Design3Overturning

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   27.00000
4.00000   0.00000   41.04000
5.00000   0.00000   54.00000
6.00000 104.50000   25.56000
7.00000 104.50000   41.04000

```
----------------------------------------
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


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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  1029.60000


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plotFile = ../../1. OUTPUT/Design3Overturning.png
ans =

  -10.450  114.950  -35.700   89.700


**********************************
```

ANALYSIS
****

kff =

Columns 1 through 9:

2.0840e+07	-2.6633e+08	-2.0840e+07	0.0000e+00	-2.6633e+08	0.0000e+00	0.0000e+00	0.0000e+00	0.0
-2.6633e+08	4.5383e+09	2.6633e+08	0.0000e+00	2.2692e+09	0.0000e+00	0.0000e+00	0.0000e+00	0.0
-2.0840e+07	2.6633e+08	1.1657e+11	7.9462e+01	-8.3646e+10	-1.1654e+11	0.0000e+00	-8.3912e+10	0.
0.0000e+00	0.0000e+00	7.9462e+01	2.1271e+08	4.3956e+01	0.0000e+00	-2.0137e+08	0.0000e+00	0.0
-2.6633e+08	2.2692e+09	-8.3646e+10	4.3956e+01	8.5094e+10	8.3912e+10	0.0000e+00	4.0278e+10	0.0
0.0000e+00	0.0000e+00	-1.1654e+11	0.0000e+00	8.3912e+10	1.1667e+11	0.0000e+00	8.3029e+10	-1.2
0.0000e+00	0.0000e+00	0.0000e+00	-2.0137e+08	0.0000e+00	0.0000e+00	2.2202e+08	0.0000e+00	0.0
0.0000e+00	0.0000e+00	-8.3912e+10	0.0000e+00	4.0278e+10	8.3029e+10	0.0000e+00	8.8818e+10	8.8
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	-1.2574e+08	0.0000e+00	8.8270e+08	2.8
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	-2.0653e+07	0.0000e+00	-7.9
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	-8.8270e+08	0.0000e+00	4.1311e+09	-1.5
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	-1.5
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	-1.0

Columns 10 through 14:

0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	-8.8270e+08	0.0000e+00	0.0000e+00	0.0000e+00
-2.0653e+07	0.0000e+00	0.0000e+00	0.0000e+00	0.0000e+00
0.0000e+00	4.1311e+09	0.0000e+00	0.0000e+00	0.0000e+00
-7.9462e+01	-1.5325e+08	-1.5987e+08	0.0000e+00	-1.0360e+09
4.3028e+07	8.9367e+01	0.0000e+00	-2.2374e+07	0.0000e+00
8.9367e+01	1.7213e+10	1.0360e+09	0.0000e+00	4.4753e+09
0.0000e+00	1.0360e+09	1.5987e+08	0.0000e+00	1.0360e+09
-2.2374e+07	0.0000e+00	0.0000e+00	2.2374e+07	0.0000e+00
0.0000e+00	4.4753e+09	1.0360e+09	0.0000e+00	8.9506e+09

Number of dof: 14
Number of loads: 1
LOADS =

5.00000	0.00000	0.00000	1029.60000

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
1029.60000
```

uf =

```
  0.3873580090
  0.0107790083
  0.1118465576
 -0.0000012954
  0.0107790083
  0.0963247834
 -0.0000013219
  0.0107790121
 -0.0550139064
 -0.0000015802
  0.0107792739
 -0.1947162774
 -0.0000015802
  0.0107797340
```

****

Post Process

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Nodal Displacements:

(Node No. - Tx - Ty - Rz)

NodalDisp =

   1.00000   0.38736   0.00000   0.01078

2.00000	0.11185	-0.00000	0.01078
3.00000	0.09632	-0.00000	0.01078
4.00000	-0.05501	-0.00000	0.01078
5.00000	-0.19472	-0.00000	0.01078
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	1.4696e+01	7.4506e-09	9.3132e-10	-1.4696e+01	2.2352e-08
2.0000e+00	-6.0021e+01	5.3348e+00	-3.3004e+01	6.0021e+01	-5.3348e+00	1.1943e+02
3.0000e+00	-6.0021e+01	5.3348e+00	-1.1943e+02	6.0021e+01	-5.3348e+00	9.6212e+02
4.0000e+00	-5.5879e-09	1.4211e-14	-1.0296e+03	5.5879e-09	-1.4211e-14	1.0296e+03
5.0000e+00	-3.0534e+01	4.8950e-01	3.4102e+01	3.0534e+01	-4.8950e-01	1.7051e+01
6.0000e+00	-2.9487e+01	4.8453e+00	3.3375e+01	2.9487e+01	-4.8453e+00	1.6509e+01
7.0000e+00	6.0021e+01	9.3613e+00	3.3004e+01	-6.0021e+01	-9.3613e+00	1.6138e+01

Local Member Forces:

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

LocalForces =

1.0000e+00	1.4696e+01	9.3132e-10	7.4506e-09	-1.4696e+01	-9.3132e-10	2.2352e-08
2.0000e+00	5.3348e+00	6.0021e+01	-3.3004e+01	-5.3348e+00	-6.0021e+01	1.1943e+02
3.0000e+00	5.3348e+00	6.0021e+01	-1.1943e+02	-5.3348e+00	-6.0021e+01	9.6212e+02
4.0000e+00	1.4211e-14	5.5879e-09	-1.0296e+03	-1.4211e-14	-5.5879e-09	1.0296e+03
5.0000e+00	-3.0534e+01	4.8950e-01	3.4102e+01	3.0534e+01	-4.8950e-01	1.7051e+01
6.0000e+00	-2.9878e+01	4.7220e-01	3.3375e+01	2.9878e+01	-4.7220e-01	1.6509e+01
7.0000e+00	6.0744e+01	4.6519e-01	3.3004e+01	-6.0744e+01	-4.6519e-01	1.6138e+01

Nodal Support Reactions:

(Node No. - Fx - Fy - Mz)

Support =

1.00000	0.00000	14.69616	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	29.48655	-4.84532	16.50851
7.00000	-29.48655	-9.85085	33.18882

sumFx = 0.0000041461

sumFy = 3.5527e-15

sumMz = 49.697

0000e+00
0000e+00
0000e+00
0000e+00
0000e+00
2574e+08
0000e+00
3270e+08
3561e+08
9462e+01
5325e+08
5987e+08
0000e+00
0360e+09