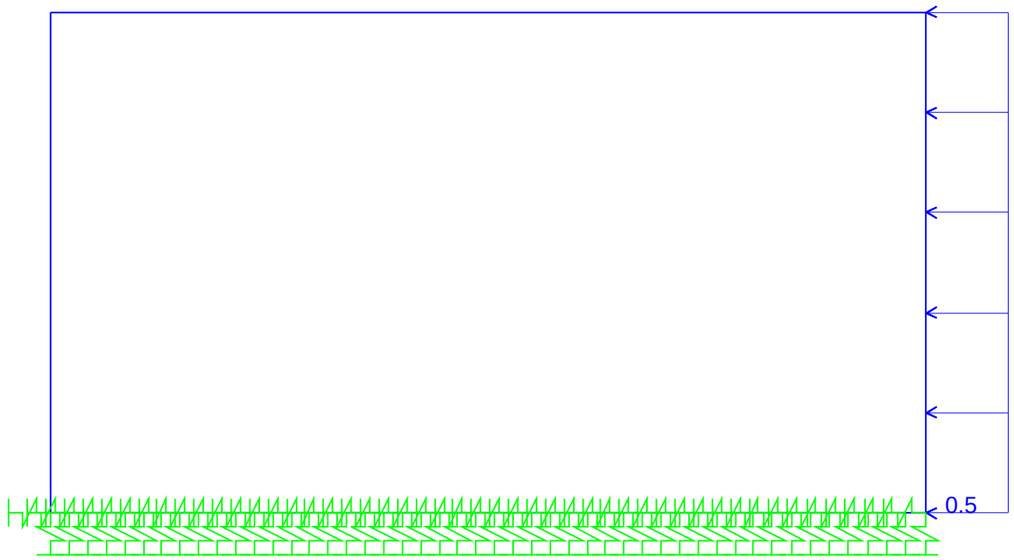
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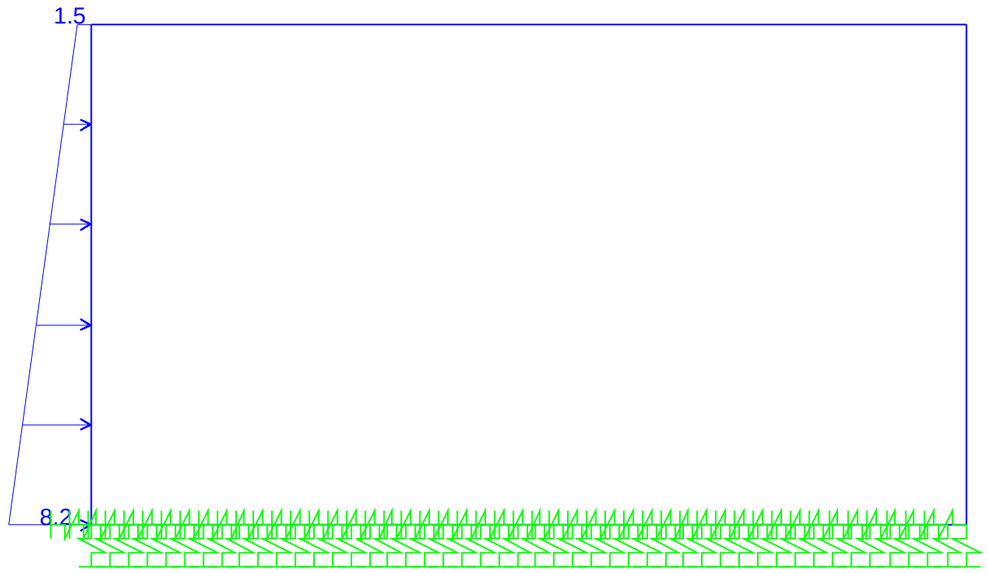
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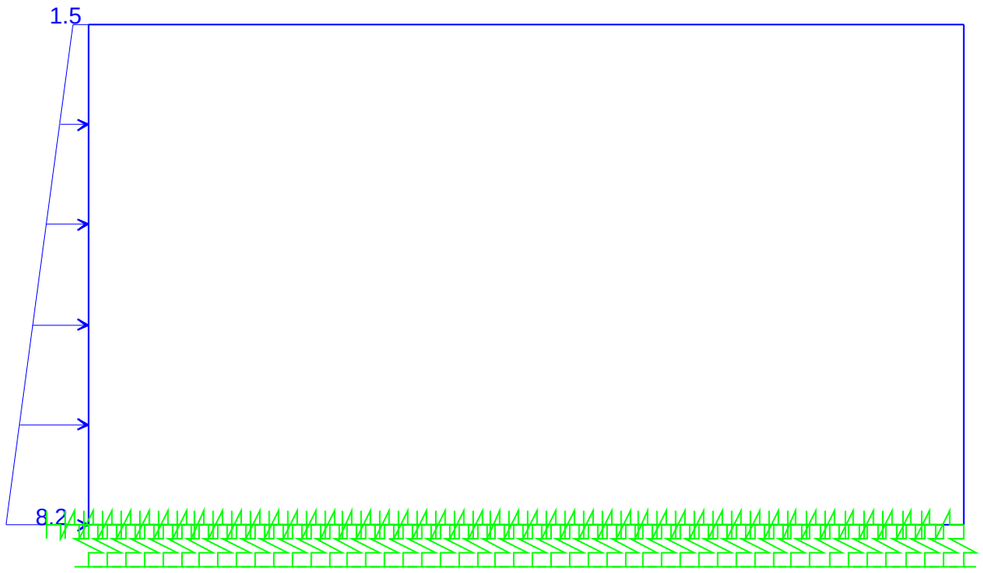
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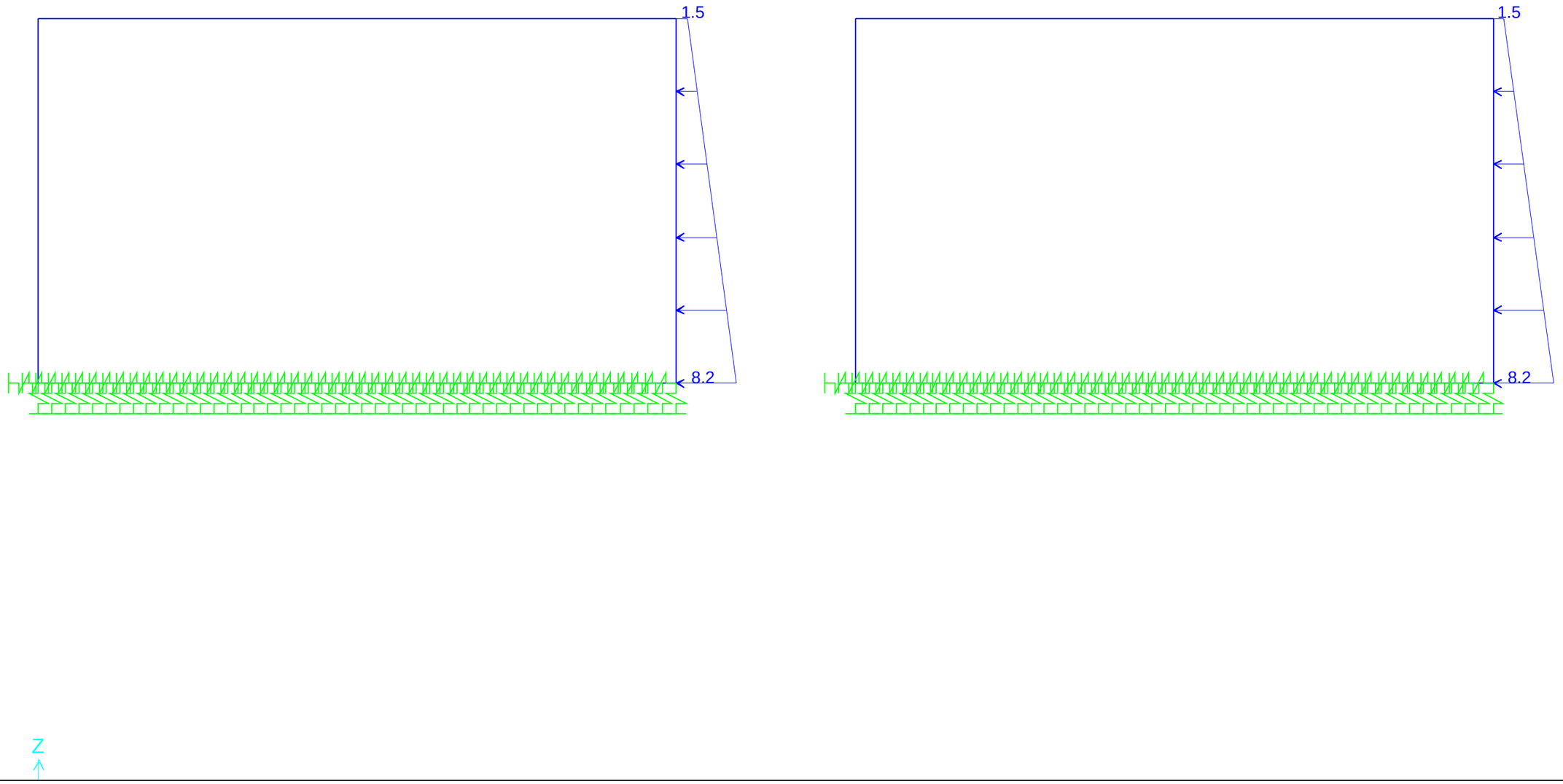
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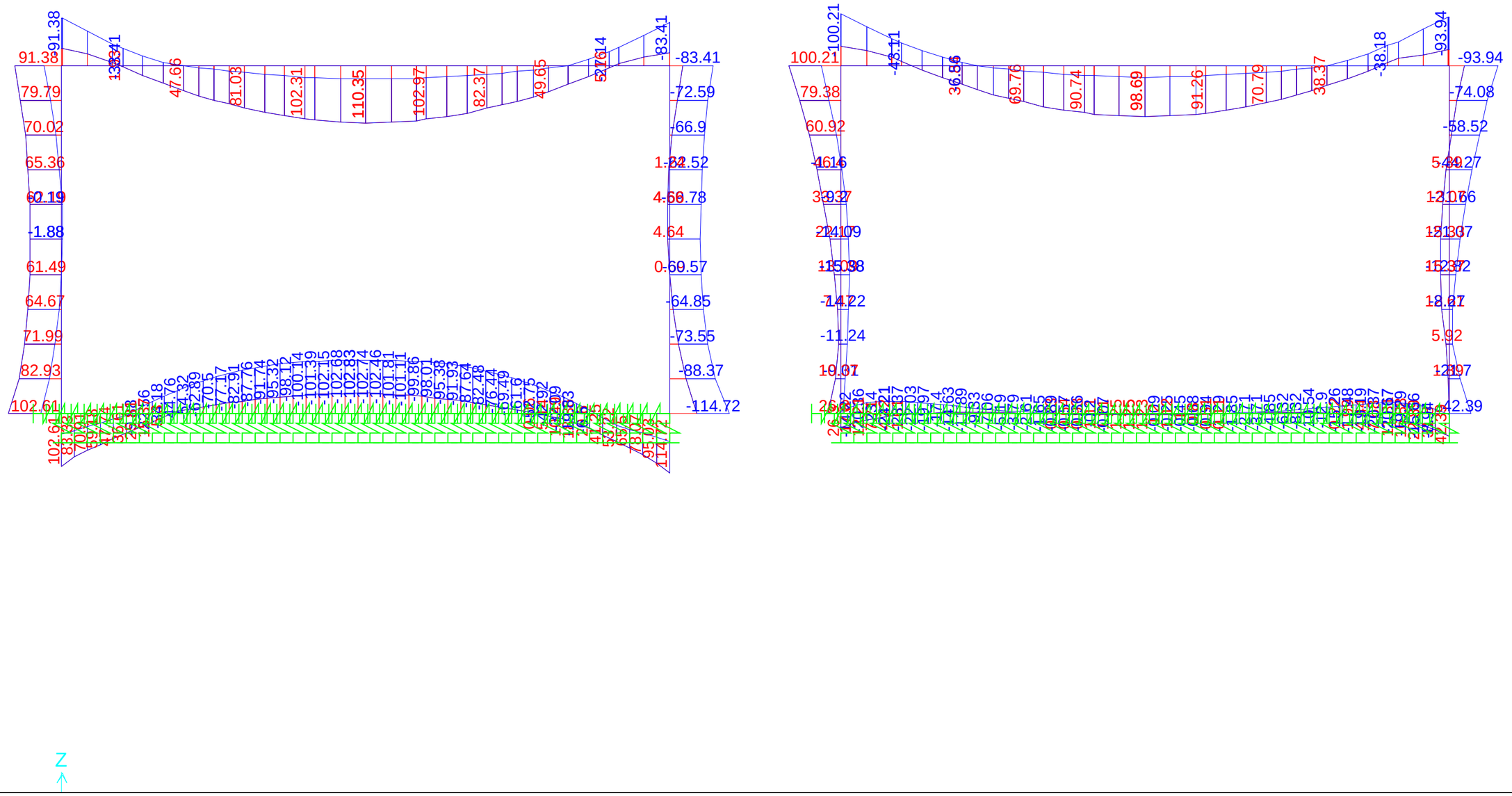
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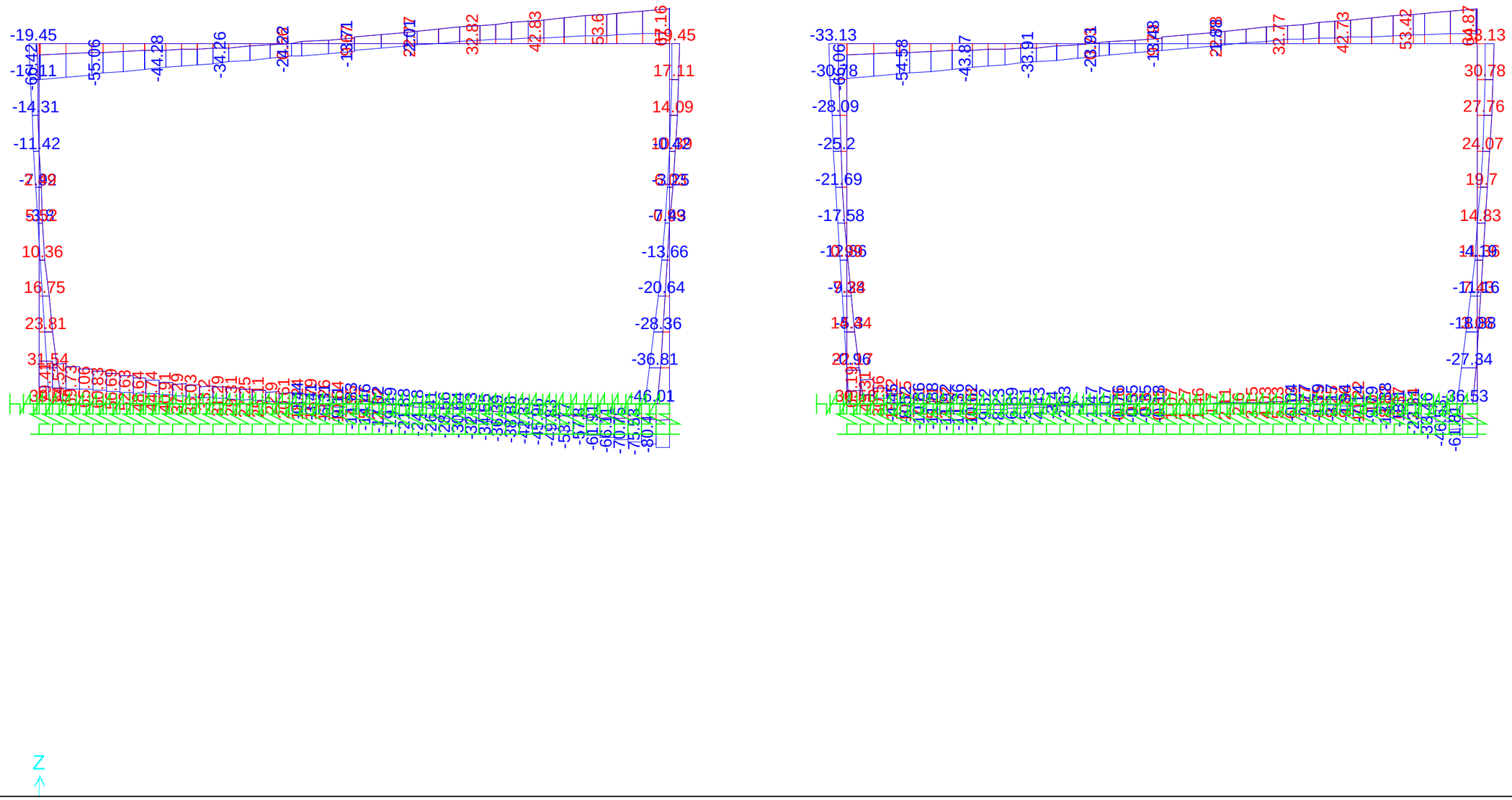
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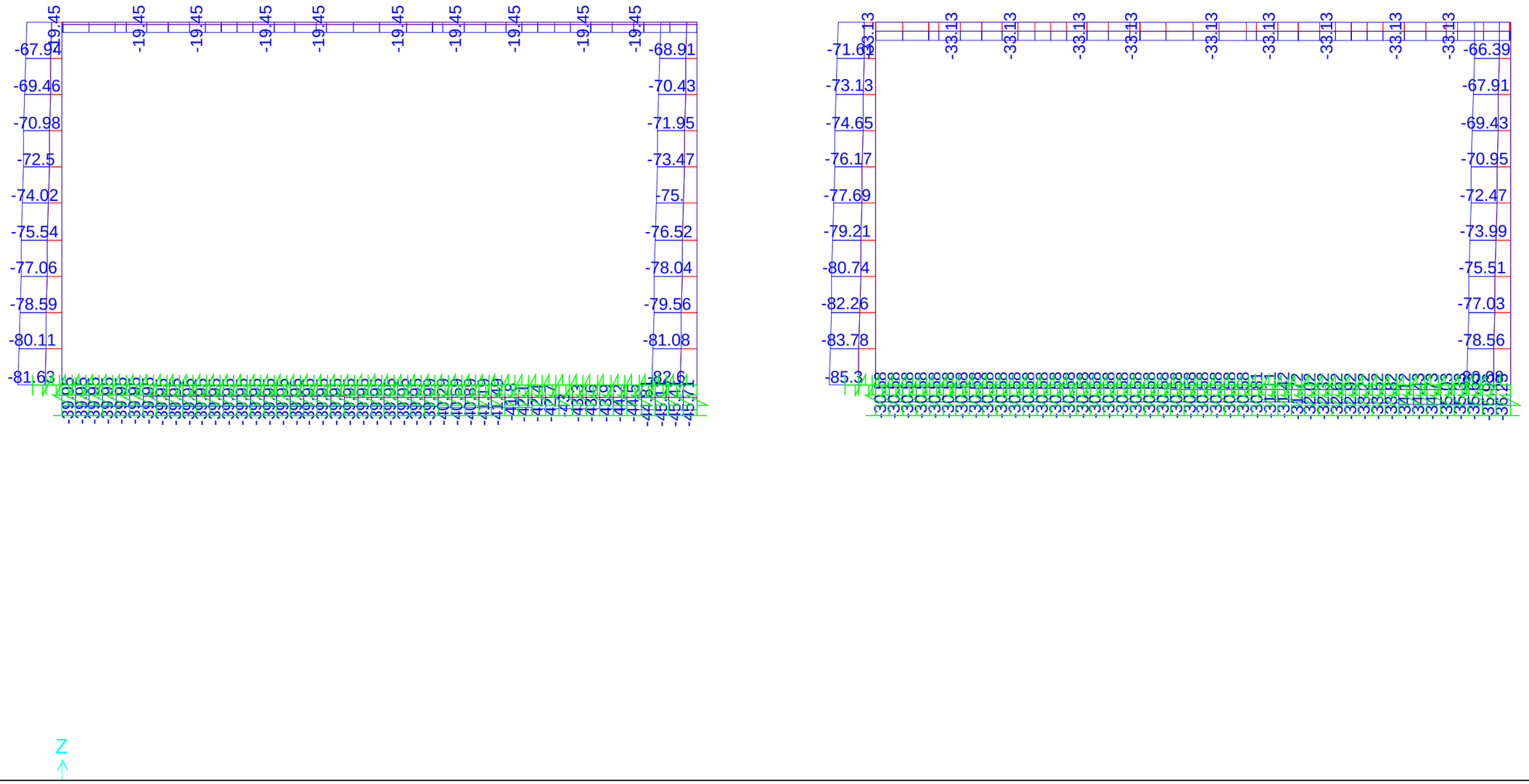
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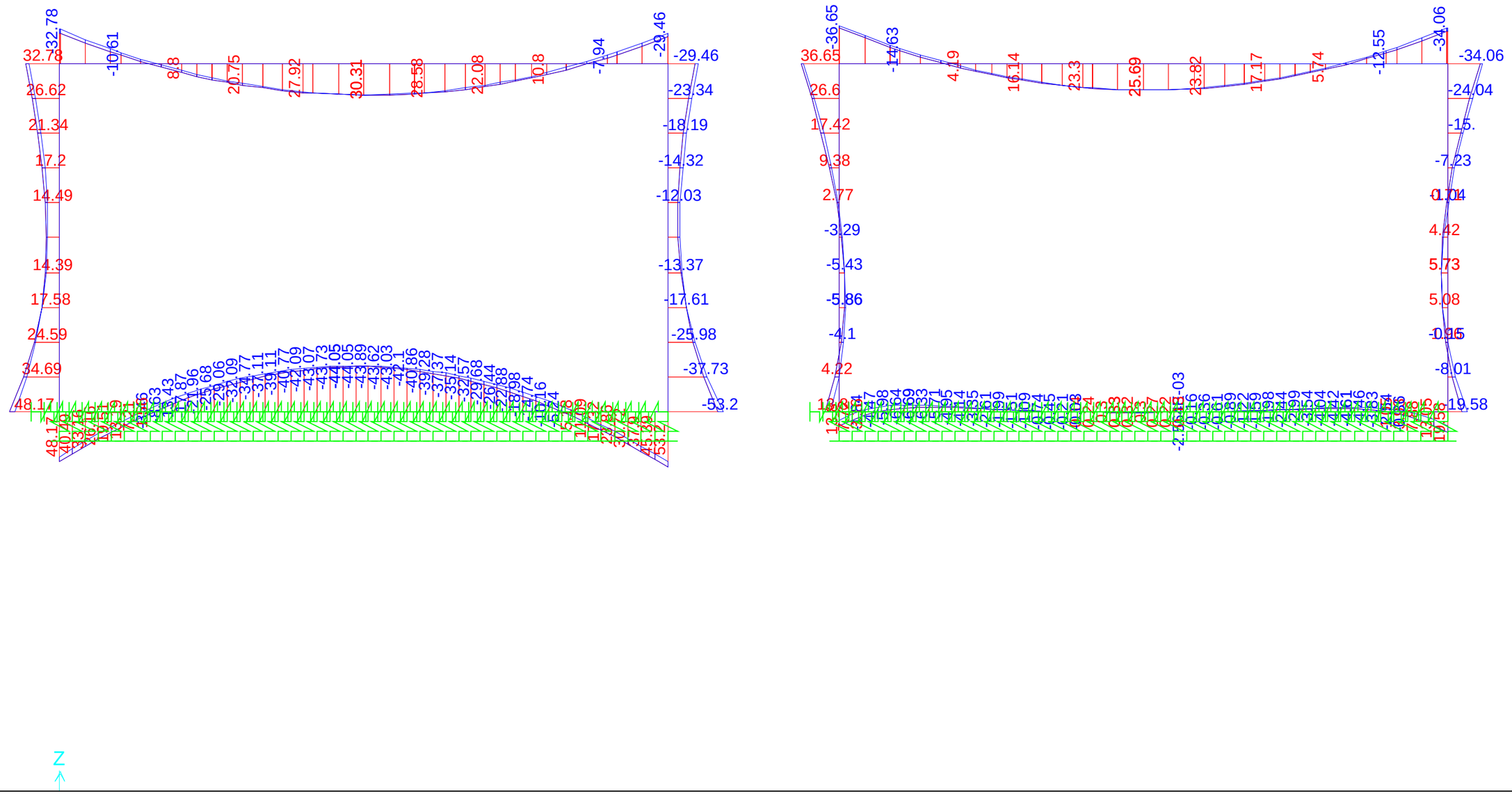
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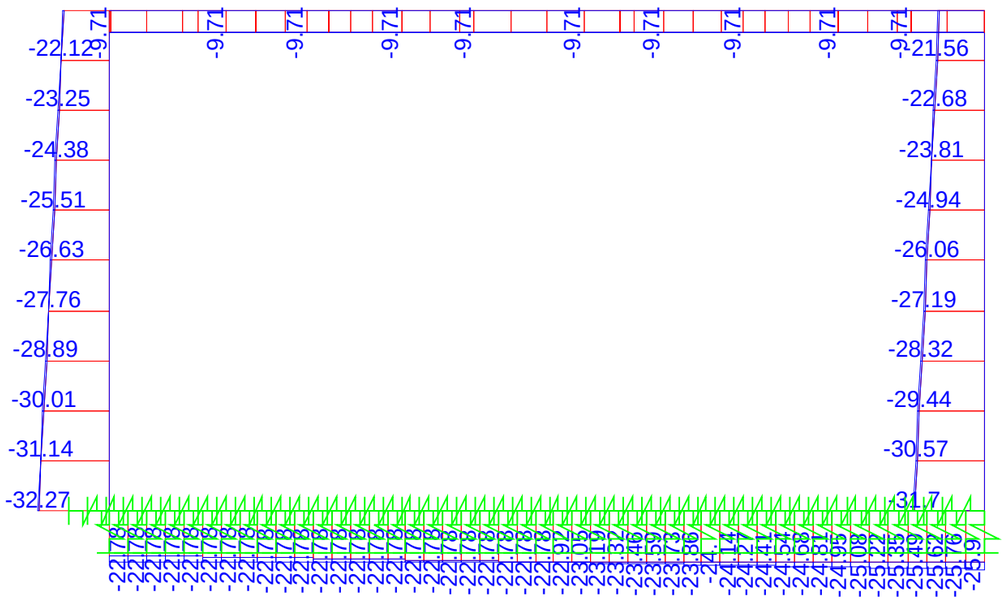
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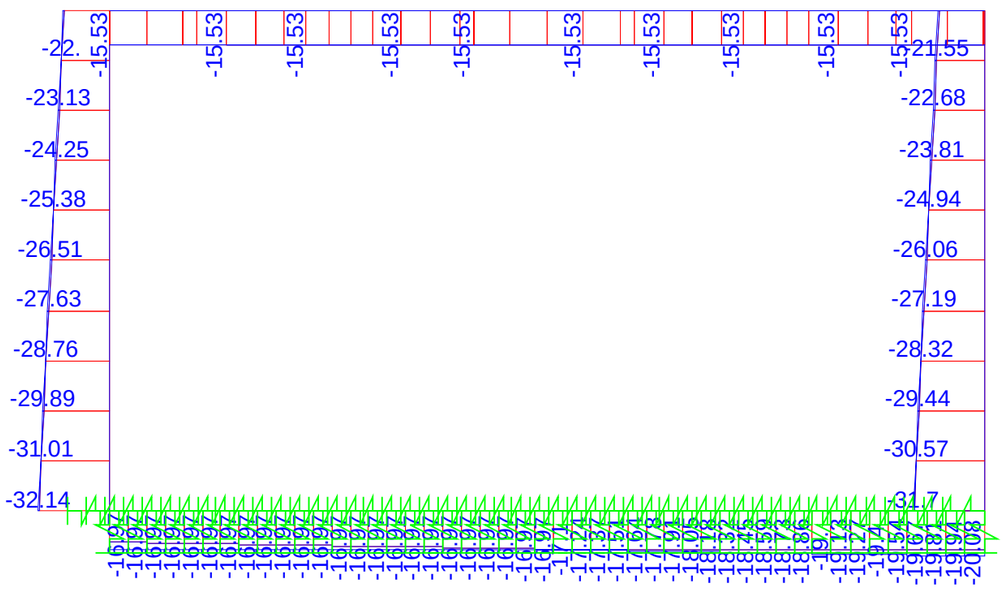
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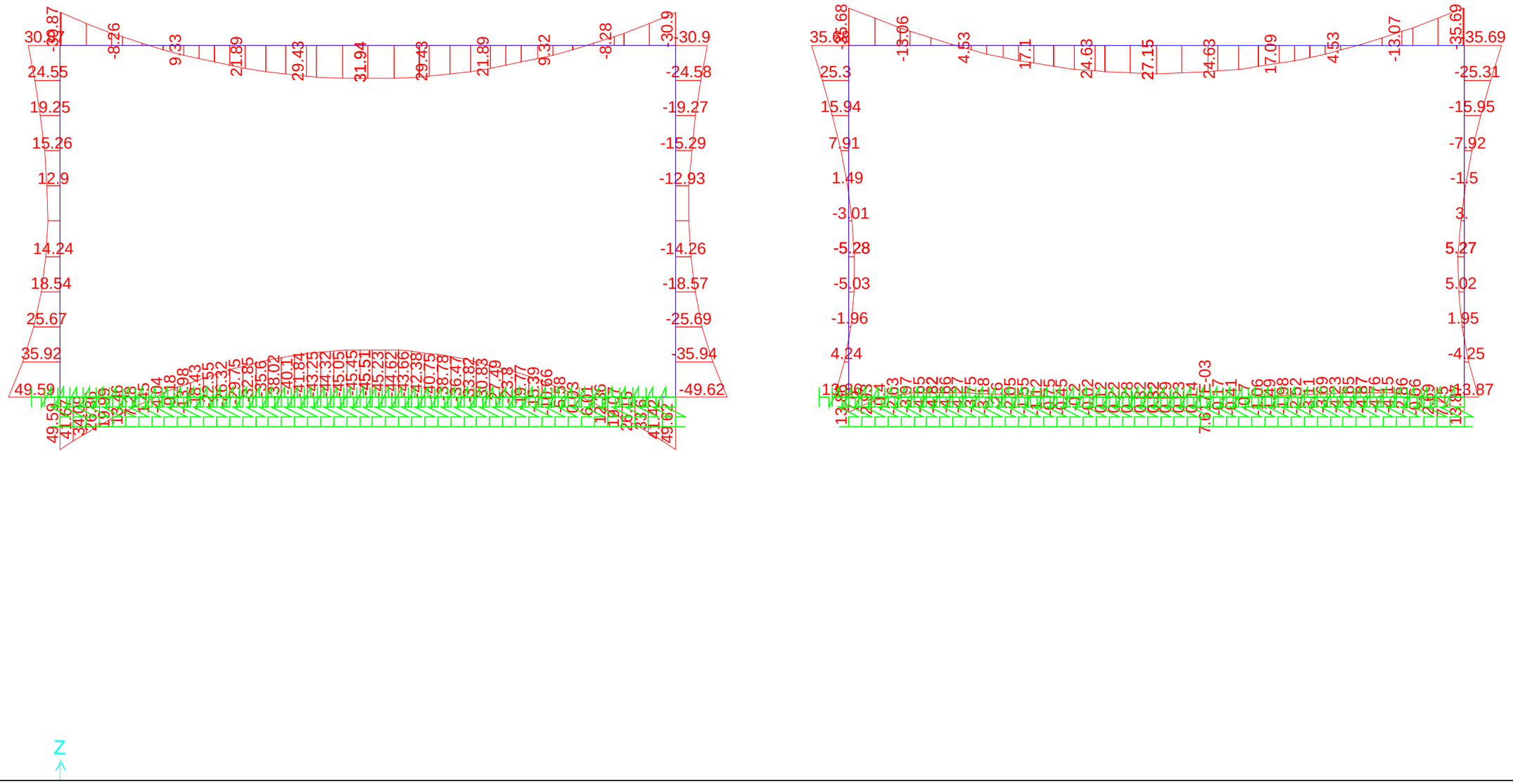
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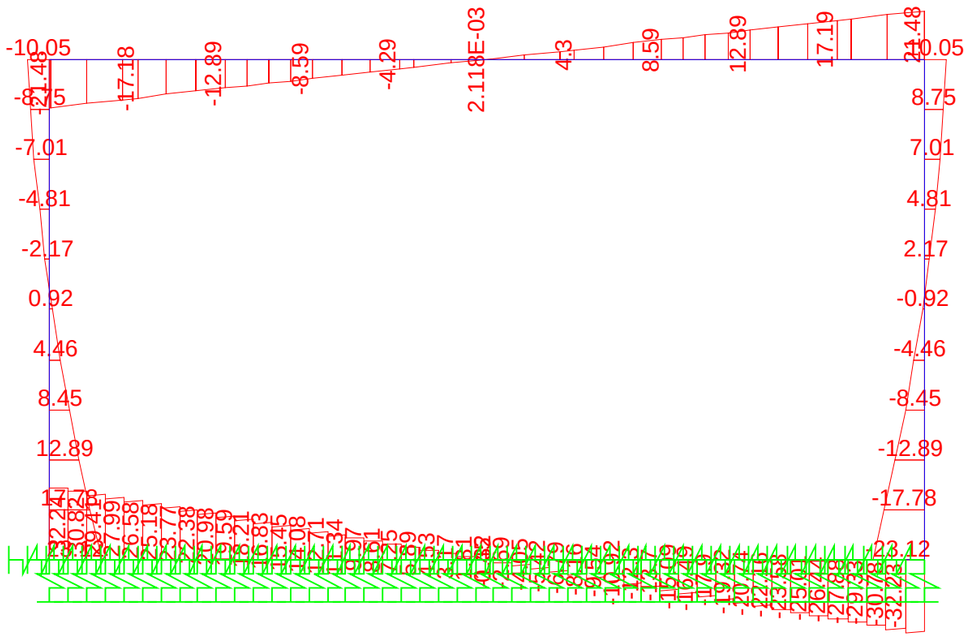
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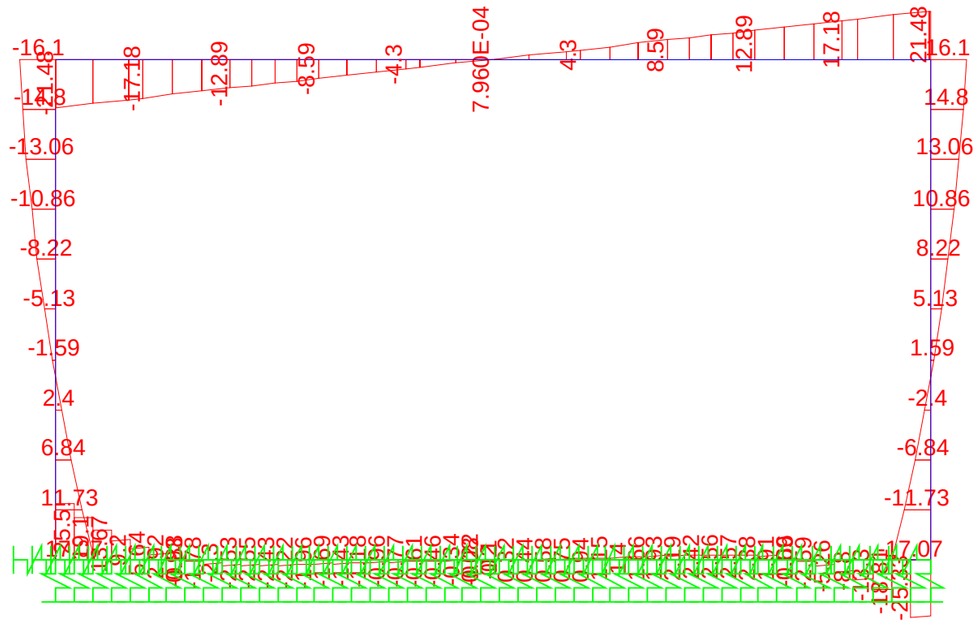
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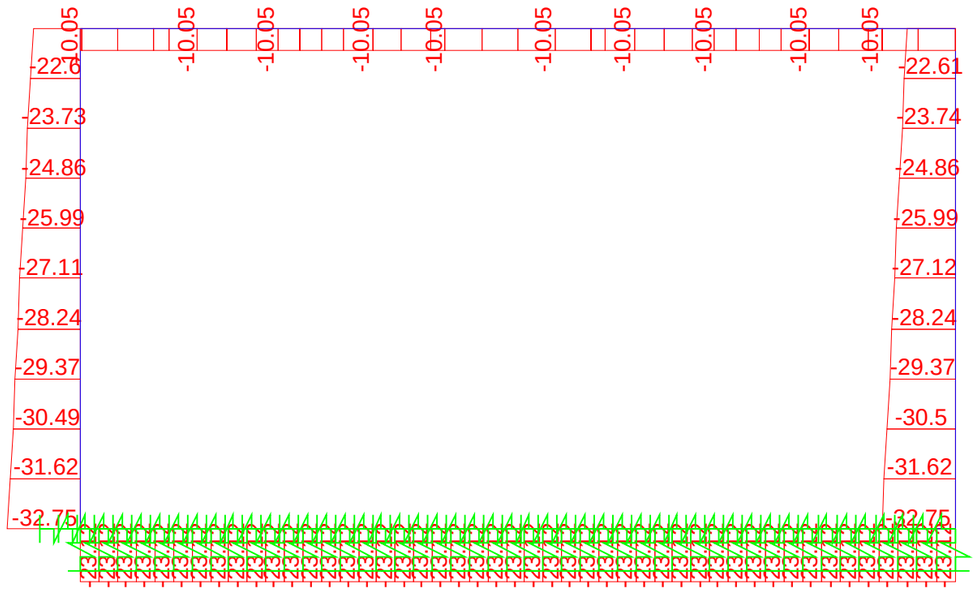
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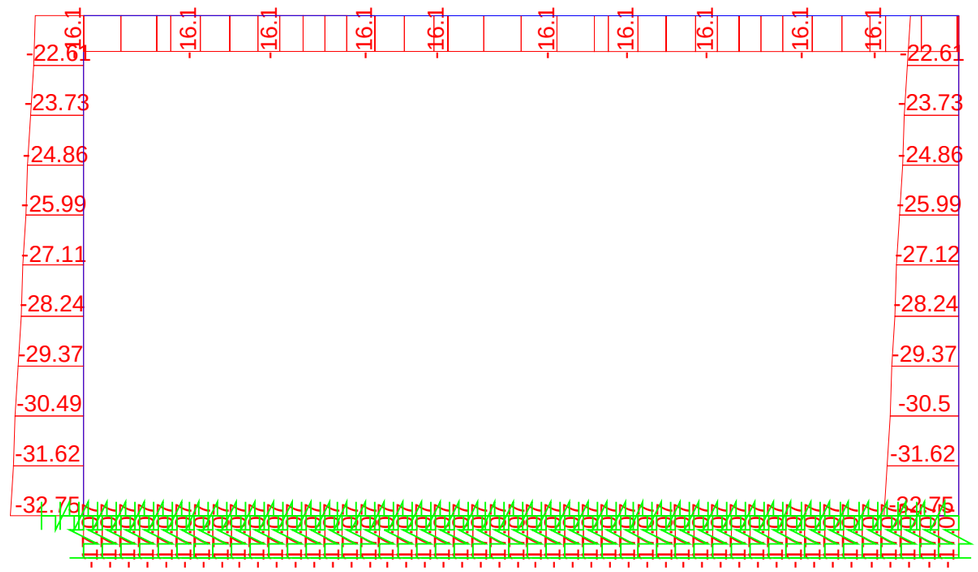
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Table: Combination Definitions, Part 1 of 3

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENVCARRO	Envelope	No	Linear Static	CARRO1	1.	None
ENVCARRO			Linear Static	CARRO2	1.	
ENVCARRO			Linear Static	CARRO3	1.	
ENVCARRO			Linear Static	CARRO4	1.	
ENVCARRO			Linear Static	CARRO5	1.	
ENVCARRO			Linear Static	CARRO6	1.	
ENVCARRO			Linear Static	CARRO7	1.	
ENVCARRO			Moving Load	CARRO MOVIL	1.	
ELU1	Linear Add	No	Linear Static	PP	1.35	None
ELU1			Linear Static	PTIERR	1.35	
ELU1			Linear Static	SC	1.35	
ELU1			Response Combo	ENVCARRO	1.35	
ELU1			Linear Static	ET1	1.5	
ELU1			Linear Static	ET2	1.5	
ELU1			Linear Static	ESC1	1.5	
ELU1			Linear Static	ESC2	1.5	
ELU2	Linear Add	No	Linear Static	PP	1.35	None
ELU2			Linear Static	PTIERR	1.35	
ELU2			Linear Static	SC	1.35	
ELU2			Response Combo	ENVCARRO	1.35	
ELU2			Linear Static	ET1	1.	
ELU2			Linear Static	ET2	1.	
ELU3	Linear Add	No	Linear Static	PP	1.	None
ELU3			Linear Static	PTIERR	1.	
ELU3			Linear Static	ET1	1.5	
ELU3			Linear Static	ET2	1.5	
ELU3			Linear Static	ESC1	1.5	
ELU3			Linear Static	ESC2	1.5	
ELU4	Linear Add	No	Linear Static	PP	1.35	None
ELU4			Linear Static	PTIERR	1.35	
ELU4			Linear Static	SC	1.35	
ELU4			Response Combo	ENVCARRO	1.35	
ELU4			Linear Static	ET1	1.36	
ELU4			Linear Static	ET2	1.65	
ELU4			Linear Static	ESC2	1.5	
ELU5	Linear Add	No	Linear Static	PP	1.35	None
ELU5			Linear Static	PTIERR	1.35	
ELU5			Linear Static	SC	1.35	
ELU5			Response Combo	ENVCARRO	1.35	
ELU5			Linear Static	ET1	0.9	
ELU5			Linear Static	ET2	1.1	
ELU6	Linear Add	No	Linear Static	PP	1.	None
ELU6			Linear Static	PTIERR	1.	
ELU6			Linear Static	ET1	1.36	
ELU6			Linear Static	ET2	1.65	
ELU6			Linear Static	ESC2	1.5	
ELS1	Linear Add	No	Linear Static	PP	1.	None
ELS1			Linear Static	PTIERR	1.	
ELS1			Linear Static	ET1	1.	
ELS1			Linear Static	ET2	1.	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELS2	Linear Add	No	Linear Static	PP	1.	None
ELS2			Linear Static	PTIERR	1.	
ELS2			Linear Static	ET1	0.9	
ELS2			Linear Static	ET2	1.1	
ENVDIS	Envelope	No	Response Combo	ELU1	1.	None
ENVDIS			Response Combo	ELU2	1.	
ENVDIS			Response Combo	ELU3	1.	
ENVDIS			Response Combo	ELU4	1.	
ENVDIS			Response Combo	ELU5	1.	
ENVDIS			Response Combo	ELU6	1.	
ENVSER	Envelope	No	Response Combo	ELS1	1.	None
ENVSER			Response Combo	ELS2	1.	
SISMO	Linear Add	No	Linear Static	PP	1.	None
SISMO			Linear Static	ESC1	0.2	
SISMO			Linear Static	ESC2	0.2	
SISMO			Linear Static	ET1	1.	
SISMO			Linear Static	ET2	1.	
SISMO			Linear Static	PTIERR	1.	
SISMO			Linear Static	SC	0.2	

Table: Combination Definitions, Part 2 of 3

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
ENVCARRO	CARRO1	None	None	None
ENVCARRO	CARRO2			
ENVCARRO	CARRO3			
ENVCARRO	CARRO4			
ENVCARRO	CARRO5			
ENVCARRO	CARRO6			
ENVCARRO	CARRO7			
ENVCARRO	CARRO MOVIL			
ELU1	PP	None	None	None
ELU1	PTIERR			
ELU1	SC			
ELU1	ENVCARRO			
ELU1	ET1			
ELU1	ET2			
ELU1	ESC1			
ELU1	ESC2			
ELU2	PP	None	None	None
ELU2	PTIERR			
ELU2	SC			
ELU2	ENVCARRO			
ELU2	ET1			
ELU2	ET2			
ELU3	PP	None	None	None
ELU3	PTIERR			
ELU3	ET1			
ELU3	ET2			
ELU3	ESC1			
ELU3	ESC2			

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign
ELU4	PP	None	None	None
ELU4	PTIERR			
ELU4	SC			
ELU4	ENVCARRO			
ELU4	ET1			
ELU4	ET2			
ELU4	ESC2			
ELU5	PP	None	None	None
ELU5	PTIERR			
ELU5	SC			
ELU5	ENVCARRO			
ELU5	ET1			
ELU5	ET2			
ELU6	PP	None	None	None
ELU6	PTIERR			
ELU6	ET1			
ELU6	ET2			
ELU6	ESC2			
ELS1	PP	None	None	None
ELS1	PTIERR			
ELS1	ET1			
ELS1	ET2			
ELS2	PP	None	None	None
ELS2	PTIERR			
ELS2	ET1			
ELS2	ET2			
ENVDIS	ELU1	None	None	None
ENVDIS	ELU2			
ENVDIS	ELU3			
ENVDIS	ELU4			
ENVDIS	ELU5			
ENVDIS	ELU6			
ENVSER	ELS1	None	None	None
ENVSER	ELS2			
SISMO	PP	None	None	None
SISMO	ESC1			
SISMO	ESC2			
SISMO	ET1			
SISMO	ET2			
SISMO	PTIERR			
SISMO	SC			

Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ENVCARRO	CARRO1		
ENVCARRO	CARRO2		
ENVCARRO	CARRO3		
ENVCARRO	CARRO4		
ENVCARRO	CARRO5		
ENVCARRO	CARRO6		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ENVCARRO	CARRO7		
ENVCARRO	CARRO MOVIL		
ELU1	PP		
ELU1	PTIERR		
ELU1	SC		
ELU1	ENVCARRO		
ELU1	ET1		
ELU1	ET2		
ELU1	ESC1		
ELU1	ESC2		
ELU2	PP		
ELU2	PTIERR		
ELU2	SC		
ELU2	ENVCARRO		
ELU2	ET1		
ELU2	ET2		
ELU3	PP		
ELU3	PTIERR		
ELU3	ET1		
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ELU4	PP		
ELU4	PTIERR		
ELU4	SC		
ELU4	ENVCARRO		
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ELU5	ENVCARRO		
ELU5	ET1		
ELU5	ET2		
ELU6	PP		
ELU6	PTIERR		
ELU6	ET1		
ELU6	ET2		
ELU6	ESC2		
ELS1	PP		
ELS1	PTIERR		
ELS1	ET1		
ELS1	ET2		
ELS2	PP		
ELS2	PTIERR		
ELS2	ET1		
ELS2	ET2		
ENVDIS	ELU1		
ENVDIS	ELU2		
ENVDIS	ELU3		
ENVDIS	ELU4		
ENVDIS	ELU5		
ENVDIS	ELU6		

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	GUID	Notes
ENVSER	ELS1		
ENVSER	ELS2		
SISMO	PP		
SISMO	ESC1		
SISMO	ESC2		
SISMO	ET1		
SISMO	ET2		
SISMO	PTIERR		
SISMO	SC		

Table: Element Forces - Frames, Part 1 of 2

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
1	0.	ENVDIS	Combination	Max	-22.0089	-22.4309	0.	0.
1	0.25594	ENVDIS	Combination	Max	-22.0089	-21.9743	0.	0.
1	0.	ENVDIS	Combination	Min	-43.8622	-51.1647	0.	0.
1	0.25594	ENVDIS	Combination	Min	-43.8622	-50.5483	0.	0.
1	0.	ENVSER	Combination	Max	-22.9672	-22.4029	0.	0.
1	0.25594	ENVSER	Combination	Max	-22.9672	-21.9464	0.	0.
1	0.	ENVSER	Combination	Min	-25.1307	-22.9953	0.	0.
1	0.25594	ENVSER	Combination	Min	-25.1307	-22.5387	0.	0.
1	0.	SISMO	Combination		-23.3009	-23.1083	0.	0.
1	0.25594	SISMO	Combination		-23.3009	-22.6517	0.	0.
2	0.	ENVDIS	Combination	Max	-22.0089	-23.8533	0.	0.
2	0.25594	ENVDIS	Combination	Max	-22.0089	-23.3967	0.	0.
2	0.	ENVDIS	Combination	Min	-44.1632	-55.171	0.	0.
2	0.25594	ENVDIS	Combination	Min	-44.1632	-54.5546	0.	0.
2	0.	ENVSER	Combination	Max	-22.9672	-23.8268	0.	0.
2	0.25594	ENVSER	Combination	Max	-22.9672	-23.3702	0.	0.
2	0.	ENVSER	Combination	Min	-25.2661	-24.2911	0.	0.
2	0.25594	ENVSER	Combination	Min	-25.2661	-23.8346	0.	0.
2	0.	SISMO	Combination		-23.3009	-24.5779	0.	0.
2	0.25594	SISMO	Combination		-23.3009	-24.1214	0.	0.
3	0.	ENVDIS	Combination	Max	-22.0089	-25.2804	0.	0.
3	0.25594	ENVDIS	Combination	Max	-22.0089	-24.8238	0.	0.
3	0.	ENVDIS	Combination	Min	-44.4642	-59.2597	0.	0.
3	0.25594	ENVDIS	Combination	Min	-44.4642	-58.6434	0.	0.
3	0.	ENVSER	Combination	Max	-22.9672	-25.256	0.	0.
3	0.25594	ENVSER	Combination	Max	-22.9672	-24.7994	0.	0.
3	0.	ENVSER	Combination	Min	-25.4015	-25.5841	0.	0.
3	0.25594	ENVSER	Combination	Min	-25.4015	-25.1275	0.	0.
3	0.	SISMO	Combination		-23.3009	-26.0531	0.	0.
3	0.25594	SISMO	Combination		-23.3009	-25.5965	0.	0.
4	0.	ENVDIS	Combination	Max	-22.0089	-26.7121	0.	0.
4	0.25594	ENVDIS	Combination	Max	-22.0089	-26.2555	0.	0.
4	0.	ENVDIS	Combination	Min	-44.7652	-63.4298	0.	0.
4	0.25594	ENVDIS	Combination	Min	-44.7652	-62.8134	0.	0.
4	0.	ENVSER	Combination	Max	-22.9672	-26.6905	0.	0.
4	0.25594	ENVSER	Combination	Max	-22.9672	-26.2339	0.	0.
4	0.	ENVSER	Combination	Min	-25.5369	-26.8739	0.	0.
4	0.25594	ENVSER	Combination	Min	-25.5369	-26.4173	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
4	0.	SISMO	Combination		-23.3009	-27.5337	0.	0.
4	0.25594	SISMO	Combination		-23.3009	-27.0772	0.	0.
5	0.	ENVDIS	Combination	Max	-22.0089	-28.1484	0.	0.
5	0.25594	ENVDIS	Combination	Max	-22.0089	-27.6918	0.	0.
5	0.	ENVDIS	Combination	Min	-45.0662	-67.6803	0.	0.
5	0.25594	ENVDIS	Combination	Min	-45.0662	-67.0639	0.	0.
5	0.	ENVSER	Combination	Max	-22.9672	-28.1302	0.	0.
5	0.25594	ENVSER	Combination	Max	-22.9672	-27.6736	0.	0.
5	0.	ENVSER	Combination	Min	-25.6723	-28.1606	0.	0.
5	0.25594	ENVSER	Combination	Min	-25.6723	-27.7041	0.	0.
5	0.	SISMO	Combination		-23.3009	-29.0198	0.	0.
5	0.25594	SISMO	Combination		-23.3009	-28.5632	0.	0.
6	0.	ENVDIS	Combination	Max	-22.0089	-29.2207	0.	0.
6	0.25594	ENVDIS	Combination	Max	-22.0089	-28.7641	0.	0.
6	0.	ENVDIS	Combination	Min	-45.3672	-72.3789	0.	0.
6	0.25594	ENVDIS	Combination	Min	-45.3672	-71.7625	0.	0.
6	0.	ENVSER	Combination	Max	-22.9672	-29.444	0.	0.
6	0.25594	ENVSER	Combination	Max	-22.9672	-28.9874	0.	0.
6	0.	ENVSER	Combination	Min	-25.8077	-29.575	0.	0.
6	0.25594	ENVSER	Combination	Min	-25.8077	-29.1184	0.	0.
6	0.	SISMO	Combination		-23.3009	-30.511	0.	0.
6	0.25594	SISMO	Combination		-23.3009	-30.0544	0.	0.
7	0.	ENVDIS	Combination	Max	-22.0089	-30.2489	0.	0.
7	0.25594	ENVDIS	Combination	Max	-22.0089	-29.7923	0.	0.
7	0.	ENVDIS	Combination	Min	-45.6682	-77.2046	0.	0.
7	0.25594	ENVDIS	Combination	Min	-45.6682	-76.5882	0.	0.
7	0.	ENVSER	Combination	Max	-22.9672	-30.7237	0.	0.
7	0.25594	ENVSER	Combination	Max	-22.9672	-30.2671	0.	0.
7	0.	ENVSER	Combination	Min	-25.9431	-31.0245	0.	0.
7	0.25594	ENVSER	Combination	Min	-25.9431	-30.568	0.	0.
7	0.	SISMO	Combination		-23.3009	-32.0073	0.	0.
7	0.25594	SISMO	Combination		-23.3009	-31.5507	0.	0.
8	0.	ENVDIS	Combination	Max	-22.0089	-31.2601	0.	0.
8	0.25594	ENVDIS	Combination	Max	-22.0089	-30.8035	0.	0.
8	0.	ENVDIS	Combination	Min	-45.9692	-82.1292	0.	0.
8	0.25594	ENVDIS	Combination	Min	-45.9692	-81.5128	0.	0.
8	0.	ENVSER	Combination	Max	-22.9672	-31.9994	0.	0.
8	0.25594	ENVSER	Combination	Max	-22.9672	-31.5428	0.	0.
8	0.	ENVSER	Combination	Min	-26.0785	-32.4787	0.	0.
8	0.25594	ENVSER	Combination	Min	-26.0785	-32.0221	0.	0.
8	0.	SISMO	Combination		-23.3009	-33.5082	0.	0.
8	0.25594	SISMO	Combination		-23.3009	-33.0516	0.	0.
9	0.	ENVDIS	Combination	Max	-31.8161	-7.2641	0.	0.
9	0.67	ENVDIS	Combination	Max	-30.6208	-1.9945	0.	0.
9	0.67	ENVDIS	Combination	Max	-30.6208	-1.9945	0.	0.
9	1.34	ENVDIS	Combination	Max	-29.4255	2.8261	0.	0.
9	1.34	ENVDIS	Combination	Max	-29.4255	2.8261	0.	0.
9	2.01	ENVDIS	Combination	Max	-28.2303	7.1979	0.	0.
9	2.01	ENVDIS	Combination	Max	-28.2303	7.1979	0.	0.
9	2.68	ENVDIS	Combination	Max	-27.035	11.1207	0.	0.
9	2.68	ENVDIS	Combination	Max	-27.035	11.1207	0.	0.
9	3.35	ENVDIS	Combination	Max	-25.8398	14.5947	0.	0.
9	3.35	ENVDIS	Combination	Max	-25.8398	14.5947	0.	0.
9	4.02	ENVDIS	Combination	Max	-24.6445	19.5163	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
9	4.02	ENVDIS	Combination	Max	-24.6445	19.5163	0.	0.
9	4.69	ENVDIS	Combination	Max	-23.4492	23.883	0.	0.
9	4.69	ENVDIS	Combination	Max	-23.4492	23.883	0.	0.
9	5.36	ENVDIS	Combination	Max	-22.254	27.5764	0.	0.
9	5.36	ENVDIS	Combination	Max	-22.254	27.5764	0.	0.
9	6.03	ENVDIS	Combination	Max	-21.0587	30.5964	0.	0.
9	6.03	ENVDIS	Combination	Max	-21.0587	30.5964	0.	0.
9	6.7	ENVDIS	Combination	Max	-19.8634	32.9431	0.	0.
9	0.	ENVDIS	Combination	Min	-81.8232	-36.4963	0.	0.
9	0.67	ENVDIS	Combination	Min	-80.2096	-27.299	0.	0.
9	0.67	ENVDIS	Combination	Min	-80.2096	-27.299	0.	0.
9	1.34	ENVDIS	Combination	Min	-78.596	-18.8425	0.	0.
9	1.34	ENVDIS	Combination	Min	-78.596	-18.8425	0.	0.
9	2.01	ENVDIS	Combination	Min	-76.9824	-11.1266	0.	0.
9	2.01	ENVDIS	Combination	Min	-76.9824	-11.1266	0.	0.
9	2.68	ENVDIS	Combination	Min	-75.3688	-4.1514	0.	0.
9	2.68	ENVDIS	Combination	Min	-75.3688	-4.1514	0.	0.
9	3.35	ENVDIS	Combination	Min	-73.7552	2.0831	0.	0.
9	3.35	ENVDIS	Combination	Min	-73.7552	2.0831	0.	0.
9	4.02	ENVDIS	Combination	Min	-72.1416	7.577	0.	0.
9	4.02	ENVDIS	Combination	Min	-72.1416	7.577	0.	0.
9	4.69	ENVDIS	Combination	Min	-70.528	10.846	0.	0.
9	4.69	ENVDIS	Combination	Min	-70.528	10.846	0.	0.
9	5.36	ENVDIS	Combination	Min	-68.9144	13.1859	0.	0.
9	5.36	ENVDIS	Combination	Min	-68.9144	13.1859	0.	0.
9	6.03	ENVDIS	Combination	Min	-67.3008	15.0321	0.	0.
9	6.03	ENVDIS	Combination	Min	-67.3008	15.0321	0.	0.
9	6.7	ENVDIS	Combination	Min	-65.6872	16.3835	0.	0.
9	0.	ENVSER	Combination	Max	-32.525	-16.9756	0.	0.
9	0.67	ENVSER	Combination	Max	-31.3298	-11.706	0.	0.
9	0.67	ENVSER	Combination	Max	-31.3298	-11.706	0.	0.
9	1.34	ENVSER	Combination	Max	-30.1345	-6.8854	0.	0.
9	1.34	ENVSER	Combination	Max	-30.1345	-6.8854	0.	0.
9	2.01	ENVSER	Combination	Max	-28.9393	-2.5136	0.	0.
9	2.01	ENVSER	Combination	Max	-28.9393	-2.5136	0.	0.
9	2.68	ENVSER	Combination	Max	-27.744	1.4092	0.	0.
9	2.68	ENVSER	Combination	Max	-27.744	1.4092	0.	0.
9	3.35	ENVSER	Combination	Max	-26.5487	4.8832	0.	0.
9	3.35	ENVSER	Combination	Max	-26.5487	4.8832	0.	0.
9	4.02	ENVSER	Combination	Max	-25.3535	7.9082	0.	0.
9	4.02	ENVSER	Combination	Max	-25.3535	7.9082	0.	0.
9	4.69	ENVSER	Combination	Max	-24.1582	10.4844	0.	0.
9	4.69	ENVSER	Combination	Max	-24.1582	10.4844	0.	0.
9	5.36	ENVSER	Combination	Max	-22.9629	12.6116	0.	0.
9	5.36	ENVSER	Combination	Max	-22.9629	12.6116	0.	0.
9	6.03	ENVSER	Combination	Max	-21.7677	14.29	0.	0.
9	6.03	ENVSER	Combination	Max	-21.7677	14.29	0.	0.
9	6.7	ENVSER	Combination	Max	-20.5724	15.5205	0.	0.
9	0.	ENVSER	Combination	Min	-32.9784	-20.224	0.	0.
9	0.67	ENVSER	Combination	Min	-31.7831	-14.4275	0.	0.
9	0.67	ENVSER	Combination	Min	-31.7831	-14.4275	0.	0.
9	1.34	ENVSER	Combination	Min	-30.5879	-9.1248	0.	0.
9	1.34	ENVSER	Combination	Min	-30.5879	-9.1248	0.	0.
9	2.01	ENVSER	Combination	Min	-29.3926	-4.3159	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
9	2.01	ENVSER	Combination	Min	-29.3926	-4.3159	0.	0.
9	2.68	ENVSER	Combination	Min	-28.1973	-7.558E-04	0.	0.
9	2.68	ENVSER	Combination	Min	-28.1973	-7.558E-04	0.	0.
9	3.35	ENVSER	Combination	Min	-27.0021	3.8206	0.	0.
9	3.35	ENVSER	Combination	Min	-27.0021	3.8206	0.	0.
9	4.02	ENVSER	Combination	Min	-25.8068	7.1481	0.	0.
9	4.02	ENVSER	Combination	Min	-25.8068	7.1481	0.	0.
9	4.69	ENVSER	Combination	Min	-24.6115	9.9819	0.	0.
9	4.69	ENVSER	Combination	Min	-24.6115	9.9819	0.	0.
9	5.36	ENVSER	Combination	Min	-23.4163	12.3219	0.	0.
9	5.36	ENVSER	Combination	Min	-23.4163	12.3219	0.	0.
9	6.03	ENVSER	Combination	Min	-22.221	14.1681	0.	0.
9	6.03	ENVSER	Combination	Min	-22.221	14.1681	0.	0.
9	6.7	ENVSER	Combination	Min	-21.0257	15.5194	0.	0.
9	0.	SISMO	Combination		-34.0314	-17.0833	0.	0.
9	0.67	SISMO	Combination		-32.8362	-11.7467	0.	0.
9	0.67	SISMO	Combination		-32.8362	-11.7467	0.	0.
9	1.34	SISMO	Combination		-31.6409	-6.8591	0.	0.
9	1.34	SISMO	Combination		-31.6409	-6.8591	0.	0.
9	2.01	SISMO	Combination		-30.4456	-2.4203	0.	0.
9	2.01	SISMO	Combination		-30.4456	-2.4203	0.	0.
9	2.68	SISMO	Combination		-29.2504	1.5695	0.	0.
9	2.68	SISMO	Combination		-29.2504	1.5695	0.	0.
9	3.35	SISMO	Combination		-28.0551	5.1105	0.	0.
9	3.35	SISMO	Combination		-28.0551	5.1105	0.	0.
9	4.02	SISMO	Combination		-26.8599	8.2025	0.	0.
9	4.02	SISMO	Combination		-26.8599	8.2025	0.	0.
9	4.69	SISMO	Combination		-25.6646	10.8457	0.	0.
9	4.69	SISMO	Combination		-25.6646	10.8457	0.	0.
9	5.36	SISMO	Combination		-24.4693	13.0399	0.	0.
9	5.36	SISMO	Combination		-24.4693	13.0399	0.	0.
9	6.03	SISMO	Combination		-23.2741	14.7853	0.	0.
9	6.03	SISMO	Combination		-23.2741	14.7853	0.	0.
9	6.7	SISMO	Combination		-22.0788	16.0817	0.	0.
10	0.	ENVDIS	Combination	Max	-32.9768	30.5359	0.	0.
10	0.67	ENVDIS	Combination	Max	-31.7816	22.1291	0.	0.
10	0.67	ENVDIS	Combination	Max	-31.7816	22.1291	0.	0.
10	1.34	ENVDIS	Combination	Max	-30.5863	14.3956	0.	0.
10	1.34	ENVDIS	Combination	Max	-30.5863	14.3956	0.	0.
10	2.01	ENVDIS	Combination	Max	-29.391	7.3355	0.	0.
10	2.01	ENVDIS	Combination	Max	-29.391	7.3355	0.	0.
10	2.68	ENVDIS	Combination	Max	-28.1958	0.9487	0.	0.
10	2.68	ENVDIS	Combination	Max	-28.1958	0.9487	0.	0.
10	3.35	ENVDIS	Combination	Max	-27.0005	-4.7647	0.	0.
10	3.35	ENVDIS	Combination	Max	-27.0005	-4.7647	0.	0.
10	4.02	ENVDIS	Combination	Max	-25.8052	-8.7723	0.	0.
10	4.02	ENVDIS	Combination	Max	-25.8052	-8.7723	0.	0.
10	4.69	ENVDIS	Combination	Max	-24.61	-11.3484	0.	0.
10	4.69	ENVDIS	Combination	Max	-24.61	-11.3484	0.	0.
10	5.36	ENVDIS	Combination	Max	-23.4147	-13.4757	0.	0.
10	5.36	ENVDIS	Combination	Max	-23.4147	-13.4757	0.	0.
10	6.03	ENVDIS	Combination	Max	-22.2195	-15.154	0.	0.
10	6.03	ENVDIS	Combination	Max	-22.2195	-15.154	0.	0.
10	6.7	ENVDIS	Combination	Max	-21.0242	-16.3835	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
10	0.	ENVDIS	Combination	Min	-87.0767	4.0136	0.	0.
10	0.67	ENVDIS	Combination	Min	-85.4631	-0.729	0.	0.
10	0.67	ENVDIS	Combination	Min	-85.4631	-0.729	0.	0.
10	1.34	ENVDIS	Combination	Min	-83.8495	-5.0676	0.	0.
10	1.34	ENVDIS	Combination	Min	-83.8495	-5.0676	0.	0.
10	2.01	ENVDIS	Combination	Min	-82.2359	-9.0022	0.	0.
10	2.01	ENVDIS	Combination	Min	-82.2359	-9.0022	0.	0.
10	2.68	ENVDIS	Combination	Min	-80.6223	-12.667	0.	0.
10	2.68	ENVDIS	Combination	Min	-80.6223	-12.667	0.	0.
10	3.35	ENVDIS	Combination	Min	-79.0087	-17.3916	0.	0.
10	3.35	ENVDIS	Combination	Min	-79.0087	-17.3916	0.	0.
10	4.02	ENVDIS	Combination	Min	-77.3951	-21.5057	0.	0.
10	4.02	ENVDIS	Combination	Min	-77.3951	-21.5057	0.	0.
10	4.69	ENVDIS	Combination	Min	-75.7814	-25.0092	0.	0.
10	4.69	ENVDIS	Combination	Min	-75.7814	-25.0092	0.	0.
10	5.36	ENVDIS	Combination	Min	-74.1678	-27.9023	0.	0.
10	5.36	ENVDIS	Combination	Min	-74.1678	-27.9023	0.	0.
10	6.03	ENVDIS	Combination	Min	-72.5542	-30.5964	0.	0.
10	6.03	ENVDIS	Combination	Min	-72.5542	-30.5964	0.	0.
10	6.7	ENVDIS	Combination	Min	-70.9406	-32.9431	0.	0.
10	0.	ENVSER	Combination	Max	-32.9764	16.9756	0.	0.
10	0.67	ENVSER	Combination	Max	-31.7812	11.706	0.	0.
10	0.67	ENVSER	Combination	Max	-31.7812	11.706	0.	0.
10	1.34	ENVSER	Combination	Max	-30.5859	6.8854	0.	0.
10	1.34	ENVSER	Combination	Max	-30.5859	6.8854	0.	0.
10	2.01	ENVSER	Combination	Max	-29.3906	2.5136	0.	0.
10	2.01	ENVSER	Combination	Max	-29.3906	2.5136	0.	0.
10	2.68	ENVSER	Combination	Max	-28.1954	-1.4092	0.	0.
10	2.68	ENVSER	Combination	Max	-28.1954	-1.4092	0.	0.
10	3.35	ENVSER	Combination	Max	-27.0001	-4.8832	0.	0.
10	3.35	ENVSER	Combination	Max	-27.0001	-4.8832	0.	0.
10	4.02	ENVSER	Combination	Max	-25.8048	-7.9082	0.	0.
10	4.02	ENVSER	Combination	Max	-25.8048	-7.9082	0.	0.
10	4.69	ENVSER	Combination	Max	-24.6096	-10.4844	0.	0.
10	4.69	ENVSER	Combination	Max	-24.6096	-10.4844	0.	0.
10	5.36	ENVSER	Combination	Max	-23.4143	-12.6116	0.	0.
10	5.36	ENVSER	Combination	Max	-23.4143	-12.6116	0.	0.
10	6.03	ENVSER	Combination	Max	-22.219	-14.29	0.	0.
10	6.03	ENVSER	Combination	Max	-22.219	-14.29	0.	0.
10	6.7	ENVSER	Combination	Max	-21.0238	-15.5194	0.	0.
10	0.	ENVSER	Combination	Min	-33.4298	13.725	0.	0.
10	0.67	ENVSER	Combination	Min	-32.2345	8.9824	0.	0.
10	0.67	ENVSER	Combination	Min	-32.2345	8.9824	0.	0.
10	1.34	ENVSER	Combination	Min	-31.0392	4.6439	0.	0.
10	1.34	ENVSER	Combination	Min	-31.0392	4.6439	0.	0.
10	2.01	ENVSER	Combination	Min	-29.844	0.7093	0.	0.
10	2.01	ENVSER	Combination	Min	-29.844	0.7093	0.	0.
10	2.68	ENVSER	Combination	Min	-28.6487	-2.8213	0.	0.
10	2.68	ENVSER	Combination	Min	-28.6487	-2.8213	0.	0.
10	3.35	ENVSER	Combination	Min	-27.4534	-5.9478	0.	0.
10	3.35	ENVSER	Combination	Min	-27.4534	-5.9478	0.	0.
10	4.02	ENVSER	Combination	Min	-26.2582	-8.6704	0.	0.
10	4.02	ENVSER	Combination	Min	-26.2582	-8.6704	0.	0.
10	4.69	ENVSER	Combination	Min	-25.0629	-10.9889	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
10	4.69	ENVSER	Combination	Min	-25.0629	-10.9889	0.	0.
10	5.36	ENVSER	Combination	Min	-23.8676	-12.9034	0.	0.
10	5.36	ENVSER	Combination	Min	-23.8676	-12.9034	0.	0.
10	6.03	ENVSER	Combination	Min	-22.6724	-14.414	0.	0.
10	6.03	ENVSER	Combination	Min	-22.6724	-14.414	0.	0.
10	6.7	ENVSER	Combination	Min	-21.4771	-15.5205	0.	0.
10	0.	SISMO	Combination		-34.0294	17.0833	0.	0.
10	0.67	SISMO	Combination		-32.8341	11.7467	0.	0.
10	0.67	SISMO	Combination		-32.8341	11.7467	0.	0.
10	1.34	SISMO	Combination		-31.6388	6.8591	0.	0.
10	1.34	SISMO	Combination		-31.6388	6.8591	0.	0.
10	2.01	SISMO	Combination		-30.4436	2.4203	0.	0.
10	2.01	SISMO	Combination		-30.4436	2.4203	0.	0.
10	2.68	SISMO	Combination		-29.2483	-1.5695	0.	0.
10	2.68	SISMO	Combination		-29.2483	-1.5695	0.	0.
10	3.35	SISMO	Combination		-28.053	-5.1105	0.	0.
10	3.35	SISMO	Combination		-28.053	-5.1105	0.	0.
10	4.02	SISMO	Combination		-26.8578	-8.2025	0.	0.
10	4.02	SISMO	Combination		-26.8578	-8.2025	0.	0.
10	4.69	SISMO	Combination		-25.6625	-10.8457	0.	0.
10	4.69	SISMO	Combination		-25.6625	-10.8457	0.	0.
10	5.36	SISMO	Combination		-24.4673	-13.0399	0.	0.
10	5.36	SISMO	Combination		-24.4673	-13.0399	0.	0.
10	6.03	SISMO	Combination		-23.272	-14.7853	0.	0.
10	6.03	SISMO	Combination		-23.272	-14.7853	0.	0.
10	6.7	SISMO	Combination		-22.0767	-16.0817	0.	0.
11	0.	ENVDIS	Combination	Max	-16.3835	-21.0242	0.	0.
11	0.00254	ENVDIS	Combination	Max	-16.3835	-21.0151	0.	0.
11	0.00254	ENVDIS	Combination	Max	-16.3835	-21.0151	0.	0.
11	0.48983	ENVDIS	Combination	Max	-16.3835	-19.2638	0.	0.
11	0.97712	ENVDIS	Combination	Max	-16.3835	-17.5125	0.	0.
11	0.97712	ENVDIS	Combination	Max	-16.3835	-17.5125	0.	0.
11	1.17	ENVDIS	Combination	Max	-16.3835	-16.8192	0.	0.
11	1.17	ENVDIS	Combination	Max	-16.3835	-16.8192	0.	0.
11	1.56085	ENVDIS	Combination	Max	-16.3835	-15.4145	0.	0.
11	1.95169	ENVDIS	Combination	Max	-16.3835	-14.0099	0.	0.
11	1.95169	ENVDIS	Combination	Max	-16.3835	-14.0099	0.	0.
11	2.34	ENVDIS	Combination	Max	-16.3835	-12.6143	0.	0.
11	2.34	ENVDIS	Combination	Max	-16.3835	-12.6143	0.	0.
11	2.63314	ENVDIS	Combination	Max	-16.3835	-11.5608	0.	0.
11	2.92627	ENVDIS	Combination	Max	-16.3835	-10.5072	0.	0.
11	2.92627	ENVDIS	Combination	Max	-16.3835	-10.5072	0.	0.
11	3.21814	ENVDIS	Combination	Max	-16.3835	-9.4583	0.	0.
11	3.51	ENVDIS	Combination	Max	-16.3835	-8.4093	0.	0.
11	3.51	ENVDIS	Combination	Max	-16.3835	-8.4093	0.	0.
11	3.90085	ENVDIS	Combination	Max	-16.3835	-5.3295	0.	0.
11	3.90085	ENVDIS	Combination	Max	-16.3835	-5.3295	0.	0.
11	4.29042	ENVDIS	Combination	Max	-16.3835	-1.9761	0.	0.
11	4.68	ENVDIS	Combination	Max	-16.3835	0.5606	0.	0.
11	4.68	ENVDIS	Combination	Max	-16.3835	0.5606	0.	0.
11	4.87542	ENVDIS	Combination	Max	-16.3835	3.4502	0.	0.
11	4.87542	ENVDIS	Combination	Max	-16.3835	3.4502	0.	0.
11	5.36271	ENVDIS	Combination	Max	-16.3835	6.6161	0.	0.
11	5.85	ENVDIS	Combination	Max	-16.3835	9.782	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
11	5.85	ENVDIS	Combination	Max	-16.3835	12.3419	0.	0.
11	6.33729	ENVDIS	Combination	Max	-16.3835	16.8206	0.	0.
11	6.82458	ENVDIS	Combination	Max	-16.3835	21.2993	0.	0.
11	6.82458	ENVDIS	Combination	Max	-16.3835	21.2993	0.	0.
11	7.02	ENVDIS	Combination	Max	-16.3835	22.9395	0.	0.
11	7.02	ENVDIS	Combination	Max	-16.3835	22.9395	0.	0.
11	7.40958	ENVDIS	Combination	Max	-16.3835	26.6079	0.	0.
11	7.79915	ENVDIS	Combination	Max	-16.3835	30.2762	0.	0.
11	7.79915	ENVDIS	Combination	Max	-16.3835	30.2762	0.	0.
11	8.19	ENVDIS	Combination	Max	-16.3835	33.0995	0.	0.
11	8.19	ENVDIS	Combination	Max	-16.3835	33.0995	0.	0.
11	8.48187	ENVDIS	Combination	Max	-16.3835	36.163	0.	0.
11	8.77373	ENVDIS	Combination	Max	-16.3835	39.2265	0.	0.
11	8.77373	ENVDIS	Combination	Max	-16.3835	39.2265	0.	0.
11	9.06687	ENVDIS	Combination	Max	-16.3835	41.223	0.	0.
11	9.36	ENVDIS	Combination	Max	-16.3835	43.2194	0.	0.
11	9.36	ENVDIS	Combination	Max	-16.3835	43.2194	0.	0.
11	9.74831	ENVDIS	Combination	Max	-16.3835	48.1039	0.	0.
11	9.74831	ENVDIS	Combination	Max	-16.3835	48.1039	0.	0.
11	10.13915	ENVDIS	Combination	Max	-16.3835	51.4705	0.	0.
11	10.53	ENVDIS	Combination	Max	-16.3835	54.078	0.	0.
11	10.53	ENVDIS	Combination	Max	-16.3835	54.078	0.	0.
11	10.72288	ENVDIS	Combination	Max	-16.3835	56.8621	0.	0.
11	10.72288	ENVDIS	Combination	Max	-16.3835	56.8621	0.	0.
11	11.21017	ENVDIS	Combination	Max	-16.3835	61.1586	0.	0.
11	11.69746	ENVDIS	Combination	Max	-16.3835	65.6448	0.	0.
11	11.69746	ENVDIS	Combination	Max	-16.3835	65.6448	0.	0.
11	11.7	ENVDIS	Combination	Max	-16.3835	65.6872	0.	0.
11	0.	ENVDIS	Combination	Min	-32.9431	-66.8991	0.	0.
11	0.00254	ENVDIS	Combination	Min	-32.9431	-66.6119	0.	0.
11	0.00254	ENVDIS	Combination	Min	-32.9431	-66.6119	0.	0.
11	0.48983	ENVDIS	Combination	Min	-32.9431	-62.3153	0.	0.
11	0.97712	ENVDIS	Combination	Min	-32.9431	-58.0187	0.	0.
11	0.97712	ENVDIS	Combination	Min	-32.9431	-58.0187	0.	0.
11	1.17	ENVDIS	Combination	Min	-32.9431	-55.2499	0.	0.
11	1.17	ENVDIS	Combination	Min	-32.9431	-55.2499	0.	0.
11	1.56085	ENVDIS	Combination	Min	-32.9431	-52.5804	0.	0.
11	1.95169	ENVDIS	Combination	Min	-32.9431	-49.2603	0.	0.
11	1.95169	ENVDIS	Combination	Min	-32.9431	-49.2603	0.	0.
11	2.34	ENVDIS	Combination	Min	-32.9431	-44.3757	0.	0.
11	2.34	ENVDIS	Combination	Min	-32.9431	-44.3757	0.	0.
11	2.63314	ENVDIS	Combination	Min	-32.9431	-42.3793	0.	0.
11	2.92627	ENVDIS	Combination	Min	-32.9431	-40.3828	0.	0.
11	2.92627	ENVDIS	Combination	Min	-32.9431	-40.3828	0.	0.
11	3.21814	ENVDIS	Combination	Min	-32.9431	-37.3193	0.	0.
11	3.51	ENVDIS	Combination	Min	-32.9431	-34.2558	0.	0.
11	3.51	ENVDIS	Combination	Min	-32.9431	-34.2558	0.	0.
11	3.90085	ENVDIS	Combination	Min	-32.9431	-31.4325	0.	0.
11	3.90085	ENVDIS	Combination	Min	-32.9431	-31.4325	0.	0.
11	4.29042	ENVDIS	Combination	Min	-32.9431	-27.7642	0.	0.
11	4.68	ENVDIS	Combination	Min	-32.9431	-24.0958	0.	0.
11	4.68	ENVDIS	Combination	Min	-32.9431	-24.0958	0.	0.
11	4.87542	ENVDIS	Combination	Min	-32.9431	-22.4555	0.	0.
11	4.87542	ENVDIS	Combination	Min	-32.9431	-22.4555	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
11	5.36271	ENVDIS	Combination	Min	-32.9431	-18.1986	0.	0.
11	5.85	ENVDIS	Combination	Min	-32.9431	-13.9417	0.	0.
11	5.85	ENVDIS	Combination	Min	-32.9431	-13.4982	0.	0.
11	6.33729	ENVDIS	Combination	Min	-32.9431	-9.0524	0.	0.
11	6.82458	ENVDIS	Combination	Min	-32.9431	-4.6066	0.	0.
11	6.82458	ENVDIS	Combination	Min	-32.9431	-4.6066	0.	0.
11	7.02	ENVDIS	Combination	Min	-32.9431	-1.7325	0.	0.
11	7.02	ENVDIS	Combination	Min	-32.9431	-1.7325	0.	0.
11	7.40958	ENVDIS	Combination	Min	-32.9431	0.8538	0.	0.
11	7.79915	ENVDIS	Combination	Min	-32.9431	4.173	0.	0.
11	7.79915	ENVDIS	Combination	Min	-32.9431	4.173	0.	0.
11	8.19	ENVDIS	Combination	Min	-32.9431	7.2486	0.	0.
11	8.19	ENVDIS	Combination	Min	-32.9431	7.2486	0.	0.
11	8.48187	ENVDIS	Combination	Min	-32.9431	8.2975	0.	0.
11	8.77373	ENVDIS	Combination	Min	-32.9431	9.3465	0.	0.
11	8.77373	ENVDIS	Combination	Min	-32.9431	9.3465	0.	0.
11	9.06687	ENVDIS	Combination	Min	-32.9431	10.4	0.	0.
11	9.36	ENVDIS	Combination	Min	-32.9431	11.4535	0.	0.
11	9.36	ENVDIS	Combination	Min	-32.9431	11.4535	0.	0.
11	9.74831	ENVDIS	Combination	Min	-32.9431	12.8491	0.	0.
11	9.74831	ENVDIS	Combination	Min	-32.9431	12.8491	0.	0.
11	10.13915	ENVDIS	Combination	Min	-32.9431	14.2538	0.	0.
11	10.53	ENVDIS	Combination	Min	-32.9431	15.6585	0.	0.
11	10.53	ENVDIS	Combination	Min	-32.9431	15.6585	0.	0.
11	10.72288	ENVDIS	Combination	Min	-32.9431	16.3517	0.	0.
11	10.72288	ENVDIS	Combination	Min	-32.9431	16.3517	0.	0.
11	11.21017	ENVDIS	Combination	Min	-32.9431	18.103	0.	0.
11	11.69746	ENVDIS	Combination	Min	-32.9431	19.8543	0.	0.
11	11.69746	ENVDIS	Combination	Min	-32.9431	19.8543	0.	0.
11	11.7	ENVDIS	Combination	Min	-32.9431	19.8634	0.	0.
11	0.	ENVSER	Combination	Max	-15.5194	-21.0238	0.	0.
11	0.00254	ENVSER	Combination	Max	-15.5194	-21.0146	0.	0.
11	0.00254	ENVSER	Combination	Max	-15.5194	-21.0146	0.	0.
11	0.48983	ENVSER	Combination	Max	-15.5194	-19.2633	0.	0.
11	0.97712	ENVSER	Combination	Max	-15.5194	-17.512	0.	0.
11	0.97712	ENVSER	Combination	Max	-15.5194	-17.512	0.	0.
11	1.17	ENVSER	Combination	Max	-15.5194	-16.8188	0.	0.
11	1.17	ENVSER	Combination	Max	-15.5194	-16.8188	0.	0.
11	1.56085	ENVSER	Combination	Max	-15.5194	-15.4141	0.	0.
11	1.95169	ENVSER	Combination	Max	-15.5194	-14.0094	0.	0.
11	1.95169	ENVSER	Combination	Max	-15.5194	-14.0094	0.	0.
11	2.34	ENVSER	Combination	Max	-15.5194	-12.6139	0.	0.
11	2.34	ENVSER	Combination	Max	-15.5194	-12.6139	0.	0.
11	2.63314	ENVSER	Combination	Max	-15.5194	-11.5603	0.	0.
11	2.92627	ENVSER	Combination	Max	-15.5194	-10.5068	0.	0.
11	2.92627	ENVSER	Combination	Max	-15.5194	-10.5068	0.	0.
11	3.21814	ENVSER	Combination	Max	-15.5194	-9.4579	0.	0.
11	3.51	ENVSER	Combination	Max	-15.5194	-8.4089	0.	0.
11	3.51	ENVSER	Combination	Max	-15.5194	-8.4089	0.	0.
11	3.90085	ENVSER	Combination	Max	-15.5194	-7.0042	0.	0.
11	3.90085	ENVSER	Combination	Max	-15.5194	-7.0042	0.	0.
11	4.29042	ENVSER	Combination	Max	-15.5194	-5.6041	0.	0.
11	4.68	ENVSER	Combination	Max	-15.5194	-4.204	0.	0.
11	4.68	ENVSER	Combination	Max	-15.5194	-4.204	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
11	4.87542	ENVSER	Combination	Max	-15.5194	-3.5016	0.	0.
11	4.87542	ENVSER	Combination	Max	-15.5194	-3.5016	0.	0.
11	5.36271	ENVSER	Combination	Max	-15.5194	-1.7503	0.	0.
11	5.85	ENVSER	Combination	Max	-15.5194	9.871E-04	0.	0.
11	5.85	ENVSER	Combination	Max	-15.5194	9.871E-04	0.	0.
11	6.33729	ENVSER	Combination	Max	-15.5194	1.7523	0.	0.
11	6.82458	ENVSER	Combination	Max	-15.5194	3.5036	0.	0.
11	6.82458	ENVSER	Combination	Max	-15.5194	3.5036	0.	0.
11	7.02	ENVSER	Combination	Max	-15.5194	4.2059	0.	0.
11	7.02	ENVSER	Combination	Max	-15.5194	4.2059	0.	0.
11	7.40958	ENVSER	Combination	Max	-15.5194	5.6061	0.	0.
11	7.79915	ENVSER	Combination	Max	-15.5194	7.0062	0.	0.
11	7.79915	ENVSER	Combination	Max	-15.5194	7.0062	0.	0.
11	8.19	ENVSER	Combination	Max	-15.5194	8.4109	0.	0.
11	8.19	ENVSER	Combination	Max	-15.5194	8.4109	0.	0.
11	8.48187	ENVSER	Combination	Max	-15.5194	9.4598	0.	0.
11	8.77373	ENVSER	Combination	Max	-15.5194	10.5088	0.	0.
11	8.77373	ENVSER	Combination	Max	-15.5194	10.5088	0.	0.
11	9.06687	ENVSER	Combination	Max	-15.5194	11.5623	0.	0.
11	9.36	ENVSER	Combination	Max	-15.5194	12.6158	0.	0.
11	9.36	ENVSER	Combination	Max	-15.5194	12.6158	0.	0.
11	9.74831	ENVSER	Combination	Max	-15.5194	14.0114	0.	0.
11	9.74831	ENVSER	Combination	Max	-15.5194	14.0114	0.	0.
11	10.13915	ENVSER	Combination	Max	-15.5194	15.4161	0.	0.
11	10.53	ENVSER	Combination	Max	-15.5194	16.8208	0.	0.
11	10.53	ENVSER	Combination	Max	-15.5194	16.8208	0.	0.
11	10.72288	ENVSER	Combination	Max	-15.5194	17.514	0.	0.
11	10.72288	ENVSER	Combination	Max	-15.5194	17.514	0.	0.
11	11.21017	ENVSER	Combination	Max	-15.5194	19.2653	0.	0.
11	11.69746	ENVSER	Combination	Max	-15.5194	21.0166	0.	0.
11	11.69746	ENVSER	Combination	Max	-15.5194	21.0166	0.	0.
11	11.7	ENVSER	Combination	Max	-15.5194	21.0257	0.	0.
11	0.	ENVSER	Combination	Min	-15.5205	-21.4771	0.	0.
11	0.00254	ENVSER	Combination	Min	-15.5205	-21.468	0.	0.
11	0.00254	ENVSER	Combination	Min	-15.5205	-21.468	0.	0.
11	0.48983	ENVSER	Combination	Min	-15.5205	-19.7167	0.	0.
11	0.97712	ENVSER	Combination	Min	-15.5205	-17.9654	0.	0.
11	0.97712	ENVSER	Combination	Min	-15.5205	-17.9654	0.	0.
11	1.17	ENVSER	Combination	Min	-15.5205	-17.2722	0.	0.
11	1.17	ENVSER	Combination	Min	-15.5205	-17.2722	0.	0.
11	1.56085	ENVSER	Combination	Min	-15.5205	-15.8675	0.	0.
11	1.95169	ENVSER	Combination	Min	-15.5205	-14.4628	0.	0.
11	1.95169	ENVSER	Combination	Min	-15.5205	-14.4628	0.	0.
11	2.34	ENVSER	Combination	Min	-15.5205	-13.0672	0.	0.
11	2.34	ENVSER	Combination	Min	-15.5205	-13.0672	0.	0.
11	2.63314	ENVSER	Combination	Min	-15.5205	-12.0137	0.	0.
11	2.92627	ENVSER	Combination	Min	-15.5205	-10.9602	0.	0.
11	2.92627	ENVSER	Combination	Min	-15.5205	-10.9602	0.	0.
11	3.21814	ENVSER	Combination	Min	-15.5205	-9.9112	0.	0.
11	3.51	ENVSER	Combination	Min	-15.5205	-8.8623	0.	0.
11	3.51	ENVSER	Combination	Min	-15.5205	-8.8623	0.	0.
11	3.90085	ENVSER	Combination	Min	-15.5205	-7.4576	0.	0.
11	3.90085	ENVSER	Combination	Min	-15.5205	-7.4576	0.	0.
11	4.29042	ENVSER	Combination	Min	-15.5205	-6.0574	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
11	4.68	ENVSER	Combination	Min	-15.5205	-4.6573	0.	0.
11	4.68	ENVSER	Combination	Min	-15.5205	-4.6573	0.	0.
11	4.87542	ENVSER	Combination	Min	-15.5205	-3.955	0.	0.
11	4.87542	ENVSER	Combination	Min	-15.5205	-3.955	0.	0.
11	5.36271	ENVSER	Combination	Min	-15.5205	-2.2037	0.	0.
11	5.85	ENVSER	Combination	Min	-15.5205	-0.4524	0.	0.
11	5.85	ENVSER	Combination	Min	-15.5205	-0.4524	0.	0.
11	6.33729	ENVSER	Combination	Min	-15.5205	1.2989	0.	0.
11	6.82458	ENVSER	Combination	Min	-15.5205	3.0502	0.	0.
11	6.82458	ENVSER	Combination	Min	-15.5205	3.0502	0.	0.
11	7.02	ENVSER	Combination	Min	-15.5205	3.7526	0.	0.
11	7.02	ENVSER	Combination	Min	-15.5205	3.7526	0.	0.
11	7.40958	ENVSER	Combination	Min	-15.5205	5.1527	0.	0.
11	7.79915	ENVSER	Combination	Min	-15.5205	6.5529	0.	0.
11	7.79915	ENVSER	Combination	Min	-15.5205	6.5529	0.	0.
11	8.19	ENVSER	Combination	Min	-15.5205	7.9575	0.	0.
11	8.19	ENVSER	Combination	Min	-15.5205	7.9575	0.	0.
11	8.48187	ENVSER	Combination	Min	-15.5205	9.0065	0.	0.
11	8.77373	ENVSER	Combination	Min	-15.5205	10.0555	0.	0.
11	8.77373	ENVSER	Combination	Min	-15.5205	10.0555	0.	0.
11	9.06687	ENVSER	Combination	Min	-15.5205	11.109	0.	0.
11	9.36	ENVSER	Combination	Min	-15.5205	12.1625	0.	0.
11	9.36	ENVSER	Combination	Min	-15.5205	12.1625	0.	0.
11	9.74831	ENVSER	Combination	Min	-15.5205	13.5581	0.	0.
11	9.74831	ENVSER	Combination	Min	-15.5205	13.5581	0.	0.
11	10.13915	ENVSER	Combination	Min	-15.5205	14.9628	0.	0.
11	10.53	ENVSER	Combination	Min	-15.5205	16.3675	0.	0.
11	10.53	ENVSER	Combination	Min	-15.5205	16.3675	0.	0.
11	10.72288	ENVSER	Combination	Min	-15.5205	17.0607	0.	0.
11	10.72288	ENVSER	Combination	Min	-15.5205	17.0607	0.	0.
11	11.21017	ENVSER	Combination	Min	-15.5205	18.812	0.	0.
11	11.69746	ENVSER	Combination	Min	-15.5205	20.5633	0.	0.
11	11.69746	ENVSER	Combination	Min	-15.5205	20.5633	0.	0.
11	11.7	ENVSER	Combination	Min	-15.5205	20.5724	0.	0.
11	0.	SISMO	Combination		-16.0817	-22.0767	0.	0.
11	0.00254	SISMO	Combination		-16.0817	-22.0671	0.	0.
11	0.00254	SISMO	Combination		-16.0817	-22.0671	0.	0.
11	0.48983	SISMO	Combination		-16.0817	-20.2281	0.	0.
11	0.97712	SISMO	Combination		-16.0817	-18.3891	0.	0.
11	0.97712	SISMO	Combination		-16.0817	-18.3891	0.	0.
11	1.17	SISMO	Combination		-16.0817	-17.6612	0.	0.
11	1.17	SISMO	Combination		-16.0817	-17.6612	0.	0.
11	1.56085	SISMO	Combination		-16.0817	-16.1861	0.	0.
11	1.95169	SISMO	Combination		-16.0817	-14.7111	0.	0.
11	1.95169	SISMO	Combination		-16.0817	-14.7111	0.	0.
11	2.34	SISMO	Combination		-16.0817	-13.2456	0.	0.
11	2.34	SISMO	Combination		-16.0817	-13.2456	0.	0.
11	2.63314	SISMO	Combination		-16.0817	-12.1393	0.	0.
11	2.92627	SISMO	Combination		-16.0817	-11.0331	0.	0.
11	2.92627	SISMO	Combination		-16.0817	-11.0331	0.	0.
11	3.21814	SISMO	Combination		-16.0817	-9.9316	0.	0.
11	3.51	SISMO	Combination		-16.0817	-8.8301	0.	0.
11	3.51	SISMO	Combination		-16.0817	-8.8301	0.	0.
11	3.90085	SISMO	Combination		-16.0817	-7.355	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
11	3.90085	SISMO	Combination		-16.0817	-7.355	0.	0.
11	4.29042	SISMO	Combination		-16.0817	-5.8848	0.	0.
11	4.68	SISMO	Combination		-16.0817	-4.4145	0.	0.
11	4.68	SISMO	Combination		-16.0817	-4.4145	0.	0.
11	4.87542	SISMO	Combination		-16.0817	-3.677	0.	0.
11	4.87542	SISMO	Combination		-16.0817	-3.677	0.	0.
11	5.36271	SISMO	Combination		-16.0817	-1.838	0.	0.
11	5.85	SISMO	Combination		-16.0817	0.001	0.	0.
11	5.85	SISMO	Combination		-16.0817	0.001	0.	0.
11	6.33729	SISMO	Combination		-16.0817	1.84	0.	0.
11	6.82458	SISMO	Combination		-16.0817	3.6791	0.	0.
11	6.82458	SISMO	Combination		-16.0817	3.6791	0.	0.
11	7.02	SISMO	Combination		-16.0817	4.4166	0.	0.
11	7.02	SISMO	Combination		-16.0817	4.4166	0.	0.
11	7.40958	SISMO	Combination		-16.0817	5.8868	0.	0.
11	7.79915	SISMO	Combination		-16.0817	7.3571	0.	0.
11	7.79915	SISMO	Combination		-16.0817	7.3571	0.	0.
11	8.19	SISMO	Combination		-16.0817	8.8321	0.	0.
11	8.19	SISMO	Combination		-16.0817	8.8321	0.	0.
11	8.48187	SISMO	Combination		-16.0817	9.9336	0.	0.
11	8.77373	SISMO	Combination		-16.0817	11.0351	0.	0.
11	8.77373	SISMO	Combination		-16.0817	11.0351	0.	0.
11	9.06687	SISMO	Combination		-16.0817	12.1414	0.	0.
11	9.36	SISMO	Combination		-16.0817	13.2477	0.	0.
11	9.36	SISMO	Combination		-16.0817	13.2477	0.	0.
11	9.74831	SISMO	Combination		-16.0817	14.7132	0.	0.
11	9.74831	SISMO	Combination		-16.0817	14.7132	0.	0.
11	10.13915	SISMO	Combination		-16.0817	16.1882	0.	0.
11	10.53	SISMO	Combination		-16.0817	17.6632	0.	0.
11	10.53	SISMO	Combination		-16.0817	17.6632	0.	0.
11	10.72288	SISMO	Combination		-16.0817	18.3912	0.	0.
11	10.72288	SISMO	Combination		-16.0817	18.3912	0.	0.
11	11.21017	SISMO	Combination		-16.0817	20.2302	0.	0.
11	11.69746	SISMO	Combination		-16.0817	22.0692	0.	0.
11	11.69746	SISMO	Combination		-16.0817	22.0692	0.	0.
11	11.7	SISMO	Combination		-16.0817	22.0788	0.	0.
12	0.	ENVDIS	Combination	Max	-4.149	65.1495	0.	0.
12	0.2475	ENVDIS	Combination	Max	-4.149	65.7456	0.	0.
12	0.	ENVDIS	Combination	Min	-30.5359	25.4931	0.	0.
12	0.2475	ENVDIS	Combination	Min	-30.5359	25.9346	0.	0.
12	0.	ENVSER	Combination	Max	-13.8604	25.6257	0.	0.
12	0.2475	ENVSER	Combination	Max	-13.8604	26.0672	0.	0.
12	0.	ENVSER	Combination	Min	-16.9756	24.7378	0.	0.
12	0.2475	ENVSER	Combination	Min	-16.9756	25.1793	0.	0.
12	0.	SISMO	Combination		-17.0833	26.3789	0.	0.
12	0.2475	SISMO	Combination		-17.0833	26.8204	0.	0.
13	0.	ENVDIS	Combination	Max	-4.2844	47.7249	0.	0.
13	0.2475	ENVDIS	Combination	Max	-4.2844	48.321	0.	0.
13	0.	ENVDIS	Combination	Min	-30.5359	18.4514	0.	0.
13	0.2475	ENVDIS	Combination	Min	-30.5359	18.8929	0.	0.
13	0.	ENVSER	Combination	Max	-13.9958	19.4785	0.	0.
13	0.2475	ENVSER	Combination	Max	-13.9958	19.9201	0.	0.
13	0.	ENVSER	Combination	Min	-16.9756	17.7037	0.	0.
13	0.2475	ENVSER	Combination	Min	-16.9756	18.1453	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
13	0.	SISMO	Combination		-17.0833	19.9842	0.	0.
13	0.2475	SISMO	Combination		-17.0833	20.4257	0.	0.
14	0.	ENVDIS	Combination	Max	-4.4198	33.1134	0.	0.
14	0.2475	ENVDIS	Combination	Max	-4.4198	33.7095	0.	0.
14	0.	ENVDIS	Combination	Min	-30.5359	12.5834	0.	0.
14	0.2475	ENVDIS	Combination	Min	-30.5359	13.0249	0.	0.
14	0.	ENVSER	Combination	Max	-14.1312	14.1802	0.	0.
14	0.2475	ENVSER	Combination	Max	-14.1312	14.6218	0.	0.
14	0.	ENVSER	Combination	Min	-16.9756	11.8805	0.	0.
14	0.2475	ENVSER	Combination	Min	-16.9756	12.322	0.	0.
14	0.	SISMO	Combination		-17.0833	14.4874	0.	0.
14	0.2475	SISMO	Combination		-17.0833	14.929	0.	0.
15	0.	ENVDIS	Combination	Max	-4.5551	21.2171	0.	0.
15	0.2475	ENVDIS	Combination	Max	-4.5551	21.8132	0.	0.
15	0.	ENVDIS	Combination	Min	-30.5359	5.2749	0.	0.
15	0.2475	ENVDIS	Combination	Min	-30.5359	5.871	0.	0.
15	0.	ENVSER	Combination	Max	-14.2666	9.747	0.	0.
15	0.2475	ENVSER	Combination	Max	-14.2666	10.1885	0.	0.
15	0.	ENVSER	Combination	Min	-16.9756	7.2012	0.	0.
15	0.2475	ENVSER	Combination	Min	-16.9756	7.6428	0.	0.
15	0.	SISMO	Combination		-17.0833	9.9002	0.	0.
15	0.2475	SISMO	Combination		-17.0833	10.3417	0.	0.
16	0.	ENVDIS	Combination	Max	-4.6905	11.8301	0.	0.
16	0.2475	ENVDIS	Combination	Max	-4.6905	12.4261	0.	0.
16	0.	ENVDIS	Combination	Min	-30.5359	-1.478	0.	0.
16	0.2475	ENVDIS	Combination	Min	-30.5359	-0.8819	0.	0.
16	0.	ENVSER	Combination	Max	-14.402	6.145	0.	0.
16	0.2475	ENVSER	Combination	Max	-14.402	6.5866	0.	0.
16	0.	ENVSER	Combination	Min	-16.9756	3.5601	0.	0.
16	0.2475	ENVSER	Combination	Min	-16.9756	4.0017	0.	0.
16	0.	SISMO	Combination		-17.0833	6.1832	0.	0.
16	0.2475	SISMO	Combination		-17.0833	6.6247	0.	0.
17	0.	ENVDIS	Combination	Max	-4.8259	7.7285	0.	0.
17	0.2475	ENVDIS	Combination	Max	-4.8259	8.1701	0.	0.
17	0.	ENVDIS	Combination	Min	-30.5359	-6.2296	0.	0.
17	0.2475	ENVDIS	Combination	Min	-30.5359	-5.6336	0.	0.
17	0.	ENVSER	Combination	Max	-14.5374	3.3078	0.	0.
17	0.2475	ENVSER	Combination	Max	-14.5374	3.7493	0.	0.
17	0.	ENVSER	Combination	Min	-16.9756	0.8296	0.	0.
17	0.2475	ENVSER	Combination	Min	-16.9756	1.2712	0.	0.
17	0.	SISMO	Combination		-17.0833	3.2639	0.	0.
17	0.2475	SISMO	Combination		-17.0833	3.7054	0.	0.
18	0.	ENVDIS	Combination	Max	-4.9613	5.1613	0.	0.
18	0.2475	ENVDIS	Combination	Max	-4.9613	5.6028	0.	0.
18	0.	ENVDIS	Combination	Min	-30.5359	-9.3237	0.	0.
18	0.2475	ENVDIS	Combination	Min	-30.5359	-8.7277	0.	0.
18	0.	ENVSER	Combination	Max	-14.6728	1.1491	0.	0.
18	0.2475	ENVSER	Combination	Max	-14.6728	1.5906	0.	0.
18	0.	ENVSER	Combination	Min	-16.9756	-1.1263	0.	0.
18	0.2475	ENVSER	Combination	Min	-16.9756	-0.6848	0.	0.
18	0.	SISMO	Combination		-17.0833	1.0503	0.	0.
18	0.2475	SISMO	Combination		-17.0833	1.4918	0.	0.
19	0.	ENVDIS	Combination	Max	-5.0967	3.0935	0.	0.
19	0.2475	ENVDIS	Combination	Max	-5.0967	3.5351	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
19	0.	ENVDIS	Combination	Min	-30.5359	-11.0707	0.	0.
19	0.2475	ENVDIS	Combination	Min	-30.5359	-10.4747	0.	0.
19	0.	ENVSER	Combination	Max	-14.8082	-0.4263	0.	0.
19	0.2475	ENVSER	Combination	Max	-14.8082	0.0152	0.	0.
19	0.	ENVSER	Combination	Min	-16.9756	-2.4425	0.	0.
19	0.2475	ENVSER	Combination	Min	-16.9756	-2.001	0.	0.
19	0.	SISMO	Combination		-17.0833	-0.5582	0.	0.
19	0.2475	SISMO	Combination		-17.0833	-0.1166	0.	0.
20	0.	ENVDIS	Combination	Max	-5.2321	1.4802	0.	0.
20	0.2475	ENVDIS	Combination	Max	-5.2321	1.9217	0.	0.
20	0.	ENVDIS	Combination	Min	-30.5359	-11.8036	0.	0.
20	0.2475	ENVDIS	Combination	Min	-30.5359	-11.2076	0.	0.
20	0.	ENVSER	Combination	Max	-14.9436	-1.5148	0.	0.
20	0.2475	ENVSER	Combination	Max	-14.9436	-1.0733	0.	0.
20	0.	ENVSER	Combination	Min	-16.9756	-3.2459	0.	0.
20	0.2475	ENVSER	Combination	Min	-16.9756	-2.8044	0.	0.
20	0.	SISMO	Combination		-17.0833	-1.663	0.	0.
20	0.2475	SISMO	Combination		-17.0833	-1.2214	0.	0.
21	0.	ENVDIS	Combination	Max	-5.3675	0.2662	0.	0.
21	0.2475	ENVDIS	Combination	Max	-5.3675	0.7078	0.	0.
21	0.	ENVDIS	Combination	Min	-30.5359	-11.7798	0.	0.
21	0.2475	ENVDIS	Combination	Min	-30.5359	-11.1838	0.	0.
21	0.	ENVSER	Combination	Max	-15.079	-2.2089	0.	0.
21	0.2475	ENVSER	Combination	Max	-15.079	-1.7674	0.	0.
21	0.	ENVSER	Combination	Min	-16.9756	-3.6515	0.	0.
21	0.2475	ENVSER	Combination	Min	-16.9756	-3.2099	0.	0.
21	0.	SISMO	Combination		-17.0833	-2.3609	0.	0.
21	0.2475	SISMO	Combination		-17.0833	-1.9193	0.	0.
22	0.	ENVDIS	Combination	Max	-5.5029	-0.6071	0.	0.
22	0.2475	ENVDIS	Combination	Max	-5.5029	-0.1656	0.	0.
22	0.	ENVDIS	Combination	Min	-30.5359	-11.5338	0.	0.
22	0.2475	ENVDIS	Combination	Min	-30.5359	-10.9377	0.	0.
22	0.	ENVSER	Combination	Max	-15.2144	-2.5933	0.	0.
22	0.2475	ENVSER	Combination	Max	-15.2144	-2.1517	0.	0.
22	0.	ENVSER	Combination	Min	-16.9756	-3.7596	0.	0.
22	0.2475	ENVSER	Combination	Min	-16.9756	-3.3181	0.	0.
22	0.	SISMO	Combination		-17.0833	-2.7402	0.	0.
22	0.2475	SISMO	Combination		-17.0833	-2.2987	0.	0.
23	0.	ENVDIS	Combination	Max	-5.6383	-1.1981	0.	0.
23	0.2475	ENVDIS	Combination	Max	-5.6383	-0.7566	0.	0.
23	0.	ENVDIS	Combination	Min	-30.5359	-10.7875	0.	0.
23	0.2475	ENVDIS	Combination	Min	-30.5359	-10.1914	0.	0.
23	0.	ENVSER	Combination	Max	-15.3498	-2.7429	0.	0.
23	0.2475	ENVSER	Combination	Max	-15.3498	-2.3014	0.	0.
23	0.	ENVSER	Combination	Min	-16.9756	-3.6555	0.	0.
23	0.2475	ENVSER	Combination	Min	-16.9756	-3.214	0.	0.
23	0.	SISMO	Combination		-17.0833	-2.8789	0.	0.
23	0.2475	SISMO	Combination		-17.0833	-2.4374	0.	0.
24	0.	ENVDIS	Combination	Max	-5.7737	-1.5619	0.	0.
24	0.2475	ENVDIS	Combination	Max	-5.7737	-1.1203	0.	0.
24	0.	ENVDIS	Combination	Min	-30.5359	-9.7325	0.	0.
24	0.2475	ENVDIS	Combination	Min	-30.5359	-9.1365	0.	0.
24	0.	ENVSER	Combination	Max	-15.4852	-2.7219	0.	0.
24	0.2475	ENVSER	Combination	Max	-15.4852	-2.2804	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
24	0.	ENVSER	Combination	Min	-16.9756	-3.4092	0.	0.
24	0.2475	ENVSER	Combination	Min	-16.9756	-2.9677	0.	0.
24	0.	SISMO	Combination		-17.0833	-2.8436	0.	0.
24	0.2475	SISMO	Combination		-17.0833	-2.4021	0.	0.
25	0.	ENVDIS	Combination	Max	-5.9091	-1.748	0.	0.
25	0.2475	ENVDIS	Combination	Max	-5.9091	-1.3064	0.	0.
25	0.	ENVDIS	Combination	Min	-30.5359	-8.5177	0.	0.
25	0.2475	ENVDIS	Combination	Min	-30.5359	-7.9216	0.	0.
25	0.	ENVSER	Combination	Max	-15.6206	-2.5835	0.	0.
25	0.2475	ENVSER	Combination	Max	-15.6206	-2.142	0.	0.
25	0.	ENVSER	Combination	Min	-16.9756	-3.0765	0.	0.
25	0.2475	ENVSER	Combination	Min	-16.9756	-2.635	0.	0.
25	0.	SISMO	Combination		-17.0833	-2.6892	0.	0.
25	0.2475	SISMO	Combination		-17.0833	-2.2477	0.	0.
26	0.	ENVDIS	Combination	Max	-6.0445	-1.7996	0.	0.
26	0.2475	ENVDIS	Combination	Max	-6.0445	-1.3581	0.	0.
26	0.	ENVDIS	Combination	Min	-30.5359	-7.2542	0.	0.
26	0.2475	ENVDIS	Combination	Min	-30.5359	-6.6582	0.	0.
26	0.	ENVSER	Combination	Max	-15.756	-2.3705	0.	0.
26	0.2475	ENVSER	Combination	Max	-15.756	-1.929	0.	0.
26	0.	ENVSER	Combination	Min	-16.9756	-2.7002	0.	0.
26	0.2475	ENVSER	Combination	Min	-16.9756	-2.2586	0.	0.
26	0.	SISMO	Combination		-17.0833	-2.4599	0.	0.
26	0.2475	SISMO	Combination		-17.0833	-2.0184	0.	0.
27	0.	ENVDIS	Combination	Max	-6.1799	-1.7532	0.	0.
27	0.2475	ENVDIS	Combination	Max	-6.1799	-1.3117	0.	0.
27	0.	ENVDIS	Combination	Min	-30.5359	-6.0213	0.	0.
27	0.2475	ENVDIS	Combination	Min	-30.5359	-5.4252	0.	0.
27	0.	ENVSER	Combination	Max	-15.8914	-2.1159	0.	0.
27	0.2475	ENVSER	Combination	Max	-15.8914	-1.6743	0.	0.
27	0.	ENVSER	Combination	Min	-16.9756	-2.3117	0.	0.
27	0.2475	ENVSER	Combination	Min	-16.9756	-1.8701	0.	0.
27	0.	SISMO	Combination		-17.0833	-2.1897	0.	0.
27	0.2475	SISMO	Combination		-17.0833	-1.7482	0.	0.
28	0.	ENVDIS	Combination	Max	-6.3153	-1.6384	0.	0.
28	0.2475	ENVDIS	Combination	Max	-6.3153	-1.1969	0.	0.
28	0.	ENVDIS	Combination	Min	-30.5359	-4.8712	0.	0.
28	0.2475	ENVDIS	Combination	Min	-30.5359	-4.2751	0.	0.
28	0.	ENVSER	Combination	Max	-16.0268	-1.8442	0.	0.
28	0.2475	ENVSER	Combination	Max	-16.0268	-1.4026	0.	0.
28	0.	ENVSER	Combination	Min	-16.9756	-1.9328	0.	0.
28	0.2475	ENVSER	Combination	Min	-16.9756	-1.4912	0.	0.
28	0.	SISMO	Combination		-17.0833	-1.9037	0.	0.
28	0.2475	SISMO	Combination		-17.0833	-1.4621	0.	0.
29	0.	ENVDIS	Combination	Max	-6.4507	-1.4784	0.	0.
29	0.2475	ENVDIS	Combination	Max	-6.4507	-1.0369	0.	0.
29	0.	ENVDIS	Combination	Min	-30.5359	-3.835	0.	0.
29	0.2475	ENVDIS	Combination	Min	-30.5359	-3.2389	0.	0.
29	0.	ENVSER	Combination	Max	-16.1622	-1.5724	0.	0.
29	0.2475	ENVSER	Combination	Max	-16.1622	-1.1308	0.	0.
29	0.	ENVSER	Combination	Min	-16.9756	-1.5773	0.	0.
29	0.2475	ENVSER	Combination	Min	-16.9756	-1.1357	0.	0.
29	0.	SISMO	Combination		-17.0833	-1.6192	0.	0.
29	0.2475	SISMO	Combination		-17.0833	-1.1776	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
30	0.	ENVDIS	Combination	Max	-6.5861	-1.1532	0.	0.
30	0.2475	ENVDIS	Combination	Max	-6.5861	-0.7117	0.	0.
30	0.	ENVDIS	Combination	Min	-30.5359	-2.9857	0.	0.
30	0.2475	ENVDIS	Combination	Min	-30.5359	-2.3896	0.	0.
30	0.	ENVSER	Combination	Max	-16.2976	-1.2524	0.	0.
30	0.2475	ENVSER	Combination	Max	-16.2976	-0.8109	0.	0.
30	0.	ENVSER	Combination	Min	-16.9756	-1.3112	0.	0.
30	0.2475	ENVSER	Combination	Min	-16.9756	-0.8697	0.	0.
30	0.	SISMO	Combination		-17.0833	-1.347	0.	0.
30	0.2475	SISMO	Combination		-17.0833	-0.9055	0.	0.
31	0.	ENVDIS	Combination	Max	-6.7215	-0.8319	0.	0.
31	0.2475	ENVDIS	Combination	Max	-6.7215	-0.3904	0.	0.
31	0.	ENVDIS	Combination	Min	-30.5359	-2.2837	0.	0.
31	0.2475	ENVDIS	Combination	Min	-30.5359	-1.6877	0.	0.
31	0.	ENVSER	Combination	Max	-16.4329	-0.9605	0.	0.
31	0.2475	ENVSER	Combination	Max	-16.4329	-0.5189	0.	0.
31	0.	ENVSER	Combination	Min	-16.9756	-1.0663	0.	0.
31	0.2475	ENVSER	Combination	Min	-16.9756	-0.6247	0.	0.
31	0.	SISMO	Combination		-17.0833	-1.0927	0.	0.
31	0.2475	SISMO	Combination		-17.0833	-0.6512	0.	0.
32	0.	ENVDIS	Combination	Max	-6.8569	-0.539	0.	0.
32	0.2475	ENVDIS	Combination	Max	-6.8569	-0.0975	0.	0.
32	0.	ENVDIS	Combination	Min	-30.5359	-1.7118	0.	0.
32	0.2475	ENVDIS	Combination	Min	-30.5359	-1.1157	0.	0.
32	0.	ENVSER	Combination	Max	-16.5683	-0.6999	0.	0.
32	0.2475	ENVSER	Combination	Max	-16.5683	-0.2583	0.	0.
32	0.	ENVSER	Combination	Min	-16.9756	-0.839	0.	0.
32	0.2475	ENVSER	Combination	Min	-16.9756	-0.3975	0.	0.
32	0.	SISMO	Combination		-17.0833	-0.8576	0.	0.
32	0.2475	SISMO	Combination		-17.0833	-0.416	0.	0.
33	0.	ENVDIS	Combination	Max	-6.9923	-0.2726	0.	0.
33	0.2475	ENVDIS	Combination	Max	-6.9923	0.1689	0.	0.
33	0.	ENVDIS	Combination	Min	-30.5359	-1.2201	0.	0.
33	0.2475	ENVDIS	Combination	Min	-30.5359	-0.624	0.	0.
33	0.	ENVSER	Combination	Max	-16.7037	-0.4664	0.	0.
33	0.2475	ENVSER	Combination	Max	-16.7037	-0.0249	0.	0.
33	0.	ENVSER	Combination	Min	-16.9756	-0.6277	0.	0.
33	0.2475	ENVSER	Combination	Min	-16.9756	-0.1862	0.	0.
33	0.	SISMO	Combination		-17.0833	-0.6395	0.	0.
33	0.2475	SISMO	Combination		-17.0833	-0.198	0.	0.
34	0.	ENVDIS	Combination	Max	-7.1277	-0.0296	0.	0.
34	0.2475	ENVDIS	Combination	Max	-7.1277	0.4257	0.	0.
34	0.	ENVDIS	Combination	Min	-30.5359	-0.7931	0.	0.
34	0.2475	ENVDIS	Combination	Min	-30.5359	-0.1971	0.	0.
34	0.	ENVSER	Combination	Max	-16.8391	-0.2542	0.	0.
34	0.2475	ENVSER	Combination	Max	-16.8391	0.1873	0.	0.
34	0.	ENVSER	Combination	Min	-16.9756	-0.4284	0.	0.
34	0.2475	ENVSER	Combination	Min	-16.9756	0.0131	0.	0.
34	0.	SISMO	Combination		-17.0833	-0.4343	0.	0.
34	0.2475	SISMO	Combination		-17.0833	0.0072	0.	0.
35	0.	ENVDIS	Combination	Max	-7.2631	0.2267	0.	0.
35	0.2475	ENVDIS	Combination	Max	-7.2631	0.8228	0.	0.
35	0.	ENVDIS	Combination	Min	-30.5359	-0.4076	0.	0.
35	0.2475	ENVDIS	Combination	Min	-30.5359	0.1885	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
35	0.	ENVSER	Combination	Max	-16.9745	-0.0567	0.	0.
35	0.2475	ENVSER	Combination	Max	-16.9745	0.3848	0.	0.
35	0.	ENVSER	Combination	Min	-16.9756	-0.2356	0.	0.
35	0.2475	ENVSER	Combination	Min	-16.9756	0.2059	0.	0.
35	0.	SISMO	Combination		-17.0833	-0.2361	0.	0.
35	0.2475	SISMO	Combination		-17.0833	0.2055	0.	0.
36	0.	ENVDIS	Combination	Max	-7.2641	0.5887	0.	0.
36	0.2475	ENVDIS	Combination	Max	-7.2641	1.1848	0.	0.
36	0.	ENVDIS	Combination	Min	-30.5359	-0.0564	0.	0.
36	0.2475	ENVDIS	Combination	Min	-30.5359	0.4175	0.	0.
36	0.	ENVSER	Combination	Max	-16.9756	0.1329	0.	0.
36	0.2475	ENVSER	Combination	Max	-16.9756	0.5745	0.	0.
36	0.	ENVSER	Combination	Min	-17.1099	-0.0431	0.	0.
36	0.2475	ENVSER	Combination	Min	-17.1099	0.3985	0.	0.
36	0.	SISMO	Combination		-17.0833	-0.0381	0.	0.
36	0.2475	SISMO	Combination		-17.0833	0.4034	0.	0.
37	0.	ENVDIS	Combination	Max	-7.2641	0.947	0.	0.
37	0.2475	ENVDIS	Combination	Max	-7.2641	1.5431	0.	0.
37	0.	ENVDIS	Combination	Min	-30.5359	0.1905	0.	0.
37	0.2475	ENVDIS	Combination	Min	-30.5359	0.6321	0.	0.
37	0.	ENVSER	Combination	Max	-16.9756	0.3206	0.	0.
37	0.2475	ENVSER	Combination	Max	-16.9756	0.7622	0.	0.
37	0.	ENVSER	Combination	Min	-17.2453	0.1555	0.	0.
37	0.2475	ENVSER	Combination	Min	-17.2453	0.597	0.	0.
37	0.	SISMO	Combination		-17.0833	0.1663	0.	0.
37	0.2475	SISMO	Combination		-17.0833	0.6078	0.	0.
38	0.	ENVDIS	Combination	Max	-7.2641	1.3825	0.	0.
38	0.2475	ENVDIS	Combination	Max	-7.2641	1.9786	0.	0.
38	0.	ENVDIS	Combination	Min	-30.5359	0.4059	0.	0.
38	0.2475	ENVDIS	Combination	Min	-30.5359	0.8474	0.	0.
38	0.	ENVSER	Combination	Max	-16.9756	0.511	0.	0.
38	0.2475	ENVSER	Combination	Max	-16.9756	0.9526	0.	0.
38	0.	ENVSER	Combination	Min	-17.3807	0.3657	0.	0.
38	0.2475	ENVSER	Combination	Min	-17.3807	0.8073	0.	0.
38	0.	SISMO	Combination		-17.0833	0.3831	0.	0.
38	0.2475	SISMO	Combination		-17.0833	0.8246	0.	0.
39	0.	ENVDIS	Combination	Max	-7.2641	1.8691	0.	0.
39	0.2475	ENVDIS	Combination	Max	-7.2641	2.4652	0.	0.
39	0.	ENVDIS	Combination	Min	-30.5359	0.6201	0.	0.
39	0.2475	ENVDIS	Combination	Min	-30.5359	1.0616	0.	0.
39	0.	ENVSER	Combination	Max	-16.9756	0.7067	0.	0.
39	0.2475	ENVSER	Combination	Max	-16.9756	1.1483	0.	0.
39	0.	ENVSER	Combination	Min	-17.5161	0.5919	0.	0.
39	0.2475	ENVSER	Combination	Min	-17.5161	1.0335	0.	0.
39	0.	SISMO	Combination		-17.0833	0.6169	0.	0.
39	0.2475	SISMO	Combination		-17.0833	1.0585	0.	0.
40	0.	ENVDIS	Combination	Max	-7.2641	2.4044	0.	0.
40	0.2475	ENVDIS	Combination	Max	-7.2641	3.0005	0.	0.
40	0.	ENVDIS	Combination	Min	-30.7771	0.8289	0.	0.
40	0.2475	ENVDIS	Combination	Min	-30.7771	1.2705	0.	0.
40	0.	ENVSER	Combination	Max	-16.9756	0.9074	0.	0.
40	0.2475	ENVSER	Combination	Max	-16.9756	1.349	0.	0.
40	0.	ENVSER	Combination	Min	-17.6515	0.8362	0.	0.
40	0.2475	ENVSER	Combination	Min	-17.6515	1.2777	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
40	0.	SISMO	Combination		-17.0833	0.8703	0.	0.
40	0.2475	SISMO	Combination		-17.0833	1.3118	0.	0.
41	0.	ENVDIS	Combination	Max	-7.2641	3.0346	0.	0.
41	0.2475	ENVDIS	Combination	Max	-7.2641	3.6306	0.	0.
41	0.	ENVDIS	Combination	Min	-31.0781	1.0249	0.	0.
41	0.2475	ENVDIS	Combination	Min	-31.0781	1.4664	0.	0.
41	0.	ENVSER	Combination	Max	-16.9756	1.1093	0.	0.
41	0.2475	ENVSER	Combination	Max	-16.9756	1.5509	0.	0.
41	0.	ENVSER	Combination	Min	-17.7869	1.0976	0.	0.
41	0.2475	ENVSER	Combination	Min	-17.7869	1.5391	0.	0.
41	0.	SISMO	Combination		-17.0833	1.1424	0.	0.
41	0.2475	SISMO	Combination		-17.0833	1.5839	0.	0.
42	0.	ENVDIS	Combination	Max	-7.2641	3.9132	0.	0.
42	0.2475	ENVDIS	Combination	Max	-7.2641	4.5093	0.	0.
42	0.	ENVDIS	Combination	Min	-31.3791	1.0505	0.	0.
42	0.2475	ENVDIS	Combination	Min	-31.3791	1.492	0.	0.
42	0.	ENVSER	Combination	Max	-16.9756	1.3712	0.	0.
42	0.2475	ENVSER	Combination	Max	-16.9756	1.8127	0.	0.
42	0.	ENVSER	Combination	Min	-17.9223	1.3043	0.	0.
42	0.2475	ENVSER	Combination	Min	-17.9223	1.7458	0.	0.
42	0.	SISMO	Combination		-17.0833	1.4285	0.	0.
42	0.2475	SISMO	Combination		-17.0833	1.87	0.	0.
43	0.	ENVDIS	Combination	Max	-7.2641	4.8994	0.	0.
43	0.2475	ENVDIS	Combination	Max	-7.2641	5.4954	0.	0.
43	0.	ENVDIS	Combination	Min	-31.6801	0.9511	0.	0.
43	0.2475	ENVDIS	Combination	Min	-31.6801	1.3926	0.	0.
43	0.	ENVSER	Combination	Max	-16.9756	1.6471	0.	0.
43	0.2475	ENVSER	Combination	Max	-16.9756	2.0887	0.	0.
43	0.	ENVSER	Combination	Min	-18.0577	1.4789	0.	0.
43	0.2475	ENVSER	Combination	Min	-18.0577	1.9204	0.	0.
43	0.	SISMO	Combination		-17.0833	1.7185	0.	0.
43	0.2475	SISMO	Combination		-17.0833	2.16	0.	0.
44	0.	ENVDIS	Combination	Max	-7.2641	5.9528	0.	0.
44	0.2475	ENVDIS	Combination	Max	-7.2641	6.5488	0.	0.
44	0.	ENVDIS	Combination	Min	-31.9811	0.7306	0.	0.
44	0.2475	ENVDIS	Combination	Min	-31.9811	1.1722	0.	0.
44	0.	ENVSER	Combination	Max	-16.9756	1.9094	0.	0.
44	0.2475	ENVSER	Combination	Max	-16.9756	2.3509	0.	0.
44	0.	ENVSER	Combination	Min	-18.1931	1.6138	0.	0.
44	0.2475	ENVSER	Combination	Min	-18.1931	2.0553	0.	0.
44	0.	SISMO	Combination		-17.0833	1.9961	0.	0.
44	0.2475	SISMO	Combination		-17.0833	2.4377	0.	0.
45	0.	ENVDIS	Combination	Max	-7.2641	7.0252	0.	0.
45	0.2475	ENVDIS	Combination	Max	-7.2641	7.6212	0.	0.
45	0.	ENVDIS	Combination	Min	-32.2821	0.3539	0.	0.
45	0.2475	ENVDIS	Combination	Min	-32.2821	0.7954	0.	0.
45	0.	ENVSER	Combination	Max	-16.9756	2.1344	0.	0.
45	0.2475	ENVSER	Combination	Max	-16.9756	2.576	0.	0.
45	0.	ENVSER	Combination	Min	-18.3285	1.6826	0.	0.
45	0.2475	ENVSER	Combination	Min	-18.3285	2.1242	0.	0.
45	0.	SISMO	Combination		-17.0833	2.2374	0.	0.
45	0.2475	SISMO	Combination		-17.0833	2.679	0.	0.
46	0.	ENVDIS	Combination	Max	-7.2641	8.0442	0.	0.
46	0.2475	ENVDIS	Combination	Max	-7.2641	8.6403	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
46	0.	ENVDIS	Combination	Min	-32.5832	-0.219	0.	0.
46	0.2475	ENVDIS	Combination	Min	-32.5832	0.2225	0.	0.
46	0.	ENVSER	Combination	Max	-16.9756	2.2905	0.	0.
46	0.2475	ENVSER	Combination	Max	-16.9756	2.732	0.	0.
46	0.	ENVSER	Combination	Min	-18.4639	1.6517	0.	0.
46	0.2475	ENVSER	Combination	Min	-18.4639	2.0932	0.	0.
46	0.	SISMO	Combination		-17.0833	2.4096	0.	0.
46	0.2475	SISMO	Combination		-17.0833	2.8511	0.	0.
47	0.	ENVDIS	Combination	Max	-7.2641	8.909	0.	0.
47	0.2475	ENVDIS	Combination	Max	-7.2641	9.5051	0.	0.
47	0.	ENVDIS	Combination	Min	-32.8842	-1.0315	0.	0.
47	0.2475	ENVDIS	Combination	Min	-32.8842	-0.59	0.	0.
47	0.	ENVSER	Combination	Max	-16.9756	2.336	0.	0.
47	0.2475	ENVSER	Combination	Max	-16.9756	2.7776	0.	0.
47	0.	ENVSER	Combination	Min	-18.5993	1.4791	0.	0.
47	0.2475	ENVSER	Combination	Min	-18.5993	1.9206	0.	0.
47	0.	SISMO	Combination		-17.0833	2.4699	0.	0.
47	0.2475	SISMO	Combination		-17.0833	2.9115	0.	0.
48	0.	ENVDIS	Combination	Max	-7.2641	9.485	0.	0.
48	0.2475	ENVDIS	Combination	Max	-7.2641	10.0811	0.	0.
48	0.	ENVDIS	Combination	Min	-33.1852	-2.1288	0.	0.
48	0.2475	ENVDIS	Combination	Min	-33.1852	-1.6873	0.	0.
48	0.	ENVSER	Combination	Max	-16.9756	2.2191	0.	0.
48	0.2475	ENVSER	Combination	Max	-16.9756	2.6607	0.	0.
48	0.	ENVSER	Combination	Min	-18.7347	1.1147	0.	0.
48	0.2475	ENVSER	Combination	Min	-18.7347	1.5562	0.	0.
48	0.	SISMO	Combination		-17.0833	2.3646	0.	0.
48	0.2475	SISMO	Combination		-17.0833	2.8062	0.	0.
49	0.	ENVDIS	Combination	Max	-7.2641	9.6978	0.	0.
49	0.2475	ENVDIS	Combination	Max	-7.2641	10.2938	0.	0.
49	0.	ENVDIS	Combination	Min	-33.4862	-3.5547	0.	0.
49	0.2475	ENVDIS	Combination	Min	-33.4862	-3.1132	0.	0.
49	0.	ENVSER	Combination	Max	-16.9756	1.8768	0.	0.
49	0.2475	ENVSER	Combination	Max	-16.9756	2.3183	0.	0.
49	0.	ENVSER	Combination	Min	-18.8701	0.5006	0.	0.
49	0.2475	ENVSER	Combination	Min	-18.8701	0.9421	0.	0.
49	0.	SISMO	Combination		-17.0833	2.0285	0.	0.
49	0.2475	SISMO	Combination		-17.0833	2.47	0.	0.
50	0.	ENVDIS	Combination	Max	-7.2641	9.5433	0.	0.
50	0.2475	ENVDIS	Combination	Max	-7.2641	10.1394	0.	0.
50	0.	ENVDIS	Combination	Min	-33.7872	-5.348	0.	0.
50	0.2475	ENVDIS	Combination	Min	-33.7872	-4.9064	0.	0.
50	0.	ENVSER	Combination	Max	-16.9756	1.235	0.	0.
50	0.2475	ENVSER	Combination	Max	-16.9756	1.6766	0.	0.
50	0.	ENVSER	Combination	Min	-19.0055	-0.4281	0.	0.
50	0.2475	ENVSER	Combination	Min	-19.0055	0.0135	0.	0.
50	0.	SISMO	Combination		-17.0833	1.3847	0.	0.
50	0.2475	SISMO	Combination		-17.0833	1.8262	0.	0.
51	0.	ENVDIS	Combination	Max	-7.2641	8.6701	0.	0.
51	0.25594	ENVDIS	Combination	Max	-7.2641	9.2865	0.	0.
51	0.	ENVDIS	Combination	Min	-34.0882	-7.5369	0.	0.
51	0.25594	ENVDIS	Combination	Min	-34.0882	-7.0803	0.	0.
51	0.	ENVSER	Combination	Max	-16.9756	0.2098	0.	0.
51	0.25594	ENVSER	Combination	Max	-16.9756	0.6664	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
51	0.	ENVSER	Combination	Min	-19.1409	-1.741	0.	0.
51	0.25594	ENVSER	Combination	Min	-19.1409	-1.2845	0.	0.
51	0.	SISMO	Combination		-17.0833	0.3455	0.	0.
51	0.25594	SISMO	Combination		-17.0833	0.8021	0.	0.
52	0.	ENVDIS	Combination	Max	-7.2641	6.8129	0.	0.
52	0.25594	ENVDIS	Combination	Max	-7.2641	7.4293	0.	0.
52	0.	ENVDIS	Combination	Min	-34.3892	-10.242	0.	0.
52	0.25594	ENVDIS	Combination	Min	-34.3892	-9.6744	0.	0.
52	0.	ENVSER	Combination	Max	-16.9756	-1.2939	0.	0.
52	0.25594	ENVSER	Combination	Max	-16.9756	-0.8373	0.	0.
52	0.	ENVSER	Combination	Min	-19.2763	-3.5114	0.	0.
52	0.25594	ENVSER	Combination	Min	-19.2763	-3.0548	0.	0.
52	0.	SISMO	Combination		-17.0833	-1.1888	0.	0.
52	0.25594	SISMO	Combination		-17.0833	-0.7322	0.	0.
53	0.	ENVDIS	Combination	Max	-31.5287	-22.0089	0.	0.
53	0.67	ENVDIS	Combination	Max	-30.3334	-16.7394	0.	0.
53	0.67	ENVDIS	Combination	Max	-30.3334	-16.7394	0.	0.
53	1.34	ENVDIS	Combination	Max	-29.1381	-11.9187	0.	0.
53	1.34	ENVDIS	Combination	Max	-29.1381	-11.9187	0.	0.
53	2.01	ENVDIS	Combination	Max	-27.9429	-7.547	0.	0.
53	2.01	ENVDIS	Combination	Max	-27.9429	-7.547	0.	0.
53	2.68	ENVDIS	Combination	Max	-26.7476	-3.6241	0.	0.
53	2.68	ENVDIS	Combination	Max	-26.7476	-3.6241	0.	0.
53	3.35	ENVDIS	Combination	Max	-25.5523	0.7238	0.	0.
53	3.35	ENVDIS	Combination	Max	-25.5523	0.7238	0.	0.
53	4.02	ENVDIS	Combination	Max	-24.3571	5.7639	0.	0.
53	4.02	ENVDIS	Combination	Max	-24.3571	5.7639	0.	0.
53	4.69	ENVDIS	Combination	Max	-23.1618	10.1306	0.	0.
53	4.69	ENVDIS	Combination	Max	-23.1618	10.1306	0.	0.
53	5.36	ENVDIS	Combination	Max	-21.9665	13.824	0.	0.
53	5.36	ENVDIS	Combination	Max	-21.9665	13.824	0.	0.
53	6.03	ENVDIS	Combination	Max	-20.7713	16.844	0.	0.
53	6.03	ENVDIS	Combination	Max	-20.7713	16.844	0.	0.
53	6.7	ENVDIS	Combination	Max	-19.576	19.1907	0.	0.
53	0.	ENVDIS	Combination	Min	-84.3322	-46.2703	0.	0.
53	0.67	ENVDIS	Combination	Min	-82.7186	-37.073	0.	0.
53	0.67	ENVDIS	Combination	Min	-82.7186	-37.073	0.	0.
53	1.34	ENVDIS	Combination	Min	-81.105	-28.6164	0.	0.
53	1.34	ENVDIS	Combination	Min	-81.105	-28.6164	0.	0.
53	2.01	ENVDIS	Combination	Min	-79.4914	-20.9005	0.	0.
53	2.01	ENVDIS	Combination	Min	-79.4914	-20.9005	0.	0.
53	2.68	ENVDIS	Combination	Min	-77.8778	-13.9253	0.	0.
53	2.68	ENVDIS	Combination	Min	-77.8778	-13.9253	0.	0.
53	3.35	ENVDIS	Combination	Min	-76.2642	-7.6908	0.	0.
53	3.35	ENVDIS	Combination	Min	-76.2642	-7.6908	0.	0.
53	4.02	ENVDIS	Combination	Min	-74.6506	-3.5161	0.	0.
53	4.02	ENVDIS	Combination	Min	-74.6506	-3.5161	0.	0.
53	4.69	ENVDIS	Combination	Min	-73.037	-0.6824	0.	0.
53	4.69	ENVDIS	Combination	Min	-73.037	-0.6824	0.	0.
53	5.36	ENVDIS	Combination	Min	-71.4234	1.6576	0.	0.
53	5.36	ENVDIS	Combination	Min	-71.4234	1.6576	0.	0.
53	6.03	ENVDIS	Combination	Min	-69.8098	3.5038	0.	0.
53	6.03	ENVDIS	Combination	Min	-69.8098	3.5038	0.	0.
53	6.7	ENVDIS	Combination	Min	-68.1962	4.8533	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
53	0.	ENVSER	Combination	Max	-32.4068	-22.9673	0.	0.
53	0.67	ENVSER	Combination	Max	-31.2116	-17.6977	0.	0.
53	0.67	ENVSER	Combination	Max	-31.2116	-17.6977	0.	0.
53	1.34	ENVSER	Combination	Max	-30.0163	-12.8771	0.	0.
53	1.34	ENVSER	Combination	Max	-30.0163	-12.8771	0.	0.
53	2.01	ENVSER	Combination	Max	-28.821	-8.5053	0.	0.
53	2.01	ENVSER	Combination	Max	-28.821	-8.5053	0.	0.
53	2.68	ENVSER	Combination	Max	-27.6258	-4.5825	0.	0.
53	2.68	ENVSER	Combination	Max	-27.6258	-4.5825	0.	0.
53	3.35	ENVSER	Combination	Max	-26.4305	-1.1085	0.	0.
53	3.35	ENVSER	Combination	Max	-26.4305	-1.1085	0.	0.
53	4.02	ENVSER	Combination	Max	-25.2352	1.9165	0.	0.
53	4.02	ENVSER	Combination	Max	-25.2352	1.9165	0.	0.
53	4.69	ENVSER	Combination	Max	-24.04	4.4927	0.	0.
53	4.69	ENVSER	Combination	Max	-24.04	4.4927	0.	0.
53	5.36	ENVSER	Combination	Max	-22.8447	6.6199	0.	0.
53	5.36	ENVSER	Combination	Max	-22.8447	6.6199	0.	0.
53	6.03	ENVSER	Combination	Max	-21.6494	8.2983	0.	0.
53	6.03	ENVSER	Combination	Max	-21.6494	8.2983	0.	0.
53	6.7	ENVSER	Combination	Max	-20.4542	9.5306	0.	0.
53	0.	ENVSER	Combination	Min	-32.9795	-26.2139	0.	0.
53	0.67	ENVSER	Combination	Min	-31.7843	-20.4174	0.	0.
53	0.67	ENVSER	Combination	Min	-31.7843	-20.4174	0.	0.
53	1.34	ENVSER	Combination	Min	-30.589	-15.1147	0.	0.
53	1.34	ENVSER	Combination	Min	-30.589	-15.1147	0.	0.
53	2.01	ENVSER	Combination	Min	-29.3938	-10.3057	0.	0.
53	2.01	ENVSER	Combination	Min	-29.3938	-10.3057	0.	0.
53	2.68	ENVSER	Combination	Min	-28.1985	-5.9906	0.	0.
53	2.68	ENVSER	Combination	Min	-28.1985	-5.9906	0.	0.
53	3.35	ENVSER	Combination	Min	-27.0032	-2.1693	0.	0.
53	3.35	ENVSER	Combination	Min	-27.0032	-2.1693	0.	0.
53	4.02	ENVSER	Combination	Min	-25.808	1.1583	0.	0.
53	4.02	ENVSER	Combination	Min	-25.808	1.1583	0.	0.
53	4.69	ENVSER	Combination	Min	-24.6127	3.9921	0.	0.
53	4.69	ENVSER	Combination	Min	-24.6127	3.9921	0.	0.
53	5.36	ENVSER	Combination	Min	-23.4174	6.332	0.	0.
53	5.36	ENVSER	Combination	Min	-23.4174	6.332	0.	0.
53	6.03	ENVSER	Combination	Min	-22.2222	8.1782	0.	0.
53	6.03	ENVSER	Combination	Min	-22.2222	8.1782	0.	0.
53	6.7	ENVSER	Combination	Min	-21.0269	9.5277	0.	0.
53	0.	SISMO	Combination		-34.0326	-23.3009	0.	0.
53	0.67	SISMO	Combination		-32.8373	-17.9644	0.	0.
53	0.67	SISMO	Combination		-32.8373	-17.9644	0.	0.
53	1.34	SISMO	Combination		-31.6421	-13.0767	0.	0.
53	1.34	SISMO	Combination		-31.6421	-13.0767	0.	0.
53	2.01	SISMO	Combination		-30.4468	-8.638	0.	0.
53	2.01	SISMO	Combination		-30.4468	-8.638	0.	0.
53	2.68	SISMO	Combination		-29.2515	-4.6481	0.	0.
53	2.68	SISMO	Combination		-29.2515	-4.6481	0.	0.
53	3.35	SISMO	Combination		-28.0563	-1.1072	0.	0.
53	3.35	SISMO	Combination		-28.0563	-1.1072	0.	0.
53	4.02	SISMO	Combination		-26.861	1.9849	0.	0.
53	4.02	SISMO	Combination		-26.861	1.9849	0.	0.
53	4.69	SISMO	Combination		-25.6658	4.628	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
53	4.69	SISMO	Combination		-25.6658	4.628	0.	0.
53	5.36	SISMO	Combination		-24.4705	6.8223	0.	0.
53	5.36	SISMO	Combination		-24.4705	6.8223	0.	0.
53	6.03	SISMO	Combination		-23.2752	8.5676	0.	0.
53	6.03	SISMO	Combination		-23.2752	8.5676	0.	0.
53	6.7	SISMO	Combination		-22.08	9.8641	0.	0.
54	0.	ENVDIS	Combination	Max	-32.9753	40.2096	0.	0.
54	0.67	ENVDIS	Combination	Max	-31.78	31.8027	0.	0.
54	0.67	ENVDIS	Combination	Max	-31.78	31.8027	0.	0.
54	1.34	ENVDIS	Combination	Max	-30.5847	24.0693	0.	0.
54	1.34	ENVDIS	Combination	Max	-30.5847	24.0693	0.	0.
54	2.01	ENVDIS	Combination	Max	-29.3895	17.0091	0.	0.
54	2.01	ENVDIS	Combination	Max	-29.3895	17.0091	0.	0.
54	2.68	ENVDIS	Combination	Max	-28.1942	10.6224	0.	0.
54	2.68	ENVDIS	Combination	Max	-28.1942	10.6224	0.	0.
54	3.35	ENVDIS	Combination	Max	-26.9989	5.7829	0.	0.
54	3.35	ENVDIS	Combination	Max	-26.9989	5.7829	0.	0.
54	4.02	ENVDIS	Combination	Max	-25.8037	2.7579	0.	0.
54	4.02	ENVDIS	Combination	Max	-25.8037	2.7579	0.	0.
54	4.69	ENVDIS	Combination	Max	-24.6084	0.1817	0.	0.
54	4.69	ENVDIS	Combination	Max	-24.6084	0.1817	0.	0.
54	5.36	ENVDIS	Combination	Max	-23.4132	-1.9455	0.	0.
54	5.36	ENVDIS	Combination	Max	-23.4132	-1.9455	0.	0.
54	6.03	ENVDIS	Combination	Max	-22.2179	-3.6239	0.	0.
54	6.03	ENVDIS	Combination	Max	-22.2179	-3.6239	0.	0.
54	6.7	ENVDIS	Combination	Max	-21.0226	-4.8533	0.	0.
54	0.	ENVDIS	Combination	Min	-83.3586	18.7566	0.	0.
54	0.67	ENVDIS	Combination	Min	-81.745	14.014	0.	0.
54	0.67	ENVDIS	Combination	Min	-81.745	14.014	0.	0.
54	1.34	ENVDIS	Combination	Min	-80.1314	9.6754	0.	0.
54	1.34	ENVDIS	Combination	Min	-80.1314	9.6754	0.	0.
54	2.01	ENVDIS	Combination	Min	-78.5178	5.7408	0.	0.
54	2.01	ENVDIS	Combination	Min	-78.5178	5.7408	0.	0.
54	2.68	ENVDIS	Combination	Min	-76.9042	1.1857	0.	0.
54	2.68	ENVDIS	Combination	Min	-76.9042	1.1857	0.	0.
54	3.35	ENVDIS	Combination	Min	-75.2906	-3.5389	0.	0.
54	3.35	ENVDIS	Combination	Min	-75.2906	-3.5389	0.	0.
54	4.02	ENVDIS	Combination	Min	-73.677	-7.653	0.	0.
54	4.02	ENVDIS	Combination	Min	-73.677	-7.653	0.	0.
54	4.69	ENVDIS	Combination	Min	-72.0634	-11.1566	0.	0.
54	4.69	ENVDIS	Combination	Min	-72.0634	-11.1566	0.	0.
54	5.36	ENVDIS	Combination	Min	-70.4498	-14.0496	0.	0.
54	5.36	ENVDIS	Combination	Min	-70.4498	-14.0496	0.	0.
54	6.03	ENVDIS	Combination	Min	-68.8362	-16.844	0.	0.
54	6.03	ENVDIS	Combination	Min	-68.8362	-16.844	0.	0.
54	6.7	ENVDIS	Combination	Min	-67.2225	-19.1907	0.	0.
54	0.	ENVSER	Combination	Max	-32.9753	22.9673	0.	0.
54	0.67	ENVSER	Combination	Max	-31.78	17.6977	0.	0.
54	0.67	ENVSER	Combination	Max	-31.78	17.6977	0.	0.
54	1.34	ENVSER	Combination	Max	-30.5847	12.8771	0.	0.
54	1.34	ENVSER	Combination	Max	-30.5847	12.8771	0.	0.
54	2.01	ENVSER	Combination	Max	-29.3895	8.5053	0.	0.
54	2.01	ENVSER	Combination	Max	-29.3895	8.5053	0.	0.
54	2.68	ENVSER	Combination	Max	-28.1942	4.5825	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
54	2.68	ENVSER	Combination	Max	-28.1942	4.5825	0.	0.
54	3.35	ENVSER	Combination	Max	-26.9989	1.1085	0.	0.
54	3.35	ENVSER	Combination	Max	-26.9989	1.1085	0.	0.
54	4.02	ENVSER	Combination	Max	-25.8037	-1.9165	0.	0.
54	4.02	ENVSER	Combination	Max	-25.8037	-1.9165	0.	0.
54	4.69	ENVSER	Combination	Max	-24.6084	-4.4927	0.	0.
54	4.69	ENVSER	Combination	Max	-24.6084	-4.4927	0.	0.
54	5.36	ENVSER	Combination	Max	-23.4131	-6.6199	0.	0.
54	5.36	ENVSER	Combination	Max	-23.4131	-6.6199	0.	0.
54	6.03	ENVSER	Combination	Max	-22.2179	-8.2983	0.	0.
54	6.03	ENVSER	Combination	Max	-22.2179	-8.2983	0.	0.
54	6.7	ENVSER	Combination	Max	-21.0226	-9.5277	0.	0.
54	0.	ENVSER	Combination	Min	-33.548	19.7149	0.	0.
54	0.67	ENVSER	Combination	Min	-32.3527	14.9723	0.	0.
54	0.67	ENVSER	Combination	Min	-32.3527	14.9723	0.	0.
54	1.34	ENVSER	Combination	Min	-31.1575	10.6337	0.	0.
54	1.34	ENVSER	Combination	Min	-31.1575	10.6337	0.	0.
54	2.01	ENVSER	Combination	Min	-29.9622	6.6991	0.	0.
54	2.01	ENVSER	Combination	Min	-29.9622	6.6991	0.	0.
54	2.68	ENVSER	Combination	Min	-28.7669	3.1686	0.	0.
54	2.68	ENVSER	Combination	Min	-28.7669	3.1686	0.	0.
54	3.35	ENVSER	Combination	Min	-27.5717	0.042	0.	0.
54	3.35	ENVSER	Combination	Min	-27.5717	0.042	0.	0.
54	4.02	ENVSER	Combination	Min	-26.3764	-2.6805	0.	0.
54	4.02	ENVSER	Combination	Min	-26.3764	-2.6805	0.	0.
54	4.69	ENVSER	Combination	Min	-25.1811	-4.9991	0.	0.
54	4.69	ENVSER	Combination	Min	-25.1811	-4.9991	0.	0.
54	5.36	ENVSER	Combination	Min	-23.9859	-6.9136	0.	0.
54	5.36	ENVSER	Combination	Min	-23.9859	-6.9136	0.	0.
54	6.03	ENVSER	Combination	Min	-22.7906	-8.4241	0.	0.
54	6.03	ENVSER	Combination	Min	-22.7906	-8.4241	0.	0.
54	6.7	ENVSER	Combination	Min	-21.5953	-9.5306	0.	0.
54	0.	SISMO	Combination		-34.0282	23.3009	0.	0.
54	0.67	SISMO	Combination		-32.8329	17.9644	0.	0.
54	0.67	SISMO	Combination		-32.8329	17.9644	0.	0.
54	1.34	SISMO	Combination		-31.6377	13.0767	0.	0.
54	1.34	SISMO	Combination		-31.6377	13.0767	0.	0.
54	2.01	SISMO	Combination		-30.4424	8.638	0.	0.
54	2.01	SISMO	Combination		-30.4424	8.638	0.	0.
54	2.68	SISMO	Combination		-29.2471	4.6481	0.	0.
54	2.68	SISMO	Combination		-29.2471	4.6481	0.	0.
54	3.35	SISMO	Combination		-28.0519	1.1072	0.	0.
54	3.35	SISMO	Combination		-28.0519	1.1072	0.	0.
54	4.02	SISMO	Combination		-26.8566	-1.9849	0.	0.
54	4.02	SISMO	Combination		-26.8566	-1.9849	0.	0.
54	4.69	SISMO	Combination		-25.6614	-4.628	0.	0.
54	4.69	SISMO	Combination		-25.6614	-4.628	0.	0.
54	5.36	SISMO	Combination		-24.4661	-6.8223	0.	0.
54	5.36	SISMO	Combination		-24.4661	-6.8223	0.	0.
54	6.03	SISMO	Combination		-23.2708	-8.5676	0.	0.
54	6.03	SISMO	Combination		-23.2708	-8.5676	0.	0.
54	6.7	SISMO	Combination		-22.0756	-9.8641	0.	0.
55	0.	ENVDIS	Combination	Max	-4.8533	-21.0226	0.	0.
55	0.00254	ENVDIS	Combination	Max	-4.8533	-21.0135	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	0.00254	ENVDIS	Combination	Max	-4.8533	-21.0135	0.	0.
55	0.48983	ENVDIS	Combination	Max	-4.8533	-19.2622	0.	0.
55	0.97712	ENVDIS	Combination	Max	-4.8533	-17.5109	0.	0.
55	0.97712	ENVDIS	Combination	Max	-4.8533	-17.5109	0.	0.
55	1.17	ENVDIS	Combination	Max	-4.8533	-16.8177	0.	0.
55	1.17	ENVDIS	Combination	Max	-4.8533	-16.8177	0.	0.
55	1.56085	ENVDIS	Combination	Max	-4.8533	-15.413	0.	0.
55	1.95169	ENVDIS	Combination	Max	-4.8533	-14.0083	0.	0.
55	1.95169	ENVDIS	Combination	Max	-4.8533	-14.0083	0.	0.
55	2.34	ENVDIS	Combination	Max	-4.8533	-12.6127	0.	0.
55	2.34	ENVDIS	Combination	Max	-4.8533	-12.6127	0.	0.
55	2.63314	ENVDIS	Combination	Max	-4.8533	-11.5592	0.	0.
55	2.92627	ENVDIS	Combination	Max	-4.8533	-10.5057	0.	0.
55	2.92627	ENVDIS	Combination	Max	-4.8533	-10.5057	0.	0.
55	3.21814	ENVDIS	Combination	Max	-4.8533	-9.4567	0.	0.
55	3.51	ENVDIS	Combination	Max	-4.8533	-8.4078	0.	0.
55	3.51	ENVDIS	Combination	Max	-4.8533	-8.4078	0.	0.
55	3.90085	ENVDIS	Combination	Max	-4.8533	-5.5256	0.	0.
55	3.90085	ENVDIS	Combination	Max	-4.8533	-5.5256	0.	0.
55	4.29042	ENVDIS	Combination	Max	-4.8533	-2.142	0.	0.
55	4.68	ENVDIS	Combination	Max	-4.8533	0.3948	0.	0.
55	4.68	ENVDIS	Combination	Max	-4.8533	0.3948	0.	0.
55	4.87542	ENVDIS	Combination	Max	-4.8533	3.3207	0.	0.
55	4.87542	ENVDIS	Combination	Max	-4.8533	3.3207	0.	0.
55	5.36271	ENVDIS	Combination	Max	-4.8533	6.4954	0.	0.
55	5.85	ENVDIS	Combination	Max	-4.8533	9.67	0.	0.
55	5.85	ENVDIS	Combination	Max	-4.8533	12.2697	0.	0.
55	6.33729	ENVDIS	Combination	Max	-4.8533	16.7744	0.	0.
55	6.82458	ENVDIS	Combination	Max	-4.8533	21.2791	0.	0.
55	6.82458	ENVDIS	Combination	Max	-4.8533	21.2791	0.	0.
55	7.02	ENVDIS	Combination	Max	-4.8533	22.9344	0.	0.
55	7.02	ENVDIS	Combination	Max	-4.8533	22.9344	0.	0.
55	7.40958	ENVDIS	Combination	Max	-4.8533	26.6203	0.	0.
55	7.79915	ENVDIS	Combination	Max	-4.8533	30.3063	0.	0.
55	7.79915	ENVDIS	Combination	Max	-4.8533	30.3063	0.	0.
55	8.19	ENVDIS	Combination	Max	-4.8533	33.1448	0.	0.
55	8.19	ENVDIS	Combination	Max	-4.8533	33.1448	0.	0.
55	8.48187	ENVDIS	Combination	Max	-4.8533	36.227	0.	0.
55	8.77373	ENVDIS	Combination	Max	-4.8533	39.3092	0.	0.
55	8.77373	ENVDIS	Combination	Max	-4.8533	39.3092	0.	0.
55	9.06687	ENVDIS	Combination	Max	-4.8533	41.3137	0.	0.
55	9.36	ENVDIS	Combination	Max	-4.8533	43.3183	0.	0.
55	9.36	ENVDIS	Combination	Max	-4.8533	43.3183	0.	0.
55	9.74831	ENVDIS	Combination	Max	-4.8533	48.2451	0.	0.
55	9.74831	ENVDIS	Combination	Max	-4.8533	48.2451	0.	0.
55	10.13915	ENVDIS	Combination	Max	-4.8533	51.6384	0.	0.
55	10.53	ENVDIS	Combination	Max	-4.8533	54.2459	0.	0.
55	10.53	ENVDIS	Combination	Max	-4.8533	54.2459	0.	0.
55	10.72288	ENVDIS	Combination	Max	-4.8533	57.0719	0.	0.
55	10.72288	ENVDIS	Combination	Max	-4.8533	57.0719	0.	0.
55	11.21017	ENVDIS	Combination	Max	-4.8533	61.4095	0.	0.
55	11.69746	ENVDIS	Combination	Max	-4.8533	65.9373	0.	0.
55	11.69746	ENVDIS	Combination	Max	-4.8533	65.9373	0.	0.
55	11.7	ENVDIS	Combination	Max	-4.8533	67.9683	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	0.	ENVDIS	Combination	Min	-19.1907	-67.2225	0.	0.
55	0.00254	ENVDIS	Combination	Min	-19.1907	-67.1898	0.	0.
55	0.00254	ENVDIS	Combination	Min	-19.1907	-67.1898	0.	0.
55	0.48983	ENVDIS	Combination	Min	-19.1907	-62.8522	0.	0.
55	0.97712	ENVDIS	Combination	Min	-19.1907	-58.5146	0.	0.
55	0.97712	ENVDIS	Combination	Min	-19.1907	-58.5146	0.	0.
55	1.17	ENVDIS	Combination	Min	-19.1907	-55.7043	0.	0.
55	1.17	ENVDIS	Combination	Min	-19.1907	-55.7043	0.	0.
55	1.56085	ENVDIS	Combination	Min	-19.1907	-53.0348	0.	0.
55	1.95169	ENVDIS	Combination	Min	-19.1907	-49.6878	0.	0.
55	1.95169	ENVDIS	Combination	Min	-19.1907	-49.6878	0.	0.
55	2.34	ENVDIS	Combination	Min	-19.1907	-44.761	0.	0.
55	2.34	ENVDIS	Combination	Min	-19.1907	-44.761	0.	0.
55	2.63314	ENVDIS	Combination	Min	-19.1907	-42.7564	0.	0.
55	2.92627	ENVDIS	Combination	Min	-19.1907	-40.7519	0.	0.
55	2.92627	ENVDIS	Combination	Min	-19.1907	-40.7519	0.	0.
55	3.21814	ENVDIS	Combination	Min	-19.1907	-37.6697	0.	0.
55	3.51	ENVDIS	Combination	Min	-19.1907	-34.5875	0.	0.
55	3.51	ENVDIS	Combination	Min	-19.1907	-34.5875	0.	0.
55	3.90085	ENVDIS	Combination	Min	-19.1907	-31.749	0.	0.
55	3.90085	ENVDIS	Combination	Min	-19.1907	-31.749	0.	0.
55	4.29042	ENVDIS	Combination	Min	-19.1907	-28.063	0.	0.
55	4.68	ENVDIS	Combination	Min	-19.1907	-24.3771	0.	0.
55	4.68	ENVDIS	Combination	Min	-19.1907	-24.3771	0.	0.
55	4.87542	ENVDIS	Combination	Min	-19.1907	-22.7218	0.	0.
55	4.87542	ENVDIS	Combination	Min	-19.1907	-22.7218	0.	0.
55	5.36271	ENVDIS	Combination	Min	-19.1907	-18.4468	0.	0.
55	5.85	ENVDIS	Combination	Min	-19.1907	-14.1718	0.	0.
55	5.85	ENVDIS	Combination	Min	-19.1907	-13.7124	0.	0.
55	6.33729	ENVDIS	Combination	Min	-19.1907	-9.2379	0.	0.
55	6.82458	ENVDIS	Combination	Min	-19.1907	-4.7634	0.	0.
55	6.82458	ENVDIS	Combination	Min	-19.1907	-4.7634	0.	0.
55	7.02	ENVDIS	Combination	Min	-19.1907	-1.8532	0.	0.
55	7.02	ENVDIS	Combination	Min	-19.1907	-1.8532	0.	0.
55	7.40958	ENVDIS	Combination	Min	-19.1907	0.7331	0.	0.
55	7.79915	ENVDIS	Combination	Min	-19.1907	4.0829	0.	0.
55	7.79915	ENVDIS	Combination	Min	-19.1907	4.0829	0.	0.
55	8.19	ENVDIS	Combination	Min	-19.1907	6.9612	0.	0.
55	8.19	ENVDIS	Combination	Min	-19.1907	6.9612	0.	0.
55	8.48187	ENVDIS	Combination	Min	-19.1907	8.0101	0.	0.
55	8.77373	ENVDIS	Combination	Min	-19.1907	9.0591	0.	0.
55	8.77373	ENVDIS	Combination	Min	-19.1907	9.0591	0.	0.
55	9.06687	ENVDIS	Combination	Min	-19.1907	10.1126	0.	0.
55	9.36	ENVDIS	Combination	Min	-19.1907	11.1661	0.	0.
55	9.36	ENVDIS	Combination	Min	-19.1907	11.1661	0.	0.
55	9.74831	ENVDIS	Combination	Min	-19.1907	12.5617	0.	0.
55	9.74831	ENVDIS	Combination	Min	-19.1907	12.5617	0.	0.
55	10.13915	ENVDIS	Combination	Min	-19.1907	13.9664	0.	0.
55	10.53	ENVDIS	Combination	Min	-19.1907	15.3711	0.	0.
55	10.53	ENVDIS	Combination	Min	-19.1907	15.3711	0.	0.
55	10.72288	ENVDIS	Combination	Min	-19.1907	16.0643	0.	0.
55	10.72288	ENVDIS	Combination	Min	-19.1907	16.0643	0.	0.
55	11.21017	ENVDIS	Combination	Min	-19.1907	17.8156	0.	0.
55	11.69746	ENVDIS	Combination	Min	-19.1907	19.5669	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	11.69746	ENVDIS	Combination	Min	-19.1907	19.5669	0.	0.
55	11.7	ENVDIS	Combination	Min	-19.1907	19.576	0.	0.
55	0.	ENVSER	Combination	Max	-9.5277	-21.0226	0.	0.
55	0.00254	ENVSER	Combination	Max	-9.5277	-21.0135	0.	0.
55	0.00254	ENVSER	Combination	Max	-9.5277	-21.0135	0.	0.
55	0.48983	ENVSER	Combination	Max	-9.5277	-19.2622	0.	0.
55	0.97712	ENVSER	Combination	Max	-9.5277	-17.5109	0.	0.
55	0.97712	ENVSER	Combination	Max	-9.5277	-17.5109	0.	0.
55	1.17	ENVSER	Combination	Max	-9.5277	-16.8177	0.	0.
55	1.17	ENVSER	Combination	Max	-9.5277	-16.8177	0.	0.
55	1.56085	ENVSER	Combination	Max	-9.5277	-15.413	0.	0.
55	1.95169	ENVSER	Combination	Max	-9.5277	-14.0083	0.	0.
55	1.95169	ENVSER	Combination	Max	-9.5277	-14.0083	0.	0.
55	2.34	ENVSER	Combination	Max	-9.5277	-12.6127	0.	0.
55	2.34	ENVSER	Combination	Max	-9.5277	-12.6127	0.	0.
55	2.63314	ENVSER	Combination	Max	-9.5277	-11.5592	0.	0.
55	2.92627	ENVSER	Combination	Max	-9.5277	-10.5057	0.	0.
55	2.92627	ENVSER	Combination	Max	-9.5277	-10.5057	0.	0.
55	3.21814	ENVSER	Combination	Max	-9.5277	-9.4567	0.	0.
55	3.51	ENVSER	Combination	Max	-9.5277	-8.4078	0.	0.
55	3.51	ENVSER	Combination	Max	-9.5277	-8.4078	0.	0.
55	3.90085	ENVSER	Combination	Max	-9.5277	-7.0031	0.	0.
55	3.90085	ENVSER	Combination	Max	-9.5277	-7.0031	0.	0.
55	4.29042	ENVSER	Combination	Max	-9.5277	-5.6029	0.	0.
55	4.68	ENVSER	Combination	Max	-9.5277	-4.2028	0.	0.
55	4.68	ENVSER	Combination	Max	-9.5277	-4.2028	0.	0.
55	4.87542	ENVSER	Combination	Max	-9.5277	-3.5005	0.	0.
55	4.87542	ENVSER	Combination	Max	-9.5277	-3.5005	0.	0.
55	5.36271	ENVSER	Combination	Max	-9.5277	-1.7492	0.	0.
55	5.85	ENVSER	Combination	Max	-9.5277	0.0021	0.	0.
55	5.85	ENVSER	Combination	Max	-9.5277	0.0021	0.	0.
55	6.33729	ENVSER	Combination	Max	-9.5277	1.7534	0.	0.
55	6.82458	ENVSER	Combination	Max	-9.5277	3.5048	0.	0.
55	6.82458	ENVSER	Combination	Max	-9.5277	3.5048	0.	0.
55	7.02	ENVSER	Combination	Max	-9.5277	4.2071	0.	0.
55	7.02	ENVSER	Combination	Max	-9.5277	4.2071	0.	0.
55	7.40958	ENVSER	Combination	Max	-9.5277	5.6072	0.	0.
55	7.79915	ENVSER	Combination	Max	-9.5277	7.0074	0.	0.
55	7.79915	ENVSER	Combination	Max	-9.5277	7.0074	0.	0.
55	8.19	ENVSER	Combination	Max	-9.5277	8.412	0.	0.
55	8.19	ENVSER	Combination	Max	-9.5277	8.412	0.	0.
55	8.48187	ENVSER	Combination	Max	-9.5277	9.461	0.	0.
55	8.77373	ENVSER	Combination	Max	-9.5277	10.51	0.	0.
55	8.77373	ENVSER	Combination	Max	-9.5277	10.51	0.	0.
55	9.06687	ENVSER	Combination	Max	-9.5277	11.5635	0.	0.
55	9.36	ENVSER	Combination	Max	-9.5277	12.617	0.	0.
55	9.36	ENVSER	Combination	Max	-9.5277	12.617	0.	0.
55	9.74831	ENVSER	Combination	Max	-9.5277	14.0126	0.	0.
55	9.74831	ENVSER	Combination	Max	-9.5277	14.0126	0.	0.
55	10.13915	ENVSER	Combination	Max	-9.5277	15.4173	0.	0.
55	10.53	ENVSER	Combination	Max	-9.5277	16.822	0.	0.
55	10.53	ENVSER	Combination	Max	-9.5277	16.822	0.	0.
55	10.72288	ENVSER	Combination	Max	-9.5277	17.5152	0.	0.
55	10.72288	ENVSER	Combination	Max	-9.5277	17.5152	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	11.21017	ENVSER	Combination	Max	-9.5277	19.2665	0.	0.
55	11.69746	ENVSER	Combination	Max	-9.5277	21.0178	0.	0.
55	11.69746	ENVSER	Combination	Max	-9.5277	21.0178	0.	0.
55	11.7	ENVSER	Combination	Max	-9.5277	21.0269	0.	0.
55	0.	ENVSER	Combination	Min	-9.5306	-21.5953	0.	0.
55	0.00254	ENVSER	Combination	Min	-9.5306	-21.5862	0.	0.
55	0.00254	ENVSER	Combination	Min	-9.5306	-21.5862	0.	0.
55	0.48983	ENVSER	Combination	Min	-9.5306	-19.8349	0.	0.
55	0.97712	ENVSER	Combination	Min	-9.5306	-18.0836	0.	0.
55	0.97712	ENVSER	Combination	Min	-9.5306	-18.0836	0.	0.
55	1.17	ENVSER	Combination	Min	-9.5306	-17.3904	0.	0.
55	1.17	ENVSER	Combination	Min	-9.5306	-17.3904	0.	0.
55	1.56085	ENVSER	Combination	Min	-9.5306	-15.9857	0.	0.
55	1.95169	ENVSER	Combination	Min	-9.5306	-14.581	0.	0.
55	1.95169	ENVSER	Combination	Min	-9.5306	-14.581	0.	0.
55	2.34	ENVSER	Combination	Min	-9.5306	-13.1854	0.	0.
55	2.34	ENVSER	Combination	Min	-9.5306	-13.1854	0.	0.
55	2.63314	ENVSER	Combination	Min	-9.5306	-12.1319	0.	0.
55	2.92627	ENVSER	Combination	Min	-9.5306	-11.0784	0.	0.
55	2.92627	ENVSER	Combination	Min	-9.5306	-11.0784	0.	0.
55	3.21814	ENVSER	Combination	Min	-9.5306	-10.0294	0.	0.
55	3.51	ENVSER	Combination	Min	-9.5306	-8.9805	0.	0.
55	3.51	ENVSER	Combination	Min	-9.5306	-8.9805	0.	0.
55	3.90085	ENVSER	Combination	Min	-9.5306	-7.5758	0.	0.
55	3.90085	ENVSER	Combination	Min	-9.5306	-7.5758	0.	0.
55	4.29042	ENVSER	Combination	Min	-9.5306	-6.1757	0.	0.
55	4.68	ENVSER	Combination	Min	-9.5306	-4.7755	0.	0.
55	4.68	ENVSER	Combination	Min	-9.5306	-4.7755	0.	0.
55	4.87542	ENVSER	Combination	Min	-9.5306	-4.0732	0.	0.
55	4.87542	ENVSER	Combination	Min	-9.5306	-4.0732	0.	0.
55	5.36271	ENVSER	Combination	Min	-9.5306	-2.3219	0.	0.
55	5.85	ENVSER	Combination	Min	-9.5306	-0.5706	0.	0.
55	5.85	ENVSER	Combination	Min	-9.5306	-0.5706	0.	0.
55	6.33729	ENVSER	Combination	Min	-9.5306	1.1807	0.	0.
55	6.82458	ENVSER	Combination	Min	-9.5306	2.932	0.	0.
55	6.82458	ENVSER	Combination	Min	-9.5306	2.932	0.	0.
55	7.02	ENVSER	Combination	Min	-9.5306	3.6344	0.	0.
55	7.02	ENVSER	Combination	Min	-9.5306	3.6344	0.	0.
55	7.40958	ENVSER	Combination	Min	-9.5306	5.0345	0.	0.
55	7.79915	ENVSER	Combination	Min	-9.5306	6.4346	0.	0.
55	7.79915	ENVSER	Combination	Min	-9.5306	6.4346	0.	0.
55	8.19	ENVSER	Combination	Min	-9.5306	7.8393	0.	0.
55	8.19	ENVSER	Combination	Min	-9.5306	7.8393	0.	0.
55	8.48187	ENVSER	Combination	Min	-9.5306	8.8883	0.	0.
55	8.77373	ENVSER	Combination	Min	-9.5306	9.9372	0.	0.
55	8.77373	ENVSER	Combination	Min	-9.5306	9.9372	0.	0.
55	9.06687	ENVSER	Combination	Min	-9.5306	10.9908	0.	0.
55	9.36	ENVSER	Combination	Min	-9.5306	12.0443	0.	0.
55	9.36	ENVSER	Combination	Min	-9.5306	12.0443	0.	0.
55	9.74831	ENVSER	Combination	Min	-9.5306	13.4398	0.	0.
55	9.74831	ENVSER	Combination	Min	-9.5306	13.4398	0.	0.
55	10.13915	ENVSER	Combination	Min	-9.5306	14.8445	0.	0.
55	10.53	ENVSER	Combination	Min	-9.5306	16.2492	0.	0.
55	10.53	ENVSER	Combination	Min	-9.5306	16.2492	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	10.72288	ENVSER	Combination	Min	-9.5306	16.9424	0.	0.
55	10.72288	ENVSER	Combination	Min	-9.5306	16.9424	0.	0.
55	11.21017	ENVSER	Combination	Min	-9.5306	18.6937	0.	0.
55	11.69746	ENVSER	Combination	Min	-9.5306	20.445	0.	0.
55	11.69746	ENVSER	Combination	Min	-9.5306	20.445	0.	0.
55	11.7	ENVSER	Combination	Min	-9.5306	20.4542	0.	0.
55	0.	SISMO	Combination		-9.8641	-22.0756	0.	0.
55	0.00254	SISMO	Combination		-9.8641	-22.066	0.	0.
55	0.00254	SISMO	Combination		-9.8641	-22.066	0.	0.
55	0.48983	SISMO	Combination		-9.8641	-20.227	0.	0.
55	0.97712	SISMO	Combination		-9.8641	-18.3879	0.	0.
55	0.97712	SISMO	Combination		-9.8641	-18.3879	0.	0.
55	1.17	SISMO	Combination		-9.8641	-17.66	0.	0.
55	1.17	SISMO	Combination		-9.8641	-17.66	0.	0.
55	1.56085	SISMO	Combination		-9.8641	-16.185	0.	0.
55	1.95169	SISMO	Combination		-9.8641	-14.7099	0.	0.
55	1.95169	SISMO	Combination		-9.8641	-14.7099	0.	0.
55	2.34	SISMO	Combination		-9.8641	-13.2445	0.	0.
55	2.34	SISMO	Combination		-9.8641	-13.2445	0.	0.
55	2.63314	SISMO	Combination		-9.8641	-12.1382	0.	0.
55	2.92627	SISMO	Combination		-9.8641	-11.0319	0.	0.
55	2.92627	SISMO	Combination		-9.8641	-11.0319	0.	0.
55	3.21814	SISMO	Combination		-9.8641	-9.9304	0.	0.
55	3.51	SISMO	Combination		-9.8641	-8.8289	0.	0.
55	3.51	SISMO	Combination		-9.8641	-8.8289	0.	0.
55	3.90085	SISMO	Combination		-9.8641	-7.3539	0.	0.
55	3.90085	SISMO	Combination		-9.8641	-7.3539	0.	0.
55	4.29042	SISMO	Combination		-9.8641	-5.8836	0.	0.
55	4.68	SISMO	Combination		-9.8641	-4.4134	0.	0.
55	4.68	SISMO	Combination		-9.8641	-4.4134	0.	0.
55	4.87542	SISMO	Combination		-9.8641	-3.6758	0.	0.
55	4.87542	SISMO	Combination		-9.8641	-3.6758	0.	0.
55	5.36271	SISMO	Combination		-9.8641	-1.8368	0.	0.
55	5.85	SISMO	Combination		-9.8641	0.0022	0.	0.
55	5.85	SISMO	Combination		-9.8641	0.0022	0.	0.
55	6.33729	SISMO	Combination		-9.8641	1.8412	0.	0.
55	6.82458	SISMO	Combination		-9.8641	3.6802	0.	0.
55	6.82458	SISMO	Combination		-9.8641	3.6802	0.	0.
55	7.02	SISMO	Combination		-9.8641	4.4178	0.	0.
55	7.02	SISMO	Combination		-9.8641	4.4178	0.	0.
55	7.40958	SISMO	Combination		-9.8641	5.888	0.	0.
55	7.79915	SISMO	Combination		-9.8641	7.3583	0.	0.
55	7.79915	SISMO	Combination		-9.8641	7.3583	0.	0.
55	8.19	SISMO	Combination		-9.8641	8.8333	0.	0.
55	8.19	SISMO	Combination		-9.8641	8.8333	0.	0.
55	8.48187	SISMO	Combination		-9.8641	9.9348	0.	0.
55	8.77373	SISMO	Combination		-9.8641	11.0363	0.	0.
55	8.77373	SISMO	Combination		-9.8641	11.0363	0.	0.
55	9.06687	SISMO	Combination		-9.8641	12.1426	0.	0.
55	9.36	SISMO	Combination		-9.8641	13.2489	0.	0.
55	9.36	SISMO	Combination		-9.8641	13.2489	0.	0.
55	9.74831	SISMO	Combination		-9.8641	14.7143	0.	0.
55	9.74831	SISMO	Combination		-9.8641	14.7143	0.	0.
55	10.13915	SISMO	Combination		-9.8641	16.1894	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
55	10.53	SISMO	Combination		-9.8641	17.6644	0.	0.
55	10.53	SISMO	Combination		-9.8641	17.6644	0.	0.
55	10.72288	SISMO	Combination		-9.8641	18.3923	0.	0.
55	10.72288	SISMO	Combination		-9.8641	18.3923	0.	0.
55	11.21017	SISMO	Combination		-9.8641	20.2314	0.	0.
55	11.69746	SISMO	Combination		-9.8641	22.0704	0.	0.
55	11.69746	SISMO	Combination		-9.8641	22.0704	0.	0.
55	11.7	SISMO	Combination		-9.8641	22.08	0.	0.
56	0.	ENVDIS	Combination	Max	-7.2641	3.6637	0.	0.
56	0.25594	ENVDIS	Combination	Max	-7.2641	4.2801	0.	0.
56	0.	ENVDIS	Combination	Min	-34.6902	-14.2508	0.	0.
56	0.25594	ENVDIS	Combination	Min	-34.6902	-13.6344	0.	0.
56	0.	ENVSER	Combination	Max	-16.9756	-3.3948	0.	0.
56	0.25594	ENVSER	Combination	Max	-16.9756	-2.9382	0.	0.
56	0.	ENVSER	Combination	Min	-19.4117	-5.8269	0.	0.
56	0.25594	ENVSER	Combination	Min	-19.4117	-5.3704	0.	0.
56	0.	SISMO	Combination		-17.0833	-3.3421	0.	0.
56	0.25594	SISMO	Combination		-17.0833	-2.8855	0.	0.
57	0.	ENVDIS	Combination	Max	-7.2641	-1.0813	0.	0.
57	0.25594	ENVDIS	Combination	Max	-7.2641	-0.4649	0.	0.
57	0.	ENVDIS	Combination	Min	-34.9912	-18.9778	0.	0.
57	0.25594	ENVDIS	Combination	Min	-34.9912	-18.3614	0.	0.
57	0.	ENVSER	Combination	Max	-16.9756	-6.1961	0.	0.
57	0.25594	ENVSER	Combination	Max	-16.9756	-5.7395	0.	0.
57	0.	ENVSER	Combination	Min	-19.5471	-8.7504	0.	0.
57	0.25594	ENVSER	Combination	Min	-19.5471	-8.2938	0.	0.
57	0.	SISMO	Combination		-17.0833	-6.2235	0.	0.
57	0.25594	SISMO	Combination		-17.0833	-5.7669	0.	0.
58	0.	ENVDIS	Combination	Max	-7.2641	-7.7345	0.	0.
58	0.25594	ENVDIS	Combination	Max	-7.2641	-7.1181	0.	0.
58	0.	ENVDIS	Combination	Min	-35.2923	-25.0909	0.	0.
58	0.25594	ENVDIS	Combination	Min	-35.2923	-24.4745	0.	0.
58	0.	ENVSER	Combination	Max	-16.9756	-9.7924	0.	0.
58	0.25594	ENVSER	Combination	Max	-16.9756	-9.3358	0.	0.
58	0.	ENVSER	Combination	Min	-19.6825	-12.3245	0.	0.
58	0.25594	ENVSER	Combination	Min	-19.6825	-11.8679	0.	0.
58	0.	SISMO	Combination		-17.0833	-9.9337	0.	0.
58	0.25594	SISMO	Combination		-17.0833	-9.4771	0.	0.
59	0.	ENVDIS	Combination	Max	-7.2641	-16.4372	0.	0.
59	0.25594	ENVDIS	Combination	Max	-7.2641	-15.8208	0.	0.
59	0.	ENVDIS	Combination	Min	-35.5933	-35.964	0.	0.
59	0.25594	ENVDIS	Combination	Min	-35.5933	-35.3476	0.	0.
59	0.	ENVSER	Combination	Max	-16.9756	-14.2583	0.	0.
59	0.25594	ENVSER	Combination	Max	-16.9756	-13.8017	0.	0.
59	0.	ENVSER	Combination	Min	-19.8178	-16.5603	0.	0.
59	0.25594	ENVSER	Combination	Min	-19.8178	-16.1037	0.	0.
59	0.	SISMO	Combination		-17.0833	-14.5537	0.	0.
59	0.25594	SISMO	Combination		-17.0833	-14.0971	0.	0.
60	0.	ENVDIS	Combination	Max	-7.2641	-23.2411	0.	0.
60	0.25594	ENVDIS	Combination	Max	-7.2641	-22.7845	0.	0.
60	0.	ENVDIS	Combination	Min	-35.8943	-48.9341	0.	0.
60	0.25594	ENVDIS	Combination	Min	-35.8943	-48.3177	0.	0.
60	0.	ENVSER	Combination	Max	-16.9756	-19.6334	0.	0.
60	0.25594	ENVSER	Combination	Max	-16.9756	-19.1768	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
60	0.	ENVSER	Combination	Min	-19.9532	-21.4214	0.	0.
60	0.25594	ENVSER	Combination	Min	-19.9532	-20.9648	0.	0.
60	0.	SISMO	Combination		-17.0833	-20.1291	0.	0.
60	0.25594	SISMO	Combination		-17.0833	-19.6725	0.	0.
61	0.	ENVDIS	Combination	Max	-7.2641	-28.1102	0.	0.
61	0.25594	ENVDIS	Combination	Max	-7.2641	-27.6536	0.	0.
61	0.	ENVDIS	Combination	Min	-36.1953	-63.9237	0.	0.
61	0.25594	ENVDIS	Combination	Min	-36.1953	-63.3073	0.	0.
61	0.	ENVSER	Combination	Max	-16.9756	-25.9038	0.	0.
61	0.25594	ENVSER	Combination	Max	-16.9756	-25.4472	0.	0.
61	0.	ENVSER	Combination	Min	-20.0886	-26.806	0.	0.
61	0.25594	ENVSER	Combination	Min	-20.0886	-26.3494	0.	0.
61	0.	SISMO	Combination		-17.0833	-26.6509	0.	0.
61	0.25594	SISMO	Combination		-17.0833	-26.1943	0.	0.
62	0.	ENVDIS	Combination	Max	-18.892	80.5446	0.	0.
62	0.2475	ENVDIS	Combination	Max	-18.892	81.1407	0.	0.
62	0.	ENVDIS	Combination	Min	-40.2096	32.0481	0.	0.
62	0.2475	ENVDIS	Combination	Min	-40.2096	32.4897	0.	0.
62	0.	ENVSER	Combination	Max	-19.8503	32.5251	0.	0.
62	0.2475	ENVSER	Combination	Max	-19.8503	32.9666	0.	0.
62	0.	ENVSER	Combination	Min	-22.9672	32.0449	0.	0.
62	0.2475	ENVSER	Combination	Min	-22.9672	32.4864	0.	0.
62	0.	SISMO	Combination		-23.3009	33.075	0.	0.
62	0.2475	SISMO	Combination		-23.3009	33.5165	0.	0.
63	0.	ENVDIS	Combination	Max	-19.0274	75.6074	0.	0.
63	0.2475	ENVDIS	Combination	Max	-19.0274	76.2035	0.	0.
63	0.	ENVDIS	Combination	Min	-40.2095	30.6364	0.	0.
63	0.2475	ENVDIS	Combination	Min	-40.2095	31.0779	0.	0.
63	0.	ENVSER	Combination	Max	-19.9857	30.9308	0.	0.
63	0.2475	ENVSER	Combination	Max	-19.9857	31.3723	0.	0.
63	0.	ENVSER	Combination	Min	-22.9672	30.6275	0.	0.
63	0.2475	ENVSER	Combination	Min	-22.9672	31.069	0.	0.
63	0.	SISMO	Combination		-23.3009	31.612	0.	0.
63	0.2475	SISMO	Combination		-23.3009	32.0535	0.	0.
64	0.	ENVDIS	Combination	Max	-19.1628	70.7656	0.	0.
64	0.2475	ENVDIS	Combination	Max	-19.1628	71.3616	0.	0.
64	0.	ENVDIS	Combination	Min	-40.2095	29.2259	0.	0.
64	0.2475	ENVDIS	Combination	Min	-40.2095	29.6675	0.	0.
64	0.	ENVSER	Combination	Max	-20.1211	29.3468	0.	0.
64	0.2475	ENVSER	Combination	Max	-20.1211	29.7883	0.	0.
64	0.	ENVSER	Combination	Min	-22.9672	29.2121	0.	0.
64	0.2475	ENVSER	Combination	Min	-22.9672	29.6537	0.	0.
64	0.	SISMO	Combination		-23.3009	30.1512	0.	0.
64	0.2475	SISMO	Combination		-23.3009	30.5927	0.	0.
65	0.	ENVDIS	Combination	Max	-19.2982	66.0393	0.	0.
65	0.2475	ENVDIS	Combination	Max	-19.2982	66.6354	0.	0.
65	0.	ENVDIS	Combination	Min	-40.2095	27.7972	0.	0.
65	0.2475	ENVDIS	Combination	Min	-40.2095	28.2387	0.	0.
65	0.	ENVSER	Combination	Max	-20.2565	27.7991	0.	0.
65	0.2475	ENVSER	Combination	Max	-20.2565	28.2407	0.	0.
65	0.	ENVSER	Combination	Min	-22.9672	27.7733	0.	0.
65	0.2475	ENVSER	Combination	Min	-22.9672	28.2149	0.	0.
65	0.	SISMO	Combination		-23.3009	28.6929	0.	0.
65	0.2475	SISMO	Combination		-23.3009	29.1344	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
66	0.	ENVDIS	Combination	Max	-19.4336	61.7633	0.	0.
66	0.2475	ENVDIS	Combination	Max	-19.4336	62.3593	0.	0.
66	0.	ENVDIS	Combination	Min	-40.2095	26.016	0.	0.
66	0.2475	ENVDIS	Combination	Min	-40.2095	26.4575	0.	0.
66	0.	ENVSER	Combination	Max	-20.3919	26.3887	0.	0.
66	0.2475	ENVSER	Combination	Max	-20.3919	26.8302	0.	0.
66	0.	ENVSER	Combination	Min	-22.9672	26.2106	0.	0.
66	0.2475	ENVSER	Combination	Min	-22.9672	26.6521	0.	0.
66	0.	SISMO	Combination		-23.3009	27.2372	0.	0.
66	0.2475	SISMO	Combination		-23.3009	27.6787	0.	0.
67	0.	ENVDIS	Combination	Max	-19.569	57.5634	0.	0.
67	0.2475	ENVDIS	Combination	Max	-19.569	58.1595	0.	0.
67	0.	ENVDIS	Combination	Min	-40.2095	24.2568	0.	0.
67	0.2475	ENVDIS	Combination	Min	-40.2095	24.6983	0.	0.
67	0.	ENVSER	Combination	Max	-20.5273	24.981	0.	0.
67	0.2475	ENVSER	Combination	Max	-20.5273	25.4225	0.	0.
67	0.	ENVSER	Combination	Min	-22.9672	24.6587	0.	0.
67	0.2475	ENVSER	Combination	Min	-22.9672	25.1002	0.	0.
67	0.	SISMO	Combination		-23.3009	25.7843	0.	0.
67	0.2475	SISMO	Combination		-23.3009	26.2259	0.	0.
68	0.	ENVDIS	Combination	Max	-19.7043	53.4399	0.	0.
68	0.2475	ENVDIS	Combination	Max	-19.7043	54.0359	0.	0.
68	0.	ENVDIS	Combination	Min	-40.2095	22.5196	0.	0.
68	0.2475	ENVDIS	Combination	Min	-40.2095	22.9612	0.	0.
68	0.	ENVSER	Combination	Max	-20.6627	23.5761	0.	0.
68	0.2475	ENVSER	Combination	Max	-20.6627	24.0176	0.	0.
68	0.	ENVSER	Combination	Min	-22.9672	23.1176	0.	0.
68	0.2475	ENVSER	Combination	Min	-22.9672	23.5591	0.	0.
68	0.	SISMO	Combination		-23.3009	24.3344	0.	0.
68	0.2475	SISMO	Combination		-23.3009	24.7759	0.	0.
69	0.	ENVDIS	Combination	Max	-19.8397	49.3926	0.	0.
69	0.2475	ENVDIS	Combination	Max	-19.8397	49.9887	0.	0.
69	0.	ENVDIS	Combination	Min	-40.2095	20.8045	0.	0.
69	0.2475	ENVDIS	Combination	Min	-40.2095	21.246	0.	0.
69	0.	ENVSER	Combination	Max	-20.7981	22.174	0.	0.
69	0.2475	ENVSER	Combination	Max	-20.7981	22.6156	0.	0.
69	0.	ENVSER	Combination	Min	-22.9672	21.5874	0.	0.
69	0.2475	ENVSER	Combination	Min	-22.9672	22.0289	0.	0.
69	0.	SISMO	Combination		-23.3009	22.8875	0.	0.
69	0.2475	SISMO	Combination		-23.3009	23.329	0.	0.
70	0.	ENVDIS	Combination	Max	-19.9751	45.4215	0.	0.
70	0.2475	ENVDIS	Combination	Max	-19.9751	46.0176	0.	0.
70	0.	ENVDIS	Combination	Min	-40.2095	19.1113	0.	0.
70	0.2475	ENVDIS	Combination	Min	-40.2095	19.5528	0.	0.
70	0.	ENVSER	Combination	Max	-20.9334	20.7748	0.	0.
70	0.2475	ENVSER	Combination	Max	-20.9334	21.2164	0.	0.
70	0.	ENVSER	Combination	Min	-22.9672	20.0681	0.	0.
70	0.2475	ENVSER	Combination	Min	-22.9672	20.5096	0.	0.
70	0.	SISMO	Combination		-23.3009	21.4435	0.	0.
70	0.2475	SISMO	Combination		-23.3009	21.8851	0.	0.
71	0.	ENVDIS	Combination	Max	-20.1105	41.5265	0.	0.
71	0.2475	ENVDIS	Combination	Max	-20.1105	42.1226	0.	0.
71	0.	ENVDIS	Combination	Min	-40.2095	17.4399	0.	0.
71	0.2475	ENVDIS	Combination	Min	-40.2095	17.8814	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
71	0.	ENVSER	Combination	Max	-21.0688	19.3785	0.	0.
71	0.2475	ENVSER	Combination	Max	-21.0688	19.82	0.	0.
71	0.	ENVSER	Combination	Min	-22.9672	18.5595	0.	0.
71	0.2475	ENVSER	Combination	Min	-22.9672	19.0011	0.	0.
71	0.	SISMO	Combination		-23.3009	20.0025	0.	0.
71	0.2475	SISMO	Combination		-23.3009	20.4441	0.	0.
72	0.	ENVDIS	Combination	Max	-20.2459	37.8351	0.	0.
72	0.2475	ENVDIS	Combination	Max	-20.2459	38.4312	0.	0.
72	0.	ENVDIS	Combination	Min	-40.2095	15.7902	0.	0.
72	0.2475	ENVDIS	Combination	Min	-40.2095	16.2318	0.	0.
72	0.	ENVSER	Combination	Max	-21.2042	17.9849	0.	0.
72	0.2475	ENVSER	Combination	Max	-21.2042	18.4264	0.	0.
72	0.	ENVSER	Combination	Min	-22.9672	17.0616	0.	0.
72	0.2475	ENVSER	Combination	Min	-22.9672	17.5032	0.	0.
72	0.	SISMO	Combination		-23.3009	18.5644	0.	0.
72	0.2475	SISMO	Combination		-23.3009	19.0059	0.	0.
73	0.	ENVDIS	Combination	Max	-20.3813	35.4955	0.	0.
73	0.2475	ENVDIS	Combination	Max	-20.3813	36.0916	0.	0.
73	0.	ENVDIS	Combination	Min	-40.2095	14.1621	0.	0.
73	0.2475	ENVDIS	Combination	Min	-40.2095	14.6036	0.	0.
73	0.	ENVSER	Combination	Max	-21.3396	16.594	0.	0.
73	0.2475	ENVSER	Combination	Max	-21.3396	17.0355	0.	0.
73	0.	ENVSER	Combination	Min	-22.9672	15.5742	0.	0.
73	0.2475	ENVSER	Combination	Min	-22.9672	16.0158	0.	0.
73	0.	SISMO	Combination		-23.3009	17.129	0.	0.
73	0.2475	SISMO	Combination		-23.3009	17.5706	0.	0.
74	0.	ENVDIS	Combination	Max	-20.5167	33.5846	0.	0.
74	0.2475	ENVDIS	Combination	Max	-20.5167	34.1807	0.	0.
74	0.	ENVDIS	Combination	Min	-40.2095	12.5553	0.	0.
74	0.2475	ENVDIS	Combination	Min	-40.2095	12.9969	0.	0.
74	0.	ENVSER	Combination	Max	-21.475	15.2055	0.	0.
74	0.2475	ENVSER	Combination	Max	-21.475	15.647	0.	0.
74	0.	ENVSER	Combination	Min	-22.9672	14.0972	0.	0.
74	0.2475	ENVSER	Combination	Min	-22.9672	14.5387	0.	0.
74	0.	SISMO	Combination		-23.3009	15.6963	0.	0.
74	0.2475	SISMO	Combination		-23.3009	16.1378	0.	0.
75	0.	ENVDIS	Combination	Max	-20.6521	31.5988	0.	0.
75	0.2475	ENVDIS	Combination	Max	-20.6521	32.1948	0.	0.
75	0.	ENVDIS	Combination	Min	-40.2095	10.9697	0.	0.
75	0.2475	ENVDIS	Combination	Min	-40.2095	11.4112	0.	0.
75	0.	ENVSER	Combination	Max	-21.6104	13.8193	0.	0.
75	0.2475	ENVSER	Combination	Max	-21.6104	14.2609	0.	0.
75	0.	ENVSER	Combination	Min	-22.9672	12.6302	0.	0.
75	0.2475	ENVSER	Combination	Min	-22.9672	13.0718	0.	0.
75	0.	SISMO	Combination		-23.3009	14.2659	0.	0.
75	0.2475	SISMO	Combination		-23.3009	14.7074	0.	0.
76	0.	ENVDIS	Combination	Max	-20.7875	29.5365	0.	0.
76	0.2475	ENVDIS	Combination	Max	-20.7875	30.1326	0.	0.
76	0.	ENVDIS	Combination	Min	-40.2095	9.4049	0.	0.
76	0.2475	ENVDIS	Combination	Min	-40.2095	9.8464	0.	0.
76	0.	ENVSER	Combination	Max	-21.7458	12.4353	0.	0.
76	0.2475	ENVSER	Combination	Max	-21.7458	12.8768	0.	0.
76	0.	ENVSER	Combination	Min	-22.9672	11.1731	0.	0.
76	0.2475	ENVSER	Combination	Min	-22.9672	11.6147	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
76	0.	SISMO	Combination		-23.3009	12.8377	0.	0.
76	0.2475	SISMO	Combination		-23.3009	13.2792	0.	0.
77	0.	ENVDIS	Combination	Max	-20.9229	27.3968	0.	0.
77	0.2475	ENVDIS	Combination	Max	-20.9229	27.9929	0.	0.
77	0.	ENVDIS	Combination	Min	-40.2095	7.8606	0.	0.
77	0.2475	ENVDIS	Combination	Min	-40.2095	8.3022	0.	0.
77	0.	ENVSER	Combination	Max	-21.8812	11.0531	0.	0.
77	0.2475	ENVSER	Combination	Max	-21.8812	11.4946	0.	0.
77	0.	ENVSER	Combination	Min	-22.9672	9.7256	0.	0.
77	0.2475	ENVSER	Combination	Min	-22.9672	10.1672	0.	0.
77	0.	SISMO	Combination		-23.3009	11.4114	0.	0.
77	0.2475	SISMO	Combination		-23.3009	11.8529	0.	0.
78	0.	ENVDIS	Combination	Max	-21.0583	25.1787	0.	0.
78	0.2475	ENVDIS	Combination	Max	-21.0583	25.7747	0.	0.
78	0.	ENVDIS	Combination	Min	-40.2095	6.3367	0.	0.
78	0.2475	ENVDIS	Combination	Min	-40.2095	6.7783	0.	0.
78	0.	ENVSER	Combination	Max	-22.0166	9.6725	0.	0.
78	0.2475	ENVSER	Combination	Max	-22.0166	10.114	0.	0.
78	0.	ENVSER	Combination	Min	-22.9672	8.2875	0.	0.
78	0.2475	ENVSER	Combination	Min	-22.9672	8.729	0.	0.
78	0.	SISMO	Combination		-23.3009	9.9868	0.	0.
78	0.2475	SISMO	Combination		-23.3009	10.4283	0.	0.
79	0.	ENVDIS	Combination	Max	-21.1937	22.8812	0.	0.
79	0.2475	ENVDIS	Combination	Max	-21.1937	23.4773	0.	0.
79	0.	ENVDIS	Combination	Min	-40.2095	4.8328	0.	0.
79	0.2475	ENVDIS	Combination	Min	-40.2095	5.2743	0.	0.
79	0.	ENVSER	Combination	Max	-22.152	8.2931	0.	0.
79	0.2475	ENVSER	Combination	Max	-22.152	8.7347	0.	0.
79	0.	ENVSER	Combination	Min	-22.9672	6.8583	0.	0.
79	0.2475	ENVSER	Combination	Min	-22.9672	7.2998	0.	0.
79	0.	SISMO	Combination		-23.3009	8.5636	0.	0.
79	0.2475	SISMO	Combination		-23.3009	9.0051	0.	0.
80	0.	ENVDIS	Combination	Max	-21.3291	20.5038	0.	0.
80	0.2475	ENVDIS	Combination	Max	-21.3291	21.0998	0.	0.
80	0.	ENVDIS	Combination	Min	-40.2095	3.3485	0.	0.
80	0.2475	ENVDIS	Combination	Min	-40.2095	3.79	0.	0.
80	0.	ENVSER	Combination	Max	-22.2874	6.9148	0.	0.
80	0.2475	ENVSER	Combination	Max	-22.2874	7.3564	0.	0.
80	0.	ENVSER	Combination	Min	-22.9672	5.4378	0.	0.
80	0.2475	ENVSER	Combination	Min	-22.9672	5.8793	0.	0.
80	0.	SISMO	Combination		-23.3009	7.1414	0.	0.
80	0.2475	SISMO	Combination		-23.3009	7.5829	0.	0.
81	0.	ENVDIS	Combination	Max	-21.4645	18.0455	0.	0.
81	0.2475	ENVDIS	Combination	Max	-21.4645	18.6416	0.	0.
81	0.	ENVDIS	Combination	Min	-40.2095	1.8835	0.	0.
81	0.2475	ENVDIS	Combination	Min	-40.2095	2.325	0.	0.
81	0.	ENVSER	Combination	Max	-22.4228	5.5372	0.	0.
81	0.2475	ENVSER	Combination	Max	-22.4228	5.9787	0.	0.
81	0.	ENVSER	Combination	Min	-22.9672	4.0256	0.	0.
81	0.2475	ENVSER	Combination	Min	-22.9672	4.4671	0.	0.
81	0.	SISMO	Combination		-23.3009	5.7199	0.	0.
81	0.2475	SISMO	Combination		-23.3009	6.1614	0.	0.
82	0.	ENVDIS	Combination	Max	-21.5999	15.5059	0.	0.
82	0.2475	ENVDIS	Combination	Max	-21.5999	16.102	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
82	0.	ENVDIS	Combination	Min	-40.2095	-0.1754	0.	0.
82	0.2475	ENVDIS	Combination	Min	-40.2095	0.4207	0.	0.
82	0.	ENVSER	Combination	Max	-22.5582	4.1599	0.	0.
82	0.2475	ENVSER	Combination	Max	-22.5582	4.6014	0.	0.
82	0.	ENVSER	Combination	Min	-22.9672	2.6214	0.	0.
82	0.2475	ENVSER	Combination	Min	-22.9672	3.063	0.	0.
82	0.	SISMO	Combination		-23.3009	4.2987	0.	0.
82	0.2475	SISMO	Combination		-23.3009	4.7403	0.	0.
83	0.	ENVDIS	Combination	Max	-21.7353	12.8843	0.	0.
83	0.2475	ENVDIS	Combination	Max	-21.7353	13.4804	0.	0.
83	0.	ENVDIS	Combination	Min	-40.2095	-3.2447	0.	0.
83	0.2475	ENVDIS	Combination	Min	-40.2095	-2.6486	0.	0.
83	0.	ENVSER	Combination	Max	-22.6936	2.7826	0.	0.
83	0.2475	ENVSER	Combination	Max	-22.6936	3.2241	0.	0.
83	0.	ENVSER	Combination	Min	-22.9672	1.2249	0.	0.
83	0.2475	ENVSER	Combination	Min	-22.9672	1.6664	0.	0.
83	0.	SISMO	Combination		-23.3009	2.8776	0.	0.
83	0.2475	SISMO	Combination		-23.3009	3.3191	0.	0.
84	0.	ENVDIS	Combination	Max	-21.8707	10.1802	0.	0.
84	0.2475	ENVDIS	Combination	Max	-21.8707	10.7763	0.	0.
84	0.	ENVDIS	Combination	Min	-40.2095	-6.2272	0.	0.
84	0.2475	ENVDIS	Combination	Min	-40.2095	-5.6311	0.	0.
84	0.	ENVSER	Combination	Max	-22.829	1.4049	0.	0.
84	0.2475	ENVSER	Combination	Max	-22.829	1.8464	0.	0.
84	0.	ENVSER	Combination	Min	-22.9672	-0.1644	0.	0.
84	0.2475	ENVSER	Combination	Min	-22.9672	0.2771	0.	0.
84	0.	SISMO	Combination		-23.3009	1.4561	0.	0.
84	0.2475	SISMO	Combination		-23.3009	1.8977	0.	0.
85	0.	ENVDIS	Combination	Max	-22.0061	7.3934	0.	0.
85	0.2475	ENVDIS	Combination	Max	-22.0061	7.9894	0.	0.
85	0.	ENVDIS	Combination	Min	-40.2095	-9.1237	0.	0.
85	0.2475	ENVDIS	Combination	Min	-40.2095	-8.5276	0.	0.
85	0.	ENVSER	Combination	Max	-22.9644	0.0265	0.	0.
85	0.2475	ENVSER	Combination	Max	-22.9644	0.468	0.	0.
85	0.	ENVSER	Combination	Min	-22.9672	-1.5468	0.	0.
85	0.2475	ENVSER	Combination	Min	-22.9672	-1.1053	0.	0.
85	0.	SISMO	Combination		-23.3009	0.0339	0.	0.
85	0.2475	SISMO	Combination		-23.3009	0.4754	0.	0.
86	0.	ENVDIS	Combination	Max	-22.0089	4.5265	0.	0.
86	0.2475	ENVDIS	Combination	Max	-22.0089	5.1226	0.	0.
86	0.	ENVDIS	Combination	Min	-40.2095	-11.9349	0.	0.
86	0.2475	ENVDIS	Combination	Min	-40.2095	-11.3388	0.	0.
86	0.	ENVSER	Combination	Max	-22.9672	-1.353	0.	0.
86	0.2475	ENVSER	Combination	Max	-22.9672	-0.9115	0.	0.
86	0.	ENVSER	Combination	Min	-23.0998	-2.9227	0.	0.
86	0.2475	ENVSER	Combination	Min	-23.0998	-2.4811	0.	0.
86	0.	SISMO	Combination		-23.3009	-1.3895	0.	0.
86	0.2475	SISMO	Combination		-23.3009	-0.9479	0.	0.
87	0.	ENVDIS	Combination	Max	-22.0089	1.5774	0.	0.
87	0.2475	ENVDIS	Combination	Max	-22.0089	2.1735	0.	0.
87	0.	ENVDIS	Combination	Min	-40.2095	-14.6616	0.	0.
87	0.2475	ENVDIS	Combination	Min	-40.2095	-14.0655	0.	0.
87	0.	ENVSER	Combination	Max	-22.9672	-2.734	0.	0.
87	0.2475	ENVSER	Combination	Max	-22.9672	-2.2925	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
87	0.	ENVSER	Combination	Min	-23.2352	-4.2924	0.	0.
87	0.2475	ENVSER	Combination	Min	-23.2352	-3.8508	0.	0.
87	0.	SISMO	Combination		-23.3009	-2.8143	0.	0.
87	0.2475	SISMO	Combination		-23.3009	-2.3728	0.	0.
88	0.	ENVDIS	Combination	Max	-22.0089	-1.4531	0.	0.
88	0.2475	ENVDIS	Combination	Max	-22.0089	-0.857	0.	0.
88	0.	ENVDIS	Combination	Min	-40.2095	-17.3046	0.	0.
88	0.2475	ENVDIS	Combination	Min	-40.2095	-16.7085	0.	0.
88	0.	ENVSER	Combination	Max	-22.9672	-4.1168	0.	0.
88	0.2475	ENVSER	Combination	Max	-22.9672	-3.6752	0.	0.
88	0.	ENVSER	Combination	Min	-23.3706	-5.6562	0.	0.
88	0.2475	ENVSER	Combination	Min	-23.3706	-5.2147	0.	0.
88	0.	SISMO	Combination		-23.3009	-4.241	0.	0.
88	0.2475	SISMO	Combination		-23.3009	-3.7995	0.	0.
89	0.	ENVDIS	Combination	Max	-22.0089	-4.5623	0.	0.
89	0.2475	ENVDIS	Combination	Max	-22.0089	-3.9662	0.	0.
89	0.	ENVDIS	Combination	Min	-40.25	-19.8646	0.	0.
89	0.2475	ENVDIS	Combination	Min	-40.25	-19.2685	0.	0.
89	0.	ENVSER	Combination	Max	-22.9672	-5.5017	0.	0.
89	0.2475	ENVSER	Combination	Max	-22.9672	-5.0602	0.	0.
89	0.	ENVSER	Combination	Min	-23.506	-7.0147	0.	0.
89	0.2475	ENVSER	Combination	Min	-23.506	-6.5731	0.	0.
89	0.	SISMO	Combination		-23.3009	-5.67	0.	0.
89	0.2475	SISMO	Combination		-23.3009	-5.2284	0.	0.
90	0.	ENVDIS	Combination	Max	-22.0089	-6.9044	0.	0.
90	0.2475	ENVDIS	Combination	Max	-22.0089	-6.4628	0.	0.
90	0.	ENVDIS	Combination	Min	-40.551	-22.3423	0.	0.
90	0.2475	ENVDIS	Combination	Min	-40.551	-21.7462	0.	0.
90	0.	ENVSER	Combination	Max	-22.9672	-6.8892	0.	0.
90	0.2475	ENVSER	Combination	Max	-22.9672	-6.4477	0.	0.
90	0.	ENVSER	Combination	Min	-23.6414	-8.368	0.	0.
90	0.2475	ENVSER	Combination	Min	-23.6414	-7.9264	0.	0.
90	0.	SISMO	Combination		-23.3009	-7.1015	0.	0.
90	0.2475	SISMO	Combination		-23.3009	-6.66	0.	0.
91	0.	ENVDIS	Combination	Max	-22.0089	-8.2974	0.	0.
91	0.2475	ENVDIS	Combination	Max	-22.0089	-7.8559	0.	0.
91	0.	ENVDIS	Combination	Min	-40.852	-24.7383	0.	0.
91	0.2475	ENVDIS	Combination	Min	-40.852	-24.1422	0.	0.
91	0.	ENVSER	Combination	Max	-22.9672	-8.2796	0.	0.
91	0.2475	ENVSER	Combination	Max	-22.9672	-7.838	0.	0.
91	0.	ENVSER	Combination	Min	-23.7768	-9.7165	0.	0.
91	0.2475	ENVSER	Combination	Min	-23.7768	-9.2749	0.	0.
91	0.	SISMO	Combination		-23.3009	-8.5361	0.	0.
91	0.2475	SISMO	Combination		-23.3009	-8.0945	0.	0.
92	0.	ENVDIS	Combination	Max	-22.0089	-9.6935	0.	0.
92	0.2475	ENVDIS	Combination	Max	-22.0089	-9.2519	0.	0.
92	0.	ENVDIS	Combination	Min	-41.153	-27.0533	0.	0.
92	0.2475	ENVDIS	Combination	Min	-41.153	-26.4572	0.	0.
92	0.	ENVSER	Combination	Max	-22.9672	-9.6731	0.	0.
92	0.2475	ENVSER	Combination	Max	-22.9672	-9.2316	0.	0.
92	0.	ENVSER	Combination	Min	-23.9122	-11.0605	0.	0.
92	0.2475	ENVSER	Combination	Min	-23.9122	-10.619	0.	0.
92	0.	SISMO	Combination		-23.3009	-9.9739	0.	0.
92	0.2475	SISMO	Combination		-23.3009	-9.5323	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
93	0.	ENVDIS	Combination	Max	-22.0089	-11.0928	0.	0.
93	0.2475	ENVDIS	Combination	Max	-22.0089	-10.6513	0.	0.
93	0.	ENVDIS	Combination	Min	-41.4541	-29.2878	0.	0.
93	0.2475	ENVDIS	Combination	Min	-41.4541	-28.6917	0.	0.
93	0.	ENVSER	Combination	Max	-22.9672	-11.0701	0.	0.
93	0.2475	ENVSER	Combination	Max	-22.9672	-10.6286	0.	0.
93	0.	ENVSER	Combination	Min	-24.0475	-12.4003	0.	0.
93	0.2475	ENVSER	Combination	Min	-24.0475	-11.9588	0.	0.
93	0.	SISMO	Combination		-23.3009	-11.4153	0.	0.
93	0.2475	SISMO	Combination		-23.3009	-10.9738	0.	0.
94	0.	ENVDIS	Combination	Max	-22.0089	-12.4956	0.	0.
94	0.2475	ENVDIS	Combination	Max	-22.0089	-12.0541	0.	0.
94	0.	ENVDIS	Combination	Min	-41.7551	-31.4423	0.	0.
94	0.2475	ENVDIS	Combination	Min	-41.7551	-30.8463	0.	0.
94	0.	ENVSER	Combination	Max	-22.9672	-12.471	0.	0.
94	0.2475	ENVSER	Combination	Max	-22.9672	-12.0295	0.	0.
94	0.	ENVSER	Combination	Min	-24.1829	-13.7363	0.	0.
94	0.2475	ENVSER	Combination	Min	-24.1829	-13.2947	0.	0.
94	0.	SISMO	Combination		-23.3009	-12.8607	0.	0.
94	0.2475	SISMO	Combination		-23.3009	-12.4191	0.	0.
95	0.	ENVDIS	Combination	Max	-22.0089	-13.9023	0.	0.
95	0.2475	ENVDIS	Combination	Max	-22.0089	-13.4607	0.	0.
95	0.	ENVDIS	Combination	Min	-42.0561	-33.5174	0.	0.
95	0.2475	ENVDIS	Combination	Min	-42.0561	-32.9213	0.	0.
95	0.	ENVSER	Combination	Max	-22.9672	-13.8759	0.	0.
95	0.2475	ENVSER	Combination	Max	-22.9672	-13.4344	0.	0.
95	0.	ENVSER	Combination	Min	-24.3183	-15.0685	0.	0.
95	0.2475	ENVSER	Combination	Min	-24.3183	-14.627	0.	0.
95	0.	SISMO	Combination		-23.3009	-14.3102	0.	0.
95	0.2475	SISMO	Combination		-23.3009	-13.8687	0.	0.
96	0.	ENVDIS	Combination	Max	-22.0089	-15.3128	0.	0.
96	0.2475	ENVDIS	Combination	Max	-22.0089	-14.8713	0.	0.
96	0.	ENVDIS	Combination	Min	-42.3571	-35.5133	0.	0.
96	0.2475	ENVDIS	Combination	Min	-42.3571	-34.9172	0.	0.
96	0.	ENVSER	Combination	Max	-22.9672	-15.2852	0.	0.
96	0.2475	ENVSER	Combination	Max	-22.9672	-14.8436	0.	0.
96	0.	ENVSER	Combination	Min	-24.4537	-16.3973	0.	0.
96	0.2475	ENVSER	Combination	Min	-24.4537	-15.9558	0.	0.
96	0.	SISMO	Combination		-23.3009	-15.7643	0.	0.
96	0.2475	SISMO	Combination		-23.3009	-15.3227	0.	0.
97	0.	ENVDIS	Combination	Max	-22.0089	-16.7276	0.	0.
97	0.2475	ENVDIS	Combination	Max	-22.0089	-16.2861	0.	0.
97	0.	ENVDIS	Combination	Min	-42.6581	-37.4304	0.	0.
97	0.2475	ENVDIS	Combination	Min	-42.6581	-36.8343	0.	0.
97	0.	ENVSER	Combination	Max	-22.9672	-16.699	0.	0.
97	0.2475	ENVSER	Combination	Max	-22.9672	-16.2574	0.	0.
97	0.	ENVSER	Combination	Min	-24.5891	-17.7229	0.	0.
97	0.2475	ENVSER	Combination	Min	-24.5891	-17.2813	0.	0.
97	0.	SISMO	Combination		-23.3009	-17.223	0.	0.
97	0.2475	SISMO	Combination		-23.3009	-16.7814	0.	0.
98	0.	ENVDIS	Combination	Max	-22.0089	-18.1467	0.	0.
98	0.2475	ENVDIS	Combination	Max	-22.0089	-17.7051	0.	0.
98	0.	ENVDIS	Combination	Min	-42.9591	-39.98	0.	0.
98	0.2475	ENVDIS	Combination	Min	-42.9591	-39.384	0.	0.

Table: Element Forces - Frames, Part 1 of 2

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T
	m				Tonf	Tonf	Tonf	Tonf-m
98	0.	ENVSER	Combination	Max	-22.9672	-18.1175	0.	0.
98	0.2475	ENVSER	Combination	Max	-22.9672	-17.676	0.	0.
98	0.	ENVSER	Combination	Min	-24.7245	-19.0453	0.	0.
98	0.2475	ENVSER	Combination	Min	-24.7245	-18.6038	0.	0.
98	0.	SISMO	Combination		-23.3009	-18.6866	0.	0.
98	0.2475	SISMO	Combination		-23.3009	-18.2451	0.	0.
99	0.	ENVDIS	Combination	Max	-22.0089	-19.5702	0.	0.
99	0.2475	ENVDIS	Combination	Max	-22.0089	-19.1286	0.	0.
99	0.	ENVDIS	Combination	Min	-43.2601	-43.5286	0.	0.
99	0.2475	ENVDIS	Combination	Min	-43.2601	-42.9325	0.	0.
99	0.	ENVSER	Combination	Max	-22.9672	-19.5409	0.	0.
99	0.2475	ENVSER	Combination	Max	-22.9672	-19.0994	0.	0.
99	0.	ENVSER	Combination	Min	-24.8599	-20.3648	0.	0.
99	0.2475	ENVSER	Combination	Min	-24.8599	-19.9233	0.	0.
99	0.	SISMO	Combination		-23.3009	-20.1553	0.	0.
99	0.2475	SISMO	Combination		-23.3009	-19.7137	0.	0.
100	0.	ENVDIS	Combination	Max	-22.0089	-20.9982	0.	0.
100	0.2475	ENVDIS	Combination	Max	-22.0089	-20.5567	0.	0.
100	0.	ENVDIS	Combination	Min	-43.5611	-47.2219	0.	0.
100	0.2475	ENVDIS	Combination	Min	-43.5611	-46.6258	0.	0.
100	0.	ENVSER	Combination	Max	-22.9672	-20.9694	0.	0.
100	0.2475	ENVSER	Combination	Max	-22.9672	-20.5278	0.	0.
100	0.	ENVSER	Combination	Min	-24.9953	-21.6815	0.	0.
100	0.2475	ENVSER	Combination	Min	-24.9953	-21.2399	0.	0.
100	0.	SISMO	Combination		-23.3009	-21.6291	0.	0.
100	0.2475	SISMO	Combination		-23.3009	-21.1876	0.	0.

Table: Element Forces - Frames, Part 2 of 2

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
1	0.	ENVDIS	Max	0.	10.06343	1-1	0.
1	0.25594	ENVDIS	Max	0.	18.14415	1-1	0.25594
1	0.	ENVDIS	Min	0.	-32.65541	1-1	0.
1	0.25594	ENVDIS	Min	0.	-20.05504	1-1	0.25594
1	0.	ENVSER	Max	0.	-0.83442	1-1	0.
1	0.25594	ENVSER	Max	0.	4.99251	1-1	0.25594
1	0.	ENVSER	Min	0.	-5.67063	1-1	0.
1	0.25594	ENVSER	Min	0.	0.0047	1-1	0.25594
1	0.	SISMO		0.	-6.0111	1-1	0.
1	0.25594	SISMO		0.	-0.15525	1-1	0.25594
2	0.	ENVDIS	Max	0.	18.14415	2-1	0.
2	0.25594	ENVDIS	Max	0.	29.74157	2-1	0.25594
2	0.	ENVDIS	Min	0.	-20.05504	2-1	0.
2	0.25594	ENVDIS	Min	0.	-6.36939	2-1	0.25594
2	0.	ENVSER	Max	0.	4.99251	2-1	0.
2	0.25594	ENVSER	Max	0.	11.15109	2-1	0.25594
2	0.	ENVSER	Min	0.	0.0047	2-1	0.
2	0.25594	ENVSER	Min	0.	6.04444	2-1	0.25594
2	0.	SISMO		0.	-0.15525	2-1	0.
2	0.25594	SISMO		0.	6.07674	2-1	0.25594
3	0.	ENVDIS	Max	0.	29.74157	3-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
3	0.25594	ENVDIS	Max	0.	41.75299	3-1	0.25594
3	0.	ENVDIS	Min	0.	-6.36939	3-1	0.
3	0.25594	ENVDIS	Min	0.	8.38467	3-1	0.25594
3	0.	ENVSER	Max	0.	11.15109	3-1	0.
3	0.25594	ENVSER	Max	0.	17.64058	3-1	0.25594
3	0.	ENVSER	Min	0.	6.04444	3-1	0.
3	0.25594	ENVSER	Min	0.	12.44997	3-1	0.25594
3	0.	SISMO		0.	6.07674	3-1	0.
3	0.25594	SISMO		0.	12.68628	3-1	0.25594
4	0.	ENVDIS	Max	0.	41.75299	4-1	0.
4	0.25594	ENVDIS	Max	0.	54.10743	4-1	0.25594
4	0.	ENVDIS	Min	0.	8.38467	4-1	0.
4	0.25594	ENVDIS	Min	0.	23.7601	4-1	0.25594
4	0.	ENVSER	Max	0.	17.64058	4-1	0.
4	0.25594	ENVSER	Max	0.	24.4602	4-1	0.25594
4	0.	ENVSER	Min	0.	12.44997	4-1	0.
4	0.25594	ENVSER	Min	0.	19.22264	4-1	0.25594
4	0.	SISMO		0.	12.68628	4-1	0.
4	0.25594	SISMO		0.	19.67477	4-1	0.25594
5	0.	ENVDIS	Max	0.	54.10743	5-1	0.
5	0.25594	ENVDIS	Max	0.	66.78399	5-1	0.25594
5	0.	ENVDIS	Min	0.	23.7601	5-1	0.
5	0.25594	ENVDIS	Min	0.	30.90589	5-1	0.25594
5	0.	ENVSER	Max	0.	24.4602	5-1	0.
5	0.25594	ENVSER	Max	0.	31.60913	5-1	0.25594
5	0.	ENVSER	Min	0.	19.22264	5-1	0.
5	0.25594	ENVSER	Min	0.	26.36379	5-1	0.25594
5	0.	SISMO		0.	19.67477	5-1	0.
5	0.25594	SISMO		0.	27.04359	5-1	0.25594
6	0.	ENVDIS	Max	0.	66.78399	6-1	0.
6	0.25594	ENVDIS	Max	0.	79.76167	6-1	0.25594
6	0.	ENVDIS	Min	0.	30.90589	6-1	0.
6	0.25594	ENVDIS	Min	0.	38.42038	6-1	0.25594
6	0.	ENVSER	Max	0.	31.60913	6-1	0.
6	0.25594	ENVSER	Max	0.	39.08652	6-1	0.25594
6	0.	ENVSER	Min	0.	26.36379	6-1	0.
6	0.25594	ENVSER	Min	0.	33.87471	6-1	0.25594
6	0.	SISMO		0.	27.04359	6-1	0.
6	0.25594	SISMO		0.	34.79407	6-1	0.25594
7	0.	ENVDIS	Max	0.	79.76167	7-1	0.
7	0.25594	ENVDIS	Max	0.	97.14368	7-1	0.25594
7	0.	ENVDIS	Min	0.	38.42038	7-1	0.
7	0.25594	ENVDIS	Min	0.	46.30461	7-1	0.25594
7	0.	ENVSER	Max	0.	39.08652	7-1	0.
7	0.25594	ENVSER	Max	0.	46.89143	7-1	0.25594
7	0.	ENVSER	Min	0.	33.87471	7-1	0.
7	0.25594	ENVSER	Min	0.	41.75662	7-1	0.25594
7	0.	SISMO		0.	34.79407	7-1	0.
7	0.25594	SISMO		0.	42.9275	7-1	0.25594
8	0.	ENVDIS	Max	0.	97.14368	8-1	0.
8	0.25594	ENVDIS	Max	0.	117.27003	8-1	0.25594
8	0.	ENVDIS	Min	0.	46.30461	8-1	0.
8	0.25594	ENVDIS	Min	0.	54.55953	8-1	0.25594
8	0.	ENVSER	Max	0.	46.89143	8-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
8	0.25594	ENVSER	Max	0.	55.02285	8-1	0.25594
8	0.	ENVSER	Min	0.	41.75662	8-1	0.
8	0.25594	ENVSER	Min	0.	50.01071	8-1	0.25594
8	0.	SISMO		0.	42.9275	8-1	0.
8	0.25594	SISMO		0.	51.44509	8-1	0.25594
9	0.	ENVDIS	Max	0.	-3.96713	9-1	0.
9	0.67	ENVDIS	Max	0.	-0.25212	9-1	0.67
9	0.67	ENVDIS	Max	0.	-0.25212	9-2	0.
9	1.34	ENVDIS	Max	0.	4.785	9-2	0.67
9	1.34	ENVDIS	Max	0.	4.785	9-3	0.
9	2.01	ENVDIS	Max	0.	12.02732	9-3	0.67
9	2.01	ENVDIS	Max	0.	12.02732	9-4	0.
9	2.68	ENVDIS	Max	0.	14.76492	9-4	0.67
9	2.68	ENVDIS	Max	0.	14.76492	9-5	0.
9	3.35	ENVDIS	Max	0.	14.79881	9-5	0.67
9	3.35	ENVDIS	Max	0.	14.79881	9-6	0.
9	4.02	ENVDIS	Max	0.	11.52133	9-6	0.67
9	4.02	ENVDIS	Max	0.	11.52133	9-7	0.
9	4.69	ENVDIS	Max	0.	4.8111	9-7	0.67
9	4.69	ENVDIS	Max	0.	4.8111	9-8	0.
9	5.36	ENVDIS	Max	0.	-4.8356	9-8	0.67
9	5.36	ENVDIS	Max	0.	-4.8356	9-9	0.
9	6.03	ENVDIS	Max	0.	-16.92252	9-9	0.67
9	6.03	ENVDIS	Max	0.	-16.92252	9-10	0.
9	6.7	ENVDIS	Max	0.	-30.95341	9-10	0.67
9	0.	ENVDIS	Min	0.	-43.71088	9-1	0.
9	0.67	ENVDIS	Min	0.	-22.9688	9-1	0.67
9	0.67	ENVDIS	Min	0.	-22.9688	9-2	0.
9	1.34	ENVDIS	Min	0.	-9.60946	9-2	0.67
9	1.34	ENVDIS	Min	0.	-9.60946	9-3	0.
9	2.01	ENVDIS	Min	0.	-10.12778	9-3	0.67
9	2.01	ENVDIS	Min	0.	-10.12778	9-4	0.
9	2.68	ENVDIS	Min	0.	-14.59095	9-4	0.67
9	2.68	ENVDIS	Min	0.	-14.59095	9-5	0.
9	3.35	ENVDIS	Min	0.	-22.68107	9-5	0.67
9	3.35	ENVDIS	Min	0.	-22.68107	9-6	0.
9	4.02	ENVDIS	Min	0.	-33.1204	9-6	0.67
9	4.02	ENVDIS	Min	0.	-33.1204	9-7	0.
9	4.69	ENVDIS	Min	0.	-45.57331	9-7	0.67
9	4.69	ENVDIS	Min	0.	-45.57331	9-8	0.
9	5.36	ENVDIS	Min	0.	-59.66513	9-8	0.67
9	5.36	ENVDIS	Min	0.	-59.66513	9-9	0.
9	6.03	ENVDIS	Min	0.	-75.06578	9-9	0.67
9	6.03	ENVDIS	Min	0.	-75.06578	9-10	0.
9	6.7	ENVDIS	Min	0.	-94.8123	9-10	0.67
9	0.	ENVSER	Max	0.	-14.60915	9-1	0.
9	0.67	ENVSER	Max	0.	-5.02589	9-1	0.67
9	0.67	ENVSER	Max	0.	-5.02589	9-2	0.
9	1.34	ENVSER	Max	0.	1.17716	9-2	0.67
9	1.34	ENVSER	Max	0.	1.17716	9-3	0.
9	2.01	ENVSER	Max	0.	4.30075	9-3	0.67
9	2.01	ENVSER	Max	0.	4.30075	9-4	0.
9	2.68	ENVSER	Max	0.	5.00618	9-4	0.67
9	2.68	ENVSER	Max	0.	5.00618	9-5	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
9	3.35	ENVSER	Max	0.	3.69896	9-5	0.67
9	3.35	ENVSER	Max	0.	3.69896	9-6	0.
9	4.02	ENVSER	Max	0.	-0.00313	9-6	0.67
9	4.02	ENVSER	Max	0.	-0.00313	9-7	0.
9	4.69	ENVSER	Max	0.	-5.76927	9-7	0.67
9	4.69	ENVSER	Max	0.	-5.76927	9-8	0.
9	5.36	ENVSER	Max	0.	-13.26861	9-8	0.67
9	5.36	ENVSER	Max	0.	-13.26861	9-9	0.
9	6.03	ENVSER	Max	0.	-22.17032	9-9	0.67
9	6.03	ENVSER	Max	0.	-22.17032	9-10	0.
9	6.7	ENVSER	Max	0.	-32.14355	9-10	0.67
9	0.	ENVSER	Min	0.	-20.33057	9-1	0.
9	0.67	ENVSER	Min	0.	-8.74986	9-1	0.67
9	0.67	ENVSER	Min	0.	-8.74986	9-2	0.
9	1.34	ENVSER	Min	0.	-0.8874	9-2	0.67
9	1.34	ENVSER	Min	0.	-0.8874	9-3	0.
9	2.01	ENVSER	Min	0.	3.58767	9-3	0.67
9	2.01	ENVSER	Min	0.	3.58767	9-4	0.
9	2.68	ENVSER	Min	0.	4.64564	9-4	0.67
9	2.68	ENVSER	Min	0.	4.64564	9-5	0.
9	3.35	ENVSER	Min	0.	2.51261	9-5	0.67
9	3.35	ENVSER	Min	0.	2.51261	9-6	0.
9	4.02	ENVSER	Min	0.	-1.79758	9-6	0.67
9	4.02	ENVSER	Min	0.	-1.79758	9-7	0.
9	4.69	ENVSER	Min	0.	-7.98418	9-7	0.67
9	4.69	ENVSER	Min	0.	-7.98418	9-8	0.
9	5.36	ENVSER	Min	0.	-15.74642	9-8	0.67
9	5.36	ENVSER	Min	0.	-15.74642	9-9	0.
9	6.03	ENVSER	Min	0.	-24.78353	9-9	0.67
9	6.03	ENVSER	Min	0.	-24.78353	9-10	0.
9	6.7	ENVSER	Min	0.	-34.79475	9-10	0.67
9	0.	SISMO		0.	-14.70864	9-1	0.
9	0.67	SISMO		0.	-5.07566	9-1	0.67
9	0.67	SISMO		0.	-5.07566	9-2	0.
9	1.34	SISMO		0.	1.13222	9-2	0.67
9	1.34	SISMO		0.	1.13222	9-3	0.
9	2.01	SISMO		0.	4.21575	9-3	0.67
9	2.01	SISMO		0.	4.21575	9-4	0.
9	2.68	SISMO		0.	4.4757	9-4	0.67
9	2.68	SISMO		0.	4.4757	9-5	0.
9	3.35	SISMO		0.	2.21283	9-5	0.67
9	3.35	SISMO		0.	2.21283	9-6	0.
9	4.02	SISMO		0.	-2.27209	9-6	0.67
9	4.02	SISMO		0.	-2.27209	9-7	0.
9	4.69	SISMO		0.	-8.6783	9-7	0.67
9	4.69	SISMO		0.	-8.6783	9-8	0.
9	5.36	SISMO		0.	-16.70505	9-8	0.67
9	5.36	SISMO		0.	-16.70505	9-9	0.
9	6.03	SISMO		0.	-26.05156	9-9	0.67
9	6.03	SISMO		0.	-26.05156	9-10	0.
9	6.7	SISMO		0.	-36.41707	9-10	0.67
10	0.	ENVDIS	Max	0.	28.14327	10-1	0.
10	0.67	ENVDIS	Max	0.	12.21461	10-1	0.67
10	0.67	ENVDIS	Max	0.	12.21461	10-2	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
10	1.34	ENVDIS	Max	0.	7.45209	10-2	0.67
10	1.34	ENVDIS	Max	0.	7.45209	10-3	0.
10	2.01	ENVDIS	Max	0.	9.368	10-3	0.67
10	2.01	ENVDIS	Max	0.	9.368	10-4	0.
10	2.68	ENVDIS	Max	0.	14.90332	10-4	0.67
10	2.68	ENVDIS	Max	0.	14.90332	10-5	0.
10	3.35	ENVDIS	Max	0.	23.82288	10-5	0.67
10	3.35	ENVDIS	Max	0.	23.82288	10-6	0.
10	4.02	ENVDIS	Max	0.	34.87341	10-6	0.67
10	4.02	ENVDIS	Max	0.	34.87341	10-7	0.
10	4.69	ENVDIS	Max	0.	47.74927	10-7	0.67
10	4.69	ENVDIS	Max	0.	47.74927	10-8	0.
10	5.36	ENVDIS	Max	0.	62.10612	10-8	0.67
10	5.36	ENVDIS	Max	0.	62.10612	10-9	0.
10	6.03	ENVDIS	Max	0.	80.48818	10-9	0.67
10	6.03	ENVDIS	Max	0.	80.48818	10-10	0.
10	6.7	ENVDIS	Max	0.	101.18582	10-10	0.67
10	0.	ENVDIS	Min	0.	-1.7901	10-1	0.
10	0.67	ENVDIS	Min	0.	-6.99381	10-1	0.67
10	0.67	ENVDIS	Min	0.	-6.99381	10-2	0.
10	1.34	ENVDIS	Min	0.	-9.94984	10-2	0.67
10	1.34	ENVDIS	Min	0.	-9.94984	10-3	0.
10	2.01	ENVDIS	Min	0.	-13.50179	10-3	0.67
10	2.01	ENVDIS	Min	0.	-13.50179	10-4	0.
10	2.68	ENVDIS	Min	0.	-14.7716	10-4	0.67
10	2.68	ENVDIS	Min	0.	-14.7716	10-5	0.
10	3.35	ENVDIS	Min	0.	-13.45564	10-5	0.67
10	3.35	ENVDIS	Min	0.	-13.45564	10-6	0.
10	4.02	ENVDIS	Min	0.	-8.53725	10-6	0.67
10	4.02	ENVDIS	Min	0.	-8.53725	10-7	0.
10	4.69	ENVDIS	Min	0.	-0.46759	10-7	0.67
10	4.69	ENVDIS	Min	0.	-0.46759	10-8	0.
10	5.36	ENVDIS	Min	0.	10.3022	10-8	0.67
10	5.36	ENVDIS	Min	0.	10.3022	10-9	0.
10	6.03	ENVDIS	Min	0.	23.32099	10-9	0.67
10	6.03	ENVDIS	Min	0.	23.32099	10-10	0.
10	6.7	ENVDIS	Min	0.	38.13762	10-10	0.67
10	0.	ENVSER	Max	0.	14.5976	10-1	0.
10	0.67	ENVSER	Max	0.	5.01434	10-1	0.67
10	0.67	ENVSER	Max	0.	5.01434	10-2	0.
10	1.34	ENVSER	Max	0.	-1.1887	10-2	0.67
10	1.34	ENVSER	Max	0.	-1.1887	10-3	0.
10	2.01	ENVSER	Max	0.	-4.31229	10-3	0.67
10	2.01	ENVSER	Max	0.	-4.31229	10-4	0.
10	2.68	ENVSER	Max	0.	-4.30313	10-4	0.67
10	2.68	ENVSER	Max	0.	-4.30313	10-5	0.
10	3.35	ENVSER	Max	0.	-1.34292	10-5	0.67
10	3.35	ENVSER	Max	0.	-1.34292	10-6	0.
10	4.02	ENVSER	Max	0.	3.57675	10-6	0.67
10	4.02	ENVSER	Max	0.	3.57675	10-7	0.
10	4.69	ENVSER	Max	0.	10.18517	10-7	0.67
10	4.69	ENVSER	Max	0.	10.18517	10-8	0.
10	5.36	ENVSER	Max	0.	18.21167	10-8	0.67
10	5.36	ENVSER	Max	0.	18.21167	10-9	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
10	6.03	ENVSER	Max	0.	27.38556	10-9	0.67
10	6.03	ENVSER	Max	0.	27.38556	10-10	0.
10	6.7	ENVSER	Max	0.	37.43615	10-10	0.67
10	0.	ENVSER	Min	0.	8.86424	10-1	0.
10	0.67	ENVSER	Min	0.	1.27979	10-1	0.67
10	0.67	ENVSER	Min	0.	1.27979	10-2	0.
10	1.34	ENVSER	Min	0.	-3.26246	10-2	0.67
10	1.34	ENVSER	Min	0.	-3.26246	10-3	0.
10	2.01	ENVSER	Min	0.	-5.03321	10-3	0.67
10	2.01	ENVSER	Min	0.	-5.03321	10-4	0.
10	2.68	ENVSER	Min	0.	-4.65719	10-4	0.67
10	2.68	ENVSER	Min	0.	-4.65719	10-5	0.
10	3.35	ENVSER	Min	0.	-2.52416	10-5	0.67
10	3.35	ENVSER	Min	0.	-2.52416	10-6	0.
10	4.02	ENVSER	Min	0.	1.78603	10-6	0.67
10	4.02	ENVSER	Min	0.	1.78603	10-7	0.
10	4.69	ENVSER	Min	0.	7.97263	10-7	0.67
10	4.69	ENVSER	Min	0.	7.97263	10-8	0.
10	5.36	ENVSER	Min	0.	15.73487	10-8	0.67
10	5.36	ENVSER	Min	0.	15.73487	10-9	0.
10	6.03	ENVSER	Min	0.	24.77198	10-9	0.67
10	6.03	ENVSER	Min	0.	24.77198	10-10	0.
10	6.7	ENVSER	Min	0.	34.7832	10-10	0.67
10	0.	SISMO		0.	14.69655	10-1	0.
10	0.67	SISMO		0.	5.06357	10-1	0.67
10	0.67	SISMO		0.	5.06357	10-2	0.
10	1.34	SISMO		0.	-1.14431	10-2	0.67
10	1.34	SISMO		0.	-1.14431	10-3	0.
10	2.01	SISMO		0.	-4.22784	10-3	0.67
10	2.01	SISMO		0.	-4.22784	10-4	0.
10	2.68	SISMO		0.	-4.48779	10-4	0.67
10	2.68	SISMO		0.	-4.48779	10-5	0.
10	3.35	SISMO		0.	-2.22492	10-5	0.67
10	3.35	SISMO		0.	-2.22492	10-6	0.
10	4.02	SISMO		0.	2.26	10-6	0.67
10	4.02	SISMO		0.	2.26	10-7	0.
10	4.69	SISMO		0.	8.66621	10-7	0.67
10	4.69	SISMO		0.	8.66621	10-8	0.
10	5.36	SISMO		0.	16.69296	10-8	0.67
10	5.36	SISMO		0.	16.69296	10-9	0.
10	6.03	SISMO		0.	26.03947	10-9	0.67
10	6.03	SISMO		0.	26.03947	10-10	0.
10	6.7	SISMO		0.	36.40498	10-10	0.67
11	0.	ENVDIS	Max	0.	-38.13762	11-1	0.
11	0.00254	ENVDIS	Max	0.	-38.08423	11-1	0.00254
11	0.00254	ENVDIS	Max	0.	-38.08423	11-1	0.00254
11	0.48983	ENVDIS	Max	0.	-28.27053	11-1	0.48983
11	0.97712	ENVDIS	Max	0.	-15.96256	11-1	0.97712
11	0.97712	ENVDIS	Max	0.	-15.96256	11-1	0.97712
11	1.17	ENVDIS	Max	0.	-7.84513	11-1	1.17
11	1.17	ENVDIS	Max	0.	-7.84513	11-2	0.
11	1.56085	ENVDIS	Max	0.	8.43583	11-2	0.39085
11	1.95169	ENVDIS	Max	0.	24.69698	11-2	0.78169
11	1.95169	ENVDIS	Max	0.	24.69698	11-2	0.78169

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
11	2.34	ENVDIS	Max	0.	37.49701	11-2	1.17
11	2.34	ENVDIS	Max	0.	37.49701	11-3	0.
11	2.63314	ENVDIS	Max	0.	48.04739	11-3	0.29313
11	2.92627	ENVDIS	Max	0.	57.32716	11-3	0.58627
11	2.92627	ENVDIS	Max	0.	57.32716	11-3	0.58627
11	3.21814	ENVDIS	Max	0.	64.37917	11-3	0.87813
11	3.51	ENVDIS	Max	0.	70.91439	11-3	1.17
11	3.51	ENVDIS	Max	0.	70.91439	11-4	0.
11	3.90085	ENVDIS	Max	0.	81.036	11-4	0.39085
11	3.90085	ENVDIS	Max	0.	81.036	11-4	0.39085
11	4.29042	ENVDIS	Max	0.	87.07315	11-4	0.78042
11	4.68	ENVDIS	Max	0.	92.18954	11-4	1.17
11	4.68	ENVDIS	Max	0.	92.18954	11-5	0.
11	4.87542	ENVDIS	Max	0.	95.41688	11-5	0.19542
11	4.87542	ENVDIS	Max	0.	95.41688	11-5	0.19542
11	5.36271	ENVDIS	Max	0.	98.54596	11-5	0.68271
11	5.85	ENVDIS	Max	0.	100.23446	11-5	1.17
11	5.85	ENVDIS	Max	0.	100.23446	11-6	0.
11	6.33729	ENVDIS	Max	0.	98.76341	11-6	0.48729
11	6.82458	ENVDIS	Max	0.	95.85266	11-6	0.97458
11	6.82458	ENVDIS	Max	0.	95.85266	11-6	0.97458
11	7.02	ENVDIS	Max	0.	92.71282	11-6	1.17
11	7.02	ENVDIS	Max	0.	92.71282	11-7	0.
11	7.40958	ENVDIS	Max	0.	87.77109	11-7	0.38958
11	7.79915	ENVDIS	Max	0.	81.90859	11-7	0.77915
11	7.79915	ENVDIS	Max	0.	81.90859	11-7	0.77915
11	8.19	ENVDIS	Max	0.	71.9621	11-7	1.17
11	8.19	ENVDIS	Max	0.	71.9621	11-8	0.
11	8.48187	ENVDIS	Max	0.	65.55792	11-8	0.29187
11	8.77373	ENVDIS	Max	0.	58.63694	11-8	0.58373
11	8.77373	ENVDIS	Max	0.	58.63694	11-8	0.58373
11	9.06687	ENVDIS	Max	0.	49.48453	11-8	0.87687
11	9.36	ENVDIS	Max	0.	39.05168	11-8	1.17
11	9.36	ENVDIS	Max	0.	39.05168	11-9	0.
11	9.74831	ENVDIS	Max	0.	26.44452	11-9	0.38831
11	9.74831	ENVDIS	Max	0.	26.44452	11-9	0.38831
11	10.13915	ENVDIS	Max	0.	10.44287	11-9	0.77915
11	10.53	ENVDIS	Max	0.	-5.29085	11-9	1.17
11	10.53	ENVDIS	Max	0.	-5.29085	11-10	0.
11	10.72288	ENVDIS	Max	0.	-13.26021	11-10	0.19288
11	10.72288	ENVDIS	Max	0.	-13.26021	11-10	0.19288
11	11.21017	ENVDIS	Max	0.	-21.65489	11-10	0.68017
11	11.69746	ENVDIS	Max	0.	-30.90297	11-10	1.16746
11	11.69746	ENVDIS	Max	0.	-30.90297	11-10	1.16746
11	11.7	ENVDIS	Max	0.	-30.95341	11-10	1.17
11	0.	ENVDIS	Min	0.	-101.18582	11-1	0.
11	0.00254	ENVDIS	Min	0.	-101.04398	11-1	0.00254
11	0.00254	ENVDIS	Min	0.	-101.04398	11-1	0.00254
11	0.48983	ENVDIS	Min	0.	-75.66061	11-1	0.48983
11	0.97712	ENVDIS	Min	0.	-51.71781	11-1	0.97712
11	0.97712	ENVDIS	Min	0.	-51.71781	11-1	0.97712
11	1.17	ENVDIS	Min	0.	-43.1951	11-1	1.17
11	1.17	ENVDIS	Min	0.	-43.1951	11-2	0.
11	1.56085	ENVDIS	Min	0.	-29.17777	11-2	0.39085

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
11	1.95169	ENVDIS	Min	0.	-16.08722	11-2	0.78169
11	1.95169	ENVDIS	Min	0.	-16.08722	11-2	0.78169
11	2.34	ENVDIS	Min	0.	-6.12411	11-2	1.17
11	2.34	ENVDIS	Min	0.	-6.12411	11-3	0.
11	2.63314	ENVDIS	Min	0.	0.79043	11-3	0.29313
11	2.92627	ENVDIS	Min	0.	4.9938	11-3	0.58627
11	2.92627	ENVDIS	Min	0.	4.9938	11-3	0.58627
11	3.21814	ENVDIS	Min	0.	8.24654	11-3	0.87813
11	3.51	ENVDIS	Min	0.	11.19312	11-3	1.17
11	3.51	ENVDIS	Min	0.	11.19312	11-4	0.
11	3.90085	ENVDIS	Min	0.	14.6595	11-4	0.39085
11	3.90085	ENVDIS	Min	0.	14.6595	11-4	0.39085
11	4.29042	ENVDIS	Min	0.	17.56827	11-4	0.78042
11	4.68	ENVDIS	Min	0.	19.93157	11-4	1.17
11	4.68	ENVDIS	Min	0.	19.93157	11-5	0.
11	4.87542	ENVDIS	Min	0.	20.91164	11-5	0.19542
11	4.87542	ENVDIS	Min	0.	20.91164	11-5	0.19542
11	5.36271	ENVDIS	Min	0.	22.75763	11-5	0.68271
11	5.85	ENVDIS	Min	0.	23.35647	11-5	1.17
11	5.85	ENVDIS	Min	0.	23.35647	11-6	0.
11	6.33729	ENVDIS	Min	0.	22.9295	11-6	0.48729
11	6.82458	ENVDIS	Min	0.	21.64914	11-6	0.97458
11	6.82458	ENVDIS	Min	0.	21.64914	11-6	0.97458
11	7.02	ENVDIS	Min	0.	20.89591	11-6	1.17
11	7.02	ENVDIS	Min	0.	20.89591	11-7	0.
11	7.40958	ENVDIS	Min	0.	18.98481	11-7	0.38958
11	7.79915	ENVDIS	Min	0.	16.52825	11-7	0.77915
11	7.79915	ENVDIS	Min	0.	16.52825	11-7	0.77915
11	8.19	ENVDIS	Min	0.	13.51555	11-7	1.17
11	8.19	ENVDIS	Min	0.	13.51555	11-8	0.
11	8.48187	ENVDIS	Min	0.	10.90775	11-8	0.29187
11	8.77373	ENVDIS	Min	0.	7.9938	11-8	0.58373
11	8.77373	ENVDIS	Min	0.	7.9938	11-8	0.58373
11	9.06687	ENVDIS	Min	0.	4.75901	11-8	0.87687
11	9.36	ENVDIS	Min	0.	1.2154	11-8	1.17
11	9.36	ENVDIS	Min	0.	1.2154	11-9	0.
11	9.74831	ENVDIS	Min	0.	-8.73203	11-9	0.38831
11	9.74831	ENVDIS	Min	0.	-8.73203	11-9	0.38831
11	10.13915	ENVDIS	Min	0.	-22.99074	11-9	0.77915
11	10.53	ENVDIS	Min	0.	-38.17623	11-9	1.17
11	10.53	ENVDIS	Min	0.	-38.17623	11-10	0.
11	10.72288	ENVDIS	Min	0.	-46.47567	11-10	0.19288
11	10.72288	ENVDIS	Min	0.	-46.47567	11-10	0.19288
11	11.21017	ENVDIS	Min	0.	-69.85425	11-10	0.68017
11	11.69746	ENVDIS	Min	0.	-94.6734	11-10	1.16746
11	11.69746	ENVDIS	Min	0.	-94.6734	11-10	1.16746
11	11.7	ENVDIS	Min	0.	-94.8123	11-10	1.17
11	0.	ENVSER	Max	0.	-34.7832	11-1	0.
11	0.00254	ENVSER	Max	0.	-34.72982	11-1	0.00254
11	0.00254	ENVSER	Max	0.	-34.72982	11-1	0.00254
11	0.48983	ENVSER	Max	0.	-24.91632	11-1	0.48983
11	0.97712	ENVSER	Max	0.	-15.95621	11-1	0.97712
11	0.97712	ENVSER	Max	0.	-15.95621	11-1	0.97712
11	1.17	ENVSER	Max	0.	-12.64528	11-1	1.17

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
11	1.17	ENVSER	Max	0.	-12.64528	11-2	0.
11	1.56085	ENVSER	Max	0.	-6.34621	11-2	0.39085
11	1.95169	ENVSER	Max	0.	-0.59616	11-2	0.78169
11	1.95169	ENVSER	Max	0.	-0.59616	11-2	0.78169
11	2.34	ENVSER	Max	0.	4.57284	11-2	1.17
11	2.34	ENVSER	Max	0.	4.57284	11-3	0.
11	2.63314	ENVSER	Max	0.	8.116	11-3	0.29313
11	2.92627	ENVSER	Max	0.	11.35033	11-3	0.58627
11	2.92627	ENVSER	Max	0.	11.35033	11-3	0.58627
11	3.21814	ENVSER	Max	0.	14.26383	11-3	0.87813
11	3.51	ENVSER	Max	0.	16.87117	11-3	1.17
11	3.51	ENVSER	Max	0.	16.87117	11-4	0.
11	3.90085	ENVSER	Max	0.	19.88326	11-4	0.39085
11	3.90085	ENVSER	Max	0.	19.88326	11-4	0.39085
11	4.29042	ENVSER	Max	0.	22.33921	11-4	0.78042
11	4.68	ENVSER	Max	0.	24.24971	11-4	1.17
11	4.68	ENVSER	Max	0.	24.24971	11-5	0.
11	4.87542	ENVSER	Max	0.	25.00263	11-5	0.19542
11	4.87542	ENVSER	Max	0.	25.00263	11-5	0.19542
11	5.36271	ENVSER	Max	0.	26.28224	11-5	0.68271
11	5.85	ENVSER	Max	0.	26.70845	11-5	1.17
11	5.85	ENVSER	Max	0.	26.70845	11-6	0.
11	6.33729	ENVSER	Max	0.	26.50132	11-6	0.48729
11	6.82458	ENVSER	Max	0.	25.44166	11-6	0.97458
11	6.82458	ENVSER	Max	0.	25.44166	11-6	0.97458
11	7.02	ENVSER	Max	0.	24.77695	11-6	1.17
11	7.02	ENVSER	Max	0.	24.77695	11-7	0.
11	7.40958	ENVSER	Max	0.	23.04229	11-7	0.38958
11	7.79915	ENVSER	Max	0.	20.76218	11-7	0.77915
11	7.79915	ENVSER	Max	0.	20.76218	11-7	0.77915
11	8.19	ENVSER	Max	0.	17.92651	11-7	1.17
11	8.19	ENVSER	Max	0.	17.92651	11-8	0.
11	8.48187	ENVSER	Max	0.	15.45091	11-8	0.29187
11	8.77373	ENVSER	Max	0.	12.66915	11-8	0.58373
11	8.77373	ENVSER	Max	0.	12.66915	11-8	0.58373
11	9.06687	ENVSER	Max	0.	9.56713	11-8	0.87687
11	9.36	ENVSER	Max	0.	6.15629	11-8	1.17
11	9.36	ENVSER	Max	0.	6.15629	11-9	0.
11	9.74831	ENVSER	Max	0.	1.16256	11-9	0.38831
11	9.74831	ENVSER	Max	0.	1.16256	11-9	0.38831
11	10.13915	ENVSER	Max	0.	-4.41108	11-9	0.77915
11	10.53	ENVSER	Max	0.	-10.53373	11-9	1.17
11	10.53	ENVSER	Max	0.	-10.53373	11-10	0.
11	10.72288	ENVSER	Max	0.	-13.7576	11-10	0.19288
11	10.72288	ENVSER	Max	0.	-13.7576	11-10	0.19288
11	11.21017	ENVSER	Max	0.	-22.49775	11-10	0.68017
11	11.69746	ENVSER	Max	0.	-32.0913	11-10	1.16746
11	11.69746	ENVSER	Max	0.	-32.0913	11-10	1.16746
11	11.7	ENVSER	Max	0.	-32.14355	11-10	1.17
11	0.	ENVSER	Min	0.	-37.43615	11-1	0.
11	0.00254	ENVSER	Min	0.	-37.38161	11-1	0.00254
11	0.00254	ENVSER	Min	0.	-37.38161	11-1	0.00254
11	0.48983	ENVSER	Min	0.	-27.3472	11-1	0.48983
11	0.97712	ENVSER	Min	0.	-18.16618	11-1	0.97712

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
11	0.97712	ENVSER	Min	0.	-18.16618	11-1	0.97712
11	1.17	ENVSER	Min	0.	-14.76781	11-1	1.17
11	1.17	ENVSER	Min	0.	-14.76781	11-2	0.
11	1.56085	ENVSER	Min	0.	-8.29155	11-2	0.39085
11	1.95169	ENVSER	Min	0.	-2.36431	11-2	0.78169
11	1.95169	ENVSER	Min	0.	-2.36431	11-2	0.78169
11	2.34	ENVSER	Min	0.	2.98073	11-2	1.17
11	2.34	ENVSER	Min	0.	2.98073	11-3	0.
11	2.63314	ENVSER	Min	0.	6.65677	11-3	0.29313
11	2.92627	ENVSER	Min	0.	10.024	11-3	0.58627
11	2.92627	ENVSER	Min	0.	10.024	11-3	0.58627
11	3.21814	ENVSER	Min	0.	13.06981	11-3	0.87813
11	3.51	ENVSER	Min	0.	15.80947	11-3	1.17
11	3.51	ENVSER	Min	0.	15.80947	11-4	0.
11	3.90085	ENVSER	Min	0.	18.99875	11-4	0.39085
11	3.90085	ENVSER	Min	0.	18.99875	11-4	0.39085
11	4.29042	ENVSER	Min	0.	21.63132	11-4	0.78042
11	4.68	ENVSER	Min	0.	23.71843	11-4	1.17
11	4.68	ENVSER	Min	0.	23.71843	11-5	0.
11	4.87542	ENVSER	Min	0.	24.55994	11-5	0.19542
11	4.87542	ENVSER	Min	0.	24.55994	11-5	0.19542
11	5.36271	ENVSER	Min	0.	26.06046	11-5	0.68271
11	5.85	ENVSER	Min	0.	26.70758	11-5	1.17
11	5.85	ENVSER	Min	0.	26.70758	11-6	0.
11	6.33729	ENVSER	Min	0.	26.28127	11-6	0.48729
11	6.82458	ENVSER	Min	0.	25.00071	11-6	0.97458
11	6.82458	ENVSER	Min	0.	25.00071	11-6	0.97458
11	7.02	ENVSER	Min	0.	24.2474	11-6	1.17
11	7.02	ENVSER	Min	0.	24.2474	11-7	0.
11	7.40958	ENVSER	Min	0.	22.33613	11-7	0.38958
11	7.79915	ENVSER	Min	0.	19.87941	11-7	0.77915
11	7.79915	ENVSER	Min	0.	19.87941	11-7	0.77915
11	8.19	ENVSER	Min	0.	16.86655	11-7	1.17
11	8.19	ENVSER	Min	0.	16.86655	11-8	0.
11	8.48187	ENVSER	Min	0.	14.25863	11-8	0.29187
11	8.77373	ENVSER	Min	0.	11.34456	11-8	0.58373
11	8.77373	ENVSER	Min	0.	11.34456	11-8	0.58373
11	9.06687	ENVSER	Min	0.	8.10965	11-8	0.87687
11	9.36	ENVSER	Min	0.	4.56591	11-8	1.17
11	9.36	ENVSER	Min	0.	4.56591	11-9	0.
11	9.74831	ENVSER	Min	0.	-0.60386	11-9	0.38831
11	9.74831	ENVSER	Min	0.	-0.60386	11-9	0.38831
11	10.13915	ENVSER	Min	0.	-6.35468	11-9	0.77915
11	10.53	ENVSER	Min	0.	-12.65452	11-9	1.17
11	10.53	ENVSER	Min	0.	-12.65452	11-10	0.
11	10.72288	ENVSER	Min	0.	-15.96583	11-10	0.19288
11	10.72288	ENVSER	Min	0.	-15.96583	11-10	0.19288
11	11.21017	ENVSER	Min	0.	-24.9269	11-10	0.68017
11	11.69746	ENVSER	Min	0.	-34.74136	11-10	1.16746
11	11.69746	ENVSER	Min	0.	-34.74136	11-10	1.16746
11	11.7	ENVSER	Min	0.	-34.79475	11-10	1.17
11	0.	SISMO		0.	-36.40498	11-1	0.
11	0.00254	SISMO		0.	-36.34892	11-1	0.00254
11	0.00254	SISMO		0.	-36.34892	11-1	0.00254

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
11	0.48983	SISMO		0.	-26.04392	11-1	0.48983
11	0.97712	SISMO		0.	-16.63506	11-1	0.97712
11	0.97712	SISMO		0.	-16.63506	11-1	0.97712
11	1.17	SISMO		0.	-13.15831	11-1	1.17
11	1.17	SISMO		0.	-13.15831	11-2	0.
11	1.56085	SISMO		0.	-6.54375	11-2	0.39085
11	1.95169	SISMO		0.	-0.50572	11-2	0.78169
11	1.95169	SISMO		0.	-0.50572	11-2	0.78169
11	2.34	SISMO		0.	4.92217	11-2	1.17
11	2.34	SISMO		0.	4.92217	11-3	0.
11	2.63314	SISMO		0.	8.64278	11-3	0.29313
11	2.92627	SISMO		0.	12.0391	11-3	0.58627
11	2.92627	SISMO		0.	12.0391	11-3	0.58627
11	3.21814	SISMO		0.	15.09852	11-3	0.87813
11	3.51	SISMO		0.	17.83645	11-3	1.17
11	3.51	SISMO		0.	17.83645	11-4	0.
11	3.90085	SISMO		0.	20.9994	11-4	0.39085
11	3.90085	SISMO		0.	20.9994	11-4	0.39085
11	4.29042	SISMO		0.	23.57836	11-4	0.78042
11	4.68	SISMO		0.	25.58454	11-4	1.17
11	4.68	SISMO		0.	25.58454	11-5	0.
11	4.87542	SISMO		0.	26.37517	11-5	0.19542
11	4.87542	SISMO		0.	26.37517	11-5	0.19542
11	5.36271	SISMO		0.	27.71887	11-5	0.68271
11	5.85	SISMO		0.	28.16643	11-5	1.17
11	5.85	SISMO		0.	28.16643	11-6	0.
11	6.33729	SISMO		0.	27.71786	11-6	0.48729
11	6.82458	SISMO		0.	26.37316	11-6	0.97458
11	6.82458	SISMO		0.	26.37316	11-6	0.97458
11	7.02	SISMO		0.	25.58212	11-6	1.17
11	7.02	SISMO		0.	25.58212	11-7	0.
11	7.40958	SISMO		0.	23.57513	11-7	0.38958
11	7.79915	SISMO		0.	20.99537	11-7	0.77915
11	7.79915	SISMO		0.	20.99537	11-7	0.77915
11	8.19	SISMO		0.	17.83162	11-7	1.17
11	8.19	SISMO		0.	17.83162	11-8	0.
11	8.48187	SISMO		0.	15.09308	11-8	0.29187
11	8.77373	SISMO		0.	12.03306	11-8	0.58373
11	8.77373	SISMO		0.	12.03306	11-8	0.58373
11	9.06687	SISMO		0.	8.63613	11-8	0.87687
11	9.36	SISMO		0.	4.91492	11-8	1.17
11	9.36	SISMO		0.	4.91492	11-9	0.
11	9.74831	SISMO		0.	-0.51377	11-9	0.38831
11	9.74831	SISMO		0.	-0.51377	11-9	0.38831
11	10.13915	SISMO		0.	-6.55262	11-9	0.77915
11	10.53	SISMO		0.	-13.16798	11-9	1.17
11	10.53	SISMO		0.	-13.16798	11-10	0.
11	10.72288	SISMO		0.	-16.64513	11-10	0.19288
11	10.72288	SISMO		0.	-16.64513	11-10	0.19288
11	11.21017	SISMO		0.	-26.055	11-10	0.68017
11	11.69746	SISMO		0.	-36.361	11-10	1.16746
11	11.69746	SISMO		0.	-36.361	11-10	1.16746
11	11.7	SISMO		0.	-36.41707	11-10	1.17
12	0.	ENVDIS	Max	0.	28.14327	12-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
12	0.2475	ENVDIS	Max	0.	18.07451	12-1	0.2475
12	0.	ENVDIS	Min	0.	-1.7901	12-1	0.
12	0.2475	ENVDIS	Min	0.	-12.5959	12-1	0.2475
12	0.	ENVSER	Max	0.	14.5976	12-1	0.
12	0.2475	ENVSER	Max	0.	8.20061	12-1	0.2475
12	0.	ENVSER	Min	0.	8.86424	12-1	0.
12	0.2475	ENVSER	Min	0.	2.68699	12-1	0.2475
12	0.	SISMO		0.	14.69655	12-1	0.
12	0.2475	SISMO		0.	8.11314	12-1	0.2475
13	0.	ENVDIS	Max	0.	18.07451	13-1	0.
13	0.2475	ENVDIS	Max	0.	12.31127	13-1	0.2475
13	0.	ENVDIS	Min	0.	-12.5959	13-1	0.
13	0.2475	ENVDIS	Min	0.	-19.67211	13-1	0.2475
13	0.	ENVSER	Max	0.	8.20061	13-1	0.
13	0.2475	ENVSER	Max	0.	3.32503	13-1	0.2475
13	0.	ENVSER	Min	0.	2.68699	13-1	0.
13	0.2475	ENVSER	Min	0.	-1.74933	13-1	0.2475
13	0.	SISMO		0.	8.11314	13-1	0.
13	0.2475	SISMO		0.	3.11242	13-1	0.2475
14	0.	ENVDIS	Max	0.	12.31127	14-1	0.
14	0.2475	ENVDIS	Max	0.	7.66384	14-1	0.2475
14	0.	ENVDIS	Min	0.	-19.67211	14-1	0.
14	0.2475	ENVDIS	Min	0.	-23.70063	14-1	0.2475
14	0.	ENVSER	Max	0.	3.32503	14-1	0.
14	0.2475	ENVSER	Max	0.	-0.23922	14-1	0.2475
14	0.	ENVSER	Min	0.	-1.74933	14-1	0.
14	0.2475	ENVSER	Min	0.	-4.74438	14-1	0.2475
14	0.	SISMO		0.	3.11242	14-1	0.
14	0.2475	SISMO		0.	-0.52786	14-1	0.2475
15	0.	ENVDIS	Max	0.	7.66384	15-1	0.
15	0.2475	ENVDIS	Max	0.	4.03398	15-1	0.2475
15	0.	ENVDIS	Min	0.	-23.70063	15-1	0.
15	0.2475	ENVDIS	Min	0.	-25.43852	15-1	0.2475
15	0.	ENVSER	Max	0.	-0.23922	15-1	0.
15	0.2475	ENVSER	Max	0.	-2.70624	15-1	0.2475
15	0.	ENVSER	Min	0.	-4.74438	15-1	0.
15	0.2475	ENVSER	Min	0.	-6.58132	15-1	0.2475
15	0.	SISMO		0.	-0.52786	15-1	0.
15	0.2475	SISMO		0.	-3.0328	15-1	0.2475
16	0.	ENVDIS	Max	0.	4.03398	16-1	0.
16	0.2475	ENVDIS	Max	0.	1.30064	16-1	0.2475
16	0.	ENVDIS	Min	0.	-25.43852	16-1	0.
16	0.2475	ENVDIS	Min	0.	-25.39189	16-1	0.2475
16	0.	ENVSER	Max	0.	-2.70624	16-1	0.
16	0.2475	ENVSER	Max	0.	-4.28177	16-1	0.2475
16	0.	ENVSER	Min	0.	-6.58132	16-1	0.
16	0.2475	ENVSER	Min	0.	-7.51709	16-1	0.2475
16	0.	SISMO		0.	-3.0328	16-1	0.
16	0.2475	SISMO		0.	-4.61778	16-1	0.2475
17	0.	ENVDIS	Max	0.	1.30064	17-1	0.
17	0.2475	ENVDIS	Max	0.	-0.66682	17-1	0.2475
17	0.	ENVDIS	Min	0.	-25.39189	17-1	0.
17	0.2475	ENVDIS	Min	0.	-24.89596	17-1	0.2475
17	0.	ENVSER	Max	0.	-4.28177	17-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
17	0.2475	ENVSER	Max	0.	-5.15509	17-1	0.2475
17	0.	ENVSER	Min	0.	-7.51709	17-1	0.
17	0.2475	ENVSER	Min	0.	-7.77706	17-1	0.2475
17	0.	SISMO		0.	-4.61778	17-1	0.
17	0.2475	SISMO		0.	-5.48023	17-1	0.2475
18	0.	ENVDIS	Max	0.	-0.66682	18-1	0.
18	0.2475	ENVDIS	Max	0.	-1.99887	18-1	0.2475
18	0.	ENVDIS	Min	0.	-24.89596	18-1	0.
18	0.2475	ENVDIS	Min	0.	-23.26609	18-1	0.2475
18	0.	ENVSER	Max	0.	-5.15509	18-1	0.
18	0.2475	ENVSER	Max	0.	-5.49412	18-1	0.2475
18	0.	ENVSER	Min	0.	-7.77706	18-1	0.
18	0.2475	ENVSER	Min	0.	-7.55294	18-1	0.2475
18	0.	SISMO		0.	-5.48023	18-1	0.
18	0.2475	SISMO		0.	-5.79482	18-1	0.2475
19	0.	ENVDIS	Max	0.	-1.99887	19-1	0.
19	0.2475	ENVDIS	Max	0.	-2.81916	19-1	0.2475
19	0.	ENVDIS	Min	0.	-23.26609	19-1	0.
19	0.2475	ENVDIS	Min	0.	-20.92256	19-1	0.2475
19	0.	ENVSER	Max	0.	-5.49412	19-1	0.
19	0.2475	ENVSER	Max	0.	-5.44325	19-1	0.2475
19	0.	ENVSER	Min	0.	-7.55294	19-1	0.
19	0.2475	ENVSER	Min	0.	-7.00307	19-1	0.2475
19	0.	SISMO		0.	-5.79482	19-1	0.
19	0.2475	SISMO		0.	-5.71132	19-1	0.2475
20	0.	ENVDIS	Max	0.	-2.81916	20-1	0.
20	0.2475	ENVDIS	Max	0.	-3.24014	20-1	0.2475
20	0.	ENVDIS	Min	0.	-20.92256	20-1	0.
20	0.2475	ENVDIS	Min	0.	-18.20294	20-1	0.2475
20	0.	ENVSER	Max	0.	-5.44325	20-1	0.
20	0.2475	ENVSER	Max	0.	-5.12297	20-1	0.2475
20	0.	ENVSER	Min	0.	-7.00307	20-1	0.
20	0.2475	ENVSER	Min	0.	-6.25434	20-1	0.2475
20	0.	SISMO		0.	-5.71132	20-1	0.
20	0.2475	SISMO		0.	-5.35437	20-1	0.2475
21	0.	ENVDIS	Max	0.	-3.24014	21-1	0.
21	0.2475	ENVDIS	Max	0.	-3.36067	21-1	0.2475
21	0.	ENVDIS	Min	0.	-18.20294	21-1	0.
21	0.2475	ENVDIS	Min	0.	-15.36134	21-1	0.2475
21	0.	ENVSER	Max	0.	-5.12297	21-1	0.
21	0.2475	ENVSER	Max	0.	-4.63091	21-1	0.2475
21	0.	ENVSER	Min	0.	-6.25434	21-1	0.
21	0.2475	ENVSER	Min	0.	-5.40525	21-1	0.2475
21	0.	SISMO		0.	-5.35437	21-1	0.
21	0.2475	SISMO		0.	-4.82469	21-1	0.2475
22	0.	ENVDIS	Max	0.	-3.36067	22-1	0.
22	0.2475	ENVDIS	Max	0.	-3.26505	22-1	0.2475
22	0.	ENVDIS	Min	0.	-15.36134	22-1	0.
22	0.2475	ENVDIS	Min	0.	-12.58059	22-1	0.2475
22	0.	ENVSER	Max	0.	-4.63091	22-1	0.
22	0.2475	ENVSER	Max	0.	-4.04372	22-1	0.2475
22	0.	ENVSER	Min	0.	-5.40525	22-1	0.
22	0.2475	ENVSER	Min	0.	-4.52939	22-1	0.2475
22	0.	SISMO		0.	-4.82469	22-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
22	0.2475	SISMO		0.	-4.20113	22-1	0.2475
23	0.	ENVDIS	Max	0.	-3.26505	23-1	0.
23	0.2475	ENVDIS	Max	0.	-3.02315	23-1	0.2475
23	0.	ENVDIS	Min	0.	-12.58059	23-1	0.
23	0.2475	ENVDIS	Min	0.	-10.00371	23-1	0.2475
23	0.	ENVSER	Max	0.	-4.04372	23-1	0.
23	0.2475	ENVSER	Max	0.	-3.41949	23-1	0.2475
23	0.	ENVSER	Min	0.	-4.52939	23-1	0.
23	0.2475	ENVSER	Min	0.	-3.67929	23-1	0.2475
23	0.	SISMO		0.	-4.20113	23-1	0.
23	0.2475	SISMO		0.	-3.54323	23-1	0.2475
24	0.	ENVDIS	Max	0.	-3.02315	24-1	0.
24	0.2475	ENVDIS	Max	0.	-2.69123	24-1	0.2475
24	0.	ENVDIS	Min	0.	-10.00371	24-1	0.
24	0.2475	ENVDIS	Min	0.	-7.68447	24-1	0.2475
24	0.	ENVSER	Max	0.	-3.41949	24-1	0.
24	0.2475	ENVSER	Max	0.	-2.80046	24-1	0.2475
24	0.	ENVSER	Min	0.	-3.67929	24-1	0.
24	0.2475	ENVSER	Min	0.	-2.89014	24-1	0.2475
24	0.	SISMO		0.	-3.54323	24-1	0.
24	0.2475	SISMO		0.	-2.89408	24-1	0.2475
25	0.	ENVDIS	Max	0.	-2.69123	25-1	0.
25	0.2475	ENVDIS	Max	0.	-2.23002	25-1	0.2475
25	0.	ENVDIS	Min	0.	-7.68447	25-1	0.
25	0.2475	ENVDIS	Min	0.	-5.74527	25-1	0.2475
25	0.	ENVSER	Max	0.	-2.80046	25-1	0.
25	0.2475	ENVSER	Max	0.	-2.18335	25-1	0.2475
25	0.	ENVSER	Min	0.	-2.89014	25-1	0.
25	0.2475	ENVSER	Min	0.	-2.21567	25-1	0.2475
25	0.	SISMO		0.	-2.89408	25-1	0.
25	0.2475	SISMO		0.	-2.28314	25-1	0.2475
26	0.	ENVDIS	Max	0.	-2.23002	26-1	0.
26	0.2475	ENVDIS	Max	0.	-1.62667	26-1	0.2475
26	0.	ENVDIS	Min	0.	-5.74527	26-1	0.
26	0.2475	ENVDIS	Min	0.	-4.24674	26-1	0.2475
26	0.	ENVSER	Max	0.	-2.18335	26-1	0.
26	0.2475	ENVSER	Max	0.	-1.5697	26-1	0.2475
26	0.	ENVSER	Min	0.	-2.21567	26-1	0.
26	0.2475	ENVSER	Min	0.	-1.68362	26-1	0.2475
26	0.	SISMO		0.	-2.28314	26-1	0.
26	0.2475	SISMO		0.	-1.72895	26-1	0.2475
27	0.	ENVDIS	Max	0.	-1.62667	27-1	0.
27	0.2475	ENVDIS	Max	0.	-1.12023	27-1	0.2475
27	0.	ENVDIS	Min	0.	-4.24674	27-1	0.
27	0.2475	ENVDIS	Min	0.	-2.96896	27-1	0.2475
27	0.	ENVSER	Max	0.	-1.5697	27-1	0.
27	0.2475	ENVSER	Max	0.	-1.0522	27-1	0.2475
27	0.	ENVSER	Min	0.	-1.68362	27-1	0.
27	0.2475	ENVSER	Min	0.	-1.21458	27-1	0.2475
27	0.	SISMO		0.	-1.72895	27-1	0.
27	0.2475	SISMO		0.	-1.24164	27-1	0.2475
28	0.	ENVDIS	Max	0.	-1.12023	28-1	0.
28	0.2475	ENVDIS	Max	0.	-0.41265	28-1	0.2475
28	0.	ENVDIS	Min	0.	-2.96896	28-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
28	0.2475	ENVDIS	Min	0.	-1.9112	28-1	0.2475
28	0.	ENVSER	Max	0.	-1.0522	28-1	0.
28	0.2475	ENVSER	Max	0.	-0.62848	28-1	0.2475
28	0.	ENVSER	Min	0.	-1.21458	28-1	0.
28	0.2475	ENVSER	Min	0.	-0.81279	28-1	0.2475
28	0.	SISMO		0.	-1.24164	28-1	0.
28	0.2475	SISMO		0.	-0.82513	28-1	0.2475
29	0.	ENVDIS	Max	0.	-0.41265	29-1	0.
29	0.2475	ENVDIS	Max	0.	0.25736	29-1	0.2475
29	0.	ENVDIS	Min	0.	-1.9112	29-1	0.
29	0.2475	ENVDIS	Min	0.	-1.06385	29-1	0.2475
29	0.	ENVSER	Max	0.	-0.62848	29-1	0.
29	0.2475	ENVSER	Max	0.	-0.29274	29-1	0.2475
29	0.	ENVSER	Min	0.	-0.81279	29-1	0.
29	0.2475	ENVSER	Min	0.	-0.47827	29-1	0.2475
29	0.	SISMO		0.	-0.82513	29-1	0.
29	0.2475	SISMO		0.	-0.47902	29-1	0.2475
30	0.	ENVDIS	Max	0.	0.25736	30-1	0.
30	0.2475	ENVDIS	Max	0.	0.76909	30-1	0.2475
30	0.	ENVDIS	Min	0.	-1.06385	30-1	0.
30	0.2475	ENVDIS	Min	0.	-0.61625	30-1	0.2475
30	0.	ENVSER	Max	0.	-0.29274	30-1	0.
30	0.2475	ENVSER	Max	0.	-0.0374	30-1	0.2475
30	0.	ENVSER	Min	0.	-0.47827	30-1	0.
30	0.2475	ENVSER	Min	0.	-0.20838	30-1	0.2475
30	0.	SISMO		0.	-0.47902	30-1	0.
30	0.2475	SISMO		0.	-0.20028	30-1	0.2475
31	0.	ENVDIS	Max	0.	0.76909	31-1	0.
31	0.2475	ENVDIS	Max	0.	1.1359	31-1	0.2475
31	0.	ENVDIS	Min	0.	-0.61625	31-1	0.
31	0.2475	ENVDIS	Min	0.	-0.40171	31-1	0.2475
31	0.	ENVSER	Max	0.	-0.0374	31-1	0.
31	0.2475	ENVSER	Max	0.	0.14568	31-1	0.2475
31	0.	ENVSER	Min	0.	-0.20838	31-1	0.
31	0.2475	ENVSER	Min	0.	0.00088	31-1	0.2475
31	0.	SISMO		0.	-0.20028	31-1	0.
31	0.2475	SISMO		0.	0.01553	31-1	0.2475
32	0.	ENVDIS	Max	0.	1.1359	32-1	0.
32	0.2475	ENVDIS	Max	0.	1.38016	32-1	0.2475
32	0.	ENVDIS	Min	0.	-0.40171	32-1	0.
32	0.2475	ENVDIS	Min	0.	-0.23924	32-1	0.2475
32	0.	ENVSER	Max	0.	0.14568	32-1	0.
32	0.2475	ENVSER	Max	0.	0.26425	32-1	0.2475
32	0.	ENVSER	Min	0.	0.00088	32-1	0.
32	0.2475	ENVSER	Min	0.	0.1539	32-1	0.2475
32	0.	SISMO		0.	0.01553	32-1	0.
32	0.2475	SISMO		0.	0.17313	32-1	0.2475
33	0.	ENVDIS	Max	0.	1.38016	33-1	0.
33	0.2475	ENVDIS	Max	0.	1.51815	33-1	0.2475
33	0.	ENVDIS	Min	0.	-0.23924	33-1	0.
33	0.2475	ENVDIS	Min	0.	-0.12946	33-1	0.2475
33	0.	ENVSER	Max	0.	0.26425	33-1	0.
33	0.2475	ENVSER	Max	0.	0.32505	33-1	0.2475
33	0.	ENVSER	Min	0.	0.1539	33-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
33	0.2475	ENVSER	Min	0.	0.25462	33-1	0.2475
33	0.	SISMO		0.	0.17313	33-1	0.
33	0.2475	SISMO		0.	0.27678	33-1	0.2475
34	0.	ENVDIS	Max	0.	1.51815	34-1	0.
34	0.2475	ENVDIS	Max	0.	1.56543	34-1	0.2475
34	0.	ENVDIS	Min	0.	-0.12946	34-1	0.
34	0.2475	ENVDIS	Min	0.	-0.07247	34-1	0.2475
34	0.	ENVSER	Max	0.	0.32505	34-1	0.
34	0.2475	ENVSER	Max	0.	0.33333	34-1	0.2475
34	0.	ENVSER	Min	0.	0.25462	34-1	0.
34	0.2475	ENVSER	Min	0.	0.30601	34-1	0.2475
34	0.	SISMO		0.	0.27678	34-1	0.
34	0.2475	SISMO		0.	0.32963	34-1	0.2475
35	0.	ENVDIS	Max	0.	1.56543	35-1	0.
35	0.2475	ENVDIS	Max	0.	1.54479	35-1	0.2475
35	0.	ENVDIS	Min	0.	-0.07247	35-1	0.
35	0.2475	ENVDIS	Min	0.	-0.06915	35-1	0.2475
35	0.	ENVSER	Max	0.	0.33333	35-1	0.
35	0.2475	ENVSER	Max	0.	0.30969	35-1	0.2475
35	0.	ENVSER	Min	0.	0.30601	35-1	0.
35	0.2475	ENVSER	Min	0.	0.29272	35-1	0.2475
35	0.	SISMO		0.	0.32963	35-1	0.
35	0.2475	SISMO		0.	0.33342	35-1	0.2475
36	0.	ENVDIS	Max	0.	1.54479	36-1	0.
36	0.2475	ENVDIS	Max	0.	1.46684	36-1	0.2475
36	0.	ENVDIS	Min	0.	-0.06915	36-1	0.
36	0.2475	ENVDIS	Min	0.	-0.22213	36-1	0.2475
36	0.	ENVSER	Max	0.	0.30969	36-1	0.
36	0.2475	ENVSER	Max	0.	0.26571	36-1	0.2475
36	0.	ENVSER	Min	0.	0.29272	36-1	0.
36	0.2475	ENVSER	Min	0.	0.20519	36-1	0.2475
36	0.	SISMO		0.	0.33342	36-1	0.
36	0.2475	SISMO		0.	0.28821	36-1	0.2475
37	0.	ENVDIS	Max	0.	1.46684	37-1	0.
37	0.2475	ENVDIS	Max	0.	1.30343	37-1	0.2475
37	0.	ENVDIS	Min	0.	-0.22213	37-1	0.
37	0.2475	ENVDIS	Min	0.	-0.4213	37-1	0.2475
37	0.	ENVSER	Max	0.	0.26571	37-1	0.
37	0.2475	ENVSER	Max	0.	0.17259	37-1	0.2475
37	0.	ENVSER	Min	0.	0.20519	37-1	0.
37	0.2475	ENVSER	Min	0.	0.07119	37-1	0.2475
37	0.	SISMO		0.	0.28821	37-1	0.
37	0.2475	SISMO		0.	0.19242	37-1	0.2475
38	0.	ENVDIS	Max	0.	1.30343	38-1	0.
38	0.2475	ENVDIS	Max	0.	1.04139	38-1	0.2475
38	0.	ENVDIS	Min	0.	-0.4213	38-1	0.
38	0.2475	ENVDIS	Min	0.	-0.66173	38-1	0.2475
38	0.	ENVSER	Max	0.	0.17259	38-1	0.
38	0.2475	ENVSER	Max	0.	0.02743	38-1	0.2475
38	0.	ENVSER	Min	0.	0.07119	38-1	0.
38	0.2475	ENVSER	Min	0.	-0.10993	38-1	0.2475
38	0.	SISMO		0.	0.19242	38-1	0.
38	0.2475	SISMO		0.	0.04297	38-1	0.2475
39	0.	ENVDIS	Max	0.	1.04139	39-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
39	0.2475	ENVDIS	Max	0.	0.66764	39-1	0.2475
39	0.	ENVDIS	Min	0.	-0.66173	39-1	0.
39	0.2475	ENVDIS	Min	0.	-0.93722	39-1	0.2475
39	0.	ENVSER	Max	0.	0.02743	39-1	0.
39	0.2475	ENVSER	Max	0.	-0.17371	39-1	0.2475
39	0.	ENVSER	Min	0.	-0.10993	39-1	0.
39	0.2475	ENVSER	Min	0.	-0.33949	39-1	0.2475
39	0.	SISMO		0.	0.04297	39-1	0.
39	0.2475	SISMO		0.	-0.16436	39-1	0.2475
40	0.	ENVDIS	Max	0.	0.66764	40-1	0.
40	0.2475	ENVDIS	Max	0.	0.16384	40-1	0.2475
40	0.	ENVDIS	Min	0.	-0.93722	40-1	0.
40	0.2475	ENVDIS	Min	0.	-1.23923	40-1	0.2475
40	0.	ENVSER	Max	0.	-0.17371	40-1	0.
40	0.2475	ENVSER	Max	0.	-0.4353	40-1	0.2475
40	0.	ENVSER	Min	0.	-0.33949	40-1	0.
40	0.2475	ENVSER	Min	0.	-0.61872	40-1	0.2475
40	0.	SISMO		0.	-0.16436	40-1	0.
40	0.2475	SISMO		0.	-0.43439	40-1	0.2475
41	0.	ENVDIS	Max	0.	0.16384	41-1	0.
41	0.2475	ENVDIS	Max	0.	-0.48149	41-1	0.2475
41	0.	ENVDIS	Min	0.	-1.23923	41-1	0.
41	0.2475	ENVDIS	Min	0.	-2.01691	41-1	0.2475
41	0.	ENVSER	Max	0.	-0.4353	41-1	0.
41	0.2475	ENVSER	Max	0.	-0.76158	41-1	0.2475
41	0.	ENVSER	Min	0.	-0.61872	41-1	0.
41	0.2475	ENVSER	Min	0.	-0.94792	41-1	0.2475
41	0.	SISMO		0.	-0.43439	41-1	0.
41	0.2475	SISMO		0.	-0.77177	41-1	0.2475
42	0.	ENVDIS	Max	0.	-0.48149	42-1	0.
42	0.2475	ENVDIS	Max	0.	-1.28818	42-1	0.2475
42	0.	ENVDIS	Min	0.	-2.01691	42-1	0.
42	0.2475	ENVDIS	Min	0.	-2.97981	42-1	0.2475
42	0.	ENVSER	Max	0.	-0.76158	42-1	0.
42	0.2475	ENVSER	Max	0.	-1.15559	42-1	0.2475
42	0.	ENVSER	Min	0.	-0.94792	42-1	0.
42	0.2475	ENVSER	Min	0.	-1.32536	42-1	0.2475
42	0.	SISMO		0.	-0.77177	42-1	0.
42	0.2475	SISMO		0.	-1.17995	42-1	0.2475
43	0.	ENVDIS	Max	0.	-1.28818	43-1	0.
43	0.2475	ENVDIS	Max	0.	-1.88362	43-1	0.2475
43	0.	ENVDIS	Min	0.	-2.97981	43-1	0.
43	0.2475	ENVDIS	Min	0.	-4.0939	43-1	0.2475
43	0.	ENVSER	Max	0.	-1.15559	43-1	0.
43	0.2475	ENVSER	Max	0.	-1.6179	43-1	0.2475
43	0.	ENVSER	Min	0.	-1.32536	43-1	0.
43	0.2475	ENVSER	Min	0.	-1.74603	43-1	0.2475
43	0.	SISMO		0.	-1.17995	43-1	0.
43	0.2475	SISMO		0.	-1.65991	43-1	0.2475
44	0.	ENVDIS	Max	0.	-1.88362	44-1	0.
44	0.2475	ENVDIS	Max	0.	-2.28289	44-1	0.2475
44	0.	ENVDIS	Min	0.	-4.0939	44-1	0.
44	0.2475	ENVDIS	Min	0.	-5.34925	44-1	0.2475
44	0.	ENVSER	Max	0.	-1.6179	44-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
44	0.2475	ENVSER	Max	0.	-2.1451	44-1	0.2475
44	0.	ENVSER	Min	0.	-1.74603	44-1	0.
44	0.2475	ENVSER	Min	0.	-2.20008	44-1	0.2475
44	0.	SISMO		0.	-1.65991	44-1	0.
44	0.2475	SISMO		0.	-2.20859	44-1	0.2475
45	0.	ENVDIS	Max	0.	-2.28289	45-1	0.
45	0.2475	ENVDIS	Max	0.	-2.53822	45-1	0.2475
45	0.	ENVDIS	Min	0.	-5.34925	45-1	0.
45	0.2475	ENVDIS	Min	0.	-6.91085	45-1	0.2475
45	0.	ENVSER	Max	0.	-2.1451	45-1	0.
45	0.2475	ENVSER	Max	0.	-2.67117	45-1	0.2475
45	0.	ENVSER	Min	0.	-2.20008	45-1	0.
45	0.2475	ENVSER	Min	0.	-2.72802	45-1	0.2475
45	0.	SISMO		0.	-2.20859	45-1	0.
45	0.2475	SISMO		0.	-2.817	45-1	0.2475
46	0.	ENVDIS	Max	0.	-2.53822	46-1	0.
46	0.2475	ENVDIS	Max	0.	-2.53866	46-1	0.2475
46	0.	ENVDIS	Min	0.	-6.91085	46-1	0.
46	0.2475	ENVDIS	Min	0.	-8.97556	46-1	0.2475
46	0.	ENVSER	Max	0.	-2.67117	46-1	0.
46	0.2475	ENVSER	Max	0.	-3.13461	46-1	0.2475
46	0.	ENVSER	Min	0.	-2.72802	46-1	0.
46	0.2475	ENVSER	Min	0.	-3.34955	46-1	0.2475
46	0.	SISMO		0.	-2.817	46-1	0.
46	0.2475	SISMO		0.	-3.46801	46-1	0.2475
47	0.	ENVDIS	Max	0.	-2.53866	47-1	0.
47	0.2475	ENVDIS	Max	0.	-2.338	47-1	0.2475
47	0.	ENVDIS	Min	0.	-8.97556	47-1	0.
47	0.2475	ENVDIS	Min	0.	-11.2543	47-1	0.2475
47	0.	ENVSER	Max	0.	-3.13461	47-1	0.
47	0.2475	ENVSER	Max	0.	-3.55532	47-1	0.2475
47	0.	ENVSER	Min	0.	-3.34955	47-1	0.
47	0.2475	ENVSER	Min	0.	-3.98237	47-1	0.2475
47	0.	SISMO		0.	-3.46801	47-1	0.
47	0.2475	SISMO		0.	-4.13396	47-1	0.2475
48	0.	ENVDIS	Max	0.	-2.338	48-1	0.
48	0.2475	ENVDIS	Max	0.	-1.86576	48-1	0.2475
48	0.	ENVDIS	Min	0.	-11.2543	48-1	0.
48	0.2475	ENVDIS	Min	0.	-13.67561	48-1	0.2475
48	0.	ENVSER	Max	0.	-3.55532	48-1	0.
48	0.2475	ENVSER	Max	0.	-3.88584	48-1	0.2475
48	0.	ENVSER	Min	0.	-3.98237	48-1	0.
48	0.2475	ENVSER	Min	0.	-4.58624	48-1	0.2475
48	0.	SISMO		0.	-4.13396	48-1	0.
48	0.2475	SISMO		0.	-4.77385	48-1	0.2475
49	0.	ENVDIS	Max	0.	-1.86576	49-1	0.
49	0.2475	ENVDIS	Max	0.	-1.04061	49-1	0.2475
49	0.	ENVDIS	Min	0.	-13.67561	49-1	0.
49	0.2475	ENVDIS	Min	0.	-16.12545	49-1	0.2475
49	0.	ENVSER	Max	0.	-3.88584	49-1	0.
49	0.2475	ENVSER	Max	0.	-4.06438	49-1	0.2475
49	0.	ENVSER	Min	0.	-4.58624	49-1	0.
49	0.2475	ENVSER	Min	0.	-5.10538	49-1	0.2475
49	0.	SISMO		0.	-4.77385	49-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
49	0.2475	SISMO		0.	-5.33055	49-1	0.2475
50	0.	ENVDIS	Max	0.	-1.04061	50-1	0.
50	0.2475	ENVDIS	Max	0.	0.22837	50-1	0.2475
50	0.	ENVDIS	Min	0.	-16.12545	50-1	0.
50	0.2475	ENVDIS	Min	0.	-18.43708	50-1	0.2475
50	0.	ENVSER	Max	0.	-4.06438	50-1	0.
50	0.2475	ENVSER	Max	0.	-4.01307	50-1	0.2475
50	0.	ENVSER	Min	0.	-5.10538	50-1	0.
50	0.2475	ENVSER	Min	0.	-5.46568	50-1	0.2475
50	0.	SISMO		0.	-5.33055	50-1	0.
50	0.2475	SISMO		0.	-5.72789	50-1	0.2475
51	0.	ENVDIS	Max	0.	0.22837	51-1	0.
51	0.25594	ENVDIS	Max	0.	2.09892	51-1	0.25594
51	0.	ENVDIS	Min	0.	-18.43708	51-1	0.
51	0.25594	ENVDIS	Min	0.	-20.44926	51-1	0.25594
51	0.	ENVSER	Max	0.	-4.01307	51-1	0.
51	0.25594	ENVSER	Max	0.	-3.6259	51-1	0.25594
51	0.	ENVSER	Min	0.	-5.46568	51-1	0.
51	0.25594	ENVSER	Min	0.	-5.5778	51-1	0.25594
51	0.	SISMO		0.	-5.72789	51-1	0.
51	0.25594	SISMO		0.	-5.87476	51-1	0.25594
52	0.	ENVDIS	Max	0.	2.09892	52-1	0.
52	0.25594	ENVDIS	Max	0.	4.6334	52-1	0.25594
52	0.	ENVDIS	Min	0.	-20.44926	52-1	0.
52	0.25594	ENVDIS	Min	0.	-21.7594	52-1	0.25594
52	0.	ENVSER	Max	0.	-3.6259	52-1	0.
52	0.25594	ENVSER	Max	0.	-2.78564	52-1	0.25594
52	0.	ENVSER	Min	0.	-5.5778	52-1	0.
52	0.25594	ENVSER	Min	0.	-5.30507	52-1	0.25594
52	0.	SISMO		0.	-5.87476	52-1	0.
52	0.25594	SISMO		0.	-5.62894	52-1	0.25594
53	0.	ENVDIS	Max	0.	-54.55953	53-1	0.
53	0.67	ENVDIS	Max	0.	-33.60487	53-1	0.67
53	0.67	ENVDIS	Max	0.	-33.60487	53-2	0.
53	1.34	ENVDIS	Max	0.	-18.05721	53-2	0.67
53	1.34	ENVDIS	Max	0.	-18.05721	53-3	0.
53	2.01	ENVDIS	Max	0.	-7.46541	53-3	0.67
53	2.01	ENVDIS	Max	0.	-7.46541	53-4	0.
53	2.68	ENVDIS	Max	0.	-0.62908	53-4	0.67
53	2.68	ENVDIS	Max	0.	-0.62908	53-5	0.
53	3.35	ENVDIS	Max	0.	3.43911	53-5	0.67
53	3.35	ENVDIS	Max	0.	3.43911	53-6	0.
53	4.02	ENVDIS	Max	0.	3.57831	53-6	0.67
53	4.02	ENVDIS	Max	0.	3.57831	53-7	0.
53	4.69	ENVDIS	Max	0.	0.28478	53-7	0.67
53	4.69	ENVDIS	Max	0.	0.28478	53-8	0.
53	5.36	ENVDIS	Max	0.	-5.94524	53-8	0.67
53	5.36	ENVDIS	Max	0.	-5.94524	53-9	0.
53	6.03	ENVDIS	Max	0.	-14.61548	53-9	0.67
53	6.03	ENVDIS	Max	0.	-14.61548	53-10	0.
53	6.7	ENVDIS	Max	0.	-25.22967	53-10	0.67
53	0.	ENVDIS	Min	0.	-117.27003	53-1	0.
53	0.67	ENVDIS	Min	0.	-90.75159	53-1	0.67
53	0.67	ENVDIS	Min	0.	-90.75159	53-2	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
53	1.34	ENVDIS	Min	0.	-75.76428	53-2	0.67
53	1.34	ENVDIS	Min	0.	-75.76428	53-3	0.
53	2.01	ENVDIS	Min	0.	-66.88951	53-3	0.67
53	2.01	ENVDIS	Min	0.	-66.88951	53-4	0.
53	2.68	ENVDIS	Min	0.	-62.42864	53-4	0.67
53	2.68	ENVDIS	Min	0.	-62.42864	53-5	0.
53	3.35	ENVDIS	Min	0.	-60.71225	53-5	0.67
53	3.35	ENVDIS	Min	0.	-60.71225	53-6	0.
53	4.02	ENVDIS	Min	0.	-61.28756	53-6	0.67
53	4.02	ENVDIS	Min	0.	-61.28756	53-7	0.
53	4.69	ENVDIS	Min	0.	-63.84282	53-7	0.67
53	4.69	ENVDIS	Min	0.	-63.84282	53-8	0.
53	5.36	ENVDIS	Min	0.	-68.04306	53-8	0.67
53	5.36	ENVDIS	Min	0.	-68.04306	53-9	0.
53	6.03	ENVDIS	Min	0.	-73.55365	53-9	0.67
53	6.03	ENVDIS	Min	0.	-73.55365	53-10	0.
53	6.7	ENVDIS	Min	0.	-84.20007	53-10	0.67
53	0.	ENVSER	Max	0.	-50.01071	53-1	0.
53	0.67	ENVSER	Max	0.	-36.41301	53-1	0.67
53	0.67	ENVSER	Max	0.	-36.41301	53-2	0.
53	1.34	ENVSER	Max	0.	-26.19553	53-2	0.67
53	1.34	ENVSER	Max	0.	-26.19553	53-3	0.
53	2.01	ENVSER	Max	0.	-19.05751	53-3	0.67
53	2.01	ENVSER	Max	0.	-19.05751	53-4	0.
53	2.68	ENVSER	Max	0.	-13.6333	53-4	0.67
53	2.68	ENVSER	Max	0.	-13.6333	53-5	0.
53	3.35	ENVSER	Max	0.	-10.92732	53-5	0.67
53	3.35	ENVSER	Max	0.	-10.92732	53-6	0.
53	4.02	ENVSER	Max	0.	-10.61621	53-6	0.67
53	4.02	ENVSER	Max	0.	-10.61621	53-7	0.
53	4.69	ENVSER	Max	0.	-12.36915	53-7	0.67
53	4.69	ENVSER	Max	0.	-12.36915	53-8	0.
53	5.36	ENVSER	Max	0.	-15.85529	53-8	0.67
53	5.36	ENVSER	Max	0.	-15.85529	53-9	0.
53	6.03	ENVSER	Max	0.	-20.74379	53-9	0.67
53	6.03	ENVSER	Max	0.	-20.74379	53-10	0.
53	6.7	ENVSER	Max	0.	-26.70382	53-10	0.67
53	0.	ENVSER	Min	0.	-55.02285	53-1	0.
53	0.67	ENVSER	Min	0.	-39.42895	53-1	0.67
53	0.67	ENVSER	Min	0.	-39.42895	53-2	0.
53	1.34	ENVSER	Min	0.	-27.55328	53-2	0.67
53	1.34	ENVSER	Min	0.	-27.55328	53-3	0.
53	2.01	ENVSER	Min	0.	-19.06501	53-3	0.67
53	2.01	ENVSER	Min	0.	-19.06501	53-4	0.
53	2.68	ENVSER	Min	0.	-14.69818	53-4	0.67
53	2.68	ENVSER	Min	0.	-14.69818	53-5	0.
53	3.35	ENVSER	Min	0.	-12.81677	53-5	0.67
53	3.35	ENVSER	Min	0.	-12.81677	53-6	0.
53	4.02	ENVSER	Min	0.	-13.11253	53-6	0.67
53	4.02	ENVSER	Min	0.	-13.11253	53-7	0.
53	4.69	ENVSER	Min	0.	-15.28469	53-7	0.67
53	4.69	ENVSER	Min	0.	-15.28469	53-8	0.
53	5.36	ENVSER	Min	0.	-19.0325	53-8	0.67
53	5.36	ENVSER	Min	0.	-19.0325	53-9	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
53	6.03	ENVSER	Min	0.	-24.05517	53-9	0.67
53	6.03	ENVSER	Min	0.	-24.05517	53-10	0.
53	6.7	ENVSER	Min	0.	-30.05196	53-10	0.67
53	0.	SISMO		0.	-51.44509	53-1	0.
53	0.67	SISMO		0.	-37.64627	53-1	0.67
53	0.67	SISMO		0.	-37.64627	53-2	0.
53	1.34	SISMO		0.	-27.27256	53-2	0.67
53	1.34	SISMO		0.	-27.27256	53-3	0.
53	2.01	SISMO		0.	-20.0232	53-3	0.67
53	2.01	SISMO		0.	-20.0232	53-4	0.
53	2.68	SISMO		0.	-15.59742	53-4	0.67
53	2.68	SISMO		0.	-15.59742	53-5	0.
53	3.35	SISMO		0.	-13.69445	53-5	0.67
53	3.35	SISMO		0.	-13.69445	53-6	0.
53	4.02	SISMO		0.	-14.01354	53-6	0.67
53	4.02	SISMO		0.	-14.01354	53-7	0.
53	4.69	SISMO		0.	-16.25393	53-7	0.67
53	4.69	SISMO		0.	-16.25393	53-8	0.
53	5.36	SISMO		0.	-20.11484	53-8	0.67
53	5.36	SISMO		0.	-20.11484	53-9	0.
53	6.03	SISMO		0.	-25.29552	53-9	0.67
53	6.03	SISMO		0.	-25.29552	53-10	0.
53	6.7	SISMO		0.	-31.4952	53-10	0.67
54	0.	ENVDIS	Max	0.	105.1627	54-1	0.
54	0.67	ENVDIS	Max	0.	85.32138	54-1	0.67
54	0.67	ENVDIS	Max	0.	85.32138	54-2	0.
54	1.34	ENVDIS	Max	0.	74.20964	54-2	0.67
54	1.34	ENVDIS	Max	0.	74.20964	54-3	0.
54	2.01	ENVDIS	Max	0.	66.70343	54-3	0.67
54	2.01	ENVDIS	Max	0.	66.70343	54-4	0.
54	2.68	ENVDIS	Max	0.	63.35137	54-4	0.67
54	2.68	ENVDIS	Max	0.	63.35137	54-5	0.
54	3.35	ENVDIS	Max	0.	62.48737	54-5	0.67
54	3.35	ENVDIS	Max	0.	62.48737	54-6	0.
54	4.02	ENVDIS	Max	0.	63.69246	54-6	0.67
54	4.02	ENVDIS	Max	0.	63.69246	54-7	0.
54	4.69	ENVDIS	Max	0.	66.68622	54-7	0.67
54	4.69	ENVDIS	Max	0.	66.68622	54-8	0.
54	5.36	ENVDIS	Max	0.	71.16252	54-8	0.67
54	5.36	ENVDIS	Max	0.	71.16252	54-9	0.
54	6.03	ENVDIS	Max	0.	80.76235	54-9	0.67
54	6.03	ENVDIS	Max	0.	80.76235	54-10	0.
54	6.7	ENVDIS	Max	0.	92.17488	54-10	0.67
54	0.	ENVDIS	Min	0.	41.93317	54-1	0.
54	0.67	ENVDIS	Min	0.	26.17937	54-1	0.67
54	0.67	ENVDIS	Min	0.	26.17937	54-2	0.
54	1.34	ENVDIS	Min	0.	15.02268	54-2	0.67
54	1.34	ENVDIS	Min	0.	15.02268	54-3	0.
54	2.01	ENVDIS	Min	0.	7.44039	54-3	0.67
54	2.01	ENVDIS	Min	0.	7.44039	54-4	0.
54	2.68	ENVDIS	Min	0.	1.3533	54-4	0.67
54	2.68	ENVDIS	Min	0.	1.3533	54-5	0.
54	3.35	ENVDIS	Min	0.	-0.68023	54-5	0.67
54	3.35	ENVDIS	Min	0.	-0.68023	54-6	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
54	4.02	ENVDIS	Min	0.	0.88867	54-6	0.67
54	4.02	ENVDIS	Min	0.	0.88867	54-7	0.
54	4.69	ENVDIS	Min	0.	5.60885	54-7	0.67
54	4.69	ENVDIS	Min	0.	5.60885	54-8	0.
54	5.36	ENVDIS	Min	0.	13.02916	54-8	0.67
54	5.36	ENVDIS	Min	0.	13.02916	54-9	0.
54	6.03	ENVDIS	Min	0.	22.69845	54-9	0.67
54	6.03	ENVDIS	Min	0.	22.69845	54-10	0.
54	6.7	ENVDIS	Min	0.	34.1656	54-10	0.67
54	0.	ENVSER	Max	0.	49.98561	54-1	0.
54	0.67	ENVSER	Max	0.	36.38791	54-1	0.67
54	0.67	ENVSER	Max	0.	36.38791	54-2	0.
54	1.34	ENVSER	Max	0.	26.17044	54-2	0.67
54	1.34	ENVSER	Max	0.	26.17044	54-3	0.
54	2.01	ENVSER	Max	0.	19.03241	54-3	0.67
54	2.01	ENVSER	Max	0.	19.03241	54-4	0.
54	2.68	ENVSER	Max	0.	15.7196	54-4	0.67
54	2.68	ENVSER	Max	0.	15.7196	54-5	0.
54	3.35	ENVSER	Max	0.	14.66661	54-5	0.67
54	3.35	ENVSER	Max	0.	14.66661	54-6	0.
54	4.02	ENVSER	Max	0.	15.57307	54-6	0.67
54	4.02	ENVSER	Max	0.	15.57307	54-7	0.
54	4.69	ENVSER	Max	0.	18.16829	54-7	0.67
54	4.69	ENVSER	Max	0.	18.16829	54-8	0.
54	5.36	ENVSER	Max	0.	22.18159	54-8	0.67
54	5.36	ENVSER	Max	0.	22.18159	54-9	0.
54	6.03	ENVSER	Max	0.	27.34228	54-9	0.67
54	6.03	ENVSER	Max	0.	27.34228	54-10	0.
54	6.7	ENVSER	Max	0.	33.37966	54-10	0.67
54	0.	ENVSER	Min	0.	44.93977	54-1	0.
54	0.67	ENVSER	Min	0.	33.34212	54-1	0.67
54	0.67	ENVSER	Min	0.	33.34212	54-2	0.
54	1.34	ENVSER	Min	0.	24.78666	54-2	0.67
54	1.34	ENVSER	Min	0.	24.78666	54-3	0.
54	2.01	ENVSER	Min	0.	19.00272	54-3	0.67
54	2.01	ENVSER	Min	0.	19.00272	54-4	0.
54	2.68	ENVSER	Min	0.	14.67308	54-4	0.67
54	2.68	ENVSER	Min	0.	14.67308	54-5	0.
54	3.35	ENVSER	Min	0.	12.79167	54-5	0.67
54	3.35	ENVSER	Min	0.	12.79167	54-6	0.
54	4.02	ENVSER	Min	0.	13.08743	54-6	0.67
54	4.02	ENVSER	Min	0.	13.08743	54-7	0.
54	4.69	ENVSER	Min	0.	15.2596	54-7	0.67
54	4.69	ENVSER	Min	0.	15.2596	54-8	0.
54	5.36	ENVSER	Min	0.	19.0074	54-8	0.67
54	5.36	ENVSER	Min	0.	19.0074	54-9	0.
54	6.03	ENVSER	Min	0.	24.03008	54-9	0.67
54	6.03	ENVSER	Min	0.	24.03008	54-10	0.
54	6.7	ENVSER	Min	0.	30.02687	54-10	0.67
54	0.	SISMO		0.	51.41937	54-1	0.
54	0.67	SISMO		0.	37.62056	54-1	0.67
54	0.67	SISMO		0.	37.62056	54-2	0.
54	1.34	SISMO		0.	27.24685	54-2	0.67
54	1.34	SISMO		0.	27.24685	54-3	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
54	2.01	SISMO		0.	19.99749	54-3	0.67
54	2.01	SISMO		0.	19.99749	54-4	0.
54	2.68	SISMO		0.	15.5717	54-4	0.67
54	2.68	SISMO		0.	15.5717	54-5	0.
54	3.35	SISMO		0.	13.66874	54-5	0.67
54	3.35	SISMO		0.	13.66874	54-6	0.
54	4.02	SISMO		0.	13.98783	54-6	0.67
54	4.02	SISMO		0.	13.98783	54-7	0.
54	4.69	SISMO		0.	16.22821	54-7	0.67
54	4.69	SISMO		0.	16.22821	54-8	0.
54	5.36	SISMO		0.	20.08912	54-8	0.67
54	5.36	SISMO		0.	20.08912	54-9	0.
54	6.03	SISMO		0.	25.2698	54-9	0.67
54	6.03	SISMO		0.	25.2698	54-10	0.
54	6.7	SISMO		0.	31.46948	54-10	0.67
55	0.	ENVDIS	Max	0.	-34.1656	55-1	0.
55	0.00254	ENVDIS	Max	0.	-34.11221	55-1	0.00254
55	0.00254	ENVDIS	Max	0.	-34.11221	55-1	0.00254
55	0.48983	ENVDIS	Max	0.	-22.51898	55-1	0.48983
55	0.97712	ENVDIS	Max	0.	-6.50125	55-1	0.97712
55	0.97712	ENVDIS	Max	0.	-6.50125	55-1	0.97712
55	1.17	ENVDIS	Max	0.	1.98731	55-1	1.17
55	1.17	ENVDIS	Max	0.	1.98731	55-2	0.
55	1.56085	ENVDIS	Max	0.	18.53473	55-2	0.39085
55	1.95169	ENVDIS	Max	0.	35.13408	55-2	0.78169
55	1.95169	ENVDIS	Max	0.	35.13408	55-2	0.78169
55	2.34	ENVDIS	Max	0.	48.37912	55-2	1.17
55	2.34	ENVDIS	Max	0.	48.37912	55-3	0.
55	2.63314	ENVDIS	Max	0.	58.97812	55-3	0.29314
55	2.92627	ENVDIS	Max	0.	68.3503	55-3	0.58627
55	2.92627	ENVDIS	Max	0.	68.3503	55-3	0.58627
55	3.21814	ENVDIS	Max	0.	75.54415	55-3	0.87814
55	3.51	ENVDIS	Max	0.	82.2212	55-3	1.17
55	3.51	ENVDIS	Max	0.	82.2212	55-4	0.
55	3.90085	ENVDIS	Max	0.	92.43745	55-4	0.39085
55	3.90085	ENVDIS	Max	0.	92.43745	55-4	0.39085
55	4.29042	ENVDIS	Max	0.	98.5702	55-4	0.78042
55	4.68	ENVDIS	Max	0.	103.78219	55-4	1.17
55	4.68	ENVDIS	Max	0.	103.78219	55-5	0.
55	4.87542	ENVDIS	Max	0.	107.03081	55-5	0.19542
55	4.87542	ENVDIS	Max	0.	107.03081	55-5	0.19542
55	5.36271	ENVDIS	Max	0.	110.19494	55-5	0.68271
55	5.85	ENVDIS	Max	0.	111.9185	55-5	1.17
55	5.85	ENVDIS	Max	0.	111.9185	55-6	0.
55	6.33729	ENVDIS	Max	0.	110.4718	55-6	0.48729
55	6.82458	ENVDIS	Max	0.	107.58685	55-6	0.97458
55	6.82458	ENVDIS	Max	0.	107.58685	55-6	0.97458
55	7.02	ENVDIS	Max	0.	104.4495	55-6	1.17
55	7.02	ENVDIS	Max	0.	104.4495	55-7	0.
55	7.40958	ENVDIS	Max	0.	99.46109	55-7	0.38958
55	7.79915	ENVDIS	Max	0.	93.55192	55-7	0.77915
55	7.79915	ENVDIS	Max	0.	93.55192	55-7	0.77915
55	8.19	ENVDIS	Max	0.	83.55839	55-7	1.17
55	8.19	ENVDIS	Max	0.	83.55839	55-8	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
55	8.48187	ENVDIS	Max	0.	77.04926	55-8	0.29187
55	8.77373	ENVDIS	Max	0.	70.02332	55-8	0.58373
55	8.77373	ENVDIS	Max	0.	70.02332	55-8	0.58373
55	9.06687	ENVDIS	Max	0.	60.81593	55-8	0.87687
55	9.36	ENVDIS	Max	0.	50.36887	55-8	1.17
55	9.36	ENVDIS	Max	0.	50.36887	55-9	0.
55	9.74831	ENVDIS	Max	0.	37.36582	55-9	0.38831
55	9.74831	ENVDIS	Max	0.	37.36582	55-9	0.38831
55	10.13915	ENVDIS	Max	0.	21.09382	55-9	0.77915
55	10.53	ENVDIS	Max	0.	5.22031	55-9	1.17
55	10.53	ENVDIS	Max	0.	5.22031	55-10	0.
55	10.72288	ENVDIS	Max	0.	-3.09747	55-10	0.19288
55	10.72288	ENVDIS	Max	0.	-3.09747	55-10	0.19288
55	11.21017	ENVDIS	Max	0.	-16.07194	55-10	0.68017
55	11.69746	ENVDIS	Max	0.	-25.17996	55-10	1.16746
55	11.69746	ENVDIS	Max	0.	-25.17996	55-10	1.16746
55	11.7	ENVDIS	Max	0.	-25.22967	55-10	1.17
55	0.	ENVDIS	Min	0.	-92.17488	55-1	0.
55	0.00254	ENVDIS	Min	0.	-92.03123	55-1	0.00254
55	0.00254	ENVDIS	Min	0.	-92.03123	55-1	0.00254
55	0.48983	ENVDIS	Min	0.	-66.29149	55-1	0.48983
55	0.97712	ENVDIS	Min	0.	-41.99233	55-1	0.97712
55	0.97712	ENVDIS	Min	0.	-41.99233	55-1	0.97712
55	1.17	ENVDIS	Min	0.	-33.35609	55-1	1.17
55	1.17	ENVDIS	Min	0.	-33.35609	55-2	0.
55	1.56085	ENVDIS	Min	0.	-17.52835	55-2	0.39085
55	1.95169	ENVDIS	Min	0.	-5.16354	55-2	0.78169
55	1.95169	ENVDIS	Min	0.	-5.16354	55-2	0.78169
55	2.34	ENVDIS	Min	0.	0.56841	55-2	1.17
55	2.34	ENVDIS	Min	0.	0.56841	55-3	0.
55	2.63314	ENVDIS	Min	0.	4.53653	55-3	0.29314
55	2.92627	ENVDIS	Min	0.	8.19583	55-3	0.58627
55	2.92627	ENVDIS	Min	0.	8.19583	55-3	0.58627
55	3.21814	ENVDIS	Min	0.	11.53246	55-3	0.87814
55	3.51	ENVDIS	Min	0.	14.56293	55-3	1.17
55	3.51	ENVDIS	Min	0.	14.56293	55-4	0.
55	3.90085	ENVDIS	Min	0.	18.14164	55-4	0.39085
55	3.90085	ENVDIS	Min	0.	18.14164	55-4	0.39085
55	4.29042	ENVDIS	Min	0.	21.16238	55-4	0.78042
55	4.68	ENVDIS	Min	0.	23.63765	55-4	1.17
55	4.68	ENVDIS	Min	0.	23.63765	55-5	0.
55	4.87542	ENVDIS	Min	0.	24.67389	55-5	0.19542
55	4.87542	ENVDIS	Min	0.	24.67389	55-5	0.19542
55	5.36271	ENVDIS	Min	0.	26.65993	55-5	0.68271
55	5.85	ENVDIS	Min	0.	27.31932	55-5	1.17
55	5.85	ENVDIS	Min	0.	27.31932	55-6	0.
55	6.33729	ENVDIS	Min	0.	26.89159	55-6	0.48729
55	6.82458	ENVDIS	Min	0.	25.61046	55-6	0.97458
55	6.82458	ENVDIS	Min	0.	25.61046	55-6	0.97458
55	7.02	ENVDIS	Min	0.	24.85692	55-6	1.17
55	7.02	ENVDIS	Min	0.	24.85692	55-7	0.
55	7.40958	ENVDIS	Min	0.	22.94521	55-7	0.38958
55	7.79915	ENVDIS	Min	0.	20.48804	55-7	0.77915
55	7.79915	ENVDIS	Min	0.	20.48804	55-7	0.77915

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
55	8.19	ENVDIS	Min	0.	17.47473	55-7	1.17
55	8.19	ENVDIS	Min	0.	17.47473	55-8	0.
55	8.48187	ENVDIS	Min	0.	14.86647	55-8	0.29187
55	8.77373	ENVDIS	Min	0.	11.95206	55-8	0.58373
55	8.77373	ENVDIS	Min	0.	11.95206	55-8	0.58373
55	9.06687	ENVDIS	Min	0.	8.71681	55-8	0.87687
55	9.36	ENVDIS	Min	0.	5.17274	55-8	1.17
55	9.36	ENVDIS	Min	0.	5.17274	55-9	0.
55	9.74831	ENVDIS	Min	0.	0.00253	55-9	0.38831
55	9.74831	ENVDIS	Min	0.	0.00253	55-9	0.38831
55	10.13915	ENVDIS	Min	0.	-11.82728	55-9	0.77915
55	10.53	ENVDIS	Min	0.	-27.08534	55-9	1.17
55	10.53	ENVDIS	Min	0.	-27.08534	55-10	0.
55	10.72288	ENVDIS	Min	0.	-35.44044	55-10	0.19288
55	10.72288	ENVDIS	Min	0.	-35.44044	55-10	0.19288
55	11.21017	ENVDIS	Min	0.	-59.02999	55-10	0.68017
55	11.69746	ENVDIS	Min	0.	-84.06011	55-10	1.16746
55	11.69746	ENVDIS	Min	0.	-84.06011	55-10	1.16746
55	11.7	ENVDIS	Min	0.	-84.20007	55-10	1.17
55	0.	ENVSER	Max	0.	-30.02687	55-1	0.
55	0.00254	ENVSER	Max	0.	-29.97348	55-1	0.00254
55	0.00254	ENVSER	Max	0.	-29.97348	55-1	0.00254
55	0.48983	ENVSER	Max	0.	-20.16055	55-1	0.48983
55	0.97712	ENVSER	Max	0.	-11.201	55-1	0.97712
55	0.97712	ENVSER	Max	0.	-11.201	55-1	0.97712
55	1.17	ENVSER	Max	0.	-7.8903	55-1	1.17
55	1.17	ENVSER	Max	0.	-7.8903	55-2	0.
55	1.56085	ENVSER	Max	0.	-1.59168	55-2	0.39085
55	1.95169	ENVSER	Max	0.	4.15792	55-2	0.78169
55	1.95169	ENVSER	Max	0.	4.15792	55-2	0.78169
55	2.34	ENVSER	Max	0.	9.32647	55-2	1.17
55	2.34	ENVSER	Max	0.	9.32647	55-3	0.
55	2.63314	ENVSER	Max	0.	12.86928	55-3	0.29314
55	2.92627	ENVSER	Max	0.	16.10328	55-3	0.58627
55	2.92627	ENVSER	Max	0.	16.10328	55-3	0.58627
55	3.21814	ENVSER	Max	0.	19.01644	55-3	0.87814
55	3.51	ENVSER	Max	0.	21.62345	55-3	1.17
55	3.51	ENVSER	Max	0.	21.62345	55-4	0.
55	3.90085	ENVSER	Max	0.	24.63508	55-4	0.39085
55	3.90085	ENVSER	Max	0.	24.63508	55-4	0.39085
55	4.29042	ENVSER	Max	0.	27.09058	55-4	0.78042
55	4.68	ENVSER	Max	0.	29.00063	55-4	1.17
55	4.68	ENVSER	Max	0.	29.00063	55-5	0.
55	4.87542	ENVSER	Max	0.	29.75333	55-5	0.19542
55	4.87542	ENVSER	Max	0.	29.75333	55-5	0.19542
55	5.36271	ENVSER	Max	0.	31.03236	55-5	0.68271
55	5.85	ENVSER	Max	0.	31.45801	55-5	1.17
55	5.85	ENVSER	Max	0.	31.45801	55-6	0.
55	6.33729	ENVSER	Max	0.	31.30703	55-6	0.48729
55	6.82458	ENVSER	Max	0.	30.30499	55-6	0.97458
55	6.82458	ENVSER	Max	0.	30.30499	55-6	0.97458
55	7.02	ENVSER	Max	0.	29.66337	55-6	1.17
55	7.02	ENVSER	Max	0.	29.66337	55-7	0.
55	7.40958	ENVSER	Max	0.	27.97478	55-7	0.38958

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
55	7.79915	ENVSER	Max	0.	25.74073	55-7	0.77915
55	7.79915	ENVSER	Max	0.	25.74073	55-7	0.77915
55	8.19	ENVSER	Max	0.	22.95127	55-7	1.17
55	8.19	ENVSER	Max	0.	22.95127	55-8	0.
55	8.48187	ENVSER	Max	0.	20.51017	55-8	0.29187
55	8.77373	ENVSER	Max	0.	17.76291	55-8	0.58373
55	8.77373	ENVSER	Max	0.	17.76291	55-8	0.58373
55	9.06687	ENVSER	Max	0.	14.69555	55-8	0.87687
55	9.36	ENVSER	Max	0.	11.31937	55-8	1.17
55	9.36	ENVSER	Max	0.	11.31937	55-9	0.
55	9.74831	ENVSER	Max	0.	6.37154	55-9	0.38831
55	9.74831	ENVSER	Max	0.	6.37154	55-9	0.38831
55	10.13915	ENVSER	Max	0.	0.84412	55-9	0.77915
55	10.53	ENVSER	Max	0.	-5.23233	55-9	1.17
55	10.53	ENVSER	Max	0.	-5.23233	55-10	0.
55	10.72288	ENVSER	Max	0.	-8.43339	55-10	0.19288
55	10.72288	ENVSER	Max	0.	-8.43339	55-10	0.19288
55	11.21017	ENVSER	Max	0.	-17.11594	55-10	0.68017
55	11.69746	ENVSER	Max	0.	-26.65188	55-10	1.16746
55	11.69746	ENVSER	Max	0.	-26.65188	55-10	1.16746
55	11.7	ENVSER	Max	0.	-26.70382	55-10	1.17
55	0.	ENVSER	Min	0.	-33.37966	55-1	0.
55	0.00254	ENVSER	Min	0.	-33.32482	55-1	0.00254
55	0.00254	ENVSER	Min	0.	-33.32482	55-1	0.00254
55	0.48983	ENVSER	Min	0.	-23.23281	55-1	0.48983
55	0.97712	ENVSER	Min	0.	-13.99418	55-1	0.97712
55	0.97712	ENVSER	Min	0.	-13.99418	55-1	0.97712
55	1.17	ENVSER	Min	0.	-10.57301	55-1	1.17
55	1.17	ENVSER	Min	0.	-10.57301	55-2	0.
55	1.56085	ENVSER	Min	0.	-4.05054	55-2	0.39085
55	1.95169	ENVSER	Min	0.	1.92291	55-2	0.78169
55	1.95169	ENVSER	Min	0.	1.92291	55-2	0.78169
55	2.34	ENVSER	Min	0.	7.31386	55-2	1.17
55	2.34	ENVSER	Min	0.	7.31386	55-3	0.
55	2.63314	ENVSER	Min	0.	11.02456	55-3	0.29314
55	2.92627	ENVSER	Min	0.	14.42644	55-3	0.58627
55	2.92627	ENVSER	Min	0.	14.42644	55-3	0.58627
55	3.21814	ENVSER	Min	0.	17.50676	55-3	0.87814
55	3.51	ENVSER	Min	0.	20.28093	55-3	1.17
55	3.51	ENVSER	Min	0.	20.28093	55-4	0.
55	3.90085	ENVSER	Min	0.	23.51641	55-4	0.39085
55	3.90085	ENVSER	Min	0.	23.51641	55-4	0.39085
55	4.29042	ENVSER	Min	0.	26.19504	55-4	0.78042
55	4.68	ENVSER	Min	0.	28.3282	55-4	1.17
55	4.68	ENVSER	Min	0.	28.3282	55-5	0.
55	4.87542	ENVSER	Min	0.	29.19283	55-5	0.19542
55	4.87542	ENVSER	Min	0.	29.19283	55-5	0.19542
55	5.36271	ENVSER	Min	0.	30.75095	55-5	0.68271
55	5.85	ENVSER	Min	0.	31.45569	55-5	1.17
55	5.85	ENVSER	Min	0.	31.45569	55-6	0.
55	6.33729	ENVSER	Min	0.	31.03027	55-6	0.48729
55	6.82458	ENVSER	Min	0.	29.74914	55-6	0.97458
55	6.82458	ENVSER	Min	0.	29.74914	55-6	0.97458
55	7.02	ENVSER	Min	0.	28.99561	55-6	1.17

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
55	7.02	ENVSER	Min	0.	28.99561	55-7	0.
55	7.40958	ENVSER	Min	0.	27.08389	55-7	0.38958
55	7.79915	ENVSER	Min	0.	24.62672	55-7	0.77915
55	7.79915	ENVSER	Min	0.	24.62672	55-7	0.77915
55	8.19	ENVSER	Min	0.	21.61341	55-7	1.17
55	8.19	ENVSER	Min	0.	21.61341	55-8	0.
55	8.48187	ENVSER	Min	0.	19.00515	55-8	0.29187
55	8.77373	ENVSER	Min	0.	16.09073	55-8	0.58373
55	8.77373	ENVSER	Min	0.	16.09073	55-8	0.58373
55	9.06687	ENVSER	Min	0.	12.85548	55-8	0.87687
55	9.36	ENVSER	Min	0.	9.31141	55-8	1.17
55	9.36	ENVSER	Min	0.	9.31141	55-9	0.
55	9.74831	ENVSER	Min	0.	4.14119	55-9	0.38831
55	9.74831	ENVSER	Min	0.	4.14119	55-9	0.38831
55	10.13915	ENVSER	Min	0.	-1.61008	55-9	0.77915
55	10.53	ENVSER	Min	0.	-7.91038	55-9	1.17
55	10.53	ENVSER	Min	0.	-7.91038	55-10	0.
55	10.72288	ENVSER	Min	0.	-11.22191	55-10	0.19288
55	10.72288	ENVSER	Min	0.	-11.22191	55-10	0.19288
55	11.21017	ENVSER	Min	0.	-20.18354	55-10	0.68017
55	11.69746	ENVSER	Min	0.	-29.99857	55-10	1.16746
55	11.69746	ENVSER	Min	0.	-29.99857	55-10	1.16746
55	11.7	ENVSER	Min	0.	-30.05196	55-10	1.17
55	0.	SISMO		0.	-31.46948	55-1	0.
55	0.00254	SISMO		0.	-31.41342	55-1	0.00254
55	0.00254	SISMO		0.	-31.41342	55-1	0.00254
55	0.48983	SISMO		0.	-21.10899	55-1	0.48983
55	0.97712	SISMO		0.	-11.7007	55-1	0.97712
55	0.97712	SISMO		0.	-11.7007	55-1	0.97712
55	1.17	SISMO		0.	-8.22417	55-1	1.17
55	1.17	SISMO		0.	-8.22417	55-2	0.
55	1.56085	SISMO		0.	-1.61007	55-2	0.39085
55	1.95169	SISMO		0.	4.42751	55-2	0.78169
55	1.95169	SISMO		0.	4.42751	55-2	0.78169
55	2.34	SISMO		0.	9.85494	55-2	1.17
55	2.34	SISMO		0.	9.85494	55-3	0.
55	2.63314	SISMO		0.	13.57521	55-3	0.29314
55	2.92627	SISMO		0.	16.97119	55-3	0.58627
55	2.92627	SISMO		0.	16.97119	55-3	0.58627
55	3.21814	SISMO		0.	20.03027	55-3	0.87814
55	3.51	SISMO		0.	22.76786	55-3	1.17
55	3.51	SISMO		0.	22.76786	55-4	0.
55	3.90085	SISMO		0.	25.93035	55-4	0.39085
55	3.90085	SISMO		0.	25.93035	55-4	0.39085
55	4.29042	SISMO		0.	28.50886	55-4	0.78042
55	4.68	SISMO		0.	30.51459	55-4	1.17
55	4.68	SISMO		0.	30.51459	55-5	0.
55	4.87542	SISMO		0.	31.305	55-5	0.19542
55	4.87542	SISMO		0.	31.305	55-5	0.19542
55	5.36271	SISMO		0.	32.64812	55-5	0.68271
55	5.85	SISMO		0.	33.09511	55-5	1.17
55	5.85	SISMO		0.	33.09511	55-6	0.
55	6.33729	SISMO		0.	32.64598	55-6	0.48729
55	6.82458	SISMO		0.	31.30071	55-6	0.97458

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
55	6.82458	SISMO		0.	31.30071	55-6	0.97458
55	7.02	SISMO		0.	30.50944	55-6	1.17
55	7.02	SISMO		0.	30.50944	55-7	0.
55	7.40958	SISMO		0.	28.502	55-7	0.38958
55	7.79915	SISMO		0.	25.92179	55-7	0.77915
55	7.79915	SISMO		0.	25.92179	55-7	0.77915
55	8.19	SISMO		0.	22.75758	55-7	1.17
55	8.19	SISMO		0.	22.75758	55-8	0.
55	8.48187	SISMO		0.	20.0187	55-8	0.29187
55	8.77373	SISMO		0.	16.95834	55-8	0.58373
55	8.77373	SISMO		0.	16.95834	55-8	0.58373
55	9.06687	SISMO		0.	13.56107	55-8	0.87687
55	9.36	SISMO		0.	9.83952	55-8	1.17
55	9.36	SISMO		0.	9.83952	55-9	0.
55	9.74831	SISMO		0.	4.41037	55-9	0.38831
55	9.74831	SISMO		0.	4.41037	55-9	0.38831
55	10.13915	SISMO		0.	-1.62893	55-9	0.77915
55	10.53	SISMO		0.	-8.24474	55-9	1.17
55	10.53	SISMO		0.	-8.24474	55-10	0.
55	10.72288	SISMO		0.	-11.72211	55-10	0.19288
55	10.72288	SISMO		0.	-11.72211	55-10	0.19288
55	11.21017	SISMO		0.	-21.13255	55-10	0.68017
55	11.69746	SISMO		0.	-31.43913	55-10	1.16746
55	11.69746	SISMO		0.	-31.43913	55-10	1.16746
55	11.7	SISMO		0.	-31.4952	55-10	1.17
56	0.	ENVDIS	Max	0.	4.6334	56-1	0.
56	0.25594	ENVDIS	Max	0.	7.93496	56-1	0.25594
56	0.	ENVDIS	Min	0.	-21.7594	56-1	0.
56	0.25594	ENVDIS	Min	0.	-22.24992	56-1	0.25594
56	0.	ENVSER	Max	0.	-2.78564	56-1	0.
56	0.25594	ENVSER	Max	0.	-1.35273	56-1	0.25594
56	0.	ENVSER	Min	0.	-5.30507	56-1	0.
56	0.25594	ENVSER	Min	0.	-4.49465	56-1	0.25594
56	0.	SISMO		0.	-5.62894	56-1	0.
56	0.25594	SISMO		0.	-4.832	56-1	0.25594
57	0.	ENVDIS	Max	0.	7.93496	57-1	0.
57	0.25594	ENVDIS	Max	0.	12.09223	57-1	0.25594
57	0.	ENVDIS	Min	0.	-22.24992	57-1	0.
57	0.25594	ENVDIS	Min	0.	-21.78983	57-1	0.25594
57	0.	ENVSER	Max	0.	-1.35273	57-1	0.
57	0.25594	ENVSER	Max	0.	0.82839	57-1	0.25594
57	0.	ENVSER	Min	0.	-4.49465	57-1	0.
57	0.25594	ENVSER	Min	0.	-2.96728	57-1	0.25594
57	0.	SISMO		0.	-4.832	57-1	0.
57	0.25594	SISMO		0.	-3.29761	57-1	0.25594
58	0.	ENVDIS	Max	0.	12.09223	58-1	0.
58	0.25594	ENVDIS	Max	0.	17.16577	58-1	0.25594
58	0.	ENVDIS	Min	0.	-21.78983	58-1	0.
58	0.25594	ENVDIS	Min	0.	-19.53657	58-1	0.25594
58	0.	ENVSER	Max	0.	0.82839	58-1	0.
58	0.25594	ENVSER	Max	0.	3.92427	58-1	0.25594
58	0.	ENVSER	Min	0.	-2.96728	58-1	0.
58	0.25594	ENVSER	Min	0.	-0.51947	58-1	0.25594
58	0.	SISMO		0.	-3.29761	58-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
58	0.25594	SISMO		0.	-0.81364	58-1	0.25594
59	0.	ENVDIS	Max	0.	17.16577	59-1	0.
59	0.25594	ENVDIS	Max	0.	23.559	59-1	0.25594
59	0.	ENVDIS	Min	0.	-19.53657	59-1	0.
59	0.25594	ENVDIS	Min	0.	-14.95515	59-1	0.25594
59	0.	ENVSER	Max	0.	3.92427	59-1	0.
59	0.25594	ENVSER	Max	0.	8.10424	59-1	0.25594
59	0.	ENVSER	Min	0.	-0.51947	59-1	0.
59	0.25594	ENVSER	Min	0.	3.07133	59-1	0.25594
59	0.	SISMO		0.	-0.81364	59-1	0.
59	0.25594	SISMO		0.	2.85276	59-1	0.25594
60	0.	ENVDIS	Max	0.	23.559	60-1	0.
60	0.25594	ENVDIS	Max	0.	32.83818	60-1	0.25594
60	0.	ENVDIS	Min	0.	-14.95515	60-1	0.
60	0.25594	ENVDIS	Min	0.	-7.33798	60-1	0.25594
60	0.	ENVSER	Max	0.	8.10424	60-1	0.
60	0.25594	ENVSER	Max	0.	13.52835	60-1	0.25594
60	0.	ENVSER	Min	0.	3.07133	60-1	0.
60	0.25594	ENVSER	Min	0.	8.03783	60-1	0.25594
60	0.	SISMO		0.	2.85276	60-1	0.
60	0.25594	SISMO		0.	7.94611	60-1	0.25594
61	0.	ENVDIS	Max	0.	32.83818	61-1	0.
61	0.25594	ENVDIS	Max	0.	43.71088	61-1	0.25594
61	0.	ENVDIS	Min	0.	-7.33798	61-1	0.
61	0.25594	ENVDIS	Min	0.	3.96713	61-1	0.25594
61	0.	ENVSER	Max	0.	13.52835	61-1	0.
61	0.25594	ENVSER	Max	0.	20.33057	61-1	0.25594
61	0.	ENVSER	Min	0.	8.03783	61-1	0.
61	0.25594	ENVSER	Min	0.	14.60915	61-1	0.25594
61	0.	SISMO		0.	7.94611	61-1	0.
61	0.25594	SISMO		0.	14.70864	61-1	0.25594
62	0.	ENVDIS	Max	0.	105.1627	62-1	0.
62	0.2475	ENVDIS	Max	0.	85.45693	62-1	0.2475
62	0.	ENVDIS	Min	0.	41.93317	62-1	0.
62	0.2475	ENVDIS	Min	0.	33.64382	62-1	0.2475
62	0.	ENVSER	Max	0.	49.98561	62-1	0.
62	0.2475	ENVSER	Max	0.	41.99986	62-1	0.2475
62	0.	ENVSER	Min	0.	44.93977	62-1	0.
62	0.2475	ENVSER	Min	0.	36.83517	62-1	0.2475
62	0.	SISMO		0.	51.41937	62-1	0.
62	0.2475	SISMO		0.	43.17867	62-1	0.2475
63	0.	ENVDIS	Max	0.	85.45693	63-1	0.
63	0.2475	ENVDIS	Max	0.	72.62356	63-1	0.2475
63	0.	ENVDIS	Min	0.	33.64382	63-1	0.
63	0.2475	ENVDIS	Min	0.	25.81147	63-1	0.2475
63	0.	ENVSER	Max	0.	41.99986	63-1	0.
63	0.2475	ENVSER	Max	0.	34.36492	63-1	0.2475
63	0.	ENVSER	Min	0.	36.83517	63-1	0.
63	0.2475	ENVSER	Min	0.	29.12517	63-1	0.2475
63	0.	SISMO		0.	43.17867	63-1	0.
63	0.2475	SISMO		0.	35.30005	63-1	0.2475
64	0.	ENVDIS	Max	0.	72.62356	64-1	0.
64	0.2475	ENVDIS	Max	0.	60.49124	64-1	0.2475
64	0.	ENVDIS	Min	0.	25.81147	64-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
64	0.2475	ENVDIS	Min	0.	18.43076	64-1	0.2475
64	0.	ENVSER	Max	0.	34.36492	64-1	0.
64	0.2475	ENVSER	Max	0.	27.08027	64-1	0.2475
64	0.	ENVSER	Min	0.	29.12517	64-1	0.
64	0.2475	ENVSER	Min	0.	21.8072	64-1	0.2475
64	0.	SISMO		0.	35.30005	64-1	0.
64	0.2475	SISMO		0.	27.78299	64-1	0.2475
65	0.	ENVDIS	Max	0.	60.49124	65-1	0.
65	0.2475	ENVDIS	Max	0.	48.66539	65-1	0.2475
65	0.	ENVDIS	Min	0.	18.43076	65-1	0.
65	0.2475	ENVDIS	Min	0.	11.49632	65-1	0.2475
65	0.	ENVSER	Max	0.	27.08027	65-1	0.
65	0.2475	ENVSER	Max	0.	20.14535	65-1	0.2475
65	0.	ENVSER	Min	0.	21.8072	65-1	0.
65	0.2475	ENVSER	Min	0.	14.87866	65-1	0.2475
65	0.	SISMO		0.	27.78299	65-1	0.
65	0.2475	SISMO		0.	20.62687	65-1	0.2475
66	0.	ENVDIS	Max	0.	48.66539	66-1	0.
66	0.2475	ENVDIS	Max	0.	37.16569	66-1	0.2475
66	0.	ENVDIS	Min	0.	11.49632	66-1	0.
66	0.2475	ENVDIS	Min	0.	4.45026	66-1	0.2475
66	0.	ENVSER	Max	0.	20.14535	66-1	0.
66	0.2475	ENVSER	Max	0.	13.5595	66-1	0.2475
66	0.	ENVSER	Min	0.	14.87866	66-1	0.
66	0.2475	ENVSER	Min	0.	8.3369	66-1	0.2475
66	0.	SISMO		0.	20.62687	66-1	0.
66	0.2475	SISMO		0.	13.83103	66-1	0.2475
67	0.	ENVDIS	Max	0.	37.16569	67-1	0.
67	0.2475	ENVDIS	Max	0.	26.01313	67-1	0.2475
67	0.	ENVDIS	Min	0.	4.45026	67-1	0.
67	0.2475	ENVDIS	Min	0.	-9.68141	67-1	0.2475
67	0.	ENVSER	Max	0.	13.5595	67-1	0.
67	0.2475	ENVSER	Max	0.	7.32207	67-1	0.2475
67	0.	ENVSER	Min	0.	8.3369	67-1	0.
67	0.2475	ENVSER	Min	0.	2.17924	67-1	0.2475
67	0.	SISMO		0.	13.83103	67-1	0.
67	0.2475	SISMO		0.	7.39477	67-1	0.2475
68	0.	ENVDIS	Max	0.	26.01313	68-1	0.
68	0.2475	ENVDIS	Max	0.	15.23023	68-1	0.2475
68	0.	ENVDIS	Min	0.	-9.68141	68-1	0.
68	0.2475	ENVDIS	Min	0.	-22.70979	68-1	0.2475
68	0.	ENVSER	Max	0.	7.32207	68-1	0.
68	0.2475	ENVSER	Max	0.	1.43235	68-1	0.2475
68	0.	ENVSER	Min	0.	2.17924	68-1	0.
68	0.2475	ENVSER	Min	0.	-3.597	68-1	0.2475
68	0.	SISMO		0.	7.39477	68-1	0.
68	0.2475	SISMO		0.	1.31737	68-1	0.2475
69	0.	ENVDIS	Max	0.	15.23023	69-1	0.
69	0.2475	ENVDIS	Max	0.	4.84173	69-1	0.2475
69	0.	ENVDIS	Min	0.	-22.70979	69-1	0.
69	0.2475	ENVDIS	Min	0.	-34.65866	69-1	0.2475
69	0.	ENVSER	Max	0.	1.43235	69-1	0.
69	0.2475	ENVSER	Max	0.	-4.11035	69-1	0.2475
69	0.	ENVSER	Min	0.	-3.597	69-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
69	0.2475	ENVSER	Min	0.	-8.99453	69-1	0.2475
69	0.	SISMO		0.	1.31737	69-1	0.
69	0.2475	SISMO		0.	-4.40192	69-1	0.2475
70	0.	ENVDIS	Max	0.	4.84173	70-1	0.
70	0.2475	ENVDIS	Max	0.	-4.80061	70-1	0.2475
70	0.	ENVDIS	Min	0.	-34.65866	70-1	0.
70	0.2475	ENVDIS	Min	0.	-45.55172	70-1	0.2475
70	0.	ENVSER	Max	0.	-4.11035	70-1	0.
70	0.2475	ENVSER	Max	0.	-9.30677	70-1	0.2475
70	0.	ENVSER	Min	0.	-8.99453	70-1	0.
70	0.2475	ENVSER	Min	0.	-14.01602	70-1	0.2475
70	0.	SISMO		0.	-4.40192	70-1	0.
70	0.2475	SISMO		0.	-9.76383	70-1	0.2475
71	0.	ENVDIS	Max	0.	-4.80061	71-1	0.
71	0.2475	ENVDIS	Max	0.	-9.6587	71-1	0.2475
71	0.	ENVDIS	Min	0.	-45.55172	71-1	0.
71	0.2475	ENVDIS	Min	0.	-55.41262	71-1	0.2475
71	0.	ENVSER	Max	0.	-9.30677	71-1	0.
71	0.2475	ENVSER	Max	0.	-14.15758	71-1	0.2475
71	0.	ENVSER	Min	0.	-14.01602	71-1	0.
71	0.2475	ENVSER	Min	0.	-18.66414	71-1	0.2475
71	0.	SISMO		0.	-9.76383	71-1	0.
71	0.2475	SISMO		0.	-14.7691	71-1	0.2475
72	0.	ENVDIS	Max	0.	-9.6587	72-1	0.
72	0.2475	ENVDIS	Max	0.	-14.17186	72-1	0.2475
72	0.	ENVDIS	Min	0.	-55.41262	72-1	0.
72	0.2475	ENVDIS	Min	0.	-64.26492	72-1	0.2475
72	0.	ENVSER	Max	0.	-14.15758	72-1	0.
72	0.2475	ENVSER	Max	0.	-18.66349	72-1	0.2475
72	0.	ENVSER	Min	0.	-18.66414	72-1	0.
72	0.2475	ENVSER	Min	0.	-22.94153	72-1	0.2475
72	0.	SISMO		0.	-14.7691	72-1	0.
72	0.2475	SISMO		0.	-19.41843	72-1	0.2475
73	0.	ENVDIS	Max	0.	-14.17186	73-1	0.
73	0.2475	ENVDIS	Max	0.	-18.34065	73-1	0.2475
73	0.	ENVDIS	Min	0.	-64.26492	73-1	0.
73	0.2475	ENVDIS	Min	0.	-72.13205	73-1	0.2475
73	0.	ENVSER	Max	0.	-18.66349	73-1	0.
73	0.2475	ENVSER	Max	0.	-22.82513	73-1	0.2475
73	0.	ENVSER	Min	0.	-22.94153	73-1	0.
73	0.2475	ENVSER	Min	0.	-26.85079	73-1	0.2475
73	0.	SISMO		0.	-19.41843	73-1	0.
73	0.2475	SISMO		0.	-23.7125	73-1	0.2475
74	0.	ENVDIS	Max	0.	-18.34065	74-1	0.
74	0.2475	ENVDIS	Max	0.	-22.16557	74-1	0.2475
74	0.	ENVDIS	Min	0.	-72.13205	74-1	0.
74	0.2475	ENVDIS	Min	0.	-79.03734	74-1	0.2475
74	0.	ENVSER	Max	0.	-22.82513	74-1	0.
74	0.2475	ENVSER	Max	0.	-26.64313	74-1	0.2475
74	0.	ENVSER	Min	0.	-26.85079	74-1	0.
74	0.2475	ENVSER	Min	0.	-30.39448	74-1	0.2475
74	0.	SISMO		0.	-23.7125	74-1	0.
74	0.2475	SISMO		0.	-27.65197	74-1	0.2475
75	0.	ENVDIS	Max	0.	-22.16557	75-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
75	0.2475	ENVDIS	Max	0.	-25.6471	75-1	0.2475
75	0.	ENVDIS	Min	0.	-79.03734	75-1	0.
75	0.2475	ENVDIS	Min	0.	-85.00395	75-1	0.2475
75	0.	ENVSER	Max	0.	-26.64313	75-1	0.
75	0.2475	ENVSER	Max	0.	-30.11806	75-1	0.2475
75	0.	ENVSER	Min	0.	-30.39448	75-1	0.
75	0.2475	ENVSER	Min	0.	-33.5751	75-1	0.2475
75	0.	SISMO		0.	-27.65197	75-1	0.
75	0.2475	SISMO		0.	-31.23741	75-1	0.2475
76	0.	ENVDIS	Max	0.	-25.6471	76-1	0.
76	0.2475	ENVDIS	Max	0.	-28.78567	76-1	0.2475
76	0.	ENVDIS	Min	0.	-85.00395	76-1	0.
76	0.2475	ENVDIS	Min	0.	-90.05525	76-1	0.2475
76	0.	ENVSER	Max	0.	-30.11806	76-1	0.
76	0.2475	ENVSER	Max	0.	-33.25043	76-1	0.2475
76	0.	ENVSER	Min	0.	-33.5751	76-1	0.
76	0.2475	ENVSER	Min	0.	-36.39509	76-1	0.2475
76	0.	SISMO		0.	-31.23741	76-1	0.
76	0.2475	SISMO		0.	-34.46938	76-1	0.2475
77	0.	ENVDIS	Max	0.	-28.78567	77-1	0.
77	0.2475	ENVDIS	Max	0.	-31.58167	77-1	0.2475
77	0.	ENVDIS	Min	0.	-90.05525	77-1	0.
77	0.2475	ENVDIS	Min	0.	-94.21305	77-1	0.2475
77	0.	ENVSER	Max	0.	-33.25043	77-1	0.
77	0.2475	ENVSER	Max	0.	-36.0407	77-1	0.2475
77	0.	ENVSER	Min	0.	-36.39509	77-1	0.
77	0.2475	ENVSER	Min	0.	-38.85683	77-1	0.2475
77	0.	SISMO		0.	-34.46938	77-1	0.
77	0.2475	SISMO		0.	-37.34834	77-1	0.2475
78	0.	ENVDIS	Max	0.	-31.58167	78-1	0.
78	0.2475	ENVDIS	Max	0.	-34.0354	78-1	0.2475
78	0.	ENVDIS	Min	0.	-94.21305	78-1	0.
78	0.2475	ENVDIS	Min	0.	-97.96082	78-1	0.2475
78	0.	ENVSER	Max	0.	-36.0407	78-1	0.
78	0.2475	ENVSER	Max	0.	-38.48928	78-1	0.2475
78	0.	ENVSER	Min	0.	-38.85683	78-1	0.
78	0.2475	ENVSER	Min	0.	-40.96262	78-1	0.2475
78	0.	SISMO		0.	-37.34834	78-1	0.
78	0.2475	SISMO		0.	-39.87472	78-1	0.2475
79	0.	ENVDIS	Max	0.	-34.0354	79-1	0.
79	0.2475	ENVDIS	Max	0.	-36.14714	79-1	0.2475
79	0.	ENVDIS	Min	0.	-97.96082	79-1	0.
79	0.2475	ENVDIS	Min	0.	-100.90249	79-1	0.2475
79	0.	ENVSER	Max	0.	-38.48928	79-1	0.
79	0.2475	ENVSER	Max	0.	-40.59647	79-1	0.2475
79	0.	ENVSER	Min	0.	-40.96262	79-1	0.
79	0.2475	ENVSER	Min	0.	-42.71468	79-1	0.2475
79	0.	SISMO		0.	-39.87472	79-1	0.
79	0.2475	SISMO		0.	-42.04884	79-1	0.2475
80	0.	ENVDIS	Max	0.	-36.14714	80-1	0.
80	0.2475	ENVDIS	Max	0.	-37.91709	80-1	0.2475
80	0.	ENVDIS	Min	0.	-100.90249	80-1	0.
80	0.2475	ENVDIS	Min	0.	-103.03458	80-1	0.2475
80	0.	ENVSER	Max	0.	-40.59647	80-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
80	0.2475	ENVSER	Max	0.	-42.36253	80-1	0.2475
80	0.	ENVSER	Min	0.	-42.71468	80-1	0.
80	0.2475	ENVSER	Min	0.	-44.11517	80-1	0.2475
80	0.	SISMO		0.	-42.04884	80-1	0.
80	0.2475	SISMO		0.	-43.87096	80-1	0.2475
81	0.	ENVDIS	Max	0.	-37.91709	81-1	0.
81	0.2475	ENVDIS	Max	0.	-39.34535	81-1	0.2475
81	0.	ENVDIS	Min	0.	-103.03458	81-1	0.
81	0.2475	ENVDIS	Min	0.	-104.37813	81-1	0.2475
81	0.	ENVSER	Max	0.	-42.36253	81-1	0.
81	0.2475	ENVSER	Max	0.	-43.78762	81-1	0.2475
81	0.	ENVSER	Min	0.	-44.11517	81-1	0.
81	0.2475	ENVSER	Min	0.	-45.16615	81-1	0.2475
81	0.	SISMO		0.	-43.87096	81-1	0.
81	0.2475	SISMO		0.	-45.34127	81-1	0.2475
82	0.	ENVDIS	Max	0.	-39.34535	82-1	0.
82	0.2475	ENVDIS	Max	0.	-40.43199	82-1	0.2475
82	0.	ENVDIS	Min	0.	-104.37813	82-1	0.
82	0.2475	ENVDIS	Min	0.	-105.21318	82-1	0.2475
82	0.	ENVSER	Max	0.	-43.78762	82-1	0.
82	0.2475	ENVSER	Max	0.	-44.87183	82-1	0.2475
82	0.	ENVSER	Min	0.	-45.16615	82-1	0.
82	0.2475	ENVSER	Min	0.	-45.86959	82-1	0.2475
82	0.	SISMO		0.	-45.34127	82-1	0.
82	0.2475	SISMO		0.	-46.45985	82-1	0.2475
83	0.	ENVDIS	Max	0.	-40.43199	83-1	0.
83	0.2475	ENVDIS	Max	0.	-41.17697	83-1	0.2475
83	0.	ENVDIS	Min	0.	-105.21318	83-1	0.
83	0.2475	ENVDIS	Min	0.	-105.79281	83-1	0.2475
83	0.	ENVSER	Max	0.	-44.87183	83-1	0.
83	0.2475	ENVSER	Max	0.	-45.61515	83-1	0.2475
83	0.	ENVSER	Min	0.	-45.86959	83-1	0.
83	0.2475	ENVSER	Min	0.	-46.22739	83-1	0.2475
83	0.	SISMO		0.	-46.45985	83-1	0.
83	0.2475	SISMO		0.	-47.2267	83-1	0.2475
84	0.	ENVDIS	Max	0.	-41.17697	84-1	0.
84	0.2475	ENVDIS	Max	0.	-41.58019	84-1	0.2475
84	0.	ENVDIS	Min	0.	-105.79281	84-1	0.
84	0.2475	ENVDIS	Min	0.	-105.97774	84-1	0.2475
84	0.	ENVSER	Max	0.	-45.61515	84-1	0.
84	0.2475	ENVSER	Max	0.	-46.01749	84-1	0.2475
84	0.	ENVSER	Min	0.	-46.22739	84-1	0.
84	0.2475	ENVSER	Min	0.	-46.24133	84-1	0.2475
84	0.	SISMO		0.	-47.2267	84-1	0.
84	0.2475	SISMO		0.	-47.64173	84-1	0.2475
85	0.	ENVDIS	Max	0.	-41.58019	85-1	0.
85	0.2475	ENVDIS	Max	0.	-41.64145	85-1	0.2475
85	0.	ENVDIS	Min	0.	-105.97774	85-1	0.
85	0.2475	ENVDIS	Min	0.	-105.88796	85-1	0.2475
85	0.	ENVSER	Max	0.	-46.01749	85-1	0.
85	0.2475	ENVSER	Max	0.	-45.91314	85-1	0.2475
85	0.	ENVSER	Min	0.	-46.24133	85-1	0.
85	0.2475	ENVSER	Min	0.	-46.07868	85-1	0.2475
85	0.	SISMO		0.	-47.64173	85-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
85	0.2475	SISMO		0.	-47.70475	85-1	0.2475
86	0.	ENVDIS	Max	0.	-41.64145	86-1	0.
86	0.2475	ENVDIS	Max	0.	-40.48469	86-1	0.2475
86	0.	ENVDIS	Min	0.	-105.88796	86-1	0.
86	0.2475	ENVDIS	Min	0.	-105.58459	86-1	0.2475
86	0.	ENVSER	Max	0.	-45.91314	86-1	0.
86	0.2475	ENVSER	Max	0.	-45.24442	86-1	0.2475
86	0.	ENVSER	Min	0.	-46.07868	86-1	0.
86	0.2475	ENVSER	Min	0.	-45.79844	86-1	0.2475
86	0.	SISMO		0.	-47.70475	86-1	0.
86	0.2475	SISMO		0.	-47.4155	86-1	0.2475
87	0.	ENVDIS	Max	0.	-40.48469	87-1	0.
87	0.2475	ENVDIS	Max	0.	-38.92576	87-1	0.2475
87	0.	ENVDIS	Min	0.	-105.58459	87-1	0.
87	0.2475	ENVDIS	Min	0.	-104.8875	87-1	0.2475
87	0.	ENVSER	Max	0.	-45.24442	87-1	0.
87	0.2475	ENVSER	Max	0.	-44.2367	87-1	0.2475
87	0.	ENVSER	Min	0.	-45.79844	87-1	0.
87	0.2475	ENVSER	Min	0.	-45.17642	87-1	0.2475
87	0.	SISMO		0.	-47.4155	87-1	0.
87	0.2475	SISMO		0.	-46.7736	87-1	0.2475
88	0.	ENVDIS	Max	0.	-38.92576	88-1	0.
88	0.2475	ENVDIS	Max	0.	-37.03538	88-1	0.2475
88	0.	ENVDIS	Min	0.	-104.8875	88-1	0.
88	0.2475	ENVDIS	Min	0.	-104.12334	88-1	0.2475
88	0.	ENVSER	Max	0.	-44.2367	88-1	0.
88	0.2475	ENVSER	Max	0.	-42.89143	88-1	0.2475
88	0.	ENVSER	Min	0.	-45.17642	88-1	0.
88	0.2475	ENVSER	Min	0.	-44.21216	88-1	0.2475
88	0.	SISMO		0.	-46.7736	88-1	0.
88	0.2475	SISMO		0.	-45.77858	88-1	0.2475
89	0.	ENVDIS	Max	0.	-37.03538	89-1	0.
89	0.2475	ENVDIS	Max	0.	-34.81768	89-1	0.2475
89	0.	ENVDIS	Min	0.	-104.12334	89-1	0.
89	0.2475	ENVDIS	Min	0.	-102.77885	89-1	0.2475
89	0.	ENVSER	Max	0.	-42.89143	89-1	0.
89	0.2475	ENVSER	Max	0.	-41.20994	89-1	0.2475
89	0.	ENVSER	Min	0.	-44.21216	89-1	0.
89	0.2475	ENVSER	Min	0.	-42.90512	89-1	0.2475
89	0.	SISMO		0.	-45.77858	89-1	0.
89	0.2475	SISMO		0.	-44.4299	89-1	0.2475
90	0.	ENVDIS	Max	0.	-34.81768	90-1	0.
90	0.2475	ENVDIS	Max	0.	-32.27671	90-1	0.2475
90	0.	ENVDIS	Min	0.	-102.77885	90-1	0.
90	0.2475	ENVDIS	Min	0.	-100.82557	90-1	0.2475
90	0.	ENVSER	Max	0.	-41.20994	90-1	0.
90	0.2475	ENVSER	Max	0.	-39.19351	90-1	0.2475
90	0.	ENVSER	Min	0.	-42.90512	90-1	0.
90	0.2475	ENVSER	Min	0.	-41.25468	90-1	0.2475
90	0.	SISMO		0.	-44.4299	90-1	0.
90	0.2475	SISMO		0.	-42.72691	90-1	0.2475
91	0.	ENVDIS	Max	0.	-32.27671	91-1	0.
91	0.2475	ENVDIS	Max	0.	-29.41644	91-1	0.2475
91	0.	ENVDIS	Min	0.	-100.82557	91-1	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	StepType	M2	M3	FrameElem	ElemStation
	m			Tonf-m	Tonf-m		m
91	0.2475	ENVDIS	Min	0.	-98.0592	91-1	0.2475
91	0.	ENVSER	Max	0.	-39.19351	91-1	0.
91	0.2475	ENVSER	Max	0.	-36.84333	91-1	0.2475
91	0.	ENVSER	Min	0.	-41.25468	91-1	0.
91	0.2475	ENVSER	Min	0.	-39.26013	91-1	0.2475
91	0.	SISMO		0.	-42.72691	91-1	0.
91	0.2475	SISMO		0.	-40.66888	91-1	0.2475
92	0.	ENVDIS	Max	0.	-29.41644	92-1	0.
92	0.2475	ENVDIS	Max	0.	-26.24081	92-1	0.2475
92	0.	ENVDIS	Min	0.	-98.0592	92-1	0.
92	0.2475	ENVDIS	Min	0.	-94.45503	92-1	0.2475
92	0.	ENVSER	Max	0.	-36.84333	92-1	0.
92	0.2475	ENVSER	Max	0.	-34.1605	92-1	0.2475
92	0.	ENVSER	Min	0.	-39.26013	92-1	0.
92	0.2475	ENVSER	Min	0.	-36.92068	92-1	0.2475
92	0.	SISMO		0.	-40.66888	92-1	0.
92	0.2475	SISMO		0.	-38.25498	92-1	0.2475
93	0.	ENVDIS	Max	0.	-26.24081	93-1	0.
93	0.2475	ENVDIS	Max	0.	-22.75366	93-1	0.2475
93	0.	ENVDIS	Min	0.	-94.45503	93-1	0.
93	0.2475	ENVDIS	Min	0.	-89.98979	93-1	0.2475
93	0.	ENVSER	Max	0.	-34.1605	93-1	0.
93	0.2475	ENVSER	Max	0.	-31.14605	93-1	0.2475
93	0.	ENVSER	Min	0.	-36.92068	93-1	0.
93	0.2475	ENVSER	Min	0.	-34.23546	93-1	0.2475
93	0.	SISMO		0.	-38.25498	93-1	0.
93	0.2475	SISMO		0.	-35.48433	93-1	0.2475
94	0.	ENVDIS	Max	0.	-22.75366	94-1	0.
94	0.2475	ENVDIS	Max	0.	-18.95881	94-1	0.2475
94	0.	ENVDIS	Min	0.	-89.98979	94-1	0.
94	0.2475	ENVDIS	Min	0.	-84.63984	94-1	0.2475
94	0.	ENVSER	Max	0.	-31.14605	94-1	0.
94	0.2475	ENVSER	Max	0.	-27.80097	94-1	0.2475
94	0.	ENVSER	Min	0.	-34.23546	94-1	0.
94	0.2475	ENVSER	Min	0.	-31.20353	94-1	0.2475
94	0.	SISMO		0.	-35.48433	94-1	0.
94	0.2475	SISMO		0.	-32.35596	94-1	0.2475
95	0.	ENVDIS	Max	0.	-18.95881	95-1	0.
95	0.2475	ENVDIS	Max	0.	-14.86002	95-1	0.2475
95	0.	ENVDIS	Min	0.	-84.63984	95-1	0.
95	0.2475	ENVDIS	Min	0.	-78.3817	95-1	0.2475
95	0.	ENVSER	Max	0.	-27.80097	95-1	0.
95	0.2475	ENVSER	Max	0.	-24.12615	95-1	0.2475
95	0.	ENVSER	Min	0.	-31.20353	95-1	0.
95	0.2475	ENVSER	Min	0.	-27.82388	95-1	0.2475
95	0.	SISMO		0.	-32.35596	95-1	0.
95	0.2475	SISMO		0.	-28.86882	95-1	0.2475
96	0.	ENVDIS	Max	0.	-14.86002	96-1	0.
96	0.2475	ENVDIS	Max	0.	-10.46102	96-1	0.2475
96	0.	ENVDIS	Min	0.	-78.3817	96-1	0.
96	0.2475	ENVDIS	Min	0.	-71.19195	96-1	0.2475
96	0.	ENVSER	Max	0.	-24.12615	96-1	0.
96	0.2475	ENVSER	Max	0.	-20.12246	96-1	0.2475
96	0.	ENVSER	Min	0.	-27.82388	96-1	0.