Design2Overturning

Column1
****
GEOMETRY
****

Nodal Coordinates:
(Node No. - X - Y - Z)

NODES =
1.00000   0.00000   0.00000
2.00000   0.00000   25.56000
3.00000   0.00000   39.00000
4.00000   0.00000   65.04000
5.00000   0.00000   78.00000
6.00000 125.14000   49.56000
7.00000 125.14000   65.04000

```
----------------------------------------
Boundary Conditions: 1 = Restrained, 0 = Free
(Node No. - Tx - Ty - Rz)
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BOUNDS =

  1  0  1  0
  6  1  1  1
  7  1  1  1


----------------------------------------


----------------------------------------
Element Information:
(Ele No. - iNode - jNode - Member Type - E - A - I)
----------------------------------------

ELES =

     1.00000     1.00000     2.00000     0.00000   29000.00000   9999.00000   999999.00000
     2.00000     2.00000     3.00000     0.00000   29000.00000   9999.00000   999999.00000
     3.00000     3.00000     4.00000     0.00000   29000.00000   9999.00000   999999.00000
     4.00000     4.00000     5.00000     0.00000   29000.00000   9999.00000   999999.00000
     5.00000     4.00000     7.00000     0.00000   29000.00000      2.00000        2.85000
     6.00000     4.00000     6.00000     0.00000   29000.00000      2.00000        2.85000
     7.00000     2.00000     7.00000     0.00000   29000.00000      2.00000        2.85000


----------------------------------------


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Load Information:
(Node No. - Fx - Fy - Mz)
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LOADS =

    5.00000     0.00000     0.00000   1167.60000


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plotFile = ../../1. OUTPUT/Design2Overturning.png
ans =

  -12.514   137.654   -36.084   114.084

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ANALYSIS

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kff =

Columns 1 through 5:

20839930.25578	-266334308.66891	-20839930.25578	0.00000	-266334308.66891
-266334308.66891	4538336619.71831	266334308.66891	0.00000	2269168309.85916
-20839930.25578	266334308.66891	164184822.18561	126.69796	-696940672.09435
0.00000	0.00000	126.69796	32919981.93462	27.46566
-266334308.66891	2269168309.85916	-696940672.09435	27.46566	13169282889.15121
0.00000	0.00000	-143344489.89557	0.00000	963274972.09821
0.00000	0.00000	0.00000	-21575223.21429	0.00000
0.00000	0.00000	-963274972.09821	0.00000	4315471875.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000

Columns 6 through 10:

0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
-143344489.89557	0.00000	-963274972.09821	0.00000	0.00000
0.00000	-21575223.21429	0.00000	0.00000	0.00000
963274972.09821	0.00000	4315471875.00000	0.00000	0.00000
163053094.19258	0.00000	706668944.15114	-19708604.29701	0.00000
0.00000	32710822.29263	0.00000	0.00000	-11135599.07834
706668944.15114	0.00000	13085624395.16129	256606027.94708	0.00000
-19708604.29701	0.00000	256606027.94708	179578353.94211	-55.98174
0.00000	-11135599.07834	0.00000	-55.98174	33509912.55972
-256606027.94708	0.00000	2227340322.58064	-779344006.80418	62.62007
0.00000	0.00000	0.00000	-159868833.11424	0.00000
0.00000	0.00000	0.00000	0.00000	-22374305.55556
0.00000	0.00000	0.00000	-1035950038.58025	0.00000

Columns 11 through 14:

0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000
-256606027.94708	0.00000	0.00000	0.00000

0.00000	0.00000	0.00000	0.00000
2227340322.58064	0.00000	0.00000	0.00000
-779344006.80418	-159868833.11424	0.00000	-1035950038.58025
62.62007	0.00000	-22374305.55556	0.00000
13405294242.19316	1035950038.58025	0.00000	4475304166.66667
1035950038.58025	159868833.11424	0.00000	1035950038.58025
0.00000	0.00000	22374305.55556	0.00000
4475304166.66667	1035950038.58025	0.00000	8950608333.33334

Number of dof: 14

Number of loads: 1

LOADS =

5.00000	0.00000	0.00000	1167.60000

deg = 12

deg = 13

deg = 14

P =

0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
1167.60000

uf =

0.13976609967
0.00263665488
0.07237320098
-0.00000098579
0.00263665488
0.03693613503
-0.00000107578
0.00263674821
-0.03173237736
-0.00000125014

0.00263744438

-0.06591703777

-0.00000125014

0.00263796618

****

Post Process

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Nodal Displacements:

(Node No. - Tx - Ty - Rz)

NodalDisp =

1.00000 0.13977 0.00000 0.00264

2.00000 0.07237 -0.00000 0.00264

3.00000 0.03694 -0.00000 0.00264

4.00000 -0.03173 -0.00000 0.00264

5.00000 -0.06592 -0.00000 0.00264

6.00000 0.00000 0.00000 0.00000

7.00000 0.00000 0.00000 0.00000

Global Member Forces:

(Element No. - iFx - iFy - iMz - jFx - jFy - jMz)

GlobalForces =

1.0000e+00 9.3132e-10 1.1183e+01 -7.4506e-09 -9.3132e-10 -1.1183e+01 -3.7253e-09

2.0000e+00 -2.9074e+01 1.9416e+00 -6.0157e+00 2.9074e+01 -1.9416e+00 3.9676e+02

3.0000e+00 -2.9074e+01 1.9416e+00 -3.9676e+02 2.9074e+01 -1.9416e+00 1.1538e+03

4.0000e+00 -3.7253e-09 -3.5527e-15 -1.1676e+03 3.7253e-09 3.5527e-15 1.1676e+03

5.0000e+00 -1.4707e+01 8.3518e-02 6.9677e+00 1.4707e+01 -8.3518e-02 3.4838e+00

6.0000e+00 -1.4366e+01 1.8581e+00 6.7935e+00 1.4366e+01 -1.8581e+00 3.3360e+00

7.0000e+00 2.9074e+01 9.2419e+00 6.0157e+00 -2.9074e+01 -9.2419e+00 2.6943e+00

Local Member Forces:

(Element No. - iFx - iFy - iMz - jFx - jFy - jMz)

LocalForces =

1.0000e+00	1.1183e+01	-9.3132e-10	-7.4506e-09	-1.1183e+01	9.3132e-10	-3.7253e-09
2.0000e+00	1.9416e+00	2.9074e+01	-6.0157e+00	-1.9416e+00	-2.9074e+01	3.9676e+02
3.0000e+00	1.9416e+00	2.9074e+01	-3.9676e+02	-1.9416e+00	-2.9074e+01	1.1538e+03
4.0000e+00	-3.5527e-15	3.7253e-09	-1.1676e+03	3.5527e-15	-3.7253e-09	1.1676e+03
5.0000e+00	-1.4707e+01	8.3518e-02	6.9677e+00	1.4707e+01	-8.3518e-02	3.4838e+00
6.0000e+00	-1.4486e+01	8.0332e-02	6.7935e+00	1.4486e+01	-8.0332e-02	3.3360e+00
7.0000e+00	3.0507e+01	6.6377e-02	6.0157e+00	-3.0507e+01	-6.6377e-02	2.6943e+00

Nodal Support Reactions:
(Node No. - Fx - Fy - Mz)

Support =

1.00000	0.00000	11.18350	0.00000
2.00000	0.00000	0.00000	0.00000
3.00000	0.00000	0.00000	0.00000
4.00000	0.00000	0.00000	0.00000
5.00000	0.00000	0.00000	0.00000
6.00000	14.36618	-1.85806	3.33596
7.00000	-14.36618	-9.32543	6.17811

sumFx = 0.0000000017868
sumFy = -1.0658e-14
sumMz = 9.5141