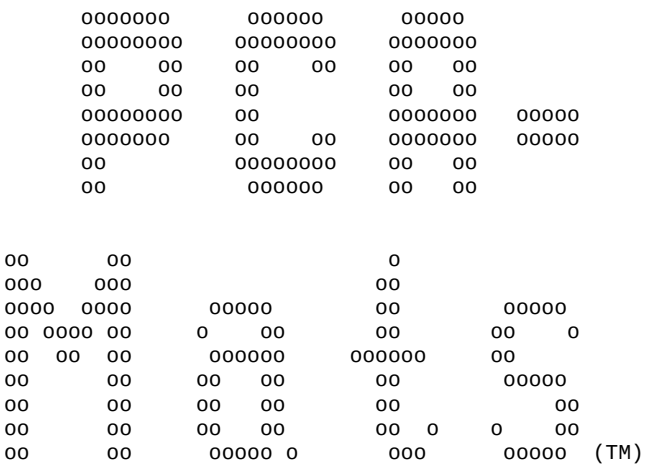

pcaMats (tm) - A Computer Program for:
Finite Element Analysis of Slabs, Mats and Combined Footings

A1 - GENERAL INFORMATION:

Project : pcaMats Manual, Example 1
File : C:\Program Files\PCA\pcaMats\Examples\example1.MA6
Units : English Date : 1/18/2005
Code : ACI 318-02 Time : 12:00:00 PM

Maximum number of iterations = 10
Maximum allowed displacement = 12 in
Minimum contact area allowed = 50.00 %
Displacement limit for uplift = 0 in
Reinforcement is based on maximum moment within an element.

Number of nodes = 36
Number of elements = 25

A2 - THICKNESS DEFINITIONS:

```
==========================
     Label   t (in)
   -------- --------
     Thick1    24.00

A3 - CONCRETE DEFINITIONS:
==========================
     Label  f'c (ksi)     Wc (pcf)     Ec (ksi)       v
   -------- ------------ ------------ ------------ --------
      Conc1            3          148         3245    0.150

A4 - SOIL DEFINITIONS:
======================
     Label   Ks (kcf)     Qa (ksf)
   -------- ------------ ------------
      Soil1          100            6

A5 - REINFORCING STEEL DEFINITIONS:
===================================
     Label    Fy (ksi)     Es (ksi)
   -------- ------------ ------------
     Steel1           60        29000

A6 - DESIGN PARAMETERS DEFINITIONS:
===================================
   Label     Top-X (in) Top-Y (in)  Bot-X (in) Bot-Y (in)  Min Reinf
   --------  ---------- ----------  ---------- ----------  ----------
       DC_1      3.2500     3.7500      3.2500     3.7500    0.1800 %

A9 - NODAL LOAD DEFINITIONS:
============================
     Label  Case   Pz (kips)   Mx (k-ft)    My (k-ft)
   -------- ---- ------------ ------------ ------------
         P1   A          -125            0            0

A11 - LOAD COMBINATIONS:
========================
Self weight is not included under Case A.

   Ld Combo  Case A  Case B  Case C  Case D  Case E  Case F Type Save?
   -------- ------- ------- ------- ------- ------- ------- ---- -----
         S1   1.000   0.000   0.000   0.000   0.000   0.000 Ser. Yes
         U1   1.000   0.000   0.000   0.000   0.000   0.000 Ult. Yes

A12 - X-GRID LINE DEFINITIONS:
==============================
   No.  Coord. (ft)   No.  Coord. (ft)   No.  Coord. (ft)
   --- ------------   --- ------------   --- ------------
     1            0     2            2     3            4
     4            6     5            8     6           10

A13 - Y-GRID LINE DEFINITIONS:
==============================
   No.  Coord. (ft)   No.  Coord. (ft)   No.  Coord. (ft)
   --- ------------   --- ------------   --- ------------
     1            0     2            2     3            4
     4            6     5            8     6           10

A14 - NODAL DATA:
=================
   Node    X (ft)     Y (ft)   Fixity   Spring  Loaded?
   ---- ---------- ---------- -------- -------- --------
      1      0.000      0.000   -  -
      2      2.000      0.000   -  -
      3      4.000      0.000   -  -
      4      6.000      0.000   -  -
      5      8.000      0.000   -  -
      6     10.000      0.000   -  -
      7      0.000      2.000   -  -
      8      2.000      2.000   -  -
      9      4.000      2.000   -  -
```

10	6.000	2.000	-	-		
11	8.000	2.000	-	-		
12	10.000	2.000	-	-		
13	0.000	4.000	-	-		
14	2.000	4.000	-	-		
15	4.000	4.000	-	-		Yes
16	6.000	4.000	-	-		Yes
17	8.000	4.000	-	-		
18	10.000	4.000	-	-		
19	0.000	6.000	-	-		
20	2.000	6.000	-	-		
21	4.000	6.000	-	-		Yes
22	6.000	6.000	-	-		Yes
23	8.000	6.000	-	-		
24	10.000	6.000	-	-		
25	0.000	8.000	-	-		
26	2.000	8.000	-	-		
27	4.000	8.000	-	-		
28	6.000	8.000	-	-		
29	8.000	8.000	-	-		
30	10.000	8.000	-	-		
31	0.000	10.000	-	-		
32	2.000	10.000	-	-		
33	4.000	10.000	-	-		
34	6.000	10.000	-	-		
35	8.000	10.000	-	-		
36	10.000	10.000	-	-		

A15 - LOADED NODES:

Node	Case A	Case B	Case C	Case D	Case E	Case F
15	P1					
16	P1					
21	P1					
22	P1					

A17 - ELEMENT GEOMETRY:

Elem	i	j	k	l	X-Dim (ft)	Y-Dim (ft)	Thick.(in)
1	1	7	2	8	2.000	2.000	24.00
2	2	8	3	9	2.000	2.000	24.00
3	3	9	4	10	2.000	2.000	24.00
4	4	10	5	11	2.000	2.000	24.00
5	5	11	6	12	2.000	2.000	24.00
6	7	13	8	14	2.000	2.000	24.00
7	8	14	9	15	2.000	2.000	24.00
8	9	15	10	16	2.000	2.000	24.00
9	10	16	11	17	2.000	2.000	24.00
10	11	17	12	18	2.000	2.000	24.00
11	13	19	14	20	2.000	2.000	24.00
12	14	20	15	21	2.000	2.000	24.00
13	15	21	16	22	2.000	2.000	24.00
14	16	22	17	23	2.000	2.000	24.00
15	17	23	18	24	2.000	2.000	24.00
16	19	25	20	26	2.000	2.000	24.00
17	20	26	21	27	2.000	2.000	24.00
18	21	27	22	28	2.000	2.000	24.00
19	22	28	23	29	2.000	2.000	24.00
20	23	29	24	30	2.000	2.000	24.00
21	25	31	26	32	2.000	2.000	24.00
22	26	32	27	33	2.000	2.000	24.00
23	27	33	28	34	2.000	2.000	24.00
24	28	34	29	35	2.000	2.000	24.00
25	29	35	30	36	2.000	2.000	24.00

A18 - ELEMENT ASSIGNMENTS:

Elem	Thick.	Concrete	Soil	Steel	DesParam	Loaded?

1	Thick1	Conc1	Soil1	Steel1	DC_1
2	Thick1	Conc1	Soil1	Steel1	DC_1
3	Thick1	Conc1	Soil1	Steel1	DC_1
4	Thick1	Conc1	Soil1	Steel1	DC_1
5	Thick1	Conc1	Soil1	Steel1	DC_1
6	Thick1	Conc1	Soil1	Steel1	DC_1
7	Thick1	Conc1	Soil1	Steel1	DC_1
8	Thick1	Conc1	Soil1	Steel1	DC_1
9	Thick1	Conc1	Soil1	Steel1	DC_1
10	Thick1	Conc1	Soil1	Steel1	DC_1
11	Thick1	Conc1	Soil1	Steel1	DC_1
12	Thick1	Conc1	Soil1	Steel1	DC_1
13	Thick1	Conc1	Soil1	Steel1	DC_1
14	Thick1	Conc1	Soil1	Steel1	DC_1
15	Thick1	Conc1	Soil1	Steel1	DC_1
16	Thick1	Conc1	Soil1	Steel1	DC_1
17	Thick1	Conc1	Soil1	Steel1	DC_1
18	Thick1	Conc1	Soil1	Steel1	DC_1
19	Thick1	Conc1	Soil1	Steel1	DC_1
20	Thick1	Conc1	Soil1	Steel1	DC_1
21	Thick1	Conc1	Soil1	Steel1	DC_1
22	Thick1	Conc1	Soil1	Steel1	DC_1
23	Thick1	Conc1	Soil1	Steel1	DC_1
24	Thick1	Conc1	Soil1	Steel1	DC_1
25	Thick1	Conc1	Soil1	Steel1	DC_1

B1 - FORCE VECTOR:
==========
Units --> Force (kip), Moment (kip-ft)
Service Load Combination: S1

Node	Force, Pz	Moment, Mx	Moment, My
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	-125	0	0
16	-125	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	-125	0	0
22	-125	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0

EOP

B1 - FORCE VECTOR:
==========
Units --> Force (kip), Moment (kip-ft)
Ultimate Load Combination: U1

Node	Force, Pz	Moment, Mx	Moment, My
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	-125	0	0
16	-125	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	-125	0	0
22	-125	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0

EOP
B2 - NODAL DISPLACEMENTS AND ROTATIONS:
==========
Units --> Displacement (in), Rotation (Radians)
Flags --> [x] Indicates maximum displacement is exceeded.
Service Load Combination: S1

Node	Disp, Dz	X-Rot, Rx	Y-Rot, Ry
1	-0.58708	-0.00024228	0.00024228
2	-0.5926	-0.00026509	0.00020402
3	-0.59617	-0.00029079	8.2083e-005
4	-0.59617	-0.00029079	-8.2083e-005
5	-0.5926	-0.00026509	-0.00020402
6	-0.58708	-0.00024228	-0.00024228
7	-0.5926	-0.00020402	0.00026509
8	-0.59883	-0.00024078	0.00024078
9	-0.60326	-0.00029476	0.00010519
10	-0.60326	-0.00029476	-0.00010519
11	-0.59883	-0.00024078	-0.00024078
12	-0.5926	-0.00020402	-0.00026509
13	-0.59617	-8.2083e-005	0.00029079
14	-0.60326	-0.00010519	0.00029476
15	-0.6091	-0.00014373	0.00014373
16	-0.6091	-0.00014373	-0.00014373
17	-0.60326	-0.00010519	-0.00029476
18	-0.59617	-8.2083e-005	-0.00029079
19	-0.59617	8.2083e-005	0.00029079

20	-0.60326	0.00010519	0.00029476
21	-0.6091	0.00014373	0.00014373
22	-0.6091	0.00014373	-0.00014373
23	-0.60326	0.00010519	-0.00029476
24	-0.59617	8.2083e-005	-0.00029079
25	-0.5926	0.00020402	0.00026509
26	-0.59883	0.00024078	0.00024078
27	-0.60326	0.00029476	0.00010519
28	-0.60326	0.00029476	-0.00010519
29	-0.59883	0.00024078	-0.00024078
30	-0.5926	0.00020402	-0.00026509
31	-0.58708	0.00024228	0.00024228
32	-0.5926	0.00026509	0.00020402
33	-0.59617	0.00029079	8.2083e-005
34	-0.59617	0.00029079	-8.2083e-005
35	-0.5926	0.00026509	-0.00020402
36	-0.58708	0.00024228	-0.00024228

EOP

B2 - NODAL DISPLACEMENTS AND ROTATIONS:

Units --> Displacement (in), Rotation (Radians)

Flags --> [x] Indicates maximum displacement is exceeded.

Ultimate Load Combination: U1

Node	Disp, Dz	X-Rot, Rx	Y-Rot, Ry
1	-0.58708	-0.00024228	0.00024228
2	-0.5926	-0.00026509	0.00020402
3	-0.59617	-0.00029079	8.2083e-005
4	-0.59617	-0.00029079	-8.2083e-005
5	-0.5926	-0.00026509	-0.00020402
6	-0.58708	-0.00024228	-0.00024228
7	-0.5926	-0.00020402	0.00026509
8	-0.59883	-0.00024078	0.00024078
9	-0.60326	-0.00029476	0.00010519
10	-0.60326	-0.00029476	-0.00010519
11	-0.59883	-0.00024078	-0.00024078
12	-0.5926	-0.00020402	-0.00026509
13	-0.59617	-8.2083e-005	0.00029079
14	-0.60326	-0.00010519	0.00029476
15	-0.6091	-0.00014373	0.00014373
16	-0.6091	-0.00014373	-0.00014373
17	-0.60326	-0.00010519	-0.00029476
18	-0.59617	-8.2083e-005	-0.00029079
19	-0.59617	8.2083e-005	0.00029079
20	-0.60326	0.00010519	0.00029476
21	-0.6091	0.00014373	0.00014373
22	-0.6091	0.00014373	-0.00014373
23	-0.60326	0.00010519	-0.00029476
24	-0.59617	8.2083e-005	-0.00029079
25	-0.5926	0.00020402	0.00026509
26	-0.59883	0.00024078	0.00024078
27	-0.60326	0.00029476	0.00010519
28	-0.60326	0.00029476	-0.00010519
29	-0.59883	0.00024078	-0.00024078
30	-0.5926	0.00020402	-0.00026509
31	-0.58708	0.00024228	0.00024228
32	-0.5926	0.00026509	0.00020402
33	-0.59617	0.00029079	8.2083e-005
34	-0.59617	0.00029079	-8.2083e-005
35	-0.5926	0.00026509	-0.00020402
36	-0.58708	0.00024228	-0.00024228

EOP

B3 - NODAL SPRING/PILE DISPLACEMENTS AND REACTIONS:

Service Load Combination: S1

* No Nodal Springs assigned!

EOP

B4 - ELEMENT SOIL DISPLACEMENTS AND PRESSURES:

Units --> Displacement (in), Pressure (ksf)

Flags --> [x] Indicates allowable pressure is exceeded.

Service Load Combination: S1

Elem	Node	Disp, Dz	Pressure, Qz	Node	Disp, Dz	Pressure, Qz
1	8	-0.5988	-4.99	2	-0.5926	-4.94
	7	-0.5926	-4.94	1	-0.5871	-4.89
2	9	-0.6033	-5.03	3	-0.5962	-4.97
	8	-0.5988	-4.99	2	-0.5926	-4.94
3	10	-0.6033	-5.03	4	-0.5962	-4.97
	9	-0.6033	-5.03	3	-0.5962	-4.97
4	11	-0.5988	-4.99	5	-0.5926	-4.94
	10	-0.6033	-5.03	4	-0.5962	-4.97
5	12	-0.5926	-4.94	6	-0.5871	-4.89
	11	-0.5988	-4.99	5	-0.5926	-4.94
6	14	-0.6033	-5.03	8	-0.5988	-4.99
	13	-0.5962	-4.97	7	-0.5926	-4.94
7	15	-0.6091	-5.08	9	-0.6033	-5.03
	14	-0.6033	-5.03	8	-0.5988	-4.99
8	16	-0.6091	-5.08	10	-0.6033	-5.03
	15	-0.6091	-5.08	9	-0.6033	-5.03
9	17	-0.6033	-5.03	11	-0.5988	-4.99
	16	-0.6091	-5.08	10	-0.6033	-5.03
10	18	-0.5962	-4.97	12	-0.5926	-4.94
	17	-0.6033	-5.03	11	-0.5988	-4.99
11	20	-0.6033	-5.03	14	-0.6033	-5.03
	19	-0.5962	-4.97	13	-0.5962	-4.97
12	21	-0.6091	-5.08	15	-0.6091	-5.08
	20	-0.6033	-5.03	14	-0.6033	-5.03
13	22	-0.6091	-5.08	16	-0.6091	-5.08
	21	-0.6091	-5.08	15	-0.6091	-5.08
14	23	-0.6033	-5.03	17	-0.6033	-5.03
	22	-0.6091	-5.08	16	-0.6091	-5.08
15	24	-0.5962	-4.97	18	-0.5962	-4.97
	23	-0.6033	-5.03	17	-0.6033	-5.03
16	26	-0.5988	-4.99	20	-0.6033	-5.03
	25	-0.5926	-4.94	19	-0.5962	-4.97
17	27	-0.6033	-5.03	21	-0.6091	-5.08
	26	-0.5988	-4.99	20	-0.6033	-5.03
18	28	-0.6033	-5.03	22	-0.6091	-5.08
	27	-0.6033	-5.03	21	-0.6091	-5.08
19	29	-0.5988	-4.99	23	-0.6033	-5.03
	28	-0.6033	-5.03	22	-0.6091	-5.08
20	30	-0.5926	-4.94	24	-0.5962	-4.97
	29	-0.5988	-4.99	23	-0.6033	-5.03
21	32	-0.5926	-4.94	26	-0.5988	-4.99
	31	-0.5871	-4.89	25	-0.5926	-4.94
22	33	-0.5962	-4.97	27	-0.6033	-5.03
	32	-0.5926	-4.94	26	-0.5988	-4.99
23	34	-0.5962	-4.97	28	-0.6033	-5.03
	33	-0.5962	-4.97	27	-0.6033	-5.03
24	35	-0.5926	-4.94	29	-0.5988	-4.99
	34	-0.5962	-4.97	28	-0.6033	-5.03
25	36	-0.5871	-4.89	30	-0.5926	-4.94
	35	-0.5926	-4.94	29	-0.5988	-4.99

EOP

B5 - ELEMENT NODAL MOMENTS:

Units --> Moment (kip-ft/ft), Angle (Deg)

Ultimate Load Combination: U1

Elem	Node	M(xx)	M(yy)	M(xy)	M(r2)	M(r1)	Angle
1	8	-11.59	-11.59	5.99	-17.58	-5.59	45.0
	2	-12.45	0.41	4.11	1.61	-13.65	-16.3
	7	0.41	-12.45	4.11	-13.65	1.61	16.3

	1	0.70	0.70	2.22	-1.52	2.91	45.0
2	9	-33.07	-6.81	5.57	-5.68	-34.20	-11.5
	3	-24.34	-0.57	1.74	-0.44	-24.47	-4.2
	8	-11.94	-11.64	7.42	-4.37	-19.21	-44.4
	2	-13.69	0.22	3.59	1.09	-14.56	-13.6
3	10	-33.81	-6.92	-3.13	-6.56	-34.17	6.6
	4	-25.69	-0.77	-3.13	-0.38	-26.07	7.1
	9	-33.81	-6.92	3.13	-6.56	-34.17	-6.6
	3	-25.69	-0.77	3.13	-0.38	-26.07	-7.1
4	11	-11.94	-11.64	-7.42	-4.37	-19.21	44.4
	5	-13.69	0.22	-3.59	1.09	-14.56	13.6
	10	-33.07	-6.81	-5.57	-5.68	-34.20	11.5
	4	-24.34	-0.57	-1.74	-0.44	-24.47	4.2
5	12	0.41	-12.45	-4.11	-13.65	1.61	-16.3
	6	0.70	0.70	-2.22	2.91	-1.52	45.0
	11	-11.59	-11.59	-5.99	-5.59	-17.58	45.0
	5	-12.45	0.41	-4.11	1.61	-13.65	16.3
6	14	-6.81	-33.07	5.57	-34.20	-5.68	11.5
	8	-11.64	-11.94	7.42	-19.21	-4.37	44.4
	13	-0.57	-24.34	1.74	-24.47	-0.44	4.2
	7	0.22	-13.69	3.59	-14.56	1.09	13.6
7	15	-54.30	-54.30	2.48	-56.77	-51.82	45.0
	9	-32.92	-5.84	4.57	-5.09	-33.67	-9.3
	14	-5.84	-32.92	4.57	-33.67	-5.09	9.3
	8	-11.99	-11.99	6.66	-18.65	-5.33	45.0
8	16	-52.89	-54.09	-5.22	-58.74	-48.23	-41.7
	10	-33.66	-5.95	-5.22	-5.00	-34.61	10.3
	15	-52.89	-54.09	5.22	-58.74	-48.23	41.7
	9	-33.66	-5.95	5.22	-5.00	-34.61	-10.3
9	17	-5.84	-32.92	-4.57	-33.67	-5.09	-9.3
	11	-11.99	-11.99	-6.66	-5.33	-18.65	45.0
	16	-54.30	-54.30	-2.48	-51.82	-56.77	45.0
	10	-32.92	-5.84	-4.57	-5.09	-33.67	9.3
10	18	-0.57	-24.34	-1.74	-24.47	-0.44	-4.2
	12	0.22	-13.69	-3.59	-14.56	1.09	-13.6
	17	-6.81	-33.07	-5.57	-34.20	-5.68	-11.5
	11	-11.64	-11.94	-7.42	-19.21	-4.37	-44.4
11	20	-6.92	-33.81	-3.13	-34.17	-6.56	-6.6
	14	-6.92	-33.81	3.13	-34.17	-6.56	6.6
	19	-0.77	-25.69	-3.13	-26.07	-0.38	-7.1
	13	-0.77	-25.69	3.13	-26.07	-0.38	7.1
12	21	-54.09	-52.89	-5.22	-48.23	-58.74	41.7
	15	-54.09	-52.89	5.22	-48.23	-58.74	-41.7
	20	-5.95	-33.66	-5.22	-34.61	-5.00	-10.3
	14	-5.95	-33.66	5.22	-34.61	-5.00	10.3
13	22	-52.67	-52.67	0.00	-52.67	-52.67	45.0
	16	-52.67	-52.67	0.00	-52.67	-52.67	45.0
	21	-52.67	-52.67	0.00	-52.67	-52.67	45.0
	15	-52.67	-52.67	0.00	-52.67	-52.67	45.0
14	23	-5.95	-33.66	5.22	-34.61	-5.00	10.3
	17	-5.95	-33.66	-5.22	-34.61	-5.00	-10.3
	22	-54.09	-52.89	5.22	-48.23	-58.74	-41.7
	16	-54.09	-52.89	-5.22	-48.23	-58.74	41.7

EOP

B5 - ELEMENT NODAL MOMENTS:

Units --> Moment (kip-ft/ft), Angle (Deg)

Ultimate Load Combination: U1

Elem	Node	M(xx)	M(yy)	M(xy)	M(r2)	M(r1)	Angle
15	24	-0.77	-25.69	3.13	-26.07	-0.38	7.1
	18	-0.77	-25.69	-3.13	-26.07	-0.38	-7.1
	23	-6.92	-33.81	3.13	-34.17	-6.56	6.6
	17	-6.92	-33.81	-3.13	-34.17	-6.56	-6.6
16	26	-11.64	-11.94	-7.42	-19.21	-4.37	-44.4
	20	-6.81	-33.07	-5.57	-34.20	-5.68	-11.5
	25	0.22	-13.69	-3.59	-14.56	1.09	-13.6
	19	-0.57	-24.34	-1.74	-24.47	-0.44	-4.2
17	27	-32.92	-5.84	-4.57	-5.09	-33.67	9.3
	21	-54.30	-54.30	-2.48	-51.82	-56.77	45.0

	26	-11.99	-11.99	-6.66	-5.33	-18.65	45.0
	20	-5.84	-32.92	-4.57	-33.67	-5.09	-9.3
18	28	-33.66	-5.95	5.22	-5.00	-34.61	-10.3
	22	-52.89	-54.09	5.22	-58.74	-48.23	41.7
	27	-33.66	-5.95	-5.22	-5.00	-34.61	10.3
	21	-52.89	-54.09	-5.22	-58.74	-48.23	-41.7
19	29	-11.99	-11.99	6.66	-18.65	-5.33	45.0
	23	-5.84	-32.92	4.57	-33.67	-5.09	9.3
	28	-32.92	-5.84	4.57	-5.09	-33.67	-9.3
	22	-54.30	-54.30	2.48	-56.77	-51.82	45.0
20	30	0.22	-13.69	3.59	-14.56	1.09	13.6
	24	-0.57	-24.34	1.74	-24.47	-0.44	4.2
	29	-11.64	-11.94	7.42	-19.21	-4.37	44.4
	23	-6.81	-33.07	5.57	-34.20	-5.68	11.5
21	32	-12.45	0.41	-4.11	1.61	-13.65	16.3
	26	-11.59	-11.59	-5.99	-5.59	-17.58	45.0
	31	0.70	0.70	-2.22	2.91	-1.52	45.0
	25	0.41	-12.45	-4.11	-13.65	1.61	-16.3
22	33	-24.34	-0.57	-1.74	-0.44	-24.47	4.2
	27	-33.07	-6.81	-5.57	-5.68	-34.20	11.5
	32	-13.69	0.22	-3.59	1.09	-14.56	13.6
	26	-11.94	-11.64	-7.42	-4.37	-19.21	44.4
23	34	-25.69	-0.77	3.13	-0.38	-26.07	-7.1
	28	-33.81	-6.92	3.13	-6.56	-34.17	-6.6
	33	-25.69	-0.77	-3.13	-0.38	-26.07	7.1
	27	-33.81	-6.92	-3.13	-6.56	-34.17	6.6
24	35	-13.69	0.22	3.59	1.09	-14.56	-13.6
	29	-11.94	-11.64	7.42	-4.37	-19.21	-44.4
	34	-24.34	-0.57	1.74	-0.44	-24.47	-4.2
	28	-33.07	-6.81	5.57	-5.68	-34.20	-11.5
25	36	0.70	0.70	2.22	-1.52	2.91	45.0
	30	0.41	-12.45	4.11	-13.65	1.61	16.3
	35	-12.45	0.41	4.11	1.61	-13.65	-16.3
	29	-11.59	-11.59	5.99	-17.58	-5.59	45.0

EOP

B6 - Punching Shear Around Columns (Service Load Combinations):

* No columns assigned

B6 - Punching Shear Around Columns (Ultimate Load Combinations):

* No columns assigned

B7 - Punching Shear Around Piles (Service Load Combinations):

* No piles assigned

B7 - Punching Shear Around Piles (Ultimate Load Combinations):

* No piles assigned

C1 - NODAL DISPLACEMENT ENVELOPES:

	Downward		Upward	
Node	Dz (in)	Ld Comb.	Dz (in)	Ld Comb.
1	-0.5871	S1	0.0000	-
2	-0.5926	S1	0.0000	-
3	-0.5962	S1	0.0000	-
4	-0.5962	S1	0.0000	-
5	-0.5926	S1	0.0000	-
6	-0.5871	S1	0.0000	-
7	-0.5926	S1	0.0000	-
8	-0.5988	S1	0.0000	-
9	-0.6033	S1	0.0000	-
10	-0.6033	S1	0.0000	-
11	-0.5988	S1	0.0000	-
12	-0.5926	S1	0.0000	-
13	-0.5962	S1	0.0000	-
14	-0.6033	S1	0.0000	-
15	-0.6091	S1	0.0000	-
16	-0.6091	S1	0.0000	-
17	-0.6033	S1	0.0000	-

18	-0.5962	S1	0.0000	-
19	-0.5962	S1	0.0000	-
20	-0.6033	S1	0.0000	-
21	-0.6091	S1	0.0000	-
22	-0.6091	S1	0.0000	-
23	-0.6033	S1	0.0000	-
24	-0.5962	S1	0.0000	-
25	-0.5926	S1	0.0000	-
26	-0.5988	S1	0.0000	-
27	-0.6033	S1	0.0000	-
28	-0.6033	S1	0.0000	-
29	-0.5988	S1	0.0000	-
30	-0.5926	S1	0.0000	-
31	-0.5871	S1	0.0000	-
32	-0.5926	S1	0.0000	-
33	-0.5962	S1	0.0000	-
34	-0.5962	S1	0.0000	-
35	-0.5926	S1	0.0000	-
36	-0.5871	S1	0.0000	-

EOP

C2 - SPRING/PILE DISPLACEMENT AND REACTION ENVELOPES:

* No Nodal Springs assigned!

EOP

C3 - ELEMENT DISPLACEMENT AND PRESSURE ENVELOPES:

Units --> Displacement, Dz (in) - Pressure, Qz (ksf)

Flags --> [x] Indicates allowable pressure is exceeded.

	Compression				Tension
Elem	Dz	Qz	Node	Ld Comb.	Dz
1	-0.5988	-4.9902	8	S1	0.0000
2	-0.6033	-5.0272	9	S1	0.0000
3	-0.6033	-5.0272	9	S1	0.0000
4	-0.6033	-5.0272	10	S1	0.0000
5	-0.5988	-4.9902	11	S1	0.0000
6	-0.6033	-5.0272	14	S1	0.0000
7	-0.6091	-5.0759	15	S1	0.0000
8	-0.6091	-5.0759	15	S1	0.0000
9	-0.6091	-5.0759	16	S1	0.0000
10	-0.6033	-5.0272	17	S1	0.0000
11	-0.6033	-5.0272	14	S1	0.0000
12	-0.6091	-5.0759	15	S1	0.0000
13	-0.6091	-5.0759	15	S1	0.0000
14	-0.6091	-5.0759	16	S1	0.0000
15	-0.6033	-5.0272	17	S1	0.0000
16	-0.6033	-5.0272	20	S1	0.0000
17	-0.6091	-5.0759	21	S1	0.0000
18	-0.6091	-5.0759	21	S1	0.0000
19	-0.6091	-5.0759	22	S1	0.0000
20	-0.6033	-5.0272	23	S1	0.0000
21	-0.5988	-4.9902	26	S1	0.0000
22	-0.6033	-5.0272	27	S1	0.0000
23	-0.6033	-5.0272	27	S1	0.0000
24	-0.6033	-5.0272	28	S1	0.0000
25	-0.5988	-4.9902	29	S1	0.0000

EOP

C4a - ELEMENT TOP MOMENT ENVELOPES:

Units --> Moment (kip-ft/ft), Angle (Deg)

Elem	Node	Ld Comb.	M(xx)	M(yy)	M(xy)	M(r1)	Angle
1	8	-	0.00	0.00	0.00	0.00	0.0
	2	U1	-12.45	0.41	4.11	1.61	-106.3
	7	U1	0.41	-12.45	4.11	1.61	16.3
	1	U1	0.70	0.70	2.22	2.91	45.0
2	9	-	0.00	0.00	0.00	0.00	0.0

	3	-	0.00	0.00	0.00	0.00	0.0
	8	-	0.00	0.00	0.00	0.00	0.0
	2	U1	-13.69	0.22	3.59	1.09	-103.6
3	10	-	0.00	0.00	0.00	0.00	0.0
	4	-	0.00	0.00	0.00	0.00	0.0
	9	-	0.00	0.00	0.00	0.00	0.0
	3	-	0.00	0.00	0.00	0.00	0.0
4	11	-	0.00	0.00	0.00	0.00	0.0
	5	U1	-13.69	0.22	-3.59	1.09	103.6
	10	-	0.00	0.00	0.00	0.00	0.0
	4	-	0.00	0.00	0.00	0.00	0.0
5	12	U1	0.41	-12.45	-4.11	1.61	-16.3
	6	U1	0.70	0.70	-2.22	2.91	135.0
	11	-	0.00	0.00	0.00	0.00	0.0
	5	U1	-12.45	0.41	-4.11	1.61	106.3
6	14	-	0.00	0.00	0.00	0.00	0.0
	8	-	0.00	0.00	0.00	0.00	0.0
	13	-	0.00	0.00	0.00	0.00	0.0
	7	U1	0.22	-13.69	3.59	1.09	13.6
7	15	-	0.00	0.00	0.00	0.00	0.0
	9	-	0.00	0.00	0.00	0.00	0.0
	14	-	0.00	0.00	0.00	0.00	0.0
	8	-	0.00	0.00	0.00	0.00	0.0
8	16	-	0.00	0.00	0.00	0.00	0.0
	10	-	0.00	0.00	0.00	0.00	0.0
	15	-	0.00	0.00	0.00	0.00	0.0
	9	-	0.00	0.00	0.00	0.00	0.0
9	17	-	0.00	0.00	0.00	0.00	0.0
	11	-	0.00	0.00	0.00	0.00	0.0
	16	-	0.00	0.00	0.00	0.00	0.0
	10	-	0.00	0.00	0.00	0.00	0.0
10	18	-	0.00	0.00	0.00	0.00	0.0
	12	U1	0.22	-13.69	-3.59	1.09	-13.6
	17	-	0.00	0.00	0.00	0.00	0.0
	11	-	0.00	0.00	0.00	0.00	0.0
11	20	-	0.00	0.00	0.00	0.00	0.0
	14	-	0.00	0.00	0.00	0.00	0.0
	19	-	0.00	0.00	0.00	0.00	0.0
	13	-	0.00	0.00	0.00	0.00	0.0
12	21	-	0.00	0.00	0.00	0.00	0.0
	15	-	0.00	0.00	0.00	0.00	0.0
	20	-	0.00	0.00	0.00	0.00	0.0
	14	-	0.00	0.00	0.00	0.00	0.0
13	22	-	0.00	0.00	0.00	0.00	0.0
	16	-	0.00	0.00	0.00	0.00	0.0
	21	-	0.00	0.00	0.00	0.00	0.0
	15	-	0.00	0.00	0.00	0.00	0.0
14	23	-	0.00	0.00	0.00	0.00	0.0
	17	-	0.00	0.00	0.00	0.00	0.0
	22	-	0.00	0.00	0.00	0.00	0.0
	16	-	0.00	0.00	0.00	0.00	0.0

EOP

C4a - ELEMENT TOP MOMENT ENVELOPES:

Units --> Moment (kip-ft/ft), Angle (Deg)

Elem	Node	Ld Comb.	M(xx)	M(yy)	M(xy)	M(r1)	Angle
15	24	-	0.00	0.00	0.00	0.00	0.0
	18	-	0.00	0.00	0.00	0.00	0.0
	23	-	0.00	0.00	0.00	0.00	0.0
	17	-	0.00	0.00	0.00	0.00	0.0
16	26	-	0.00	0.00	0.00	0.00	0.0
	20	-	0.00	0.00	0.00	0.00	0.0
	25	U1	0.22	-13.69	-3.59	1.09	-13.6
	19	-	0.00	0.00	0.00	0.00	0.0
17	27	-	0.00	0.00	0.00	0.00	0.0
	21	-	0.00	0.00	0.00	0.00	0.0
	26	-	0.00	0.00	0.00	0.00	0.0
	20	-	0.00	0.00	0.00	0.00	0.0
18	28	-	0.00	0.00	0.00	0.00	0.0

	22	-	0.00	0.00	0.00	0.00	0.0
	27	-	0.00	0.00	0.00	0.00	0.0
	21	-	0.00	0.00	0.00	0.00	0.0
19	29	-	0.00	0.00	0.00	0.00	0.0
	23	-	0.00	0.00	0.00	0.00	0.0
	28	-	0.00	0.00	0.00	0.00	0.0
	22	-	0.00	0.00	0.00	0.00	0.0
20	30	U1	0.22	-13.69	3.59	1.09	13.6
	24	-	0.00	0.00	0.00	0.00	0.0
	29	-	0.00	0.00	0.00	0.00	0.0
	23	-	0.00	0.00	0.00	0.00	0.0
21	32	U1	-12.45	0.41	-4.11	1.61	106.3
	26	-	0.00	0.00	0.00	0.00	0.0
	31	U1	0.70	0.70	-2.22	2.91	135.0
	25	U1	0.41	-12.45	-4.11	1.61	-16.3
22	33	-	0.00	0.00	0.00	0.00	0.0
	27	-	0.00	0.00	0.00	0.00	0.0
	32	U1	-13.69	0.22	-3.59	1.09	103.6
	26	-	0.00	0.00	0.00	0.00	0.0
23	34	-	0.00	0.00	0.00	0.00	0.0
	28	-	0.00	0.00	0.00	0.00	0.0
	33	-	0.00	0.00	0.00	0.00	0.0
	27	-	0.00	0.00	0.00	0.00	0.0
24	35	U1	-13.69	0.22	3.59	1.09	-103.6
	29	-	0.00	0.00	0.00	0.00	0.0
	34	-	0.00	0.00	0.00	0.00	0.0
	28	-	0.00	0.00	0.00	0.00	0.0
25	36	U1	0.70	0.70	2.22	2.91	45.0
	30	U1	0.41	-12.45	4.11	1.61	16.3
	35	U1	-12.45	0.41	4.11	1.61	-106.3
	29	-	0.00	0.00	0.00	0.00	0.0

EOP

C4b - ELEMENT BOTTOM MOMENT ENVELOPES:

Units --> Moment (kip-ft/ft), Angle (Deg)

Elem	Node	Ld Comb.	M(xx)	M(yy)	M(xy)	M(r1)	Angle
1	8	U1	-11.59	-11.59	5.99	-17.58	135.0
	2	U1	-12.45	0.41	4.11	-13.65	-16.3
	7	U1	0.41	-12.45	4.11	-13.65	106.3
	1	U1	0.70	0.70	2.22	-1.52	135.0
2	9	U1	-33.07	-6.81	5.57	-34.20	-11.5
	3	U1	-24.34	-0.57	1.74	-24.47	-4.2
	8	U1	-11.94	-11.64	7.42	-19.21	-44.4
	2	U1	-13.69	0.22	3.59	-14.56	-13.6
3	10	U1	-33.81	-6.92	-3.13	-34.17	6.6
	4	U1	-25.69	-0.77	-3.13	-26.07	7.1
	9	U1	-33.81	-6.92	3.13	-34.17	-6.6
	3	U1	-25.69	-0.77	3.13	-26.07	-7.1
4	11	U1	-11.94	-11.64	-7.42	-19.21	44.4
	5	U1	-13.69	0.22	-3.59	-14.56	13.6
	10	U1	-33.07	-6.81	-5.57	-34.20	11.5
	4	U1	-24.34	-0.57	-1.74	-24.47	4.2
5	12	U1	0.41	-12.45	-4.11	-13.65	-106.3
	6	U1	0.70	0.70	-2.22	-1.52	45.0
	11	U1	-11.59	-11.59	-5.99	-17.58	45.0
	5	U1	-12.45	0.41	-4.11	-13.65	16.3
6	14	U1	-6.81	-33.07	5.57	-34.20	101.5
	8	U1	-11.64	-11.94	7.42	-19.21	134.4
	13	U1	-0.57	-24.34	1.74	-24.47	94.2
	7	U1	0.22	-13.69	3.59	-14.56	103.6
7	15	U1	-54.30	-54.30	2.48	-56.77	135.0
	9	U1	-32.92	-5.84	4.57	-33.67	-9.3
	14	U1	-5.84	-32.92	4.57	-33.67	99.3
	8	U1	-11.99	-11.99	6.66	-18.65	135.0
8	16	U1	-52.89	-54.09	-5.22	-58.74	-131.7
	10	U1	-33.66	-5.95	-5.22	-34.61	10.3
	15	U1	-52.89	-54.09	5.22	-58.74	131.7
	9	U1	-33.66	-5.95	5.22	-34.61	-10.3

9	17	U1	-5.84	-32.92	-4.57	-33.67	-99.3
	11	U1	-11.99	-11.99	-6.66	-18.65	45.0
	16	U1	-54.30	-54.30	-2.48	-56.77	45.0
	10	U1	-32.92	-5.84	-4.57	-33.67	9.3
10	18	U1	-0.57	-24.34	-1.74	-24.47	-94.2
	12	U1	0.22	-13.69	-3.59	-14.56	-103.6
	17	U1	-6.81	-33.07	-5.57	-34.20	-101.5
	11	U1	-11.64	-11.94	-7.42	-19.21	-134.4
11	20	U1	-6.92	-33.81	-3.13	-34.17	-96.6
	14	U1	-6.92	-33.81	3.13	-34.17	96.6
	19	U1	-0.77	-25.69	-3.13	-26.07	-97.1
	13	U1	-0.77	-25.69	3.13	-26.07	97.1
12	21	U1	-54.09	-52.89	-5.22	-58.74	41.7
	15	U1	-54.09	-52.89	5.22	-58.74	-41.7
	20	U1	-5.95	-33.66	-5.22	-34.61	-100.3
	14	U1	-5.95	-33.66	5.22	-34.61	100.3
13	22	U1	-52.67	-52.67	0.00	-52.67	135.0
	16	U1	-52.67	-52.67	0.00	-52.67	135.0
	21	U1	-52.67	-52.67	0.00	-52.67	135.0
	15	U1	-52.67	-52.67	0.00	-52.67	135.0
14	23	U1	-5.95	-33.66	5.22	-34.61	100.3
	17	U1	-5.95	-33.66	-5.22	-34.61	-100.3
	22	U1	-54.09	-52.89	5.22	-58.74	-41.7
	16	U1	-54.09	-52.89	-5.22	-58.74	41.7

EOP

C4b - ELEMENT BOTTOM MOMENT ENVELOPES:

Units --> Moment (kip-ft/ft), Angle (Deg)

Elem	Node	Ld Comb.	M(xx)	M(yy)	M(xy)	M(r1)	Angle
15	24	U1	-0.77	-25.69	3.13	-26.07	97.1
	18	U1	-0.77	-25.69	-3.13	-26.07	-97.1
	23	U1	-6.92	-33.81	3.13	-34.17	96.6
	17	U1	-6.92	-33.81	-3.13	-34.17	-96.6
16	26	U1	-11.64	-11.94	-7.42	-19.21	-134.4
	20	U1	-6.81	-33.07	-5.57	-34.20	-101.5
	25	U1	0.22	-13.69	-3.59	-14.56	-103.6
	19	U1	-0.57	-24.34	-1.74	-24.47	-94.2
17	27	U1	-32.92	-5.84	-4.57	-33.67	9.3
	21	U1	-54.30	-54.30	-2.48	-56.77	45.0
	26	U1	-11.99	-11.99	-6.66	-18.65	45.0
	20	U1	-5.84	-32.92	-4.57	-33.67	-99.3
18	28	U1	-33.66	-5.95	5.22	-34.61	-10.3
	22	U1	-52.89	-54.09	5.22	-58.74	131.7
	27	U1	-33.66	-5.95	-5.22	-34.61	10.3
	21	U1	-52.89	-54.09	-5.22	-58.74	-131.7
19	29	U1	-11.99	-11.99	6.66	-18.65	135.0
	23	U1	-5.84	-32.92	4.57	-33.67	99.3
	28	U1	-32.92	-5.84	4.57	-33.67	-9.3
	22	U1	-54.30	-54.30	2.48	-56.77	135.0
20	30	U1	0.22	-13.69	3.59	-14.56	103.6
	24	U1	-0.57	-24.34	1.74	-24.47	94.2
	29	U1	-11.64	-11.94	7.42	-19.21	134.4
	23	U1	-6.81	-33.07	5.57	-34.20	101.5
21	32	U1	-12.45	0.41	-4.11	-13.65	16.3
	26	U1	-11.59	-11.59	-5.99	-17.58	45.0
	31	U1	0.70	0.70	-2.22	-1.52	45.0
	25	U1	0.41	-12.45	-4.11	-13.65	-106.3
22	33	U1	-24.34	-0.57	-1.74	-24.47	4.2
	27	U1	-33.07	-6.81	-5.57	-34.20	11.5
	32	U1	-13.69	0.22	-3.59	-14.56	13.6
	26	U1	-11.94	-11.64	-7.42	-19.21	44.4
23	34	U1	-25.69	-0.77	3.13	-26.07	-7.1
	28	U1	-33.81	-6.92	3.13	-34.17	-6.6
	33	U1	-25.69	-0.77	-3.13	-26.07	7.1
	27	U1	-33.81	-6.92	-3.13	-34.17	6.6
24	35	U1	-13.69	0.22	3.59	-14.56	-13.6
	29	U1	-11.94	-11.64	7.42	-19.21	-44.4
	34	U1	-24.34	-0.57	1.74	-24.47	-4.2
	28	U1	-33.07	-6.81	5.57	-34.20	-11.5

25	36	U1	0.70	0.70	2.22	-1.52	135.0
	30	U1	0.41	-12.45	4.11	-13.65	106.3
	35	U1	-12.45	0.41	4.11	-13.65	-16.3
	29	U1	-11.59	-11.59	5.99	-17.58	135.0

EOP

C5a - ELEMENT TOP DESIGN MOMENT AND REINFORCEMENT:

Units --> Moment (kip-ft/ft), As (in^2/ft)

Flags --> [m] Minimum controls. [x] Exceeds maximum. [*] Cannot compute.

Elem	Node	Ld Comb.	Max. M(ux)	As(xx)	Node	Ld Comb.	Max. M(uy)	As(yy)
1	1	U1	2.91	0.518m	1	U1	2.91	0.518m
2	9	-	0.00	0.518m	2	U1	1.16	0.518m
3	10	-	0.00	0.518m	9	-	0.00	0.518m
4	10	-	0.00	0.518m	5	U1	1.16	0.518m
5	6	U1	2.91	0.518m	6	U1	2.91	0.518m
6	7	U1	1.16	0.518m	13	-	0.00	0.518m
7	9	-	0.00	0.518m	15	-	0.00	0.518m
8	16	-	0.00	0.518m	16	-	0.00	0.518m
9	16	-	0.00	0.518m	17	-	0.00	0.518m
10	12	U1	1.16	0.518m	17	-	0.00	0.518m
11	13	-	0.00	0.518m	19	-	0.00	0.518m
12	15	-	0.00	0.518m	15	-	0.00	0.518m
13	16	-	0.00	0.518m	22	-	0.00	0.518m
14	16	-	0.00	0.518m	16	-	0.00	0.518m
15	17	-	0.00	0.518m	23	-	0.00	0.518m
16	25	U1	1.16	0.518m	19	-	0.00	0.518m
17	27	-	0.00	0.518m	21	-	0.00	0.518m
18	22	-	0.00	0.518m	22	-	0.00	0.518m
19	22	-	0.00	0.518m	23	-	0.00	0.518m
20	30	U1	1.16	0.518m	23	-	0.00	0.518m
21	31	U1	2.91	0.518m	31	U1	2.91	0.518m
22	27	-	0.00	0.518m	32	U1	1.16	0.518m
23	28	-	0.00	0.518m	27	-	0.00	0.518m
24	28	-	0.00	0.518m	35	U1	1.16	0.518m
25	36	U1	2.91	0.518m	36	U1	2.91	0.518m

EOP

C5b - ELEMENT BOTTOM DESIGN MOMENT AND REINFORCEMENT:

Units --> Moment (kip-ft/ft), As (in^2/ft)

Flags --> [m] Minimum controls. [x] Exceeds maximum. [*] Cannot compute.

Elem	Node	Ld Comb.	Max. M(ux)	As(xx)	Node	Ld Comb.	Max. M(uy)	As(yy)
1	8	U1	-17.58	0.518m	8	U1	-17.58	0.518m
2	9	U1	-38.63	0.518m	8	U1	-19.06	0.518m
3	9	U1	-36.94	0.518m	9	U1	-10.05	0.518m
4	10	U1	-38.63	0.518m	11	U1	-19.06	0.518m
5	11	U1	-17.58	0.518m	11	U1	-17.58	0.518m
6	8	U1	-19.06	0.518m	14	U1	-38.63	0.518m
7	15	U1	-56.77	0.627	15	U1	-56.77	0.643
8	15	U1	-58.11	0.642	16	U1	-59.30	0.673
9	16	U1	-56.77	0.627	16	U1	-56.77	0.643
10	11	U1	-19.06	0.518m	17	U1	-38.63	0.518m
11	14	U1	-10.05	0.518m	14	U1	-36.94	0.518m
12	15	U1	-59.30	0.655	21	U1	-58.11	0.659
13	15	U1	-52.67	0.580	15	U1	-52.67	0.595
14	16	U1	-59.30	0.655	22	U1	-58.11	0.659
15	17	U1	-10.05	0.518m	17	U1	-36.94	0.518m
16	26	U1	-19.06	0.518m	20	U1	-38.63	0.518m
17	21	U1	-56.77	0.627	21	U1	-56.77	0.643
18	21	U1	-58.11	0.642	22	U1	-59.30	0.673
19	22	U1	-56.77	0.627	22	U1	-56.77	0.643
20	29	U1	-19.06	0.518m	23	U1	-38.63	0.518m
21	26	U1	-17.58	0.518m	26	U1	-17.58	0.518m
22	27	U1	-38.63	0.518m	26	U1	-19.06	0.518m
23	27	U1	-36.94	0.518m	27	U1	-10.05	0.518m
24	28	U1	-38.63	0.518m	29	U1	-19.06	0.518m

25	29	U1	-17.58	0.518m	29	U1	-17.58	0.518m	

EOP